Microsoft

New York Exchange User Group:

Upgrade to Exchange Server 2013

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Upgrade from Exchange server 2007/2010

Exchange 2013 News

- Exchange 2013 CU1 is available
- Exchange 2013 Server Role Requirement Calculator v5.6 is available
- Mailbox Database limit is increasing to 100 (Projected for CU2 late summer)
- Exchange 2013 Poster is now available ☺

Upgrade to Exchange 2013- Agenda

Pre-requisites (Software/Hardware, AD and Exchange product versions)

Preparation of the legacy environment

Exchange 2013 Deployment

Legacy Co-existence

Migration of data – Move mailbox

Other considerations – PF migration

DEMO – Co-existence and Interoperability/Migration

Exchange 2013 Prerequisites

Supported Coexistence scenarios

Exchange 2007 SP3 RU 10

Exchange Server 2010 SP3

Exchange 2013 + CU1

No Exchange 2003 or older Exchange systems are supported

*You need to remove all instances of Exchange 2003 from your organization before you can upgrade to Exchange 2013.

No in-place upgrades

Supported Client Access Methods

Outlook 2013

Outlook 2010 SP1 with November 2012 Cumulative Update

Outlook 2007 SP3 with November 2012 Cumulative Update

Entourage 2008 for Mac, Web Services Edition

Outlook for Mac 2011

Exchange 2013 Prerequisites

Active Directory

At least one Windows 2003 SP2 or higher Global Catalog server and Domain Controller in each AD site

No support for read-only domain controllers or read-only global catalog servers

Windows Server 2003 forest functional level or higher

Supported Namespaces

Contiguous

Disjoint

Single – label domains, i.e., CONTOSO

Non-contiguous

Exchange 2013 Prerequisites

Operating System

Windows Server 2008 R2 SP1 Standard, Enterprise or Datacenter – x64

Standard edition minimum requirement for Exchange 2013 CAS servers

Enterprise edition is minimum requirement for Exchange 2013 MBX servers in a DAG

Windows Server 2012 Standard, Datacenter (Not Core)

Windows Components

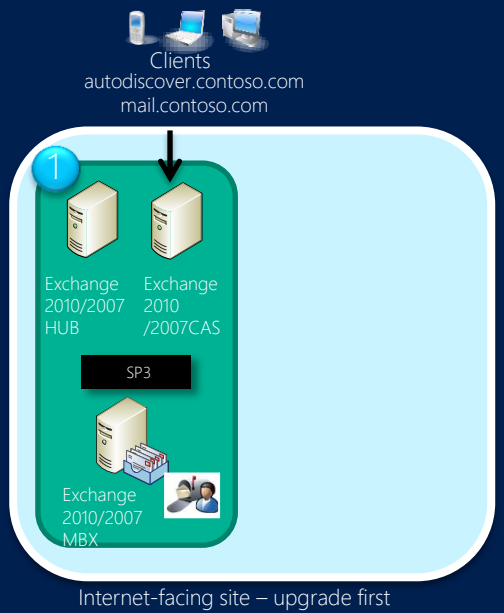
.NET Framework 4.5

Windows Management Framework 3.0

Unified Communications Managed API (UCMA) 4.0

Other OS components

Upgrading to Exchange 2013



1. Prepare
   - *Install Exchange SP and/or updates across the org*
   - *Prepare AD with Exchange 2013 schema and validate*
2. Deploy Exchange 2013 servers
3. Obtain and Deploy Certificates
4. Switch primary namespace to Exchange 2013 CAS
5. Move Mailboxes
6. Repeat for additional sites

Preparation of Legacy Environment

1

Install Exchange 2010 SP3 using same steps as previous Exchange 2007/2010 SPs

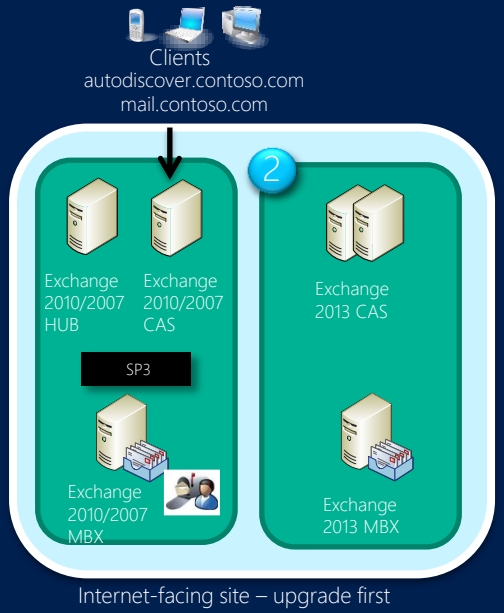
Prepare Active Directory with Exchange 2013 schema

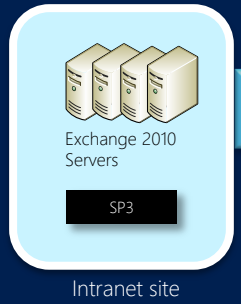
Setup /ps

Setup /prepareAD

Validate existing client access using Remote Connectivity Analyzer and/or test connectivity cmdlets - http://www.exrca.com

Upgrading to Exchange 2013





1. Prepare
   - Install Exchange SP and/or updates across the org
   - Prepare AD with Exchange 2013 schema and validate
2. Deploy Exchange 2013 servers
   - *Install both Exchange 2013 MBX and CAS servers*
3. Obtain and Deploy Certificates
4. Switch primary namespace to Exchange 2013 CAS
5. Move Mailboxes
6. Repeat for additional sites

Exchange 2013 deployment

2

Install both MBX and CAS Servers

GUI or command line

In place upgrades are not supported

Updated to reflect Exchange 2013 roles

Parameters

New required parameter for license terms acceptance

CU1

Install CU1 on all Exchange 2013 servers.

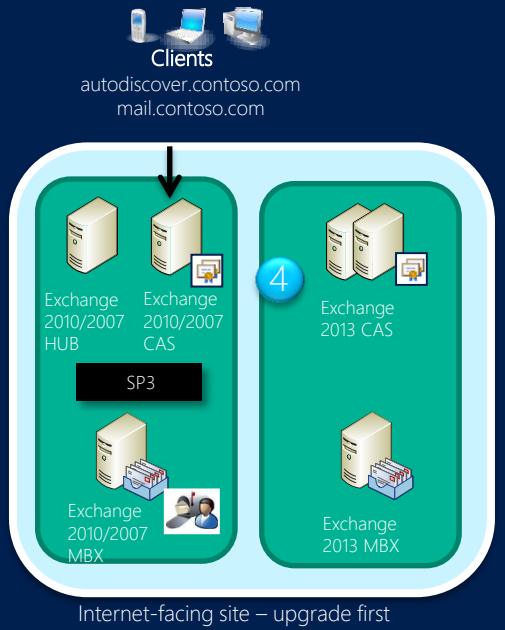
CMD line Examples -

```
Setup.exe /mode:install /roles:clientaccess
Setup.exe /mode:install /roles:mailbox
Setup.exe /mode:install /roles:ManagementTools
```

Other required parameter

- /IAcceptExchangeServerLicenseTerms

Upgrading to Exchange 2013



1. Prepare
   - Install Exchange SP and/or updates across the org
   - Prepare AD with Exchange 2013 schema and validate
2. Deploy Exchange 2013 servers
3. Obtain and Deploy Certificates
   - *Obtain and deploy certificates on Exchange 2013 Client Access Servers configured with legacy namespace, Exchange 2013 namespace and Autodiscover namespace*
   - *Deploy certificates on Exchange 2007 CAS*
4. Switch primary namespace to Exchange 2013 CAS
5. Move Mailboxes
6. Repeat for additional sites

Obtain and Deploy certificates

4

New End-to-end certificate wizard in the Exchange Administration Center (EAC)

No certificate installation on Mailbox servers required

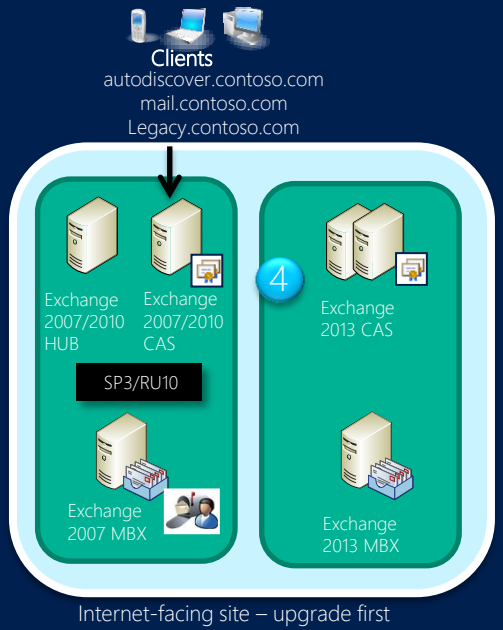
Certificate best practices

- Minimize the no. of certificates
- Minimize no. of alternate names on certificates.
- Use split DNS for URLs
- Use SAN certificates instead of Wildcard certs.

EAC provides notification when an Exchange 2013 Client Access Server's certificate(s) is about to expire

- First notification shown 30 days prior to expiration
- Subsequent notifications provided daily

Upgrading to Exchange 2013



1. Prepare
   - Install Exchange SP and/or updates across the org
   - Prepare AD with Exchange 2013 schema and validate
2. Deploy Exchange 2013 servers
3. Create Legacy namespace
4. Obtain and Deploy Certificates
   - *Obtain and deploy certificates on Exchange 2013 Client Access Servers configured with legacy namespace, Exchange 2013 namespace and Autodiscover namespace*
   - *Deploy certificates on Exchange 2007 CAS*
5. Switch primary namespace to Exchange 2013 CAS
6. Move Mailboxes
7. Repeat for additional sites

Create Legacy Namespace

3

Required for co-existence with Exchange 2007 only.

Used to access legacy environment

Create DNS record internally and externally for legacy namespace

Legacy.contoso.com

Publish legacy URL via Reverse proxy – if Exists

Validate legacy namespace access via ExRCA – www.exrca.com

Exchange 2013 CAS preparation

5

Configure load balancing
- Layer 7 load balancers are no longer required for primary Exchange 2013 namespace
- Layer 4 is supported and recommended

Configure vDIRs on Exchange 2013 to point to primary namespace

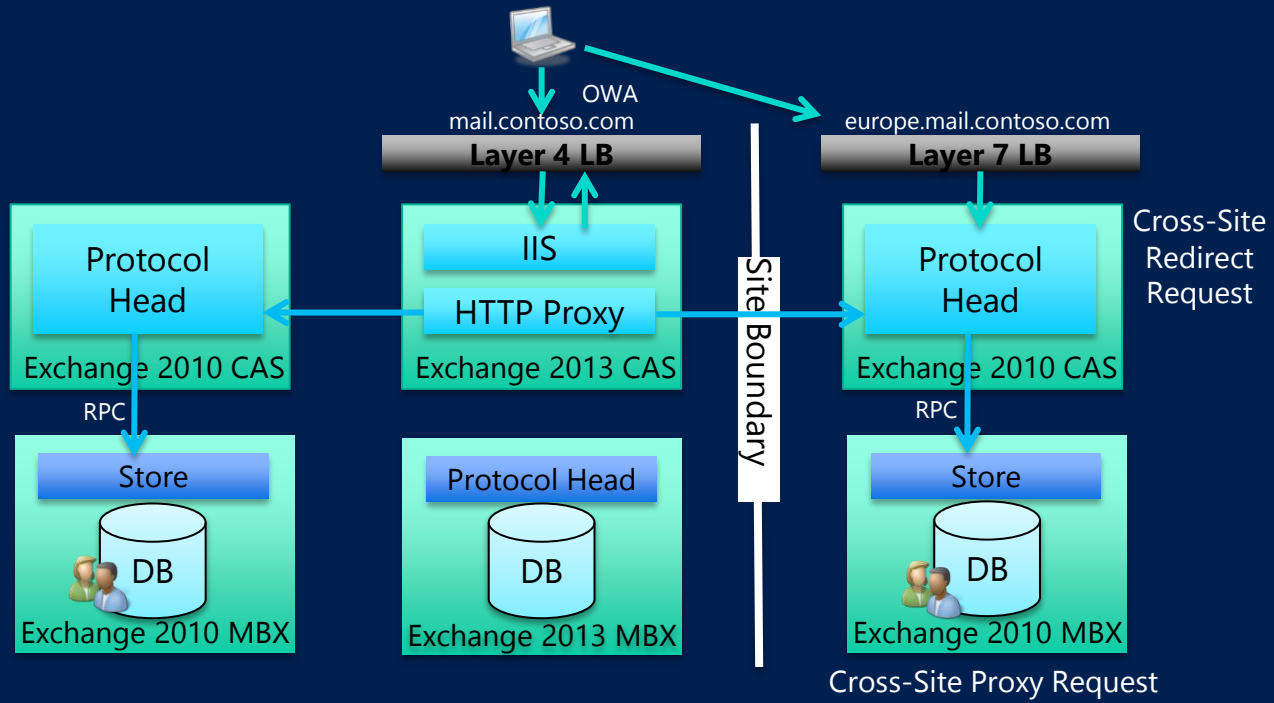
Configure Reverse proxy rules appropriately to support legacy redirection from the internet

Switch primary namespace and Autodiscover to point to Exchange 2013 CAS VIP

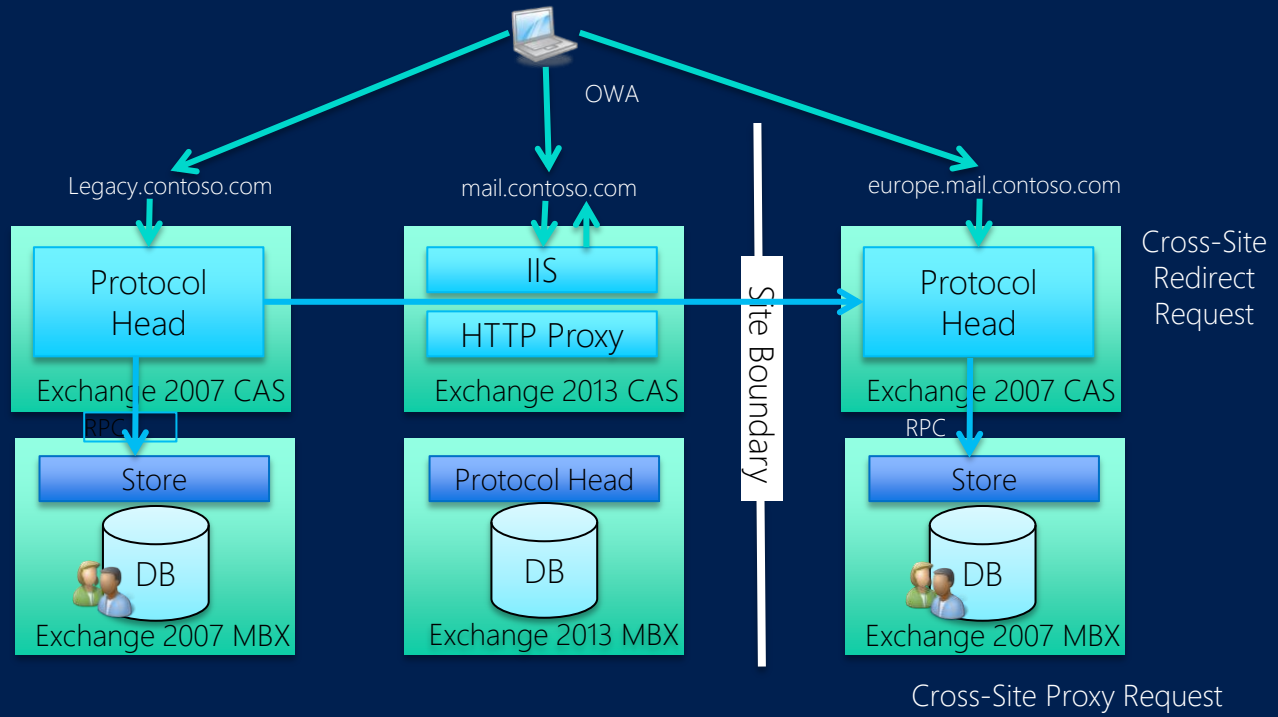
Use www.exrca.com to verify Exchange 2013 access

Change SMTP mail flow (Matter of choice as to when to do this)

Exchange 2013 OWA Client Connectivity Flow



Exchange 2013 OWA Client Connectivity Flow



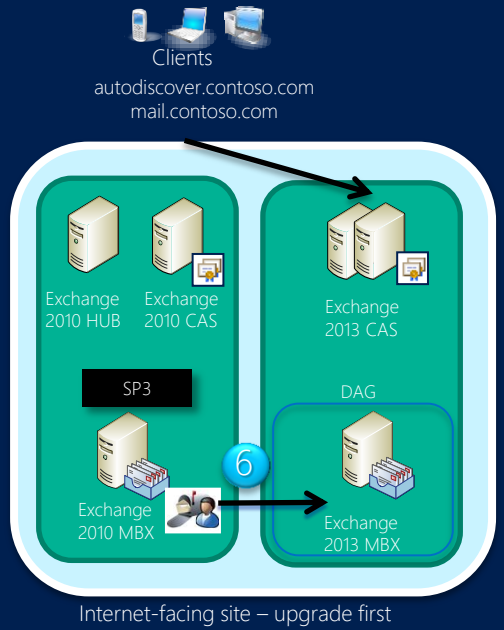
Exchange 2013 Client protocol connectivity flow

Protocol	Exchange 2007 user accessing Exchange 2013 namespace
Requires	Legacy Namespace
OWA	Silent redirect (not SSO) to CAS2007 externally facing URL
EAS	Proxy to MBX2013
Outlook Anywhere	Proxy to CAS2007
Autodiscover	Redirect to CAS2007 externally facing URL
EWS	Autodiscover
POP/IMAP	Proxy to CAS2007
OAB	Proxy to CAS2007
RPS	n/a
ECP	n/a

Exchange 2013 Client protocol connectivity flow

Protocol	Exchange 2010 user accessing Exchange 2013 namespace
Requires	No additional namespaces
OWA	• Proxy to CAS2010 • Cross-site silent redirect (not SSO) which may redirect to CAS2010 or CAS2013
EAS	Proxy to CAS2010
Outlook Anywhere	Proxy to CAS2010
Autodiscover	Proxy to CAS2010
EWS	Proxy to CAS2010
POP/IMAP	Proxy to CAS2010
OAB	Proxy to CAS2010
RPS	Proxy to CAS2010
ECP	• Proxy to CAS2010 • Cross-site redirect which may redirect to CAS2010 or CAS2013

Upgrading to Exchange 2013



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   - Prepare AD with Exchange 2013 schema and validate
2. Deploy Exchange 2013 servers
3. Obtain and Deploy Certificates
4. Switch primary namespace to Exchange 2013 CAS
5. Move Mailboxes
   - *Build out DAG*
   - *Move users to Exchange 2013 MBX*
6. Repeat for additional sites

Exchange 2013 Mailbox Moves

Microsoft Exchange Server 2013 introduces the concept of batch moves and migration endpoints

- Microsoft Exchange Mailbox Replication service
- Microsoft Exchange Mailbox Replication Proxy

Batch Moves

- Ability to move multiple mailboxes in large batches.
- Email notification during move with reporting.
- Automatic retry and automatic prioritization of moves.
- Primary and personal archive mailboxes can be moved together or separately.
- Option for manual move request finalization, which allows you to review your move before you complete it.

Migration endpoints

- Migration endpoints capture the remote server information and persist the required credentials for migrating the data and the source throttling settings.
- Can be used to configure settings for remote and cross-forest mailbox moves.

Exchange 2013 Mailbox Moves

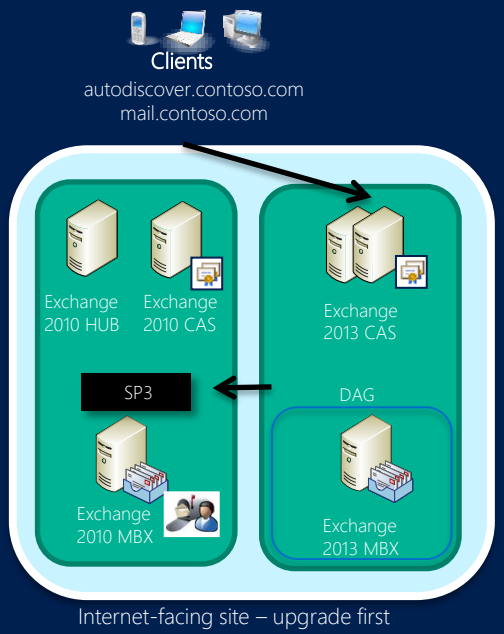
New CMDlets

New-MigrationBatch

Get-MigrationUserStatistics

New-MigrationEndpoint (cross-forest or Hybrid migrations)

Upgrading to Exchange 2013



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Other considerations

Post Deployment tasks

Move SMTP Mailflow to Exchange 2013 – MX records, Send connectors etc.

Move OAB generation to Exchange 2013 Mailbox

Unified messaging

Move SMTP Relay list to Exchange 2013 servers.

Public Folders in Exchange 2013

- Database-centered architecture replaced by mailbox
  - Existing Public Folders can be migrated to Exchange 2013
  - Public folders exist in mailboxes
  - End user experience doesn't change
- Public Folders are not supported in Exchange 2013 RTM OWA
- User mailboxes should be moved to Exchange 2013 before you begin migration process.
- Legacy Exchange 20010 servers must be running SP3

Migration Public Folders to Exchange Server 2013

Pre-requisite steps on Exchange 2010

For verification purposes, use the following cmds to capture legacy PF statistics

```
Get-PublicFolder -Recurse | ConvertTo-CSV C:\Ex2010_PFStructure.csv
Get-PublicFolder -Recurse | Get-PublicFolderStatistics | ConvertTo-CSV C:\Ex2010_PFStatistics.csv
Get-PublicFolder -GetChildren | Get-PublicFolderClientPermission | Select-Object Identity,User -
ExpandProperty AccessRights | ConvertTo-CSV C:\Ex2010_PFPerms.csv
```

Pre-requisite steps on Exchange 2013

Verify that there are no existing migration requests

```
Get-PublicFolderMigrationRequest | Remove-PublicFolderMigrationRequest -Confirm:$false
```

On legacy server generate required CSV files

Generate name-to-folder size mapping file

```
.\Export-PublicFolderStatistics.ps1 <FQDN of source server> <Folder to size map path>
```

Generate folder-to-mailbox mapping file

```
.\PublicFolderToMailboxMapGenerator.ps1 <Maximum mailbox size in bytes> <Folder to size map
path> <Folder to mailbox map path>
```

Migration Public Folders to Exchange Server 2013

Create Public Folder mailboxes on Exchange 2013

Names of the public folder mailboxes that you create must match the name of the **TargetMailbox** in the mapping file

New-Mailbox -PublicFolder <Name> -HoldForMigration *<only for first PF mailbox>*

New-Mailbox -PublicFolder <Name> *<For PF mailboxes based on output from PublicFoldertoMailboxMapGenerator.*

Start Migration request

Run the following CMD to start migration process

New-PublicFolderMigrationRequest -SourceDatabase (Get-PublicFolderDatabase -Server <Source server name>) -CSVData (Get-Content <Folder to mailbox map path> -Encoding Byte)

To verify if migration has successfully started

Get-PublicFolderMigrationRequest | Get-PublicFolderMigrationRequestStatistics -IncludeReport | fl

Lockdown folder access on legacy for migration to complete (Downtime required)

Run the following cmd on Exchange 2010 to lock down PF access

Set-OrganizationConfig -PublicFoldersLockedForMigration:$true

Migration Public Folders to Exchange Server 2013

Test PF migration

Manually set the *PublicFolderMigrationComplete* to true

```
Set-OrganizationConfig -PublicFolderMigrationComplete:$true
```

Exclude the public folder mailbox from the serving hierarchy so that email won't be delivered to Exchange 2013 mail-enabled public folders during this test.

```
Set-Mailbox -Identity <Public Folder Mailbox Identity> -PublicFolder -
IsExcludedFromServingHierarchy $true
```

Assign some test mailboxes to use the public folder mailbox in the previous step as the default public folder mailbox.

```
Set-Mailbox -Identity <Test User> -DefaultPublicFolderMailbox <Public Folder
Mailbox Identity>
```

Finalize PF migration (downtime required)

By default, when you run the **Set-PublicFolderMigrationRequest** cmdlet, it won't complete until you remove the *PreventCompletion* flag and resume the migration request.

```
Set-PublicFolderMigrationRequest -Identity \PublicFolderMigration -
PreventCompletion:$false Resume- PublicFolderMigrationRequest -
Identity \PublicFolderMigration
```

*Note – Public Folders will exist on legacy servers. Rollback is possible, but is a point in time restore, will not contain changes made on Exchange 2013

Migration Public Folders to Exchange Server 2013

Use the Exchange 2013 Administration Center (EAC) to:

- Manage Exchange 2013 mailboxes
- View and update Exchange 2010/2007 mailboxes and properties (with a few limitations)

Use the Exchange 2010 Management Console (EMC) to create mailboxes or perform new operations

Demo

Contact

John Doe
Job title goes here
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www.microsoft.com/microsoftservices