

Transferring FSMO Roles

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How can I transfer some or all of the FSMO Roles from one DC to another?

Windows 2000/2003 Active Directory domains utilize a Single Operation Master method called FSMO (Flexible Single Master Operation), as described in [Understanding FSMO Roles in Active Directory](#).

In most cases an administrator can keep the FSMO role holders (all 5 of them) in the same spot (or actually, on the same DC) as has been configured by the Active Directory installation process. However, there are scenarios where an administrator would want to move one or more of the FSMO roles from the default holder DC to a different DC.

Moving the FSMO roles while both the original FSMO role holder and the future FSMO role holder are online and operational is called Transferring, and is described in this article.

The transfer of an FSMO role is the suggested form of moving a FSMO role between domain controllers and can be initiated by the administrator or by demoting a domain controller. However, the transfer process is not initiated automatically by the operating system, for example a server in a shut-down state. FSMO roles are not automatically relocated during the shutdown process - this must be considered when shutting down a domain controller that has an FSMO role for maintenance, for example.

In a graceful transfer of an FSMO role between two domain controllers, a synchronization of the data that is maintained by the FSMO role owner to the server receiving the FSMO role is performed prior to transferring the role to ensure that any changes have been recorded before the role change.

However, when the original FSMO role holder went offline or became non operational for a long period of time, the administrator might consider moving the FSMO role from the original, non-operational holder, to a different DC. The process of moving the FSMO role from a non-operational role holder to a different DC is called Seizing, and is described in the [Seizing FSMO Roles](#) article.

You can transfer FSMO roles by using the Ntdsutil.exe command-line utility or by using an MMC snap-in tool. Depending on the FSMO role that you want to transfer, you can use one of the following three MMC snap-in tools:

- Active Directory Schema snap-in
- Active Directory Domains and Trusts snap-in
- Active Directory Users and Computers snap-in

To transfer the FSMO role the administrator must be a member of the following group:

FSMO Role	Administrator must be a member of
Schema	Schema Admins
Domain Naming	Enterprise Admins
RID	Domain Admins
PDC Emulator	
Infrastructure	

Transferring the RID Master, PDC Emulator, and Infrastructure Masters via GUI

To Transfer the Domain-Specific RID Master, PDC Emulator, and Infrastructure Master FSMO Roles:

1. Open the Active Directory Users and Computers snap-in from the Administrative Tools folder.
2. If you are NOT logged onto the target domain controller, in the snap-in, right-click the icon next to Active Directory Users and Computers and press Connect to Domain Controller.
3. Select the domain controller that will be the new role holder, the target, and press OK.
4. Right-click the Active Directory Users and Computers icon again and press Operation Masters.

5. Select the appropriate tab for the role you wish to transfer and press the Change button.
6. Press OK to confirm the change.
7. Press OK all the way out.

Transferring the Domain Naming Master via GUI

To Transfer the Domain Naming Master Role:

1. Open the Active Directory Domains and Trusts snap-in from the Administrative Tools folder.
2. If you are NOT logged onto the target domain controller, in the snap-in, right-click the icon next to Active Directory Domains and Trusts and press Connect to Domain Controller.
3. Select the domain controller that will be the new role holder and press OK.
4. Right-click the Active Directory Domains and Trusts icon again and press Operation Masters.
5. Press the Change button.
6. Press OK to confirm the change.
7. Press OK all the way out.

Transferring the Schema Master via GUI

To Transfer the Schema Master Role:

1. Register the *Schmmgmt.dll* library by pressing Start > RUN and typing:

```
regsvr32 schmmgmt.dll
```

1. Press OK. You should receive a success confirmation.
2. From the Run command open an MMC Console by typing *MMC*.
3. On the Console menu, press Add/Remove Snap-in.
4. Press Add. Select Active Directory Schema.
5. Press Add and press Close. Press OK.
6. If you are NOT logged onto the target domain controller, in the snap-in, right-click the Active Directory Schema icon in the Console Root and press Change Domain Controller.
7. Press Specify and type the name of the new role holder. Press OK.
8. Right-click right-click the Active Directory Schema icon again and press Operation Masters.
9. Press the Change button.
10. Press OK all the way out.

Transferring the FSMO Roles via Ntdsutil

To transfer the FSMO roles from the Ntdsutil command:

Caution: Using the Ntdsutil utility incorrectly may result in partial or complete loss of Active Directory functionality.

1. On any domain controller, click Start, click Run, type *Ntdsutil* in the Open box, and then click OK.

```
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.
```

```
C:\WINDOWS>ntdsutil
ntdsutil:
```

1. Type *roles*, and then press ENTER.

```
ntdsutil: roles
fsmo maintenance:
```

Note: To see a list of available commands at any of the prompts in the Ntdsutil tool, type *?*, and then press ENTER.

1. Type *connections*, and then press ENTER.

```
fsmo maintenance: connections
server connections:
```

1. Type *connect to server <servername>*, where *<servername>* is the name of the server you want to use, and then press ENTER.

```
server connections: connect to server server100
```

```
Binding to server100 ...  
Connected to server100 using credentials of locally logged on user.  
server connections:
```

1. At the server connections: prompt, type *q*, and then press ENTER again.

```
server connections: q  
fsmo maintenance:
```

1. Type *transfer <role>*. where *<role>* is the role you want to transfer.

For example, to transfer the RID Master role, you would type *transfer rid master*:

Options are:

```
Transfer domain naming master  
Transfer infrastructure master  
Transfer PDC  
Transfer RID master  
Transfer schema master
```

1. You will receive a warning window asking if you want to perform the transfer. Click on Yes.
2. After you transfer the roles, type *q* and press ENTER until you quit Ntdsutil.exe.
3. Restart the server and make sure you update your backup.

Links

[Windows 2000 Active Directory FSMO roles - 197132](#) 

[Flexible Single Master Operation Transfer and Seizure Process - 223787](#) 

[Using Ntdsutil.exe to seize or transfer FSMO roles to a domain controller - 255504](#) 

[How To View and Transfer FSMO Roles in Windows Server 2003 - 324801](#) 

Related Articles

- [Seizing FSMO Roles](#)
- [Planning FSMO Roles in Active Directory](#)
- [Understanding FSMO Roles in Active Directory](#)
- [Determining FSMO Role Holders](#)