

UNU-ViE/EHS Datacenter (SAN and Virtualisation Infrastructure Implementation, Active Directory/Data Migration, Email and Backup Solution) Project

1. Background

As of the end of February 2010 the UNU-ViE/EHS (United Nations University Bonn, Germany) has acquired hardware and software for the upgrade of its Datacenter. This includes a Shared Storage System (NetApp FAS2050), virtualisation infrastructure/platform (3 x HP Proliant DL380 G6 Servers/VMware vSphere 4) and a backup solution (Physical Backup Server HP Proliant DL380 G6 which will run Symantec Backup Exec + a Tape Library HP StorageWorks MSL4048 Ultrium 1840 connected to the SAN).

A new email-groupware solution, MS Exchange 2010, was also acquired.

One of our primary objectives is to integrate, through ICT, the UNU Bonn with the UNU-HQ, our headquarters in Tokyo. ICT units in both UNU-ViE and UNU-HQ will implement a fresh Active Directory child domain tree in the existing UNU Global Active Directory forest for UNU-ViE prior to the commencement of this project.

One of the major elements of this project will be an inter-forest migration, whereby the Active Directory objects (users, groups, computers, etc) of UNU-ViE existing domain will be migrated to the fresh child domain tree in the UNU Global Active Directory forest.

Please note that all necessary hardware and software with licenses will already have been obtained.

2. General Information:

Existing source site (UNU ViE/EHS Bonn, Germany) is a Windows Server 2003 Active Directory Environment with Open Xchange 5 groupware solution running on a SLES 9 server.

The target site (UNU HQ Tokyo, Japan) is a Windows Server 2008 Active Directory Domain Environment with a Microsoft Exchange solution. An Exchange 2010 Schema will be implemented in and by Tokyo to facilitate Bonn's 2010 new email solution. The Email routing within UNU will route directly between Hub Transport servers through a pre-established secure VPN tunnel. The general software for the new infrastructure will be based on VMware and Microsoft technologies such as Active Directory, Exchange and ForeFront/ISA. The final solution will consist of a VMware EXS Cluster System, a Microsoft Active Directory (Windows Server 2008 R2), an Exchange 2010 system with the Client Access and Hub Transport Role on a separate server system within the virtual infrastructure, a separate Forefront 2010 cluster on two physical machines will act as the Outlook Web Access and Outlook anywhere Gateway.

3. Project Outline

This project shall consist primarily of the following elements, which should be completed using best practice guidelines and should make full use of the many of features of the new systems and software packages - VMware, NetApp Base Pack - Foundation Pack and Server Pack (including block level

deduplication, Snapshots, Vmotion, etc). All of which will be subject to an agreed project plan which would include, but may not be limited, to:

Part (A):

- i. Review our current infrastructure, active directory/forest design (ViE Bonn and HQ Tokyo) and devise an agreed project/action plan
- ii. Set-up, installation, configuration and testing of the SAN
- iii. Installation and configuration of the 2 Fabric switches
- iv. Set-up, installation, configuration and testing of the 3 virtualisation platform servers (HP Proliant DL380 G6) and virtualization software
- v. Using ADMT, migrate of current MS 2003 server/Active directory infrastructure to a virtualized MS Windows Server 2008 environment in combination with the NetApp, including all data, computers, printers and preserving all permissions and quotas. In the virtualized environment and all file permissions, quotas and shares should be handled through the NetApp
- vi. Transfer the DHCP database server and the Windows DNS for the internal network from the current Windows Server 2003 to the Windows Server 2008 environment, persevering all entries and reservations
- vii. Set-up, installation, configuration and testing of the backup solution.

Part (B): Email solution– Migration

To commence after completion of (Part A)

- i. Review our current groupware solution (Open Xchange 5), devise an agreed project plan
- ii. The new solution will consist of an Exchange 2010 system with the Client Access and Hub Transport Role on a separate server system within the virtual infrastructure, a separate Forefront 2010 cluster on two physical machines will act as the Outlook Web Access, Outlook Anywhere Gateway and as a Proxy/Reverse Proxy server. This would include, but not limited to, the following:
 - Install and configure one Exchange 2010 Mailbox server and one Exchange 2010 CAS/Hub transport server on the virtualised environment upon completion of Part (A) of this project. Both Exchange servers will reside in new AD domain in the UNU global AD forest
 - Configuring Exchange servers to allow access to Outlook Web Access, Outlook Anywhere and ActiveSync connections
 - Configure email routing so that mails designated to UNU-HQ (Tokyo) mail servers must go through the secure VPN tunnel between Vie/EHS and HQ
 - Install and configure Symantec BackupExec agent for Exchange server.
- iii. Installation and configuration of the redundant Forefront 2010 Cluster which will support Outlook Web Access and Outlook Anywhere Gateway.
- iv. Migration of the current email system (Open Xchange 5) to the virtualized MS Exchange solution. This will involve the migration of approximately 250 mailboxes and 100 shared IMAP mail folders (with address aliases) from the current to the new solution. This consists of approximately 100GB of data. Also the transfer of Public Calendars and Public Contact lists and preserving all permissions
- v. Devise a backup schedule for the new MS Exchange solution based upon best practices, whereby allowing an individual mail restore if so required.

Part (C)

Training and Knowledge Transfer. The bidding company must also provide training workshops on the various aspects of this project (NetApp, VM Ware, Symantec Backupexec and MS Exchange).

4. Reporting and Documentation requirements:

- The winning bidder must provide a clear final report on all phases of the completed project
- 'Step by step instruction' documentation to accompany the Training Workshops (Part C)
- All documentation/project plans/reports/ training materials must be in English.

5. Service

a. General

To implement and integrate the new solutions for the whole infrastructure, a professional service has to be offered. It is desirable that the proposing company has technical vendor certifications within the corresponding topics.

b. Professional Service

Topic	Details
Project Management	The contractor needs to offer a global project management service for the planning, implementation and fulfillment phases.
Storage	Professional Service for the planning, implementation, testing and documentation of the storage system with all the features and protocols and in conjunction with the VMware infrastructure.
VMware infrastructure	Professional Service for the planning, implementation, testing and documentation of the VMware Infrastructure.
Backup Solution	Professional Service for the planning, implementation, testing and documentation of the backup solution (Symantec Backupexec).
Active Directory	Professional Service for the planning, implementation, testing and documentation of the Microsoft Active Directory
MS Exchange	Professional Service for the planning, implementation, testing and documentation of the Exchange Environment.
Forefront/ISA Server	Professional Service for the planning, implementation, testing and documentation of the Forefront/ ISA Server cluster environment in conjunction with the Exchange Server installation.
References and Certifications	It is desirable for the contractor to have the following certifications and references: <ul style="list-style-type: none"> - NetApp: <ul style="list-style-type: none"> ▪ NetApp Authorised Professional Service Partner ▪ NetApp Gold Partner ▪ NetApp Certified Data Management

	<p style="text-align: center;">Administrator</p> <ul style="list-style-type: none">- VMware<ul style="list-style-type: none">▪ Enterprise Partner▪ VMware Certified Professional- Microsoft Gold Partner- Symantec Gold Partner- Name at least 3 project references for a VMware Infrastructure Solution together with the offered storage vendor- Name at least 3 project references for an Exchange 2007 Implementation for at least 200 Users.- Name at least 3 project references for the backup solution for a VMware infrastructure, Exchange 2007 environment and the storage vendor.
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c. *Software*-Support Service Contract

For this project the successful bidder must be able to provide a Software Support SLA for the software involved in this project, providing capabilities such as helpdesk and telephone support, single point of contact, minimum reaction times etc.

Bonn, 13 April 2010
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