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Enterprise Vault Migration plan to move EV to a new domain and target new Exchange servers

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Referenced Documents

Document	Version	Author	Description
Admistrators_Guide.pdf	2008	Symantec	EV 8.0 Administrators Guide

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1   INTRODUCTION

1.1   Purpose of this Document

This document provides advice on migrating Enterprise Vault archived mailboxes from Exchange 2003 servers in Domain A to Exchange 2007 Servers in Domain B. Domain A and Domain B are also separate Forests.

2   ASSUMPTIONS & DEPENDENCIES

2.1   Assumptions

- Bi-directional trusts exist between the AD forests and domains
- Mailbox GUID's and legacy DN's will change during the migration
- Quest EWM will be used to migrate mailboxes
- Users display name will not change

2.2   Dependencies

- The EV Pre-Requisite tasks have been understood and completed before implementation.
- All non Symantec software has been correctly licensed and installed.
- Users display name will not change
- A DNS domain for ud1.utility will remain

3   PROJECT OVERVIEW

There are 2 phases to this project which will be detailed in this document.

1) Migrate all existing EV environments from Domain A to Domain B.
2) Migrate all users and mailboxes from Domain A to Domain B.

4 MIGRATION OVERVIEW

4.1 Exchange to Exchange Migrations

The tools used to achieve mailbox and pubic folder migration between Exchange servers can vary depending on budget and migration path and strategy. Common products include the native Microsoft Migration Wizard and Move Mailbox tools, Quest Migration Manager for Exchange and BinaryTree CMT Universal. Enterprise Vault will work with all of these migration products (and others) as it does not need integration to the actual migration process, rather it acts on the data before and after the migration process itself.

If journaling is configured, then as mailboxes are migrated a new journal target can be configured and archived in the new Exchange environment. Once migration is complete, the old journal target can be retired.

Once mailbox and public folder migration is complete, Enterprise Vault will continue to archive content. Connection to the legacy Exchange environment (from an Enterprise Vault perspective) can be discontinued.

4.1.1 Intra Organization (same Exchange Organization)

This type of migration will typically involve installing the new destination Exchange servers in the same Exchange organization as the existing Exchange environment. The new Exchange servers may however be in a separate domain to the existing servers.

Migrations of this type will normally not require any specialist migration tools as the Exchange servers share the same directory. Migrations can therefore be carried out in a similar manner to moving mailboxes between existing Exchange servers.

The exception to this is when moving from Exchange 5.5 to an Exchange 2000 or higher environment. This will require an Active Directory connector of some kind in order to be able to replicate directory information such as mailboxes, users and groups between the Exchange 5.5 directory and Active Directory.

4.1.2 Inter Organization (different Exchange Organization)

This type of migration will require installing a new Active Directory forest, and establishing an interforest trust (for permissions only) between the two organizations.

Migrations of this type will most likely require the use of specialist migration tools such as those offered by Microsoft, BinaryTree or Quest. These tools manage the replication, movement of data and co-existence between the two organizations, and help to provide a seamless connection between the two from an end user perspective.

4.2   Ensuring Mailbox / Archive Association

4.2.1   Definitions:

• Mailbox GUID – This is the unique ID for the mailbox, used by Exchange and stored in Active Directory.

• Hidden Message – This is a MAPI document placed in the users mailbox (in the root and hidden from a normal users view) that contains, amongst other information, that mailbox's archive ID, its Enterprise Vault home server, the archiving policy applied to the mailbox and which archiving buttons and functionality to show the user. This document is updated every time the mailbox is synchronized.

When moving a mailbox between Exchange environments that are serviced by the same Enterprise Vault archiving infrastructure, Enterprise Vault will attempt one of a number of actions on the newly migrated mailbox in order to re-link it with its existing archive. The successful action depends on whether the migration process (and tools used in the process) allowed the mailbox to keep the same GUID and /or the same Enterprise Vault hidden message. Table 1 summarizes the options:

Table 1

Mailbox GUID	Legacy MailboxDN	Re-link behavior
Preserved	Preserved	Mailbox automatically re-linked by the provisioning task
Preserved	Not Preserved	Mailbox automatically re-linked by the provisioning task
Not Preserved	Preserved	Admin intervention required. Use of the SynchInMigrationMode registry value (see below)
Not Preserved	Not Preserved	Admin intervention required. Manually specify the archive to use for each migrated mailbox.

As this particular migration is across AD forests and Exchange Org's both mailbox GUID and LegacyMailboxDN will change. This therefore adds an extra layer of complexity to the migration.

5   MIGRATE DOMAINS

5.1   Pre-requisites

5.1.1   Cross domain service account and Exchange system mailboxes

A new vault service account will need to be created in Domain B and new system mailboxes will need to be created for each new target exchange server.

The new service account will need to have the following permissions applied across both forests and domains.

1. The new service account will need to be a Local Admin on all Enterprise Vault servers
2. The new service account will need to have DBO role for all existing Enterprise Vault databases
3. The new service account will need to have DBcreator role for all SQL servers being used by Enterprise Vault
4. The new service account will require full NTFS permissions to the Index and vault partition data folders

5.1.2   Exchange 2007 permissions

The Vault Service account needs to be able to access mailboxes on the Exchange Servers that Enterprise Vault is to archive. You need to grant permissions explicitly on each Exchange Server, as described in this section. If you later add another Exchange Server, you need to repeat the procedure on the new server to enable mailbox access for the Vault Service account.

You must have Exchange administration permissions to do the following tasks.

On Microsoft Exchange Server 2007

1. On Exchange Server 2007 with Mailbox Role installed, run **adsiedit.msc** to configure the permissions for the Vault Service account in Active Directory;

    adsiedit.msc is included in Windows support tools.

2. Expand the tree as follows:

    Configuration*[your domain]*/**CN=Configuration,***[your domain]*/**CN=Services**/**CN=Microsoft Exchange**/**CN=***[your Exchange organization]*/**CN=Administrative Groups**/**CN=Exchange Administrative Group(FYDIBOHF23SPDLT)**/**CN=Servers**.

3. For each server object representing an Exchange Server 2007 with Mailbox Role installed, do the following:
    - Right-click the object and select **Properties**.
    - Click the **Security** tab.
    - Add the Vault Service account and grant this account **Full Control**.
    - Click **Apply**.
    - Click **Advanced**.
    - For the permission entry for the Vault Service account:

Select the permission entry and click **Edit…**.

Change **Apply onto** to **This object and all child objects**.

Click **OK**.

- Click **OK** to close the Advanced Security Settings window.
- Click **OK** and close the Properties window.

4. You must also grant the Vault Service account **Send As** permission on the Enterprise Vault system mailbox object (and all child objects).

- In **adsiedit.msc** click **Domain** *[your_domain]*.
- Locate the mailbox that you created for the Enterprise Vault system mailbox. This is usually under **CN=Users**.
- Right-click the object and select **Properties**.
- Click the **Security** tab.
- Add the Vault Service account and then add **Send as** permissions to this account.
- Click **Apply**.
- Click **OK** and close the Properties window.
- Close **adsiedit.msc**.

5.1.3   Managed folder synchronization in Exchange 2007

The Exchange Provisioning task performs synchronization of managed content settings in Exchange managed folders from Exchange Server 2007 to Enterprise Vault. To enable the task to synchronize settings, the Exchange View-Only Administrator role must be assigned to the Vault Service account.

For information about archiving from Exchange managed folders, see the *Administrator's Guide*.

To assign the Exchange View-Only Administrator role to the Vault Service account

1. Open the Exchange Management Console.
2. If necessary, expand the tree so that **Organization Configuration** is visible.
3. Right-click **Organization Configuration** and select **Add Exchange Administrator**.
4. On the **Add Exchange Administrator** page, select the name of the Vault Service account.
5. Select **Exchange View-Only Administrator role**.
6. Click **Add**.
7. On the **Completion** page, click **Finish**.

5.1.4   Exchange 2003 Permissions

1. Click **Start > Programs > Microsoft Exchange > System Manager**.
2. Expand the **Servers** container.
3. Right-click your Exchange Server and, on the shortcut menu, click **Properties**.
4. Click the **Security** tab.
5. Click **Add**.
6. Double-click the Vault Service account to add it to the list.
7. Click **OK** to go back to the **Security** tab. The Vault Service account has been added to the **Name** list.

8. In the **Name** list, click the Vault Service account.
9. In the **Permissions** list, make sure that all check boxes in the **Allow** column are selected. Select any check boxes that are not already selected.
10. Click **OK**.

5.2 Target Domain B with EV

1. In the left pane of the Administration Console, expand **Targets**.
2. Right-click **Exchange** and, on the shortcut menu, click **New** and then **Domain**.

   The **New Domain** wizard starts

3. Work through the wizard. You will need the following information:
   - The name of the domain containing the Exchange Servers that you want to archive.
   - Enterprise Vault attempts to find the Global Catalog automatically. This is recommended. However, you can optionally specify a Global Catalog server, if required.

An Exchange Provisioning task is required for each Exchange Server domain. This task enables mailboxes in the provisioning groups that you have created.

You can add an Exchange Provisioning task manually, as described in this section, or you can let Enterprise Vault add one automatically when you add the first Exchange Mailbox archiving task.

You are recommended to run the Exchange Provisioning task as the Vault Service account. If you want to use a different account, the account will need to be added to the Messaging Administrator role.

To add an Exchange Provisioning task manually

1. In the left pane of the Administration Console, expand the Enterprise Vault site hierarchy until the **Enterprise Vault Servers** container is visible.
2. Expand **Enterprise Vault Servers**.
3. Expand the name of the computer on which you want to create a provisioning task.
4. Right-click **Tasks** and, on the shortcut menu, click **New** and then **Exchange Provisioning Task**.

   The new task wizard starts.

5. Work through the wizard. You will need the following information:
   - The name of the Exchange Provisioning task
   - The name of the Exchange Server domain to be processed
6. To review the property settings for the task, double-click the task in the right-hand pane. You can modify properties such as the task schedule, the level of reporting required and whether to run the task in report mode.

   Whenever new mailboxes are added, they must be processed by the Exchange Provisioning task before they can be enabled.

5.3 Target new Exchange 2007 servers in Domain B with the EV System

Before any migrations Enterprise Vault should be configured to target the Exchange 2007 servers. The targeting should be configured on the same one to one basis as the source Exchange 2003 servers.

5.3.1 To add an Exchange Server

1. In the left pane of the Administration Console, expand **Targets**.
2. Expand the Exchange domain that you added.
3. Right-click **Exchange Server** and, on the shortcut menu, click **New** and then **Exchange Server**.

   The **New Exchange Server** wizard starts.

4. Work through the wizard to add the Exchange Server.

   You need the following information:

   - The name of the Exchange Server.
   - Select Exchange Mailbox Task
   - The name of the Enterprise Vault server on which you want the tasks created, if not the local computer.
   - The name of the system mailbox to be used to connect to the Exchange Server.

5.4 Move all EV Systems to Domain B

It should be possible to just add the existing EV servers to Domain B. After doing so Right-click on Directory off each EV directory and select properties. Select Service Account and put in the details for the new service account. This will update the service account for the other services as well as DCOM After this step it is recommended to restart the admin service.

As mentioned in the "dependencies" at the beginning of this document, you will at least keep a DNS domain up and running (doesn't have to be an AD DNS domain) that will contain a CNAME record for the old EV alias (such as evserver1.olddomain.com) that points to the new EV server name and domain (such as evserver1.newdomain.com). The old shortcuts and banners with "View the original item" will point to the old EV server alias. This dependency is only required until all existing EV servers have been successfully migrated to the group domain.

Once you have the new alias for the EV servers created in the new domain:

1) Bring up the properties for each site. In the General tab, look for the URL text box. If it has a customized location that is specific (such as http://evserver1.olddomain.com/EnterpriseVault), update it to point to the new server alias (http://evserver1.newdomain.com/EnterpriseVault). From this point on, newly archived items will point to the new domain name.

2) Run USL command to have all the services and tasks to point to the new alias. In the VAC, right-click on Enterprise Vault Servers and select Update Service Locations.

   Ultimately if you want to destroy the old forest or domain you can do this after step 2 above.

6   MIGRATE EXCHANGE MAILBOXES

6.1   Before You Begin

To perform the following procedures, the account you use must be delegated the following:

- Exchange Recipient Administrator role
- Exchange Server Administrator role and local Administrators group for both the source and target servers

Also, before you perform this procedure, be aware of the following:

- You cannot use the Move Mailbox wizard to move mailboxes across forests. To move a mailbox from one forest to another, you must use the **Move-Mailbox** cmdlet.
- You can run only one instance of the Move Mailbox wizard from the Exchange Management Console at a time. However, if you want to run multiple Move Mailbox wizards at the same time, you can open multiple Exchange Management Consoles and run one instance of the Move Mailbox wizard from each console.
- If you move a mailbox within a forest, items in the dumpster will not be moved. Items in the Deleted Items folder will be moved.

6.2   Mailbox migration

This document assumes Quest EWM will be used to migrate the Exchange Mailboxes, however the principles are the same with any method. The are several steps that need to be taken before and after the mailbox migration for EV.

1. Create a mailbox migration group in AD. This group will be used by EVPM to re-link the archives to the migrated mailboxes.
2. Add users to be migrated to the group created in step 1
3. Migrate the mailboxes with Quest EWM
4. Run an EVPM script to ZAP the mailboxes in the AD group from step 1, in this example EVUsers.
    a. Example Script:
       ;
       ; EVPM Script to ZAP all mailboxes from a specific AD Security Group
       ;
       [Directory]
       DirectoryComputerName = evserver01.test.archive
       Sitename = EVSITE

       [Mailbox]
       LDAPquery = (memberof= CN=EVUsers,OU=EV,DC=test,DC=archive)

```
[Folder]Name = Mailboxroot
ZAP=True
```

5. Run the provision task to re-provision the mailbox. This is because the mailbox has a new GUID and a new LegacyMailboxDN and no hidden message. Therefore EV will see the mailboxes as new.
6. Run an EVPM script to re-enable and re-map the mailboxes in the AD group from step 1, in this example EVUsers.
   a. Example Script:
```
;
; EVPM Script to re-enable and re-map all mailboxes from a specific AD Security Group
;
[Directory]
DirectoryComputerName = evserver01.test.archive
Sitename = EVSITE

[Mailbox]
LDAPquery = (memberof= CN=EVUsers,OU=EV,DC=test,DC=archive)

[Folder]
Name = Mailboxroot
Enabled = True
```

7. Test the new mailboxes are mapped to their old archives and still have access to them

6.3   Synchronize all users on the new Exchange 2007 servers.

a. Open the Enterprise Vault Administration Console (VAC).

b. Expand "**Directory**" | "**Site**" | "**Enterprise Vault Server**" | "**Vault server where archiving task are configured**".

c. Click on "**Task**"

d. Double click on the new mailbox archiving tasks for the new Exchange servers.

e. Click on the "**Synchronization**" tab.

f. Place a check mark in the "**Folder hierarchy and permission**" box then click on the "**Synchronization**" box (Figure 3).

Figure 3
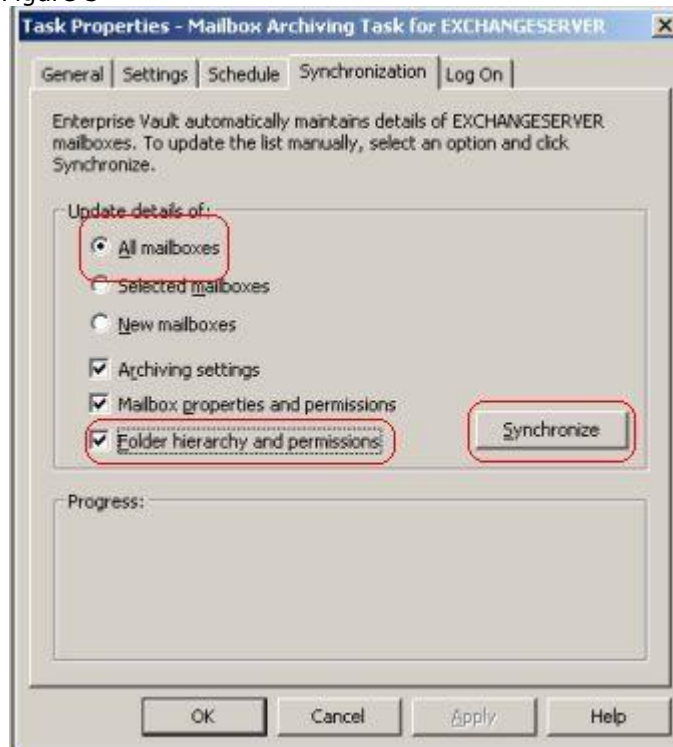
6.4   Remove Exchange 2003 targets from Enterprise Vault

Once all mailboxes have been migrated to the Exchange 2007 servers, Exchange 2003 targets, tasks and MSMQ's can be removed from Enterprise Vault.

6.5   Decommission Exchange Servers

Ensure that the Exchange server to be decommissioned has no active mailboxes:

1. Open SQL Enterprise Manager.

2. On the EV directory database, open the **ExchangeServerEntry table** to determine the Exchange server to be decomissioned.

3. Note the **ExchangeServerIdentity** on the record.
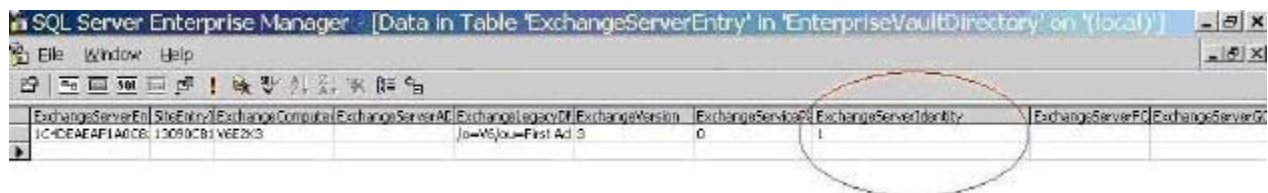
4. Open SQL query analyzer and run the following script to determine if there are any mailboxes associated with the server to be decommissioned.

Use Enterprisevaultdirectory
select *
from   exchangemailboxentry
where exchangeserveridentity ="from step3"

5. If there are any mailboxes associated with the exchange server to be decommissioned, move the mailbox as per Section 7 of this document and run the exchange synchronization task using the VAC and confirm running step 4 again that there are no pending mailboxes.

6.5.1   Ensure that all work has completed on all EV Storage services:

It is extremely important that there is no outstanding work on the Microsoft Messages Queues related to the task that needs to be deleted.   Use the Message Queue Explorer application to check that the following queues are empty. If they are not, run EV until all work has been completed.

Archiving/Journaling Task:
• Enterprise Vault Archiving/Journaling task for xxxxx <a/j1>
• Enterprise Vault Archiving/Journaling task for xxxxx <a/j2>
• Enterprise Vault Archiving/Journaling task for xxxxx <a/j3>
• Enterprise Vault Archiving task for xxxxx <a4>
• Enterprise Vault Archiving task for xxxxx <a5>
• Enterprise Vault Storage Archive
• Enterprise Vault Retrieval task for xxxxx r1
• Enterprise Vault Retrieval task for xxxxx r2
• Enterprise Vault Storage Restore

1. Open SQL Enterprise Manager.

2. On the Enterprise Vault (EV) directory Database, open the **ArchivingRetriveal table or Journaltask** to determine the **TaskEntryID** and record the entry.

3. Run the below script against your vaultstore database to check if there are any pending tasks.

SELECT *
FROM JournalArchive (Change this for your vaultstoredb)
WHERE (ServiceEntryID = 'TaskEntryID')

6.5.2   Delete archiving tasks for Exchange 2003 Servers

1. Using the VAC click on Enterprise Vault server's Tasks stop the tasks for Archiving or journal for Exchange server to be decommissioned.

2. Once tasks are stopped, right click and delete.

6.5.3   Delete archiving targets:

1. Using the VAC click on Archiving Targets ==> Exchange, expand the domain and click on the Exchange server to be decommissioned

2. Right click on the Exchange server to be decommissioned and delete.

6.5.4   Remove Exchange 2003 Message Queues

Enterprise Vault will not remove Microsoft message queues from MSMQ Private Queues when an Enterprise Vault service or task, that is associated with the Microsoft Private Queue, has been deleted.

The MSMQ entries that are no longer required can be removed but the Enterprise Vault services should be stopped before a message queue is deleted. If a Microsoft message queue is currently in use, because the Enterprise Vault services have not been stopped and the queue is accidentally deleted, then the service or task that utilize the queue will not function correctly until the Enterprise Vault services have been restarted.

Reference figure (4) as an example of how to delete a queue under the private Microsoft queues.

Directions:
1. Open **"Computer Management"**
2. Expand **"Message Queues"**
3. Expand **"Private Queues"**
4. In the left pane select the queue to be deleted.
5. Right click on the queue then click on **"Delete"**.
6. Click **"Yes"** when prompted

Figure 4: