

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE 12	PAGE OF PAGES 1   3
2. AMENDMENT/MODIFICATION NO. 61		3. EFFECTIVE DATE November 16, 2005		4. REQUISITION/PURCHASE REQ. NO. N/A	
6. ISSUED BY Procurement Office George C. Marshall Space Flight Center National Aeronautics and Space Administration Marshall Space Flight Center, AL 35812		7. ADMINISTERED BY (If other than Item 6) Jeffrey S. Jackson (256) 544-8935 Phone (256) 544-3223 Fax		5. PROJECT NO. (If applicable) PS31-J	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code)  Science Applications International Corporation (SAIC) Company 6, Technology Services Company 10260 Campus Point Drive San Diego, CA 92121 c/o 6725 Odyssey Drive, Huntsville, AL 35806				<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
				<input type="checkbox"/>	9B. DATED (SEE ITEM 11)
				<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO. NNM04AA02C
				<input type="checkbox"/>	10B. DATED (SEE ITEM 13) 1/1/04
CODE	CAGE- 0T5L1	FACILITY CODE	SAP- 103429		

**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 ACKNOWLEDGMENT 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)  
N/A

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

<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input checked="" type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: <b>FAR 43.103(a) and Mutual Agreement</b>
<input type="checkbox"/>	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.)

	Negotiated <u>Estimated Cost</u>	Shared Savings <u>Fee</u>	Award Fee <u>Earned</u>	Potential Award Fee	Contract <u>Value</u>	Total Sum <u>Allotted</u>
Prev. Base Total	\$492,669,367	\$0	\$12,457,954	\$16,221,383	\$521,348,704	\$366,341,532
This Modification	\$0	\$0	\$0	\$0	\$0	\$0
Rev. Base Total	\$492,669,367	\$0	\$12,457,954	\$16,221,383	\$521,348,704	\$366,341,532

**SEE PAGE 2 FOR DESCRIPTION OF AMENDMENT/MODIFICATION**

15A. NAME AND TITLE OF SIGNER (Type or print) Julia A. Whitt, Contracts Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Jeffrey S. Jackson, Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED November 16, 2005	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED November 16, 2005
/s/ Julia A. Whitt <small>(Signature of person authorized to sign)</small>	BY	/s/ Jeffrey S. Jackson <small>(Signature of Contracting Officer)</small>	

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**  
(continued)

The purposes of this modification are to implement a name change from the Integrated Financial Management Program (IFMP) to the Integrated Enterprise Management Program (IEMP) throughout the contract and to delete the requirement for the resubmission of the Five Year Integrated Information Technology Plan. Because this plan has already been submitted for MSFC approval and support for further revisions will still be required, no consideration is warranted. Accordingly, NNM04AA02C is modified as follows:

- A. Attachment J-1, Performance Work Statement, is revised to officially recognize a change in name from the Integrated Financial Management Program (IFMP) to the Integrated Enterprise Management Program (IEMP) as reflected on various pages throughout the document.
- B. Attachment J-1, Performance Work Statement, page J-1-9, is revised to reflect SAIC support for further development of the Five Year Integrated Information Technology Plan, in lieu of the development and maintenance thereof. This change will require continued support for document revisions.
- C. Attachment J-2, Data Procurement Document, pages J-2-28 and J-2-33, are revised to reflect a change in name from the Integrated Financial Management Program (IFMP) to the Integrated Enterprise Management Program (IEMP).
- D. Attachment J-2, Data Procurement Document, page J-2-30, is revised to reflect the deletion of the Five Year Integrated Information Technology Plan as a contract deliverable. This plan has been submitted and is awaiting MSFC approval. This plan will be further revised by the Government with support provided by the contractor.
- E. Attachment J-13, Acronyms, page J-13-7, is revised to reflect a change in name from the Integrated Financial Management Program (IFMP) to the Integrated Enterprise Management Program (IEMP).
- F. 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.

