

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE 12	PAGE OF PAGES 1   2
2. AMENDMENT/MODIFICATION NO. 000219	3. EFFECTIVE DATE 04/15/2010	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (if applicable)
6. ISSUED BY Office of Procurement George C. Marshall Space Flight Ctr National Aeronautics and Space Administration Marshall Space Flight Center AL 35812	CODE MSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Marshall Space Flight Center Brenda F. Tate (256) 544-7673 (256) 544-8993 Brenda F. Tate@nasa.gov	CODE MSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SCIENCE APPLICATION INTL CORP Attn: Company 6, Technology Services Comp 10260 Campus Point Drive San Diego CA 92121-1152		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE CAGE - 0T5L1 FACILITY CODE 103429		x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNM04AA02C	10B. DATED (SEE ITEM 13) 1/1/04

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended.  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)  
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103 (a) and Mutual Agreement
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor  is not.  is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
The purpose of this modification is remove all references to PWS 5.0 Marshall Computing Services as well as other areas that were descoped with the award of the Marshall Information Technology Services (MITS) contract which transitioned on February 1, 2010 and to re-align funding between Estimated Cost and Provisional Award Fee. Accordingly, NNM04AA02C is modified as follows:

A. Under Section B, Clause B.2, Estimated Cost and Award Fee, the CLINs associated with PWS 5.0 are deleted (CLINs 014, 016, 019, 021, 024, 026, 029, 031, 034, 036, 039, and 041) along with the corresponding dollar values.

B. Under Section B, Clause B.3, Award Fee for Service Contracts, the CLINs associated with Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Candice L. Weeks, Contracts Manager	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Brenda F. Tate, Contracting Officer
15B. CONTRACTOR/OFFEROR <i>Candice L. Weeks</i> (Signature of person authorized to sign)	15C. DATE SIGNED 4/15/2010
16B. UNITED STATES OF AMERICA <i>Brenda F. Tate</i> (Signature of Contracting Officer)	16C. DATE SIGNED 04/15/2010

**CONTINUATION SHEET**

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
NNM04AA02C/000219

PAGE OF  
2 2

NAME OF OFFEROR OR CONTRACTOR  
SCIENCE APPLICATION INTL CORP

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)																								
	<p>PWS 5.0 are deleted (CLINs 014, 016, 019, 021, 024, 026, 029, 031, 034, 036, 039, and 041).</p> <p>C. Under Section B, Clause B.6, Contract Funding, cost are realigned between Estimated Cost and Provisional Award Fee.</p> <p>D. Under Attachment J-1, Performance Work Statement, Attachment J-1 is deleted in its entirety and replaced by Attachment J-1 (Mod. 219).</p> <p>E. Attachment J-2, Data Procurement Document is deleted in its entirety and replaced by Attachment J-2, Data Procurement Document (Mod. 219).</p> <p>F. Under Attachment J-4 Performance Measurement Standards is deleted in its entirety and replaced by Attachment J-4 Performance Measurement Standards (Mod. 219).</p> <p>G. Under Attachment J-14 Requirements Labor Rates is deleted in its entirety due to the labor category pay bands are no longer applicable since the MITS transition.</p> <p>H. The modification(s) made above are reflected in total on the change page(s) enclosed herewith. In order to reflect the change(s) made, the page(s) listed below are hereby deleted from, or added to, NNM04AA02C. Either bolded text or a vertical change bar included in the right margin indicates the specific area(s) of change.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Page(s) Deleted</td> <td style="width: 50%;">Page(s) Added</td> </tr> <tr> <td>B-2 (Mod. 216)</td> <td>B-2 (Mod. 219)</td> </tr> <tr> <td>B-3 (Mod. 216)</td> <td>B-3 (Mod. 219)</td> </tr> <tr> <td>B-4 (Mod. 216)</td> <td>B-4 (Mod. 219)</td> </tr> <tr> <td>B-5 (Mod. 213)</td> <td>B-5 (Mod. 219)</td> </tr> <tr> <td>B-8 (Mod. 216)</td> <td>B-8 (Mod. 219)</td> </tr> <tr> <td>B-9 (Mod. 202)</td> <td>B-9 (Mod. 219)</td> </tr> <tr> <td>B-12 (Mod. 218)</td> <td>B-12 (Mod. 219)</td> </tr> <tr> <td>J-1-1 - J-1-99 (ALL)</td> <td>J-1-1 - J-1-71 (Mod. 219)</td> </tr> <tr> <td>J-2-1 - J-2-54 (ALL)</td> <td>J-2-1 - J-2-54 (Mod. 219)</td> </tr> <tr> <td>J-4-1 - J-4-116 (ALL)</td> <td>J-4-1 - J-4-72 (Mod. 219)</td> </tr> <tr> <td>J-14-1 - J-14-5 (ALL)</td> <td>N/A (No Replacement Pages)</td> </tr> </table> <p>C. All other terms and conditions of contract NNM04AA02C remain unchanged.</p>	Page(s) Deleted	Page(s) Added	B-2 (Mod. 216)	B-2 (Mod. 219)	B-3 (Mod. 216)	B-3 (Mod. 219)	B-4 (Mod. 216)	B-4 (Mod. 219)	B-5 (Mod. 213)	B-5 (Mod. 219)	B-8 (Mod. 216)	B-8 (Mod. 219)	B-9 (Mod. 202)	B-9 (Mod. 219)	B-12 (Mod. 218)	B-12 (Mod. 219)	J-1-1 - J-1-99 (ALL)	J-1-1 - J-1-71 (Mod. 219)	J-2-1 - J-2-54 (ALL)	J-2-1 - J-2-54 (Mod. 219)	J-4-1 - J-4-116 (ALL)	J-4-1 - J-4-72 (Mod. 219)	J-14-1 - J-14-5 (ALL)	N/A (No Replacement Pages)				
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J-14-1 - J-14-5 (ALL)	N/A (No Replacement Pages)																												

B.2 ESTIMATED COST AND AWARD FEE

(a) The estimated cost and contract fees are as follows:

Contract Year	Period Covered	Estimated Cost	Base Fee	Earned Award Fee	Potential Award Fee
Base Year 1 CLIN 001	1/1/04 - 6/30/04	(b)(4)		\$2,696,331	(b)(4)
Base Year 1 CLIN 001	7/1/04 - 12/31/04			\$4,851,221	
Base Year 2 CLIN 001	1/1/05 - 6/30/05			\$4,910,402	
Base Year 2 CLIN 001	7/1/05 - 12/31/05			\$5,162,909	
Base Year 3 CLIN 001	1/1/06 - 6/30/06			\$5,301,669	
Base Year 3 CLIN 001	7/1/06 - 12/31/06			\$5,385,246	
TOTAL Base				\$28,307,778	
Option Year 1 CLIN 003	1/1/07 - 6/30/07			\$5,659,411	
Option Year 1 CLIN 003	7/1/07 - 12/31/07			\$5,841,558	
TOTAL Opt. 1				\$11,500,969	
Option Year 2 CLIN 005	1/1/08 - 6/30/08			\$5,484,881	
Option Year 2 CLIN 005	7/1/08 - 12/31/08			\$5,926,837	
TOTAL Opt. 2				\$11,411,718	
11-Month Extension CLIN 007	1/1/09 - 6/30/09			\$6,246,604	
11-Month Extension CLIN 007	7/1/09 - 11/30/09			\$5,203,749	
Total 11-Month Extension					
14-Month Extension Base CLINs 008, 009, 010, & 011	12/1/09 - 07/31/10 & 12/01/09 - 01/31/10			\$1,002,379	
14-Month Extension Option 1, CLINs 012, 013, & 015	08/1/10 - 08/31/10				
14-Month Extension Option 2, CLINs 017, 018, & 020	09/1/10 - 09/30/10				

14-Month Extension Option 3 CLINs 022, 023, & 025	10/1/10-10/31/10				
14-Month Extension Option 4 CLINs 027, 028, & 030	11/1/10-11/30/10				
14-Month Extension Option 5 CLINs 032, 033, & 035,	12/1/10-12/31/10				
14-Month Extension Option 6 CLINs 037, 038, & 040	1/1/11-1/31/11				
Provisional Increase		(b)(4)			
TOTAL				\$63,673,197	(b)(4)

\* AF denotes Award Fee  
\*\* SF denotes Subjective Fee  
\*\*\*OF denotes Objective Fee

(b) The estimated cost and award fees applicable to the base period and each option period are as follows:

CLIN	Qty.	Unit	Estimated Cost	Award Fee
<b>BASIC PERIOD</b> (January 1, 2004 thru December 31, 2006)				

001****	1	Job	(b)(4)	
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Estimated Amount	Maximum Amount
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002	1	ID/R	(b)(4)	
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\*\*\*\*The total of Estimated Cost, Earned Award Fee, and Potential Award Fee associated with CLIN 001 shall not be exceeded unless revised by bilateral contract modification.

CLIN	Qty.	Unit	Estimated Cost	Award Fee
<u>OPTION PERIOD 1 (Jan. 1, 2007 thru Dec. 31, 2007) (Exercised)</u>				

003	1	Job	(b)(4)	
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Estimated Amount	Maximum Amount
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004	1	ID/R	(b)(4)	
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CLIN	Qty.	Unit	Estimated Cost	Award Fee
<u>OPTION PERIOD 2 (Jan. 1, 2008 thru Dec. 31, 2008) (Exercised)</u>				

005*	1	Job	(b)(4)	
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Estimated Amount	Maximum Amount
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006**/**	1	ID/R	(b)(4)	
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\* No costs against CLINS 005 and 006 shall be expended prior to 1/1/08.  
 \*\*The actual value of CLIN 006 will be the summation of individual task orders issued pursuant to this clause and clauses B.7 and B.8. A reconciliation modification will be issued as required to reflect the current task order summation value in Clause B.2.

CLIN	Qty.	Unit	Estimated Cost	Award Fee
<u>11-Month Extension (Jan. 1, 2009 thru Nov. 30, 2009)</u>				

007*	1	Job	(b)(4)	
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\* No costs against CLIN 007 shall be expended prior to 1/1/09 with the exception of the materials needed to sustain the program.

CLIN PWS	Qty.	Unit	Estimated Cost	Award Fee
<u>14-Month Extension (Dec. 1, 2009 thru January 31, 2011)</u>				

Base 12/01/09-07/31/10 & 12/01/09-01/31/10 (All CLINS)

008	3.0	1	Job	(b)(4)
009	4.0	1	Job	
010	5.0	1	Job	
011	2.0	1	Job	

Option 1 08/01/10-08/31/10 (CLINS 012, 013, 015)

012	3.0	1	Job	(b)(4)
013	4.0	1	Job	
015	2.0	1	Job	

Option 2 09/01/10-09/30/10 (CLINS 017, 018, & 020)

017	3.0	1	Job	(b)(4)
018	4.0	1	Job	
020	2.0	1	Job	

CLIN PWS	Qty.	Unit	Estimated Cost	Award Fee
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**14-Month Extension (Dec. 1, 2009 thru January 31, 2011)**

Option 3 10/01/10-10/31/10 (CLINs 022, 023, & 025)

022	3.0	1	Job	(b)(4)
023	4.0	1	Job	
025	2.0	1	Job	

Option 4 11/01/10-11/30/10 (CLINs 027, 028, & 030)

027	3.0	1	Job	(b)(4)
028	4.0	1	Job	
030	2.0	1	Job	

Option 5 12/01/10-12/31/10 (CLINs 032, 033, & 035)

032	3.0	1	Job	(b)(4)
033	4.0	1	Job	
035	2.0	1	Job	

Option 6 01/01/11-01/31/11 (CLINs 037, 038, & 040)

037	3.0	1	Job	(b)(4)
038	4.0	1	Job	
040	2.0	1	Job	

(End of clause)

(i) The amount of award fee which has been awarded pursuant to this clause, the potential award fee available for the period, and the period to which said fee applies is set forth below:

Contract Year	Period Covered	Base Fee	Earned Award Fee	Potential Award Fee
Base Year 1 CLIN 001	1/1/04- 3/30/04		\$270,275	(b)(4)
	3/31/04- 6/30/04		\$2,426,056	
Base Year 1 CLIN 001	7/1/04 - 12/31/04		\$4,851,221	
Base Year 2 CLIN 001	1/1/05-6/30/05		\$4,910,402	
Base Year 2 CLIN 001	7/1/05 - 12/31/05		\$5,162,909	
Base Year 3 CLIN 001	1/1/06-6/30/06		\$5,301,669	
Base Year 3 CLIN 001	7/1/06 - 12/31/06	(b)(4)	\$5,385,246	
Option Year 1 CLIN 003	1/1/07-6/30/07		\$5,659,411	
Option Year 1 CLIN 003	7/1/07 - 12/31/07		\$5,841,558	
Option Year 2 CLIN 005	1/1/08-6/30/08		\$5,484,881	
Option Year 2 CLIN 005	7/1/08 - 12/31/08		\$5,926,837	
11-Month Extension CLIN 007	1/1/09 - 6/30/09		\$6,246,604	
11-Month Extension CLIN 007	7/1/09 - 11/30/09		\$5,203,749	
14-Month Extension Base CLINs 008, 009, 010, & 011	12/1/09-07/31/10 & 12/01/09-01/31/09		\$1,002,379	
14-Month Extension Option 1 CLINs 012, 013, & 015	08/1/10-08/31/10			
14-Month Extension Option 2 CLINs 017, 018, & 020	09/1/10-09/30/10			

14-Month Extension Option 3 CLINs 022, 023, & 025	10/1/10-10/31/10			
14-Month Extension Option 4 CLINs 027, 028, & 030	11/1/10-11/30/10			
14-Month Extension Option 5 CLINs 032, 033, & 035,	12/1/10-12/31/10			
14-Month Extension Option 6 CLINs 037, 038, & 040	1/1/11-1/31/11			

\* AF denotes Award Fee \*\* SF denotes Subjective Fee

\*\*\*OF denotes Objective Fee

(End of Clause)

B.4 ALLOWABLE ITEMS OF COST (MSFC 52.242-90) (FEB 2001)

(a) In accordance with advance agreement between the Government and the Contractor for this contract, allowable costs for the items listed below are subject to the ceilings shown: Ceilings on General And Administrative Costs-

<u>Period</u>	<u>Rate</u>
1/1/04 to 12/31/04	(b)(4)
1/1/05 to 12/31/05	
1/1/06 to 12/31/06	
1/1/07 to 12/31/07	
1/1/08 to 12/31/08	
1/1/09 to 11/30/09	
12/1/09 to 7/31/10	

(b) It is mutually agreed that when indirect cost rate ceilings are specified, (1) the Government shall not be obligated to pay any additional amount should the final indirect cost rates exceed the negotiated ceiling rates and,

B.5 PREMIUM FOR SCHEDULED OVERTIME (MSFC--52.222-90) (FEB 2001)

Pursuant to the clause entitled "Payment for Overtime Premiums," the amount of overtime premium authorized shall not exceed the amount specified below for the indicated period.

<u>Period</u>	<u>Amount</u>
01/1/04 to 12/31/04	(b)(4)
01/1/05 to 12/31/05	(b)(4)
01/1/06 to 12/31/06	(b)(4)
01/1/07 to 12/31/07	(b)(4)
01/1/08 to 12/31/08	(b)(4)
01/1/09 to 11/30/09	(b)(4)
12/1/09 to 07/31/10	(b)(4)

(End of clause)

B.6 CONTRACT FUNDING (1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b)(4). This allotment is for performance in all areas and covers the following estimated period of performance: contract award through July 22, 2010.

(b) An additional amount of (b)(4) is obligated under this contract for payment of fees.

(c) Recapitulation of funding is as follows:

	<u>Previous</u>	<u>This Action</u>	<u>Total</u>
Estimated Cost	(b)(4)	(b)(4)	(b)(4)
Base Fee	(b)(4)	(b)(4)	(b)(4)
Provisional Award	(b)(4)	(b)(4)	(b)(4)
Fee (Funded at (b)(4))	(b)(4)	(b)(4)	(b)(4)
Award Fee Earned	\$63,673,197	\$0	\$63,673,197
Total Sum Allotted	\$1,295,712,051	\$0	\$1,295,712,051

(End of clause)

B.7 INDEFINITE DELIVERY/REQUIREMENTS

(a) The completion effort (definite quantity) of this contract is considered to be those services negotiated for the estimated cost and fees for the basic contract period and each priced option period. Work that cannot be sufficiently identified, predetermined, or quantified is identified as Requirements work.



ATTACHMENT J-1  
PERFORMANCE WORK STATEMENT

UNIFIED NASA INFORMATION TECHNOLOGY SERVICES  
(UNITeS)

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# **1. UNIFIED NASA INFORMATION TECHNOLOGY SERVICES (UNITES) MISSION**

## **1.1 MISSION STATEMENT**

NASA is comprised of Headquarters (HQ) in Washington, D.C., five strategic Enterprises, nine Centers throughout the country, and a number of additional installations that support specific Centers. The NASA HQ's role, the Enterprises' roles and the Centers' roles are distinct in carrying out the NASA mission. HQ defines the NASA mission and explains why it is necessary. The Enterprises are charged with executing and implementing that mission. The Centers (e.g., MSFC) determine how the Enterprise programs will be implemented, and execute Agencywide programs as they are assigned.

The nature of NASA's program implementation model requires cross-Center collaboration for the execution of the strategic Enterprises' programs. Enterprise programs and HQ initiatives are executed across multiple centers. NASA requires a seamless technical infrastructure to ensure interoperability within programs and across Centers. The Centers have the responsibility to implement and manage that technical structure.

Agencywide NASA corporate initiatives and resulting MSFC-hosted programs are the primary drivers that define MSFC's IT requirements. The Agency's business model is transitioning from one based on autonomous Centers to a more tightly coupled organization with business processes executed across Center and organizational boundaries. NASA is aligning all support services to mission programs (shared infrastructure services model) and will need to drive cost savings through consolidated support services and other opportunities for increased efficiencies. MSFC-hosted programs range from self-contained, mature operations requiring basic commodity support to new, increasingly complex startup programs requiring collaborative engineering environments across NASA centers and beyond.

Because IT comprises a substantial part of the Agency's overall budget, it must be managed strategically, fully aligned with customer needs, and evaluated to ensure successful performance. MSFC's IT service providers must function as IT partners with our customers, who are increasingly recognizing the criticality and value of IT to their programs. Within this framework, the contractor's mission is to manage, be responsible for, and provide IT services to meet the requirements defined by this Performance Work Statement (PWS). The contractor shall: (a) operate and maintain existing equipment, software and services; (b) gather, analyze, define, and document systems requirements; and (c) plan, design, develop or acquire, integrate, test, and implement new systems or enhancements to existing systems for the following services:

- a. Agencywide Information Services: These services include IT security, National Security Systems, wide area network, control center, data center, applications, Digital Television (DTV), Russia IT support, and customer

- services. These services also include development and maintenance of Agencywide applications, services, and systems delegated to MSFC.
- b. Integrated Enterprise Management Program (IEMP) Integration Services: These services are provided to the IEMP Integration Project Office (IPO) at MSFC. These services include infrastructure support, module project support, and operations and sustaining support.
  - c. Marshall Space Flight Center (MSFC) Services: These services include IT systems support for programs and projects for which MSFC is responsible. These services include applications software, web, midrange computer systems, telecommunications, IT security, audiovisual information, documentation repository, hardware maintenance, IT procurement, and customer support.

For the purposes of this PWS, the customer is defined as the end-user of the services described regardless of geographic location. A customer may include a NASA Program/Project office, Staff office, NASA contractor, or an individual within these organizations.

MSFC is committed to safety, quality, and core values. As a result of this, a MSFC Safety, Health, and Environmental (SHE) Policy, a Quality Policy, and MSFC Core Values have been established.

- a. MSFC SHE Policy
  - 1) Safety: MSFC will strive to prevent human injury and occupational illnesses and ensure safety for all operations and products.
  - 2) Health: It is MSFC's policy to promote and maintain the physical and mental well-being of its employees.
  - 3) Environmental: MSFC will strive to protect, preserve, and enhance the quality of the environment while conducting their primary mission activities.
- b. MSFC Quality Policy  
MSFC policy is to provide quality products and services to our customers through the MSFC Values.
- c. MSFC Core Values  
People, Customers, Excellence, Teamwork, and Innovation.

## **1.2 RESPONSIBILITIES**

### **1.2.1 Agencywide Responsibilities**

NASA's complex strategic objectives are demanding increasing levels of collaboration and seamless operation across all NASA installations, with other Government entities, and with external partners. In order to more effectively support collaboration, to provide information superiority, and to augment data security, NASA has undertaken an initiative to create the One NASA IT environment and corporate infrastructure. The Agencywide responsibilities articulated in this PWS are delegated by NASA Headquarters to be performed by MSFC and other Centers.

### **1.2.2 IEMP Integration Project Office (IPO)**

The IEMP IPO, within the Center Operations Directorate, establishes and maintains an Agencywide Enterprise Resource Planning (ERP) system Competency Center that provides integrated business process support, functional support, application development/maintenance, and application operations. The IEMP IPO is responsible for defining the technical architecture, acquiring all components of the technical infrastructure including hardware and system software, and supporting the Implementation Contractor in the initial installation of the software. In addition, the IPO is responsible for the operation and maintenance of the entire system environment after the initial software installation. The IPO is also responsible for establishing and implementing an enterprise application integration architecture that will be utilized in the development and deployment of all interfaces to IEMP module applications.

### **1.2.3 Office of the Chief Information Officer (CIO)**

The Office of the CIO, within the Center Operations Directorate, is the principle MSFC Organization responsible for all MSFC IT related functions as well as delegated Agencywide IT processing resources. The CIO is responsible for developing the Center IT strategy, IT architecture, IT investment management and tracking, and IT customer relationship management. The Office of the CIO utilizes a process-oriented methodology of governance to effectively manage the acquisition, provisioning, use, and oversight of information technology resources. Innovation and learning are at the heart of the CIO management philosophy. In the execution of these roles, the CIO has total system management responsibilities that include long-range planning, requirements definition, alternative analysis, design, acquisition or development, integration, testing, implementation, and ongoing operations, maintenance, and administration of both hardware and software. With some exceptions that are delineated in this PWS, all of the aforementioned resources are considered CIO managed.

The CIO uses service level management, customer feedback, and continuous improvement processes to maintain high quality services that are cost effective and efficient and produce the highest levels of customer satisfaction. Strong customer relationships are put in place to achieve clear understanding of customer goals, with service level agreements describing the services to be provided. The CIO will evaluate the contractor's performance per the Award Fee Evaluation Plan (Attachment J-5).

### **1.2.4 Contractor**

The contractor is designated "Systems Manager" for CIO managed systems listed in Appendix A, Category I. The contractor shall have limited responsibility for the systems listed in Appendix A, Categories II and III. The contractor responsibilities include long-range planning, requirements definition, alternative analysis, design, acquisition or development, integration, testing, implementation, and ongoing operations,

maintenance, and administration of both hardware and software. The contractor shall assess the feasibility and cost effectiveness of new technology and provide recommendations for the rationalization of existing technologies (e.g. technology retirement).

The contractor shall provide the customer services described in Sections 3, 4, and 5 of this PWS. In providing these services, the contractor shall perform the management functions described in Section 2 in an integrated and cost effective manner, and with minimum additional action by the customer. The contractor shall comply with the regulations, procedures, and agreements as defined in Attachment J-10. For example, a new project is assigned to MSFC requiring program planning and engineering analyses. The contractor shall interface with the NASA points of contact and the customer to design, develop, and implement IT services to meet the customer requirements, while ensuring that existing Center resources are utilized to the maximum extent.

When ensuring that existing Center resources are utilized to the maximum extent possible, the contractor shall interface with other suppliers such as Outsourcing Desktop Initiative for NASA (ODIN). These interfaces, as well as interfaces with customers, are defined in Operating Agreements, Memoranda of Understanding (MOU), Memorandums of Agreement (MOA), Interface Control Documents (ICD), NASA policies, and other written agreements.

The contractor shall measure and report the service-level objectives and performance for each of the services defined in this PWS (DRD 974MA-010). The performance metrics for the services are specified in Attachment J-4.

In performing the functions of this contract, the contractor shall clearly and consistently characterize the various services as separate and distinct. This characterization is essential in delineating the different funding and approval procedures associated with each service, and in ensuring accuracy of cost reporting in accordance with the Work Breakdown Structure (WBS), prepared in accordance with DRD 974MA-004.

## 2. PROGRAM MANAGEMENT

The contractor shall provide all resources necessary to accomplish the mission defined in this PWS. The contractor shall provide project management, strategic planning, financial management, contract administration, procurement, asset management, security, safety, facilities management, quality assurance, and customer requirements management to accomplish the mission. The contractor shall provide, implement, and maintain the requisite organization, employee value system, disciplines, and systems necessary to manage the resources required for performance of these functions. In performance of program management functions, the contractor shall:

- a. Ensure the implementation of management practices to proactively pursue innovation and technology advancement to enhance customer satisfaction and service delivery.
- b. Ensure the implementation of effective engineering, business management, and other quality practices to deliver the services in sections 3, 4, and 5 of this PWS in an efficient and integrated manner. These practices shall also ensure the delivery of services at a sustained high level of success.
- c. Implement practices to ensure effective communication of management, technical, quality, costs, and customer satisfaction issues that arise in the performance of this contract.
- d. Prepare, implement, and maintain the Unified NASA Information Technology Services (UNITeS) Management Plan (DRD 974MA-001). Operate and maintain management information systems to enable management of the Center's IT portfolio.
- e. Maintain and operate the Government-owned comprehensive, automated, online, and integrated Management Information and Control System (MICS). The MICS shall:
  - 1) Plan, track, execute, control, and report work accomplishments, schedules, and resources across functional activities (DRD 974MA-006) using the expanded WBS (prepared in accordance with DRD 974MA-004).
  - 2) Track and report planned versus actual resource utilization (DRD 974MA-006).
  - 3) Provide capability for ad hoc query of the data.
  - 4) Provide data that are current and readily available.
- f. Provide Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR)-designated personnel on-line access to the MICS.
- g. Provide necessary training for the contractor's personnel to perform the services and functions described in this PWS.
- h. Provide technical information concerning any invention, discovery, improvement, or innovation made by the Contractor in the performance of work under this PWS (DRD 974CD-003).

- i. In performing the effort delineated in this PWS, the contractor shall provide systems and applications associated with the six covered Electronic and Information Technology Accessibility product groups specified below. All systems and applications associated with these groups shall comply with the applicable standards contained with the Federal Acquisition Circular 97-27, Electronic and Information Technology (EIT) Accessibility, Section 508 of the Rehabilitation Act of 1973 by implementing the applicable Technical Standards (Subpart B) including:
  - 1) Software Applications and Operating Systems (1194.21).
  - 2) Web-based Intranet and Internet Information and Applications (1194.22).
  - 3) Telecommunications Products (1194.23).
  - 4) Video or Multimedia Products (1194.24).
  - 5) Self-Contained Closed Products (1194.25).
  - 6) Desktop and Portable Computers (1194.26).

## **2.1 PROJECT MANAGEMENT**

The contractor shall be responsible for performing cost, schedule, risk management, and technical management of all UNITEs services, functions, and tasks. In performance of this function, the contractor shall:

- a. Prepare and submit monthly reports of project plans, status, and schedules using the MICS in accordance with DRD 974MA-006 and DRD 974MA-012.
- b. Prepare and conduct monthly program management reviews including presentation and discussion of program priorities, project statuses, significant accomplishments, risk management, and problem areas.
- c. Prepare and submit status, progress, and problem information in the Weekly Activity Report in accordance with DRD 974MA-006.
- d. Track official communication with the COTR such as technical direction, requests for information, and transmittals, and provide status concerning all such communications (DRD 974MA-006).
- e. Track monthly export control activities and report in accordance with DRD 974MA-009.
- f. Prepare and submit the Certification of NISN Systems Readiness in accordance with DRD 974MA-011 and participate in flight, mission, program, and system readiness reviews to ascertain systems are ready to support missions, programs, flights, and operational users.

- g. Implement an effective risk management approach to include continuous assessment of what could go wrong, determining what risks are important to address, and implementing risk mitigation strategies that are reasonable and commensurate with the probable adverse effects should a risk occur.
  - 1) This approach shall be consistent with the NPR 7120.5.
  - 2) At the core of this approach is the assignment of risk management responsibilities to the appropriate management level, where there is direct professional involvement and concern over the impact of risks and where identification, mitigation, and reporting activities become an integral component of the contractor's project management planning, budgeting, and execution.
  - 3) The contractor shall utilize management tools, actively participate in recurring risk management meetings, and coordinate with the CIO and customer in the execution of its responsibilities.
  - 4) The contractor shall provide the Risk Management Plan, Analysis, and Tracking Reports in accordance with DRD 974MA-002.

## **2.2 DELETED**

## **2.3 FINANCIAL MANAGEMENT**

The contractor shall be responsible for planning, tracking, accumulating, and reporting contract costs and providing other financial support required to meet the budgeting, cost reporting, billing, and disclosure requirements of the contract. In performance of this function, the contractor shall:

- a. Implement and maintain a cost accounting system as part of the MICS (DRD 974MA-006). The system shall be fully integrated across all business areas, including the contractor's procurement process, providing committed, obligated, accrued and actual costs. The system shall interface with *IEM*. The system shall be structured to provide projections and tracking of negotiated, accrued and actual costs by individual cost elements (including labor hours) and by WBS elements at any level, major functional category, specific project number, specific service order number, NASA organization that the project is funded through, end-user organization, geographic location (including state and congressional district), specified time frame, IT and non-IT categories, and prime versus subcontracted work activities.
- b. Provide cost reports in accordance with DRD 974MA-008.
- c. Prepare and submit the financial management reports as listed in DRD 974MA-005.
- d. Provide input data to the NASA Program Operating Plan (POP) process. These data shall incorporate annual requirements projections.

## 2.4 CONTRACT ADMINISTRATION

In performance of contract administration functions, the contractor shall:

Provide a single point of contact with contractual obligation authority for all contract administration functions and activities required in performance of this contract. This point of contact shall have access to all contract administration data and information related to performance of this contract.

- a. Provide on-line access to the contract administration information and data through the MICS/Online to the CO and designated personnel. The MICS shall provide the capability to track costs by specific contract change orders. Also, the MICS shall provide labor data including contract totals by department, location, and WBS elements (DRD 974MA-006).
- b. Provide a list, as well as on-line access through the MICS, of all contractor employees working under this contract and their designated locations in accordance with DRD 974CD-002.
- c. Be responsible for generating, editing, merging, maintaining, and distributing documentation related to the performance of this contract (See DRD 974MA-007). Documentation includes documents, storage media, and records. The contractor shall:
  - 1) Provide, implement, and maintain an on-line documentation management system in accordance with NPD 1440.6.
  - 2) Provide access to CO- and COTR-designated personnel.
  - 3) Maintain an initial set of documentation and drawings that was generated under previous contracts related to the work described in this PWS (DRD 974MA-007).
  - 4) Retain and maintain all documentation and drawings generated under this contract (DRD 974MA-007).
  - 5) Prepare and maintain a Documentation Tree that categorizes, lists, and describes all such documentation in accordance with DRD 974MA-007.
  - 6) Prepare and submit documents for CIO-sponsored user meetings and committees, and provide support for follow-up documentation for these meetings.
  - 7) The contractor shall provide the documentation required by this PWS as well as the documentation described in the Data Procurement Document (DPD 974).

## 2.5 PROCUREMENT

In performance of this contract, the contractor shall:

- a. Implement and maintain a procurement information system as part of the MICS (DRD 974MA-006). The system shall track the status of individual procurements, whether initiated by the Service Request System (SRS) or

other means, from purchase request through final purchase order, delivery, and acceptance and provide appropriate information to the IEM system. The system shall provide for on-line funding verification of purchase requests prior to initiation of purchase orders.

Provide, implement, and maintain procurement controls including: contractor policies and procedures governing standards of conduct, procurement processes and practices, and prevention of waste, fraud, and mismanagement (DRD 974MA-006).

- b. Provide all supplies, materials, and services (not otherwise furnished by the Government) required to perform the services and functions specified in the PWS and to accomplish the UNITEs mission.
- c. Provide replacement parts or equipment, spare parts, temporary labor services, vendor maintenance agreements, software subscription services, hardware engineering changes or updates, IT-related supplies and special general-purpose software packages necessary to perform the operations and maintenance functions of this contract.
- d. Provide hardware upgrades; systems and applications software licenses, renewals, and enhancements; services and maintenance, including utilizing Agencywide or government-wide contracts or site software license agreements, for the systems for which the contractor is designated Systems Manager.
- e. Facilitate payments to other contractors and suppliers in support of customer agreements including international and other government agencies.

## **2.6 ASSET MANAGEMENT**

The contractor shall be responsible for the official accountable record keeping, physical inventory, financial control and reporting of all government property for which the contractor has been given responsibility (DRD 974MA-007). The contractor shall provide a Government Property Management Plan in accordance with DRD 974LS-001 for all government property for which the contractor has been given responsibility. The contractor is also responsible for reimbursable shipment of property as required to support service delivery.

With the exception of the items furnished as Government-Furnished Property, the NASA Mission Network (PWS 3.10) Property and Asset management will be the responsibility of the government.

## **2.7 SECURITY**

The contractor shall implement a comprehensive security program consistent with applicable NASA, DOD, and GSFC regulations and procedures for the performance of the UNITEs mission. The contractor's security program shall provide an approach that is functionally able to address end-to-end security planning, issues, and incidents for Agency supported systems. The program shall also represent an integrated approach to security planning for all IT areas, including desktop, server, and network components.

The program shall encompass, at a minimum, the following functional areas: telecommunications security functions, IT Security Program, and disaster preparedness and recovery.

### **2.7.1 Telecommunications Security**

The contractor shall support customer and program requirements for classified Communications Security (COMSEC) and unclassified security. In performance of this function, the contractor shall:

Maintain and administer a NASA COMSEC account through the TOP SECRET/Sensitive Compartmented Information LEVEL, and provide encryption key management services, and classified documentation storage.

- a. Provide encryption key management services, and store sensitive documentation for teleconferencing and data circuits.
- b. Operate and maintain secure communications equipment to include voice, data, and video equipment.
- c. Provide support for NASA National Security Systems.

### **2.7.2 IT Security Program**

The contractor shall prepare a Contractor Information Technology Security Program Plan in accordance with DRD 974SE-003 that documents the contractor's approach for implementing an information technology security program and which addresses the management, operational, and technical aspects of protecting the confidentiality, integrity and availability of information and information technology systems. The contractor shall assist with system security life-cycle development planning, support security certification and accreditation, and implement management, operational, and technical security controls for each general support computer system and major software application managed by contractor and subcontractor personnel in the performance of the contract in accordance with NPR 2810.1A, and shall comply with reporting requirements of DRD 974SE-004.

### **2.7.3 Continuity of Services and Operations**

The contractor shall develop, maintain, and test service continuity, contingency, and disaster recovery plans for all systems for which they are responsible. In support of disaster preparedness and recovery, the contractor shall:

- a. Develop and maintain a Disaster Recovery Plan (DRD 974MA-007) to ensure the orderly recovery from a disaster that may render all or part of information facilities, systems, and equipment inoperable. This plan shall be in accordance with applicable NASA policy (NPR 1040.1).
- b. Coordinate with information systems and disaster recovery experts across MSFC and NASA to verify integration of procedures and planning techniques.
- c. Execute effective measures to protect all systems equipment and data from potential environmental threats.
- d. After the occurrence of a disaster, ensure that systems are operational and restore any lost capabilities and data.
- e. Develop and maintain a Continuity of Operations Plan in accordance with DRD 974MA-007.

#### **2.7.4 Emergency Response**

The contractor shall provide necessary materials, equipment, and emergency essential personnel in support of the Emergency Operations Center and the Marshall Emergency Plan (MPG 1040.3H). The contractor shall also develop and maintain Continuity of Operations Plans and Disaster Recovery Plans for all systems for which they are responsible in accordance with DRD 974MA-007.

#### **2.7.5 Audit/Investigation Support**

The contractor shall provide support and information to internal and external auditing and investigations performed by agencies such as General Accounting Office (GAO), Inspector General (IG), Defense Contracting Audit Agency (DCAA), Defense Contract Management Agency (DCMA), Federal Bureau of Investigation (FBI), Office of Management and Budget (OMB), independent boards, and other requests.

#### **2.7.6 Export Control**

The contractor shall prepare, implement, and maintain the Export Control Plan in accordance with DRD 974MA-009 and implement a comprehensive program consistent with applicable NASA, MSFC, Department of State, and Department of Commerce regulations and procedures for the performance of the UNITEs mission. The contractor shall comply with NASA FAR Supplement 1852.225-70, NPD 2190.1, NPR 2190.1, MPD 2190.1, and MPG 2190.1.

The contractor shall provide a monthly report of all export control activities in accordance with DRD 974MA-009. The contractor shall maintain a database recording export control activities. The database shall be accessible to contractor and NASA personnel as designated by the COTR.

#### **2.7.7 System Administrator Certification**

In addition to any other requirements of this contract, all individuals who perform tasks as a system administrator or have authority to perform tasks normally performed by system administrator shall be required to demonstrate knowledge appropriate to those tasks. This demonstration, referred to as the NASA System Administrator Security Certification, is a NASA funded two-tier assessment to verify that system administrators are able to:

- a. Demonstrate knowledge in system administration for the operating systems for which they have responsibility.
- b. Demonstrate knowledge in the understanding and application of Network and Internet Security.

Certification is granted upon achieving a score above the certification level on both an Operating System test and the Network and Internet Security Test. The Certification earned under this process will be valid for three years. The NASA Chief Information Officer has established the criteria for this skills assessment. The objectives and procedures for this certification can be obtained by contacting the IT Security Awareness and Training Center at (216) 433-2063.

A system administrator is one who provides IT services, network services, files storage, or web services to someone else other than themselves and takes or assumes the responsibility for the security and administrative controls of that service or machine. A lead system administrator has responsibility for IT security for multiple computers or network devices represented within a system; ensuring all devices assigned to them are kept in a secure configuration (patched/mitigated); and ensuring that all other system administrators under their lead understand and perform IT security duties. An individual who has full access or arbitrate rights on a system or machine that is only servicing themselves does not constitute a "system administrator" since they are only providing or accepting responsibility for their system. Individuals that are only servicing themselves are not required to obtain a System Administrator Certification.

#### **2.7.8 PROTECTIVE SERVICES**

“The contractor shall provide other services required to meet customer requirements. These services include maintenance of existing capabilities, development or acquisition, and implementation of enhancements. In providing these services, the contractor shall:

- Provide and Maintain the Marshall Access Control System (MACS), and the Video MACS (VMACS)
- Provide Criminal Forensic Support”

#### **2.8 SAFETY**

The contractor shall establish and implement an industrial safety, health, and environmental program and provide a Safety and Health Plan in accordance with DRD 974SA-001. The contractor’s industrial safety, health, and environmental program shall incorporate the following Safety and Health Program Core Process Requirement (CPR) elements documented in MPG 8715.1:

- a. Management commitment and employee involvement in the safety and health program.
- b. System and worksite hazard analysis.
- c. Hazard prevention and control.
- d. Safety and health training.
- e. Environmental compliance.

The contractor shall report mishaps and safety statistics in accordance with DRD 974SA-002.

## 2.9 FACILITIES MANAGEMENT

The contractor shall implement and maintain a uniform system of managing the use of assigned facilities. In performance of this function, the contractor shall:

- a. Maintain documentation as a basis for requesting and recommending additional space and reallocation of assigned space or interior partitions (DRD 974MA-007).
- b. Maintain floor plans of all assigned facilities, including local MSFC-resident and remote Centers and gateways, to reflect the location of furniture, equipment, telephones, environmental systems and electrical services in equipment areas (DRD 974MA-007).
- c. Maintain continuous records of changes or movements of equipment, furniture, and telephones to ensure that accountability requirements for all equipment and systems are met (DRD 974MA-007).
- d. Maintain in the MICS continuous records of changes or movements of personnel providing this information on-line for COTR designated personnel review (DRD 974MA-007).
- e. Maintain location information in the MICS including number of personnel by location, square footage, and associated lease and maintenance costs (DRD 974MA-007).
- f. Review and assess MSFC Facilities Office planning activities for impact on CIO systems and provide comments to designs and shop drawings on MSFC Form 1540 (DRD 974MA-007).
- g. Plan for future facility requirements or expected changes in personnel and equipment locations.
- h. Support facility modifications to accommodate personnel space change requirements and new equipment at specified locations scheduling this activity to minimize disruption of daily operations (DRD 974MA-007).
- i. Obtain approval from the cognizant NASA Facilities Offices before performing any facilities activities at a NASA installation.
- j. Track in the MICS the schedule and status information for facilities work requests and facilities projects that affect IT service delivery (DRD 974MA-007).
- k. Define and document environmental requirements to accommodate equipment (DRD 974MA-007).
- l. Develop and maintain memoranda of agreement between MSFC and host center/facilities to document requirements to house UNITEs systems and personnel (DRD 974MA-007).

## 2.10 QUALITY ASSURANCE

The contractor's quality system shall be compliant to ANSI/ISO/ASQC Q9001-2000. The contractor may satisfy this requirement by current registration by a recognized registrar and/or by MSFC audit of their system. The contractor shall detail

their planned quality controls for the product being procured and their quality system controls in a quality section in accordance with DRD 974MA-001. If the contractor operates to or uses MSFC or other NASA Center procedures, the contractor shall support the applicable Center's registration process for these procedures.

## **2.11 CUSTOMER RELATIONSHIP**

The contractor shall partner with NASA to perform the following customer relation functions across all services.

### **2.11.1 RESERVED**

### **2.11.2 RESERVED**

### **2.11.3 Customer Satisfaction Survey**

The contractor shall perform customer satisfaction surveys. These surveys shall be automatically distributed to the customer when every service request is completed and at least once a quarter to a random sample of 20% of closed trouble tickets. Customer satisfaction attributes to be measured include, but are not limited to: responsiveness, communications, professionalism, knowledge, ease of use of the service request system, and satisfaction with the trouble resolution process. The contractor shall capture and compile the responses in an online database. The contractor shall summarize the number of surveys sent, responses received, action taken, and results in accordance with DRD 974MA-006. The COTR and designated personnel shall be provided access to the online database. In addition, customer satisfaction shall be solicited and assessed on a yearly basis for major IT projects.

## **2.12 DELETED (APPENDIX C ALSO DELETED)**

### **3. AGENCYWIDE INFORMATION SERVICES**

The Agencywide Information Services include those requirements that service the Agency customer base. This includes applications software, digital television, IT security, National Security Systems, data center, Russia IT services and wide area network services. The contractor shall measure and report the service-level objectives and performance for each of the services defined in this PWS in accordance with DRD 974MA-010. The contractor shall maintain and publish an integrated project schedule documenting all major Agencywide Information Services milestones and project inter-relationships.

#### **3.1 AGENCYWIDE APPLICATION PROJECTS**

The contractor shall provide computer application services for Agencywide customers. These services shall include application development, sustaining support and production support in compliance with established architecture standards. The applications descriptions shall be maintained in the Applications and Web Services Manual (DRD 974MA-007).

Application development and sustaining support includes definition and specification, requirements analysis and feasibility studies, design and development, configuration management, user assistance and training, documentation, ongoing maintenance (repairs and upgrades), other operational support, and replacement or retirement. For COTS applications, this support includes evaluation, procurement, installation, integration, testing, training, user assistance, administration and other operational support. This service also includes application-related consulting, subject matter technical experts, and technical management. Support is also provided to the Software AG products Database Administration/Applications Working Group, as well as evaluation and installation of the Software AG product releases to the Agency.

Production support, which is part of the operational support, includes data preparation, data entry, initiation and monitoring of production programs, user assistance, and generation, review and distribution of reports.

The contractor shall perform Data Administration (DA) in the planning, organization, design, control, and documentation of data resources for all Agency-supported systems. In performance of this function, the contractor shall:

- a. Establish and implement consistent overall DA strategies, such as data definition, logical data modeling, data resource life cycle management, data security, data integrity, and quality assurance.
- b. Establish, implement, and maintain a DA program that incorporates the following subelements: DA policies, procedures and standards, data architecture, data dictionary and models, orientation and training, and quality assurance (DRD 974MA-007).

### **3.1.1 Sustaining Engineering Support for Agencywide Administrative Systems (SESAAS)**

The contractor shall maintain the SESAAS applications until transition to the IEMP suite of applications. Prior to the transition, the contractor shall also develop any interfaces required between these Agencywide systems and the IEMP system. These applications include:

- a. Procurement System - Acquisition Management System (AMS).
- b. Asset Management – NASA Equipment Management System (NEMS)(through July 31, 2008), NEMS Central Database System (through July 31, 2008), NASA Property Disposal Management System (NPDMS)(through July31, 2008), NASA Supply Management System (NSMS)(through contract period of performance), and NASA Online Supply Catalog (NOSC)(through contract period of performance).
- c. Human Resources – NASA Personnel/Payroll System (NPPS).

The contractor shall also provide production support to the NEMS Central Database, the General Services Administration (GSA) Error Report Transmission, and Employee Express.

### **3.1.2 RESERVED**

### **3.1.3 DELETED**

### **3.1.4 Web Time and Attendance Distribution System (WebTADS)**

The contractor shall provide software development and sustaining support as well as production support activities for the WebTADS. Effective November 15, 2005, the work in this section shall be performed as part of PWS 4, IEMP Integration Services.

### **3.1.5 NASA Acquisition Internet Services (NAIS)**

The contractor shall provide software development and sustaining support as well as production support activities for the NAIS.

### **3.1.6 DELETED**

### **3.1.7 Exploration Systems Mission Directorate (ESMD) Support**

The contractor shall provide software development, sustaining support, system and database administration, application administration, as well as production support *and training* for the Integrated Collaborative Environment (ICE) including WindChill, ProjectLink, PDMLink, Cradle, Active Risk Manager, wInsight, CITRIX, Primavera, Vignette, an Integration broker, *Tibko, and Wiki*.

### **3.2 DIGITAL TELEVISION (DTV)**

The contractor shall support the NASA DTV Project. Support to the project shall include project management, design and engineering, operations, intercenter and intracenter coordination, implementation, and sustaining engineering directly related to the DTV Project. In providing this service, the contractor shall:

- a. Provide customer support, such as collecting television requirements and preparing data in appropriate formats (DRD 974MA-007).
- b. Develop transition and implementation plans (DRD 974MA-007).
- c. Develop a laboratory to test equipment, interfaces, and processes.
- d. Provide a technical interface with vendors, broadcast, and commercial television communities.
- e. Provide engineering and operation expertise for consulting on distribution of audio and video between NASA Centers, within the centers, and to the media.
- f. Coordinate Agency DTV implementation.
- g. Coordinate, organize, and participate in technical working groups.
- h. Support DTV flight projects.

### **3.3 IT SECURITY**

The contractor shall provide IT Security services to the Agency customers. These services include maintenance of existing capabilities, development or acquisition, and implementation of enhancements. In providing these services, the contractor shall:

- a. Utilize NASA's IT and wide area network capabilities to perform the support functions at all field centers and Headquarters.
- b. Ensure that all IT resources and components are secured to minimum requirements in accordance with NPR 2810.1A and shall react to deal with any vulnerabilities or security incidents that might occur. This includes threat notification responses, risk management, network monitoring, centralized database collections, security response tracking and analysis, and forensics of IT Security activities. The contractor shall work closely with the NASA Center IT Security Managers or their representatives at all Centers.
- c. Establish and maintain contact with internal and external technical working groups to include IT and IT security professional associations, NASA field centers, vendors, other government agencies, and national/international industry organizations.
- d. Evaluate, develop, and test prototypes of IT security tools, techniques, and training.
- e. Recommend, assist as needed in design, implement and maintain a firewall architecture/design that meets the NASA IT Security standards for perimeter architecture and Agencywide projects and networks.

- f. Ensure that all personnel requiring access to DoD Classified information or networks have a minimum of a final Secret Security clearance or higher.
- g. Establish and maintain an Agency IT Security Program and Response Center.
- h. Conduct yearly IT Security risk assessments of Agency systems and services, in accordance with NPR 2810.1A.
- i. Develop, implement and maintain a database to collect information on hostile probes throughout the Agency. Provide reports for trending analysis (DRD 974MA-006).

### **3.3.1 Intrusion Detection/Incident Response**

The contractor shall provide early warning and detection of intrusions into the NASA wide area network through analysis of network traffic from IP Networks, including the Internet and key signatures associated with known vulnerabilities and cyber attacks. The contractor shall provide the response mechanism to contain, analyze and report on the number, source and nature of hostile probes coming from the networks, which includes the Internet. The contractor shall analyze and be able to project evolving situations based on data collected from contractor-managed networked and monitoring devices, as well as NASA-managed networked and monitoring devices. The contractor shall support NASA incident investigations. The contractor shall provide monthly reports on the nature of the NASA traffic passing through the NASA connections to any connections between NASA and its partners even if they are utilizing NASA address space, including Internet connections (DRD 974MA-006). The contractor shall support the deployment of network monitoring devices which would include the installation of network taps as required by NASA and the deployment of monitoring devices and data gathering systems to be housed in the contractor network and communications space as provide under or acquired through this contract.

### **3.3.2 NASA National Security Systems**

The contractor shall provide support for secure intra- and inter-Agency communications within the Government that are necessary to improve distribution of threat information and coordination of disaster response. This shall include the provisioning, maintenance, and utilization of the NASA Secure Network and other National Security Systems.

The contractor shall install, maintain, and prepare designs for and operate the systems associated with the National Security systems. However, due to the nature of the classification and accreditation of these U.S. Government systems, any activity in this regard will require the Agency's approval before proceeding.

### **3.3.3 NASA Secure Sensitive but Unclassified Networks**

The contractor shall support the deployment and operation of network encryption services such as VPN or point-to-point solutions. The contractor shall provide recommendations on how to support out of band management of IT security monitoring, data analysis engines firewall and VPN services and the operations and maintenance for such devices.

### **3.3.4 IT Security Perimeter**

The contractor shall provide support to implement and maintain a consistent IT security perimeter. In providing this service, the contractor shall:

- a. Provide a phased approach toward centralized operations of a security perimeter with respect to firewalls and intrusion detection systems. The contractor shall provide a secure NASA WAN perimeter that includes monitoring, firewall and DOS services for NASA at each peering point.
- b. Develop and maintain a Demilitarized Zone (DMZ) design consistent with the Agencywide architecture and environment in support of Agencywide projects and collaboration (DRD 974MA-007). Monitor the traffic passing into and out of the perimeters of each Center and provide an analysis of the nature of the traffic showing what types of services are being used, the volume of traffic associated with the services, how connections are made, and their identity.
- c. Deploy and operate network encryption services such as VPN or point-to-point solutions. The contractor shall provide recommendations on how to support out of band management of IT security monitoring, data analysis engines, firewall and VPN services and the operations and maintenance for such devices.
- d. Install and maintain firewalls, for MSFC, NSSTC, and MAF

### **3.3.5 Secure Authentication Service**

The contractor shall operate and maintain a secure authentication service. In providing this service, the contractor shall:

- a. Create, issue, and manage smart card authentication and secure tokens. Maintain records in accordance with DRD 974MA-007.
- b. Provide smart card administration for the Agency.
- c. Maintain and operate the secure authentication infrastructure.
- d. Coordinate in a seamless fashion with the appropriate security services organizations regarding smart card administration.
- e. Integrate Agencywide applications with the smart card.

In addition, the contractor shall provide project support (e.g., conversion) for NASA enterprise solution for secure authentication, including Common Badging Access Control System (CBACS), NASA Integrated Services Environment (NISE), Headquarters Electronic Messaging Initiative (HEMI), and E-Authentication. This includes support to other NASA Centers and NASA Agency-wide projects. The contractor shall support the development and maintenance of a "create identity" process. The contractor shall also provide a tier 2 level help desk to assist Center and Agency users with the operation and integration of NAMS.

### **3.4 DATA CENTER SERVICES**

The contractor shall provide the data center services that centrally manage computer systems and computer operations for the Agency. MSFC is delegated project management responsibility for the NASA ADP Consolidation Center (NACC), a centralized mainframe capability, and for other Agencywide midrange/server systems. The data center shall provide the following for the Agency and its customers:

- a. Consolidation and centralization of various NASA center workloads onto fewer mainframe and midrange/server platforms and operating environments that are standard in nature.
- b. Licensing of commercial-off-the-shelf (COTS) software products for NASA Center and Agency workload requirements (DRD 974MA-007).
- c. Provision and maintenance of computer systems, data systems, and operations managed at the facility for access by Agency end users.
- d. Provision of network services for access to systems supported by the facility.
- e. Interfacing with the IFMP and other Agency applications.

The contractor shall adhere to NASA mission freeze policies. These policies disallow changes during mission-critical periods. The contractor shall follow the NASA freeze exemption request and approval process.

#### **3.4.1 Consolidation and Centralization Services**

The contractor shall support the consolidated, centralized and standardized management of various NASA Center workloads. These workloads currently execute on IBM-compatible mainframes and mid-range servers. Consolidation services shall include the planning, testing, and installation of computer systems hardware, as necessary, to support various NASA Center and Agency workloads at the data center; planning, testing, and installation of COTS software, including operating systems and subsystem component software and various COTS applications software required by data center-supported systems; consolidation of support services, such as licensing management, capacity planning, and chargeback; consolidation of technical support functions, such as data base administration account management; and systems security, and consolidation of

customer support functions, such as service level agreement compliance, metrics, and change management. In providing these services, the contractor shall:

- a. Interface with other NASA Center personnel to plan and coordinate consolidation and standardization activities.
- b. Provide problem tracking and resolution services for consolidated or centrally managed systems.
- c. Plan, engineer, integrate, and implement new capabilities and features to optimize and standardize workloads, meet customer requirements, and accommodate changes in technology.

### **3.4.2 Computer Systems Services**

The contractor shall provide computer systems services to support NASA customer applications. Computer systems services encompass the following: providing and maintaining operating systems, data base management systems, and COTS applications software; providing hardware and software systems and maintenance; providing technical assistance; operating computer systems; and acquiring and implementing COTS products and systems. In providing these services, the contractor shall:

- a. Provide hardware and systems software enhancements to meet NASA customers' performance requirements in response to changing workloads and technologies. In addition, the contractor shall provide engineering and operational support for the components of the Headquarters' Electronic Messaging Initiative (HEMI), the NOMAD Messaging System, Integration Lab, and the Exploration Systems Mission Directorate's (ESMD) Integrated Collaborative Environment (ICE), being located at the NASA Data Center (NDC) at MSFC. NOMAD components include the NDC Active Directory, MS Sharepoint, MS Exchange 2003, and MS Live Communications and associated infrastructure. ESMD/ICE components include collaborative engineering tools such as WindChill, ProjectLink, PDMLink, Cradle, Active Risk Manager, wInsight, CITRIX, Primavera, Vignette, an Integration broker, Tibco, and Wiki.
- b. Provide and maintain operating systems, data bases and data base management systems, compilers, libraries, and all other systems software necessary for the operation, execution and security of the computer and communications systems.
- c. Design and implement a Consolidated Active Directory solution that incorporates single forest capabilities and support for workstations, including conducting the Security Monitoring for Active Directory (SMAD).

- d. Operate and maintain computer processing, peripheral, and communications systems and servers, to include monitoring, system initializations and recoveries, and storage management for production systems located at MSFC and at NASA Centers. The systems shall be operated 24 hours per day, 7 days per week.
- e. Provide change control and configuration management, risk management, standard backups and disaster recovery planning for all systems.
- f. Provide systems administration and security support for Agency systems such as CBACS, with activities such as program/data/systems security, scheduling, quality control, user access to data center resources, account management and chargeback.
- g. Provide production control and job scheduling support for all data center systems. This includes monitoring and problem notification for all scheduled backups and problems with COTS products.
- h. Measure and report computer systems performance, throughput, and capacity information (DRD 974MA-006).
- i. Provide planned versus actual utilization by customer (DRD 974MA-006).

### **3.4.3 Network Services**

The contractor shall provide network engineering, planning and support services for the data center systems. These services include maintenance of existing capabilities, development or acquisition of enhancements, and implementation of enhancements. In providing these services, the contractor shall:

- a. Provide network services that meet the customers' performance, security and redundancy requirements.
- b. Integrate network services support required by the data center and its customers with other wide area and local area network service providers.
- c. Provide and maintain the front-end processors and channel extenders located at the NASA remote sites.
- d. Measure and report network performance and capacity information for network elements within their management requirements (DRD 974MA-006).

### **3.4.4 Agencywide Midrange Services**

The contractor shall provide Agencywide computer systems services identified in Appendix A, Category I. These services shall include operation/maintenance of existing systems, acquisition/implementation of COTS products, database administration, and development of unique systems in compliance

with established architecture standards. The system configuration documentation shall be maintained in the online Midrange Node Book (DRD 974MA-007). In providing these services, the contractor shall:

- a. Provide hardware and systems software enhancements to meet customers' requirements in response to changing workloads and technologies.
- b. Provide and maintain operating systems, database management systems, web server systems, electronic mail and distribution services, thin client software, compilers, libraries, and all other systems software necessary for the operation, execution and security of the computer and communications systems.
- c. Operate and maintain computer, peripheral, data acquisition, and communications systems, to include system initializations and recoveries, storage management, and print production and dissemination.
- d. Provide system administration such as program and data security, scheduling, and quality control.
- e. Provide security support that adheres to new security bulletins and installation of patches to fix known vulnerabilities and works within restrictions involving firewalls and other security-related constructs, maintaining compliance with NASIRC bulletins, utilizing Secure Shell for host authentication, user authentication, and encryption, and the use of TCP/IP wrappers and system monitoring for anomalies and security break-in attempts.
- f. Provide management of users to include: addition and deletion of userids, disk quotas, accounting and access control, utilization reports, consultation on advancing technologies, video and imaging support and data visualization (DRD 974MA-006 and DRD 974MA-007).
- g. Provide backups and restoration of the systems including all system files, file systems, directories, and/or user files.

### **3.5 RUSSIA IT SERVICES**

The contractor shall provide telecommunications and IT services for approved NASA Program and Project requirements in Russia. These services include: coordination, engineering, acquisition of enhancements, and implementation of IT equipment and software. The infrastructure in Russia consists of basic telecommunications and end-user IT services that are capable of delivering video, voice, data and mission operations support. The infrastructure shall be modular and scalable in design in order to be expanded, changed and/or upgraded as requirements dictate.

#### **3.5.1 Russian Wide Area Network (WAN)**

The contractor shall provide WAN connectivity, equipment, and operational support at designated locations in Russia. The contractor shall ensure interoperability of Russian services with domestic services. These services shall include:

- a. Centralized hub at Telecom Center for distribution/processing of all telecommunications between NASA networks and the designated locations in Russia.
- b. Dedicated (mission) voice loops to designated locations in Russia and in the United States.
- c. Switched Voice services between the MSFC telephone system, JSC telephone system, and designated locations in Russia; local and long distance voice traffic shall be directed to the Public Switched Telephone Network (PSTN) from the MSFC and JSC telephone systems.
- d. Routed (mission) data services consistent with mission-critical routed data service requirements in section 3.6.5.1.
- e. Routed (administrative) data services consistent with standard and premium routed data service requirements in section 3.6.5.1.
- f. Video Teleconferencing (ViTS) services consistent with section 3.6.3.1.
- g. Portable video teleconferencing services consistent with section 3.6.3.3.
- h. Facsimile service consistent with section 5.4.2.
- i. Provide Voice over IP (VoIP) services between MSFC and Moscow.

### **3.5.2 Russian Local Area Network (LAN)**

The contractor shall provide LAN support at designated locations in Russia. The contractor shall provide the services in conformance with NASA standards and policies and ensure interoperability with corresponding systems at the NASA Centers. These services shall include:

- a. Electronic Mail/SMTP Gateway.
- b. Anti-Virus Protection.
- c. Manual Procedure Viewer (MPV).
- d. Internet Access/SMTP Gateway.
- e. Domain Name Services (DNS).
- f. Data Transport (Telnet/FTP).
- g. Data Storage/Retrieval.
- h. Backup and recovery systems.

### **3.5.3 Russian IT Security**

The contractor shall provide IT security functions for Russian services consistent with requirements in section 5.5. Services specific to Russia shall include firewall management, network metrics, web trending reporting, and incident response (DRD 974MA-006). The contractor shall provide encryption technology according to U.S. Export laws and Russian telecommunication laws.

### **3.5.4 Russian End User Support**

The contractor shall provide end user support at designated locations in Russia. These services shall include sustaining software versions consistent with Agency standards and maintaining compatibility with vendors. These services shall include:

- a. Desktop Workstations.
- b. Laptops.
- c. Printers.
- d. Telephones.
- e. Conference Room Services.

### **3.6 WIDE AREA NETWORK (WAN) SERVICES**

MSFC is delegated responsibility for Wide Area Network (WAN) services, including project support for the WAN replacement, with matrixed civil service support provided by the Goddard Space Flight Center (GSFC) and other NASA Centers. The WAN services are provided via the NASA Integrated Services Network (NISN), as well as other prototype and secure networks. The WAN provides telecommunications services for transmission of data, video and voice for NASA Enterprises, Programs, Projects, and Centers. The contractor shall be responsible for providing the services and supporting functions described below. Services include voice and video teleconferencing, switched voice and data, video distribution, mission voice, routed data, dedicated data, high rate video/data, and custom telecommunications services. The WAN provides these services at, and between, NASA centers, spacecraft operations and control centers, data archive facilities, and tracking stations. Locations also include international partners, academia, other government agencies, and contractors.

The contractor shall provide all WAN services in accordance with NASA architectural standards and as specified in performance requirements documents.

#### **3.6.1 GSA Contract Integration**

For WAN services, NASA will utilize the General Services Administration (GSA) contracts when those contracts meet NASA's requirements or can be modified to meet NASA's requirements. The contractor shall be responsible for matching customer requirements to GSA solutions, for interfacing to GSA services and providers, and for processing and disseminating billing information (DRD 974MA-006). The contractor shall develop network designs and operations concepts, and NASA will approve the designs/concept and contract with GSA vendors to provide the services. The contractor shall support NASA in generating and tracking GSA service orders. Information on the GSA/FTS2001 service offerings is available at <http://www.fts.gsa.gov>. NASA may also use other government contract vehicles to purchase WAN services when these alternatives prove advantageous to the government.

### **3.6.2 Switched Voice Services**

Switched voice services include domestic and international long distance service from the desktop, calling cards held by individuals, and toll-free in-bound services. These services shall be provided to all NASA centers, Headquarters, JPL, and to other NASA facilities and contractor locations.

### **3.6.3 Video Services**

The contractor shall provide and maintain video services at and between NASA facilities and other locations. These services include video teleconferencing and customized video distribution services.

#### **3.6.3.1 Video Teleconferencing Service (ViTS)**

The contractor shall provide and maintain a video teleconferencing service with the following capabilities:

- a. Interactive point-to-point and multipoint conferencing.
- b. Continuous viewing of participants in a multipoint conference.
- c. Web-based network resources and room scheduling system including teleconferences (DRD 974MA-006).
- d. Interactive graphics and document sharing in a secure environment.
- e. Interoperability with current (H.320, H.323, and MPEG) and future industry video standards.
- f. Integration and interoperability with GSA/FTS2001 services and other videoconferencing services such as the Defense Information Services Agency (DISA) service.
- g. Interoperability between permanent and portable videoconferencing facilities.
- h. Transmission and distribution of the video, audio, and graphics among the participating locations.
- i. Operations of the Video Teleconferencing Center.

#### **3.6.3.2 ViTS Facilities**

The contractor shall design, install, and maintain video teleconferencing facilities at COTR-designated locations. This shall include:

- a. Associated hardware and software systems.
- b. Room layout, including coordination of facility changes (DRD 974MA-007).
- c. Video projection screens or monitors.
- d. Audio equipment.
- e. Interactive graphics and document sharing workstation.
- f. Room operations panel.

### **3.6.3.3 Portable Video Teleconferencing Facilities**

The contractor shall design, install, and maintain portable video teleconferencing facilities at COTR-designated locations. The facility provision shall include:

- a. Associated hardware and software systems.
- b. Room layout, including coordination of facility changes (DRD 974MA-007).
- c. Video projection screens or monitor.
- d. Audio equipment.
- e. Interactive graphics and document sharing workstation.
- f. Room operations panel.

### **3.6.3.4 Video Conferencing Reservation System (VCRS)**

The contractor shall operate and maintain an electronic web-based system that allows room operators and customers to reserve and view the schedules for each video teleconferencing room or system on the NASA network. The system shall at a minimum:

- a. Allow users to input the desired dates, times, and rooms for a particular conference
- b. Notify the user of room and system availability.
- c. Schedule the conference rooms and the video services
- d. Provide checks to avoid double booking of rooms and video service.

### **3.6.3.5 Room Operations**

A room operator, normally employed by the host center, staffs each permanent ViTS room. The room operator schedules ViTS facilities/resources and resolves any scheduling conflicts, monitors ViTS sessions, and interacts with other room operators on the conferences to ensure the sessions go smoothly. The contractor shall provide an interface to the ViTS room operators, to include service information updates, VCRS account administration, training, periodic working sessions, solicitation and follow-up of suggestions for improving the service. At the direction of the COTR, the contractor shall provide room operators for centers who do not provide their own operators.

### **3.6.3.6 Video Distribution (Mission Video)**

The contractor shall provide for the distribution of video signals in support of NASA programs. The particular implementation shall be dependent on the specific requirements of the program and may involve terrestrial or satellite transmission, with or without the utilization of digital compression and encoding techniques. Examples of current video distribution services include Shuttle External Tank Ice Video and NASA Select.

The contractor shall provide operations, sustaining engineering and maintenance of the mission video distribution system. In providing mission video, the contractor shall:

- a. Operate and maintain the Goddard TV Central Facility, 8:00 am to 5:00 pm, Eastern Time, Monday through Friday, at the NASA Information Category Level of "Mission (MSN)," as defined in NPR 2810.1A. During Shuttle mission support, the facility is operated 24 hours per day, 7 days per week.
- b. Record, edit, duplicate, and playback video for Agency programmatic activities.
- c. Provide switching and distribution of video feeds and transponder switching of NASA Select TV service.
- d. Provide on-site coverage during mission critical periods.
- e. Document all operations, engineering, maintenance and repair activities, including a daily log, in accordance with DRD 974MA-006.
- f. Coordinate and interface with government and contractor personnel regarding mission video activities.

#### **3.6.4 Voice Services**

The contractor shall provide voice teleconferencing and dedicated voice services.

##### **3.6.4.1 Voice Teleconferencing Services (VoTS)**

The contractor shall provide voice teleconferencing services to all COTR-designated locations. The contractor shall provide multiple levels of VoTS, such as:

- Dial-out service, where an operator calls all VoTS participants at a pre-arranged time.
- Dial-in service, where participants dial into a bridge and enter a passcode.
- On-demand conferencing, where a user is either assigned a unique account and passcode that can be distributed to participants or the user may contact an operator who will dial the participants.

The contractor shall provide:

- a. Operator-based and web-based reservation and scheduling function so users may reserve the resources and specify details about their conferences (DRD 974MA-006).
- b. Capability for operators to monitor in-progress calls and technical support and/or monitor conference quality.
- c. Capability to record and transcribe conferences if requested by the call leader.
- d. Monthly VoTS usage and cost summaries by NASA center (DRD 974MA-006).
- e. Secure voice teleconferencing capability to COTR-designated locations.

#### **3.6.4.2 VoTS Facilities**

The contractor shall design, install, and maintain voice teleconferencing facilities at COTR-designated locations. The facility provision shall include:

- a. Associated hardware and software systems.
- b. Room layout, including coordination of facility changes (DRD 974MA-007).
- c. Audio equipment.
- d. Room operations panel.

#### **3.6.4.3 Dedicated (Mission) Voice Service**

The contractor shall provide transmission, bridging, and switching to support a system of dedicated, mission voice circuits working in conjunction with Center switching/conferencing systems to create inter-connected voice communications loops. The voice loops interconnect the different Center voice distribution systems that support diverse missions within the Agency. The contractor shall provide operations, sustaining engineering, and maintenance of the Voice Switching System (VSS). In providing this service, the contractor shall:

- a. Operate and maintain the VSS 24 hours per day, 7 days per week, at the NASA Information Category Level of "Mission (MSN)," in accordance with NPR 2810.1A.
- b. Operate the VSS and associated equipment in accordance with all applicable NISN Security Guidelines and Operating Procedures.
- c. Provide fault isolation, restoration, testing, and monitoring, including detection of circuit degradation, of all the voice circuits terminated in the VSS.
- d. Establish, maintain, and monitor voice conferences to NASA network and mission control centers and various other NASA, federal government and international partner facilities.
- e. Provide on-site coverage during mission critical periods.
- f. Coordinate and interface with government and contractor personnel regarding mission voice requirements-

#### **3.6.5 Data Services**

The contractor shall provide routed data, dedicated data, and high rate data/video services.

### **3.6.5.1 Routed Data Services**

The contractor shall provide the hardware, software, routing, management, and operations necessary to support NASA's routed data requirements. The contractor shall support Internet Protocol (IP) as the Agency's standard for routed data services and legacy non-IP protocols until they are phased out.

Four service performance categories for routed data services have been defined:

- a. Real-time Critical
- b. Mission Critical,
- c. Premium
- d. Standard

In addition to these four levels of service, the contractor shall define an approach for providing a fifth level of service categorized as "Best-effort," a lower-cost, lower-performance level of routed data service.

Performance requirements for these services are specified in the NISN Services Document, NISN 001-001 (DRD 974MA-007). Requirements that are not satisfied by these performance categories shall be provided as a custom service.

The contractor shall support several intra-domain routing protocols, including Static, Routing Information Protocol (RIP), Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF), and inter-domain routing protocols such as Border Gateway Protocol (BGP). The contractor shall coordinate with customers to select a protocol consistent with both the customer's requirement and the common network architecture.

The Service Demarcation Point for WAN IP Routed Data Services shall be the Local Area Network (LAN) interface of the WAN router. All NISN routers are considered WAN routers. The LAN interfaces include, but are not limited to, 10 Base T, 100 Base-TX, 100 Base FX, and Gigabit (SX, LH, ZX) Ethernet.

The contractor shall provide WAN peering to allow routed data transit and access to network providers, which are required to support Agency requirements. The peering points shall include as a minimum the following exchange points:

- a. Metropolitan Area Exchange (MAE)-East
- b. Next Generation Internet Exchange (NGIX)-East
- c. NGIX-West
- d. NGIX-Central.

In addition, there are specialized exchanges at Ames Research Center available to Federal Networks, which include:

- a. Multicast Exchange (MIX)
- b. Federal Network Exchange (FIX)
- c. IPV6 exchange development.

The contractor shall pursue or modify WAN peering as Agency requirements dictate and with coordination through the government point of contact.

#### **3.6.5.2 Dedicated Data Services**

Although NASA encourages the use of routed data services, the contractor shall provide full-time, dedicated bandwidth between two or more discrete locations, due to performance and/or security considerations, or to support unique data transfer protocols not otherwise supported by the routed data network. The contractor shall minimize the use of dedicated data services and encourage the use of routed data services. The contractor shall document and provide rationale for use of dedicated services. GSA contracts shall be used for the procurement of the bandwidth.

#### **3.6.5.3 High Rate Data/Video**

The contractor shall maintain a one-way, multi-mode/multi-channel High Rate Data System, designed for operation over a full C-band (36 MHz) domestic communications satellite transponder or equivalent terrestrial telecommunications network. This service provides a medium for transport of a Tracking and Data Relay Satellite System (TDRSS) user's digital baseband return link when the rates are 2 Mbps or higher. The system has an upper limit for the user's data of 48 Mbps. When not used for data, the service shall be used for the transmission of video information in a user's TDRSS return link from the White Sands Complex (WSC) to JSC.

#### **3.6.5.4 Network Timing**

The contractor shall maintain a network timing system to provide single-reference Stratum 1 timing for all NISN WAN network equipment, and to provide Network Timing Protocol (NTP) service to all NISN SIP and PIP customers.

#### **3.6.5.5 Virtual Private Networks**

The contractor shall provide NASA centers the ability to transport data through virtual private networks (VPN). The contractor shall provide both encrypted and non-encrypted VPN offerings.

### **3.6.6 International Services**

The contractor shall provide international telecommunications services to facilitate communications with NASA's International Partner Agencies and their research facilities. GSA contracts shall be used for the procurement of the bandwidth. This service provides transport of data, voice, facsimile, electronic mail, and video. International services are currently provided to the following international partners: European Space Agency (ESA), Canadian Space Agency (CSA), Center National d'Etudes Spatiales (CNES), and National Space Development Agency for Japan (NASDA). The contractor shall facilitate payments to suppliers in support of agreements with international partners.

### **3.6.7 Technical Services (Dedicated)**

The contractor shall provide dedicated engineering and other technical support for specific customers as designated by the COTR.

### **3.6.8 Directory Services**

The contractor shall provide systems engineering and sustaining engineering support functions to support NASA's directory service. In performance of this function, the contractor shall:

- a. Operate the root-level NASA directory.
- b. Replicate data with all Center-level directories.
- c. Update directory schemas to support new or changing application requirements.

### **3.6.9 Internet Protocol Resource Management**

The contractor shall manage, assign, and delegate the NASA Internet Protocol resources assigned to the Agency. The contractor shall coordinate with the appropriate Regional Internet Registry (RIR), such as the American Registry of Internet Numbers (ARIN) and Reseaux IP Europeens (RIPE), for registration of NASA's networks and IP management policies.

#### **3.6.9.1 Internet Protocol Address Management (IPAM)**

The contractor shall provide systems engineering and sustaining engineering support functions for NASA's IPAM systems. In performance of this function, the contractor shall:

- a. Provide updated security patches and updates to all NASA IPAM servers which were installed under the Agency IPAM Project.
- b. Manage system/database backups for the IPAM system.
- c. Perform centralized management of the IPAM application.
- d. Perform system health monitoring of the IPAM servers.
- e. Provide hardware maintenance for the Agency's IPAM servers installed under the IPAM Project.

### **3.6.9.2 Dynamic Host Configuration Protocol (DHCP)**

The contractor shall provide centralized management for DHCP under the Agency Internet Protocol Address Management (IPAM) system. In performance of this function, the contractor shall:

- a. Provide updated security patches and updates to all NASA DHCP servers which were installed under the Agency IPAM Project.
- b. Perform centralized management of the IPAM DHCP application.
- c. Perform system health monitoring of the IPAM DHCP servers.
- d. Provide hardware maintenance for the Agency's DHCP servers installed under the IPAM Project.

### **3.6.10 Facsimile Broadcast Service**

Facsimile broadcast provides the capability for NASA users to send a document to multiple recipients, as established on a preset distribution list, via a single transmission. In providing this service, the contractor shall:

- a. Establish and maintain user accounts.
- b. Assist users in building and modifying distribution lists.
- c. Report performance and utilization metrics (DRD 974MA-006).

### **3.6.11 Office Space**

The contractor shall provide office space in support of the services described in 3.6.

## **3.7 SYSTEMS MANAGEMENT AND OPERATIONS**

The contractor shall provide network scheduling, network monitoring, network control and system management, problem management, WAN operational support, and control centers in support of the services described in this PWS. Systems Management and Operations functions provided in support of GSFC local services and performed by the NASCOM Operations Management Center, Goddard TV Central, Goddard Voice Control, and Goddard Technical Control Facilities will be provided by the MOMS contract. The UNITEs contractor shall establish agreements and joint operations procedures with the Millennia and MOMS and contractors for systems management and operations services performed at GSFC. The agreements shall address how the contractors will work together to accomplish the following:

- a. Ensure there is no overlap in responsibility or authority with staffing;
- b. Ensure overall staffing does not exceed available physical space;
- c. Ensure continuity of service and efficient use of resources to perform end-to-end troubleshooting.

### **3.7.1 Network Scheduling**

The contractor shall provide scheduling and coordination to optimize the operation of all WAN entities. The work period is normally performed 7:00 am to 7:00 pm, Central Time, Monday through Friday. The contractor shall:

- a. Provide scheduling of satellite transponders, systems and circuit releases used in the network.
- b. Distribute communication alert messages to network users and common carriers notifying them of mission critical support periods.
- c. Issue preliminary and final service advisory messages as necessary.
- d. Provide on-site coverage during mission critical periods, as defined by the COTR.
- e. Maintain a daily log of all network-scheduling activities (DRD 974MA-006).
- f. Coordinate and interface with the government and other contractors in accordance with government guidance.
- g. Provide an e-mail-based activities scheduling system, which shall notify approved users of user-impacting activities at least 10 calendar days prior to conducting the activity. The contractor shall provide a feedback mechanism for customers to request cancellation or rescheduling of activities. The contractor shall also provide an electronic mail-based outage notification system to inform approved users of major service outages. Activity and outage reports shall be archived and available via the web to approved users (DRD 974MA-006). The contractor shall grant access to this system and archived information to the COTR-designated personnel and shall ensure no unauthorized users gain access.
- h. Adhere to NASA mission freeze policies which disallow network changes during mission-critical periods, follow the NASA freeze exemption request and waiver process, and coordinate requests for exemptions to network freezes.

### **3.7.2 Network Monitoring**

The contractor shall provide network monitoring capabilities, tools, systems, and procedures to meet service performance requirements as specified in the NISN Services Document, NISN 001-001 (DRD 974MA-007). Network monitoring shall be performed so as not to impact operational service performance. The contractor shall provide:

- a. Network monitoring and control of remote devices and physical parameters at remote gateways.
- b. Visibility into supplier network management systems where available and secure.

- c. Network-based monitoring tools that can be utilized to illustrate near-real-time service utilization and status. These tools shall illustrate capacity, performance, and utilization per location.
- d. Web-based tools illustrating performance metrics and specific bandwidth rates across Layer 3 hardware ports to be made available to approved customers and other help desks.
- e. Secure access to Layer 2 and Layer 3 network equipment to COTR-designated personnel.
- f. Reporting of service performance metrics in support of service level agreements (DRD 974MA-006).
- g. Software and hardware systems to monitor and control, in real-time, system performance parameters such as network latency and response for the entire system, end-to-end, from user device to the server.
- h. Monitoring, in real-time, of a user session, to view user interaction and keystrokes, and to intervene and take control if necessary.
- i. Discover and correct most system problems before causing any customer impact.
- j. Cable management tools, desktop appliance management tools, server management tools.
- k. Large screen display of critical, real-time, system parameters.
- l. View and document system traffic patterns and develop expansion plans to react to traffic peaks without user impact (DRD 974MA-006).
- m. Capture data to support system tuning.
- n. Review and reconciliation of vendor outages to determine credits due to the government.
- o. Monthly and quarterly carrier performance reports to government (DRD 974MA-006).
- p. Recommendations to the government for the improvement of carrier performance and the resolution of recurring problems (DRD 974MA-006).

### **3.7.3 Network Control and System Management**

The contractor shall be responsible for the account management, system administration, technical control, and WAN operational support.

#### **3.7.3.1 Account Management**

The contractor shall provide a unified approach for:

- a. Creating, deleting, changing, tracking, and reporting on user accounts and passwords for systems and tools used to provide the services in this PWS (DRD 974MA-007).
- b. Coordinating in a seamless fashion with the Integrated Enterprise Management Competency Center (IEMCC) to implement IEM and data center accounts (DRD 974MA-007).

### **3.7.3.2 System Administration**

The contractor shall provide systems administration support for control center services.

### **3.7.3.3 Technical Control**

The contractor shall:

- a. Staff and maintain the control capability that is operational 24 hours per day 7 days per week at the NASA Information Category Level of "Mission (MSN)," as defined in NPR 2810.1A.
- b. Provide configuration of high speed, wideband and video transport systems to meet specific mission requirements.
- c. Coordinate with the government and interface with other contractors in accordance with government guidance.

### **3.7.3.4 Domain Name Service (DNS)**

The contractor shall provide systems engineering and sustaining engineering support functions for NASA's DNS systems, at the domain level of nasa.gov. In performance of this function, the contractor shall:

- a. Provide name registration for systems at the nasa.gov and scijinx.gov domains.
- b. Provide sub-delegation to networks required to join NASA's network domain; e.g., msfc.nasa.gov.
- c. Provide updated security patches and updates to all NASA DNS servers which were installed under the Agency IPAM Project.
- d. Perform centralized management of the IPAM DNS application.
- e. Perform system health monitoring of the IPAM DNS servers.
- f. Provide hardware maintenance for the Agency's DNS servers installed under the IPAM Project.

### **3.7.4 Problem Management**

The contractor shall maintain systems and processes to respond to service problems detected by the contractor or their vendors or to problems reported by users. The contractor shall provide:

- a. A capability to automatically route calls to appropriate control center operators. This capability shall include dedicated voice communications lines (e.g., orderwires) between control centers.
- b. User-initiated and supplier-initiated problem reporting and resolution processes (DRD 974MA-006).
- c. Escalation procedures and contacts for the contractor and the suppliers (DRD 974MA-007).
- d. Automatic tracking and logging of customer trouble calls (DRD 974MA-006).
- e. Processes, criteria, and point of contact (including other services providers and suppliers) necessary for effecting problem resolution (DRD 974MA-007).
- f. A knowledge management capability to assist in resolution of troubles on the first call and to identify trends.

- g. Call status metrics such as caller queue times and abandoned calls (DRD 974MA-006).
- h. Real-time fault isolation and restoration of failed services, including coordination with carriers.
- i. Maintain a daily log of installation trouble shooting and restoration activities (DRD 974MA-006).

### **3.7.5 WAN Operations Support**

The contractor shall provide operational support to maintain service performance requirements identified in the NISN Services Document, NISN 001-001 (DRD 974MA-007). This support shall include:

- a. Onsite coverage during mission critical periods.
- b. On-console mission operations, mission planning and test/simulation coordination.
- c. Operations and technical support at major points of presence (such as NASA centers) and other locations.
- d. The contractor shall participate in NISN, program, flight, and operational readiness reviews and certification of flight readiness reviews to ascertain whether WAN services are ready to support missions, programs, flight, and operational users (DRD 974MA-011).

### **3.7.6 Control Centers**

The contractor shall operate and maintain the following facilities to provide services described in this PWS.

- a. WAN Enterprise Network Management Center (ENMC).
- b. Information Mission Control Center (IMCC).
- c. Internet Protocol (IP) Network Operations Center (IPNOC) (Facility is shared with GSFC Millennia contractor).
- d. NASCOM Operations Management Center (NOMC). (Facility is shared with GSFC MOMS contractor).
- e. Goddard TV Central Facility. (Facility is shared with GSFC MOMS contractor).
- f. Goddard Voice Control Facility. (Facility is shared with GSFC MOMS contractor).
- g. Goddard Technical Control Facility. (Facility is shared with GSFC MOMS contractor).

### **3.7.7 Documentation and Configuration Management**

The contractor shall:

- a. Provide an online configuration management capability to document technical configurations, diagrams, and architectures as well as processes (DRD 974MA-007).
- b. Create, review, and maintain documentation and databases.

- c. Provide electronic and hardcopies of network and facilities drawings (DRD 974MA-007).
- d. Provide a connection database to document the appliance, office jack, switch port, and network connectivity as required (DRD 974MA-007).
- e. Utilize government software standards for generating and maintaining documentation.

### **3.7.8 Office Space**

The contractor shall provide office space in support of the services described in 3.7.

### **3.7.9 DELETED**

### **3.7.10 DELETED**

## **3.8 INTEGRATED SERVICE DELIVERY SUPPORT**

The contractor shall provide the integrated service delivery support functions necessary to perform the services described in Section 3 of this PWS. These functions include: engineering, implementation, maintenance, configuration management, collaboration, and disaster recovery.

### **3.8.1 Engineering**

The contractor shall provide systems engineering and sustaining engineering support functions to perform the services described in this PWS.

#### **3.8.1.1 Systems Engineering**

The contractor shall perform systems engineering for existing and proposed systems. Within the scope of this function, a system typically includes the combination of hardware equipment and systems software. Systems software includes operating systems, compilers, database management systems, transaction management systems, switching systems, performance and utilization tracking systems, libraries, utilities, and other software necessary for the operation and execution of IT systems. In performance of this function, the contractor shall:

- a. Maintain and update customer requirements (DRD 974MA-007).
- b. Perform, in accordance with OMB guidelines for business cases, trade studies to maintain, balance, and optimize requirements allocations across subsystems (DRD 974MA-007).
- c. Maintain online requirements inventory for all customer subsystems and services (DRD 974MA-007).

### **3.8.1.2 Sustaining Engineering**

The contractor shall perform sustaining engineering on operational systems that are managed by the contractor. In performance of this function, the contractor shall:

- a. Perform system performance studies, recommending appropriate changes to eliminate potential system bottlenecks, resources conflicts and system overloads (DRD 974MA-007).
- b. Isolate problems in systems and effect proper resolution, including the reporting, statusing, and documenting of changes.
- c. Perform capacity analysis of existing computational and telecommunication systems (DRD 974MA-007).
- d. Provide capacity planning recommendations based on analysis and changes in requirements and technology. Obtain approval from the appropriate control board (DRD 974MA-007).
- e. Provide risk analysis and management that shall include continual identification and assessment of technical, schedule, cost, and organizational risks involved with the operation of systems (DRD 974MA-002).

### **3.8.2 New Service Implementation**

The contractor shall provide design and development; systems integration and testing; and implementation support functions for new service implementation. This includes, but is not limited to, documentation, drawings, pricing methodology, budgeting, operations approach, schedule, and training material.

#### **3.8.2.1 Design and Development**

The contractor shall design, develop, and prototype IT systems to meet customer requirements. The contractor shall develop and document engineering specifications and drawings for components and systems that implement the designs. In performance of this function, the contractor shall:

- a. Define requirements that shall include collecting and documenting customer (including written buyoff) or system requirements (DRD 974MA-007).
- b. Analyze the defined requirements ensuring that functionality, reliability, availability, maintainability, security, affordability, and policies and procedures are addressed. Perform systems engineering trade studies to optimize requirements allocations across subsystems (DRD 974MA-007).
- c. Develop designs consistent with generally accepted engineering guidelines and practices.
- d. Maximize commonality and the use of COTS components.
- e. Coordinate external interface designs with the responsible oversight organization.

- f. Conduct design reviews as requested by COTR designated personnel or customers.
- g. Develop engineering prototype hardware and software components, subsystems, and systems to verify design and certify requirements.
- h. Support the upgrading of the integrated infrastructure for all information systems.
- i. Acquire, fabricate, assemble, and modify components, subsystems, and systems.
- j. Support partnerships with industry, academia, and government agencies to accelerate the use of advanced technologies to meet NASA requirements.
- k. Identify and coordinate local physical and electrical interfaces between the host facility, suppliers, and customers.

### **3.8.2.2 Systems Integration and Testing**

The contractor shall be responsible for integration of hardware and software into operational configurations of computational and telecommunication systems. The contractor shall ensure that all elements of the system cohesively function as a fully integrated, operational system. The contractor shall perform testing of hardware, software, and telecommunication products. In performance of this function, the contractor shall:

- a. Ensure customer-established functional requirements are met.
- b. Ensure conformance with the applicable federal standards.
- c. Ensure interoperability with existing systems.
- d. Ensure design concepts are not inadvertently changed during the integration process.
- e. Perform verification and validation testing independent of the design organization.
- f. Perform technical reviews of integration and testing activities as requested by COTR designated personnel.

### **3.8.2.3 Implementation**

The contractor shall install and integrate hardware, systems software, services, and applications software components into fully operational systems and verify satisfaction of the customer's performance requirements. In performance of this function, the contractor shall:

- a. Assemble, install, connect, inspect and "stage" the systems.
- b. Integrate, verify functionality, and document implementation of the services (DRD 974MA-006).
- c. Perform verification testing of the systems under simulated load conditions, and assess failure modes of the systems.
- d. Provide the customer written instructions that contain all relevant information for reporting a problem related to the service, equipment or software.

### **3.8.2.3.1 Installation**

In performance of this function, the contractor shall:

- a. Install the components into a fully operational configuration to meet the customer requirements.
- b. Schedule implementations to minimize disruptions or impacts to services.
- c. Verify that the connections, support equipment, and software for the system have been properly installed.
- d. Ensure property control requirements (e.g., identification tags and stickers) are met (as defined in the approved Government Property Management Plan, which is prepared in accordance with DRD 974LS-001).

### **3.8.2.3.2 Assessment and Acceptance Testing**

In performance of this function, the contractor shall:

- a. Verify that the system is installed properly, and that the system satisfies customer's requirements using test and assessment methods, and written customer buyoff, as appropriate.
- b. Conduct an acceptance review with CIO and customers, as requested by COTR designated personnel, presenting a summary of the verification results.

### **3.8.3 Configuration Management and Control**

The contractor shall prepare, implement, and maintain a Configuration Management Plan (DRD 974CM-001) which describes the technical and administrative functions and databases necessary to identify and document the technical and architecture configuration requirements of systems, processes or projects, control changes, deviations, and waivers to these technical requirements, and record and report change processing and implementation status. The contractor shall maintain as-implemented systems configuration information to include hardware model numbers, software revision levels, user interface details, and circuit details, such as circuit numbers, circuit types, originating and terminating locations, installation date, and service request reference number.

### **3.8.4 Maintenance**

The contractor shall maintain in a fully operational condition all hardware and software for those systems which the contractor has responsibility (see Appendix A). Items to be maintained, consistent with the categories of hardware and software described in this PWS, may be routinely added or deleted throughout the period of performance of this contract. These changes are considered within the scope of this PWS and shall not, in general, be construed as changes within the meaning of the "Changes -- Cost-Reimbursement -- Alternate II" clause of this contract as long as the total number of

hardware items to be maintained (see DRD 974RM-001, Operability/Maintainability Plan) is not less than 6,000 and not greater than 17,000. In performance of this function, the contractor shall:

- a. Prepare, implement, and maintain the Operability/ Maintainability Plan (DRD 974RM-001).
- b. Maintain an online system that contains information on operational failures, incidents, discrepancies, and problem disposition and resolution that includes a daily log of all maintenance and repair activities (DRD 974MA-006).
- c. Prepare and deliver status reports (DRD 974MA-006) providing information on outages, such as component involved, period of downtime, and corrective actions.
- d. Compile and maintain a list of key contacts responsible for coordinating and conducting the required hardware and software maintenance functions (DRD 974MA-007).
- e. Maintain warranty protection and conditions for equipment in warranty.
- f. Maintain vendor subscriptions describing and providing updates and enhancements.
- g. Maintain a complete, up-to-date, and accurate list of spare parts and related material necessary to maintain the equipment (DRD 974MA-007).
- h. Ensure availability of parts for both maintenance and production functions.
- i. Maintain a real time, up-to-date service record for each system. The record shall include: the date and type of equipment, service performed, list of parts used and costs, staff-hours utilized, and downtime, or time not available for use of equipment (DRD 974MA-007).
- j. Maintain a working relationship with vendors or other NASA Centers necessary to obtain required items or maintenance in a timely manner.
- k. Maintain up-to-date vendor documentation for all systems (DRD 974MA 007).
- l. Coordinate maintenance activities with NASA centers, customers, other service providers, and other contractors.

#### **3.8.4.1 Preventive Maintenance (PM)**

The contractor shall perform PM, defined as maintenance performed by the contractor that is designed to keep the hardware and software in proper operating condition. The PM is performed on a scheduled basis, normally during the Principle Periods of Maintenance (PPM) defined for each system in the approved Operability/Maintainability Plan (prepared in accordance with DRD 974RM-001).

- a. In performing PM on hardware equipment, the contractor shall:
  - 1) Develop PM schedules that minimize disruption to customer operations. Provide PM schedules in accordance with DRD 974RM-001.
  - 2) Perform adjustments, cleaning, lubrication, and replacement of parts as specified according to published maintenance procedures.
  - 3) Install latest releases of Field Change Orders (FCO's) and other hardware updates.
- b. In performing PM to software, the contractor shall:
  - 1) Acquire, test, and install software updates. Software tests and installations shall normally be performed during scheduled system test periods.
  - 2) Track and renew system software licenses (DRD 974MA-007).
  - 3) Evaluate vendor-supplied updates or patches for applicability.
  - 4) Implement system software releases.

#### **3.8.4.2 Remedial Maintenance (RM)**

The contractor shall perform RM, defined as that maintenance performed which results from equipment and software failure. It is performed as required on an unscheduled basis. RM shall be performed on all hardware and software elements specified in this contract. In performance of this function, the contractor shall:

- a. Perform RM promptly after notification that the component is inoperative.
- b. Ensure that the RM is performed to meet the customer's requirements and minimizes operational impact to the customer.
- c. Plan, implement, and enforce operational procedures to ensure that the system continues to operate while any failed component is being replaced. Document operational procedures in the Operability/Maintainability Plan (DRD 974RM-001).
- d. Ensure that the maintenance tools, spares, procedures, skills, and response times are adequate to meet the requirements of the approved Operability/Maintainability Plan (prepared in accordance with DRD 974RM-001).

#### **3.8.5 Collaboration**

The contractor shall establish and maintain contact with internal and external technical working groups consisting of IT professional associations and vendor systems experts to assist in accomplishing its mission.

#### **3.8.6 Disaster Recovery**

The contractor shall test the Disaster Recovery Plan (prepared in accordance with DRD 974MA-007) to ensure the orderly recovery from a disaster that may render all or part of information facilities, systems, and equipment inoperable. The contractor shall also test the Continuity of Operations Plan (prepared in accordance with DRD 974MA-007).

### **3.10 MISSION ENGINEERING AND NETWORK MANAGEMENT**

(PWS 3.10 effective through the end of the base period and if Option Period 1 exercised through May 31, 2007)

The scope and objective of this work is to provide network and sustaining engineering, network management and operation, and system administration for the NASA mission network. The support includes, but is not limited to, overall operational network engineering, sustaining engineering of network components, network security engineering, and day-to-day operational support that provides for the transmission and delivery of telemetry, commands, and data to all NASA missions and projects.

The objectives of this effort also include a focus on the application and customization of emerging technologies to meet current and future networking requirements, and the necessary integration required to deploy new technologies into the existing environment.

The work also provides for operational support of on-going missions and projects and shall include providing support for the launching of new satellites and special activities such as servicing missions and critical coverage of space activity.

The Government will provide procurement, property management, logistics, and property accountability for the NASA Mission Network.

#### **3.10.1 Network and Sustaining Engineering**

The contractor shall provide operational network and sustaining engineering of network components for all elements of this PWS. Engineering expertise shall be provided for both wide area and local networks. The contractor shall also develop network designs and operational concepts, and NASA will approve the design concepts through the appropriate NASA channels.

In addition, the contractor shall perform network engineering support for the Goddard Space Flight Center (GSFC) and Agency networks. Network engineering shall include the preparation of requirements analyses and a prototyping strategy for implementing the requirements, development of network architecture(s) and design, site preparation, installation, integration and testing for deployment, sustaining engineering, trouble-shooting, and preparing as-built documentation for all implemented requirements.

The contractor shall provide Event Report (ER) analysis (DRD 974MA-015) and resolution, priority System Problem Report (SPR) resolution (DRD 974MA-015) (if necessary), respond to Daily Summary Reports (DSR), and provide on-call mission availability.

#### **3.10.2 Software Sustaining Engineering**

The Contractor shall provide software sustaining engineering and user support for Conversion Devices and the Tracking Data System. Software sustaining engineering activities include configuration management, defect identifications and tracking, defect correcting, capability enhancements, installations, configuration, testing, design reviews, and delivery of software releases. Capability enhancements include requirements analysis, software design, and software development.

Software sustaining engineering requirements shall include:

- **Engineering Software Releases.** The Contractor shall perform requirements analysis, system design, coding, configuration management, and testing for software releases. The Contractor shall hold software design reviews prior to new version releases.
- **Maintaining Related Software.** The Contractor shall perform application modifications to support network requirements and modifications to correct software issues. The Contractor shall support the maintenance of several tools (e.g. debuggers, traffic generators, and traffic capture software) that provide system test and network capabilities, diagnostic and fault isolations capabilities, and network traffic data collections capabilities.
- **Distributing Upgrades.** The Contractor shall also support the distribution of operating systems upgrades, security patches/fixes, kernel upgrades, custom kernel upgrades, and custom serial drivers.

### **3.10.3 Network Management and Operations**

The contractor shall be responsible for on-site network management of all mission IP networks providing connectivity between Greenbelt and other points in the network. These networks include the local and wide area Internet Protocol (IP) Operational Network (IONet) and the EOSDIS backbone Network (EBNet). The networks are managed in the IP Network Operations Center (IPNOC) located in the Nascom Operations Management Center (NOMC) at the GSFC.

The contractor shall also be responsible for providing life cycle mission operations support for the operational conversion device service in support of NASA missions and projects. This service is provided via the Internet Protocol Operational Network (IONet) and controlled from the NOMC.

To perform the network management responsibilities, the contractor shall interact and coordinate with other contractors and end users in order to operate and manage the network services. The contractor shall also maintain appropriate levels of certification for all applicable staff. In addition, the contractor shall maintain escalation procedures and develop root cause analysis and corrective actions for major outages.

#### **3.10.3.1 IPNOC**

The contractor shall perform IPNOC network management responsibilities to include monitoring the networks, isolating problems, coordinating maintenance, upgrading network components, and repairing the networks. The contractor shall also be responsible for day-to day operational support, which provides for the transmission and delivery of telemetry, commands, and data to all NASA missions and projects.

The contractor shall provide network management, on a 24 x 7 basis, of the local networks, sub-networks, firewalls, and components in accordance with NASA and

NISN developed policies and procedures, including enhanced coverage for NASA-declared critical periods. Critical periods typically bracket launch, early orbit, payload deployment, and for Shuttle, Extra-Vehicular Activity (EVA) and landing. Enhanced coverage includes increased staff and on-site engineering during particular shift(s).

In the performance of network monitoring of local networks, the contractor shall:

- a. Monitor frame/cell switched and routed networks using Government provided Network Management System (NMS) and workstations.
- b. Monitor all network problem isolation and resolutions.
- c. Compile traffic statistics for network optimization and engineering.
- d. Provide configuration management for all infrastructure components.
- e. Coordinate maintenance issues and work with maintenance providers to maintain, repair, and upgrade network equipment.
- f. Be responsible for creating and testing all new configurations and/or configuration changes for the IONet.
- g. Operate, maintain and upgrade the IPNOC Network Management System (NMS) using Commercial Off-The-Shelf (COTS) tools.
- h. Maintain and upgrade the IONet firewall and any related firewall tools.
- i. Maintain and upgrade the IONet Domain Name Servers (DNS).
- j. Report all anomalies and the results of all subsequent restorals to the Shift Communications Manager (Comm Manager).
- k. Interface and coordinate with other areas of the NOMC, if necessary, in order to provide and restore conversion device service.
- l. Maintain a Mission Network Operations Log (DRD 974MA-014) to log all operations, testing, and restoral activities.

The Government will provide the contractor with access to the NASA IT lab to support and accomplish tasks. The lab is configured with Government-provided hardware and software including evaluation copies of products, routers, systems, and hardware for software testing.

### **3.10.3.2 Conversion Device Service**

The contractor shall provide operation, maintenance, and user support for Conversion Devices. In performing this effort, the contractor shall:

- a. Integrate the operation of the conversion devices into the operational service provided by the IPNOC through the operation, management, and sustaining engineering and integration of the services.
- b. Manage, operate, configure, install, troubleshoot, and repair conversion devices used in the network as gateways between the legacy 4800 bit block and the Internet Protocol (IP).

- c. Staff on-console positions, 24 hours a day, 7 days a week, during day-to-day, mission critical, and special support operations.
- d. Configure, manage, and operate conversion devices for operational and testing support of missions and projects, according to approved requirements and mission briefings.
- e. Reconfigure conversion devices to maintain and support missions and projects as necessary and required.
- f. Provide troubleshooting, restoral, and maintenance services for conversion devices in order to maintain support for missions and projects.
- g. Report all anomalies and the results of all subsequent restorals to the Shift Communications Manager (Comm Manager).
- h. Interface and coordinate with other areas of the NOMC, if necessary, in order to provide and restore conversion device service.
- i. Maintain a Mission Network Operations Log (DRD 974MA-014) in order to log all operations, testing, and restoral activities.

#### **3.10.4 System Administration**

In performing day-to-day activities related to maintenance of existing databases, the contractor shall:

- a. Generate and implement Secure Gateway Requests associated with conversion devices.
- b. Assign network data routing codes (source/destination, logical port addresses and fixed multicast addresses), as necessary and required
- c. Maintain a Source/Destination Code Handbook (DRD 974MA-013) containing network data routing codes and maintain the security level of the handbook according to the applicable Nascom Security Guidelines and Operating Procedures.

### **3.11 LOCAL AREA NETWORK ENGINEERING**

The objectives of this work include a focus on the application and customization of emerging technologies to meet current and future networking requirements, and the necessary integration required to deploy new technologies into the existing environment.

The contractor shall provide network engineering and sustaining engineering of both wired and wireless local area networks (LANs) at GSFC and associated network components. Network engineering shall include the preparation of requirements analyses and a prototyping strategy for implementing the requirements, development of network architecture(s) and design, site preparation, installation, integration and testing for deployment, sustaining engineering, trouble-shooting, and preparing as-built documentation for all implemented requirements.

The contractor shall develop network designs and operational concepts, and NASA will approve the design concepts through the appropriate NASA channels.

The contractor shall also perform technology evaluation studies and analysis as directed. Technical evaluation studies may include such types of activities as technology or vendor product surveys, requirements analysis, benchmark analysis, lab testing, proof of concept, prototypes, or other type of demonstrations. Each study initiated shall include, but is not limited to the following deliverables: (1) Work plan to include a charter statement; (2) baseline assessment; (3) study conclusion and recommendations; and (4) additional study documentation as required and/or necessary.

### **3.12 NETWORK SECURITY**

The contractor shall provide IT network security to network customers. In performing these services, the contractor shall:

- a. Collect and assess security requirements against network data flow requirements and define network firewall implementation. The contractor shall also support incident investigation and IT security incidents/emergency response in coordination with the GSFC IT Security Manager.
- b. Use the NASA security lab to commence product/solution testing, including Virtual Private Network (VPN) testing. The NASA security lab is located at GSFC and contains Government provided hardware and software. The contractor shall provide documentation on testing and evaluation of security products and solutions (974MA-006). The contractor shall also provide "as built" documentation of the security lab (974MA-006) and an Operations Plan for the security lab (DRD 974MA-006). In addition, the contractor shall develop procedures to share tools, technologies, and expertise through the Scientific and Engineering Workstation Procurement (SEWP) security lab located at GSFC.
- c. Support the GSFC Chief Information Officer (CIO)'s goal to strengthen and improve information technology (IT) security. The contractor shall develop and implement the high priority technology-related recommendations established by the NASA CIO, the NASA Principal Center for IT Security (PC-ITS), the GSFC CIO, and the GSFC Deputy CIO for IT Security.
- d. Perform quarterly vulnerability scanning including unannounced scanning consistent with the current network scanning architecture and approach and report scanning findings and metrics quarterly (DRD974MA-006). The contractor shall also support and maintain the government's secure webserver to distribute vulnerability reports and shall provide technical support for center vulnerability scanners. In addition, the contractor shall sit on the CRB (Goddard's IT Vulnerability Waiver Board).

- e. The contractor shall establish an intrusion detection architecture and approach, deploy, operate, and manage an intrusion detection infrastructure, and perform network traffic monitoring and analysis. The categories of network traffic captured, stored, and analyzed must be approved by the Deputy CIO for IT Security. The contractor shall report all identified intrusions to the GSFC ITSM and report intrusion detection findings monthly to the Deputy CIO for IT Security (DRD 974MA-006). The contractor shall also develop recommendations for a penetration testing methodology and approach for GSFC and shall coordinate this effort with the GNECCB and the ITSWG.
- f. The contractor shall establish a security incident response team to support the Deputy CIO for IT Security and the ITSM. With coordination from the task monitor, the contractor shall serve as a network and host computer security-engineering group providing consultation and intrusion evaluation services to the GSFC community.
- g. The contractor shall provide support for the network security of the Center Network Environment (CNE) for both Greenbelt and Wallops Flight Facility. The contractor shall be responsible for performance of risk analysis for the CNE network services, and the development and implementation of a risk management plan (974MA-007). The contractor shall perform an annual security analysis and develop and implement the CNE Security Plan (974MA-007). The CNE Security Plan shall detail the plan for securing the CNE network services. The contractor shall be responsible for the review of and compliance with all established NASA, GSFC and CNE security policies for the CNE network. The contractor shall maintain and implement firewall rules and policies for the CNE Firewall Architecture, in accordance with direction from the Center Firewall Review Board (CFRB) and CNE Project. The contractor shall support the activities of the GSFC Scanning Team during scanning of the CNE and associated services. The contractor shall provide security analysis and support during the engineering of the CNE network services. The contractor shall establish internal security policy and ensure compliance on systems utilized in the performance of all functions within this task.
- h. The contractor shall support the operations of security systems within the Mission Network to include, but not limited to: intrusion detection system, Patchlink server, and host scanning system. The contract shall support and work in conjunction with the network engineers in verifying and specifying the appropriate security controls and design that meet Federal, Agency, NISN, and Mission security requirements. The contractor shall administer the security operational systems to include, but not limited to: Patchlink server and the host scanning system.

