

## **Exchange Address Rewrite in Exchange Server 2003 and Exchange Server 2007**

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### **Abstract**

In this article I will show you the process of the Exchange Server Address Rewrite feature. With the Exchange Server Address Rewrite feature, Exchange Administrators can centrally rewrite outgoing SMTP addresses. Exchange Server Address Rewrite is available as an additional tool for Exchange Server 2003 which can be downloaded for free at the Microsoft website. In Exchange Server 2007 Address rewrite is natively integrated into the core messaging system in form of Exchange Management Shell CMDlets.

### **Let's begin**

This article shortly explains the reason why the Exchange Address Rewrite feature could be necessary in your Exchange Server environments. The focus on Address Rewrite is Exchange Server 2007 but I will start explaining the Exarcfg tool for Exchange Server 2003 too.

### **What is Exchange Address Rewrite**

Exchange Address Rewrite is the process of rewriting e-mail addresses for all outgoing messages on a special SMTP virtual server (true for Exchange Server 2003). Exchange Address Rewrite is specially used in merger or acquisition scenarios where two Exchange organizations should be merged to one Exchange organization but for the time until these two organizations are completely merged, every organization uses it's own SMTP namespace but for all outgoing SMTP message the new or unique SMTP address space will be used.

### **One example:**

NWtraders has acquired Contoso and during a limited time until the acquisition has finished all users of Contoso should use SMTP E-mail address space of NWTraders for outgoing messages. There are some steps to do when you enable Address Rewrite. If you would like to use this feature you must perform the following steps:

- Enable Address rewrite for all outgoing messages for users of the Contoso Exchange organization
- Create contacts in Active Directory for all Contoso Mail enabled users with a target SMTP address for Contoso and a primary SMTP address for Nwtraders.
- Create an SMTP connector with an address space of Contoso.
- Enable Address Rewrite on the corresponding Exchange SMTP virtual Servers

### **Exchange Address Rewirte requires the following to work properly:**

- All SMTP messages must be externally submitted through the Exchange Bridgehead server.
- All SMTP messages must be send to the Internet

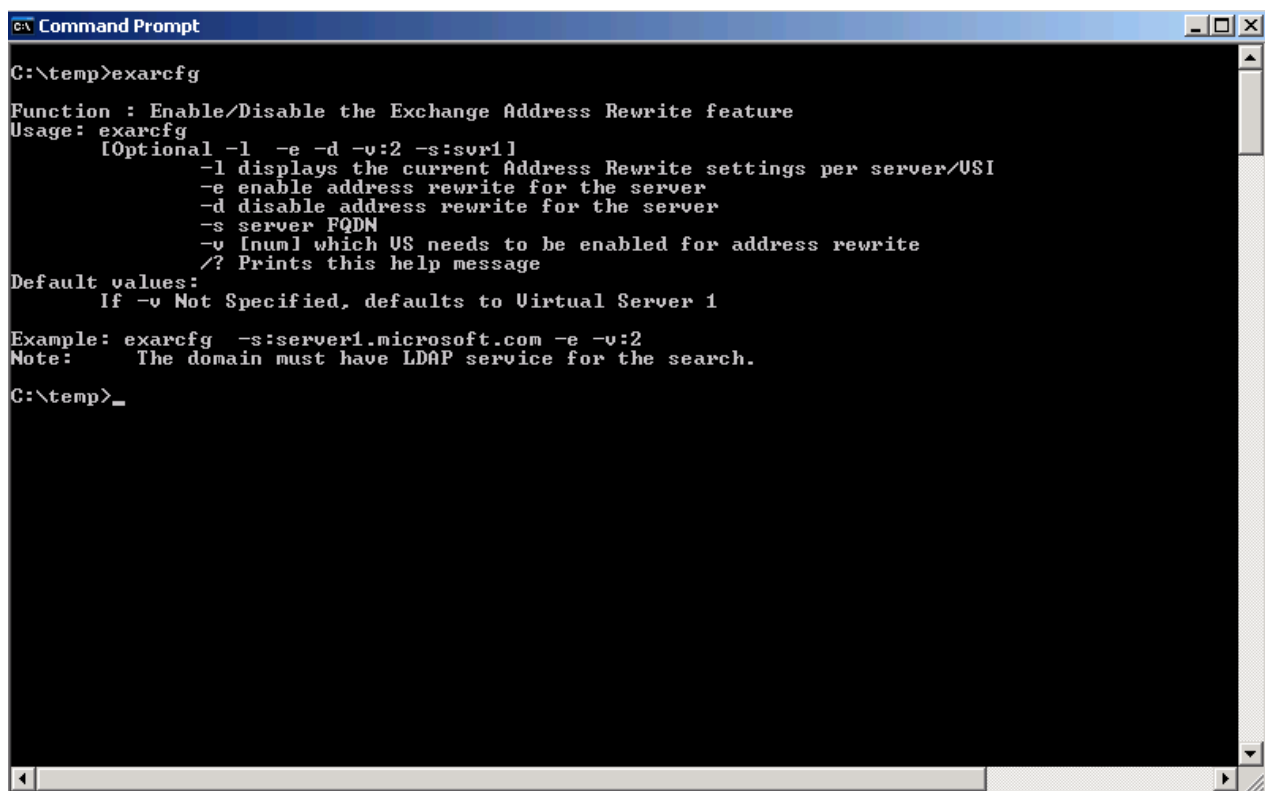
### **Please note:**

Exchange Address Rewrite is NOT used for sending internal E-Mails from one Exchange Server to another in your Exchange Organization. There is one exception from this rule: All native SMTP clients like Mozilla Thunderbird or Microsoft Outlook Express uses Exchange Address rewrite because these messages will be send directly to the SMTP driver.

### Downloading and installing Exchange Address Rewrite

Because Exchange Server 2003 has no native integration of Exchange Address rewrite, you must download the Address Rewrite tool called EXARCFG.EXE from the Microsoft website. You will find the download link at the end of this article.

After downloading the tool, simply extract the download package and open a command prompt to use the EXARCFG tool, as shown in the following screenshot.



```
C:\temp>exarcfg

Function : Enable/Disable the Exchange Address Rewrite feature
Usage: exarcfg
    [Optional -l -e -d -v:2 -s:svr1]
    -l displays the current Address Rewrite settings per server/USI
    -e enable address rewrite for the server
    -d disable address rewrite for the server
    -s server FQDN
    -v [num] which US needs to be enabled for address rewrite
    /? Prints this help message

Default values:
    If -v Not Specified, defaults to Virtual Server 1

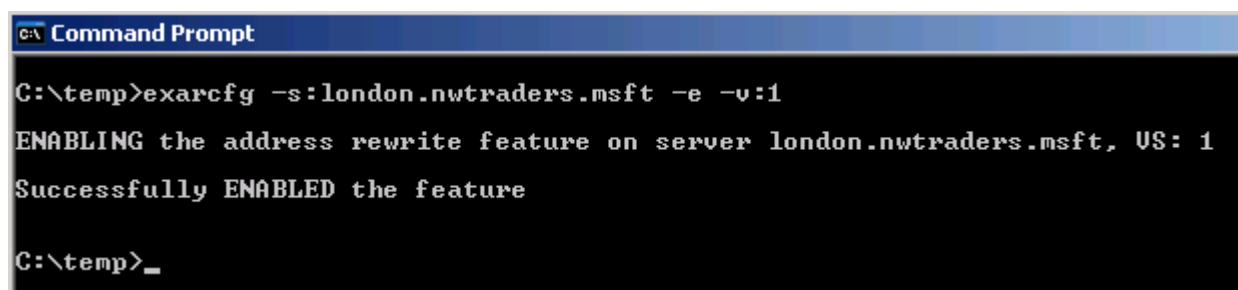
Example: exarcfg -s:server1.microsoft.com -e -v:2
Note:    The domain must have LDAP service for the search.

C:\temp>_
```

Figure 1: Exarcfg Syntax

The parameters are self explaining and require only little attention.

The EXARCFG parameter `-E` enables Address Rewrite, the parameter `-D` disables Exchange Address Rewrite. The only parameter you should pay more attention is the `-V` parameter which specifies which Exchange Virtual SMTP Server should be used.



```
C:\temp>exarcfg -s:london.nwtraders.msft -e -v:1

ENABLING the address rewrite feature on server london.nwtraders.msft, US: 1

Successfully ENABLED the feature

C:\temp>_
```

Figure 2: Enabling Exarcfg for the Exchange Server London.nwtraders.msft

That was the necessary steps for using Exchange Address Rewrite in Exchange Server 2003. Using Exchange Address Rewrite in Exchange Server 2007 is a bit different from Exchange Server 2003.

## Exchange Address rewrite in Exchange Server 2007

Exchange Address Rewrite in Exchange Server 2007 is already installed with the core messaging subsystem but not enabled. You have to use the Exchange Management Shell to activate Exchange Address Rewrite.

One other new feature of Exchange Address Rewrite in Exchange Server 2007 is that you can enable this feature on a per user, SMTP domain and/or SMTP subdomain base and not for the whole Exchange 2003 Virtual SMTP Server as in Exchange Server 2003.

You configure Address Rewriting agents on the SMTP receive connector and send connector on a computer that has the Edge Transport server role installed.

### Please note:

The Exchange Server 2007 Address Rewrite Agent is only available on Edge Transport servers.

### Enumerating installed Transport Agents

The following Exchange Management Shell CMDlets shows the installed Transport Agents on a Hub Transport Server. As you can see there is no Transport Agent for the Address Rewrite feature.

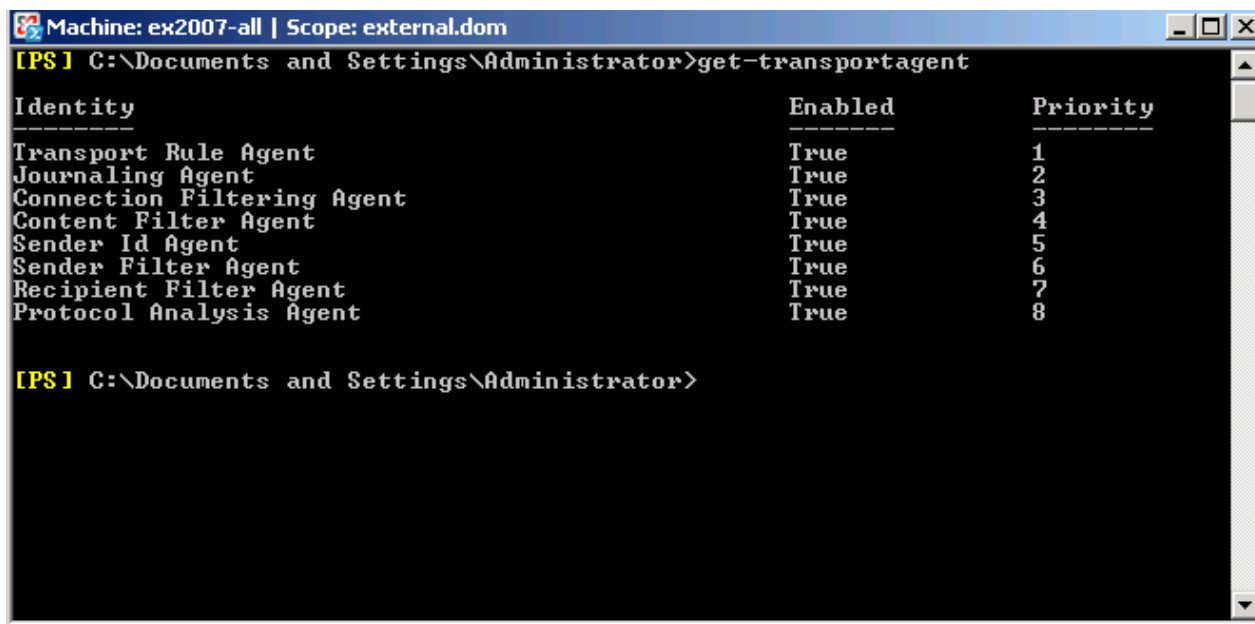


Figure 3: Installed Transport Agents on Hub Transport Server

When you start the Exchange Management Shell CMDlet to enumerate the Exchange 2007 Transport Agents on a Exchange 2007 Edge Transport Server you can see the Transport Agent for Incoming and outgoing SMTP message transfer.

```

Machine: EX2007-EDGE | Scope: View Entire Forest
[PS] C:\Dokumente und Einstellungen\Administrator.W2K3>get-transportagent

Identity                                     Enabled      Priority
-----                                     -
Connection Filtering Agent                 True         1
Address Rewriting Inbound Agent            True         2
Edge Rule Agent                            True         3
Content Filter Agent                       True         4
Sender Id Agent                            True         5
Sender Filter Agent                        True         6
Recipient Filter Agent                     True         7
Protocol Analysis Agent                    True         8
Attachment Filtering Agent                 True         9
Address Rewriting Outbound Agent           True        10
PSE Routing Agent                          True        11

[PS] C:\Dokumente und Einstellungen\Administrator.W2K3>_

```

Figure 4: Installed Transport Agents on Edge Transport Server

### Display Exchange Server 2007 Address Rewrite entries

If you would like to see for which users, Domains or subdomains Address Rewrite is enabled, start the Exchange Management Shell CMDlet from the following screenshot.

```

Machine: EX2007-EDGE | Scope: View Entire Forest
[PS] C:\Dokumente und Einstellungen\Administrator.W2K3>get-addressrewriteentry
[PS] C:\Dokumente und Einstellungen\Administrator.W2K3>

```

Figure 5: Display installed Address Rewrite entries

With Exchange Server 2007 Address Rewrite you can rewrite SMTP addresses based on:

- Single Address
- Single Domain
- Multiple Subdomains

### How to enable Address Rewrite for a Single Address

```

New-AddressRewriteEntry -name "grotem@it-training-grote.de to grotem@telta.de" -
InternalAddress grotem@it-training-grote.de -ExternalAddress grotem@telta.de Single Domain

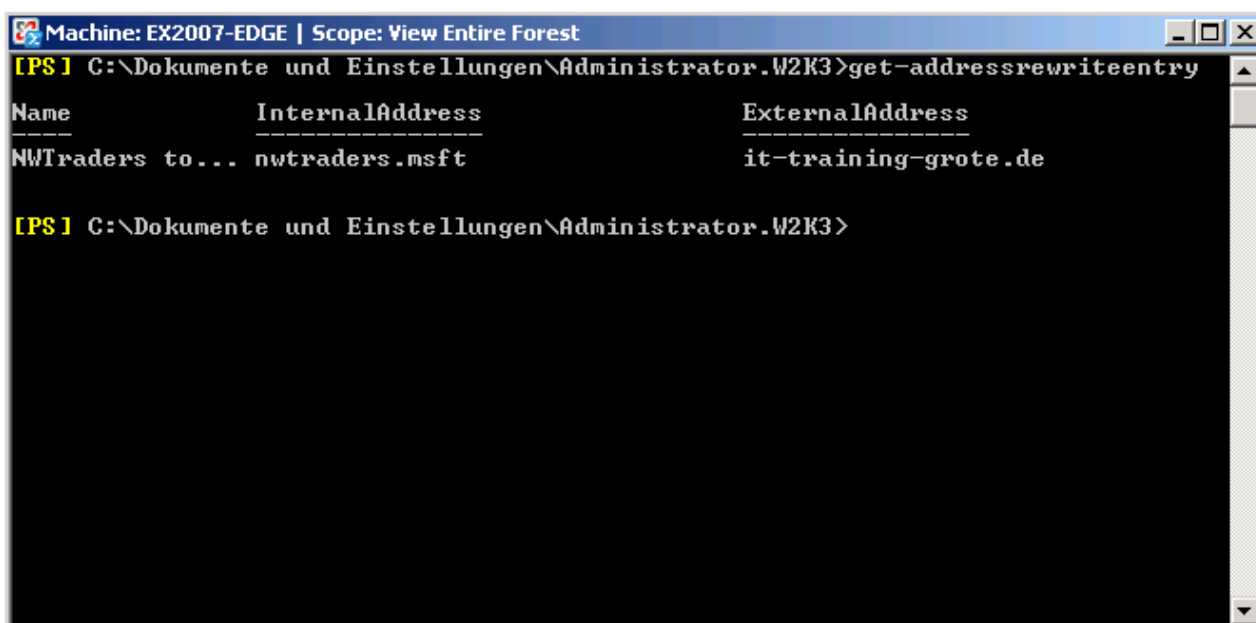
```

## How to enable Address Rewrite for a Single domain

*New-AddressRewriteEntry -name "IT TRAINIHG GROTE to TELTA" -InternalAddress it-training-grote.de -ExternalAddress telta.de*

## How to display Address Rewrite entries after configuring some entries

You have to use the Exchange Management Shell to display configured Address Rewrite entries as shown in the following screenshot.



```
Machine: EX2007-EDGE | Scope: View Entire Forest
[PS] C:\Dokumente und Einstellungen\Administrator.W2K3>get-addressrewriteentry

Name                InternalAddress      ExternalAddress
-----                -
NWTraders to...    nwtraders.msft      it-training-grote.de

[PS] C:\Dokumente und Einstellungen\Administrator.W2K3>
```

Figure 6: Display installed Address Rewrite entries

## What SMTP Header fields are rewritten or not?

Exchange Server 2007 Address Rewrite doesn't rewrite the whole SMTP Header fields. The following table from Microsoft lists the SMTP Header fields that are rewritten for inbound or outbound messages.

SMTP Header field	Outbound	Inbound
Envelope From (MAIL FROM)	Rewritten	Not rewritten
Envelope To (RCPT TO)	Not rewritten	Rewritten
Body To	Rewritten	Not rewritten
Body Cc	Rewritten	Not rewritten
Body From	Rewritten	Not rewritten
Body Sender	Rewritten	Not rewritten
Body Reply-To	Rewritten	Not rewritten
Body Return-Receipt-To	Rewritten	Not rewritten
Body Disposition-Notification-To	Rewritten	Not rewritten
Body Resent-From	Rewritten	Not rewritten
Body Resent-Sender	Rewritten	Not rewritten

Table 1: SMTP Header fields that are rewritten or not with Exchange Server 2007 Address Rewrite

## Conclusion

Exchange Server 2003/2007 Address Rewrite is a great tool that rewrites SMTP addresses and is specially used in Exchange environments with a merger or acquisition scenario. You should be carefully plan the implementation of Exchange Address Rewrite. Setting up Exchange Address Rewrite is really simple but the underlying organizational process should be carefully considered.

## Related Links

Exarcfg Download

<http://www.microsoft.com/downloads/details.aspx?FamilyID=c29487ee-ef0a-49f6-a205-f23e0a98f794&displaylang=en>

Planning for Address Rewriting

<http://technet.microsoft.com/en-us/library/aa996806.aspx>

Overview of the Exchange Server 2003 Resource Kit Tools

<http://www.msexchange.org/tutorials/Overview-Exchange-2003-Resource-Kit.html>

Supporting Two SMTP Mail Domains and Sharing an SMTP Mail Domain with Another System

<http://technet.microsoft.com/en-us/library/aa997194.aspx>

How to create a new Address rewrite entry

<http://technet.microsoft.com/en-us/library/bb123966.aspx>

Hub Transport Servers in Exchange Server 2007-04-06

<http://msexchangeteam.com/archive/2006/11/17/431555.aspx>