# Managed Information Technology Infrastructure

Exhibit 300: Capital Asset Plan and Business Case Summary Part I: Summary Information And Justification

#### **Section A: Overview**

1. Date of submission: Apr 2, 2009

Agency: **452** Bureau: **00**

- 4. Name of this Capital Asset: Managed Information Technology Infrastructure
- 5. Unique Project (Investment) Identifier: 452-00-02-00-01-1001-00
- 6. What kind of investment will this be in FY2010? Mixed Life Cycle
- 7. What was the first budget year this investment was submitted to OMB? FY2002
- 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: The Smithsonian operates most of its information technology (IT) infrastructure on a centralized basis while many end user support functions and application server operations are performed by its units. The central IT service organization provides wide-area network, local area network, email, and telephone services; data center operations; connectivity to the Internet, Internet II, and Intranet; web hosting services for most of the Institutions public websites; and help desk and desktop services for selected units and applications. The Smithsonian plans to continue to standardize, modernize and adequately secure its IT infrastructure including upgrading or replacing on an industry best-practice replacement cycle. The IT Infrastructure investment supports two Smithsonian strategic goals enhanced management excellence and increased public engagement; and two performance objectives contained in the Smithsonian Performance Plan. The performance objectives are to modernize the Institutions IT systems and infrastructure, and to expand a national outreach effort to share the Smithsonians resources with larger and more diverse audiences throughout America. The Smithsonian network (SInet) is a comprehensive, end-to-end data transmission facility linking file and print, e-mail, and application servers, shared printers, and workstations (desktop, scientific, and graphics) in more than 400 buildings at 43 locations in 5 states, the District of Columbia and the country of US, plus Panama serving a total of more than 7,000 internal users. In FY 2008, the Smithsonian is requesting an increase to fund: (1) increases in hardware and software license maintenance; (2) replace network switches and routers on a 5-year replacement cycle; (3) provide network services on weekends and holidays until 11:00 PM; and (4) pay for increased leased line costs associated with expanding SI net to additional Smithsonian locations. Also in FY 2008, the Smithsonian requests an increase to establish a robust enterprise storage capability for its collections systems by implementing a digital collection storage repository and an automated tape backup system, and hiring a storage manager. The alternative is the traditional approach of individual units buying stand-alone dedicated storage as needed, but this is impractical since it would lead to duplicate and incompatible IT solutions

### resulting in higher overall costs and maintenance to the Institution.

- 9. Did the Agency's Executive/Investment Committee approve this request? **yes** 
  - a. If "yes," what was the date of this approval? Jul 31, 2008
- 10. Did the Project Manager review this Exhibit? yes
- 11. Contact information of Program/Project Manager?

Name George VanDyke
Phone Number 202-633-2716
E-mail vandykeg@si.edu

- a. What is the current FAC-P/PM (for civilian agencies) or DAWIA (for defense agencies) certification level of the program/project manager? Waiver Issued
- b. When was the Program/Project Manager Assigned? Jun 1, 2002
- c. What date did the Program/Project Manager receive the FAC-P/PM certification? If the certification has not been issued, what is the anticipated date for certification? **Jan 1, 1901**
- 12. Has the agency developed and/or promoted cost effective, energy efficient and environmentally sustainable techniques or practices for this project. **yes** 
  - a. Will this investment include electronic assets (including computers)? yes
  - b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only) **no** 
    - 1. If "yes," is an ESPC or UESC being used to help fund this investment?
    - 2. If "yes," will this investment meet sustainable design principles?
- 13. If "yes," is it designed to be 30% more energy efficient than relevant code?
- 14. Does this investment directly support one of the PMA initiatives? **yes Expanded E-Government** 
  - a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? The Managed IT Infrastructure project supports the Presidents Management Agenda E-Government goal to improve effectiveness and efficiency of internal operations and infrastructure and to use the Web to provide educational and research material to the public.
- 15. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? (For more information about the PART, visit <a href="https://www.whitehouse.gov/omb/part">www.whitehouse.gov/omb/part</a>.) **no** 
  - a. If "yes," does this investment address a weakness found during a PART review? If "yes," what is the name of the PARTed program?
- 16. If "yes," what rating did the PART receive?
- 17. Is this investment for information technology? yes

For information technology investments only:

- 16. What is the level of the IT Project? (per CIO Council PM Guidance) Level 1
- 17. In addition to the answer in 11(a), 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
- 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**
- 19. Is this a financial management system? no
  - a. If "yes," does this investment address a FFMIA compliance area?

- 1. If "yes," which compliance area:
- b. If "no," what does it address?
- c. 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
- 20. What is the percentage breakout for the total FY2010 funding request for the following?

Hardware 24
Software 8
Services 35
Other 33

- 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 Marsha Shaines
Phone Number 202-633-5106
Title General Counsel
E-mail shainesm@si.edu

- 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

### **Section B: Summary of Spending**

1.

