SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS

OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NUMBER

PAGE 1
OMB # 2700-004

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NO.	6. SOLICITATION ISSUE DATE
NAS5-98142			RFP5-ODIN/039	November 28, 1997

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER *(No collect calls)*	8. OFFER DUE DATE/ LOCAL TIME
	Karen M. Smith	(301) 286-8162	February 2, 1998, 10am

9. ISSUED BY: CODE 211
NASA Goddard Space Flight Center
Greenbelt Road
Greenbelt, MD 20771

10. THIS ACQUISITION IS
[X] UNRESTRICTED
[ ] SETASIDE:__% FOR
[ ] SMALL BUSINESS
[ ] SM . DIS BUSINESS
[ ] 8(A)

SIC: 7379

SIZE STANDARD: $18M

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED
[ ] SEE SCHEDULE

12. DISCOUNT TERMS

[X] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700

13b. RATING DO-A8

14. METHOD OF SOLICITATION
[ ] RFQ [ ] IFB [X] RFP

15. DELIVER TO CODE

16. ADMINISTERED BY CODE 211
Karen M. Smith

17a. CONTRACTOR/ OFFEROR CODE FACILITY CODE
DynCorp TECHSERVE, LLC

TELEPHONE NO.

[ ] 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18a. PAYMENT WILL BE MADE BY CODE 151.3A
NASA/GSFC
Financial Management Division
Accounts Payable Section, Code 151.3A
Greenbelt, MD 20771

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK IS CHECKED [ ] SEE ADDENDUM

19. ITEM NO.	20. SUPPLIES/SERVICES	21. QTY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	(Attach Additional Sheets as Necessary)				

25. ACCOUNTING AND APPROPRIATION DATA BNC: 38 PPC: BX

26. TOTAL AWARD AMOUNT *(For Govt. Use Only)*

[X] 27a. SOLICITATION INCORPORATES FAR 52.212-1. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA [ ] ARE [ ] ARE NOT ATTACHED.
[X] 27b. CONTRACT/PURCHASE ORDER INCORPORATES FAR 52.212-1. FAR 52.212-5 IS ATTACHED. ADDENDA [ ] ARE [ ] ARE NOT ATTACHED.

28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN __ COPIES __TO ***See Sec.A.3.12.1***, CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.

29. AWARD OF CONTRACT: REFERENCE _____OFFER\ [ ] DATED_____. YOUR OFFER ON SOLICITATION (BLOCK 5) INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN IS ACCEPTED AS TO ITEMS:

30A. SIGNATURE OF OFFEROR/CONTRACTOR

31a. UNITED STATES OF AMERICA *(SIGNATURE OF CONTRACTING OFFICER)*

30b. NAME AND TITLE OF SIGNER *(TYPE OR PRINT)* 30c. DATE SIGNED

31b. NAME OF CONTRACTING OFFICER *(TYPE OR PRINT)* 31c. DATE SIGNED

32a. QUANTITY IN COLUMN 21 HAS BEEN
[ ] RECEIVED [ ] INSPECTED [ ] ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED

32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE 32c. DATE

33. SHIP NUMBER [ ] PARTIAL [ ] FINAL
34. VOUCHER NUMBER
35. AMOUNT VERIFIED CORRECT FOR
36. PAYMENT [ ] COMPLETE [ ] PARTIAL [ ] FINAL
37. CHECK NUMBER
38. S/R ACCOUNT NUMBER
39. S/R VOUCHER NUMBER
40. PAID BY
42a. RECEIVED BY (Print)

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT

41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER 41c. DATE

42b. RECEIVED AT (Location)
42c. DATE REC'D *(YY/MM/DD)*
42d. TOTAL CONTAINERS

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1. CONTRACT TERMS AND CONDITIONS--COMMERCIAL ITEMS (52.212-4) (MAY 1997) (MODIFIED)

(a) Inspection/Acceptance. The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or performance of nonconforming services at no increase in contract price. The Government must exercise its post acceptance rights (1) within a reasonable time after the defect was discovered or should have been discovered; and (2) before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(b) Assignment. The Contractor or its assignee's rights to be paid amounts due as a result of performance of this contract, may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727).

(c) Changes. Changes to this contract may be made only by written agreement of the parties. Changes to the delivery order for administrative changes, changes in the funding level of the set-aside funding pool, and increases or decreases to the numbers and types of seats supplied, (provided that the number of seats remains within the “band” specified in Attachment Q, Aggregate Seat Band Per Ordering Entity) may be made unilaterally by the Delivery Order Contracting Officer (DOCO).

(d) Disputes. This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.

(e) Definitions. The clause at FAR 52.202-1, Definitions, is incorporated herein by reference.

(f) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Delivery Order Contracting Officer (DOCO) in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the DOCOof the cessation of such occurrence.

(g) Invoice. Invoicing for services rendered under the orders placed under this contract shall be submitted monthly in arrears and specify the quantities and type of seats being invoiced for and the total invoice amount. The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized,) to the address designated in the contract to receive invoices. An invoice must include--

(1) Name and address of the Contractor;

(2) Invoice date;

(3) Contract number, contract line item number and the order number;

(4) Description, quantity, unit of measure, unit price and extended price of the items delivered;

(5) Shipping number and date of shipment including the bill of lading number and weight of shipment if shipped on Government bill of lading;

(6) Terms of any prompt payment discount offered;

(7) Name and address of official to whom payment is to be sent; and

(8) Name, title, and phone number of person to be notified in event of defective invoice.

Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment. Contractors are encouraged to assign an identification

number to each invoice.

(h) Patent indemnity. The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.

(i) Payment. Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment. Unless otherwise provided by an addendum to this contract, the Government shall make payment in accordance with the FAR clause at 52.232-33, Mandatory Information for Electronic Funds Transfer Payment, which is incorporated herein by reference. In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.

(j) Risk of loss. Unless the contract specifically provides otherwise, risk of loss or damage for the items delivered in conjunction with the services provided under this contract shall remain with the Contractor.

(k) Taxes. The contract price includes all applicable Federal, State, and local taxes and duties.

(l) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, and which have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience. The provisions in A.1.8 and A.1.9 are different from the rights in this paragraph and shall not be construed as limiting the Government’s right to terminate this contract or delivery order for cause.

(n) Title. Unless specified elsewhere in this contract, title to items furnished under this contract shall not pass to the Government. For equipment covered by maintenance, anywhere replacement parts are installed, whoever has title to the equipment shall take title to the replacement parts. In addition, title for items ordered from the Catalog of Selected Commercial Components (CSCC) shall vest in whoever holds the title of the equipment being upgraded. Title for any infrastructure, replacements or upgrades shall remain with the Government. This includes but is not limited to items such as antennas, telephone switches, routers, hubs, and cable plant.

(o) Warranty. The Contractor warrants and implies that the services delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(p) Limitation of liability. Except as otherwise provided by an express or implied warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) Other compliances. The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this contract.

(r) Compliance with laws unique to Government contracts. The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C 327, et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986; 41 U.S.C. 251 related to whistle blower protections; and 49 U.S.C 40118, Fly American.

(s) Order of precedence. Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order: (1) the schedule of supplies/services; (2) the Assignments, Disputes, Payments, Invoice, Other Compliances, and Compliance with Laws Unique to Government Contracts paragraphs of this clause; (3) the clause at 52.212-5; (4) addenda to this solicitation or contract; (5) solicitation provisions if this is a solicitation; (6) other paragraphs of this clause; (7) the Standard Form 1449; (8) other documents, exhibits, and attachments; and (9) the specification.

(End of clause)

2. CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (52.212-5) (AUG 1996)

(a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-3, Convict Labor (E.O. 11755); and

(2) 52.233-3, Protest After Award (31 U.S.C 3553).

(b) The Contractor agrees to comply with the FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

_X_ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).

_X_ (2) 52.203-10, Price or Fee Adjustment for Illegal or Improper Activity (41 U.S.C. 423).

_X_ (3) 52.219-8, Utilization of Small, Small Disadvantaged and Women-Owned Small Business Concerns (15 U.S.C. 637 (d) (2) and (3));

_X_ (4) 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4));

___ (5) 52.219-14, Limitation on Subcontracting (15 U.S.C. 637(a)(14)).

_X_ (6) 52.222-26, Equal Opportunity (E.O. 11246).

_X_ (7) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 4212).

_X_ (8) 52.222-36, Affirmative Action For Handicapped Workers (29 U.S.C. 793).

_X_ (9) 52.222-37, Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).

__ (10) 52.225-3, Buy American Act--Supplies (41 U.S.C. 10).

_X_ (11) 52.225-9, Buy American Act--Trade Agreements Act--Balance of Payments Program (41 U.S.C. 10, 19 U.S.C. 2501-2582).

___ (12) [Reserved]

___ (13) 52.225-18, European Union Sanction for End Products (E.O. 12849).

___ (14) 52.225-19, European Union Sanction for Services (E.O. 12849).

___ (15)(i) 52.225-21, Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program (41 U.S.C 10, Pub. L. 103-187).

___ (15)(ii) Alternate I of 52.225-21.

_X_ (16) 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552(a).

(c) The Contractor agrees to comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

___ (1) 52.222-41, Service Contract Act of 1965, As amended (41 U.S.C. 351, et seq.).

___ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

___ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

___ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

___ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).

(d) Comptroller General Examination of Record. The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until three years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 2012(a)); and

(3) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793).

(4) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

(End of clause)

ADDENDUM 1 OF NAS5-98142 SCHEDULE AND ADDITIONAL PROVISIONS

A.1.1 SERVICES TO BE FURNISHED

This indefinite-delivery indefinite-quantity (IDIQ) contract is the result of a multiple award Request for Proposal (RFP) and as such includes the Delivery Order Selection Process (DOSP) by which the orders will be placed by the ordering entities stated elsewhere in this document. The resultant contracts are considered Government-wide Acquisition Contracts (GWAC)s and are available for use by any Agency (or designee) authorized to utilize GWACs. Therefore, "NASA" may be considered replaceable by any Agency name throughout this document. Except as specifically segregated into a NASA and GWACs section, the Terms and Conditions, Statement of Work, Attachments, Exhibits and other documents which may be incorporated in to this contract, are applicable to both the NASA and GWAC's portions of this contract. For purposes of this document a Center is defined as a geographically separate entity from it's parent organization that may have responsibility for sub-units. An enterprise is defined as a group of Centers having a common business line and reporting structure. A single contractor will be selected for delivery order performance at each center (if NASA chooses to select a vendor on an Enterprise basis, a single contractor will be selected for delivery order performance for that Enterprise.) This contract establishes the master terms and conditions (some of which may be modified) for subsequent delivery orders and establishes Not-To-Exceed (NTE) pricing for each of the orderable contract line items (CLINs) found in this contract. The NTE pricing is effective when the total number of aggregate seats at an ordering location is within the aggregated bands identified in Attachment Q, Aggregate Seat Bands Per Ordering Entity, regardless of whether the individual seat minimum/maximum quantities are ordered. Therefore, movement within the aggregate seat-type minimum/maximum quantities, as stated in Attachment Q, shall not effect the NTE price. As a result of due diligence during the DOSP, the Contractor may propose a price adjustment that is separate from the NTE prices. Further, the Contractor may propose prices that are lower than the NTE prices in the master contract. Each delivery order shall specify the actual quantities to be ordered, the negotiated prices, any additional negotiated terms and conditions, and the period of performance for the delivery order.

(a) The Contractor shall provide, if ordered, all services, as described here and in the documents referenced and incorporated herein by Addendum 2, at the Not-to-Exceed (NTE) prices listed in Attachment P Price List.

(b) Prices are inclusive of all shipping and delivery charges.

(c) Included in this contract is a combined set-aside funding pool for specialized requirements (e.g., mission critical uplift, security uplift), further described in Section C.5.9 of the Statement of Work (SOW), Specialized Requirements. The initial funding for the pool will be determined by the Center/Enterprise during the Delivery Order Selection Process (DOSP). The Contractor is required to segregate invoicing for specialized requirements from Seats invoicing, but is not required to segregate invoicing by categories of specific requirements. As necessary, the Delivery Order Contracting Officer (DOCO) will unilaterally obligate or deobligate funds from this set-aside funding pool. As specified elsewhere in this document, the DOCO shall issue a modification to the delivery order changing the affected seat price, tracking and adjusting the amount available in the set-aside funding pool accordingly.

(d) Surcharges will be applied to the seat price for classified security (Attachment P), when ordered in the delivery order, at the rates specified in the contract.

(e) After conducting the due diligence and negotiating any price adjustments, regardless of the methodology used in conducting due diligence, the Contractor is responsible to correct any further discrepancies found at no increase in price to the Government, regardless of the size or severity of the discrepancy.

A.1.2 DELIVERY ORDER SELECTION PROCESS (DOSP)

Contractors are not required to bid on separate delivery orders. However, the Government reserves the right to issue a unilateral delivery order at NTE prices. Each Center/Enterprise will select a single ODIN provider from the pool of ODIN contracts.

A.1.2.1 GWACS (DOSP)

Any non NASA Agency using this contract shall coordinate its specific DOSP with the GSA FTS person

responsible for administering this contract. At a minimum, fair consideration shall be given to all of the ODIN multiple awardees. Fair consideration is defined as any process meeting the requirements of the Federal Acquisition Regulation (FAR) at 16.505, as it was written on June 1997.

A.1.2.2 NASA (DOSP)

The following outlines the process NASA will utilize for its DOSP:

(a) Each Center/Enterprise will select a single ODIN provider from the pool of ODIN contracts following a process which uses Delivery Order Selection Criteria (DOSC). When the initial delivery orders are awarded, fair consideration will be given to each contractor in the contractor pool. The result will be the award of delivery order(s) to the contractor submitting the most favorably evaluated proposal, including price and the DOSC. Subsequent orders may (at the discretion of the Contracting Officer or DOCO) be issued on a sole-source basis in the interest of economy and efficiency as a logical follow-on to an order already issued under the contract. All contractors choosing to be considered in this fair consideration process are required to perform due diligence and submit any data required by the DOSP as requested by the DOCO.

(b) Following the award of contracts ("the contractor pool"), each Center/Enterprise will use the DOSP to determine the Contractor for each Center/Enterprise's initial delivery order and if a sole-source follow-on delivery order is not issued, for subsequent delivery orders. The DOSP as described below reflects the process when conducted on a Center basis. NASA may choose to conduct the DOSP on an Enterprise level. If so, the information referenced below will be provided by (and/or delivered to) NASA on an Enterprise or Center basis as defined by NASA when the DOSP is initiated. When used, the DOSP will be conducted in the following manner:

(1) The Center will provide updated information (e.g., inventories, infrastructure changes, current customer satisfaction metrics, center-specific interfaces, center-specific access requirements, center-specific priority service requirements, center-specific network and communications requirements, and center-specific requirements for other services, such as, location of shared peripheral devices) to the successful contractor pool and identify the specific weighting for the DOSC. Centers/Enterprises will also provide at this time any requirement for Performance Profile rankings that differ from Attachment N, ODIN Performance Specifications.

(2) The successful contractor pool will be provided 30 days (may be extended at DOCO's discretion) at a Center to perform due diligence to validate the accuracy of the existing Center's inventory and infrastructure and other information provided to the Contractor. All contractors will be performing due diligence during the same 30 day period.

(3) Within 15 days after completing due diligence, each contractor will be required to submit in writing a Center-specific transition plan, proposed pricing (these prices may only be at or below the NTE prices in the master contract), price for asset transition, and if applicable, a due diligence price adjustment, including the basis for the requested adjustment.

(4) Subsequently, each contractor will be required to present an oral presentation, with accompanying charts, addressing the requested information and each DOSC, as well as answer any questions the Government may have including questions about their written submission. This process may or may not be recorded at the discretion of the Government. A time limitation for the presentations may be imposed by each Center.

(5) The NASA designated selection official will select the contractor for any competed delivery order. Delivery orders will be awarded by DOCOs. The decision of the NASA designated selection official is final and not subject to dispute or protest, except for a protest on the grounds that the order increases the scope, period, or maximum value of the contract.

(c) Each contractor's oral presentation and written submission, in conjunction with its original technical proposal, will be evaluated using the DOSC.

(d) The DOSC are as follows:

- Customer Focus

- Transition Issues
- Service Delivery
- Mission Focus
- ODIN Past Performance (when applicable)
- Pricing

(1) Customer Focus - The Government will evaluate each contractor's understanding of the Center's environment, general and specific end-user requirements, the approach's practicality, effectiveness, and efficiency, and the contractor's commitment to garnering and maintaining high customer satisfaction. The Contractor shall describe how it intends to provide effective customer support at the Center. Specifically, the Contractor shall describe in detail how it will provide integrated customer support/help, provide face-to-face support when required, and conduct customer outreach. This description shall include a step-by-step procedure from the point in which a call is originated by a customer to the point of resolution. The Contractor shall describe customer service information available to customers and the systems it intends to use to make this information available. Examples of customer information include, but are not limited to, availability of the catalog, order tracking, and status of trouble calls. The Contractor shall detail any gap between the level of information proposed to be available and that which is currently available through existing contractor systems. The Contractor shall propose a set of customer satisfaction metrics which it intends to meet over the term of the delivery order. When the delivery order is solicited, the Center will inform the Contractor of the baseline customer satisfaction metric. The Contractor, as part of the DOSP, will propose a set of goal metrics which will be evaluated and agreed to by the Government and included in the delivery order in Table F.1.1. The Government will evaluate the proposed metrics to assess the degree to which these metrics maintain and improve the delivery of desktop and communications services to the Center and the end user throughout the life of the delivery order.

(2) Transition Issues - The Government will evaluate the extent to which the Contractor's transition plan ensures continuity of operations at each center. This includes minimizing disruption to the existing operations, optimizing the use of existing assets, maintaining or improving customer satisfaction through the transition. The Government will also evaluate the means by which the Contractor assesses and adjusts its plans to meet customer satisfaction objectives, and facilitates and enhances coordination and cooperation (including integration requirements) with any and all affected parties. The Contractor shall adapt its transition plan submitted during the master solicitation, as required, to address any changes caused by additional information and the due diligence. The transition from the present Center environment to the point at which the Contractor assumes full responsibility for assets and operations; and impacts and plans to mitigate impacts to the current local labor force providing comparable IT services shall be discussed. The plan shall also address the approach to asset transition at the Center; recommendations for change to the Center infrastructure as services are refreshed; a snapshot of the composition of the Center environment as it would appear at the end of the delivery order (i.e., three year); and the method by which existing applications, including COTS and GOTS software, will be migrated to new equipment and software as older products are refreshed.

(3) Service Delivery - The Government will evaluate the efficacy, suitability, and plausibility of the contractor's approach, requirements, and plans to meet specific ODIN service requirements at a Center. The Contractor shall describe its approach to technology refreshment and interaction with non-ODIN contractors, on-site facilities/space requirements, and training philosophy and plans. The Contractor should adapt their response from the master solicitation to Center-specific environments. The approach to technology refreshment shall include specific plans to upgrade or replace the existing Center assets to foster ODIN objectives. The Contractor shall describe how it will specifically (i.e., on a day-to-day basis) interface, coordinate, and integrate (where and when required) with non-ODIN contractors at the Center where there is a requirement to interface with the ODIN contractor. This should be specific to address the Agency and Center-specific responsibilities in Section C.4, Operating Model, of the SOW. The Contractor should identify the affected non-ODIN contractors at the center. The Contractor shall provide a description of any facilities/space requirements on the Center. This description shall include square footage, room configurations, mechanical and electrical requirements, and any other special needs. The Government will assess a price for these requirements and adjust the Contractor's proposal accordingly for evaluation purposes only; once NASA adopts full cost accounting, the Contractor shall be required to pay the Government for all NASA-provided

facilities. The price of these services will be negotiated and agreed to as part of each delivery order and reflected as a credit to the Government on each monthly invoice. The Contractor shall describe how it will meet the various training requirements identified in Section C.5.1 of the SOW, and the Service Model, Attachment E, at the Center.

(4) Mission Focus - The Government will evaluate the Contractor's demonstrated understanding of the Center mission, culture, and environment. The Contractor shall provide a description of its expertise as it relates to each Center's mission. This description shall also address the specific experience the Contractor has working in an environment similar to the mission areas of each Center. The Contractor shall: explain how it would maintain the current Center infrastructure and any capital improvements planned during the period of delivery order; identify any infrastructure improvements which it believes would enhance achievement of the Center's mission; provide the rationale and a timeline for those improvements. The Contractor shall adapt its master solicitation proposal regarding asset disposal, and small, small disadvantaged, and woman-owned small business utilization. The Contractor shall address any Center-specific programs with respect to donating equipment. The Contractor shall address any Center-specific changes to its proposed small, small disadvantaged, and woman-owned small business subcontracting plan, including Center-specific goals. The Contractor shall address any Center-specific ISO 9000 requirements.

(5) ODIN Past Performance - The Government will evaluate the Contractor's past performance at this or other Centers in performing delivery orders under this contract. If ODIN past performance information is not available, the Contractor shall provide past performance updates to the information provided during the master solicitation.

A.1.3 PROCEDURES FOR ISSUING ORDERS

A.1.3.1 GWACS PROCEDURES FOR ISSUING ORDERS

The GSA FTS group has exclusive authority to administer the GWACs portion of this contract and place orders for authorized users. When GSA FTS deems appropriate, it may delegate the authority to place and administer orders to Agency DOCOs. GSA/FTS shall notify the ODIN contractors either orally or in writing of any DOCOs it authorizes. If oral notification is provided, follow-up written notification is not required unless requested by the contractor.

A.1.3.2 NASA PROCEDURES FOR ISSUING ORDERS

Any services to be furnished under this contract shall be ordered by issuance of delivery orders by the individuals designated in the Schedule. Such orders may be issued from the effective date of contract award through nine years after contract award. The DOCO shall identify the CLINs to be ordered, and add/incorporate any additional terms and conditions resultant from the due diligence process.

(a) Each delivery order will specify the exact destination for shipment.

(b) All delivery orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order and this contract, the contract shall control.

(c) If mailed, a delivery order is considered "issued" when the Government deposits the order in the mail. Orders may be issued in writing, orally, or by facsimile. Orally issued delivery orders will be confirmed in writing within 14 days. Facsimile orders will be confirmed telephonically.

(d) Delivery orders may be unilaterally modified by the DOCO in accordance with 52.212-4 (c). Modifications to the delivery orders shall include the same information set forth in the delivery order, as applicable.

(e) The firm-fixed price for each delivery order may not be increased except when authorized by a modification to the delivery order. If the prices of any order are decreased, the Contractor shall notify the DOCO in writing.

Orders shall, at a minimum, include the following information:

(1) Date of order
(2) Order Number (must be a unique agency or center order number)
(3) Appropriation and accounting data

(4) Description of end item(s) to be delivered
(5) Description of services to be performed
(6) Exact place of delivery
(7) Period of time in which the services are to be performed
(8) The firm fixed price of the order
(9) This contract number
(10) The billing address
(11) The shipment address

A.1.3.3 PROCEDURES FOR TENANT ISSUANCE OF ORDERS

Orders may be placed by NASA tenant organizations using the procedures outlined below.

(a) All orders shall be submitted to the closest DOCO for submittal to the Contractor. The Contractor shall reject any order unless said order has been countersigned by a DOCO stated elsewhere in this addenda.

A.1.3.4 ORDERS BY GOVERNMENT CONTRACTORS

Any contractor performing services for NASA or for any other Government agency recognized by NASA for use of this contract, is authorized to place orders for ODIN services directly with the ODIN contractor for the relevant site, provided that an ODIN Government Contracting Officer has specifically authorized such order in writing. The contractor shall include with its order a letter from the Government Contracting Officer stating such authorization. The ODIN contractor shall honor all orders placed.

Such orders shall be considered to create separate contracts between each such contractor and the ODIN contractor receiving the order. The Government shall not be liable under this ODIN contract for any order placed by such contractor. However, the ODIN contractor shall provide ODIN services so ordered under the same terms and conditions, and at the same prices, as if the Government had placed such order under this ODIN contract, except for those provisions peculiar to Government procurement, such as, but not limited to, disputes resolution and allocation of Government funding provisions. Furthermore, while such orders are considered to create privity of contract between the contractor placing the order and the ODIN contractor, the calculation of total orders placed under the ODIN contract by the Government, for the sole purposes of applying the minimum and maximum aggregate contract values, shall include the value of all such contractor orders.

The ODIN contractor shall provide periodic reports as required by the Contracting Officer of all contractor orders placed as well as the status of such orders as of the end of the reporting period.

A.1.4 AUTHORIZED APPROVING OFFICIALS

(a) CONTRACT

Only the following GSFC Contracting Officers are authorized to unilaterally and bilaterally modify any contract terms and conditions, and modifications (in accordance with 52.212-4(c)):

GSFC Contracting Officer: Karen M. Smith
Code 211

Alternate Contracting Officer: TBD

(b) DELIVERY ORDERS

Each Center shall have one Delivery Order Contracting Officer who is authorized to issue and modify any delivery orders for their respective centers (in accordance with 52.212-4(c)). The DOCOs will be specified at the time of contract award. DOCOs may be substituted via unilateral modification.

A.1.5 DELIVERY ORDER LIMITATIONS

(a) Minimum order. When the Government requires services covered by this contract in an amount of less than $50, the Contractor is not obligated to furnish those services under the contract.

(b) Maximum order. The Contractor is not obligated to honor

(1) Any order for a single CLIN in excess of $100 million;
(2) Any order for a combination of CLINs in excess of $500 million; or
(3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

The Contractor shall honor any order exceeding the maximum order limitations above, unless that order is returned to the DOCO within 10 working days after issuance, with written notice stating the Contractors intent not to provide the services ordered and the reasons.

A.1.6 DELIVERY ORDER ACCEPTANCE

(a) The DOCO or authorized representative as identified on the order will accomplish acceptance as specified on each order. The DOCO may designate other Government agents as authorized representatives, and the Contractor will be notified by a written notice or by a copy of the delegation letter if other agents are authorized.

(b) Acceptance shall be deemed to have occurred constructively--for the sole purpose of computing an interest penalty that might be due the Contractor under the Prompt Payment Act--on the 7th day after the Contractor has delivered the services in accordance with the terms and conditions of the contract. In the event that actual acceptance occurs within the constructive acceptance period, the determination of an interest penalty shall be based on the date of the actual acceptance.

A.1.7 TRANSITION BONUS

A bonus of up to $100,000 (as identified during the DOSP) is available to the ODIN Contractor at each Center for completing a smooth transition with the Center's/Enterprise's present contractors. See Section A.1.14, Asset Transition. This bonus is also available when there is a change from the incumbent to a successor contractor and will be split between the incumbent ODIN and successor ODIN contractors. If granted, this bonus will be disbursed in accordance with the schedule in the Contractor's transition plan. The Center Director, or designee, of the affected center will determine if the transition is smooth and successful and the amount of the bonus, if any. The Center Director's decision is final and not subject to the Disputes Clause.

A.1.8 RETAINAGE POOLS

(a) A Performance Retainage Pool (PRP) will be established for each contractor comprised of 3% of the sum of the monthly seat/system prices from all delivery orders and modifications issued to that contractor. Multiple pools will be established for any contractor holding multiple delivery orders. These funds will be retained by the Government to ensure the successful implementation and operation of the ODIN Operating Model, as described in Section C.4 of the SOW. In specific, this PRP will help ensure contractor coordination and cooperation to achieve the interoperability objectives of ODIN. The PRP will be available for initial disbursement on the yearly anniversary date of the delivery order, and semi annually thereafter, at the sole discretion of the Program Manager. The PRP decision shall be made on a meets/fails-to-meet basis annually for each delivery order. If not authorized for disbursal, the previous yearly PRP will not be carried forward and the delivery order will be unilaterally modified to decrease the order dollar amount. The manner and degree to which the Contractor demonstrably assumes joint and mutual responsibility for integration testing to ensure interoperability and functionality, as well as compliance with Agency and Center IT standards and architecture will be a major determinant in whether the PRP is released. The Contractor's efficacy in selection of systems, products, and services shall also be a factor. The Contractor's approach and manner in coordinating their system, product and service roll outs with the other ODIN contractors to assure interoperability and functionality requirements are not compromised, will also be considered in determining the release of the PRP.

(b) A Metric Performance Retainage Pool (MPRP) will be established for each contractor. The MPRP will be comprised of 1% of the sum of the monthly seat/system prices from all delivery orders and modifications (not

including catalog items) issued to that contractor; this MPRP will become available for disbursement after the first 180 days of performance. The first six months MPRP will only be disbursed if a successful performance has been demonstrated, as determined by the Program Manager. Multiple pools will be established for any contractor holding multiple delivery orders. These funds will be retained by the Government to ensure the successful performance and operation as defined by the ODIN metrics specified in Attachment F. Each MPRP assessment will be made on the monthly anniversary date of the delivery order at the sole discretion of the Program Manager. The MPRP decision shall be made on a meets/fails-to-meet basis for which the Contractor may invoice. If not authorized for disbursal, the previous monthly MPRP will not be carried forward and the delivery order will be unilaterally modified to decrease the order dollar amount. The manner and degree to which the Contractor demonstrably delivers services that meet all the Level 1 metrics will form the basis for the MPRP disbursement decision.

(c) The Government shall use this provision in lieu of requiring reperformance of services as provided for in paragraph (a) of 52.212-4.

A.1.9 CREDIT FOR OUTAGES

In the event a characteristic for return to service as specified in Attachment E, Service Model, is not achieved, the Government is entitled to receive a credit of one one-thirtieth of the monthly seat price for each day the seat is unavailable for use beginning with the day the outage originated. Credit provisions do not apply to outages that are beyond the control of the Contractor. The Government shall use this provision in lieu of requiring reperformance of services as provided for in paragraph (a) of 52.212-4.

A.1.10 ALLOWABLE CABLE PLANT DELIVERY ORDER CHANGES

While it is not anticipated to occur on a large scale, certain Centers may determine it is in their best interest not to have the Contractor provide cable plant management and associated services or to have the Contractor provide all cable plant management even though the Contractor may not be providing all the services that use the cable plant. Centers will decide their approach to cable plant management during the DOSP. If the Center decides to consider excluding the cable plant management and associated services, then the interface border and the affected metrics will be identified prior to Due Diligence. Centers may choose to obtain pricing for both scenarios and will make that decision known when it initiates the DOSP. Price adjustments for changing the interface border, the cable plant services performed, or the metrics, shall be included in the DOSP pricing proposal. No other changes to the service levels are permitted to occur at the delivery order level.

A.1.11 INDEFINITE QUANTITY (52.216-22) (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not guaranteed to be purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum”. The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after June 30, 2010.

A.1.12 MINIMUM AND MAXIMUM QUANTITIES

(a) For the purposes of the contract minimum as defined in A.1.11, the contract minimum will be a one-time $1,000 acquisition of catalog items.

(b) The maximum value of the contract is $

A.1.13 PERIOD OF PERFORMANCE

(a) Contract: The period of performance for ordering under this contract shall be nine years from the date of contract award.

(b) Delivery Orders: The period of performance for each delivery order placed against this contract shall not exceed three years but may be renewed on a sole-source basis as a logical follow-on without writing or obtaining approval for a Justification for Other than Full and Open Competition.

(c) No delivery order shall be issued with a period of performance extending beyond June 30, 2010.

A.1.14 ASSET TRANSITION

(a) Government to Contractor:

(1) When the Contractor proposes to use existing Government assets, including hardware and software, in providing ODIN services, such assets will be made available for management by the Contractor. The assets will be accepted by the Contractor on an as is basis. These assets will be managed in accordance with Section C.5.6, Asset Requirements, of the SOW and below.

(b) Contractor to Third Party:

(1) The Contractor agrees that the services provided under this contract are essential to the Government and shall be continued without interruption. The transition of assets (e.g., hardware and software) from the incumbent to a successor Contractor (or the Government in the event of no successor), shall be accomplished in accordance with the following. At the time a delivery order is solicited, a transition charge for the prospective delivery order contractors' assets will be proposed, evaluated and negotiated by the Government, and established in the delivery order. (This transition charge will be modified as mutually agreed to based upon technology refreshment and/or changes in the seat configurations.) Catalog items shall not have separate transition charges associated with them. Any transition charges for these items shall be included in the listed price. In the event a center decides not to continue a delivery order, or upon expiration of a delivery order or of the contract, the successor in interest will be afforded the opportunity to acquire the assets at that transition charge (as modified) or propose an alternative method and price to continue to provide the required services. In any event, all existing assets shall remain installed and usable by the Government through the transition of assets or their replacement by the successor contractor. In the event that the successor contractor chooses not to use the existing assets, it will coordinate removing those assets with the predecessor contractor who has responsibility to dispose of those assets. The Contractor shall ensure that all purchase and leasing arrangements, both for hardware and software, includes provisions to transfer to a successor in interest.

(2) The Contractor agrees to: (1) furnish familiarization/phase-in training at the beginning of the phase-in period to the successor contractor; and (2) exercise its best efforts and cooperation to effect an orderly and efficient transition to a successor. If a transition to a successor ODIN contractor is required, a performance bonus of not more than $100,000 per center is available to be split between the incumbent and successor ODIN contractors to reward a smooth and successful transition. The Center Director of the affected center will determine if the transition is smooth and successful and the amount of the bonus, if any. The Center Director's decision is final and not subject to the Disputes Clause.

A.1.15 PROCEDURES TO EFFECT SPECIALIZED REQUIREMENTS

The following procedures will be used to effect specialized requirements defined in Section C.5.9, Specialized Requirements, of the SOW. The Government will notify the Contractor telephonically of the service level required, the

effective date (may be the same day), the duration of the requirement (but not less than 10 days), and the seat identifiers affected by the request. All telephonic requests will be followed up in writing within 14 days. For requirements that cause a price change, individuals authorized to initiate these requests will be specified in each delivery order. Payment for these requirements will be made from the set-aside pool. Pricing for these items shall be in accordance with Attachment P, Price List. Where there is no price impact (e.g., mission freeze) the request may be made by any Government employee supported by ODIN unless otherwise specified during the DOSP.

A.1.16 CERTIFICATE OF MAINTAINABILITY

The Contractor shall maintain all equipment such that a certificate of maintainability as described below can be provided.

(a) A "Certificate of Maintainability" is required for assets acquired and transferred under this contract. The Contractor shall issue the certification twenty working days prior to the expiration of the period of performance (e.g., delivery order, contract).

(b) The certificate shall state that preventive maintenance in accordance with the specifications of the Original Equipment Manufacturer (OEM) has been performed and that the equipment is performing in accordance with the OEM's specifications such that the OEM (or the OEM's successor in interest) commits that it would assume maintenance of the equipment (or the OEM certifies that the equipment is eligible for maintenance, including but not limited to repair or inspection charges) if such maintenance were assumed effective the date after the Contractor's performance ceases. The Certificate of Maintainability shall also state that the equipment is at the most current OEM's revision level or the Government’s baseline. The ODIN incumbent contractor is responsible for bearing all costs associated with obtaining such certification, including any repair or inspection charges referred to above, at no additional charge to the Government or to the successor contractor.

(c) Should the Contractor fail to issue the required Certificate of Maintainability in accordance with this clause, or should any equipment fail to perform in accordance with the certification, the Contractor shall be liable to the Government for any reasonable costs incurred by the Government for the purpose of bringing the equipment up to the required maintainable level.

(d) If equipment is acquired under this contract without maintenance, the Contractor shall issue a Certificate of Maintainability for such equipment if requested by the DOCO. The certificate shall list each item delivered by a component identification number (i.e. serial number) and state that the equipment is in such condition that the OEM (or the OEM's successor in interest) commits that it would assume maintenance of the equipment (or the OEM certifies that the equipment is eligible for maintenance). All charges required to obtain the requisite performance of the equipment, shall be borne by the Contractor. The fact that the equipment may have been acquired with a warranty does not relieve the Contractor of its obligations under this subparagraph.

A.1.17 SUBSTITUTE/ENHANCEMENTS FOR SPECIALIZED EQUIPMENT/SOFTWARE TO ACCOMMODATE USERS WITH DISABILITIES

(a) The Contractor shall offer products as they become available that offer improvements in technology which better suit the needs of users with disabilities. These products will be recognized under the technology refreshment provision of this contract.

(b) When OEMs or re-sellers offer free technology or service enhancements which accommodate users with disabilities, those enhancements will be passed on to the Government without charge, as soon as available.

A.1.18 TECHNOLOGY REFRESHMENT PROPOSALS

Technology Refreshment proposals in response to Section C.7 of the SOW shall be submitted to the Contracting Officer as necessary to maintain compliance with the current ODIN performance specifications as described in Attachment N. A copy shall also be provided to the affected Center(s) DOCO. The proposals shall address at a minimum:

(a) List price pages (catalog price)

(b) Description of proposed technology, including integration test results to date

(c) Contractor product identification number

(d) Model number

(e) GSA and commercial catalog unit number, if available
(f) CLIN the new product is refreshing, if applicable
(g) Changes/impacts to NASA and Center(s) IT architectures and standards
(h) Changes to Agency or Center specific Strategic Plans
(i) Implementation plan and schedule
(j) System performance improvements as a benefit to the Government
(k) Known and anticipated impact on ODIN and non-ODIN contractors
(l) Description of compliance with performance profile of each proposed platform offering
(m) Proposed adjustment to transition charges
(n) Impacts on Contractor performance
(o) Anticipated price savings

The acceptance process for the technology refreshment proposals will be coordinated and implemented in accordance with the process established in Section C.4, ODIN Operating Model.

A.1.19 COMPONENT CLASSIFICATION

All hardware and software components furnished by the Contractor shall be field-proven and of modern design. The components shall be current, standard production with type, architecture, and capability previously installed and operated. All components shall be announced publicly and marketed as COTS products 30 days or more prior to the submission of the proposal. A component is field-proven if it has been installed external to the OEM and has performed in a satisfactory, trouble-free manner for at least 30 days. A field-proven component can be an upgrade or improved model of a component that was previously field-proven. The components can be new or used. However, used equipment shall perform so as to be indistinguishable from new equipment. Any engineering changes initiated by the OEM shall be incorporated into the component.

A.1.20 LIABILITY

The Government assumes no liability for loss, theft, damage, destruction (willful or otherwise) of any asset (tangible or intangible) provided by the Contractor to any party in performance of this contract except as stated in this clause. The liability of the Contractor for losses resulting from loss, theft, damage, or destruction of any asset, provided by the Contractor to the Government in performance of this contract, caused by a Center's (i) Government employee, (ii) another Government contractor, and/or (iii) grantee, shall not exceed $100,000 per year per Center. If the actual losses resulting from loss, theft, damage, or destruction caused by that Center's (i) Government employee, (ii) another Government contractor, and/or (iii) grantee, exceeds $100,000 per year per Center, the Government will reimburse the Contractor for the lessor of the actual loss (acquisition cost less depreciation) or actual cost for replacing lost, stolen, damaged or destroyed equipment, in excess of the $100,000 per year per Center limit, provided the Contractor can substantiate both the nature of the loss and the reimbursement costs with either written or electronic records. Because NASA contractor-initiated orders pursuant to Clause A.1.3.4 are considered separate contracts, the Government's liability does not apply to such arrangements, and liability thereunder shall be solely between the ODIN contractor and the NASA contractor issuing such order, as provided in Clause A.1.3.4.

A.1.21 1852.243-71 SHARED SAVINGS (MARCH 1997)

(a) The Contractor is entitled, under the provisions of this clause, to share in cost savings resulting from the implementation of cost reduction projects which are presented to the Government in the form of Cost Reduction Proposals (CRP) and approved by the Contracting Officer. These cost reduction projects may require changes to the terms, conditions or statement of work of this contract. Any cost reduction projects must not change the essential function of any products to be delivered or the essential purpose of services to be provided under the contract.

(b) Definitions:

(1) Cost savings, as contemplated by this clause mean savings that result from instituting changes to the covered contract, as identified in an approved Cost Reduction Proposal.

(2) Cost Reduction Proposal - For the purposes of this clause, a Cost Reduction Proposal means a proposal that recommends alternatives to the established procedures and/or organizational support of a contract or group of contracts.

These alternatives must result in a net reduction of contract cost and price to NASA. The proposal will include technical and cost information sufficient to enable the Contracting Officer to evaluate the CRP and approve or disapprove it.

(3) Covered contract - As used in this provision, covered contract means the contract, including unexercised options but excluding future contracts, whether contemplated or not, against which the CRP is submitted.

(4) Contractor implementation costs - As used in this provision, Contractor implementation costs, or "implementation costs", shall mean those costs which the Contractor incurs on covered contracts specifically in developing, preparing, submitting, and negotiating a CRP, as well as those costs the Contractor will incur on covered contracts to make any structural or organizational changes in order to implement an approved CRP.

(5) Government costs - As used in this provision, the term Government costs means internal costs of NASA, or any other Government agency, which result directly from development and implementation of the CRP. These may include, but are not limited to, costs associated with the administration of the contract or with such contractually related functions such as testing, operations, maintenance and logistics support. These costs also include costs associated with other Agency contracts (including changes in contract price or cost and fee) that may be affected as a result of the implementation of a CRP. They do not include the normal administrative costs of reviewing and processing the Cost Reduction Proposal.

(c) General. The Contractor will develop, prepare and submit CRP's with supporting information as detailed in paragraph (e) of this clause, to the Contracting Officer. The CRP will describe the proposed cost reduction activity in sufficient detail to enable the Contracting Officer to evaluate it and to approve or disapprove it. The Contractor shall share in any net cost savings realized from approved and implemented CRPs in accordance with the terms of this clause. The Contractor's actual percentage share of the cost savings shall be a matter for negotiation with the Contracting Officer, but shall not, in any event, exceed 50 percent of the total cost savings recognized by the Contracting Officer. The Contractor may propose changes in other activities that impact performance on its contract, including Government and other Contractor operations, if such changes will optimize cost savings. A Contractor shall not be entitled to share, however, in any cost savings that are internal to the Government, or which result from changes made to any contracts to which it is not a party even if those changes were proposed as a part of its CRP. Early communication between the Contractor and Government is encouraged. The communication may be in the form of a concept paper or preliminary proposal. The Government is not committed to accepting any proposal as a result of these early discussions.

(d) Computation of cost savings. The cost savings to be shared between the Government and the Contractor will be computed by the Contracting Officer by comparing a current estimate to complete (ETC) for the covered contract, as structured before implementation of the proposed CRP, to a revised ETC which takes into account the implementation of that CRP. The cost savings to be shared shall be reduced by any cost overrun, whether experienced or projected, that is identified on the covered contract before implementation of the CRP. Although a CRP may result in cost savings that extend far into the future, the period in which the Contractor may share in those savings will be limited to no more than five years. Implementation costs of the Contractor must be considered and specifically identified in the revised ETC. The Contracting Officer shall offset Contractor cost savings by any increased costs (whether implementing or recurring) to the Government when computing the total cost savings to be shared. The Contractor shall not be entitled, under the provisions of this clause, to share in any cost reductions to the contract that are the result of changes stemming from any action other than an approved CRP. However, this clause does not limit recovery of any such reimbursements that are allowed as a result of other contract provisions.

(e) Supporting Information. As a minimum, the Contractor shall provide the following supporting information with each CRP:

(1) Identification of the current contract requirements or established procedures and/or organizational support which are proposed to be changed.

(2) A description of the difference between the current process or procedure and the proposed change. This description shall address how proposed changes will meet NASA requirements and discuss the advantages and disadvantages of the existing practice and the proposed changes.

(3) A list of contract requirements which must be revised, if any, if the CRP is approved, along with proposed revisions.

Any changes to NASA or delegated contract management processes should also be addressed.

(4) Detailed cost estimates which reflect the implementation costs of the CRP.

(5) An updated ETC for the covered contract, unchanged, and a revised ETC for the covered contract which reflects changes resulting from implementing the CRP. If the CRP proposes changes to only a limited number of elements of the contract, the ETCs need only address those portions of the contract that have been impacted. Each ETC shall depict the level of costs incurred or to be incurred by year, or to the level of detail required by the Contracting Officer. If other CRPs have been proposed or approved on a contract, the impact of these CRPs must be addressed in the computation of the cost savings to ensure that the cost savings identified are attributable only to the CRP under consideration in the instant case.

(6) Identification of any other previous submissions of the CRP, including the dates submitted, the agencies and contracts involved, and the disposition of those submittals.

(f) Administration.

(1) The Contractor shall submit proposed CRPs to the Contracting Officer who shall be responsible for the review, evaluation and approval. Normally, CRP's should not be entertained for the first year of performance to allow the Contracting Officer to assess performance against the basic requirements. If a cost reduction project impacts more than a single contract, the Contractor may, upon concurrence of the Contracting Officers responsible for the affected contracts, submit a single CRP which addresses fully the cost savings projected on all affected contracts that contain this Shared Savings Clause. In the case of multiple contracts affected, responsibility for the review and approval of the CRP will be a matter to be decided by the affected Contracting Officers.

(2) Within 60 days of receipt, the Contracting Officer shall complete an initial evaluation of any proposed cost reduction plan to determine its feasibility. Failure of the Contracting Officer to provide a response within 60 days shall not be construed as approval of the CRP. The Government shall promptly notify the Contractor of the results of its initial evaluation and indicate what, if any, further action will be taken. If the Government determines that the proposed CRP has merit, it will open discussions with the Contractor to establish the cost savings to be recognized, the Contractor's share of the cost savings, and a payment schedule. The Contractor shall continue to perform in accordance with the terms and conditions of the existing contract until a contract modification is executed by the Contracting Officer. The modification shall constitute approval of the CRP and shall incorporate the changes identified by the CRP, adjust the contract cost and/or price, establish the Contractor's share of cost savings, and incorporate the agreed to payment schedule.

(3) The Contractor will receive payment by submitting invoices to the Contracting Officer for approval. The amount and timing of individual payments will be made in accordance with the schedule to be established with the Contracting Officer. Notwithstanding the overall savings recognized by the Contracting Officer as a result of an approved CRP, payment of any portion of the Contractor's share of savings shall not be made until NASA begins to realize a net cost savings on the contract (i.e., implementation, startup and other increased costs resulting from the change have been offset by cumulative cost savings). Savings associated with unexercised options will not be paid unless and until the contract options are exercised. It shall be the

responsibility of the Contractor to provide such justification as the Contracting Officer deems necessary to substantiate that cost savings are being achieved.

(4) Any future activity, including a merger or acquisition undertaken by the Contractor (or to which the Contractor becomes an involved party), which has the effect of reducing or reversing the cost savings realized from an approved CRP for which the Contractor has received payment may be cause for recomputing the net cost savings associated with any approved CRP. The Government reserves the right to make an adjustment to the Contractor's share of cost savings and to receive a refund of moneys paid if necessary. Such adjustment shall not be made without notifying the Contractor in advance of the intended action and affording the Contractor an opportunity for discussion.

(g) Limitations. Contract requirements that are imposed by statute shall not be targeted for cost reduction exercises. The Contractor is precluded from receiving reimbursements under both this clause and other incentive provisions of the contract, if any, for the same cost reductions.

(h) Disapproval of, or failure to approve, any proposed cost reduction proposal shall not be considered a dispute subject to remedies under the Disputes clause.

(i) Cost savings paid to the Contractor in accordance with the provisions of this clause do not constitute profit or fee within the limitations imposed by 10 U.S.C. 2306(d) and 41 U.S.C. 254(b).

A.1.22 REPEATED EQUIPMENT FAILURE PLAN

The contractor shall implement the procedures described in Attachment I for resolving problems and minimizing user impact resulting from extended downtime and repeated equipment failures.

A.1.23 RESERVED

A.1.24 RESERVED

A.1.25 GOVERNMENT PREMISES--PERSONNEL ACCESS AND COMPLIANCE WITH PROCEDURES

A.1.25.1 GWACS GOVERNMENT PREMISES--PERSONNEL ACCESS AND COMPLIANCE WITH PROCEDURES

Each ordering entity shall specify any unique Government premises, personnel access, and compliance policies, during the DOSP.

A.1.25.2 NASA GOVERNMENT PREMISES--PERSONNEL ACCESS AND COMPLIANCE WITH PROCEDURES

(a) Access. A portion or all of the work by this contract will be performed at NASA installations or NASA managed sites. The right of ingress and egress to the Government site for Contractor personnel shall be made available as required.

(b) Center specific clauses regarding ingress and egress will be included on each initial delivery order.

A.1.26 SECURITY CLASSIFICATION REQUIREMENTS (1852.204-75) (SEPT 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of Top Secret. See Attachment J, DD254.

A.1.27 SECURITY REQUIREMENTS FOR UNCLASSIFIED AUTOMATED INFORMATION RESOURCES (1852.204-76) (MODIFIED)

(a) In addition to complying with any functional and technical security requirements set forth in the schedule and the clauses of this contract, the Contractor shall initiate personnel screening checks and obtain user responsibility agreements, as required by this clause, for each Contractor employee requiring unescorted or unsupervised physical access or electronic access to the following limited or controlled areas, systems, programs and data. This requirement only applies to those contractor employees who have administrative

system rights; have access to system and application password files; and are considered to be privy to secure information.

(1) The Contractor shall submit a personnel security questionnaire (NASA Form 531, Name Check Request, for National Agency Check (NAC) investigations and Standard Form 85P, Questionnaire for Public Trust Positions, for specified sensitive positions) and a Fingerprint Card (FD-258 with NASA overprint in Origin Block) to the installation Security Officer for each Contractor employee who requires access. The required forms may be obtained from the installation security office. Employees may have fingerprints taken at the [as specified on each delivery order], or at any police department.

(i) Several months may be required for completion of complex personnel screening investigations. Background screening may not be required for employees with recent or current Federal Government investigations.

(ii) When employee access is necessary prior to completion of personnel screening, each Contractor employee requiring access may be considered for escorted access. The installation Security Officer will establish the eligibility of proposed escorts.

(2) The Contractor shall ensure that each Contractor employee requiring access executes any user responsibility agreements required by the Government prior to access. The Contractor shall provide signed copies of the agreements to the installation Security Officer for inclusion in the employee's security file. Unauthorized access is a violation of law and punishable under the provisions of 18 USC 1029, 18 USC 1030 and other applicable statutes.

(3) The Contractor shall notify the installation AIS Manager no later than the end of the day of the termination for cause of an authorized employee's access. The Contractor shall notify the COTR no later than ten days after an authorized employee no longer requires access for any other type of termination. Verbal notifications shall be confirmed in writing within thirty days.

(b) The Contractor shall incorporate this clause in all subcontracts where the requirements identified in paragraph (a) are applicable to performance of the subcontract.

A.1.27.1 SENSITIVE INFORMATION SUPPORT POSITIONS (UNCLASSIFIED)

The Contractor shall provide the DOCOTR with a list of positions that will involve access to, control of access, or the management of sensitive or privacy act desktops or information systems.

A 1.28 PRIVACY ACT NOTIFICATION (52.224-1) (APR 1984)

The Contractor will be required to design, develop, or operate a system of records on individuals, to accomplish an agency function subject to the Privacy Act of 1974, Public Law 93-579, December 31, 1974 (5 U.S.C. 552a) and applicable agency regulations. Violation of the Act may involve the imposition of criminal penalties.

A.1.29 PRIVACY ACT (52.224-2) (APR 1984)

(a) The Contractor agrees to--

(1) Comply with the Privacy Act of 1974 (the Act) and the agency rules and regulations issued under the Act in the design, development, or operation of any system of records on individuals to accomplish an agency function when the contract specifically identifies--

(i) The systems of records; and

(ii) The design, development, or operation work that the Contractor is to perform;

(2) Include the Privacy Act notification contained in this contract in every solicitation and resulting subcontract and in every subcontract awarded without a solicitation, when the work statement in the proposed subcontract requires the redesign, development, or operation of a system of records on individuals that is subject to the Act; and

(3) Include this clause, including this subparagraph (3), in all subcontracts awarded under this contract which requires the design, development, or operation of such a system of records.

(b) In the event of violations of the Act, a civil action may be brought against the agency involved when the

violation concerns the design, development, or operation of a system of records on individuals to accomplish an agency function, and criminal penalties may be imposed upon the officers or employees of the agency when the violation concerns the operation of a system of records on individuals to accomplish an agency function. For purposes of the Act, when the contract is for the operation of a system of records on individuals to accomplish an agency function, the Contractor is considered to be an employee of the agency.

(c)(1) "Operation of a system of records," as used in this clause, means performance of any of the activities associated with maintaining the system of records, including the collection, use, and dissemination of records.

(c)(2) "Record," as used in this clause, means any item, collection, or grouping of information about an individual that is maintained by an agency, including, but not limited to, education, financial transactions, medical history, and criminal or employment history and that contains the person's name, or the identifying number, symbol, or other identifying particular assigned to the individual, such as a fingerprint or voiceprint or a photograph.

(c)(3) "System of records on individuals," as used in this clause, means a group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual.

A.1.30 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (52.228-5) (JAN 1997)

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective--

(1) For such period as the laws of the State in which this contract is to be performed prescribe; or

(2) Until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

A.1.31 MINIMUM INSURANCE COVERAGE (1852-228-75) (OCT 1988)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract:

(a) Worker's compensation and employer's liability insurance as required by applicable Federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability coverage shall be at least $100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

(b) Comprehensive general (bodily injury) liability insurance of at least $500,000 per occurrence.

(c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least $200,000 per person and $500,000 per occurrence for bodily injury liability and $20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

(d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows:

"The insurance company waives any right of subrogation against the United States of America which may

arise by reason of any payment under the policy."

(e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least $200,000 per person and $500,000 per occurrence for bodily injury, other than passenger liability, and $200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least $200,000 multiplied by the number of seats or passengers whichever is greater.

A.1.32 INCREMENTAL FUNDING

A.1.32.1 GWACS INCREMENTAL FUNDING

The DOCO may include Agency specific fixed-price incremental funding clauses in its DO, or may modify the NASA Limitation of Funds clause as appropriate and utilize it. If the NASA clause is utilized, there is no requirement for external agencies to receive a waiver as required by the NASA FAR supplement.

A.1.32 2 NASA INCREMENTAL FUNDING

The DOCO may include the clause 1852.232-77 Limitation of Funds (Fixed- Price Contract), which is hereby incorporated in this contract, in any applicable delivery order issued under this contract. The required NASA FAR Supplement waiver has been obtained.

A.1.33 CONSUMABLES

The Contractor shall make available in the catalog, all consumables (except paper and floppy disks) required for the equipment and services to be supported and function (e.g. printer cartridges) and which could impact the Contractor’s ability to meet a metric. However, tapes or other media that are required for the backup and archiving services provided are the Contractor’s responsibility and are expected to be provided by the Contractor as part of that service.

A.1.34 YEAR 2000 WARRANTY--COMMERCIAL SUPPLY ITEMS

(a) The Contractor warrants that each hardware, software, and firmware product delivered under this contract shall be able to accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations to the extent that other IT, used in combination with the IT being acquired, properly exchanges date/time data with it. If the contract requires that specific listed products must perform as a system in accordance with the foregoing warranty, then that warranty shall apply to those listed products as a system. The duration of this warranty and the remedies available to the Government for breach of this warranty shall be as defined in, and subject to, the terms and limitations of the Contractor's standard commercial warranty or warranties contained in this contract, provided that notwithstanding any provision to the contrary in such commercial warranty or warranties, the remedies available to the Government under this warranty shall include repair or replacement of any listed product whose non-compliance is discovered and made known to the Contractor in writing within ninety (90) days after acceptance. Nothing in this warranty shall be construed to limit any rights or remedies the Government may otherwise have under this contract with respect to defects other than Year 2000 performance.

(b) The contractor shall ensure that any existing installed hardware, software, and firmware product which the contractor has responsibility for as a technology refreshable ODIN seat, or which supports an ODIN seat, that is not Year 2000 compliant at the time of the delivery order award, is made compliant or technology refreshed prior to November 1, 1999, provided the initial delivery order for the ODIN supported item is issued prior to June 30, 1999.

A.1.35 HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT (GOVERNMENT SPECIFICATION) (52.246-11) (APR 1984)

(a) Definition. "Contract date," as used in this clause, means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

(b) The Contractor shall comply with the specification titled “ISO 9000”, in effect on the contract date, which is

hereby incorporated into this contract.

A.1.36 COMMERCIAL COMPUTER SOFTWARE—LICENSING (18-52.227-86) (DEC 1987)

(a) Any delivered commercial computer software (including documentation thereof) developed at private expense and claimed as proprietary shall be subject to the restricted rights in paragraph (d) of this clause. Where the vendor/contractor proposes its standard commercial software license, those applicable portions thereof consistent with Federal laws, standard industry practices, the Federal Acquisition Regulations (FAR) and the NASA FAR Supplement, including the restricted rights in paragraph (d) of this clause, are incorporated into and made a part of this purchase order/contract.

(b) Although the vendor/contractor may not propose its standard commercial software license until after this purchase order/contract has been issued, or at or after the time the computer software is delivered, such license shall nevertheless be deemed incorporated into and made a part of this purchase order/contract under the same terms and conditions as in paragraph (a) of this clause. For purposes of receiving updates, correction notices, consultation, and similar activities on the computer software, the NASA Contracting Officer or the NASA Contracting Officer's Technical Representative/User may sign any agreement, license, or registration form or card and return it directly to the vendor/contractor; however, such signing shall not alter any of the terms and conditions of this clause.

(c) The vendor's/contractor's acceptance is expressly limited to the terms and conditions of this purchase order/contract. If the specified computer software is shipped or delivered to NASA, it shall be understood that the vendor/contractor has unconditionally accepted the terms and conditions set forth in this clause, and that such terms and conditions (including the incorporated license) constitute the entire agreement between the parties concerning rights in the computer software.

(d) The following restricted rights shall apply:

(1) The commercial computer software may not be used, reproduced, or disclosed by the Government except as provided below or otherwise expressly stated in the purchase order/contract.

(2) The commercial computer software may be--

(i) Used, or copied for use, in or with any computer owned or leased by, or on behalf of, the Government; provided, the software is not used, nor copied for use, in or with more than one computer simultaneously, unless otherwise permitted by the license incorporated under paragraphs (a) or (b) of this clause;

(ii) Reproduced for safekeeping (archives) or backup purposes;

(iii) Modified, adapted, or combined with other computer software, provided that the modified, combined, or adapted portions of the derivative software incorporating restricted computer software shall be subject to the same restricted rights; and

(iv) Disclosed and reproduced for use by Government contractors or their subcontractors in accordance with the restricted rights in subparagraphs (d)(2)(i), (ii), and (iii) of this clause; provided they have the Government's permission to use the computer software and have also agreed to protect the computer software from unauthorized use and disclosure.

(3) If the incorporated vendor's/contractor's software license contains provisions or rights that are less restrictive than the restricted rights in paragraph (d)(2) of this clause, then the less restrictive provisions or rights shall prevail.

(4) If the computer software is published, copyrighted computer software, it is licensed to the Government, without disclosure prohibitions, with the rights in paragraphs (d)(2) and (3) of this clause.

(5) The computer software may be marked with any appropriate proprietary notice that is consistent with the rights in paragraphs (d)(2), (3), and (4) of this clause.

A.1.37 OBSERVANCE OF LEGAL HOLIDAYS (1852.242-72) (AUGUST 1992)

(a) The on-site Government personnel observe the following holidays:

New Year's Day
Labor Day
Martin Luther King, Jr.'s Birthday
Columbus Day
President's Day
Veterans Day
Memorial Day
Thanksgiving Day
Independence Day
Christmas Day

Any other day designated by Federal statute, Executive order, or the President's proclamation.

(b) When any holiday falls on a Saturday, the preceding Friday is observed. When any holiday falls on a Sunday, the following Monday is observed. Observance of such days by Government personnel shall not by itself be cause for an additional period of performance or entitlement of compensation except as set forth within the contract.

A.1.38 STATE AND LOCAL TAXES (52.229-1) (APR 1984)

Notwithstanding the terms of the Federal, State, and Local Taxes clause, the contract price excludes all State and local taxes levied on or measured by the contract or sales price of services or completed supplies furnished under this contract. The Contractor shall state separately on its invoices taxes excluded from the contract price, and the Government agrees either to pay the amount of taxes to the Contractor or provide evidence necessary to sustain an exemption.

[END OF ADDENDUM 1]

ADDENDUM 2 OF NAS5-98142 LIST OF ATTACHMENTS

A.2.1 LIST OF ATTACHMENTS

The following table constitutes part of this contract:

Table A.2.1 List of Attachments

ATTACHMENT	DESCRIPTION
A	LIST OF ACRONYMS AND DEFINITIONS
B	DATA REQUIREMENT DOCUMENTS (DRDs)
C	STATEMENT OF WORK (SOW)
D	PLATFORM THRESHOLDS
E	ODIN SERVICE MODEL
F	ODIN PERFORMANCE METRICS
G	CATALOG OF SERVICES AND COMMERCIAL COMPONENTS (CSCC)
H	SUBCONTRACTING PLAN
I	REPEATED EQUIPMENT FAILURE PLAN
J	DD254s
K	RESERVED
L	TRIAGE ASSIGNMENT TABLE
M	LIST OF CENTER MAJOR CONTRACTS/PROJECTS INTERFACES
N	ODIN PERFORMANCE SPECIFICATIONS
O	LIST OF SYSTEMS OF RECORDS ON INDIVIDUALS
P	PRICE LIST
Q	AGGREGATE SEAT BAND PER ORDERING ENTITY
R	TECHNOLOGY REFRESHMENT BASELINE

[END OF ADDENDUM 2]

ATTACHMENT A LIST OF ACRONYMS AND DEFINITIONS

LIST OF ACRONYMS

AC	Alternating Current
AEROnet	Aeronautics Network
AFB	Air Force Base
AIS	Automated Information System
ANSI	American National Standards Institute
API	Application Program(ming) Interface
ARC	Ames Research Center
ASC	American Standard Code for Information Interchange
ASN	Abstract Syntax Notation
ASTT	Aeronautics and Space Transportation Technology
ATM	Asynchronous Transfer Mode
AUI	Attachment Unit Interface
BCDS	Broadband Communication Distribution Systems
BISDN	Broadband Integrated Services Digital Network
BNC	Bayonet Neill Concelman (connector) [electronics]
BRI	Basic Rate Interface
BRI-ISDN	Basic Rate Interface - Integrated Services Digital Network
BRI-kbps	Basic Rate Interface - KiloBits Per Second
CAD	Computer Aided Design (sometimes seen as CAD/CAM)
CAE	Computer-Aided Engineering || Common Application Environment
CAMS	Circuit Assignment Management System
CASE	Computer Aided Software Engineering
CCC	Central Communications Center
CCTV	Closed Circuit Television
CDROM	Compact Disk Read Only Memory
CIO	Chief Information Officer
CLIN	Contract Line Item
CO	Contracting Officer
COMSEC	Communications Security
CONUS	CONtinental United States
COTR	Contracting Officer Technical Representative
COTS	Commercial Off The Shelf (software)
CPU	Central Processing Unit
CRP	Cost Reduction Proposal
CRT	Cathode Ray Tube
CSCC	Catalog of Services and Commercial Components
CSOC	Consolidated Space Operations Contract
DAC	Dual Attached Concentrator
DAS	Dual Attached Station
DAT	Digital Audio Tape
DBMS	DataBase Management System (rdbms for Relational)
DD	Department of Defense (Form)
DFRC	Dryden Flight Research Center
DMA	Direct Memory Access
DNS	Domain Name Service
DOCO	Delivery Order Contracting Officer
DOCOTR	Delivery Order Contracting Officer Technical Representative

DOSC	Delivery Order Selection Criteria
DOSP	Delivery Order Selection Process
DPI	Dots per Inch
DRD	Data Requirements Document
DS1	Digital Signal (level)1
DS3	Digital Signal (level)3
DVT	Digital Video Tape
ECAD	Electronic Computer Aided Design
EDI	Electronic Data Interchange
EDIFACT	EDI for Administration, Commerce and Transport
EIA	Electronic Industries Association
EOSDIS	Earth Observation Data Information System
FDDI	Fiber Distributed Data Interface
FIPS	Federal Information Processing Standards
FTP	File Transfer Protocol
Gbyte	Gigabyte
GFE	Government Furnished Equipment
GIS	Geographic Information System
GOCO	Government Owned Contractor Operated
GOTS	Government Off The Shelf (software)
GSFC	Goddard Space Flight Center
GUI	Graphical User Interface
HEDS	Human Exploration and Development of Space
HiPPI	High Performance Parallel Interface
HPGL	Hewlett Packard Graphics Language
HSSI	High Speed Serial Interface
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
Hz	Hertz (cycles per second)
ICMP	Internet Control Message Protocol
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IFMP	Integrated Financial Management Project
I/O	Input/ Output
IP	Internet Protocol
IPI	Intelligent Peripheral Interface
IPO	Institutional Program Office
ISO	International Standards Organization
ISP	Internet Service Provider
IT	Information Technology
ITS	Information Technology Security
JBOSC	Joint Base Operations Support Contract
JPL	Jet Propulsion Laboratory
JSC	Johnson Space Center
Kbits	Kilobits
Kbps	KiloBits Per Second
Kbytes	Kilobytes
KSC	Kennedy Space Center
LAN	Local Area Network
LaRC	Langley Research Center
LeRC	Lewis Research Center
MAC	Medium Access Control, or Moves, Adds and Changes
MAU	Medium Attachment Unit
Mbit	Megabit

Mbyte	Megabyte
Mbps	Megabits per Second
MFLOPS	Millions of Floating Point Operations Per Second
Mhz	Megahertz
MIB	Management Information Base
MIC	Media Interface Connector
MIPS	Million Instructions Per Second
MOU	Memorandum of Understanding
MPRP	Metrics Performance Retainage Pool
MRSPOC	Multiple Resource Single Point of Contact
msec	Milliseconds
MSFC	Marshall Space Flight Center
MTPE	Mission To Planet Earth
NAD	Network Attached Device
NASA	National Aeronautics and Space Administration
NASCOM	NASA Communications Network
NASTRAN	NAsa STRuctural ANalysis
NEMS	NASA Equipment Management System
NFS	Network File System
NI	Network Interface
NISN	NASA Integrated Services Network
NSI	NASA Science Internet
NSTL	National Software Testing Laboratories
NTE	Not to Exceed
NTP	Network Time Protocol
NTSC	National Television Standards Committee
OC3	Optical Carrier 3 (155 Mbps SONET rate)
OCS	ODIN Communication Services
ODIN	Outsourcing Desktop Initiative for NASA
OMI	Operations and Maintenance Instructions
OODBMS	Object-Oriented Database Management System
OSHA	Occupational Safety and Health Administration
OSI	Open System Interconnect
OSL	Optional Service List
OTV	Operational Television System
PA	Public Address (system)
Pbyte	Petabyte
PC	Personal Computer
PDA	Personal Digital Assistant
PDR	Platform Distribution Report
PHY	Physical Layer Protocol
PM	Program Manager
PMD	Physical Media Device
PPP	Point-to-Point Protocol
PRD	Program Requirement Document
PRP	Performance Retainage Pool
PSCN	Program Support Communications Network
RAM	Random Access Memory
RDBMS	Relational Data Base Management System
RF	Radio Frequency
RFC	Request For Comments
RFP	Request For Proposal
RMON	Remote Monitor/Monitoring
ROM	Read-Only Memory

SAC	Single Attached Concentrator
SAS	Single Attached Station
SCAPE	Self-Contained Atmosphere Protection Ensemble
SD	Support Document
SE	Science and Engineering (workstation)
SFOC	Space Flight Operations Contract
SL	Service Level
SLIP	Serial Line Internet Protocol
SM	Service Model
SMP	Symmetric Multi-Processing
SMT	Surface Mount Technology
SMTP	Simple Mail Transfer Protocol
SNTP	Simple Network Management Protocol
SOMO	Space Operations Management Office
SONET	Synchronous Optical NETwork
SOW	Statement of Work
SPEC	Standard Performance Evaluation Corporation
SPOC	Single Point of Contact
SQL	Structured Query Language
SSC	Stennis Space Center
TBD	To Be Designed/Determined
Tbyte	Terabyte
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TSS	Technical Source Selection (criteria)
TV	Television
UDP	User Datagram Protocol
USAF	United States Air Force
VC	Virtual Circuit
VCR	Video Cassette Recorder
VDT	Video Display Terminal
VHS	Video Home System (VCR)
ViTS	Video Teleconferencing System
VP	View Processor
WAIS	Wide Area Information Server
WAN	Wide Area Network
WAN/ISP	Wide Area Network/Internet Service Provider
WORM	Write Once, Read Many (times)
WWW	World Wide Web

LIST OF DEFINITIONS

Administrative Public Address System - A Center public address system used to disseminate administrative messages and to issue weather warnings. This system is not critical to loss of life or related to mission success. Requirements are identified by Center management or in the Center's Safety Requirement documents.

ATM - Asynchronous Transfer Mode is a technology for multiplexing and switching small units of data called cells. ATM is sometimes called cell switching.

Audio/Video systems - These are components and systems used to provide a Center's local Video Teleconferencing System (ViTS) service (ViTS, as provided via the WAN, is not included). These systems include multimedia service, video network, production television, and other digitized or packetized audio/video services provided at a Center.

Authentication - A security process designed to establish the validity of a transmission, message or originator or to verify an individual's eligibility to receive specific categories of information.

Authorization - The process of granting or denying access to system objects based on an individual or entities identities, roles or other qualifying characteristics (e.g. clearance level).

Availability period - The amount of time the system(s), or the total system, is functioning so that the customer can get work done.

Backoffice - A suite of network server software products that includes; file and application server, an SQL database server, a systems management server, a system network administration server, and an email server.

BISDN - Broadband Integrated Services Digital Network is the architectural model that describes ATM. BISDN is a SONET based digital switching architecture designed to support consolidation of voice, video, and data. BISDN interfaces generally run at a minimum of 150 Mb/s.

BRI - Basic Rate Interface is an ISDN interface composed of two 64 Kb/s channels (called bearer channels) and a 16 Kb/s signaling channel (called D channel). All three channels are multiplexed over one physical transmission media, but can be broken out with a demultiplexing device called a terminal adapter. Typically, one bearer channel is assigned to data and the other to voice applications. This interface is sometimes called 2B+D.

Cable Systems (Cable Plant) - A Center's operational and administrative inter- and intra-facility cable system. This includes loaded and unloaded twisted pair, multimode and singlemode fiber, Cat 3, Cat 5, and Type 1 Premise Wire. It also includes hardwire safing, unique pad and system cables, underground cable duct system, air system for pressurized cables, cathodic protection system, and an automated Circuit Assignment Management System (CAMS).

Certificate - Digital documents attesting to the binding of a public key to an individual or other entity. They allow verification of the claim that a given public key does in fact belong to a given individual. Certificates, also called digital certificates, are issued by a Certificate Authority and contain the public key and other identification information relating to the certificate requester. Most widely used standard for digital certificates is X.509.

Certificate Authority (CA) - A trusted party that issues digital certificates used to create digital signatures and public-private key pairs. The role of the CA is to guarantee that an individual granted the unique certificate is, in fact who he or she claims to be.

Certificate Revocation List (CRL) - A signed, time-stamped list of public key certificates that have been revoked or are no longer valid. A public key certificate is revoked when the associated key pair is no longer trusted or that key pair is simply not used anymore.

Close of Business (COB) - 6:00 p.m. local time at the installation where the service is to be provided.

Close of Business Next Business Day - 6:00 p.m. local time the day after a trouble ticket was issued.

Communication System (Transmission System) This system has the communication infrastructure necessary to ensure the reliable transmission of information between any two points within a given Center's logical boundaries. Unless otherwise specified, each Center's logical boundaries will correspond to its physical boundaries.

Confidentiality - Assurance that information is not disclosed to unauthorized entities or processes.

Contiguous Hours - The block of time from when a trouble ticket is placed until the trouble ticket is resolved regardless of whether or not the principal period of maintenance has ended. However, the trouble ticket must have been placed during the principal period of maintenance.

Cryptographic Token - A piece of hardware or software which contains cryptographic information about the user. Examples of this information would be the distinguished name, public and private keys, and certificates.

Cryptography - The principles, means and methods for rendering information unintelligible (i.e. encrypted), and for restoring encrypted information to an intelligible form.

Custom Applications - These applications are software programs and/or systems developed specifically to perform a NASA function. These applications are not available as a Commercial-off-the-shelf software product. The software may be written by a software development company, NASA contractor, or civil servant. This software is sometimes known as Government-off-the-shelf (GOTS).

Customer Satisfaction - Customer satisfaction is how pleased the customer is with the services provided by ODIN.

Data Encryption Standard (DES) - The government approved cryptographic algorithm for the protection of unclassified data. DES which was approved by the National Institute of Standards and Technology (NIST) is intended for public and government use.

Data Integrity - Condition that exists when data is unchanged from its source and has not been accidentally or maliciously modified, altered or destroyed.

Data Privacy - Protect information from being disclosed or revealed to unauthorized entities (also known as confidentiality).

Denial of Service - Any action or series of actions that prevent any part of a system from functioning in accordance with its intended purpose. This includes any action that causes unauthorized destruction, modification or delay of service.

Desktop Administration - Services provided in the operation and maintenance of an individual's desktop computer. This includes services such as installation of a new system, hardware upgrades, relocation and removal of hardware, installation and upgrade of software applications and operating system. It also includes configuration of hardware and software, backup and restore, performance monitoring and tuning, problem tracking and error detection, needs assessment, procurement, disposal, and inventory management.

Desktop Computer - Distributed computing resource, either networked or standalone, consisting of a CPU, keyboard, monitor, and a screen manipulation device, such as a mouse. This typically includes PCs, Apple Macintoshes, UNIX based workstations, X-terminals and other terminals. This definition excludes mainframes, supercomputers and midrange computers.

Desktop Configuration - The hardware and software characteristics associated with a desktop computer (UNIX, PC, Macintosh, X-Terminal). Hardware characteristics include: CPU, RAM, amount of disk storage, size of monitor, cards installed in the system unit, and devices attached directly to the system unit. Software characteristics include: identification of COTs application software in use on the workstation, operating system, and a description of any commonly distributed custom applications.

Digital Signature - An authentication mechanism that allows any recipient to prove the source and integrity of received data. The authentication process involves making a mathematical summary (known as a hash) of data and signing the hash with a private key known only to a specific authorized user. The signature can be verified by any other user who has the corresponding verification public key. A digital signature provides a guarantee to a recipient that the data from the person who sent it, and that is was not altered since it was signed.

Digital Signature Algorithm (DSA) - The government approved algorithm which implements the Digital Signature Standard (DSS). This is the government approved standard for digital signatures.

Distinguished Name (DN) - A globally unambiguous name.

Distributed Software - This is software utilized by the end user, either directly or indirectly, to do their work. The

software may be resident on the desktop computer, or on a shared device such as an application server. Desktop software is divided into three types: operating system, utilities, and applications. Operating system software includes, but is not limited to, Windows 95, Windows NT, MacOS, and UNIX. Utility programs perform functions such as disk management, file backup/recovery, file compression, memory management, security, and virus protection. Application programs encompass a wide variety of programs required by the end users to perform their work. Examples of programs in this category are word processors, spreadsheets, email, groupware, desktop publishing, programming languages, compilers, data base managers, and engineering tools.

Downtime - The amount of time when an end user's access to ODIN services is impaired. Downtime for each incident shall be the period between the time of failure and the time that the system is returned to the Government fully operational.

Due Diligence – The purpose of Due Diligence is for the Contractor to validate the inventory and environment portrayed during the master contract award and account for any changes which have occurred between contract award and the DOSP. If there is a discrepancy found which exceeds parameters, then a due diligence price adjustment will be submitted as part of the DOSP. The Due Diligence period shall be limited to thirty (30) days at each Center unless a longer period is granted by the Center.

Encryption - The process of scrambling data in a highly controlled manner. After encryption, the data is unreadable. Before a recipient can read encrypted data, it must be decrypted or unscrambled. Encrypted data is sometimes referred to as cipher text, unencrypted data is sometimes referred to as plain text.

End-to-End Encryption - The protection of information passed in a telecommunications system by cryptographic means, from point of origin to point of destination.

Enterprise – One of NASA's four primary business areas for implementing NASA's mission and serving its customers (ASTT, HEDS, MTPE, and OSS).

FAX System - This includes administrative and operational plain paper facsimile systems. Local services are provided through local telecommunication facilities at each NASA Center with NISN and commercial interfaces required for inter-center, commercial, and international facsimile services.

Functional Category - Groupings that have been established to describe the various purposes for use of a desktop computer within NASA.

Groupware - COTS software that allows individuals to work in cooperation and collaboration for a common goal. Examples of groupware are electronic forms software and collaborative tools such as SamePage. For the purpose of this RFP, do not include software products considered part of the basic office automation suite.

Hash Function - A one-way function that takes an input string and converts it to a fixed-size output string.

Heterogeneous – Environment in which platform architecture may differ within a given seat type.

Homogenous - Environment in which platform architecture is consistent within a seat type.

Infrastructure - The active and passive components used to transfer information between two points. Infrastructure includes, but is not limited to, cable plant, premise wiring, phone switch, routers, hubs, concentrators, ethernet switches, and antennae. See also ODIN Communication System.

Institutional Program Office – The strategic management element through which NASA ensures alignment between programs and institutional capabilities. The Enterprise Associate Administrator with the dominant activity at each Center is designated the Institutional Program Officer for that Center.

Internet Tools - Commercial-off-the-shelf software products that allow an individual to perform functions on the Internet, such as web browsing, file transfer, web server, and telnet.

Interoperability - The concept of having free and open methods to share data and IT services among different products of a similar functional capability. Interface standards are adhered to for the maintenance of service availability and consistent access methods. The use of proprietary features is discouraged. Functional categories for service for which NASA has defined interoperability standards include: desktop systems; server systems; printing; network communications; word processing, spreadsheet and presentation applications; calendar and scheduling applications; application serving and license management.

ISDN - Integrated Services Digital Network is a narrow band architecture for supporting voice and data services through the existing phone network.

Key Exchange - A means of exchanging a cryptographic key from one entity to another in a secure fashion.

Key Exchange Algorithm (KEA) - A National Security Agency (NSA)-designed algorithm to exchange secret keys.

Key Management - The process of managing keys. This includes ensuring that key values generated have the necessary properties and making keys known in advance to the parties that will use them. The process also ensures that keys are protected as necessary against disclosure and/or substitution.

LAN Fast - A service level that provides a single standard Fast Ethernet (typically 100baseT) or FDDI connection with a guaranteed throughput capability of 30 megabit per second for files of 10 megabytes or less in size.

LAN Huge - A service level that proposes that the standard should be ATM at 155 megabit per second with guaranteed throughput capability greater than 100 megabit per second for files 50 megabytes or less in size. This service level will only be available upon Center review and approval.

LAN Regular - A service level that provides a single standard Ethernet connection (typically an IEEE 802.3 10baseT) with a guaranteed throughput capability of 3 megabit per second for files of 1 megabyte or less in size.

Local Area Network (LAN) - Data network system used to provide connectivity within a Center's logical boundary. In most cases the extent of a Center's logical boundary can be defined by the service area associated with a given Center's assigned TCP/IP address space. This includes inter- and intra-building cable plant or fiberplant, Metropolitan Area Network connections, backbones, and any active or passive components required to provide service from the desktop up to any non-ODIN LAN or WAN/ISP interface.

Local Video Distribution System - A Center’s administrative video distribution system that provides feeds of NASA Television, commercial off-air channels, satellite channels, weather, training, and Operational Television to the Center employee work areas. Systems usually consist of satellite and TV receivers, distribution system [Distribution methods can include CCTV or Broadband Communication Distribution Systems (BCDS)] and monitors.

Mission Critical Systems (Operational Systems) - The systems used to support critical functions such as: Emergency Warning Systems, Operational Video Systems, Operational Voice Systems, Operational LAN Systems, Operational Intercommunication Systems, Operational Fire and Security Systems, Secure Voice Systems (COMSEC), Timing and Countdown Systems, Operational RFD Systems, and Operational Photo Systems.

Mission Critical Uplift - Uplifting the respective service level for a set of desktop seat services to its highest (most stringent) value in terms of performance and service characteristics. The set of services affected in this manner is Hardware Maintenance, System and Applications Software maintenance, Help Desk and System Administration.

Moves, Adds, and Changes - The de-installation, move, and re-installation of system hardware. This also includes installation of system software and catalog software when ordered.

Multi-homed - This term is used to refer to a network device that uses a single TCP/IP address, and is connected twice to the same LAN segment. This is not the same as a dual FDDI that has two connections. However, each connection is connected to a separate LAN segment.

Near-site - A business or other government agency affiliated with NASA that is within a five mile radius of a NASA Center. This term is usually used in the context of defining a location supported by NASA.

Network - A collection of Local Area Networks under the administrative control of one organization (usually a Center). Networks typically use backbone technology to interconnect LANs and are themselves interconnected with the Center transmission system.

Network Interface - A network interface consists of the physical, logical and management connections where there is a distinct change in management responsibility or technical implementation. This can occur between two distinct networks or between a user device and its supporting network. For the purposes of this RFP, the network interface refers to the interconnection between two networks, the NISN and the Center transmission system, for example.

NISN - NASA Integrated Services Network. This is NASA's new common use communications service network. This network will replace the independent special purpose networks that have served individual customers for decades. This includes the Program Support Communications Network (PSCN), NASA Communications Network (Nascom), Aeronautics Network (AEROnet), NASA Science Internet (NSI) and Earth Observation Data Information System (EOSDIS) and Backbone Network (Ebnet).

Non-Repudiation - The method by which the sender of data is provided with proof of delivery. The recipient is assured of the sender's identity. And, neither can later deny having processed the data.

ODIN Communication System - The ODIN Communication System includes: LANs up to the WAN/ISP interface, Voice Systems, Audio/Video Systems (ViTS, as provided via the WAN, not included), Facsimile Systems, Pager Systems, Remote Communication, and Wireless Systems.

Office Automation Software - Software that is used across the Agency, or at the Center level, that automates office functions. This includes, but is not limited to, word processing, spreadsheet, presentation graphics, and electronic mail.

Off-Net Interface - Off-Net interfaces are those connections that join two networks in which the primary backbone communication method of one network is not the primary backbone of the other. The off-net connection facilitates communication between the two networks only and is usually for a specific purpose or task. Examples of this type of connection are those found between NASA and contractors, universities and the Internet.

Off-site - A business or other government agency affiliated with NASA that is more than a five mile radius of a NASA Center. This term is usually used in the context of defining a location supported by NASA.

On-Net Interface - On-Net interfaces are those connections that attach an enterprise (NASA networks) to a common communications backbone infrastructure. These connections join NASA sites together using private backbone networks, such as NISN.

On-site - A business or other government agency affiliated with NASA that is located on a NASA Center. This term is usually used in the context of defining a location supported by NASA.

One-way Function - A function that is relatively easy to compute but significantly harder to undo or reverse.

Operational Analog and Digital Transmission System - A Center unique operational, inter-facility, data transmission and backbone system for analog and digital signals over copper or fiber optics. Prime use is for operational data but institutional data system can also be supported. Therefore total transmission system supports a higher level of system than an institutional backbone. Systems at each Center will vary. Examples of data systems supported are analog signals to 12 MHz, RS250C short or medium haul video, RS-232, EIA 530, RS 422/423, DS1, DS3, SONET OC-3, SONET OC-12, FDDI, ATM OC-3, and ATM OC-12

Operational Communication Support - A Center's customer service desk to handle operational communication trouble reporting, communication scheduling, outage processing, work order scheduling, and Operations and Maintenance Instructions (OMI) call outs. This is similar to the Center's normal help desk. However, it has additional responsibilities to aid in the smooth integration of communication into the daily processing of a launch vehicle and its payload.

Operational/Emergency Paging and Area Warning Systems - A Center unique voice announcement and alert system used to issue operational instructions, evacuation instructions and weather warnings for personnel working in operational and hazardous facilities. These systems are very similar to an Administrative Public Address but can also include redundant hardware, battery or UPS power, explosive proof speakers, evacuation and weather alert tones, and rotating beacon in high noise areas. Due to the critical nature of these systems, any failure could result in loss of life. Requirements are identified in a Center's Safety Requirement documents.

Operational/Mission Critical Systems - Functions that may be unique to a Center and are considered to be of highest priority. These functions include, but are not limited to, wind tunnels, engine test cells, flight hardware processing, and launch, flight, and landing operations.

Operational Television System - A Center unique video system that supports remote monitoring of critical operations. The video provided by OTV is typically very high quality. System consists of cameras, pan and tilt units, video switchers, distribution system, video recorders and monitors. Requirements are usually identified in a

Program Requirement Document (PRD) or Support Document (SD).

Operational Voice System: A Center's voice system supporting the operational checkout and launch of a space vehicle and its payload or supporting a Center's primary operational program. This system can include operational intercommunication systems, voice conferencing equipment, audio distribution systems, voice/data multiplexing equipment, voice recording, secure voice (COMSEC), point-to-point ring down systems, off-site distribution equipment. Requirements are usually identified in a Program Requirement Document (PRD) or Support Document (SD).

Other NADs – Network Attached Devices which are not desktop systems and will require connectivity to the network backbone.

Pager systems - These systems would include Centerwide pager services, local or regional pager services, and national/international pager services necessary to support NASA requirements.

PDA - Personal Digital Assistant. A small, portable, usually hand held computing device. An example would be Apple's Newton Message Pad.

Personal Computer Memory Card International Association (PCMCIA) - A "standards-based" format for credit-card-sized computer I/O cards.

Personal Peripherals - Peripheral devices attached to individual desktops or workstations. This includes printers, scanners, plotters, modems, external hard disks, etc.

Photo Optical System - The Photo Optical Control System provides redundant control and monitoring of high-speed photographic cameras used for Shuttle Launches and Landings. These cameras are placed in areas that cannot be staffed. The system provides various control capabilities unique to the Launch environment.

Premise Wiring System - This also known as structured wiring. Premise wiring is the physical component of a transmission system for distribution within a building. Current premises wiring systems are general systems that support a variety of communication standards. For the purposes of this RFP the premises wiring system refers to an organized array of cabling and documentation capable of meeting a wide variety of communications requirements including data networks

PRI - Primary Rate Interface is an ISDN customer interface at the DS-1 rate. It is composed of 23 64 Kb/s bearer channels and one 64 Kb/s D channel for signaling. See also BRI and BISDN.

Protocols - Protocols are conventions and algorithms for the transmittal of information over the network. Protocols exist at various layers of the stack and are often used to perform a specific function, a unique network service or application. Service protocols work in conjunction with the transport protocols to complete the required function(s). Examples of service protocols are the Simple Mail Transfer Protocol (SMTP), Simple Network Management Protocol (SNMP), File Transfer Protocol (FTP), and hypertext Transfer Protocol (HTTP).

Public Affairs Audio/Video System - The Center unique audio/video production/distribution system that provides the greatest dissemination of NASA related information to the public and news media. Production quality audio/video is the standard. System equipment generally consist of cameras; recorders; production studio; video transmission equipment; audio signal amplification, conditioning and mixing; and portable public address systems

Public-Key Cryptography - A cryptographic system where a pair of different but mathematically related keys are used to separate the functions of encryption and decryption. The secret (or private) key is kept secret and is used mostly for decryption. The public key, which does not have to be secret, is used for encryption. The mathematical relation between the key is such that, given knowledge of the public key, it is not feasible to determine the private key.

Remote Access - Logging into a NASA computer system through a network or modem to execute a command or manipulate data on that system.

Remote Communication - The services that allow a remote user to connect with an address assigned out of the Center's internal assigned address space. Typical examples of this type of connectivity include: asynchronous modem/terminal server/dial-in service, ISDN service, and some wireless modem services. An example of remote connectivity that does not meet this definition would be dialing in through a local or national ISP (e.g. America On

Line) and connecting into a Center via the Internet.

Return to Service - The time taken to resolve the user's problem to the state that the end user has full functionality restored as specified in the Service Level Model.

Routing Protocols - Protocols used specifically for the purpose of providing the information necessary to select and/or resolve the optimum path between the required end nodes of a network based system. This includes the traversal of any intermediate nodes or connection points between these end nodes needed to establish a virtual communications circuit.

Scheduled Outage - The maintenance, testing, or other contractor-initiated activity that impacts the user's ability to access ODIN services. A scheduled outage is not considered downtime if the outage is not during prime business hours and affected users have at least three days advance notice.

Secure Multipurpose Internet Mail Extension (S/MIME) - A new version of the MIME protocol that supports encryption of messages. S/MIME is based on RSA's public-key encryption technology. MIME is a protocol for formatting non-ASCII messages so that they can be sent over the Internet.

Secure Socket Layer (SSL) - A protocol developed by Netscape Inc. for transmitting private documents via the Internet. SSL works by using a private key to encrypt data that is transferred over the SSL connection.

Security Systems - Defined to be only those that directly support a given communication service. Examples of systems that would be included are: firewall or fireridge security systems, phone or fax encryption systems, authentication or certification systems, and WWW or e-mail proxy systems.

Security Uplift – Raising the level of support provided to a seat to meet the requirements for classified information support. This is applicable only to seats that do not already have this support.

Server Administration - Services provided in the operation and maintenance of server. This includes services such as installation of a new server and additional hardware, installation and upgrade of software applications and network operating system, and configuration of hardware and software. This also includes account management, backup and restore, performance monitoring and tuning, security monitoring, problem tracking and error detection.

Service Category - A classification for a group of services associated with a specific functional use of a desktop computer. This is comprised of service characteristics for the type of support needed by an individual performing a specific desktop computer function. A suite of services will be packaged into a service category to define a service level agreement. A desktop computer user will select a service category from the ODIN contract that best meets his service requirements.

Service Level - A unit used to identify characteristics and metrics that defines a particular type of support to be provided by the Contractor. Multiple service levels may be needed for a type of service, such as hardware maintenance, to provide various degrees of support needed by a desktop computer user.

Shared Peripherals - These are peripheral devices available to the end user through a local area network. This includes printers, scanners, plotters, modems, CD-ROMs, etc.

Smart Card - A smart card is the size and shape of a standard credit card. Imbedded in the plastic is a complete microprocessor, memory, and I/O interface. To use a smart card either to pull information from it or add data to it, you need a smart card reader, a small device into which you insert the smart card. Smart cards can provide a level of security higher than software-only implementations.

Software Release - The date that a software developer makes their software product publicly available. This date is often used in determining when a software product is deployed to the computer desktop.

Tenant(s) - Non-NASA government agency personnel located at a NASA Center or a NASA supported site (e.g. USAF personnel at Patrick AFB).

Throughtput Capability - This is used to describe the rate at which data can be transferred over a network. It means that the physical connection point into the operating network would be able to support transferring information at this rate. It does not necessarily mean that the computer is powerful enough to transfer information at this rate. The performance requirements will correspond to the slower of either the sender or the receiver of the

data transfer. The throughput is to be verified with a standard set of hardware and software. The validation procedure of throughput capability shall be performed at any time during the day. If the specifications are not met, the network shall be considered down.

Timing and Countdown System - A Center's timing and countdown system that provides and distributes frequency reference signals, launch countdown signals, time of day and universal time code throughout the Center. Visual displays are also provided to customers along with electric signals.

Transport Protocols - Protocols used specifically to provide the data transfer mechanisms necessary to establish and maintain a reliable communications link to transmit data across a network. These protocols are independent of the media and topology of the underlying subnetworks.

Two-Way Radio System: A Center's RF two-way voice system that supports fire, security, medical, safety, transportation, base maintenance or operational/critical functions. The system can be fixed frequency or trunked radio and stand alone or part of a base wide system. Due to the criticality of the operations, two-way radio systems can be classified as either Administrative for essential base support or Operational for critical support operations. Systems usually consist of hand held and mobile transceivers, associated base stations, remote units and dispatch consoles. The Administrative Radio System is a Center's RF two-way voice system that supports fire, security, medical, safety, transportation, base maintenance functions. This system usually consists of hand held and mobile transceivers, associated base stations, remote units and dispatch consoles. The Operational Radio System is a Center unique radio system or part of a base wide system that supports critical operations. Examples: Air-ground radio, crane radio systems, SCAPE radio systems, Transporter operations. Failure of the radio system could result in damage to flight hardware or loss of life. Requirements are usually identified in a Program Requirement Document (PRD) or Support Document (SD).

Users Affected - The calculation of the number of users impaired by outages. No user shall be counted more than once per hour of downtime even if more than one of their ODIN services is not available. The total number of users impaired shall not exceed the number of end users for whom ODIN provides services. If the number of users impaired cannot be measured with certainty, the Contractor shall estimate the number of users impaired using the rules below based on the best information available, subject to COTR approval.

(a) Connectivity Server, file, print, and related services - When a resource is impaired or not available, those end users that have access rights to that resource shall be counted as affected. If the resource is accessible to a majority of end users (possibly all users), then the number of users in the organization to whom the resource is primarily assigned shall be counted as affected.

(b) Connectivity Services - If the connectivity outage affects a user's access to ODIN services, those users shall be counted as affected. If a connectivity outage only affects interfaces to non-ODIN services, the estimated average number of users per hour who access that non-ODIN service shall be counted as affected.

(c) ODIN Communication Services (OCS) - If an OCS outage affects a user's access to their OCS service, the user shall be counted as affected.

(d) Name Services - The number of users affected shall be the number of entries in the name space who receive OCS.

(e) Desktop Seats - The number of end users who use an ODIN provided solution for their desktop functionality shall be counted as affected.

Video Teleconferencing System (ViTS) - Video teleconferencing system available to all Center personnel that supports face-to-face communications with one or more persons at different locations.

Voice systems - Components and systems used to provide desktop and other Center -related telephone service(s), voice-mail services, voice based conferencing services (e.g. meet-me), intercom services, conference room sound reinforcement services, and wireless/cellular phone services.

Wireless LAN Systems - The components and systems used to provide network connectivity within a Center for ODIN or non-ODIN systems without requiring 100% physical cable plant connectivity. Examples of these are infrared, laser, and radio based interconnection services.

Workstation - This is a networked or standalone computer. This computer is normally used for calculation or graphics intensive applications. It includes the CPU, monitor, keyboard, and a mouse or other screen manipulation devices.

[End of Attachment A]

ATTACHMENT B DATA REQUIREMENT DOCUMENTS

B.1 BACKGROUND

Table B.1 identifies the data requirement documents (DRD) for this contract. Centers/Enterprises will define any additional reporting requirements during DOSP.

Table B.1 DRD Listing

DRD NO.	SECTION	DRD TITLE
ODIN-1	C.5.6.4	Asset Reporting Requirements
ODIN-2	C.6	Performance Metrics
ODIN-3	C.8.3	Sensitive Information Report
ODIN-4	C.10	Emergency Preparedness Plan
ODIN-5	C.5.2	Telephone Directory

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION **GODDARD SPACE FLIGHT CENTER GREENBELT, MD 20771**	**DATA REQUIREMENT DESCRIPTION**	**1. CONTRACT #: NAS5-98142** **2. DRD #:** ODIN-1 Page 1 of 1
3. TITLE: ASSET REPORTING REQUIREMENTS		
SUBMITTAL REQUIREMENTS		
4. TYPE:	**5. FREQUENCY OF SUBMISSION:** Periodically	
6. DISTRIBUTION: DOCO & DOCOTR	**7. INITIAL SUBMISSION**: DOSP + 3 months	
8. REMARKS: The Contractor shall provide electronic access to its database information and allow the information to be downloaded.		
DATA REQUIREMENT DESCRIPTION		
9. USE: Asset tracking, analysis and strategic planning		**10. REFERENCE:** C.5.6.4 **11. INTERRELATIONSHIP**: C.5.6.1 & C.5.6.3

12. PREPARATION INFORMATION:

1) The Contractor shall submit electronically any periodic reports it generates for its own internal use in managing this requirement.

2) At the end of the contract, this information shall be provided on electronic media.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION **GODDARD SPACE FLIGHT CENTER GREENBELT, MD 20771**	**DATA REQUIREMENT DESCRIPTION**	**1. CONTRACT #: NAS5-98142** **2. DRD #:** ODIN-2 Page 1 of 1
3. TITLE: PERFORMANCE METRICS		
SUBMITTAL REQUIREMENTS		
4. TYPE:	**5. FREQUENCY OF SUBMISSION**: Level 1 & 3 Metrics - Monthly Level 1,2 & 3 - Continuous electronic access	
6. DISTRIBUTION: DOCO & DOCOTR	**7. INITIAL SUBMISSION:** DOSP + 1 month and monthly thereafter	
8. REMARKS: The Contractor shall provide, maintain, and execute the tool(s) required to capture all metrics. However, the Government requires the right to access the tools on request.		
DATA REQUIREMENT DESCRIPTION		
9. USE: Evaluate the service performance and time based trends.		**10. REFERENCE**: C.6 **11. INTERRELATIONSHIP:** F.1.1, F.1.2, & F.1.3

12. PREPARATION INFORMATION:

1) LEVEL 1 METRICS: The Contractor shall calculate and report service delivery, availability, and customer satisfaction metrics for each functional area. The functional areas include Desktop User services, Phone service Fax service, Local Video service Administrative Radio service, and Public Address service. The Contractor shall use the same information to create and report quarterly and annual roll-ups.

2) LEVEL 2 METRICS: Contractor specific metrics will augment or provide greater detail than Level 1 metrics and identify key specific areas of interest (such as the measurement of proactive, vendor discovered versus user discovered, problems). These metrics will be specified by the Contractor and will be used to augment, validate, and ensure the completeness of the Level 1 metrics; however, regular reporting of contractor specific metrics to the Government is not required. These metrics shall also be used to ensure the impartiality, effectiveness, and consistency of the overall metric gathering and reporting process.

3) LEVEL 3 METRICS: The Contractor shall create a set of metrics, comprised of the previously reported Level 1 and contractor specific metrics, which will allow for the evaluation of time based trends. These metrics will illustrate ODIN service level trends over the previous three month or greater period.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION **GODDARD SPACE FLIGHT CENTER GREENBELT, MD 20771**	**DATA REQUIREMENT DESCRIPTION**	**1. CONTRACT #: NAS5-98142** **2. DRD #:** ODIN-3 Page 1 of 1
3. TITLE: SENSITIVE INFORMATION REPORT		
SUBMITTAL REQUIREMENTS		
4. TYPE:	**5. FREQUENCY OF SUBMISSION:** As Necessary	
5. DISTRIBUTION: DOCO and DOCOTR, the NASA system owner, and the NASA information owners	**7. INITIAL SUBMISSION**: Immediately if an incident occurs or DOSP + 1 month	
8. REMARKS: The Contractor shall perform an assessment to determine position sensitivity and management controls to prevent the individuals in these positions from bypassing controls and processes such as individual accountability requirements, separation of duties, access controls, and limitations on processing privileges. The Contractor shall also conduct initial risk assessments, document the results, and maintain IT Security Plans.		
DATA REQUIREMENT DESCRIPTION		
9. USE: Ensure the personnel with access to sensitive information have appropriate security clearance; Analyze system vulnerability and document risk mitigation plans.		**10. REFERENCE**: C.8.3 **11. INTERRELATIONSHIP:** C.8.5

12. PREPARATION INFORMATION:

1) Position sensitivity assessments will be forwarded to the Contracting Officer or COTR, the NASA system owner, and the NASA information owners for a determination of personnel suitability requirements for individuals assigned to the positions. Ongoing re-evaluations of the positions and suitability requirements will be necessary during the life of the contract as positions and assignments change.
2) The Contractor shall conduct initial risk assessments, document the results, and maintain IT Security Plans in accordance with the IT security requirements in effect at the Center at which the system is operated.
3) The Contractor shall promptly report to the Center Information Technology (IT) Security Manager any suspected computer or network security incidents occurring on any systems.
4) The Contractor shall update the risk assessments and IT Security Plans (within 30 working days) and shall make appropriate risk reduction recommendations to the NASA system owner and the NASA information owners (within 5 working days).
5) The Contractor shall identify, track, and report the number of occurrences that the Contractor enhanced or regular administered system has been entered without valid authorization, and the number of occurrences of unauthorized access or denial of service attack.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION **GODDARD SPACE FLIGHT CENTER GREENBELT, MD 20771**	**DATA REQUIREMENT DESCRIPTION**	**1. CONTRACT #: NAS5-98142** **2. DRD #: ODIN-4 Page 1 of 1**
3. TITLE: EMERGENCY PREPAREDNESS PLAN		
SUBMITTAL REQUIREMENTS		
4. TYPE:	**5. FREQUENCY OF SUBMISSION:** Annually	
6. DISTRIBUTION: DOCO & DOCOTR	**7. INITIAL SUBMISSION:** DOSP + 1 month	
8. REMARKS: The Contractor shall develop procedures and implementation plans to ensure that IT resources are protected and that acts of nature have been considered. Center specifics will be provided at DOSP.		
DATA REQUIREMENT DESCRIPTION		
9. USE: Safeguard IT resources against natural threats and hazards.		**10. REFERENCE:** C.10 **11. INTERRELATIONSHIP:**
12. PREPARATION INFORMATION: 1) Address potential life threatening or property damaging emergencies. 2) Identify core critical systems. 3) Define procedure to ensure equipment and data protection and the restoration in a timely manner. 4) Define procedure for personnel notification of protection of equipment in case of emergency.		

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION **GODDARD SPACE FLIGHT CENTER GREENBELT, MD 20771**	**DATA REQUIREMENT DESCRIPTION**	**1. CONTRACT #: NAS5-98142** **2. DRD #: ODIN-5 Page 1 of 2**
3. TITLE: TELEPHONE DIRECTORY		
SUBMITTAL REQUIREMENTS		
4. TYPE:	**5. FREQUENCY OF SUBMISSION:** Annually	
6. DISTRIBUTION: One hardcopy telephone directory per phone instrument.	**7. INITIAL SUBMISSION:** Specified at DOSP	
8. REMARKS: The contractor shall provide electronic access (such as an X.500 service) to its telephone directory and produce a Telephone book annually.		
DATA REQUIREMENT DESCRIPTION		
9. USE: Personnel locator service.		**10. REFERENCE:** C.5.2 **11. INTERRELATIONSHIP:**

12. PREPARATION INFORMATION:

The Telephone directory shall include the following information:

1) An alphabetical section, containing:
   a) Telephone extension
   b) Name
   c) Building
   d) Room number
   e) Company name
   f) Voice mail indicator
   g) Mail code
   h) Contractor/civil service indicator
   i) E-mail address
   j) Pager number

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION GODDARD SPACE FLIGHT CENTER GREENBELT, MD 20771	DATA REQUIREMENT DESCRIPTION	1. CONTRACT #: NAS5-98142 2. DRD #: ODIN-5 Page 2 of 2

3. TITLE: TELEPHONE DIRECTORY

DATA REQUIREMENT DESCRIPTION

12. PREPARATION INFORMATION (cont.):

2) An organizational section, including the following for all managers and their secretaries:
   a) Full name
   b) Official title
   c) Building
   d) Room number
   e) Telephone extension.
3) A listing, to be used in emergency situations, of the following telephone numbers:
   a) Emergency number
   b) Fire department
   c) Ambulance service
   d) Security
   e) Utilities
   f) Safety
   g) Hazardous material disposal
   h) Facilities
4) A table of contents.
5) General information concerning use of the telephone, voice mail, video and voice teleconference systems, and how to submit telephone changes.
6) A listing of official NASA addresses and contacts.
7) A listing of corporate representatives and addresses, as well as a listing of contractor abbreviations.
8) A listing detailing how to contact the Inspector General's office.
9) A map of telephone area codes for the U.S.
10) A pictorial organizational chart of Center senior staff.
11) A listing of Center safety representatives by Center organization.
12) A business directory section of Center services provided (yellow pages).
13) A listing of conference and video teleconference rooms, including the following:
   a) Building and room number
   b) Telephone extension
   c) Room seating capacity
   d) Telephone number, name, and organization code of contact for room reservations.
14) A listing of fax machines available
   a) Building
   b) Room
   c) Telephone extension
   d) Name and telephone extension of contact for each machine.
15) A map showing location of buildings at the Center.
16) Additional pages as approved by the DOCOTR

End of Attachment B

ATTACHMENT C STATEMENT OF WORK

C.1 BACKGROUND

C.1.1 ODIN is intended to develop a long-term outsourcing arrangement with the commercial sector which transfers to it the responsibility and risk for providing and managing the vast majority of NASA's desktop, server, and intra-Center communication assets and services as the Agency downsizes and refocuses IT personnel to Agency core missions. Additionally, this contract may be utilized by other Agencies with external agency order placement and administration being handled in accordance with the procedures specified by the GSA/FTS organization. NASA considers its desktop, server, and intra-Center communications assets vital to its success as the world leader in aeronautics, space exploration, and scientific research. NASA personnel use IT to support NASA's core business, scientific, research, and computational activities. As NASA continues to downsize its civil service workforce, the Agency strives to optimize the productivity of its workforce through the efficient use of desktop computers, high performance networks, and sophisticated applications. It is imperative that the commercial sector deliver cost-effective ODIN services which meet NASA mission and program needs while achieving a high level of customer satisfaction.

C.1.2 NASA is a highly decentralized organization consisting of its Headquarters and nine field Centers: Ames Research Center (ARC), Dryden Flight Research Center (DFRC), Goddard Space Flight Center (GSFC), Johnson Space Center (JSC), Kennedy Space Center (KSC), Langley Research Center (LaRC), Lewis Research Center (LeRC), Marshall Space Flight Center (MSFC), and Stennis Space Center (SSC). For the purposes of this SOW, HQ is referred to as a center. Each Center has a unique mission and diversified capabilities, and may have satellite facilities which are considered a part of the Center. ODIN services must be delivered effectively and efficiently within this dispersed organizational structure and ensure that Agency and Center IT architectural, interoperability, and other functional requirements are met and maintained as IT evolves and is added to the Agency's environment. In addition to these ten centers, the Jet Propulsion Laboratory (JPL) is a Government Owned, Contractor Operated (GOCO) facility currently operated by the California Technology University. Services will not be provided by the Contractor to JPL as JPL has a separate outsourcing contract.

C.2 SCOPE

C.2.1 The Contractor is required to deliver comprehensive, end-to-end desktop, server, and intra-Center communications services, including associated capital infrastructure improvements, as well as maintenance and enhancements to that infrastructure, throughout the term of the contract. ODIN is expected to provide the vast majority of desktop, server, and intra-Center communications IT capability at most NASA Centers and those external agencies choosing to use these contracts.

C.2.2 In general, desktop services are to be provided on a per "seat" basis where all required service components are bundled. Several different seat types are required to be provided, as described in the Service Model, Attachment E. For all of the services, management of the necessary LAN communications infrastructure is expected to be bundled with each service offered. Server services provide capacity and functionality which are not already specifically bundled with the Desktop Services. A variety of intra-Center communication services are to be provided, such as telephone services, facsimile services, etc. These services are to be offered distinct from the bundled seat desktop services and server services as well as from each other. For all of these communications services, management of the necessary infrastructure is expected to be bundled with each service offered.

C.2.3 These services may be provided to Government civil servants, Government (on-site or near-site) contractors, off-site contractors, principal investigators, Universities through grants or cooperative agreements, GOCO organizations, and other Government agencies.

C.2.4 The Government reserves the right to add new seat types, service levels, and technologies in order to reduce cost, increase efficiency and performance, or any other reason found to be advantageous to maintaining NASA's IT environment. It is expected that technology which emerges during the term of contract and which support the above services will be delivered to the Government through technology refreshment and other provisions of the contract. The Government intends for the services to conform, where possible, with those offered commercially and to evolving standards.

C.3 OBJECTIVES

C.3.1 ODIN's objectives are to: optimize service delivery by acquiring services from a single point of contact at each Center, to include desktop, server, and intra-Center communications services; transfer asset management responsibilities and risk to the commercial sector; shift civil servant resources currently supporting these services to research and development functions in support of NASA's core missions; reduce the cost to NASA of delivering desktop, server, and intra-Center communications services; and facilitate IT management through the evolution of a more common computing and communications environment thereby enhancing system and product interoperability.

C.3.2 In addition, NASA has socio-economic obligations which need to be accommodated by this initiative. These are described below.

C.3.2.1 NASA has a strong commitment to utilize small, small disadvantaged, and woman-owned small businesses in Agency programs. Currently, NASA has an 8 percent Agency-wide goal for prime and subcontract awards to small disadvantaged businesses, woman-owned small businesses, and Historically Black Colleges and Universities and Other Minority Institutions. Over the past few years, approximately 30 percent or more of the Agency's IT dollars have been obligated to small business concerns (which includes 8 percent small disadvantaged business, woman-owned small business goal). This percentage has been growing in recent years. In Government Fiscal Year 1996, this level of contracting represented more than 350 new awards geographically distributed throughout the United States. NASA desires to continue this level of support and utilize high-performing small business concerns to the greatest extent possible, consistent with efficient contract performance, and minimize the potential negative impact on continued participation of such groups in any outsourcing arrangement. Ideally, continuing the commitment of obtaining cost-effective customer services and maximizing small, small disadvantaged, and woman-owned small business participation may be met through teaming arrangements, joint ventures, and/or individual subcontracting plans containing aggressive acquisition and mentoring objectives.

C.3.2.2 Under the letter and spirit of the Stevenson-Wydler Act, NASA supports local educational institutions by providing excess computer equipment to elementary and secondary schools, universities, and other non-profit institutions. It is important to NASA that this outreach initiative is continued where cost effective, even though the Agency no longer has or desires to have asset management responsibilities. (See Attachment S)

C.4 ODIN OPERATING MODEL

This section describes the model to be used to assure that ODIN implementation, hardware and software refreshment, and application roll out will occur consistent with Agency and Center interoperability and functionality requirements. The model describes when the Contractor must coordinate with NASA and the other ODIN contractors to ensure these objectives are met.

C.4.1 CIO OPERATING MODEL

C.4.1.1 GWAC CIO OPERATING MODEL

The Operating Model for non-NASA ordering agencies shall be similar to the NASA model. Specific operating procedures will be established during the DOSP.

C.4.1.2 NASA CIO OPERATING MODEL

NASA is responsible for establishing and maintaining the Agency and Center IT architectures and standards that define the minimum interoperability and functionality requirements. This is accomplished through the CIO Operating Model, described in NASA Procedural Guide 2800. Agency-level IT architectures and standards are established and maintained through an intra-Agency consensus based process as described in the CIO Operating Model. The ODIN Contractors shall implement the NASA IT architectures and standards which are published in NASA's IT Technical Standards – Directives. NASA's standards and architecture have previously been established through the issuance of CIO Executive Notices (EN's). Information regarding the IT Technical Standards - Directives, as well as EN's that are relevant to ODIN, but are planned to be incorporated into an IT Management or Records Management Directive that is not yet published (e.g., NPG 2800) can be found at <http://stewmgr.gsfc.nasa.gov/itstandards.html>. In addition to Agency level architectures and standards, the

individual Centers have their own unique processes and documents through which Center level IT architectures and standards are issued. NASA is shifting the responsibility to select specific IT systems and products to meet NASA IT requirements and implement all NASA established standards to the ODIN Contractors. All ODIN Contractors are jointly and mutually responsible for all system-level and product-level integration testing to ensure interoperability and functionality, as well as compliance with Agency and Center IT standards and architectures.

C.4.2 COORDINATION AND INTEGRATION ROLES, RESPONSIBILITIES, AND PROCESSES

C.4.2.1 The NASA CIO has delegated responsibility to GSFC to implement ODIN. GSFC will use an intra-agency team consisting of a Program Manager (PM) and staff, a Contracting Officer for the master contracts, Delivery Order Contracting Officers (DOCO), and Delivery Order Contracting Officer's Technical Representatives (DOCOTR). The PM is responsible for ODIN Program Operations. The PM is directly accountable to the NASA CIO and the NASA CIO Council for meeting ODIN program and performance objectives. Included in this responsibility is: ensuring contractor compliance with the terms and conditions of their contracts, implementing and ensuring compliance with Agency architectures and standards, assuring maintenance of interoperability and compatibility across the Agency, and validating that contractor offered systems and products are within the system and product performance specifications, Attachment N, ODIN Performance Specifications.

C.4.2.2 Both NASA and the ODIN Contractors are encouraged to recommend additions, modifications, and deletions to Agency and Center IT policies, architectures, standards, and procedures. All proposed changes will be reviewed before implementation at the appropriate level (Agency or Center). It is the responsibility of the Contractor(s) to raise adverse impacts to stability, cost, architecture, interoperability, compatibility or service. The Contractor shall also review with NASA any planned system implementations, including hardware/software refreshment and application rollout, which could be reasonably expected to have an adverse impact on the stability of the existing IT environment.

C.4.2.2.1 To assure maintenance of the NASA IT architectural configuration, the process set forth in paragraph 2.2.1 of NPG 2800 will be followed. The Contractor shall bring recommendations for changes to the NASA IT architecture and standards to the attention of the ODIN PM, who will be responsible for ensuring the review and approval process is conducted in compliance with NPG 2800, and communicating results of that process to the Contractor. When reviewing and approving recommendations for changes affecting ODIN, the CIO Representatives Board will be augmented by the ODIN Program Manager and the ODIN Contractor Program Managers. To facilitate management of the ODIN Program and resolution of program issues which cannot be resolved at a lower level, the CIO Council, chaired by the NASA CIO, will be augmented as appropriate with senior ODIN Contractor representatives.

C.4.2.2.2 Each Center will establish a Center level Configuration Control Board (CCCB), chaired by the Center CIO and membership made up of at least the DOCOTR and the ODIN Contractor's representative. Functions of the CCCB include approving proposed changes to local architectures and standards, which assure changes in local architectures and standards are consistent with Agency interoperability and compatibility standards. The Centers may use an existing or alternative mechanism that accomplishes the same results.

C.4.2.3 Each Center will have a DOCOTR. The DOCOTR is responsible for ODIN Center Operations, and is directly accountable to the ODIN Program Manager for meeting ODIN program and performance objectives, ensuring the Contractors' compliance with the terms and conditions of their delivery orders, implementing and ensuring compliance with Agency architectures and standards, and assuring maintenance of interoperability, compatibility across the Agency, and managing the local configuration. ODIN Contractors shall coordinate system, product, and service roll outs with the DOCOTR to facilitate implementation to minimize impact to end-users.

C.4.3 The selection of systems, products, and services are the responsibility of the Contractor(s). The Contractor shall meet the requirements for interoperability and functionality and maintain configuration control of their specific Center environment. The configuration shall be current and available for NASA review and use, upon request. The ODIN Contractors shall coordinate their system, product and service roll outs with the other ODIN Contractors to assure Agency or Center level interoperability or functionality requirement are not compromised. Where the ODIN Contractors cannot agree among themselves on matters affecting the interoperability or functionality of ODIN systems, the ODIN Contractors shall establish and employ binding conflict resolution

techniques, at their expense. This process shall not impact schedules, and the Government will not be a party to such conflict resolution. The Contractor shall inform the PM as soon as practicable of any issue requiring binding conflict resolution.

C.5 SERVICES REQUIRED

The Contractor shall provide the standard and optional services described in the Service Model, Attachment E, as further described in delivery orders issued under this contract. This includes any servers (e.g., email, print, file, and similar end user and domain based application servers) and/or "back office" products and services required to deliver the functionality to the desktop seats and communication services. In addition, the Contractor shall provide the following additional services, as appropriate.

C.5.1 END USER TRAINING

In addition to the training requirements specified in the Service Model, the Contractor shall offer a broad range of training courses covering the breadth of products and services, including ODIN-supported COTS software, on a fixed price per person basis. These offerings shall be made available through the Catalog of Services and Commercial Components, Attachment G. Training facilities for both training types shall be located in a convenient location to individuals supported by ODIN. If an on-site training location is used, the facility can only be used to train NASA, tenant Agency, or NASA contractor employees.

C.5.2 END USER DOCUMENTATION

The Contractor shall provide unrestricted access to end user electronic documentation on ODIN services for the use of any products delivered. Hardcopy documentation shall be available in the CSCC, Attachment G. Additionally, the Contractor shall provide a Center telephone directory in accordance with the terms in DRD5.

C.5.3 INTEGRATED CUSTOMER SUPPORT/HELP

For all ODIN provided services, the Contractor shall provide, the following integrated customer support and help as specified in the Service Model. At a minimum these services shall include:

(a) Appointing a Multiple Resource Single Point of Contact (MRSPOC) for all ODIN provided services.

(b) Providing a toll free phone number for service calls. The phone number shall be available 24 hours a day, 7 days a week with response consistent with the seat service level.

(c) Providing telephonic and/or electronic mechanisms for problem reporting, requests for service, and action status. These services shall be available 24 hours a day, 7 days a week with response consistent with the seat service level

(d) Minimizing the amount of time it takes for a customer to report problem to the representative.

(e) Routing of non-ODIN actions to the appropriate service provider within 15 minutes after acknowledgement receipt of the trouble ticket.

(f) Tracking of problems from initial call to problem resolution. This includes problems redirected to non-ODIN service providers. (Note: The ODIN return to service metric will be suspended during the period the non-ODIN service provider is resolving problem.)

(g) Notifying users of problem status and resolution.

(h) Monitoring systems to proactively determine, diagnose, and resolve problems. This includes notifying customers and all service providers of known problems and alerts.

(i) Providing access to ODIN service offerings, (e.g., Service Model, Attachment E; CSCC, Attachment G).

(j) Providing end user documentation for provided services.

(k) Provide consultation services for all Triage Level 1 software packages. For purposes of this requirement, consultation services includes assisting customers in the correct usage of the software, but does not include application development.

C.5.4 SYSTEM ADMINISTRATION

The Contractor shall be responsible for administration of server and desktop systems containing various data which

has inherent security requirements. The Contractor shall obtain security clearances, implement non-disclosure agreements, and comply with Section C.8, IT Security Requirements, to assure that data on ODIN systems is not compromised. All ODIN system administrators shall be qualified and certified where appropriate to administer ODIN systems. The Contractor shall be responsible for the integrity and availability and as necessary, confidentiality of all data on all ODIN servers. The Contractor shall provide a backup and recovery capability for all ODIN servers. In the event of a server system failure, the Contractor shall be able to restore the latest backup copy of user data, up to the previous five versions. In no event shall a user lose more than one day's work. The Contractor shall provide the capability to restore server user data consistent with Agency and Center standards. Depending on the system administration level included in the seat/system functionality, the Contractor may retain full administrative privileges to the system, (see Attachment E for appropriate service levels). Where system privileges are shared or the Government has exclusive rights, the Contractor shall provide guidance as to the policies and procedures to ensure interoperability and system integrity are adequately communicated to the Government administrators. The Government will then assume responsibility to ensure that security and interoperability requirements are met.

C.5.5 SUPPORT TRIAGE FOR ODIN AND NON-ODIN COMPONENTS

The services provided by the Contractor shall accommodate the installation, development, and execution of Government-provided and user-developed hardware and software. This section describes the Contractor's responsibility on ODIN-managed/provided seats/systems in this environment.

C.5.5.1 ODIN-SUPPORTED HARDWARE AND SOFTWARE (TRIAGE LEVEL 1)

For ODIN-supported hardware and software on ODIN-managed/provided seats/systems, the Contractor shall provide the full scope of services required by the Service Model and SOW, as a part of the seat/systems. ODIN-supported hardware and software systems include: Agency and Center standard COTS hardware and software loads; Center specific COTS hardware and software loads; all ODIN Communication services; and items purchased from the CSCC, Attachment G. See Attachment L for a list of software Triage Level 1 products.

C.5.5.2 NON-ODIN SUPPORTED HARDWARE AND SOFTWARE (TRIAGE LEVEL 2)

ODIN will provide support to Triage Level 2 supported hardware and software on ODIN-managed/provided seats/systems as identified below. See Attachment L for a list of software Triage Level 2 products.

C.5.5.2.1 Non-ODIN supported hardware and software systems may include any Agency and Center standard hardware and software loads supported by the Government or through non-ODIN contracts. The non-ODIN hardware and software also includes items purchased through the CSCC with Triage level 2 support (see Attachment G). For each NASA Center, the Government will identify a point of contact (POC) to the ODIN Contractor for each hardware and software product in this category. For Triage Level 2 items (included in the seat/system), the Contractor shall:

(a) Facilitate resolution of problems and respond to user requests for information and configuration changes about this hardware and/or software by working, if necessary, with the Government identified POC.

(b) Install the non-ODIN supported hardware and software. If required the ODIN Contractor shall identify the location and make available the appropriate file space to store non-ODIN supported software.

(c) Ensure the availability of the baseline version of the non-ODIN supported hardware and software.

(d) De-install and re-install any non-ODIN supported hardware and software to another location consistent with the move, add, and change provisions for a system (see Attachment E.3.1.8 Moves, Adds, Changes)

(e) Return the configuration to the baseline operable installation when it is determined that the non-ODIN supported hardware and/or software implementation affects the stability or operability of the ODIN configuration.

C.5.5.2.2 If the Contractor has added non-ODIN supported hardware or software component(s) to the existing base configuration and the updated configuration is stable and interoperable; the updated configuration will be established as the new baseline for that system. If the Contractor subsequently modifies the baseline configuration as part of a normal ODIN process, and that configuration becomes unstable due to the non-ODIN supported

hardware and/or software implementation, the customer's need to accomplish the NASA mission must supersede the new configuration modification and the Contractor shall return the configuration to the established baseline. If this inability to update the baseline configuration results in the Contractor being unable to achieve a contract performance metric, then the DOCOTR should be contacted for resolution.

C.5.5.3 OTHER HARDWARE AND SOFTWARE (TRIAGE LEVEL 3)

Triage Level 3 hardware and software is any item not covered by Triage Levels 1 and 2. On any ODIN managed/provided seat/system with maintenance or technology refreshment, the Contractor is responsible for the following:

(a) For seats SE1 through SE3 individual baseline seat configurations may have to be jointly defined by the end user and the Contractor to ensure continuity of the NASA mission and the ODIN performance. If a customer installs other hardware or software component(s) on the existing seat configuration and the Contractor and the end user jointly agree that the updated seat configuration is stable and interoperable; the updated seat configuration shall be established as the new seat configuration for that end user. In those cases where a mutual agreement regarding the seat configuration cannot be reached, a decision will be rendered by the DOCOTR.

(b) For any seat where an end user has implemented a change to the established baseline configuration and the Contractor subsequently modifies the seat configuration, and that configuration becomes unstable or ceases to be interoperable due to end-user effected change, the Contractor shall return the configuration to the previous established baseline if the customer's need to accomplish the NASA mission supersedes the need of the ODIN configuration modification. The DOCOTR will decide the priority of needs and resolution of performance metrics in this instance. The Contractor shall charge for this service according to A.1.15; see also C.5.9.7.

(c) In addition to the above, for any seat where it is determined that a hardware or software Triage Level 3 change has affected the stability, operability, or performance metrics for the seat or any ODIN service, the Contractor shall return the configuration to the baseline operable configuration. A joint decision will be made between the Contractor, end user and DOCOTR on how to proceed. The Contractor shall charge for this service according to A.1.15; see also C.5.9.7.

C.5.6 ASSET REQUIREMENTS

C.5.6.1 ASSET/RESOURCE TRACKING

The Contractor shall use an asset management system to identify, track, and report all ODIN managed assets at the hardware, software and communication component (i.e., hardware and software product) and system levels. This includes Government-owned assets, as well as the infrastructure. The Contractor shall provide asset/resource information covering the seat or system configuration which includes selected service level options and catalog selections, customer profile, asset in service date, projected refresh date, and current special status levels (e.g., mission critical uplift, security uplift, mission freeze).

C.5.6.2 PROPERTY MANAGEMENT TRACKING SYSTEMS

The Contractor shall update information in the Government’s property management tracking system databases for Government-owned, ODIN-managed resources. This requirement shall be performed until the disposal of Government-owned assets managed by the Contractor takes place. The Government will be responsible for disposing of Government-owned assets.

C.5.6.3 CONFIGURATION CONTROL

The Contractor shall maintain configuration control for the ODIN-managed/provided environment. The Contractor shall be able to identify, track, and report on all ODIN managed assets. System configuration information to be tracked includes current hardware configuration, software versions, software license utilization, network identification information, and communication system configuration. System architectures, “as-built” diagrams, and communication system configurations shall be available for Government review and use upon request.

C.5.6.4 ASSET REPORTING REQUIREMENTS

The Contractor shall provide periodic reports as required by DRD 1. (This includes reporting requirements stated in C.5.6.1 and C.5.6.3). The Contractor shall allow, to the Center ODIN customer base on an ongoing basis, electronic access and SQL query capability to the asset databases.

C.5.7 CATALOG SERVICES

C.5.7.1 The Contractor shall provide a catalog of commercially-available products and services, or CSCC, which augments the bundled products and services described in the Service Model, Attachment E. These items are to be provided and priced individually (i.e., not bundled within the seat or service). Orders from this catalog shall not affect the price of the basic seat or system.

C.5.7.2 Catalog items shall be offered and priced in three categories for the master contract. At DOSP, centers will identify the category under which each product will be available. Complete descriptions for each of the categories are detailed in Attachment G.

C.5.7.3 Additional items may be added to the catalog at the discretion of the Contractor, or as requested by the Government. The Government reserves the right to remove items from the catalog.

C.5.8 INTEGRATION AND TESTING

C.5.8.1 During the course of this contract, the Contractor shall periodically modify the user's existing configuration, (i.e., by applying maintenance or technology refreshment enhancements). In effecting these enhancements, the Contractor shall:

(a) Minimize the time involved to complete the configuration modification to achieve the updated baseline.

(b) Coordinate system, product, and service roll outs with the DOCOTR to facilitate implementation to minimize impact to end-users.

(c) Maintain interoperability amongst the various seat configurations. A modification to any existing baseline configuration which was interoperable prior to the modification shall maintain that interoperability after the modification is fully integrated.

C.5.8.2 At the Government's discretion, modifications to the baseline (i.e., at a minimum, changes to the Standards and Architecture) and the integration of those modifications may be required to be demonstrated to the Government prior to implementation. This demonstration should minimize Government travel and the impact to ODIN customers.

C.5.9 SPECIALIZED REQUIREMENTS

C.5.9.1 MISSION CRITICAL REQUIREMENTS

The Contractor shall uplift any seat to Mission Critical Status in accordance with the procedures and pricing described in Section A.1.15.

C.5.9.2 MISSION FREEZE

Due to mission operations, there will be times when contractor access to specific systems and areas will be restricted. These restrictions may prevent the Contractor from performing routine services, (e.g., preventative maintenance, conducting outages, implementing software and/or hardware configuration changes); however, services levels shall be maintained and corrective maintenance performed as required. These restrictions, regardless of duration and frequency, will not entitle the Contractor to any price adjustment. The Contractor shall coordinate access, when necessary (i.e., corrective maintenance), to the affected systems and areas with the DOCOTR. The Government will notify the Contractor no less than three working days prior to the freeze or as negotiated at DOSP.

C.5.9.3 TEMPORARY SYSTEMS

For well defined but short periods of time, usually three months or less, ODIN seats are required on a temporary basis. The standard configuration for each seat offered by the Contractor shall be available, with the ability to customize the seat with any selectable optional services.

C.5.9.4 PRIORITY SERVICE

C.5.9.4.1 The Contractor shall allow for up to one (1) percent of all seats at any time to receive priority service. Once the trouble ticket has been issued, response to the problem shall be no greater than 30 minutes. Return to service or a workaround shall be no greater than 2 hours. The cost of providing this priority service shall be bundled in and distributed across all seats provided. The DOCOTRs will deliver to the Contractor and maintain current a list of those seats requiring priority service.

C.5.9.4.2 Additionally, the Contractor shall provide priority service for up to one (1) percent of all problems exclusive of those covered above. Once the trouble ticket has been issued, response to the problem shall be no greater than 30 minutes. Return to service or a workaround shall be no greater than 2 hours. The cost of providing this priority service shall be bundled in and distributed across all seats provided. The procedure for escalating a problem which requires priority service will be established during the DOSP.

C.5.9.5 TELECOMMUTERS, TRAVELERS, & OFF-SITE PERSONNEL

For ODIN seats used by telecommuters, travelers, and other off-site personnel, remote diagnostics and troubleshooting will be performed to the extent possible in an attempt to resolve problems remotely. The Contractor is not required to provide services at the remote location. For problems and services that cannot be resolved or provided remotely, the ODIN seats will be returned to the NASA Center of origin or an ODIN Contractor facility, whichever is more convenient to the Government. Return to service and performance metrics will apply once the seat is at a supported location and the specific location is acknowledged by the Contractor.

C.5.9.6 SECURITY UPLIFT

The Contractor shall uplift any seat to a classified (secure) level (see Section C.8) in accordance with the procedures and pricing described in Clause A.1.15.

C.5.9.7 RETURN TO SERVICE

The Contractor shall restore the baseline configuration in accordance with Section C.5.5.3 and the procedures and pricing described in Clause A.1.15.

C.5.9.8 NETWORK RESEARCH REQUIREMENTS

The Contractor shall change any seat or service to Network Research Status in accordance with the procedures and pricing described in Clause A.1.15. This seat change shall only be accomplished by notification from the DOCOTR. Network research activities may prevent the Contractor from performing preventative maintenance, scheduled outages, software and hardware configuration changes. However, necessary communication services shall be maintained and corrective maintenance performed. The Contractor shall coordinate with the DOCOTR when access to the affected systems is necessary. The Government will notify the Contractor no less than three working days prior to the freeze. Due to network research by a Center, there will be times when contractor access to specific systems, services, or areas will be restricted. During these periods of increased service risk (e.g. higher possibility of unstable networks, performance impacts, service instability) to support network research requirements, there will be times when the required service level(s) and metrics may not be met. These restrictions will not entitle the Contractor to any price adjustment. During these periods the Contractor will not be held accountable to meet the metrics. Further, the credit for outage clause in the contract shall not apply.

C.5.9.9 EXCESS CELLULAR PHONE USAGE

The Contractor shall charge for cellular use in excess of 500 minutes pursuant to the pricing established in the CSCC.

C.5.10 SOFTWARE RIGHT TO USE

The Contractor shall offer to the Government the right to use ODIN provided software at different locations and non-concurrent use on multiple platforms (e.g., allow a second copy to be utilized on a home computer), to the extent the Contractor is able to obtain this right from the software publishers.

C.5.11 LOCAL AREA NETWORK SUPPORT

The Contractor shall provide for the management, operation, and maintenance of a Center's local area network, as defined in the Service Model, Attachment E, subject to A.1.10, Allowable Cable Plant Delivery Order Changes.

C.6 PERFORMANCE METRICS

The Contractor shall report performance metrics in accordance with DRD 2. The Contractor shall provide, maintain, and execute the tool(s) required to capture all metrics. However, the Government requires the right to access the tools upon request. The monthly electronic reporting shall be retained (electronically in a consistent format) and available upon request until 180 days after contract completion.

C.7 TECHNOLOGY REFRESHMENT PROCESS

The Contractor shall routinely refresh technology as required by the Service Model or other provisions of this contract. Technology refreshment shall be accomplished and proposals for technology infusion submitted in accordance with Sections A.1.18, Technology Refreshment Proposals and C.4, ODIN Operating Model. The Government reserves the right to verify SOW performance requirements.

C.7.1 PERIODIC/ROUTINE TECHNOLOGY REFRESHMENT

C.7.1.1 ODIN Desktop seats have fixed technology refreshment periods included as a service level component. The Contractor shall periodically assess the offerings for each seat and update the seat configuration based on the best value to the Government for each seat functionality and price. The Contractor shall, at a minimum, refresh 1/n of the seats with an n year refreshment cycle each year where n is the refresh period. Desktop performance will be measured using the methodology defined in Attachment N, ODIN Performance Specifications, and shall meet or exceed the performance measures identified in Attachment R, Technology Refreshment Baseline.

C.7.1.2 As ODIN Communications Services and Server Seats as defined in Attachment E, ODIN Service Model, do not have a predefined technology refresh period, the Contractor may propose suitable technology refreshments at any time.

C.7.2 TECHNOLOGY INFUSION

The Contractor shall continually assess the state of technology and NASA's IT requirements and infrastructure and propose new technology and services for NASA's consideration. This shall include recommendations to change Agency and Center architectures, standards, products, systems, and services. Assessments of new technological security threats should be included in the ODIN technology infusion. These proposals shall be submitted under the value engineering and other provisions of the contract.

C.8 INFORMATION TECHNOLOGY SECURITY REQUIREMENTS

C.8.1 COMPUTER SECURITY REQUIREMENTS

The requirements stated in NASA Policy Directive (NPD) 2810, "Assuring the Security of Information Technology" and NASA Procedures Guidance (NPG) 2810.1, "NASA Information Technology Security Guidelines" apply to all IT systems and networks under NASA's purview operated by or on behalf of the Federal Government, whether located in Federal, contractor or subcontractor installations. This includes all workstations, servers and portable computers (e.g. laptops and notebooks) used by NASA employees and NASA contractors to remotely access NASA computing and networking resources regardless of location. Remote access is defined as logging into a NASA computer system through a network or a modem to execute a command on the NASA computer system from a remote location, or to manipulate data stored on a NASA computer system from a remote location. Compliance with these requirements will be monitored by periodic computer security audits performed by or on behalf of NASA. All information processed, stored, or transmitted by contractor equipment belongs to the Government, even though the Contractor may own the equipment. By having the responsibility to maintain the equipment, the Contractor does not acquire access rights to the information or rights to redistribute the information. The Contractor understands that civil, criminal, or administrative penalties may apply for failure to protect information appropriately.

C.8.2 CLASSIFIED (DOD) INFORMATION SUPPORT

The highest classification level of information required in connection with this procurement is TOP SECRET.

In accordance with the National Industrial Security Program Operating Manual, DoD 5220.M, the Contractor must possess or be able to possess a Facility Security Clearance equal to the highest level of classified information necessary to perform the tasks or services required on this contract. Security requirements relating to the handling and safeguarding of classified information will be identified in the Contract Security Classification Specification (DD Form 254) issued as Attachment J to the contract. Contractor personnel, whose duties require access to systems processing classified information, must possess a security clearance at least equal to the highest degree of classification involved and have a validated need-to-know prior to beginning work on the classified system. The sponsoring agency's security requirements for classified systems must be met by all contractor personnel accessing classified information or systems processing classified information. The Contractor shall provide the capability to support any seat type at a 'DoD Classified' security level. It is expected that less than 50 of all seats supported by the Contractor will have a 'DoD Classified' security requirement. The price for providing this support shall not be included in the NTE seat price, but shall be ordered as a surcharge on a per seat basis as specified in Attachment P.

