

Exhibit 300 FY2010

FAAXX711: Data Communications NextGen Support (DataComm)

Part I: Summary Information And Justification (All Capital Assets)

Description: In Part I, complete Sections A, B, C, and D for all capital assets (IT and non-IT). Complete Sections E and F for IT capital assets.

I.A. Overview (All Capital Assets)

Description: The following series of questions are to be completed for all investments.

I.A.1. Date of Submission:	2008-09-08
I.A.2. Agency:	021
I.A.3. Bureau:	12
I.A.4. Name of this Capital Asset: Description: (Up to 250 characters)	FAAXX711: Data Communications NextGen Support (DataComm)
I.A.5. Unique Project (Investment) Identifier: Description: For IT investment only, see section 53. For all other, use agency ID system.	021-12-01-12-01-1040-00
I.A.6. What kind of investment will this be in FY2010? Description: Please NOTE: Investments moving to O&M in FY2010, with Planning/Acquisition activities prior to FY2010 should not select O&M. These investments should indicate their current status.	Planning
I.A.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: Description: (Up to 2500 characters)	<p>Air traffic management in the National Airspace System (NAS) is dependent upon rapid reliable communications between air traffic controllers and pilots. The present voice-based air/ground infrastructure will not support the anticipated growth in air traffic. Since controllers currently communicate with pilots using voice, revisions to aircraft flightpaths are made through multiple instructions or lengthy verbal exchange. This process is workload intensive, often requires instructions to be repeated, and is prone to verbal communication errors. Increased controller workload and flight delays are the result, which impact the capacity of the NAS. Many of the transformational improvements associated with the Next Generation Air Transportation System (NextGen), including trajectory-based flight and net-centric operations, cannot be achieved using the present voice system. Data Communications will bridge this gap, and is an essential pre-requisite for NextGen, and to ensure the NAS has the capacity to grow. Data Communications will implement services that maximize controller productivity, reduce operational errors associated with voice communications, and reduce delays. Data Communications is comprised of automation enhancements for air traffic control message generation and exchange (hardware and software), and the communications data link between aircraft and ground users. Automation enhancements and link acquisition will begin in 2011, with initial operations in FY 2016, so initial benefits from Data Communications will be realized beginning 2018. A positive Initial Investment Decision transpired in July 2008. The program is projected to have a Final Investment Decision during the 4th quarter of 2011. The BY10 costs include planning costs, which are subject to change during the Final Investment Analysis phase. The Data Communications plan calls for incremental development and deployment, so the program anticipates planning activities and costs to change as subsequent program segments proceed through the investment analysis process. Since Data Communications is in the planning phase, cost, schedule, and performance data reflect the current program plan, which will continue to be refined as the planning is refined. Internal reprogramming funded early planning activities. Program funding began in FY08.</p>
I.A.9. Did the Agency's Executive/Investment Committee approve this request?	no
I.A.9.a. If "yes," what was the date of this approval?	
I.A.10. Did the Project Manager review this Exhibit?	yes
I.A.12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project?	no
I.A.12.a. Will this investment include electronic assets (including computers)?	yes
I.A.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
I.A.12.b.1. If "yes," is an ESPC or UESC being used to help fund this investment?	
I.A.12.b.2. If "yes," will this investment meet sustainable design principles?	
I.A.12.b.3. If "yes," is it designed to be 30% more energy efficient than relevant code?	
I.A.13. Does this investment directly support any of the PMA initiatives?	no
I.A.13.a. If "yes," select all that apply:	
I.A.13.b. Briefly and specifically describe for each selected how	