	PY 2008	CY 2009
Planning:	0	0
Acquisition:	0.292	0
Subtotal Planning & Acquisition:	0.292	0
Operations & Maintenance:	19.009	22.264
TOTAL:	19.301	22.264
Government FTE Costs	12.324	12.724
Number of FTE represented by Costs:	92	93

- 2. Will this project require the agency to hire additional FTE's? yes
  - a. If "yes", How many and in what year? 8 FTE in 2010
- 3. If the summary of spending has changed from the FY2009 President's budget request, briefly explain those changes: **No change**

## **Section D: Performance Information**

		Pe	rformance I	nformation	Table		
Fisca I Year	Strategic Goal(s) Supported	Measureme nt Area	Measureme nt Grouping	Measureme nt Indicator	Baseline	Target	Actual Results
2008	Increased public engagemen t	Mission and Business Results	Cultural and Historic Exhibition	Number of visitor sessions hosted by SI Websites	SI Websites hosted 56.5 million visitor sessions in FY 2002	Increase the number of visitor sessions to 154 million	FY08 visitor sessions as of July 151,928,49
2008	Enhanced manageme nt excellence	Customer Results	Customer Satisfaction	Percentage of customers who rate the quality of IT services satisfactory or better	97% of customers rated the quality of IT services satisfactory or better in FY 2004	Maintain customer satisfaction with the quality of IT services at 90% or higher	98.5%
2008	Enhanced manageme nt excellence	Customer Results	Customer Satisfaction	Percentage of customers who rate the timeliness of IT services	96% of customers rated the timeliness of IT services satisfactory or better in FY 2004	Maintain customer satisfaction with the timeliness of IT services at 90% or higher	97.6% as of June 2008
2008	Enhanced manageme nt excellence	Customer Results	Delivery Time	Percentage of desktop problems resolved in 2 work days	Resolved 62.3% of desktop problems within 2 days in FY 2006	Increase % of desktop problems resolved in 2 day from 62.3% to 80%	81.3% as of June 2008
2008	Enhanced manageme nt excellence	Customer Results	Delivery Time	% of Help Desk calls answered within 2 minutes	Help Desk calls were answered within 2 minutes in FY 2006	Maintain 95% of Help Desk Calls answered within 2 minutes	97.7 as of June 2008
2008	Enhanced manageme nt excellence	Processes and Activities	Cycle Time	% of VoIP telephone moves and adds completed in 5 work days	Request for telephone move or add took 2 to 6 weeks in FY 2002	Decrease cycle time for telephone moves and adds from 2 to 6 weeks to 95% completed in 5 work	100% as of June 2008

						days	
2008	Enhanced manageme nt excellence	Processes and Activities	Cycle Time	% of VoIP telephone configuration changes completed in 1 work day	Request for telephone configuratio n change took 2 to 6 weeks in FY 2002	Decrease cycle time for telephone configuratio n changes from 2 to 6 weeks to 95% completed in 1 work day	100% as of June 2008
2008	Enhanced manageme nt excellence	Technology	Availability	Network servers, switches and routers system availability during normal business hours	Maintained Network servers, switches and routers availability of 99.95% during normal business hours in FY 2003	Maintain Network server, switch and router availability to 99.99% during normal business hours	99.99% as of June 2008
2008	Enhanced manageme nt excellence	Technology	Availability	E-Mail, OA, and Directory servers system availability during normal business hours	Maintained E-Mail, OA, and Directory server availability of 99.98% during normal business hours in FY 2003	Maintain E- Mail, OA, and Directory server availability to 99.99%	100% as of June 2008
2008	Enhanced manageme nt excellence	Technology	Availability	VoIP Call Manager system availability during normal business hours	VoIP Call Manager maintained system availability of 99.99%	Maintain VoIP Call Manager system availability of 99.99% during normal business hours	100% as of June 2008
2008	Enhanced manageme nt excellence	Technology	Availability	VoIP Voice Mail system availability during normal business hours	VoIP Voice Mail maintained system availability of 99.99% during normal business	Maintain VoIP Voice Mail system availability of 99.99% during normal business hours	99.99% as of June 2008

					hours in FY		
2009	Increased public engagemen t	Mission and Business Results	Cultural and Historic Exhibition	Number of visitor sessions hosted by SI Websites	2004 SI Websites hosted 56.5 million visitor sessions in FY 2002	Increase the number of visitor sessions to 156 million	TBD
2009	Enhanced manageme nt excellence	Customer Results	Customer Satisfaction	Percentage of customers who rate the quality of IT services satisfactory or better	97% of customers rated the quality of IT services satisfactory or better in FY 2004	Maintain customer satisfaction with the quality of IT services at 90% or higher	TBD
2009	Enhanced manageme nt excellence	Customer Results	Customer Satisfaction	Percentage of customers who rate the timeliness of IT services	96% of customers rated the timeliness of IT services satisfactory or better in FY 2004	Maintain customer satisfaction with the timeliness of IT services at 90% or higher	TBD
2009	Enhanced manageme nt excellence	Customer Results	Delivery Time	Percentage of desktop problems resolved in 2 work days	Resolved 62.3% of desktop problems within 2 days in FY 2006	Increase % of desktop problems resolved in 2 day from 62.3% to 80%	TBD
2009	Enhanced manageme nt excellence	Customer Results	Delivery Time	% of Help Desk calls answered within 2 minutes	Help Desk calls were answered within 2 minutes in FY 2006	Maintain 95% of Help Desk Calls answered within 2 minutes	TBD
2009	Enhanced manageme nt excellence	Processes and Activities	Cycle Time	% of VoIP telephone moves and adds completed in 5 work days	Request for telephone move or add took 2 to 6 weeks in FY 2002	Decrease cycle time for telephone moves and adds from 2 to 6 weeks to 95% completed in 5 work days	TBD
2009	Enhanced manageme nt excellence	Processes and Activities	Cycle Time	% of VoIP telephone configuration changes completed in 1 work day	Request for telephone configuratio n change took 2 to 6 weeks in FY	Decrease cycle time for telephone configuratio n changes	TBD