C.8.3 SENSITIVE INFORMATION SUPPORT (UNCLASSIFIED)

Under current Federal guidelines, all officially held information is considered sensitive to some degree and must be appropriately protected by the Contractor as specified in applicable IT Security Plans. Types of sensitive information that will be found on NASA systems that the Contractor will have include, but are not limited to: Privacy Act information; information that is proprietary to companies or contractors other than the subject contractor; resources protected by International Traffic in Arms Regulation (ITAR); technology restricted from foreign dissemination for competitive reasons; NASA administrative communications, including those of senior Government officials; procurement or budget data; information on pending cases by Equal Employment Opportunity (EEO); labor relations; legal actions; disciplinary actions; complaints; IT security pending cases; civil and criminal investigations; information not releasable under the Freedom of Information Act (FOIA) (e.g. payroll, personnel, and medical data).

Performance under this contract will involve access to and/or generation of sensitive information or systems. The Contractor shall perform an assessment to determine position sensitivity and management controls to prevent the individuals in these positions from bypassing controls and processes such as individual accountability requirements, separation of duties, access controls, and limitations on processing privileges. These position sensitivity assessments will be forwarded to the DOCO and DOCOTR, the NASA system owner, and the NASA information owners for a determination of personnel suitability requirements for individuals assigned to the positions in accordance with DRD3. Ongoing re-evaluations of the positions and suitability requirements will be necessary during the life of the contract as positions and assignments change.

The Contractor shall conduct initial risk assessments, document the results, develop and maintain IT Security Plans in accordance with the IT security requirements in effect at the Center at which the system is operated. This plan shall describe how the integrity, availability, confidentiality of the information and IT resources will be protected, including protection (disclosure) from the subject contractor.

A decision to accept any residual risk will be the responsibility of the NASA system owner and the NASA information owners. The Contractors risk assessments and IT Security Plans shall be updated at least every three years or upon significant change to the functionality of the assets, network connectivity, or mission of the system, whichever comes first. If new or unanticipated threats or hazards are discovered by the Contractor, or if existing safeguards have ceased to function effectively, the Contractor shall update the risk assessments and IT Security Plans (within 30 working days) and shall make appropriate risk reduction recommendations to the NASA system owner and the NASA information owners (within 5 working days).

C.8.4 PRIVACY AND SECURITY SAFEGUARDS

The Contractor shall not publish or disclose in any manner, without the data owner and NASA Center IT Security Manager written consent, the details of any security safeguards designed, developed, or implemented by the Contractor under this contract or existing at any NASA Center.

The Contractor shall develop procedures and implementation plans to ensure that IT resources leaving the control of the assigned user (such as being reassigned, removed for repair, replaced, or upgraded) is cleared of all NASA data and sensitive application software by a technique approved by the Center IT Security Manager (currently overwriting at least three times). For IT resources leaving NASA use, applications acquired via a "site-license" or "server license" shall be removed. Damaged IT storage media will be degaussed or destroyed.

To the extent required to carry out a program of inspection and audit to safeguard against threats and hazards to the confidentiality, integrity, and availability of government data, the Contractor shall afford NASA access to the Contractor's facilities, installations, technical capabilities, operations, documentation, records, databases, and personnel.

C.8.5 SECURITY INCIDENT REPORTING

The Contractor shall promptly report to the Center Information Technology Security Manager any suspected computer or network security incidents occurring on any systems. If it is validated that there is an incident, the Contractor shall provide all necessary assistance and access to the affected systems so that a detailed investigation can be conducted and lessons learned documented. Security logs and audit information shall be handled according to evidence preservation procedures.

C.8.6 IT SECURITY TRACKING

The Contractor shall, at a minimum, implement a management program to identify, track, and report on the current status of assignments of responsibility for IT security, establishment of IT security plans, review of security controls, and authorizations to process. The Contractor shall identify, track, and report the number of incident occurrences on an ODIN supported system, receiving regular or enhanced system administration. Incidents to be tracked include: unauthorized access of an ODIN supported system wherein a valid account is used without authorization and successfully gains access to the system; a valid account is used in excess of authorized access and successfully gains access to unauthorized information; a weakness in the system is successfully exploited and successfully used to gain access to unauthorized information; resources are stolen which provide access to password files, protected or restricted data (proprietary or export controlled), licensed applications or software, restricted applications, software or code; or, an authorized account is used in violation of Federal, NASA or Center policies regarding proper use of computer resources. The contractor shall track the number of each incident occurrences resulting in a user's loss of data integrity, denial of service, loss of confidentiality or renders the user or users unproductive for a period of time. The contractor shall also track and report these instances as identified by
users or system administrators of other systems.

C.9 INTERFACE REQUIREMENTS

The Contractor shall establish appropriate interface agreements with other Agency and/or Center contractors as required.

C.9.1 ODIN WIDE AREA TELECOMMUNICATIONS AND NETWORK INTERFACE REQUIREMENTS

The Contractor shall interface with the NASA Integrated Services Network (NISN). NISN provides both wide area telecommunications and networking in direct support of space operations and general programmatic and administrative communications requirements of the Agency. NISN services will be provided to NASA by the Consolidated Space Operations Contract (CSOC) as identified in C.9.1.1.1.1, Table 1, Intercenter Service Provider Evolution. Both NISN and CSOC are managed by the Space Operations Management Office (SOMO). The CSOC participating Centers are currently JSC, MSFC, KSC, JPL, and GSFC.

C.9.1.1 NISN WIDE AREA COMMUNICATIONS BACKGROUND

C.9.1.1.1 NISN is the consolidation of NASA's various telecommunication networks under the management of a single project office. NISN services include:

Long Distance Switched Voice Service
Facsimile (FAX) Service

Voice Teleconferencing Service (VoTS) and Mission Voice Service
Video Teleconferencing Service (ViTS)
Low Bandwidth Video (LBV) Service
Internet Protocol (IP) Services
High Rate Data and Video (HRDV) Services (Mission)
Dedicated Transmission Services
International Services

Reference the NISN Network Services Document for complete and current descriptions. The data communications services include the physical network resources and supporting infrastructure of the former PSCN, Nascom, NSI, EBnet, and Aeronet.

C.9.1.1.1.1 Each of these legacy networks will undergo significant changes in services and transmission architectures in the near term. NISN is in the process of redefining routed data services, based largely on the Internet Protocol (IP), in lieu of the project-based networks of the past. These router based service offerings are classified as "Standard, Premium, and Mission Critical" as specified in the "NISN Network Services Document" (included in the ODIN Offeror's library). For quick reference, these categories are summarized below.

Standard - normal, commercially available service
Premium - predictable level of network performance
Mission Critical-superior reliability, availability, and performance

The table below is representative of the typical user base and associated user requirements within NASA and the evolution of service providers for those services over time. Today's Service Provider represents the environment at the time that the ODIN RFP is released. The Near Term Service Provider represents changes currently being implemented in NISN by Program Information Systems Mission Services (PrISMS) contract, with the Long Term Service Provider, CSOC, beginning to be implemented in FY98.

Table C.9.1.1.1.1 ---Intercenter Service Provider Evolution

Typical User Base	WAN Service Level Requirement	Today's Service Provider	Near Term Service Provider	Long Term Service Provider
Administrative and Institutional	**Standard**	**PSCNI NSI**	**NISN (PrISMS)**	**NISN (CSOC)**
Laboratory, Engineering, Science	**Premium**	**PSCNI Aeronet NSI**	**NISN (PrISMS)**	**NISN (CSOC)**
Space Operations	**Mission Critical**	**NASCOM EBNET**	**NISN (PrISMS)**	**NISN (CSOC)**
New Technology	**Advanced Technology**	**NREN**	**WAN R&D, (i.e. NREN)**	**WAN R&D (ARC)**

C.9.1.1.1.2 The CSOC Contractor also provides local area networking for Space Operations activities. These local area networks will be linked directly to wide area communications services by CSOC. Additionally there exists a need to interface these local area networks to the ODIN provided local area networks.

The table below is representative of the typical user base and associated user requirements within NASA and the evolution of service providers over time.

Table C.9.1.1.1.2--LAN Service Provider Evolution

Typical User Base	Typical Service Level Requirement	Today's Service Provider	Near Term Service Provider	Long Term Service Provider
Administrative, Institutional, Laboratory,	**Campus, Organization, or Lab LAN**	**See ODIN Offerors Library at each Center**	**See ODIN Offerors Library at each Center**	**ODIN**

Typical User Base	Typical Service Level Requirement	Today's Service Provider	Near Term Service Provider	Long Term Service Provider
Engineering, Science				
Space Operations	**Mission Critical**	**See CSOC Offerors Library (e.g. SFOC, CNMOS)**	**See CSOC Offerors Library (e.g. SFOC, CNMOS)**	**CSOC**
KSC Launch	**Mission Critical and Campus**	**See ODIN Offerors Library (e.g. SFOC, JBOSC)**	**See ODIN Offerors Library (e.g. SFOC, JBOSC)**	**TBD**

C.9.1.2 ODIN COMMUNICATIONS INTERFACE REQUIREMENTS

C.9.1.2.1 Local Area Networking and other Wide Area Communication Networks

The Contractor shall interface the local area network and other communication services to wide area service providers. NISN is the primary wide area service provider for NASA. The Contractor shall be responsible for the physical, operational, security and performance characteristics of the interface and ensure that the interface is not the limiting factor in the end-to-end performance. The Contractor shall coordinate problem resolution with the NISN Help Desk. For an explanation of NISN systems and interfaces, refer to:

- NISN Network Services Document
- Transition Plan for NASA Routed Data Network Consolidation
- PrISMS Data Requirement DR6.7, PSCN Network Description Document

C.9.1.2.2 Other Local Area Data Networks

The Contractor shall interface the ODIN local area network to the other on-site Local Area Network(s) (e.g., CSOC). The Contractor shall be responsible for the physical, operational, security and performance characteristics of the interface and ensure that the interface is not the limiting factor in the end-to-end performance.

C.9.1.2.3 Other Local Communications Services

The Contractor shall be required to interface with CSOC and other local service providers for managed communications systems, (e.g. voice telecommunications, video telecommunications, FAX).

C.9.2 INTEGRATED FINANCIAL MANAGEMENT PROJECT (IFMP)

Through the IFMP contract, NASA will acquire, implement, and support Integrated Financial Management (IFM) systems as defined by the Joint Financial Management Improvement Program, a joint cooperative of Office of Management and Budget (OMB), General Accounting Office (GAO), the Department of the Treasury, and the Office of Personnel Management (OPM). These systems will be implemented on an Agencywide basis, including NASA's Headquarters and nine Centers, and shall support all facilities, organizations, programs, projects, and personnel. The IFM systems are expected to employ new and emerging computing and communication technologies which take advantage of open, heterogeneous, distributed architectures. For the end-user desktop systems, the IFMP Contractor is responsible for acquiring and delivering any special end-user workstation hardware and/or software required to successfully execute the IFMP software that is not included in the ODIN managed/provided seat configuration. The ODIN Contractor is required to provide support consistent with the requirements described in C.5.5.2, Non-ODIN Supported Hardware and Software (Triage Level 2). This includes the installation on ODIN managed systems of any IFMP-delivered client hardware and/or software, as well as ensuring the continued successful operation of the IFMP hardware and/or software as ODIN system changes are implemented. For IFMP servers, the IFMP Contractor will have full responsibility for acquiring, delivering, and installing all hardware and any specialized networking required between the IFMP system components; and acquiring, delivering, installing, and maintaining all IFMP systems and application software. The ODIN Contractor shall only be responsible to maintain an end-user desktop environment that ensures continued

successful access to IFMP servers.

C.9.3 CENTER-SPECIFIC INTERFACES

In addition to the Agency-wide interface requirements described above, the Contractor shall establish interface agreements/MOU's with other contractors and/or Government project offices as identified by each Center during the DOSP. A list of existing major contracts/projects at each Center for which the Contractor is expected to establish an interface is provided in Attachment M. Additional and more specific information will be provided when the Center initiates the DOSP. These interface agreements shall be configuration controlled in accordance with the CCCB process as described in Section C.4, ODIN Operating Model.

C.10 EMERGENCY PREPAREDNESS PLAN

The Contractor shall develop procedures and implementation plans to ensure that IT resources are protected and that acts of nature have been considered. Details are provided in DRD 4. Center specifics will be provided at DOSP.

[End of Attachment C]

ATTACHMENT D – PLATFORM THRESHOLDS

The following server platform performance thresholds represent current commercial baselines. These performance thresholds may be negotiated at DOSP.

Server Performance Thresholds

Table 1 defines minimal performance thresholds for TechServ Server Services using the workload assumptions associated with industry standard benchmarks. Each of the benchmark standards identified in the table are briefly described in the paragraphs following the table. Complete details of each benchmark are available from each of the cited benchmark providers. Contact information for each provider is provided at the end of this discussion.

Table 1. Minimal Achievable Performance Thresholds Provided by TechServ Server Services.

Server Type	Performance Delivery	Benchmark Standard	Transactions/ Minute
FILE1	Basic	AIM FileServer	200
	Regular	AIM FileServer	500
	Premium	AIM FileServer	900
	Enhanced	AIM FileServer	1400
APP1	Basic	TPC-C	200
	Regular	TPC-C	800
	Premium	TPC-C	1,500
	Enhanced	TPC-C	2,700
WEB1	Basic	SPECweb96	400
	Regular	SPECweb96	700
	Premium	SPECweb96	900
	Enhanced	SPECweb96	1,300

Since the purpose of these performance thresholds is to establish a contract baseline, to which the contractor is committed, TechServ believes the approach selected to measure these thresholds must be:

- **Available.** The tools used to perform the measurements are commercially available and not proprietary to any single offeror or vendor.
- **Repeatable.** Independent testers, following the same set of procedures and performing the same set of processes, can duplicate the test results.
- **Unbiased.** To ensure that different solution options are fairly evaluated, the measurement tool must not be biased toward a single vendor or operating system solution.
- **Independent.** Neither NASA nor the contractor controls the source code associated with the measurement tool.

TechServ has used industry recognized benchmarking standards to define the workload environment used to establish the listed performance thresholds. An independent commercial and/or government organization has created each benchmark and each is an industry-recognized tool used for capacity planning and system performance comparisons. Each benchmark provides

a good yardstick for assessing general system performance in a specific operating environment. The benchmarks are not precise tools for use in defining the performance attainable by any given user running a specific application at any specific point in time. The thresholds listed in Table 1are the minimal level of general system performance achievable when the cited benchmark is run on a complete system which is configured from TechServ's 24 March baseline configurations. To accommodate the three distinct operating environments - APP1, FILE1, and WEB1, TechServ has selected three different benchmarking processes.

Each benchmark provides results in terms of system throughput. This throughput defines the number of transactions of a specific type that the system can be expected to execute in a single minute under the benchmark's assumed workload. The definition of a transaction is dependent on the benchmark used. The column labeled "Transactions/Minute," in Table 1 reports these results in a consistent set of units. Interpretation of benchmark results is explained below.

WEB1 Performance Measurement

TechServ selected the Standard Performance Evaluation Corporation's (SPEC) SPECweb96 to measure performance associated with its WEB1 offerings. SPECweb96 represents a reasonable, standardized benchmark of basic WWW server performance. A simple test, SPECweb96 only exercises HTTP GET performance, but it does exercise that central service well and fairly. In this market, where vendors are extolling performance claims with unclear measurement comparability, SPECweb96 allows users to make fair comparisons between results obtained from disparate sources. For TechServ's purposes the RISC-based baseline systems, the SPECweb96 performance is based on results obtained running Solaris 2.6, UFS, and SUN Web Server 1.0. In the case of the Intel-based systems, the SPECweb96 benchmark is run under WinNT4.0, Service Pack 3.0, and Microsoft's IIS version 3.0. Table 1 lists the SPECweb96 throughput result.

APP1 Performance Measurement

The Transaction Processing Performance Council's Benchmark C (TPC-C) was selected by TechServ to measure performance associated with its APP1 offerings. TPC-C is an OLTP workload, which exercises a breadth of system components associated with a complex application environment. It is a mixture of read-only and update intensive transactions that simulate the activities found in complex environments. The performance metric reported by TPC-C is a measure of "business throughput" in orders processed per minute and expressed in transactions-per-minute-C (tpm-C). The minimal performance thresholds reported in table 1 are the tpm-C results achievable with the proposed TechServ baseline system configurations when augmented with the appropriate disk subsystems necessary to support the TPC-C benchmark databases and applications.

FILE1 Performance Measurement

TechServ selected the AIM Technology File Server benchmark to measure performance associated with its FILE1 offerings. AIM Technology’s mission is to provide third-party performance and price/performance information to industry and government end users seeking to obtain value when selecting and evaluating UNIX & Windows NT computer systems. The AIM File Server Mix/Windows NT is composed of 37 different tests from all major subsystem

categories. The File Server Mix represents a balanced usage of subsystems that are configured as a gateway file server. The major tasks performed by these file servers include file transfers of various sizes (both synchronous and asynchronous), network routing and packet forwarding, system security and access permission checking, heavy memory usage and Inter-Processor Communication (IPC) calls. The performance metric listed in table 1 is the sustained performance rate reported by the AIM FileServer benchmark. For Unix systems, the FileServer v1.0 benchmark is used, for NT the Fileserver v2.0 benchmark is employed. Since AIM reports its results in operations per second, the metric shown in table 1, is the AIM result multiplied by 60 to provide consistency with the other table entries.

ATTACHMENT E - ODIN SERVICE MODEL

E.1 OVERVIEW OF SERVICE MODEL

Desktop services (including network services which are bundled with the desktop) described by this Service Model are composed of a set of IT characteristics (e.g., hardware and software acquisition, installation, maintenance, refreshment, administration, network access, customer support, relocation, training). These desktop services are bundled according to NASA's functional and performance requirements into one of several "service categories." This bundling includes any servers (e.g., email, print, file, and similar end user and domain based application servers) and/or "back office" products and services required to deliver the functionality to the desktop seats. The unit of purchase for these service categories is referred to as a "seat". Currently, nine service categories are required within the desktop service model; for each of these service categories, standard services are denoted with the letter "S" and optional service levels, where available, are denoted by the letter "O". The options for each desktop seat type are shown in the Summary (Desktop Seat Table) in section E.2.1.1 with an "O" designator in the table. Only seat types with an "O" designator for a service level may order that optional service. Additional functionality to customize the seats is available through the Catalog of Services and Commercial Components (CSCC), as detailed in Attachment G.

Server services provide institutional capabilities through ODIN servers at a fixed price per unit. Pricing for all requirements to provide these services is bundled into the fixed price per unit, including hardware and software acquisition and maintenance, network access/connectivity, and system administration. Four categories of server services are defined.

Communication services (other than the network services bundled into the desktop and/or server services) are to be provided as separate service categories. Pricing for all requirements to provide these services, including all communications infrastructure support, is bundled into the fixed price per service category. Some of these communication services are to be available on a per unit basis (e.g., phones, faxes) and employ a "seat" model similar to the desktops while others are provided on a per system basis.

E.1.1 SERVICE LEVELS

Each of the services bundled with a seat are defined in terms of characteristics that describe the level or quality of that service. Several performance characteristics are common: response time, resolution time, availability, and customer impact. The services described in these characteristics are: Hardware maintenance, System software maintenance, Application software maintenance, Help Desk, Training, Moves/Adds/Changes, System administration, LAN services and maintenance, Hardware technology refresh, and Software technology refresh.

E.1.2 STANDARD BUNDLES OF SERVICE LEVELS (SEAT TYPES)

The nine desktop seat types defined in this Service Model are combinations of the above services at the appropriate level of response, plus the hardware platform required to provide existing and anticipated desktop usage and communication response times.

E.1.3 OPTIONAL SERVICE LEVEL

The intent of the optional services levels are to allow seat customization to meet specific individual requirements that are not satisfied by the standard seat configuration of services, service level, or platform capability. These options result in alternate seat capabilities or service response and are to be priced as an incremental change to the standard seat price for each option.

E.1.3.1 DESKTOP SERVICES OPTIONS

The options for each desktop seat type are shown in the in section E.2.1.1 Summary (Desktop Seat Table) with an O designator in the table. Only seat types with an O designator for a service level may order that optional service.

E.1.3.2 SERVER SERVICES OPTIONS

The options for each server service type are shown in the Server Services Table in section E.2.2 with an O

designator in the table. Only server types with an O designator for a service level may order that optional service.

E.1.3.3 COMMUNICATION SERVICES OPTIONS

The options for each communication service type are shown in the ODIN Communication Services Tables in section E.2.3.1 with an O designator in the table. Only communication service types with an O designator for a service level may order that optional service.

E.2 SEATS AND SERVICES

E.2.1 DESKTOP SEATS

E.2.1.1 SUMMARY (DESKTOP SEATS TABLE)

Table E.2.1.1 Desktop Seats

Seat Types	GP1	GP2	GP3	SE1	SE2	SE3	MA1	MA2	NAD
System Provision:									
Platform									
None							S	S	S
PC/Mac desktops									
Entry-level	S								
Mid-level		S		O					
High-end				S	O				
Laptops									
Entry-level			S						
Mid-level			O						
High-end			O	O					
Unix desktop									
Entry-level				O					
Mid-level					S				
High-end						S			
ODIN Application Software									
None	O	O	O	O	S	S	S	S	S
Standard Application Software Suite	S	S	S	S	O	O			
Services:									
Hardware Maintenance									
None	O	O	O	O	O	O			S
Basic	O	O	O	O	O	O	O	O	O
Regular	S	S	S	S	S	S	S	S	O
Premium	O	O	O	O	O	O	O	O	O
Enhanced	O	O	O	O	O	O	O	O	O
Critical	O	O	O	O	O	O	O	O	O
System Software Maintenance									
None	O	O	O	O	O	O			S
Basic	O	O	O	O	O	O	O	O	O
Regular	S	S	S	S	S	S	S	S	O

Seat Types	**GP1**	**GP2**	**GP3**	**SE1**	**SE2**	**SE3**	**MA1**	**MA2**	**NAD**
Premium	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Critical	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
ODIN-Appl Software Maintenance									
None				**O**	**S**	**S**	**S**	**S**	**S**
Basic	**O**	**O**	**O**	**S**	**O**	**O**			
Regular	**S**	**S**	**S**	**O**	**O**	**O**			
Premium	**O**	**O**	**O**	**O**	**O**	**O**			
Enhanced	**O**	**O**	**O**	**O**	**O**	**O**			
Critical	**O**	**O**	**O**	**O**	**O**	**O**			
Hardware Tech Refresh									
Basic	**O**	**O**	**O**	**O**	**O**	**O**			
Regular	**O**	**O**	**O**	**O**	**O**	**O**			
Premium	**S**	**S**	**S**	**S**	**S**	**S**			
Enhanced	**O**	**O**	**O**	**O**	**O**	**O**			
Software Tech Refresh									
Regular	**S**	**S**	**S**	**S**	**S**	**S**			
Enhanced	**O**	**O**	**O**	**O**	**O**	**O**			
Moves, Adds, Changes									
Regular	**S**	**S**	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
LAN Services									
No ODIN supplied network connection	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Standalone	**O**	**O**	**O**	**O**	**O**	**O**	**S**	**S**	
Remote-S LAN access	**O**	**O**	**S**	**O**	**O**	**O**			**O**
Remote-W LAN access	**O**	**O**	**O**	**O**	**O**	**O**			**O**
Regular LAN access	**S**	**S**	**O**	**S**	**S**	**S**			**S**
Fast LAN access	**O**	**O**	**O**	**O**	**O**	**O**			**O**
Huge LAN access		**O**		**O**	**O**	**O**			**O**
Integrated Customer Support/Help									
Basic	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Regular	**S**	**S**	**S**	**S**	**S**	**S**	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Training									
None	**O**	**O**	**O**	**O**	**O**	**O**	**S**	**S**	**S**
Basic	**S**	**S**	**S**	**S**	**S**	**S**			**O**
System Administration									
Basic				**O**	**O**	**O**	**S**	**S**	**S**
Regular	**S**	**S**	**S**	**S**	**S**	**S**	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**	**O**	**O**	**O**			

Seat Types	GP1	GP2	GP3	SE1	SE2	SE3	MA1	MA2	NAD
Shared Peripheral Services									
None	O	O	O	O	O	O	S	S	S
Basic	S	S	S	S	S	S			O
Regular	O	O	O	O	O	O			O
Enhanced	O	O	O	O	O	O			O
File services									
None	O	O	O	O	O	O	S	S	S
Basic	S	S	S	S	S	S			O
Regular	O	O	O	O	O	O			O
Enhanced	O	O	O	O	O	O			O
Local Data Backup and Restore Services									
None	S	S	S	S	S	S	S	S	S
Basic	O	O	O	O	O	O			O
Regular	O	O	O	O	O	O			O
Enhanced	O	O	O	O	O	O			O
Desktop Conferencing									
None	S	S	S	S	S	S	S	S	S
Basic	O	O	O	O	O	O			
Enhanced	O	O	O	O	O	O			
Laptop Loaner Pool Management									
None			S	S					
Basic			O	O					

E.2.1.2 GP1 SEAT DESCRIPTION

Functionality: the client computer resources providing a standard interoperability software and network solution for office automation and desktop productivity enhancement needs. Functionality includes: word processing, spreadsheet, presentation graphics, electronic messaging (e-mail, calendaring, forms), Internet tools (WWW, news, FTP, Telnet, collaborative tools, etc.), anti-virus.

Platforms in this seat are capable of running the minimum Agency and Center standard office automation software suite at acceptable performance levels and meet or exceed the manufacturer's recommended hardware requirements for each of the office automation software packages. GP1 platforms are capable of running NASA client-server applications such as IFMP.

Standard Services:

Service Type	Service Level	Typical service characteristics
Platform	**PC/Mac-entry**	**Entry level PC/Mac desktop functionality**
Application Software	**Standard**	**Standard application software suite**
HW Maintenance	**Regular**	**Restore to service by close of next business day**
Systems S/W Maint	**Regular**	**Restore to service by close of next business day**
Application S/W Support	**Regular**	**Restore to service by close of next business day**
Hardware Refreshment	**Premium**	**System replacement every 3 years**
Software Refreshment	**Regular**	**Replace s/w load every 12 months**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**

Service Type	Service Level	Typical service characteristics
LAN Services	Regular LAN	Less or equal to 20 mbps
Int. Cust. Support/Help	Regular	Full, 12x5 6 am to 6 pm
Training	Basic	Familiarization with major upgrades
System Administration	Regular	User id, s/w distribution, config. Mgmt.
Shared Peripheral Services	Basic	Access to network b&w printers
File Services	Basic	Center standard server space
Local Data Backup and Restore	None	No local data backup and restore services
Desktop Conferencing	None	No desktop conferencing services
Loaner Pool Management	None	No loaner pool management services

E.2.1.3 GP2 SEAT DESCRIPTION

Functionality: the client computer resources required to perform general purpose business and administrative computing employing a variety of COTS and government provided application solutions. Functionality includes: business program development (e.g., Visual Basic, C++) and execution, statistical analysis, desktop publishing, desktop multimedia development, desktop databases (e.g., Access, FoxPro), and desktop graphics (e.g., Canvas, Corel Draw) as well as word processing, spreadsheet, presentation graphics, electronic messaging (e-mail, calendaring, forms), Internet tools (WWW, news, FTP, Telnet, collaborative tools, etc.), anti-virus. In comparison to GP1, the GP2 seat is intended to fulfill the requirements of business applications and program development which require higher processing power, higher graphics capabilities, increased storage requirements and the capability for increased network throughput.

Platforms in this seat are capable of running the minimum Agency and Center standard office automation software suite and the general purpose business and administrative COTS and government provided application solutions at acceptable performance levels and meet or exceed the manufacturer's recommended hardware requirements for each of the software packages.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	PC/Mac-Mid	Mid level PC/Mac desktop functionality
Application Software	Standard	Standard application software suite
HW Maintenance	Regular	Restore to service by close of next business day
Systems S/W Maint.	Regular	Restore to service by close of next business day
Application S/W Support	Regular	Restore to service by close of next business day
Hardware Refreshment	Premium	System replacement every 3 years
Software Refreshment	Regular	Replace S/W load every 12 months
Moves/Adds/Changes	Regular	<= 5 moves/adds/changes completed within 2 work days
LAN Services	Regular LAN	Less or equal to 20 Mbps
Int. Cust. Support/Help	Regular	Full, 12x5 6 AM to 6 PM
Training	Basic	Familiarization with major upgrades
System Administration	Regular	User ID, S/W distribution, Config. Mgmt.
Shared Peripheral Services	Basic	Access to network B&W printers
File Services	Basic	Center standard server space
Local Data Backup and Restore	None	No local data backup and restore services
Desktop Conferencing	None	No desktop conferencing services
Loaner Pool Management	None	No loaner pool management services

E.2.1.4 GP3 SEAT DESCRIPTION

Functionality: the laptop computer resources providing a standard interoperability software for office automation and mobile productivity enhancement needs. Functionality includes: word processing, spreadsheet, presentation graphics, electronic messaging (e-mail, calendaring, forms), Internet tools (WWW, news, FTP, Telnet, collaborative tools, etc.), anti-virus.

This seat is intended to fulfill the majority of NASA's requirements for portable computing. These requirements include support for the user who (1) needs full desktop capabilities from various locations within a Center (with ease of mobility) with seat functionality intact, (2) needs access to resources (e.g., e-mail, files) at the Center while away from the office, and (3) makes high quality presentations while on travel (e.g., connection to projection system). Optional capabilities which expand the portable computing environment when working in the office environment include a connection to a docking station or to a monitor. Users may order optional PDAs and palmtops to access Center resources locally or remotely through the CSCC.

Platforms in this seat are capable of running the minimum Agency and Center standard office automation software suite at acceptable performance levels and meet or exceed the manufacturer's recommended hardware requirements for each of the office automation software packages.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	**Laptop-Entry**	**Entry Level PC/Mac Laptop functionality**
Application Software	**Standard**	**Standard application software suite**
HW Maintenance	**Regular**	**Restore to service by close of next business day**
System Maintenance	**Regular**	**Restore to service by close of next business day**
Application S/W Support	**Regular**	**Restore to service by close of next business day**
Hardware Refreshment	**Premium**	**System replacement every 3 years**
Software Refreshment	**Regular**	**Replace S/W load every 12 months**
Moves/ Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
LAN Services	**Remote-S**	**Standard Modem access to LAN**
Int. Cust. Support/Help	**Regular**	**Full, 12x5 6 AM to 6 PM**
Training	**Basic**	**Familiarization with major upgrades**
System Administration	**Regular**	**User ID, S/W distribution, Config. Mgmt.**
Shared Peripheral Services	**Basic**	**Access to network B&W printers**
File Services	**Basic**	**Center standard server space**
Local Data Backup and Restore	**None**	**No local data backup and restore services**
Desktop Conferencing	**None**	**No desktop conferencing services**
Loaner Pool Management	**None**	**No loaner pool management services**

E.2.1.5 SE1 SEAT DESCRIPTION

Functionality: the client computer resources provides desktop services for a wide range of entry level scientific and engineering (S&E) service needs. The functionality is typically met by a high-end PC/Mac desktops or portables or entry level UNIX platforms (including X-Terminals). Functionality includes: capability of running commonly used S&E applications (software development, GIS, CAD, CAE, CAM) as well as word processing, spreadsheet, presentation graphics, electronic messaging (e-mail, calendaring, forms), Internet tools (WWW, news, FTP, Telnet, collaborative tools, etc.), anti-virus. Platforms in this seat are also capable of running /accessing the minimum Agency and Center standard office automation software suite at acceptable performance levels.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	**PC/Mac-High**	**High-end PC/Mac desktop functionality**
Application Software	**Standard**	**Standard application software suite**

Service Type	Service Level	Typical Service Characteristics
HW Maintenance	**Regular**	**Restore to service by close of next business day**
Systems S/W Maint	**Regular**	**Restore to service by close of next business day**
Application S/W Support	**Regular**	**Restore to service by close of next business day**
Hardware Refreshment	**Premium**	**System replacement every 3 years**
Software Refreshment	**Regular**	**Replace S/W load every 12 months**
Moves/ Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
LAN Services	**Regular LAN**	**Less or equal to 20Mbps**
Int. Cust. Support/Help	**Regular**	**Full, 12x5 6 AM to 6 PM**
Training	**Basic**	**Familiarization with major upgrades**
System Administration	**Regular**	**User ID, S/W distribution, Config. Mgmt.**
Shared Peripheral Services	**Basic**	**Access to network B&W printers**
File Services	**Basic**	**Center standard server space**
Local Data Backup and Restore	**None**	**No local data backup and restore services**
Desktop Conferencing	**None**	**No desktop conferencing services**
Loaner Pool Management	**None**	**No loaner pool management services**

E.2.1.6 SE2 SEAT DESCRIPTION

Functionality: the client computer resources provides desktop services for a wide range of mid-level scientific and engineering (S&E) service needs. The functionality is typically met by a high-end PC/Mac or mid-level UNIX platform. Functionality includes: capability of running commonly used S&E applications (software development, GIS, CAD, CAE, CAM, visualization) as well as Functionality includes: word processing, spreadsheet, presentation graphics, electronic messaging (e-mail, calendaring, forms), Internet tools (WWW, news, FTP, Telnet, collaborative tools, etc.) anti-virus.

Platforms in this seat are also capable of accessing the minimum Agency and Center standard office automation software suite at acceptable performance levels.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	**UNIX-Mid**	**Mid-level UNIX workstation**
Application Software	**None**	**No standard S/W**
HW Maintenance	**Regular**	**Restore to service by close of next business day**
Systems S/W Maint	**Regular**	**Restore to service by close of next business day**
Application S/W Support	**Regular**	**Restore to service by close of next business day**
Hardware Refreshment	**Premium**	**System replacement every 3 years**
Software Refreshment	**Regular**	**Replace S/W load every 12 months**
Moves/ Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
LAN Services	**Regular LAN**	**Less or equal to 20Mbps**
Int. Cust. Support/Help	**Regular**	**Full, 12x5 6 AM to 6 PM**
Training	**Basic**	**Familiarization with major upgrades**
System Administration	**Regular**	**User ID, S/W distribution, Config. Mgmt.**
Shared Peripheral Services	**Basic**	**Access to network B&W printers**
File Services	**Basic**	**Center standard server space**
Local Data Backup and Restore	**None**	**No local data backup and restore services**
Desktop Conferencing	**None**	**No desktop conferencing services**
Loaner Pool Management	**None**	**No loaner pool management services**

E.2.1.7 SE3 SEAT DESCRIPTION

Functionality: The client computer resources provides desktop services for a wide range of high level scientific and engineering (S&E) service needs. The functionality is typically met by a high-end UNIX platform. Functionality includes: capability of running commonly used and advanced S&E applications software development, GIS, CAD, CAE, CAM, high performance visualization) as well as word processing, spreadsheet, presentation graphics, electronic messaging (e-mail, calendaring, forms), Internet tools (WWW, news, FTP, Telnet, collaborative tools, etc.), anti-virus.

Platforms in this seat are also capable of accessing the minimum Agency and Center standard office automation software suite at acceptable performance levels.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	**UNIX-High**	**High-end UNIX workstation**
Application Software	**None**	**No standard S/W**
HW Maintenance	**Regular**	**Restore to service by close of next business day**
Systems S/W Maint	**Regular**	**Restore to service by close of next business day**
Application S/W Support	**Regular**	**Restore to service by close of next business day**
Hardware Refreshment	**Premium**	**System replacement every 3 years**
Software Refreshment	**Regular**	**Replace S/W load every 12 months**
Moves/ Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
LAN Services	**Regular LAN**	**Less or equal to 20Mbps**
Int. Cust. Support/Help	**Regular**	**Full, 12x5 6 AM to 6 PM**
Training	**Basic**	**Familiarization with major upgrades**
System Administration	**Regular**	**User ID, S/W distribution, Config. Mgmt.**
Shared Peripheral Services	**Basic**	**Access to network B&W printers**
File Services	**Basic**	**Center standard server space**
Local Data Backup and Restore	**None**	**No local data backup and restore services**
Desktop Conferencing	**None**	**No desktop conferencing services**
Loaner Pool Management	**None**	**No loaner pool management services**

E.2.1.8 MA1 SEAT DESCRIPTION

Functionality: Provides standard hardware maintenance services for PC and Mac computer system hardware, including CPU, memory, monitor, keyboard, mouse and designated peripherals. The purpose of this seat type is to primarily provide hardware maintenance for PCs and Macs used in very specialized systems, such as test facilities, with very customized, unique application software for data acquisition, reduction or control of the facility during tests. The desktops in this seat type do not require connectivity to an ODIN managed network. System administration and system software services are provided to handle maintenance functions below the application software. Moves/adds/changes are provided to accommodate the installation of catalog orders.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	**None**	**No hardware is provided by the outsource vendor**
Application Software	**None**	**No software suite provided**
HW Maintenance	**Regular**	**Restore to service by close of next business day**
Systems S/W Maint.	**Regular**	**Restore to service by close of next business day**
Application S/W Support	**None**	**No support for ODIN provided application suite**
Moves/Adds/Changes	**Regular**	**Catalog orders installed/operational in 10 work days**
LAN Services	**Standalone**	**No network connection**
Int. Cust. Support/Help	**Regular**	**Full, 12x5 6 AM to 6 PM**

Service Type	Service Level	Typical Service Characteristics
Training	**None**	**No training is provided**
System Administration	**Basic**	**User controlled**
Shared Peripheral Services	**None**	**No access to network B&W printers**
File Services	**None**	**No server space**
Local Data Backup and Restore	**None**	**No local data backup and restore services**
Desktop Conferencing	**None**	**No desktop conferencing services**
Loaner Pool Management	**None**	**No loaner pool management services**

E.2.1.9 MA2 SEAT DESCRIPTION

Functionality: Provides standard hardware maintenance services for mid and high level computer system hardware, including CPU, memory, monitor, keyboard, mouse and designated peripherals. The purpose of this seat type is to primarily provide hardware maintenance for UNIX platforms, or the equivalent, used in very specialized systems, such as test facilities, with very customized, unique application software for data acquisition, reduction or control of the facility during tests. The desktops in this seat type do not require connectivity to an ODIN managed network. System administration and system software services are provided to handle maintenance functions below the application software. Moves/adds/changes are provided to accommodate the installation of catalog orders.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	**None**	**No hardware is provided by the outsource vendor**
Application Software	**None**	**No software suite provided**
H/W Maintenance	**Regular**	**Restore to service by close of next business day**
Systems S/W Maint	**Regular**	**Restore to service by close of next business day**
Application S/W Support	**None**	**No support for ODIN provided application software**
Moves/Adds/Changes	**Regular**	**Catalog orders installed/operational in 10 work days**
LAN Services	**Standalone**	**No network connection**
Int. Cust. Support/Help	**Regular**	**Full, 12x5 6 AM to 6 PM**
Training	**None**	**No training is provided**
System Administration	**Basic**	**User controlled**
Shared Peripheral Services	**None**	**No access to network B&W printers**
File Services	**None**	**No server space**
Local Data Backup and Restore	**None**	**No local data backup and restore services**
Desktop Conferencing	**None**	**No desktop conferencing services**
Loaner Pool Management	**None**	**No loaner pool management services**

E.2.1.10 NAD SEAT DESCRIPTION

Functionality: Provides connectivity to the ODIN network for customer provided desktops, servers and peripherals. Functionality includes: the physical interface (wall-plate, connector, etc.), network administration (protocol services, IP address management, logical connectivity, security), the ability to provide services to the network, backoffice connectivity for electronic messaging (e-mail, calendaring, forms) and Internet tools (WWW, news, FTP, Telnet, collaborative tools, etc.), and optionally ODIN services (system software services, print services, file services, server services, shared resources, etc.).

Typical examples of usage for NAD services include**:**

- Non-ODIN maintained computers (workstations, central systems, mass storage systems, midrange, mainframes)
- Non-ODIN X-terminals and network computers
- Non-ODIN Lab equipment and experimental test facility systems (data acquisition, simulation, integration and test)

〈 Any non-ODIN Peripherals (Printers, Scanners, etc.) which require system administration

Standard Services:

Service Type	Service Level	Typical Service Characteristics
Platform	**None**	**No hardware is provided**
Application Software	**None**	**No standard S/W**
H/W Maintenance	**None**	**No hardware maintenance provided**
Systems S/W Maint	**None**	**No system software maintenance**
Application S/W Support	**None**	**No support for ODIN provided application suite**
Moves/ Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
LAN Services	**LAN Regular**	**Less or equal to 20Mbps**
Int. Cust. Support/Help	**Regular**	**Full, 12x5 6 AM to 6 PM**
Training	**None**	**No training is provided**
System Administration	**Basic**	**Protocol administration and security**
Shared Peripheral Services	**None**	**No access to network B&W printers**
File Services	**None**	**No server space**
Local Data Backup and Restore	**None**	**No local data backup and restore services**
Desktop Conferencing	**None**	**No desktop conferencing services**
Loaner Pool Management	**None**	**No loaner pool management services**

E.2.2 SERVER SERVICES

E.2.2.1 SUMMARY (SERVER SERVICES TABLE)

Table E.2.2.1 Summary – Server Services

Server Service Type	WEB1	APP1	COMP1	FILE1
System Administration				
Regular	**O**	**O**	**O**	**O**
Enhanced	**S**	**S**	**S**	**S**
Maintenance				
Regular	**O**	**O**	**O**	**O**
Premium	**O**	**O**	**O**	**O**
Enhanced	**S**	**S**	**S**	**S**
Critical	**O**	**O**	**O**	**O**
Storage Volume				
None			**O**	
Basic	**S**	**O**	**S**	**O**
Regular	**O**	**S**	**O**	**S**
Premium	**O**	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**	**O**
Data Backup and Restoration				
None	**O**	**O**	**O**	**O**
Basic	**O**	**O**	**O**	**O**
Regular	**S**	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**	**O**

Server Service Type	WEB1	APP1	COMP1	FILE1
Performance Delivery				
Basic	O	O	O	O
Regular	S	S	S	S
Premium	O	O	O	O
Enhanced	O	O	O	O

E.2.2.2 WEB1 SEAT DESCRIPTION - WEB SERVER SERVICES

Functionality: Provides space on ODIN WWW infrastructure to communicate information within the scope of the ODIN Communications System. This includes the hardware, network connection, system software and support, web server software and support, and back-end database connectivity and necessary infrastructure to support web application development by NASA. Web Services will be subject to the same availability and security requirements as the ODIN communications system.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
System Administration	Enhanced	ODIN controlled
Maintenance	Enhanced	Restore to service within 4 work hours
Storage Volume	Basic	50MB of server space
Data Backup and Restoration	Regular	Requires backups of seat data to be performed daily
Performance Delivery	Regular	Organizational Web space

E.2.2.3 APP1 SEAT DESCRIPTION - APPLICATION/DATABASE SERVER SERVICES

Functionality: Provides space on ODIN Application/Database server infrastructure to communicate information within the scope of the ODIN Communications System. This includes the hardware, network connection, system software and support, server software and support, and database software and environments necessary to support client/server application development by NASA. Application/Database Services will be subject to the same availability and security requirements as the ODIN communications system.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
System Administration	Enhanced	ODIN controlled
Maintenance	Enhanced	Restore to service within 4 work hours
Storage Volume	Regular	500MB of server space
Data Backup and Restoration	Regular	Requires backups of seat data to be performed daily
Performance Delivery	Regular	Organizational Application/Database space

E.2.2.4 COMP1 SEAT DESCRIPTION - COMPUTATIONAL SERVER SERVICES

Functionality: Provides CPU cycles and online storage volume on ODIN Computational Servers (Small to mid-range computational servers, not covered by other NASA consolidation initiatives). COMP1 seat shall provide 10 CPU hours of processing power equivalent to the computational capability stated in the performance delivery service levels. This includes hardware, system software and support, server software and support, network connection, and operations support to fulfill NASA's computational requirements.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
System Administration	Enhanced	ODIN controlled
Maintenance	Enhanced	Restore to service within 4 work hours

Service Type	Service Level	Typical Service Characteristics
Storage Volume	**Basic**	**50 MB of server space**
Data Backup and Restoration	**Basic**	**Requires backups of seat data to be performed weekly**
Performance Delivery	**Regular**	**Organizational Computational Server**

E.2.2.5 FILE1 SEAT DESCRIPTION - FILE STORAGE SERVICES

Functionality: Provides space on ODIN File Server infrastructure to communicate information within the scope of the ODIN Communications System. This includes the hardware, network connection, system software and support, and server software. File Storage Services will be subject to the same availability and security requirements as the ODIN communications system.

Standard Services:

Service Type	Service Level	Typical Service Characteristics
System Administration	**Enhanced**	**ODIN controlled**
Maintenance	**Enhanced**	**Restore to service within 4 work hours**
Storage Volume	**Regular**	**500MB of server space**
Data Backup and Restoration	**Regular**	**Requires backups of seat data to be performed daily**
Performance Delivery	**Regular**	**Organizational File Space**

E.2.3 COMMUNICATION SEATS/SERVICES

E.2.3.1 SUMMARY (COMMUNICATION SERVICES TABLES)

Table E.2.3.1 Communication Services Tables

Phone Service

Phone Type	PH1	PH2	PH3	PH4	PCell
Instrument					
Single	**S**	**S**	**O**	**S**	
Dual	**O**	**O**	**O**	**O**	
Multi-12	**O**	**O**	**S**		
Multi-24	**O**	**O**	**O**		
Cellular					**S**
Line Type					
None					**S**
Digital	**S**	**S**	**S**	**S**	
Analog	**O**	**O**	**O**	**O**	
Voice Mail					
None	**S**	**O**	**O**	**S**	**S**
Standard	**O**	**S**	**S**	**O**	**O**
Enhanced	**O**	**O**	**O**	**O**	**O**
Feature set					
Standard	**S**	**S**	**O**	**O**	
Speaker	**O**	**O**	**O**	**S**	
Enhanced	**O**	**O**	**S**	**O**	

Phone Type	**PH1**	**PH2**	**PH3**	**PH4**	**PCell**
Cellular					**S**
Moves/Adds/Changes					
Regular	**S**	**S**	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**	**O**	**O**
Restore to Service					
Basic	**O**	**O**	**O**	**O**	**O**
Regular	**S**	**S**	**S**	**S**	**S**
Premium	**O**	**O**	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**	**O**	**O**
Critical	**O**	**O**	**O**	**O**	**O**

FAX Service

FAX Type	**FAX1**	**FAX2**	**FAX3**
Unit			
Standard	**S**		
Portable		**S**	
Enhanced			**S**
Moves/Adds/Changes			
Regular	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**
Restore to Service			
Basic	**O**	**O**	**O**
Regular	**S**	**S**	**S**
Premium	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**
Critical	**O**	**O**	**O**
Option Set			
Secure	**O**	**O**	**O**
Mission Critical	**O**	**O**	**O**

Local Video Service

Video Type	**LVID1**
Connection	
Standard	**S**
Restore to Service	
Basic	**O**
Regular	**S**
Premium	**O**
Enhanced	**O**
Critical	**O**

Video Type	LVID1
Option Set	
Cable TV services	**O**
Video Connection	**O**
Cable feed select	**O**

Administrative Radio Service

Admin Radio Type	AR1	AR2	AR3
Unit			
Portable	**S**		
Mobile		**S**	
Base station			**S**
Remote audio connection			
Standard			**S**
Enhanced			**O**
Moves/Adds/Changes			
Regular	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**
Restore to Service			
Basic	**O**	**O**	**O**
Regular	**S**	**S**	**S**
Premium	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**
Critical	**O**	**O**	**O**

LAN Interface Service

LAN Type	LAN1	LAN2	LAN3
Connection			
Regular	**S**		
Fast		**S**	
Huge			**S**
Moves/Adds/Changes			
Regular	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**
Restore to Service			
Basic	**O**	**O**	**O**
Regular	**S**	**S**	**S**
Premium	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**
Critical	**O**	**O**	**O**

Remote Communication Service

Remote Comm Type	RC1	RC2	RC3	RC4
Communications				
Standard	**S**			**O**
ISDN		**S**	**O**	**O**
MAN		**O**	**S**	
Wireless				**S**
Moves/Adds/Changes				
Regular	**S**	**S**	**S**	**S**
Enhanced	**O**	**O**	**O**	**O**
Restore to Service				
Basic	**O**	**O**	**O**	**O**
Regular	**S**	**S**	**S**	**S**
Premium	**O**	**O**	**O**	**O**
Enhanced	**O**	**O**	**O**	**O**
Critical	**O**	**O**	**O**	**O**

Public Address Service

Public Address Type	PA1	PA2
Connection		
Standard	**S**	
Portable		**S**
Setup		
Regular		**S**
Critical		**O**
Restore to Service		
Basic	**O**	**O**
Regular	**S**	**S**
Premium	**O**	**O**
Enhanced	**O**	**O**
Critical	**O**	**O**

E.2.3.2 PHONE SEAT DESCRIPTION

Each Phone Seat will provide the service required to ensure an appropriate phone instrument and complete phone system is available as specified. This includes instruments, infrastructure, and other required services to provide telephone related connectivity within, and external to, the Center. Also included in this service is the maintenance and administration of the telephone infrastructure; basic services (operational configuration, engineering and maintenance of analog and digital telephone switching system); distribution of phone cards (which are currently provided by the NISN contract); moves adds, changes; corrective/preventative maintenance of telephone and facsimile instruments and drops; and administration, operation, and maintenance of Central Communication Center (CCC) (telephone and central fax operators). The CCC provides manned telephone operators to direct incoming calls, set up voice conferences, initiate foreign calls, and operate a central facsimile service (if required by the Center). The central facsimile service will operate incoming and outgoing facsimile services for personnel who do not have their own fax machines. The CCC is staffed during normal business hours (0600 - 1800, Monday through Friday except Federal holidays). During off-hours the incoming calls to a Center's main number will be handled by an unmanned computerized system. Performance levels include the completion of all

moves/adds/changes within the specifications listed in E.3.1.8 Moves, Adds, Changes.

E.2.3.2.1 PH1 PHONE DESCRIPTION

Functionality: Provides full phone services for a standard hallway or lab phone.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Instrument	**Single**	**Single line phone**
Line Type	**Digital**	**Digital line**
Voice Mail	**None**	**No voice mail**
Feature Set	**Standard**	**Call forwarding, transfer, forward, camp, etc.**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.2.2 PH2 PHONE DESCRIPTION

Functionality: Provides full phone services for a standard desktop or lab phone with voicemail.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Instrument	**Single**	**Single line phone**
Line Type	**Digital**	**Digital line**
Voice Mail	**Standard**	**Voice mail**
Feature Set	**Standard**	**Call forwarding, transfer, forward, camp, etc.**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.2.3 PH3 PHONE DESCRIPTION

Functionality: Provides enhanced feature set phone service intended for use in a branch or division office setting (e.g., secretary phone).

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Instrument	**Multi-12**	**12 line phone**
Line Type	**Digital**	**Digital line**
Voice Mail	**Standard**	**Voice mail**
Feature Set	**Enhanced**	**Standard plus additional features**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.2.4 PH4 PHONE DESCRIPTION

Functionality: Provides full phone services intended for use in a conference room. This system will have multiple speakers and microphones spaced at intervals for clear reception and transmission.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Instrument	**Single**	**Single line phone**
Line Type	**Digital**	**Digital line**
Voice Mail	**None**	**No voice mail**
Feature Set	**Speaker**	**Standard features plus speaker**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**

Service Type	Service Level	Typical Service Characteristic
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.2.5 PCELL PHONE DESCRIPTION

Functionality: Provides full cellular phone capabilities with 500 minutes per month.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Instrument	**Cellular**	**Cellular phone**
Line Type	**None**	**No connection**
Voice Mail	**None**	**No voice mail**
Feature Set	**Cellular**	**Low battery indicator, roaming, caller ID, etc.**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.3 RESERVED

E.2.3.4 FAX SERVICE DESCRIPTION

Service Description: The Fax service will provide a comprehensive Administrative and operational plain paper facsimile service for all areas, including installation and maintenance support. Local Fax services are provided through the local phone service at each NASA Center with NISN and commercial interfaces required for inter-Center, commercial, and international facsimile services. The FAX machines provided by this service are suitable for both office and laboratory needs, and require only a minimal amount of supervision. All moves/adds/changes will be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes.

E.2.3.4.1 FAX1 DESCRIPTION

Functionality: Provides a full FAX service at the standard service level.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Unit	**Standard**	**5ppm plain paper**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.4.2 FAX2 DESCRIPTION

Functionality: Provides a full FAX service at the standard service level in a portable unit weighing 10 or less pounds and is not required to be a plain paper fax.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Unit	**Portable**	**4 ppm**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.4.3 FAX3 DESCRIPTION

Functionality: Provides a full FAX service at an enhanced service level.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Unit	**Enhanced**	**20 ppm plain paper**

Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.5 LOCAL VIDEO SERVICE DESCRIPTION

Service Description: The Video service will provide for the operation and maintenance of an existing Centerwide video system. The service will provide management of the interface of this system to other Agency, Federal, and commercial providers of video information. All moves/adds/changes will be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes.

E.2.3.5.1 LVID1 DESCRIPTION

Functionality: Provides the Center with the operation and maintenance of an existing Centerwide video system..

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Connection	**Standard**	**Existing Local Video System**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.6 ADMINISTRATIVE RADIO SERVICE DESCRIPTION

Service Description: A Center's RF two-way voice service that supports fire, security, medical, safety, transportation, base maintenance functions. System usually consists of hand held and mobile transceivers, associated base stations, remote units and dispatch consoles. Typical users provide essential support functions to the Center in a fashion that requires wireless RF two-way voice communications (e.g., Protective services, facility and maintenance crews). All moves/adds/changes will be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes.

E.2.3.6.1 AR1 DESCRIPTION

Functionality: Provides standard Administrative Radio service within a Center. Includes a portable, two-way radio; network assignment; and a battery charger and the options for a remote/clip on microphone and an extra battery/charger.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Unit	**Portable**	**Handheld portable two-way radio**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.6.2 AR2 DESCRIPTION

Functionality: Provides standard Mobile radio service for a vehicle. Includes unit to mount in vehicle, network assignment, and coverage area: metropolitan area around Center.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Unit	**Mobile**	**Vehicle mounted two-way radio and antenna**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.6.3 AR3 DESCRIPTION

Functionality: Provides standard base station service and an option for remote audio connection via cable (the standard) or wireless (enhanced).

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Unit	**Base station**	**Fixed location transceiver**
Remote Audio Connection	**Standard**	**Wired handset/headset**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.7 LAN INTERFACE SERVICE DESCRIPTION

Service Description: Provides connectivity for devices that require the Contractor to provide network connectivity (addressing, network services) without any backoffice support. No device system administration is provided. This service can be used to provide connectivity for: mission/operational LANs, laboratory LANs, corporate LANs, WANs, etc. that are not operated or maintained by ODIN; conference room connections; peripherals; and connectivity required for multi-homed ODIN systems. All moves/adds/changes will be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes.

E.2.3.7.1 LAN1 DESCRIPTION

Functionality: Provides a single standard Ethernet connection (typically a IEEE 802.3 10BaseT) with a guaranteed throughput capability of 3 megabit per second for files 1 megabyte or less in size.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Connection	**Regular**	**3Mbps throughput**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.7.2 LAN2 DESCRIPTION

Functionality: Provides a single standard Fast Ethernet (typically 100BaseT) or FDDI connection with a guaranteed throughput capability of 30 megabit per second for files 10 megabyte or less in size.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Connection	**Fast**	**30Mbps throughput**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.7.3 LAN3 DESCRIPTION

Functionality: ATM at 155 megabit per second with guaranteed throughput capability greater than 100 megabit per second for files 50 megabyte or less with "Quality of Service"" characteristics (e.g., bandwidth reservation).

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Connection	**Huge**	**At least 100Mbps throughput**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.8 REMOTE COMMUNICATION SERVICE DESCRIPTION

Service Description: Connectivity which enables functionality similar to a local, direct network connection while the customer is at most remote locations (e.g., on travel or at home). Since the user of this service will have the same access to the Center's internal resources (e.g., mail or internal use only WWW resources) certain security related procedures will be required to be completed before access will be allowed.

This service will also be used to provide connectivity for non-portable desktop systems located outside of a Center's physical boundaries. This service can also be used to provide connectivity for a portable, desktop, or LAN that is

not operated or maintained by ODIN and is located outside of a Center's physical boundary. All moves/adds/changes will be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes, for systems provided by ODIN. When a line is ordered which must be obtained by external means (e.g., from the telephone company), the Contractor will not be held accountable for delays outside the Contractor's control. More than one device can be connected to a single RC connection. For each additional user, a NAD must be ordered to provide backoffice support.

E.2.3.8.1 RC1 DESCRIPTION

Functionality: Provides a single standard analog dial-in service that supports transfer rates up to 56 kilobits/sec, v.34 modems

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Communications	**Standard**	**Analog dial-in support for up to 56kbps**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.8.2 RC2 DESCRIPTION

Functionality: Provides a single standard digital dial-in ISDN service that supports transfer rates up to 128 kbps.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Communications	**ISDN**	**Digital dial-in support for up to 128kbps**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.8.3 RC3 DESCRIPTION

Functionality: Provides a LAN to LAN interface at transfer rates of 56kbps to 10Mbps.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Communications	**MAN**	**LAN to LAN connectivity from 56kbps to 10Mbps**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.8.4 RC4 DESCRIPTION

Functionality: Provides a mobile wireless analog dial-in interface at transfer rates of 28.8kbps.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Communications	**Wireless**	**Mobile connectivity at 28.8kbps**
Moves/Adds/Changes	**Regular**	**<= 5 moves/adds/changes completed within 2 work days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.9 PUBLIC ADDRESS SERVICE DESCRIPTION

Service Description: The Public Address service will provide for the operations and maintenance of an existing centerwide public address system. The service will provide audio amplification and distribution of voice announcements.

E.2.3.9.1 PA1 DESCRIPTION

Functionality: Provides a complete system to service a Center's Public Address requirements for voice

announcements.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Connection	**Standard**	**Existing Public Address system**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.2.3.9.2 PA2 DESCRIPTION

Functionality: Provides a portable public address system to service a Center's short term Public Address requirements for voice announcements.

Standard Services:

Service Type	Service Level	Typical Service Characteristic
Connection	**Portable**	**Portable Public Address system**
Setup	**Regular**	**Setup within 5 days and removal within 3 days**
Restore to Service	**Regular**	**Restore to service by close of next business day**

E.3 SERVICE LEVEL DEFINITION

This section provides definitions of the services and service levels to be provided by the Contractor.

E.3.1 DESKTOP SERVICE LEVEL DEFINITIONS

E.3.1.1 PLATFORM

Service Description: Provides the services to ensure an appropriate computer platform hardware (e.g., processor, memory, disk, network interface card) and system software (e.g., operating system, network operating system) is available to the specified Seat Type. Services include requirements analysis, hardware and system software platform acquisition, testing, verification, and installation in accordance with the specific technology refreshment cycles.

Each platform shall meet or exceed the performance measure specified in Attachment N, ODIN Performance Specifications.

Each platform shall meet or exceed the minimum configuration recommended by the software manufacturer for the software installed with each seat. All components of the standard software load shall be capable of correct simultaneous execution and mutual interaction on each seat's platform.

Service Levels	Typical Service Characteristic
PC/MAC-Entry	**Entry-level PC/MAC desktop functionality**
PC/MAC-Mid	**Mid-level PC/MAC desktop functionality**
PC/MAC-High	**High-end PC/MAC desktop functionality**
Laptop-Entry	**Entry level PC/MAC laptop functionality**
Laptop-Mid	**Mid-level PC/MAC laptop functionality**
Laptop-High	**High-end PC/MAC/UNIX laptop functionality**
UNIX-Entry	**Entry level UNIX Workstation**
UNIX -Mid	**Mid-level UNIX Workstation**
UNIX -High	**High-end UNIX Workstation**

E.3.1.2 ODIN APPLICATION SOFTWARE

Service Description: Provides the services to ensure appropriate application software suites are provided to the specified Seat Type. Services include requirements analysis, software product acquisition, testing, verification, and installation, in accordance with the specific technology refreshment cycles. The contractor shall provide the required application software to meet the functionality for : word processing, spreadsheet, presentation graphics, electronic messaging (e-mail, calendaring, forms), Internet tools (WWW, news, FTP, Telnet, collaborative tools,

etc.), anti-virus, etc. as defined by Agency/Center standards.

Service Levels	Typical Service Characteristic
None	**No software suite provided**
Standard	**Standard application software suite**

E.3.1.3 HARDWARE MAINTENANCE

Service Description: Provides standard hardware maintenance services for the computer hardware system (CPU, Memory, Monitor/Keyboard/Mouse, and designated peripherals). Services include:

- System diagnostics and trouble shooting
- System and component maintenance
- Hardware configuration , tracking, and documentation.

Service Levels	Typical Service Characteristic
None:	**No hardware maintenance provided**
Basic	**Restore to service within 3 working days**
Regular:	**Restore to service by close of next business day**
Premium:	**Restore to service within 8 work hours**
Enhanced:	**Restore to service within 4 work hours**
Critical:	**Restore to service within 2 contiguous hours**

E.3.1.4 SYSTEM SOFTWARE MAINTENANCE

Service Description: Provide software maintenance services for system software including the operating system, security software, and appropriate “middleware” communications software, OS services, application services, and system management services). Software patches are modifications to the software which provide security and bug fixes. Services include:

- Diagnostics and trouble shooting
- Application configuration, tracking, and documentation
- Patch acquisition, testing, verification, and installation

Service Levels	Typical Service Characteristic
None:	**No system software maintenance**
Basic	**Restore to service within 3 working days**
Regular:	**Restore to service by close of next business day**
Premium:	**Restore to service within 8 work hours**
Enhanced:	**Restore to service within 4 work hours**
Critical:	**Restore to service within 2 contiguous hours**

E.3.1.5 ODIN APPLICATION SOFTWARE MAINTENANCE

Service Description: Provides services for application software that is defined as part of the ODIN seat type. Some seat types do not have an applicable set of application software. Software maintenance of application software available through the catalog is covered by catalog pricing at the Basic service level. Services include:

- Diagnostics and trouble shooting
- Configuration changes, tracking, and documentation
- Patch acquisition, testing, verification, and installation

Service Levels	Typical Service Characteristic
None:	**No support for ODIN provided application software**
Basic	**Restore to service within 3 working days**
Regular:	**Restore to service by close of next business day**
Premium:	**Restore to service within 8 work hours**
Enhanced:	**Restore to service within 4 work hours**
Critical:	**Restore to service within 2 contiguous hours**

E.3.1.6 HARDWARE TECHNOLOGY REFRESHMENT

Service Description: Provides for periodic refreshment of system hardware and required peripherals to more effectively and efficiently perform the objectives of the relevant ODIN seat type.

Service Levels	Typical Service Characteristic
Basic:	**Refreshment at least every 5 years with no more than a 3 year average**
Regular:	**Refreshment at least every 4 years**
Premium:	**Refreshment at least every 3 years**
Enhanced:	**Refreshment at least every 1.5 years**

E.3.1.7 SOFTWARE TECHNOLOGY REFRESHMENT

Service Description: Provides for periodic refreshment of system and ODIN application software (appropriate to the ODIN seat type) to more effectively and efficiently perform basic system and application objectives of the relevant ODIN seat. This service provides the desktop with new versions, upgrades, modifications, and non-security and non-bug related patches associated with the system and ODIN application software. Software technology refreshment will supersede hardware technology refreshment. The Contractor shall accelerate the hardware technology refreshment for a desktop when the software requires hardware upgrades to run effectively and efficiently. Refreshment of the standard application software suite must be consistent across the Agency to the extent that interoperability issues do not arise as a result of using different versions of software.

Service Levels	Typical Service Characteristic
Regular:	**Refreshment within 1 year of the latest release by the software vendor**
Enhanced:	**Refreshment within 1 year of the latest release by the software vendor plus provides the capability to request and receive software refreshment within 1/2 year of the latest release by the software vendor, on an individual software product basis.**

E.3.1.8 MOVES, ADDS, CHANGES

Service Description: Provides services to perform user requested system hardware, de-installation, move and re-installation and acquisition and installation of catalog hardware and software. For NADs, this includes service to move the network connection only. The cumulative number of moves/adds/changes will not exceed the total number of seats ordered per year. A change in service level does not count against the cumulative number of moves, adds, changes allowed per year. A request for move/add/change service is defined as a service delivery order. Each service delivery order can request to move/add/change multiple ODIN seats. Service delivery orders are independent of each other. Individual service delivery orders shall not be combined without the consent of the requesters. The following service levels apply to each service delivery order.

Service Levels	Quantities	Typical Service Characteristic
Regular:	**<=5 moves/adds/changes:**	**Completed within 2 work days**
	6 - 24 moves/adds/changes:	**Completed within 5 work days**
	25 - 50 moves/adds/changes:	**Completed within 10 work days**
	> 50 moves/adds/changes:	**Requires time to be negotiated with the Contractor**
	Catalog orders:	**Installed and operational within 10 work days of request**
Enhanced:	**<=5 moves/adds/changes:**	**Completed within 1 work day**
	6 - 24 moves/adds/changes:	**Completed within 2 work days**
	25 - 50 moves/adds/changes:	**Completed within 5 work days**
	> 50 moves/adds/changes:	**Requires time to be negotiated with the Contractor**
	Catalog orders:	**Installed and operational within 5 work days of request**

E.3.1.9 LAN SERVICES

Service Description: Provides all services (end-user site and infrastructure) required to provide network (LAN) access of the prescribed service level. LAN services shall meet or exceed the performance requirements specified

below. Services include:

- Connection of a given, properly configured ODIN seat to the LAN
- Verification of operation
- Installation and verification of communications-oriented system software (if not provided under System Provision service)
- Includes ODIN Communications Services: LAN administration and control (NCC services) including any and all servers required to deliver LAN operations, WAN services, remote LAN services, network services (DNS, WINS, etc.), IP address management, LAN security; and administration of all cable plant infrastructure and cable terminal equipment. This includes replacements and upgrades of associated equipment (e.g., repair and replacement of routers and switches). LAN services are provided 24x7, 365 days/year

Service Levels	Typical Service Characteristic
No ODIN supplied network connection:	**LAN access not provided through ODIN**
Standalone:	**No network connection; i.e. desktop is standalone**
Remote-S:	**Remote LAN access using a standard modem**
Remote-W:	**Remote LAN access using a wireless modem**
Regular LAN:	**LAN access at rates less than or equal to 20 Mbps with a guaranteed throughput capability of 3 megabit per second for files 1 megabyte or less in size on the operating network.**
Fast LAN:	**LAN access at rates in the range of 20 - 100 Mbps with a guaranteed throughput capability of 30 megabit per second for files 10 megabyte or less in size on the operating network.**
Huge LAN:	**LAN access at rates greater than 100 Mbps second with guaranteed throughput capability greater than 100 megabit per second for files 50 megabyte or less in size with "Quality of Service" characteristics (e.g., bandwidth reservation) on the operating network.**

E.3.1.10 DESKTOP CONFERENCING

Service Description: Provides the services of audio/video/data teleconferencing to the desktop.
Services include:

- Center approved computer network or ISDN based audio/video/data desktop teleconferencing service.
- Necessary software and hardware to implement audio/video/data teleconferencing service.
- Service must be interoperable with the NISN provided low bandwidth audio/video solution. The units currently used by NISN (December, 1997) are PictureTel model 4400 and 4500.

Service Levels	Typical Service Characteristic
None	**No desktop conferencing**
Basic:	**Basic audio/video/data teleconferencing (less than 384 kbps service)**
Enhanced:	**Enhanced audio/video/data teleconferencing service (greater than or equal to 384 kbps service)**

E.3.1.11 INTEGRATED CUSTOMER SUPPORT/HELP DESK

Service Description: Provides Help Desk contact, resolution, and tracking services for customer support for the following ODIN supported capabilities:

- ODIN Communications Systems Services
- System hardware, system software, and application software
- Supported catalog hardware and software

The service also includes the generation of trouble tickets, providing customer and service providers with system status and alerts, and submitting unresolved problems to ODIN service providers. The ODIN provided Help Desk

will be responsible for routing and tracking user requests for non-ODIN services to the appropriate service provider. (See Section C.5.3, Integrated Customer Support/Help for additional requirements.)

Service Levels	Typical Service Characteristic
Basic	**Service request (e.g., maintenance) call only** **Hours of operation: 6:00am to 6:00pm local time on workdays**
Regular	**Full services** **Hours of operation: 6:00am to 6:00pm local time on workdays;** **Acknowledgment of request within 1 hour**
Enhanced	**Full services** **24x7 operations;** **Acknowledgment of request within 30 minutes**

E.3.1.12 TRAINING

Service Description: Provides hardware and software training for major upgrades to ODIN provided seats. Training processes and procedures may include, but are not limited to, classroom, CBT, Video and documentation, either in hard-copy or electronic form.

Service Levels	Typical Service Characteristic
None	**No training is provided**
Basic	**Familiarization with major upgrades**

E.3.1.13 SYSTEM ADMINISTRATION

Service Description: Provides system administration services. Depending on service level, services may be basic network security compliance; basic and enhanced security monitoring and management; performance monitoring and optimization; problem tracking and error detection; account management; configuration management; and user support.

Service Levels	Typical Service Characteristic
Basic	**Protocol administration and network security compliance only** **Response within 2 workdays for customer requests**
Regular	**Basic network security compliance; basic security monitoring and management; performance monitoring and optimization; problem tracking and error detection; account management; configuration management; and user support. Response by next workday for customer requests.**
Enhanced	**Basic network security compliance; basic and enhanced security monitoring and management; performance monitoring and optimization; problem tracking and error detection; account management; configuration management; and user support. Response within 4 work hours for customer requests.**

E.3.1.14 SHARED PERIPHERAL SERVICES

Service Description: Provides access to shared black and white and color printers .

Networked print black and white services shall be located within the user's building at a close proximity from the user's work area. The shared printers shall be capable of printing at a minimum of 20 pages per minute plain text. The black and white networked print services shall support, at a minimum, Postscript Level II and capable of printing transparencies.

Networked color print services shall support, at a minimum, 300dpi, Postscript Level II, 2 color pages per minute and capability of printing transparencies.

Print jobs that become stuck in the print queue shall be cleared within 90 minutes of being identified to MRSPOC.

Service Levels:	Typical Service Characteristic
None:	**No shared peripheral services**

Service Levels:	Typical Service Characteristic
Basic:	**Access to networked black and white print services within 250 feet on the same flooor**
Regular:	**Access to networked black and white within 150 feet on the same floor, and color print services within the user's building**
Enhanced:	**Access to networked black and white print services, within 60 feet on the same floor Color print services on the same floor**

E.3.1.15 FILE SERVICES

Service Description: Provides access to shared file servers for individuals and/or workgroups. The Contractor shall restore files from backup at the user's request by close of next business day. The amount of server file space allocated per user will be negotiated during DOSP and updated through desktop technology refreshment.

Service Levels	Typical Service Characteristic
None	**No file services.**
Basic	**Fixed amount of server file space per user.**
Regular	**Twice the amount of server file space provided per user under the Basic service level.**
Enhanced	**Five times the amount of server file space provided per user under the Basic service level.**

E.3.1.16 LOCAL DATA BACKUP AND RESTORE SERVICES

Service Description: Provides backup and restore services for a desktop's local disk storage. Provide the capability to restore files and directories within 4 work hours (of request) for files and directories changed more than 1 day before and no older than 30 days.

Service Levels	Typical Service Characteristic
None	**No local data backup and restore services.**
Basic	**Requires backups of user data to be performed weekly.**
Regular	**Requires backups of user data to be performed daily.**
Enhanced	**Requires backups of entire local disk to be performed daily.**

E.3.1.17 LAPTOP LOANER POOL MANAGEMENT SERVICES

Service Description: Provides management of laptop seats identified as loaners through the selection of this option on a GP3 or SE1 seat. The primary use of these loaners is for employee travel, special projects and assignment of shared laptops. After use of the loaner, the disk drive will be restored to standard configuration. As available, a loaner laptop will be provided to the user with the standard ODIN configuration.

Service Levels	Typical Service Characteristic
None	**No loaner management**
Basic:	**Loaner laptop with standard ODIN configuration provided upon request, when available, no later than COB next business day.**

E.3.2 SERVER SERVICE LEVEL DEFINITION

E.3.2.1 SYSTEM ADMINISTRATION

Service Description: Provides system administration services on ODIN servers. System administration requests shall be completed by close of next business day.

Service Levels	Typical Service Characteristic
Regular	**Shared Control. ODIN provides basic network security (network security monitoring and management; performance monitoring and optimization); problem tracking and error detection; account management; configuration management; and user support. ODIN provides the user the ability to administer local directories and resident applications.**
Enhanced	**ODIN Full Control. ODIN provides full security and administration of all applications**

Service Levels	Typical Service Characteristic
	and directories.

E.3.2.2 RESERVED

E.3.2.3 MAINTENANCE

Service Description: Provides standard hardware and software maintenance services for the computer hardware system (CPU, Memory, Monitor/Keyboard/Mouse, and designated peripherals) and system software including the operating system, security software, and appropriate middleware (communications software, OS services, application services, and system management services). Software patches are modifications to the software which provide security and bug fixes. This does not include services associated with Software Technology Refreshment. (The purchase of the Software Technology Refreshment service provides the servers with all new versions, upgrades, modifications and other non-security and non-bug related patches associated with the system software.) Services include:

- System diagnostics and trouble shooting
- System and component maintenance
- Configuration changes, tracking, and documentation

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**
Critical	**Restore to service within 2 contiguous hours**

E.3.2.4 STORAGE VOLUME

Service Description: Provide server storage space on ODIN provided server.

Service Levels	Typical Service Characteristic
None	**No server space**
Basic	**50MB of server space**
Regular	**500MB of server space**
Premium	**5GB of server space**
Enhanced	**50GB of server space**

E.3.2.5 DATA BACKUP AND RESTORATION

Service Description: Provides backup and restore services for a server disk storage. Provide the capability to restore files and directories within 4 work hours (of request) for files and directories changed more than 1 day before and no older than 30 days.

Service Levels	Typical Service Characteristic
None	**No seat data backup and restore services**
Basic	**Requires backups of seat data to be performed weekly.**
Regular	**Requires backups of seat data to be performed daily.**
Enhanced	**Requires redundant, on-line seat data.**

E.3.2.6 PERFORMANCE DELIVERY

Service Description: Provide the following performance delivery on ODIN provided servers. The Government reserves the right to verify SOW performance requirements. The contractor shall provide LAN Services required to meet the Performance Delivery requirements.

Service Levels	Typical Performance Characteristic
Basic	

WEB1	**Workgroup Web: Typically accessed by workgroup/projects through intra-Center network (Intranet).**
APP1	**Workgroup App: Application/Database typically utilized by workgroup/project**
COMP1	**Workgroup Computational Server: Provides equivalent processing power of a 200 CFPRate SPECMark computational server.**
FILE1	**Workgroup File Space: Typically accessed intermittently by a small workgroup. ODIN provided Storage Volume shall support transfer rates consistent with selected LAN service level for 1 concurrent user access in a production environment.**
Regular	
WEB1	**Organizational Web: Typically accessed by a Government organization such as a directorate/division through intra-Center network (Intranet).**
APP1	**Organizational App: Application/Database typically utilized by a Government organization such as a directorate/division.**
COMP1	**Organizational Computational Server: Provides equivalent processing power of a 400 CFPRate SPECMark computational server.**
FILE1	**Organizational File Space: Typically accessed intermittently by a Government organization such as a directorate/division. ODIN provided Storage Volume shall support transfer rates consistent with selected LAN service level for 5 concurrent user accesses in a production environment.**
Premium	
WEB1	**Agency Web: Typically accessed by Agency.**
APP1	**Institutional App: Application/Database typically utilized by entire institution on an intermittent basis.**
COMP1	**Institutional Computational Server: Provides equivalent processing power of a 800 CFPRate SPECMark computational server.**
FILE1	**Institutional File Space: Typically accessed intermittently on a center wide basis. ODIN provided Storage Volume shall support transfer rates consistent with selected LAN service level for 50 concurrent user accesses in a production environment.**
Enhanced	
WEB1	**Public Web: Typically accessed by Public over Internet connection.**
APP1	**Mission App: Application/Database typically utilized by entire institution as part of the institution's mission on a daily or weekly basis.**
COMP1	**Mission Computational Server: Provides equivalent processing power of a 1200 CFPRate SPECMark computational server.**
FILE1	**Agency File Space: Typically accessed intermittently by the agency user community. ODIN provided Storage Volume shall support transfer rates consistent intra-center connectivity for 500 concurrent user accesses in a production environment.**

E.3.3 COMMUNICATION SERVICE LEVEL DEFINITIONS

Administrative and Institutional communication systems provide the normal, day to day service for users within a Center. Communications services have been placed into Administrative and Operational service groupings for clarity only and do not necessarily imply autonomous system offerings. An Operational service will require either enhanced or critical service level support even though it might primarily be used to support Administrative services.

The ODIN Communication Services (OCS) offered in this Service Model can be selected to augment the standard communication service incorporated into a desktop seat (e.g., GP1, GP2, or NAD) or to provide a similar service capability to a non-ODIN desktop. The management of the OCS infrastructure (i.e., cable plant and all active and passive components required to deliver communication services) is bundled with each communication service

offered. Regardless of whether the service is selected from this Service Model or via a standard bundled desktop seat, the performance characteristics and service availability will be identical. Furthermore, all of the services offered must support research, S&E, and Centerwide Operations requirements as well as normal Administrative requirements. In order to consistently support this mix of requirements, the availability and performance characteristics will be consistent for all OCS services unless otherwise specified.

E.3.3.1 PHONE SERVICE

Service Description: Provides the service to ensure an appropriate phone instrument and complete phone system is available to the specified Phone Type. This includes instruments, infrastructure, and other required services to provide telephone related connectivity within, and external to, the Center. Also included in this service is the maintenance and administration of the telephone infrastructure; basic services (operational configuration, engineering and maintenance of analog and digital telephone switching system); moves, adds, changes; corrective/preventative maintenance of telephone and facsimile instruments and drops; and administration, operation, and maintenance of Central Communication Center (CCC) (telephone and central fax operators). The CCC provides telephone operators to direct incoming calls, set up voice conferences, initiate foreign calls, and operate a central facsimile service (if required by the Center). The CCC is staffed during normal business hours (6:00am - 6:00pm, Monday through Friday except Federal holidays). During off hours the incoming calls to a Center's main number will be handled by an computerized system. Performance levels include moves/adds/changes completed within the specifications listed in E.3.1.8, Moves, Adds, Changes. Standard for restore to service is close of business next day.

Instrument

Service Description: Provides for the phone instrument type.

Service Levels	Typical Service Characteristic
Single	**Single line phone instrument**
Dual	**Dual line phone instrument**
Multi-12	**12 line phone instrument**
Multi-24	**24 line phone instrument**
Cellular	**Cellular phone with 500 minutes per month.**

Line Type

Service Description: Provides for the desired line type.

Service Levels	Typical Service Characteristic
None	**No connection**
Analog	**Analog line**
Digital	**Digital line**

Voice Mail

Service Description: Provides the services required for a voice mail system with the following capabilities: recorded announcements, audio and visual indicators of messages awaiting retrieval, forwarding capability, broadcast (voice mail lists), 15 minutes of storage, auto dial voice mail caller, auto reply (send message back to voice mail caller), create, delete, retrieval of messages from any DTMF phone (internal or external to Center). Retrieval of messages from external to the Center shall be accessible via a toll-free line.

Service Levels	Typical Service Characteristic
None	**No voice mail**
Standard	**Voice mail with above capabilities**
Enhanced	**Voice mail with 30 minutes of storage**

Feature Set

Service Description: Provides for a standard set of features to be provided with the phone seat

Service Levels	Typical Service Characteristic
Standard	**Call forwarding, transfer, forward, intra-Center conferencing, camp, redial, hold**
Speaker	**Standard features plus speaker phone**
Enhanced	**Standard features plus speaker phone, call pickup/hunt group, call park, speed call, auto dial, caller ID**
Cellular	**Low battery indicator, recharger, caller ID, call waiting, roaming, speed call**

Restore to Service

Service Description: Provides standard maintenance services including:

- System diagnostics and trouble shooting
- System and component maintenance
- Configuration changes, tracking, and documentation.

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**
Critical	**Restore to service within 2 contiguous hours**

E.3.3.2 FAX SERVICE

Service Description: The Fax service will provide a comprehensive Administrative and operational plain paper facsimile service for all areas, including installation and maintenance support. Local Fax services are provided through the local phone service at each NASA Center with NISN and commercial interfaces required for inter-Center, commercial, and international facsimile services. The FAX machines provided by this service are suitable for both office and laboratory needs, and require only a minimal amount of supervision. Moves/adds/changes shall be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes. Standard for restore to service is close of business next day.

Unit

Service Description: Provides for a standard set of features to be supplied with the FAX

Service Levels	Typical Service Characteristic
Standard	**A single phone line and desktop plain paper fax with integrated handset, 5 page/min printing, 3 sec/page scanning, 14.4 kbps line transmission speed, record of last 10 transactions**
Portable	**A portable fax weighing 10 or less pounds and is not required to be a plain paper fax.**
Enhanced	**20 ppm plain paper**

Restore to Service

Service Description: Provides standard maintenance services including:

- System diagnostics and trouble shooting
- System and component maintenance
- Configuration changes, tracking, and documentation.

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**

Service Levels	Typical Service Characteristic
Critical	**Restore to service within 2 contiguous hours**

Option Set
Service Description: Provides for optional features that can be supplied with the selected FAX service

Service Levels	Typical Service Characteristic
Secure	**Provides the capability of sending and receiving secure faxes**
Mission Critical	**Enhances level of reliability by providing on-site swap out of the FAX service to minimize any loss of availability**

E.3.3.3 LOCAL VIDEO SYSTEM SERVICE

Service Description: The video system service will provide for the operation and maintenance of an existing Centerwide video system. At a minimum this service will provide; CaTV (data and video), video broadband, taping services, interfaces to uplink/downlink satellite video, transfer live video, and transfer video conferencing. Moves/adds/changes shall be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes. Standard for restore to service is close of business next day.

Connection
Service Description: Provides for a standard set of video services and the associated infrastructure

Service Levels	Typical Service Characteristic
Standard	**Provides operation and maintenance of the existing Center video system.**

Restore to Service
Service Description: Provides standard maintenance services including:

- System diagnostics and trouble shooting
- System and component maintenance
- Configuration changes, tracking, and documentation.

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**
Critical	**Restore to service within 2 contiguous hours**

Option Set
Service Description: Provides for optional features that can be supplied with the local video service

Service Levels	Typical Service Characteristic
Cable TV services	**Access to cable services and local television stations**
Video connection	**Single connection to local video system**
Cable feed select	**Provides remote selection of cable feed to a location**

E.3.3.4 ADMINISTRATIVE RADIO SERVICE

Service Description: Provides for a two-way radio services within a Center. Associated with this service is all the operations and maintenance of a RF system including network assignment (frequency/user network or talk group assignment) and administration. Moves/Adds/changes shall be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes. Standard for restore to service is close of business next day.

Unit
Service Description: Provides for a two-way radio service unit.

Service Description	Typical Service Characteristic
Portable	**Handheld portable two-way radio**
Mobile	**Vehicle mounted two-way radio and antenna**
Base station	**Fixed location transceiver**

Remote Audio Connection Service
Service Description: Additional handset that connect to the base station through audio circuit interfaces

Service Levels	Typical Service Characteristic
Standard	**Wired handset/headset**
Enhanced	**Wireless handset / headset**

Restore to Service
Service Description: Provides standard maintenance services including:
〈 System diagnostics and trouble shooting
〈 System and component maintenance
〈 Configuration changes, tracking, and documentation.

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**
Critical	**Restore to service within 2 contiguous hours**

E.3.3.5 LAN INTERFACE SERVICE

Service Description: Provides connectivity from a LAN that is not operated or maintained by ODIN. ODIN will provide the necessary LAN services to enable network connectivity across the interface. Typically connections are provided to corporate LANs, mission/operational LANs, laboratory LANs, WANs, etc. Moves/adds/changes shall be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes. Standard for restore to service is close of business next day. Services shall meet or exceed the performance requirements specified in the tables below.

Connection
Service Description: Provides for a single standard LAN service

Service Levels	Typical Service Characteristic
Regular LAN	**Provides a single LAN connection with access rates less than or equal to 20 Mbps and a guaranteed throughput capability of 3 megabit per second for files 1 megabyte or less in size on the operating network.**
Fast LAN	**Provides a single LAN connection with access rates in the range of 20 - 100 Mbps and a guaranteed throughput capability of 30 megabit per second for files 10 megabyte or less in size on the operating network.**
Huge LAN	**Provides a single LAN connection with access rates greater than 100 Mbps (available only after a Center review and approval) and a guaranteed throughput capability greater than 100 megabit per second for files 50 megabyte or less in size with "Quality of Service" characteristics (e.g., bandwidth reservation) on the operating network.**

Restore to Service

Service Description: Provides standard maintenance services including:

- System diagnostics and trouble shooting
- System and component maintenance
- Configuration changes, tracking, and documentation.

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**
Critical	**Restore to service within 2 contiguous hours**

E.3.3.6 REMOTE COMMUNICATION SERVICE

Service Description:

Connectivity which enables functionality similar to a local, direct connected network user while the customer is at most remote locations (e.g., on travel or at home). Since the user of this service will have the same access to the Center's internal resources (e.g., mail or internal use only WWW resources), certain security related procedures will be required to be completed before access will be allowed.

This service will also be used to provide connectivity for non-portable desktop systems located outside of a Center's physical boundaries. This service can also be used to provide connectivity for a portable, desktop, or LAN that is not operated or maintained by ODIN and is located outside of a Center's physical boundary. Typically connections are provided to Center staff and collaborators. Moves/adds/changes shall be completed within the specifications listed in E.3.1.8 Moves, Adds, Changes. Standard for restore to service is close of business next day.

Communications

Service Description:

Provides for remote connections into Centerwide LAN service

Service Levels	Typical Service Characteristic
Standard	**Provides a single asynchronous modem connection (of comparable speed as modems provided by ODIN in Remote LAN option of Desktop Seats)**
ISDN	**Provides a single digital modem connection, up to 128kbps PRI**
MAN	**Provides for LAN to LAN connectivity, fractional T1 to SONET**
Wireless	**Provides for mobile connectivity from internal and external locations to the Center**

Restore to Service

Service Description: Provides standard maintenance services including:

- System diagnostics and trouble shooting
- System and component maintenance
- Configuration changes, tracking, and documentation.

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**
Critical	**Restore to service within 2 contiguous hours**

E.3.3.7 PUBLIC ADDRESS SUPPORT

Service Description: A service that provides audio amplification and distribution of voice announcements . The system providing this service consists of microphones, mixers, amplifiers speakers and associated distribution components. Standard for restore to service is close of business next day.

Connection

Service Description: Provides a complete system to service a Center's Public Address requirements. The standard system services an entire facility and remains installed and operational. The portable systems are used for both on and off site meetings, conferences and special functions as required.

Service Levels	Typical Service Characteristic
Standard	**Existing Public Address system**
Portable	**Portable Public Address system**

Setup Service

Service Description**:** Setup and removal of portable public address systems and support that are used for both on and off site meetings, conferences and special functions, as required. Each system will include 10 setups and removals per year.

Service Levels	Typical Service Characteristic
Regular	**Setup within 5 days and removal within 3 days**
Critical	**Setup within 4 work hours and removal within 1 day**

Restore to Service

Service Description: Provides standard maintenance services including:

- System diagnostics and trouble shooting
- System and component maintenance
- Configuration changes, tracking, and documentation.

Service Levels	Typical Service Characteristic
Basic	**Restore to service within 3 working days**
Regular	**Restore to service by close of next business day**
Premium	**Restore to service within 8 work hours**
Enhanced	**Restore to service within 4 work hours**
Critical	**Restore to service within 2 contiguous hours**

[End of Attachment E]

ATTACHMENT F - ODIN PERFORMANCE METRICS

F.1 METRICS MEASUREMENT

Collective Level 1 metrics from each of the Centers will be reviewed quarterly by the Program Office.

F.1.1 LEVEL 1 METRICS

The Contractor shall meet or exceed the metrics specified in Level 1 Metrics Table F.1.1. for each classification of ODIN seat/system. The Contractor shall calculate and report service delivery, availability, and customer satisfaction metrics for each functional area listed in Table F.1.1 monthly to each Center according to DRD 2. The Contractor shall use the same information to create and report quarterly and annual rollups. Desktop User Services availability percentage is calculated based on outages for ODIN provided services accessed through desktop seats. This includes Desktop Seats, Server Services, LAN Interface Services, and Remote Communication Services. These metrics shall be made available to the Government or its agents.

Table F.1.1 – Level 1 Metrics Table

	Service Delivery (%)	**Availability (%)**	**Customer Satisfaction (%)**
Desktop User Services	**98**	**98**	**DOSP agreed to %***
Phone Service	**95**	**99.9**	**DOSP agreed to %***
Fax Service	**95**	**99.5**	**DOSP agreed to %***
Local Video Service	**95**	**99.5**	**DOSP agreed to %***
Administrative Radio Service	**95**	**99.9**	**DOSP agreed to %***
Public Address Service	**95**	**99.5**	**DOSP agreed to %***

* When the delivery order is solicited, the Center will inform the Contractor of the baseline customer satisfaction metric. The Contractor, as part of the DOSP, will propose a set of goal metrics which will be evaluated and agreed to by the Government and included in the delivery order in Table F.1.1. The Government will evaluate the proposed metrics to assess the degree to which these metrics maintain and improve the delivery of desktop and communications services to the Center and the end user throughout the life of the delivery order.

F.1.1.1 SERVICE DELIVERY METRIC

Service Delivery shall measure, as a percentage, the frequency of action requests being responded to and successfully completed within the allotted time. An action request shall be considered successfully completed when the Contractor has correctly implemented the move/add/change request or the Contractor has successfully concluded a ‘return to service’ (where the problem is resolved by restoring the user’s system to full service functionality and the user’s data is accessible) within the time requirement specified in the ODIN Service Model, Section E.3.

$$\text{Service Delivery} = 100 * \left(\frac{N_c}{N_s + N_d} \right)$$

Where:

N_c = Total number of actions completed within the specified service level during the reporting period.

N_s = Total number of actions scheduled to be completed within the reporting period.

N_d = Total number of delinquent actions from the prior reporting periods.

F.1.1.2 AVAILABILITY METRIC

For the availability metrics, the Contractor shall record all scheduled and unscheduled outages, and the number of users affected according to the terms in section F.2 for each ODIN service. The seat/system is considered available when the entire hardware and software configuration of the seat/system operates correctly at the subscribed service

level. A seat/ system is defined as unavailable when the vendor discovers a problem or is otherwise notified of a problem (for example, a trouble ticket is generated).

Availability percentage shall be calculated as the percentage of time the ODIN services are available and fully functional to the end user.

$$\text{Availability} = 100 - \frac{75 * \sum(\text{PDT} * \text{Users Affected})}{(\text{PHP} * \text{Total Users})} - \frac{25 * \sum(\text{NPDT} * \text{Users Affected})}{(\text{PHN} * \text{Total Users}) - \sum(\text{SO} * \text{Users Affected})}$$

Where:
PDT = Prime Downtime: The downtime impacting Prime Time ODIN Services (in hours).
NPDT = Non-Prime Downtime: The downtime impacting Non-Prime Time ODIN Services (in hours).
PHP = Possible Hours during prime time: The total system availability period (in hours) during prime time.
PHN = Possible Hours during non prime time: The total system availability period (in hours) during non-prime time.
SO = Scheduled Outages: Scheduled Outage during non-prime time (in hours).

F.1.1.3 CUSTOMER SATISFACTION METRIC

Customer Satisfaction will be measured using commercial/broad industry-accepted practices and objective evidence based on a statistical approach specified by the Contractor and found acceptable to the Government (i.e., selected customer surveys, comment forums). The metric should measure the user's determination of the accuracy, completeness, consistency, effectiveness, timeliness, and overall quality of the service provided by the Contractor. The primary measure is the percent of respondents who choose a score above the neutral level ('satisfied' or greater on an adjective scale, or above the mid point on a numeric scale).

F.1.2 CONTRACTOR SPECIFIC METRICS (LEVEL 2)

Contractor specific metrics will augment or provide greater detail than Level 1 metrics and identify key specific areas of interest (such as the measurement of proactive, vendor discovered versus user discovered, problems). These metrics will be specified by the Contractor and will be used to augment, validate, and ensure the completeness of the Level 1 metrics; however, regular reporting of contractor specific metrics to the Government is not required. These metrics shall also be used to ensure the impartiality, effectiveness, and consistency of the overall metric gathering and reporting process. These metrics shall be made available to the Government or its agents.

F.1.3 TREND METRICS (LEVEL 3)

The Contractor shall create a set of metrics, comprised of the previously reported Level 1 and contractor specific metrics, which will allow for the evaluation of time based trends. These metrics will illustrate ODIN service level trends over the previous three month or greater period. These metrics shall be made available to the Government or its agents.

F.2 METRIC TERMS:

Availability is the amount of time the system(s), or the total system, is working such that the customer can utilize the ordered ODIN provided services.

Customer satisfaction is how pleased the user is with the services provided by ODIN.

Downtime is the period of time when an end user's access to ODIN services is impaired. Downtime for each incident shall be the period of time between the time of failure and the time that the system is returned to the Government fully operational. Events not within the control of the Contractor will be evaluated by the COTR and may not be calculated as downtime. If the COTR defers the necessary repair of a system that has failed, downtime shall be suspended and operational use time shall accrue for the entire period that the COTR defers the repair. If the Contractor repairs a failed system or component and there is a second, or subsequent, incident of the same failure within 3 business days of the previous repair, the system downtime shall accrue from the first incident until

a repair finally corrects the malfunction. If a platform or server service fails to meet the performance specifications it was delivered under as defined in Attachment R, Technology Refreshment Baseline, it shall be considered down.

Prime time is defined as the ODIN standard hours of operation: 6:00am to 6:00pm local time on Monday through Friday, excluding Government holidays.

Scheduled Outage is defined as maintenance, testing, or other contractor-initiated activity that impacts the user's ability to access ODIN services. If such outages are scheduled and the affected users are notified at least 3 business days in advance and the outage does not take place during prime business hours, then the outage is considered as a scheduled outage. If outages due to maintenance or testing take place during prime business hours, then those outages shall be counted as downtime.

Total Users is defined as the total number of users that receive ODIN services.

Users Affected is defined as follows:

In the calculation of the number of users and seats affected by outages, no user and/or seat shall be counted more than once per hour of downtime even if more than one of their ODIN services is not available. The total number of users and seats affected shall not exceed the number of end users or seats for whom ODIN provides services. If the number of users and seats affected cannot be measured with certainty, the Contractor shall estimate the number of users and seats affected using the rules below based upon the best information available, subject to COTR approval.

- Connectivity Server, file, print, and related services - When a resource is impaired or not available, those end users that have access rights to that resource shall be counted as affected. If the resource is accessible to all end users by default, or to a majority of end users by default, then the number of users in the organization to whom the resource is primarily assigned shall be counted as affected.
- Connectivity Services (LAN Services) - If the connectivity outage affects a user's access to ODIN services, those users shall be counted as affected.
- Name Services - The number of users affected shall be the number of entries in the name space who receive OCS.
- Desktop Seats - The number of end users who use an ODIN provided desktop seat (GP, SE, MA, NAD) shall be counted as affected.
- ODIN Communication Services (OCS) - If an OCS outage affects a user's access to their OCS service, the user shall be counted as affected.
- Server Services - The number of users affected shall be the average number of users accessing the services provided by the server per day.
- Remote LAN Connectivity (Including RC and LAN seats) - Each RC or LAN connection shall be counted as one user affected, however if an RC or LAN outage prevents desktop seats (GP, MA, SE, NAD) from accessing any of their ODIN provided services, those users shall be counted as affected.

[End of Attachment F]

ATTACHMENT G - CATALOG OF SERVICES AND COMMERCIAL COMPONENTS

THE ELECTRONIC OF THE CSCC, INCLUDING PRICING, IS INCORPORATED INTO THE CONTRACT.

G.1 CATALOG OF SERVICES AND COMMERCIAL COMPONENTS (CSCC)

The ODIN catalog of services and commercial components shall allow user customization of a seat to meet specific requirements that are not satisfied by the standard seat configuration. Reference Section C.5.7, Catalog Services of the SOW regarding catalog services and Section C.5.5, Support Triage for ODIN and Non-ODIN Components, of the SOW regarding the support triage for ODIN and non-ODIN components. Catalog items shall be offered and priced in three categories. Category 1 is a "full service" category with the price reflecting the price of the acquisition (product price), maintenance, integration, and Triage Level 1 (see C.5.5.1) support to ensure functionality. Category 2 reflects the price for acquisition, maintenance, installation for non-ODIN supported components as described in Triage Level 2 (see C.5.5.2). Category 3 is the price of the acquisition and maintenance for components receiving Triage Level 3 support (see C.5.5.3). Software maintenance may be defined to include “bug fixes”, security patches, minor upgrades/improvements, or major upgrades/new versions depending on the software publisher’s commercial practice. Attachment L, Triage Assignment Table, specifies the existing support level for software and this shall be the minimum support level for software listed in the CSCC. For Category 1 and Category 2 products, interoperability assurance and integration of the purchased components into the user’s system are the responsibility of the ContractorThe Contractor shall update the catalog and prices no less than quarterly. The prices in this catalog are on a one time basis, however, large dollar items (in excess of $100,000) may be leased, depending on the customer’s needs.

[End of Attachment G]

ATTACHMENT H SUBCONTRACTING PLAN

SMALL BUSINESS, SMALL DISADVANTAGED BUSINESS AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN

Contractor:	DynCorp TechServ LLC
Address:	2000 Edmund Halley Drive Reston, VA 20191
Date Prepared:	February 2, 1998
Item/Service:	Outsourcing Desktop Initiatives for NASA (ODIN) Request for Proposal Number RFP5-ODIN/039
Type of Plan:	Individual Plan (all elements developed specifically for this contract and applicable for the full term of this contract)

POLICY

It is the policy of DynCorp TechServ to provide Small Business Concerns (SB), Small Disadvantaged Business Concerns (SDB), Women-Owned Business Concerns (WOB), Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) the maximum practical opportunity to compete for subcontracts under its government contracts or subcontracts, to the extent consistent with the operational environment, efficient performance, and requirements of the technical specifications. DynCorp TechServ will use its best efforts in carrying out this policy.

I. INTRODUCTION

The following is hereby submitted as the DynCorp TechServ Subcontracting Plan to satisfy the applicable requirements of Public Law 95-507 and the Federal Acquisition Regulations (FAR) Clause 52.219-9, entitled "Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan" (AUG 1996).

"Small Business Concern" means a small business as defined pursuant to Section 3 of the Small Business Act and in relevant regulations promulgated pursuant thereto, defined as a concern, including its affiliates that are independently owned and operated, not dominate in the field of operations in which it is bidding on Government contracts, and qualified as a small business under applicable size standards.

"Small Disadvantaged Business Concern" means a small business concern that is at least 51 percent owned by one or more individuals who are socially and economically disadvantaged, or a publicly-owned business having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals and who has its management and daily business controlled by one or more such individuals.

"Women-Owned Small Business Concern" means a small business that is at least 51 percent owned by a woman or women who are US citizens and who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management and operation of the company.

The term "Subcontract" includes purchase orders.

II. GOALS

DynCorp TechServ's Small Business, Small Disadvantaged Business and Women-Owned Small Business Subcontracting Plan Goals are presented below. The percentage goals are expressed in terms of a percentage of total planned subcontracting dollars. These goals will be applicable to subcontracts awarded under the contract resulting from the above solicitation. Indirect costs are not included in establishing the subcontracting goals.

i. Small Business Concerns: A minimum of **(b)** of the planned subcontract value will be awarded to subcontractors who are small business. (This figure includes the amount in ii. and iii. below.)

ii. Small Disadvantaged Business Concerns: A minimum of **(b)** of the planned subcontract value will be awarded to small businesses owned and controlled by socially and economically disadvantaged individuals. (This figure is included in i. above.)

iii. Women-Owned Small Business Concerns: A minimum of **(b)** of the planned subcontract value will be awarded to small businesses owned and controlled by women. (This figure is included in i. above.)

Because of the indefinite nature of the resultant contract, DynCorp TechServ cannot precisely estimate the dollar values that will be subcontracted. However, the following dollar values correspond to the percentage goals shown above multiplied by the total estimated value of subcontracts for each contract year.

i. Total dollars planned to be subcontracted to small business: $TBD[1]. (This figure includes the amount in ii. and iii. below.)

ii. Total dollars planned to be subcontracted to small disadvantaged business: $TBD1 (This figure is included in i. above.)

iii. Total dollars planned to be subcontracted to women-owned small businesses: **$TBD[1]** (This figure is included in i. above.)

The above subcontracting goals were developed by identifying potential areas for subcontracting and setting goals for awards to small, small disadvantaged and small women owned businesses subcontractors based on our knowledge of suitable subcontractors in specific fields of endeavor.

III. DESCRIPTION OF PRINCIPAL TYPES OF SUPPLIES AND SERVICES

Products and/or services that may be subcontracted, under DynCorp TechServ's contract are listed below. Small, Small Disadvantaged, and Women-Owned Business (SB/SDB/WOB) concerns are offered opportunities and are encouraged to submit proposals related to, but not necessarily limited to, the following:

Small Business

- Information Services
- Publishing/Printing
- Electronic Commerce
- Asbestos/Lead Abatement
- User Support
- Network Support
- Web Based Services
- On-site Support

Small Disadvantaged Business

- Computer-Based Training
- Training Support
- Information Services
- Engineering Services
- Computer Security Services
- User Support
- Network Support
- Asset Management
- On-site Support

Women-Owned Small Business

- Information Services
- Web Based Support
- User Support
- Network Support
- Training Support

[1] Total dollars planned to be subcontracted to small businesses could not be determined at this time due to the indefinite quantity to be ordered. DynCorp TechServ will provide an estimated dollar figure upon contract award.

- Asset Management
- On-site Support

IV. SUBCONTRACTING PLAN ADMINISTRATION

The following individual will administer the subcontracting program:

Name and Title

Robert Toth, Subcontract Program Administrator

Address and Telephone

DynCorp TechServ LLC
12750 Fair Lakes Circle
Fairfax, Virginia 22033
(703) 222-1591

This individual's specific duties, as they relate to DynCorp TechServ's subcontracting program, are to review, monitor, and execute the plan, including but not limited to:

a. Developing and promoting company policy statements that demonstrate the company's support for awarding contracts and subcontracts to small business concerns;
b. Developing and maintaining capabilities documentation from small business concerns;
c. Assuring that small businesses are considered for all subcontracting opportunities for every solicitation for products and services they are capable of providing;
d. Ensuring that procurement "packages" are designed to permit the maximum possible participation of small businesses;
e. Reviewing solicitations to remove statements, clauses, etc., which might tend to restrict or prohibit small business participation;
f. Ensuring that the capture manager documents his or her reasons for not selecting any low bids submitted by small business concerns;
g. Overseeing the establishment and maintenance of contract and subcontract award records;
h. Directly or indirectly counseling small business concerns on subcontracting opportunities and how to prepare responsive bids for the company;
i. Monitoring the company's performance and making any adjustments necessary to achieve the subcontract plan goals;
j. Preparing, and submitting timely, required subcontract reports;
k. Coordinating the company's activities during the conduct of compliance reviews by Federal Agencies; and,
l. Supervise or conduct employee training and motivation regarding utilization of all the above concerns; assure all personnel are included, i.e., Program/Project Managers, Contracts/ Subcontracts, Marketing, Buyers and Purchasing.

V. METHODS USED TO IDENTIFY POTENTIAL SOURCES

DynCorp TechServ will actively participate in all local and national organizations including, but not limited to, Minority Enterprises, Inc., local Chambers of Commerce, Small and Disadvantaged Business Committee, and Economic and Empowerment Breakfasts.

DynCorp TechServ will actively seek new SB/SDB/WOB sources by establishing a Small/Small Disadvantaged Business/Diversity Advocate program and by active participation in outreach activities and other related functions where participation is expected to expose new or additional qualified concerns to the opportunities at DynCorp TechServ. The following methods may be used to identify potential sources for solicitation purposes (e.g., what source lists are available to be used and what organizations may be contacted to obtain small business sources):

i. Historical data - i.e., what products and services we have obtained from small businesses in the past.

ii. SBA's Procurement Automated Source System (PASS) and/or SBA's Pro-Net database(s).

iii. Directories published by other companies and government agencies.

iv. Contact with Regional Minority Purchasing Councils.

v. U.S. Department of Commerce/Office of Minority Business Opportunity Committee, Inter-Agency Council.

In addition to the above, procurement personnel will be encouraged to attend procurement conferences, seminars, trade fairs, and other related functions where participation is expected to expose new or additional qualified SB/SDB/WOB concerns.

The following efforts will be taken, as appropriate, to assure that small business concerns will have an equitable opportunity to compete for subcontracts:

a. Contacts with minority and small business trade associations;

b. Contacts with business development organizations;

c. Attendance at small, minority and women owned business procurement conferences and trade fairs;

d. Requesting sources from the Small Business Administration's Procurement Automated Source System (PASS) and/or Pro-Net database;

e. Requesting sources from NASA Small and Small Disadvantaged Business Utilization officers; and

f. Requesting sources from the General Service Administration's Small and Small Disadvantaged Business Utilization officer.

VI. FLOW-DOWN REQUIREMENTS

DynCorp TechServ agrees that the clause FAR 52.219-8, entitled "Utilization of Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" will be included in all subcontracts which offer further subcontracting opportunities, and all subcontracts, except those with Small Business Concerns, who receive subcontracts in excess of $500,000 ($1,000,000 for construction) will be required to adopt and comply with a subcontracting plan similar to this one. Such plans will be reviewed by comparing them with the provisions of P.L. 95-507, FAR 52.219-9, and appropriate agency supplements to assure that all minimum requirements of an acceptable subcontracting plan have been satisfied. All such subcontractors (except small businesses) will be required to adopt a plan similar to the plan agreed to by DynCorp TechServ under this contract. The acceptability of percentage goals shall be determined on a case-by-case basis depending on the supplies/services involved, the availability of potential small and small disadvantaged, and women-owned business subcontractors, and prior experience. Once approved and implemented, plans will be monitored through the submission of periodic reports, and/or, as time and availability of funds permits, periodic visits to subcontractors' facilities to review applicable records and subcontracting program progress.

VII. DYNCORP TECHSERV COOPERATION

DynCorp TechServ shall cooperate, as requested, with the Contacting Officer in any studies and/or surveys of DynCorp TechServ's subcontracting procedures/practices/results under this contract.

DynCorp TechServ agrees to submit such periodic reports (including Standard Forms 294 and 295) in order to determine the extent of compliance with the subcontracting plan. Such reports are due within 30 days after the close of each Government reporting period (semi-annually). DynCorp TechServ will also require its applicable subcontractors to submit Standard Forms 294 and 295.

VIII. RECORDS

DynCorp TechServ agrees that it will maintain the following types of records to document compliance with the subcontracting plan:

a. Organizations contacted for small and disadvantaged business sources;

b. Records to support outreach efforts; i.e., contacts with Minority and Small Business Trade Associations, attendance at small and minority business procurement conferences and trade fairs, and visits to supplier plants;

c. Bidders Lists that classify each potential offeror as a SB/SDB/WOB concern;

d. Representations and certifications to support the classification, if any, of all potential offerors on the bidders lists;

e. In a contract-by-contract basis, records to support award data submitted to the Government to include name and address of subcontractor; and

f. Records on each subcontract solicitation resulting in an award of more than $100,000, indicating: a) whether small business concerns were solicited and if not, why not; b) whether small disadvantaged business concerns were solicited and if not, why not; c) whether small women owned business concerns were solicited and if not, why not; and d) if applicable, the reason award was not made to a small business concern.

This subcontracting plan reflects DynCorp TechServ's continuous commitment to identify and assist small business concerns, and to afford these firms equitable opportunity to compete for DynCorp TechServ's subcontracts. Questions pertaining to this plan should be directed to the following person who can be reached on (703) 222-1591.

Signature:	*Original signature in contract file*
Typed Name:	Robert Toth
Title:	Subcontract Program Administrator
Date:	February 2, 1998

End of Attachment H

ATTACHMENT I REPEATED EQUIPMENT FAILURE PLAN

Depending upon the particular piece of equipment experiencing repeated failure, the impact ranges from affecting a single user to an entire center. In general, there is a direct link between the user and the equipment category as shown in Table 3-1 and the triggers that invoke this plan. In most cases, repeated failure of a desktop computer will impact only a single user, whereas a repeated failure of a networking component will impact a large group of users. There is also correlation between the user and equipment category and the response time to fix the problem. In most cases, a repeated failure that impacts a large group of users requires immediate attention and takes priority over any other problem. However, the response time for a single user can be immediate if the user is fulfilling a mission-critical function or the service level agreement calls for that level of response.

Table 3-1. Repeated Equipment Failure Categories

USER	EQUIPMENT	TRIGGERS
Single user	Desktop Telephone Facsimile	3 failures of the same component within 30 days or 5 failures of the same system within 30 days
Work group(s)	Servers Peripherals	3 failures of the same component within 90 days or 5 failures of the same system within 90 days
Center level	Servers Network component Telephone switch	2 failures of the same component within 90 days or 4 failures of the same system within 90 days

Resolution of a repeated equipment failure problem is accomplished in the following manner:
Replace individual piece of equipment – the equipment that is failing is replaced by a like item. Analysis determined the problem is isolated to one piece of equipment, not to a family of equipment.
Replace line of equipment – analysis determined the piece of equipment is prone to failure across the system. The equipment is replaced gradually over a period of time phased to normal technology upgrade cycles or in the short term because of the potential for detrimental impact on NASA's mission.
Increase PMI – analysis of the problem indicated increased preventive maintenance will preclude repeated failures of that piece of equipment.
Retrain technician – in isolated cases, the technician repairing the equipment was improperly trained, leading to improper or incomplete repair.
Educate user – the end user performed inappropriate actions leading to failure of the equipment. The user is instructed on the proper use of the equipment.

End of Attachment I

ATTACHMENT J DD254

As described in A.1.26 Security Classification Requirements (1852.204-75) (SEPT 1989), performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of Top Secret. Please use the form on the following page.

DEPARTMENT OF DEFENSE **CONTRACT SECURITY CLASSIFICATION SPECIFICATION** (The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)	**1. CLEARANCE AND SAFEGUARDING** **a. FACILITY CLEARANCE REQUIRED:** **Top Secret** **b. LEVEL OF SAFEGUARDING REQUIRED:** **None**

2. THIS SPECIFICATION IS FOR: (X and complete as applicable)			**3. THIS SPECIFICATION IS:** (X and complete as applicable)			
	a. PRIME CONTRACT NUMBER		X	a. ORIGINAL (Complete date in all cases)		Date (YYMMDD)
	b. SUBCONTRACT NUMBER			b. REVISED (Supersedes all previous specs)	Revision No.	Date (YYMMDD)
	c. SOLICITATION OR OTHER NUMBER RFP5-ODIN/039	Due Date (YYMMDD) 980116		c. FINAL (Complete Item 5 in all cases)		Date (YYMMDD)

4. IS THIS A FOLLOW-ON CONTRACT? /__/ YES /X/ NO If Yes, complete the following:
Classified material received or generated under _____ (Preceding Contract Number) is transferred to this follow—on contract.

5. IS THIS A FINAL DD FORM 254? /__/ YES /X/ NO If Yes, complete the following:
In response to the contractor's request dated _____, retention of the classified material is authorized for the period of _____

6. CONTRACTOR (Include Commercial and Government Entity *(CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)
FOR BID PURPOSES ONLY		

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)

8. ACTUAL PERFORMANCE

a. LOCATION	b. CAGE CODE	a. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)
National Aeronautics & Space Administration Headquarters 300 E Street, S. W. Washington, D. C. 20546	NA	NA

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

Provide technical and management support of development and implementation of current initiatives and ongoing systems support services.

10. CONTRACTOR WILL REQUIRE ACCESS TO:	YES	NO	**11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:**	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION	X		a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY		X
b. RESTRICTED DATA		X	b. RECEIVE CLASSIFIED DOCUMENTS ONLY	X	
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL		X
d. FORMERLY RESTRICTED DATA		X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		X
e. INTELLIGENCE INFORMATION			e. PERFORM SERVICES ONLY	X	
(1) Sensitive Compartmented Information (SCI)		X	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
(2) Non-SCI	X		g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER		X
f. SPECIAL ACCESS INFORMATION		X	h. REQUIRE A COMSEC ACCOUNT		X
g. NATO INFORMATION		X	i. HAVE TEMPEST REQUIREMENTS		X
h. FOREIGN GOVERNMENT INFORMATION		X	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		X
i. LIMITED DISSEMINATION INFORMATION		X	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		X
j. FOR OFFICIAL USE ONLY INFORMATION	X		l. OTHER (Specify)		
k. OTHER (Specify)					

DD Form 254, DEC 90 (EG) Previous editions are obsolete

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be release for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public release shall be submitted for approval prior to release.

/__/ Direct /__X_/ Through (Specify)

None Authorized

To the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.

* In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

Generation or production of classified information is not required for performance of this contract. Personnel are required to be cleared because access to classified information cannot be precluded. Contractor may be required to operate and perform maintenance on classified computer systems and to perform COMSEC accounting functions. Any classified guidance will be provided by the National Aeronautics and Space Administration.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.) /___/ Yes /_X_/ No

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) . /___/ Yes /_X_/ No

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be release or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE (Include Area Code)
Sandra Daniels-Gibson	NASA Headquarters Chief Information Officer	(202) 358-1340

d. ADDRESS (Include Zip Code):	**17. REQUIRED DISTRIBUTION**	
E Street, S.W. 300	X	a.CONTRACTOR
Washington, D.C. 20546		b.SUBCONTRACTOR
	X	c.COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
e. SIGNATURE		d.U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
	X	e.ADMINISTRATIVE CONTRACTING OFFICER
	X	f. OTHERS AS NECESSARY

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End of Attachment J

ATTACHMENT K – RESERVED

End of Attachment K

ATTACHMENT L TRIAGE ASSIGNMENT TABLES

As described in C.5.5 Support Triage for ODIN and Non-ODIN Components, the Government requires the software packages listed below to be supported at either Triage Level 1 or Triage Level 2. Triage Level 1 packages shall receive full support from the Contractor. Triage Level 2 software packages are to be installed by the Contractor, but NASA or a NASA identified POC will be responsible for second level support. These POCs will be maintained at the Center level by the DOCOTR.

NOTE: There are many additional software packages in use at each Center which will require Triage Level 3 and have not been listed. The offerors should refer to the Center questionnaires and participation surveys.

Table L.1 Ames Research Center Software Table

Ames Research Center Software Table **Date: January 16, 1998**			
Vendor/Package		**Triage Level**	**NASA Identified POC**
Acquisition Evaluation System (AES)	**GOTS**	**2**	
PPP	**FreePPP, Linkup**	**1**	
Virex	**DataWatch**	**1**	
Emacs	**Freeware**	**1**	
Entire Connection	**Software AG**	**1**	
Eudora Pro	**Qualcomm, Inc**	**1**	
Gcc	**GNU Software**	**1**	
gzip/gunzip	**Public Domain**	**1**	
Adobe Acrobat	**Adobe Systems, Inc.**	**1**	
Integrated Financial Management Project (IFMP)	**GOTS**	**2**	
Stuffit Expander/Stuffit Expander Deluxe	**Aladdin Systems**	**1**	
NCSA Telnet	**NCSA**	**1**	
Virus Scan	**McAfee**	**1**	
MS Excel	**Microsoft Corp.**	**1**	
MS PowerPoint	**Microsoft Corp.**	**1**	
MS Word	**Microsoft Corp.**	**1**	
Natural Connection	**Software AG**	**1**	
Netscape Navigator/Communicator	**Netscape Communications, Inc.**	**1**	
Netscape Calendar	**Netscape Communications, Inc.**	**1**	
Perl	**UNIX Vendor, GNU Software, IDG Books, etc.**	**1**	
Norton Anti-Virus	**Symantec**	**1**	
MS Project Pro	**Microsoft Corp.**	**1**	
Security Profile Inspector	**Lawwrence Livermore Labs**	**1**	
MS Exchange	**Microsoft Corp.**	**1**	
MS Access	**Microsoft Corp.**	**1**	
Informed	**Shana Corp.**	**1**	
Informed Filler	**Shana Corp.**	**1**	
Meeting Maker	**ON Technology**	**1`**	
Mac Draw Pro	**Claris**	**1**	

End of ARC Software Table

Table L.2 Dryden Flight Research Center Software Table

Dryden Flight Research Center Software Table

Date: January 16, 1998

Package	Vendor	Triage Level	NASA-Identified POC
Adobe Acrobat	Adobe Systems	1	S. Wheaton
Adobe Illustrator	Adobe Systems	1	S. Wheaton/S. Lighthill
Adobe PageMaker	Adobe Systems	1	S. Wheaton/S. Lighthill
Adobe Photoshop	Adobe Systems	1	S. Wheaton/S. Lighthill
Adobe Premiere	Adobe Systems	1	S. Wheaton/S. Lighthill
Apple MacIntosh OS	Apple	1	B. Martin
AutoCAD	Autodesk, Inc.	1	R. Binkley
BBEdit	Bare Bones Software	1	S. Wheaton
BRIO	Brio	1	B. Ehly
Canvas	Canvas	2	S. Lighthill
DataViews	VI Corp	2	R. Binkley
DeBabelizer	Equilibrium	2	S. Wheaton
Entire Connection	Software AG	1	B. Ehly
Eudora	Qualcom	1	T. Blankenship
FileMaker Pro	Claris	1	B. Ehly
Fortran f90	Numerical Algorithms Group	2	R. Maine
Integrated Financial Management Project (IFMP)	Peat Marwick	2	B. Ehly
Kai’s Power Tools	Kai	2	S. Wheaton/S. Lighthill
KeyServer Software	Sassafras	1	D.Cohen
MacroMedia Developer Suite	MacroMedia	2	S. Wheaton/S. Lighthill
MATLAB	Mathworks	1	R. Maine
MatrixX	Integrated Systems, Inc.	2	R. Binkley
Meeting Maker	ON Technology	1	B. Matheny
MS DOS	Microsoft	1	B. Martin
MS Office Standard	Microsoft	1	B. Martin
MS SMS	Microsoft	1	B. Martin
MS SQL Server	Microsoft	1	B. Martin
MS Windows OS (3.x 95 & NT)	Microsoft	1	B. Martin
Multigen	MultiGen, Inc	2	R. Binkley
NASTRAN/PATRAN/P-Thermal	MacNeal Schwendler Corp	2	K. Roepel
Netscape & Netscape Directory Server	Netscape	1	S. Wheaton
Netware	Novell	1	R. Dees
Norton AntiVirus & Symantec AntiVirus MAC	Symantec	1	B. Martin

OmniPage Pro	Caere	2	S. Wheaton
OpenGVS	Quantum3D	2	R. Binkley
Orcad	OrCAD, Inc.	1	R. Binkley
PV/Wave	Visual Numerics	2	K. Roepel
SGI Compilers set (C,C++,Fortran,Ada)	Silicon Graphics	1	R. Binkley
Studio Pro	Strata	2	S. Lighthill
Sun Compilers set (C,Visual C, C++, Fortran, Ada)	Sun	1	R. Binkley/R. Maine
Sun Netmanager	Sun	1	B. Berger
Sun OS & Sun Solaris	Sun	1	B. Berger/ R. Maine
Sybase SQL Server	Sybase	1	R. Maine
Target Hotline	Applix	2	J. Andersen
VxWorks	Wind River Systems	2	K. Roepel

End of DFRC Software Table

Table L.3 Goddard Space Flight Center Software Table

Goddard Space Flight Center Software Table Date: January 16, 1998			
Package	**Vendor**	**Triage Level**	**NASA Identified POC**
Adobe Acrobat (full software suite)	Adobe Systems, Inc.	**2**	
AutoCAD	Autodesk, Inc.	**2**	
Automated Evaluation System (AES)	Powerbuilder Application	**2**	
C and C++	Multi-vendor O/S dependent	**2**	
Claris Draw	Claris Corp.	**1**	
Claris Filemaker Pro	Claris Corp.	**1**	
Connectix Ram Doubler	Connectix Corp.	**2**	
Corel Draw	Corel Corp.	**1**	
Deltek Accounting	Deltek Systems Inc.	**2**	
Entire Connection	Software AG	**1**	
Eudora-Pro	Qualcomm, Inc.	**1**	
Fortran	Multi-vendor O/S dependent	**2**	
FoxPro	Microsoft Corp.	**2**	
IDL	Research Systems	**2**	
Integrated Financial Mgt. Prg. (IFMP)	KPMG Application	**2**	
Internet Explorer	Microsoft	**1**	
Lotus 123	Lotus/IBM	**1**	
MacDraw	Claris Corp.	**2**	
MacLink Plus	DataViz, Inc.	**2**	
MAC OS	Apple Computer Corp.	**1**	
MacX	Apple Computer Corp.	**1**	
Manpower Tracking System	GOTS	**2**	
Mathematica	Wolfram Research Inc.	**2**	
Mathlab	Shareware	**2**	
McAfee Anti-Virus	Network Associates	**1**	
MS Access	Microsoft Corporation	**1**	
MS Exchange	Microsoft Corporation	**1**	
MS Outlook	Microsoft Corporation	**1**	
MS Office (Word, Excel, Powerpoint)	Microsoft Corporation	**1**	
MS Project	Microsoft Corporation	**1**	
MS Schedule +	Microsoft Corporation	**1**	
Microsoft Windows 95	Microsoft Corporation	**1**	
Microsoft Windows NT	Microsoft Corporation	**1**	
Netscape Navigator	Netscape Communications Corp.	**1**	
Norton Utilities	Symantec Corp.	**1**	
Novelle Netware	Novelle Corporation	**1**	
Oracle	Oracle	**2**	
PageMaker	Adobe Systems Inc.	**2**	
Powerbuilder 5	Powersoft	**2**	
Primavera	Primavera Software	**2**	
SMS	Microsoft Corp.	**1**	
Sybase	Sybase Corp.	**2**	
Travel Manager	Gelco Payment Systems, Inc.	**2**	
Word Perfect	Corel Corp	**1**	
WS-FTP	Microsoft Corp.	**1**	

End of GSFC Software Table

Table L.4 NASA Headquarters Software Table

Headquarters Software Table **Date: January 16, 1998**			
Vendor	Vendor/Package	Triage Level	NASA Identified POC
Acius Inc	4D Server	**1**	**Ms. Lee Arslan**
Acius Inc	4th Dimension	**1**	**Ms. Lee Arslan**
Adobe	Adobe Acrobat Reader	**1**	**Ms. Lee Arslan**
Berkley	After Dark	**1**	**Ms. Lee Arslan**
Information Dimensions Inc	Basis Plus	**1**	**Ms. Lee Arslan**
Deneba	Canvas	**1**	**Ms. Lee Arslan**
Net Manage	Chameleon	**1**	**Ms. Lee Arslan**
Thursby Software Systems	DAVE	**1**	**Ms. Lee Arslan**
Software AG	Entire Connection	**1**	**Ms. Lee Arslan**
Qualcomm	Eudora Pro	**1**	**Ms. Lee Arslan**
AEC Software Inc	Fast Track Schedule	**1**	**Ms. Lee Arslan**
OmTool	Fax Sr.	**1**	**Ms. Lee Arslan**
Dartmouth College	Fetch	**1**	**Ms. Lee Arslan**
Claris	Filemaker Pro	**1**	**Ms. Lee Arslan**
Microsoft	FoxPro	**1**	**Ms. Lee Arslan**
Command Software Systems	F-Prot95	**1**	**Ms. Lee Arslan**
MacroMedia	Freehand	**1**	**Ms. Lee Arslan**
Microsoft	Front Page	**1**	**Ms. Lee Arslan**
Custom Developed S/W	HATS	**2**	**Mr. Roger Bullock**
Custom Developed S/W	IFMP Software	**2**	**Mr. Roger Bullock**
Adobe	Illustrator	**1**	**Ms. Lee Arslan**
Cognos	Impromptu	**1**	**Ms. Lee Arslan**
Shana	Informed Filler	**1**	**Ms. Lee Arslan**
Claris	Mac DrawPro	**1**	**Ms. Lee Arslan**
Apple	MAC OS	**1**	**Ms. Lee Arslan**
On Technology	Meeting Maker	**1**	**Ms. Lee Arslan**
Microsoft	MS Access	**1**	**Ms. Lee Arslan**
Microsoft	MS Office	**1**	**Ms. Lee Arslan**
Microsoft	MS Project	**1**	**Ms. Lee Arslan**
NCSA Software	NCSA Telnet	**1**	**Ms. Lee Arslan**
Netscape	Netscape	**1**	**Ms. Lee Arslan**
NotifyMail SW / Scott Gruby	Notify Mail	**1**	**Ms. Lee Arslan**
Adobe	PageMaker	**1**	**Ms. Lee Arslan**
Adobe	Pagemill	**1**	**Ms. Lee Arslan**
Corel	Paradox	**1**	**Ms. Lee Arslan**
Adobe	Photoshop	**1**	**Ms. Lee Arslan**
Cognos	PowerPlay	**1**	**Ms. Lee Arslan**
Quark	Quark	**1**	**Ms. Lee Arslan**
Symantec	SAM Anti-Virus	**1**	**Ms. Lee Arslan**
Microsoft	SMS	**1**	**Ms. Lee Arslan**
Microsoft	SMS Client	**1**	**Ms. Lee Arslan**
Aladdin Systems	Stuffit Expander	**1**	**Ms. Lee Arslan**

Headquarters Software Table **Date: January 16, 1998**			
Vendor	Vendor/Package	Triage Level	NASA Identified POC
Gelco	Travel Manager	**1**	**Ms. Lee Arslan**
Microsoft	Windows 95	**1**	**Ms. Lee Arslan**
Nico Mak Computing	WinZip	**1**	**Ms. Lee Arslan**

End of HQ Software Table

Table L.5 Johnson Space Center Software

Johnson Space Center Software Table Date: January 16, 1998			
Package	**Vendor**	**Triage Level**	**NASA Identified POC**
Acroread	Adobe	1	
Stuffit Expander	Aladdin Systems	1	
MacOS	Apple	1	
IRMA Workstation	Attachmate	1	
Infoconnect	Attachmate	1	
TN3270	Brown University	1	
MacX	Claris	1	
Exceed	Hummingbird	1	
Internet Explorer	Microsoft	1	
Exchange Mail client	Microsoft	1	
Powerpoint	Microsoft	1	
Excel	Microsoft	1	
Word	Microsoft	1	
Access	Microsoft	1	
Project	Microsoft	1	
Schedule+	Microsoft	1	
Windows 95	Microsoft	1	
NT Workstation	Microsoft	1	
Navigator	Netscape	1	
QVT Telnet	QPC Software	1	
Norton Anti-Virus (NAV)	Symantec	1	
Delrina FormFlow/PerForm Pro Plus	Symantec	1	
SAM (Symantec Antivirus for Macintosh)	Symantec	1	
MaX.500 (Macintosh X.500 Browser)	University of Michigan	1	
Mac340	White Pines Software	1	

End of JSC Software Table

Table L.6 Kennedy Space Center Software Table

Kennedy Space Center Software Table Date: January 16, 1998			
Package	**Vendor**	**Triage Level**	**NASA Identified POC**
Microsoft Windows 95	Microsoft Corporation	**1**	
Microsoft NT Client 4.0	Microsoft Corporation	**1**	
Mac OS ver. 8.0	Apple Computer Corp.	**1**	
Microsoft Office Professional	Microsoft Corporation	**1**	
Microsoft Project	Microsoft Corporation	**1**	
Microsoft Exchange	Microsoft Corporation	**1**	
Microsoft SMS client	Microsoft Corporation	**1**	
Norton Anti-Virus for Windows 95 and NT	Symantec Corp.	**1**	
Netscape Navigator	Netscape Communications Corp.	**1**	
Microsoft NetMeeting	Microsoft Corporation	**1**	
Adobe Acrobat Reader	Adobe Systems, Inc.	**1**	
EWAN terminal emulator	Peter Zander	**2**	
GLINK for Windows	Gallagher & Robertson A/S	**2**	
WinVN Public Domain Usenet News Reader	Public Domain	**2**	
WSFTP-32 client for Windows	John A. Junod	**2**	
TN3270 IBM Terminal Emulator -	Public Domain	**2**	
QPC Software – WinQVT	QPC	**1**	
Ghostview/ghostscript	Public Domain	**2**	
QuickTime	Apple	**1**	
PK Zip / UNZip	PK Ware	**1**	
Schedule Publisher	Advanced Management Solutions	**1**	
Visual Basic	Microsoft	**1**	
Visual C++	Microsoft	**1**	
Hummingbird eXceed	Hummingbird Communications Ltd.	**1**	
Intergraph Microstation	Bentley	**2**	
Micrografx Flow Chart Viewer	Micrografx	**1**	
Dave	Thursby Software Systems	**1**	
Forms Flow	Delrina/Jet Forms	**1**	
File Maker Pro For Mac	Claris	**1**	
Front Page	Microsoft	**1**	
Corel Draw	Corel	**1**	
Spry Air	Spry	**1**	
Omnipage Pro	Caere	**1**	
Passport 3270 Emulator	Zypler	**1**	
Microsoft Front Page	Microsoft	**1**	
IFMP	Government Developed	**2**	

End of KSC Software Table

Table L.7 Langley Research Center Software Table

Langley Research Center Software Table Date: January 16, 1998			
Package	**Vendor**	**Triage Level**	**NASA Identified POC**
4th Dimension (Client and Server)	Acius	**2**	
Illustrator	Adobe Systems, Inc.	**1**	
Pagemaker	Adobe Systems, Inc.	**2**	
Photoshop	Adobe Systems, Inc.	**1**	
Premier	Adobe Systems, Inc.	**1**	
AppleTalk Remote Access (ARA)	Apple Computer Corp.	**1**	
MacOS	Apple Computer Corp.	**1**	
MacTCP / Open Transport	Apple Computer Corp.	**1**	
MacX	Apple Computer Corp.	**1**	
Artemis	Artemis	**1**	
AutoCAD	Autodesk, Inc.	**1**	
AfterDark Screensaver	Berkeley Systems	**1**	
Filemaker Pro	Claris Corp.	**1**	
Homepage	Claris Corp.	**1**	
Paradox	Corel Corp.	**1**	
WordPerfect	Corel Corp.	**1**	
Retrospect Remote	Dantz	**1**	
VIREX	Datawatch	**2**	
Canvas	Deneba	**2**	
Timbuktu	Farallon	**2**	
FoxPro	Microsoft Corp.	**2**	
Informix	Informix	**1**	
TCP Connect II	Intercon	**2**	
Mathematica		**1**	
MS Access	Microsoft Corp.	**1**	
MS Excel	Microsoft Corp.	**1**	
MS Internet Explorer	Microsoft Corp.	**2**	
MS Powerpoint	Microsoft Corp.	**1**	
MS Project	Microsoft Corp.	**1**	
SMS	Microsoft Corp.	**2**	
Visual Basic	Microsoft Corp.	**1**	
Windows 3.1, 95, NT	Microsoft Corp.	**1**	
MS Word	Microsoft Corp.	**1**	
LabView	Nat'l Instruments	**1**	
Navigator & Communicator	Netscape Communications Corp.	**1**	
Now Up-to-Date	Now Software Inc.	**1**	
Meeting Maker	ON Technology Corp.	**2**	
Oracle	Oracle	**2**	
ProEngineer	Parametric Technologies Corp.	**1**	
Euduro Pro	Qualcomm, Inc.	**1**	
QuarkXPress	Quark	**2**	
Informed Manager	Shana Corp.	**1**	
ThinkC		**1**	
Windview for SGI		**1**	

Langley Research Center Software Table Date: January 16, 1998			
Package	**Vendor**	**Triage Level**	**NASA Identified POC**
X-Windows		**1**	

End of LaRC Software Table

Table L.8 Lewis Research Center Software Table

Lewis Research Center Software Table Date: January 16, 1998			
Package	**Vendor**	**Triage Level**	**NASA Identified POC**
Adobe Acrobat (full software suite)	Adobe Systems, Inc.	**1**	
AutoCAD	Autodesk, Inc.	**2**	
Eudora Pro	Qualcomm, Inc.	**1**	
Exceed	Hummingbird Communications, LTD.	**1**	
Exceed 3D	Hummingbird Communications, LTD.	**2**	
Fetch	Public Domain	**1**	
FileMaker Pro	Claris Corp.	**1**	
Ghostview/Ghostscript	Public Domain	**2**	
IFMP	GOTS	**2**	
KeyServer Package	Sassafras Software, Inc.	**1**	
Livelink	Open Text, Corp.	**2**	
MAC OS	Apple Computer Corp.	**1**	
MacX	Apple Computer Corp.	**1**	
Maestro	Hummingbird Communications, LTD.	**1**	
Mathematica	Wolfram Research, Inc.	**2**	
Meeting Maker	ON Technology Corp.	**1**	
Micro-Frame ProjectServer	Micro-Frame Technologies, Inc.	**1**	
MS Access	Microsoft Corporation	**1**	
MS Office (Word, Excel, Powerpoint)	Microsoft Corporation	**1**	
MS Project	Microsoft Corporation	**1**	
NCDware	Network Computing Devices, Inc.	**1**	
Netscape Navigator	Netscape Communications Corp.	**1**	
Network Utilities (ping, telnet, ftp, nslookup, x500 search, etc.)	Public Domain	**1**	
Norton AntiVirus	Symantec Corp.	**1**	
Norton Utilities	Symantec Corp.	**1**	
PV Wave	Visual Numerics, Inc.	**2**	
Snooper	AtEase	**1**	
Symantec Antivirus for MAC	Symantec Corp.	**1**	
Systems Management Service	Microsoft Corp.	**1**	
TED/NTED	TriTeal Corp.	**1**	
TK Solver	Universal Technical Systems, Inc.	**2**	
TN3270	Jolly Giant Software, Inc.	**1**	
WIN NT	Microsoft Corp.	**1**	
WIN95	Microsoft Corp.	**1**	
WinCenter Pro	Network Computing Devices, Inc.	**1**	
WinVN News Reader	Public Domain	**1**	
WinZip	Nico Mak Computing, Inc.	**1**	