<p>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?)</p> <p>Description: (Up to 500 characters)</p>	
<p>I.A.14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)?</p> <p>Description: (For more information about the PART, visit www.whitehouse.gov/omb/part.)</p>	no
I.A.14.a. If "yes," does this investment address a weakness found during a PART review?	
I.A.14.b. If "yes," what is the name of the PARTed program?	
I.A.14.c. If "yes," what rating did the PART receive?	
I.A.15. Is this investment for information technology?	yes
<p>I.A.16 What is the level of the IT Project? (per CIO Council PM Guidance)</p> <p>Description: Level 1 - Projects with low-to-moderate complexity and risk. Example: Bureau-level project such as a stand-alone information system that has low- to-moderate complexity and risk.</p> <p>Level 2 - Projects with high complexity and/or risk which are critical to the mission of the organization. Examples: Projects that are part of a portfolio of projects/systems that impact each other and/or impact mission activities. Department-wide projects that impact cross-organizational missions, such as an agency-wide system integration that includes large scale Enterprise Resource Planning (e.g., the DoD Business Mgmt Modernization Program).</p> <p>Level 3 - Projects that have high complexity, and/or risk, and have government-wide impact. Examples: Government-wide initiative (E-GOV, President's Management Agenda). High interest projects with Congress, GAO, OMB, or the general public. Cross-cutting initiative (Homeland Security).</p>	Level 3
I.A.17. In addition to the answer in 1.A.11.d, what project management qualifications does the Project Manager have? (per CIO Council PM Guidance)	(1) Project manager has been validated as qualified for this investment
I.A.18. Is this investment or any project(s) within this investment identified as "high risk" on the Q4-FY 2008 agency high risk report? (per OMB Memorandum M-05-23)	no
I.A.19. Is this a financial management system?	no
I.A.19.a. If "yes," does this investment address a FFIA compliance area?	
I.A.19.a.1. If "yes," which compliance area:	
Description: (Up to 250 characters)	
I.A.19.a.2. If "no," what does it address?	
Description: (Up to 500 characters)	
I.A.19.b. If "yes," please identify the system name(s) and system acronym(s) as reported in the most recent financial systems inventory update required by Circular A-11 section 52	
Description: (Up to 2500 characters)	
I.A.20. What is the percentage breakout for the total FY2010 funding request for the following?	
Description: (This should total 100%)	
I.A.20.a. Hardware	0
I.A.20.b. Software	0
I.A.20.c. Services	100
I.A.20.d. Other	0
I.A.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
I.A.23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?	yes
I.A.24. Does this investment directly support one of the GAO High Risk Areas?	no
I.B. Summary of Spending (All Capital Assets)	
<p>I.B.1 Summary of Spending Table</p> <p>Description: 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,</p>	

decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

Note: For the multi-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.

I.B.1.a. Summary of Spending for Project Phases

	PY-1 and earlier	PY 2008	CY 2009	BY 2010
Planning	\$0.000	\$7.400	\$28.800	\$30.835
Acquisition	\$0.000	\$0.000	\$0.000	\$20.865
Subtotal Planning and Acquisition	\$0.000	\$7.400	\$28.800	\$51.700
Operations and Maintenance	\$0.000	\$0.000	\$0.000	\$0.000
TOTAL	\$0.000	\$7.400	\$28.800	\$51.700
Government FTE Costs	\$0.000	\$2.275	\$2.389	\$2.701

I.B.1.b. Summary of Spending for Project Phases (Government FTE Costs Only)

	PY-1 and earlier	PY 2008	CY 2009	BY 2010
Number of FTE represented by cost	0	13	14	14

I.B.2. Will this project require the agency to hire additional FTE's? **yes**

I.B.2.a. If "yes," How many and in what year?

Description: (Up to 500 characters)

The program will increase an additional FTE in FY11, then maintain 15 FTEs through the program lifecycle.

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

Description: (Up to 2500 characters)

FY08 is the first year as a Capital Investment Project and the second year of submitting an Exhibit 300. This is a planning Exhibit 300 since the program is in the early stages of Final Investment Analysis, so all estimates are subject to change. FY08 funding supported the planning and investment analysis activities required to reach an Initial Investment Decision such as benefits modeling, business case development, and alternative analysis resulting in the identification of the preferred alternative. FY09 funding will support the completion of activities required to reach a Final Investment Decision (FID), the planning activities to implement basic data services in Segment One and trajectory-based flight in Segment Two, and acquisition documentation for contract award(s). FY09 and FY10 consists of planning, avionics development and validation, demos and prototyping, and early En-Route engineering. Further planning activities include the refinement of estimates to establish a final baseline at the FY11 JRC FID, and to support Segment Two planning activities. Funding levels identified in the Summary of Spending (SOS) Table for FY10 and beyond, as well as the total lifecycle costs for the Data Communications Program, reflect the cost estimates developed during Initial Investment Analysis phase (IIA) and updates thereafter. The SOS estimates are consistent with the current CIP. Section II.C.4 reflects more recent longer term estimates and an adjustment to provide consistency with the SOS. All cost estimates are subject to change. In accordance with FAA's Acquisition Management System process, the costs were refined for the Initial Investment Decision (IID), and will be further refined and baselined at the FY11 FID. FY12 has initial Operations costs associated with Security Certification and Authorization Package (SCAP) activities in the Towers and the Air-Ground Communications Network.

