

Exhibit 300 FY2010

FAAXX713: NAS Voice Switch (NVS)

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.

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| I.A.1. Date of Submission: | 2008-07-31 |
| I.A.2. Agency: | 021 |
| I.A.3. Bureau: | 12 |
| I.A.4. Name of this Capital Asset: Description: (Up to 250 characters) | FAAXX713: NAS Voice Switch (NVS) |
| I.A.5. Unique Project (Investment) Identifier: Description: For IT investment only, see section 53. For all other, use agency ID system. | 021-12-01-14-01-4210-00 |
| 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>Future air traffic operations as envisioned by the Next Generation (NextGen) Air Transportation System will require a new flexible networkable voice communications system with flexible networking capabilities. NVS is the key voice communication component for the NextGen System. The NAS Voice Switch (NVS) is a key enabling program for NextGen. The FAA conducted a study of voice switching which concluded the current switch bases are old with looming supportable problems. Seventeen different switches are used in the National Airspace System and many are already experiencing severe obsolescence issues. Technical refresh can sustain the Enroute VSCS for the near term but a new switch program should be started soon. A new small switch program for TRACON and Tower applications should be started immediately. The NextGen minimum for operating in controlled airspace is a voice capability which supplements data communications for tactical situations and emergencies. One of the key transformations is that air-ground voice communication is no longer limited by geographical facility boundaries. This allows greater flexibility for developing and using airspace/traffic assignments in all airspace. NextGen voice communication paths will be controlled by an intelligent network. Current voice switches are not network enabled and cannot be modified for installation in new facilities resulting from NextGen. The NVS is currently in a planning phase. An FAA Executive Council (EC), sub-board to the Joint Resource Council (JRC); Investment Analysis Readiness Decision took place in September 2007. The JRC Final Investment (baseline) Decision is planned for FY2011. The planning phase is the core of the capital programming process; this Exhibit 300 comprises a plan to execute the process properly; hence, cost, schedule, and performance data contained within is related specifically to planning phase activities.</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 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?) Description: (Up to 500 characters) | |

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| I.A.14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? Description: (For more information about the PART, visit www.whitehouse.gov/omb/part .) | 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 |
| I.A.16 What is the level of the IT Project? (per CIO Council PM Guidance) 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. 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). 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). | 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) | yes |
| I.A.19. Is this a financial management system? | no |
| I.A.19.a. If "yes," does this investment address a FFMA 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 | 10 |
| I.A.20.b. Software | 10 |
| I.A.20.c. Services | 80 |
| 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? | no |
| I.A.23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval? | no |
| I.A.24. Does this investment directly support one of the GAO High Risk Areas? | no |

I.B. Summary of Spending (All Capital Assets)

I.B.1 Summary of Spending Table

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, 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 | \$0.500 | \$3.000 | \$8.000 | \$10.000 |
| Acquisition | \$0.000 | \$0.000 | \$2.000 | \$16.500 |
| Subtotal Planning and Acquisition | \$0.500 | \$3.000 | \$10.000 | \$26.500 |
| Operations and Maintenance | \$0.000 | \$0.000 | \$0.000 | \$0.000 |
| TOTAL | \$0.500 | \$3.000 | \$10.000 | \$26.500 |
| Government FTE Costs | \$0.545 | \$0.842 | \$0.917 | \$1.080 |

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 | 4 | 6 | 7 | 8 |

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) NVS is in the planning phase and the number of Government FTE's that may need to be hired has yet to be determined. Upon a determination of whether to hire more Government FTE's or contract employees this exhibit will be updated.

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)

The NVS is still in the Planning Phase. The ROM costs in Table 1 are from the Capital Investment Planning document. The funds are budgeted and subject to approval and refinement by the JRC. These SOS and Section II.C costs will be updated and refined in future Exhibits 300 as a result of the ongoing planning phase analyses required for the JRC final baseline decision in fiscal year 2011. The ROMs above include planning and acquisition cost estimates ending in 2014 as this is the expected length of the first segment to be approved by the JRC. Out-year DME costs, past year 2014 that were in the BY09 Ex 300 have been removed to be consistent with the existing CIP. O&M activities and costs are not expected to begin until FY2015 and are therefore not included in the SOS table. The entire life cycle costs, including O&M costs, will be determined during the investment analysis process and will be included in the Exhibit 300 that will be part of the JRC final baseline decision documentation. **Note: The cost figures shown in the Summary of Spending Table are budgetary estimates pulled directly from the FAA CIP documentation. These values are subject to change upon a JRC decision.

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 |
|-------------|-----------------------------|------------------------------|----------------------|---|
| 2010 | Mobility | Processes and Activities | Efficiency | Number of unique baselines configurations to be maintained |
| 2010 | Mobility | Processes and Activities | Timeliness | Time to reconfigure voice communications for unexpected condition |
| 2010 | Mobility | Technology | Availability | Number of component failures per year |
| 2007 | Mobility | Processes and Activities | Productivity | Number of unique configurations to be maintained? |
| 2007 | Mobility | Mission and Business Results | Air Transportation | Number of flight delays per year during service interruptions |
| 2007 | Mobility | Mission and Business Results | Air Transportation | Annual Voice Switch |

| | | | | |
|------|----------|------------------------------|----------------------|---|
| | | | | Operations and Maintenance Costs |
| 2007 | Mobility | Processes and Activities | Timeliness | Time needed to reconfigure voice communications for unexpected conditions |
| 2007 | Mobility | Customer Results | Service Efficiency | Voice Switch related delay and disruption costs in non-ideal conditions |
| 2007 | Mobility | Customer Results | Service Availability | Annual Voice Switch availability at NVS sites |
| 2007 | Mobility | Technology | Functionality | Number of network capable switches fielded |
| 2007 | Mobility | Technology | Reliability | Number of component failures per year |
| 2008 | Mobility | Mission and Business Results | Air Transportation | Number of flight delays per year during service interruptions |
| 2008 | Mobility | Mission and Business Results | Air Transportation | Annual Voice Switch Operations and Maintenance Costs |
| 2008 | Mobility | Customer Results | Service Efficiency | Voice Switch related delay and disruption costs in non-ideal conditions |
| 2008 | Mobility | Customer Results | Service Availability | Annual Voice Switch availability at NVS sites |
| 2008 | Mobility | Processes and Activities | Timeliness | Time needed to reconfigure voice communications for unexpected conditions |
| 2008 | Mobility | Processes and Activities | Efficiency | Number of unique configurations to be maintained |
| 2008 | Mobility | Technology | Functionality | Number of network capable switches fielded |
| 2008 | Mobility | Technology | Availability | Number of component failures per year |
| 2009 | Mobility | Mission and Business Results | Air Transportation | Number of flight delays per year during service interruptions |
| 2009 | Mobility | Mission and Business Results | Air Transportation | Annual Voice Switch Operations and Maintenance Costs |
| 2009 | Mobility | Customer Results | Service Efficiency | Voice Switch related delay and disruption costs in non-ideal conditions |
| 2009 | Mobility | Customer Results | Service Availability | Annual Voice Switch availability at NVS sites |
| 2009 | Mobility | Processes and Activities | Timeliness | Time needed to reconfigure voice communications for unexpected conditions |
| 2009 | Mobility | Processes and Activities | Productivity | Number of unique configurations to be maintained |
| 2009 | Mobility | Technology | Functionality | Number of network capable switches fielded |
| 2009 | Mobility | Technology | Reliability | Number of component failures per year |
| 2010 | Mobility | Mission and Business Results | Air Transportation | Number of flight delays per year during service interruptions |
| 2010 | Mobility | Mission and Business Results | Air Transportation | Annual Voice Switch Operations and Maintenance Costs |
| 2010 | Mobility | Customer Results | Service Efficiency | Voice Switch related delay and disruption costs in non-ideal conditions |
| 2010 | Mobility | Customer Results | Service Availability | Annual Voice Switch availability at NVS sites |
| 2010 | Mobility | Technology | Functionality | Number of network capable switches fielded |

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

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|--|--------------------------|
| 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) | NVS is a part of NextGen |
| 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>.

- a. Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.
- b. 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.
- c. '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.
- d. 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) |
|--|---|----------------------|----------------------------------|---|
| Aircraft to Aircraft Separation Capability | Aircraft are separated from other known aircraft in the terminal, en route, and oceanic environments. Separation assurance involves the application of separation standards to ensure aircraft remain an appropriate minimum distance or altitude from other known aircraft. Standards are defined for aircraft based on aircraft type, size, equipment, and for operating in different environments. NAS: ATC Separation Assurance | Communication | Audio Conferencing | |
| Traffic Advisory | Traffic advisories are provided to alert aircraft to potential conflicts with others, on the surface or in-flight. For example, traffic advisories are provided to aircraft or other flight objects that are in the proximity of hot air/gas balloons, missile launches, or other potential hazards. Traffic advisories for aircraft on the surface include the number, type, position, and intent of the ground traffic. NAS: ATC Advisory | Communication | Audio Conferencing | |
| Aircraft to Aircraft Separation Capability | Aircraft are separated from other known aircraft in the terminal, en route, and oceanic environments. Separation assurance involves the application of separation standards to ensure aircraft remain an appropriate minimum distance or altitude from other known aircraft. Standards are defined for aircraft based on aircraft type, size, equipment, and for operating in different | Communication | Computer / Telephony Integration | |

| | | | | |
|--|---|---------------|----------------------------------|--|
| | environments. NAS: ATC Separation Assurance | | | |
| Traffic Advisory | Traffic advisories are provided to alert aircraft to potential conflicts with others, on the surface or in-flight. For example, traffic advisories are provided to aircraft or other flight objects that are in the proximity of hot air/gas balloons, missile launches, or other potential hazards. Traffic advisories for aircraft on the surface include the number, type, position, and intent of the ground traffic. NAS: ATC Advisory | Communication | Computer / Telephony Integration | |
| Aircraft to Aircraft Separation Capability | Route, and oceanic environments. Separation assurance involves the application of separation standards to ensure aircraft remain an appropriate minimum distance or altitude from other known aircraft. Standards are defined for aircraft based on aircraft type, size, equipment, and for operating in different environments. NAS: ATC Separation Assurance | Communication | Voice Communications | |
| Traffic Advisory | Conflicts with others, on the surface or in-flight. For example, traffic advisories are provided to aircraft or other flight objects that are in the proximity of hot air/gas balloons, missile launches, or other potential hazards. Traffic advisories for aircraft on the surface include the number, type, position, and intent of the ground traffic. NAS: ATC Advisory | Communication | Voice Communications | |

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) |
|----------------------------------|-------------------------------------|---------------------------|---------------------------------|---|
| Voice Communications | Service Access and Delivery | Access Channels | Collaboration / Communications | TBD |
| Computer / Telephony Integration | Service Access and Delivery | Access Channels | Collaboration / Communications | TBD |
| Audio Conferencing | Service Access and Delivery | Access Channels | Other Electronic Channels | TBD |
| Audio Conferencing | Service Access and Delivery | Delivery Channels | Intranet | TBD |
| Audio Conferencing | Service Interface and Integration | Interface | Service Description / Interface | TBD |
| Audio Conferencing | Service Platform and Infrastructure | Delivery Servers | Application Servers | TBD |
| Audio Conferencing | Service Platform and Infrastructure | Hardware / Infrastructure | Local Area Network (LAN) | 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: