Group Policy Object (GPO) Client Configuration

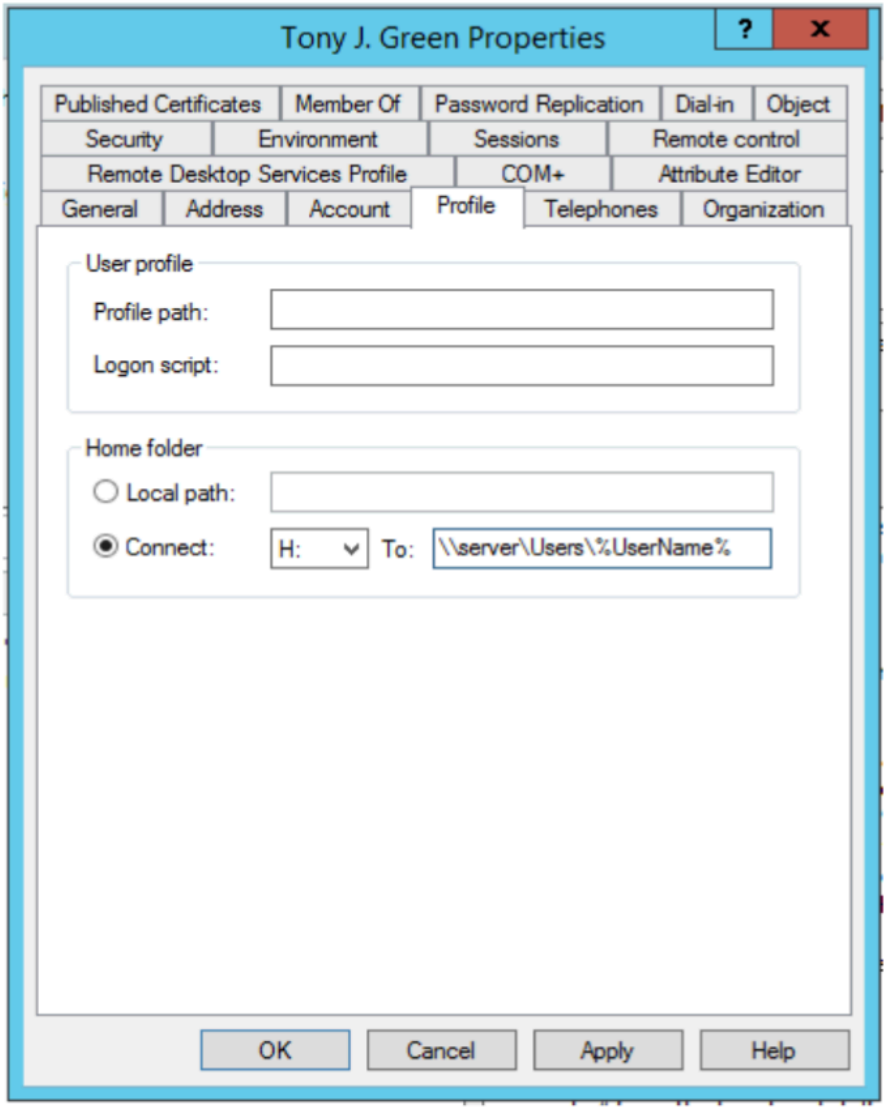
A Group Policy Object (GPO) is a feature in Microsoft Windows that allows administrators to manage and configure operating system settings and user preferences across multiple computers in a network. GPOs can control various aspects of user and computer environments, including security settings, software installation, and desktop configurations. By using GPOs, administrators can enforce policies consistently across a domain, streamline management tasks, and ensure compliance with organizational standards.

Within Active Directory we have the ability to change settings and control whatever we want on the target machine(s) and/or target user or user groups. There are a ton of settings that get down to minute details that we have control over. We can tweak these settings using GPO Client Configuration. These settings can be applied to every machine within the domain so

you can push the settings out one time and effect multiple machines. We can use power shell to administer this.

User Home Directories

The user home directory is the main folder for user. The documents, desktop, downloads folders and so on are child folders of the home folder. Each user can have its own home directory.



This is the GUI you get when you create a new user. As you can see at the top, these are the properties of the user Tony j Green. There are a bunch of other settings we can adjust here too within the other tabs.

In the profile tab that is on screen, we could specify a user profile path, logon script and a

home folder. In the case above there is no local path specified. Rather, the home folder is on an external server located on an H:\ drive.

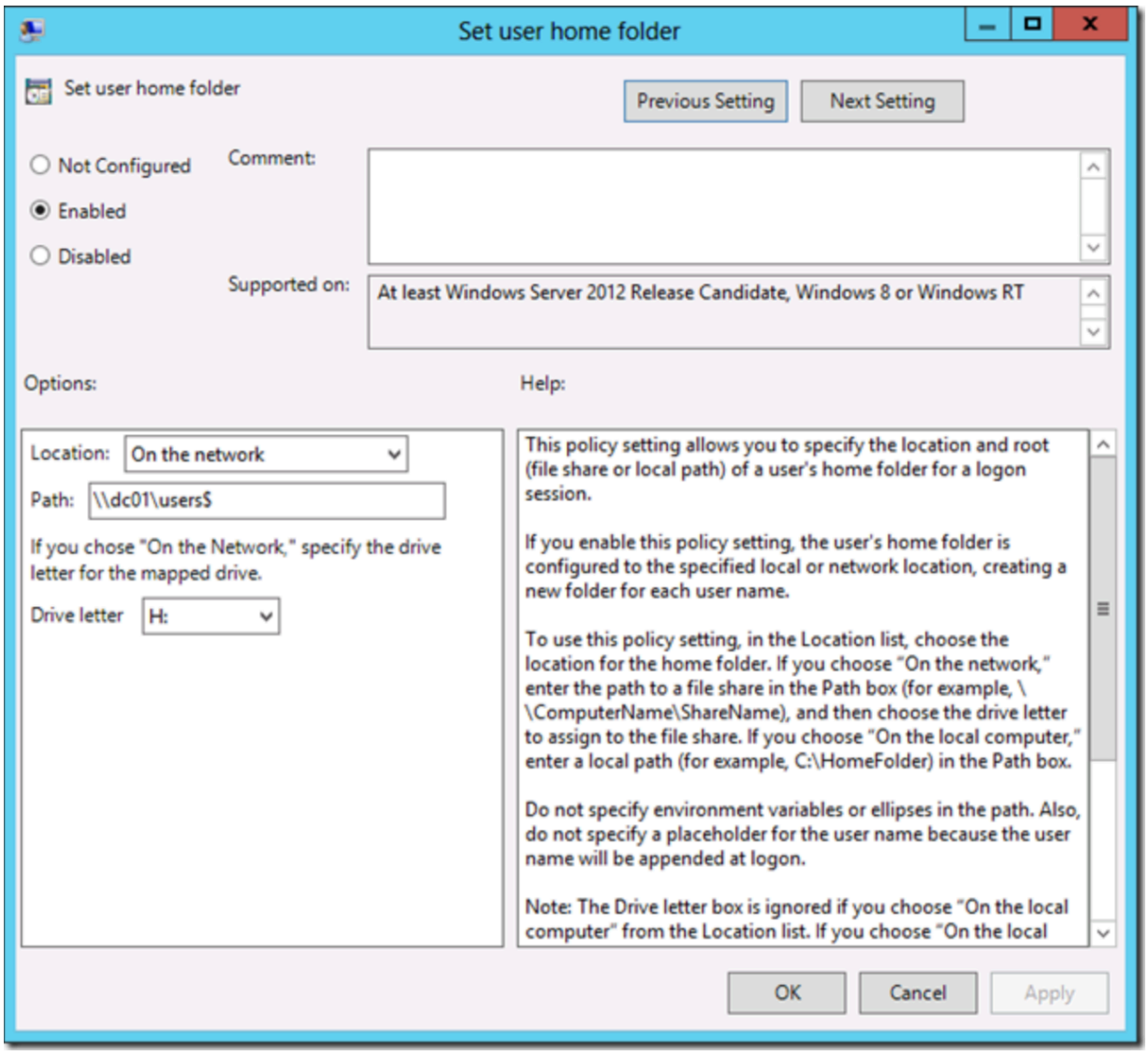
Prior to Server 2012 and Windows 8 - The above example was how you had to go about managing user profiles. In the User's Profile Properties.

Or

Using Logon scripts, typically with the Net User command

net user tony.green /homedir:\\server\%username%

Starting with Server 2012 and Windows 8 you can use the 'Set User Home Folder' GPO policy



In the above window we have:

Set user home folder - like before we can set the home folder for the user or disable it.
Options - where we can set the home folder location.

Comments - Comments we can leave.
Supported on - What versions this action is supported on.
Help - Help guide window.

Note that in the file path, the username (%username%) will be appended to the file path so when the user logs in, their home directory will be appended to the folder path and as such they will have dominion over a specific folder path IE \\dc01\users$\Tony_Green but not any other folder for any other user and again in this case, this would be all happening in the H:\ Drive (Home Drive).

Share Folder Requirements

The Home directory root share must be configured to allow for automated home directory creation. In other words, in the case above the directories \\dc01\users$\ must be created first. After which the domain controller can be configured to create a new directory within the users$ folder for each new user.

Share permissions

-All users have full control share permissions

The NTFS permissions

-Authenticated users must have read and write permissions for the root folder and the root folder only (IE their specific home user root folder)

-Permissions must be set so that they are not inherited by child folders. This stops users from having read write permissions on other sub folders IE other users home folders.

Group Policy Results

There are a lot of settings that can be configured. These settings can be applied in many different ways. For example you could apply certain group policy settings to specific user groups. Also certain things could be applied to certain machines based on some

criteria like what version of windows it is running. Based on this it could be applied to some group policy based on that. This could eventually cause confusion in that you may lose track of what GPO applies to what user(s) at any given time.

One way of mitigation is to limit the amount of GPOs you have in total. You can have a lot of settings within a GPO but keep the amount in total down.

The more GPOs you have the more processing time it could cost in system resources.

We have a tool we can use to track our GPOs…

The Group Policy Results (GPResult.exe) command line tool verifies all policy settings in effect for a specific user or computer.

This tool can look at any user or machine and tell us what group policies would be applied to the user or machine. These group policy results

can give us a detailed report and us what group policies will be applied to the target.

Administrators can run GPResult on any remote computer within their scope of management to get the Resultant Set of Policy (RSoP) results

gpresult.exe parameters

/s – specify the remote system to report results from
/u – specifies the user context to run with
/p – specifies the password for the given context
/Scope – User or Computer results
/User – report results for the given user
/r – displays the RSoP summary
/h – saves the report in HTML format in the specified file location

In the lab

• Configure and share a Home Directory root

folder on the AcmeServer domain controller
• Configure domain wide Home directory drive mapping
• Configure domain wide Firewall polices for remote administration