



Seizing FSMO Roles

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How can I forcibly transfer (seize) 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](#).

The five FSMO roles are:

- Schema master - Forest-wide and one per forest.
- Domain naming master - Forest-wide and one per forest.
- RID master - Domain-specific and one for each domain.
- PDC - PDC Emulator is domain-specific and one for each domain.
- Infrastructure master - Domain-specific and one for each domain.

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 the [Transferring FSMO Roles](#) article.

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 this article.

If a DC holding a FSMO role fails, the best thing to do is to try and get the server online again. Since none of the FSMO roles are immediately critical (well, almost none, the loss of the PDC Emulator FSMO role might become a problem unless you fix it in a reasonable amount of time), so it is not a problem to them to be unavailable for hours or even days.

If a DC becomes unreliable, try to get it back on line, and transfer the FSMO roles to a reliable computer. Administrators should use extreme caution in seizing FSMO roles. This operation, in most cases, should be performed only if the original FSMO role owner will not be brought back into the environment. Only seize a FSMO role if absolutely necessary when the original role holder is not connected to the network.

What will happen if you do not perform the seize in time? This table has the info:

| FSMO Role | Loss implications |
|----------------|---|
| Schema | The schema cannot be extended. However, in the short term no one will notice a missing Schema Master unless you plan a schema upgrade during that time. |
| Domain Naming | Unless you are going to run DCPROMO, then you will not miss this FSMO role. |
| RID | Chances are good that the existing DCs will have enough unused RIDs to last some time, unless you're building hundreds of users or computer object per week. |
| PDC Emulator | Will be missed soon. NT 4.0 BDCs will not be able to replicate, there will be no time synchronization in the domain, you will probably not be able to change or troubleshoot group policies and password changes will become a problem. |
| Infrastructure | Group memberships may be incomplete. If you only have one domain, then there will be no impact. |

Important: If the RID, Schema, or Domain Naming FSMOs are seized, then the original domain controller must not be activated in the forest again. It is necessary to reinstall Windows if these servers are to be used again.

The following table summarizes the FSMO seizing restrictions:

| FSMO Role | Restrictions |
|----------------|-------------------------------|
| Schema | Original must be reinstalled |
| Domain Naming | |
| RID | |
| PDC Emulator | Can transfer back to original |
| Infrastructure | |

Another consideration before performing the seize operation is the administrator's group membership, as this table lists:

| FSMO Role | Administrator must be a member of |
|-----------|-----------------------------------|
| | |

| | |
|----------------|-------------------|
| Schema | Schema Admins |
| Domain Naming | Enterprise Admins |
| RID | Domain Admins |
| PDC Emulator | |
| Infrastructure | |

To seize the FSMO roles by using Ntdsutil, follow these steps:

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 *seize <role>*, where *<role>* is the role you want to seize. For example, to seize the RID Master role, you would type *seize rid master*:

Options are:

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

1. You will receive a warning window asking if you want to perform the seize. Click on Yes.



```
fsmo maintenance: Seize infrastructure master
Attempting safe transfer of infrastructure FSMO before seizure.
ldap_modify_sW error 0x34(52 (Unavailable)).
Ldap extended error message is 000020AF: SvcErr: DSID-03210300, problem 5002 (UNAVAILABLE)
, data 1722
```

```
Win32 error returned is 0x20af(The requested FSMO operation failed. The current FSMO holder could not be contacted.)
)
```

Depending on the error code this may indicate a connection, ldap, or role transfer error.

Transfer of infrastructure FSMO failed, proceeding with seizure ...

Server "server100" knows about 5 roles

Schema - CN=NTDS Settings,CN=SERVER200,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=dpetri,DC=net

Domain - CN=NTDS Settings,CN=SERVER100,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=dpetri,DC=net

PDC - CN=NTDS Settings,CN=SERVER100,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=dpetri,DC=net

RID - CN=NTDS Settings,CN=SERVER200,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=dpetri,DC=net

Infrastructure - CN=NTDS Settings,CN=SERVER100,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=dpetri,DC=net

```
fsmo maintenance:
```

Note: All five roles need to be in the forest. If the first domain controller is out of the forest then seize all roles. Determine which roles are to be on which remaining domain controllers so that all five roles are not on only one server.

1. Repeat steps 6 and 7 until you've seized all the required FSMO roles.
2. After you seize or transfer the roles, type *q*, and then press ENTER until you quit the Ntdsutil tool.

Note: Do not put the Infrastructure Master (IM) role on the same domain controller as the Global Catalog server. If the Infrastructure Master runs on a GC server it will stop updating object information because it does not contain any references to objects that it does not hold. This is because a GC server holds a partial replica of every object in the forest.

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

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

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