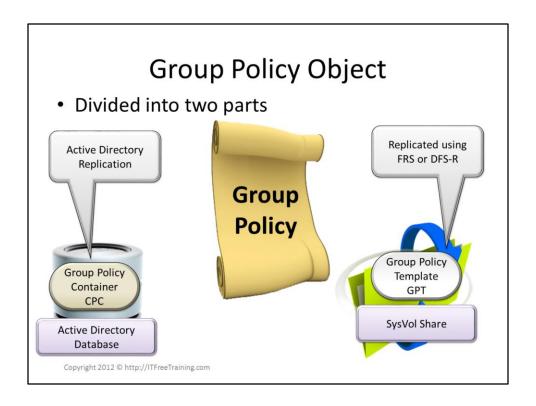# Group Policy Replication

- For the free video please see http://itfreetraining.com/70-640/group-policy-replication/

This video looks at how the two different parts of Group Policy Replication work. Understanding how these two systems work will help you understand how to troubleshoot Group Policy problems when they occur.

Group Policy Object

- Divided into two parts

Active Directory Replication

Group Policy

Replicated using FRS or DFS-R

Group Policy Container CPC

Active Directory Database

Group Policy Template GPT

SysVol Share

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A single Group Policy is made up of two parts. These are Group Policy Container (GPC) and Group Policy template (GPT). Since group Policy is made up of two parts this is why it is referred to as a Group Policy Object (GPO). The Group Policy Container is stored in the Active Directory database and thus replicated with Active Directory replication. The Group Policy Template is the file part of Group Policy and is stored in the SysVol folder. A SysVol folder is present on every Domain Controller. The SysVol folder is replicated using FRS or DFS-R. DFS-R is only available in Windows Server 2008 and above. It is possible for these two systems two become out of sync with each other for a brief previous of time while replication is occurring.

Demonstration

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Demonstration
If you want to see the current versions status of a particular Group Policy Object, select the Group Policy in Group Policy management and select the details tab. On this tab is listed the User version and the computer version of both in Active Directory and the SysVol folder. Both the Active Directory and SysVol values should be the same value if replication is working correctly. On this tab is the unique ID for the Group Policy, this number is used to identify the Group Policy.

If you browse the SysVol folder, for example \\ITFreeTraining.local\SysVol\ITFreeTraining.local\Polices, this contains all the files for Group Policy. The directories used to store the Group Policy is the same Unique ID that was listed on the detail tab in Group Policy Management

console. Inside any of these directory is a file called GPT.INI. This file contains the version number for the Group Policy. The number is a 32bit value. If you entered the number into Windows Calculator, the first 16 bits the user version and the last 16bits is the computer version.

To view the Group Policy Container in Active Directory Users and Computers and make sure advanced features is ticked under the view menu. The Group Policy Container can be found under System\Polices. The Group Policy is listed under folders by the Unique ID just like they were in the SysVol folder. If you want to see the version, open the properties for one of the folders, select the attribute editor and locate the VersionNumber attribute.

References
"MCTS 70-640 Configuring Windows Server 2008 Active Directory Second Edition" pg 260-262
"Group Policy Collection" http://technet.microsoft.com/en-us/library/cc779838(v=ws.10).aspx
"Understanding the GPO version number" http://blogs.technet.com/b/grouppolicy/archive/2007/12/14/understanding-the-gpo-version-number.aspx