

EXC24: Throw that Old Server Away

Moving Exchange to the Cloud

Michael B. Smith

The Essential Exchange

michael@TheEssentialExchange.com



Who is Michael B.?

- Remember the B! 😊
 - And yes, that really is my name!
- Long-time Exchange guy
 - Since 1996 and Exchange 5.0
- Eight year Exchange MVP
- Consultant and migration expert
 - Exchange, Active Directory, System Center

Do you do social media?

- Then



- <http://facebook.com/ExchangeConnections>
- Discussions, announcements, and conversations about this and future Exchange Connection events

Agenda

- Note: we are focusing on cutover and staged migrations here, for the SORG
 - For hybrid coexistence, see Siegfried's EXC13: Hybrid Coexistence
- Office 365 Features
- What are the concerns and pitfalls?
- Setting up an Office 365 domain

Office 365 Features: #1

- **In brief:**
 - Exchange
 - Lync
 - SharePoint
 - Office Web Apps
- **Higher level plans:**
 - Office 2010 Professional Plus
 - Active Directory Integration
 - More

Office 365 Features: #2

- Seven plans in three groups:
 - P – professional users and small companies
 - E – enterprises and companies larger than 50 mailboxes
 - K – kiosk workers (can be combined with E plans)

Office 365 Features: #3

- **Plan P - \$6 / month**
 - Exchange Online (25 GB, 25 MB max size)
 - **OWA only included (bring your own Outlook)**
 - Office Web Apps
 - Lync Online (including online meetings)
 - SharePoint Online
 - 1 – 50 users (hard limits)
 - No migration any E plans
 - No telephone support (forums)

Office 365 Features: #4

- Plan E1 - \$10 / month
 - All in P, plus:
 - ADFS Integration
 - Telephone support
 - Rights to on-premises deployment of Exchange Server, SharePoint Server, and Lync Server
- Plan E2 - \$16 / month
 - All in E1, plus:
 - Integration between desktop Office and Office Web Apps

Office 365 Features: #5

- Plan E3 - \$24 / month
 - All in E2, plus:
 - Office 2010 Professional Plus
 - Enhanced SharePoint capabilities, including Visio and Access manipulation and publishing
 - Archiving, unlimited email, voicemail integration
- Plan E4 - \$27 / month
 - All in E3, plus:
 - Enterprise voice capabilities of Lync Online

Office 365 Features: #6

- **Plan K1 - \$4 / month**
 - 500 MB mailbox
 - OWA and POP only
 - SharePoint Online read-only
 - Office Web Apps read-only
- **Plan K2 - \$10 / month**
 - Plan K1 – except Office Web Apps are read-write
- **Specifically: no ActiveSync**

Office 365 Features: #7

- Very detailed service descriptions are available for download:
 - <http://www.microsoft.com/download/en/details.aspx?id=13602>

Office 365 Features: Apple Support

- Support for Exchange Online, SharePoint Online, and Lync Online
 - Outlook 2011 for the Macintosh
 - Entourage 2008 Web Services Edition
 - Outlook Web App
 - iOS mail/calendar/contact via ActiveSync
 - Lync Web Access
 - Live Meeting Web Access
 - SharePoint via browser and Office 2011 integration
- No licenses for Office 2011

Exchange Online: #1

Basic Introduction

- **Let's make it clear:**
 - I am not bashing Exchange online
 - *Caveat emptor*
 - I am simply making you aware!
- For many organizations, hosted services make sense and provide access to services and technologies they could not otherwise afford or justify

Exchange Online: #2

Office 365 Issues

- These are really Office 365 complaints:
 - No supported upgrade path from P to E
 - Must export, disable, remove, create, upload
 - No support for CRM
 - Hosted CRM is available separately
 - Supposedly coming later this year for Office 365
 - Aggressive upgrade schedules
 - No control over minor upgrades
 - Major - must move in 6 months
 - Microsoft's schedule, not your's

Exchange Online: #3

Public Folders

- There is no support for public folders
 - This, by itself, may be a blocker
 - Migration is to SharePoint
 - Migration may be complex
 - <http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=22206>
 - Third-party vendors (DocAve comes to mind) also have migration solutions
 - Look at the Expo Hall 😊

Exchange Online: #4

Blackberry Enterprise Services

- **There is no support for BES**
 - BIS is available
 - RIM isn't dead yet!
 - Most medium and large companies have BES servers, and since the release of BES/X, many small companies too
 - BB still provides some unique functionality
 - **Features (e.g., custom recipient tones)**
 - **End-to-end encryption**
 - **Device Policies**

Exchange Online: #5

Outlook Requirements / Issues

- Most Exchange Online plans are Outlook Web App only
 - Plans P, E1, and E2 are “bring your own Outlook license” if you want to use Outlook
 - Plans K1 and K2 do not support Outlook at all
 - Outlook is not available *a la carte*, you must move to Plan E3 or E4 and get the entire Office Suite – at a 50% premium over E2

Exchange Online: #6

Office Professional Plus

- Office Professional Plus?
 - Outlook 2010 retail price is \$140
 - Eighteen month payback versus a plan upgrade (E2 to E3)
 - Office Professional is \$350
 - Forty-four month payback versus a plan upgrade (E2 to E3)
 - Effectively an evergreen solution (assuming MSFT updates Office at least every 3.5 years)

Exchange Online: #7

Output Limits

- **Strict limits on outgoing email**
 - Plan P – no more than 500 “recipients” in any 24-hour period
 - Plan E* – no more than 1,500 “recipients” in any 24-hour period
 - A recipient is any “external” email address
 - **External is “outside of this tenant”**
 - **Not “outside of Exchange Online”**
 - **“Outside of tenant” always goes through FOPE (no P2!)**

Exchange Online: #8

Output Limits

- **No more than 30 emails per minute (all plans)**
 - If you send 1,500 emails – it will take an hour for Exchange Online to attempt to deliver them (ok, a minimum of 50 minutes)
- **Most limits do not apply within a tenant**
 - That is, e.g., an “administrative assistant” (secretary) can send a gazillion emails back & forth to the boss with no problems
 - Even though Lync a better sol’n

Exchange Online: #9

Outlook 2003

- Outlook 2003 is not supported
 - Relies upon UDP notifications
 - Doesn't know about personal archives
 - Doesn't know about mailtips
 - Doesn't do encryption by default
 - Doesn't do ANSI (vs. ASCII) PSTs by default
 - No ribbons
 - And older than heck!

Exchange Online: #10

Secure Communications

- **Secure communications**
 - Information Rights Management (IRM) depends upon a local PKI
 - Only needs a single SSL certificate remotely, so supported with Office 365
 - Secure/MIME (S/MIME) depends upon a local PKI
 - Every user needs a certificate
 - Not supported with OWA on Office 365
 - Supported with Outlook on O365

Exchange Online: #11

Secure Communications

- **Secure Communications #2:**
 - Forced TLS is supported
 - Opportunistic TLS is supported
 - TLS either way is not required
 - POP SSL/TLS is supported
 - Required
 - IMAP SSL/TLS is supported
 - Required
 - SMTP TLS relay is supported
 - But not required

Exchange Online: #12

Support and Hard Limits

- **Support and hard limits**
 - Plan P has only community support
 - Plan P has a hard limit of 50 users
 - Plan P has no support other than online forums
 - **Not generally a major issue – but under certain situations can be a big deal**
 - All Plan E* has telephone support
 - **Very large customers will also have TAM**

Exchange Online: #13

Reliability

- **Reliability**
 - Office 365 promises 99.9%
 - Otherwise, you can ask for remuneration
 - **That is, money back (effectively a credit on your next bill)**
 - Currently Office 365 is looking to be Office 360 (or less) for this calendar year
 - Can YOU do better?

Exchange Online: #14 Availability

- More nines, higher availability
- Fewer nines, lower availability

Availability Percentage	Minutes Per Year	Hours Per Year	How Many 9s?
99%	5,260	87.67	Two 9s
99.5%	2,630	43.83	n/a
99.75%	1,315	21.92	n/a
99.9%	526	8.77	Three 9s
99.99%	52.6	0.88	Four 9s
99.999%	5.26	0.088	Five 9s

- So, how do you get more nines – long-term?
- Scheduled vs. unscheduled

Exchange Online: #15

Exchange HA Concerns

- **Exchange is a critical business application**
 - Good processes, procedures, and reliable hardware go a LONG way (~ 99.75%)
- **But:**
 - You still have to apply patches, update BIOS and firmware, add/remove services, etc.
 - Servers fail, network devices fail, power grids fail, etc.
 - Even scheduled outages affect end-users

Exchange Online: #16

Exchange HA Solutions

- **Solutions:**

- No single answer, but lots of places to start:
 - RAID
 - Redundant Power Supplies
 - Redundant fans
 - Uninterruptible Power Supplies
 - Generators
 - Multiple datacenters with multiple power grids
 - Redundant databases!
 - Meet my pal – the DAG
- (Buzzword!) Maybe: The Cloud?

Exchange Online: #17

Can you provide Exchange HA?

- Two local copies of a mailbox database
 - Protects against physical device failure
- One remote copy of the database
- All on separate servers
- Fairly expensive
 - Three copies of Exchange Server
 - Three copies of Windows Enterprise
 - Three servers
 - Remote datacenter

Exchange Online: #18

More on providing Exchange HA

- Mailbox servers are arguably what Exchange is all about
- Mailbox is somewhat of a misnomer – also includes public folders
- All content – except what is in transit
- No client access as of Exchange 2010
 - All access via CAS
 - Except for PF

Exchange Online: #17

Let's Talk About The Cloud!

- Effectively, you depend on someone else to build a HA/FT infrastructure – BUT
 - Are you going to provide redundant Internet?
 - What is cost-to-business if you can't access?
 - What is cost-to-business of security breach?
 - What is cost-to-business of reduction of features?
 - What is cost-to-business of lack of control?

Exchange Online: #18

More Cloud Questions

- **Before you move to the cloud:**
 - Evaluate SLA
 - Prepare detailed requirements
 - Evaluate costs on prior slide
 - Figure out what the hosting company is doing with your data:
 - **Copies**
 - **Backups**
 - **Location of data-at-rest**
 - **Security**

Exchange Online: #19

More Cloud Questions

- How do you feel about your current cloud providers?
 - Eh? I don't currently use cloud providers...
 - Sure you do:
 - Cable, Telephone, DSL, Netflix, etc.
- Did you get help? Did you talk to a person? How deep was the “new menu as our menus have changed”? How quickly did your issue get resolved?

Exchange Online: #20

More on Exchange HA

- **What is availability worth to you?**
 - Local Internet outage
 - Office 365 Internet outage
 - Local network problem
 - Office 365 network problem
- **As of today, the joke is that Office 365 is really Office 360**
 - Or worse

Exchange Online: #21

Deleted Object Recovery

- Deleted Item Recovery (DIR) is 14 days
 - Plan P can (via support ticket) extend DIR to 30 days
- Deleted Mailbox Recovery (DMR) is 30 days
- Single Item Recovery is enabled by default for all Exchange Online mailboxes
- Plan E* can enable legal hold to extend DIR indefinitely

Exchange Online: #22

Support

- Only identified administrative personnel can call Office 365 Support (Plan E*)
- Only specific users can add / delete / modify Office 365 users
 - Every user can modify a wide range of data about themselves
- MSFT requests that (prior to opening a support call) the admin user(s) search the forums to determine an answer to any problems

Exchange Online: #23

Address Lists

- **Address lists**
 - No custom address lists
 - No address list segmentation
 - No hierarchical address lists
- **Only address list available is the GAL for the entire tenant organization**

Exchange Online: #24

Application Connectivity

- Exchange MAPI / CDO
 - Not available
- WebDAV
 - Not available
- Exchange Web Services (EWS)
 - Available
- Outlook Add-ins
 - Using Outlook MAPI – Available
 - Using Exchange MAPI – not avail

Exchange Online: #25

Data Availability

- Multiple copies of mailboxes are maintained
- Data is geographically dispersed
- 99.9% SLA
- No backups
 - That's right – no backups
 - Roll your own

Exchange Online: #26

Audit Logging

- **Administrator Audit Logging**
 - On by default, 90 days of data
 - All admin activities are tracked
- **Mailbox Audit Logging**
 - Off by default, 90 days of data when enabled
 - Tracks access by users other than the mailbox owner, including delegates and access to shared mailboxes
 - Enabled per mailbox

Exchange Online: #27

Migration Types

- **IMAP**
 - Special case of cutover migration
 - Only email is migrated
- **Cutover (aka Simple Exchange Migration)**
 - RPC/HTTP connection to source
 - Source is Exchange 2003/2007/2010
 - Migrates all Exchange items
 - Requires new Outlook profile
 - Limited to 1,000 mailboxes

Exchange Online: #27

Migration Types

- **Staged Exchange Migration**
 - Requires use of Directory Sync Tool
 - Same tool used as in SEM
 - Profiles and AD updated by DirSync
 - Unified GAL
 - No sharing of Free/Busy between on premises and Office 365 environments
 - Shared SMTP address space(s)
 - Only for Exchange 2003/2007
 - No Plan P, E* only

Exchange Online: #28

Migration Types

- **Hybrid Coexistence**

- Single sign-on with ADFS 2.0
- Also uses DirSync Tool
- Full free/busy with Exchange 2007/2010
- Basic free/busy with Exchange 2003
- Shared SMTP address spaces
- Requires local Exchange 2010 server
- Exchange Federation between local/remote
- No Plan P, E* only
- Unified GAL

Presentation Availability

- You can download the slides from here:
- http://www.devconnections.com/updates/LasVegas_Fall11/Exchange

Your Feedback is Important

Please fill out a session evaluation form
drop it off at the conference registration
desk.

Thank you!