End of LeRC Software Table

Table L.9 Marshall Space Flight Center Software Table

Marshall Space Flight Center Software Table Date: January 16, 1998			
Vendor/Package	**Vendor**	**Triage Level**	**NASA Identified POC**
AdminStar	Turn-Key	1	
Adobe/Acrobat 3.0	Adobe	1	
AfterDark 2.x	Berkley Systems	1	
Claris Draw	Claris	1	
Claris/Filemaker Pro	Claris	1	
DynaComm	FutureSoft	1	
Eudora Pro	Qualquam	1	
Exceed (X windows)	Hummingbird	1	
FormFlow	Jetform	1	
Impromptu	Cognos	1	
MacX	Apple	1	
Meeting Maker	On Technology	1	
Microsoft Access	Microsoft	1	
Microsoft Excel V4 & V5	Microsoft	1	
Microsoft Exchange	Microsoft	1	
Microsoft Internet Explorer	Microsoft	1	
Microsoft Office 95	Microsoft	1	
Microsoft Powerpoint V3 & V4	Microsoft	1	
Microsoft Project V3, V4, & 95	Microsoft	1	
Microsoft Word V5 & V 6	Microsoft	1	
Netscape	Netscape	1	
Remedy	Remedy Corp.	1	
Symantec Norton Anti-Virus	Symantec	1	
TCP Connect II & IV	Communications Environment	1	
Claris Impact	Claris	2	
Entire Connection	Software AG	2	
Foxpro	Microsoft	2	
IFMP	KPMG	2	
Lotus Notes	Lotus	2	
MacDraw ProV1.5	Claris	2	
Maximo	Project Software and Development	2	
Microsoft Visual Basic	Microsoft	2	
Microsoft Visual C++	Microsoft	2	
Microsoft Visual J++	Microsoft	2	
Adobe Illustrator	Adobe	2	
Adobe PageMaker	Adobe	2	
Adobe Persuasion	Adobe	2	
Adobe/Photoshop v.4.0	Adobe	2	
Fetch	Shareware - Dartmouth College	2	
Mathematica	Wolfram Research, Inc.	2	
Microsoft Front Page 97	Adobe	2	
Microsoft NetMeeting	Adobe	2	

Marshall Space Flight Center Software Table Date: January 16, 1998			
Vendor/Package	**Vendor**	**Triage Level**	**NASA Identified POC**
Pacerlink	Pacer Software	2	

End of MSFC Software Table

Table L.10 Stennis Space Center Software Table

Stennis Space Center Software Table Date: January 16, 1998			
Package	**Vendor**	**Triage Level**	**NASA Identified POC**
Active Movie, Sparkle (MAC)	Microsoft, Apple	1	
Adobe Acrobat Reader	Adobe	1	
Backup Exec Enterprise	Seagate	1	
Entire Connection	Software AG	1	
Eudora Pro 3.02 (MAC)	Qualcomm	1	
Fetch (MAC)	Dartmouth College	1	
M/S TCP/IP, MAC TCP(M)	Microsoft, Apple	1	
M/S Telnet, NCSA Telnet (M)	Microsoft, NCSA	1	
Mac OS	Apple	1	
Mac TCP	Apple	1	
Microsoft Outlook	Microsoft	1	
MS Excel 97	Microsoft	1	
MS Excel for Mac	Microsoft	1	
MS FTP	Microsoft	1	
MS PowerPoint 97	Microsoft	1	
MS PowerPoint for Mac	Microsoft	1	
MS System Management Server (SMS)	Microsoft	1	
MS TCP/IP	Microsoft	1	
MS Telnet	Microsoft	1	
MS Word 97	Microsoft	1	
MS Word for Mac	Microsoft	1	
Netscape 3.01	Netscape	1	
Office 97	Microsoft	1	
Office 97, MS Access	Microsoft	1	
Office Mac	Apple	1	
Project	Microsoft	1	
Project Scheduler	Scitor Corp.	1	
Quicktime, Sparkle(M)	Apple, Apple	1	
Windows 95	Microsoft	1	
Windows NT	Microsoft	1	
Winzip	Nico Mak Computing Inc.	1	
Winzip, Stuffit Expander(M)	Nico Mak Computing Inc., Aladdin Sys. Corp	1	
IFMP		2	
AES		2	

End of SSC Software Table

End of Attachment L

ATTACHMENT M CENTER-MAJOR CONTRACTS/PROJECTS INTERFACES

Table M.1 Center – Major Contracts/Projects Interfaces

CENTER	PROJECT/CONTRACTOR INTERFACE	BRIEF DESCRIPTION	POC (name/phone)
ARC	CoSMO	Consolidated Supercomputing Maintenance Office	
DFRC	Woodside (NAS4-96009)	Provide support for all IT systems (desktops, helpdesk, networks, telephones, video, audio, cableplant)	
GSFC	QSS (NAS5-96054)	Hardware maintenance. System and LAN administration. Help desk. Support and Maintenance of the Desktop Environment	
GSFC	NACC	NASA Automated Data Processing Consolidation Center	
GSFC	QSS (NAS5-32934)	IT Support for Code 700	
GSFC	IFMP	Integrated Financial Mgt Pgm	
GSFC	CSOC	Consolidated Space Operations Contract	
GSFC	CSC (NAS5-32261)	System and LAN administration	
GSFC	Seimens/Rolm (NAS5-96064)	Telephone and cable maintenance	
GSFC	CNMOS/ Allied Signal (NAS5-31000)	Mission operations support and systems engineering services to Code 500	
GSFC	SEIMSS/ McDonald Douglas (NAS5-32590)	Engineering support and project control support (configuration mgmt., scheduling, library, ADP, graphics) to the Code 400 flight projects. Help desk.	
GSFC	ECS/ Hughes (NAS5-60000)	Systems development to deliver the EOSDIS Core System for EOS	
GSFC	Unisys (NAS5-32910)	Provide Software Assurance Engineering support	
GSFC	Hughes STX (NAS5-32350)	LAN installation and maintenance for the CNE; system administration of the desktop for Code 600 and 900	
GSFC	NSSDC/ Hughes STX (NAS5-97059)	Operate and maintain the National Space Science Data Center	
GSFC	Space Sciences Network Support/ KT Tech, Inc. (NAS5-96079)	Trouble Shooting Code 600 network problems, help desk duties	
GSFC	Omnibus Support/ PRC (N000024-97-C-6429)	Provides IT support to all non-combat AEGIS activities at Wallops	
GSFC	Combat Systems Support/ Lockheed-Martin (N00024-94-C-5140)	Provides IT support to all combat AEGIS activities at Wallops	
GSFC	TSDIS/ General Science Corp. (NAS5-32351)	IT support but details not provided	
GSFC	TSDIS Tech Support/ Mentor Tech, Inc. (NAS5-97044)	IT support but details not provided	
GSFC	Spacecraft Interface Eng./ Int. Dev. & Eng. Ass. (NAS5-31729)	IT support but details not provided	
GSFC	Scientific Research/ SSAI (NAS5-31752)	IT support but details not provided	

CENTER	PROJECT/CONTRACTOR INTERFACE	BRIEF DESCRIPTION	POC (name/phone)
GSFC	Nimbus/TOMS / HSTX (NAS5-31755)	IT support but details not provided	
GSFC	SDU/DAO Support/ General Science Corp. (NAS5-32332)	IT support but details not provided	
GSFC	Climate and radiation/ ARC (NAS5-32560)	IT support but details not provided	
GSFC	Solar Maximum/ ARC (NAS5-32585)	IT support but details not provided	
GSFC	Sensor Systems/ SSAI (NAS5-31741)	IT support but details not provided	
GSFC	Geophysics & Geodynamics Support/ HSTX (NAS5-31760)	IT support but details not provided	
GSFC	Computer Ops/Eng. Support/ SE&SI (NAS5-32978)	IT support but details not provided	
GSFC	Radiation Physics/ SE&SI (NAS5-32335)	IT support but details not provided	
GSFC	CESDIS/ USRA (NAS5-32337)	IT support but details not provided	
GSFC	SDCD Analysis/ Global Science and Tech. (NAS5-32374)	IT support but details not provided	
GSFC	GISS Support/ SSAI (NAS5-32370)	IT support but details not provided	
HQ	IFMP	Integrated Financial Mgmt Program	
HQ	NACC	NASA Automated Data Processing Consolidation Center	
HQ	NISN	NASA Integrated Services Network	
HQ	IR&MSC	Current HQ ADP/T support contract	
MSFC	CSC	MSFC Emergency Warning System (EWS) - This system is used to notify MSFC Center Personnel of impending Storms or other Emergencies. Life Protection System.	
MSFC	BAMSI	MSFC Fire Surveillance System (FSS) - This systems triggers fire alarms and notifies the Redstone Fire Department of potential fires. Life Protection System.	
MSFC	BAMSI	MSFC Utility Control System (UCS) - System is used to monitor MSFC's Utility consumption and control MSFC campus environmental systems	
MSFC	BAMSI	MSFC's Hazardous Gas Alarm System - System is used to alert appropriate life protection groups of hazardous gas discharges. -- Life Protection System.	
MSFC	SSI/CSC	Marshall Access Control System (MACS) - Provides MSFC building security access control, break in alarms, and video surveillance (VMACS).	

CENTER	PROJECT/CONTRACTOR INTERFACE	BRIEF DESCRIPTION	POC (name/phone)
MSFC	Lockheed Martin - Michoud Assembly Facility (MAF)	Shuttle ET manufacturer. Probably will be part of USA in Phase 2. Small NASA resident Office. L-M currently provides own computers through their contract. NASA employees are supplied by MSFC. Phone System is part of MSFC. LAN is L-M responsibility.	
MSFC	USDA National Finance Center (MAF)	Receives some services from MAF such as relay alarms, etc..	
MSFC	Boeing Space Station	International Space Station Contractor – has major link to NASA through MSFC. Supplies all workstations through their contract. Activity located near Huntsville airport.	
MSFC	MSFC Global Hydrology Control Center (GHCC) /UAH	UAH operates the GHCC Facility. The GHCC Lab has major connectivity to MSFC. MSFC provides workstations and communications responsibilities are shared between UAH/MSFC.	
MSFC	MSFC Mission Laboratory-Huntsville Operations Support Center	Supports Shuttle Launches through the HOSC. Has mission networks internal and interface significantly through MSFC other networks.	
MSFC	MSFC Mission Laboratory-Payloads Operation Control Center	Supports Shuttle Payloads through the POCC. Has mission networks internal and interface significantly through MSFC other networks.	
MSFC	MSFC Mission Laboratory-Payloads Crew Training Center	Supports Shuttle crews training for the shuttle Payloads through the PCTC. Has mission networks internal and interface significantly through MSFC other networks.	
MSFC	MSFC Mission Laboratory-Space Station Payloads	Supports Space Station Payloads. Has mission networks internal and interface significantly through MSFC other networks.	
MSFC	Lockheed Martin	Contractor supporting the MSFC Mission Operations Lab. Has off-site facilities near the Huntsville Airport at the Trade Zone Facility. MSFC provides connectivity to this operation.	
MSFC	CSC	MSFC Video Distribution, provides MSFC Centerwide Video Distribution services	
MSFC	CSC	Supports MSFC Administrative Telephone Services	
MSFC	CSC	MSFC Institutional Area Network LAN Services	
SSC	Lockheed Martin (NAS-13-650)	Contractor supporting the SSC Technical Test & Operations functions (commonly referred to as the TTSC contract) Primary functions include IT support for administrative and S&E computing, telecommunications, desktop services, etc.	
SSC	Johnson Controls World Services (NAS-13-400)	Contractor supporting the SSC Facility Services and Operations (commonly referred to as the FOSS contract). Primary IT functions include operations of all facilities utilities control systems, configuration management of all facilities and CAD support.	

CENTER	PROJECT/CONTRACTOR INTERFACE	BRIEF DESCRIPTION	POC (name/phone)
SSC	Rockwell (NAS-13-614)	Contractor supporting the Test Operations for the SSME complex. Primary IT functions include operations of DACS facilities, and propulsion test systems development.	
SSC	IFMP	Integrated Financial Mgmt Program	
SSC	NACC	NASA Automatic Data Processing Consolidation Center	
LeRC	CCNS (RMS is prime, BIS & Allied Signal are subcontractors)	Contract for IT/LAN/Telecomm. Support	
LeRC	RMS	Provides operation/ maintenance support of central computing facility, handles s/w maintenance agreements with vendors; help desk support; computer training; desktop infrastructure support; application specific COBOL programming support; virtual computing	
LeRC	Boeing Information Services	Provides networking installation, maintenance support and support for the cable plant portion of telecommunications	
LeRC	Allied Signal	Provides h/w maintenance & installation support and data acquisition support for PC/Mac/Unix users	
LeRC	CAPES (Recom Technology is prime, Sterling is subcontractor)	Contract for business & programmatic application support	
LeRC	Recom Tech.	Provides support for: business application programming and database administration; mainframe systems support (including MVS system in support of NACC)	
LeRC	Sterling	Provides programmatic support (ex. ACCL, G-Vis lab)	
LeRC	NYMA	Provides IT support for specific programs/projects	
LeRC	Analex	Provides IT support for specific programs/projects	
LeRC	Rhodes Security Services	Provides on-site security personnel and expertise including computer security support	
LeRC	Blanket Purchase (ex. C-17940-E)	Provides h/w support for IT equipment older than 5yrs	
LeRC	IFMP	Integrated Financial Management Project	
LeRC	Aerospace Companies & Universities	Numerous interfaces with major aerospace industry companies, such as GE, Pratt & Whitney, Boeing Aircraft, etc., for joint research projects. Examples include the High Speed Research Program. Functions range from email, document and data exchange to remote access to real-time wind tunnel data for visualization on local workstations. Applications enable the researcher to make adjustments to test parameters in real time to test effect of different variables	
LaRC	Supercomputing	Local use of remote supercomputers housed at Ames Research Center.	

CENTER	PROJECT/CONTRACTOR INTERFACE	BRIEF DESCRIPTION	POC (name/phone)
LaRC	Research Facilities/ Instrument control	Various applications of computers which range from 286 machines to high end UNIX workstations for automated control of a wide variety of research facility functions (e.g., long-term materials tests, wind tunnel instrument calibration)	
LaRC	Institutional Facilities	Security and emergency systems, such as fire alarms, utilities, energy consumption	
LaRC	Safety and Environment	Wide variety o f interface requirements	
LaRC	External government agencies	FAA, Air Force,	
LaRC	Technology Transfer	Communications and information exchange with wide variety to companies, including small businesses, technical companies, etc.	
LaRC	Electronic Commerce	Credit Card purchases, prompt payment, variety of procurement and financial management functions	
LaRC	Classified Processing and Information Protection/Management	Various interfaces	
LaRC	IFMP	Interface requirements available after award	
LaRC	AIM Applications (e.g., NEMS, NPPS)		
LaRC	Systems engineering and research support contracts		
JSC	ISC – Information Systems Contract	Provides institutional I/T support for desktops, LAN, telephones, e-mail, etc. (Contractors: Northrup-Grumman, Boeing, SAIC)	
JSC	IMPASS	Provides television cable plant and support for JSC	
JSC	SFOC-USA	Provides support for Shuttle Operations – status of providing I/T for on site people TBD	
JSC	BOSS-Brown & Root	Provides center operations support services, (e.g. facility maintenance and repair, security services) - Desktop support for GFP, LANS, telephones, etc. provided by NASA. Replacement and subsequent maintenance of desktop provided by BOSS	
JSC	NISN	NASA Integrated System Network	
KSC	CSOC	Consolidated Space Operations Contract	
KSC	DYNACS	Engineering Development Contract	
KSC	DYNAMAC	Life Sciences Support	
KSC	DEC	Payload Data Management System	
KSC	EG&G	BOC responsible for the management, operation maintenance and engineering of KSC utilities and facilities and other operations such as technical and administrative operations, health, fire and security services (being recompeted)	
KSC	IFMP	Integrated Financial Management Project	
KSC	PGOC	Payload Ground Operations Contract	
KSC	SFOC-USA	Space Flight Operations Contract – United Space Alliance	

End of Attachment M

ATTACHMENT N ODIN PERFORMANCE SPECIFICATIONS

N.1 PERFORMANCE MEASUREMENTS

The Contractor shall identify in Exhibit 6 equipment for initial proposals which establishes the technology refreshment baseline and which meets the performance specifications defined herein. Any equipment proposed for technology refreshment shall be tested and certified to meet or exceed the performance specifications in Attachment R, Technology Refreshment Baseline. The Government intends to utilize National Software Testing Laboratories (NSTL) for establishing and maintaining performance specifications for the Contractor provided systems. The Government reserves the right to verify performance requirements. NSTL will update the performance specifications based on market surveys and measurements on a quarterly basis. Contractors shall complete the NSTL certification benchmarks according to the NSTL provided instructions, and enclose the results of NSTL certifications in their initial proposals, delivery order offerings, and technology refreshment offerings. Instructions for NTSL certification can be found on the world wide web at http://nasa.nstl.com/. . This world wide web site also has system descriptions from the market surveys which describe the configurations that produced the published results.

N.2 PLATFORM PERFORMANCE SPECIFICATIONS

The following table defines the minimum performance levels that must be met or exceeded for each platform proposed. The listed performance percentiles indicate the performance required relative to the best performance achieved by a system in a particular scale.

Table N.2.1 Platform Minimum Performance Percentiles

NSTL Level	PC Desktop Scale	Mac Desktop Scale	PC Laptop Scale	Mac Laptop Scale	UNIX Desktop/Laptop Scale
Platforms					
PC desktops					
Entry-level	**50%**				
Mid-level	**70%**				
High-end	**85%**				
Macintosh desktop					
Entry-level		**50%**			
Mid-level		**70%**			
High-end		**85%**			
PC laptop					
Entry-level			**50%**		
Mid-level			**70%**		
High-end			**85%**		
Macintosh laptop					
Entry-level				**50%**	
Mid-level				**70%**	
High-end				**85%**	
UNIX desktop					
Entry-level					**35%**
Mid-level					**50%**
High-end					**85%**

End of Attachment N

ATTACHMENT O LIST OF SYSTEMS OF RECORDS ON INDIVIDUALS

NASA 10ACMQ	Aircraft Crewmembers Qualifications and Performance Records
NASA 10BRPA	Biographical Records for Public Affairs
NASA 10EEOR	Equal Opportunity Records
NASA 10ERMS	Executive Resources Management System
NASA 10GMVP	Government Motor Vehicle Operators Permit Records
NASA 10HABC	History Archives Biographical Collection
NASA 10HERD	Human Experimental and Research Data Records
NASA 10HIMS	Health Information Management System
NASA 10IGIC	Inspector General Investigations Case Files
NASA 10NPPS	Personnel and Payroll Systems (Currently NASA 10PAYS - Payroll Systems)
NASA 10SCCF	Standards of Conduct Counseling Case Files
NASA 10SECR	Security Records System
NASA 10SPER	Special Personnel Records
NASA 10XROI	Exchange Records on Individuals
LEWIS 22ORER	LeRC Occupational Radiation Exposure Records
GODDARD 51LISTS	Locator and Information Services Tracking System (LISTS)
GODDARD 51RSCR	GSFC Radiation Safety Committee Records
JOHNSON 72XOPR	JSC Exchange Activities Records
KENNEDY 76RTES	KSC Radiation Training and Experience Summary
KENNEDY 76STCS	KSC Shuttle Training Certification System (YC04)
KENNEDY 76XRAD	KSC USNRC Occupational External Radiation Exposure History for Nuclear Regulatory Commission Licenses

End of Attachment O

ATTACHMENT P PRICE LIST

The electronic copy is incorporated into the contract.

End of Attachment P

ATTACHMENT Q AGGREGATE SEAT BAND PER ORDERING ENTITY

Table Q.1 Ames Research Center

ARC Desktop	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
GP2											
Max quantity	0	1500	3000	3000	3000	3000	3000	3000	3000	3000	3000
Min quantity	0	650	1300	1300	1300	1300	1300	1300	1300	1300	1300
GP3											
Max quantity	0	200	400	400	400	400	400	400	400	400	400
Min quantity	0	100	200	200	200	200	200	200	200	200	200
SE1											
Max quantity	0	600	1190	1190	1190	1190	1190	1190	1190	1190	1190
Min quantity	0	150	330	330	330	330	330	330	330	330	330
SE2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
SE3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
MA1											
Max quantity	0	200	400	400	400	400	400	400	400	400	400
Min quantity	0	0	0	0	0	0	0	0	0	0	0
MA2											
Max quantity	0	30	60	60	60	60	60	60	60	60	60
Min quantity	0	0	0	0	0	0	0	0	0	0	0
NAD											
Max quantity	0	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	5530	8050	8050	8050	8050	8050	8050	8050	8050	8050
Min quantity	0	900	1830	1830	1830	1830	1830	1830	1830	1830	1830

ARC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
APP1											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
COMP1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FILE1											

ARC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	150	150	150	150	150	150	150	150	150	150
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	0	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PH2											
Max quantity	0	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PH3											
Max quantity	0	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PH4											
Max quantity	0	60	60	60	60	60	60	60	60	60	60
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Pcell											
Max quantity	0	60	60	60	60	60	60	60	60	60	60
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	7720	7720	7720	7720	7720	7720	7720	7720	7720	7720
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC Fax	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	0	100	100	100	100	100	100	100	100	100	100
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	100	100	100	100	100	100	100	100	100	100
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Total											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC Admin. Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	600	600	600	600	600	600	600	600	600	600
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	55	55	55	55	55	55	55	55	55	55
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	13	13	13	13	13	13	13	13	13	13
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	668	668	668	668	668	668	668	668	668	668
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	0	500	500	500	500	500	500	500	500	500	500
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN2											
Max quantity	0	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN3											
Max quantity	0	500	500	500	500	500	500	500	500	500	500
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC Remote Communication	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	0	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC2											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC3											
Max quantity	0	15	15	15	15	15	15	15	15	15	15
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC4											

ARC Remote Communication	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	0	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	4265	4265	4265	4265	4265	4265	4265	4265	4265	4265
Min quantity	0	0	0	0	0	0	0	0	0	0	0

ARC Public Address	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

Table Q.2 Dryden Flight Research Center

DFRC DESKTOP	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	529	529	529	529	529	529	529	529	529	529	529
Min quantity	423	423	423	423	423	423	423	423	423	423	423
GP2											
Max quantity	566	566	566	566	566	566	566	566	566	566	566
Min quantity	453	453	453	453	453	453	453	453	453	453	453
GP3											
Max quantity	220	220	220	220	220	220	220	220	220	220	220
Min quantity	176	176	176	176	176	176	176	176	176	176	176
SE1											
Max quantity	455	455	455	455	455	455	455	455	455	455	455
Min quantity	364	364	364	364	364	364	364	364	364	364	364
SE2											
Max quantity	87	87	87	87	87	87	87	87	87	87	87
Min quantity	78	78	78	78	78	78	78	78	78	78	78
SE3											
Max quantity	7	7	7	7	7	7	7	7	7	7	7
Min quantity	5	5	5	5	5	5	5	5	5	5	5
MA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
MA2											
Max quantity	7	7	7	7	7	7	7	7	7	7	7
Min quantity	5	5	5	5	5	5	5	5	5	5	5
NAD											
Max quantity	227	227	227	227	227	227	227	227	227	227	227
Min quantity	215	215	215	215	215	215	215	215	215	215	215
Total											
Max quantity	2098	2098	2098	2098	2098	2098	2098	2098	2098	2098	2098
Min quantity	1719	1719	1719	1719	1719	1719	1719	1719	1719	1719	1719

DFRC SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	3	3	3	3	3	3	3	3	3	3	3
Min quantity	2	2	2	2	2	2	2	2	2	2	2
APP1											
Max quantity	11	11	11	11	11	11	11	11	11	11	11
Min quantity	8	8	8	8	8	8	8	8	8	8	8
COMP1											
Max quantity	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Min quantity	400	400	400	400	400	400	400	400	400	400	400
FILE1											
Max quantity	52	52	52	52	52	52	52	52	52	52	52
Min quantity	42	42	42	42	42	42	42	42	42	42	42
Total											

DFRC SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	1666	1666	1666	1666	1666	1666	1666	1666	1666	1666	1666
Min quantity	452	452	452	452	452	452	452	452	452	452	452

DFRC PHONES	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	80	80	80	80	80	80	80	80	80	80	80
Min quantity	64	64	64	64	64	64	64	64	64	64	64
PH2											
Max quantity	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Min quantity	1680	1680	1680	1680	1680	1680	1680	1680	1680	1680	1680
PH3											
Max quantity	320	320	320	320	320	320	320	320	320	320	320
Min quantity	256	256	256	256	256	256	256	256	256	256	256
PH4											
Max quantity	55	55	55	55	55	55	55	55	55	55	55
Min quantity	44	44	44	44	44	44	44	44	44	44	44
Pcell											
Max quantity	45	45	45	45	45	45	45	45	45	45	45
Min quantity	36	36	36	36	36	36	36	36	36	36	36
Total											
Max quantity	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600
Min quantity	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080

DFRC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	100	100	100	100	100	100	100	100	100	100	100
Min quantity	80	80	80	80	80	80	80	80	80	80	80
FAX2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	100	100	100	100	100	100	100	100	100	100	100
Min quantity	80	80	80	80	80	80	80	80	80	80	80

DFRC LOCAL VIDEO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	1	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	1	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0

DFRC ADMIN RADIO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	500	500	500	500	500	500	500	500	500	500	500
Min quantity	400	400	400	400	400	400	400	400	400	400	400
AR2											
Max quantity	55	55	55	55	55	55	55	55	55	55	55
Min quantity	44	44	44	44	44	44	44	44	44	44	44
AR3											
Max quantity	30	30	30	30	30	30	30	30	30	30	30
Min quantity	24	24	24	24	24	24	24	24	24	24	24
Total											
Max quantity	585	585	585	585	585	585	585	585	585	585	585
Min quantity	468	468	468	468	468	468	468	468	468	468	468

DFRC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

DFRC REMOTE COMMUNICATION	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	24	24	24	24	24	24	24	24	24	24	24
Min quantity	16	16	16	16	16	16	16	16	16	16	16
RC2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC4											
Max quantity	3	3	3	3	3	3	3	3	3	3	3
Min quantity	2	2	2	2	2	2	2	2	2	2	2
Total											
Max quantity	27	27	27	27	27	27	27	27	27	27	27
Min quantity	18	18	18	18	18	18	18	18	18	18	18

DFRC PUBLIC ADDRESS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	20	20	20	20	20	20	20	20	20	20	20
Min quantity	15	15	15	15	15	15	15	15	15	15	15
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	20	20	20	20	20	20	20	20	20	20	20
Min quantity	15	15	15	15	15	15	15	15	15	15	15

Table Q.3 Goddard Space Flight Center

GSFC DESKTOP	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	1126	1164	1206	1212	1254	1252	1252	1254	1254	1254	1254
Min quantity	796	796	781	778	760	758	748	748	749	749	749
GP2											
Max quantity	2669	2687	2695	2778	2775	2818	2826	2824	2825	2825	2825
Min quantity	1967	2000	2036	2022	2019	1962	1966	1965	1966	1966	1966
GP3											
Max quantity	859	902	942	997	1002	1032	1050	1074	1045	1045	1045
Min quantity	493	515	539	562	566	570	574	578	546	546	546
SE1											
Max quantity	1580	1615	1706	1780	1819	1851	1901	1777	1779	1779	1779
Min quantity	706	802	914	1054	1130	1136	1146	1147	1148	1148	1148
SE2											
Max quantity	570	596	643	661	674	677	684	687	690	690	690
Min quantity	234	286	333	378	432	434	434	438	439	439	439
SE3											
Max quantity	90	98	114	120	122	123	125	126	127	127	127
Min quantity	12	24	32	44	54	58	59	59	59	59	59
MA1											
Max quantity	105	109	118	128	128	128	130	130	130	130	130
Min quantity	74	73	88	95	95	95	94	94	94	94	94
MA2											
Max quantity	34	46	49	50	50	50	50	50	50	50	50
Min quantity	22	30	34	35	35	35	36	36	36	36	36
NAD											
Max quantity	3298	3298	3258	4067	4032	4031	3996	4000	3941	3941	3941
Min quantity	2464	2464	2424	2990	2966	2979	2952	2961	2928	2928	2928
Total											
Max quantity	10333	10514	10733	11792	11858	11962	12015	11922	11842	11842	11842
Min quantity	6769	6990	7181	7958	8058	8030	8009	8026	7965	7965	7965

GSFC SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	16	16	16	16	16	16	16	16	16	16	16
Min quantity	0	0	0	0	0	0	0	0	0	0	0
APP1											
Max quantity	24	24	24	24	24	24	24	24	24	24	24
Min quantity	0	0	0	0	0	0	0	0	0	0	0
COMP1											
Max quantity	800	800	800	800	800	800	800	800	800	800	800
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FILE1											
Max quantity	100	100	100	100	100	100	100	100	100	100	100
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											

GSFC SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	940	940	940	940	940	940	940	940	940	940	940
Min quantity	0	0	0	0	0	0	0	0	0	0	0

GSFC PHONES	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	0	0	161	171	174	177	181	184	187	187	187
Min quantity	0	0	151	161	164	167	171	174	177	177	177
PH2											
Max quantity	0	0	12670	14170	14453	14743	15038	15338	15646	15646	15646
Min quantity	0	0	11500	12500	12900	13300	13500	13800	14000	14000	14000
PH3											
Max quantity	0	0	182	178	174	170	166	162	158	158	158
Min quantity	0	0	162	158	154	150	146	142	138	138	138
PH4											
Max quantity	0	0	114	126	128	130	132	134	136	136	136
Min quantity	0	0	94	106	108	110	112	114	116	116	116
Pcell											
Max quantity	105	114	135	139	151	151	161	161	166	166	166
Min quantity	95	104	125	129	141	141	151	151	156	156	156
Total											
Max quantity	105	114	13262	14784	15080	15371	15678	15979	16293	16293	16293
Min quantity	95	104	12032	13054	13467	13868	14080	14381	14587	14587	14587

GSFC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	255	259	259	265	265	265	266	266	266	266	266
Min quantity	245	249	249	255	255	255	256	256	256	256	256
FAX2											
Max quantity	1	1	1	1	1	1	1	1	1	1	1
Min quantity	1	1	1	1	1	1	1	1	1	1	1
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	256	260	260	266	266	267	267	267	267	267	267
Min quantity	246	250	250	256	256	257	257	257	257	257	257

GSFC LOCAL VIDEO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

GSFC ADMIN. RADIO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

GSFC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Min quantity	50	50	50	50	50	50	50	50	50	50	50
LAN2											
Max quantity	35	35	35	35	35	35	35	35	35	35	35
Min quantity	25	25	25	25	25	25	25	25	25	25	25
LAN3											
Max quantity	5	5	5	5	5	5	5	5	5	5	5
Min quantity	3	3	3	3	3	3	3	3	3	3	3
Total											
Max quantity	2040	2040	2040	2040	2040	2040	2040	2040	2040	2040	2040
Min quantity	78	78	78	78	78	78	78	78	78	78	78

GSFC REMOTE COMMUNICATION	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	62	62	62	62	62	62	62	62	62	62	62
Min quantity	52	52	52	52	52	52	52	52	52	52	52
RC2											
Max quantity	2	10	12	14	16	18	20	22	24	24	24
Min quantity	1	5	5	5	5	5	5	5	5	5	5
RC3											
Max quantity	30	30	30	30	30	30	30	30	30	30	30
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC4											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	94	102	104	106	108	110	112	114	116	116	116
Min quantity	53	57	57	57	57	57	57	57	57	57	57

GSFC PUBLIC ADDRESS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	1	1	1	1	1	1	1	1	1
Min quantity	0	0	1	1	1	1	1	1	1	1	1
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	1	1	1	1	1	1	1	1	1
Min quantity	0	0	1	1	1	1	1	1	1	1	1

Table Q.4 NASA Headquarters

HEADQUARTERS DESKTOP	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	0	705	702	701	696	696	696	696	696	696	696
Min quantity	0	482	479	478	475	473	473	473	473	473	473
GP2											
Max quantity	0	545	546	545	546	546	545	545	545	545	545
Min quantity	0	397	397	396	397	399	399	399	399	399	399
GP3											
Max quantity	0	196	198	199	201	203	205	198	198	198	198
Min quantity	0	130	130	131	133	135	136	137	137	137	137
SE1											
Max quantity	0	32	32	32	30	30	30	30	30	30	30
Min quantity	0	13	13	13	13	13	13	13	13	13	13
SE2											
Max quantity	0	14	14	14	14	14	14	14	14	14	14
Min quantity	0	5	5	5	5	5	5	5	5	5	5
SE3											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	1	1	1	1	1	1	1	1	1	1
MA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
MA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
NAD											
Max quantity	0	215	215	215	215	215	215	215	215	215	215
Min quantity	0	181	181	180	180	180	180	180	180	180	180
Total											
Max quantity	0	1708	1708	1707	1703	1705	1706	1699	1699	1699	1699
Min quantity	0	1209	1209	1204	1204	1206	1207	1208	1208	1208	1208

HEADQUARTERS SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	0	6	6	6	6	6	6	6	6	6	6
Min quantity	0	0	0	0	0	0	0	0	0	0	0
APP1											
Max quantity	0	14	14	14	14	14	14	14	14	14	14
Min quantity	0	7	7	7	7	7	7	7	7	7	7
COMP1											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	0	0	0	0	0	0	0	0	0	0	0

HEADQUARTERS SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FILE1											
Max quantity	0	4	4	4	4	4	4	4	4	4	4
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	400	424	424	424	424	424	424	424	424	424	424
Min quantity	0	7	7	7	7	7	7	7	7	7	7

HEADQUARTERS PHONES	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	0	270	270	270	270	270	270	270	270	270	270
Min quantity	0	180	180	180	180	180	180	180	180	180	180
PH2											
Max quantity	0	608	563	563	585	585	585	585	585	585	585
Min quantity	0	473	473	473	473	473	473	473	473	473	473
PH3											
Max quantity	0	585	540	540	563	563	563	563	563	563	563
Min quantity	0	450	450	450	450	450	450	450	450	450	450
PH4											
Max quantity	0	80	80	80	80	80	80	80	80	80	80
Min quantity	0	50	50	50	50	50	50	50	50	50	50
Pcell											
Max quantity	0	100	108	108	117	117	126	126	126	126	126
Min quantity	0	68	72	72	72	72	72	72	72	72	72
Total											
Max quantity	0	1643	1561	1561	1615	1615	1624	1624	1624	1624	1624
Min quantity	0	1221	1225	1225	1225	1225	1225	1225	1225	1225	1225

HEADQUARTERS FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	0	150	150	140	140	135	135	135	135	135	135
Min quantity	0	140	140	130	130	125	125	125	125	125	125
FAX2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	150	150	140	140	135	135	135	135	135	135
Min quantity	0	140	140	130	130	125	125	125	125	125	125

HEADQUARTERS LOCAL VIDEO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0

HEADQUARTERS ADMIN RADIO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	20	20	20	20	20	20	20	20	20	20
Min quantity	0	15	15	15	15	15	15	15	15	15	15
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	2	2	2	2	2	2	2	2	2	2
Min quantity	0	1	1	1	1	1	1	1	1	1	1
Total											
Max quantity	0	22	22	22	22	22	22	22	22	22	22
Min quantity	0	16	16	16	16	16	16	16	16	16	16

HEADQUARTERS LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	0	2	2	2	2	2	2	2	2	2	2
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN2											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN3											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	4	4	4	4	4	4	4	4	4	4
Min quantity	0	0	0	0	0	0	0	0	0	0	0

HEADQUARTERS REMOTE COMMUNICATIONS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	0	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Min quantity	0	600	600	600	600	600	600	600	600	600	600
RC2											
Max quantity	0	100	100	100	100	100	100	100	100	100	100
Min quantity	0	20	20	20	20	20	20	20	20	20	20

HEADQUARTERS REMOTE COMMUNICATIONS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC3											
Max quantity	0	10	10	10	10	10	10	10	10	10	10
Min quantity	0	3	3	3	3	3	3	3	3	3	3
RC4											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210
Min quantity	0	623	623	623	623	623	623	623	623	623	623

HEADQUARTERS PUBLIC ADDRESS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

Table Q.5 Johnson Space Center

JSC DESKTOP	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	9900	9900	9900	9900	9900	9900	9900	9900	9900	9900	9900
Min quantity	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500
GP2											
Max quantity	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Min quantity	600	600	600	600	600	600	600	600	600	600	600
GP3											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	204	204	204	204	204	204	204	204	204	204	204
SE1											
Max quantity	1112	1112	1112	1112	1112	1112	1112	1112	1112	1112	1112
Min quantity	828	828	828	828	828	828	828	828	828	828	828
SE2											
Max quantity	168	168	168	168	168	168	168	168	168	168	168
Min quantity	125	125	125	125	125	125	125	125	125	125	125
SE3											
Max quantity	80	80	80	80	80	80	80	80	80	80	80
Min quantity	50	50	50	50	50	50	50	50	50	50	50
MA1											
Max quantity	663	663	663	663	663	663	663	663	663	663	663
Min quantity	524	524	524	524	524	524	524	524	524	524	524
MA2											
Max quantity	413	413	413	413	413	413	413	413	413	413	413
Min quantity	339	339	339	339	339	339	339	339	339	339	339
NAD											
Max quantity	6000	5100	5100	5100	5100	5100	5100	5100	5100	5100	5100
Min quantity	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total											
Max quantity	19963	19036	19036	19036	19036	19036	19036	19036	19036	19036	19036
Min quantity	11770	11770	11770	11770	11770	11770	11770	11770	11770	11770	11770

JSC SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	75	75	75	75	75	75	75	75	75	75	75
Min quantity	50	50	50	50	50	50	50	50	50	50	50
APP1											
Max quantity	25	25	25	25	25	25	25	25	25	25	25
Min quantity	15	15	15	15	15	15	15	15	15	15	15
COMP1											
Max quantity	12000	13000	14500	16000	17500	20000	21000	23000	25500	28000	30000
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FILE1											
Max quantity	6	9	12	18	24	36	48	72	96	96	96
Min quantity	4	6	8	12	16	24	32	48	64	64	64
Total											

JSC SERVERS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	12106	13109	14612	16118	17624	20136	21148	23172	25696	25696	25696
Min quantity	69	71	73	77	81	89	97	113	129	129	129

JSC PHONES	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Min quantity	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300
PH2											
Max quantity	13000	13000	13000	13000	13000	13000	13000	13000	13000	13000	13000
Min quantity	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400
PH3											
Max quantity	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Min quantity	300	300	300	300	300	300	300	300	300	300	300
PH4											
Max quantity	300	300	300	300	300	300	300	300	300	300	300
Min quantity	200	200	200	200	200	200	200	200	200	200	200
Pcell											
Max quantity	200	200	200	200	200	200	200	200	200	200	200
Min quantity	50	50	50	50	50	50	50	50	50	50	50
Total											
Max quantity	18500	18500	18500	18500	18500	18500	18500	18500	18500	18500	18500
Min quantity	14250	14250	14250	14250	14250	14250	14250	14250	14250	14250	14250

JSC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	250	250	250	250	250	250	250	250	250	250	250
FAX2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	250	250	250	250	250	250	250	250	250	250	250

JSC LOCAL VIDEO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

JSC ADMIN RADIO	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

JSC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	70	80	80	80	80	80	80	80	80	80	80
Min quantity	40	30	30	30	30	30	30	30	30	30	30
LAN2											
Max quantity	30	60	60	60	60	60	60	60	60	60	60
Min quantity	7	15	15	15	15	15	15	15	15	15	15
LAN3											
Max quantity	5	10	10	10	10	10	10	10	10	10	10
Min quantity	1	2	2	2	2	2	2	2	2	2	2
Total											
Max quantity	105	150	150	150	150	150	150	150	150	150	150
Min quantity	48	47	47	47	47	47	47	47	47	47	47

JSC REMOTE COMMUNICATIONS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	64	64	64	64	64	64	64	64	64	64	64
Min quantity	32	32	32	32	32	32	32	32	32	32	32
RC2											
Max quantity	16	16	16	16	16	16	16	16	16	16	16
Min quantity	0	8	8	8	8	8	8	8	8	8	8
RC3											
Max quantity	20	25	25	25	25	25	25	25	25	25	25
Min quantity	10	10	10	10	10	10	10	10	10	10	10
RC4											
Max quantity	16	32	32	32	32	32	32	32	32	32	32
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	116	137	137	137	137	137	137	137	137	137	137
Min quantity	42	50	50	50	50	50	50	50	50	50	50

JSC PUBLIC ADDRESS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

Table Q.6 Kennedy Space Center

KSC Desktop	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	3992	3933	3866	3841	3836	3812	3812	3812	3812	3812	3812
Min quantity	1730	1656	1589	1564	1559	1535	1535	1535	1535	1535	1535
GP2											
Max quantity	3288	3281	3226	3241	3241	3242	3242	3242	3242	3242	3242
Min quantity	1152	1140	1082	1097	1097	1098	1098	1098	1098	1098	1098
GP3											
Max quantity	465	468	458	467	467	465	465	465	465	465	465
Min quantity	265	268	258	267	267	265	265	265	265	265	265
SE1											
Max quantity	836	840	844	1023	1028	1032	1036	1040	1040	1040	1040
Min quantity	505	506	510	689	694	698	702	706	706	706	706
SE2											
Max quantity	301	299	299	301	301	301	303	303	303	303	303
Min quantity	141	142	142	144	144	144	146	146	146	146	146
SE3											
Max quantity	182	183	182	182	183	183	183	183	182	182	182
Min quantity	12	13	12	12	13	13	13	13	12	12	12
MA1											
Max quantity	474	473	473	273	271	271	271	271	271	271	271
Min quantity	446	445	445	245	243	243	243	243	243	243	243
MA2											
Max quantity	18	20	20	20	20	20	20	20	20	20	20
Min quantity	12	14	20	20	20	20	20	20	20	20	20
NAD											
Max quantity	28	28	28	28	28	28	28	28	28	28	28
Min quantity	28	28	28	28	28	28	28	28	28	28	28
Total											
Max quantity	9584	9525	9396	9376	9375	9354	9360	9364	9363	9363	9363
Min quantity	4291	4212	4086	4066	4065	4044	4050	4054	4053	4053	4053

KSC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	57	52	50	50	50	50	50	50	43	43	43
Min quantity	39	34	32	32	32	32	32	32	25	25	25
APP1											
Max quantity	134	112	108	108	108	108	108	108	103	103	103
Min quantity	31	29	25	25	25	25	25	25	20	20	20
COMP1											
Max quantity	6400	6400	6400	6400	6400	6400	6400	6400	6400	6400	6400
Min quantity	400	400	400	400	400	400	400	400	400	400	400
FILE1											
Max quantity	78	75	66	66	66	66	66	66	59	59	59
Min quantity	60	57	48	48	48	48	48	48	42	42	42

KSC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Total											
Max quantity	6669	6639	6624	6624	6624	6624	6624	6624	6605	6605	6605
Min quantity	530	520	505	505	505	505	505	505	487	487	487

KSC Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PH2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PH3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PH4											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Pcell											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

KSC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

KSC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											

KSC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

KSC Admin Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

KSC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
LAN3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

KSC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	64	64	64	64	64	64	64	64	64	64	64
Min quantity	16	16	16	16	16	16	16	16	16	16	16
RC2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC4											
Max quantity	0	0	0	0	0	0	0	0	0	0	0

KSC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	64	64	64	64	64	64	64	64	64	64	64
Min quantity	16	16	16	16	16	16	16	16	16	16	16

KSC Public Addr	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

Table Q.7 Langley Research Center

LaRC Desktop	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	0	500	1800	1800	1800	1800	1800	1800	1800	1800	1800
Min quantity	0	250	1400	1400	1400	1400	1400	1400	1400	1400	1400
GP2											
Max quantity	0	500	1300	1300	1300	1300	1300	1300	1300	1300	1300
Min quantity	0	250	1000	1000	1000	1000	1000	1000	1000	1000	1000
GP3											
Max quantity	0	100	300	300	300	300	300	300	300	300	300
Min quantity	0	50	200	200	200	200	200	200	200	200	200
SE1											
Max quantity	0	50	700	700	700	700	700	700	700	700	700
Min quantity	0	0	250	250	250	250	250	250	250	250	250
SE2											
Max quantity	0	50	850	850	850	850	850	850	850	850	850
Min quantity	0	0	150	150	150	150	150	150	150	150	150
SE3											
Max quantity	0	50	250	250	250	250	250	250	250	250	250
Min quantity	0	0	0	0	0	0	0	0	0	0	0
MA1											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
MA2											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
NAD											
Max quantity	0	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
Min quantity	0	7450	5050	5050	5050	5050	5050	5050	5050	5050	5050
Total											
Max quantity	0	9350	13300	13300	13300	13300	13300	13300	13300	13300	13300
Min quantity	0	8000	8050	8050	8050	8050	8050	8050	8050	8050	8050