**3.13 BUSINESS STUDIES**

The contractor shall perform NASA Information Technology business studies and analysis as directed to include Strategic Planning, Business Process Analysis, and analyses related to IT investments.

**3.14 SCIENTIFIC AND ENGINEERING WORKSTATION PROCUREMENT (SEWP) PROGRAM SUPPORT**

The contractor shall provide strategic program management support to the Scientific and Engineering Workstation Procurement (SEWP) Program Manager in developing and implementing strategic initiatives for the SEWP organization. This shall include the facilitation and support of SEWP retreats and other meetings as needed.

**3.15 NASA CIO SUPPORT**

The contractor shall provide support to the NASA CIO as necessary. The work shall include support to the NASA Headquarters blue pages activities.

**3.16 INFORMATION TECHNOLOGY COMMUNICATIONS DIRECTORATE (ITCD) SUPPORT**

The contractor shall provide life cycle mission operational support for the technical management circuits and data switching services for the ITCD in support of NASA missions and projects. This service is provided in conjunction with the Internet Protocol Operational Network (IONet), the Nascom Internet Protocol Network Operations Center (IPNOC), and controlled from the Nascom Operations Management Center (NOMC) located at the Goddard Space Flight Center. The contractor shall install, switch, configure, troubleshoot, distribute, and restore mission data communications services for missions and projects at the Goddard Space Flight Center.

The contractor shall staff the Nascom Technical Control Facility and the Data Switching Facility, 24 hours a day, 7 days a week, during day-to-day, mission critical, and special support. The contractor shall perform the following day-to-day functions when necessary and required:

- a. The contractor shall provide technical management of local mission data services terminated in the Technical Control Facility, including the operation, maintenance, and sustaining engineering of the Digital Matrix Switch (DMS);
- b. The contractor shall provide configuration of high-speed, wideband, and video transport systems to meet specific mission requirements;
- c. The contractor shall provide real-time fault isolation and restoration of failed services and act as the primary point-of-contact to providers of telecommunications services (common carriers);
- d. The contractor shall perform circuit monitoring to detect degradation of circuits and service;
- e. The contractor shall report all anomalies and the results of all subsequent restorals to the Nascom Shift Communications Manager (Comm Manager);
- f. The contractor shall interface and coordinate with the IPNOC and other areas of the NOMC, as necessary and required, to provide and restore service;
- g. The contractor shall log all operations, testing, and restoral activities and make all logs available to the ITCD Operations Manager upon request.

### **3.17 AGENCYWIDE IT NETWORK MANAGEMENT STRATEGY AND INITIATIVES**

The contractor shall support the NASA Network Consolidation Initiative strategies for IT management. In support of this endeavor, the contractor shall:

1. Strengthen the network perimeter by establishing and fortifying the NASA network perimeter and associated services to facilitate collaboration across the Agency in a secure manner. The contractor shall also implement the OMB trusted Internet Connection mandate, establish an Agency DMZ, and terminate all partner connections within the DMZ.
2. Build out the Intranet by designing and implementing an Intranet, Extranet, DMZ, and associated services to facilitate collaboration across the Agency in a secure manner. The new UNITEs services include a zoned security architecture model providing firewall, proxy server, and border router management and support to each NASA center.
3. Provide centralized network management by designing, developing, and operating a centralized network management capability for the Agency. The contractor shall also provide network visibility of Center LAN resources and after-hours monitoring and dispatch support for ODIN centers.

### **3.18 LOCAL AREA NETWORK (LAN) IT SERVICES**

The contractor shall provide IT requirements evaluation, engineering, software and hardware maintenance, operations, and system administration for LAN systems and services at designated remote sites, including the National Space Science and Technology Center (NSSTC) and Michoud Assembly Facility (MAF).

#### **3.18.1 LAN Systems**

In support of the LAN systems, the contractor shall:

- a. Engineer, operate and maintain routers, firewalls, switches, Virtual Private Network (VPN) and similar devices.
- b. Engineer, operate and maintain network peripherals, such as wireless access points and other network based systems.

#### **3.18.2 LAN Services**

In support of the LAN services, the contractor shall:

- a. Maintain the Domain Name Service (DNS) and Dynamic Host Control Protocol (DHCP).
- b. Operate and maintain VPN and dial-in service as applicable.
- c. Provide port-level security (switch level) administration.
- d. Provide wireless access services engineering, operations and maintenance.
- e. Provide IP address management for assigned address space.

#### **4. IEMP INTEGRATION SERVICES**

The contractor shall be responsible for executing all functions and services defined below in support of the roles and responsibilities assigned to the Integrated Enterprise Management Program (IEMP) Integration Project Office (IPO) at MSFC. These functions and services are categorized in three major areas: infrastructure support, module project support, and operations and sustaining support. These functions and services include operation/ maintenance of existing capabilities, integration with established business entities (e.g., WebTADS), development or acquisition, and implementation of enhancements or COTS products.

Effective November 15, 2005, the work described in Section 3.1.4, Web Time and Attendance Distribution System (WebTADS), shall be performed under this section.

##### **4.1 INFRASTRUCTURE SUPPORT**

The contractor shall be responsible for developing, documenting and maintaining an Enterprise Architecture for IEMP. The contractor shall provide a methodology and tool set for the documentation and maintenance of this enterprise architecture. The contractor may elect to utilize the existing IPO tool set for architecture documentation or propose their own tool(s) and methodology. The Enterprise Architecture shall consist of the IEMP Business, Applications, and Technical Architectures (DRD 974MA-007).

###### **4.1.1 Business Architecture**

Through interaction with each module's NASA process team and each module project's implementation contractor, the contractor shall utilize an enterprise architecture tool to document the business processes implemented by the module (DRD 974MA-007). The business architecture shall include all modules (including those not yet initiated) and shall represent a blueprint of the interaction between the high-level functions and processes. The process models shall be incorporated and maintained in the IEMP repository. The contractor shall update these models as business processes are updated to insure that a central repository always contains accurate descriptions of the business processes implemented by the collective modules that make up the total IEM system. Different implementation contractors may be utilized for different module projects and each may utilize different implementation methodologies and tool sets; however the contractor shall maintain the central repository that documents all processes across all modules.

###### **4.1.2 Application Architecture**

Through interaction with each module's NASA process team and implementation contractor, the contractor shall utilize existing tools to further develop and maintain the Application Architecture (DRD 974MA-007) throughout the life of IEMP. The applications architecture shall include the key interfaces and information needs between modules, and a definition of how those interfaces will be implemented. The contractor shall insure that the Application Architecture facilitates the use of the IEM Integration Architecture by including standard events and messages (data) that are associated with each integration.

### **4.1.3 Technical Architecture**

The contractor shall define, implement, and maintain the IEMP technical architecture and coordinate with the Agency CIO to insure that the IEMP architecture is compliant with the overall Agency IT architecture (DRD 974MA-007). The contractor shall annually assess future directions and developments in information technology to insure that the IEMP architecture evolves to take advantage of new product releases by software and hardware vendors.

#### **4.1.3.1 Integration Architecture**

The contractor shall maintain and enhance the IEM integration architecture, which is based on EAI technology. The contractor shall provide and utilize a methodology that takes advantage of the EAI technology to shorten interface development timelines and reduce long-term maintenance costs. The contractor shall ensure that the integration architecture and associated product set supports evolving standards and technologies and is positioned to support NASA's ability to conduct electronic commerce with its customers and trading partners.

#### **4.1.3.2 Information Delivery Architecture**

The contractor shall maintain the IEMP reporting and information delivery architecture to be utilized for each module. As additional applications are implemented, the contractor shall evolve the architecture to incorporate SAP and non-SAP data into the data warehouse. The contractor shall establish a metadata management process for the information stored in the Business Information Warehouse (BW).

#### **4.1.3.3 Security Architecture**

The contractor shall support security certification and accreditation and implement required management, operational, and technical security controls for the underlying infrastructure components in accordance with NPR 2810.1A. The contractor shall also interact with NASA and contractor IT Security personnel in the review and audit of these documents and associated security activities such as risk assessments and intrusion detection exercises.

#### **4.1.3.4 Systems Architecture**

The contractor shall develop and maintain the technical infrastructure that is common across all module projects. Examples of infrastructure elements include: backup/recovery systems, storage systems, EAI components, data center networks/firewalls, and systems management/monitoring tools. The contractor shall design the infrastructure in a manner that maximizes systems management efficiencies and cost savings thereby reducing the operational costs while increasing customer satisfaction.

#### **4.1.3.5 Operations Architecture**

The contractor shall be responsible for working with both module projects and IEMP service providers (vendors, NACC, NISN, etc.) to plan for the eventual end state operational model. The operations architecture shall include, but not be limited to:

- a. Backup and Recovery
- b. Job Scheduling
- c. Event Management

### **4.2 MODULE PROJECT SUPPORT**

The IEMP consists of a series of projects organized around specific functional modules. The Integration Project is responsible for providing key elements of module project implementations. The contractor shall provide the following elements of module project support. (See **Appendix D for listing of Modules**)

#### **4.2.1 Agency Design**

The objective of the Agency Design Phase is to achieve a standard, Agency configured system, well defined Agency interfaces and reengineered processes that operate within the capabilities of the software.

##### **4.2.1.1 Technical Architecture**

The contractor shall define a more detailed technical architecture that consists of products and technologies that meet the requirements of the module project (DRD 974MA-007). The contractor shall also develop appropriate work plans and allocate resources to deploy these components in accordance with each module's baselined schedule and implementation approach (DRD 974MA-006). The implementation of the technical architecture shall require close coordination with the module project's implementation contractor

##### **4.2.1.2 Configuration and Data Conversion**

The contractor shall provide subject matter experts to augment the Agency process team at a level required to provide Application Functional Support as defined in section 4.3.3. This support enables the contractor to gain knowledge of the application configuration as it is being developed in order to provide sustaining support. The contractor shall also provide the tools and underlying system environments (e.g., Development, Test, Staging, Production) necessary to support the process team and its Implementation Contractor during the application configuration and data conversion activities. This shall require the contractor to establish an effective working relationship with both entities so that requirements may be understood and translated into each module's work plan for execution in a timely manner. The contractor shall be responsible for taking security requirements and initial roles and developing the final design and implementation of security roles and profiles required for the module (DRD

974MA-007). The contractor shall assist with security life-cycle development planning, support security certification and accreditation, and implement management, operational, and technical security controls in accordance with NPR 2810.1A.

#### **4.2.1.3 Business and Application Architectures**

Working with each module's process team, the contractor shall update and maintain the IEMP Business and Application architectures as described in sections 4.1.1 and 4.1.2 to reflect the Agency Design as approved by the module project steering committee (DRD 974MA-007).

#### **4.2.1.4 Agency Interfaces**

During the Agency Design phase, Agency Interfaces are identified and developed. Agency interfaces are interfaces between the IEM module and other Agency systems. The contractor shall define and follow a development methodology for interface development. The contractor shall lead the identification of Agency interface requirements, coordinate the functional design and requirements analysis process, develop the necessary technical designs, and develop all software components that must be built in the new IEM module or in the EAI tool. The contractor shall coordinate with the implementation contractor to insure that this development method integrates with the module project's implementation methodology and schedule. The contractor shall conduct unit testing and end-to-end testing of all interfaces before migrating the interfaces to system integration testing.

#### **4.2.1.5 Extensions and Bolt-Ons**

During Agency Design, the module project process team and implementation contractor may identify certain gaps that exist between the selected COTS product's base functionality and NASA's requirements. Options for addressing a gap include implementing a 3<sup>rd</sup> party COTS bolt-on that must be interfaced with the module or developing an extension in the COTS development environment. The contractor shall be responsible for developing any interfaces required between the module and selected bolt-ons. The contractor shall also be responsible for designing and developing any required extensions based on the functional designs delivered by the module project. The contractor shall conduct unit testing of any extensions and/or bolt-on interfaces before migrating these components to system integration testing.

#### **4.2.1.6 Testing**

The contractor shall support System Integration Testing for each individual module. Contractor representatives shall coordinate with each project during Agency Design to insure that the project's test plan includes the appropriate integration testing. The contractor shall support system integration testing by assisting testers with execution of Agency interfaces, bolt-on interfaces, extensions, and reports. The contractor shall also provide fixes for approved system discrepancies related to these components. The contractor shall provide the servers, databases and application instances to be utilized by

the module projects in conducting unit, system, and integration testing. The contractor shall manage all security and system accounts required during the test phase (DRD 974MA-007). The contractor shall coordinate with each module to define a set of system performance requirements (DRD 974MA-007). The contractor shall develop a performance and scalability test plan in conjunction with each module project (DRD 974MA-007). Existing performance and scalability testing tools shall also be utilized. The contractor shall conduct the performance and scalability test in support of each module project.

#### **4.2.1.7 Operations Planning**

The contractor shall define the operational processes required and coordinate their implementation with the Module Project. The Module Project Operations Plan, Service Level Agreement (SLA) and Center Operational Level Agreements (OLA), defining how the system will be supported during production, shall be developed concurrently during the Agency Design and Pilot phases of each Module Project (DRD 974MA-007). This shall include the development of training plans to ensure that the Competency Center staff are prepared to operate the new module as described in section 4.3.

#### **4.2.1.8 Systems Support**

The contractor shall provide the system resources (e.g., databases, application instances, etc.) to be utilized by each module project and respective Implementation contractor in conducting Agency design activities. The contractor shall utilize defined, disciplined operational processes to operate the development and test environments during the Design phase.

#### **4.2.1.9 Agency Reporting**

In accordance with the responsibilities as described in section 4.1.3.2, the contractor shall work closely with each module project and respective implementation contractor to analyze Agency reporting requirements in the context of the Information Delivery Architecture. The contractor shall coordinate with the Agency Process Team and implementation contractor as module reporting requirements are developed. The contractor shall be responsible for designing, developing and implementing the reporting solution. The contractor shall develop and implement the data model, metadata definitions, and data structures necessary to support the defined Agency reports.

#### **4.2.2 Agency Rollout**

The purpose of the Agency Rollout phase is to implement the solution developed during the Agency Design Phase at each of the NASA Centers. Each module project will have a defined rollout schedule.

#### **4.2.2.1 Detailed Technical Architecture**

In accordance with section 4.2.1.1, the contractor shall implement the module technical architecture that is represented by the deployment of hardware, software, communication, and security components that are necessary to execute the application. This shall include all centralized data center components as well as any distributed components at other NASA Centers.

#### **4.2.2.2 Configuration Support**

The contractor shall provide the tools and underlying system environments (e.g., Development, Test, Staging, Production) necessary to support the process team and its Implementation Contractor in conducting rollout activities at the Centers. The contractor shall establish an effective working relationship with both entities so that requirements may be understood and translated into each module's work plan for rollout execution in a timely manner (DRD 974MA-006).

#### **4.2.2.3 Business and Application Architectures**

The contractor shall coordinate with each module's process team to update and maintain the IEMP Business and Application architectures as described in sections 4.1.1 and 4.1.2 to reflect the Center design as approved by the module project steering committee (DRD 974MA-007).

#### **4.2.2.4 Center Interfaces**

The contractor shall coordinate all analysis, design, development and testing activities for interfaces between IEMP modules and Pilot Center systems. The contractor shall coordinate with the Agency process team, implementation contractor, and owners of the interfacing system in the definition, development, and testing of these interfaces. The contractor shall lead the process team through an analysis phase that defines the interface business scenarios; interface edits and processing rules; and the roles and responsibilities of the Contractor, the Module project implementation contractor, and the Pilot Center system owners/contractors for the design, development and management of the interfaces. The contractor shall develop all software components that must be built in the new IEM module or in the EAI tool to support the Center interfaces. The interfaces shall be designed and developed in accordance with the IEMP Integration Architecture and Methodology.

#### **4.2.2.5 Testing**

The Agency Rollout phase will include system integration testing at each Center. The contractor shall support system integration testing at each Center by assisting testers with execution of Agency interfaces, bolt-on interfaces, extensions, reports, and any Center specific interfaces, extensions, or reports that are developed during the Agency Rollout phase. The contractor shall also provide fixes for approved

system discrepancies related to these components. The contractor shall provide the servers, databases and application instances to be utilized by the module projects in conducting unit, system, and integration testing. The contractor shall manage all security and system accounts required during the test phase (DRD 974MA-007).

#### **4.2.2.6 Center Reporting**

In accordance with the responsibilities as described in section 4.1.3.2, the contractor shall coordinate with each module project and respective implementation contractor to analyze Pilot Center reporting requirements. The contractor shall be responsible for implementing the defined reporting solution at the Center and developing Center specific reports required to support Agency rollout.

#### **4.2.2.7 Center Training**

The contractor shall be responsible for defining the technical architecture for the tools that will be utilized in the development of training materials (DRD 974MA-007). The contractor shall insure that automated training capabilities can be deployed consistent with the Agency's IT architecture standards. The contractor shall also deploy and manage an instance of the system that will be utilized by the module project and implementation contractor in the execution of application training.

#### **4.2.2.8 Center Data Conversion**

The contractor shall coordinate with the module project to understand the volume of data to be migrated and the potential impact on system scalability and performance. The contractor shall also maintain an awareness of functional configuration decisions that are made during Agency Design and the potential performance and scalability impacts of those decisions. As directed by the COTR, the contractor shall provide data conversion tools to the module project.

### **4.3 OPERATIONS AND SUSTAINING SUPPORT**

The contractor shall provide operations and sustaining support upon completion of the implementation stabilization period for each module project. The contractor shall provide a Competency Center (CC) for centralized operational support. This support shall include: business process, user interface, application functional, application development, application operations, and infrastructure. The operations and sustaining support performance standards are defined in each module's Service Level Agreement (DRD 974MA-007). The contractor shall maintain all NASA e-Budget Suite applications and support NASA's Planning, Programming, Budgeting and Execution (PPBE) process in accordance with all subsequent PWS 4.0 requirements. (See APPENDIX E for listing of e-Budget Suite applications)

#### **4.3.1 Business Process Support**

The contractor shall assist the NASA business process experts in the Competency Center by supporting customers in the execution of standard NASA business processes within each IEMP module. The business processes are defined by the Agency Process Team during implementation and maintained by an Agencywide configuration control board when the system is operational.

#### **4.3.2 User Interface Support**

The contractor shall coordinate with each Center's NASA and contractor desktop service providers during the lifecycle of each module project to optimize the Center's readiness for implementation. After the contractor has completed testing of each application release, it shall stage all components (software, release notes, etc.) on the IEMP software distribution server and notify designated Center contacts of general availability.

#### **4.3.3 Application Functional Support**

The contractor shall perform application functional support for each module after completion of the implementation stabilization period. In providing this support, the contractor shall:

- a. Possess detail application knowledge.
- b. Perform software configuration tasks.
- c. Generate queries and basic reports.
- d. Develop and maintain security management processes in accordance with NPR 2810.1A.
- e. Provide Level II help desk support for the application.
- f. Maintain end-user training plans and materials (DRD 974MA-007). The contractor shall maintain training materials and job aids that are used Agencywide. The Centers will be responsible for maintaining any Center-specific training materials.
- g. Maintain the configuration tables that are defined as Agency configuration items.
- h. Maintain all master data that is defined as centrally maintained.
- i. Assess the impact of proposed changes to the baselined system.

#### **4.3.4 Application Development Support**

The contractor shall perform application development support for each module after completion of the implementation stabilization period. To accomplish this tasking, the contractor shall:

- a. Use vendor-provided or other third-party tools to enhance the application.
- b. Build extensions to the core software or augment with third party products.

- c. Integrate the ERP solution with other applications or legacy systems.
- d. Develop enhanced information delivery and reporting capabilities.
- e. Assist in solving problems that relate to the technical characteristics of the ERP package.
- f. Provide break/fix support for custom developed extensions, reports, and interfaces.

As a function of this support, the contractor shall define and implement a software release management strategy that incorporates enterprise requirements for change request, change control, and configuration management.

#### **4.3.5 Application Operations Support**

The contractor shall perform application operations support for each module. The contractor shall be responsible for:

- a. System software (operating system, database and application) licensing, administration, installation, configuration and maintenance.
- b. Monitoring availability and performance of the ERP system (application, operating system, database servers and network)
- c. Monitoring of available vendor application patches.
- d. Analysis of potential impacts of vendor supplied patches.
- e. Application of vendor supplied patches.
- f. Assisting with planning and support of efforts for major release upgrades.
- g. Database administration.
- h. Print management.
- i. Workflow management.
- j. Job scheduling.
- k. Performing operating system, database and application security administration.
- l. Service Level Agreement (SLA) reporting (DRD 974MA-006).

#### **4.3.6 Infrastructure Support**

The contractor shall provide enterprise support for the hardware and network systems and services including the application and database servers utilized by the ERP applications. The infrastructure support shall include:

- a. Hardware acquisition, installation and maintenance.
- b. Planning and testing disaster recovery (DRD 974MA-007).
- c. Storage management (allocation, backups, restores, archiving).
- d. Network performance monitoring.
- e. Asset Management for all IEMP information technology assets (DRD 974MA-007).

The IEMP infrastructure support described above is provided within sections 3.3, 3.4, 3.6, 3.7 and 3.8 of the PWS.

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**APPENDIX A**  
**SYSTEMS RESPONSIBILITIES**  
**Category I. CIO Managed Systems for which Contractor shall have System Managers Responsibilities**

SERVICE TYPE	SYSTEM NAME	CURRENT MODEL
Agencywide Services	All Development Tools	see DRD 974RM-001
	NACC	IBM 9672-RB6, IBM 3490, IBM 3480, STK 9500, STK VSM, STK 9310, Sun V880, IBM P series
	Midrange Computer	IBM RISC 6000, Compaq, Sun, Dell 2650, Sun V480
	<i>IEMP</i>	Compaq DL-360, DL-380 Compaq 1850R, 3000, 6000, 6500 and 7000 Dec Alpha 4100 and 8400 Sun E10000, Sun 6500, Sun 4500, Sun 450, Sun V880, Sun SPARC 2 and 10, Sun Ultra 5, 10 and 60 Various Gateway and Micron Workstation class servers

**APPENDIX A  
SYSTEMS RESPONSIBILITIES (CON'T)**

SERVICE TYPE	SYSTEM NAME	CURRENT MODEL
Agencywide NISN	PSLA database NISN Service Request System	SUN UNIX, Remedy
	Intrusion detection sensors	CISCO PIX, Checkpoint
	Video Teleconferencing System (ViTS) ViTS Rollabout (VRA) system	Video codecs, viewstations, mixers, Audio/Video cassette recorders, cameras, video controllers, remote controls, character generators, terminal servers, video monitors, amplifiers, display units, document cameras, audio/video matrix switch, camera controllers, echo cancellers, plasma screens, touch screens, projectors, multipoint control unit (MCU); Polycom
	Video Conferencing Reservation system (VCRS)	Oracle with web interface. NT server with access to an ADE RISC 6000 database server
	Voice Teleconferencing Systems	Polycom voice conferencing units, audio modules, audio mixers, audio synchronizers
	Voice Teleconferencing Service	Polycom, Shure, Gentner audioconferencing units

**APPENDIX A  
SYSTEMS RESPONSIBILITIES (CON'T)**

SERVICE TYPE	SYSTEM NAME	CURRENT MODEL
Agencywide NISN, con't	Mission Voice Switching System (VSS)	2048 port digital switch
	Routed Data Service	Cisco/Juniper/Bay routers, patch panels, modems, fiber modems/multiplexers/repeaters, inverse multiplexers, channel service units, channel banks, CSU/DSUs, disk drives
	Mission Network Service Assurance Plan (NSAP) backbone	Conversion devices
	High Rate Data/Video Service System	Statistical Multiplexer
	NASA Directory Service	Sun Solaris, Syntegra Mail*Hub
	NISN Activity and Outage Posting and Notification System (AOPNS) NISN Mission outage notification system (MONS) Flash Reporting System	Sun UNIX
	Enterprise Network Management Center (ENMC)	Sun SPARCstations

**APPENDIX A  
SYSTEMS RESPONSIBILITIES (CON'T)**

**Category II. CIO Managed Systems for which the Contractor shall have Limited Responsibilities**

SERVICE TYPE	SYSTEM NAME	RESPONSIBILITIES
Agencywide	Secure voice teleconferencing system	Operations & Maintenance
	SMARTCards	Operations & Maintenance

**Category III. Non-CIO Managed Systems for which Contractor shall have Limited Responsibilities**

SERVICE TYPE	SYSTEM NAME	RESPONSIBILITIES
Agencywide, NISN	Voice teleconferencing service	Interface with provider & reporting
	VoTS scheduling system	Interface with provider & reporting
	NISN Mission video system	Interface with provider & reporting
	Video Teleconferencing Service	Interface with provider & reporting
	WAN Transmission Services	Interface with provider & reporting
	High Rate Data/Video Service System	Interface with provider & reporting
	FAX Broadcast Service	Interface with provider & reporting



**APPENDIX C APPROACHES AND INNOVATIONS**

**APPENDIX C DELETED**



**APPENDIX C  
APPROACHES AND INNOVATIONS (CON'T)**

**APPENDIX C DELETED**

## APPENDIX D

### LISTING OF IEMP MODULES

1. Core Financial (CF)
2. Contract Management Module (CMM)
3. Travel Management (TM)
4. Resume Management (includes the Recruitment One Stop e-Gov initiative)
5. Position Description Management (PDM)
6. Agency Labor Distribution System (ALDS)
7. Business Intelligence Tools
8. e-Payroll System
9. Erasmus
10. i-View Portal
11. WebTADS
12. e-Travel Services (eTS)
13. Integrated Asset Management (IAM)(Plant, Property & Equipment (PP&E))(Mod. 106)
14. Human Capital Information Environment (HCIE)
15. Human Capital Information Environment (HCIE) Portal
16. Dashboard Tools

## APPENDIX E

### LISTING OF e-BUDGET SUITE APPLICATIONS

- **N2** – N2 is NASA’s agency budget formulation tool. This application enables upload, review, and analysis of the Institutional Budget and Business Base, as well as automated capabilities to generate and apply rates across the Full Cost Budget.
- **IBPD** – The Integrated Budget and Performance Document (IBPD) application is NASA’s tool to prepare and archive the Integrated Budget and Performance Document that is sent to Congress each February. The IBPD application allows authorized users to create, query, and analyze NASA budget and performance information in an easy, on-line tool.
- **Reports** – The Reports application is the home for NASA’s budget and structure reports. A series of predefined reports allow authorized users to query subsets of data quickly and easily. Through the use of report parameters, or selection criteria, users have flexibility with these predefined reports to customize the information retrieved to meet their specific needs.
- **MdM** – The Metadata Manager is the home for NASA’s standard Program/Project structure. The MdM is a web-based application that controls the creation, maintenance, and archiving of the NASA Structure Management (NSM) structure.
- **MdM Interfaces** – The MdM interface sends NSM data to various systems including core financial SAP system, and other systems.
- **Clearinghouse** – The Clearinghouse is a document management system that holds NASA specific files. Originally designed as a tool to communicate directly with OMB, the Clearinghouse is now used in a much greater capacity to exchange documents within the NASA community. Authorized users have the capability to upload or view any type of file.
- **System Administrator** – Authorized users will configure the different systems to be used by the necessary user groups through this robust System Administration module.

DATA PROCUREMENT DOC.  
NO. 974  
ISSUE  
**Basic**

**NNM04AA02C**

CONTRACT/RFP

EXHIBIT NUMBER

**J-2**

ATTACHMENT NUMBER

**Unified NASA Information Technology Services (UNITeS)**

PROJECT/SYSTEM

***DATA PROCUREMENT DOCUMENT***

**Science Applications International Corporation**

**January 1, 2004**

DATE

National Aeronautics and  
Space Administration

National Aeronautics and Space Administration

# DOCUMENT CHANGE LOG

DATA PROCUREMENT DOC.

NO. ISSUE

974 Basic

INCORPORATED REVISIONS  
OUTSTANDING REVISIONS

AS OF:  
01-01-04

SUPERSEDING: PAGE:

AUTHORITY	PORTION AFFECTED - PAGE NO./NO.				REMARKS
	INTRO	SGR	DRL	DRD	

MSFC - Form 3461-1 (Rev August 1970)

National Aeronautics and Space Administration

**PAGE REVISION LOG**

DATA PROCUREMENT DOC.

NO. ISSUE  
974 Basic

NOTE: The current revision is denoted by a vertical line in the outer margin adjacent to the affected text.

AS OF:  
01-01-04

SUPERSEDING:

PAGE:

INSERT LATEST REVISED PAGES. DISCARD SUPERSEDED PAGES.

ITEM	PAGE	STATUS	ITEM	PAGE	STATUS
Mod 3	J-2-1				
Mod. 3	J-2-3				
Mod. 3	J-2-19				
Mod. 3	J-2-28				
Mod. 3	J-2-35				
Mod. 3	J-2-38				
Mod. 5	J-2-22				
Mod. 10	J-2-9				
Mod. 10	J-2-25				
Mod. 10	J-2-36				
Mod. 10	J-2-37-A				
Mod. 22	J-2-12				
Mod. 24	J-2-37-A				
Mod. 30	ALL				
Mod. 38	J-2-30				
Mod. 40	J-2-31				
Mod. 54	J-2-30				
Mod. 61	J-2-28				
Mod. 61	J-2-30				
Mod. 61	J-2-33				
Mod. 69	J-2-9				
Mod. 69	J-2-25 - J-2-28				
Mod. 69	J-2-38 - J-2-48				
Mod. 77	J-2-25				
Mod. 77	J-2-31				
Mod. 80	J-2-25				
Mod. 91	J-2-9				
Mod. 91	J-2-11				
Mod. 91	J-2-12 - 14				
Mod. 91	J-2-30				
Mod. 91	J-2-31				
Mod. 91	J-2-49 - 50				
Mod. 94	J-2-30				
Mod. 116	J-2-9 and 10				
Mod. 116	J-2-51 to 54				
<b>Mod 219</b>	<b>ALL</b>				

MSFC - Form 3461-2 (Rev August 1970)

1.0 INTRODUCTION

1.1 Scope: Subject to the Rights in Data clause, this Data Procurement Document (DPD) sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required by the DPD for the contract. The contractor shall furnish data defined by the DRD's listed on the Data Requirements List (DRL) by category of data, attached hereto, and made a part of this DPD. Such data shall be prepared, maintained, and delivered to MSFC in accordance with the requirements set forth within this DPD. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) regulation or clause, the regulation will take precedence over the DPD, per FAR 52.215-8.

1.2 DPD Description: This DPD consists of a Document Change Log, a Page Revision Log, a Table of Contents, an Introduction, a Statement of General Requirements, DPD maintenance procedures, a DRL, and the DRD's.

1.2.1 General Requirements: The general requirements, as specified in paragraph 2.0 of this DPD, prescribe those requirements applicable to the preparation, maintenance, and delivery of data that are better defined in aggregate than in the individual DRD's.

1.2.2 Data Requirements List (DRL): Throughout the performance of the contract, the DRL provides a listing by data category of the data requirements of the DPD.

1.2.3 Data Requirements Descriptions (DRD's)

1.2.3.1 Each data requirement listed on the DRL is given complete definition by a DRD. The DRD prescribes content, format, maintenance instructions, and submittal requirements.

1.2.3.2 For the purpose of classification and control, DRD's of this DPD are grouped into the following broad functional data categories:

<u>CATEGORY SYMBOL</u>	<u>DESCRIPTION</u>
CD	Contractual Data
CM	Configuration Management
LS	Logistics/Support
MA	Management
RM	Reliability and Maintainability
SA	Safety

1.2.3.3 The symbols representing these data categories form part of the prefix of the DRD identification number. The first numerical characters reflect the DPD number.

1.2.3.4 To facilitate the usage and maintenance of the DPD, the DRD's have been sectionalized in accordance with the above data categories.

1.2.3.5 The DRD's are filed by data category and are in alpha-numeric sequence as listed on the DRL page (or pages) that precedes the DRD's.

- 1.2.4 Document Change Log (DCL) and Page Revision Log (PRL): The Document Change Log chronologically records all revision actions that pertain to the DPD. The Page Revision Log describes the current revision status of each page of the DPD and thus, at all times, provides its exact configuration.
- 1.2.5 DPD Maintenance Procedures: Maintenance procedures define the detailed methods to be employed in maintaining the DPD. Detailed maintenance procedures are specified in paragraph 3.0 of this DPD.
- 1.3 Data Types for Contractual Efforts: The types of data and their contractually applicable requirements for approval and delivery are:

<u>TYPE</u>	<u>DESCRIPTION</u>
1	All issues and interim changes to those issues require written approval from the requiring organization before formal release for use or implementation.
2	MSFC reserves a time-limited right to disapprove in writing any issues and interim changes to those issues. Data shall be submitted to the procuring activity for review not less than 45 calendar days prior to its release for use or implementation. The contractor shall clearly identify the release target date in the "submitted for review" transmittal. If the contractor has not been notified of any disapproval prior to the release target date, the data shall be considered approved. To be an acceptable delivery, disapproved data shall be revised to remove causes for the disapproval before its release.
3	These data shall be delivered by the contractor as required by the contract and do not require MSFC approval. However, to be a satisfactory delivery, the data must satisfy all applicable contractual requirements.
4	These data are produced or used during performance of the contract and are retained by the contractor. They shall be delivered when MSFC requests it according to instructions in the request. The contractor shall maintain a list of these data and shall furnish copies of the list to MSFC when requested to do so.
5	These data are incidental to contract performance and are retained by the contractor in those cases where contracting parties have agreed that delivery is not required. However, the Contracting Officer or the Contracting Officer's Representative shall have access to and can inspect this data at its location in the contractor's or subcontractor's facilities.

2.0 STATEMENT OF GENERAL REQUIREMENTS

- 2.1 Applicable Documents: Documents included as applicable documents in this DPD are the issue specified in the Statement of Work, and form a part of the DPD to the extent specified herein. References to documents other than applicable documents in the data requirements of this DPD may sometimes be utilized. These do not constitute a contractual obligation on the contractor. They are to be used only as a possible example or to provide related information to assist the contractor in developing a response to that particular data requirement.

## 2.2 Subcontractor Data Requirements

- 2.2.1 The contractor shall specify to subcontractors and vendors, if any, the availability source of all data required for the satisfactory accomplishment of their contracts. The contractor shall validate these requirements for documents when appropriate; where the requirement concerns other contractor data, the contractor shall provide his subcontractor or vendor with the necessary documents. All such requests shall be accomplished under the auspices of the contractor.
- 2.2.2 Reference to subcontractor data in the contractor's responses is permissible, providing the references are adequate and include such identification elements as title, number, revision, etc., and a copy of the referenced data is supplied with the response document at time of delivery to MSFC.

