

Exhibit 300 (BY2010)

PART ONE	
OVERVIEW	
1. Date of Submission:	2008-09-08
2. Agency:	026
3. Bureau:	00
4. Name of this Capital Asset:	SOMD - Payload Operations and Integration Center (POIC)
5. Unique Project Identifier:	026-00-01-05-01-1001-00
6. What kind of investment will this be in FY2010?	
Operations and Maintenance	
7. What was the first budget year this investment was submitted to OMB?	
FY2001 or earlier	
8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap.	
<p>The POIC, located within the Huntsville Operations Support Center (HOSC) at Marshall Space Flight Center, is the primary single NASA ground system responsible for integrated operational payload flight control and planning for the International Space Station (ISS) program supporting the Science and Space Operations Mission Directorates. The POIC provides payload telemetry processing, command uplink, and planning capabilities for a large number of local Cadre flight controllers and remote ISS payload users and other facilities located throughout the world. The POIC integrates/controls ISS payload flight operations, simulation, and test preparation activities. ISS core systems and payload telemetry data is received, processed, stored, displayed, and distributed to local and remote payload users/controllers. The POIC provides the capability to receive commands from local and remote users, analyze the uplinks for authenticity/authorization, performs required hazardous command checks, transmits the commands to the ISS (via Mission Control Center-Houston (MCC-H)), and logs all command system activities for analysis/troubleshooting purposes. The POIC provides the capability to uplink/downlink files to/from the ISS and store/retrieve mission-related documents, procedures, and files. The POIC also provides the integration point for planning all ISS payload operations by: assessing/integrating user operational requirements, analyzing available on-orbit and ground resources, and generating detailed execution timelines scheduling the user operations in a safe and efficient manner. The POIC also provides a Backup Control Center for the MCC-H. The POIC is fully operational, and has been directing/supporting ISS payload mission operations continuously since March 2001. The POIC is engineered for high availability and security in order to accomplish the ISS research goals while protecting the on-orbit crew and vehicle systems. The POIC provides routinely scheduled sustaining engineering hardware upgrades and software deliveries to: incrementally improve the ISS research capabilities; maintain the IT security posture; maintain compatibility with COTS products incorporated into the system architecture; perform modifications to align with government EA guidelines and industry changes; ensure compatibility with external interfaces; reconcile identified system problems; improve service availability and customer satisfaction; and implement methods to reduce agency costs.</p>	
9. Did the Agency's Executive/Investment Committee approve this request?	
yes	
9.a. If "yes," what was the date of this approval?	
2008-06-19	
10. Did the Program/Project Manager review this Exhibit?	
yes	
11. Program/Project Manager Name:	
Debbie Bowerman	
Program/Project Manager Phone:	
(256) 544-5634	
Program/Project Manager Email:	
deborah.s.bowerman@nasa.gov	
11.a. What is the current FAC-P/PM certification level of the project/program manager?	

Senior/Expert/DAWIA-Level 3

11.b. When was the Program/Project Manager Assigned?

2005-11-01

11.c. What date did the Program/Project Manager receive the FACP/PM certification? If the certification has not been issued, what is the anticipated date for certification?

2008-08-08

12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project.

yes

12.a. Will this investment include electronic assets (including computers)?

yes

12.b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)

no

13. Does this investment directly support one of the PMA initiatives?

yes

If yes, select the initiatives that apply:

Competitive Sourcing

Financial Performance

13.a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?)

Cost, schedule, and performance metrics reported/reviewed monthly. Metrics integrated with overall Program earned value reporting. Routine analysis to determine task/responsibility between Government and contractors. Government-Owned/Contractor-Operated facility. Contract competitively competed as small business set aside. Semi-annual award fee/performance-based incentive fee.

14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)?

no

15. Is this investment for information technology?

yes

16. What is the level of the IT Project (per CIO Council's PM Guidance)?

Level 3

17. What project management qualifications does the Project Manager have? (per CIO Council's PM Guidance)

(1) Project manager has been validated as qualified for this investment

18. Is this investment identified as high risk on the Q4 - FY 2008 agency high risk report (per OMB memorandum M-05-23)?

no

19. Is this a financial management system?

no

19.a.2. If no, what does it address?