					2002	from 2 to 6 weeks to 95% completed in 1 work day	
2009	Enhanced manageme nt excellence	Technology	Availability	Network servers, switches and routers system availability during normal business hours	Maintained Network servers, switches and routers availability of 99.95% during normal business hours in FY 2003	Maintain Network server, switch and router availability to 99.99% during normal business hours	TBD
2009	Enhanced manageme nt excellence	Technology	Availability	E-Mail, OA, and Directory servers system availability during normal business hours	Maintained E-Mail, OA, and Directory server availability of 99.98% during normal business hours in FY 2003	Maintain E- Mail, OA, and Directory server availability to 99.99%	TBD
2009	Enhanced manageme nt excellence	Technology	Availability	VoIP Call Manager system availability during normal business hours	VoIP Call Manager maintained system availability of 99.99% during normal business hours in FY 2004	Maintain VoIP Call Manager system availability of 99.99% during normal business hours	TBD
2009	Enhanced manageme nt excellence	Technology	Availability	VoIP Voice Mail system availability during normal business hours	VoIP Voice Mail maintained system availability of 99.99% during normal business hours in FY 2004	Maintain VoIP Voice Mail system availability of 99.99% during normal business hours	TBD
2010	Increased public engagemen t	Mission and Business Results	Cultural and Historic Exhibition	Number of visitor sessions hosted by SI Websites	SI Websites hosted 56.5 million visitor sessions in	Increase the number of visitor sessions to 156 million	TBD

					FY 2002		
2010	Enhanced manageme nt excellence	Customer Results	Customer Satisfaction	Percentage of customers who rate the quality of IT services satisfactory or better	97% of customers rated the quality of IT services satisfactory or better in FY 2004	Maintain customer satisfaction with the quality of IT services at 90% or higher	TBD
2010	Enhanced manageme nt excellence	Customer Results	Customer Satisfaction	Percentage of customers who rate the timeliness of IT services	96% of customers rated the timeliness of IT services satisfactory or better in FY 2004	Maintain customer satisfaction with the timeliness of IT services at 90% or higher	TBD
2010	Enhanced manageme nt excellence	Customer Results	Delivery Time	Percentage of desktop problems resolved in 2 work days	Resolved 62.3% of desktop problems within 2 days in FY 2006	Increase % of desktop problems resolved in 2 day from 62.3% to 80%	TBD
2010	Enhanced manageme nt excellence	Customer Results	Delivery Time	% of Help Desk calls answered within 2 minutes	Help Desk calls were answered within 2 minutes in FY 2006	Maintain 95% of Help Desk Calls answered within 2 minutes	TBD
2010	Enhanced manageme nt excellence	Processes and Activities	Cycle Time	% of VoIP telephone moves and adds completed in 5 work days	Request for telephone move or add took 2 to 6 weeks in FY 2002	Decrease cycle time for telephone moves and adds from 2 to 6 weeks to 95% completed in 5 work days	TBD
2010	Enhanced manageme nt excellence	Processes and Activities	Cycle Time  Availability	% of VoIP telephone configuration changes completed in 1 work day	Request for telephone configuratio n change took 2 to 6 weeks in FY 2002	Decrease cycle time for telephone configuratio n changes from 2 to 6 weeks to 95% completed in 1 work day Maintain	TBD

	manageme nt excellence			servers, switches and routers system availability during normal business hours	Network servers, switches and routers availability of 99.95% during normal business hours in FY 2003	Network server, switch and router availability to 99.99% during normal business hours	
2010	Enhanced manageme nt excellence	Technology	Availability	E-Mail, OA, and Directory servers system availability during normal business hours	Maintained E-Mail, OA, and Directory server availability of 99.98% during normal business hours in FY 2003	Maintain E- Mail, OA, and Directory server availability to 99.99%	TBD
2010	Enhanced manageme nt excellence	Technology	Availability	VoIP Call Manager system availability during normal business hours	VoIP Call Manager maintained system availability of 99.99% during normal business hours in FY 2004	Maintain VoIP Call Manager system availability of 99.99% during normal business hours	TBD
2010	Enhanced manageme nt excellence	Technology	Availability	VoIP Voice Mail system availability during normal business hours	VoIP Voice Mail maintained system availability of 99.99% during normal business hours in FY 2004	Maintain VoIP Voice Mail system availability of 99.99% during normal business hours	TBD

### **Section F: Enterprise Architecture (EA)**

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

- a. If "no," please explain why?
- 2. Is this investment included in the agency's EA Transition Strategy? yesa. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment. This

investment represents the Smithsonians core managed information technology infrastructure. Investments represented in SIs EA transition strategy include Local / Wide Area Network (LAN/WAN), directory services, file and print, and email services / systems, web hosting, desktop environment, Voice Over IP (VoIP), and security services.

