PAUL CUNNINGHAM

EXCHANGESERVERPRO.COM

Upgrading to Exchange Server 2010

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Hello

- My name is Paul Cunningham
- My website is **ExchangeServerPro.com**
- My email is **paul@exchangeserverpro.com**
- My Twitter is **@ExchServPro**
  (or http://twitter.com/exchservpro)

Hash tag: **#infrasat**

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AGENDA

- About Exchange Server 2010
- Upgrading to Exchange Server 2010
  - Planning + Design
  - Build + Test
  - Co-Existence
  - Migration
  - Decommissioning
- Q&A

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ABOUT

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ARCHITECTURAL CHANGES (ROLES)

Exchange Server 2003	Exchange Server 2007/2010
Front End Server	Client Access Server role
Bridgehead Server	Hub Transport Server role
Back End Server	Mailbox Server role
Third-party AV/AS system	Edge Transport Server role
Third-party phone/voicemail system	Unified Messaging Server role

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ARCHITECTURAL CHANGES (MAPI)

Exchange Server 2007	Exchange Server 2010
Client Access Server role (OWA, ActiveSync, Web Services)	Client Access Server role (OWA, ActiveSync, Web Services, MAPI)
Hub Transport Server role	Hub Transport Server role
Mailbox Server role (MAPI for mailbox and public folders)	Mailbox Server role (MAPI for public folders only)
Edge Transport Server role	Edge Transport Server role
Unified Messaging Server role	Unified Messaging Server role

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ARCHITECTURAL CHANGES (HA)

Exchange Server 2007	Exchange Server 2010
Standalone Mailbox Server	Standalone Mailbox Server
Local Continuous Replication (LCR)	Database Availability Group (DAG)
Single Copy Cluster (SCC)	
Cluster Continuous Replication (CCR)	
Standby Continuous Replication (SCR)	

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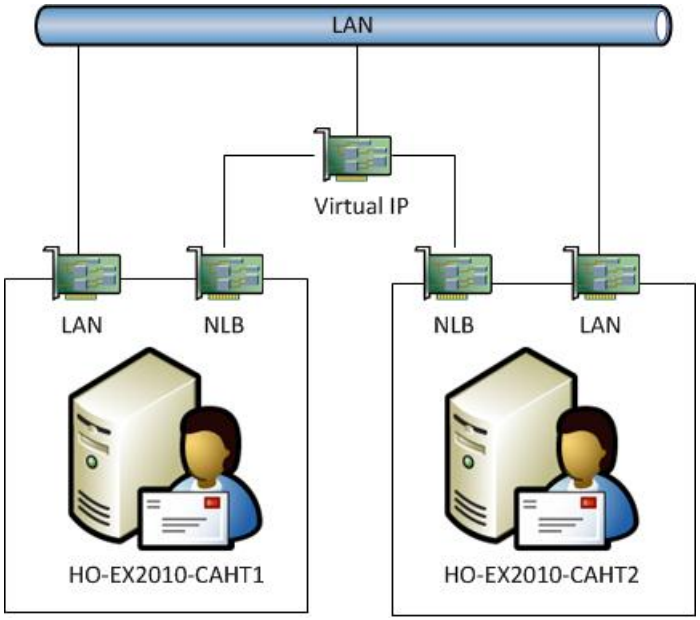
ARCHITECTURAL CHANGES (CAS HA)



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PLANNING

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Planning Steps

- Download Software and Tools
- Collect Discovery Information
- Resolve Outstanding Issues

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Download Software and Tools

- Exchange Server 2010 SP1
- Exchange Deployment Assistant
- Exchange Profile Analyzer
- Exchange Pre-Deployment Analyzer
- 2010 Office Filter Pack

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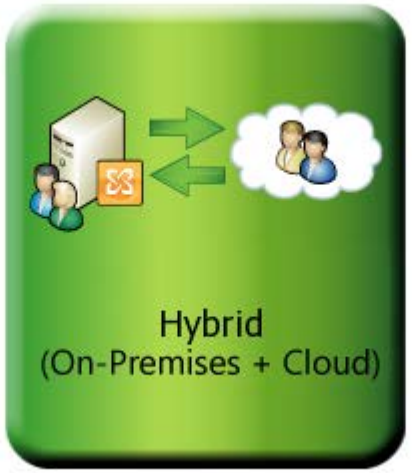
Exchange Deployment Assistant



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Collect Discovery Information

- EPA Report
- Storage Quotas
- Room and Resource Mailboxes
- Public Folders
- PST Files
- Email Routing
- Email Clients
- Integrated Apps/Devices

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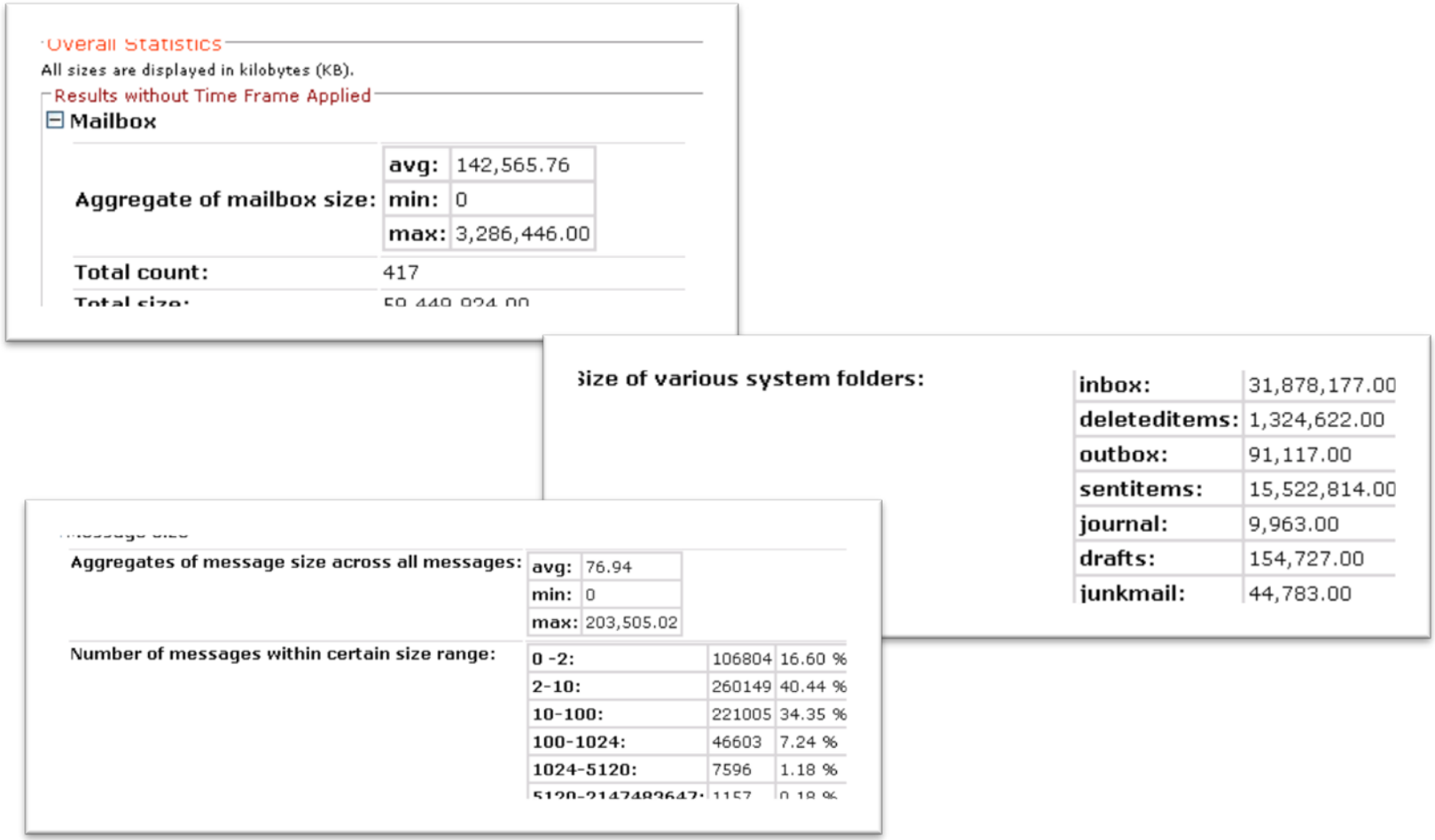
Exchange Profile Analyzer (EPA) Report



Overall Statistics

All sizes are displayed in kilobytes (KB).

Results without Time Frame Applied

Mailbox

Aggregate of mailbox size:	avg:	142,565.76
	min:	0
	max:	3,286,446.00
Total count:		417
Total size:		59,449,924.00

Size of various system folders:

inbox:	31,878,177.00
deleteditems:	1,324,622.00
outbox:	91,117.00
sentitems:	15,522,814.00
journal:	9,963.00
drafts:	154,727.00
junkmail:	44,783.00

Aggregates of message size across all messages:

avg:	76.94
min:	0
max:	203,505.02

Number of messages within certain size range:

0 -2:	106804	16.60 %
2-10:	260149	40.44 %
10-100:	221005	34.35 %
100-1024:	46603	7.24 %
1024-5120:	7596	1.18 %
5120-2147483647:	1157	0.18 %

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Storage Quotas

- What are they now?
- What are they going to be for Exchange 2010?
- Exchange 2010 default mailbox quota…?
- Microsoft “Exchange 2010 Large Mailbox Vision” Whitepaper

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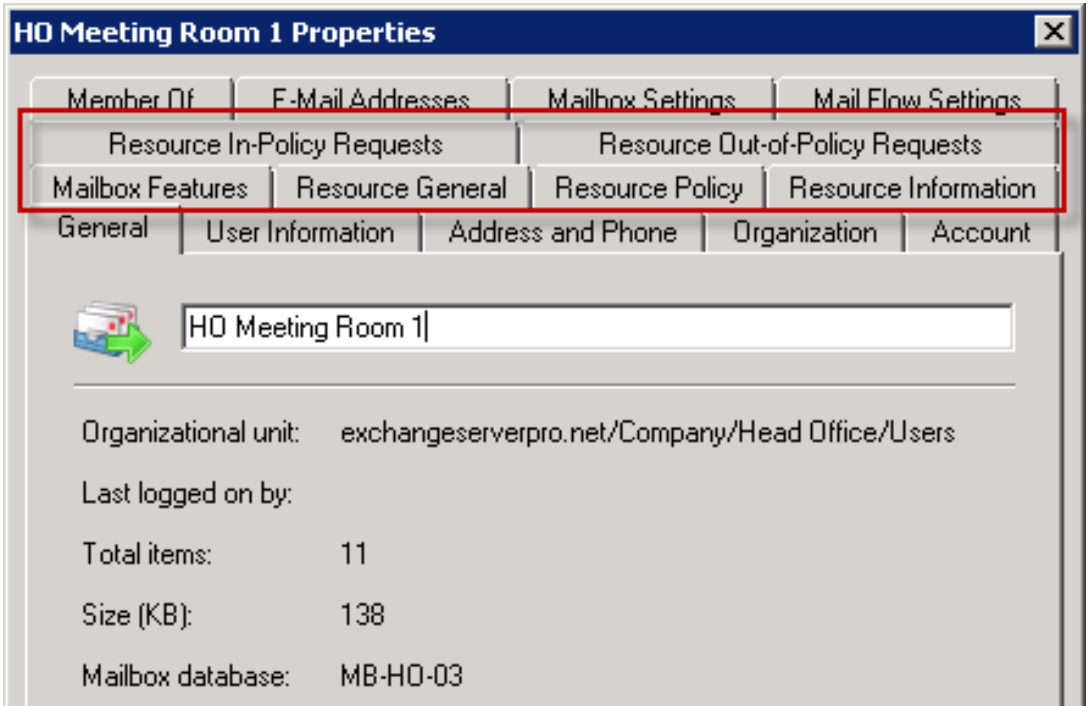
Room/Resource Mailboxes and Public Folders

- Exchange 2003, standard mailbox
- Exchange 2007/2010, special
- Public Folders, migrate to mailboxes



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PST Files

- Import to mailboxes
- Import to archive mailboxes, or third-party archive system
- COMING SOON: PST Capture Tool for discovery and import

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Public Folders

- De-Emphasized in Exchange Server 2010, but still supported
- Only *required* for….?
- Future of Public Folders?

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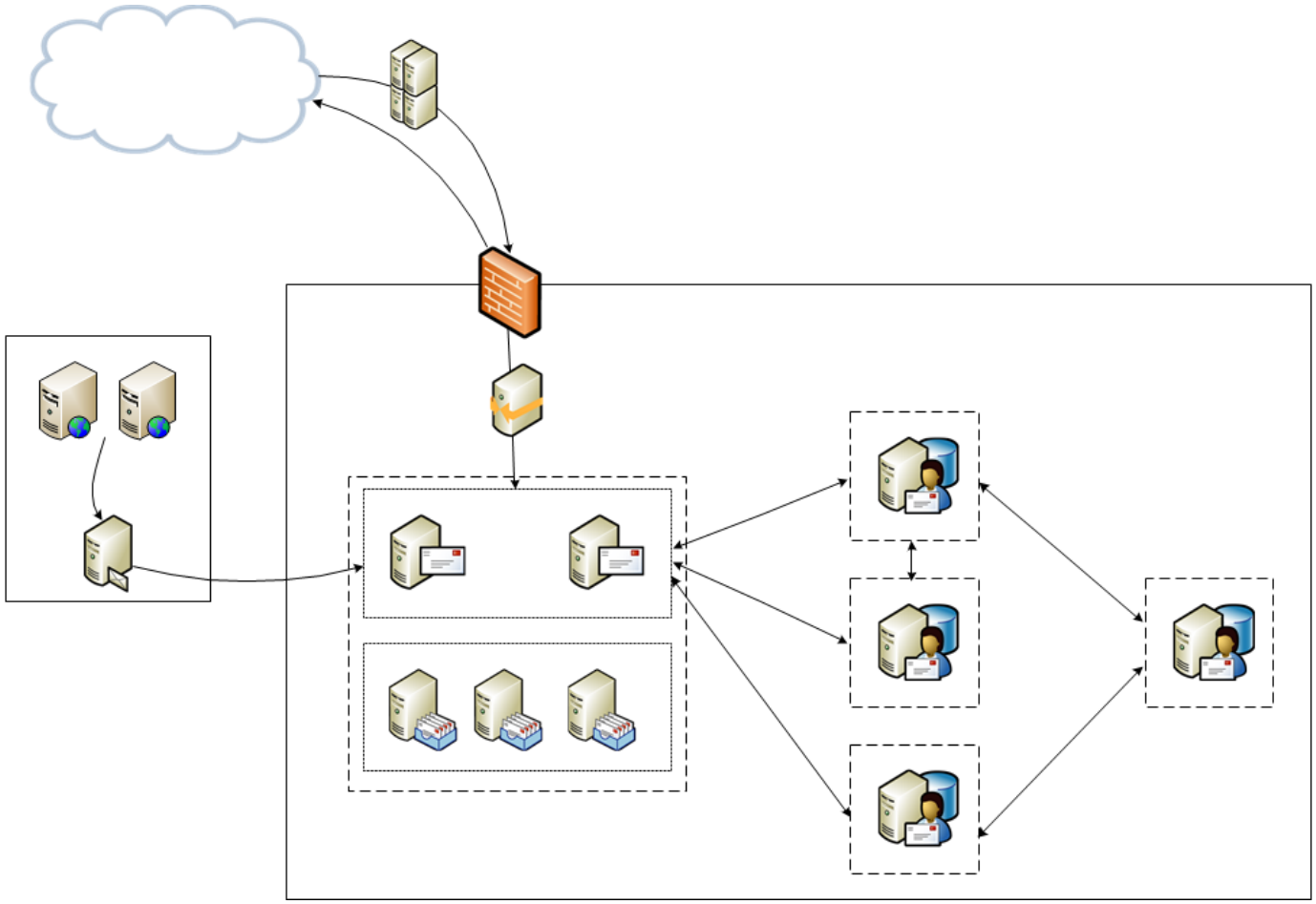
Email Routing Topology



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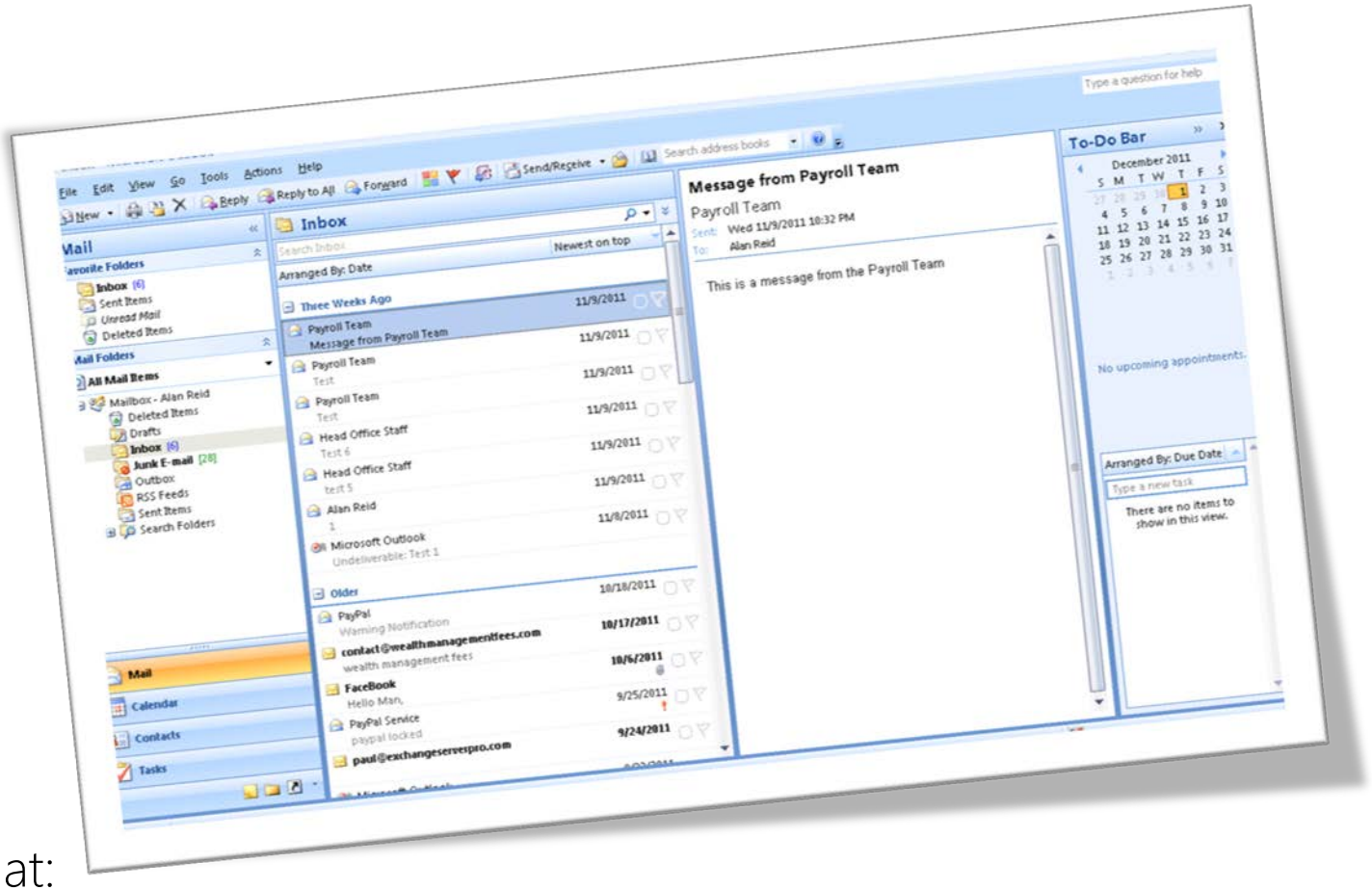
Client Software Versions



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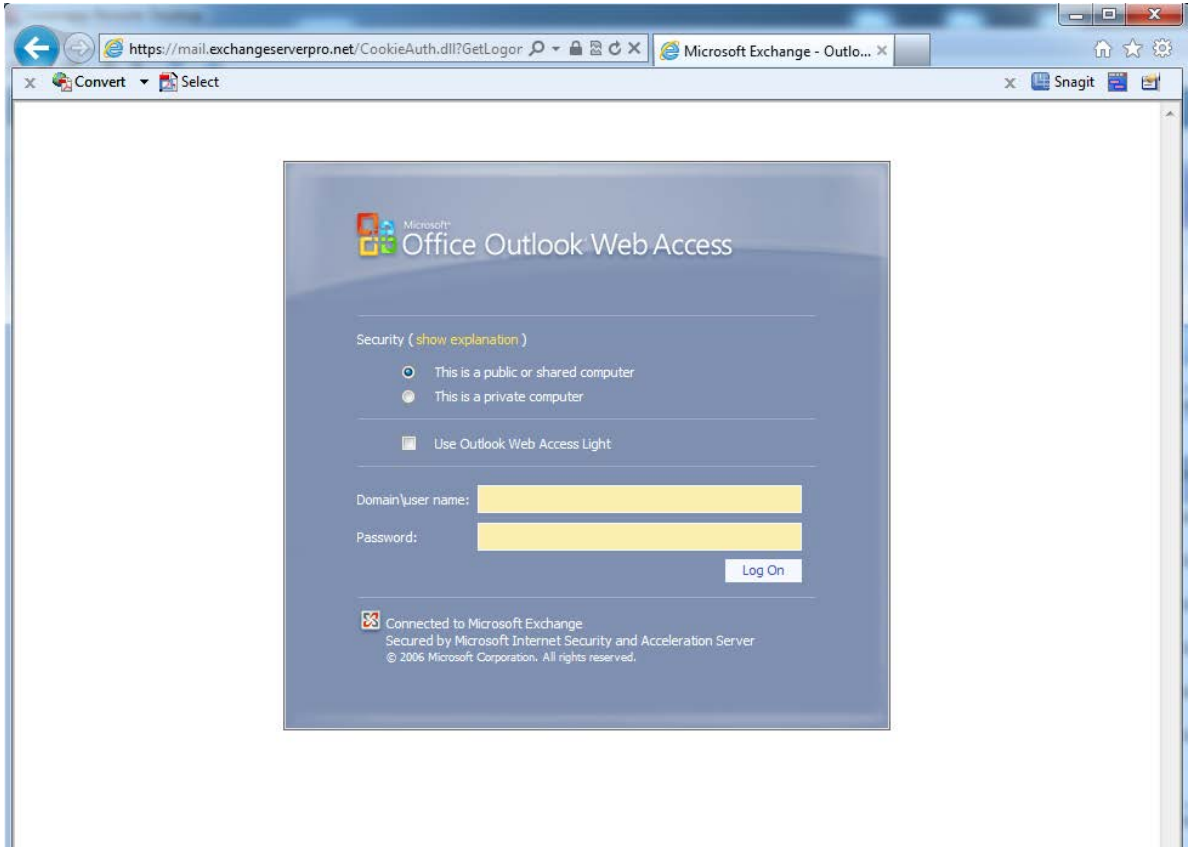
Mail-Integrated Apps and Devices

Product	Exchange 2007 Compatible	Exchange 2010 Compatible
Trend Micro Scanmail for Exchange v6.0	No (requires v8)	No (requires v10)
Trend Micro Scanmail for Exchange v8.0	Yes	No (requires v10)
Clearswift MailSweeper	Not version dependent	Not version dependent
Symantec Mail Security (Appliance)	Not version dependent	Not version dependent
Blackberry Enterprise Server 4.1.6	Exchange 2007 SP1, Yes Exchange 2007 SP2, No, requires 4.1.7	No, requires v5.0.1
Ontrack PowerControls 5	Yes	No, requires v6.0
Microsoft Outlook 2003	Yes	Yes (with RPC encryption disabled on server)
HP OpenView Data Protector 6.0	Yes	No, requires v6.1
VMware ESX 3.5 U4	Yes	No, requires Update 5
[REDACTED]	To be determined in Proof of Concept	To be determined in Proof of Concept

Public Names



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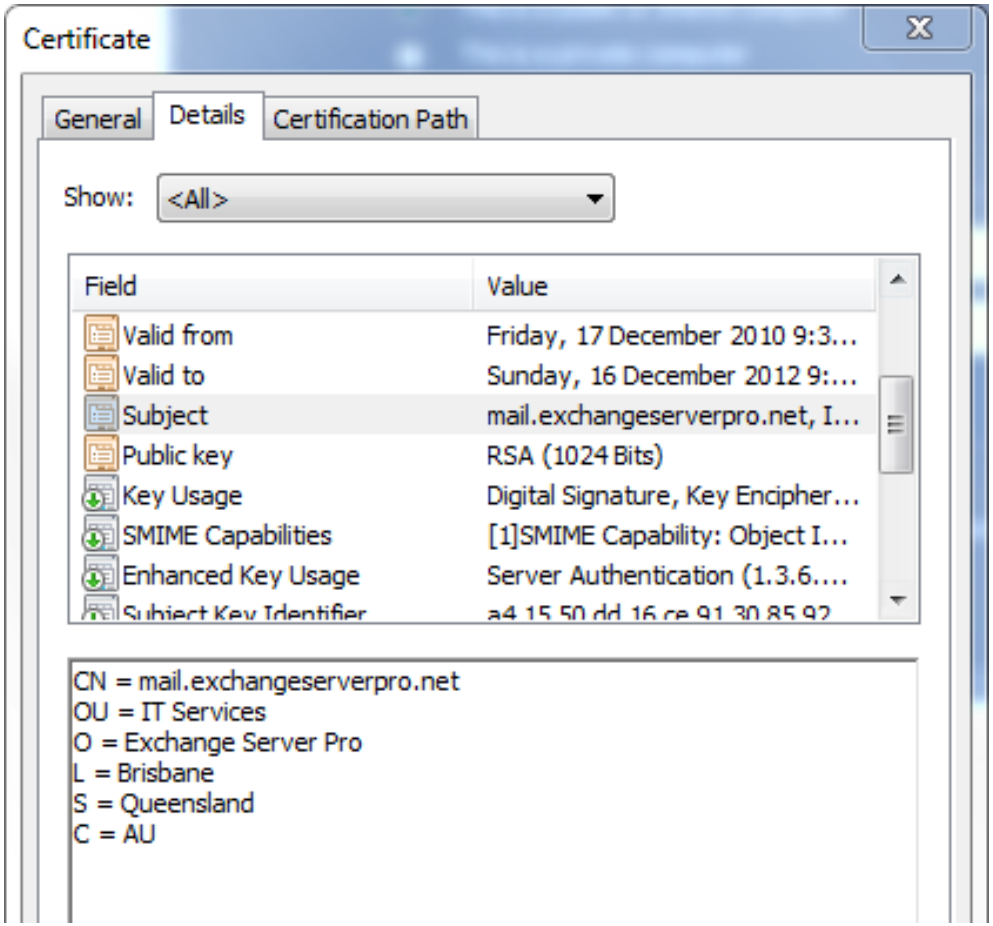
SSL Certificates



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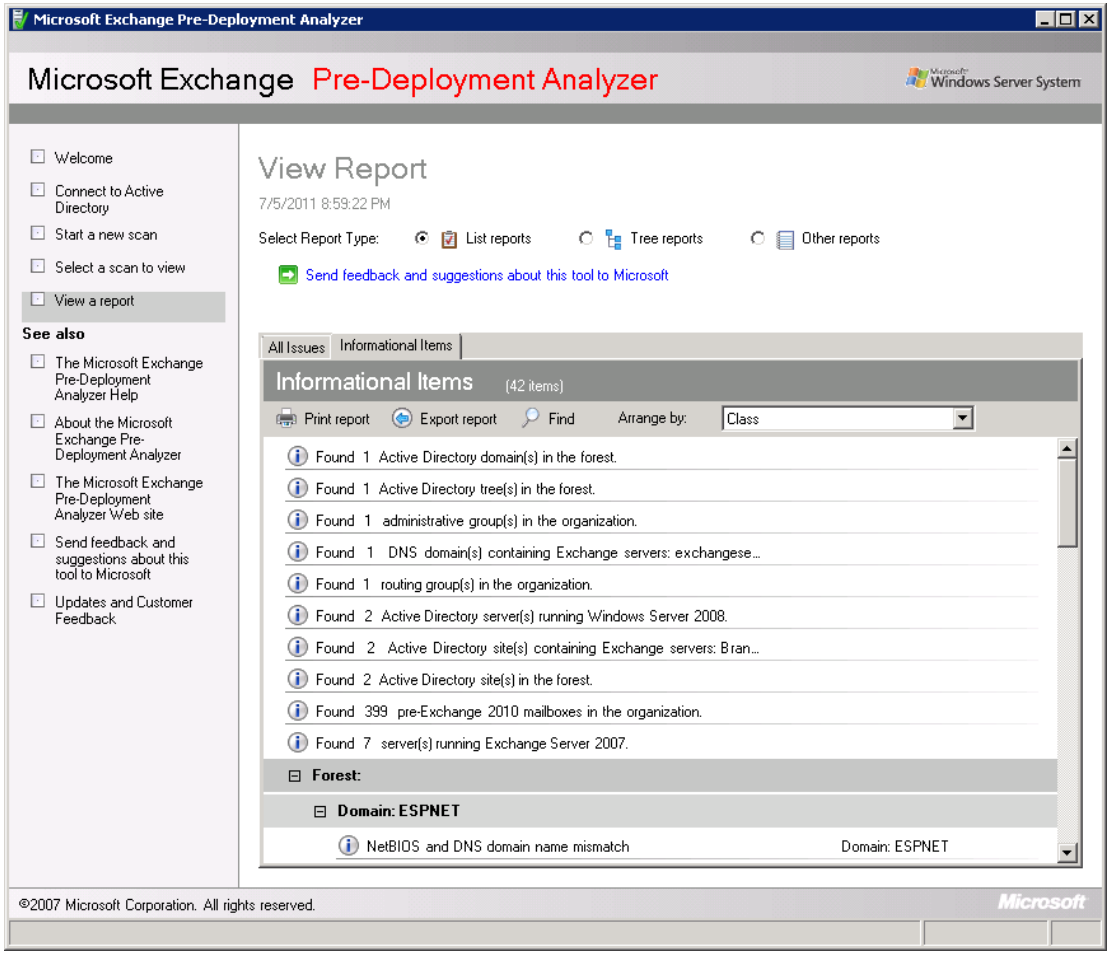
Pre-Deployment Analyzer



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Planning

- Downloaded the software and tools
- Run the Exchange Profile Analyzer
- Identified storage quotas
- Identified room/equipment mailboxes and public folders
- Audited the network for PST file usage
- Identified public folder usage
- Identified the email routing topology
- Identified all client types and versions
- Identified mail-integrated applications and devices
- Planned your SSL certificates
- Run the Exchange Pre-Deployment Analyzer

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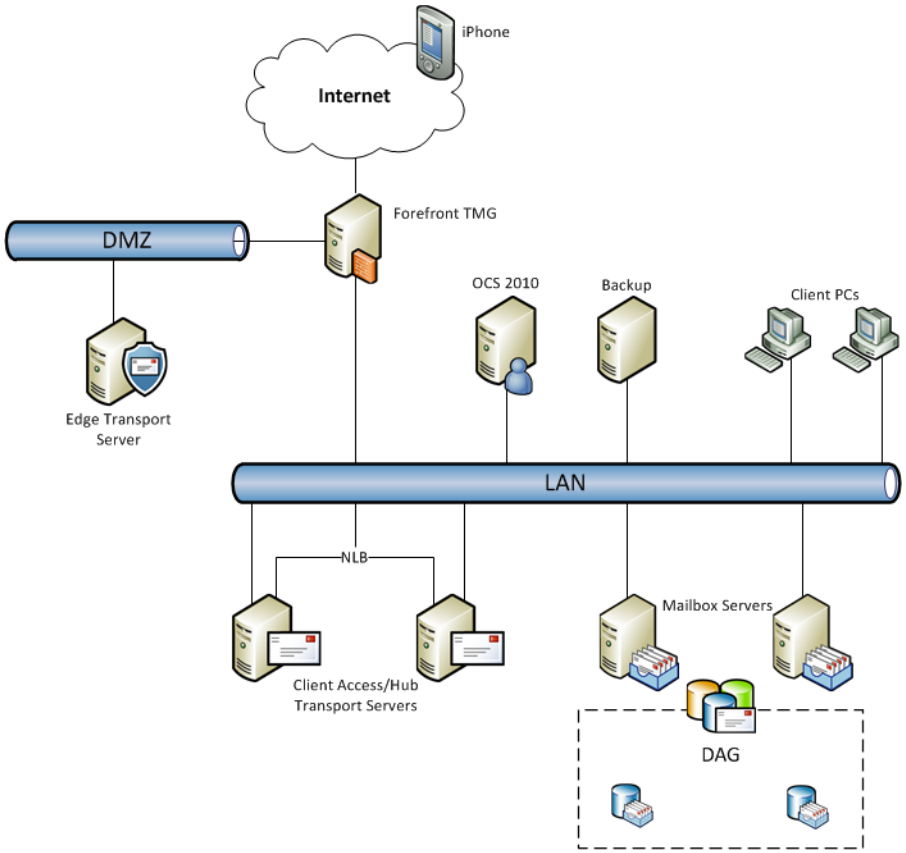
DESIGN



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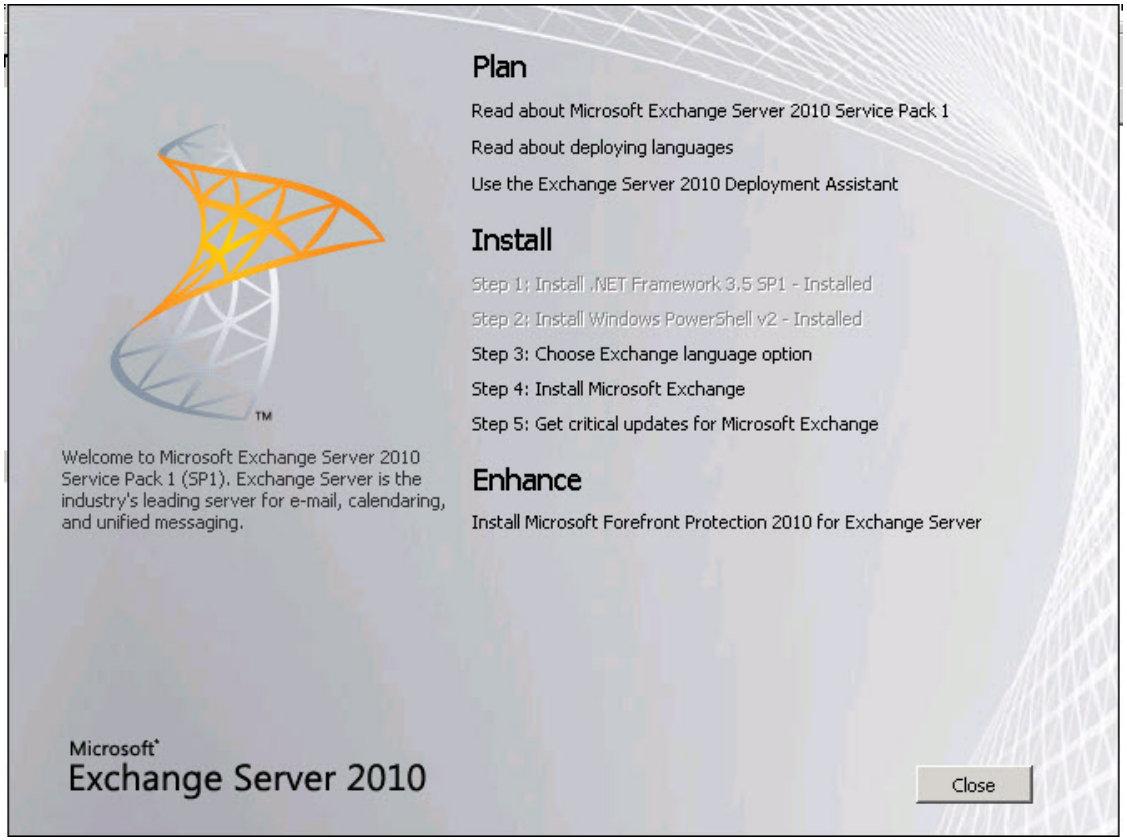
BUILD



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Installation Sequence

1. Schema, Forest- & Domain-prep
2. Client Access servers
3. Hub Transport servers
4. Mailbox servers
5. Edge/Unified Messaging servers

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AutoDiscover

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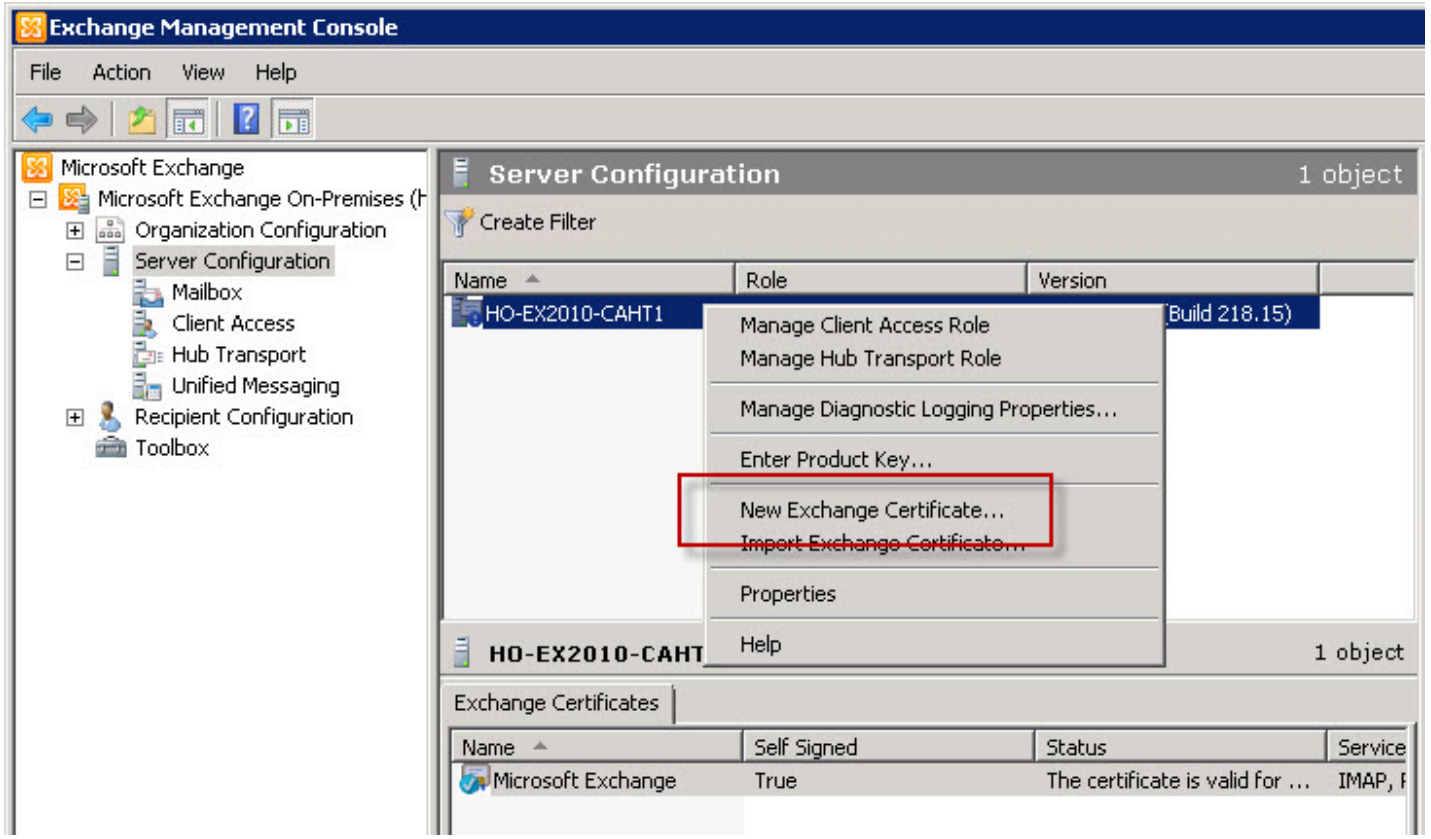
SSL Certificates



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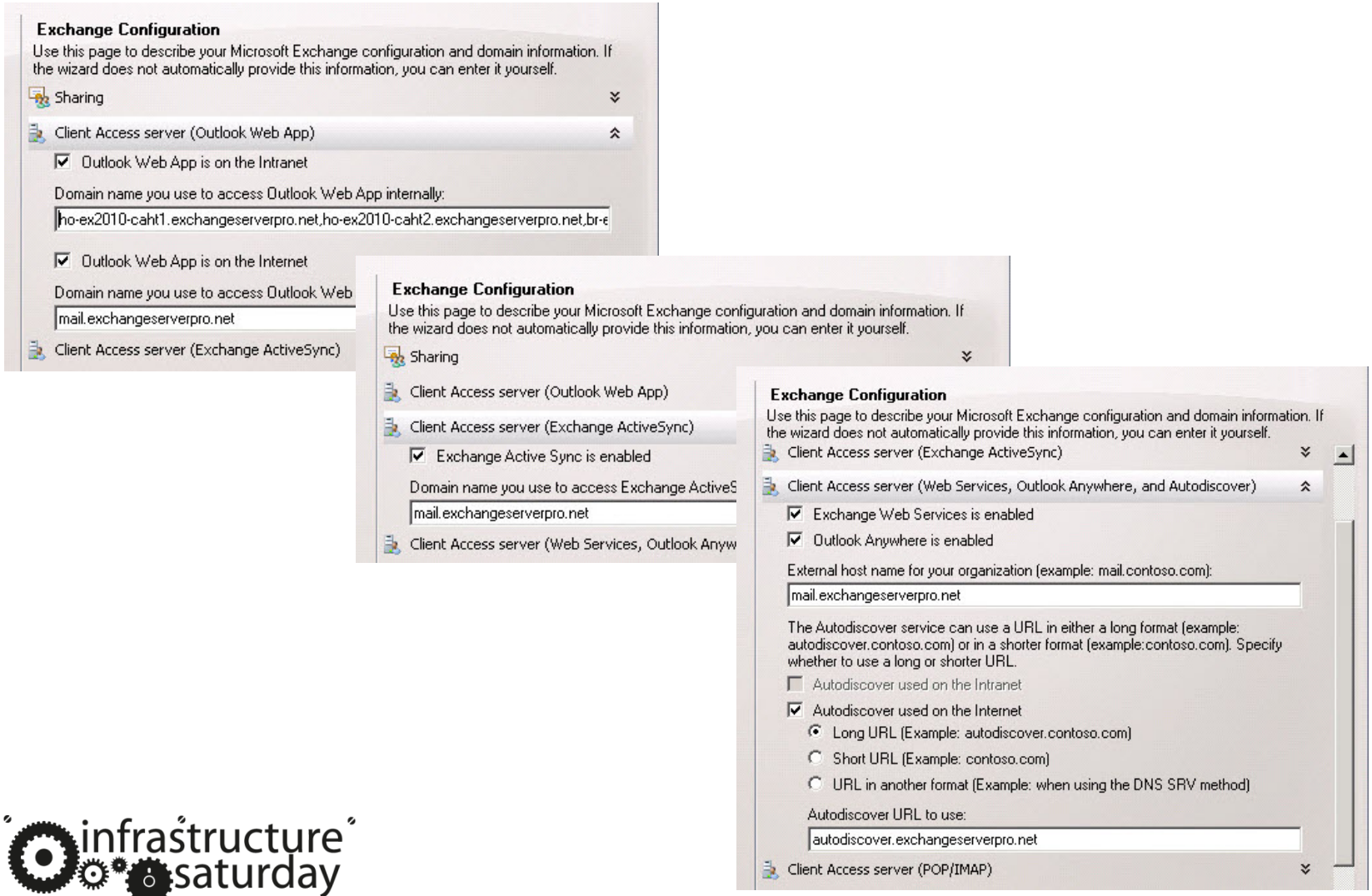
SSL Certificates



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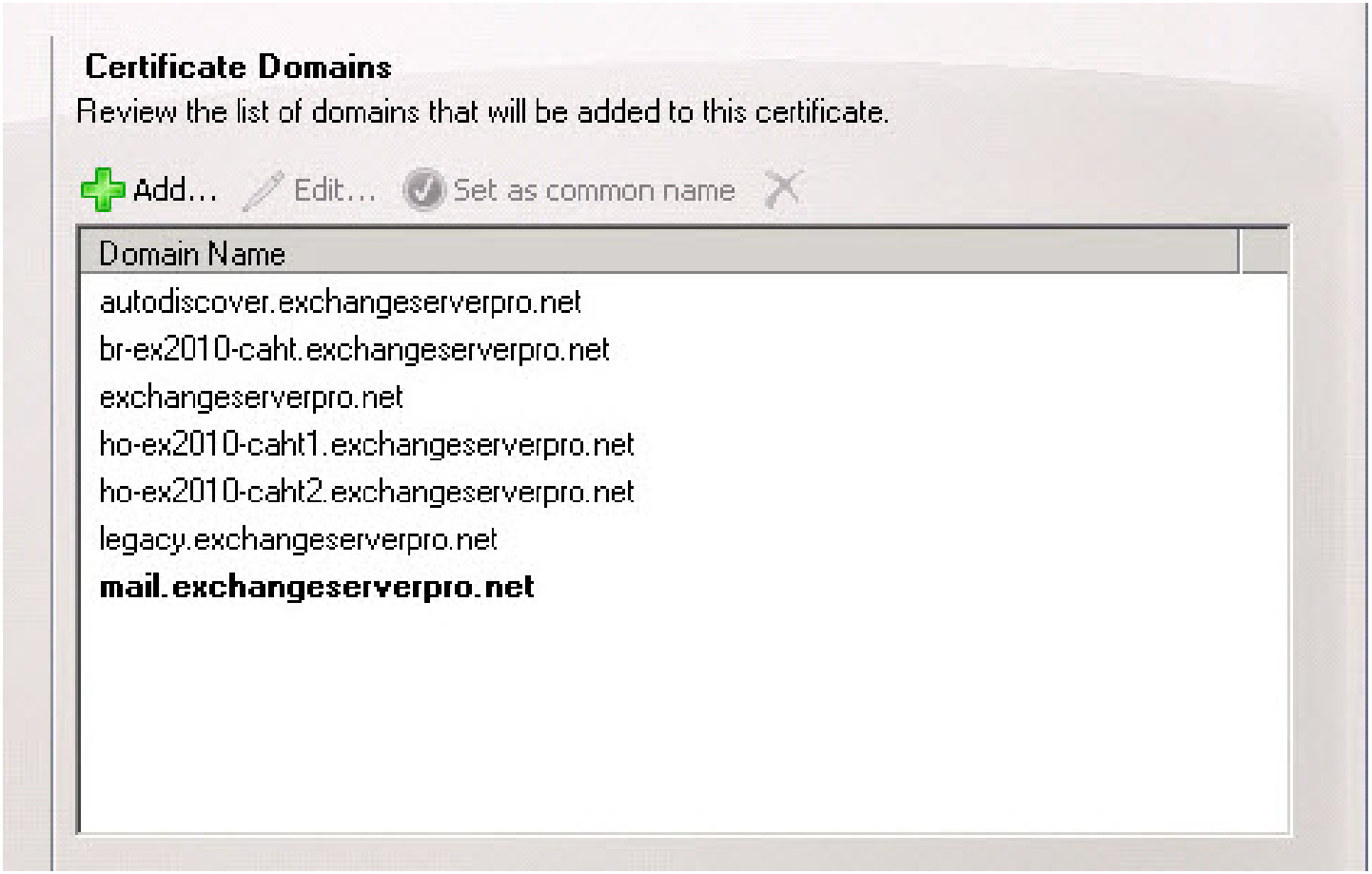
SSL Certificates



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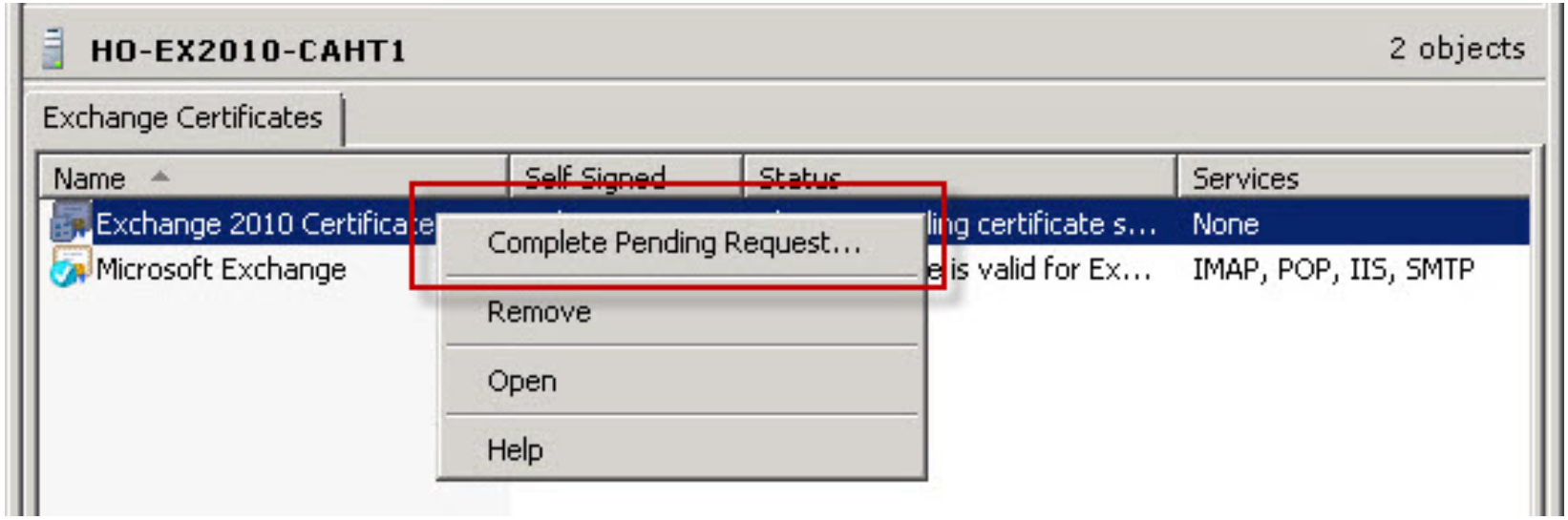
SSL Certificates



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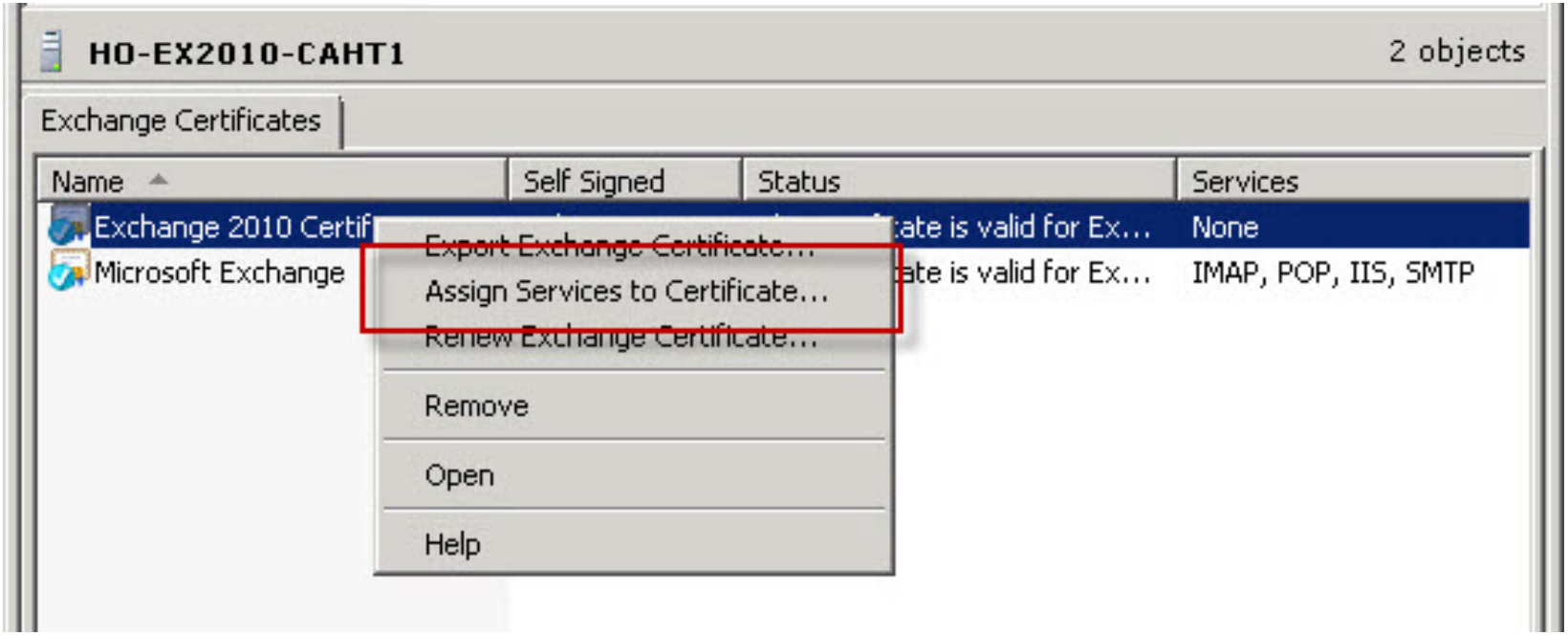
SSL Certificates



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CAS Arrays

```
[PS] C:\>get-mailboxdatabase | ft name,rpcclientaccessserver -auto

Name      RpcClientAccessServer
----      ---------------------
MB-HO-01 outlook.exchangeserverpro.net
MB-HO-02 outlook.exchangeserverpro.net
MB-BR-01 BR-EX2010-CAHT.exchangeserverpro.net
MB-HO-03 outlook.exchangeserverpro.net
```

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Routing Group Connectors

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Database Availability Groups

+

One Mailbox server now...

...add more later.

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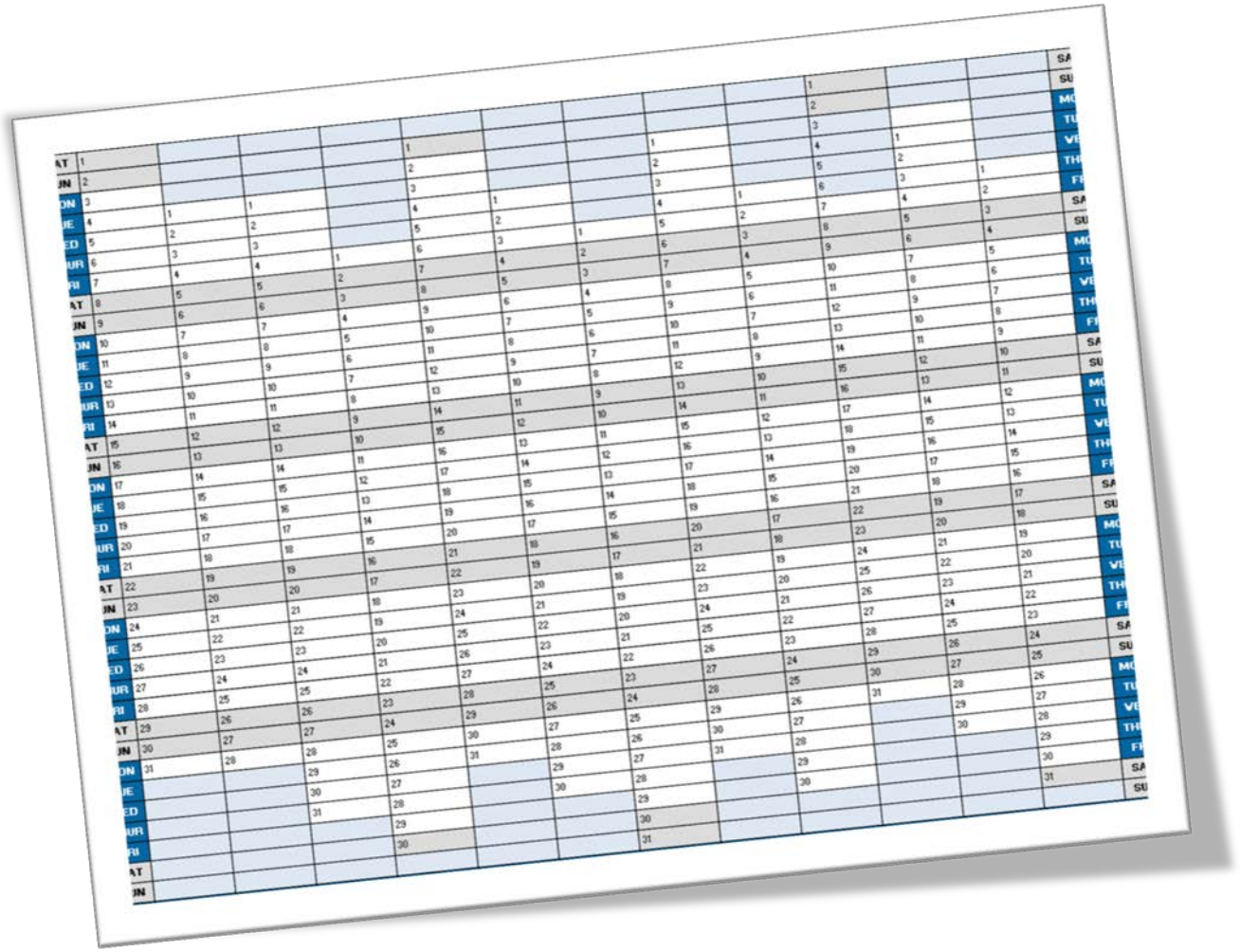
Build



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Use the Shell

```
[PS] C:\>Get-MailboxDatabase | Set-MailboxDatabase
-IssueWarningQuota 3.7Gb -ProhibitSendQuota 4Gb
-ProhibitSendReceiveQuota 4.3Gb
```

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Build Phase Checklist

- Schema Update, Forest- and Domain-Prep
- Install each of the Exchange Server 2010
- Deploy SSL certificates
- Configure each server role
- Configured application and device integration
- Backups!

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CO-EXISTENCE

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Legacy URL

```
[PS] C:\>Set-OwaVirtualDirectory -Identity "HO-
EX2010-CAHT1\owa (Default Web Site)"
-Exchange2003Url
https://legacy.exchangeserverpro.net/owa
```

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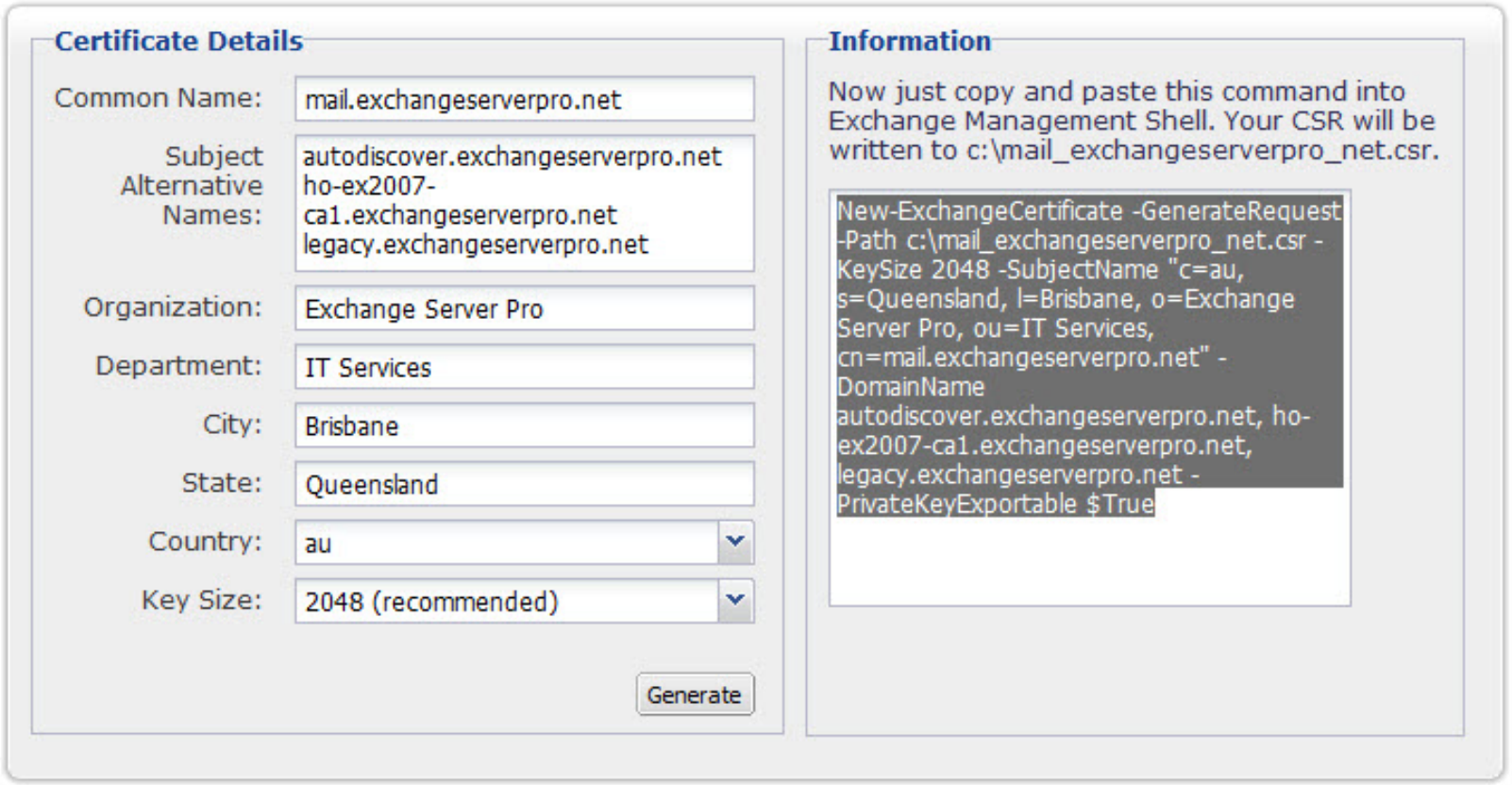
Legacy SSL Certificate



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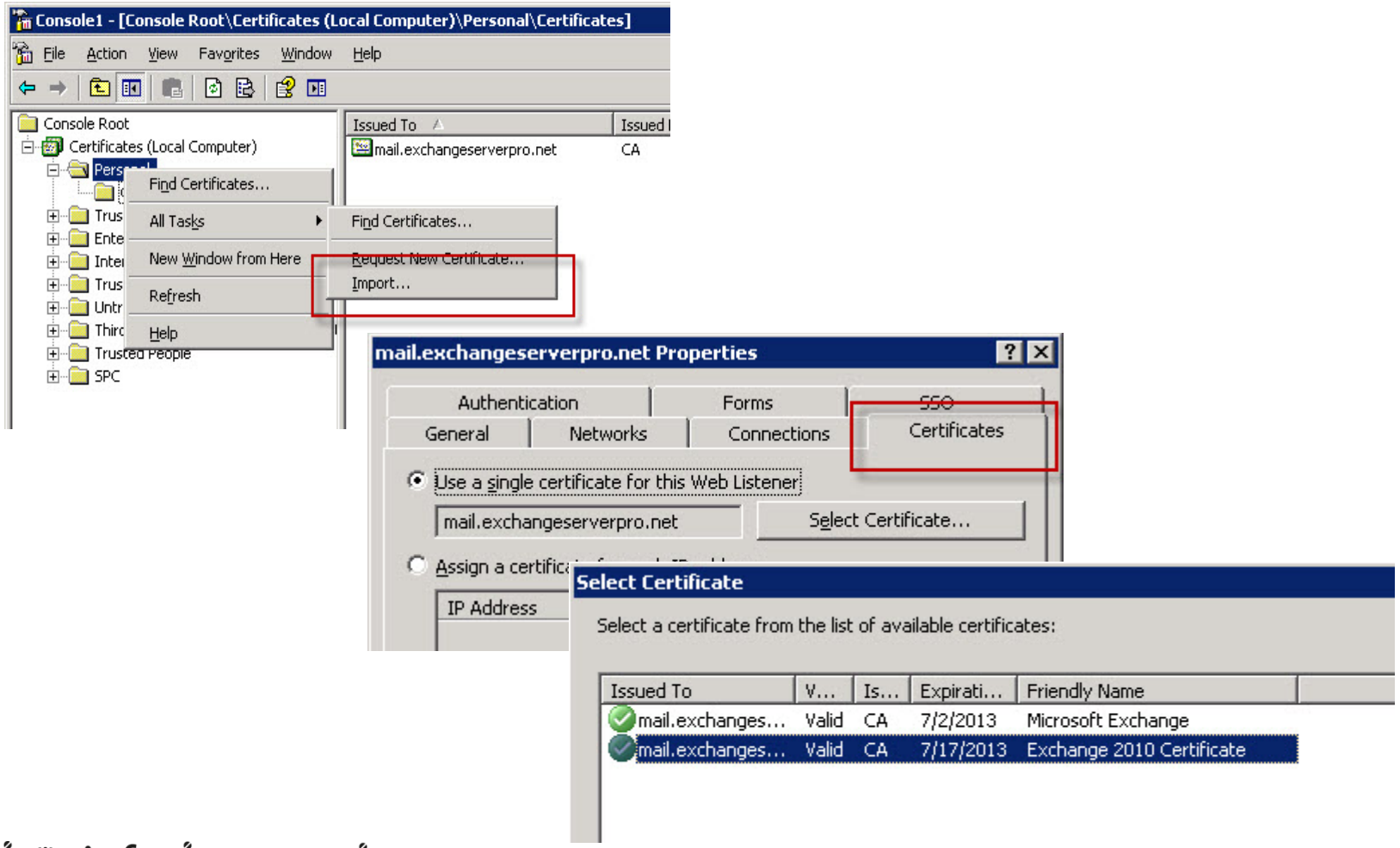
ISA SSL Certificate



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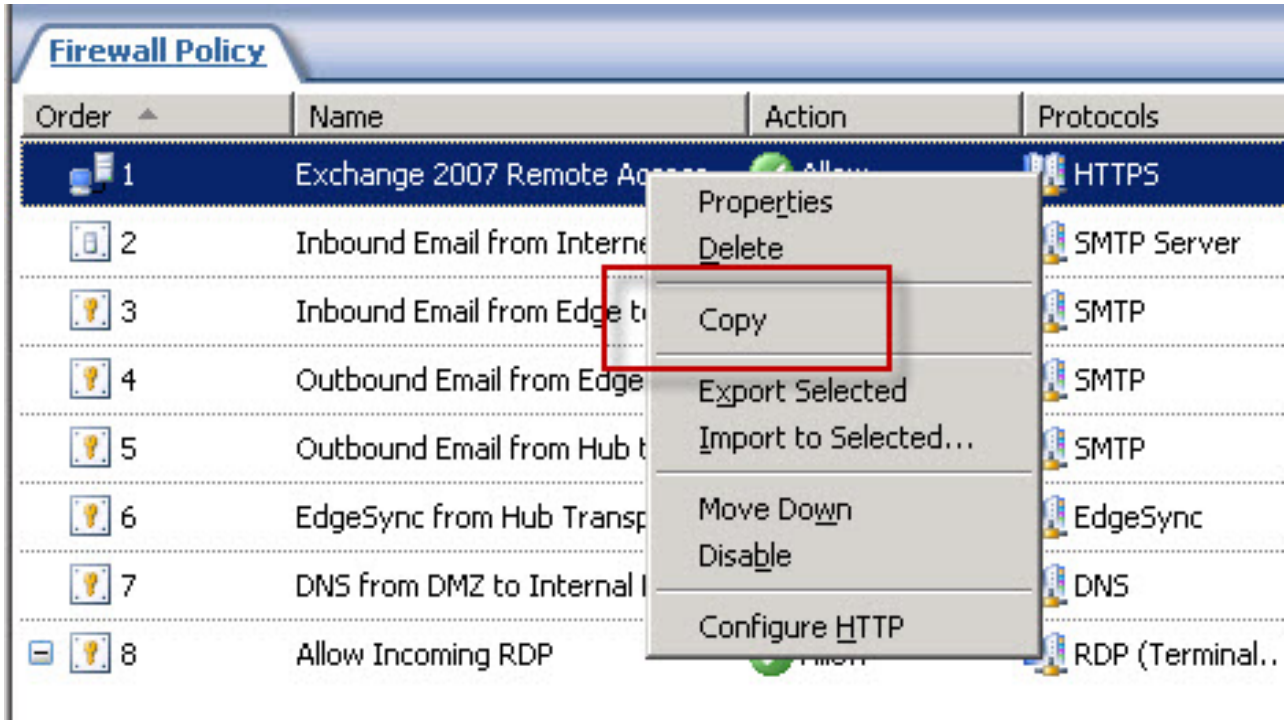
ISA Legacy Publishing Rule



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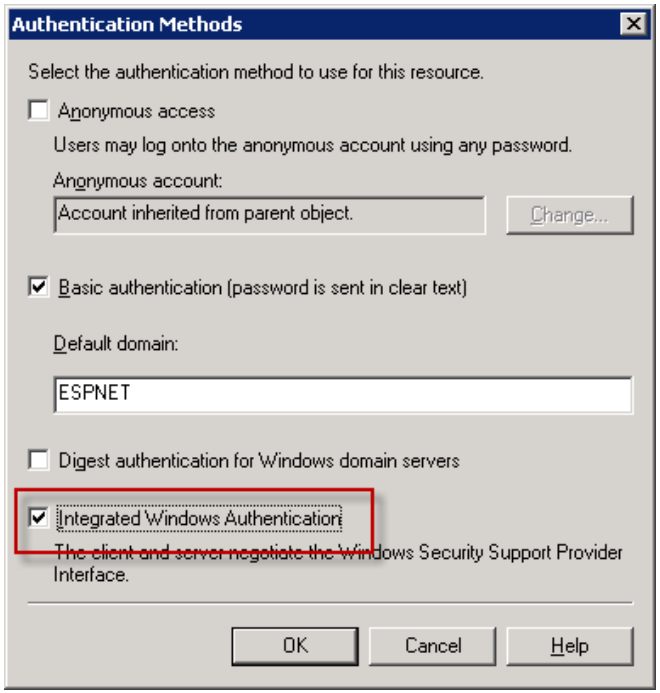
Exchange 2003 ActiveSync hotfix and permissions



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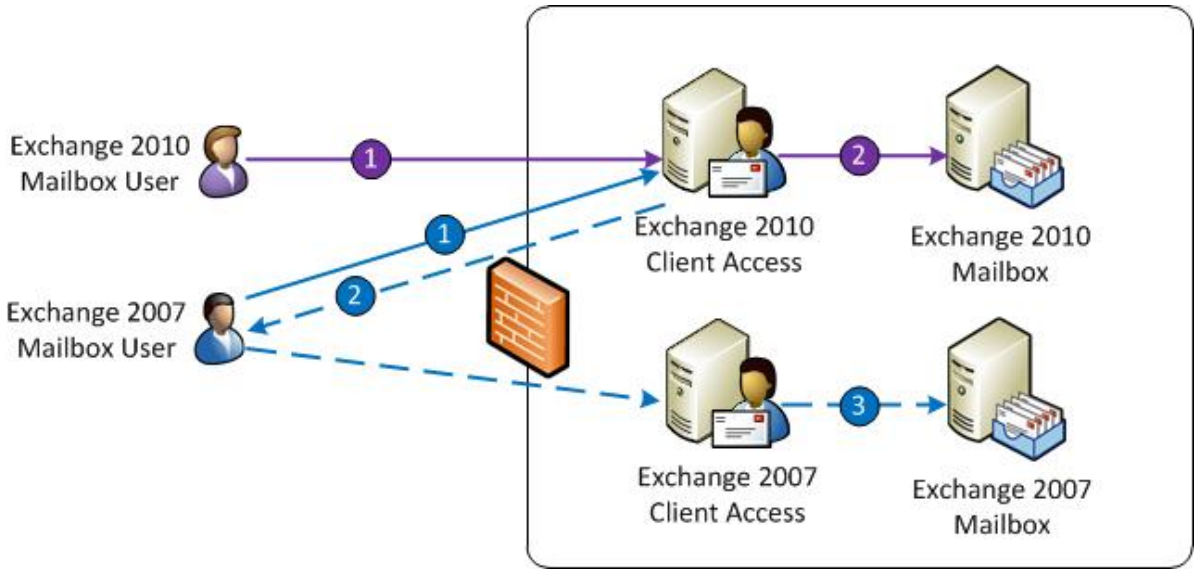
Exchange 2007 OWA Resource Files



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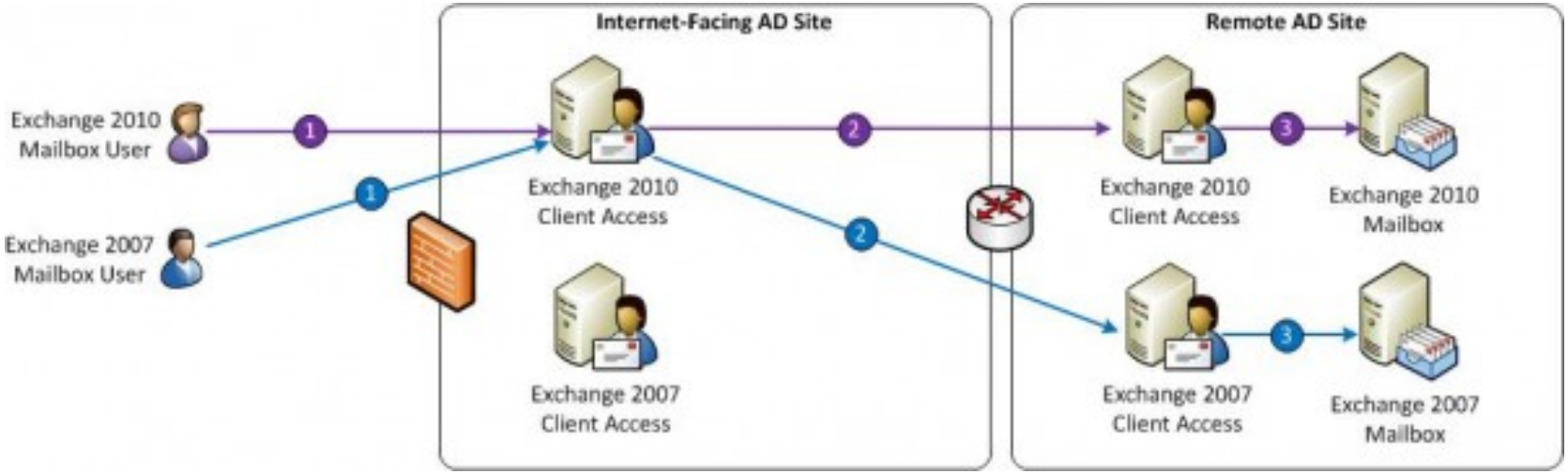
Exchange 2007 OWA Resource Files



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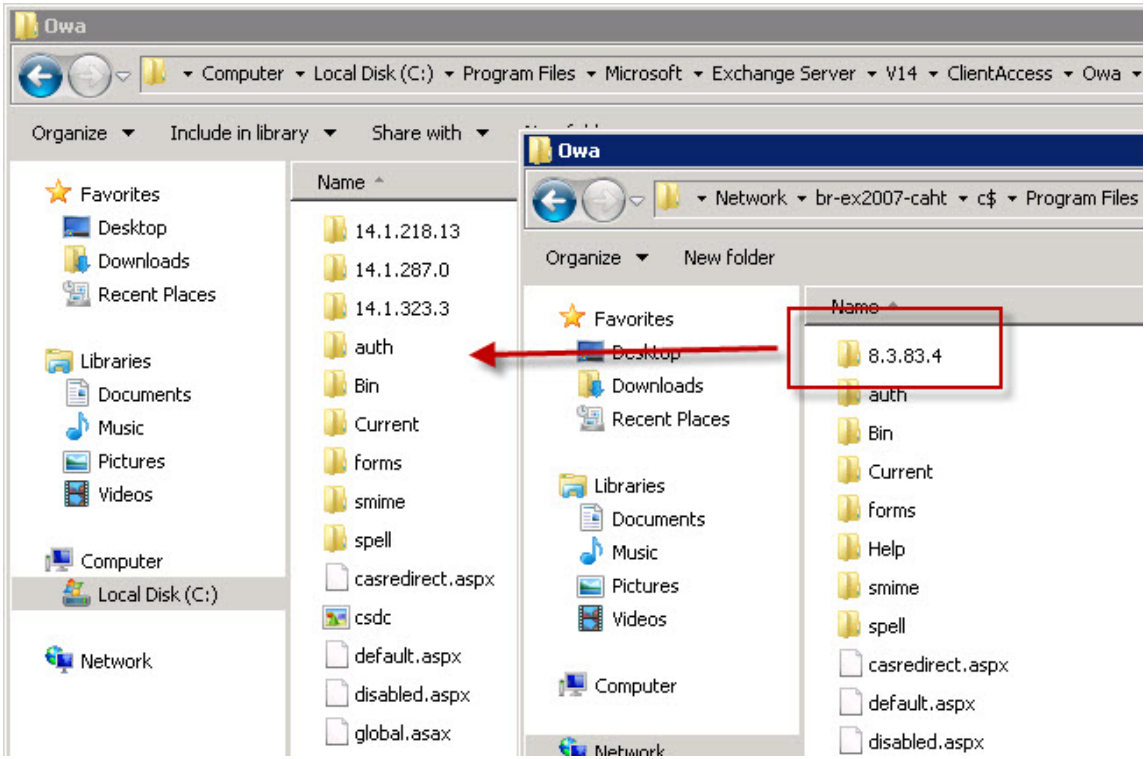
Exchange 2007 OWA Resource Files



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TESTING

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Testing Checklist

- Create test mailboxes on each Exchange
- Test Autodiscover and auto-configuration for Outlook 2007 and 2010 clients in each site
- Test Outlook Web App
- Test mail flow internal and external to the organization
- Test public folder access
- Test calendar Free/Busy information
- Test high availability scenarios
- Test backup and restore of Exchange Server 2010

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MIGRATION

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Migration Preparation

- Exchange 2010 servers built and tested
- Co-existence preparations completed
- Collect fresh planning data

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Migration Order

1. Client Access servers, starting with internet-facing site
2. Transport servers (mail routing)
3. Mailbox servers (and public folders)

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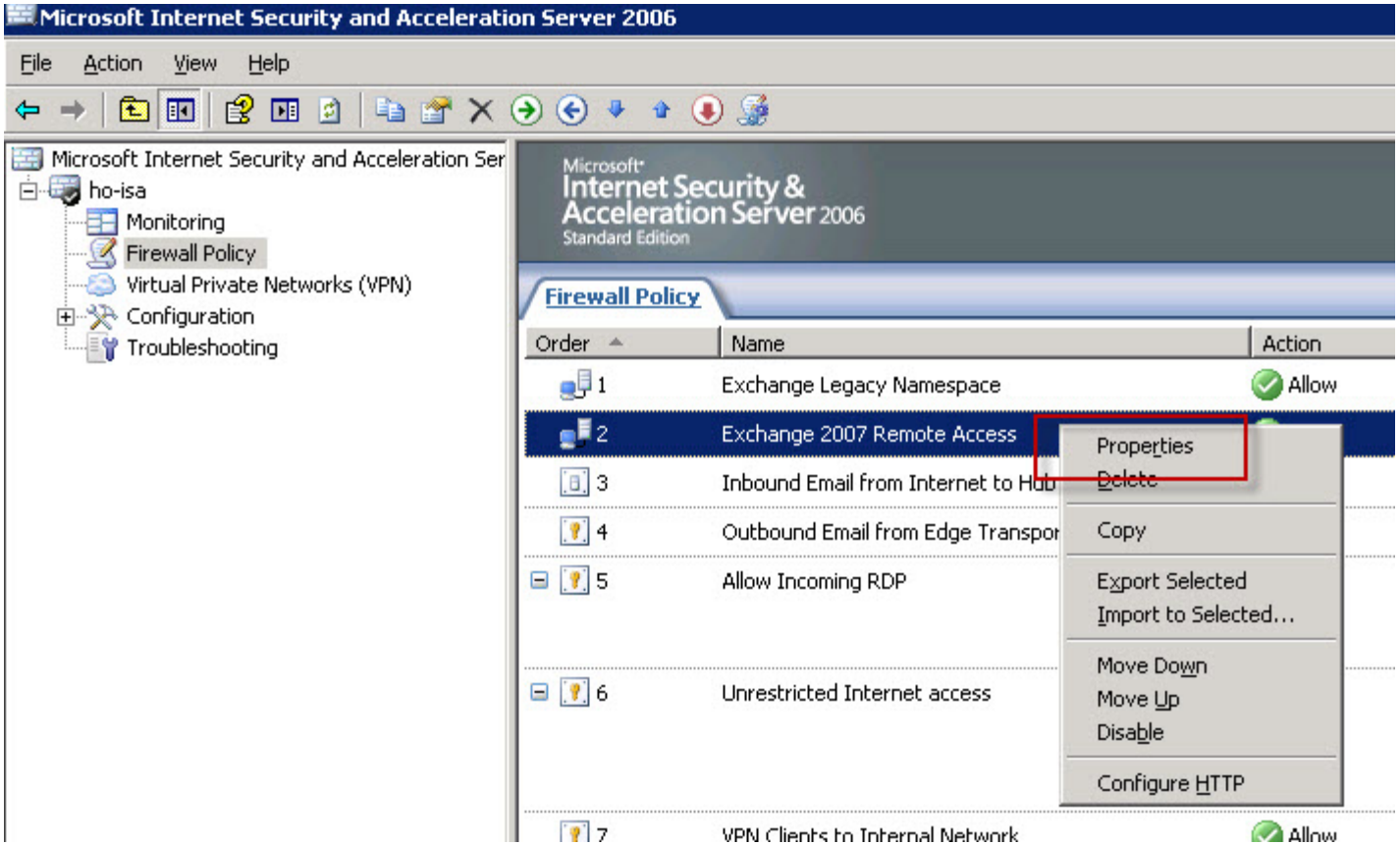
Migrating Client Access Servers



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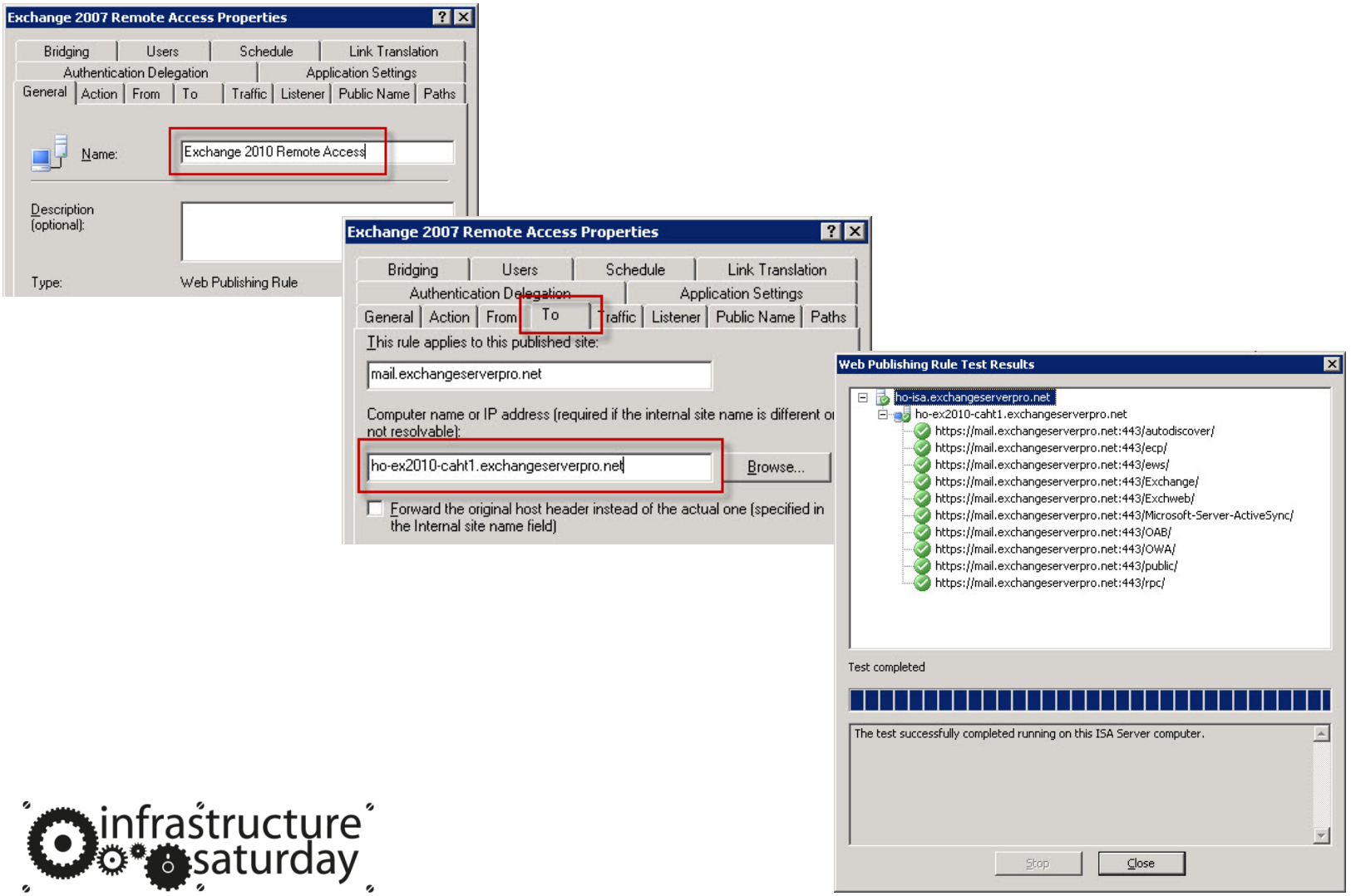
Migrating Client Access Servers



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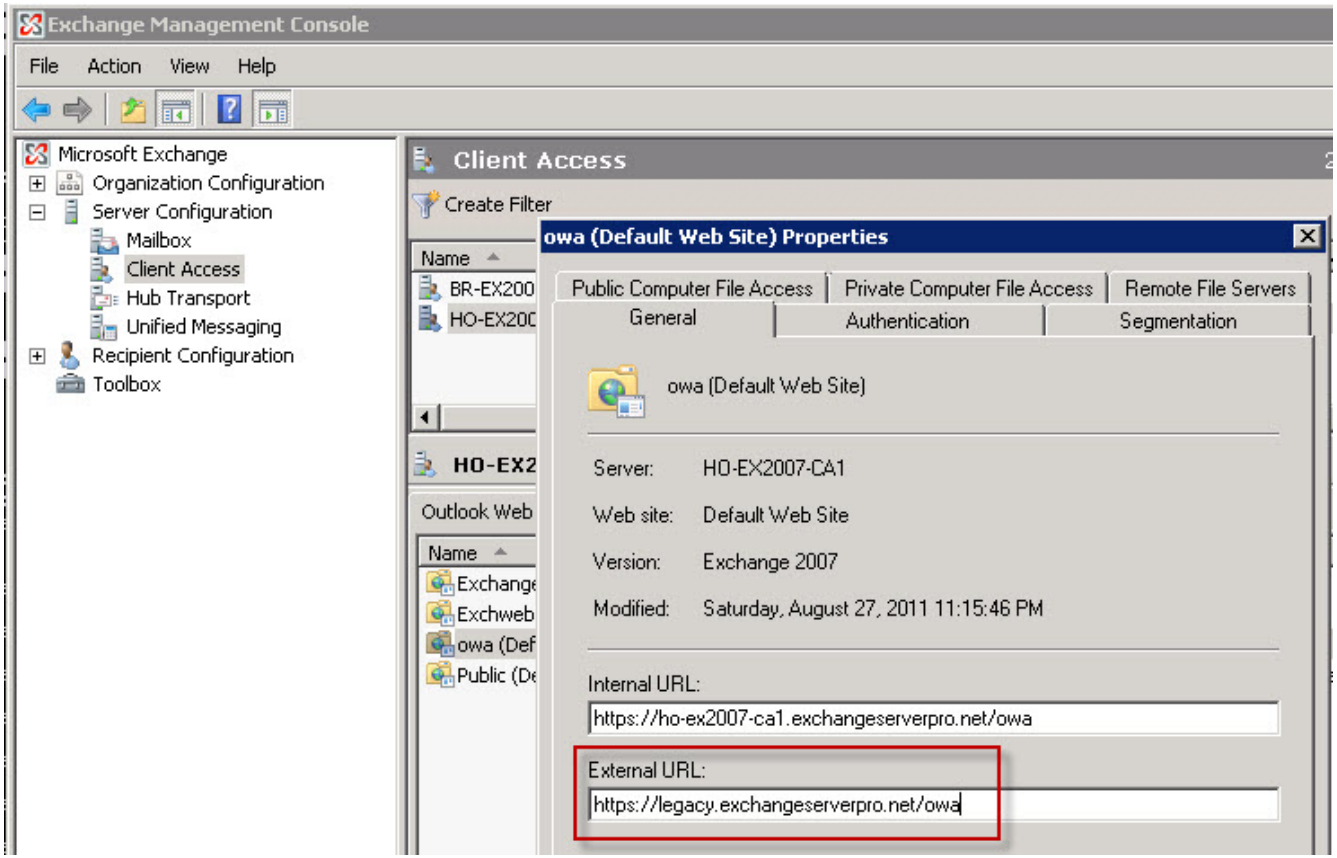
Migrating Client Access Servers



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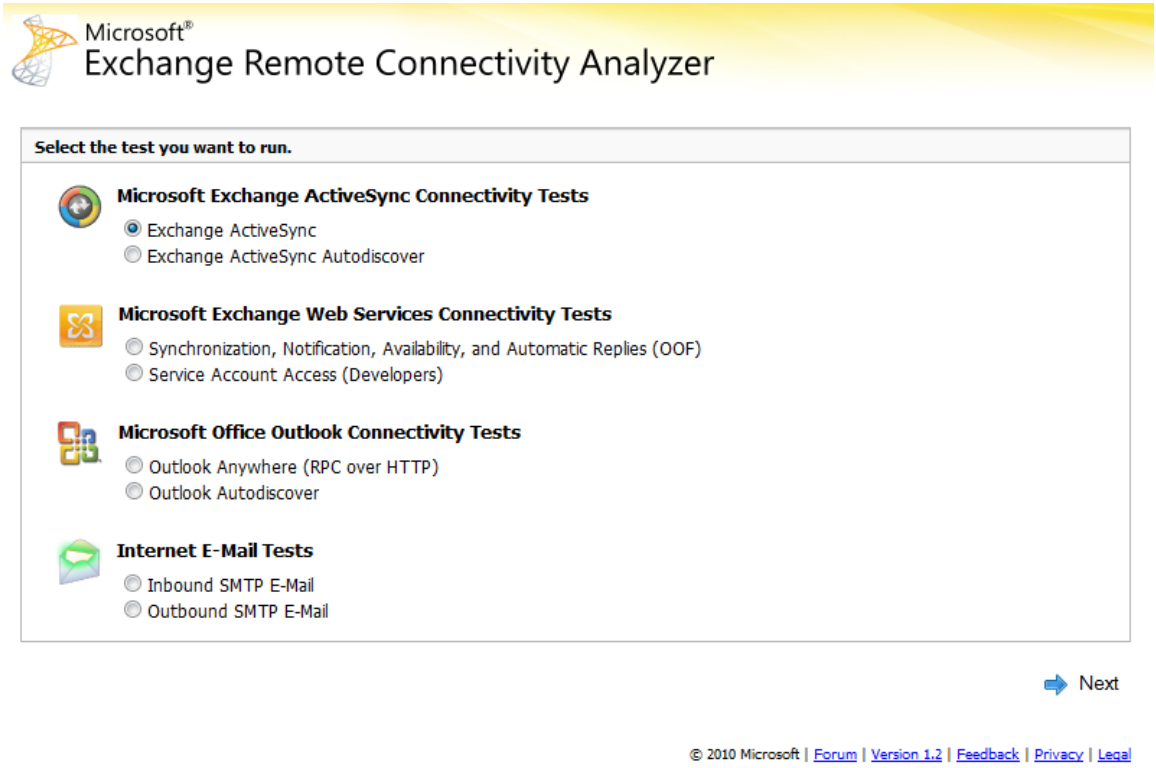
Migrating Client Access Servers



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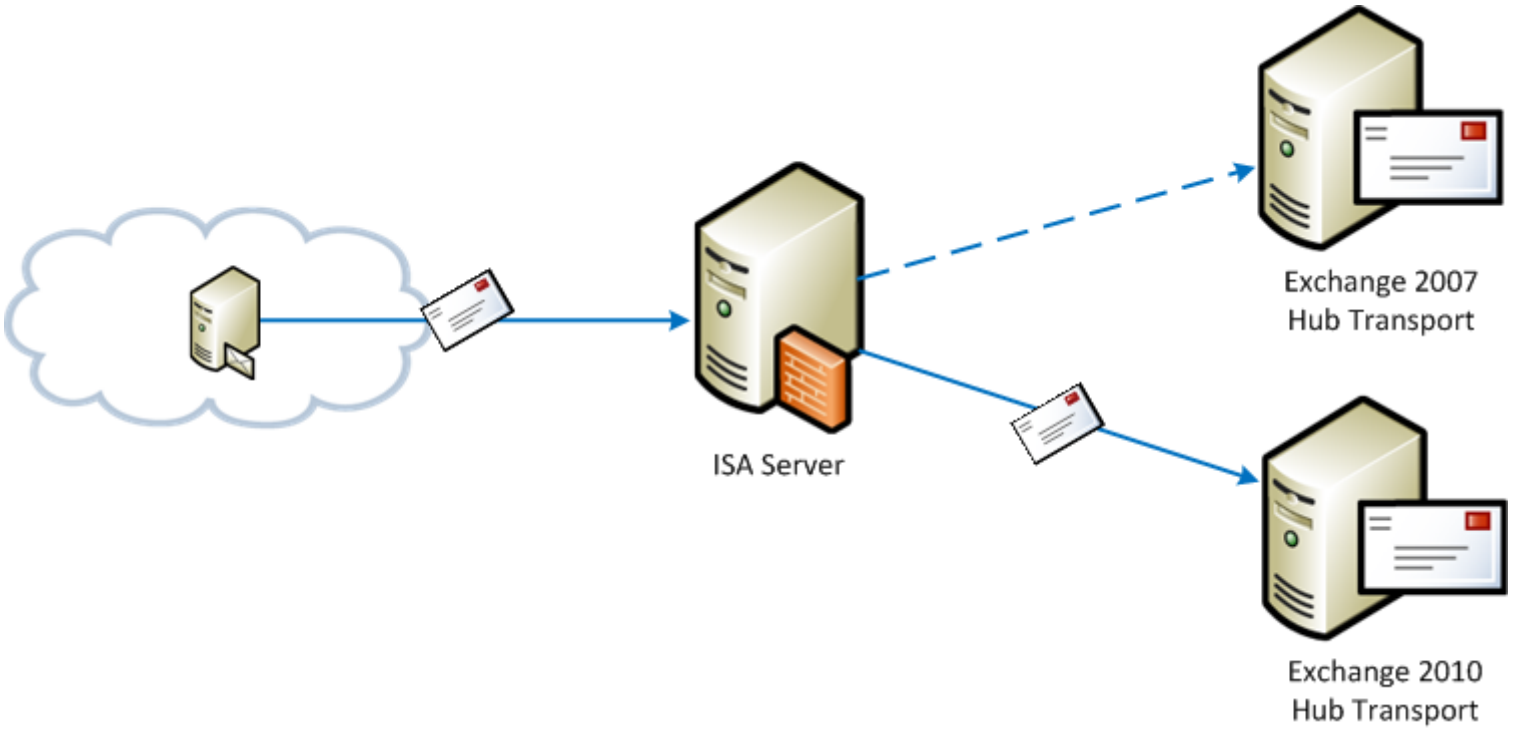
Migrating Inbound Email



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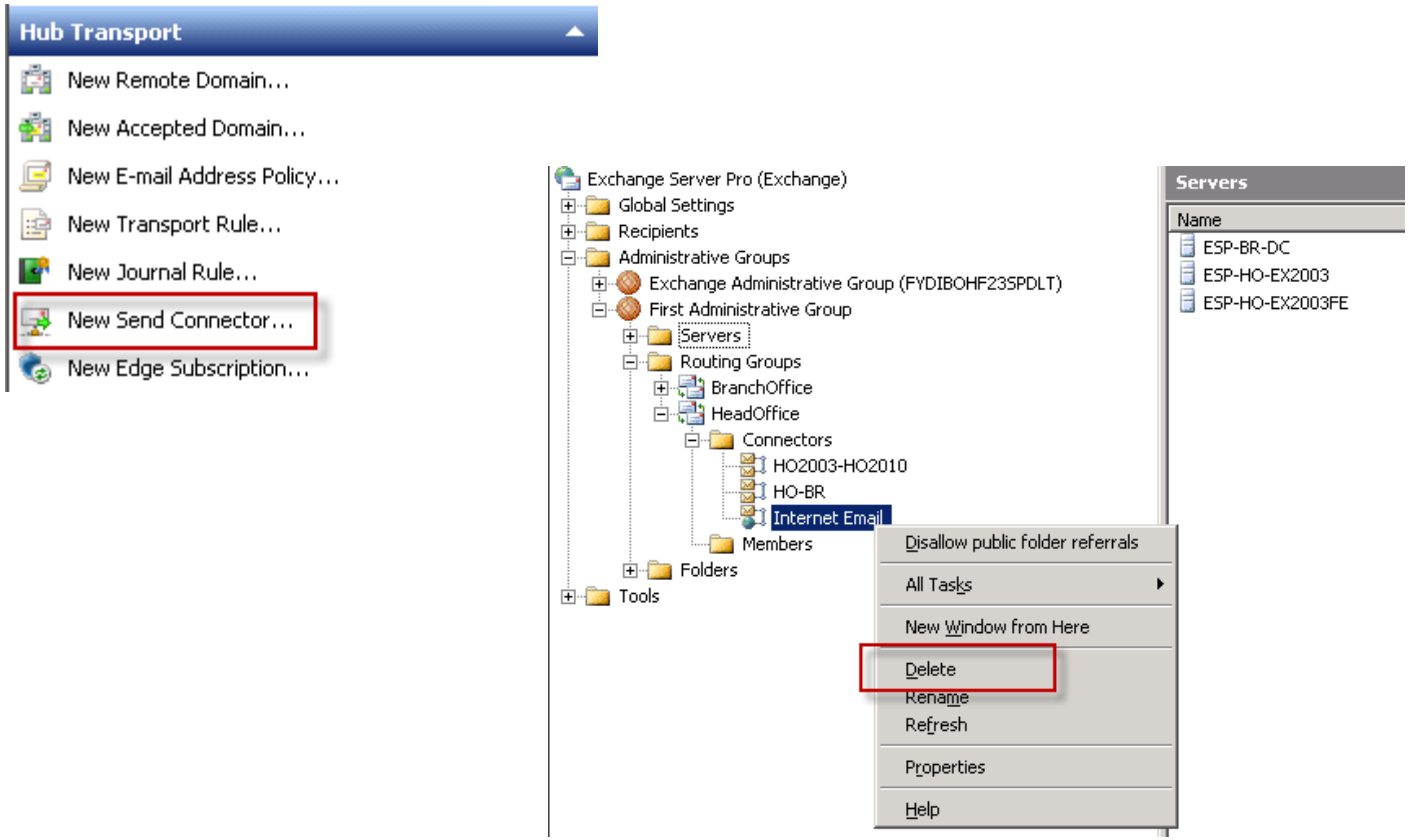
Migrating Outbound Email



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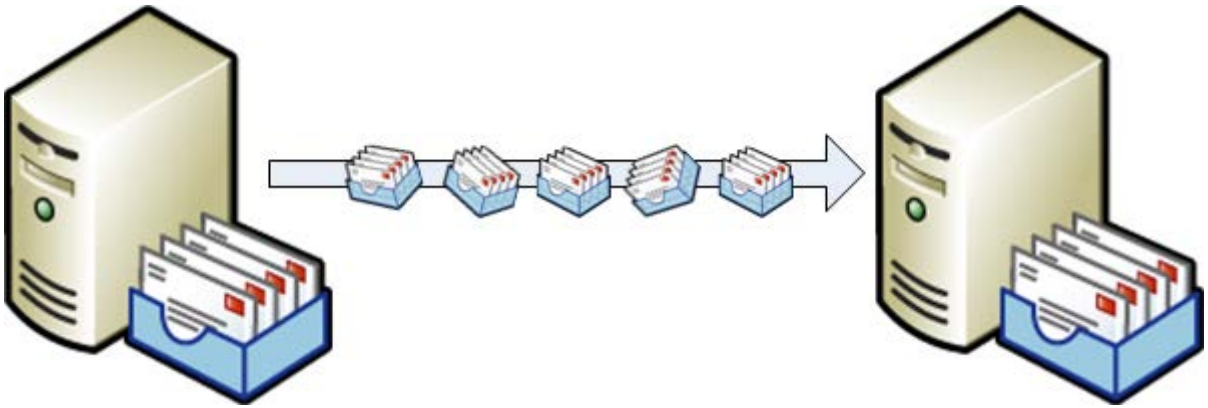
Migrating Mailboxes



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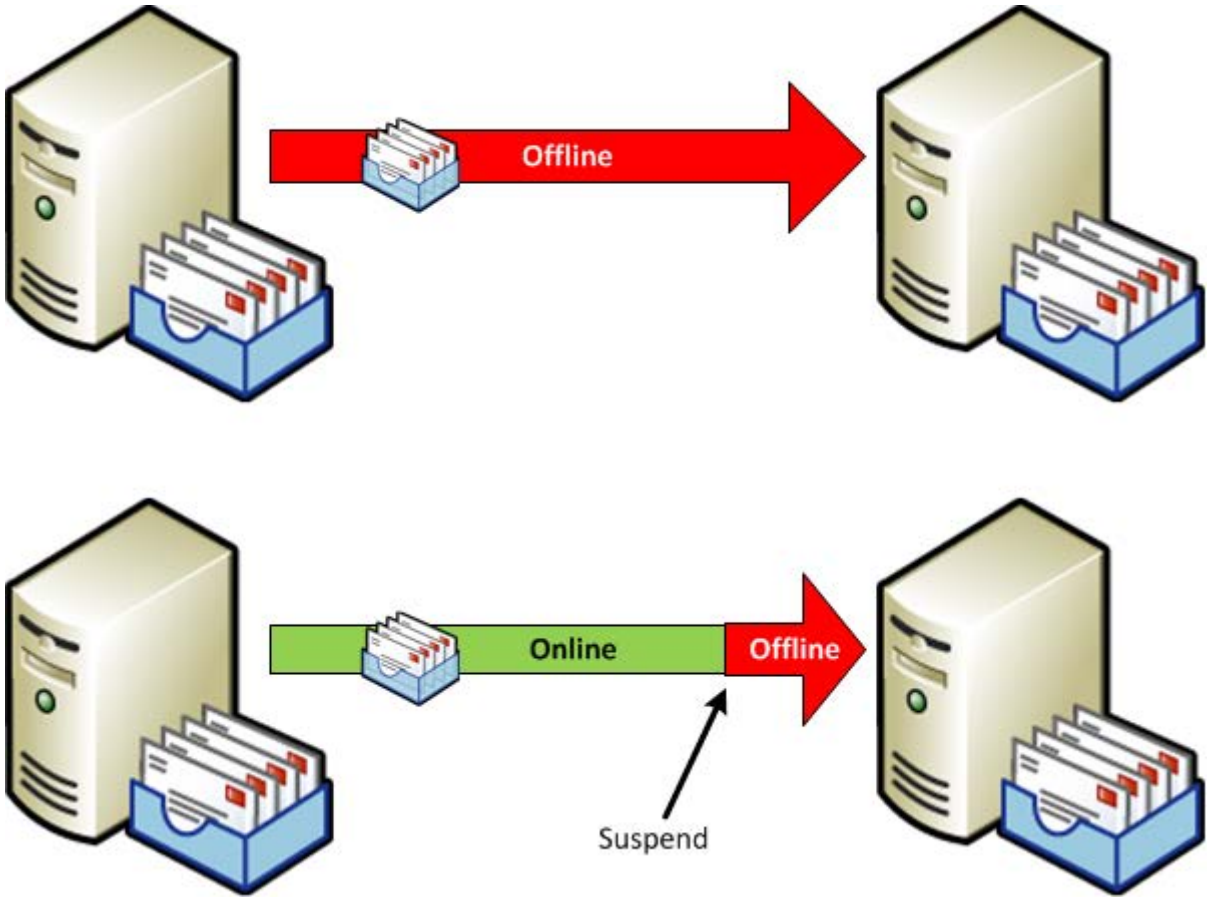
Online vs. Offline Mailbox Moves



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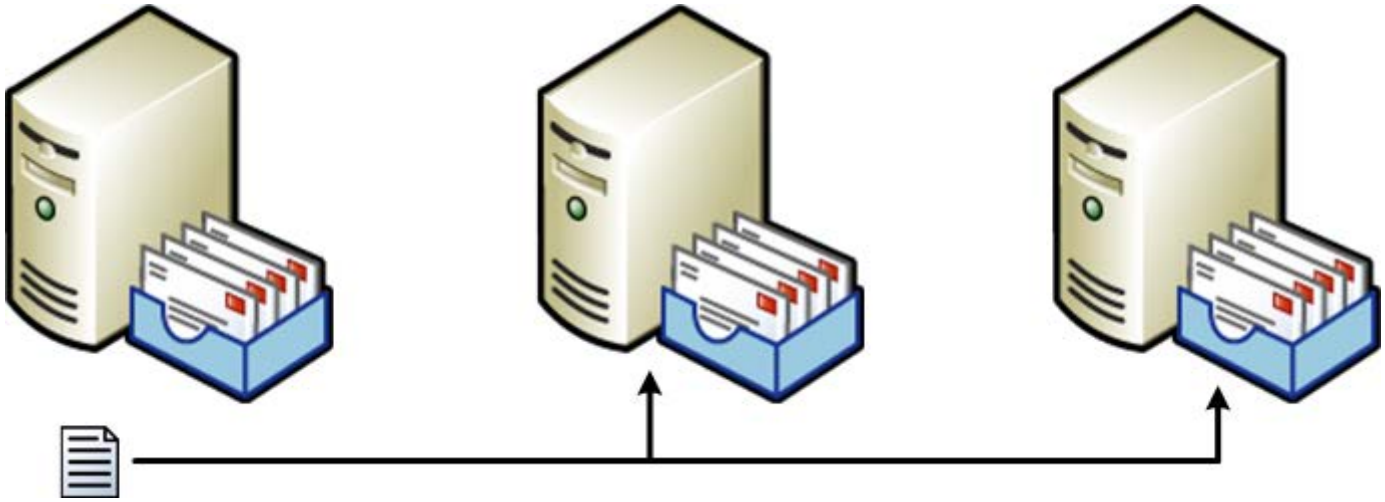
Managing Transaction Logs



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Migrating Public Folders

```
[PS] C:\>cd $exscripts

[PS] C:\Program Files\Microsoft\Exchange
Server\V14\scripts> .\MoveAllReplicas.ps1 -Server
BR-EX2007-MB -NewServer BR-EX2010-MB
```

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DECOMMISSIONING

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Decommissioning

- Move Offline Address Book (OABGen)
- Remove empty databases
- Exchange 2003
  - Move Public Folder Hierarchy
  - Remove Recipient Update Service(s) (RUS)
  - Remove Routing Group Connectors

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Decommissioning

- Uninstall Exchange Server 2003/2007
- Exchange 2003
  - Upgrade Email Address Policies
  - Upgrade the Global Address List (GAL) and Address Lists
- Upgrade Distribution Groups

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Finally

- Run an Exchange Best Practices Analyzer scan
- Documentation

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Q&A Time

Links

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