- 1. Locate a DC for which a system-state backup was made before the deletion occurred.
- If the DC is running Windows Server 2003, reboot it into DSRM. If the DC is running a later version of Windows Server, stop the Active Directory Domain Services (AD DS) service.
- 3. Restore the DC's system state but do not reboot when the restore completes.
- 4. Mark the objects in question as authoritative using Ntdsutil.exe. See below for details.
- 5. Reboot the DC into normal mode or restart the AD DS service. The objects marked as authoritative will be replicated back to the other DCs in the domain.

To mark an object or subtree of objects as authoritative:

1. Determine the distinguished name (DN) of the object you wish to restore. If you are restoring a subtree of objects, such as an OU that contains user account objects, use the DN of the root of the subtree.

For example, to restore a single user account named **jsmith** that exists in the **Sales** OU of a domain named **corp.mycompany.com**, use the DN

CN=jsmith,OU=Sales,DC=corp,DC=mycompany,DC=com. To restore the entire Sales OU of the same domain, use the DN

OU=Sales,DC=corp,DC=mycompany,DC=com.

- 2. At a command prompt, type **ntdsutil**.
- 3. Type activate instance ntds.
- 4. Type authoritative restore.
- 5. To mark a single object as authoritative, type **restore object** *<distinguished\_name>*, where *<distinguished\_name>* is the DN of the object as determined in step 1.

To mark a subtree of objects as authoritative, type restore subtree

*<distinguished\_name>*, where *<distinguished\_name>* is the DN of the subtree as determined in step 1. This will mark the container object and everything it contains as authoritative.

Note: If the DN contains one or more spaces, enclose the entire DN in quotes:



7. Review the output. If it indicates that one or more objects have back-links in the domain, an .ldf file will be mentioned. Note the name of this file.



- 8. Type quit at each prompt until you have exited Ntdsutil.
- 9. Reboot the DC in normal mode or restart its AD DS service.
- 10. If an .ldf file was mentioned in step 7, copy this file to another DC in the domain and run it by typing ldfide -i -k -f *<filename>* at an elevated command prompt. This will ensure that the group memberships of all authoritatively restored objects remain intact.
  C:\Temp>ldifde -i -k -f ar\_20130809-103358\_links\_dpyoung.local.ldf
  Connecting to "2012DC.dpyoung.local"
  Logging in as current user using SSPI
  Importing directory from file "ar\_20130809-103358\_links\_dpyoung.local.ldf"
  A entries modified successfully.
  The command has completed successfully