- b. If "no," please explain why?
- 3. Is this investment identified in a completed and approved segment architecture? **no** 
  - 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 <a href="http://www.egov.gov/">http://www.egov.gov/</a>. 139-000

	4. Service	Component R	eference Mode	el (SRM) Tal	ble :		
Agency Component	Agency Component	FEA SRM Service Type	FEA SRM Component	Service Component Reused		Interna I or Extern	BY Funding Percentag
Name	Description		Component	Compone nt Name	UP I	al Reuse?	e
HEAT COTS product	Help desk call management services to internal customers	Customer Relationship Management	Call Center Management			Internal	1
Nagios, Solar Winds, and Cisco Works, MS Exchange / Outlook COTS products	monitoring tools work in	Customer Preferences	Alerts and Notifications			Internal	1
SIs prism intranet	Technical notes and other online help documents	Customer Initiated Assistance	Online Tutorials			Internal	0
HEAT COTS product	Help desk software supports user-generated on-line assistance requests	Customer Initiated Assistance	Assistance Request			Internal	1
HEAT COTS product	Help desk software supports planning for performing work or services to meet customer needs.	Customer Initiated Assistance	Scheduling			Internal	1
MS Project	Project management software	Tracking and Workflow	Process Tracking			Internal	0
Cisco Works, Solar Winds, and Nagios COTS products	Used to monitor and maintain the communications network.	Organizationa I Management	Network Management			Internal	1

Cisco Works, Solar Winds, and Nagios COTS products	Used to monitor and maintain the communications network.	Content Management	Content Authoring	Internal	1
SI public and intranet websites, including Google Enterprise search appliances	Provide access to data and information	Knowledge Management	Information Retrieval	Internal	4
Adobe PhotoShop COTS product	Used to support the creation of electronic images	Visualization	Imagery	Internal	0
Adobe Premier, Windows Media Server / Player COTS products	Used to support the representation of information in the form of text, audio, graphics, animated graphics and full motion video	Visualization	Multimedia	Internal	4
Webtrends, Cisco Works and HEAT COTS products	Provide Standardized / Canned reports	Reporting	Standardized / Canned	Internal	2
Veritas NetBackup Data Center, Tivoli Storage Manager COTS products	Used to support the restoration and stabilization of data sets to a consistent and desired state.	Data Management	Data Recovery	Internal	7
Cisco Works, Blade Logic, SMS, and WSUS COTS products	Used to support identification, upgrade allocation and replacement of physical devices	Asset / Materials Management	Computers / Automation Management	Internal	2
AD, LDAP, MS Exchange COTS products and SIs prism intranet	Support the listing of employees and their whereabouts.	Human Capital / Workforce Management	Workforce Directory / Locator	Internal	11
AD, LDAP, TACACS, Microsoft and SUN OSs COTS	Support obtaining information and about and validating parties attempting to	Security Management	Identification and Authentication	Internal	11

products	logon to a system or application for security purposes				
AD, LDAP, TACACS, Microsoft and SUN OSs COTS products	Support management of permissions for logging onto a computer, application, service, or network	Security Management	Access Control	Internal	11
Kerberos, SSH, SSL/TSL, included in Windows and Solaris COTS products	Used to encrypt authentication traffic and network communication.	Security Management	Cryptography	Internal	0
Cisco Security Agent (CSA) COTS product	Provides host level intrusion prevention HIP services	Security Management	Intrusion Prevention	Internal	1
Cisco Host Server IDS, Cisco Security Agent COTS products	Provides network level and host level intrusion detection services IDS	Security Management	Intrusion Detection	Internal	3
McAfee VirusScan Enterprise and EPO COTS products	Provides antivirus and virus software and signature update services	Security Management	Virus Protection	Internal	2
Microsoft Exchange (Outlook client) support the transmission of memos and messages over the network.	Supports the transmission of messages over the network and internet	Collaboration	Email	Internal	1
Microsoft Exchange (Outlook client)	Supports shared and individual calendars	Collaboration	Shared Calendaring	Internal	7
Google Enterprise Search Appliance, Oracle and MS SQL	Support the retrieval of records that satisfy a specific query	Search	Query	Internal	4

database					
systems The Voice Over IP (VOIP) infrastructur e: Cisco Unity, and Call Manager	Includes telephone audio conferencing capabilities	Communicatio n	Audio Conferencing	Internal	6
The Network Services infrastructur e: Polycomm units	Support video conferencing	Communicatio n	Video Conferencing	Internal	0
The VOIP infrastructur e: Cisco Unity, Call Manager, and VitalQip	Sirtual LANs dedicated to VOIP with a higher priority QOS so that the IP telephones and data workstations share the same physical core network components. Supports the connectivity between server hardware, software, and telecommunicatio ns equipment into a single logical system	Communicatio n	Computer / Telephony Integration	Internal	3
The VOIP infrastructur e	Supports telephony and other voice communications	Communicatio n	Voice Communicatio ns	Internal	0
MS Windows OS, McAfee EPO, and SMS	Support the upgrade and tracking of licenses to some degree	Systems Management	License Management	Internal	2
Microsoft Desktop Sharing, Terminal Services, Citrix Metaframe, SSH, McAfee EPO, CSA, Webroot, and Cyclades	Support the monitoring, administration, and usage of applications and enterprise systems from locations outside the immediate environment	Systems Management	Remote Systems Control	Internal	9
Cisco Works, Nagios,	Support system resource	Systems Management	System Resource	Internal	1

Ssolar Winds, and Microsoft and SUN OSs	monitoring.		Monitoring		
WSUS, SMS, BladeLogic, and EPO	Support the propagation, installation, and upgrade of computer programs, applications, and components	Systems Management	Software Distribution	Internal	2
HEAT COTS product	Used to receive and track user- reported issues and problems in using IT systems, including help desk	Systems Management	Issue Tracking	Internal	1