Provides ISS Payload Operations mission support: command processing, real-time telemetry processing for pre-launch integration/checkout, simulation, training and flight. Provides automated Payload Planning, scheduling, and integration. Also provides a Backup Control Center for the ISS Mission Control Center-Houston.

20. What is the percentage breakout for the total FY2010 funding request for the following? (This should total 100%)

Hardware	8
Software	8
Services	82
Other	2

21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB

Memorandum 05-04 and included in your agency inventory, schedules and priorities?

n/a

22. Contact information of individual responsible for privacy related questions.

Name

Bessie Whitaker

Phone Number

1-256-544-4812

Title

Privacy Act Manager

Email

bessie.h.whitaker@nasa.gov

23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?

yes

24. Does this investment directly support one of the GAO High Risk Areas?

no

SUMMARY OF SPEND

1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated Government FTE Cost, and should be excluded from the amounts shown for Planning, Full Acquisition, and Operation/Maintenance. The total estimated annual cost of the investment is the sum of costs for Planning, Full Acquisition, and Operation/Maintenance. For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

All amounts represent Budget Authority

(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)

	PY-1 & Earlier	PY	CY	BY
	-2007	2008	2009	2010
Planning Budgetary Resources	0	0	0	0
Acquisition Budgetary Resources	0	0	0	0
Maintenance Budgetary Resources	36.796	15.288	15.773	16.397
Government FTE Cost	5.375	1.572	1.627	1.552
# of FTEs	42	12	12	11

Note: For the cross-agency investments, this table should include all funding (both managing partner and partner agencies).

Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's?

no

3. If the summary of spending has changed from the FY2009 President's budget request, briefly explain those changes.

The Government FTEs and costs were changed to reflect Marshall Space Flight Center (MSFC) Technical Authority allocations to the International Space Station (ISS) Multi-User Systems Support (MUSS) budget.

PERFORMANCE

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided.

These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative measure.

Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding Measurement Area and Measurement Grouping identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov. The table can be extended to include performance measures for years beyond the next President's Budget.

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
1	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Automation	Provide improved system automation, monitoring, and control	EHS Server Build 11.1 and EPC Desktop Build 5.1 Releases.	Implement automation, consolidation and other improvements within POIC System Architecture.	Delivered, Tested, and Certified EHS Build 11.1 and EPC Desktop Build 5.1. Currently supporting ISS P/L Flight Operations. Improved efficiency by 36%; reduced ops monitoring by 33%; system availability near 100%.
2	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Customer Satisfaction	Improved Customer Satisfaction, Positive Customer Impacts & Improved Customer Training	Payload Planning System (PPS) Build 6.	Build, test, and certify PPS for clustering. Implement additional product service improvements requested by Cadre.	Delivered, Tested, and Certified PPS URC Build 6.2. Currently supporting ISS P/L Planning and Flight Operations. Improved customer efficiency by 50%; system availability near 100%.
3	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Accuracy of Service or Product Delivered	New user services & support capabilities	Payload Planning System (PPS) Build 7.	Implement Integrated Station LAN (ISL) upgrades to the DSRC application.	Delivered, Tested, and Certified PPS DSRC 7.0. Currently supporting ISS P/L Planning and Flight Operations. 100% compliance with new onboard architecture requirements.
4	2007	Goal 2: Complete the International	Technology	Technology Improvement	Innovation and Improvement	Payload Data Services	Implement new compression and restoration	Delivered, Tested, and Certified PDSS Build 4.3.1.

		Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.				System Build 4.3.1 Release.	features to prevent data loss.	Currently supporting ISS P/L Flight Operations. Reduced backup storage rqmts by 800%. Allows additional backup copy on low cost media for near zero data loss probability.
5	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Service Availability	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	Cumulative Scoring for Services: Telemetry (TLM) = 99.58% Command (CMD) = 99.98%, PIMS = 99.98%, Voice = 100.00%.
6	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Processes and Activities	Savings and Cost Avoidance	Cost Savings	POIC Baseline Operations and Maintenance Support	Perform Within Baseline Budget. Implement Potential Incremental improvements to save up to 5% additional cost.	Eliminated 4 hrs/wk preventive maintenance by implementing Dataguard. Backups automated and non-impacting to users. Server reductions result in \$65K cost avoidance for refresh.
7	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Scientific and Technological Research and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	Cumulative Scoring for Services: Telemetry (TLM) = 99.58% Command (CMD) = 99.98%, PIMS = 99.98%, Voice = 100.00%.
8	2007	Goal 2: Complete the International Space Station in a manner	Mission and Business Results	Space Exploration and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science	Provide Critical Services (Telemetry, Command, PIMS, Voice)	Meet or Exceed Critical Services Availability Requirements.	Cumulative Scoring for Services: Telemetry (TLM) = 99.58% Command (CMD)

		consistent with NASA's International Partner commitments and the needs of human Exploration.			Users Support LOB	Availability of at Least 98%		= 99.98%, PIMS = 99.98%, Voice = 100.00%.
9	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Accuracy of Service or Product Delivered	New User Services & Support Capabilities	POIC Baseline IT Systems	Operationally Deliver Incremental User and System S/W and H/W Sustaining System Upgrades to meet Requirements Specifications.	Delivered, Tested, and Certified EHS Build 11.3, EPC Build 5.3, PPS URC 6.3 and DSRC 7.2. Supporting ISS P/L Flight Operations. BCC ready for Operations pending open work closure 08-31-2008.
10	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	Technology Improvement	Innovation and Improvement	POIC Baseline IT Systems.	Implement to be identified high-priority engineering changes and problem report fixes supporting improved mission operations.	Converted Timing Distribution to IP. PDSS 4.5 converted S-band serial data to IP packets. Internet voice system technology refresh. Video system upgraded to digital. Doubled data migration thruput capacity to meet International Partner rqmts.
11	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Service Availability	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements	Cumulative Scoring (June 08) for Services: Telemetry (TLM) = 99.95% Command (CMD) = 99.89%, PIMS = 99.87%, Voice = 100.00%.
12	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's	Customer Results	Customer Satisfaction	Improved Customer Satisfaction, Positive Customer Impacts & Improved Customer	POIC Baseline IT Systems	Operationally Deliver Incremental User and System S/W and H/W Sustaining System	Improved Scripting reliability and simplified user interface. Added capacity to enhance end-to-end testing and Cadre

		International Partner commitments and the needs of human Exploration.			Training		Upgrades to meet Requirements Specifications.	simulation/training support.
13	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Processes and Activities	Savings and Cost Avoidance	Cost Savings	POIC Baseline Operations and Maintenance Support	Perform Within Baseline Budget. Implement Potential Incremental improvements to save up to 5% additional cost.	Modification of command headers avoids database rebuild of ~100 hours for each onboard ISS rack move. Payload Rack Checkout Unit utilizes existing remote operations capabilities to minimize cost to payload users.
14	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Scientific and Technological Research and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	Cumulative Scoring (June 08) for Services: Telemetry (TLM) = 99.95% Command (CMD) = 99.89%, PIMS = 99.87%, Voice = 100.00%.
15	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Exploration and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	Cumulative Scoring (June 08) for Services: Telemetry (TLM) = 99.95% Command (CMD) = 99.89%, PIMS = 99.87%, Voice = 100.00%.
16	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments	Technology	Overall Costs	Overall Cost Savings, Licensing Costs Reductions, Support Cost Reductions, Operations & Maintenance Cost Reductions, Training & User Cost Reductions	Baseline POIC Operations and Maintenance Support	Perform Within Baseline Budget. Implement Potential Incremental improvements to save up to 5% additional cost.	Procurement cost savings enabled implementation of capability to ingest and deliver payload data to International Partners during POIC power outage.

		and the needs of human Exploration.						
17	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Customer Satisfaction	Improved Customer Satisfaction, Positive Customer Impacts & Improved Customer Training	POIC Baseline IT Systems	Implement to be Identified High-Priority Engineering Changes and Problem Report Fixes.	TBD
18	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Accuracy of Service or Product Delivered	New User Services & Support Capabilities	POIC Baseline IT Systems	Operationally Deliver Incremental User and System S/W and H/W Sustaining System Upgrades to meet Requirements Specifications	TBD
19	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	User Requirements	Improved User Satisfaction, New User Services & Support Capabilities	POIC Baseline IT Systems	Operationally Deliver Incremental User and System S/W and H/W Sustaining System Upgrades to meet Requirements Specifications	TBD
20	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human	Customer Results	Service Availability	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	TBD

		Exploration.						
21	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Processes and Activities	Innovation and Improvement	Innovation and Improvement	POIC Baseline IT Systems	Implement to be identified high-priority engineering changes and problem report fixes supporting improved mission operations.	TBD
22	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Scientific and Technological Research and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	TBD
23	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Exploration and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	TBD
24	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Processes and Activities	Security	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	TBD
25	2010	Goal 2: Complete the	Customer Results	Customer Satisfaction	Improved Customer	POIC Baseline IT	Implement to be Identified	TBD

		International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.			Satisfaction, Positive Customer Impacts & Improved Customer Training	Systems	High-Priority Engineering Changes and Problem Report Fixes.	
26	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Accuracy of Service or Product Delivered	New User Services & Support Capabilities	POIC Baseline IT Systems	Operationally Deliver Incremental User and System S/W and H/W Sustaining System Upgrades to meet Requirements Specifications	TBD
27	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	User Requirements	Improved User Satisfaction, New User Services & Support Capabilities	POIC Baseline IT Systems	Operationally Deliver Incremental User and System S/W and H/W Sustaining System Upgrades to meet Requirements Specifications	TBD
28	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Service Availability	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements	TBD
29	2010	Goal 2: Complete the International Space Station in a	Processes and Activities	Innovation and Improvement	Innovation and Improvement	POIC Baseline IT Systems	Implement to be identified high-priority engineering changes and	TBD

		manner consistent with NASA's International Partner commitments and the needs of human Exploration.					problem report fixes supporting improved mission operations.	
30	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Scientific and Technological Research and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	TBD
31	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Exploration and Innovation	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	TBD
32	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Processes and Activities	Security	Provide Specified Critical Mission Services Availability for ISS Payloads/Science Users Support LOB	Provide Critical Services (Telemetry, Command, PIMS, Voice) Availability of at Least 98%	Meet or Exceed Critical Services Availability Requirements.	TBD

EA

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?

yes

2. Is this investment included in the agency's EA Transition Strategy?

yes

2.a. If yes, provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

ED - Payload Operations and Integration Center

3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture?

yes

3.a. If yes, provide the six digit code corresponding to the agency segment architecture. The segment architecture codes are maintained by the agency Chief Architect.

463-000

4. Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to <http://www.whitehouse.gov/omb/egov/>.

Component: Use existing SRM Components or identify as NEW. A NEW component is one not already identified as a service component in the FEA SRM.

Reused Name and UPI: A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

Internal or External Reuse?: Internal reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. External reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

Funding Percentage: Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the funding level transferred to another agency to pay for the service.

	Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
1	Payload Information Management System (PIMS)	Customized tracking and workflow control system provided in POIC Payload Information Management System (PIMS), for automation of real-time mission operational changes associated with procedures, flight documentation and real-time mission timelines.	Tracking and Workflow	Process Tracking			No Reuse	6
2	Near Real-time (NRT)/Storage Area Network (SAN)	Long-term and short-term storage and retrieval of mission telemetry data; in addition to operational mission data products.	Data Management	Data Warehouse			No Reuse	6
3	Enhanced HOSC PC (EPC) Desktop Services	POIC developed S/W providing access to mission unique telemetry,	Knowledge Management	Information Retrieval			No Reuse	17

