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November 29, 2010 (Monday)



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# Exchange Server 2010 SP1 Tips and Tricks

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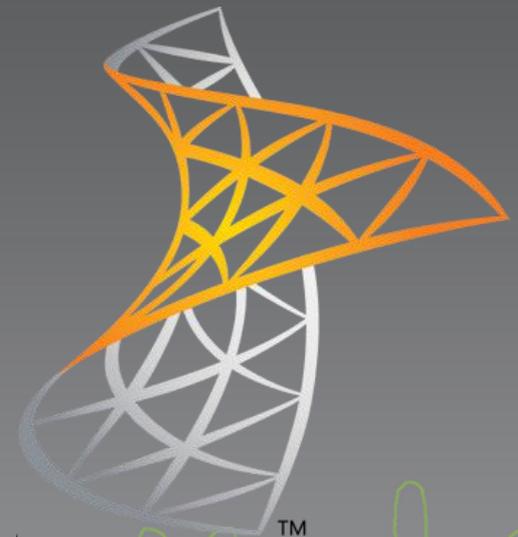
# Agenda

- The Basics
- Planning and Deployment Tools
- Setup and Deployment
- Mailbox and Public Folder Databases
- Other SP1 Improvements



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**Exchange Server 2010**

**THE BASICS**



# Exchange Server 2010...

- RTM'd October 8, 2009
- GA since November 9, 2009
- Downloadable from Microsoft Download Center  
<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=05741f65-2a7b-4070-879f-d74208d6171d>
- 64-bit only



# Exchange Server 2010 SP1...

- Signed off for RTM on August 23, 2010
- RTW at 9:00 AM PST on August 25, 2010
- Available for download at <http://go.microsoft.com/fwlink/?LinkID=199950>
- Build no. 14.01.0218.015
- Supporting more languages than ever before
  - Unified Messaging languages: 25
  - Client languages: 55
  - Server languages: 15
- Hosting more than 45 million mailboxes in the cloud!

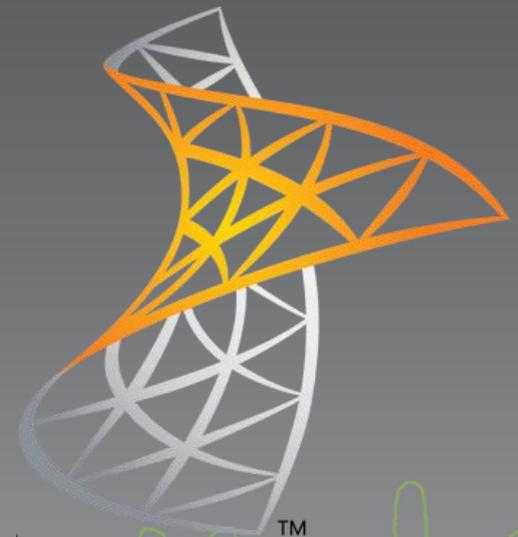


# Exchange Server 2010 SP1...

- Available in three Server Editions
  - Standard Edition (retail and volume)
    - MPC: 0264-385
  - Enterprise Edition (volume only)
    - Includes all Exchange 2010 Standard features, plus support for up to 100 databases per server
    - MPC: 0264-2871
  - Coexistence Edition (volume only)
    - This is a Standard Edition SKU designed to be a “gateway” for upgrading from previous versions of Exchange to Exchange 2010 Online
    - MPC: 0264-2942 (offered for free)

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**Exchange Server 2010**

**PLANNING AND  
DEPLOYMENT TOOLS**



# Exchange Server Pre-Deployment Analyzer

- <http://msexchangeteam.com/archive/2010/02/24/454083.aspx>
- Focuses on overall topology readiness
- Performs analysis of Exchange 2003/2007
- Supported on Windows 7, Windows Vista SP2, Windows Server 2008 SP2, Windows Server 2008 R2, and Windows Server 2003 SP2



# Exchange Server Deployment Assistant

- <http://technet.microsoft.com/en-us/exdeploy2010>
  - Upgrade from Exchange 2003
  - Upgrade from Exchange 2007
  - Upgrade from Exchange 2003/2007
  - New Exchange 2010 Org



# Exchange Profile Analyzer

- Latest version - 08.03.0056
- Collect estimated statistical information from a single mailbox database or an Exchange organization
- Download from <http://www.microsoft.com/downloads/en/details.aspx?FamilyId=8F575F60-BD80-44AA-858B-A1F721108FAD&displaylang=en> (32-bit) or <http://www.microsoft.com/downloads/en/details.aspx?familyid=C009C049-9F4C-4519-A389-69C281B2ABDA&displaylang=en> (64-bit)

# Mailbox Server Role Requirements Calculator

- <http://msexchangeteam.com/archive/2009/11/09/453117.aspx>
  - User profile
  - High availability architecture
  - Server's CPU platform
  - Storage architecture
  - Backup architecture
  - Network architecture



# Exchange Jetstress 2010

- Latest version - 14.01.0225.017
- Simulate disk I/O load on a test server running Exchange to verify the performance and stability of your disk subsystem before putting your server into a production environment
- Download from <http://www.microsoft.com/downloads/en/details.aspx?displaylang=en&FamilyID=13267027-8120-48ed-931b-29eb0aa52aa6> (64-bit) or <http://www.microsoft.com/downloads/en/details.aspx?FamilyID=6c9c1180-4dd8-49c4-85fe-ca1cdcb2453c> (32-bit)

# Exchange Load Generator 2010

- Latest version - 14.01.0180.003
- Simulation tool used to measure the impact of MAPI, OWA, ActiveSync, IMAP, POP and SMTP clients on Exchange servers
- Download from <http://www.microsoft.com/downloads/en/details.aspx?FamilyID=cf464be7-7e52-48cd-b852-ccfc915b29ef> (64-bit) or <http://www.microsoft.com/downloads/en/details.aspx?FamilyID=1aaa3f65-bab0-42e6-861b-a25adf258ef3> (32-bit)

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**Exchange Server 2010**

**SETUP AND DEPLOYMENT**



# Setup – General

- Windows Server 2008 SP2 Platform Pre-reqs
  - [.NET Framework 3.5 SP1](#)
  - [.NET Framework 3.5 Family Update](#)
  - [Windows Management Framework](#) (WinRM 2.0 and Windows PowerShell v2)
  - Ex2010 RTM: Hub / Mailbox: [Microsoft Filter Pack](#)
  - Ex2010 SP1: Hub / Mailbox: [Office 2010 Filter Packs](#)
- Windows Server 2008 R2 Platform Pre-reqs
  - Ex2010 RTM: Hub / Mailbox: [Microsoft Filter Pack](#)
  - Ex2010 SP1: Hub / Mailbox: [Office 2010 Filter Packs](#)



# Setup – General (SP1)

- Required Hotfixes

- Client Access Servers

- [KB983440](#) – Win7 rollup package (PR for QFE 810219)
- [KB977020](#) – FIX: An application...throws an exception on a computer that is running Windows 7
- [KB982867](#) – WCF: Enable WebHeader settings on the RST/SCT
- Optional: additional fix for WCF ([KB972251](#)) for specific scenario where smartcards are being used to authenticate access to ECP



# Setup – General (SP1)

- Required Components
  - Unified Messaging Servers
    - [UCMA – Unified Communications Managed API 2.0, Core Runtime \(64-bit\)](#)
    - [Microsoft Server Speech Platform Runtime \(x64\)](#)



# Setup – General

- Automate Windows 2008 SP2 OS pre-reqs  
`ServerManagerCmd -i RSAT-ADDS Web-Server  
Web-Metabase Web-Lgcy-Mgmt-Console Web-  
ISAPI-Ext NET-HTTP-Activation Web-Basic-  
Auth Web-Digest-Auth Web-Windows-Auth  
Web-Dyn-Compression RPC-over-HTTP-proxy  
Web-Net-Ext -Restart`
- Pre-defined XML files available with build
  - Typical Install (M/H/C)  
`ServerManagerCmd -ip <Exchange install  
files>\Scripts\Exchange-Typical.xml -Restart`

# Setup – General

- Automate Windows 2008 R2 OS pre-reqs
  - Use Add-WindowsFeature cmdlet instead of Server Manager or ServerManagerCmd

```
Import-Module ServerManager  
Add-WindowsFeature NET-Framework,RSAT-  
ADDS,Web-Server,Web-Basic-Auth,Web-Windows-  
Auth,Web-Metabase,Web-Net-Ext,Web-Lgcy-Mgmt-  
Console,WAS-Process-Model,RSAT-Web-  
Server,Web-ISAPI-Ext,Web-Digest-Auth,Web-  
Dyn-Compression,NET-HTTP-Activation,RPC-  
Over-HTTP-Proxy -Restart
```
  - <http://technet.microsoft.com/en-us/library/bb691354.aspx>

# Setup – General

- Automate platform pre-reqs

```
FilterPackx64.exe /quiet /norestart  
dotNetFx35setup.exe /quiet /norestart
```

- Client Access servers

- Net.Tcp Port Sharing service set to Automatic start

Need to manually set on Windows 2008 SP2

```
Set-Service NetTcpPortSharing -StartupType Automatic
```

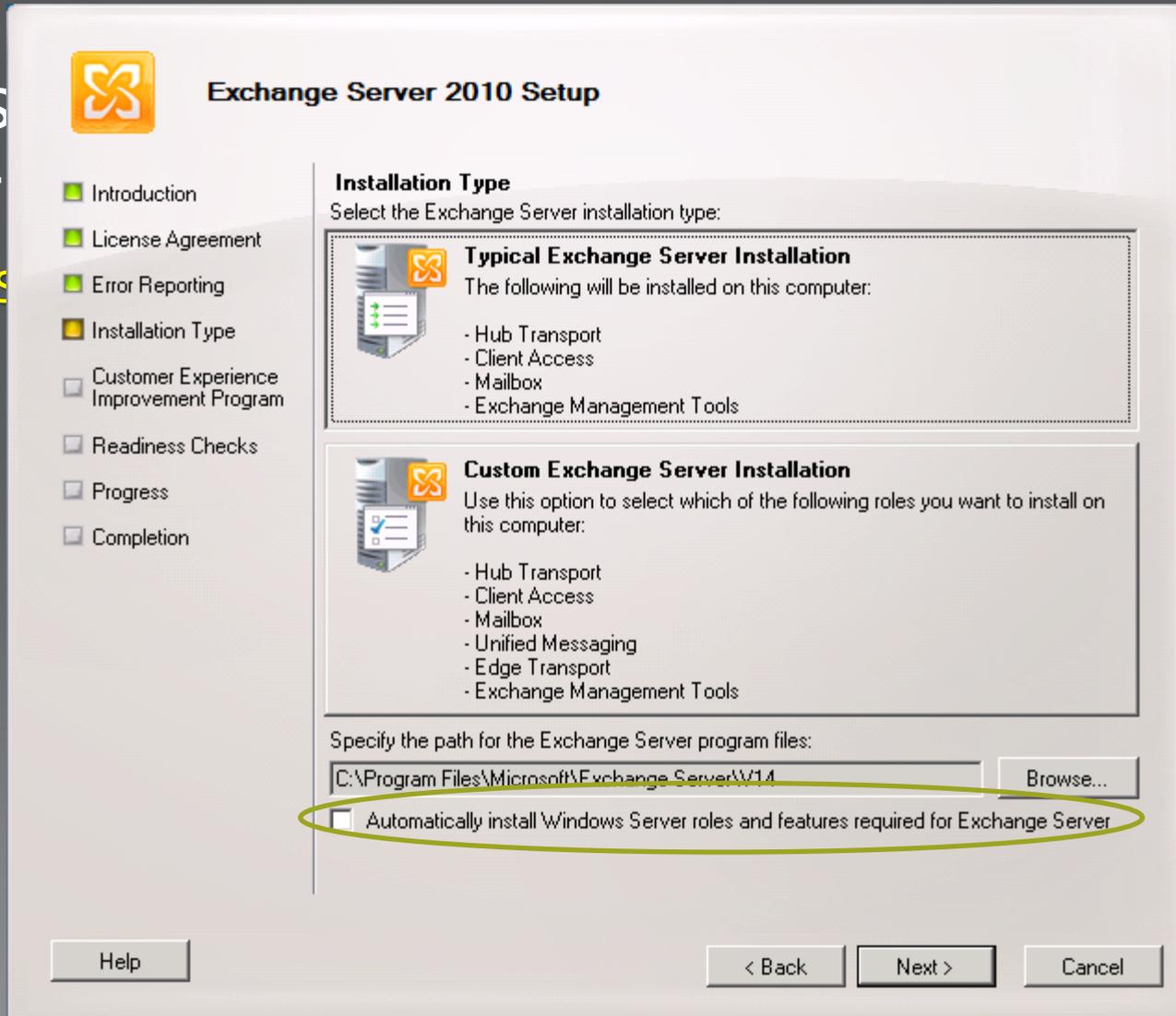


# Setup – New Experience (SP1)

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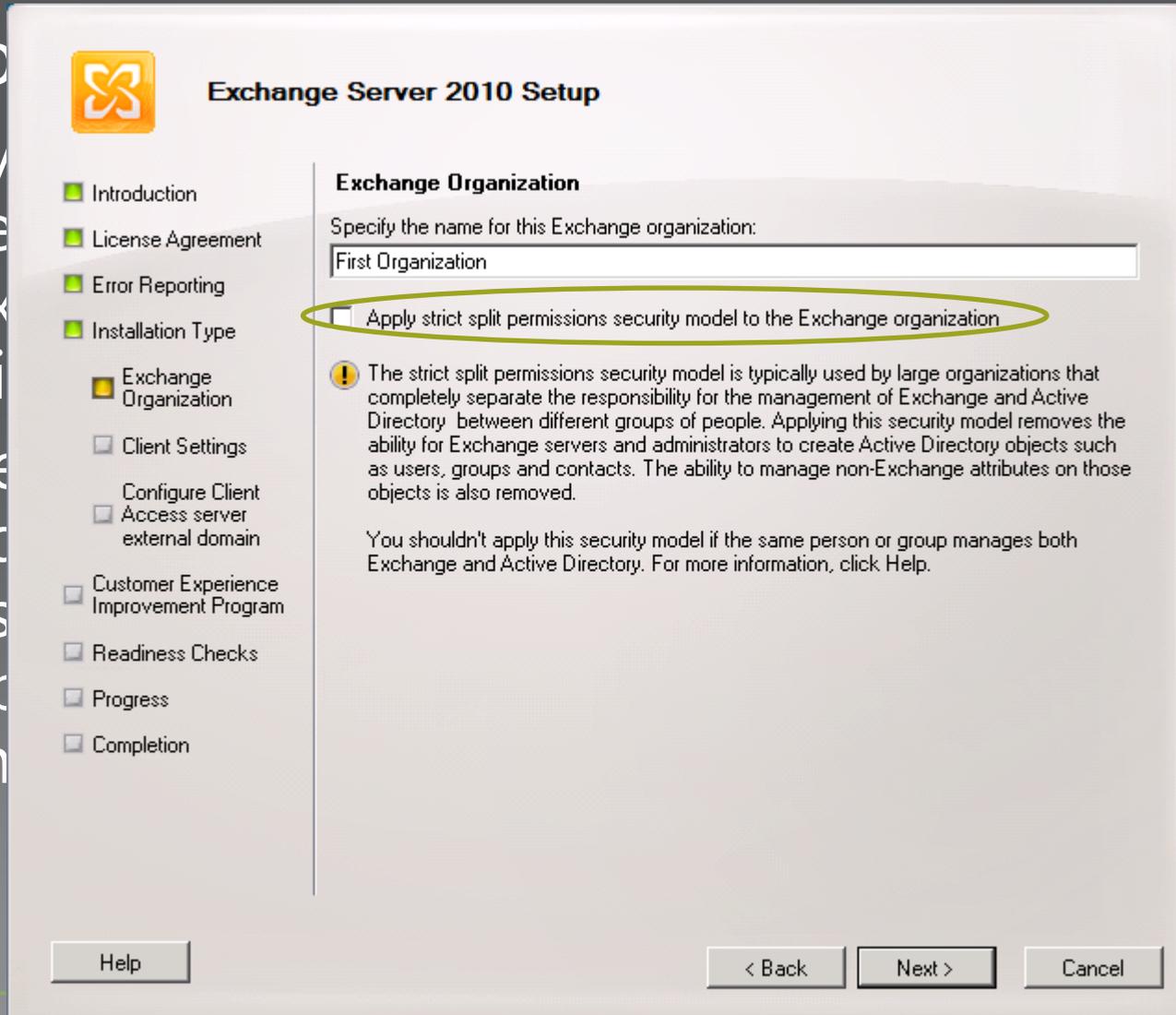
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# Setup – New GUI Experience (SP1)

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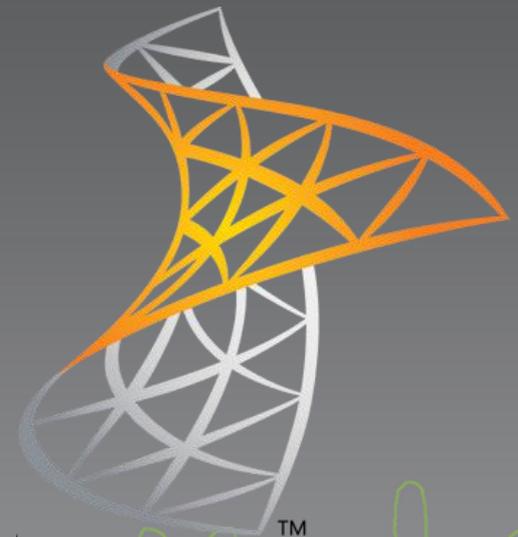
The image shows the 'Exchange Server 2010 Setup' dialog box. On the left is a navigation pane with the following items: Introduction, License Agreement, Error Reporting, Installation Type, Exchange Organization (selected), Client Settings, Configure Client Access server external domain, Customer Experience Improvement Program, Readiness Checks, Progress, and Completion. The main area is titled 'Exchange Organization' and contains a text box for 'Specify the name for this Exchange organization:' with the value 'First Organization'. Below this is a checkbox labeled 'Apply strict split permissions security model to the Exchange organization', which is circled in green. A warning icon and text explain that this model is for large organizations that separate Exchange and Active Directory management. At the bottom are buttons for 'Help', '< Back', 'Next >', and 'Cancel'.

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**Exchange Server 2010**

**MAILBOX AND  
PUBLIC FOLDER  
DATABASES**



# Databases 101

- Database is ESE, but with significant changes
  - Maximum recommended size is 2 TB
  - Each Standard Edition server supports maximum of 5 databases (active or passive) + 1 recovery database
  - Each Enterprise Edition server supports maximum of 100 databases (active or passive) + 1 recovery database
- Mailbox and public folder databases
  - Public folders supported until at least 2019

# Databases 101

- Database name and file locations can be specified as part of Setup.com
  - /Mdbname (name for default mailbox database)
  - /DBFilePath (path for default mailbox database)
  - /LogFolderPath (log path for default mailbox database)
- Databases are global objects and are therefore managed globally
  - Database names must be unique in Org
- **New in SP1 - New-MailboxRepairRequest cmdlet allows you to detect and repair mailbox corruptions while leaving the mailbox database online; New-PublicFolderDatabaseRepairRequest is new for public folder databases**



# Mailbox Auditing (SP1)

- Audit mailbox access by administrators, delegates, and mailbox owners
- Audit actions taken on mailbox items such as
  - Moving or deleting a message
  - Using SendAs or SendOnBehalf rights to send messages
  - Accessing a mailbox folder or a message
- Use ECP to generate report on non-owner access
- Use the Shell to search mailbox audit logs



# Mailbox Auditing (SP1)

- Enable/disable mailbox auditing

```
Set-Mailbox -Identity "Scott Schnoll" -AuditEnabled $true  
Set-Mailbox -Identity "Scott Schnoll" -AuditEnabled $false
```

- Specify specific logging settings

```
Set-Mailbox -Identity "Scott Schnoll" -AuditDelegate  
MessageBind,FolderBind
```

- Search audit log

```
Search-MailboxAuditLog -Identity sschnoll -LogonTypes  
Admin,Delegate -StartDate 1/1/2010 -EndDate 12/31/2010  
-ResultSize 2000
```

```
Search-MailboxAuditLog -Mailboxes sschnoll,rsmith  
-LogonTypes Admin,Delegate -StartDate 1/1/2010 -EndDate  
12/31/2010 -ResultSize 2000
```



# Public Folder Client Permissions

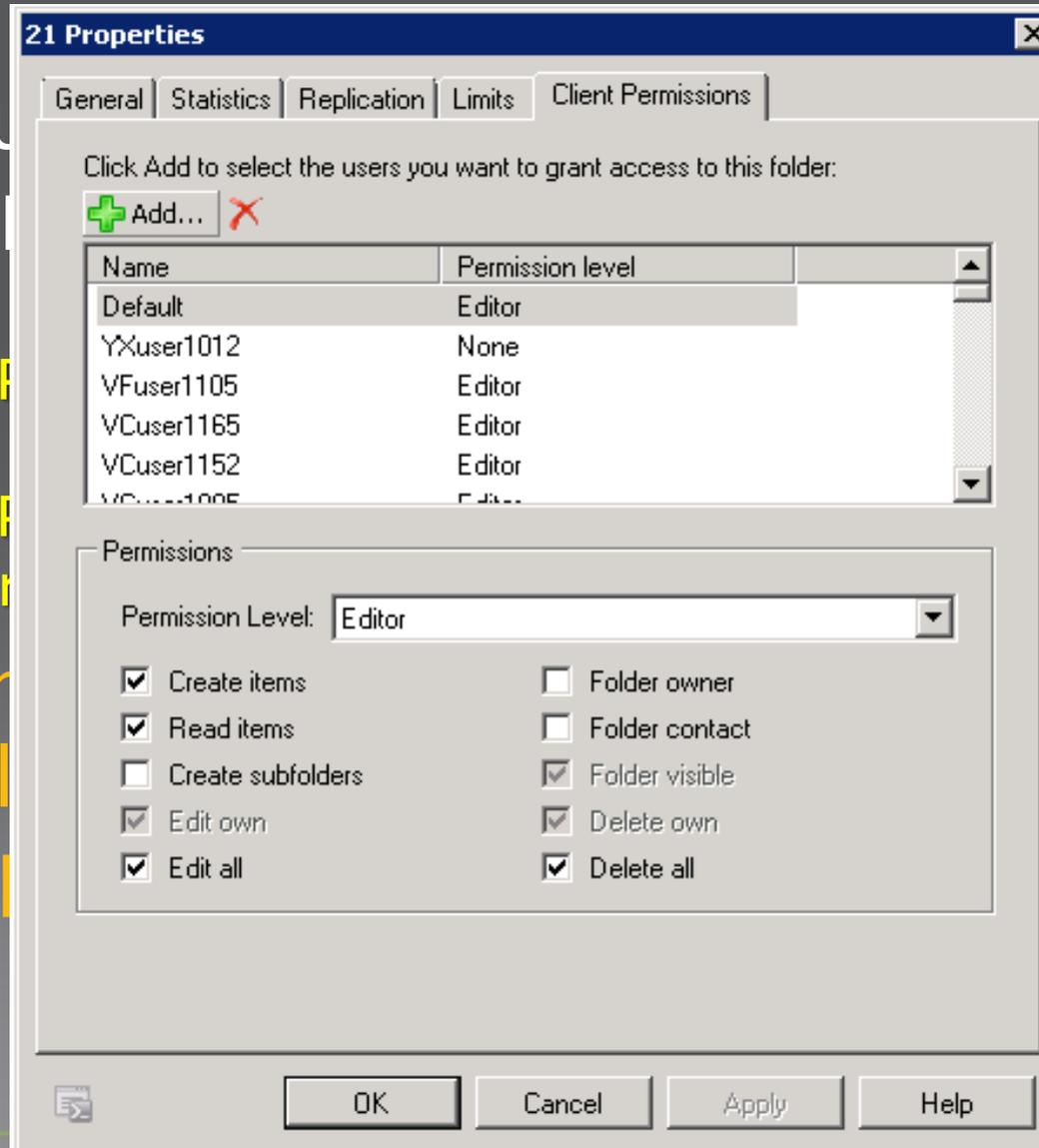
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# Database Log Growth Troubleshooter (SP1)

- **Troubleshoot-DatabaseSpace.ps1** detects excessive log growth issues and takes action
- By default
  - Runs every 15 minutes to determine available free space
  - If free space < 25%, tool runs an algorithm to determine if excessive log growth is cause
    - If it is cause, the tool quarantines or throttles mailboxes causing excessive growth, as appropriate
- Defaults defined in **StoreTSConstants.ps1**

# Database Latency Troubleshooter (SP1)

- **Troubleshoot-DatabaseLatency.ps1** used by SCOM, but can be used outside of SCOM as a schedule task
  - Defaults defined in **StoreTSConstants.ps1**
- Checks for database latencies above value of LatencyThreshold (default is 70 ms)
- Checks disk's transfer rate against read rate and read latency performance counters
- Checks to see if any user is using more than one thread for duration of **TimeInServerThreshold** (default is 10 min)



# OTHER SP1 IMPROVEMENTS



# New Exchange Control Panel UI

- Create and configure transport rules
  - Create and configure journaling rules
  - Manage Exchange ActiveSync policies
  - Manage RBAC Roles Groups and User Roles
  - Create and manage resource mailboxes
  - Create and manage security groups
  - Create and manage Allow/Block/Quarantine policies
  - SP1: Admins no longer need to have a mailbox to be able to access ECP
- 

# Exchange Control Panel (ECP)

The screenshot displays the Exchange Control Panel (ECP) interface. The main window is titled "Role Assignment Policy - Windows Internet Explorer". The content area shows the "Role Assignment Policy" configuration page, which includes a description: "remove, and add members to distribution groups they own." Below this, there are two sections: "Distribution group memberships:" and "Other roles:".

**Distribution group memberships:**

- MyDistributionGroupMembership  
This role enables individual users to view and modify their membership in distribution groups in an organization, provided that those distribution groups allow manipulation of group membership.

**Other roles:**

- MyBaseOptions  
This role enables individual users to view and modify the basic configuration of their own mailbox and associated settings.
- MyRetentionPolicies  
This role enables individual users to view their retention tags and view and modify their retention tag settings and defaults.
- MyTextMessaging  
This role enables individual users to create, view, and modify their text messaging settings.
- MyVoiceMail  
This role enables individual users to view and modify their voice mail settings.
- MyDiagnostics

At the bottom of the window, there are "Save" and "Cancel" buttons. The "Save" button is highlighted with a green checkmark, and the "Cancel" button is highlighted with a red X.

In the background, other windows are visible, including "New Rule - Windows Internet Explorer" and "Edit Journal Rule - Windows Internet Explorer". The "Edit Journal Rule" window shows a rule named "Journal all messages" with the condition "\* If the message" and the action "Send journal report to administrator@".

# Flexible and Reliable

- Improved High Availability and Disaster Recovery
    - Enhanced form of continuous replication
    - Datacenter Activation Coordination (DAC) mode support for all DAGs
    - Faster failovers with improved post-failover client experience
    - Automatic active mailbox database redistribution
    - New management scripts for server maintenance
- 

# Flexible and Reliable

- SMTP Failover and Load Balancing Improvements
  - Enhanced DNS is used to evenly load balance when all servers are healthy, but things become uneven when a server is unhealthy
  - SP1 introduces new behavior that detects and tracks unhealthy servers
    - For example, Hub1 needs to route several messages to another site which contains Hub2, Hub3, and Hub4. If Hub1 knows that Hub3 is unavailable, it'll remove that server from the list of possible targets and only route to Hub2 and Hub4, evenly load balancing across them

# Anywhere Access

- Improved management of relationship between OWA and Office Communications Server (OCS)/Lync Server
    - Now managed using cmdlets
    - Configuration information now stored in Active Directory instead of web.config file
  - 27 new OWA themes available!
    - Set a default theme for all users
    - Create custom themes by modifying existing themes
    - Control the order of themes listed in OWA
- 

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Microsoft®  
Outlook® Web App

Change Password

Your password has expired and you need to change it before you sign in to Outlook Web App.

Domain\user name:

Current password:

New password:

Confirm new password:

Submit

Connected to Microsoft Exchange

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# Anywhere Access

- Better Mobile Experience
  - Conversation view experience on par with Outlook Web App
  - Photos supported in Global Address List contact card
  - Exchange ActiveSync (EAS) throttling support
  - Information Rights Management support in EAS
  - Block/Quarantine notification to mobile device via EAS



# Protection and Compliance

- Personal Archive Enhancements
    - Archive and primary mailboxes on separate databases
    - Outlook 2007 support for personal archive
    - .PST file import/export for archive and primary mailboxes
    - Support for “admin enabled” delegate access to archive
    - Archive provisioning and configuration with Exchange Control Panel
    - Exchange Web Services access to the archive mailbox
- 

# Protection and Compliance

- Retention Policy Management Enhancements
  - Create and Configure Retention Tags and Policies in EMC
  - User Self-service for selection of optional Retention Policies in ECP
- Multi-Mailbox Search Enhancements
  - Search results preview including item count and keyword statistics
  - Optional de-duplication of search results



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