## 2.3 Distribution

- 2.3.1 Distribution of required documentation shall be in quantities determined by the Contracting Officer. Recipient names and email (if applicable) addresses shall be noted on a separate distribution list to be furnished by the Contracting Officer.
- 2.3.2 Electronic submission of data deliverables is preferred. The preferred formats include Microsoft Word, Excel, PowerPoint, or Adobe Acrobat PDF as appropriate. The software versions shall be confirmed prior to submittals. Marshall Policy Directive (MPD) 2210.1 specifies the requirements for utilizing the Documentation Repository. Electronic data submittals to the Repository shall be coordinated with the Repository. MSFC has the capability of receiving electronic data files for importing into the MSFC Documentation Repository system. Computer-Aided Design (CAD) drawings shall be submitted in the original native vector, Hewlett-Packard Graphic Language (HPGL) and raster image formats.
- 2.4 Printing: All printing, duplicating, or binding shall be in accordance with NFS 1852.208-81, Restrictions on Printing and Duplicating. Printing of formal reports and Type 1 and 2 data in book format shall be in accordance with the following general specifications:
- a. Method of reproduction - offset/xerography.
  - b. Finished size - 8 1/2" X 11".
  - c. Paper - 20-pound opaque bond.
  - d. Cover - Litho cover stock.
  - e. Pages will be printed on both sides; blank pages will be avoided when possible.
  - f. Oversize pages will be avoided when possible, but if necessary will be folded to 8 1/2" X 11".
  - g. Binding shall be the most economical method commensurate with the size of the report and its intended use.

- 2.5 Contractor's Internal Documents: The contractor's internal documents shall be used to meet the data requirements of this DPD unless a specific format is required by the applicable DRD.

- 2.6 Document Identification: Type 1 and 2 documents published by the contractor and submitted in response to the data requirements of this DPD shall be identified within an organized identification numbering system prescribed to MSFC by the contractor and, if applicable, as approved by MSFC. This number, change legend, date, and title constitute the minimum identification of the specific document and shall appear on the cover and title page. The contract number shall also appear on the cover and title page as separate markings. The originator and organization shall be included on the title page. The document number, change legend, and date

shall appear on each page of the document. In the front matter of each document, identify the DPD number and applicable DRD number(s) required for document preparation. Successive issues or revisions of documents shall be identified in the same manner as the basic issue and shall have appropriate change identification. Drawings and ECP's are excluded from the marking provisions of this paragraph. All Type 1 documentation, excluding configuration management requirements, will be marked "PRELIMINARY PENDING MSFC APPROVAL," and once approved shall be reissued with "APPROVED BY MSFC" and the date and approval authority annotated on the cover.

- 2.7 Reference to Other Documents in Data Submittals: All referenced documents shall be made readily available to the cognizant MSFC organization upon request. The contractor should make sure that the references are available to MSFC in a manner which does not incur delays in the use of the response document.
- 2.8 Maintenance of Type 1 Document Submittals
- 2.8.1 Revisions of Type 1 documentation may be accomplished either by individual page revision or by a complete reissue of the document identified in accordance with requirements of 2.6 above, with the exception of drawings (which shall be revised in accordance with contract configuration management requirements).
- 2.8.2 Individual page revisions shall be made as deemed necessary by the contractor or as directed by the Contracting Officer.
- 2.8.3 A Type 1 document shall be completely reissued when, in the opinion of the contractor and/or MSFC, the document has been revised to the extent that it is unusable in its present state, or when directed by the Contracting Officer. When complete reissues are made, the entire contents of the document shall be brought up to date and shall incorporate revised pages. All revisions shall be recorded. A revision log shall identify complete reissues except for periodic reports and documents which are complete within themselves as final.
- 2.8.4 Changes of a minor nature to correct obvious typing errors, misspelled words, etc., shall only be made when a technical change is made, unless the accuracy of the document is affected.
- 2.8.5 All revised pages shall be identified by a revision symbol and a new date. Each document shall contain a log of revised pages that will identify the revision status of each page with the revision symbol. This list shall follow the table of contents in each document. The line or lines revised on a given page shall be designated by the use of vertical line in the margin of the page, and the change authority shall be indicated adjacent to the change.
- 2.8.6 Contractor Type 1 documents shall not be submitted containing pen and ink markups which correct, add to, or change the text, unless schedule problems exist and approval is obtained in writing from the Contracting Officer. Such markups, however, shall not exceed 20 percent of the page content and shall be acceptable provided that the reproduced copies are legible. In addition, hand-drawn schematics, block diagrams, data curves, and similar charts may be used in original reports in lieu of formally prepared art work, as long as legibility of copies is not impaired. Acceptability will be determined by the Contracting Officer.

3.0 DPD MAINTENANCE PROCEDURES

3.1 MSFC-Initiated Change: New and/or revised data requirements will be incorporated by contract modification to which the new or revised portion of the DPD will be appended. The contractor shall notify the Contracting Officer in the event a deliverable data requirement is imposed and is not covered by a DRD, or when a DRD is changed by a contract modification and for which no revision to DPD is appended. In such cases, the contractor shall submit the requested changes to MSFC for approval. See paragraph 3.3.1 for change procedures.

3.2 Contractor-Initiated Change: Contractor-proposed data requirements, or proposed changes to existing requirements shall be submitted to MSFC for approval.

3.3 DPD Change Procedures

3.3.1 Changes to a contractual issue of this DPD will be identified by MSFC on the Document Change Log and Page Revision Log. The actual revised material on the DPD page will be identified by placing a heavy vertical line in the right-hand margin extending the entire length of the change. In addition, the numerical control number of the contractual direction authorizing the change shall be placed adjacent to the vertical revision line. These revision identifiers shall be used to reflect the current revision only; any previous symbols on a page will be deleted by the current revision.

3.3.2 The date of the contractual direction paper, e.g., Change Order, Supplemental Agreement, or Contracting Officer's letter shall be entered under the "Status " column of the Page Revision Log adjacent to the affected page or DRD number, and in the "as of" block. The date that was in the "as of" block will be entered in the "Superseding" block.

3.3.3 The Document Change Log entitled "Incorporated Revisions" will be changed to indicate the number, portions affected, and associated Supplemental Agreement number, if applicable.

3.3.4 The Document Change Log entitled "Outstanding Revisions" is changed periodically to indicate outstanding Change Orders and Contracting Officer notification letters.

3.4 DPD Reissues

3.4.1 When conditions warrant, the DPD will be reissued by MSFC and will supersede the existing DPD in its entirety. Reissues will be issued by contractual direction.

3.4.2 All revision symbols (vertical lines and contractual direction control numbers) will be removed from all pages; revision dates shall remain in the Date Revised block on DRD's that have been revised. The issue symbol, which will commence with "A" and progress through "Z," will be entered in the DPD identification block of each DRD page of the DPD.

**UNIFIED NASA INFORMATION TECHNOLOGY SERVICES (UNITeS)**  
Data Requirements List

<u>DRD</u>	<u>DATA TYPE</u>	<u>TITLE</u>	<u>OPR</u>
<b>CD – Contractual Data</b>			
974CD-001	2	Information Technology Security Plan ( <b>DELETED</b> )	IS05
974CD-002	3	Badged Employee and Remote IT User Listing	AS50
974CD-003	3	Technology Reports (NFS 1852.227-70)	ED03
<b>CM - Configuration Management</b>			
974CM-001	2	Configuration Management Plan	ED43
<b>LS – Logistics Support</b>			
974LS-001	2	Government Property Management Plan	IS03
<b>MA – Management</b>			
974MA-001	1	Management Plan	IS01
974MA-002	2	Risk Management Plan, Analysis, and Tracking Reports	QD10
974MA-003	2	Major Information Systems Portfolio ( <b>DELETED</b> )	IS01
974MA-004	2	Work Breakdown Structure (WBS) and WBS Dictionary	RS40
974MA-005	3	Financial Management Report (533M)	RS40
974MA-006	See DRD	Reports	IS01
974MA-007	See DRD	Documentation	IS01
974MA-008	3	Cost Reports	IS01
974MA-009	2/3	Export Control Plan and Reports	IS01
974MA-010	3	Contractor Self-Assessment Report	IS01
974MA-011	2	Certification of NISN Systems Readiness	IS01
974MA-012	3	Contractor UNITeS Status Review Report	IS01
974MA-013	3	Source/Destination Code Handbook	IS01
974MA-014	3	Mission Network Operations Logs (IPNOC and Conversion Devices)	IS01
974MA-015	3	Event Analysis and System Problem Resolution Report	IS01
<b>RM – Reliability and Maintainability</b>			
974RM-001	1	Operability/Maintainability Plan	IS01
<b>SA – Safety</b>			
974SA-001	2	On-site Safety and Health Plan	QD50
974SA-002	3	Mishap and Safety Statistics Reports	QD50
<b>SE- Security</b>			
974SE-001	3	Contractor Employee Clearance Document	AS50
974SE-002	3	Position Risk Designation for Non-NASA Employee Form	AS50
974SE-003	2	Contractor Information Technology Security Program Plan	IS10
974SE-004	2	Information Technology (IT) Security Requirements Compliance Report(s)	IS10

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974CD-001**
3. **DATA TYPE:** 2
4. **DATE REVISED:** 8/15/07
5. **PAGE:** 1/1
6. **TITLE:** Information Technology Security Plan (DELETED)
7. **DESCRIPTION/USE:** To document information technology security risk management and safeguards for protection of unclassified NASA electronic information and data processed by Federal general support computer systems and major software applications.
8. **OPR:** IS05                      9. **DM:** IS01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Draft with proposal
12. **SUBMISSION FREQUENCY:** Final 45 days after effective date of the contract
13. **REMARKS:** The information technology security plan(s) must be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of this contract and in compliance with the requirements stated in NFS 1852.204-76.
14. **INTERRELATIONSHIP:** PWS paragraphs 2.7.2, 4.1.3.3, 4.2.1.2, 4.3.3.d, 5.5.g
15. **DATA PREPARATION INFORMATION:**
  - 15.1 **SCOPE:** Information Technology Security Plan(s) shall document the safeguards necessary to ensure sufficient availability, integrity, and confidentiality of that information accessed or managed within the systems and/or applications, based on the contractor's assessment of risks.
  - 15.2 **APPLICABLE DOCUMENTS:**

NPG 2810.1	<i>Security of Information Technology</i>
NFS 1804.470-3	<i>Security Plan for unclassified Federal Information Technology systems</i>
NFS 1852.204-76	<i>Security Requirements for Unclassified Information Technology Resources</i>
  - 15.3 **CONTENTS:** The Information Technology Security Plan shall meet the requirements of the applicable documents in 15.2 and document how the contractor and subcontractor personnel will utilize, in a secure manner commensurate with the sensitivity of the information involved, those Federal computer systems and software applications managed by others. The plan shall describe the contractor's processes for implementing information security including personnel background screening, personnel awareness and training, information protection, and security incident response.

Additionally, a separate system-level Information Technology System Security Plan shall be prepared for each Federal general support computer system or major software application managed by the contractor and/or subcontractor personnel in the performance of this contract. The Information Technology System Security Plan(s) shall meet the requirements of the applicable documents in 15.2. NPG 2810.1 defines "general support computer systems" and "major applications" and provides plan requirements for both.
  - 15.4 **FORMAT:** Contractor format is acceptable.
  - 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974CD-002**
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Badged Employee and Remote IT User Listing
7. **DESCRIPTION/USE:** To assist NASA in conducting contractor floor checks and to determine if the employees meet the minimum background investigation requirements.
8. **OPR:** AS50                      9. **DM:** IS01
10. **DISTRIBUTION:** Electronic to AS50, On line
11. **INITIAL SUBMISSION:** Fifteenth of month following first month of operation after effective date of the contract.
12. **SUBMISSION FREQUENCY:** Update quarterly. If deemed necessary by the Contracting Officer, the contractor shall submit the list at times other than stated. The list shall be maintained online on the MICS.
13. **REMARKS:** Reference is made to FAR 52.215-2, *Federal Acquisition Regulation Clause: Audit - and Records- Negotiations*, NPR 1600.1, *NASA Security Program Procedural Requirements*.
14. **INTERRELATIONSHIP:** PWS paragraph 2.4.c
15. **DATA PREPARATION INFORMATION:**
  - 15.1 **SCOPE:** The Badged Employee and Remote IT User Listing shall provide NASA with a list of all contractor badged employees, as well as any contractor remote IT users, and their designated locations, working under this contract who will have access to NASA IT systems.
  - 15.2 **APPLICABLE DOCUMENTS:** None
  - 15.3 **CONTENTS:** The list shall include the following information for each employee: employee's full name (first and middle names must be birth names), last four digits of the Social Security Number (SSN), date of birth, place of birth, duty position, duty location (building/room number), shift assignment, U.S. citizenship status, supervisor's name, and supervisor's location (building/room number), computer system administrator, computer access level and IT security screened date. For each employee the list shall indicate if the employee is a "computer system administrator." For employee designated as "computer system administrator", indicate the platform type they administer (e.g., Window, UNIX, and Mac). The list shall indicate computer access level for each employee (privileged, limited privileged and non-privileged). Additionally, if applicable, the type of security background check already completed (NACLIC or SSBI) and the date it was completed.
  - 15.4 **FORMAT:** Contractor format using Excel spreadsheet is acceptable.
  - 15.5 **MAINTENANCE:** None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974CD-003**
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/3
6. **TITLE:** Technology Reports (NFS 1852.227-70)
7. **DESCRIPTION/USE:** Provides NASA with technical information concerning any invention, discovery, improvement, or innovation made by a contractor in the performance of work under this contract for the purpose of disseminating this information to obtain increased use. Also, to provide NASA with data to review for possible patentable items.
8. **OPR:** ED03                      9. **DM:** IS01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Technology Reporting Plan: Upon Contracting Officer's request.  
Disclosure of Invention and New Technology (NASA Form 1679): Within 2 months of identification of reportable item.  
Interim NASA New Technology Summary Report (NTSR): 12 months from the date of the contract.
12. **SUBMISSION FREQUENCY:** Technology Reporting Plan: Upon Contracting Officer's request.  
Disclosure of Invention and New Technology (NASA Form 1679): For each reportable item.  
Interim NASA New Technology Summary Report (NTSR): Every 12 months.  
Final NASA New Technology Summary Report (NTSR): Three months after completion of contracted work.
13. **REMARKS:** Copies of NASA Form 1679 and NTSR may be obtained and/or filled out at: <http://www.webentre.nasa.gov/>. These forms may also be obtained from the New Technology Representative (mail to: Carolyn.E.McMillan@nasa.gov).
14. **INTERRELATIONSHIP:** PWS paragraph 2.0.1
15. **DATA PREPARATION INFORMATION:**
  - 15.1 **SCOPE:** The Technology Reports include technical detail as is necessary to identify and fully describe a "Reportable Item". Per NFS 1852.227-70, "Reportable Item" means any invention, discovery, improvement, or innovation of the contractor, whether or not the same is or may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of any work under this contract or in the performance of any work that is reimbursable under any clause in this contract providing for reimbursement of costs incurred prior to the effective date of this contract.
  - 15.2 **APPLICABLE DOCUMENTS**  
NFS 1852.227-70                      New Technology Clause
  - 15.3 **CONTENTS:** The Technology Reports consist of:
    - a. **Disclosure of Invention and New Technology (Including Software):** In accordance with NFS 1852.227-70 (e)(2), the disclosure to the agency shall be in the form of a written report and shall identify the contract under which the reportable item was made and the inventor(s) or innovator(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the reportable item. The disclosure shall also identify any publication, on sale, or public use of any subject invention and whether a manuscript describing such invention has been submitted for publication and, if so, whether it

## DRD Continuation Sheet

TITLE: Technology Reports (NFS 1852.227-70)

DRD NO.: 974CD-003

DATA TYPE: 3

PAGE: 2/3

15. DATA PREPARATION INFORMATION (CONTINUED):

has been accepted for publication at the time of disclosure. In addition, after disclosure to the agency, the Contractor will promptly notify the agency of the acceptance of any manuscript describing a subject invention for publication or of any on sale or public use planned by the Contractor for such invention. This reporting requirement may be met by completing NASA Form 1679 (latest revision) in hardcopy or online at: <http://www.webentre.nasa.gov/>. Use of this form is preferred; however, if the form is not used the following information should be provided in order to meet the reporting requirement:

1. Descriptive title.
2. Innovator(s) name(s), title(s), phone number(s), and home address(es).
3. Employer when innovation made (name and division).
4. Address (place of performance).
5. Employer status (e.g., Government, college or university, non-profit organization, small business firm, large entity).
6. Origin (e.g., NASA grant number, NASA prime contract number, subcontractor, joint effort, multiple contractor contribution, other).
7. NASA Contracting Officer's Technical Representative (COTR).
8. Contractor/grantee New Technology Representative.
9. Brief abstract providing a general description of the innovation:
  - (a) Description of the problem or objective that motivated the innovation's development.
  - (b) Technically complete and easily understandable description of innovation developed to solve or meet the objective.
  - (c) Unique or novel features of the innovation and the results or benefits of its application.
  - (d) Speculation regarding potential commercial applications and points of contact (including names of companies producing or using similar products).
10. Additional documentation.
11. Degree of technological significance (e.g., modification of existing technology, substantial advancement in the art, major breakthrough).
12. State of development (e.g., concept only, design, prototype, modification, production model, used in current work).
13. Patent status.
14. Dates or approximate time period during which this innovation was developed.
15. Previous or contemplated publication or public disclosure including dates.
16. Answers to the following questions (for software only):
  - (a) Using outsiders to beta-test code? If yes, done under beta-test agreement?
  - (b) Modifications to this software continue by civil servant and/or contractual agreement?
  - (c) Previously copyrighted (if so, by whom)?
  - (d) Were prior versions distributed (if yes, supply NASA or Contractor contract)?
  - (e) Contains or is based on code owned by a non-federal entity (if yes, has a license for use been obtained)?
  - (f) Has the latest version been distributed without restrictions as to use or disclosure for more than one year (if yes, supply date of disclosure)?
17. Name(s) and signature(s) of innovator(s).

## DRD Continuation Sheet

TITLE: Technology Reports (NFS 1852.227-70)

DRD NO.: 974CD-003

DATA TYPE: 3

PAGE: 3/3

15. **DATA PREPARATION INFORMATION (CONTINUED):**

- b. Interim NASA New Technology Summary Report (NTSR): This report shall consist of a listing of reportable items for the reporting period or certify that there are none. This report shall also contain a list of subcontracts containing a patent rights clause or certification that there were no such subcontracts. Completion of Interim NTSR will satisfy this reporting requirement. Use of the form utilizing the online system at <http://www.webentre.nasa.gov/> is preferred; however an alternate format is acceptable provided all required information is provided.
- c. Final NASA New Technology Summary Report (NTSR): This report shall consist of a comprehensive list of all reportable items for the contract duration or certification that there are none. This report shall also contain a list of subcontracts containing a patent rights clause or certification that there were no such subcontracts. Completion of the Final NTSR shall satisfy this reporting requirement. Use of the form utilizing the online system at <http://www.webentre.nasa.gov/> is preferred. However, an alternate format is acceptable provided all required information is provided.
- d. Subcontracts: The contractor shall provide copies of subcontracts containing a patent rights clause upon Contracting Officer's request.

15.4 **FORMAT:**

The Disclosure of Invention and New Technology (Including Software) report may use NASA Form 1679 (latest version) or the online system at <http://www.webentre.nasa.gov/>, or provide sufficient information to meet the reporting requirement.

The interim and final NASA New Technology Summary Reports may use the NTSR Form (Interim or Final, whichever is applicable) utilizing the online system at <http://www.webentre.nasa.gov/> or provide sufficient information to meet the reporting requirement.

15.5 **MAINTENANCE:** None required.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974CM-001**
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Configuration Management Plan
7. **DESCRIPTION/USE:** To describe the contractor's method for accomplishing the configuration management requirements of the contract.
8. **OPR:** ED43                      9. **DM:** IS01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after effective date of the contract
12. **SUBMISSION FREQUENCY:** One time, revise as required
13. **REMARKS:** Reference is made to MIL-STD-973, *Configuration Management* (April 17, 1992, and Interim Notices 1 through 3, January 13, 1995). NOTE: Copies of MIL-STD-973 may be obtained through the [NASA Technical Standards website](#) (Click "Public Access").
14. **INTERRELATIONSHIP:** PWS paragraphs 3.9.3. DRD 974MA-011, *Certification of NISN Systems Readiness*
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Configuration Management Plan (CMP) provides the contractor's proposed management approach for implementation of configuration management.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The CMP shall provide the guideline information defined in MIL-STD-973, Appendix A.
- 15.4 **FORMAT:** Contractor format is acceptable with MSFC approval.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue. Update as required to maintain current with program changes.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974LS-001**
3. DATA TYPE: 2
4. DATE REVISED:
5. PAGE: 1/1
6. TITLE: Government Property Management Plan
7. DESCRIPTION/USE: To describe the method of controlling and managing Government property.
8. OPR: IS03                      9. DM: IS01
10. DISTRIBUTION: Cognizant property administrator
11. INITIAL SUBMISSION: Preliminary three months after effective date of the contract
12. SUBMISSION FREQUENCY: Final six months after effective date of the contract, revise as required
13. REMARKS: This document shall be the official contract requirements document for the control and identification of all Government property.
14. INTERRELATIONSHIP: PWS paragraphs 2.6, 3.9.2.3.1.d, 3.1.d
15. DATA PREPARATION INFORMATION:
  - 15.1 **SCOPE:** The Government Property Management Plan defines the contractor's methods of care, accounting, and control of Government property.
  - 15.2 **APPLICABLE DOCUMENTS**

FAR	<i>Federal Acquisition Regulation, Part 45</i>
NPG 5100.4B	<i>Federal Acquisition Regulation Supplement, (NASA/FAR Supplement) Part 18-45 and latest revisions thereto</i>
  - 15.3 **CONTENTS:** This plan shall satisfy the requirements of the documents listed in 15.2, and the contract. This plan shall consist of those procedures which constitute the contractor's property management system and shall include the following categories:
    - a. Property management.
    - b. Acquisition.
    - c. Receiving.
    - d. Identification.
    - e. Records.
    - f. Movement.
    - g. Storage.
    - h. Physical inventories.
    - i. Reports.
    - j. Consumption.
    - k. Utilization.
    - l. Maintenance.
    - m. Subcontractor control.
    - n. Disposition.
    - o. Contract close-out.
  - 15.4 **FORMAT:** Contractor format is acceptable.
  - 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974      ISSUE: Basic
2. DRD NO.: **974MA-001**
3. DATA TYPE: 1
4. DATE REVISED:
5. PAGE: 1/1
6. TITLE: Management Plan
7. DESCRIPTION/USE: To provide a description of the contractor's overall management system and organization for accomplishing the requirements set forth in the contract.
8. OPR: IS01              9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION: 30 days after effective date of the contract
12. SUBMISSION FREQUENCY: Revise as required
13. REMARKS:
14. INTERRELATIONSHIP: PWS paragraph 2.0.d, 2.10
15. DATA PREPARATION INFORMATION:
  - 15.1 SCOPE: The Management Plan shall describe the contractor's concept plans, practice, and approach for accomplishing the requirements set forth in the contract, i.e., managing and controlling project tasks, experimental work, and management interfaces. The plan shall be in such detail as necessary to convey the contractor's internal procedures.
  - 15.2 APPLICABLE DOCUMENTS: None
  - 15.3 CONTENTS:
    - a. The plan shall include a description of the project tasks to be accomplished and an outline of methods by which the contractor proposes to accomplish each task down to the Level IV WBS task level.
    - b. The plan shall also include a description of management concepts, plans, project management and task/control systems, organizational approach, and communication channels between the contractor and the Government. This shall include descriptions, flow charts, schedules, and other documentation necessary to give a comprehensive plan of organization and accomplishment.
    - c. The plan shall be outlined by contractor organization with relationship clearly related to the WBS.
    - d. The plan shall include a process of setting goals and establishing policies, practices, procedures, and organizational structure to support the MSFC IT Governance processes.
    - e. The plan shall address quality assurance.
    - f. The plan shall address how the contractor's management structure and lines of authority will support the program management reporting requirements listed in the PWS in a fashion that contributes to the timely notice and resolution of ambiguities, concerns, and conflicts that arise in the performance of this contract.
  - 15.4 FORMAT: Contractor format is acceptable.
  - 15.5 MAINTENANCE: Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** 974MA-002
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Risk Management Plan, Analysis, and Tracking Reports
7. **DESCRIPTION/USE:** To provide the contractor and the Government a baseline document for planning, management, control, and implementation of the contractor's risk management program.
8. **OPR:** QD10                      9. **DM:** IS01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Plan, Analysis and Tracking Report -30 days after effective date of the contract
12. **SUBMISSION FREQUENCY:** Update Analysis and Tracking Report as part of Preliminary Design Review (PDR), Critical Design Review (CDR) and Acceptance Review (AR) data packages. Update Plan as required.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraphs 2.1.g(4), 3.9.1.2.e
15. **DATA PREPARATION INFORMATION:**
  - 15.1 **SCOPE:** The Risk Management Plan addresses how NASA risk management requirements are to be implemented throughout the program's life cycle. Risk Analysis identifies, evaluates, prioritizes and classifies the identified risks. The Risk Tracking Report provides risk metrics, verifies risk mitigation actions and documents risk decisions.
  - 15.2 **APPLICABLE DOCUMENTS**  
NPG 7120.5                      *Program and Project Management Processes and Requirements*
  - 15.3 **CONTENTS:** The Risk Management Plan shall specify how the contractor will satisfy the risk management requirements of NPG 7120.5 in a manner that is compatible with the CIO's Risk Management Plan. The plan shall specify how the contractor will document risk management activities and how the contractor will communicate risk issues and concerns to the Government.

The Risk Analysis shall contain the following data: 1) References to source data for identified risk areas such as test data, lessons learned, FMEA, hazard analysis and technical analysis; 2) Catalog of all program/project risks; 3) Risk evaluation data that identifies the impact, probability and time frame for each risk; 4) Risk classification and prioritization data.

The Risk Tracking Report shall contain the following data: 1) Status of all risks and risk metrics; 2) Risk mitigation plans and verification of completed mitigation plans; 3) Risk decision summaries that will document re-plan of unsuccessful mitigation plans and risk acceptance/closures.
  - 15.4 **FORMAT:** Contractor format is acceptable.
  - 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974MA-003**
3. DATA TYPE: 2
4. DATE REVISED:
5. PAGE: 1/1
6. TITLE: Major Information Systems Portfolio (**DELETED**)
7. DESCRIPTION/USE: To provide information on the Agency's Information Technology (IT) resources.
8. OPR: IS01                      9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION: August 1, 2004
12. SUBMISSION FREQUENCY: Quarterly
13. REMARKS:
14. INTERRELATIONSHIP: PWS paragraph 2.2.h
15. DATA PREPARATION INFORMATION:
  - 15.1 SCOPE: The Major Information Systems Portfolio monitors IT investments and prevents redundancy of existing or shared IT capabilities.
  - 15.2 APPLICABLE DOCUMENTS: None
  - 15.3 CONTENTS: The Major Information Systems Portfolio shall provide information demonstrating the impact of alternative IT investment strategies and funding levels, identify opportunities for sharing resources, and provide the Agency's inventory of information resources.
  - 15.4 FORMAT: Contractor format is acceptable.
  - 15.5 MAINTENANCE: Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974MA-004**
3. DATA TYPE: 2
4. DATE REVISED:
5. PAGE: 1/2
6. TITLE: Work Breakdown Structure (WBS) and WBS Dictionary
7. DESCRIPTION/USE: To establish a framework for reporting program cost, schedule, and technical performance. To provide a basis for uniform planning, reporting status, program visibility, and assignment of responsibilities.
8. OPR: RS40                      9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION: Draft with proposal
12. SUBMISSION FREQUENCY: 30 days after effective date of the contract, update as required. Revised pages shall be submitted 10 calendar days after contract WBS changes (following Government approval).
13. REMARKS: NPD 7120.4B, *Program/Project Management*, and NPG 7120.5A, *Program and Project Management Processes and Requirements*, and MIL-HDBK-881, *Department of Defense Handbook Work Breakdown Structure*, shall be used as guides in the preparation of the WBS and the WBS dictionary.
14. INTERRELATIONSHIP: PWS paragraphs 1.2.4, 2.0.h(1)
15. DATA PREPARATION INFORMATION:
  - 15.1 **SCOPE:** The Work Breakdown Structure (WBS) establishes a product-oriented logical subdivision of hardware, software, services, facilities, etc., that make up the total project scope of work. The WBS Dictionary provides a narrative description of the tasks and effort to be performed in each WBS element.
  - 15.2 **APPLICABLE DOCUMENTS:** None
  - 15.3 **CONTENTS:**
    - a. The WBS index shall include:
      1. Line item number.
      2. WBS elements/tasks listed by title and indentured to reflect the level (e.g., level 1 is total contract; levels 2 and following are successively lower levels).
      3. Indication of phase (i.e., research, development, test and evaluation; or production; or both) with which the WBS element is associated.
      4. Contract line item associated with the WBS element.
      5. Performance Work Statement (PWS) paragraph numbers associated with the WBS element.
      6. Specification number of the specification that covers the WBS element (if applicable). If the specification is associated with more than one WBS element, indicate the specification paragraph numbers associated with the WBS element.
      7. Contract end item number of WBS element (if applicable).

## DRD Continuation Sheet

TITLE: Work Breakdown Structure (WBS) and WBS Dictionary DRD NO.: **974MA-004**

DATA TYPE: 2

PAGE: 2/2

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15. **DATA PREPARATION INFORMATION (CONTINUED):**

b. WBS Dictionary - The WBS dictionary shall describe the technical and cost content of every WBS element and efforts associated with each element (e.g., design, development, manufacturing). For WBS elements specified elsewhere for cost reporting, the WBS dictionary definitions shall also include the exact narrative of the directly associated PWS paragraphs. The WBS dictionary shall be arranged in the same order as the contract WBS index. Following the description of the WBS element shall be a listing of lower level WBS elements. The WBS dictionary shall include the following for each WBS element:

1. WBS element title, number, and element task description.
2. Performance measurement criteria (PMC).
3. PWS paragraph number.
4. Specification (number and title) associated with the WBS element.
5. Contract line item associated with the WBS element.
6. Date, revision number, revision authorization and approved changes.
7. Contract end item/data item number and quantity.
8. Cost content and description.
9. WBS code and work order/work authorization.
10. Technical content.
11. System contractor.
12. Associate or subcontractor.
13. Applicable PWS narrative.

15.4 **FORMAT:** The WBS shall be in a chart format showing element relationships, arranged in the same order as the WBS provided in the Request for Proposal. The WBS Dictionary shall be ordered in consonance with the WBS index and shall reference each WBS element by its identifier and name.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974MA-005**
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/2
6. **TITLE:** Financial Management Report (533M)
7. **DESCRIPTION/USE:** To provide monthly financial reports for monitoring program costs. The 533 reports are the official cost documents used at NASA for cost type, price redetermination, and fixed price incentive contracts.
8. **OPR:** RS40                      9. **DM:** IS01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Within 30 days after the incurrence of cost
12. **SUBMISSION FREQUENCY:** 15<sup>th</sup> calendar day of each month.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.3.c
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Financial Management Report provides data on accumulated costs and funding projections for management of the contract.
- 15.2 **APPLICABLE DOCUMENTS**  
NFS 1852.242-73                      *NASA Contractor Financial Management Reporting, (July 1997)*  
NPG 9501.2                              *NASA Contractor Financial Management Reporting*
- 15.3 **CONTENTS:** The elements of cost for financial reporting shall be mutually agreed by the contractor and NASA project office and cover labor hours by function, direct labor cost, materials, subcontracts, interdivisional work, other direct rates, overhead by pool, fringe, G&A, and fee. Changes or additions to elements of cost shall be by mutual agreement between the contractor and the NASA project manager. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. The 533M Report shall include actuals and projections at the total contract level. A summary page at the contract level shall be included reflecting the cumulative since inception cost for the contract.

The following shall be addressed for each WBS element:

- a. **Categories of cost:**
  1. Direct Labor Hours - Regular
  2. Equivalent Man-months - Regular
  3. Direct Labor Hours - Overtime
  4. Equivalent Man-months - Overtime
  5. Non-productive Hours - Paid absence (sick, vacation, and holiday)
  6. Equivalent Man-months - Paid Absence
  7. Total Direct Labor Dollars - Regular
  8. Total Direct Labor Dollars - Overtime

## DRD Continuation Sheet

TITLE: Financial Management Report (533M)

DRD NO.: 974MA-005

DATA TYPE: 3

PAGE: 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED):**

9. Total Direct Labor Dollars – Premium
10. Fringe Benefits
11. Labor Overhead
12. Labor Subtotal
13. Sub-Major
14. Sub-Major-Total
15. Sub-Minor
16. Sub-Minor-Total
17. Direct Material
18. IT Vendor Maintenance
19. Software
20. Equipment
21. Transmission Services
22. Materials & Equipment Total
23. Travel
24. Training
25. Relocation
26. Purchased Services
27. Other Direct (specify)
28. Subtotal Other Direct Costs
29. G&A
30. Subtotal Cost
31. Award-fee
32. Total

- b. WBS Summary by IT categories.
- c. Cover letter explanation of any major deviation from contractor plan (plus or minus 5 percent or \$100,000 in any WBS).
- d. Provisional award-fee billing will be prorated to each WBS.
- e. Cost will be reported to the nearest dollar.

15.4 **FORMAT:** The NASA Form 533M shall be prepared per NPG 9501.2 and NFS 1852.242-73. Contractor format is acceptable provided all necessary requirements are met. Electronic submission of contractor data is required.

15.5 **MAINTENANCE:** None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974MA-006**
3. **DATA TYPE:** \*See Remarks
4. **DATE REVISED:**
5. **PAGE:** 1/5
6. **TITLE:** Reports
7. **DESCRIPTION/USE:** These reports are used by NASA for visibility into contract activities.
8. **OPR:** IS01                      9. **DM:** IS01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** See Attachment 1. Specific due dates shall be as agreed between the contractor and the Contracting Officer's Technical Representative (COTR).
12. **SUBMISSION FREQUENCY:** See Attachment 1
13. **REMARKS:** \*See Attachment 1 for Data Types
14. **INTERRELATIONSHIP:** See Attachment 1
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** These reports detail activity/performance and utilization reporting for the Contractor's progress and accomplishments.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** See Attachment 1 for required reports. All reports shall be of sufficient depth and clarity to permit understanding and evaluation of progress made. Supporting data in the form of charts, graphs, etc., may be included as appropriate.
- 15.4 **FORMAT:** Contractor format is acceptable with COTR approval. See Attachment 1 for specific format requirements.
- 15.5 **MAINTENANCE:** None required

## Attachment 1

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Project plans, status and schedule reviews (work accomplished, schedules, resources across functional activities)	2.0.h(1), 2.1.a	Monthly	3	MICS/Online	Show interdependencies between functions and tasks; clearly delineate changes from previous month's schedule
Planned versus actual resource allocation	2.0.h(2)	Maintain current	3	MICS/Online	
Actual resource utilization by UNITEs service and customer	2.0.i(1)	DELETED	3	COSMIS	
COSMIS rates	2.0i(2)	DELETED	3		
Headcount Allocations Report	2.0.i(3)	DELETED	3	Hardcopy	By full cost accounting pools of MSFC IT Services, Center G&A Services, NISN services, and corporate G&A Services
Bi-weekly Activity Report	2.1.c, 3.9.2.3.b, 5.10.2.3.b	Bi-weekly	3	Online	Significant accomplishments, problems encountered, quality assurance results, and corrective actions.
Tracking of official communication with COTR (e.g., technical direction, information requests, transmittals) and status concerning all such communication	2.1.d	Maintain current	3	Hardcopy	
Cost Accounting System	2.3.a	Maintain current	5	MICS/Online	
Contract administration information system	2.4.b	Maintain current	5	MICS/Online	
Procurement information system	2.5.a, 2.5.b	Maintain current	5	MICS/Online	Status tracking of individual procurements; funding verification; contractor policies/procedures, etc.
Customer Satisfaction Surveys Summary Report	2.11.2.g, 2.11.3	Monthly	2	Online database	Summarize customer satisfaction survey data (number of surveys sent, responses received, action taken, and results) within each customer service area.

## Attachment 1

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Consolidated NPPS data	3.1.2.f	DELETED	3	Online	Projections of computer time requirements, product schedules in response to customer inputs
Hostile probe database trending report	3.3.i	Weekly Monthly	3	Online	Information collected on hostile probes throughout Agency
Nature of NASA Network Traffic Report	3.3.1	Monthly	3	Online	NASA network traffic passing between NASA and partners, including Internet
Computer systems planned versus actual utilization by customer	3.4.2.h	Monthly Quarterly	3	Online	
Computer systems performance, throughput and capacity reports	3.4.2.g	Monthly	3	Online	
Network performance and capacity reports	3.4.3.d	Monthly	3	Hardcopy and online	Network performance, throughput, utilization & capacity
Midrange Services utilization reports	3.4.4.f	Monthly	3	Online	
Russian IT Security reports	3.5.3	Monthly	3	Online	Network metrics, web trending reporting, incident response
GSA vendor cost and usage reports	3.6.1	Monthly	3	Online	GSA vendor usage and cost
ViTS Reporting	3.6.3.1.c	Maintain current	3	Electronic	Scheduling
Mission Video Distribution Activities Report	3.6.3.6.e	Weekly	3	Online	Documentation of all operations, engineering, maintenance and repair activities
Mission Video Distribution Activities Daily Log	3.6.3.6.e	Maintain current	3	Online	
VoTS information	3.6.4.1.a, 3.6.4.1.d	Monthly	3	Online	Reservations and scheduling information; monthly usage and cost summaries by NASA Center
Facsimile Broadcast Services performance and utilization metrics	3.6.10.c	Monthly	3	Online	
Network scheduling daily log	3.7.1.e	Maintain current	3	Online	
Network activity and outage reports	3.7.1.g	Archived J-2-26 (Mod. 219)	5	Online	

## Attachment 1

DRD 974MA-006 Page 4/5

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Network monitoring service performance metrics in support of service level agreements	3.7.2.f	Monthly	3	Hardcopy and online	Network performance, throughput, utilization & capacity
Network expansion plans	3.7.2.l	As required	3	Hardcopy	Expansion plans based on monitoring of system traffic patterns
Network carrier performance reports and recommendations	3.7.2.o, 3.7.2.p	Monthly and Quarterly	3	Hardcopy and online	Performance reports; recommendations for improvement of carrier performance and resolution of recurring problems.
Network problem reporting and resolution	3.7.4.b	As required	3	Online	
Customer trouble call log	3.7.4.d, 3.7.4.g	Update automatically	4	Online	Automatic log of customer trouble calls, including metrics (e.g., caller queue times, abandoned calls, etc)
Installation Daily Log	3.7.4.i	Maintain current	4	Online	Log of installation troubleshooting and restoration activities
Customer Support Center Status System	3.8.1.c, 3.8.1.e, 3.8.1.f, 3.8.2.a	DELETED	4	Online	Information related to service requests, problems and resolutions
Service Request Status Reports	3.8.2.d, 5.9.2.d	Monthly	3	Online	
Maintenance information	3.9.4.b, 5.10.4.b	DELETED	3	Online	Information on operational failures, incidents, discrepancies, and problem disposition and resolution
Maintenance Daily Log	3.9.4.b, 5.10.4.b	DELETED	3	Online	Log of all maintenance and repair activities

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## Attachment 1

DRD 974MA-006 Page

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Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Monthly Maintenance Reports	3.9.4.c, 5.10.4.c	<b>DELETED</b>	3	Online	Information on outages (e.g., component involved, period of downtime, corrective actions). To assist the Government in assessing credits due to the Government.
<i>IEMP</i> Integration Project Workplan/Schedule	4.2.1.1, 4.2.2.2	Monthly	3	Online	
<i>IEMP</i> Module Project Service Level Agreement (SLA) Metric Report(s)	4.3.5.1	Monthly	3	Online	Monthly reporting of IFMP Competency Center performance against SLA performance requirements
Applications and Web Services Reports	5.1, Attachment J-4-(F)	<b>DELETED</b>	3	Online	Trouble ticket score with supporting data [ref. Attachment J-4-(F)]
Help Desk Status Reports	5.9.1.f	<b>DELETED</b>	3	Online	
Personnel Activity Report	N/A	Quarterly	3	Online, Hardcopy to CO	Personnel levels, attrition rates, relocation, training expenses, etc
Building Incident/Traffic Citations Report	N/A	Quarterly	3	Online, Hardcopy to CO	Unsecured doors, speeding/parking tickets, etc.
Security Products and Solutions Test and Evaluation Report	3.12	One time	3	Online, Hardcopy to GSFC	Network security products and services test and evaluation data
"As Built" Security Lab Documentation	3.12	One time	3	Online, Hardcopy to GSFC	Physical layout and drawings of hardware and infrastructure
Security Lab Operations Plan	3.12	One time	3	Online, Hardcopy to GSFC	Plan for physical and cyber security of facility, equipment, and data
Vulnerability Scan Findings and Metrics Report	3.12	Quarterly	3	Online, Hardcopy to GSFC	Quarterly reporting of scanning findings and metrics performance
Intrusion Detection Report	3.12	Monthly	3	Online, Hardcopy to GSFC	Monthly reporting of all detected network intrusions and corrective actions.

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## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974MA-007**
3. DATA TYPE: \*See Remarks
4. DATE REVISED:
5. PAGE: 1/5
6. TITLE: Documentation
7. DESCRIPTION/USE: To provide necessary information for effectively utilizing and operating hardware and software systems for which the contractor has responsibility.
8. OPR: IS01                      9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION: See Attachment 1
12. SUBMISSION FREQUENCY: See Attachment 1
13. REMARKS: \*See Attachment 1 for Data Types
14. INTERRELATIONSHIP: See Attachment 1
15. DATA PREPARATION INFORMATION:
  - 15.1 SCOPE: Documentation is to be provided on all hardware and software covered by the contract to the extent necessary to permit effective utilization.
  - 15.2 APPLICABLE DOCUMENTS: None
  - 15.3 CONTENTS: Documentation shall be in the form of manuals, plans, studies, technical bulletin, user guides, quick references, newsletters, and online files. Information is to be provided in sufficient detail and with such clarity to allow understanding necessary to plan and process work on the UNITeS systems. Administrative, operating, and technical information shall be included with examples as appropriate. A documentation tree shall be maintained for applicable documents. Specific documentation requirements are detailed in Attachment 1.
  - 15.4 FORMAT: Contractor format is acceptable with COTR approval. See Attachment 1 for specific format requirements.
  - 15.5 MAINTENANCE: Revisions made periodically to reflect current information.

## Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
MSFC Information Systems architecture for computers, applications, and data administration	2.2.d	DELETED	3	Online	
Agency Information Systems Architecture Documentation for networks	2.2.d	Maintain current	3	Online	
CNE Risk Management Plan	3.12.g	Maintain current	2	Hardcopy and online	See FISMA Format
Special Studies	2.2.f, 2.2.g, 2.2.i(6), 2.2.i(8), 2.11.2.d, 3.9.1.1.b, 3.9.1.2.a, 3.9.1.2.c, 3.9.1.2.d, 3.9.2.1.b, 5.10.1.1.b, 5.10.1.2.a, 5.10.1.2.c, 5.10.1.2.d, 5.10.2.1.b	DELETED	3	Hardcopy	Trade studies, feasibility studies, trend analyses, business cases, hypothetical investigations, benchmarks, standards migration, pricing, etc.
CNE Security Plan	3.12.g	Maintain current	2	Hardcopy and online	See FISMA Format
Initial set of documentation/drawings generated under previous contracts	2.4.d(3)	Maintain	3	Hardcopy	
Documentation/drawings generated under this contract	2.4.d, 2.4.d(4), 3.7.7.a	Maintain current	3	Online	Design drawings, specifications, technical configurations, diagrams, architectures, processes etc.
Documentation Tree	2.4.d(5)	DELETED	3	Online	Categorizes, lists and describes all documentation generated under this contract.
Asset Management	2.6, 4.3.6.e	Maintain current	3	Online	Government property inventory and records
Disaster Recovery Plan	2.7.3.a, 2.7.4, 3.9.6, 4.3.6.b	Annually	1	Hardcopy	

## Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
Continuity of Operations Plan	2.7.3.e, 2.7.4, 3.9.6	Annually	1	Hardcopy	
Facilities Management documentation	2.9.a, 2.9.b, 2.9.c, 2.9.d, 2.9.e, 2.9.f, 2.9.h, 2.9.j, 2.9.k, 2.9.l	DELETED	3	Hardcopy	Documentation, floor plans, records of changes/moves, schedules, status, projects, requirements
Customer requirements	2.11.1.b, 2.11.2.a, 3.9.1.1.a, 3.9.1.1.c, 3.9.2.1.a	Semi-Annually	3	Hardcopy and online/database	NISN PSLA NACC MSFC
Customer service level agreements and commitment agreements	2.11.2.i	DELETED	3	Hardcopy and online/database	NISN PSLA NACC MSFC
Applications and Web Services Manual	3.1, 5.1	DELETED	2	Hardcopy and online	Descriptions of Agency wide computer applications services
Data Administration documentation	3.1.b, 5.1.b	DELETED	1	Hardcopy	Policies, procedures, architecture, data dictionary and models, etc.
Digital Television service documentation	3.2.a, 3.2.b	DELETED	1	Hardcopy	Customer television requirements; transition and implementation plans
IT Security Demilitarized Zone design, architecture and environment	3.3.4.b	DELETED	1	Hardcopy	
Account management documentation	3.3.5.a, 3.4.4.f, 3.7.3.1.a, 3.7.3.1.b, 4.2.1.6, 4.2.2.5,	Maintain current	5	Hardcopy	User account information (userid, access, quotas, requirements), smart cards, secure tokens, etc.
Software licenses	3.4.b, 3.9.4.1.b(2),	Maintain current	5	Online	
Midrange Node Book	3.4.4	As required	3	Online	System configuration documentation for Agencywide computer systems services defined in Appendix A, Category I.

## Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
VITS Facilities documentation	3.6.3.2.b, 3.6.3.3.b	Maintain current	3	Hardcopy	Room layout, facility changes
VoTS Facilities documentation	3.6.4.2.b	Maintain current	3	Hardcopy	Room layout, facility changes
NISN Services Document	3.6.5.1, 3.7.2, 3.7.5	Maintain existing document	1	Hardcopy and electronic	Maintain existing NISN Services Document (NISN 001-001)
Problem management escalation procedures and contacts for contractor and suppliers	3.7.4.c, 3.7.4.e	Maintain current	2	Hardcopy and electronic	Processes, criteria and points of contact for problem resolution
Network and facilities drawings	3.7.7.c	As required	3	Hardcopy and electronic	
Connection database	3.7.7.d	Maintain current	4	Online	Document appliance, office jack, switch port, network connectivity, etc.
User training documentation	3.8.3.a, 3.8.3.b, 4.3.3.f	Maintain current	2	Hardcopy and electronic	Class documentation, videotapes, hardcopy and computer-based tutorial information, reference information for user training and specialized training
Key contacts list for hardware/software maintenance functions	3.9.4.d	Maintain current	3	Hardcopy	
Spare parts list	3.9.4.g, 5.10.4.g	<b>DELETED</b>	3	Hardcopy	Spare parts and materials necessary to maintain equipment
Service Records	3.9.4.i, 5.10.4.i	<b>DELETED</b>	5	Online; CCAIMS	Service records for each system shall include date and type of equipment, service performed, list of parts used and costs, staff-hours utilized and downtime
Vendor documentation	3.9.4.k, 5.10.4.k	<b>DELETED</b>	5	Hardcopy and online	Vendor documentation for all systems

## Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
<i>IEMP</i> Business Architecture	4.1, 4.1.1, 4.2.1.3, 4.2.2.3	Maintain current	1	Online	Includes all modules; represents blueprint of the interaction between high-level functions and processes
<i>IEMP</i> Application Architecture	4.1, 4.1.2, 4.2.1.3, 4.2.2.3	Maintain current	1	Online	Includes key interfaces and information needs between modules; definition of how interfaces will be implemented
<i>IEMP</i> Technical Architecture	4.1, 4.1.3, 4.2.1.1, 4.2.2.7	Maintain current	1	Online	
<i>IEMP</i> Module Requirements	4.2.1.2, 4.2.1.6	Maintain current	1	Online	
<i>IEMP</i> Module Performance and Scalability Test Plan	4.2.1.6	Maintain current	1	Online	
<i>IEMP</i> Module Project Operations Plan(s)	4.2.1.7	As required	1	Online	
<i>IEMP</i> Module Project Service Level Agreement(s)	4.2.1.7, 4.3	Annually	1	Online	
<i>IEMP</i> Module Project Center Operational Level Agreement(s)	4.2.1.7	Annually	1	Online	
MSFC Telephone Directory	5.4.1.k	<b>DELETED</b>	1	Hardcopy and online	
Cable documentation	5.4.3.c, 5.4.3.h	<b>DELETED</b>	3	Hardcopy	Inter building cable systems and documentation; cable distribution systems and documentation
As-implemented systems configuration information	5.10.3	<b>DELETED</b>	3	Hardcopy	Includes hardware numbers, software revision levels, user interface details, and circuit details, such as circuit numbers, circuit types, originating and terminating locations, installation date, and service request reference number

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974MA-008**
3. DATA TYPE: 3
4. DATE REVISED:
5. PAGE: 1/1
6. TITLE: Cost Reports
7. DESCRIPTION/USE: To provide current budget guidelines and cost variances.
8. OPR: IS01                      9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION: Within 30 days after the incurrence of cost
12. SUBMISSION FREQUENCY: No later than 10 working days following the end of the contractor's accounting month
13. REMARKS:
14. INTERRELATIONSHIP: PWS paragraph 2.3.b
15. DATA PREPARATION INFORMATION:
  - 15.1 SCOPE: The cost reports shall comply with NASA budget guidelines and projected cost variances.
  - 15.2 APPLICABLE DOCUMENTS: None
  - 15.3 CONTENTS: The cost reports shall include projected and actual manpower and cost variances from the plan for the current fiscal year, magnitude of variances, reason for variances, and all projected activities that might affect the variances. The cost reports shall include:
    - a. Cost by NASA Organization (end-user)
    - b. Hardware/Software Procurement Status
    - c. Accrued versus Vouchered Cost Status
  - 15.4 FORMAT: Contractor format is acceptable with Government approval.
  - 15.5 MAINTENANCE: None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974MA-009**
3. **DATA TYPE:** 2/3\*
4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Export Control Plan and Reports
7. **DESCRIPTION/USE:** To provide the contractor's plan for complying with export control requirements and reports of export control activities.
8. **OPR:** IS01                      9. **DM:** IS01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** March 1, 2004
12. **SUBMISSION FREQUENCY:** Update Plan as required. Submit report monthly.
13. **REMARKS:** \*The plan is Data Type 2. The reports are Data Type 3.
14. **INTERRELATIONSHIP:** PWS paragraphs 2.1.e, 2.7.6
15. **DATA PREPARATION INFORMATION:**
  - 15.1 **SCOPE:** The Export Control Plan shall provide export control processes and procedures and the report shall detail export control activities.
  - 15.2 **APPLICABLE DOCUMENTS:**

NASA FAR 1852.225-70	<i>Export Licenses</i>
NPD 2190.1	<i>NASA Export Control Program</i>
MPD 2190.1	<i>MSFC Export Control Program</i>
MPG 2190.1	<i>MSFC Export Control Program</i>
  - 15.3 **CONTENTS:**
    - a. The plan shall detail the contractor's plan for meeting the export control requirements of the Export Administration Regulations (EAR), the International Traffic and Arms (ITAR), NASA FAR Supplement 1852.225-70, NPD 2190.1, MPD 2190.1 and MPG 2190.1. The plan shall provide an approach that is functionally able to address the elements of export control, including software release; foreign visitors/workers; scientific and technical information release; hardware; shipments; internet and web page information; and US Postal services, facsimile, and electronic mail information exchange. The plan shall also provide an approach which is functionally able to address any issues and incidents related to MSFC and Agency support systems and training of all personnel on export control processes and procedures.
    - b. The report shall detail all export control activities for the month reported. The data for the report shall be retrieved from the contractor's online database of export control activities.
  - 15.4 **FORMAT:** Contractor format is acceptable.
  - 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic                      2. **DRD NO.:** 974MA-010
3. **DATA TYPE:** 3                      4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Contractor Self-Assessment Report
7. **DESCRIPTION/USE:** To provide the contractor's self-assessment of performance of contract tasks.
8. **OPR:** IS01                      9. **DM:** IS01
10. **DISTRIBUTION:** Online with hard copy to CO and COTR
11. **INITIAL SUBMISSION:** Monthly report: submit online 10 days after first full month following effective date of the contract. Quarterly report: submit online by 15<sup>th</sup> day of month following the first quarterly reporting period. Semi-Annual Report: (Replaces 2<sup>nd</sup> quarterly report for each semi-annual reporting period) Submit online by 15<sup>th</sup> day of month following first semi-annual reporting period.
12. **SUBMISSION FREQUENCY:** Monthly report: submit online by 15<sup>th</sup> day of month following each monthly reporting period. (Report may be included as part of monthly submission of UNITEs Status Report (USR) in lieu of the written Monthly Report. If USR format is used for the Monthly Report, then the report shall be submitted in accordance with DRD 974MA-012. (USR's are normally scheduled on the 3<sup>rd</sup> Thursday of each month. Quarterly report: submit online by 15<sup>th</sup> day of month following each quarterly reporting period. Semi-Annual Report: (Replaces 2<sup>nd</sup> Quarterly report for each semi-annual reporting period) Submit online by 15<sup>th</sup> day of month following each semi-annual reporting period.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraphs 1.2.4, 3.0
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The report provides the contractor's self-assessment of performance of the contract tasks.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Contractor Self-Assessment Report shall:
  - a. Describe the contractor's self-assessment of performance of the PWS tasks.
  - b. Describe the contractor's self-assessment of performance against the contract performance standards.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974MA-011**
3. DATA TYPE: 2
4. DATE REVISED:
5. PAGE: 1/1
6. TITLE: Certification of NISN Systems Readiness
7. DESCRIPTION/USE: To report and/or certify that the contractor's networks and systems and services are ready to support mission and program milestones. The report may also be used to assess operational readiness of systems prior to deployment of upgrades and new service implementations.
8. OPR: IS01                      9. DM: IS01
10. DISTRIBUTION: Formatting and electronic distribution shall be per Contracting Officer's letter
11. INITIAL SUBMISSION: First mission or program milestone or first system deployment after effective date of the contract.
12. SUBMISSION FREQUENCY: 14 calendar days prior to readiness review. Updates may be required prior to actual milestone.
13. REMARKS: The contractor shall provide readiness reports to the NISN Configuration Control Board (CCB) or the CCB's delegate(s), who are responsible for ensuring NISN networks and services are ready to support mission/program milestones, or that new systems are ready for operational deployment. Contractor signature may be required to certify readiness.
14. INTERRELATIONSHIP: PWS paragraphs 2.1.f, 3.7.5.d. DRD 974CM-001, *Configuration Management Plan*.
15. DATA PREPARATION INFORMATION:
  - 15.1 **SCOPE:** The report shall provide visibility and commitment of the contractor's networks, services, and personnel to support milestones, as well as product and process status for certifying readiness to support milestones.
  - 15.2 **APPLICABLE DOCUMENTS**  
NSTS 08117                      *Certification of Flight Readiness Requirements*  
SSP 50108                      *Certification of Flight Readiness for Space Station*  
*UNITeS Configuration Management Plan* (prepared in accordance with 974CM-001)
  - 15.3 **CONTENTS:** The readiness status report shall include network/system status, support details, issues/concerns, changes since the last readiness review, accomplished level of training, and completeness of testing. Status of major anomalies discovered during testing, training, and/or operations activities shall be provided along with necessary restrictions or workaround(s). The reports shall include data to support the contractor's readiness to support mission milestones as defined in applicable documents in 15.2.
  - 15.4 **FORMAT:** Format shall be per Contracting Officer's letter.
  - 15.5 **MAINTENANCE:** None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic                      2. **DRD NO.:** 974MA-012
3. **DATA TYPE:** 3                      4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Contractor UNITEs Status Review Report
7. **DESCRIPTION/USE:** To provide the contractor's status of major activities and projects across all UNITEs service areas, including performance against contract standards/metrics and any items or issues that may impact performance evaluation.
8. **OPR:** IS01                      9. **DM:** IS01
10. **DISTRIBUTION:** Online with hard copy to CO and COTR
11. **INITIAL SUBMISSION:** Monthly report: submit online prior to initial UNITEs Status Review following the effective date of this modification.
12. **SUBMISSION FREQUENCY:** Monthly report: submit online prior to each monthly UNITEs Status Review.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.1.a
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The report provides the contractor's status of major activities and projects across all UNITEs service areas, including performance against contract standards/metrics and any items or issues that may impact performance evaluation.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Contractor UNITEs Status Report shall:
  - a. Capture action items, provide status, metrics, critical projects, wrap-up, risks, and issues based on currently utilized format.
  - b. Describe the contractor's self-assessment of performance of the PWS tasks.
  - c. Describe the contractor's self-assessment of performance against the contract performance standards for both objectively and subjectively measured areas of the PWS.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** 974MA-013
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Source/Destination Code Handbook
7. **DESCRIPTION/USE:** To document information pertinent to Mission Network data routing.
8. **OPR:** IS01                      9. **DM:** IS01
10. **DISTRIBUTION:** Online with hardcopy to GSFC
11. **INITIAL SUBMISSION:** Within 90 days of contract change
12. **SUBMISSION FREQUENCY:** Every 6 months
13. **REMARKS:** None.
14. **INTERRELATIONSHIP:** PWS paragraph 3.10.3
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** Documentation of routing configuration for Mission Network
- 15.2 **APPLICABLE DOCUMENTS:**  
None
- 15.3 **CONTENTS:** Network data routing addresses mapped to source and destination codes and information related to users and purpose of routes.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** For every network routing change

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic                      2. **DRD NO.:** 974MA-014
3. **DATA TYPE:** 3                      4. **DATE REVISED:**
5. **PAGE:** 1/1
  
6. **TITLE:** Mission Network Operations Logs (IPNOC and Conversion Devices)
  
7. **DESCRIPTION/USE:** To document information pertinent to operations, testing, and restoral activities of the Mission Network.
  
8. **OPR:** IS01                      9. **DM:** IS01
  
10. **DISTRIBUTION:** Online with hardcopy to GSFC
  
11. **INITIAL SUBMISSION:** Upon request
  
12. **SUBMISSION FREQUENCY:** Upon request
  
13. **REMARKS:** None.
14. **INTERRELATIONSHIP:** PWS paragraphs 3.10.2.1, 3.10.2.2
  
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** Mission Network Operations Logs will include all pertinent information related to operations, testing and restoral activities of the Mission Network.
- 15.2 **APPLICABLE DOCUMENTS:**  
None
- 15.3 **CONTENTS:** To include Mission circuit numbers, vendor information, reason for outages and resolution information.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** Daily

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic                      2. **DRD NO.:** 974MA-015
3. **DATA TYPE:** 3                      4. **DATE REVISED:**
5. **PAGE:** 1/1
  
6. **TITLE:** Event Analysis and System Problem Resolution Report
  
7. **DESCRIPTION/USE:** To document information pertinent to network and sustaining engineering support of operations, testing, and restoral activities of the Mission Network.
  
8. **OPR:** IS01                      9. **DM:** IS01
  
10. **DISTRIBUTION:** Online with hardcopy to GSFC
  
11. **INITIAL SUBMISSION:** Upon request
  
12. **SUBMISSION FREQUENCY:** Upon request
  
13. **REMARKS:** None.
14. **INTERRELATIONSHIP:** PWS paragraph 3.10.1
  
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** Provide documentation of network and sustaining engineering support to operations, testing and restoral activities of the Mission Network.
  
- 15.2 **APPLICABLE DOCUMENTS:**  
None
  
- 15.3 **CONTENTS:** For Mission Network, provide documentation of Event Report (ER) analysis and resolution, priority System Problem Report (SPR) resolution (if necessary), respond to Daily Summary Reports (DSR), and provide on-call mission availability.
  
- 15.4 **FORMAT:** Contractor format is acceptable.
  
- 15.5 **MAINTENANCE:** Daily

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974RM-001**
3. DATA TYPE: 1
4. DATE REVISED:
5. PAGE: 1/2
6. TITLE: Operability/Maintainability Plan
7. DESCRIPTION/USE: To provide the Contractor and the Government a baseline document for Operability/Maintainability.
8. OPR: IS01                      9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter.
11. INITIAL SUBMISSION: April 13, 2004
12. SUBMISSION FREQUENCY: One time and revisions to reflect significant changes.
13. REMARKS:
14. INTERRELATIONSHIP: PWS paragraphs 3.9.4, 3.9.4.a, 3.9.4.1, 3.9.4.1.a(1), 3.9.4.2.c, 3.9.4.2.d Appendix A
15. DATA PREPARATION INFORMATION:
  - 15.1 **SCOPE:** This plan shall define all system operability and maintainability activities appropriate for providing the services and performing the functions set forth in the PWS.
  - 15.2 **APPLICABLE DOCUMENTS:** None
  - 15.3 **CONTENTS:** The plan shall address for each system the applicable availability parameters, methodology for establishment of the parameters, identification and analysis of the risks associated with the parameters, and detailed approaches for performing within the defined parameters. The plan shall include:
    - a. **Availability Parameters:**
      1. Overall percentage of system availability.
      2. Preventive Maintenance:
        - (a) Schedule for performing.
        - (b) Downtime required.
        - (c) Meantime between failures.
        - (d) Define Principle Periods of Maintenance (PPM) for each system.
      3. Remedial Maintenance:
        - (a) Response time.
        - (b) Meantime to repair.
        - (c) Operational procedures to ensure system continues to operate while any failed component is being replaced.
      4. Methodology used to establish parameters.
    - b. **Identification and Analysis of Risks:**
      1. Failure modes and effects.
      2. Impact of nonavailability.
      3. Trade-offs.

## DRD Continuation Sheet

TITLE: Operability/Maintainability Plan

DRD NO.: **974RM-001**

DATA TYPE: 1

PAGE: 2/2

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15. **DATA PREPARATION INFORMATION (CONTINUED):**

c. Detailed Performance Approach:

1. Preventive maintenance.
2. Remedial maintenance.
3. System backups.
4. Warranty identification and enforcement.

d. Baselined Operation Hours:

1. Scheduled hours of service.
2. Total hours in which business is scheduled.
3. Specified time period, e.g., month or quarter.

e. Format and Content of Monthly Maintenance Report.

15.4 **FORMAT:** Contractor format is acceptable with MSFC approval.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974SA-001**
3. DATA TYPE: 2
4. DATE REVISED:
5. PAGE: 1/3
6. TITLE: On-site Safety and Health Plan
7. DESCRIPTION/USE: To provide the contractor and the Government a baseline document for planning, management, control, and implementation of the contractor's industrial/occupational safety, health, and environmental program.
8. OPR: QD50                      9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION: Preliminary with proposal
12. SUBMISSION FREQUENCY: Final ten days after effective date of the contract; update as required
13. REMARKS:
14. INTERRELATIONSHIP: NFS 1852.223-70, *Safety and Health*; FAR 52.223-3, *Hazardous Material Identification and Material Safety Data*; FAR 52.223-4, *Recovered Material Certification*; FAR 52.223-5, *Pollution Prevention and Right-to-Know Information*; FAR 52.223-7, *Notice of Radioactive Materials*; FAR 52.223-9, *Estimate of Percentage of Recovered Material Content for EPA-Designated Products*; FAR 52.223-10, *Waste Reduction Program*; FAR 52.223-11, *Ozone Depleting Substances*; FAR 52.223-12, *Refrigeration Equipment and Air Conditioners*; FAR 52.223-13, *Certification of Toxic Chemical Release Reporting*; and FAR 52.223-14, *Toxic Chemical Release Reporting*. PWS paragraph 2.8
15. DATA PREPARATION INFORMATION:
  - 15.1 SCOPE: The On-site Safety and Health Plan describes the contractor's method of implementing occupational safety, health, and environmental standards over the duration of the contract.
  - 15.2 APPLICABLE DOCUMENTS: Implementation of the following Occupational Safety and Health Standards and applicable requirements shall be specified in the plan.

29 CFR 1910	<i>Department of Labor; Occupational Safety and Health Administration Standards for General Industry</i>
29 CFR 1926	<i>Department of Labor; Occupational Safety and Health Administration Standards for Construction Industry (if applicable to scope of this contract)</i>
40 CFR	<i>Protection of the Environment</i>
ANSI Standards applicable to the scope of this contract	
<i>ASME Boiler and Pressure Vessel Code</i>	
MPG 8500.1	<i>MSFC Environmental Management Program</i>
MPG 1040.3	<i>MSFC Emergency Plan</i>
MPG 1840.3	<i>MSFC Hazardous Chemicals in Laboratories Protection Program</i>
MPG 1840.1	<i>MSFC Confined Space Entries</i>
MPD 1860.2	<i>MSFC Radiation Safety Program</i>
MPG 1810.1	<i>MSFC Occupational Medicine</i>
MPD 1840.3	<i>MSFC Respiratory Protection Program</i>
MPD 1840.2	<i>MSFC Hearing Conservation Program</i>
MPD 1840.1	<i>MSFC Environmental Health Program</i>

## DRD Continuation Sheet

TITLE: On-site Safety and Health Plan

DRD NO.: 974SA-001

DATA TYPE: 2

PAGE: 2/3

15. DATA PREPARATION INFORMATION (CONTINUED):
- |                  |  |
|------------------|--|
| MPG 1840.2       | <i>MSFC Hazard Communication Program</i>   |
| MPD 1860.1       | <i>Laser Safety</i>  |
| MPG 1800.1       | <i>Bloodborne Pathogens</i>  |
| MWI 3410.1       | <i>Personnel Certification Program</i>   |
| MPG 8715.1       | <i>Marshall Safety, Health and Environmental (SHE) Program</i>   |
| MPD 8900.1       | <i>Medical Operations Responsibilities for Human Space Flight Programs (NOTE: This document only applies to Space Station contracts)</i> |
| NFPA Standards   | <i>National Fire Codes</i>   |
| NPG 8715.3       | <i>NASA Safety Manual</i>  |
| NASA-STD-8719.11 | <i>Safety Standard for Fire Protection</i>   |
- 15.3 **CONTENTS:** The plan shall describe the manner in which the contractor shall implement the intent of the requirements of the applicable documents as they pertain to the specific statement of work tasks to be performed. The plan shall define the safety, health, and environmental program, objectives and goals, management structure, and detailed description of the total safety program including responsibilities, procedures, reporting, training, compliance methodologies, and interface and coordination activities. The On-site Safety and Health Plan shall include:
- a. Management commitment and employee involvement in the safety and health program:
    1. Statement of management policy, commitment, and accountability to provide for the safety and health of personnel (i.e., employees, customers, and public) and property and compliance with EPA, OSHA and NASA requirements.
    2. Provision for top-level management monthly safety and health committee meetings.
    3. Descriptions of safety and health awareness and motivation programs, including documented safety meeting requirements, and documented safety awareness training for employees. (Safety meeting statistics documented in the Supervisors Safety Web page: [http://msfcsma3.msfc.nasa.gov/dbwebs/apps/sswp/SSWP\\_login.taf](http://msfcsma3.msfc.nasa.gov/dbwebs/apps/sswp/SSWP_login.taf))
    4. Means of program evaluation, identifying duties, methods and frequency for internal evaluation of the safety and health program, and identification of personnel who perform evaluations and to whom evaluations are reported and who approves corrective action.
    5. Flowdown of safety responsibilities between appropriate tiers (i.e., subcontractors).
    6. Identification of employees (by type, classification, and qualification) responsible for the implementation of the above elements.
  - b. System and worksite hazard analysis:
    1. Methods of hazard identification and control, e.g., hazard analysis and risk assessment.
    2. Descriptions of OSHA programs that require documented plans (e.g., Personnel Protective Equipment (PPE), Confined Space, and Lockout/Tagout, etc. Include the interrelationships with the MSFC plans.) (Note: only programs applicable to the contract need to be addressed.)
    3. Requirements for formal safety inspections and correction of deficiencies.
    4. Requirements for documented safety visits (e.g., one per month per supervisor) documented in the Supervisors Safety Web page.
    5. Schedules of the frequency and documentation requirements for inspections, plan and procedure reviews, and certifications.
  - c. Hazard prevention and control:
    1. Methods to include clear statements of hazardous situations and necessary cautions in appropriate detail plans, procedures, and other working documents.
    2. Controls over the procurement, storage, issuance, and use of hazardous substances and procedures for recycling and disposal of hazardous waste.

## DRD Continuation Sheet

TITLE: On-site Safety and Health Plan

DRD NO.: **974SA-001**

DATA TYPE: 2

PAGE: 3/3

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15. **DATA PREPARATION INFORMATION (CONTINUED):**

3. Method of ensuring a documented emergency management program. Include a list of emergency points of contact. (Note: on-site contractors may use MPG 1040.3.)
4. Method of reporting and investigating all mishaps and close calls, including an outline of reporting requirements and a description of how root cause analysis is to be accomplished.
5. Provisions for safety, health, and environmental services such as hazardous waste disposal, industrial hygiene monitoring, emergency medical support, hearing conservation program, and hazard communication.
6. Provision for suspending work where safety or environmental conditions warrant such action.

d. Safety and health training:

1. Means for training each employee to recognize hazards and avoid accidents, and assuring each employee has a clear understanding of the disciplinary program.
2. Provisions for training and certification of personnel performing potentially hazardous operations. Job categories under the contracted effort that require certification shall be identified. Personnel Certification for the identified job categories shall be tracked in the MSFC Certification Database (CERTRAK) in accordance with MWI 3410.1 "Personnel Certification Program."

e. Environmental compliance - Provisions for compliance with environmental laws and regulations by: reporting hazardous and toxic substance use; implementing green procurements; reducing, reusing, and recycling of hazardous and toxic substances prior to disposal; minimizing stormwater pollution; ensuring equipment and processes permitted by applicable laws; and disposing of solid and liquid materials as permitted by applicable laws.

15.4 **FORMAT:** Contractor format is acceptable.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974SA-002**
3. DATA TYPE: 3
4. DATE REVISED:
5. PAGE: 1/2
6. TITLE: Mishap and Safety Statistics Reports
7. DESCRIPTION/USE: To provide reporting of mishaps and related information required to produce metrics for MSFC.
8. OPR: QD50                      9. DM: IS01
10. DISTRIBUTION: Per Contracting Officer's letter
11. INITIAL SUBMISSION:
  - a. Mishaps and Close Calls:
    1. Type A or B mishaps only: Immediate telephone notification (256-544-0046)
    2. Type A, B and C mishaps (applicable to onsite contractors only): Flash Report within 4 hours of knowledge on MSFC Form 4370, submitted either electronically (at [https://msfcsma3.msfc.nasa.gov/s&ma\\_01/mishap/index.htm](https://msfcsma3.msfc.nasa.gov/s&ma_01/mishap/index.htm)) or by telephone [Call 256-544-4357 (4-HELP); ask operator to fill out MSFC Form 4370 or Flash Report].
    3. All Mishaps (Type A, B, C, Incidents and Close Calls): Mishap Report NASA Form 1627 within 6 calendar days of Mishap
    4. All Mishaps: Monthly Follow-up Corrective Action Plan/Status as required until closed.
    5. Type A, B, and Close Calls with high Type A or B potential: Mishap Board Report after completion of investigation.
  - b. Safety Statistics (e.g., contract number, subcontractors, SIC/NAIC codes, number of employees, number of supervisors, etc.): submitted on MSFC Form 4371 by the 10<sup>th</sup> of each month following effective date of the contract.
12. SUBMISSION FREQUENCY:
  - a. MSFC Form 4370 - Each occurrence of a mishap except as identified in section 11.a.2.
  - b. NASA Form 1627 - Each occurrence of a mishap. Corrective action status reports are due every 30 days until the final report is submitted.
  - c. MSFC Form 4371 - By the 10<sup>th</sup> of each month.
  - d. Mishap Board Report - Each occurrence of a Type A or B mishap, or as directed by Center management.
13. REMARKS:
14. INTERRELATIONSHIP: PWS paragraph 2.8
15. DATA PREPARATION INFORMATION:
  - 15.1 **SCOPE**: The Mishap and Safety Statistics Reports document all mishaps and close calls as required in NPG 8621.1.
  - 15.2 **APPLICABLE DOCUMENTS**
    - NPG 8621.1            *NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping*
    - MWI 8621.1            *Close Call and Mishap Reporting and Investigation Program*

## DRD Continuation Sheet

TITLE: Mishap and Safety Statistics Reports

DRD NO.: **974SA-002**

DATA TYPE: 3

PAGE: 2/2

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15. **DATA PREPARATION INFORMATION (CONTINUED):**
- 15.3 **CONTENTS:** The reports shall contain the information required by NPG 8621.1. The contractor shall use the forms listed in 15.4 to report mishaps and related information required to produce the safety metrics.
- 15.4 **FORMAT:** The following formats shall be submitted:
- a. MSFC Form 4370, "MSFC Flash Mishap Report."
  - b. NASA Form 1627, "NASA Mishap Report."
  - c. MSFC Form 4371, "MSFC Contractor Safety Statistics."
  - d. Mishap Board Report using the format provided in NPG 8621.1.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** **974SE-001**
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/1
6. **TITLE:** Contractor Employee Clearance Document
7. **DESCRIPTION/USE:** To ensure that badged contractor employees who no longer require Center access properly clear all accounts when the access is no longer needed.
8. **OPR:** AS50                      9. **DM:** IS01
10. **DISTRIBUTION:** On line, and per Form distribution list.
11. **INITIAL SUBMISSION:** Immediately upon when the access is no longer needed.
12. **SUBMISSION FREQUENCY:** As required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS Paragraph 5.5 (s).
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Contractor Employee Clearance Document provides verification that all badged employees have properly cleared all accounts when the access is no longer needed.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Contractor Employee Clearance Document shall contain all the information required by MSFC Form 383-1.
- 15.4 **FORMAT:** MSFC Form 383-1, "Contractor Employee Clearance Document".
- 15.5 **MAINTENANCE:** None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. DPD NO.: 974                      ISSUE: Basic
2. DRD NO.: **974SE-002**
3. DATA TYPE: 3
4. DATE REVISED:
5. PAGE: 1/1
6. TITLE: Position Risk Designation for Non-NASA Employee Form
7. DESCRIPTION/USE: To ensure that contractor employees are screened to an appropriate risk determination in accordance with NPR 1600.1, *NASA Security Program Procedural Requirements*, Chapter 4.
8. OPR: AS50                      9. DM: IS01
10. DISTRIBUTION: AS50 through the COTR, and On line
11. INITIAL SUBMISSION: No later than 10 working days after Authority to Proceed (ATP).
12. SUBMISSION FREQUENCY: Update as personnel or position changes occur.
13. REMARKS:
14. INTERRELATIONSHIP: PWS 5.5 (t)
15. DATA PREPARATION INFORMATION:
  - 15.1 **SCOPE:** The Position Risk Designation for Non-NASA Employee Form provides information necessary to determine the type of investigation required and how closely an individual is screened for a position.
  - 15.2 **APPLICABLE DOCUMENTS:**  
NPR 1600.1                      *NASA Security Program Procedural Requirements*
  - 15.3 **CONTENTS:** The Position Risk Designation for Non-NASA Employee Form shall contain all the information required by MSFC Form 4482 in accordance with NPR 1600.1, *NASA Security Program Procedural Requirements*.
  - 15.4 **FORMAT:** MSFC Form 4482, "Position Risk Designation for Non-NASA Employee".
  - 15.5 **MAINTENANCE:** None required

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** 974SE-003
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/2
6. **TITLE:** Contractor Information Technology Security Program Plan
7. **DESCRIPTION/USE:** To ensure that the contractor fully understands their responsibility for information and information technology (IT) security as required in NFS 1852.204-76. This plan shall describe the contractor's comprehensive information technology security program that addresses the management, operational, and technical aspects of protecting the confidentiality, integrity and availability of information and information technology systems.
8. **OPR:** IS10                      9. **DM:** IS01
10. **DISTRIBUTION:** One copy each CO and COTR, on-line EDMS
11. **INITIAL SUBMISSION:** Final 30 days after contract award.
12. **SUBMISSION FREQUENCY:** Revise after any significant changes. Review and update every three years.
13. **REMARKS:** The Federal Information Processing Standards (FIPS) Publication Series of the National Institute of Standards and Technology (NIST) is the official series of publications relating to standards and guidelines adopted and promulgated under the provisions of the Federal Information Security Management Act (FISMA) of 2002. FIPS Pub 200, Minimum Security Requirements for Federal Information and Information Systems, which specifies minimum security requirements for information and information systems supporting the executive agencies of the federal government and a risk-based process for selecting the security controls necessary to satisfy the minimum security requirements.  
  
The seventeen security-related areas to be addressed in the content of the Contractor IT Security Program Plan represent a broad-based, balanced information technology security program that addresses the management, operational, and technical aspects of protecting information and information technology systems. Additional information for these security-related areas can be found in FIPS Pub 200.
14. **INTERRELATIONSHIP:** PWS 2.7.2
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The extent of the Contractor IT Security Program Plan can vary and shall be appropriate to comply with the breadth of sensitivity level security requirements for protecting information and information technology (IT) when the Contractor or its subcontractors must obtain physical or electronic access to NASA's computer systems, networks, or IT infrastructure, or where information is stored, generated, processed or exchanged by/with NASA or on behalf of NASA by a contractor or subcontractor, regardless of whether the information resides on a NASA or a contractor/ subcontractor's information system.

## DRD Continuation Sheet

TITLE: Contractor Information Technology (IT) Security  
Program Plan

DRD NO.: 974SE-003

DATA TYPE: 2

PAGE: 2/2

15.2 **APPLICABLE DOCUMENTS:**

NFS 1852.204-76      *Security Requirements for Unclassified Information Technology Resources (May 2007)*

FIPS 200      *Minimum Security Requirements for Federal Information and Information Systems*

15. **DATA PREPARATION INFORMATION:**

15.3 **CONTENTS:** The Contractor IT Security Program Plan shall describe the contractor's comprehensive information technology security program that provides an approach to address each of the security-related areas (see Remarks) for protecting MSFC and Agency information and supported information technology systems.

1. Management.
  - (a) Certification, Accreditation, and Security Assessments.
  - (b) Planning.
  - (c) Risk Assessment.
  - (d) Systems and Services Acquisition.
2. Operational.
  - (a) Awareness and Training.
  - (b) Configuration Management.
  - (c) Contingency Planning.
  - (d) Incident Response.
  - (e) Maintenance.
  - (f) Media Protection.
  - (g) Physical and Environmental Protection.
  - (h) Personnel Security.
  - (i) System and Information Integrity.
3. Technical.
  - (a) Access Control.
  - (b) Audit and Accountability.
  - (c) Identification and Authentication.
  - (d) System and Communications Protection.

NOTE: Any security-related area not currently implemented in the Contractor's IT security program shall be identified and the contractor's plan of action for implementation shall be explained.

15.4 **FORMAT:** Contractor format is acceptable and shall be consistent with contents of paragraph 15.3 of this DRD.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

## DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 974                      **ISSUE:** Basic
2. **DRD NO.:** 974SE-004
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/2
6. **TITLE:** Information Technology (IT) Security Requirements Compliance Report(s)
7. **DESCRIPTION/USE:** To provide an overview of the Contractor's compliance with the IT security requirements in NFS 1852-204-76 and any additions/augmentations described in NPR 2810.1A. The contractor shall specify when IT systems or applications managed by the contractor are required to follow NASA Certification and Accreditation (C&A) processes as described in NPR 2810.1A, requiring the utilization of the MSFC system security documentation repository for the development and management of required documents. This report will be used in conjunction with all System security documentation as described in NPR 2810.1A to verify the contractor's compliance and shall be approved by their Organization Senior Management responsible for IT.
8. **OPR:** IS10                      9. **DM:** IS01
10. **DISTRIBUTION:** One copy each CO and COTR, on-line EDMS
11. **INITIAL SUBMISSION:** 30 days after contract award.
12. **SUBMISSION FREQUENCY:** The report shall be reviewed and updated on a yearly basis.
13. **REMARKS:** The NFS 1852.204-76 identifies security requirements for IT Security and Physical and Logical Access for unclassified information technology resources. It specifically identifies IT security requirements that include the preparation of certain IT security documents that are included in the Security Accreditation package required for a National Institute of Standards and Technology (NIST) Certification and Accreditation (C&A) process (reference NIST 800-37). However, NFS 1852.204-76 does not require the Contractor to follow a formal NIST C&A process unless there are any additions/augmentations described in the NASA C&A processes established in NPR 2810.1A.  

The NFS 1852.204-76 requires the Contractor to submit to the Contracting Officer an IT Security Plan, Risk Assessment and FIPS 199 Assessment that shall be incorporated into the contract as compliance documents. Due to the critical sensitivity of the content of these documents, this IT Security Requirements Compliance Report shall be submitted to the Contracting Officer as evidence that these requirements have been met. Once approved by the MSFC IT Security Office, it will be maintained with the contract as a compliance document. Due to the nature of this contract, the IT System Security Plan, Risk Assessment and all other required system security documents shall be prepared and maintained by the contractor as required by NASA C&A processes described in NPR 2810.1A and be submitted into the MSFC system security documentation repository. These system security documents shall not be submitted directly to the Contracting Officer.
14. **INTERRELATIONSHIP:** PWS 2.7.2

## DRD Continuation Sheet

TITLE: Information Technology (IT) Security Requirements  
Compliance Report(s)

DRD NO.: 974SE-004

DATA TYPE: 2

PAGE: 2/2

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The IT Security Requirements Compliance Report shall specify when IT systems or applications managed by the contractor are required to follow NASA C&A processes requiring the utilization of the MSFC system security documentation repository, provide reference to policies and procedures required for compliance to IT security requirements, and provide dates of compliance and a statement of compliance to be signed by Organization Senior Management responsible for IT.

15.2 **APPLICABLE DOCUMENTS:**

FIPS 199	<i>Standards for Security Categorization of Federal Information and Information Systems</i>
NFS 1852.204-76	<i>Security Requirements for Unclassified Information Technology Resources (May 2007)</i>
NPR 2810.1A	<i>Security of Information Technology</i>
NIST SP 800-61	<i>Computer Security Incident Handling Guide</i>
NIST 800-37	<i>Guide for the Security Certification and Accreditation of Federal Information Systems</i>

15.3 **CONTENTS:** In response to the requirements of NFS 1852.204-76, the IT Security Requirements Compliance Report shall specify when IT systems or applications managed by the contractor are required to follow NASA C&A processes as described in NPR 2810.1A. It shall identify policies and procedures for Incident Response and Annual IT security training. It shall include a statement of compliance for: ensuring that incidents are reported per NIST SP 800-61 and that any confirmed incident for a system containing NASA information or controlling NASA assets is reported as required; providing NASA access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases, and personnel used in performance of the contract; ensuring contractor system administrator(s) have demonstrated appropriate knowledge; ensuring that NASA's Sensitive But Unclassified (SBU) information is encrypted in storage and transmission; completing contractor personnel screening requirements; ensuring the return of all NASA information and IT resources at contract completion as required; certifying that all NASA information has been purged from contractor-owned systems used in the performance of the contract; and ensuring the inclusion of NFS 1852.204-76 in all subcontracts, as required. The statement of compliance shall be signed by Organization Senior Management responsible for ensuring that IT requirements have been met.

The contractor shall indicate in the compliance statement when the contractor is located at a NASA Center or installation or is using NASA IP address space and ensure: compliance with processes for submitting requests for non-NASA provided external Internet connections to the Contracting Officer for approval by the NSCCB; compliance with NASA CIO metrics; and utilization of the NASA Public Key Infrastructure.

15.4 **FORMAT:** A template shall be provided by the MSFC IT Security Office (IS10).

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

**ATTACHMENT J-4**

**PERFORMANCE MEASUREMENT  
STANDARDS  
(Applicable to PWS Section 3.0)**

## Table of Contents

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## ATTACHMENTS

The following ATTACHMENTS J-4-(A) through J-4-(E) are for use in measuring performance of PWS Section 3.1 Agencywide Application Projects.

1. ATTACHMENT J-4-(A)- Agencywide Application Projects Performance Metric
2. ATTACHMENT J-4-(A)-(1)- Software Defects Per Lines of Source Code
3. ATTACHMENT J-4-(B)- Table Releases Performance Metric
4. ATTACHMENT J-4-(B)-(1)- Defects per Table Release
5. ATTACHMENT J-4-(C)- Technical Support Services Performance Metric
6. ATTACHMENT J-4-(C)-(1)- Technical Support Services Conversion Table
7. ATTACHMENT J-4-(D)- Quality of Customer Support Services
8. ATTACHMENT J-4-(D)-(1)- Customer Problem Resolution Conversion Table
9. ATTACHMENT J-4-(E)- Timeliness of Performance (also used in other areas)
10. ATTACHMENT J-4-(E)-(1)- Milestone Schedule Performance Table
11. ATTACHMENT J-4-(E)-(2)- Audio Visual Schedule Performance Table
12. ATTACHMENT J-4-(F)-**DELETED**

The following attachments are for use in performing the overall objective evaluation of PWS sections 3.0.

13. ATTACHMENT J-4-(G)- Surveillance Plan Matrix
14. ATTACHMENT J-4-(H)- Performance Requirements Summary/MADR's
15. ATTACHMENT J-4-(I)- Quarterly/Semi-Annual Performance Evaluation Summary

## DEFINITIONS

Availability- The percentage of time that a system or hardware required by the customer is considered nominally operable and suitable for its intended use.

Contracting Officer's Technical Representative (COTR)- The appointed representative of the Contracting Officer in all technical matters and the person who serves as the primary monitor and evaluator of all technical aspects of contractor performance.

Contracting Officer (CO)- The appointed representative of the Government in all contractual matters and the person who serves as the primary business monitor and evaluator of all business aspects of contractor performance. The CO is the only representative of the Government authorized to execute binding bilateral and unilateral modifications to the contract.

Data Requirements Document (DRD)- A document attached to the contract that provides insight into the required format and content of data, reports, or plans required by the Government in performance of the contract effort.

Maximum Allowable Defect Rate (MADR)- The maximum allowable defect rate is the defect rate that, when exceeded, indicates an unacceptable level of performance or quality was demonstrated by the contractor. Deductions will be taken for all defects exceeding the MADR (with appropriate credit for rework, if applicable) regardless of whether the MADR is expressed as a percentage of the effort to be performed or a number of defects per month.

Mean Time to Repair (MTTR)- The average time required to perform corrective maintenance on all of the removable items in a particular system.

Mean Time Between Failures (MTBF)- The average number of hours that pass before a component, assembly, or system fails.

Technical Monitor- Personnel who perform inspections or evaluations of effort that is specified in the PWS of the contract.

## **I. Overview**

NASA is changing the way it contracts for goods and services. Through the implementation of Performance-Based Contracting (PBC) and other initiatives, NASA is assigning a higher level of integration responsibility and accountability to its contractors. By moving NASA civil service employees from detailed operations management to contract oversight roles, industry is enabled to mature and play an increasing role in determining how to accomplish the desired performance objectives outlined in the performance work statement.

The standards delineated herein are derived from the Performance Work Statement (PWS) and the activities delineated in the PWS. This is an integrated process that describes the plan for objectively monitoring certain areas of performance of the contractor to provide the overall evaluation of the contractor's technical performance. These standards, when used in conjunction with ATTACHMENT J-5, "UNITeS CPAF Evaluation Plan," will determine the overall fee applicable to a particular semi-annual performance evaluation period.

**Objectives:** The objective is to provide accurate and objective assessments of the contractor's technical performance. These assessments and their feedback to the contractor ensure receipt of the quality and kinds of products and services required by the contract. Surveillance provides assessments of contractor performance, documentation, plans, schedules, controls and processes. The accuracy of contractor reporting (reports, performance metrics, or insight metrics) will be verified either through surveillance of activities or review of each report. Where contractor reporting cannot give sufficient insight, the Government will provide surveillance assessments of contractor activities.

**Change Control:** The Performance Standards contained herein may be modified as implementation proceeds. The change control of this document is the responsibility of Office of the CIO management. As changes are required, they will be forwarded to the COTR/CO for implementation.

**Contracting Officer's Technical Representative:** The COTR serves as the single-point technical liaison between the contractor and NASA's CO. The COTR is responsible to the CO for monitoring and ensuring contractor performance and delivery of the final product and/or services under the contract. Specific duties and responsibilities delegated to the COTR affecting performance surveillance are to:

- Establish objectively measurable performance standards that will ensure receipt of the quality and kinds of services required by the PWS.
- Perform audits, surveillance and insight in accordance with the standards. Assure technical proficiency and compliance with the technical provisions of the contract by review and verification of the performance of the work.
- Approve and issue technical direction as may be required and authorized by the contract.

- Provide the contractor with the technical data and information as required by the contract.
- Monitor contractor compliance with the defined PWS or specification included in the contract.
- Conduct performance evaluations and compile and report this data to the NASA performance evaluation board to be used in conjunction with the award fee evaluation process for the other PWS elements.
- Establish and manage overall NASA Technical Monitor (TM) support of the above activities. This will include appointment of a TM for each PWS sub-section. The COTR may appoint a TM as monitor for more than one PWS sub-section. The COTR will also ensure that the data required for quarterly and semi-annual performance measurement is provided by each TM in a timely manner.

Technical Monitor (TM): The TM's are responsible to the COTR and support the COTR for technical insight of a specific work area of the PWS and assist in the review of budgetary requirements for that work area. The TM provides technical direction only through the COTR.

Specific TM authorities applicable to performance surveillance are:

- Monitor contract performance for each PWS sub-section of assigned responsibility and immediately report all problems related to it to the COTR. Keep the COTR informed, both orally and in writing, of the status of the contract and performance to requirements. Periodic reports, as agreed to between the COTR and TM, shall be affected.
- Recommend to the COTR performance metrics that will ensure receipt of the quality and kinds of supplies or services required by the contract.
- Perform on-site surveillance of the contractor's work affected at MSFC or other Centers. Document surveillance activities and provide a copy of the documentation to the COTR. Assure technical proficiency and compliance with the technical provisions of the contract by review and verification of work accomplished by the contractor.
- Assist the COTR in ensuring that the contractor complies with the defined PWS or specifications included in the contract. Assist the CO and COTR in interpreting technical requirements of the contract scope of work specifications. Differences of opinion shall be referred to the CO if necessary.
- Recommend in writing to the COTR any changes desired in scope and/or technical content of the contract with justification for the proposed action.

The TM establishes the insight requirements for a technical work area. In this role, the TM plans and implements the required performance surveillance and audit activities for that work area and provides input into the contractor's performance evaluation. As part of the TM's responsibility in reviewing contractor work, they will also attend contractor managed technical meetings and perform any other function deemed necessary to accurately assess performance. The TM will submit a QUARTERLY/SEMI-ANNUAL PERFORMANCE EVALUATION SUMMARY, ATTACHMENT J-4-(I) for Technical Performance for each PWS sub-section assigned.

## **II. Performance Evaluation**

The measurement of performance for the contract effort will be conducted in accordance with ATTACHMENT J-5, "UNITeS CPAF Evaluation Plan." As part of this process, PWS sections 3.0 will utilize the objective standards contained herein in order to assist in measuring technical performance. As part of the Award Fee process, other elements of contractor performance, as specifically addressed in the Award Fee Evaluation Plan, will also be assessed and the overall assessment will be submitted to the Performance Evaluation Board for recommendation of Earned Award Fee to the Fee Determination Official (FDO).

The specific PWS elements to be objectively measured are provided below:

### WBS Section

- 3.0 Agency wide Information Services
  - 3.1 Agencywide Application Projects
  - 3.2 Digital Television
  - 3.3 IT Security
  - 3.4 Data Center Services
  - 3.5 Russia IT Services
  - 3.6 Wide Area Network (WAN) Services
  - 3.7 Systems Management and Operations
  - 3.8 Customer Support
  - 3.10 Mission Engineering and Network Management
  - 3.11 Local Area Network Engineering
  - 3.12 Network Security
  - 3.13 Business Studies
  - 3.14 SEWP Program Management
  - 3.15 NASA CIO Support

MSFC will conduct quarterly and semi-annual assessments of the contractor's technical performance. The quarterly performance evaluations will serve to evaluate the contractor's performance for the initial three-month period of each semi-annual evaluation period and will allow for Government feedback as well as emphasizing areas of concern. The semi-annual performance evaluations will serve to formally assess the contractor's performance and the results of this evaluation will determine the contractor's fee earned for that particular period.

Technical performance will be objectively evaluated by the TM's in order to assist in determining the fee earned by the contractor for PWS section 3.0. The technical performance of each of the PWS sub-sections shall be measured in accordance with the surveillance techniques established in ATTACHMENT J-4-(G) and against the performance standards outlined in ATTACHMENT J-4-(H). This data will be utilized in the establishment of the overall Award Fee earned for the period.

In order to facilitate calculation of Award Fee during each semi-annual reporting period, the following matrix will be utilized to assign a relative portion of the total potential award fee pool for PWS section 3.0 and each PWS sub-section. Regardless of the fluctuations to these pools resulting from contract modifications, etc., the percentages of weight assigned to these PWS sub-sections will remain static unless also changed by contract modification.

**(The negotiated contract value will be used to determine the appropriate percentages to be specified below.)**

**Award Fee PWS Sub-section Weighting Table**

<u>WBS Sub-section</u>	<u>Title</u>	<u>Weight</u>
<b>3.0</b>	<b>AGENCYWIDE INFORMATION SERVICES</b>	
3.1	Agencywide Application Projects	<b>14.6%</b>
3.2	Digital Television	<b>.4%</b>
3.3	IT Security	<b>12.2%</b>
3.4	Data Center Services	<b>19.7%</b>
3.5	Russia IT Services	<b>3.9%</b>
3.6	WAN Services	<b>15.3%</b>
3.7	Systems Management and Operations	<b>26.0%</b>
3.8	Customer Support	<b>2.8%</b>
3.9	N/A	N/A
<b>3.10</b>	<b>Mission Engineering and Network Management</b>	<b>3.6%</b>
<b>3.11</b>	<b>Local Area Network Engineering</b>	<b>.8%</b>
<b>3.12</b>	<b>Network Security</b>	<b>.5%</b>
<b>3.13</b>	<b>Business Studies</b>	<b>.1%</b>
<b>3.14</b>	<b>SEWP Program Management</b>	<b>.1%</b>
<b>3.15</b>	<b>NASA CIO Support</b>	
	TOTAL	100%

### COTR Responsibility

As part of the quarterly and semi-annual award fee evaluation process, the COTR is primarily responsible for ensuring timely collection of all objectively measured performance data from the TM's and compiling this data into a presentable format for calculation of the overall fee impact to the contract for each quarterly and semi-annual evaluation period. The data submitted to the COTR will be on ATTACHMENT J-4-(I), QUARTERLY/SEMI-ANNUAL PERFORMANCE EVALUATION SUMMARY, for each element of the PWS to be objectively measured.

The COTR will also be responsible for evaluating the TM's performance in measuring contractor performance against the Performance Requirements Summary (PRS) to ensure accuracy and objectivity. Should discrepancies be noted in evaluation of contractor performance, the COTR will ensure that corrective action is taken, either through receipt of corrected performance evaluation forms, TM training or other such means as determined necessary to ensure complete and accurate measure of contractor performance. The COTR will also ensure timeliness of TM submission of the required performance evaluation documentation and take appropriate corrective action where required.

The COTR will also retain as part of the official records, copies of all performance evaluation documentation. This documentation will be retained for the life of the contract for audit purposes.

The COTR will maintain an official electronic address book of all TM's and provide notification to these individuals at an appropriate time to remind them of the date that all performance evaluation data will be required for input into the quarterly and semi-annual evaluation periods.

### TM Responsibility

The TM will be responsible for objectively measuring the performance of the contractor against the particular PWS sub-section(s) to which the TM has been assigned oversight responsibilities by the COTR. Primarily, the TM will perform an assessment of the contractor's technical performance against the metrics established in ATTACHMENT J-4-(H), PERFORMANCE REQUIREMENTS SUMMARY/MADRS to this document utilizing the methodology described in ATTACHMENT J-4-(G), PERFORAMANCE SURVEILLANCE PLAN MATRIX. The evaluation will be documented on ATTACHMENT J-4-(I), QUARTERLY/SEMI-ANNUAL PERFORMANCE EVALUATION SUMMARY, and any recommended deductions will also be specified on this document. The TM will ensure that sufficient backup documentation exists to allow the COTR to verify that any recommended reductions are in accordance with the schedule. This documentation will be retained for the life of the contract for audit purposes.

The TM will be responsible for negotiating schedules for individual services/deliverables under the particular PWS element for which they have been assigned oversight responsibility.

The TM will also retain as part of the official records, copies of all performance evaluation documentation submitted to the COTR. This documentation will be retained for the life of the contract for audit purposes.

The TM will also interface with the COTR to continually ensure that the criteria used for measurement of contractor performance are current and the most appropriate for use. Should PWS changes result in additional areas requiring TM surveillance, the TM will work with the COTR and CO to establish the appropriate performance measurement criteria.

#### CO Responsibility

The CO will work closely with the COTR to ensure that the performance measurements generated by the TM are in accordance with the plan.

**ATTACHMENT J-4-(A)**  
**AGENCYWIDE APPLICATION PROJECTS PERFORMANCE METRIC**

The quality of software releases will be measured by the number of software discrepancy reports (DR) generated between software releases and will be evaluated based on an industry standard of 1 discrepancy per 1000 lines of code released. Industry standards indicate software releases for production have an average of 1 undetected defect per every 1000 lines of source code delivered. Effort expended to lower that average would not be cost effective. The defect rate is lowered as software matures for about five years and then begins to degrade as a factor of system volatility. The Agencywide legacy systems spread a wide range of maturity levels, ranging from immature (NPDMS) to a degraded state (NEMS) and high risk due to high volatility (NPPS). As a whole, the combined condition of the systems is probably better than the industry average for newly released code. Software quality will be evaluated per ATTACHMENT J-4-(A)-(1), Software Defects Per Lines Of Source Code. The table values are based on the following criterion:

RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	1 or less DRs for every 10,000 lines of code released	100%
B	1 DR for every 5,000 to 9,999 lines of code released	90%
C	1 DR for every 3,500 to 4,999 lines of code released	75%
D	1 DR for every 2,500 to 3,499 lines of code released	50%
E	1 DR for every 2499 or less lines of code released	0%

- Criteria for classifying and counting DRs
  - DRs generated on modules not included on the software release will not be counted against the quality of the software release, unless the module failed as a result of data being passed by a released module.
  - Software discrepancies must be against the SRS specification, the VDD specification, or against the 1620 specification which defined the requirement.
  - User preferences and incomplete specification fixes will not be counted as discrepancies. Examples of user preferences include such things as the location of a field on the screen or report or the wording of error messages, if not specifically stated on the specification. Examples of incomplete specification fixes include such things as the omission of certain data on a report which renders the report useless to the user but the data was not on the specification, or omission or superfluous edit criteria not explicitly defined on the specification.
  - Discrepancies identified prior to the release and not fixed before the release is made will be counted as DRs against the release.
  - The number of lines of code will be the number of source lines of code included in the release. This method of counting is commonly used in industry because any line of code modified could effect and violate the entire



module logic. The completed module must be analyzed before any lines of code are changed and must then be tested to ensure that the integrity of the module logic is intact after the change.

ATTACHMENT J-4-(A)-(1) SOFTWARE DEFECTS PER LINES OF SOURCE CODE

NUMBER OF LINES OF CODE RELEASED	NUMBER OF DISCREPANCIES REPORTED																																										
	=	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
< 5000	C	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E		
5000 - 9999	B	C	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
10000 - 14999	A	B	C	C	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
15000 - 19999	A	B	B	C	C	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
20000 - 24999	A	A	B	B	C	C	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
25000 - 29999	A	A	B	B	B	C	C	C	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
30000 - 34999	A	A	A	B	B	B	C	C	C	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
35000 - 39999	A	A	A	B	B	B	B	C	C	C	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
40000 - 44999	A	A	A	A	B	B	B	B	C	C	C	C	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
45000 - 49999	A	A	A	A	B	B	B	B	B	C	C	C	C	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
50000 - 54999	A	A	A	A	A	B	B	B	B	B	C	C	C	C	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
55000 - 59999	A	A	A	A	A	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
60000 - 64999	A	A	A	A	A	A	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
65000 - 69999	A	A	A	A	A	A	B	B	B	B	B	B	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
70000 - 74999	A	A	A	A	A	A	A	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
75000 - 79999	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
80000 - 84999	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
85000 - 89999	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
90000 - 94999	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
95000 - 99999	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
100000 - 104999	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
105000 - 109999	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
110000 - 114999	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
115000 - 119999	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
120000 - 124999	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
125000 - 129999	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
130000 - 134999	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
135000 - 139999	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
140000 - 144999	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
145000 - 149999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
150000 - 154999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
155000 - 159999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
160000 - 164999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
165000 - 169999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
170000 - 174999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
175000 - 179999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
180000 - 184999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
185000 - 189999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
190000 - 195999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
195000 - 199999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

**ATTACHMENT J-4-(B)**  
**TABLE RELEASES PERFORMANCE METRIC**

The quality of Table Releases will be measured by the number of DRs generated against a released table. The table values are based on the following criterion

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	Average of zero (0) DRs per table released	100%
B	Average of 1 DR per table released	75%
C	Average of 2 to 3 DRs per table released	50%
D	Average of 4 or more DRs per table released	0%

(DRs generated on tables not released by the Consolidation Center will not be counted against the quality of the table release, unless the table failed as a result of data being passed by a released module. The DR will be counted against the released module which will impact the software quality metrics).

(See Conversion Table J-4-(A)-(1) for complete Performance Metric conversion)

**ATTACHMENT J-4-(B)-(1)**

**DEFECTS PER TABLE RELEASE**

Number of Tables	Number of Discrepancies										
	0	1	2	3	4	5	6	7	8	9	10
1	A	B	C	C	D	D	D	D	D	D	D
2	A	B	B	C	C	C	D	D	D	D	D
3	A	A	B	B	B	C	C	C	C	C	C
4	A	A	B	B	B	B	C	C	C	C	C
5	A	A	A	B	B	B	C	C	C	C	C
6	A	A	A	B	B	B	B	B	C	C	C
7	A	A	A	A	B	B	B	B	B	B	B
8	A	A	A	A	B	B	B	B	B	B	B
9	A	A	A	A	A	B	B	B	B	B	B
10	A	A	A	A	A	B	B	B	B	B	B

**ATTACHMENT J-4-(C)  
TECHNICAL SUPPORT SERVICES PERFORMANCE METRIC**

The Technical Support Services and Customer Support Services will be evaluated against help desk response time and the timely resolution of customer problems.

The following thresholds were established at project initiation and documented on the SESAAS Project Management Plan. These thresholds will be used in performance evaluation for technical services. Calls designated as emergency calls will receive an immediate response. All calls received on the prime shift will receive a response within 2 hours. Nonprime shift calls will receive a response within 12 hours.

Quality of Technical Support Services (help desk) will be evaluated per ATTACHMENT J-4-(C)-(1), Technical Support Services Conversion Table. The table values are based on the following criterion:

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	In addition to 100% of calls being responded to per established thresholds, > 15% of the calls on the prime shift are responded to <= 1 hour	100%
B	In addition to 100% of calls being responded to per established thresholds, 1% to 15% of the calls on the prime shift are responded <= 1 hour	90%
C	100% of calls are responded to per established thresholds	80%
D	1% to 15% of the calls are responded outside the established threshold	50%
E	Greater than 15% of the calls are responded outside the established threshold	0%

ATTACHMENT J-4-(C)-(1)

**TECHNICAL SUPPORT SERVICES CONVERSION TABLE**

Number Of Calls	Technical Support Services Number of Late Responses																				
	10	9	8	7	6	5	4	3	2	1	0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
<5	E	E	E	E	E	E	E	E	E	E	C	A	A	A	A	A	A	A	A	A	A
5-9	E	E	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	A	A	A	A
10-14	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A	A
15-19	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A	A
20-24	E	E	E	E	E	E	E	D	D	D	C	B	B	B	A	A	A	A	A	A	A
25-29	E	E	E	E	E	E	D	D	D	D	C	B	B	B	B	A	A	A	A	A	A
30-34	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A	A
35-39	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A	A
40-44	E	E	E	E	D	D	D	D	D	D	C	B	B	B	B	B	B	A	A	A	A
45-49	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A	A
>50	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A	A

**ATTACHMENT J-4-(D)  
QUALITY OF CUSTOMER SUPPORT SERVICES**

Quality of Customer Support Services will be evaluated on the timely closure of help desk calls per ATTACHMENT J-4-(D)-(1) Customer Problem Resolution Conversion Table. Closure of a customer support service is defined as 1) providing an answer to the question or concern; 2) providing a work around; or 3) identifying an application discrepancy and creating a form 1620 to document the discrepancy or requirement change. Weekend hours (5:00 pm Friday to 8:00 am Monday) do not apply against the 72-hour limit. The table values are based on the following criterion:

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	In addition to 100% of the problems being closed <= 72 hours, > 15% of the problems are closed in less than 48 hours	100%
B	In addition to 100% of the problems being closed <= 72 hours, 1% to 15% of the problems are closed <= 48 hours	90%
C	100% of the problems are closed within 72 hours	80%
D	1% to 15% of the problems are closed outside the 72 hour period	50%
E	Greater than 15% of the problems are closed outside the 72 hour period	0%

(See Conversion Table J-4-(D)-(1) for complete Performance Metric conversion)

**ATTACHMENT J-4-(D)-(1)  
CUSTOMER PROBLEM RESOLUTION CONVERSION TABLE**

Number Of Calls	Customer Problem Resolution Number of Late Resolutions																				
	10	9	8	7	6	5	4	3	2	1	0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
<5	E	E	E	E	E	E	E	E	E	E	E	C	A	A	A	A	A	A	A	A	A
5-9	E	E	E	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	A	A	A
10-14	E	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A
15-19	E	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A
20-24	E	E	E	E	E	E	E	E	D	D	D	C	B	B	B	A	A	A	A	A	A
25-29	E	E	E	E	E	E	E	D	D	D	D	C	B	B	B	B	A	A	A	A	A
30-34	E	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A
35-39	E	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A
40-44	E	E	E	E	E	D	D	D	D	D	D	C	B	B	B	B	B	B	A	A	A
45-49	E	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A
>50	E	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A

**ATTACHMENT J-4-(E)  
TIMELINESS OF PERFORMANCE**

Timeliness of performance will be evaluated per ATTACHMENT J-4-(E)-(1) Milestone Schedule Performance.

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	Services and products delivered per committed schedules with average days late being zero (0) and no critical milestones missed	100%
B	Services and products delivered per committed schedules with average days late being one (1) and no critical milestones missed	90%
C	Services and products delivered per committed schedules with average days late being two (2) days with no critical milestones missed	80%
D	Services and products delivered per committed schedules with average days late/critical milestones missed as follows: Average days late "3" or "4" with "0" critical milestones missed, or Average days late "0", "1" or "2" with "1" critical milestone missed, or Average days late "0" with "2" critical milestones missed	50%
E	Services and products delivered per committed schedules with average days late/critical milestones missed as follows: Average days late "5" with "0" critical milestones missed, or Average days late "3", "4" or "5" with "1" critical milestone missed, or Average days late "1", "2", "3", "4" or "5" with "2" critical milestones missed, or Average days late $\geq$ "0" with $\geq$ "3" critical milestones missed	0%

**ATTACHMENT J-4-(E)-(1)  
MILESTONE SCHEDULE PERFORMANCE TABLE**

<b>CRITICAL MILESTONES MISSED</b>	<b>AVERAGE WORKING DAYS MISSED</b>					
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
0	A	B	C	D	D	E
1	D	D	D	E	E	E
2	D	E	E	E	E	E
$\geq 3$	E	E	E	E	E	E

**PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITEs – ATTACHMENT J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
<p>3.0 AGENCYWIDE INFORMATION SERVICES</p> <p>3.1 Agency wide Applications Projects</p> <p>    3.1.1 SESAAS</p> <p>    3.1.2 Consolidated NPPS Operational Support</p> <p>    3.1.3 System for Administration, Training, and Educational Resources for NASA (SATERN)</p> <p>    3.1.4 Web Time and Attendance Distribution System (WebTADS)</p> <p>    3.1.5 NASA Acquisition Internet Services (NAIS)</p> <p>    3.1.6 Dryden Flight Research Center (DFRC) Applications Support</p> <p>    3.1.7 Exploration Systems Mission Directorate (ESMD) Support</p>	<ol style="list-style-type: none"> <li>1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports</li> <li>2. Customer Surveys</li> <li>3. Review of data for financial planning and information</li> <li>4. Review of Contractor Performance against Kt Rqts</li> <li>5. Weekly Notes</li> <li>6. Project Plans and schedules</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM) Monthly (TM)</li> <li>2. Monthly (TM)</li> <li>3. Monthly (TM)</li> <li>4. Monthly (TM)</li> <li>5. Weekly (TM)</li> <li>6. As needed (TM)</li> </ol>

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The surveillance methodologies specified for the each of the PWS sections in ATTACHMENT J-4-(G) are not necessarily inclusive of all insight tools available or to be used as part of the performance measurement of the contractor. The Government reserves the right to utilize additional surveillance methodologies as deemed necessary.

**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4-(G)**

<b>SOW Section</b>	<b>NASA insight/surveillance/deliverables</b>	<b>Frequency</b>
3.2 Digital Television	<ol style="list-style-type: none"> <li>1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports</li> <li>2. Customer Surveys</li> <li>3. Meetings documenting contractor actions</li> <li>4. Program Management Reviews</li> <li>5. Review of data for financial planning and information</li> <li>6. Periodic walk-throughs to ensure proper practices are being adhered to</li> <li>7. Review of Contractor Performance against Kt Rqts</li> <li>8. Program Metrics</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM) Monthly (TM)</li> <li>2. Quarterly (TM)</li> <li>3. Weekly (TM)</li> <li>4. Monthly (TM)</li> <li>5. Monthly (TM)</li> <li>6. Monthly (TM)</li> <li>7. Quarterly (TM)</li> <li>8. Monthly (TM)</li> </ol>

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.3 IT Security 3.3.1 Intrusion Detection/ Incident Response	<ol style="list-style-type: none"> <li>1. Review of DRD's (see distribution list) per ISO process                          974CD-001 IT Security Plan                          974MA-005 Financial Management Report                          974MA-006 Reports                          974MA-002 Risk Management Plan</li> <li>2. Meetings documenting contractor actions</li> <li>3. Review of Contractor Performance against Kt Rqts</li> <li>4. Trouble Ticket Reports</li> <li>5. Internal/ External Audits</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM)                          Monthly (TM)                          Quarterly (TM)                          Quarterly (TM)</li> <li>2. Weekly (TM)</li> <li>3. Quarterly (TM)</li> <li>4. Monthly (TM)</li> <li>5. As deemed appropriate (various sources)</li> </ol>

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4-(G)**

<b>SOW Section</b>	<b>NASA insight/surveillance/deliverables</b>	<b>Frequency</b>
3.3 IT Security 3.3.2 NASA National Security Systems	<ol style="list-style-type: none"> <li>1. Review of DRD's (see distribution list) per ISO process                          974CD-001 IT Security Plan                          974MA-005 Financial Management Report                          974MA-006 Reports                          974MA-002 Risk Management Plan</li> <li>2. Meetings documenting contractor actions</li> <li>3. Review of Contractor Performance against Kt Rqts</li> <li>4. Trouble Ticket Reports</li> <li>5. Internal/ External Audits</li> <li>6. <b>NSS Reports and processes</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM)                          Monthly (TM)                          Quarterly (TM)                          Quarterly (TM)</li> <li>2. Weekly (TM)</li> <li>3. Quarterly (TM)</li> <li>4. Monthly (TM)</li> <li>5. As deemed appropriate (various sources)</li> <li>6. <b>Monthly (TM)</b></li> </ol>

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.3 IT Security  3.3.3 NASA Secure Sensitive but Unclassified Networks	1. Review of DRD's (see distribution list) per ISO process 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-002 Risk Management Plan 2. Meetings documenting contractor actions 3. Review of Contractor Performance against Kt Rqts 4. Trouble Ticket Reports 5. Internal/ External Audits	1. Monthly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) 2. Weekly (TM) 3. Quarterly (TM) 4. Monthly (TM) 5. As deemed appropriate (various sources)

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.3 IT Security 3.3.4 IT Security Perimeter	1. Review of DRD's (see distribution list) per ISO process 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-002 Risk Management Plan 2. Meetings documenting contractor actions 3. Review of Contractor Performance against Kt Rqts 4. Trouble Ticket Reports 5. Internal/ External Audits	1. Monthly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) 2. Weekly (TM) 3. Quarterly (TM) 4. Monthly (TM) 5. As deemed appropriate (various sources)

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4-(G)**

<b>SOW Section</b>	<b>NASA Insight/surveillance/deliverables</b>	<b>Frequency</b>
3.3 IT Security  3.3.5 Secure Authentication Service	1. Review of DRD's (see distribution list) per ISO process 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-002 Risk Management Plan 2. Meetings documenting contractor actions 3. Review of Contractor Performance against Kt Rqts 4. Trouble Ticket Reports 5. Internal/ External Audits	1. Monthly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) 2. Weekly (TM) 3. Quarterly (TM) 4. Monthly (TM) 5. As deemed appropriate (various sources)

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.4 Data Center Services 3.4.1 Consolidation and Centralization Services 3.4.2 Computer Systems Services 3.4.3 Network Services 3.4.4 Agencywide Midrange Services	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 3. Customer Surveys 4. Meetings documenting contractor actions 5. Review of Contractor Performance against Kt Rqts 6. Program Metrics 7. Project Plans and schedules 8. Availability Report 9. Trouble Ticket Report 10. Maintenance Reports 11. Mid-range Node Book	1. Monthly (TM) 2. Monthly (TM) Quarterly (TM) 3. Quarterly (TM) 4. Weekly (TM) 5. Quarterly (TM) 6. Quarterly (TM) 7. Monthly (TM) 8. Monthly (TM) 9. Monthly (TM) 10. Monthly (TM) 11. Monthly (TM)

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.5 Russia IT Services 3.5.1 Russian Wide Area Network (WAN) 3.5.2 Russian Local Area Network (LAN) 3.5.3 Russian IT Security 3.5.4 Russian End User Support	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Review of data for financial planning and information 3. Periodic walk-throughs to ensure proper practices are being adhered to in 4. Review of Contractor Performance against Kt Rqts 5. Program Metrics	1. Monthly (TM) Monthly (TM) 2. Quarterly (COTR) 3. Daily when Russia (TM) 4. Weekly (TM) 5. Monthly (TM)

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**PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITEs– ATTACHMENT J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.6 WAN Services 3.6.1 GSA Contract Integration 3.6.2 Switched Voice 3.6.3 Video Services 3.6.4 Voice Services 3.6.5 Data Services 3.6.6 International Services 3.6.7 Technical Services (Dedicated) 3.6.8 Directory Services 3.6.9 IP Address Management 3.6.10 Facsimile Broadcast Service	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974CD-002 Employee Location Listing 974CM-001 Configuration Management Plan 974LS-001 Government Property Management Plan 974MA-001 Management Plan 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-007 Documentation 974RM-001 Operability/Maintainability Plan 974MA-002 Risk Management Plan 3. Customer Surveys 4. Meetings documenting contractor actions 5. Program Management Reviews 6. Periodic walk-throughs to ensure proper practices are being adhered to in 7. Review of Contractor Performance against Kt Rqts 8. Program Metrics 9. Service performance availability 10. Service Utilization (e.g. number of conferences) 11. NISN Service Request status 12. Business continuity/Disaster recovery	1. Monthly (TM) 2. Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) 3. Quarterly (TM) 4. Weekly (TM) 5. Monthly (TM) 6. As deemed necessary (TM) 7. Monthly (TM) 8. Quarterly (TM) 9. Monthly (TM) 10. Monthly (TM) 11. Weekly (TM) 12. Quarterly (TM)

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.7 Systems Management and Operations 3.7.1 Network Scheduling 3.7.2 Network Monitoring 3.7.3 Network Control and System Management 3.7.4 Problem Management 3.7.5 WAN Operational Support 3.7.6 Control Centers 3.7.7 Documentation and Configuration Management	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974CD-002 Employee Location Listing 974CM-001 Configuration Management Plan 974LS-001 Government Property Management Plan 974MA-001 Project Management Plan 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-007 Documentation 974RM-001 Operability/Maintainability Plan 974MA-002 Risk Management Plan 3. Customer Surveys 4. Meetings documenting contractor actions 5. Program Management Reviews 6. Periodic walk-throughs to ensure proper practices are being adhered to in 7. Review of Contractor Performance against Kt Rqts 8. Program Metrics 9. Service performance availability 10. Service Utilization (e.g. number of conferences) 11. NISN Service Request status 12. Business continuity/Disaster recovery	1. Monthly (TM) 2. Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) 3. Quarterly (TM) 4. Weekly (TM) 5. Monthly (TM) 6. As deemed necessary (TM) 7. Monthly (TM) 8. Quarterly (TM) 9. Monthly (TM) 10. Monthly (TM) 11. Weekly (TM) 12. Quarterly (TM)

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs - ATTACHMENT J-4-(G)**

<b>SOW Section</b>	<b>NASA insight/surveillance/deliverables</b>	<b>Frequency</b>
3.12 Network Security	<ol style="list-style-type: none"> <li>1. Review of DRD's (see distribution list) per ISO process                      974CD-001 IT Security Plan                      974MA-005 Financial Management Report                      974MA-006 Reports                      974MA-002 Risk Management Plan</li> <li>2. Meetings documenting contractor actions</li> <li>3. Review of Contractor Performance against Kt Rqts</li> <li>4. Trouble Ticket Reports</li> <li>5. Internal/ External Audits</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM)                      Monthly (TM)                      Quarterly (TM)                      Quarterly (TM)</li> <li>2. Weekly (TM)</li> <li>3. Quarterly (TM)</li> <li>4. Monthly (TM)</li> <li>5. As deemed appropriate (various sources)</li> </ol>

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs - ATTACHMENT J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.13 Business Studies	<ol style="list-style-type: none"> <li>1. Customer Surveys</li> <li>2. Meetings documenting contractor actions</li> <li>3. Program Management Reviews</li> <li>4. Periodic walk-throughs to ensure proper practices are being adhered to in the areas of property, security, safety &amp; health</li> <li>5. Review of Contractor Performance against Kt Rqts</li> <li>6. Program Metrics</li> <li>7. Service performance availability</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM)</li> <li>2. Weekly</li> <li>3. Monthly (TM)</li> <li>4. As deemed necessary (TM)</li> <li>5. Monthly (TM)</li> <li>6. Quarterly (TM)</li> <li>7. Monthly (TM)</li> </ol>

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs - ATTACHMENT J-4-(G)**

SOW Section	NASA insight/surveillance/deliverables	Frequency
3.14 Scientific and Engineering Workstation Procurement (SEWP) Program Support	<ol style="list-style-type: none"> <li>1. Customer Surveys</li> <li>2. Meetings documenting contractor actions</li> <li>3. Program Management Reviews</li> <li>4. Periodic walk-throughs to ensure proper practices are being adhered to in the areas of property, security, safety &amp; health</li> <li>5. Review of Contractor Performance against Kt Rqts</li> <li>6. Program Metrics</li> <li>7. Service performance availability</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM)</li> <li>2. Weekly</li> <li>3. Monthly (TM)</li> <li>4. As deemed necessary (TM)</li> <li>5. Monthly (TM)</li> <li>6. Quarterly (TM)</li> <li>7. Monthly (TM)</li> </ol>

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**PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITEs- ATTACHMENT J-4-(G)**

<b>SOW Section</b>	<b>NASA insight/surveillance/deliverables</b>	<b>Frequency</b>
3.15 NASA CIO Support	<ol style="list-style-type: none"> <li>1. Customer Surveys</li> <li>2. Meetings documenting contractor actions</li> <li>3. Program Management Reviews</li> <li>4. Periodic walk-throughs to ensure proper practices are being adhered to in the areas of property, security, safety &amp; health</li> <li>5. Review of Contractor Performance against Kt Rqts</li> <li>6. Program Metrics</li> <li>7. Service performance availability</li> </ol>	<ol style="list-style-type: none"> <li>1. Monthly (TM)</li> <li>2. Weekly</li> <li>3. Monthly (TM)</li> <li>4. As deemed necessary (TM)</li> <li>5. Monthly (TM)</li> <li>6. Quarterly (TM)</li> <li>7. Monthly (TM)</li> </ol>

(Mod. 219)

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.2 Digital Television (DTV)	Contractor shall ensure that mutually agreed to schedules for Digital Television deliverables are adhered to.	See Attachment J-4-(E)	100%

(Mod. 219)

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.3 IT Security 3.3.1 NISN Security	A. Contractor shall isolate IT security incidents and provide response within 1 hour and accurate reports within 2 hours of incident notification <b>during normal business hours</b> and in accordance with SOP guidelines.	1%	30%
	B. Contractor shall provide 100% (as measured monthly) service availability (with the exception of scheduled maintenance windows, outages beyond contractor control, e.g. force majeure, acts of terrorism, etc.)	5%	50%
	C. Contractor shall restore affected IT security services and update the IT Security Plan for the affected system within 12 hours for systems located on the MSFC campus and within 48 hours for all others.	1%	20%
	D. DELETED		

(Mod. 219)

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.3 IT Security 3.3.2 NASA National Security Systems	A. Contractor shall isolate IT security incidents and provide response within 2 hours and accurate reports within 4 hours of incident notification and in accordance with SOP guidelines.	1%	30%
	B. Contractor shall provide 100% (as measured monthly) service availability (with the exception of scheduled maintenance windows, outages beyond contractor control, e.g. force majeure, acts of terrorism, etc.)	1%	30%
	C. Contractor shall restore affected NSS services and update the NSS SOP for the affected system within 12 hours for systems located on the MSFC campus and within 24 hours for all others. Systems are defined as mission critical.	1%	20%
	D. Contractor shall track NSS systems trend analysis monthly and provide reports quarterly with recommendations as dictated by system performance.	1%	20%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.3 IT Security 3.3.3 NASA Secure Sensitive but Unclassified Networks	A. For Agency Firewall (FW) services, the Contractor shall provide 100% (as measured monthly) service availability for redundant FWs and 100% availability for non-redundant FWs (with the exception of scheduled maintenance windows, outages beyond contractor control, e.g. force majeure, acts of terrorism, etc.). The FW service shall be restored within 4 hours during normal business hours and restored within 6 hours after normal business hours. The Remedy TT system database shall be used as the record from which this metric is measured.	0% (Redundant FWs)	30%
		3% (Non-redundant FWs)	30%
	(The contractor must be provided with adequate sparing)	1%	20%
	B. For redundant Agency FWs, the contractor shall restore the affected system within 28 hours (24 hours to ship, 4 hours to configure) during normal business week. For non-redundant Agency FWs, the contractor shall restore the affected system within 4 hours during normal business hours and within 6 hours for non-business hours.		
	(The contractor must be provided with adequate sparing)	1%	20%
	C. Contractor shall acknowledge FW rule modification to existing service change requests within 2 hours during regular business hours. The 2 hour response is measured from receipt of FW rule change request.		

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITeS		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.3 IT Security 3.3.4 IT Security Perimeter  (Currently, no systems are operational under 3.3.4. Therefore, no objective award fee is allocated to this sub-element)	A. Contractor shall isolate IT security incidents and provide response within 2 hours and accurate reports within 4 hours of incident notification and in accordance with SOP guidelines.	1%	30%
	B. Contractor shall provide 100% (as measured monthly) service availability based upon agreed to operational environment standards (with the exception of scheduled maintenance windows, outages beyond contractor control, e.g. force majeure, acts of terrorism, etc.)	1%	30%
	C. Contractor shall restore affected IT security services and update the IT Security Plan for the affected system within 24 hours for systems located on the MSFC campus and within 48 hours for all others. Systems are defined as mission critical.	1%	20%
	D. Contractor shall complete move-add-change (MAC) requests as specified in mutually agreed upon schedules.	1%	20%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.3 IT Security 3.3.5 Secure Authentication Service	A. Contractor shall provide response within 2 hours and accurate reports within 4 hours of notification for token administration based problems on the Remedy TT system and in accordance with SOP guidelines.	1%	35%
	B. Contractor shall restore affected Secure Authentication services and update the IT Security Plan for the affected system within 12 hours for systems located on the MSFC campus.	1%	35%
	C. Contractor shall complete move-add-change (MAC) requests as specified in mutually agreed upon schedules.	1%	30%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.4 Data Center Services	A. Contractor shall provide uninterrupted systems availability (with the exception of normal maintenance windows, and outages beyond contractor control, e.g. force majeure, acts of terrorism, etc.)	.5%	20%
3.4.1 Consolidation Services			
3.4.2 Computer Systems Services	B. Contractor shall respond to Priority 1 RTS trouble tickets <= 2 hours.	0%	15%
3.4.3 Network Services	C. Contractor shall ensure that CICS transactions occur <= .5 seconds.	6%	15%
3.4.4 Agencywide Midrange Services	D. Contractor shall ensure that Batch jobs are processed <= 6 minutes.	6%	10%
	E. Contractor shall ensure that TSO transactions occur <= 1 second.	3%	10%
	F. Contractor shall maintain uninterrupted midrange computer systems services (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majeure, acts of terrorism, etc.) including the requirement to maintain the functionality of the systems application regardless of total up-time	.2%	10%
	G. Contractor shall provide return-to-service for midrange computer systems within the following periods: Category 1 <= 2 hours of trouble ticket initiation (With the exception of a major database corruption and any hardware constraints) All other systems- <= COB the following business day after trouble ticket initiation (See Priority matrix for specific application priority classification)	2%	10%
	H. Contractor shall adhere to established schedules.	See Attachment J-4-(E)	5%
	I. Contractor shall provide move-add-change (MAC) services within <=2 days of request or within established customer notification requirements.	2%	5%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.5 Russia IT Services			
3.5.1 Russian Wide Area Network (WAN)	A. Mission WAN/Services shall have uninterrupted availability. (Mission WAN/Services shall have a MTTR of <= 2 hours) (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <21.5 minutes, or at > 21.5 but < 60 minutes = a 2:1 multiplier, or at >= 60 minutes = 4:1 multiplier) *	.02%	25%
3.5.2 Russian Local Area Network (LAN)			
3.5.3 Russian IT Security			
3.5.4 Russian End User Support	B. Admin WAN/Services shall have uninterrupted availability. (Admin WAN/Services shall have a MTTR <= 4 hours) (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <60 minutes, or at > 60 but <120 minutes = a 2:1 multiplier, or at >= 120 minutes = 3:1 multiplier) *	.05%	25%
	C. For all LAN and End User support the contractor shall return to service due to discrepancies within the following periods: Category 1 <= 4 hours Category 2 = COB Moscow normal duty hours Category 3 = COB day following Moscow normal duty hours	2%	25%
	D. Contractor shall adhere to established schedules for deliverables.	See Attachment J-4-(E)	15%
	E. In the advent of an IT security incident, contractor shall restore affected services within the following periods: Disseminate vulnerability and incident information potentially impacting the Agency <= 1 hour Isolate the problem <= 2 hours Restore affected services <= 4 hours	0%	10%

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\* The prime contractor shall ensure application of these standards to the subcontract circuit provider.

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.6 WAN Services			
3.6.1 GSA Contract Integration	A. Contractor shall complete move-add-change (MAC) requests for all services as specified in the NISN Services Document or as specified in mutually agreed upon schedules.	See Attachment J-4-(E)	35%
3.6.2 Switched Voice	(Reported metrics include NSR Trends)		
3.6.3 Video Services			
3.6.4 Voice Services	B. Contractor shall ensure that services are provided in accordance with performance specifications as documented in the NISN Services Document or in accordance with mutually agreed upon performance specifications.	2%	50%
3.6.5 Data Services			
3.6.6 International Services	(Reported metrics include: 1) Standard Routed Services Availability; 2) Premium Routed Services Availability; 3) <b>L2 VPN Availability</b> ; 4) VITS Availability; 5) VoTS Availability; 6) Mission Support Infrastructure Availability; and 7) Mission Services Availability; and 8) <b>CVPN Availability</b> .		
3.6.7 Technical Services (Dedicated)			
3.6.8 Directory Services			
3.6.9 IP Address Management	C. Contractor shall provide accurate detailed cost estimates for each NISN Service Request. Actual costs for each request shall be no greater than 10% of the original estimate regardless of number of requests. Actual costs for each request shall also be no greater than -10% of the original estimate. If variance is greater than -10%, but less than \$500.00, the variance will be considered within the acceptable range of the metrics.	5%	15%
3.6.10 Facsimile Broadcast Service	(Reported metrics include NSR Trends including cost estimates)		

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.7 Systems Management and Operations	<p>A. Contractor shall schedule and coordinate <b>Mission Support activities within 10 calendar days and Mission activities within 5 calendar days</b> in accordance with <b>NISN-SOP-0002, NASA Integrated Services Network (NISN) Standard Operating Procedure for Trouble Reporting, Activity Scheduling, Mission Freeze, and Major Outage Notifications and mission freeze policies.</b></p> <p>B. Contractor shall provide service restoration and meet impacts to service metrics as defined for NISN services in the NISN Services Document.</p> <p><b>(Reported metrics include: 1) MTTR (Mean Time to Restore); 2) VITS Conference Impacts; and 3) VoTS Conference Impacts</b></p> <p>C. Contractor shall provide an uninterrupted password-protected, on-line activities and outage notification system.</p> <p>D. Contractor shall provide uninterrupted on-line reporting of system metrics.</p> <p>E. Contractor shall provide password changes &lt;= 30 minutes of receipt of request.</p>	.5%	20%
3.7.1 Network Scheduling		.5%	20%
3.7.2 Network Monitoring			
3.7.3 Network Control and System Management			
3.7.4 Problem Management			
3.7.5 WAN Mission Operations			
3.7.6 Control Centers			
3.7.7 Documentation and Configuration Management			
		2%	20%
		2%	20%
		2%	20%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.10 Mission Engineering and Network Management 3.10.1 Network and Sustaining Engineering 3.10.2 Software Sustaining Engineering 3.10.3 Network Management and Operations 3.10.4 System Administration	A. Contractor shall schedule and coordinate activities within 10 calendar days and in accordance with mission freeze policies.	.5%	20%
	B. Contractor shall provide service restoration and meet impacts to service metrics as defined for NISN services in the NISN Services Document.  (Reported metrics include: 1) Mission Support Infrastructure Availability; and 2) Mission Services Availability	.5%	20%
	C. Contractor shall provide an uninterrupted password-protected, on-line activities and outage notification system.	2%	20%
	D. Contractor shall provide uninterrupted on-line reporting of system metrics.	2%	20%
	E. Contractor shall provide password changes <= 30 minutes of receipt of request.	2%	20%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.11 Local Area Network Engineering	A. Contractor shall schedule and coordinate activities within 10 calendar days and in accordance with mission freeze policies.	.5%	20%
	B. Contractor shall provide service restoration and meet impacts to service metrics as defined for GSFC LAN	.5%	20%
	C. Contractor shall provide an uninterrupted password-protected, on-line activities and outage notification system.	2%	20%
	D. Contractor shall provide uninterrupted on-line reporting of system metrics.	2%	20%
	E. Contractor shall provide password changes <= 30 minutes of receipt of request.	2%	20%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.12 Network Security	A. Contractor shall isolate IT security incidents and provide response within 2 hours and accurate reports within 4 hours of incident notification and in accordance with SOP guidelines.	1%	30%
	B. Contractor shall provide 100% (as measured monthly) service availability (with the exception of scheduled maintenance windows, outages beyond contractor control, e.g. force majeure, acts of terrorism, etc.)	1%	30%
	C. Contractor shall restore affected NSS services and update the NSS SOP for the affected system within 12 hours for systems located on the GFSC campus and within 24 hours for all others. Systems are defined as mission critical.	1%	20%
	D. Contractor shall track NSS systems trend analysis monthly and provide reports quarterly with recommendations as dictated by system performance.	1%	20%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.13 Business Studies	Contractor shall ensure that mutually agreed to schedules for deliverables are adhered to.	See Attachment J-4-(E)	100%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.14 Scientific and Engineering Workstation Procurement (SEWP) Program Support	Contractor shall ensure that mutually agreed to schedules for deliverables are adhered to.	See Attachment J-4-(E)	100%

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PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITEs		ATTACHMENT J-4-(H)	
SOW Section	Performance Standard	MADR	WEIGHT
3.15 NASA CIO Support	Contractor shall ensure that mutually agreed to schedules for deliverables are adhered to.	See Attachment J-4-(E)	100%

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**ATTACHMENT J-4-(I)**  
**Unified NASA Information Technology Services (UNITeS)**  
**Quarterly/Semi-Annual Performance Evaluation Summary**  
 ( )

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.1 Agency wide Applications Projects  A	Agencywide Applications Performance Metric See Attachment J-4-(A)	See Attachment J-4-(A)	
B	Table Releases Performance Metric See Attachment J-4-(B)	See Attachment J-4-(B)	
C	Technical Support Services Performance Metric See Attachment J-4-(C)	See Attachment J-4-(C)	
D	Quality of Customer Support Services See Attachment J-4-(D)	See Attachment J-4-(D)	
E	Timeliness of Performance See Attachment J-4-(E)	See Attachment J-4-(D)	

**ATTACHMENT J-4-(I)**  
**Unified NASA Information Technology Services (UNITeS)**  
**Quarterly/Semi-Annual Performance Evaluation Summary**  
 ( )

<b>Required Service</b>	<b>Performance Standard</b>	<b>MADR</b>	<b>Quarterly Evaluation Data</b>
3.2 Digital Television	Contractor shall ensure that mutually agreed to schedules for Digital Television deliverables are adhered to.	See Attachment J-4-(E)	

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**ATTACHMENT J-4-(I)**  
**Unified NASA Information Technology Services (UNITeS)**  
**Quarterly/Semi-Annual Performance Evaluation Summary**  
 ( )

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.3 IT Security 3.3.3 NASA Secure Sensitive but Unclassified Networks A	For Agency Firewall (FW) services, the Contractor shall provide 100% (as measured monthly) service availability for redundant FWs and 100% availability for non-redundant FWs (with the exception of scheduled maintenance windows, outages beyond contractor control, e.g. force majeure, acts of terrorism, etc.). The FW service shall be restored within 4 hours during normal business hours and restored within 6 hours after normal business hours. The Remedy TT system database shall be used as the record from which this metric is measured.  (The contractor must be provided adequate sparing)	0% (Redundant FWs)  3% (Non-redundant FWs)	
B	For redundant Agency FWs, the contractor shall restore the affected system within 28 hours (24 hours to ship, 4 hours to configure) during normal business week. For non-redundant Agency FWs, the contractor shall restore the affected system within 4 hours during normal business hours and within 6 hours for non-business hours.  (The contractor must be provided adequate sparing)	1%	
C	Contractor shall acknowledge FW rule modification to existing service change requests within 2 hours during regular business hours. The 2 hour response is measured from receipt of FW rule change request.	1%	



**ATTACHMENT J-4(I)**  
**Unified NASA Information Technology Services (UNITeS)**  
**Quarterly/Semi-Annual Performance Evaluation Summary**  
 ( )

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.3 IT Security 3.3.5 Secure Authentication Service A	Contractor shall provide response within 2 hours and accurate reports within 4 hours of notification for token administration based problems on the Remedy TT system and in accordance with SOP guidelines.	1%	
B	Contractor shall restore affected Secure Authentication services and update the IT Security Plan for the affected system within 12 hours for systems located on the MSFC campus.	1%	
C	Contractor shall complete move-add-change (MAC) requests as specified in mutually agreed upon schedules.	1%	

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<p><b>3.4 (Con't)</b></p> <p>E</p>	<p>Contractor shall ensure that TSO transactions occur <math>\leq</math> 1 second.</p>	<p>3%</p>	
<p>F</p>	<p>Contractor shall maintain uninterrupted midrange computer systems services (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majeure, acts of terrorism, etc.) including the requirement to maintain the functionality of the systems application regardless of total up-time</p>	<p>.2%</p>	
<p>G</p>	<p>Contractor shall provide return-to-service for mid-range computer systems within the following periods:  Category 1 <math>\leq</math> 2 hours of trouble ticket initiation (with the exception of a major database corruption and any hardware constraints)  All other systems- <math>\leq</math> COB the following business day after trouble ticket initiation  (See Priority matrix for specific application priority classification)</p>	<p>2%</p>	

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<b>3.4 (Con't)</b>  H	Contractor shall adhere to established schedules.	See Attachment J-4-(E)	
I	Contractor shall provide move-add-change (MAC) services within $\leq 2$ days of request or within established customer notification requirements.	2%	

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**ATTACHMENT J-4-(I)**  
**Unified NASA Information Technology Services (UNITEs)**  
**Quarterly/Semi-Annual Performance Evaluation Summary**

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.5 Russia Services  A	Mission WAN/Services shall have uninterrupted availability. (Mission WAN/Services shall have a MTTR of <= 2 hours) (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <21.5 minutes, or at > 21.5 but < 60 minutes = a 2:1 multiplier, or at >= 60 minutes = 4:1 multiplier) *	.02%	
B	Admin WAN/Services shall have uninterrupted availability. (Admin WAN/Services shall have a MTTR <= 4 hours) (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <60 minutes, or at > 60 but <120 minutes = a 2:1 multiplier, or at >= 120 minutes = 3:1 multiplier) *	.05%	

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<b>3.5 (Con't)</b>  C	For all LAN and End User support the contractor shall return to service due to discrepancies within the following periods: Category 1 <= 4 hours Category 2 = COB Moscow normal duty hours Category 3 = COB day following Moscow normal duty hours	2%	
D	Contractor shall adhere to established schedules for deliverables.	See Attachment J-4-(E)	
E	In the advent of an IT security incident, contractor shall restore affected services within the following periods: Disseminate vulnerability and incident information potentially impacting the Agency <= 1 hour Isolate the problem <= 2 hours Restore affected services <= 4 hours	0%	

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The prime contractor shall ensure application of these standards to the subcontract circuit provider.

**ATTACHMENT J-4-(I)**  
**Unified NASA Information Technology Services (UNITEs)**  
**Quarterly/Semi-Annual Performance Evaluation Summary**

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.6 WAN Services  A	Contractor shall complete move-add-change (MAC) requests for all services as specified in the NISN Services Document or as specified in mutually agreed upon schedules.  (Reported metrics include NSR Trends)	See Attachment J-4-(E)	
B	Contractor shall ensure that services are provided in accordance with performance specifications as documented in the NISN Services Document or in accordance with mutually agreed upon performance specifications.  (Reported metrics include: 1) Standard Routed Services Availability; 2) Premium Routed Services Availability; 3) Mission Operation Proficiency; 4) ViTS Availability; 5) VoTS Availability; 6) Mission Support Infrastructure Availability; and 7) Mission Services Availability	2%	
C	Contractor shall provide accurate detailed cost estimates for each NISN Service Request. Actual costs for each request shall be no greater than 10% of the original estimate regardless of number of requests. Actual costs for each request shall also be no greater than -10% of the original estimate. If variance is greater than -10%, but less than \$500.00, the variance will be considered within the acceptable range of the metrics.  (Reported metrics include NSR Trends including cost estimates)	5%	











**ATTACHMENT J-4-(I)**  
**Unified NASA Information Technology Services (UNITeS)**  
**Quarterly/Semi-Annual Performance Evaluation Summary**  
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
<b>3.14 Scientific and Engineering Workstation Procurement (SEWP) Program Support</b>	<b>Contractor shall ensure that mutually agreed to schedules for deliverables are adhered to.</b>	<b>See Attachment J-4-(E)</b>	

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ATTACHMENT J-14  
REQUIREMENTS LABOR RATES

**ATTACHMENT J-14 DELETED**