LaRC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	0	10	50	50	50	50	50	50	50	50	50
Min quantity	0	0	10	10	10	10	10	10	10	10	10
APP1											
Max quantity		50	150	150	150	150	150	150	150	150	150
Min quantity	0	0	50	50	50	50	50	50	50	50	50
COMP1											
Max quantity	0	1000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Min quantity	0	0	400	400	400	400	400	400	400	400	400
FILE1											
Max quantity	0	50	120	120	120	120	120	120	120	120	120
Min quantity	0	0	50	50	50	50	50	50	50	50	50
Total											

LaRC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	0	1110	4320	4320	4320	4320	4320	4320	4320	4320	4320
Min quantity	0	0	510	510	510	510	510	510	510	510	510

LaRC Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	580	610	620	620	620	620	620	620	620	620	620
Min quantity	530	560	590	590	590	590	590	590	590	590	590
PH2											
Max quantity	5550	5600	5650	5650	5650	5650	5650	5650	5650	5650	5650
Min quantity	5350	5400	5450	5450	5450	5450	5450	5450	5450	5450	5450
PH3											
Max quantity	900	950	1000	1000	1000	1000	1000	1000	1000	1000	1000
Min quantity	750	800	850	850	850	850	850	850	850	850	850
PH4											
Max quantity	2000	2100	2200	2200	2200	2200	2200	2200	2200	2200	2200
Min quantity	1600	1700	1800	1800	1800	1800	1800	1800	1800	1800	1800
Pcell											
Max quantity	40	60	70	70	70	70	70	70	70	70	70
Min quantity	20	30	35	35	35	35	35	35	35	35	35
Total											
Max quantity	9070	9320	9540	9540	9540	9540	9540	9540	9540	9540	9540
Min quantity	8250	8490	8725	8725	8725	8725	8725	8725	8725	8725	8725

LaRC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	320	340	350	350	350	350	350	350	350	350	350
Min quantity	270	290	300	300	300	300	300	300	300	300	300
FAX2											
Max quantity	14	18	20	20	20	20	20	20	20	20	20
Min quantity	6	7	8	8	8	8	8	8	8	8	8
FAX3											
Max quantity	120	140	160	160	160	160	160	160	160	160	160
Min quantity	50	60	70	70	70	70	70	70	70	70	70
Total											
Max quantity	454	498	530	530	530	530	530	530	530	530	530
Min quantity	326	357	378	378	378	378	378	378	378	378	378

LaRC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0

LaRC Admin Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

LaRC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	0	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Min quantity	0	200	200	200	200	200	200	200	200	200	200
LAN2											
Max quantity	0	200	200	200	200	200	200	200	200	200	200
Min quantity	0	100	100	100	100	100	100	100	100	100	100
LAN3											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	20	20	20	20	20	20	20	20	20	20
Total											
Max quantity	0	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Min quantity	0	320	320	320	320	320	320	320	320	320	320

LaRC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	0	80	80	80	80	80	80	80	80	80	80
Min quantity	0	40	40	40	40	40	40	40	40	40	40
RC2											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC3											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	10	10	10	10	10	10	10	10	10	10
RC4											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	230	230	230	230	230	230	230	230	230	230
Min quantity	0	50	50	50	50	50	50	50	50	50	50

LaRC Public Addr	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

Table Q.8 Lewis Research Center

LeRC Desktops	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY07	FY08	FY09
GP1													
Max quantity	0	2228	2094	1968	1850	1992	1992	1992	1992	1992	1992	1992	1992
Min quantity	0	2164	2034	1912	1797	1935	1935	1935	1935	1935	1935	1935	1935
GP2													
Max quantity	0	407	391	375	360	360	360	360	360	360	360	360	360
Min quantity	0	358	344	330	330	330	330	330	330	330	330	330	330
GP3													
Max quantity	0	400	425	450	475	475	475	475	475	475	475	475	475
Min quantity	0	275	300	325	350	350	350	350	350	350	350	350	350
SE1													
Max quantity	0	892	874	856	839	839	839	839	839	839	839	839	839
Min quantity	0	773	758	743	728	728	728	728	728	728	728	728	728
SE2													
Max quantity	0	399	391	383	375	375	375	375	375	375	375	375	375
Min quantity	0	323	317	311	304	304	304	304	304	304	304	304	304
SE3													
Max quantity	0	160	157	153	150	150	150	150	150	150	150	150	150
Min quantity	0	104	102	100	98	98	98	98	98	98	98	98	98
MA1													
Max quantity	0	750	735	720	706	706	706	706	706	706	706	706	706
Min quantity	0	676	663	649	636	636	636	636	636	636	636	636	636
MA2													
Max quantity	0	147	144	141	138	138	138	138	138	138	138	138	138
Min quantity	0	128	126	123	121	121	121	121	121	121	121	121	121
NAD													
Max quantity	0	435	426	418	410	410	410	410	410	410	410	410	410
Min quantity	0	363	355	348	341	341	341	341	341	341	341	341	341
Total													
Max quantity	0	5818	5637	5464	5303	5445	5445	5445	5445	5445	5445	5445	5445
Min quantity	0	5164	4999	4841	4705	4843	4843	4843	4843	4843	4843	4843	4843

LeRC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY08
WEB1											
Max quantity	0	20	20	20	20	20	20	20	20	20	20
Min quantity	0	5	5	5	5	5	5	5	5	5	5
APP1											
Max quantity	0	20	20	20	20	20	20	20	20	20	20
Min quantity	0	5	5	5	5	5	5	5	5	5	5
COMP1											
Max quantity	0	48000	48000	48000	48000	48000	48000	48000	48000	48000	48000
Min quantity	0	800	800	800	800	800	800	8000	800	800	800
FILE1											
Max quantity	0	40	40	40	40	40	40	40	40	40	40
Min quantity	0	20	20	20	20	20	20	20	20	20	20

LeRC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY08
Total											
Max quantity	0	48080	48080	48080	48080	48080	48080	48080	48080	48080	48080
Min quantity	0	830	830	830	830	830	830	830	830	830	830

LeRC Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	0	500	500	500	500	500	500	500	500	500	500
Min quantity	0	200	200	150	150	150	150	150	150	150	150
PH2											
Max quantity	0	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Min quantity	0	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
PH3											
Max quantity	0	1200	1200	1500	1500	1500	1500	1500	1500	1500	1500
Min quantity	0	500	500	500	500	500	500	500	500	500	500
PH4											
Max quantity	0	250	250	300	300	300	300	300	300	300	300
Min quantity	0	100	100	100	100	100	100	100	100	100	100
Pcell											
Max quantity	0	80	100	100	100	100	100	100	100	100	100
Min quantity	0	30	50	50	50	50	50	50	50	50	50
Total											
Max quantity	0	6030	6050	6400	6400	6400	6400	6400	6400	6400	6400
Min quantity	0	2830	2850	2800	2800	2800	2800	2800	2800	2800	2800

LeRC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	0	30	40	40	40	40	40	40	40	40	40
Min quantity	0	15	15	15	15	15	15	15	15	15	15
FAX2											
Max quantity	0	10	15	15	15	15	15	15	15	15	15
Min quantity	0	5	5	5	5	5	5	5	5	5	5
FAX3											
Max quantity	0	250	250	250	250	250	250	250	250	250	250
Min quantity	0	100	100	100	100	100	100	100	100	100	100
Total											
Max quantity	0	290	305	305	305	305	305	305	305	305	305
Min quantity	0	120	120	120	120	120	120	120	120	120	120

LeRC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	1	1	1	1	1	1	1	1	1	1
Total											

LeRC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	0	1	1	1	1	1	1	1	1	1	1
Min quantity	0	1	1	1	1	1	1	1	1	1	1

LeRC Admin Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	350	350	350	350	350	350	350	350	350	350
Min quantity	0	250	250	250	250	250	250	250	250	250	250
AR2											
Max quantity	0	125	125	125	125	125	125	125	125	125	125
Min quantity	0	75	75	75	75	75	75	75	75	75	75
AR3											
Max quantity	0	60	60	60	60	60	60	60	60	60	60
Min quantity	0	30	30	30	30	30	30	30	30	30	30
Total											
Max quantity	0	535	535	535	535	535	535	535	535	535	535
Min quantity	0	355	355	355	355	355	355	355	355	355	355

LeRC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	0	800	800	800	800	800	800	800	800	800	800
Min quantity	0	50	50	50	50	50	50	50	50	50	50
LAN2											
Max quantity	0	500	500	500	500	500	500	500	500	500	500
Min quantity	0	5	5	5	5	5	5	5	5	5	5
LAN3											
Max quantity	0	100	100	100	100	100	100	100	100	100	100
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Min quantity	0	55	55	55	55	55	55	55	55	55	55

LeRC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	0	64	64	64	64	64	64	64	64	64	64
Min quantity	0	16	16	16	16	16	16	16	16	16	16
RC2											
Max quantity	0	30	30	30	30	30	30	30	30	30	30
Min quantity	0	5	5	15	15	15	15	15	15	15	15
RC3											
Max quantity	0	5	5	5	5	5	5	5	5	5	5
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC4											
Max quantity	0	16	16	16	16	16	16	16	16	16	16

LeRC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	115	115	115	115	115	115	115	115	115	115
Min quantity	0	21	21	21	21	21	21	21	21	21	21

LeRC Public Addr	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

Table Q.9 Marshall Space Flight Center

MSFC DESKTOPS	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	2476	2424	2331	2307	2300	2293	2286	2281	2276	2276	2276
Min quantity	935	942	908	900	893	887	881	876	872	872	872
GP2											
Max quantity	2949	2871	2814	2823	2833	2840	2831	2837	2842	2842	2842
Min quantity	1689	1657	1631	1637	1644	1650	1643	1648	1653	1653	1653
GP3											
Max quantity	570	575	571	574	581	585	585	587	589	589	589
Min quantity	410	411	400	403	405	406	406	408	410	410	410
SE1											
Max quantity	1443	1451	1483	1483	1485	1485	1485	1485	1485	1485	1485
Min quantity	745	746	739	739	739	739	739	739	739	739	739
SE2											
Max quantity	651	665	678	678	678	678	678	653	653	653	653
Min quantity	246	251	256	254	254	254	254	254	254	254	254
SE3											
Max quantity	160	162	161	152	152	152	151	151	151	151	151
Min quantity	61	61	58	58	58	58	58	58	58	58	58
MA1											
Max quantity	815	786	758	758	758	758	758	758	758	758	758
Min quantity	250	246	243	243	243	243	243	243	243	243	243
MA2											
Max quantity	149	146	144	144	144	144	144	144	144	144	144
Min quantity	75	74	72	72	72	72	72	72	72	72	72
NAD											
Max quantity	1636	1632	1614	1614	1614	1614	1614	1614	1614	1614	1614
Min quantity	207	206	196	196	196	196	196	196	196	196	196
Total											
Max quantity	10849	10712	10554	10533	10545	10549	10532	10510	10512	10512	10512
Min quantity	4618	4594	4503	4502	4504	4505	4492	4494	4497	4497	4497

MSFC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	500	550	600	650	650	650	650	650	650	650	650
Min quantity	300	330	360	390	390	390	390	390	390	390	390
APP1											
Max quantity	50	55	60	60	60	60	60	60	60	60	60
Min quantity	30	35	40	40	40	40	40	40	40	40	40
COMP1											
Max quantity	12000	12000	12000	12000	12000	12000	12000	12000	12000	12000	12000
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FILE1											
Max quantity	700	770	840	910	910	910	910	910	910	910	910
Min quantity	630	700	770	840	840	840	840	840	840	840	840

MSFC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Total											
Max quantity	13250	13375	1350	13620	13620	13620	13620	13620	13620	13620	13620
Min quantity	960	1065	1170	1270	1270	1270	1270	1270	1270	1270	1270

MSFC Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	160	162	165	165	165	165	165	165	165	165	165
Min quantity	158	160	162	165	165	165	165	165	165	165	165
PH2											
Max quantity	7566	6700	6441	6312	6182	6093	5915	5825	5735	5735	5735
Min quantity	7366	6500	6241	6112	6082	5993	5815	5725	5635	5635	5635
PH3											
Max quantity	1557	1350	1325	1273	1247	1229	1193	1175	1165	1165	1165
Min quantity	1507	1300	1275	1223	1197	1179	1143	1125	1115	1115	1115
PH4											
Max quantity	309	274	261	233	220	220	213	206	206	206	206
Min quantity	274	239	234	225	220	213	206	206	206	206	206
Pcell											
Max quantity	97	104	111	119	127	136	146	156	166	166	166
Min quantity	91	97	104	111	119	127	136	146	156	156	156
Total											
Max quantity	9689	8590	8303	8102	7941	7843	7632	7527	7437	7437	7437
Min quantity	9396	8296	8016	7836	7783	7677	7465	7367	7277	7277	7277

MSFC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	302	307	312	312	312	312	312	312	312	312	312
Min quantity	292	292	292	292	292	292	292	292	292	292	292
FAX2											
Max quantity	6	7	8	9	10	11	12	13	14	14	14
Min quantity	4	4	4	4	4	4	4	4	4	4	4
FAX3											
Max quantity	170	175	180	180	180	180	180	180	180	180	180
Min quantity	160	160	160	160	160	160	160	160	160	160	160
Total											
Max quantity	478	489	500	501	502	503	504	505	506	506	506
Min quantity	456	456	456	456	456	456	456	456	456	456	456

MSFC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	1	1	1	1	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											

MSFC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	1	1	1	1	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

MSFC Admin Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

MSFC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	4000	3700	3500	3200	3000	2500	2500	2000	2000	1500	1000
Min quantity	500	500	500	400	400	400	300	300	300	300	100
LAN2											
Max quantity	350	800	1200	1500	1800	2000	2000	2500	3000	3000	3500
Min quantity	100	300	500	700	1000	1000	1200	1500	1500	2000	2000
LAN3											
Max quantity	0	100	300	500	600	700	800	900	1000	1000	1000
Min quantity	0	10	30	50	60	70	80	90	100	100	100
Total											
Max quantity	4350	4600	5000	5200	5400	5200	5300	5400	6000	5500	5500
Min quantity	600	810	1030	1150	1460	1470	1580	1890	1900	2400	2200

MSFC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	96	120	144	168	168	196	196	196	196	196	196
Min quantity	48	72	96	120	120	144	144	144	144	144	144
RC2											
Max quantity	50	75	100	150	200	300	700	700	700	700	700
Min quantity	10	50	75	100	150	200	500	500	500	500	500
RC3											
Max quantity	35	40	45	50	55	60	65	70	75	75	75
Min quantity	30	35	40	45	50	50	50	50	50	50	50
RC4											
Max quantity	2	5	20	20	20	20	20	20	20	20	20

MSFC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Min quantity	1	2	5	5	5	5	5	5	5	5	5
Total											
Max quantity	183	240	309	388	443	576	981	986	991	991	991
Min quantity	89	159	216	270	325	399	699	699	699	699	699

MSFC Public Address	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	18	18	18	18	18	18	18	18	18	18	18
Min quantity	18	18	18	18	18	18	18	18	18	18	18
PA2											
Max quantity	4	4	5	5	5	5	5	5	5	5	5
Min quantity	4	4	5	5	5	5	5	5	5	5	5
Total											
Max quantity	22	22	23	23	23	23	23	23	23	23	23
Min quantity	22	22	23	23	23	23	23	23	23	23	23

Table Q.10 Stennis Space Center

SSC Desktops	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	600	690	780	870	970	970	970	970	970	970	970
Min quantity	450	472	495	72	72	72	72	72	72	72	72
GP2											
Max quantity	900	1035	1190	1368	1368	1368	1368	1368	1368	1368	1368
Min quantity	600	630	661	97	97	97	97	97	97	97	97
GP3											
Max quantity	300	345	396	456	456	456	456	456	456	456	456
Min quantity	100	125	128	17	17	17	17	17	17	17	17
SE1											
Max quantity	300	345	396	456	456	456	456	456	456	456	456
Min quantity	150	158	165	24	24	24	24	24	24	24	24
SE2											
Max quantity	200	230	265	304	304	304	304	304	304	304	304
Min quantity	125	131	138	20	20	20	20	20	20	20	20
SE3											
Max quantity	40	46	53	61	61	61	61	61	61	61	61
Min quantity	25	26	27	4	4	4	4	4	4	4	4
MA1											
Max quantity	1300	1495	1719	1977	1977	1977	1977	1977	1977	1977	1977
Min quantity	100	100	100	100	100	100	100	100	100	100	100
MA2											
Max quantity	100	115	132	152	152	152	152	152	152	152	152
Min quantity	10	10	11	2	11	11	11	11	11	11	11
NAD											
Max quantity	500	500	500	1500	1500	1500	1500	1500	1500	1500	1500
Min quantity	3	3	3	3	3	3	3	3	3	3	3
Total											
Max quantity	4240	4801	5431	7144	7244	7244	7244	7244	7244	7244	7244
Min quantity	1563	1655	1728	339	348	348	348	348	348	348	348

SSC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	15	17	20	23	23	23	23	23	23	23	23
Min quantity	5	5	5	5	5	5	5	5	5	5	5
APP1											
Max quantity	20	23	26	30	30	30	30	30	30	30	30
Min quantity	10	10	11	11	11	11	11	11	11	11	11
COMP1											
Max quantity	800	920	1058	1216	1216	1216	1216	1216	1216	1216	1216
Min quantity	400	400	400	400	400	400	400	400	400	400	400
FILE1											
Max quantity	40	46	53	61	61	61	61	61	61	61	61

SSC Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Min quantity	20	20	20	20	20	20	20	20	20	20	20
Total											
Max quantity	875	1006	1157	1330	1330	1330	1330	1330	1330	1330	1330
Min quantity	435	435	436	436	436	436	436	436	436	436	436

SSC Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	1305	1509	2202	2213	2222	2222	2222	2222	2222	2222	2222
Min quantity	383	391	399	128	128	128	128	128	128	128	128
PH2											
Max quantity	4296	4968	7259	7291	7323	7323	7323	7323	7323	7323	7323
Min quantity	1298	1323	1350	446	446	446	446	446	446	446	446
PH3											
Max quantity	207	239	348	350	352	352	352	352	352	352	352
Min quantity	42	43	43	14	14	14	14	14	14	14	14
PH4											
Max quantity	40	40	40	40	40	40	40	40	40	40	40
Min quantity	10	10	10	10	10	10	10	10	10	10	10
Pcell											
Max quantity	30	31	32	33	33	33	33	33	33	33	33
Min quantity	10	10	10	10	10	10	10	10	10	10	10
Total											
Max quantity	5878	6787	9880	9927	9970	9970	9970	9970	9970	9970	9970
Min quantity	1743	1777	1812	608	608	608	608	608	608	608	608

SSC FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	308	357	516	519	521	521	521	521	521	521	521
Min quantity	116	100	100	25	25	25	25	25	25	25	25
FAX2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	308	61	62	62	62	62	62	62	62	62	62
Min quantity	116	100	100	25	25	25	25	25	25	25	25

SSC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	2	2	2	2	2	2	2	2	2	2	2
Min quantity	1	1	1	1	1	1	1	1	1	1	1

SSC Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Total											
Max quantity	2	2	2	2	2	2	2	2	2	2	2
Min quantity	1	1	1	1	1	1	1	1	1	1	1

SSC Admin Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	519	530	539	539	539	539	539	539	539	539	539
Min quantity	55	55	55	55	55	55	55	55	55	55	55
AR2											
Max quantity	75	77	78	78	78	78	78	78	78	78	78
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	24	25	26	27	27	27	27	27	27	27	27
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	618	632	643	644	644	644	644	644	644	644	644
Min quantity	55	55	55	55	55	55	55	55	55	55	55

SSC LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	20	20	20	21	21	21	21	21	21	21	21
Min quantity	20	20	20	21	21	21	21	21	21	21	21
LAN2											
Max quantity	24	24	25	25	25	25	25	25	25	25	25
Min quantity	14	14	14	2	2	2	2	2	2	2	2
LAN3											
Max quantity	98	98	98	98	98	98	98	98	98	98	98
Min quantity	12	12	12	0	0	0	0	0	0	0	0
Total											
Max quantity	142	142	144	144	144	144	144	144	144	144	144
Min quantity	46	46	46	23	23	23	23	23	23	23	23

SSC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
Min quantity	20	20	20	20	20	20	20	20	20	20	20
RC2											
Max quantity	184	190	195	200	200	200	200	200	200	200	200
Min quantity	4	4	4	4	4	4	4	4	4	4	4
RC3											
Max quantity	21	21	22	23	23	23	23	23	23	23	23
Min quantity	2	2	2	2	2	2	2	2	2	2	2
RC4											

SSC Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	1345	1351	1357	1363	1363	1363	1363	1363	1363	1363	1363
Min quantity	26	26	26	26	26	26	26	26	26	26	26

SSC Public Address	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	3	3	3	3	3	3	3	3	3	3	3
Min quantity	1	1	1	1	1	1	1	1	1	1	1
PA2											
Max quantity	4	4	4	4	4	4	4	4	4	4	4
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	7	7	7	7	7	7	7	7	7	7	7
Min quantity	1	1	1	1	1	1	1	1	1	1	1

Table Q.11 Typical Low-end GWAC Center

GWAC LOW Desktop	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	0	5400	5400	5400	5400	5400	5400	5400	5400	5400	5400
Min quantity	0	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
GP2											
Max quantity	0	1310	1310	1310	1310	1310	1310	1310	1310	1310	1310
Min quantity	0	450	450	450	450	450	450	450	450	450	450
GP3											
Max quantity	0	280	280	280	280	280	280	280	280	280	280
Min quantity	0	240	240	240	240	240	240	240	240	240	240
SE1											
Max quantity	0	700	700	700	700	700	700	700	700	700	700
Min quantity	0	60	60	60	60	60	60	60	60	60	60
SE2											
Max quantity	0	320	320	320	320	320	320	320	320	320	320
Min quantity	0	60	60	60	60	60	60	60	60	60	60
SE3											
Max quantity	0	90	90	90	90	90	90	90	90	90	90
Min quantity	0	30	30	30	30	30	30	30	30	30	30
MA1											
Max quantity	0	250	250	250	250	250	250	250	250	250	250
Min quantity	0	75	75	75	75	75	75	75	75	75	75
MA2											
Max quantity	0	150	150	150	150	150	150	150	150	150	150
Min quantity	0	75	75	75	75	75	75	75	75	75	75
NAD											
Max quantity	0	500	500	500	500	500	500	500	500	500	500
Min quantity	0	210	210	210	210	210	210	210	210	210	210
Total											
Max quantity	0	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000
Min quantity	0	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000

GWAC LOW Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	0	10	50	50	50	50	50	50	50	50	50
Min quantity	0	0	10	10	10	10	10	10	10	10	10
APP1											
Max quantity		50	150	150	150	150	150	150	150	150	150
Min quantity	0	0	50	50	50	50	50	50	50	50	50
COMP1											
Max quantity	0	8000	40000	40000	40000	40000	40000	40000	40000	40000	40000
Min quantity	0	0	8000	8000	8000	8000	8000	8000	8000	8000	8000
FILE1											
Max quantity	0	50	120	120	120	120	120	120	120	120	120
Min quantity	0	0	50	50	50	50	50	50	50	50	50
Total											
Max quantity	0	8110	40320	40320	40320	40320	40320	40320	40320	40320	40320

GWAC LOW Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Min quantity	0	0	8110	8110	8110	8110	8110	8110	8110	8110	8110

GWAC LOW Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	580	610	620	620	620	620	620	620	620	620	620
Min quantity	530	560	590	590	590	590	590	590	590	590	590
PH2											
Max quantity	5550	5600	5650	5650	5650	5650	5650	5650	5650	5650	5650
Min quantity	5350	5400	5450	5450	5450	5450	5450	5450	5450	5450	5450
PH3											
Max quantity	900	950	1000	1000	1000	1000	1000	1000	1000	1000	1000
Min quantity	750	800	850	850	850	850	850	850	850	850	850
PH4											
Max quantity	2000	2100	2200	2200	2200	2200	2200	2200	2200	2200	2200
Min quantity	1600	1700	1800	1800	1800	1800	1800	1800	1800	1800	1800
Pcell											
Max quantity	40	60	70	70	70	70	70	70	70	70	70
Min quantity	20	30	35	35	35	35	35	35	35	35	35
Total											
Max quantity	9070	9320	9540	9540	9540	9540	9540	9540	9540	9540	9540
Min quantity	8250	8490	8725	8725	8725	8725	8725	8725	8725	8725	8725

GWAC LOW FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	320	340	350	350	350	350	350	350	350	350	350
Min quantity	270	290	300	300	300	300	300	300	300	300	300
FAX2											
Max quantity	14	18	20	20	20	20	20	20	20	20	20
Min quantity	6	7	8	8	8	8	8	8	8	8	8
FAX3											
Max quantity	120	140	160	160	160	160	160	160	160	160	160
Min quantity	50	60	70	70	70	70	70	70	70	70	70
Total											
Max quantity	454	498	530	530	530	530	530	530	530	530	530
Min quantity	326	357	378	378	378	378	378	378	378	378	378

GWAC LOW Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	1	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	1	1	1	1	1	1	1	1	1	1	1
Min quantity	0	0	0	0	0	0	0	0	0	0	0

GWAC LOW Admin Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

GWAC LOW LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	0	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Min quantity	0	200	200	200	200	200	200	200	200	200	200
LAN2											
Max quantity	0	200	200	200	200	200	200	200	200	200	200
Min quantity	0	100	100	100	100	100	100	100	100	100	100
LAN3											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	20	20	20	20	20	20	20	20	20	20
Total											
Max quantity	0	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Min quantity	0	320	320	320	320	320	320	320	320	320	320

GWAC LOW Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	0	600	600	600	600	600	600	600	600	600	600
Min quantity	0	200	200	200	200	200	200	200	200	200	200
RC2											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
RC3											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	10	10	10	10	10	10	10	10	10	10
RC4											
Max quantity	0	50	50	50	50	50	50	50	50	50	50
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	750	750	750	750	750	750	750	750	750	750
Min quantity	0	210	210	210	210	210	210	210	210	210	210

GWAC LOW Public Addr	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09

GWAC LOW Public Addr	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

Table Q.12 Typical High-end GWACs Center

GWAC HIGH Desktop	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
GP1											
Max quantity	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000
Min quantity	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500
GP2											
Max quantity	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Min quantity	600	600	600	600	600	600	600	600	600	600	600
GP3											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	200	200	200	200	200	200	200	200	200	200	200
SE1											
Max quantity	500	500	500	500	500	500	500	500	500	500	500
Min quantity	200	200	200	200	200	200	200	200	200	200	200
SE2											
Max quantity	100	100	100	100	100	100	100	100	100	100	100
Min quantity	25	25	25	25	25	25	25	25	25	25	25
SE3											
Max quantity	100	100	100	100	100	100	100	100	100	100	100
Min quantity	25	25	25	25	25	25	25	25	25	25	25
MA1											
Max quantity	600	600	600	600	600	600	600	600	600	600	600
Min quantity	250	250	250	250	250	250	250	250	250	250	250
MA2											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	200	200	200	200	200	200	200	200	200	200	200
NAD											
Max quantity	3900	3900	3900	3900	3900	3900	3900	3900	3900	3900	3900
Min quantity	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Total											
Max quantity	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000
Min quantity	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

GWAC HIGH Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
WEB1											
Max quantity	75	75	75	75	75	75	75	75	75	75	75
Min quantity	50	50	50	50	50	50	50	50	50	50	50
APP1											
Max quantity	25	25	25	25	25	25	25	25	25	25	25
Min quantity	15	15	15	15	15	15	15	15	15	15	15
COMP1											
Max quantity	396000	396000	396000	396000	396000	396000	396000	396000	396000	396000	396000
Min quantity	324000	324000	324000	324000	324000	324000	324000	324000	324000	324000	324000
FILE1											
Max quantity	6	9	12	18	24	36	48	72	96	144	192
Min quantity	4	6	8	12	16	24	32	48	64	96	128

GWAC HIGH Servers	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Total											
Max quantity	396106	396106	396106	396106	396106	396106	396106	396106	396106	396106	396106
Min quantity	324069	324069	324069	324069	324069	324069	324069	324069	324069	324069	324069

GWAC HIGH Phones	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PH1											
Max quantity	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Min quantity	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300
PH2											
Max quantity	13000	13000	13000	13000	13000	13000	13000	13000	13000	13000	13000
Min quantity	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400
PH3											
Max quantity	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Min quantity	300	300	300	300	300	300	300	300	300	300	300
PH4											
Max quantity	300	300	300	300	300	300	300	300	300	300	300
Min quantity	200	200	200	200	200	200	200	200	200	200	200
Pcell											
Max quantity	200	200	200	200	200	200	200	200	200	200	200
Min quantity	50	50	50	50	50	50	50	50	50	50	50
Total											
Max quantity	18500	18500	18500	18500	18500	18500	18500	18500	18500	18500	18500
Min quantity	14250	14250	14250	14250	14250	14250	14250	14250	14250	14250	14250

GWAC HIGH FAX	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
FAX1											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	250	250	250	250	250	250	250	250	250	250	250
FAX2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
FAX3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	400	400	400	400	400	400	400	400	400	400	400
Min quantity	250	250	250	250	250	250	250	250	250	250	250

GWAC HIGH Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LVID1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0

GWAC HIGH Local Video	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Min quantity	0	0	0	0	0	0	0	0	0	0	0

GWAC HIGH Admin Radio	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
AR1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
AR3											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

GWAC HIGH LAN	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
LAN1											
Max quantity	70	80	80	80	80	80	80	80	80	80	80
Min quantity	40	30	30	30	30	30	30	30	30	30	30
LAN2											
Max quantity	30	60	60	60	60	60	60	60	60	60	60
Min quantity	7	15	15	15	15	15	15	15	15	15	15
LAN3											
Max quantity	5	10	10	10	10	10	10	10	10	10	10
Min quantity	1	2	2	2	2	2	2	2	2	2	2
Total											
Max quantity	105	150	150	150	150	150	150	150	150	150	150
Min quantity	48	47	47	47	47	47	47	47	47	47	47

GWAC HIGH Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
RC1											
Max quantity	64	64	64	64	64	64	64	64	64	64	64
Min quantity	32	32	32	32	32	32	32	32	32	32	32
RC2											
Max quantity	16	16	16	16	16	16	16	16	16	16	16
Min quantity	0	8	8	8	8	8	8	8	8	8	8
RC3											
Max quantity	20	25	25	25	25	25	25	25	25	25	25
Min quantity	10	10	10	10	10	10	10	10	10	10	10
RC4											
Max quantity	16	32	32	32	32	32	32	32	32	32	32
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											

GWAC HIGH Remote Comm	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Max quantity	116	137	137	137	137	137	137	137	137	137	137
Min quantity	42	50	50	50	50	50	50	50	50	50	50

GWAC HIGH Public Address	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
PA1											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
PA2											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0
Total											
Max quantity	0	0	0	0	0	0	0	0	0	0	0
Min quantity	0	0	0	0	0	0	0	0	0	0	0

End of Attachment Q

ATTACHMENT R TECHNOLOGY REFRESHMENT BASELINE

Table II-10-2. L(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: (b)(4)		NSTL Certification Date: 1(b)(4)		
SYSTEM CONFIGURATION				
ITEM	*MANUFACTURER*	*MODEL #*	*REVISION OR DATE*	*SIZE & SPEED*
System Unit	C(b)(4	)----------		
Motherboard	C---------			
CPU	I----	----------		----------
BIOS				
Keyboard	C---------			
Mouse	C---------			
Power Supply	C---------			
Hard Disk		----------		---- ----
HD Controller Card		-------		
Floppy Drive		----------		
CD-ROM	M--			-----
Network Interface Card	N----------	----------		----------
Monitor		----------		----------
Video Card	M------	---------- ---------- ------		
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	*MANUFACTURE--*	----------	----------	----------	-------
RAM			--------		
Cache			----------		
Video RAM			----------		----------

O(b)(4)----------

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Table II-10-3. L(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: *Note 2		NSTL Certification Date: 1/29/98		
SYSTEM CONFIGURATION				
ITEM	*MANUFACTURER*	*MODEL #*	*REVISION OR DATE*	*SIZE & SPEED*
System Unit	(b)(	4)----------		
Motherboard	------	-------		
CPU	-----	----------		----------
BIOS	-----			
Keyboard	------			
Mouse	---------			
Power Supply	------			
Hard Disk	----------	----------		---- ----
HD Controller Card				
Floppy Drive	------	----------		
CD-ROM	------			-----
Network Interface Card	----------	---------- ----------		----------
Monitor	----------	----------		----------
Video Card	------			
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	*MANUFACTUR----*	----------	----------	----------	-------
RAM			--------		
Cache			----------		
Video RAM			----------		----------

O(b)(4)----------

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Table II-10-4. L(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: (b)(4		NSTL Certification Date: B(b)(4)--		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	A(b)(4)----------	----------		
Motherboard	A----------	----------		----------
CPU	IB----------	----------		----------
BIOS	N--			
Keyboard	A----------			
Mouse	A----------			
Power Supply	M-------			--------
Hard Disk	M-------	-----		------
HD Controller Card	A----------	-----		
Floppy Drive	M-------			----------
CD-ROM	A------			-----
Network Interface Card	A-----	----------		----------
Monitor	A----------			----------
Video Card	A--	---------- ---------- -----		-------
Sound Card	A----------			---------- ---------- --------
Speakers	A----------			
Headset/Microphone				
Microphone	A----------			
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM			--------	-------	----------
Cache			----------		---
Video RAM			-------		----------

O(b)(4)----------

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Table II-10-5. M(b)(4)----------

Part Number:(b)(4)----------				
NSTL Profile Ranking: (b)(4)		NSTL Certification Date: (b)(4)--		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	(b)(4)	----------		
Motherboard	----------			
CPU	-----	----------		----------
BIOS				
Keyboard	----------	----------		
Mouse	----------			
Power Supply	----------			
Hard Disk		----------		---- ----
HD Controller Card		-------		
Floppy Drive		----------		
Zip Drive		-------		
CD-ROM	-----			-----
Network Interface Card	----------	----------		----------
Monitor		----------		----------
Video Card	---------	---------- ----------		----------
Sound Card				
Speakers				---------
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTUR----***	----------	----------	----------	-------
RAM			--------		
Cache			----------		
Video RAM			----------		----------

Other salient features:

(b)(4)----------

Table II-10-6. M(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: (b)(4)--		NSTL Certification Date: (b)(4)--		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	A(b)	(4)----------		
Motherboard	A----	-------		
CPU	I----	----------		----------
BIOS	I----			
Keyboard	N----			
Mouse	L--------			
Power Supply	A----			
Hard Disk	S---------	----------		---- ----
HD Controller Card				
Floppy Drive	A----	----------		
Zip Drive		-------		
CD-ROM	A----			-----
Network Interface Card	K---------	---------- ----------		----------
Monitor	V----------	----------		----------
Video Card	A----			
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM			--------		
Cache			----------		
Video RAM			----------		----------

O(b)(4)----------

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Table II-10-7. M(b)(4)----------

Part Number: D(b)(4)----------				
NSTL Profile Ra----------(b)(4)		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	A(b)(4)----------	----------		
Motherboard	A----------	----------		----------
CPU	I----------	----------		----------
BIOS	N--			
Keyboard	A----------			
Mouse	A----------			
Power Supply	M-------			--------
Hard Disk	M-------	-----		------
HD Controller Card	A----------	-----		
Floppy Drive	M-------			----------
CD-ROM	A------			-----
Network Interface Card	A-----	----------		----------
Monitor	A----------	----------		---------
Video Card	A--	---------- ---------- -----		-------
Sound Card	A----------			---------- ---------- --------
Speakers	A----------			
Headset/Microphone				
Microphone	A----------			
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM			--------	------	----------
Cache			---------		---
Video RAM			-------		----------

O(b)(4)----------

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Table II-10-8. PC(b)(4)----------

PART NUMBER: D(b)(4)----------				
NSTL PROFILE RANKING: (b)(4)-- -		NSTL CERTIFICATION DATE: 1(b)(48		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	C(b)(4	)---------- ---------- ----------	-----	
Motherboard	C---------			
CPU	C---------	----------		----------
BIOS	C---------			
Keyboard	C---------			
Mouse	C---------			
Power Supply	C---------			
Hard Disk	C---------			----------
HD Controller Card	C---------			
Floppy Drive	C---------			-----
Zip Drive	C---------			
CD-ROM	C---------			----
Network Interface Card	C---------			
Monitor	C---------			---------- ----------
Video Card	C---------			----------
Sound Card	C---------			---------- ----------
Speakers				---------
Headset/Microphone				----------
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM	(b)(4)		--------		----------
Cache	----------		--------		
Video RAM	----------		-------		----------

O(b)(4)----------

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Table II-10-9. M(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: (b)(4)		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	(b)(4)----------	----------		
Motherboard	----------	----------		
CPU	----------	----------		----------
BIOS	-----			
Keyboard	----------			
Mouse	----------	----------		
Power Supply	----------	----------		----------
Hard Disk	----------	-----		------
HD Controller Card	----------	-----		
Floppy Drive	----------			----------
CD-ROM	---------			-----
Network Interface Card	-------	----------		----------
Monitor	----------	----------		--------- ----------
Video Card	----------			-------
Sound Card	----------			---------- ---------- --------
Speakers	----------			-
Headset/Microphone				
Microphone	----------			
Other				

Memory Module Configuration

ITEM	***MANUFACTUR----***	----------	----------	----------	-------
RAM			--------	-------	----------
Cache			--------	----------	---
Video RAM			-------		--------

O(b)(4)----------

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Table II-10-10. H(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking:(b)(4)----		NSTL Certification Date: (b)(4)--		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	(b)(4)	---------- ------		
Motherboard	----------	----------		
CPU	----------	----------		----------
BIOS	----------			
Keyboard	----------	----------		
Mouse	----------			
Power Supply	----------			
Hard Disk		----------		---- ----
HD Controller Card		----------		
Floppy Drive		----------		----------
Zip Drive		-------		
CD-ROM	-----			-----
Network Interface Card	----------	---------- ----------		----------
Monitor	----------	----------		----------
Video Card	---------	---------- ----------		----------
Sound Card				---------
Speakers				---------
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTUR----***	----------	----------	----------	-------
RAM			--------	------	----------
Cache			----------		
Video RAM			----------		----------

Other salient features:

D(b)(4)----------

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Table II-10-11. H(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: (b)(4)		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	A(b)(4)----------	----------		
Motherboard	A----------	----------		----------
CPU	IB----------	----------		----------
BIOS	N--			
Keyboard	A----------			
Mouse	A----------			
Power Supply	M-------			--------
Hard Disk	M-------	-----		------
HD Controller Card	A----------	-----		
Floppy Drive	M-------			----------
Zip Drive	Io-------			----------
CD-ROM	A------			-----
Network Interface Card	A-----	----------		----------
Monitor	A----------			----------
Video Card	A--	---------- ---------- -----		-------
Sound Card	A----------			---------- ---------- --------
Speakers	A----------			
Headset/Microphone				
Microphone	A----------			
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM			--------	------	----------
Cache			----------		---
Video RAM			-------	----------	----------

O(b)(4)----------res:

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Table II-10-12. L(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: (b)(4)		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	*MANUFACTURER*	*MODEL #*	*REVISION OR DATE*	*SIZE & SPEED*
System Unit	S(b	)(4)----------	-----	
Motherboard				
CPU	S---	----------		----------
BIOS				
Keyboard	S---			
Mouse	S---			
Power Supply	S---			
Hard Disk	S---			
HD Controller Card	S---	----------		----------
Floppy Drive	S---			-----
CD-ROM	S---			-----
Network Interface Card	S---			----------
Monitor	S---	----------		----------
Video Card	S---	----------		
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	*MANUFACTURE--*	----------	----------	----------	-------
RAM			----------	-------	---------
Cache 1			--------		
Cache 2			-------		
Video RAM					

O(b)(4)----------

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Table II-10-13. L(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking:(b)(4)--		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	I(b	)(4)----------	-------	
Motherboard	I----	------		
CPU	I----	----------		----------
BIOS		-----		
Keyboard	I----			
Mouse	I----			
Power Supply	I----			
Hard Disk	I----			------
HD Controller Card	I----	---------- ----------		
Floppy Drive	I----			----------
CD-ROM	I----			-----
Network Interface Card	I----	----------		--------
Monitor	I----	----------		
Video Card	I----	---------- ----------		
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM	(b)		----------		----------
Cache 1	(4)		-------		
Video RAM	-----		-------		

(b)(4)----------

Table II-10-14. H(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: (b)(4)		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	(b)(4)----------	----------		
Motherboard	----------	----------		----------
CPU	----------	----------		----------
BIOS	-----			
Keyboard	----------			
Mouse	----------			
Power Supply	----------			--------
Hard Disk	----------	-----		------
HD Controller Card	----------	-----		
Floppy Drive	----------			----------
Zip Drive	----------			----------
CD-ROM	---------			-----
Network Interface Card	-------	----------		----------
Monitor	----------			----------
Video Card	----	---------- ---------- -----		-------
Sound Card	----------			---------- ---------- --------
Speakers	----------			
Headset/Microphone				
Microphone	----------			
Other				

Memory Module Configuration

ITEM	***MANUFACTUR----***	***----------***	***----------***	***----------***	***-------***
RAM			--------	------	----------
Cache			----------		---
Video RAM			-------	----------	----------

(b)(4)----------

Table II-10-15. M(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking: 57.7%		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	S(b	)(4)----------	-----	
Motherboard				
CPU	S---	----------		----------
BIOS				
Keyboard	S---			
Mouse	S---			
Power Supply	S---			
Hard Disk	S---			
HD Controller Card	S---	----------		----------
Floppy Drive	S---			-----
CD-ROM	S---			-----
Network Interface Card	S---			----------
Monitor	S---	----------		----------
Video Card	S---	----------		
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM			----------	-------	---------
Cache 1			--------		
Cache 2			-------		
Video RAM					

Other salient features:

D(b)(4)----------
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Table II-10-16. M(b)(4)----------

Part Number: D(b)(4)----------				
NSTL Profile Ranking: (b)(4		NSTL Certification Date: B(b)(4)--		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	I(b	(b)(4)----------		
Motherboard	I)(4	----------		----------
CPU	I)--	----------		----------
BIOS		-----		
Keyboard	I---			
Mouse	I---			
Power Supply	I---			
Hard Disk	I---	---------- --------		------
HD Controller Card	I---	---------- ----------		
Floppy Drive	I---			----------
CD-ROM	I---			-----
Network Interface Card	I---	---------- ----------		--------
Monitor	I---	----------		
Video Card	I---	---------- ----------		
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTURER***	----------	----------	----------	-------
RAM	(b)		----------		----------
Cache 1	(4)		-------		
Video RAM	-----		-(b)(4)-		

(b)(4)----------

Table II-10-17. H(b)(4)----------

Part Number:(b)(4)----------				
NSTL Profile Ranking: (b)(4)		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***QTY***	***SIZE & SPEED***
System Unit	S(b	)(4)---------- ------		
Motherboard				
CPU	S---	----------	-	----------
BIOS				
Keyboard	S---			
Mouse	S---			
Power Supply	S---			
Hard Disk	S---			
HD Controller Card	S---	----------		----------
Floppy Drive	S---			-----
CD-ROM	S---			-----
Network Interface Card	S---			----------
Monitor	S---	----------		----------
Video Card	S---	----------		
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM			----------	-------	---------
Cache 1			--------		
Cache 2			-------		
Video RAM					

(b)(4)----------

Table II-10-18. H(b)(4)----------

Part Number: (b)(4)----------				
NSTL Profile Ranking:(b)(4)--		NSTL Certification Date: (b)(4)-----		
SYSTEM CONFIGURATION				
ITEM	***MANUFACTURER***	***MODEL #***	***REVISION OR DATE***	***SIZE & SPEED***
System Unit	I(b	)(4)----------		
Motherboard	I----	----------		----------
CPU	I----	----------		----------
BIOS		-----		
Keyboard	I----			
Mouse	I----			
Power Supply	I----			
Hard Disk	I----	---------- --------		------
HD Controller Card	I----	---------- ----------		
Floppy Drive	I----			----------
CD-ROM	I----			-----
Network Interface Card	I----	---------- ----------		--------
Monitor	I----	----------		
Video Card	I----	---------- ----------		
Sound Card				
Speakers				
Headset/Microphone				
Microphone				
Other				

Memory Module Configuration

ITEM	***MANUFACTURE--***	----------	----------	----------	-------
RAM	(b)		----------		----------
Cache 1	(4)		------		
Video RAM	-----		------		

O(b)(4)----------

A----------

End of Attachment R

ATTACHMENT S - STEVENSON-WYDLER OBJECTIVES

Recognizing NASA's commitment to support local educational institutions by providing excess computer equipment, the TechServ team will continue to provide this support. The TechServ President commits to proactively manage TechServ's program in this area. (b)(4)----------
(b)(4)----------

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TechServ is confident that we can assist NASA in meeting its Stevenson-Wydler obligations.

End of Attachment S

End of document