

# Welcome to the NYExUG January Meeting

- **January Meeting** – Exchange 2007 Autodiscovery Feature Explained & How UCC/SAN SSL certificates (costing \$300+ per year) are no longer required. Those \$18<sup>6</sup> SSL certificates will work as well.
- **February Meeting** – Quest Software presenting 2 products with a live demonstration. Presented by Director of Strategy.
- **March Meeting** – Exchange 2007 Direct File Access Feature Explained (remote file server access tunneled over https in Outlook 2007/OWA)
- **New Raffle Opportunities** (for each new member's first meeting, get an additional raffle ticket)
- **Meeting Topics Ideas** – let me know in person or via email [ben a.t reefsolutions . com](mailto:ben@reefsolutions.com)

Presented January 12, 2009 at NYExUG Meeting

# Exchange 2007 Autodiscovery feature explained & why \$300 UCC/SAN certificates are overkill to \$18<sup>6</sup> certificates.

*Or help the economy, and spend \$300+ on UCC/SAN certs.*

*Superscript numbers (e.g. word<sup>1</sup>) throughout presentation are for  
additional reference information on 2<sup>nd</sup> to last page.*

**Ben Serebin**

***Ehlo & Network Consultant***

**REEF Solutions ([www.reefsolutions.com](http://www.reefsolutions.com))**

**ben a t reefsolutions . c o m**

**If you can't get enough Exchange & technology**

**read my blog <http://ehlotech.blogspot.com>**

## About Ben Serebin

- *Working in the IT sector since 1996*
- *Specialty is Exchange Server, Spam Filtering, and Wireless (802.11x)*
- *Current Project Q1 09: cross-forest migration of physical Exchange 2003 to 2007 on Windows 2008 within ESX virtualization and VM recovery testing environment.*
- *Runs Exchange 2003 Server (1 more week), Blackberry Exchange Server, and had run Good Mobile Messaging Server. Current handheld email device is a BlackBerry Bold.*



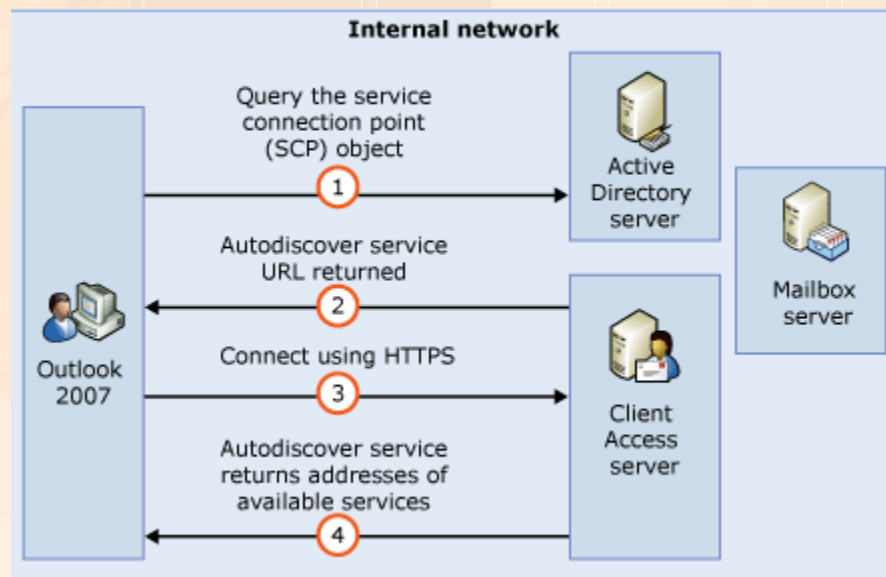
## Exchange 2007 Brief Highlights

- *Exchange 2007 comes in 2 versions: Standard & Enterprise edition<sup>3</sup>. Biggest difference is # of databases per server (5 & 50) & failover cluster (SCCs and CCR). For the purpose of this presentation, both support what I'm presenting.*
- *Updating your Exchange 2007. Keep in mind, Microsoft has kept the code for updates separate. So, Exchange 2007 RTM & Exchange 2007 SP1 are DIFFERENT products with different updates. Do NOT be confused when downloading updates. If you're new to 2007, jump to Exchange 2007 SP1.*

# Exchange 2007 adds a very useful client setup feature, Autodiscovery!

- *Why? Because it's sole purpose is to save you time.*
- *Autodiscovery is controlled by a new Exchange service named the Autodiscover service. The Autodiscover service configures and maintains server settings for client computers that are running Microsoft Office Outlook 2007 & some handhelds<sup>1</sup>.*
- *How it works for server. On Client Access Server (CAS) role, new virtual directory named Autodiscovery exists & on the DC a new AD object exists (service connection point) that contain autodiscovery location info for each CAS. Outlook software is hardcoded with 3 different URLs to check based on email domain entered:*
  - 1) <https://yourdomain.com/Autodiscover/Autodiscover.xml>
  - 2) <https://autodiscover.yourdomain.com/Autodiscover/Autodiscover.xml>
  - 3) <http://yourdomain.com/Autodiscover/Autodiscovery.xml> (aka redirect check)

Image from MS TechNet <sup>2</sup>



Tip: since this feature changed in June 07, prefer web postings after this time or 2008 and later.

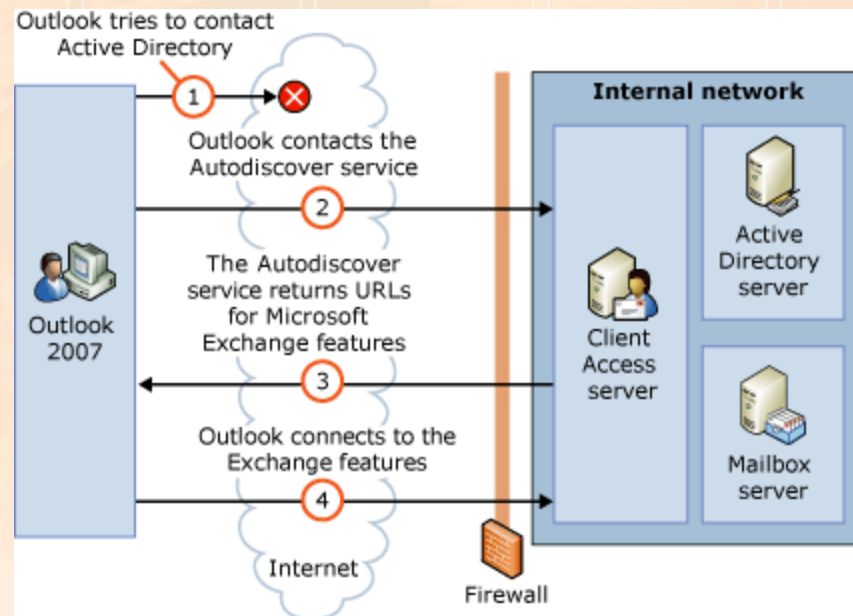


# NEW: Autodiscovery for external clients, DNS is your savior!

- *Requirement: to enable Outlook 2007 clients to have autodiscovery via DNS, make sure it has the following June 2007 update [KB939184](#). This will cause Outlook 2007 to perform an additional check (#4) for the autodiscovery process, a DNS SRV record query based on the email domain.*
- *Once you decide on your external URL for accessing webmail (e.g. mail.yourdomain.com) I would use that same URL for adding another DNS record for the autodiscovery. The DNS record required is a SRV record. SRV or service record is for identifying available services in your domain. This is NOT a security risk. You are simply helping out an automated process find the mail server to port 443 (SSL).*

Tip – you must have a fully valid SSL cert. No warnings, errors, etc.

More about UCC/SAN certs, 1 name, & 2 name certs on MS TechNet [BB332063](#)<sup>(5)</sup>



Tip - more about DNS Srv on MS KB [KB940881](#)

Image from MS TechNet <sup>2</sup>

# DNS Made Easy... seriously!

- Create a SRV record called “\_autodiscover” with protocol “\_tcp” on port “443” and host “mail.yourdomain.com” [my DNS vendor assumes it’s your domain unless you specify otherwise]. Below is the actually configuration used by my server. Only thing I’m going to change is the TTL (Time To Live) to 600.

**DNS record config from DNSMadeEasy.com**

**Name:**  .reefsolutions.com.

If you do not end your **Data** value with a dot (.) your domain name will automatically be appended.  
To make an alias to the root record leave this value blank.  
To make an alias to a record in another domain you must end your value with a dot (.).

**Host:**

**TTL:**  (seconds)

**Priority:**  Lower the number the higher the priority. (0 minimum)

**Weight:**  Higher the number the higher the weight. (0 minimum)

**Port:**

**Created:** 02-Jan-2009  
**Last Modified:** 02-Jan-2009

**Review of your configuration.**  
Services for **\_autodiscover.\_tcp.reefsolutions.com.**  
will go to **mail.reefsolutions.com.** port **443**  
with a priority of **0** and a weight of **0**  
and will cache for **60** seconds.

Query:   
Type:   
DNS:  Timeout (Secs):   Cache

Name	Type	Class	TTL	Result
_autodiscover._tcp.reefsolutions.com	33	1	60	0 0 443 mail.reefsolutions.com

**Bottom Left Image - SRV autodiscovery query via free DNS tool from IceWarp.com<sup>4</sup>**

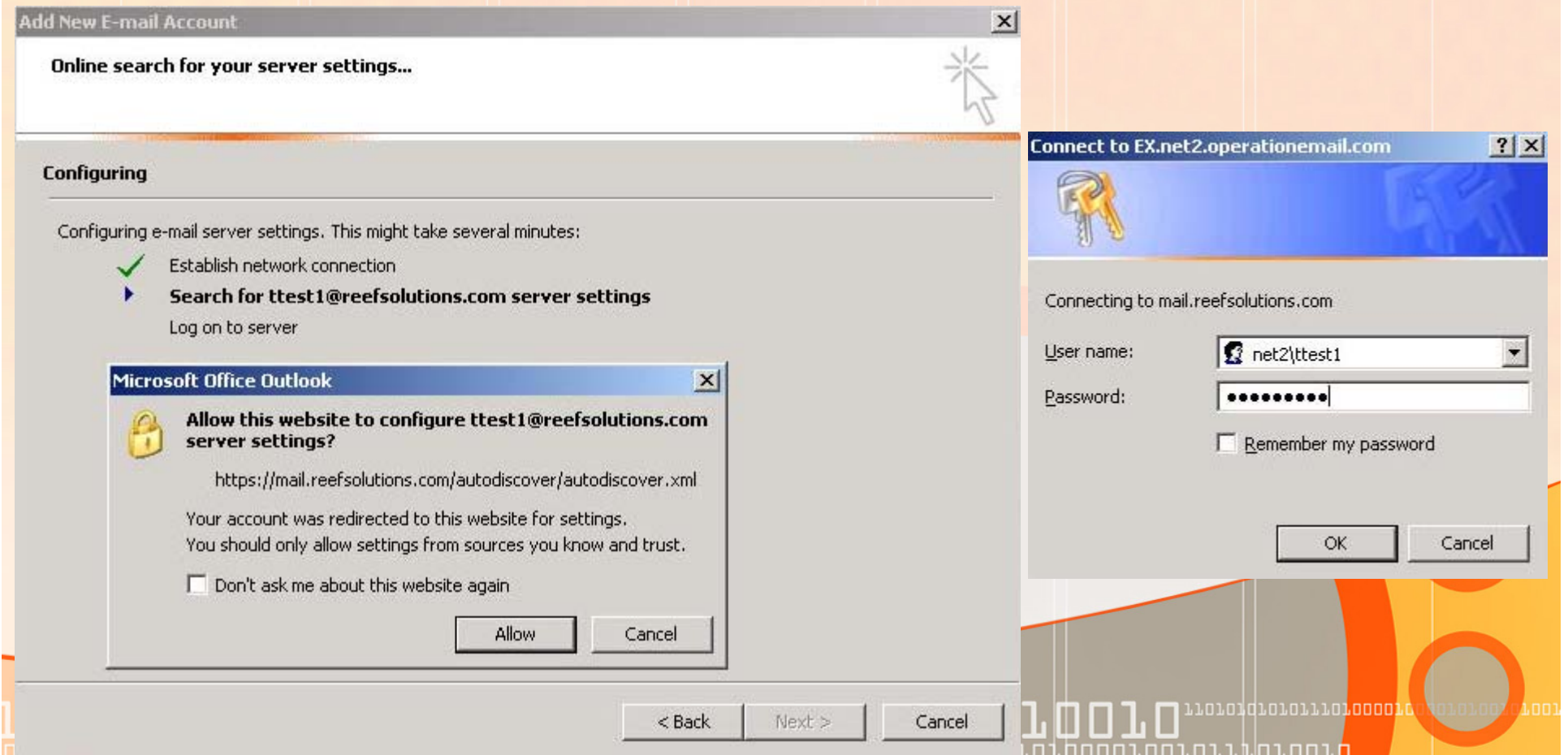
Tip: many so called “DNS expert” websites don’t work with SRV records.

**Bottom Right Image - SRV autodiscovery query via nslookup in XP (commands after “>” are typed)**

```
C:\WINDOWS\system32\cmd.exe - nslookup
C:\>nslookup
Default Server: unsc-bak.sys.gtei.net
Address: 4.2.2.2
> set type=srv
> _autodiscover._tcp.reefsolutions.com
Server: unsc-bak.sys.gtei.net
Address: 4.2.2.2
Non-authoritative answer:
_autodiscover._tcp.reefsolutions.com SRU service location:
    priority = 0
    weight = 0
    port = 443
    srv hostname = mail.reefsolutions.com
>
```

# Outlook 2007 - time for client Autodiscovery

- Overall Checklist: configure both InternalURL & ExternalURL for [e.g. mail.yourdomain.com] [check], SSL cert [check], DNS configured [check], install and launch Outlook 2007 – prompts for email address & password and that's it [check], have users check “Don't ask me about this website again” [check]. Done!
- Excellent MS KB article is KB940726. To summarize, InternalURL for Exchange Web Service (EWS), Offline Address Book Web Service, and if using Exchange unified messaging (UM) Web service is matching SSL cert used (e.g. mail.yourdomain.com)





## Why are those \$300+ UCC/SAN Certs are not required anymore?

- **What is a UCC/SAN certificate? A SSL certificate that allows for multiple hostnames BUT is not a wildcard. So, a single cert could be loaded on 1 IIS website and have multiple hostnames (e.g. <https://mail.yourdomain.com>, <https://autodiscover.yourdomain.com>, <https://servername>) resolve and receive valid SSL connection.**
- **Stands for Unified Communications Certificate or Subject Alternative Name Certificate. The terminology I prefer is UCC cert, since SAN has other meanings.**
- **Pro UCC cert – easier on autodiscovery config since you can maintain different hostnames w/o additional config.**
- **Con UCC cert – up to 25x the price of a single name cert.**
- **MS KB929395 lists 3 SSL partners that offer UCC certificates with varying #'s of hostnames (Entrust \$449, Comodo \$285, DigiCert \$328).. I had used rapidsslonline.com for single hostname cert \$12, but they recently increased prices and changed the name to theSSLstore.com \$18. Not used yet. Pricing valid as of 1/13/09**
- **So, if you have the June 2007 update on Outlook 2007 clients, configuring the SRV DNS record on your domain will eliminate the need for a UCC cert BUT you then need to merge all your Exchange URLs (InternalURL & ExternalURL) settings explained shortly.**

Questions >>>>

1) Which offers higher security? UCC or single hostname name SSL cert?

2) EV certs, what are those & do they relate?



## Modifying the InternalURL Settings (Round 1)

- Completed on Exchange 2007 SP1 w/Rollup 5 within EMS (Exchange Management Shell) versus EMC (Exchange Management Console). EMS is CLI, while EMC is GUI. Make sure you have your permanent single hostname SSL cert loaded in IIS.
- Copy and paste line by line (turn-off word wrap) after you have adjusted the code with your server information (ex is my Exchange Server name & URL is mail.reefsolutions.com).
- No results on success. Just the [PS] C:\Windows\System32> prompt appears. Errors will show in red (I added the term "\*\*\* ERROR..." to make it visible). Green is code to use below.
- To confirm enter "**Get-ClientAccessServer**", "**Get-OABVirtualDirectory**", etc. Results should match what you were suppose to enter.
- **Set-ClientAccessServer -Identity ex -AutodiscoverServiceInternalUri https://mail.reefsolutions.com/autodiscover/autodiscover.xml**
- **Set-OABVirtualDirectory -Identity "ex\oab (Default Web Site)" -InternalUrl https://mail.reefsolutions.com/oab**
- **Set-UMVirtualDirectory -Identity "ex\unifiedmessaging (Default Web Site)" -InternalUrl https://mail.reefsolutions.com/unifiedmessaging/service.asmx**

## Modifying the ExternalURL Settings (Round 2 - Final)

- **Enable-OutlookAnywhere -Server ex -ExternalHostname https://mail.reefsolutions.com -ExternalAuthenticationMethod "Basic" -SSLOffloading:\$False**
- **Set-OABVirtualDirectory -identity "ex\OAB (Default Web Site)" -externalurl https://mail.reefsolutions.com/OAB -RequireSSL:\$true**
- **Set-UMVirtualDirectory -identity "ex\UnifiedMessaging (Default Web Site)" -externalurl https://mail.reefsolutions.com/UnifiedMessaging/Service.aspx -BasicAuthentication:\$True**
- **Set-WebServicesVirtualDirectory -identity "ex\EWS (Default Web Site)" -externalurl https://mail.reefsolutions.com/EWS/Exchange.aspx -BasicAuthentication:\$True**
- **Set-WebServicesVirtualDirectory -identity "ex\EWS (Default Web Site)" -internalurl https://mail.reefsolutions.com/EWS/Exchange.aspx -BasicAuthentication:\$True**
- **You are done now! I would probably reboot the server or all Exchange Services including IIS to insure all services detect the new URLs.**  
**Question - these commands are written in what?**



# Noted References

- 1 - Autodiscovery details <http://technet.microsoft.com/en-us/library/bb332063.aspx>
- 2 – Autodiscovery image from <http://technet.microsoft.com/en-us/library/bb332063.aspx>
- 3 - different versions explained. <http://technet.microsoft.com/en-us/library/bb232170.aspx>
- 4 – free DNS tool capable of properly showing srv record responses  
[http://www.icewarp.com/downloads/free\\_software/](http://www.icewarp.com/downloads/free_software/)
- 5 – White Paper on Exchange 2007 Autodiscover service and configure SSL certs multiple names, 1 name, and 2 names. <http://technet.microsoft.com/en-us/library/bb332063.aspx>
- 6 - \$18 SSL certs which work well for Exchange & Windows Mobile 6 and higher is from [rapidsslonline.com](http://rapidsslonline.com). I've used them to buy many SSL certs over the years. They increased the price 50% in January, from \$12 -> \$18, but it's still a good deal.

Thank you for attending the  
January 2009 NY Exchange User  
Group Meeting.

Raffles – do not forget, if you bring in new  
members, you 2x, 3x, or more your chances to  
win raffle prizes.

TechHit.com (Outlook add-ons) – raffling off any  
one of their products.

*See you next month...*