Page(s) DeletedPage(s) Added

J-1-i	J-1-i
J-1-ii	J-1-ii
J-1-2	J-1-2
J-1-3	J-1-3
J-1-9	J-1-9
J-1-10	J-1-10
J-1-20	J-1-20
J-1-21	J-1-21
J-1-38	J-1-38
J-1-49	J-1-49
J-1-50	J-1-50
J-1-51	J-1-51
J-1-52	J-1-52
J-1-54	J-1-54
J-1-55	J-1-55
J-1-56	J-1-56
J-1-57	J-1-57
J-1-62	J-1-62
J-1-63	J-1-63
J-1-81	J-1-81
J-1-87	J-1-87
J-2-3	J-2-3
J-2-28	J-2-28
J-2-30	J-2-30
J-2-33	J-2-33
J-13-7	J-13-7

G. All other terms and conditions of NNM04AA02C remain unchanged.

1.	UNIFIED NASA INFORMATION TECHNOLOGY SERVICES (UNITES)	
	MISSION .....	1
1.1	MISSION STATEMENT .....	1
1.2	RESPONSIBILITIES .....	2
1.2.1	Agencywide Responsibilities .....	2
1.2.2	<b>IEMP</b> Integration Project Office (IPO) .....	3
1.2.3	Office of the Chief Information Officer (CIO) .....	3
1.2.4	Contractor .....	3
2.	PROGRAM MANAGEMENT .....	5
2.1	PROJECT MANAGEMENT .....	6
2.2	STRATEGIC PLANNING AND TECHNOLOGY EVALUATION .....	7
2.3	FINANCIAL MANAGEMENT .....	9
2.4	CONTRACT ADMINISTRATION .....	9
2.5	PROCUREMENT .....	10
2.6	ASSET MANAGEMENT .....	11
2.7	SECURITY .....	11
2.7.1	Telecommunications Security .....	11
2.7.2	IT Security Program .....	12
2.7.3	Continuity of Services and Operations .....	12
2.7.4	Emergency Response .....	13
2.7.5	Audit/Investigation Support .....	13
2.7.6	Export Control .....	13
2.7.7	System Administrator Certification .....	13
2.8	SAFETY .....	14
2.9	FACILITIES MANAGEMENT .....	14
2.10	QUALITY ASSURANCE .....	15
2.11	CUSTOMER RELATIONSHIP .....	15
2.11.1	<b>RESERVED</b> .....	16
2.11.2	<b>RESERVED</b> .....	16
2.11.3	Customer Satisfaction Survey .....	17
2.12	APPROACHES AND INNOVATIONS .....	17
3.	AGENCYWIDE INFORMATION SERVICES .....	19
3.1	AGENCYWIDE APPLICATION PROJECTS .....	19
3.1.1	Sustaining Engineering Support for Agencywide Administrative Systems (SESAAS) .....	20
3.1.2	Consolidated NPPS Operational Support .....	20
3.1.3	Site for On-line Learning and Resources (SOLAR) .....	21
3.1.4	Web Time and Attendance Distribution System (WebTADS) .....	21
3.1.5	NASA Acquisition Internet Services (NAIS) .....	21
3.1.6	Dryden Flight Research Center (DFRC) Applications Support .....	21
3.1.7	Exploration Systems Mission Directorate (ESMD) Support .....	21
3.2	DIGITAL TELEVISION (DTV) .....	22
3.3	IT SECURITY .....	22
3.3.1	Intrusion Detection/Incident Response .....	23
3.3.2	NASA National Security Systems .....	23
3.3.3	NASA Secure Sensitive but Unclassified Networks .....	23
3.3.4	IT Security Perimeter .....	24
3.3.5	Secure Authentication Service .....	24

3.4	<b>DATA CENTER SERVICES</b> .....	24
3.4.1	Consolidation and Centralization Services .....	25
3.4.2	Computer Systems Services .....	25
3.4.3	Network Services .....	26
3.4.4	Agencywide Midrange Services.....	26
3.5	<b>RUSSIA IT SERVICES</b> .....	27
3.5.1	Russian Wide Area Network (WAN).....	27
3.5.2	Russian Local Area Network (LAN) .....	28
3.5.3	Russian IT Security .....	28
3.5.4	Russian End User Support.....	29
3.6	<b>WIDE AREA NETWORK (WAN) SERVICES</b> .....	29
3.6.1	GSA Contract Integration.....	29
3.6.2	Switched Voice Services .....	30
3.6.3	Video Services.....	30
3.6.4	Voice Services.....	32
3.6.5	Data Services.....	33
3.6.6	International Services.....	35
3.6.7	Technical Services (Dedicated).....	35
3.6.8	Directory Services .....	35
3.6.9	IP Address Management .....	36
3.6.10	Facsimile Broadcast Service .....	36
3.6.11	Office Space .....	36
3.7	<b>SYSTEMS MANAGEMENT AND OPERATIONS</b> .....	36
3.7.1	Network Scheduling.....	36
3.7.2	Network Monitoring.....	37
3.7.3	Network Control and System Management .....	38
3.7.4	Problem Management .....	39
3.7.5	WAN Operations Support .....	40
3.7.6	Control Centers .....	40
3.7.7	Documentation and Configuration Management .....	40
3.7.8	Office Space .....	41
3.8	<b>CUSTOMER SUPPORT</b> .....	41
3.8.1	Customer Support Center.....	41
3.8.2	Service Requests .....	41
3.8.3	User Training.....	42
3.9	<b>INTEGRATED SERVICE DELIVERY SUPPORT</b> .....	42
3.9.1	Engineering .....	42
3.9.2	New Service Implementation .....	43
3.9.3	Configuration Management and Control.....	45
3.9.4	Maintenance .....	45
3.9.5	Collaboration.....	47
3.9.6	Disaster Recovery .....	47
4.	<b>IEIMP INTEGRATION SERVICES</b> .....	49
4.1	<b>INFRASTRUCTURE SUPPORT</b> .....	49
4.1.1	Business Architecture.....	49
4.1.2	Application Architecture .....	49
4.1.3	Technical Architecture .....	50
4.2	<b>MODULE PROJECT SUPPORT</b> .....	51

- 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

- 5) Evaluating impacts of service implementation to the current operational infrastructure, IT security, and existing operational processes.
- 6) Determining the feasibility of services within the community (DRD 974MA-007).
- 7) Determining standards for the implementation and feasibility of incorporating new services across the Agency and within MSFC.
- 8) Preparing business cases evaluating the feasibility of incorporating new services (DRD 974MA-007).
- 9) Participating in standards and forum boards to influence next generation standards and technology direction.
- 10) Developing and maintaining a website to serve as a technology repository.
- 11) Providing support for the development of the Five Year Integrated Information Technology Plan.

### **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:

- a. 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.

- b. 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).
- c. 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.
- d. 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.
- b. Provide, implement, and maintain procurement controls including: contractor policies and procedures governing standards of conduct,

### **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), NEMS Central Database system, NASA Property Disposal Management System (NPDMS), NASA Supply Management System (NSMS), and NASA Online Supply Catalog (NOSC).
- c. Human Resources – NASA Personnel/Payroll System (NPPS) and Consolidated Agencywide Personnel/Payroll System (CAPPS).
- d. Training –The contractor shall be responsible for the development and maintenance of the AdminSTAR system. The contractor shall also develop any Agencywide ad hoc queries using Brio. The contractor shall also be responsible for the software development and sustaining support for the NASA On-line Registration System (NORS), which interfaces to AdminSTAR.

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

### **3.1.2 Consolidated NPPS Operational Support**

The contractor shall provide production support and various system administration services for the Consolidated NPPS in support of the Consolidated Payroll Office located at MSFC. In providing this service, the contractor shall provide production support to process the bi-weekly payroll, generation of payroll reports, functional support for verification of payroll reports, generation of W-2 forms for the Agency, and development of special software routines for special reporting requirements. The following activities shall be provided:

- a. Manage all programs, files and databases to ensure security and integrity.
- b. Evaluate screens, reports, and other computer-generated output supporting production processes.
- c. Coordinate data entry and other input activities and perform other setups for computer production processing.
- d. Collect scheduled output products, arrange the products into assembled reports, and provide final products to distribution points.
- e. Schedule work requests and perform automated scheduling of applications for daily production processes.

- f. Collect user schedules, resolve schedule conflicts, prepare monthly projections of computer time requirements, and issue product schedules in response to customer inputs (DRD 974MA-006).
- g. Provide an interface among the user community, computer operations, and programmers for requirements satisfaction and problem resolution.
- h. Control access to computer programs, databases and libraries.

### **3.1.3 Site for On-line Learning and Resources (SOLAR)**

The contractor shall provide software development; sustaining support; system and database administration; production support; strategic planning for e-training, and course content development for the SOLAR system. Course content development shall meet Federal Accessibility Standards compliance as well as Sharable Content Object Reference Model (SCORM) compliance. Examples of course content are IT Security training, *IEMP* training, and Safety and Mission Assurance training.

### **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 Dryden Flight Research Center (DFRC) Applications Support**

The contractor shall provide sustaining and production support for the DFRC applications until transition to the *IEMP* suite of applications. This responsibility shall include the installation of the core Agencywide software systems and sustaining support of any site-unique changes to the core. The contractor shall provide support for the transition and for any interfaces required by those site-specific systems that will not be replaced by *IEMP*. The applications include:

- a. Dryden Accounting and Resource Tracking System (DARTS).
- b. Labor Distribution and Tracking (LABOR) System.
- c. Time and Attendance and Distribution System (TADS).
- d. Integrated Security Information System (ISIS).
- e. NSMS site unique.
- f. NEMS site unique.
- g. NPDMS site unique.
- h. AMS site unique.
- i. NPPS site unique.

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

The contractor shall provide software development and sustaining support as well as production support for the Integrated Collaborative Environment (ICE) including WindChill, ProjectLink, and PDMLink, Cradle, ARM, wInsight, CITRIX, and Primavera.

- 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:

#### **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 develop and maintain NPR 2810.1-compliant Security Plans for the underlying infrastructure components in accordance with DRD 974CD-001. 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.

#### **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). Finally, the contractor shall develop and maintain an NPR 2810.1-compliant Security Plan for each module in accordance with DRD 974CD-001.

#### **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

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).

#### **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 (DRD 974CD-001).
- 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.

executives, equal employment opportunity outreach, export control and safety information.

#### **5.1.4 Business Information Systems Solutions**

The contractor shall provide MSFC customers with process and integration improvements and automated solutions. The contractor shall provide integrated solutions suitable for MSFC projects, programs, directorates, and institutional business customers. The Business Information Integration solutions shall include, but not be limited to, the following: 1) Accounting Resources System (ARS); 2) Workforce Information Management System (WIMS); 3) Rosetta comprehensive crosswalk system; and 4) the Marshall Resources Planning Tool (MRPT). The contractor shall extract data from multiple data sources, including *IEM* modules, for integrated solution support with automated reports.

##### **5.1.4.1 Application Solutions Development**

The contractor shall provide integrated solutions suitable for all MSFC projects, programs, directorates, and MSFC institutional business customers. The solutions developed shall include, but are not limited to the following: 1) elevation of the Accounting Resources System (ARS) application to the level that will support Center requirements with new and enhanced reporting and graphics capabilities; 2) evaluation and development of the Rosetta concept for the deployment of financial WBS, and the program technical WBS database for the MSFC Business offices applications; and 3) provision of an overall guideline management and tracing capability. The contractor shall also provide administrative application support for CaER. The contractor shall report monthly the project status and import data from *IEMP* Business Warehouse applications such as RPS and ARS (974MA-012).

##### **5.1.4.2 Systems Support & Sustaining Engineering**

The contractor shall provide the overall management effort required for budget integration and the study of logical relationships among RPS, WIMS, MRPT, and *IEM* modules and others. The contractor shall also provide application mentoring and sustaining support for this effort. The contractor shall provide MSFC Center resource data to other systems such as the Earned Value Management System. The contractor shall provide reports relating to the importing of actuals from *IEMP* BW into applications such as RPS and ARS (974MA-006). The contractor shall develop an automated monthly Resource status smartbook and presentation structure. The contractor shall provide hands-on training, with resource material, for business information application users. Finally, the contractor shall provide overall change management for business solutions. The contractor shall report monthly the project status and import data from *IEMP* Business Warehouse applications such as RPS and ARS (974MA-012).

### **5.1.4.3 Configuration Control Support**

The contractor shall establish and facilitate the operation of a Level II Configuration Change Board, a Level III Document Control Board (DCB), and a software configuration control board for control of application solutions created for the Chief Financial Office (CFO). This effort shall include development of all appropriate board process documentation and secretariat duties as outlined in NWI 8040.2 and MPG 7120.3. The contractor shall report monthly the project status and import data from *IEMP* Business Warehouse applications such as RPS and ARS (974MA-012).

### **5.1.4.4 Maintenance Support**

The contractor shall provide daily support as required in support of, at a minimum, the following maintenance activities: 1). maintenance and enhancement of monthly planned versus actual and other status reporting applications such as ARS and RPS; and 2) maintenance and enhancement of the RPS application in support of planned vs. actual resource formulation reporting along with yearly POPs and Ops activities, Travel System maintenance, Guideline Tracer maintenance and enhancement. The contractor shall evaluate and maintain awareness of the upcoming *IEM* modules and other work activities pertaining to *IEMP*, particularly as it pertains to transitioning ARS and other MIS resources to the *IEMP* environment. The contractor shall ensure that RPS, ARS, Guideline Tracer, and other solutions are accessible by all supporting Centers, as applicable. The contractor shall report monthly the project status and import data from *IEMP* Business Warehouse applications such as RPS and ARS (974MA-012).

## **5.2 COMPUTER SYSTEMS SERVICES**

The contractor shall provide midrange computer systems services to support the application services described in Paragraph 5.1. Computer systems services encompass providing hardware, operating systems, other systems software, computer operations, hardware/software maintenance, technical assistance, and other requirements for applications execution. These services 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 in accordance with DRD 974MA-007.

### **5.2.1 Business, Engineering and Scientific Midrange**

The contractor shall provide computer systems services to support MSFC's administrative, business, engineering and scientific applications. These applications execute on midrange computers identified in Appendix A, Category I. 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.

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

SERVICE TYPE	SYSTEM NAME	CURRENT MODEL
Agencywide Services	<b>All Development Tools</b>	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
	IEMP	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 C  
APPROACHES AND INNOVATIONS (CON'T)**

(b)(4)



National Aeronautics and Space Administration			DATA PROCUREMENT DOC.		
<b>PAGE REVISION LOG</b>			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				

MSFC - Form 3461-2 (Rev August 1970)

## Attachment 1

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Maintenance Daily Log	3.9.4.b, 5.10.4.b	Maintain current	3	Online	Log of all maintenance and repair activities
Monthly Maintenance Reports	3.9.4.c, 5.10.4.c	Monthly	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)	Quarterly	3	Online	Trouble ticket score with supporting data [ref. Attachment J-4-(F)]
Help Desk Status Reports	5.9.1.f	Monthly	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.

(Mod. 61)

## Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
MSFC Information Systems architecture for computers, applications, and data administration	2.2.d	Maintain current	3	Online	
Agency Information Systems Architecture Documentation for networks	2.2.d	Maintain current	3	Online	
Information Resources Strategic/Implementation Plans	2.2.e	<b>DELETED</b>	1	Hardcopy	
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	As Required	3	Hardcopy	Trade studies, feasibility studies, trend analyses, business cases, hypothetical investigations, benchmarks, standards migration, pricing, etc.
Five Year Integrated Information Technology Plan	2.2.i(11)	<b>DELETED</b>	1	Hardcopy and online	
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, 5.10.2.1	Maintain current	3	Online	Design drawings, specifications, technical configurations, diagrams, architectures, processes etc.
Documentation Tree	2.4.d(5)	Maintain current	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, 5.10.6	Annually	1	Hardcopy	

## 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	Maintain current	1	Hardcopy and online	
Cable documentation	5.4.3.c, 5.4.3.h	Maintain current	3	Hardcopy	Interbuilding cable systems and documentation; cable distribution systems and documentation
As-implemented systems configuration information	5.10.3	Maintain current	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

ICE	Shuttle External Tank Ice Video
ID	Identification
IDEA	ISS Downlink Enhanced Architecture Project
IDGS	Interim Document Generation System
ID/IQ	Indefinite Delivery/Indefinite Quantity
IDNX	Integrated Digital Network Exchange
IDS	Incident Detection System
<i>IEM</i>	Integrated <i>Enterprise</i> Management
<i>IEMCC</i>	Integrated <i>Enterprise</i> Management ( <i>IEM</i> ) Competency Center
<i>IEMP</i>	Integrated <i>Enterprise</i> Management Program
IES	Integrated Engineering System
IF	Interface
IG	Inspector General
IGW	Interactive Graphics Workstation
IIS	Integrated Information Services
IIT	International Interagency Telecommunications
IKI	Space Research Institute, Russian Academy of Sciences
IMC	Image Motion Compensator
IMCC	Information Mission Control Center
IMPACS	Integrated Manufacturing Project Planning and Control System
IMS	Integrated Manufacturing System
INL	Integrated Network Laboratory
INRM	Intelligent Network Resource Manager
IOC	Initial Operating Capability
IP	Internet Protocol
IPNOC	Internet Protocol (IP) Network Operations Center
IPO	Integration Project Office
IPSC	Integration Project Steering Committee
IPT	Integrated Product Team
IPX	Internet Packet Exchange
IR&D	Independent Research and Development
IRIG	Interrange Instrumentation Group
IRM	Information Resource Management
IRS	Internal Revenue Service
IRSPC	Information Resource Strategic Planning Committee
ISD	Information Services Department
ISDN	Integrated Services Digital Network
ISIS	Integrated Security Information System
ISM	Infrastructure Systems Management
ISO	International Organization for Standardization
ISS	International Space Station
IT	Information Technology
ITAR	International Traffic in Arms Regulations