



## **Army National Guard Information Network Division**

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### **Enterprise Operations and Security Services**

#### **REQUEST FOR QUOTATION FOR SUPPORTING TECHNOLOGIES - ACTIVE DIRECTORY Version 1.1**

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**CHANGE HISTORY**

The table below identifies all changes incorporated into updated versions of this report after the initial approval. Updates to attachments that constitute new versions of those documents, e.g., a change in twenty percent (20%) of the document, are also identified here. The change request number (CR #) provides a link to the history of the change request.

<b>CR #</b>	<b>Date</b>	<b>Version #</b>	<b>Change Description</b>
	03/08/10	1.0	Initial Release
	03/09/10	1.1	Updated quantities, Scope and Purpose
	03/10/10	1.2	Modified paragraphs 1.1, Scope and 1.5, Place of Performance

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## 1. INTRODUCTION

This section provides the purpose, scope, background, and common system requirements and document structure for the *Request for Quotation for Supporting Technologies - Active Directory*.

### 1.1 Purpose

The purpose of this request for quotation (RFQ) is to obtain pricing and to procure the software and equipment for integration testing and evaluation, proof concept and implementation of Active Directory 2008 services Army National Guard (ARNG) IT Consolidation (ITC) project of the Enterprise Operations Systems and Security Program. Within seven calendar days after award, the winner will provide the lab equipment and the tools to the Willow Oaks location. The remaining equipment will be shipped to the 50 States, three Territories, the District of Columbia and the National Capitol Region (NCR) when required.

### 1.2 Scope

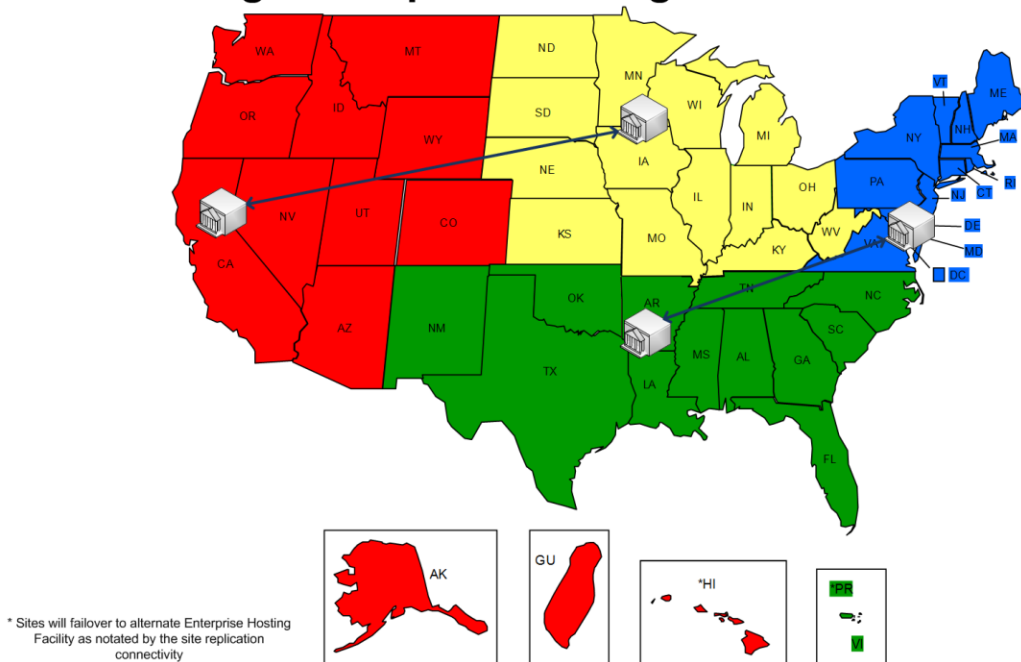
The scope of this document is a request for quotation and to subsequently procure the technologies and related solutions necessary to address the customer requirements identified for the ITC project Active Directory 2008 consolidation and migration. Outside of the scope of this document are the technologies and related solutions that would be used for the Exchange 2010 component of the ITC project.

### 1.3 Background

The IT Consolidation project will migrate and consolidate Active Directory (AD) and Exchange and support the regionalization of Exchange onto GuardNet XXI at four regional Enterprise Hosting Facilities. The ARNG, Networks Division (NGB-AIN) provides Wide Area Network (WAN) connectivity to all 50 States, three Territories, the District of Columbia and the National Capitol Region (NCR) through a network infrastructure known as GuardNet XXI. The ARNG locations connect to this network at each state's Joint Forces Headquarters (JFHQs) which then connect to one of seven Regional NIPRNet Gateways. The seven Regional NIPRNet Gateways are being consolidated into four Regional NIPRNet Gateways as part of another NGB-AIN consolidation project and they act as the connection points to the Non-Classified Internet Protocol Router Network (NIPRNet), which in turn has gateways to the Internet.

The ITC project is dependent upon the successful completion of the Regional NIPRNet Gateway consolidation project to provide the necessary bandwidth required to support the consolidation of AD and Exchange at four regional Enterprise Hosting Facilities. Figure 1.1 below reflects the mapping of States and Territories to each of the four Enterprise Hosting Facilities:

## AD / Exchange Enterprise Hosting Facilities



*Figure 1.1 - Mapping of States by Enterprise Hosting Facility*

The ITC project has two overarching objectives. The first is to consolidate Microsoft AD services throughout ARNG from 55 separate user domains in a single forest to one user domain in one forest. The second objective is to take the current MS Exchange component from a distributed model to a more centralized architecture.

The AD component of this effort will transform the current implementation of MS Windows Server 2003 R2 which supports approximately 120,000 users in 55 separate user domains to MS Windows Server 2008 into one user domain at the Enterprise level (intra-forest migration). This single domain will contain top-level Organizational Units (OUs) for each State.

The Exchange component of this project will take the current distributed model where Exchange servers and user mailboxes are located in each State, to a more centralized architecture where all the Exchange servers will be located at four Enterprise Hosting Facilities. As part of this project, Exchange 2003 will be upgraded to Exchange 2010. Additionally, the Enterprise will provide Mobile Messaging (BlackBerry and Windows Mobile), Unified Messaging (UM) to existing users, Exchange journaling and User Provisioning services.

The four Enterprise Hosting Facilities will provide high availability (HA) of Enterprise-level services in an Active-Active Hosting Facility model where one facility provides Continuity of Operations (COOP) capabilities to another facility. This HA model will ensure that Hosting Facility services will continue to be accessible from a secondary or alternate Hosting Facility should an outage occur at the primary Enterprise Hosting Facility servicing a particular State. This project will also include a hardware refresh component replacing all State-level domain controllers and tool servers.

All proposed solutions should include options or features to optimize network bandwidth utilization and minimize overall storage requirements using all available supporting technologies. All proposed solutions should minimize footprint requirements and environmental impacts within the Enterprise Hosting Facility. The Enterprise Hosting Facilities are constrained by available physical space and other facilities infrastructure that was never engineered and designed to support a full-scale Enterprise IT environment.

Figure 1.2 reflects the overall network topology of the four Enterprise Hosting Facilities along with the number and type of network connections between the sites:

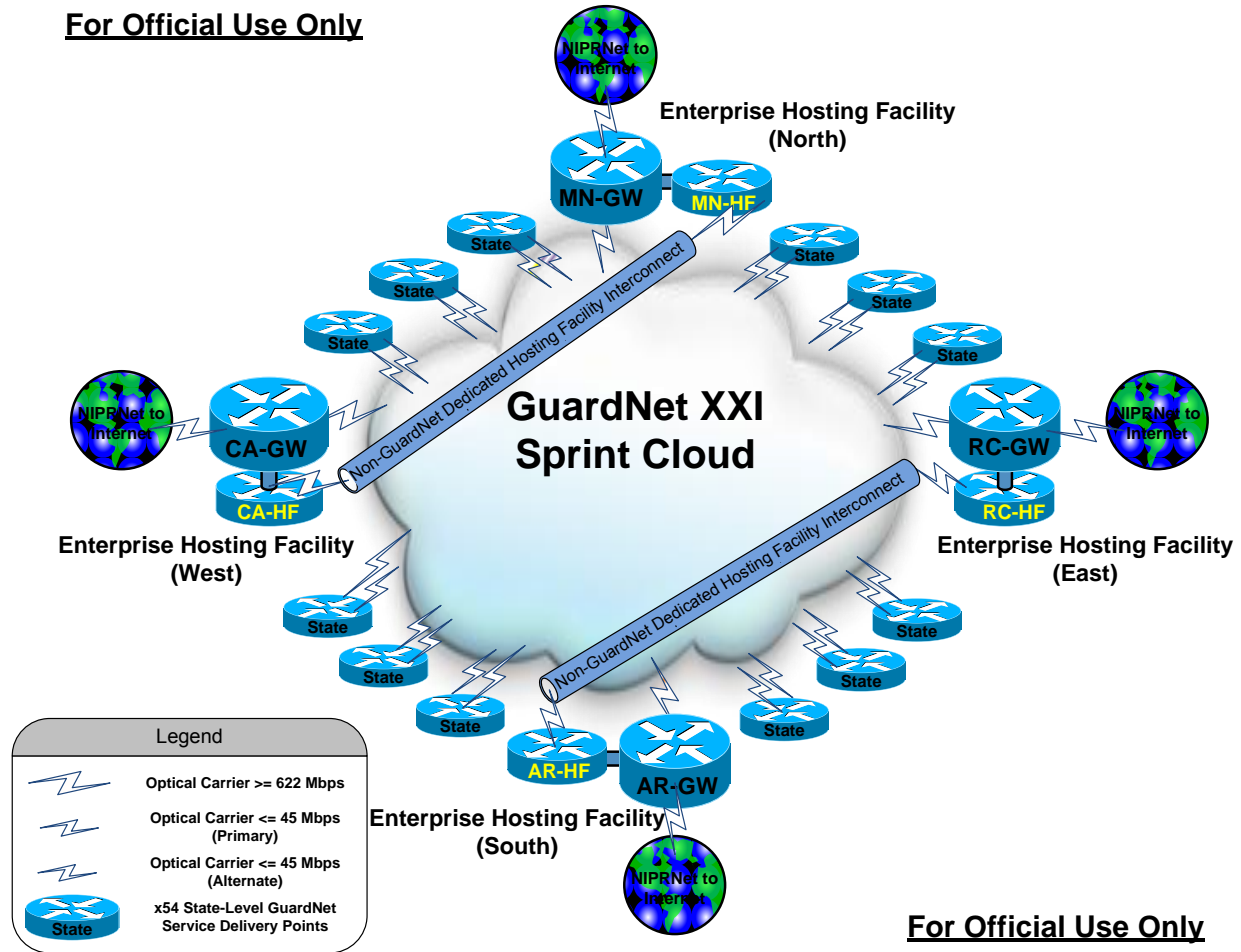
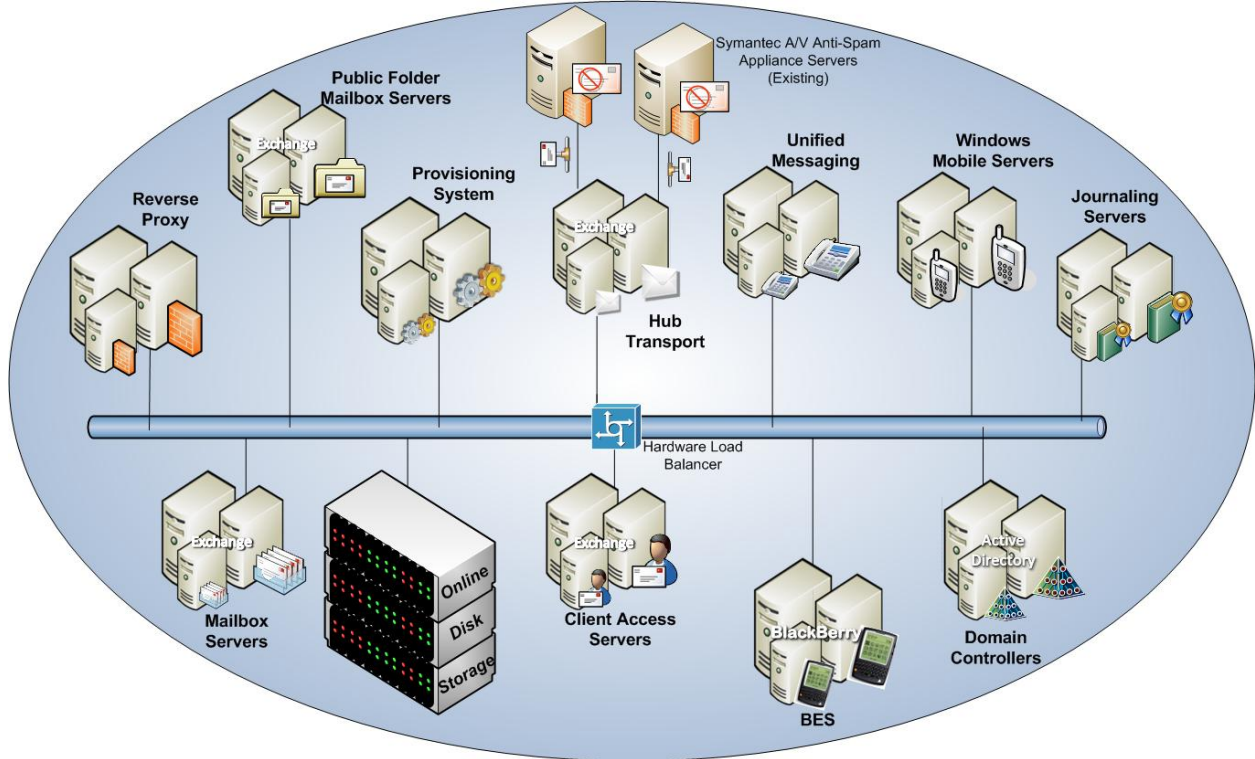


Figure 1.2 - ARNG Network Topology and Connection Types

The 'notional' content of one of the Enterprise Hosting Facilities in the new consolidated ARNG environment is found in Figure 1.3 below.



*Figure 1.3 – ‘Notional’ contents of one of the Enterprise Hosting Facilities in the new consolidated ARNG environment*

The objectives of this AD and Exchange Enterprise migration and consolidation initiative include:

- Provide the capability for all ARNG domain users with common access cards (CAC) and properly configured Government Furnished Equipment (GFE) to access core services and resources anytime, anywhere (ubiquitous access)
- Provide centralized Enterprise management of a consolidated AD and Exchange IT infrastructure that provides core systems and services with improved performance, functionality, and information sharing with greater resource efficiency
- Enable standardization for Enterprise solutions, and limit non-standard state-specific solutions for common Enterprise services
- Reduce server hardware and software licensing costs by consolidating AD into a single Enterprise managed domain within the current ARNG Forest.
- Offer new and enhanced Exchange messaging services by consolidating the existing Exchange IT infrastructure, currently maintained at the State-level, into four regional Enterprise-managed Hosting Facilities.

Information requested is for product technologies and solutions that are consistent with the objectives of this RFQ and clearly address the nine technology areas included in this document. It is not expected that one technology vendor would provide a response to all nine technology areas covered in this RFQ. However, any response, for any technology must first satisfy the common system requirements before any specific technical requirements are addressed. The

response must also address dependencies between technology areas as described in this document.

#### **1.4 Common System Requirements**

The proposed technologies and solutions for this RFQ shall satisfy all of the following common system requirements. If these common requirements are not satisfied, specific technologies proposed will not be considered:

- Shall be available via Computer Hardware Enterprise Software and Solutions (CHESS)
- Shall be supported on Windows Server 2008 64-Bit Operating System
- Shall be supported on Exchange Server 2010 by the end of Q2 2010
- Shall either have a Certificate of Networthiness (CoN) or a CoN has been submitted to NETCOM for approval, to include, any applicable AD schema extensions required
- Shall have Central/Enterprise Management Capabilities
- Shall support Virtualization (except for Unified Messaging Solutions)
- Shall support alerting/monitoring via SNMP V3 or Windows Event notifications. If SNMP V3 is not currently supported, product must have a roadmap to V3 support
- Shall provide High-Availability and Site Resiliency Capabilities
- Shall be Internet Protocol version 6 (IPv6) capable  
Note: the definition of IPv6 as accepted in this document is found in Appendix B.
- Shall include pricing for both 3 year and 5 year support/maintenance
- Shall include pricing for 24 x 7 x 365 support with 4 hour response
- Software shall support role-based access / customizable permissions model for granular permissions delegation
- Software shall not require the use of the built in Domain Administrator group. The vendor will provide a list of granular level permissions that are required so they can be delegated as needed.

#### **1.5 Place of Performance**

This equipment will be integrated and tested at the NGB-AIN Test Lab, 8260 Willow Oaks Corporate Drive, Fairfax, VA. The manufacturer will ship the equipment directly to the sites for installation. The relevant sites are the ARNG 50 States, three Territories, the District of Columbia and the National Capitol Region (NCR).

#### **1.6 Document Structure**

This document is structured as follows:

Section 1 of this document provides introductory material for the audience including scope, background, common system requirements and place of performance. Sections 2 – 10 each



contain descriptions and a technical section of describing the technologies or solutions sought within this RFQ. Appendix A contains a table of abbreviations used in this document and Appendix B contains a Department of Defense memorandum which provides the definitions of IP v6 capable products and networks as accepted in this document.

## 2. SERVER HARDWARE

### 2.1 Requirements

*Server Grouping #1 (quantity 232 rack mount servers)*

- No taller than 1 Rack Unit Size
- Intel® Nehalem Dual Socket, Quad Core 64-bit 2.5GHz or faster processors
- 12GB RAM
- At least 100GB of usable disk space in a RAID-1 configuration with 10K RPM drives
- At least 400GB of usable disk space in a RAID-5 configuration with 10K RPM drives
- Dual 1Gb NICs
- 1 PCI Express Slot
- Trusted Platform Module (TPM) v. 1.2 chip
- Out-Of-Band (OOB) capability
- Dual Redundant Power Supplies
- Rack mounting hardware
- 110v and 220v single phase Alternating Current (A/C) power
- Power cables for both 110v and 220v power

*Server Grouping #2 (quantity 96 rack mount servers)*

- No taller than 2 Rack Units
- Intel® Nehalem Dual Socket, Quad Core 64-bit 2.5GHz or faster processors
- 12GB RAM
- At least 250 GB of usable disk space in a RAID-1 configuration with 10K RPM drives
- At least 1.5 TB of usable disk space in a RAID-5 configuration with 7.2K RPM drives
- Dual 1Gb NICs
- 2 PCI Express Slots
- Trusted Platform Module (TPM) v. 1.2 chip
- Out-Of-Band (OOB) capability
- Dual Redundant Power Supplies
- Rack mounting hardware
- 110v and 220v single phase Alternating Current (A/C) power
- Power cables for both 110v and 220v power

*Server Grouping #3(quantity 12 rack mount servers)*

- No taller than 2 Rack Units
- Intel® Nehalem Quad Socket, Quad Core 64-bit 2.5GHz or faster processors
- 24GB RAM
- At least 250 GB of disk space in a RAID-1 configuration with 10K RPM drives
- Dual 1Gb NICs
- 2 PCI Express Slots
- Trusted Platform Module (TPM) v. 1.2 chip
- Out-Of-Band (OOB) capability
- Dual Redundant Power Supplies
- Rack mounting hardware
- 110v and 220v single phase Alternating Current (A/C) power

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- Power cables for both 110v and 220v power

*Racks quantity (quantity 62)*

- 42U lockable racks fully populated with PDUs
- Internal Fan

*KVMs (quantity 62)*

- 16 Port IP Keyboard, Video, Mouse (KVM) switch and monitor console with keyboard and mouse
  - IP KVM supports PKI CAC authentication
  - Supports both 110v and 220v single phase Alternating Current (A/C) power
  - Power cables for both 110v and 220v power
  - All necessary KVM adapters
  - All necessary mounting hardware
- The quotation shall include pricing for both 3 year and 5 year support/maintenance
  - The quotation shall include 24 x 7 x 365 support with 4 hour response

<b>Request for Quote – Server Hardware</b>		
<b>Product/Component Description</b>	<b>Unit Quantity</b>	<b>Total Quantity</b>
Server Grouping #1	1	226
Support Maintenance - 3 Yrs	1	226
Support Maintenance - 5 Yrs	1	226
24 x 7 x 365 support with 4 hour response	1	226
Server Grouping #2:	1	92
Support Maintenance - 3 Yrs	1	92
Support Maintenance - 5 Yrs	1	92
24 x 7 x 365 support with 4 hour response	1	92
Server Grouping #3: Clustered SQL Servers	1	12
Support Maintenance - 3 Yrs	1	12
Support Maintenance - 5 Yrs	1	12
24 x 7 x 365 support with 4 hour response	1	12
Racks	1	62
Support Maintenance - 3 Yrs	1	62
Support Maintenance - 5 Yrs	1	62
24 x 7 x 365 support with 4 hour response	1	62
KVMs	1	62
Support Maintenance - 3 Yrs	1	62
Support Maintenance - 5 Yrs	1	62

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24 x 7 x 365 support with 4 hour response	1	62
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### 3. STORAGE

#### 3.1 Requirements

- The storage solution will be Direct Attached Storage (DAS) (no Network Attached Storage [NAS] or Storage Area Network [SAN])
- The storage solution will be fully redundant (redundant power supplies and controllers)
- The storage solution will support RAID 5, RAID 6, RAID 10, RAID 50, or RAID 60
- The storage solution will support hot spares
- The storage solution will provide 30 TB of raw storage
- The storage solution will include 7.2K RPM SATA drives
- The storage solution will support both 110v and 220v power
- The storage solution will provide the ability for expansion of additional disk shelves
- The storage solution will support the ability to be connected into two servers simultaneously

#### 3.2 Quotation

- The quote shall include a quantity of TWELVE (12) DAS devices for 30TB each
- The quote shall include a total quantity of EIGHTEEN (18) PCI-Express cards
- The quote shall include any other required devices, cards, or cables
- The quote shall include pricing for both 3 year and 5 year support/maintenance
- The quote shall include pricing for both a 3 year and 5 year fee for the ability to keep failed hard drives
- The quote shall include 24 x 7 x 365 support with 4 hour response

Request for Quote - Storage		
Product/Component Description	Unit Quantity	Total Quantity
DAS devices 30TB each	1	12
Fee for the ability to keep failed hard drives - 3 Yrs	1	12
Fee for the ability to keep failed hard drives - 5 Yrs	1	12
Support / Maintenance - 3 Yrs	1	12
Support / Maintenance - 5 Yrs	1	12
24 x 7 x 365 support with 4 hour response	1	12
PCI-Express cards	1	18
Support / Maintenance - 3 Yrs	1	18
Support / Maintenance - 5 Yrs	1	18
24 x 7 x 365 support with 4 hour response	1	18

## 4. NETWORK HARDWARE

### 4.1 Requirements

- Total Number of Layer 2 Ethernet IP Switches: 122
  - Number of 1 Gb Ethernet Ports per Switch: 24 ports per switch
  - Dual 1Gb Fiber SFP for uplink
  - Power: Supports both 110v and 220v power
  - QOS
  - SSHv2
  - TACACS/RADIUS
  - Port Authentication 802.1x/EAP/PEAP (NAC/NAP)
- The quotation shall include pricing for both 3 year and 5 year support/maintenance
- The quotation shall include 24 x 7 x 365 support with 4 hour response

Request for Quote – Network Hardware		
Product/Component Description	Unit Quantity	Total Quantity
Layer 2 Ethernet IP Switches	1	122
Support / Maintenance - 3 Yrs	1	122
Support / Maintenance - 5 Yrs	1	122
24 x 7 x 365 support with 4 hour response	1	122

## 5. UNINTERRUPTIBLE POWER SUPPLIES (UPS)

### 5.1 Requirements

The UPS product specified shall conform to the following specifications / parameters:

- Shall be no taller than 5U rack height
  - Shall be mountable in a standard 42U rack with front and rear doors closed
  - Shall have Out-Of-Band (OOB) remote management capability
  - Shall have Rack mounting hardware included
  - Shall be fully operational on variable Power Input of 100 to 250 VAC at 50 or 60 hertz
  - Shall provide variable Power Output of 100 to 250 VAC at 50 or 60 hertz with 3000 VA / 2100 W output rating
  - Shall provide at least 5 minutes of backup power at full load
  - Battery shall be replaceable
  - Shall have a power cord at least 4 feet in length
  - Shall have physical audible alarm activated by battery overload or battery draw-down
  - Shall have physical Online/Offline button and emergency power off switch
  - Shall have a physical LED status display for load, battery, and online/offline status; warning lights for battery replacement and battery overload
  - Shall provide power output connectivity port types: NEMA 5-20R, NEMA L5-30R, L6-20R, NEMA L6-30R
  - Shall provide surge protection up to 480 Joules
  - Remote management software shall automatically detect power outage and battery draw-down, and be configurable to perform unattended shutdown of connected components
  - Remote Management Interface shall allow for remote administration via web browser; shall support SNMP, HTTP/HTTPS protocols; connectivity via RJ-45 Ethernet interface
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- The quotation shall include pricing for both 3 year and 5 year support/maintenance
  - The quotation shall include 24 x 7 x 365 support with 4 hour response

Request for Quote - UPS		
Product/Component Description	Unit Quantity	Total Quantity
UPS	1	120
Support Maintenance - 3 Yrs	1	120
Support Maintenance - 5 Yrs	1	120
24 x 7 x 365 support with 4 hour response	1	120

## 6. PROVISIONING SYSTEM

### 6.1 Description

An Enterprise Provisioning System is needed to achieve the new Army National Guard (ARNG) administration model. The goal of this system is to control Active Directory (AD) changes through administrative rules and policies and to enable a least-privilege access model which would be accomplished through granting of granular permissions and approval-based workflow processes.

The Provisioning System will establish and enforce Enterprise-wide business rules and standards for a number of common administrative actions. The Provisioning System will assist State Directorate of Information Management (DOIM) administrative personnel in performing administrative tasks for AD 2008 and Exchange 2010 while ensuring that they perform these tasks in a manner consistent with Army and ARNG policy and procedures. The Provisioning System will automate user and group provisioning including account creation in AD, mailbox creation in Exchange, and group population and resource provisioning in Windows.

The Provisioning System will also automate re-provisioning and de-provisioning. The Provisioning System will support self-service roles which allow end-users to carry out self-administrative tasks such as modifying their personal data through a simple to use of a self-service Web interface.

### 6.2 Requirements

The proposed solutions for the Provisioning System shall satisfy all of the following specific technical requirements in addition to the common requirements above, in order to be considered for the solution addressed by this RFQ.

The Provisioning System shall perform the following tasks:

- Shall support approximately 120,000 user objects as well as associated computers, groups, and resources.
- Quote shall include both 3 and 5 year maintenance costs
- Create, delete, move, and modify the following Active Directory objects and attributes:
  - OUs
  - Users
  - Groups
  - Contacts
  - Computers
  - Group Policy
  - DNS records
- Allow for customization of the software for customer specific provisioning requirements
- Prohibit the existence of any 'backdoor' access to the Exchange mailbox system or Active Directory that could circumvent the solution's controls to a System Administrator's access to the system.
- Have the ability to enforce naming standards.
- Provide a customizable web interface for Administrators or Help Desk support staff
- Provide for automated group management based on attributes of the Active Directory user object



- Provide an audit trail for any changes to an Active Directory object to include those attributes specific to the Exchange enclave
- Include the ability to manage similar users across any forest at a top level rather than having to manage these users at an individual OU level
- Have the ability to provide role-based delegation
- Enforce attribute conformity of an Active Directory object upon new creation or object updating
- Shall auto-generate specific values of the AD/Exchange attributes that should not be modified by an OU level administrator
- Shall provide an accounts/users removal capacity that will:
  - Remove a user from groups.
  - Disable the account.
  - Hide the exchange account from the GAL.
  - Move the user to a deletion OU and automate the delete after X number of days
- Provide change approval/workflow for specific actions (such as: move the users to different information store/database) to occur in the directory with the ability to leverage the following features:
  - Delegate role based permissions to submitters
  - Create a workflow form that is populated with as many drop-down lists as possible for standardization
  - Validate user entry fields when form is submitted
  - Have multiple workflows based on action and role with the following outcomes:
    - Ability to execute a change and log the details
    - or
    - Ability to flag the change for approval and e-mail a specific configurable distribution group
  - Notify all involved parties of the change via e-mail.
- Operate without performing a Schema Extension to Active Directory
- Have the ability to perform tasks outside of Active Directory once a user is provisioned in Active Directory
- Have the ability to perform cross forest management
- Provide full scale reporting of configuration, auditing, and permissions assigned across an Active Directory forest
- Provide a self service option. to allow users to update designated attributes of their Active Directory account
- Provide a rotation based load balancing model for Exchange mailbox provisioning as described below. Additionally, the purpose of this tool is to determine the availability of any Exchange mailbox database store for future provisioning based on whether the Exchange mailbox database store contains a configurable number of users, and if so, the store is to be unavailable for further automated provisioning.
  - Of the current mailbox database stores dedicated for a specific tier of users, the mailbox provisioning tool is to check the number of users in the tier for each of the stores before provisioning a mailbox and presenting the mailbox database store with the lowest amount of the users in that tier to the System Administrator as the proposed mailbox database store for the new user to be provisioned from. This solution will provide a rotation-based load balancing model.

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- Have the ability to automate the account creation and deletion process to improve Active Directory integrity and security by preventing the creation of additional accounts or orphaned accounts
- The quotation shall include pricing for both 3 year and 5 year support/maintenance
- The quotation shall include 24 x 7 x 365 support with 4 hour response

<b>Request for Quote – Provisioning System</b>		
<b>Product/Component Description</b>	<b>Unit Quantity</b>	<b>Total Quantity</b>
Support for approximately 120,000 user objects as well as associated computers, groups, and resources.	1	120,000
Support Maintenance - 3 Yrs	1	120,000
Support Maintenance - 5 Yrs	1	120,000
24 x 7 x 365 support with 4 hour response	1	120,000

## 7. GROUP POLICY OBJECTADMINISTRATION TOOL

### 7.1 Description

The key component of the Group Policy Object (GPO) Administration Tool will be to allow State Administrators the ability to create, modify and delete GPOs for their own State. State Administrators should not have the ability to see other States GPOs even though all the GPOs will be located in one Domain. A workflow process should also be included so that Enterprise Administrators can review and authorize any changes to GPO's made by the State Administrators. The tool should also have the ability to compare dozens of GPOs in multiple Domains and do comparative analysis on all of them.

### 7.2 Requirements

The GPO Administrator Tool shall include the following features:

- Licenses to support 120,000 users and/or 5,000 GPOs
  - Provide workflow processes which will allow GPO creation, deletion and modification to be implemented only after being authorized
  - Provide comparison and analysis tools to compare many GPOs across many Domains into one report.
  - Provide the ability to run resultant sets of policy on production objects without implementing changes or actually affecting production.
  - Limit the ability to view and modify GPOs based on AD Group Membership.
  - Provide auditing of GPO changes, noting what was changed and who made the change.
  - Supports GPOs using Microsoft Group Policy Preferences
  - Provide GPO versioning and the ability to rollback to previous versions
- 
- The quotation shall include pricing for both 3 year and 5 year support/maintenance
  - The quotation shall include 24 x 7 x 365 support with 4 hour response

Request for Quote – GPO Tool		
Product/Component Description	Unit Quantity	Total Quantity
Group Policy Object Administration Tool	1	120,000 users and/or 5,000 GPOs
Support Maintenance - 3 Yrs	1	120,000 users and/or 5,000 GPOs
Support Maintenance - 5 Yrs	1	120,000 users and/or 5,000 GPOs
24 x 7 x 365 support with 4 hour response	1	120,000 users and/or 5,000 GPOs

## 8. ACTIVE DIRECTORY MIGRATION TOOL

### 8.1 Requirements

The AD Migration Tool shall include the following features to support 120,000 users:

- Allow for the migration efforts to take place during normal business hours with insignificant impact to the user community
- Users will have access to resources regardless of the user, computer, group, or resource migration status
- Allows for customization of the software for unique migration situations
- Customizable reports available throughout the migration process
- Comprehensive management features for pre-migration planning and analysis. This capability shall include automatic discovery and assessment of users, groups and computer resources to simplify preparatory work.
- Automated migration functions. Automatic update of permissions and resources, including Active Directory, Exchange, cluster servers, File and Print, SharePoint, IIS, SQL Server, etc. Automation of repetitive migration tasks.
- Tool Performance. Tool should utilize parallel processing technology to minimize network traffic and maximize performance.
- Flexible Synchronization Options:
  - Permit administrator to identify the specific DC to be used, schedule the exact time of synchronization, and specify the specific Organizational Units (OU) to synchronize
  - Tool shall provide open and scriptable interfaces that enable the administrator to address unique data migration requirements
- Management:
  - Provide the capability to migrate, synchronize and restructure Active Directory from a single console
  - Provide project-based, controlled migration. Management reports that provide the capability to track and audit the progress of this migration project.
- Test Environment:
  - Tool shall provide a means by which to model and simulate the migration
  - Tool shall be capable of duplicating current Forest environment and account for its unique variables
  - It shall be capable of proactively identifying and resolving potential issues, such as name conflicts, as well as select multiple target Organizational Units (OUs) before migration
- Tool shall provide the following additional capabilities:
  - Updating AD object permissions
  - Delegation functionality
  - “Undo” functionality
  - “Pruning and grafting” feature
  - Automatic exclusion of disabled and expired accounts if desired
  
- The quotation shall include pricing for both 3 year and 5 year support/maintenance
- The quotation shall include 24 x 7 x 365 support with 4 hour response

<b>Request for Quote – AD Migration Tool</b>		
<b>Product/Component Description</b>	<b>Unit Quantity</b>	<b>Total Quantity</b>
Active Directory Migration Tool	1	120,000 users
Support Maintenance - 3 Yrs	1	120,000 users
Support Maintenance - 5 Yrs	1	120,000 users
24 x 7 x 365 support with 4 hour response	1	120,000 users

## 9. BACKUP SOLUTION

### 9.1 Requirements

- Shall provide licenses for 6 individual backup server instances
  - Must have scheduling capability to schedule backup jobs
- Shall provide licenses for 75 Windows Server 2008 backups agents
  - Must be capable of backing up the system state on Windows Server 2008
  - Must provide functionality to backup files while they are in use
- Shall provide licenses for 6 Microsoft SQL 2005/2008 agents
- Shall include the ability for restoration of Active Directory objects covering 26 domain controllers
- The quotation shall include pricing for both 3 year and 5 year support/maintenance
- The quotation shall include 24 x 7 x 365 support with 4 hour response

Request for Quote – Backup Solution		
Product/Component Description	Unit Quantity	Total Quantity
Licenses for individual backup server instances	1	6
Support Maintenance - 3 Yrs	1	6
Support Maintenance - 5 Yrs	1	6
24 x 7 x 365 support with 4 hour response	1	6
Licenses for Windows Server 2008 backups agents	1	75
Support Maintenance - 3 Yrs	1	75
Support Maintenance - 5 Yrs	1	75
24 x 7 x 365 support with 4 hour response	1	75
Licenses for Microsoft SQL 2005/2008 agents	1	6
Support Maintenance - 3 Yrs	1	6
Support Maintenance - 5 Yrs	1	6
24 x 7 x 365 support with 4 hour response	1	6

## 10. EVENT LOG BACKUP SOLUTION

### 10.1 Requirements

- The Event Log Backup solution will provide a secured centralized repository for 550 Microsoft Windows Server Event Logs distributed throughout the WAN
- Scavenge logs from specified servers once the logs are copied and verified as being successfully backed up by the backup software
- Shall support all of the standard event logs in Windows Server 2008, Active Directory, and Microsoft Exchange 2010
- Shall be able to delegate end-users permissions to allow them to perform complex queries of the event logs from subsets of servers and subsets of a server's event logs
- Shall be able to define a retention period on the centralized repository
- The system should have the ability to schedule the collection (polling) of event logs, with the ability to create different schedules for the different event logs
- The system must provide end-users a method to query events that have not yet been transferred to the central repository
- The quotation shall include pricing for both 3 year and 5 year support/maintenance
- The quotation shall include 24 x 7 x 365 support with 4 hour response

Request for Quote – Event Log Backup Solution		
Product/Component Description	Unit Quantity	Total Quantity
Event Log Backup Software	1	550 server agents
Support Maintenance - 3 Yrs	1	550 server agents
Support Maintenance - 5 Yrs	1	550 server agents
24 x 7 x 365 support with 4 hour response	1	550 server agents

**APPENDIX A: ACRONYMS**

AD	Active Directory
AES	Advanced Encryption Services
ARNG	Army National Guard
BES	BlackBerry Enterprise Server
CAC	Common Access Card
CAS	Client Access Server
CHESS	Computer Hardware Enterprise Software and Solutions
CON	Certificate of Networthiness
COOP	Continuity of Operations
DAG	Database Availability Group
DAS	Direct Attached Storage
DC	Domain Controller
DB	Database
DNS	Domain Name System
DOD	Department of Defense
DOIM	Directorate of Information Management
DR	Disaster Recovery
DS	Domain Services
EOSS	Enterprise Operations and Security Services
FC	Fiber Channel
Gb	Gigabit
Gbps	Gigabits per Second



GFE	Government Furnished Equipment
GPO	Group Policy Object
GNEC	Global Network Enterprise Construct
GUI	Graphical User Interface
HA	High Availability
HT	Hub Transport
IA-APL	Army Information Assurance Approved Products List
IP	Internet Protocol
IPv6	Internet Protocol version 6
iSCSI	Internet Small Computer Systems Interface
I/O	Input/Output
IT	Information Technology
ITC	IT Consolidation
JFHQ	Joint Forces Headquarters
MM	Mobile Messaging
MMC	Microsoft Management Console
NAS	Network Attached Storage
NETCOM	U.S. Army Network Enterprise Technology Command
NG	National Guard
NGB	National Guard Bureau
NGB-AIN	Army National Guard, Networks Division
NIPRNET	Non-Classified Internet Protocol Router Network
NOC	Network Operations Center
OOB	Out-of-Band

OS	Operating System
OTA	Over The Air
OU	Organizational Unit
OWA	Outlook Web Application
PBX	Private Branch Exchange
PDU	Protocol Data Unit
PKI	Public Key Infrastructure
PST	Personal Information Store
RAID	Redundant Array of Inexpensive Disks
RID	Relative Identifier
SAN	Storage Area Network
SAS	Serial Attaches SCSI
SATA	Serial Advanced Technology Attachment
SCSI	Small Computer Systems Interface
S/MIME	Secure Multipurpose Internet Mail Extension
SMS	Short Message Service
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
Sntp	Simple Network Time Protocol
SSL	Secure Sockets Layer
STIG	Security Technical Implementation Guide
TCP	Transmission Control Protocol
TLOU	Top Level OU
TNOSC	Theater Network Operations and Security Center
UM	Unified Messaging

VM	Virtual Machine
VSS	Volume Shadow Copy Service
WAN	Wide Area Network

**APPENDIX B: DEFINITIONS**

The following Department of Defense memorandum provides the definitions of IP v6 capable products and networks as accepted in this document.



CHIEF INFORMATION OFFICER

**DEPARTMENT OF DEFENSE**  
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26 2008

**MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
UNDER SECRETARIES OF DEFENSE  
ASSISTANT SECRETARIES OF DEFENSE  
GENERAL COUNSEL OF THE DEPARTMENT OF  
DEFENSE  
DIRECTOR, OPERATIONAL TEST AND EVALUATION  
INSPECTOR GENERAL OF THE DEPARTMENT OF  
DEFENSE  
ASSISTANTS TO THE SECRETARY OF DEFENSE  
DIRECTOR, ADMINISTRATION AND MANAGEMENT  
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION  
DIRECTOR, NET ASSESSMENT  
DIRECTORS OF THE DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES  
CHIEF INFORMATION OFFICERS, MILITARY  
DEPARTMENTS**

**SUBJECT: DoD Internet Protocol Version 6 (IPv6) Definitions**

- References:**
- (a) DoD CIO Memorandum, DoD Internet Protocol Version 6 (IPv6) Interim Transition Guidance, September 29, 2003
  - (b) DoD CIO Memorandum, DoD Internet Protocol Version 6 (IPv6) Implementation, February 6, 2008
  - (c) DoD Internet Protocol Version 6 (IPv6) Address Plan, March 21, 2008

Reference (a) provided an initial DoD definition for IPv6 Capable systems or products. Reference (b) tasked the Office of the DoD Deputy CIO and the Defense Information Systems Agency to develop an IPv6 Capable definition in coordination with the DoD Components.

The Department recognizes the need to update and clarify definitions of IPv6 Capable and IPv6 Enabled to establish common terminology and understanding for each term, establish a reference for universal reporting, and identify tasks and milestones needed for each definition. While the DoD definitions are derived from the IPv6 standard profiles contained in the DoD Information Technology Standards Registry (DISR), harmonization with U.S. Government definitions is achieved through the ongoing synchronization of the DISR and the National Institute of Standards and



Technology IPv6 standard profiles. Accordingly, the following are to be used when defining DoD products and networks as being IPv6 Capable or Enabled:

**IPv6 Capable Products** – Products (whether developed by commercial vendor or the government) that can create or receive, process, and send or forward (as appropriate) IPv6 packets in mixed IPv4/v6 environments. IPv6 Capable Products shall be able to interoperate with other IPv6 Capable Products on networks supporting only IPv4, only IPv6, or both IPv4 and IPv6, and shall also:

- Conform with the requirements of the DoD IPv6 Standard Profiles for IPv6 Capable Products document contained in the DISR
- Possess a migration path and/or commitment to upgrade from the developer (company Vice President, or equivalent, letter) as the IPv6 standard evolves
- Ensure product developer IPv6 technical support is available
- Conform to National Security Agency (NSA) and/or Unified Cross Domain Management Office requirements for Information Assurance products

**IPv6 Capable Networks** – Networks that can receive, process, and forward IPv6 packets from/to devices within the same network and from/to other networks and systems, where those networks and systems may be operating with only IPv4, only IPv6, or both IPv4 and IPv6. An IPv6 Capable Network shall be ready to have IPv6 enabled for operational use, when mission need or business case dictates. Specifically, an IPv6 Capable Network must:

- Use IPv6 Capable Products
- Accommodate IPv6 in network infrastructures, services, and management tools and applications
- Conform to DoD and NSA-developed IPv6 network security implementation guidance
- Manage, administer, and resolve IPv6 addresses in compliance with the DoD IPv6 Address Plan (reference (c)), when enabled

**IPv6 Enabled Network** – An IP network that is supporting operational IPv6 traffic, through the network, end-to-end.

Thank you for your support to this effort. My point of contact for this action is Mr. Kris Strance (Office of the Deputy CIO), (703) 607-0249, kris.strance@osd.mil.



David M. Wennergren  
Deputy Chief Information Officer