	5. Technical Reference Model (TRM) Table:				
FEA SRM Component	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification	
Call Center Management	Service Access and Delivery	Access Channels	Other Electronic Channels	HEAT client	
Call Center Management	Service Access and Delivery	Delivery Channels	Intranet	Intranet	
Call Center Management	Service Access and Delivery	Service Transport	Service Transport	TCP/IP	
Call Center Management	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS	
Call Center Management	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS	
Call Center Management	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server	
Call Center Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge	
Call Center Management	Component Framework	User Presentation / Interface	Static Display	HTML	
Call Center Management	Component Framework	User Presentation / Interface	Static Display	HEAT application	
Alerts and Notifications	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer	
Alerts and Notifications	Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Client	
Alerts and Notifications	Service Access and Delivery	Delivery Channels	Intranet	Intranet	
Alerts and Notifications	Service Access and Delivery	Service Transport	Supporting Network Services	SNMP	
Alerts and Notifications	Service Access and Delivery	Service Transport	Service Transport	TCP/IP	

Alerts and Notifications	Service Platform and Infrastructure	Delivery Servers	Web Servers	Apache
Alerts and Notifications	Service Platform and Infrastructure	Delivery Servers	Application Servers	Tomcat
Alerts and Notifications	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Alerts and Notifications	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Alerts and Notifications	Component Framework	User Presentation / Interface	Static Display	HTML
Alerts and Notifications	Component Framework	User Presentation / Interface	Static Display	Cisco Works application
Online Tutorials	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Online Tutorials	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Online Tutorials	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Online Tutorials	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Online Tutorials	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Online Tutorials	Component Framework	User Presentation / Interface	Static Display	HTML
Online Tutorials	Component Framework	User Presentation / Interface	Static Display	Adobe Acrobat
Assistance Request	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Assistance Request	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Assistance Request	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Assistance Request	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Assistance Request	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Assistance Request	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server
Assistance Request	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Assistance Request	Component Framework	User Presentation / Interface	Static Display	HTML
Scheduling	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Scheduling	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Scheduling	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Scheduling	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS

Scheduling	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Scheduling	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server
Scheduling	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Scheduling	Component Framework	User Presentation / Interface	Static Display	HTML
Scheduling	Component Framework	User Presentation / Interface	Static Display	HEAT application
Process Tracking	Service Access and Delivery	Access Channels	Other Electronic Channels	MS Project
Process Tracking	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Process Tracking	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Process Tracking	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Process Tracking	Component Framework	User Presentation / Interface	Static Display	MS Project Enterprise application
Network Management	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Network Management	Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Client
Network Management	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Network Management	Service Access and Delivery	Service Transport	Supporting Network Services	SNMP
Network Management	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Network Management	Service Platform and Infrastructure	Delivery Servers	Web Servers	Apache
Network Management	Service Platform and Infrastructure	Delivery Servers	Application Servers	Tomcat
Network Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Network Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Network Management	Component Framework	User Presentation / Interface	Static Display	HTML
Network Management	Component Framework	User Presentation / Interface	Static Display	Cisco Works application
Content Authoring	Service Access and Delivery	Access Channels	Other Electronic Channels	Macromedia DreamWeaver
Content Authoring	Service Access and Delivery	Access Channels	Other Electronic Channels	Macromedia Flash
Content Authoring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell Optiplex
Content Authoring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Apple Macintosh

Information Retrieval	Service Access and	Access Channels	Web Browser	Internet Explorer
Information Retrieval	Delivery Service Access and	Delivery	Intranet	Intranet
Thiormation Kethevan	Delivery Service Access and	Channels	miranet	miranet
Information Retrieval	Delivery	Service Transport	Service Transport	TCP/IP
Information Retrieval	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Information Retrieval	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Information Retrieval	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Information Retrieval	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	Google Enterprise Appliance
Information Retrieval	Component Framework	User Presentation / Interface	Static Display	HTML
Imagery	Service Access and Delivery	Access Channels	Other Electronic Channels	Adobe PhotoShop
Imagery	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell Optiplex
Imagery	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Apple Macintosh
Multimedia	Service Access and Delivery	Access Channels	Other Electronic Channels	Adobe Premier
Multimedia	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell Optiplex
Multimedia	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Apple Macintosh
Standardized / Canned	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Standardized / Canned	Service Access and Delivery	Access Channels	Other Electronic Channels	Microsoft Excel
Standardized / Canned	Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Client
Standardized / Canned	Service Access and Delivery	Access Channels	Other Electronic Channels	HEAT client
Standardized / Canned	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Standardized / Canned	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Standardized / Canned	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Standardized / Canned	Service Platform and Infrastructure	Delivery Servers	Web Servers	Apache
Standardized / Canned	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Standardized / Canned	Service Platform and Infrastructure	Delivery Servers	Application Servers	Tomcat
Standardized / Canned	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server

	Infrastructure	Computers	Dell PowerEdge
and Infrastructure  Component Framework	Data	Reporting and	Cisco Works
Component Framework	Data	Reporting and	Webtrends
Component Framework	Data Management	Reporting and Analysis	HEAT
Service Access and Delivery	Access Channels	Other Electronic Channels	Veritas NetBacku Client
Service Access and Delivery	Access Channels	Other Electronic Channels	Syncsort Backup Express Client
Service Access and Delivery	Access Channels	Other Electronic Channels	IBM Tivoli Storag Manager Client
Service Access and Delivery	Delivery Channels	Intranet	Intranet
Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Service Platform and Infrastructure	Database / Storage	Storage	ADIC
Service Platform and Infrastructure	Database / Storage	Storage	IBM Magstar
Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Component Framework	User Presentation / Interface	Static Display	Veritas NetBacku Datacenter application
Component Framework	User Presentation / Interface	Static Display	Syncsort Backup Express application
Component Framework	User Presentation / Interface	Static Display	Tivoli application
Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Clier
Service Access and Delivery	Access Channels	Other Electronic Channels	Microsoft SMS Console
Service Access and Delivery	Access Channels	Other Electronic Channels	Bindview Consol
Service Access and Delivery	Access Channels	Other Electronic Channels	McAfee EPO Conso
Service Access and Delivery	Delivery Channels	Intranet	Intranet
Service Access and Delivery	Service Transport	Supporting Network Services	WSUS
	Framework Component Framework Component Framework Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Platform and Infrastructure Service Platform and Infrastructure Service Platform and Infrastructure Component Framework Component Framework Component Framework Service Access and Delivery	Framework Component Framework Component Framework Component Framework Service Access and Delivery Service Platform and Infrastructure User Presentation / Interface Component Framework Component Framework Component Framework Component Framework Service Access and Delivery  Service Access and Delivery  Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and Delivery Service Access and	Framework Component Framework Component Framework Component Framework Component Framework Component Framework Component Framework Service Access and Delivery Service Platform and Infrastructure Service Platform and Infrastructure Service Platform and Infrastructure Service Platform and Infrastructure Service Platform Infrastructure Service Platform And Infrastructure Service Platform Infrastructure Service Omponent Infrastructure Service Access and Delivery Access Channels Other Electronic Channels  Other Electronic Channels  Other Electronic Channels  Other Electronic Channels  Other Electronic Channels  Intranet  Service Access and Delivery Channels  Service Access and Delivery Channels  Service Access and Delivery Channels  Supporting

Automation Management	Delivery			
Computers / Automation Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Computers / Automation Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Computers / Automation Management	Component Framework	User Presentation / Interface	Static Display	Cisco Works application
Computers / Automation Management	Component Framework	User Presentation / Interface	Static Display	Microsoft SMS application
Computers / Automation Management	Component Framework	User Presentation / Interface	Static Display	Bindview application
Computers / Automation Management	Component Framework	User Presentation / Interface	Static Display	McAfee EPO application
Computers / Automation Management	Component Framework	User Presentation / Interface	Static Display	Nagios application
Workforce Directory / Locator	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Workforce Directory / Locator	Service Access and Delivery	Access Channels	Other Electronic Channels	Outlook client
Workforce Directory / Locator	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Workforce Directory / Locator	Service Access and Delivery	Service Transport	Supporting Network Services	LDAP
Workforce Directory / Locator	Service Access and Delivery	Service Transport	Supporting Network Services	Active Directory
Workforce Directory / Locator	Service Access and Delivery	Service Transport	Supporting Network Services	DNS
Workforce Directory / Locator	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Workforce Directory / Locator	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Workforce Directory / Locator	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server
Workforce Directory / Locator	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Workforce Directory / Locator	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Workforce Directory / Locator	Component Framework	User Presentation / Interface	Static Display	HTML
Workforce Directory / Locator	Component Framework	User Presentation / Interface	Static Display	Exchange application
Workforce Directory / Locator	Component Framework	User Presentation / Interface	Static Display	Vital QIP application
Identification and	Service Access and	Access Channels	Other Electronic	MS Windows Client

	5 U		01 1	
Authentication	Delivery		Channels	
Identification and Authentication	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Identification and Authentication	Service Access and Delivery	Service Requirements	Authentication / Single Sign-on	Authentication / Single Sign-on
Identification and Authentication	Service Access and Delivery	Service Transport	Supporting Network Services	LDAP
Identification and Authentication	Service Access and Delivery	Service Transport	Supporting Network Services	Active Directory
Identification and Authentication	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Identification and Authentication	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Identification and Authentication	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Identification and Authentication	Component Framework	Security	Certificates / Digital Signatures	Digital Certificate Authentication
Identification and Authentication	Component Framework	Security	Certificates / Digital Signatures	SSL
Identification and Authentication	Component Framework	User Presentation / Interface	Static Display	MS Windows
Identification and Authentication	Component Framework	User Presentation / Interface	Static Display	SUN Solaris
Access Control	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Access Control	Service Access and Delivery	Access Channels	Other Electronic Channels	MS Windows Client
Access Control	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Access Control	Service Access and Delivery	Service Requirements	Authentication / Single Sign-on	Authentication / Single Sign-on
Access Control	Service Access and Delivery	Service Transport	Supporting Network Services	LDAP
Access Control	Service Access and Delivery	Service Transport	Supporting Network Services	Active Directory
Access Control	Service Access and Delivery	Service Transport	Supporting Network Services	TACACS
Access Control	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Access Control	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Access Control	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Access Control	Component Framework	Security	Certificates / Digital Signatures	Digital Certificate Authentication
Access Control	Component Framework	Security	Certificates / Digital Signatures	SSL
Access Control	Component Framework	User Presentation / Interface	Static Display	MS Windows
Access Control	Component Framework	User Presentation / Interface	Static Display	SUN Solaris

	Component		Certificates /	Digital Certificate
Cryptography	Framework	Security	Digital Signatures	Authentication
Cryptography	Component Framework	Security	Certificates / Digital Signatures	SSL
Intrusion Prevention	Service Access and Delivery	Access Channels	Other Electronic Channels	CSA
Intrusion Prevention	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Intrusion Prevention	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Intrusion Prevention	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Intrusion Prevention	Component Framework	User Presentation / Interface	Static Display	HTML
Intrusion Prevention	Component Framework	User Presentation / Interface	Static Display	CSA application
Intrusion Prevention	Component Framework	Data Management	Reporting and Analysis	Cisco CSA
Intrusion Detection	Service Access and Delivery	Access Channels	Other Electronic Channels	CSA
Intrusion Detection	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Intrusion Detection	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Intrusion Detection	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Intrusion Detection	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Cisco IDS appliance
Intrusion Detection	Component Framework	User Presentation / Interface	Static Display	HTML
Intrusion Detection	Component Framework	User Presentation / Interface	Static Display	CSA application
Intrusion Detection	Component Framework	Data Management	Reporting and Analysis	Cisco IDS
Intrusion Detection	Component Framework	Data Management	Reporting and Analysis	Cisco CSA
Virus Protection	Service Access and Delivery	Access Channels	Other Electronic Channels	McAfee VirusScan Console
Virus Protection	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Virus Protection	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Virus Protection	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell Optiplex
Virus Protection	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Virus Protection	Component Framework	User Presentation / Interface	Static Display	VirusScan application
Email	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer

Email	Service Access and Delivery	Access Channels	Other Electronic Channels	Outlook client
Email	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Email	Service Access and Delivery	Service Transport	Supporting Network Services	SMTP
Email	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Email	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Email	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Email	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server
Email	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Email	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Email	Component Framework	User Presentation / Interface	Static Display	HTML
Email	Component Framework	User Presentation / Interface	Static Display	Exchange application
Shared Calendaring	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Shared Calendaring	Service Access and Delivery	Access Channels	Other Electronic Channels	Outlook client
Shared Calendaring	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Shared Calendaring	Service Access and Delivery	Service Transport	Supporting Network Services	SMTP
Shared Calendaring	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Shared Calendaring	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Shared Calendaring	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Shared Calendaring	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server
Shared Calendaring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Shared Calendaring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Shared Calendaring	Component Framework	User Presentation / Interface	Static Display	HTML
Shared Calendaring	Component Framework	User Presentation / Interface	Static Display	Exchange application
Query	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Query	Service Access and Delivery	Delivery Channels	Intranet	Intranet

Query	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Query	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Query	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Query	Service Platform and Infrastructure	Database / Storage	Database	Google Enterprise Appliance
Query	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server
Query	Service Platform and Infrastructure	Database / Storage	Database	Oracle
Query	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Query	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	Google Enterprise Appliance
Query	Component Framework	User Presentation / Interface	Static Display	HTML
Audio Conferencing	Service Access and Delivery	Access Channels	Other Electronic Channels	VOIP handset
Audio Conferencing	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Audio Conferencing	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Audio Conferencing	Service Platform and Infrastructure	Delivery Servers	Application Servers	Cisco Unity
Audio Conferencing	Service Platform and Infrastructure	Delivery Servers	Application Servers	Cisco Call Manager
Audio Conferencing	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Video Conferencing	Service Access and Delivery	Access Channels	Other Electronic Channels	Polycomm device
Video Conferencing	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Video Conferencing	Service Platform and Infrastructure	Hardware / Infrastructure	Video Conferencing	Polycomm
Computer / Telephony Integration	Service Access and Delivery	Access Channels	Other Electronic Channels	VOIP handset
Computer / Telephony Integration	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Computer / Telephony Integration	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Computer / Telephony Integration	Service Platform and Infrastructure	Delivery Servers	Application Servers	Cisco Unity
Computer / Telephony Integration	Service Platform and Infrastructure	Delivery Servers	Application Servers	Cisco Call Manager

Computer / Telephony	Service Platform and Infrastructure	Hardware /	Servers / Computers	Dell PowerEdge
Integration Voice	Service Access and	Access Channels	Other Electronic	VOIP handset
Communications Voice	Delivery Service Access and	Delivery	Channels Intranet	Intranet
Communications Voice	Delivery Service Access and	Channels Service Transport	Service Transport	TCP/IP
Communications  Voice	Delivery Service Platform	Delivery Servers	Application Servers	Cisco Unity
Voice Communications	and Infrastructure Service Platform and Infrastructure	Delivery Servers	Application Servers	Cisco Call Manager
Voice Communications	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
License Management	Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Client
License Management	Service Access and Delivery	Access Channels	Other Electronic Channels	Microsoft SMS Console
License Management	Service Access and Delivery	Access Channels	Other Electronic Channels	Bindview Console
License Management	Service Access and Delivery	Access Channels	Other Electronic Channels	McAfee EPO Console
License Management	Service Access and Delivery	Delivery Channels	Intranet	Intranet
License Management	Service Access and Delivery	Service Transport	Supporting Network Services	WSUS
License Management	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
License Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
License Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
License Management	Component Framework	User Presentation / Interface	Static Display	Cisco Works application
License Management	Component Framework	User Presentation / Interface	Static Display	Microsoft SMS application
License Management	Component Framework	User Presentation / Interface	Static Display	Bindview application
License Management	Component Framework	User Presentation / Interface	Static Display	McAfee EPO application
Remote Systems Control	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Client
Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	Microsoft SMS Console
Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	Novell Zenworks Management Console
Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	Bindview Console

Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	McAfee EPO Console
Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	Webroot Enterprise Client
Remote Systems Control	Service Access and Delivery	Access Channels	Other Electronic Channels	Citrix Metaframe Client
Remote Systems Control	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Remote Systems Control	Service Access and Delivery	Service Transport	Supporting Network Services	WUS
Remote Systems Control	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Remote Systems Control	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Remote Systems Control	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Remote Systems Control	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	Cyclades
Remote Systems Control	Component Framework	User Presentation / Interface	Static Display	Cisco Works application
Remote Systems Control	Component Framework	User Presentation / Interface	Static Display	Microsoft SMS application
Remote Systems Control	Component Framework	User Presentation / Interface	Static Display	Microsoft Desktop Sharing
Remote Systems Control	Component Framework	User Presentation / Interface	Static Display	Bindview application
Remote Systems Control	Component Framework	User Presentation / Interface	Static Display	McAfee EPO application
Remote Systems Control	Component Framework	User Presentation / Interface	Static Display	Citrix Metaframe application
System Resource Monitoring	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
System Resource Monitoring	Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Client
System Resource Monitoring	Service Access and Delivery	Access Channels	Other Electronic Channels	Microsoft Task Manager
System Resource Monitoring	Service Access and Delivery	Access Channels	Other Electronic Channels	Nagios Console
System Resource Monitoring	Service Access and Delivery	Access Channels	Other Electronic Channels	Tave Console
System Resource Monitoring	Service Access and Delivery	Delivery Channels	Intranet	Intranet
System Resource Monitoring	Service Access and Delivery	Service Transport	Supporting Network Services	SNMP
System Resource Monitoring	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
System Resource Monitoring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
System Resource Monitoring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire

System Resource Monitoring	Component Framework	User Presentation / Interface	Static Display	Cisco Works application
System Resource Monitoring	Component Framework	User Presentation / Interface	Static Display	Nagios application
System Resource Monitoring	Component Framework	User Presentation / Interface	Static Display	Tave application
Software Distribution	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Software Distribution	Service Access and Delivery	Access Channels	Other Electronic Channels	Cisco Works Client
Software Distribution	Service Access and Delivery	Access Channels	Other Electronic Channels	Microsoft SMS Console
Software Distribution	Service Access and Delivery	Access Channels	Other Electronic Channels	McAfee EPO Console
Software Distribution	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Software Distribution	Service Access and Delivery	Service Transport	Supporting Network Services	SUS / WUS
Software Distribution	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Software Distribution	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Software Distribution	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	SUN Sun Fire
Software Distribution	Component Framework	User Presentation / Interface	Static Display	Cisco Works application
Software Distribution	Component Framework	User Presentation / Interface	Static Display	Microsoft SMS application
Software Distribution	Component Framework	User Presentation / Interface	Static Display	McAfee EPO application
Issue Tracking	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
Issue Tracking	Service Access and Delivery	Access Channels	Other Electronic Channels	HEAT client
Issue Tracking	Service Access and Delivery	Delivery Channels	Intranet	Intranet
Issue Tracking	Service Access and Delivery	Service Transport	Service Transport	TCP/IP
Issue Tracking	Service Platform and Infrastructure	Delivery Servers	Web Servers	IIS
Issue Tracking	Service Platform and Infrastructure	Delivery Servers	Application Servers	IIS
Issue Tracking	Service Platform and Infrastructure	Database / Storage	Database	MS SQL Server
Issue Tracking	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Dell PowerEdge
Issue Tracking	Component Framework	User Presentation / Interface	Static Display	HTML
Issue Tracking	Component Framework	User Presentation / Interface	Static Display	HEAT application

	e Access and Delivery Access Channels	Web Browser	Internet Explorer
--	---------------------------------------	-------------	-------------------

- 6. Will the application leverage existing components and/or applications across the Government (i.e., USA.Gov, Pay.Gov, etc)? **no** 
  - a. If "yes," please describe.

### Part II: Planning, Acquisition And Performance Information

### **Section B: Risk Management (All Capital Assets)**

Does the investment have a Risk Management Plan? yes

- a. If "yes," what is the date of the plan? Aug 1, 2003
- b. Has the Risk Management Plan been significantly changed since last year's submission to OMB? **no**
- c. If "yes," describe any significant changes:
- 2. If there currently is no plan, will a plan be developed?
  - a. If "yes," what is the planned completion date?
  - b. If "no," what is the strategy for managing the risks?
- 3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule: The Smithsonian has prepared 3 Risk Management Plans that address different segments of the IT infrastructure: (1) Local Area Network, Help Desk, and Desktop Consolidation and Modernization; (2) Telephone System Modernization; and (3) Data Center Consolidation. Because the managed IT infrastructure project relies on proven commercial hardware and software products, excessive time delays and cost overruns are minimized. The most significant risks are organizational and change management because Smithsonian units may resist consolidation and technical obsolescence because the Institution will not have sufficient funds to periodically replace IT infrastructure components routers, switches, servers, storage, desktop workstations, and printers on best practice replacement cycle.