I.D. Performance Information (All Capital Assets)

I.D.1. Performance Information Table

Description: 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(s) Supported	Measurement Area	Measurement Grouping	Measurement Indicator
2008	Reduced Congestion	Customer Results	Service Efficiency	Projected Indicator Metric: Percent of flight delays due to air traffic management
2008	Safety	Customer Results	Accuracy of Service or Product Delivered	Projected Indicator Metric: Operational errors due to miscommunications

2008	Reduced Congestion	Mission and Business Results	Air Transportation	Projected Indicator Metric: National Airspace System Air Traffic Capacity
2008	Organizational Excellence	Processes and Activities	Financial Management	Projected Indicator Metric: Air Traffic Operation Unit Costs
2008	Reduced Congestion	Processes and Activities	Efficiency	Projected Indicator Metric: Air traffic operations per employee
2008	Reduced Congestion	Processes and Activities	Productivity	Projected Indicator Metric: Number of aircraft per air traffic controller
2008	Safety	Technology	Interoperability	Projected Indicator Metric: Cockpit Situational Awareness of airspace and facility status
2008	Reduced Congestion	Technology	Load levels	Projected Indicator Metric: Air traffic delays associated with airspace congestion, availability or air traffic management
2008	Global Connectivity	Technology	Availability	Projected Indicator Metric: Percent of Data-equipped aircraft that can be supported by the National Airspace System
2009	Reduced Congestion	Customer Results	Service Efficiency	Projected Indicator Metric: Percent of flight delays due to air traffic management
2009	Safety	Customer Results	Accuracy of Service or Product Delivered	Projected Indicator Metric: Operational errors due to miscommunications
2009	Reduced Congestion	Mission and Business Results	Air Transportation	Projected Indicator Metric: National Airspace System Air Traffic Capacity
2009	Organizational Excellence	Processes and Activities	Financial Management	Projected Indicator Metric: Air Traffic Operation Unit Costs
2009	Reduced Congestion	Processes and Activities	Efficiency	Projected Indicator Metric: Air traffic operations per employee
2009	Reduced Congestion	Processes and Activities	Productivity	Projected Indicator Metric: Number of aircraft per air traffic controller
2009	Safety	Technology	Interoperability	Projected Indicator Metric: Cockpit Situational Awareness of airspace and facility status
2009	Reduced Congestion	Technology	Load levels	Projected Indicator Metric: Air traffic delays associated with airspace congestion, availability or air traffic management
2009	Global Connectivity	Technology	Availability	Projected Indicator Metric: Percent of Data-equipped aircraft that can be supported by the National Airspace System
2010	Reduced Congestion	Customer Results	Service Efficiency	Projected Indicator Metric: Percent of flight delays due to air traffic management
2010	Safety	Customer Results	Accuracy of Service or Product Delivered	Projected Indicator Metric: Operational errors due to miscommunications
2010	Reduced Congestion	Mission and Business Results	Air Transportation	Projected Indicator Metric: National Airspace System Air Traffic Capacity
2010	Organizational Excellence	Processes and Activities	Financial Management	Projected Indicator Metric: Air Traffic Operation Unit Costs
2010	Reduced Congestion	Processes and Activities	Efficiency	Projected Indicator Metric: Air traffic operations per employee
2010	Reduced Congestion	Processes and Activities	Productivity	Projected Indicator Metric: Number of aircraft per air traffic controller
2010	Safety	Technology	Interoperability	Projected Indicator Metric: Cockpit Situational Awareness of airspace and facility status
2010	Reduced Congestion	Technology	Load levels	Projected Indicator Metric: Air traffic delays associated with airspace congestion, availability or air traffic management
2010	Global Connectivity	Technology	Availability	Projected Indicator Metric: Percent of Data-equipped aircraft that can be supported by the National Airspace System

I.F. Enterprise Architecture (EA) (IT Capital Assets only)

Description: In order to successfully address this area of the capital asset plan and business case, the investment must be included in the agency's EA and Capital Planning and Investment Control (CPIC) process and mapped to and supporting the FEA. The business case must demonstrate the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

I.F.1. Is this investment included in your agency's target enterprise architecture?	yes
I.F.1.a. If "no," please explain why? Description: (Up to 2500 characters)	
I.F.2. Is this investment included in the agency's EA Transition Strategy?	yes
I.F.2.a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment. Description: (Up to 500 characters)	Data Communication architecture as described in the NAS EA AV-1 product set
I.F.2.b. If "no," please explain why? Description: (Up to 2500 characters)	
I.F.3. Is this investment identified in a completed and approved segment architecture?	yes
I.F.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. For detailed guidance regarding segment architecture codes, please refer to http://www.egov.gov . Description: (In the format "XXX-000")	102-000

I.F.4. Service Component Reference Model (SRM) Table

Description: 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.egov.gov>.

- Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.
- 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' 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.
- Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the percentage of the BY requested funding amount transferred to another agency to pay for the service. The percentages in this column can, but are not required to, add up to 100%.

Agency Component Name	Agency Component Description	FEA SRM Service Type	FEA SRM Component (a)	Service Component Reused - Component Name (b)
ATC Separation Assurance	The separation assurance service ensures that aircraft maintain a safe distance from other aircraft, terrain, obstacles, and certain airspace not designated for routine air travel. Separation assurance involves the application of separation standards to ensure safety. Standards are defined for aircraft operating in different environments.	Data Management	Data Exchange	
ATC-Advisory	Air traffic control and other facilities provide advice and information to assist pilots in the safe conduct of flight and aircraft movement. These advisories include providing weather information, traffic, and NAS status information to pilots, flight planners, and the general public. These advisories and information are either directed to a specific location or broadcast to any user in the area.	Data Management	Data Exchange	
TM Synchronization	Traffic synchronization supports expeditious flight for the large number of aircraft using the NAS during any given period of time. NAS processes operate to	Routing and Scheduling	Inbound Correspondence Management	

	maximize efficiency and capacity in response to weather, NAS infrastructure, runway availability or other conditions. Traffic synchronization is the tactical portion of traffic management providing sequencing, spacing, and routing of aircraft.			
TM Synchronization	Traffic synchronization supports expeditious flight for the large number of aircraft using the NAS during any given period of time. NAS processes operate to maximize efficiency and capacity in response to weather, NAS infrastructure, runway availability or other conditions. Traffic synchronization is the tactical portion of traffic management providing sequencing, spacing, and routing of aircraft.	Routing and Scheduling	Outbound Correspondence Management	
ATC Separation Assurance	The separation assurance service ensures that aircraft maintain a safe distance from other aircraft, terrain, obstacles, and certain airspace not designated for routine air travel. Separation assurance involves the application of separation standards to ensure safety. Standards are defined for aircraft operating in different environments.	Systems Management	Remote Systems Control	

I.F.5. Technical Reference Model (TRM) Table

Description: 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.

- a. 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.
b. 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.

FEA SRM Component (a)	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (b) (i.e., vendor and product name)
Data Exchange	Component Framework	Data Interchange	Data Exchange	TBD
Remote Systems Control	Component Framework	Data Interchange	Data Exchange	TBD
Inbound Correspondence Management	Component Framework	Data Interchange	Data Exchange	TBD
Outbound Correspondence Management	Component Framework	Data Interchange	Data Exchange	TBD
Data Exchange	Service Access and Delivery	Access Channels	Other Electronic Channels	TBD
Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	TBD
Inbound Correspondence Management	Service Access and Delivery	Access Channels	Other Electronic Channels	TBD
Outbound Correspondence Management	Service Access and Delivery	Access Channels	Other Electronic Channels	TBD
Data Exchange	Service Access and Delivery	Service Transport	Service Transport	TBD
Remote Systems Control	Service Access and Delivery	Service Transport	Service Transport	TBD
Inbound Correspondence Management	Service Access and Delivery	Service Transport	Service Transport	TBD
Outbound Correspondence Management	Service Access and Delivery	Service Transport	Service Transport	TBD

I.F.6. Will the application leverage existing components and/or applications across the Government (e.g. USA.gov, Pay.gov, etc.)? no

I.F.6.a. If "yes," please describe.
Description: (Up to 2500 characters)

Part IV: Planning for "Multi-Agency Collaboration" ONLY

Description: Part IV should be completed only for investments identified as an E-Gov initiative, a Line of Business (LOB) Initiative, or a Multi-Agency Collaboration effort. The "Multi-Agency Collaboration" choice should be selected in response to Question 6 in Part I, Section A above. Investments identified as "Multi-Agency Collaboration" will complete only Parts I and IV of the exhibit 300.

IV.A. Multi-Agency Collaboration Oversight (All Capital Assets)

Description: Multi-agency Collaborations, such as E-Gov and LOB initiatives, should develop a joint exhibit 300.

IV.A.1. Stakeholder Table

Description: As a joint exhibit 300, please identify all the agency stakeholders (all participating agencies, this should not be limited to agencies with financial commitment). All agency stakeholders should be listed regardless of approval. If the partner agency has approved this joint exhibit 300 please provide the date of approval.

IV.A.9. Will the selected alternative replace a legacy system in-part or in-whole?

IV.A.9.a. If "yes," are the migration costs associated with the migration to the selected alternative included in this investment, the legacy investment, or in a separate migration investment?

IV.A.9.b. If "yes," please provide the following information: