

Use remote connection analysis tool for Exchange Server - Part 2

In this second part, we will finish examining Autodiscover and doing some other tests.



Use remote connection analysis tool for Exchange Server - Part 1

Anderson Patricio

In the previous part of this series, we tested the Autodiscover services of Outlook 2007. Now we will continue that test but will perform Autodiscover and Outlook Anywhere tests at the same time.

To test Outlook Anywhere, we should choose the *Perform Outlook Anywhere Test* option , then the result will have an extension as shown in Figure 1 below.

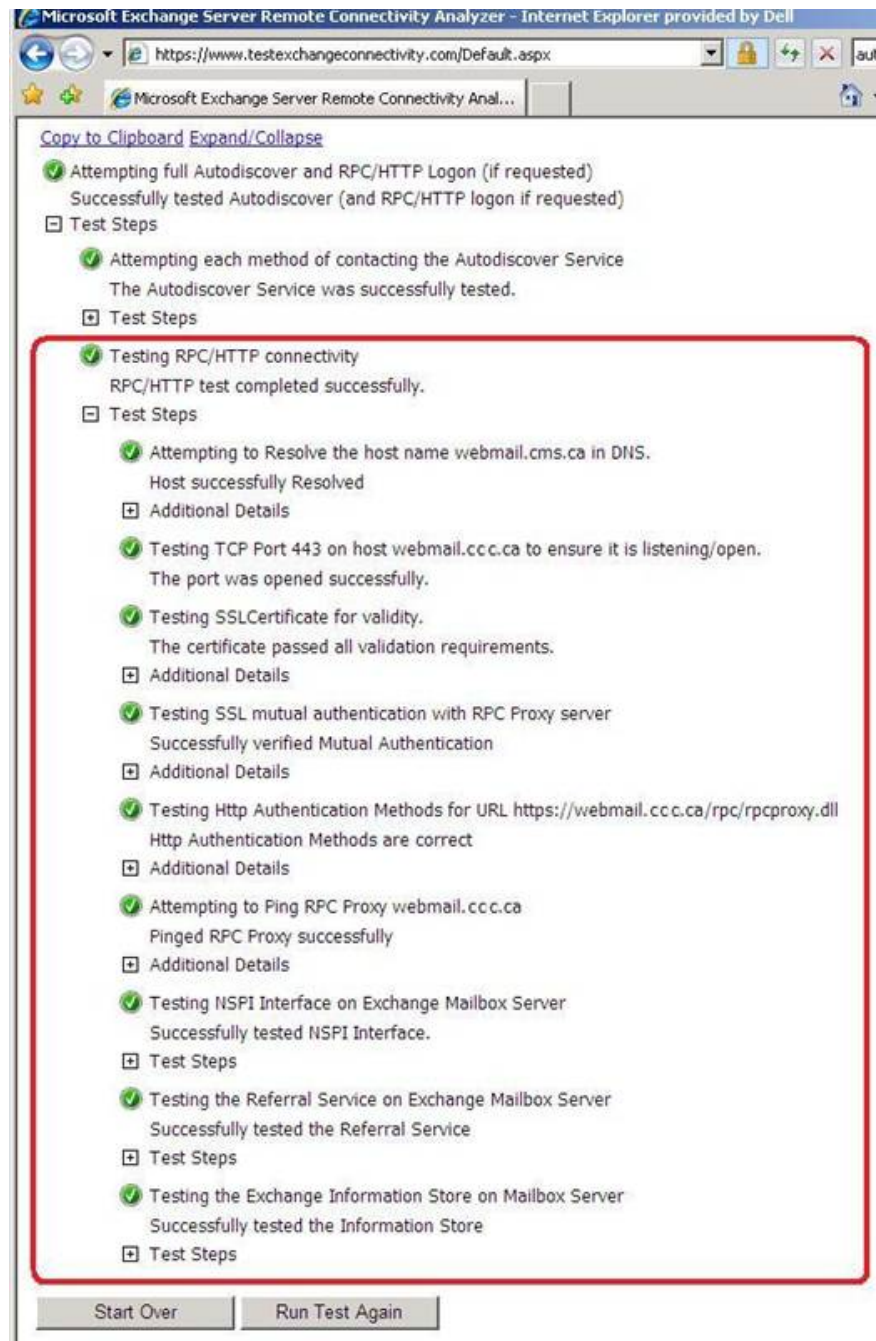


Figure 01

If you expand the *Test Steps* section under the **Testing RPC / HTTP connectivity** section, you will be able to validate all the steps performed by the tool to check whether Outlook Anywhere is working. Basically, port 443 will be tested, whether the SSL Certificate corresponds to the current name used by Outlook Anywhere and, .

Since we are using the first option, the **Microsoft Office Outlook 2007 Autodiscover Connectivity Test option**, Autodiscover will find the component being used for Outlook Anywhere. Just make sure we're on the same page, open the Exchange Management management interface, open the Configuration section, click Client Access and on the right you can see at least one server with the *Outlook Anywhere Enabled* column priced at value is *True*, if you do not see this component, then you need to enable Outlook Anywhere first. If it is enabled,

you just have to right-click on a CAS server (the server can access the Internet via your fire and go to the Outlook Anywhere tab as shown in Figure 2). The name specified in the *External host name field* will be used by the Autodiscover service and it will be given to external Outlook 2007 for extended connection.



Figure 02

We can use the first option to test for both: Autodiscover and Outlook Anywhere. We do not need any information to test Outlook Anywhere because this information will come from the Autodiscover service.

Finally, if you use an internal KPI, you can use the *Ignore Trust for SSL option* and can test your environment even without a certificate issued by a valid external Certification Authority.

Test RPC / HTTP connection of Outlook 2003

The second option on the main page of the ExRCA tool is the Outlook 2003 RPC / HTTP Connectivity connection, which allows administrators to test Outlook's Anywhere feature (formerly known as RPC over HTTP).) This test is used specifically for testing RPC over HTTP and that is why you need to add additional information in the utility compared to what was done in the previous test.

This test can be used to test RPC over HTTP for Exchange Server 2003 as well as Exchange Server 2007. It allows RPC testing over HTTP to be made easier for Exchange Server 2007 in the first selection of the page.

ExRCA itself because all the information required in the current wizard will be provided by the Autodiscover service and you don't have to type inside it.

So far we can use this test as a shortcut to check RPC over HTTP for Exchange Server 2007 and Exchange Server 2003, let's choose **Microsoft Office Outlook 2003 RPC / HTTP Connectivity Test** and click **Next** on the ExRCA main page . Figure 3 is displayed and we can see more information that is required with the recent ExRCA test. All the information requested in this wizard is related to the RPC configuration on HTTP that you have configured in Outlook clients, if you are not sure about the information filled in this form, search from the machine. Outlook 2003/2007 guests have been configured to use RPC over HTTP, as shown in Figure 4 below, then click **Perform Test** .

Microsoft*
**Exchange Server
Remote Connectivity Analyzer**


** Prototype - For Testing Purposes Only **
Original concept by Shawn McGrath / Coding and technical implementation by Brad Hughes

Collecting Information

Please enter the following information for an account in your domain. We recommend using a test account for the RPC/HTTP connectivity test. To skip the trust requirement in SSL certificate validation, check the Ignore Trust for SSL checkbox.

Account & Test Details	
Email Address	anderson@ccc.ca
RPC Proxy Server	webmail.ccc.ca
Mailbox Server Internal FQDN	mail2k7.ccc.local
Domain\Username (or UPN)	ccc\lapatricio
Password (Is this secure?)
Mutual Authentication Principal Name	msstd:webmail.ccc.ca
RPC Proxy Auth Method	Basic Authentication
Ignore Trust for SSL	<input type="checkbox"/>

Verification

 Enter the text you see in the image to the left.

I agree that I am using a test user account to verify this client access scenario since I understand a username and password is required in order to perform this test.

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Let us know if this tool was useful, if it failed when it shouldn't have, or if you have suggestions

Figure 03

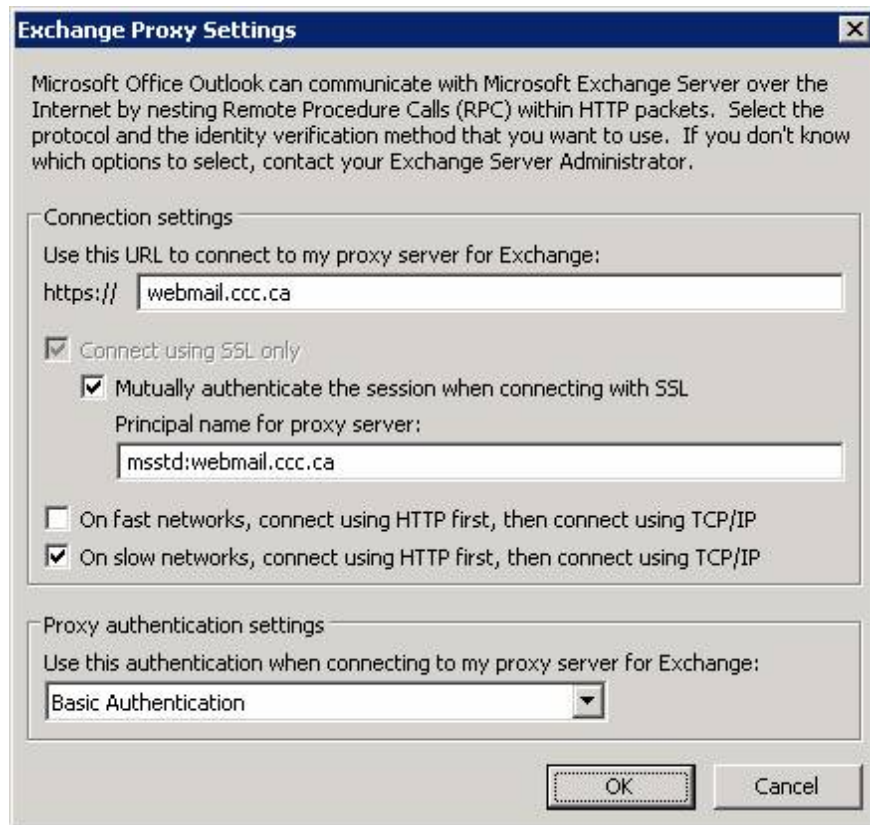


Figure 04

As a result, all the steps taken by the tool are using the information entered in the wizard to connect RPC over HTTP in the Exchange Server organization, as shown in Figure 5. We can look at At the end of the logs that have been created and you can see that the tool can ping RPC to the internal server and in the last line the important information used can be logged into Information Store.

Connectivity Test Successful

Test Details

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- ✓ Testing RPC/HTTP connectivity
RPC/HTTP test completed successfully.
- ☐ Test Steps
 - ✓ Attempting to Resolve the host name webmail.ccc.ca in DNS.
Host successfully Resolved
 - ☐ Additional Details
 - ✓ Testing TCP Port 443 on host webmail.ccc.ca to ensure it is listening/open.
The port was opened successfully.
 - ✓ Testing SSLCertificate for validity.
The certificate passed all validation requirements.
 - ☐ Additional Details
 - ✓ Testing SSL mutual authentication with RPC Proxy server
Successfully verified Mutual Authentication
 - ☐ Additional Details
 - ✓ Testing Http Authentication Methods for URL https://webmail.ccc.ca/rpc/rpcproxy.dll
Http Authentication Methods are correct
 - ☐ Additional Details
 - ✓ Attempting to Ping RPC Proxy webmail.ccc.ca
Pinged RPC Proxy successfully
 - ☐ Additional Details
 - ✓ Testing NSPI Interface on Exchange Mailbox Server
Successfully tested NSPI Interface.
 - ☐ Test Steps
 - ✓ Testing the Referral Service on Exchange Mailbox Server
Successfully tested the Referral Service
 - ☐ Test Steps
 - ✓ Testing the Exchange Information Store on Mailbox Server
Successfully tested the Information Store
 - ☐ Test Steps
 - ✓ Attempting to ping RPC Endpoint 6001 (Exchange Information Store) on server mail2k7.corp.ccc.ca
Pinged Endpoint successfully
 - ☐ Additional Details
 - ✓ Testing Logon to the Exchange Information Store
Successfully logged on to the Information Store

Start Over

Run Test Again

Figure 05

Some administrators create fake accounts to use for ExRCA, account configuration is *Hide from Exchange Address Lists* and during the tests of ExRCA RPC over HTTP, the error shown in Figure 6 will appear. To solve this problem, we just need to make sure that the user does not select the *Hide from Exchange Address List property*.

Connectivity Test Failed

Test Details

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-  Testing RPC/HTTP connectivity
 - RPC/HTTP test failed
 - Test Steps
 -  Attempting to Resolve the host name webmail.ccc.ca in DNS.
Host successfully Resolved
 - Additional Details
 -  Testing TCP Port 443 on host webmail.ccc.ca to ensure it is listening/open.
The port was opened successfully.
 -  Testing SSLCertificate for validity.
The certificate passed all validation requirements.
 - Additional Details
 -  Testing SSL mutual authentication with RPC Proxy server
Successfully verified Mutual Authentication
 - Additional Details
 -  Testing Http Authentication Methods for URL https://webmail.ccc.ca/rpc/rpcproxy.dll
Http Authentication Methods are correct
 - Additional Details
 -  Attempting to Ping RPC Proxy webmail.ccc.ca
Pinged RPC Proxy successfully
 - Additional Details
 -  Testing NSPI Interface on Exchange Mailbox Server
 - An error occured while testing the NSPI Interface.
 - Test Steps
 -  Attempting to ping RPC Endpoint 6004 (NSPI Proxy Interface) on server mail2k7.corp.ccc.ca
Pinged Endpoint successfully
 - Additional Details
 -  Testing NSPI "Check Name" for user anderson@ccc.ca against server mail2k7.corp.ccc.ca
An error occured while attempting to resolve the name
 - Additional Details
 - Could not resolve the name, Exception Details:
 - Message: The name could not be resolved, no match found: MAPI_UNRESOLVED
 - Type: System.Exception
 - Stack Trace:
 - at RpcPingLib.RpcPing.CheckName(String argInternalServerFqdn, String nameToCheck)
 - at Microsoft.Exchange.Tools.ExRCA.Tests.OLACheckNameTest.PerformTestReally()

Figure 06

Test ActiveSync Autodiscover feature

If you have a number of Windows Mobile 6.1 clients, while they can also use Autodiscover services to configure their devices automatically, the following table explains the differences. related to Mobile Messaging features between versions of Windows Mobile <http://www.microsoft.com/windowsmobile/en-us/meet/version-compare.mspx>.

If you have at least Windows Mobile 6.1, you will be able to use the same method that Outlook 2007 uses to configure your mail, as shown in Figures 7 and 8. After that, the user needs to select the folder Whichever he wants to keep in sync and the user needs to configure is their device accessing Exchange Server.

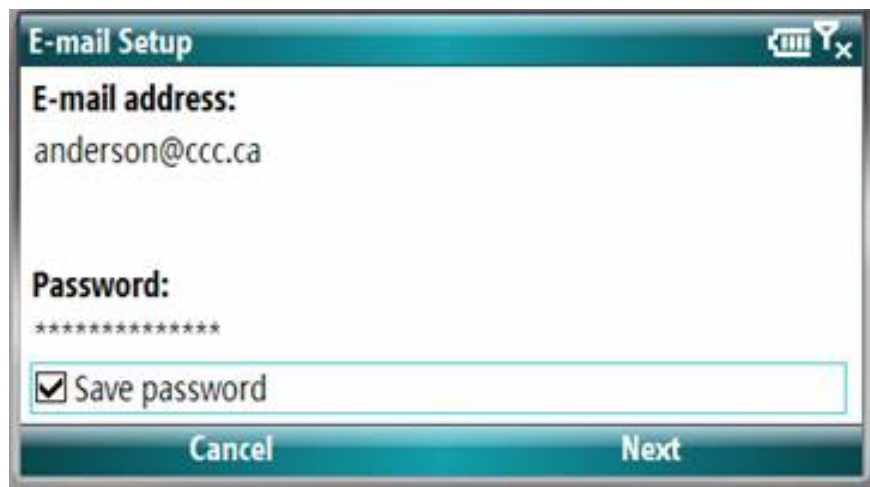


Figure 07

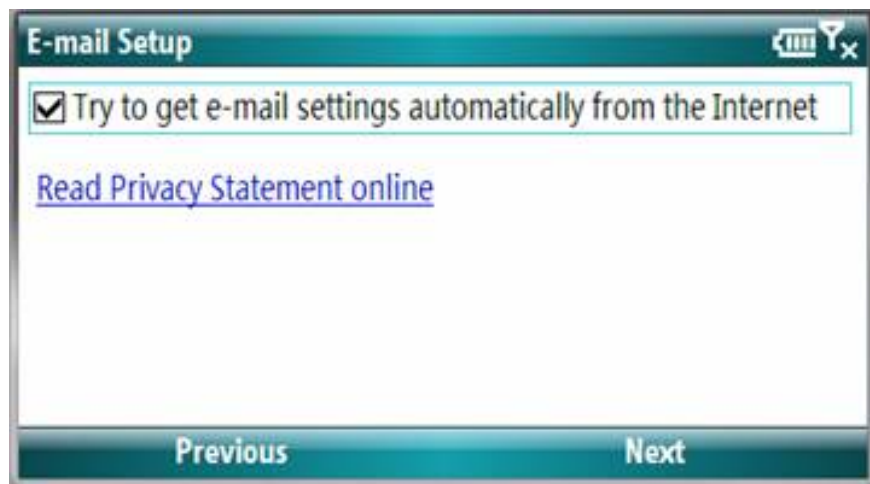


Figure 08

On the ExRCA main page, select **Microsoft Exchange ActiveSync Autodiscover Test** and click **Next** . Fill in the next page with important information of the user and we can also test ActiveSync connection with the Server by clicking *Perform Exchange ActiveSync Test* , this test will connect in a specific user mailbox and it will retrieve the number. Notices have been evaluated.

The result of the test process is shown in Figure 9. We can validate that the tool using Autodiscover gets the information and then it will try to connect with ActiveSync methods in the Autodiscover virtual directory, Finally the number has been evaluated for messages retrieved from the mailbox.

Connectivity Test Successful

Test Details

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- ✔ Attempting Autodiscover and Exchange Activesync Test (if requested)
Successfully tested Autodiscover for Exchange Activesync
- ☐ Test Steps
 - ✔ Attempting each method of contacting the Autodiscover Service
The Autodiscover Service was successfully tested.
 - ☐ Test Steps
 - ✔ Testing Exchange Activesync for host webmail.ccc.ca
Exchange Activesync was tested successfully
 - ☐ Test Steps
 - ✔ Attempting to Resolve the host name webmail.ccc.ca in DNS.
Host successfully Resolved
 - ☐ Additional Details
 - ✔ Testing TCP Port 443 on host webmail.ccc.ca to ensure it is listening/open.
The port was opened successfully.
 - ✔ Testing SSLCertificate for validity.
The certificate passed all validation requirements.
 - ☐ Additional Details
 - ✔ Testing Http Authentication Methods for URL https://webmail.ccc.ca/Microsoft-Server-Activesync/
Http Authentication Methods are correct
 - ☐ Additional Details
 - ✔ Attempting an Activesync session with server
Testing an ActiveSync session completed successfully
 - ☐ Test Steps
 - ✔ Attempting to send OPTIONS command to server
OPTIONS response was successfully received and is valid
 - ☐ Additional Details
 - ✔ Attempting FolderSync command on ActiveSync session
FolderSync command completed successfully.
 - ☐ Additional Details
 - ✔ Attempting initial sync (no data) for Inbox folder
Completed Sync Command successfully
 - ☐ Additional Details
 - ✔ Attempting to test GetItemEstimate command for Inbox Folder
Successfully received GetItemEstimate Response from Server
 - ☐ Additional Details
 - Estimate: 87 messages

Figure 09


Test ActiveSync feature

We can also test ActiveSync without the information from Autodiscover as we saw in the previous test. If you want to test Activesync for Windows Mobile, simply click **Microsoft Exchange ActiveSync Test** in the ExRCA main page, and then click **Next** . Fill in the form with the necessary information for users and ActiveSync information, you can also select the *Synchronize All Items in Inbox folder option* , then the synchronization will appear and the steps have been taken by The tool will be tested, as shown in Figure 10.

Connectivity Test Successful

Test Details

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 Testing Exchange Activesync for host webmail.ccc.ca

Exchange Activesync was tested successfully

Test Steps


 Attempting to Resolve the host name webmail.ccc.ca in DNS.

Host successfully Resolved

Additional Details


 Testing TCP Port 443 on host webmail.ccs.ca to ensure it is listening/open.

The port was opened successfully.

 Testing SSLCertificate for validity.

The certificate passed all validation requirements.

Additional Details

 Testing Http Authentication Methods for URL https://webmail.ccc.ca/Microsoft-Server-Activesync/

Http Authentication Methods are correct

Additional Details

 Attempting an Activesync session with server

Testing an ActiveSync session completed successfully

Test Steps

 Attempting to send OPTIONS command to server

OPTIONS response was successfully received and is valid

Additional Details

 Attempting FolderSync command on ActiveSync session

FolderSync command completed successfully.

Additional Details

Number of Folders: 24

 Attempting initial sync (no data) for Inbox folder

Completed Sync Command successfully

Additional Details


Status: 1

 Attempting to test GetItemEstimate command for Inbox Folder

Successfully received GetItemEstimate Response from Server

Additional Details

Estimate: 87 messages

 Attempting to test Sync of Inbox Folder

Completed Sync Command successfully

Additional Details

Number of items synchronized: 87

Start Over

Run Test Again

Figure 10

Inbound SMTP Email Test

The final option of the ExRCA tool is the inbound SMTP test - this option makes it easier to test incoming traffic than manual testing. The process of manually testing incoming traffic can be summarized in steps:

1. Use to find out the MX records of the specified domain.
1. Sending a test message using telnet on port 25 is using each recorded MX listed in the previous query. For more information on how to use telnet to test SMTP communication, you can refer to Microsoft's article KB 153119.

This test can be used by any administrator and it does not require an Exchange Server because of the general steps and procedures for all SMTP servers.

To use ExRCA to test inbound mail flow, select **Inbound SMTP Email Test** and click **Next** . Fill out the form a valid email address and an appraised code, click **Perform Test** . The result will be displayed, shown in Figure 11, and each MX record listed in the external DNS will have a message sent.

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** Prototype - For Testing Purposes Only **
Original concept by Shawn McGrath / Coding and technical implementation by Brad Hughes

Connectivity Test Successful

Test Details

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- Testing Inbound SMTP Mailflow for domain anderson@ccc.ca
Inbound SMTP mailflow was verified successfully.
- Test Steps
 - Attempting to retrieve DNS MX records for domain cms.ca
Successfully retrieved one or more MX records from DNS
 - Additional Details
MX Records Host mail.ccc.ca, Preference 1
 - Testing Mail Exchanger mail.ccc.ca.
This Mail Exchanger was tested successfully.
 - Test Steps
 - Attempting to Resolve the host name mail.ccc.ca in DNS.
Host successfully Resolved
 - Additional Details
IP(s) returned: 66.241.135.194
 - Testing TCP Port 25 on host mail.ccc.ca to ensure it is listening/open.
The port was opened successfully.
 - Additional Details
Banner Received: 220 mail2k7 Microsoft ESMTTP MAIL Service ready at Wed, 24 Sep 2008 11:55:20 -0400
 - Attempting to send test email message to anderson@ccc.ca using MX mail.ccc.ca.
The test message was delivered successfully.

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Let us know if this tool was useful, if it failed when it shouldn't have, or if you have suggestions

Figure 11

The content of the message has the tested MX record and also the email address used by Information Store, as shown in Figure 12.

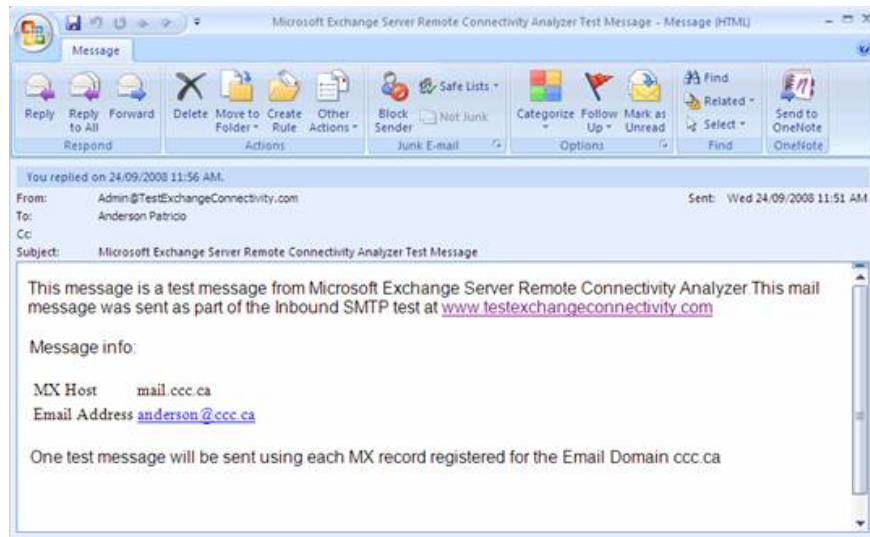


Figure 12

Conclude

In this section, we saw how to use ExRCA to test Outlook Anywhere / RPC over HTTP, ActiveSync and SMTP Inbound. When using this tool, we do not need to use any external clients to validate and also have a log file containing all the steps taken by ExRCA, really useful in troubleshooting process.

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