		command, database and mission planning information.						
4	Enhanced HOSC System (EHS) Real Time Services	POIC developed S/W providing distributed multi-user access to mission unique telemetry, command, database and mission planning information.	Development and Integration	Data Integration			No Reuse	24
5	Payload Planning System (PPS)	POIC developed S/W providing Payload Planning, scheduling, and integration.	Knowledge Management	Information Retrieval			No Reuse	4
6	Telescience Resource Kit (TReK)	POIC developed S/W providing remote user access to mission unique telemetry, command, database and mission planning information.	Knowledge Management	Information Retrieval			Internal	0
7	Command/Telemetry Databases	POIC developed S/W used for the retrieval, calibration and modification of mission telemetry and command data information.	Data Management	Meta Data Management			No Reuse	8
8	Payload Data Services System (PDSS)	POIC developed S/W to receive, process, and distribute ISS payload telemetry data.	Data Management	Data Exchange			No Reuse	12
9	ISS Downlink Enhancement Architecture (IDEA)	High speed ground network and front end processor to distribute ISS data simultaneously to JSC and MSFC.	Data Management	Data Exchange			Internal	6
10	Internet Voice Distribution System (IVoDS)	POIC developed S/W providing remote users with secure voice capability over the Internet.	Communication	Voice Communications			Internal	5

5. To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component: Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA

SRM Components supported by multiple TRM Service Specifications.

Service Specification: In the Service Specification field, Agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

	SRM Component	Service Area	Service Category	Service Standard	Service Specification (i.e., vendor and product name)
1	Process Tracking	Service Access and Delivery	Access Channels	Web Browser	Microsoft Internet Explorer 6.0 sp1; Microsoft Internet Explorer 7
2	Data Warehouse	Service Platform and Infrastructure	Database / Storage	Storage	Storage Tek Silo; FalconStor Storage Area Network (FalconStor Ipstor Server Version 4.00 (build 883)
3	Data Warehouse	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Cisco Routers & Switches
4	Information Retrieval	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Cisco Routers & Switches
5	Information Retrieval	Service Platform and Infrastructure	Support Platforms	Dependent Platform	Microsoft, Windows XP Professional, SP 3
6	Information Retrieval	Service Platform and Infrastructure	Software Engineering	Software Configuration Management	Clearcase version 7; Source Safe
7	Information Retrieval	Service Platform and Infrastructure	Software Engineering	Integrated Development Environment	Java; C-Sharp, C++, Visual Basic, Pearl, FORTRAN, X-windows, .NET
8	Information Retrieval	Service Access and Delivery	Delivery Channels	Internet	Checkpoint Software - Checkpoint Firewall RGXR 60; HOSC Firewall: SecurePlatform NGX (R60) HFA 3, Hotfix 603, Build 015; UMS, TZDEV and IVoDS: SecurePlatform NGX (R60) Build HFA 4 Build 028
9	Process Tracking	Service Access and Delivery	Access Channels	Other Electronic Channels	Sun ® Sun Java Web Server 6.1-sp5; Oracle-Oracle RDBMS Flight 10.2.0.2; Sim 10.2.0.2
10	Information Retrieval	Service Platform and Infrastructure	Delivery Servers	Application Servers	Redhat, Inc - Linux OS 4.0; Redhat, Inc - Linux OS 5.0; Sun ® Sun Java Web Server 6.1-sp5
11	Data Integration	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Cisco Routers & Switches
12	Data Integration	Service Platform and Infrastructure	Software Engineering	Software Configuration Management	Clearcase version 7
13	Data Integration	Service Platform and Infrastructure	Delivery Servers	Application Servers	Redhat, Inc - Linux OS 4.0; Redhat, Inc - Linux OS 5.0; Sun ® Sun Java Web Server 6.1-sp5
14	Data Integration	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SuperMicro, Dell
15	Meta Data Management	Service Platform and Infrastructure	Database / Storage	Database	Oracle- Oracle RDBMS Flight 10.2.0.2; Sim 10.2.0.2; Oracle Forms; SQL
16	Meta Data Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SuperMicro, Dell

		Infrastructure			
17	Meta Data Management	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Cisco Routers & Switches
18	Meta Data Management	Service Platform and Infrastructure	Software Engineering	Software Configuration Management	Clearcase version 7
19	Process Tracking	Service Access and Delivery	Delivery Channels	Internet	Checkpoint Software - Checkpoint Firewall RGXR 60; HOSC Firewall: SecurePlatform NGX (R60) HFA 3, Hotfix 603, Build 015; UMS, TZDEV and IVoDS: SecurePlatform NGX (R60) Build HFA 4 Build 028; Sharepoint 2007
20	Data Exchange	Service Platform and Infrastructure	Database / Storage	Storage	Oracle- Oracle RDBMS Flight 10.2.0.2; Sim 10.2.0.2
21	Data Exchange	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SuperMicro, Dell
22	Data Exchange	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Cisco Routers & Switches
23	Data Exchange	Service Platform and Infrastructure	Software Engineering	Software Configuration Management	Clearcase version 7
24	Data Exchange	Service Platform and Infrastructure	Hardware / Infrastructure	Wide Area Network (WAN)	Cisco Routers & Switches
25	Data Exchange	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	RTLogic
26	Voice Communications	Service Platform and Infrastructure	Delivery Servers	Web Servers	Sun ® Sun Java Web Server 6.1-sp5
27	Voice Communications	Service Access and Delivery	Delivery Channels	Internet	Checkpoint Software - Checkpoint Firewall RGXR 60; HOSC Firewall: SecurePlatform NGX (R60) HFA 3, Hotfix 603, Build 015; UMS, TZDEV and IVoDS: SecurePlatform NGX (R60) Build HFA 4 Build 028
28	Process Tracking	Service Access and Delivery	Service Transport	Service Transport	Redhat Inc, Linux 4.0
29	Process Tracking	Service Platform and Infrastructure	Support Platforms	Independent Platform	Redhat, Inc - Linux OS 4.0; Redhat, Inc - Linux OS 5.0; Sun ® Sun Java Web Server 6.1-sp5
30	Data Integration	Service Platform and Infrastructure	Software Engineering	Integrated Development Environment	Java; C, C++, Pearl, Microsoft .net

6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?

no

PART THREE

RISK

You should perform a risk assessment during the early planning and initial concept phase of the investment's life-cycle, develop a risk-adjusted

life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

Answer the following questions to describe how you are managing investment risks.

1. Does the investment have a Risk Management Plan?

yes

1.a. If yes, what is the date of the plan?

2007-10-10

1.b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?

no

COST & SCHEDULE

1. Was operational analysis conducted?

yes

1.a. If yes, provide the date the analysis was completed.

2008-04-08

What were the results of your operational analysis?

The POIC supports Agency strategic Goal #2 by providing continuous ISS Payload Operations (commanding, real-time telemetry processing and storage, payload planning and scheduling) and serves as the Backup Control Center for JSC. The systems users are local and remote (other NASA centers, US universities & commercial facilities, and International Partners). Customers are contacted with surveys at the end of a flight increment and when problem reports are closed. Focus groups meet regularly, particularly during Certification of Flight Readiness activities. User requirements are assessed and implemented if within budget. The POIC systems are meeting the user needs based on survey results. Performance goals are meeting user expectations. A gap exists in implementing HSPD-12 for two-factor authentication, particularly for our remote and International Partners. A risk is being carried in the ISS Risk Management System; the ISS Program Manager has submitted a request for a waiver. Alternatives are being coordinated with JSC and will be proposed to the CIO. If the waiver is not granted, the systems will have to be redesigned to implement 2-factor authentication. Other gaps exist if all unfunded ISS upmass is used and the ISS life is extended to 2020. These are also in the ISS risk system as impacts to the budget. Opportunities exist for improving our efficiency by collaborating with our counterparts at JSC and KSC. New user services and support capabilities were delivered, tested and certified for flight operations on schedule and within budget. Critical services exceeded availability requirements last year and continue to do so this year. This year, improved system automation, monitoring and control were delivered, tested, certified and implemented for flight operations; payload planning for the new Integrated Station LAN was implemented; and new compression techniques were implemented to prevent data loss. All of these deliverables have exceeded user expectations. Near term plans include the implementation of HSPD-12, IPv6, new software releases, and virtual servers. The internet mission voice system and video distribution systems were replaced and implemented in FY08.