



## Amendment Approval Form

**Contract Between:**

**Northrop Grumman Systems Corporation**

7575 Colshire Drive

McLean, VA 22102-7508

and

**The Commonwealth of Virginia**

11751 Meadowville Lane

Chester, VA 23836

<b>Contract Number</b>	<b>VA-051114-NG</b>
<b>Amendment Number</b>	<b>87</b>
<b>Description of Contract Change</b> – Provide a brief description of contract change	Adds AIX LPAR Support to the CIA.
<b>Section(s) of CIA Referenced</b> – Identify section(s) of CIA modified, including Attachments and Schedules	<ul style="list-style-type: none"><li>• Appendix 13 to Schedule 3.3 (Other Services SOW)</li><li>• Addendum 1 to Appendix 13 to Schedule 3.3 (Other Services Technical Approach)</li><li>• Schedule 10.1 (Fees)</li></ul>

This is Amendment No. 87 to the Comprehensive Infrastructure Agreement between the Commonwealth and Vendor originally dated as of November 14, 2005 and as subsequently amended (hereinafter, "Amendment No. 87"). The Commonwealth and Vendor have agreed to modify the Comprehensive Infrastructure Agreement as set forth below. Except as expressly modified in Amendment No. 87, the terms and conditions of the Agreement shall remain in full force and effect. Capitalized terms used but not defined in Amendment No. 87 shall have the meanings assigned to them in the Agreement. Amendment No. 87 is effective as of July 1, 2013.

1. Appendix 13 to Schedule 3.3 (Other Services SOW) is deleted in its entirety and replaced with Exhibit A to this Amendment No. 87.
2. Addendum 1 to Appendix 13 to Schedule 3.3 (Other Services Technical Approach) is deleted in its entirety and replaced with Exhibit B to this Amendment No. 87.
3. In Schedule 10.1, Fees, a new Section 5.3.12 is added as follows.

**"5.3.12 Fees for AIX LPAR Service**

The following shall apply to the AIX LPAR Service:

- VITA agrees to pay the amounts specified in the reconciled statement dated August 29, 2013, which statement is set forth in Exhibit C to Amendment No. 87. Upon payment of the total amount in such statement, ownership and title of the IBM Power 7 Systems listed in the technical approach will vest in the Commonwealth.
  - Beginning July 1, 2013, VITA agrees to pay the Baseline Resource Unit Rate multiplied by the Baseline Quantity (even if the number of AIX LPARs implemented is less than the Baseline Quantity) and ARCs, as applicable.
  - Until the Baseline Quantity is reached, AIX LPARs will be allocated and implemented on a time and materials basis. After the Baseline Quantity is reached, there is no charge for allocation or implementation of additional AIX LPARs.
  - Network port RU charges for the AIX LPARs are 1 network port per LPAR.
  - VITA must submit detailed requirements for additional or new (a) physical server hardware, or (b) physical infrastructure to scale or add LPAR capacity, which cost is not included in the Fees. The Commonwealth will be financially responsible for the costs associated with one-time labor (including labor to configure and integrate (a) or (b) and to reconfigure the current environment), software, hardware, and recurring third-party maintenance for hardware or software to expand the environment. The recurring RU Fees will be the AIX LPAR ARC Rate and no new Baseline Quantity will apply.
  - The Fees do not include hardware, hardware warranty support, software, or software maintenance for the IBM Power 7 physical servers or associated software, or any upgrades thereto. The Commonwealth will be financially responsible for all hardware, hardware warranty support, software, and software maintenance along with any upgrades thereto and must provide detailed requirements when requesting the same.
  - The Fees do not include the equipment costs or third-party warranty and maintenance for security hardening, such as the WAF, inline tap, and PowerHA, or PowerSC components.
  - The Fees do not include Active Directory integration software for AIX LPARs, migration, rebuilds, or network enhancements including 10GB network connectivity."
4. Exhibit C contains the AIX LPAR Reconciled Statement as of August 29, 2013, which is hereby incorporated into this Amendment No. 87 by reference.

5. In Attachment 10.1.3-A to Schedule 10.1 (Definition of Resource Units), the following rows of new text are inserted at the end under "Other Services" (the header row is shown for context only).

Other Services	Unit	Definition
AIX LPAR IMAC	Per Project	Per project cost for migration of existing LPAR data between physical servers, rebuilding an LPAR from installation media or, changes that impact software licensing.
AIX LPAR Service	Per AIX application LPAR	Per each AIX application LPAR on the IBM Power 7 Systems Infrastructure, per month.

6. In Attachment 10.1.4-B to Schedule 10.1 (Additional Resource Unit Baselines), the following row of new text is inserted at the end under "Other Services." The values for the periods prior to Contract Year 8 shall be "N/A." The values for Contract Years 8 through 13 are as shown below (the header row is shown for context only).

Other Services	Unit
AIX LPAR	Qty of AIX LPARs

Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
105	105	105	105	105	105

7. In Attachment 10.1.5-A to Schedule 10.1 (Post-Transition Phase Fees - Fixed Recurring Fees and Baseline Resource Unit Rates by Service Tower), the following row of new text is inserted at the end under "Other Services." The values for the periods prior to Contract Year 8 shall be "N/A." The values for Contract Years 8 through 13 are as shown below (the header row is shown for context only).

Other Services	Unit
AIX LPAR	Per AIX LPAR

Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
465.00	465.00	465.00	465.00	465.00	465.00

8. In Attachment 10.1.7 to Schedule 10.1 (Post-Transition Phase Fees - Additional Resource Charges (ARC) Rates by Service Tower), the following row of new text is inserted at the end under "Other Services." The values for the periods prior to Contract Year 8 shall be "N/A." The values for Contract Years 8 through 13 are as shown below (the header row is shown for context only).

Other Services	Unit
AIX LPAR Service	Per AIX application LPAR

Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
250.00	250.00	250.00	250.00	250.00	250.00

9. In Attachment 10.1.8 to Schedule 10.1 (Post-Transition Phase Fees - Reduced Resource Credits (RRC) Rates by Service Tower), the following row of new text is inserted at the end under "Other Services." The values for the periods prior to Contract Year 8 shall be "N/A." The values for Contract Years 8 through 13 are as shown below (the header row is shown for context only).

Other Services	Unit
AIX LPAR	Per AIX LPAR

Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
N/A	N/A	N/A	N/A	N/A	N/A

10. Schedule 3.3 (Statements of Work) is deleted in its entirety and replaced with Exhibit D to this Amendment No. 87.

The Parties have executed this Amendment No. 87 on the dates indicated below.

VITA for the Commonwealth of Virginia	Northrop Grumman Systems Corporation
By: 	By: 
Name: Perry Pascual	Name: Roxanne Esch
Contract Manager	Director, Contracts
Date: <i>9/16/2013</i>	Date: <i>August 29, 2013</i>

**APPENDIX 13 TO SCHEDULE 3.3  
TO THE  
COMPREHENSIVE INFRASTRUCTURE AGREEMENT  
OTHER SERVICES STATEMENT OF WORK**

*pk*

This is Appendix 13 (Other Services SOW) to Schedule 3.3 to the Comprehensive Infrastructure Agreement between the Commonwealth and Vendor. Capitalized terms used but not defined herein shall have the meanings assigned to them in the Agreement. Vendor's technical approaches for the Services under this SOW are provided in the attached Addendum 1. Vendor may, at any time during the Term, make minor modifications to its technical approach, so long as such modifications are consistent with and similar to the technical approach as identified in Addendum 1, without executing a formal contract modification.

**Statement of Work for Email Data Loss Prevention Service**

This service uses the Cisco IronPort email data loss prevention feature available for Vendor's existing Cisco IronPort email security appliances (hereinafter, "EDLP"). Vendor will install, configure, support, and maintain EDLP on such Cisco IronPort email security appliances in accordance with the technical approach.

The Eligible Customer subscribing to EDLP must establish the policy or policies applicable to its outbound email and select the remediation action to occur upon the violation of such policy or policies, and then inform Vendor of the same. The Eligible Customer may either (a) at no additional charge select from out-of-the-box compliance and regulation policies and remediation actions built-in and pre-defined by the software vendor, Cisco, or (b) on a time and materials basis request that Vendor build custom polices and remediation actions according to the Eligible Customer's specifications. Vendor will assist on a time and materials basis with any custom request to the extent the software functionality permits such request.

EDLP is offered by the software vendor on a subscription basis, under the Software as a Service (SaaS) model where services are delivered on an annual pay-for-use basis. Each EDLP subscription has a one-year term and is non-refundable and non-cancelable during that term. An Eligible Customer may transfer subscriptions between mailboxes within its agency to account for departing and new employees, or among other Eligible Customer mailboxes, excluding DMAS, to account for agency consolidation or elimination by the General Assembly. Vendor will set all EDLP subscriptions to renew on the same date and inform VITA of such date. VITA, through its Customer Account Managers, must provide Vendor with written instructions regarding EDLP subscription renewal for each subscribing Eligible Customer at least 90 days prior to Vendor's renewal date. Per VITA's instructions, Vendor will not automatically renew EDLP subscriptions. In order to subscribe to EDLP, the End-User must use Vendor's Messaging Services, have a CoV email account, and be listed in the active directory. End-Users must subscribe to Secure Envelope in order to send encrypted emails as a remediation action. The table below identifies the roles and responsibilities that Vendor and VITA will perform with respect to EDLP. No Service Levels apply to this Service."

**Email Data Loss Prevention Service Roles and Responsibilities**

EDLP Roles and Responsibilities	Vendor	VITA
1. Procure software subscription licenses and software maintenance for EDLP.	X	
2. Deploy and manage email gateway infrastructure.	X	
3. Define out-of-the-box compliance and regulation policies applicable to outgoing email and remediation action to occur upon the violation of such policies, including identifying points of contact for each subscribing Eligible Customer to receive violation reports, through the Work Request process.		X

EDLP Roles and Responsibilities	Vendor	VITA
4. Implement and configure out-of-the-box policies and remediation actions for EDLP as specified in a Work Request.	X	
5. Provide detailed requirements for each subscribing Eligible Customer needing custom polices and remediation actions or other changes to out-of-the-box EDLP templates through the Work Request process.		X
6. Configure custom changes to EDLP within its existing functionality as specified in a Work Request.	X	
7. Require that End-Users subscribed to EDLP (a) see the Commonwealth standard "splash screen" advising End-Users substantially of the following: By accessing and using this system you are consenting to system monitoring for law enforcement and other purposes and (b) adhere to and certify understanding of Commonwealth Policy 1.75 (Use of Electronic Communications and Social Media) or its replacement.		X

**Statement of Work for Secure Envelope Service**

Vendor will install, configure, support, and maintain Cisco IronPort email encryption software on Vendor's existing Cisco IronPort email security appliances in accordance with the technical approach (hereinafter, "Secure Envelope"). Vendor will provide a quick summary reference guide for new users of this service.

Secure Envelope sends encrypted communication to email users outside of the COV mail system without requiring the outside entity to have a PKI infrastructure in place. Secure Envelope only encrypts outbound email to external (non-COV) email recipients. Secure Envelope will not encrypt emails sent to email boxes on the COV email system even if the sender marks the outbound email for encryption before sending.

Secure Envelope is offered by the software vendor on a subscription basis, under a Software as a Service (SaaS) model where services are delivered on an annual pay-for-use basis. Each Secure Envelope subscription has a one-year term and is non-refundable and non-cancelable during that term. An Eligible Customer may transfer subscriptions between mailboxes within its agency to account for departing and new employees, or among other Eligible Customer mailboxes, excluding DMAS, to account for agency consolidation or elimination by the General Assembly. Vendor will set all Secure Envelope subscriptions to renew on the same date and inform VITA of such date. VITA, through its Customer Account Managers, must provide Vendor with written instructions regarding Secure Envelope subscription renewal for each subscribing Eligible Customer at least 90 days prior to Vendor's renewal date. Per VITA's instructions, Vendor will not automatically renew Secure Envelope subscriptions. In order to subscribe to Secure Envelope, the End-User must use Vendor's Messaging Services, have a CoV email account, and be listed in the active directory. The table below identifies the roles and responsibilities that Vendor and VITA will perform with respect to Secure Envelope. No Service Levels apply to this Service.

**Secure Envelope Service Roles and Responsibilities**

Secure Envelope Roles and Responsibilities	Vendor	VITA
1. Procure and purchase software licenses and software maintenance for Secure Envelope.	X	
2. Deploy Secure Envelope infrastructure.	X	

Secure Envelope Roles and Responsibilities	Vendor	VITA
3. Provide detailed requirements for Secure Envelope through the Work Request process.		X
4. Install and configure Outlook plug-in on End-User workstations as specified in a Work Request.	X	
5. Make quick summary reference guide for Secure Envelope available to End-Users.		X

**Statement of Work for AIX LPAR Service**

Through the Work Request process VITA has requested, and Vendor has implemented, an IBM Power 7 Systems architecture to support VITA’s SOA-EDM environment known as the MITA Program. Such Work Requests were processed as “non-standard” and addressed the one-time costs for hardware, software, maintenance, and implementation labor required for the initial deployment.

With the addition of this Service, Vendor will provide hosting services for AIX application LPARs (hereinafter, “each AIX LPAR” or “the AIX LPARs”) deployed on the 12 IBM Power 7 physical servers. The AIX LPARs and the Power 7 servers will be supported by existing infrastructure management and monitoring systems including asset management, availability monitoring, remote support, network monitoring, and intrusion prevention. The Service includes configuration and management of all infrastructure LPARs required to support the AIX application LPARs. The Commonwealth is responsible for the encryption of data in-transit and at-rest.

An AIX LPAR is different from a Virtual Server based on the following:

- In order to maximize the software investment in IBM WebSphere and other software products purchased for the SOA-EDM project, VITA required the pooled processor and granular system provisioning features of IBM Power 7 Systems architecture.
- The initial 12 Power 7 physical servers are dedicated to VITA-MITA program with LPAR specifications provided by VITA.
- Personnel with specific expertise are required to support AIX and PowerVM virtualization running on the IBM Power 7 servers.
- AIX LPAR security is based on PowerSC and use of enterprise Intrusion Prevention System (IPS) to block malicious traffic.
- AIX LPARs are integrated with the CoV Active Directory utilizing Quest UNIX integration software.
- VITA requires that the AIX LPARs support the encrypted file system (EFS) feature.
- VITA requires implementation of multiple instances of IBM PowerHA clustering.
- Vendor will not install HPOV Monitoring – Performance Agent (SV11) and Operations Agent (SV12), nor Altiris Inventory Agent (DT02.6) on the Power 7 or LPARs.

The table below identifies the roles and responsibilities that Vendor and VITA will perform with respect to AIX LPARs.

AIX LPAR Service Support Roles and Responsibilities	Vendor	VITA
1. Maintain IBM hardware warranty and software maintenance support for the AIX LPAR systems.		X
2. Coordinate with VITA subcontractor providing IBM hardware warranty and software maintenance support for the AIX LPAR systems.	X	
3. Provide virtual memory and virtual CPU specifications for application LPARs.		X
4. Implement requested configuration changes to virtual memory and virtual CPU specifications for individual application LPARs.	X	
5. Allocate and manage all infrastructure LPARs.	X	
6. Perform operating system support including patching for AIX LPARs.	X	
7. Perform application-level support and troubleshooting.		X
8. Provide specifications for AIX LPAR load balancer requests.		X
9. Implement load balancer configurations on existing network infrastructure platforms based on VITA-provided specifications.	X	
10. Request migration of application LPARs within the same physical server.		X
11. Perform migration of application LPARs within the same physical server.	X	
12. Establish network security zone to support network segmentation for the AIX LPAR environment.	X	
13. Provide detailed requirements for additional architecture components such as WAF, inline tap, PowerHA, and PowerSC through the Work Request process.		X
14. Procure, implement, and support additional architecture components such as WAF, inline tap, PowerHA, and PowerSC as requested in a Work Request.	X	
15. Maintain third-party maintenance agreements for additional architecture components and such as WAF, inline tap, PowerHA, and PowerSC.		X
16. Provide security hardening requirements for AIX LPARs.		X
17. Implement VITA-provided AIX hardening specifications.	X	
18. Support PowerHA clustering instances.	X	
19. Maintain licensing and support agreements for Active Directory software supporting the AIX LPAR systems.		X
20. Provide detailed requirements for new physical servers or other hardware required for the AIX LPAR Service through the Work Request process.		X
21. Implement new physical servers or other hardware for the AIX LPAR Service as requested in a Work Request.	X	

AIX LPAR Service Support Roles and Responsibilities	Vendor	VITA
22. Provide detailed requirements for migration of existing LPARs to different physical servers or rebuilding an LPAR from installation media through the Work Request process.		X
23. Migrate existing LPARs to different physical servers or rebuild an LPAR from installation media as requested in a Work Request.	X	
24. Provide detailed requirements for re-builds of existing LPARs through the Work Request process.		X
25. Rebuild existing LPARs as requested in a Work Request.	X	
26. Perform Level 1 and Level 2 Break/Fix.	X	
27. Provide detailed requirements for network enhancements such as 10GB network connectivity through the Work Request process.		X
28. Procure, implement, and support network enhancements as requested in a Work Request.	X	

The table below identifies those roles and responsibilities in the Agreement known to Vendor as conflicting with the scope of this Service and are therefore not applicable to the AIX LPAR Service. Except where noted in the table below, Vendor will perform the server-related responsibilities set forth in Appendix 1 (Cross Functional Services SOW), Appendix 3 (Security Services SOW), and Appendix 7 (Mainframe and Server Services) to Schedule 3.3 with respect to the AIX application LPARs hosted on the IBM Power 7 Systems architecture. In the event of a conflict with regard to roles and responsibilities listed elsewhere in the Agreement and this SOW, this SOW govern and control this Service.

**AIX LPAR Service Excluded Roles and Responsibilities**

Schedule 3.3	
Vendor shall not be responsible for any activities related to database services.	
Appendix 1 to Schedule 3.3 (inclusive of Appendices)	
Section 3.1.2.4 (Acquisition and Management)	Vendor shall not be responsible for the acquisition and management roles and responsibilities as listed in this Section.
Section 3.1.2.7 (Implementation and Migration)	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.2.12 (Operations and Administration), Table 13	Item 12: for the Commonwealth shall be responsible for replacement of defective parts.
Section 3.1.2.13 (Technology Refreshment and Replenishment)	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.3.4 (IT Service Continuity and Disaster Recovery (DR) Services)	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Appendix 7 to Schedule 3.3 (inclusive of Appendices)	
Section 3.0 (General Responsibilities), Table 1,	Item 9: The Vendor is not responsible for providing send/receive electronic data transmissions.
Section 3.1.2.1 (Operations and Administration), Subsection a	This Service does not include, "Centralized output management for print, microfiche, film, etc."

Section 3.1.2.1 (Operations and Administration), Subsection b	This Service does not include, " <i>Managing transaction definitions (e.g., CICS, IMS)</i> "
Section 3.1.2.1 (Operations and Administration), Table 2, Operations and Administration Roles and Responsibilities	Item 7: The Vendor is not responsible for the Identification and reporting of Application Software Problems.
Section 3.1.2.1 (Operations and Administration), Table 2, Operations and Administration Roles and Responsibilities	Item 13: Vendor is not responsible for the allocation of additional CPU resources. VITA shall provide the AIX LPAR specifications.
Section 3.1.2.1 (Operations and Administration), Table 2, Job Scheduling and Execution Operations Roles and Responsibilities	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.2.1 (Operations and Administration), Table 2, EDIF Management Roles and Responsibilities	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.2.1 (Operations and Administration), Table 2, Output Management Roles and Responsibilities	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.2.1 (Operations and Administration), Table 2, Storage and Data Management Roles and Responsibilities	Items 9-12: Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.2.1 (Operations and Administration), Table 2, Media Operations Roles and Responsibilities	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.2.3 (Database Administration)	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.
Section 3.1.2.4 (Middleware Administration)	Vendor shall not be responsible for the roles and responsibilities as listed in this Section.

**ADDENDUM 1 TO APPENDIX 13 TO SCHEDULE 3.3  
TO THE  
COMPREHENSIVE INFRASTRUCTURE AGREEMENT  
ADDITIONAL SERVICES TECHNICAL APPROACH**

This is Addendum 1 to Appendix 13 (Other Services SOW) to Schedule 3.3 to the Comprehensive Infrastructure Agreement between the Commonwealth and Vendor. Capitalized terms used but not defined herein shall have the meanings assigned to them in the Agreement. Vendor's technical approaches for the Services under this SOW are provided in the attached Addendum 1. Vendor may, at any time during the Term, make minor modifications to its technical approach, so long as such modifications are consistent with and similar to the technical approach as identified below, without executing a formal contract modification.

### **Technical Approach for Email Data Loss Prevention Service**

EDLP scans outbound electronic mail for violations of built-in and pre-defined (i.e., out-of-the-box) compliance and regulation policies. The Eligible Customer subscribing to EDLP selects which of the out-of-the-box compliance and regulation policies will apply to its outgoing email. In addition, the subscribing Eligible Customer selects which of the out-of-the-box remediation actions will occur upon detection of a policy violation. Finally, EDLP provides real-time monitoring, alerts, and standard out-of-the-box reporting for violations. Standard out-of-the-box reports will be provided as requested during setup at no additional charge, but custom reports will not be provided. The EDLP Service does not include hardware or software upgrades, except for patches and other updates provided by the software vendor to Vendor at no additional charge.

Examples of out-of-the-box compliance policies include: Health Insurance Portability and Accountability Act (HIPAA), Sarbanes-Oxley Act (SOX), and Personal Information Protection and Electronic Documents Act (PIPEDA). Examples of out-of-the-box remediation actions include: block email, block and report, quarantine email, and encrypt and send email. Encryption of email as part of the remediation action occurs separately using Secure Envelope, and not EDLP.

### **Technical Approach for Secure Envelope Service**

Secure Envelope provides out-of-the-box functionality for an envelope-based push of encrypted messages which can be received by any email user regardless of the recipient's email client, operating system, or device, and without the need to install any additional software or requiring the sender and recipient to exchange encryption credentials. As requested through the Work Request process, Vendor will install the Secure Envelope Outlook plug-in on requested End-User workstations in accordance with the requirements provided by the Eligible Customer. Secure Envelope includes software, software maintenance, and subscriptions but does not include hardware, hardware upgrades, hardware maintenance, or software upgrades, except for patches and other updates provided by the software vendor to Vendor at no additional charge.

When using Secure Envelope, the End-User will mark the email they wish to encrypt using an Outlook plug-in before sending the email. When that marked outbound email passes through Vendor's Cisco IronPort gateway, the marked email is wrapped in an encryption envelope, preventing access to the contents without the correct encryption key. Key retrieval instructions are automatically added to the marked outgoing email message body, advising the recipient in simple language how to retrieve the encryption key. Secure envelope sends the encryption key to a centralized service maintained and provided by Cisco. Once the recipient has retrieved the key from the centralized Cisco service, the recipient can use the key to decrypt the email and view its contents through a web browser.

## Technical Approach for AIX LPAR Service

The AIX LPARs are deployed on 12 physical servers that are comprised of ten Power 740 (16 CPU cores and 256GB memory) and two Power 750 (32 CPU cores and 512GB memory) systems. The AIX LPARs function as virtual server instances with virtual resources for memory, CPU allocations, and a unique operating system presence. Integration of the 12 physical hardware platforms with other servers has been addressed separately in a Work Request. Vendor has integrated the AIX LPARs with the CoV Active Directory to support use of CoV credentials for authentication. Vendor has used Quest Authentication Services software purchased separately by the Commonwealth under the Work Request process to accomplish such integration. The Parties have mutually agreed upon project implementation schedules.

Vendor will allocate at least 27 infrastructure LPARs for system administration and management, and these and any infrastructure LPARs will not be separately invoiced to the Commonwealth. The infrastructure LPARs comprise of 24 virtual I/O servers (i.e., two per physical hardware platform), one Network Installation Manager Server (NIM), one System Director, and one test LPAR. After July 1, 2013, Vendor will not charge for such infrastructure LPARs.

Vendor will configure the physical hardware platforms as boot from SAN and disk storage will be allocated using Vendor's existing storage infrastructure. Vendor will utilize Tier 1 or Tier 2 storage at CESC to support the environment as specified by VITA.

The AIX LPARs will be backed up using the Vendor's standard pooled backup services. Server, switch, and router configurations, and storage service parameters (e.g., WWN's, LUN Masks, etc.) will be backed up or restored by Vendor using existing enterprise backup systems and restore processes. Vendor will not encrypt backups.

As part of the AIX LPAR Service, Vendor will provide operations support for the four primary components below:

- Web Application Firewall (WAF) – an appliance that inspects web traffic and issues a TCP reset to block malicious traffic.
- Inline tap – a network component that directs web based traffic to the WAF.
- PowerSC – IBM Security and Compliance software tool (software and licenses purchased separately by the Commonwealth).
- Enterprise IPS – Appliances that have the ability to analyze network traffic and take action based on prescribed rules. Enterprise IPS will be configured to filter VITA-MITA network traffic.



**SCHEDULE 3.3  
TO THE  
COMPREHENSIVE INFRASTRUCTURE AGREEMENT  
STATEMENTS OF WORK**



This is Schedule 3.3 (Statements of Work) to the Comprehensive Infrastructure Agreement between the Commonwealth and Vendor.

Each of the following Statements of Work are hereby incorporated by reference into this Schedule 3.3:

- Appendix 1 (Cross-Functional Services SOW)
  - Appendix 2 (Internal Applications Services SOW)
  - Appendix 3 (Security Services SOW)
  - Appendix 4 (Help Desk Services SOW)
  - Appendix 5 (Desktop Computing Services SOW)
  - Appendix 6 (Messaging Services SOW)
  - Appendix 7 (Mainframe & Server Services SOW)
  - Appendix 8 (Data Network Services SOW)
  - Appendix 9 (Voice & Video Telecom Services SOW)
  - Appendix 10 (Communications and Organizational Change Management SOW)
  - Appendix 11 (SOW Definitions)
  - Appendix 12 (Legacy Operations Framework)
  - Appendix 13 (Other Services SOW)
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