Using Windows 2008 RADIUS Authentication with Tripp Lite SNMPWEBCARD

December 11, 2012

Summary

This Technical Bulletin describes how to configure Microsoft® RADIUS Server for authenticating users for access to SNMPWEBCARD (built-in and accessory card versions).

Versions Affected

SNMPWEBCARD Version 12.06.0061 Revision D and later versions.

Solution

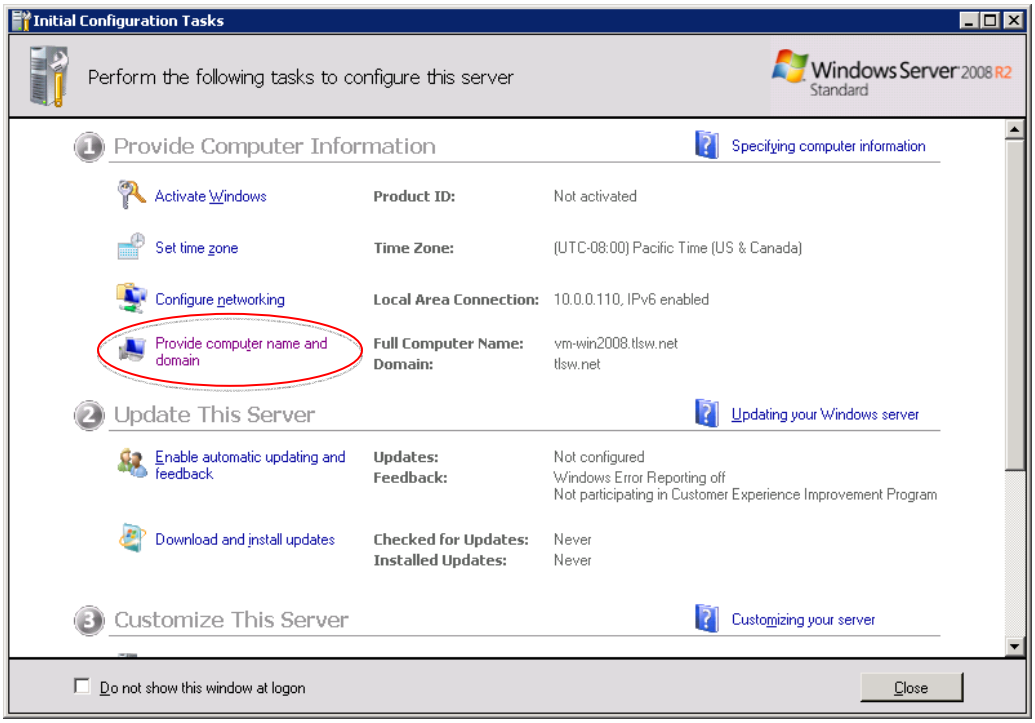
Steps for basic installation include:

1. Rename the server
2. Add Active Directory Domain Services
3. Add Network Policy and access Services
4. Configure AAA RADIUS Authentication

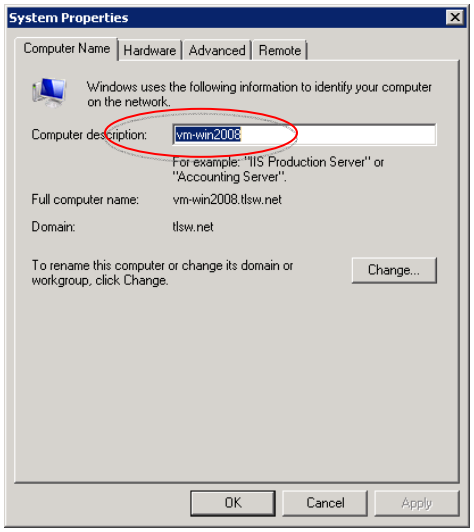
Step 1. Rename the Server

Windows 2008 Server is unique in that the server name is auto-generated and you are not given a chance during the install to name the server so you must do **before** installing Active Directory.

In the “Initial Configuration Tasks” window, click the “Provide computer name and domain” link.



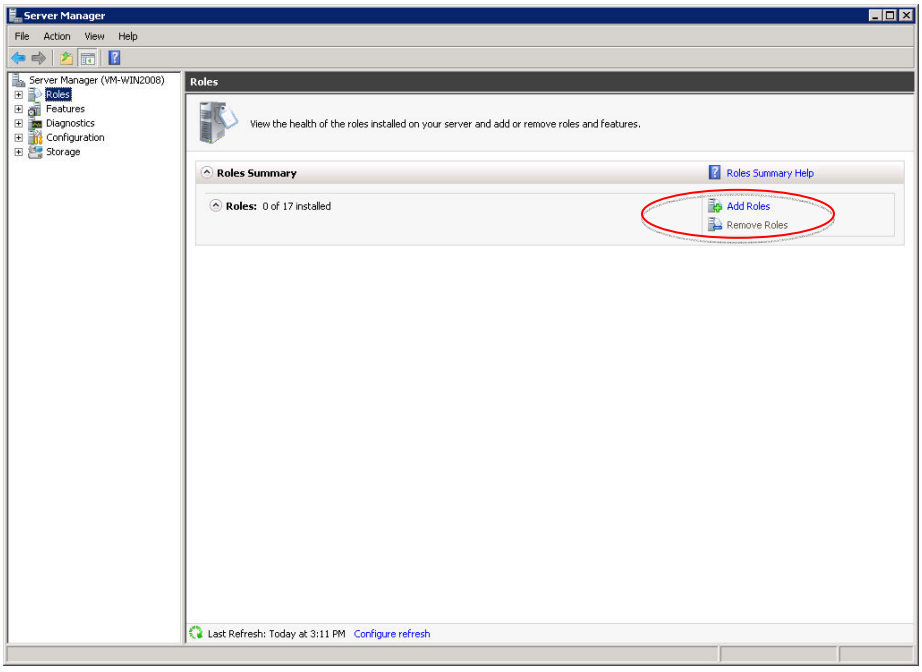
Enter a Computer description and click the “Change…” button to change the computer name.



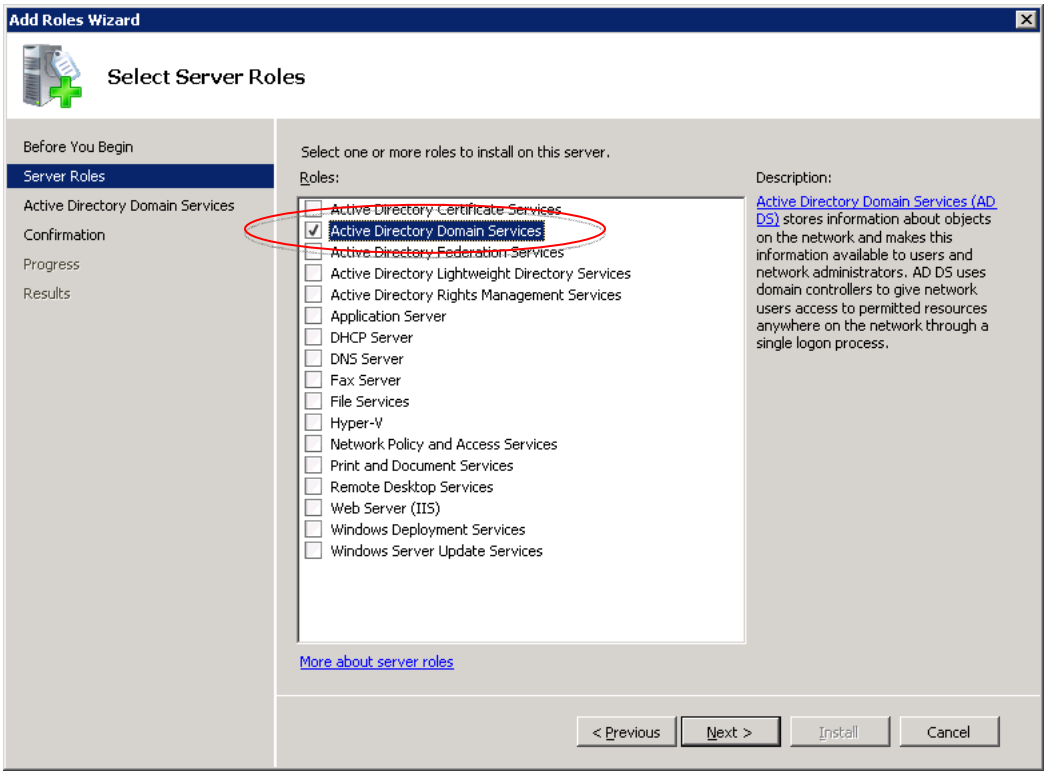
Enter the Computer name and click “OK” and reboot when prompted.

Step 2. Add Active Directory Domain Services

For this example we setup a new forest for the tlsw.net domain. Server 2008 abstracts most server function into “Roles” so we’ll be adding the Active Directory Domain Services Role with the Server Manager by clicking “Roles” and clicking “Add Roles.”



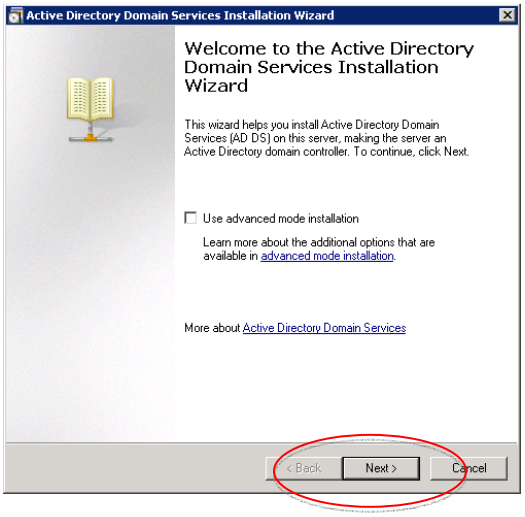
Select the Active Directory Domain Services Role:



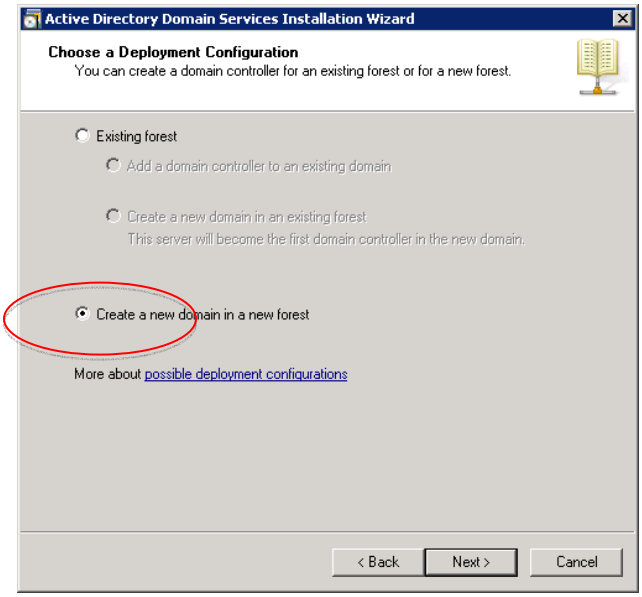
Click through the confirmation screens and click Install. You should see an installation progress screen and finally an "installation success" message that asks you to run the command "***dcpromo.exe***" which will configure your domain.

Click the link to run "dcpromo" or click the "Start" button, select "Run" and enter "**dcpromo.exe**". You should now see the "Active Directory Domain Service" install wizard.

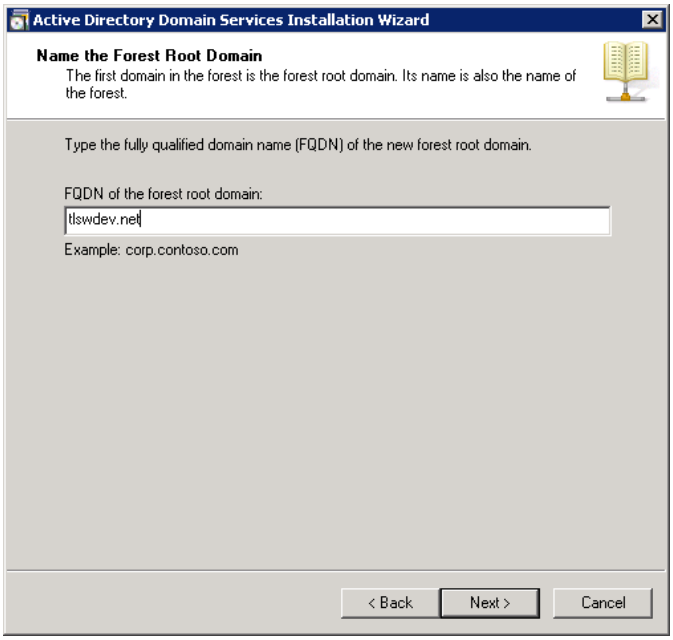
Click "Next" to continue.



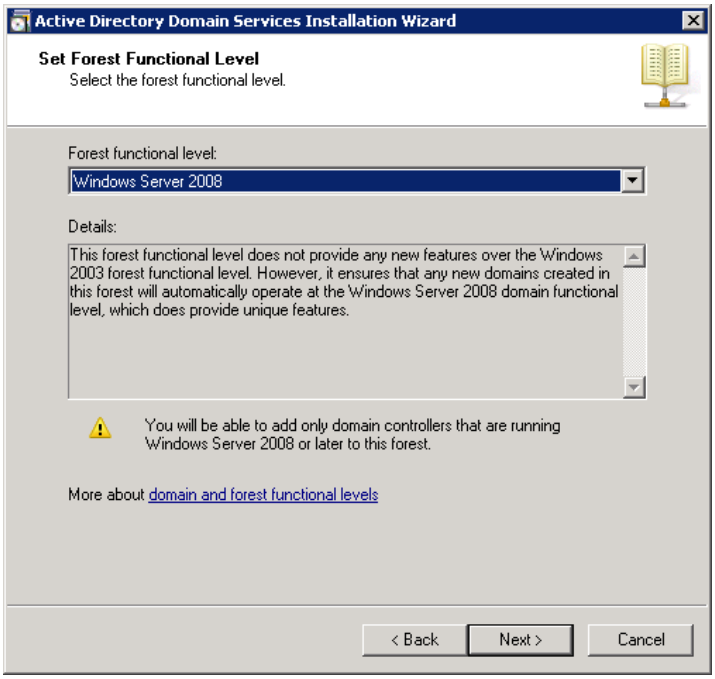
Choose “Create a new domain in a new forest” and click “Next”.



For our example domain we’ll use “tlswdev.net”. Click “Next” and it will check to see if the name is already used on the network.

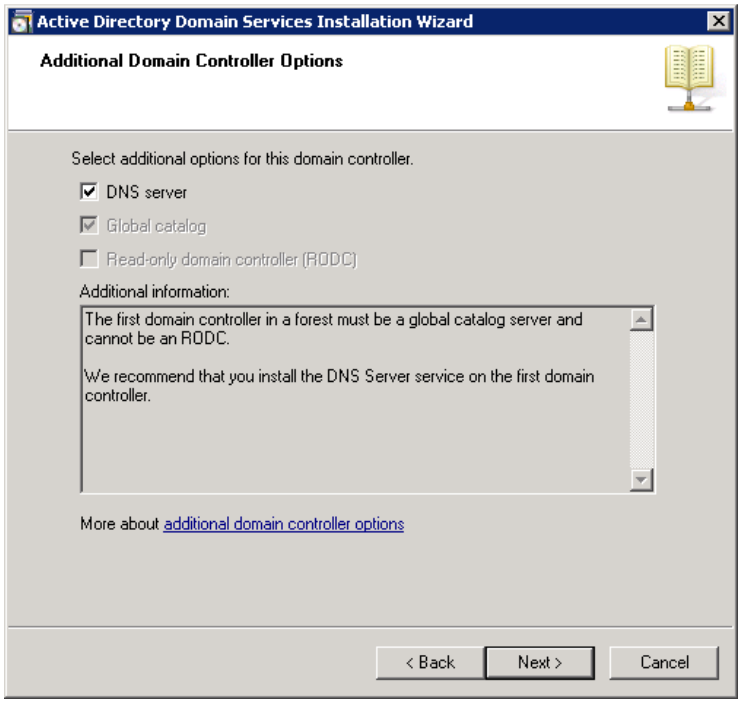


When asked to set which “Forest Functional Level” Use the 2008 level.

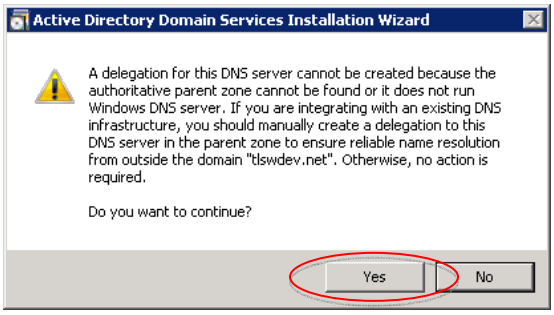


The next screen you’ll see is a warning that the DNS service isn’t installed and an offer to install it for you.

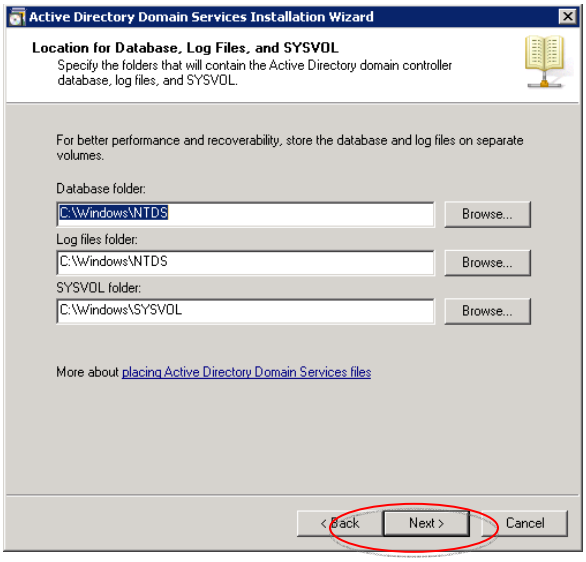
Click “Next” to accept and install.



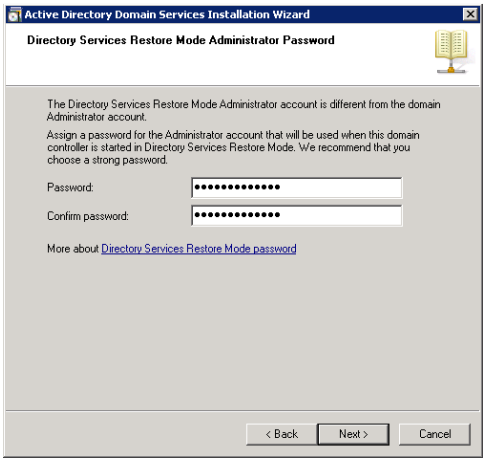
You'll receive the following warning. Click "Yes" to continue.



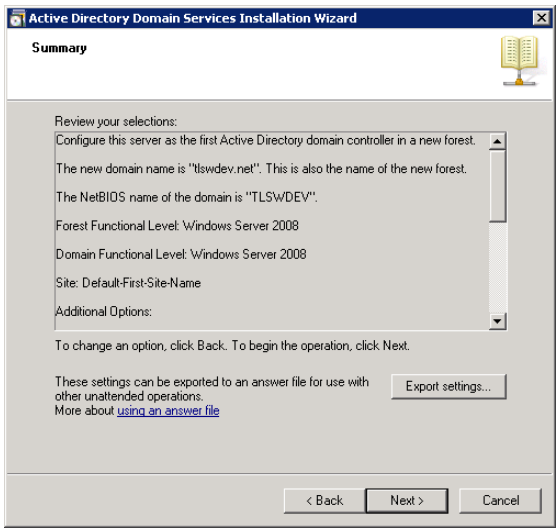
Accept the defaults and click "Next".



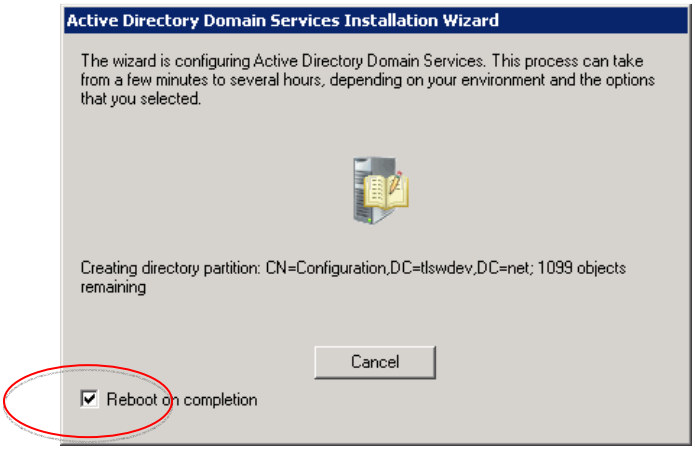
Now you'll be prompted to enter a "Directory Services Restore Mode Administrator Password". Enter a password and click "Next".



Click “Next” at the Summary screen.

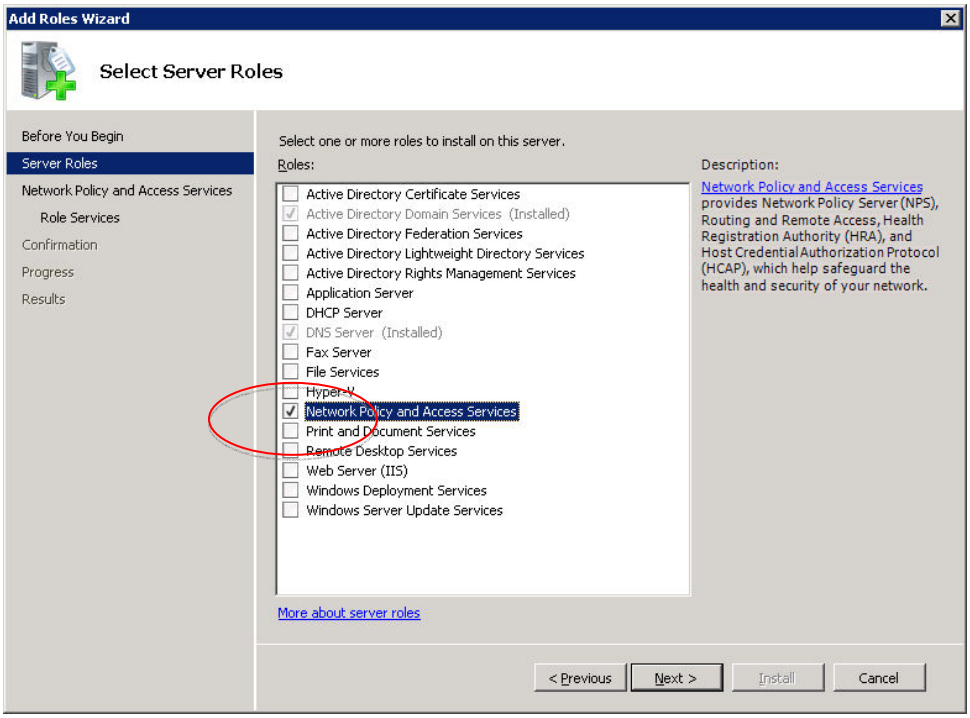


You’ll now see the Installation Wizard install DNS and Active Directory. Check the “Reboot on completion” box and once the wizard finishes it’ll reboot and be ready for the next step.



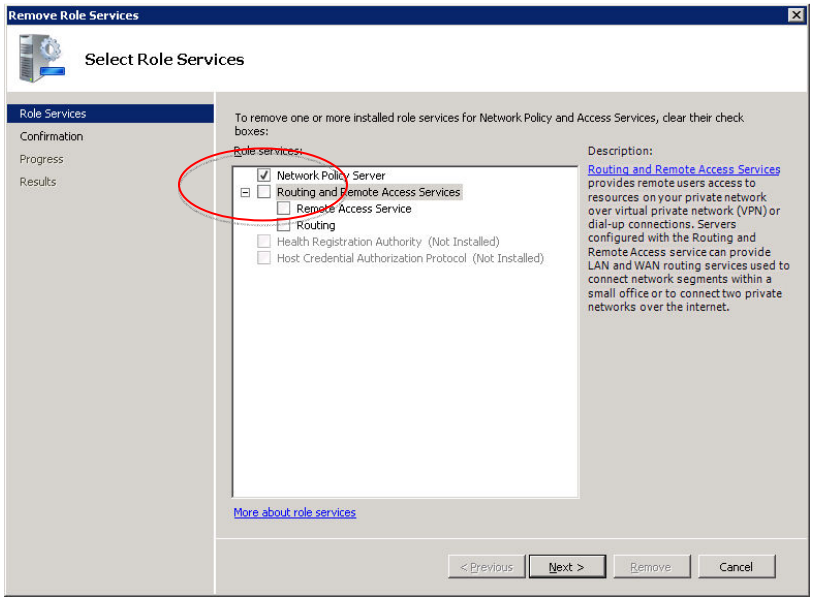
Step 3. Add Network Policy and Access Services

In Windows 2008 Server you can no longer just install the Internet Authentication Service (IAS) and have RADIUS functionality. You must now install Network Policy and Access Services, which now include everything from earlier versions of Windows server such as RRAS/IAS/etc… but now includes NAP (think NAC for Windows). We will be installing and configuring RADIUS functionality. So once again head to the Server Manager and “Add a Role” selecting “Network Policy and Access Services” and click through the confirmation screen.



Select “Network Policy Server”, “Routing and Remote Access Services”, “Remote Access Service” and “Routing”.

Click “Next”, click through the confirmation screen and click “Install”.

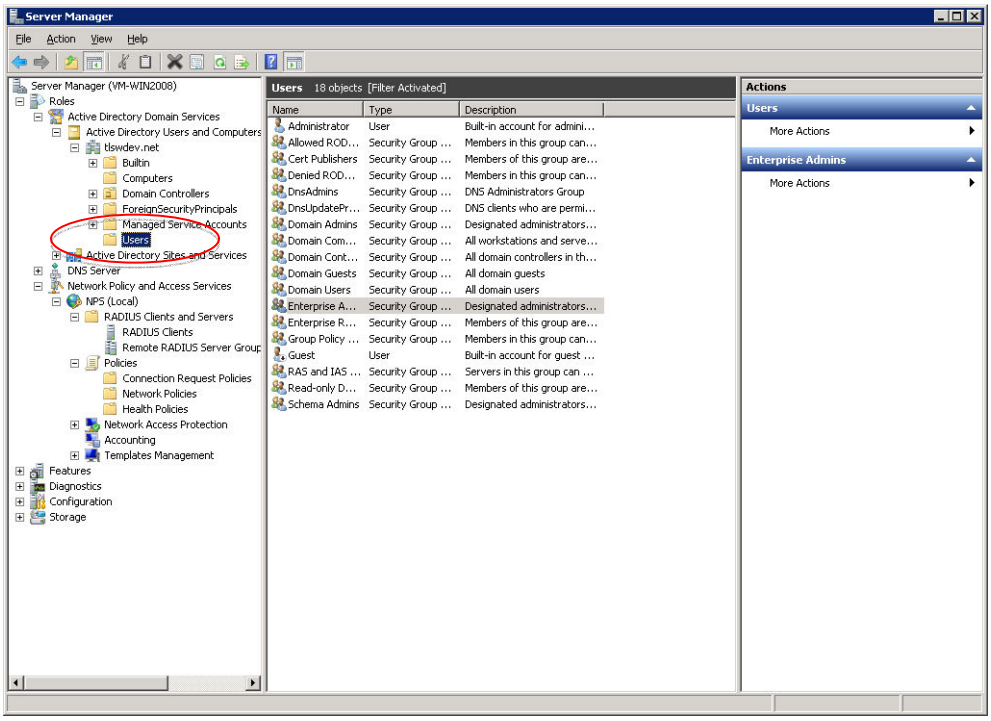


Installation will take a couple of minutes and present you with an install summary. Click “Close”.

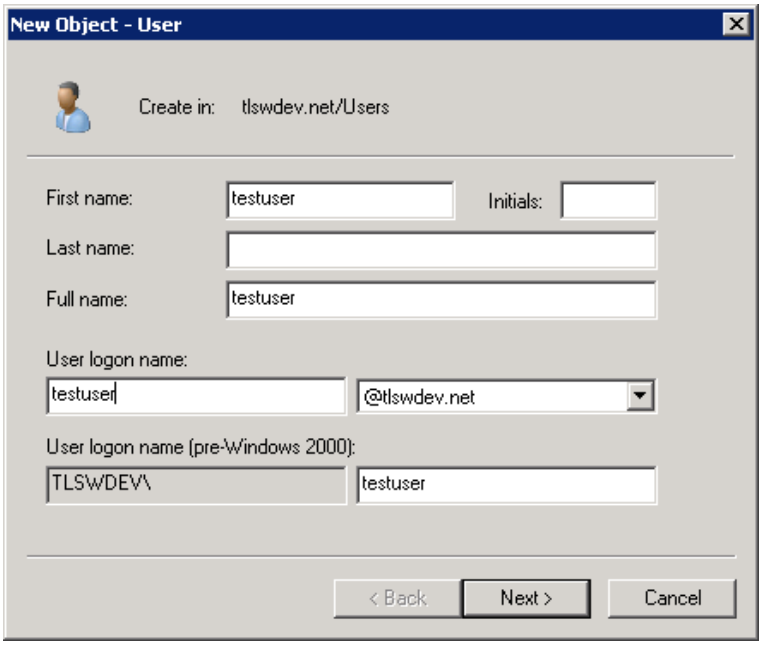
Step 4. Configure AAA RADIUS Authentication

Step 4.1 Add Active Directory User

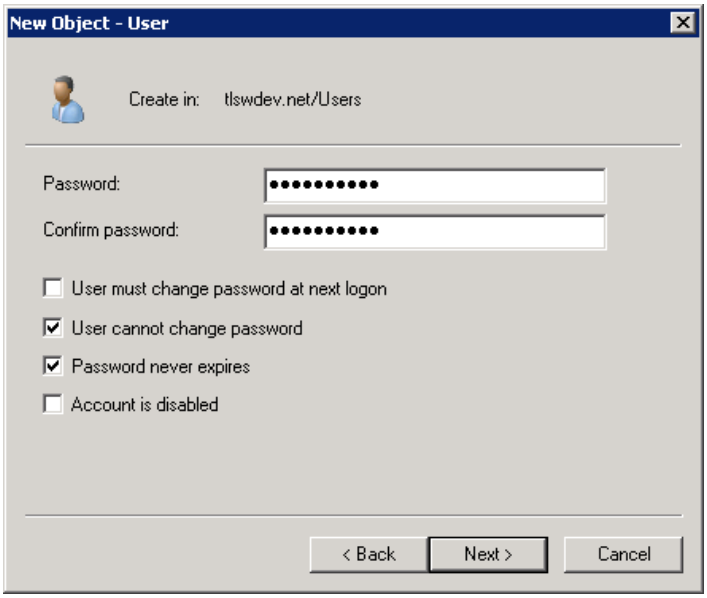
In Server Manager, go to Roles -> Active DIrecotry Domain Service -> Active Directory Users and Computers -> Domain Name (in example, it's tlswdev.net) -> Users.



Right click Users -> New -> User to add a new user logon name - testuser

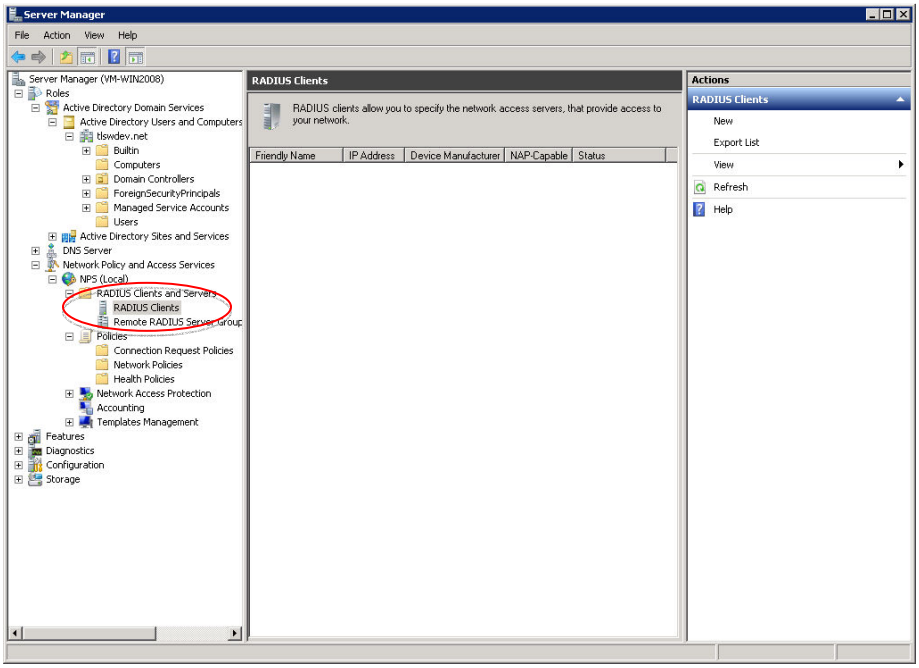


Click Next to create password then Next and Finish

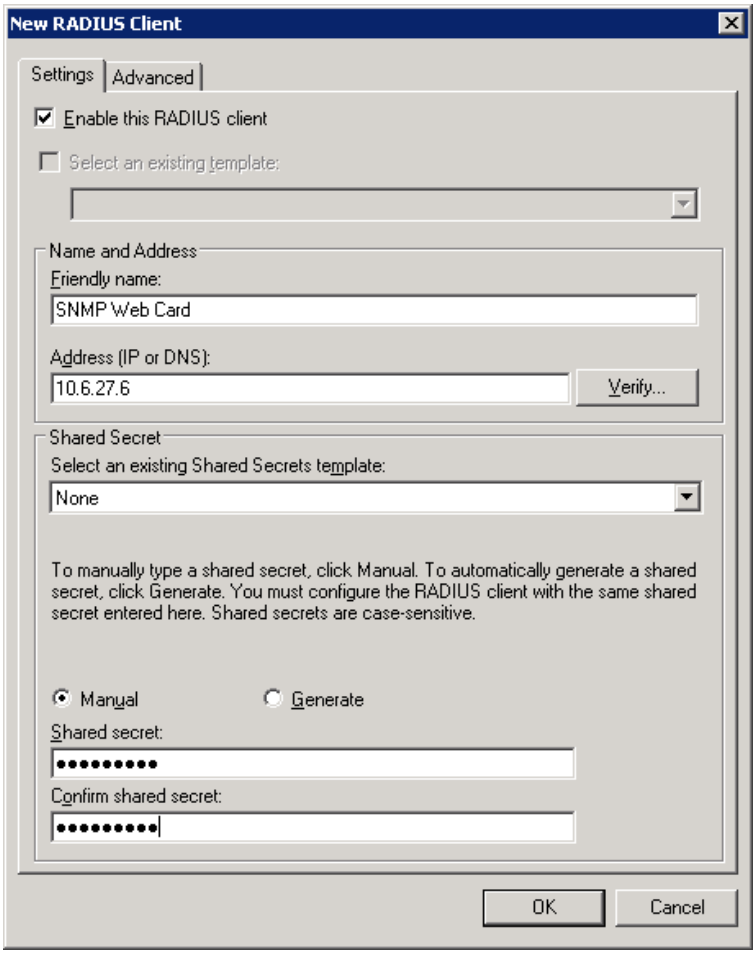


Step 4.2 Add RADIUS Client

Go to Server Manager -> Roles -> Network Policy and Access Services -> NPS -> RADIUS Clients and servers -> RADIUS Clients

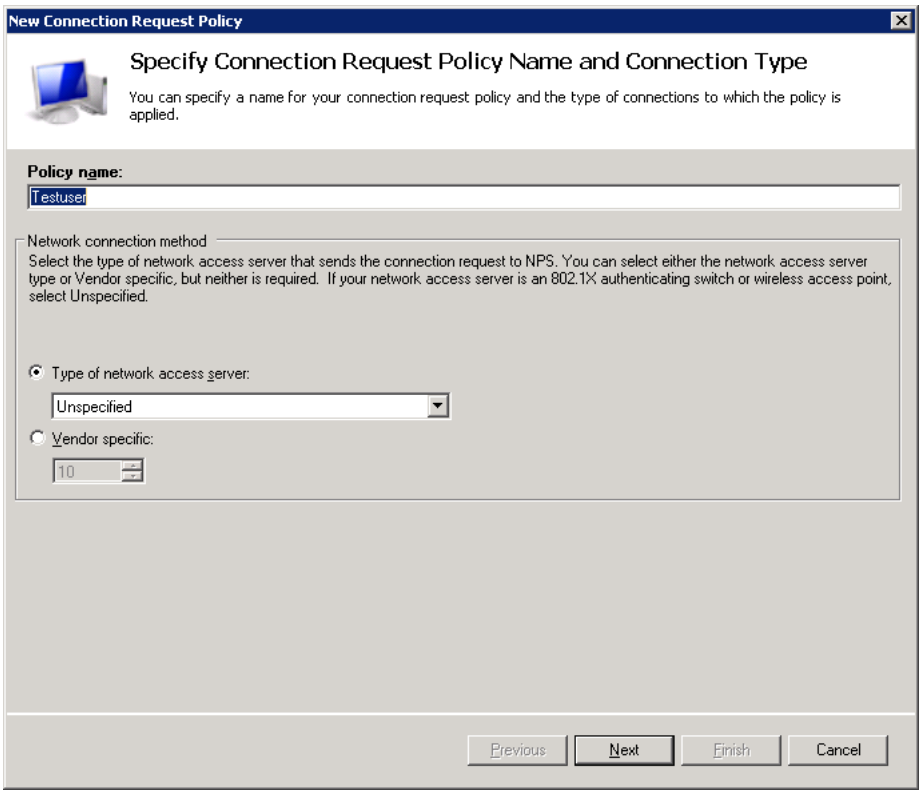


Right click RADIUS Clients -> New to add new RADIUS Client. Give it a name, IP address of the SNMP web card, and select "Manual" for the shared secret and type a password. Press OK when finished.

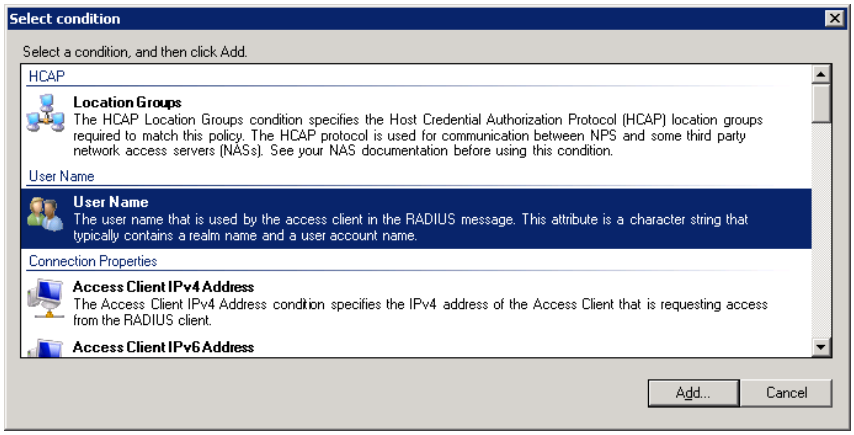


Step 4.3 Configure Connection Request Policy

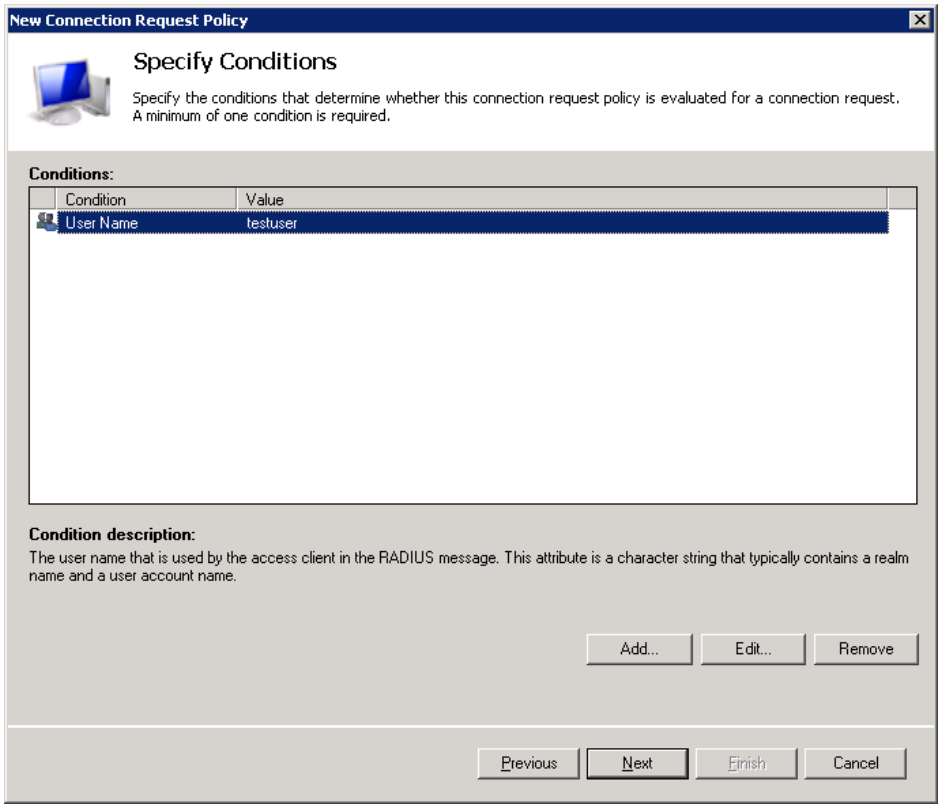
Go to Server Manager -> Roles -> Network Policy and Access Services -> NPS -> Policies, right click Connection Request Policies -> New.



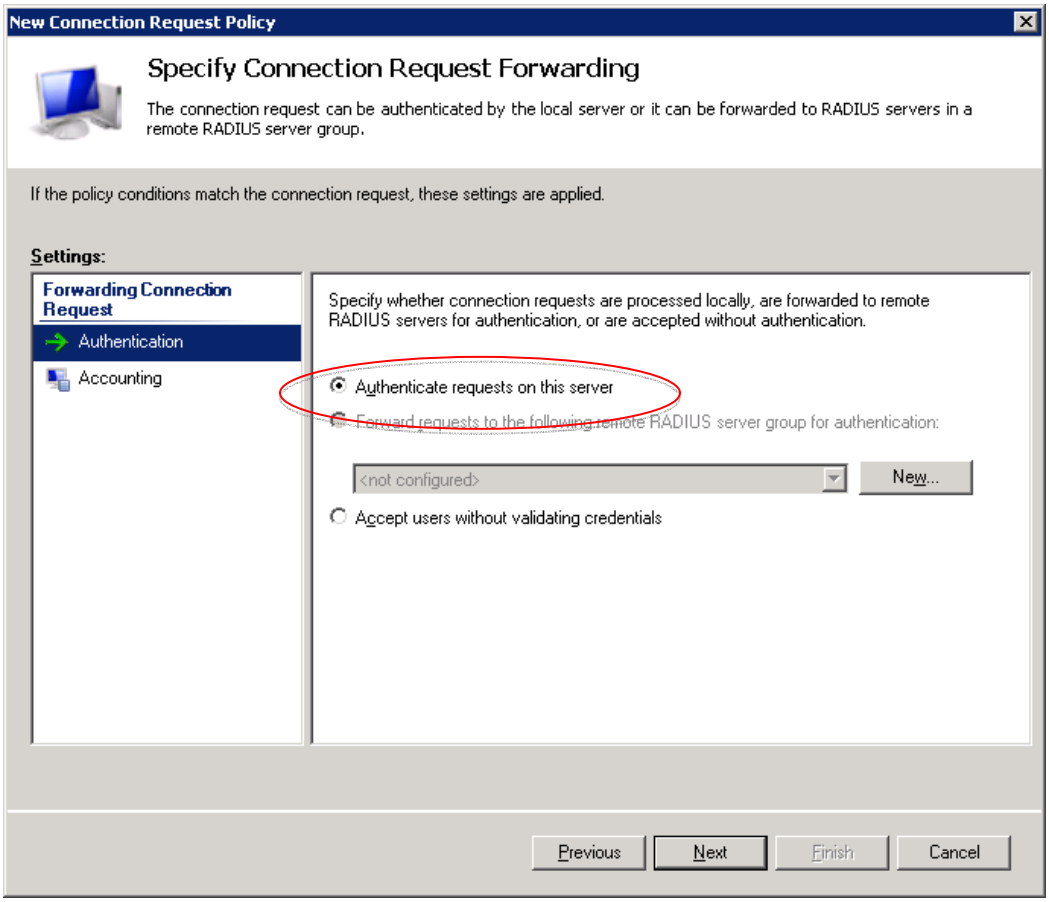
Click Next to add Conditions, Select User Name



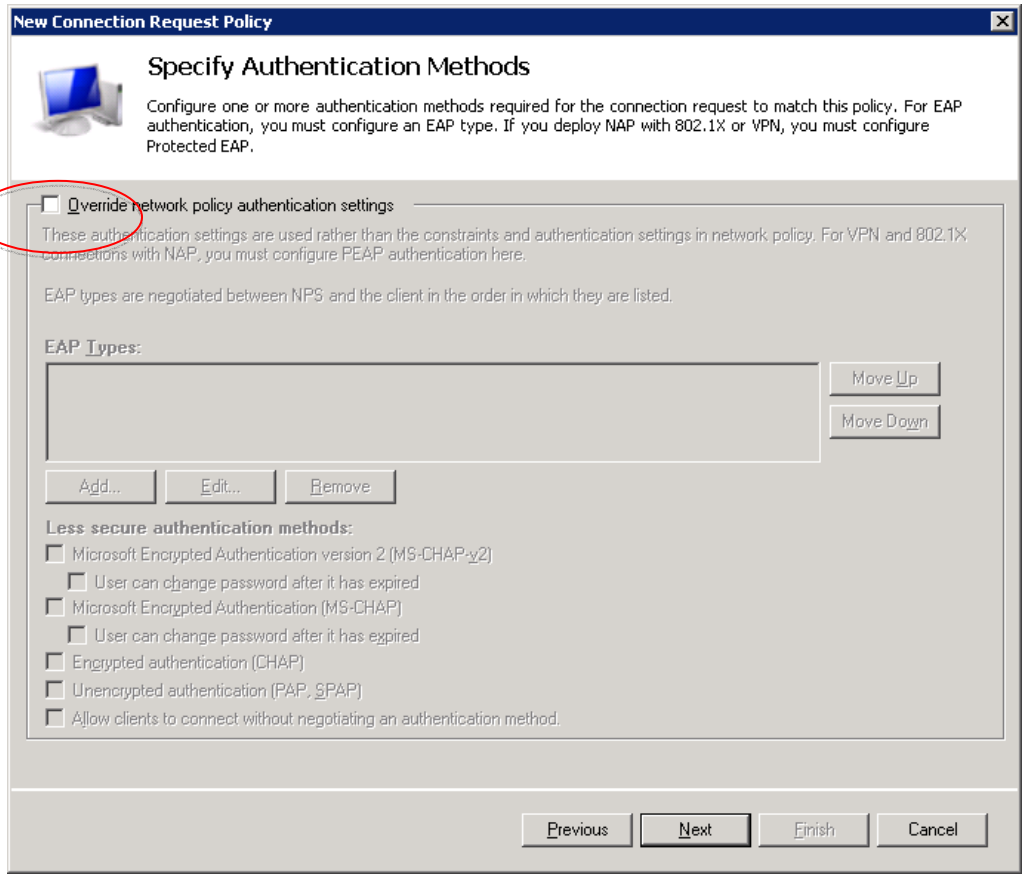
Click Add and specify the user name “testuser” then OK



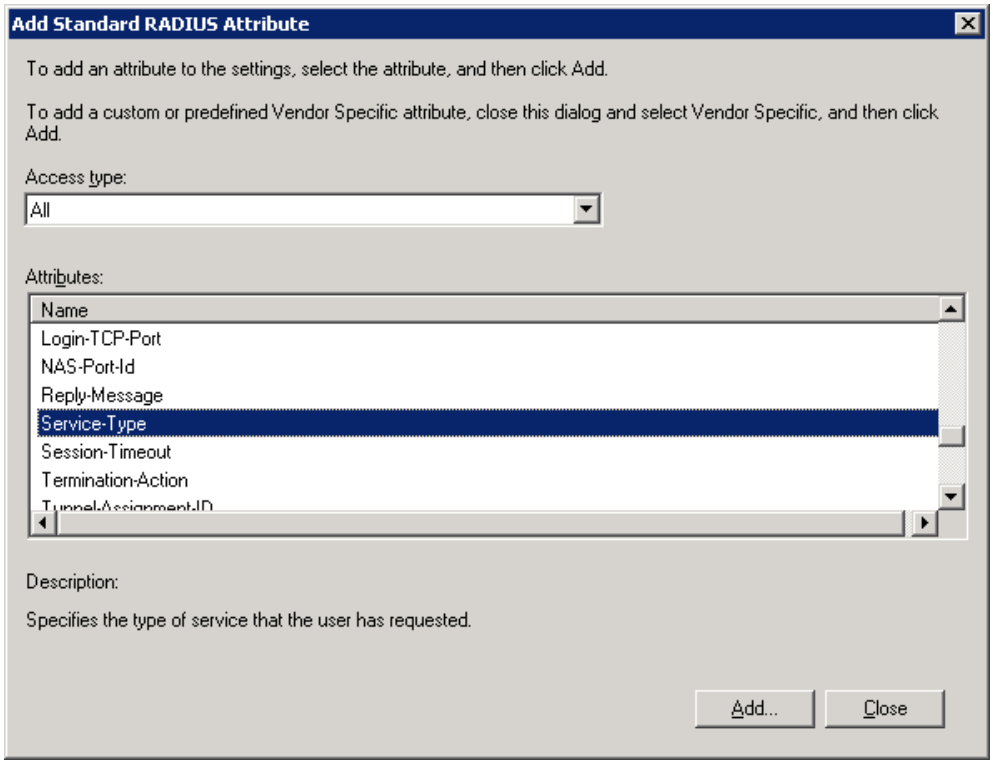
Click Next and keep Authenticate requests on this server



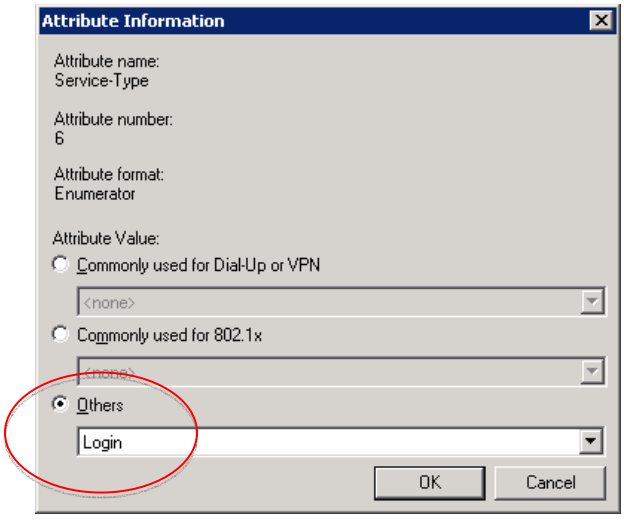
Click Next and make sure Override network policy authentication settings **unchecked**.



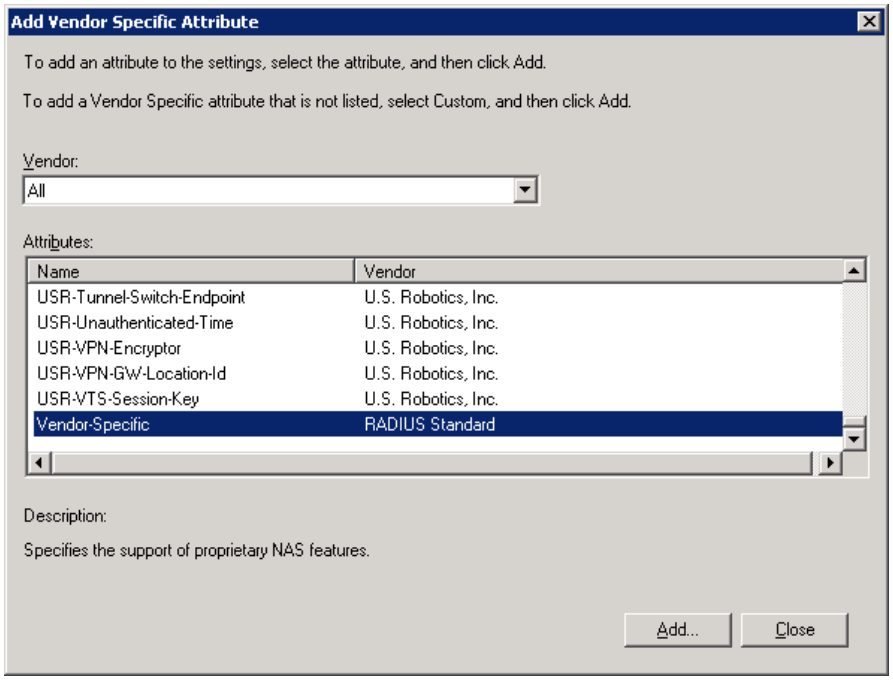
Click Next, in RADIUS Attributes, select Standard -> Add



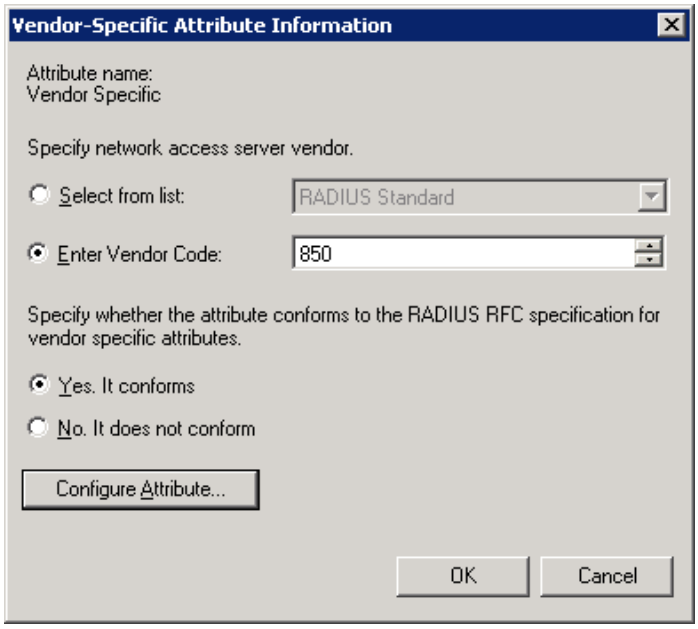
Add in the attribute “Service-Type” and select “Login” for “Others”



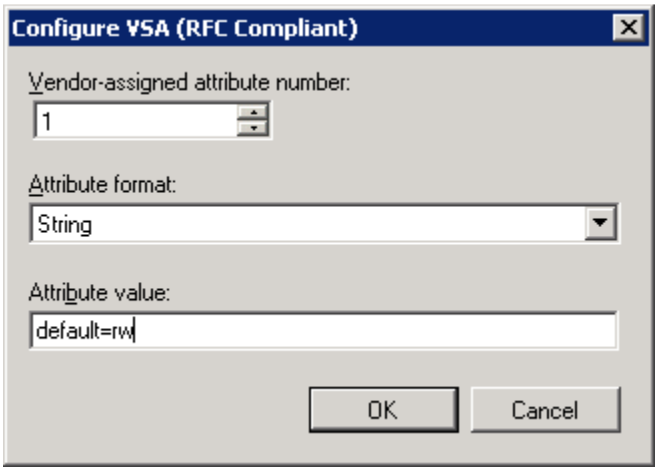
Select Vendor Specific -> Add, choose Vendor-Specific then Add



Add Tripp Lite vendor specific Radius attributes. Check “Enter Vendor Code”, input 850 for Tripp Lite vendor code.



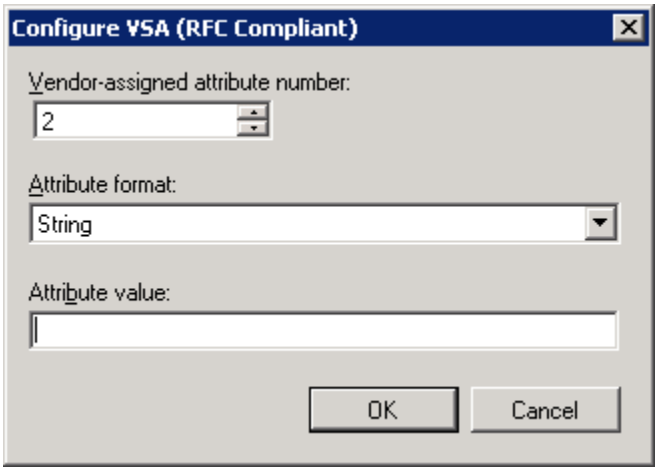
Check “Yes. It conforms” then “Configure Attribute…” to add Tripp Lite Authorization attribute (attribute number is 1),



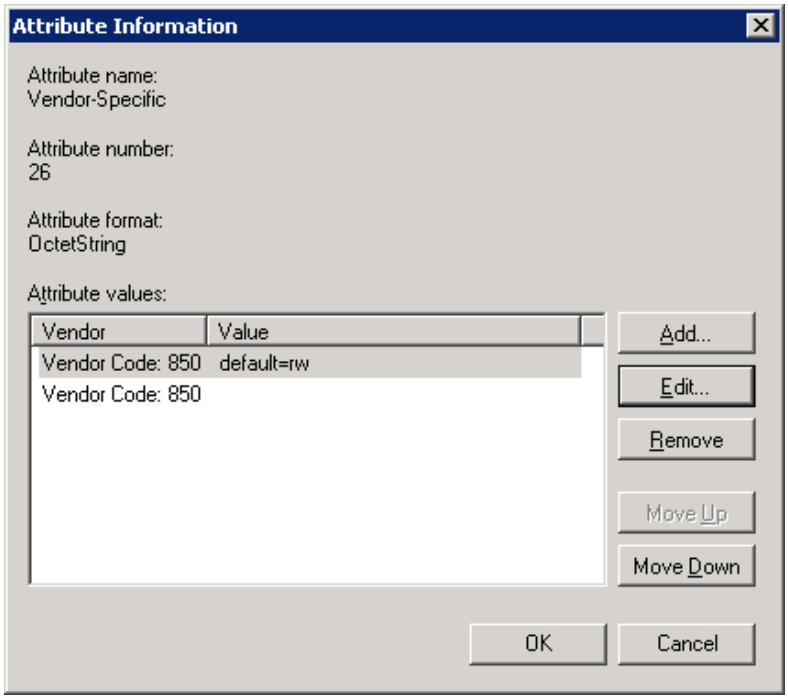
For “Attribute value”, please refer to the followings:

```
# ---------------------------------------------------------------------------
# Access is granted to the various facilities within the PowerAlert software
# by means of the TrippLite-Authorization attribute, which is a comma-
# delimited string of facility-code to access-level pairs.
#
# Facility Codes: default, security, networksettings, systemsettings, info,
#                 logging, devicestatus, devicecontrols, deviceevents,
#                 deviceloads, actions, discovery
#
# Access Levels: “none”  --> No Access (or 0),
#                “ro”    --> Read Only (or 1),
#                “rw”    --> Read-Write Access (or 2.)
#
# Example: default=rw,security=none,systemsettings=ro
#
#         - The default access for all non-specified facilitys is read/write
#         - The user has no access to the security facility
#         - The user has read-only access to the system settings
# ---------------------------------------------------------------------------
```

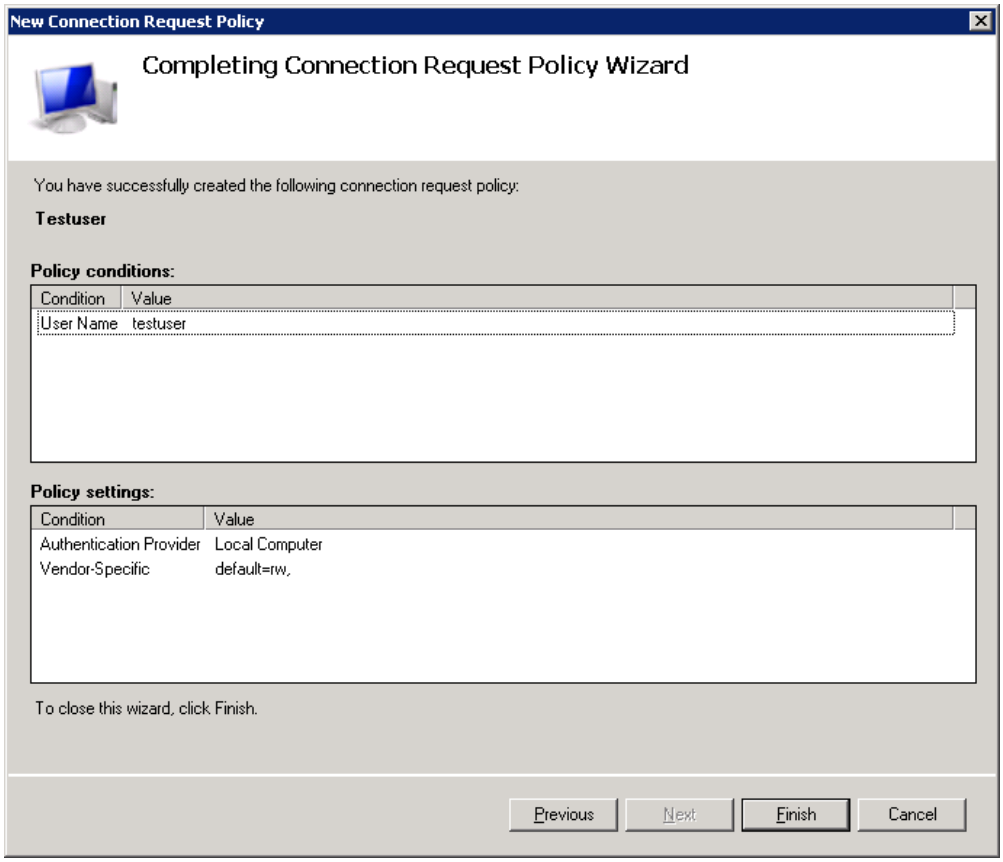
Click OK then “Configure Attribute” to add Tripp Lite outlet realms attribute (attribute number is 2)



Click OK then OK again

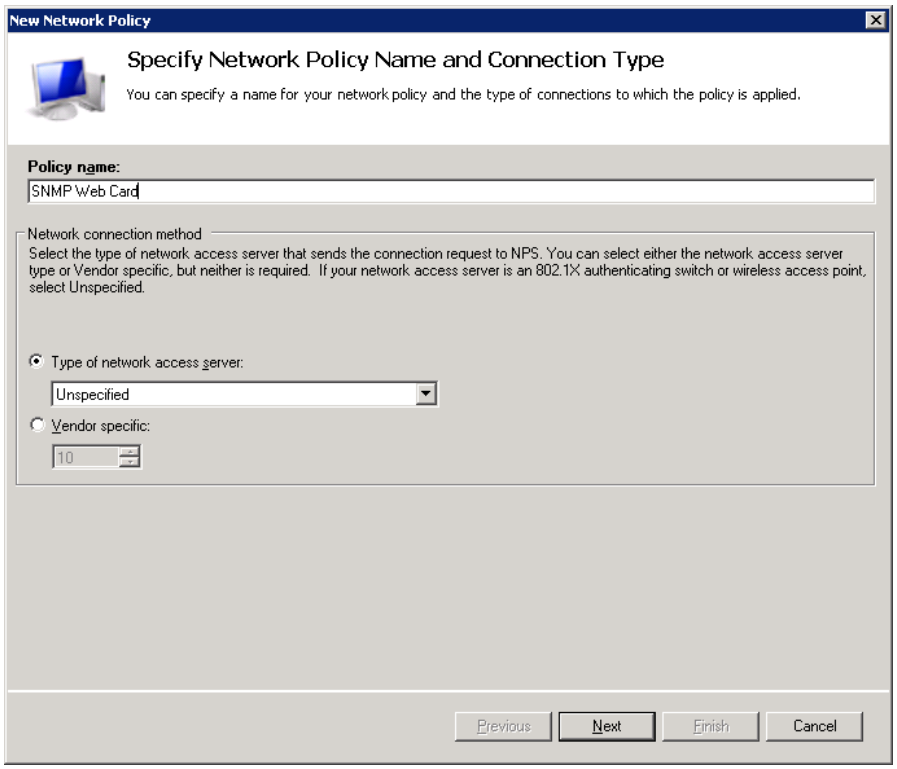


Click OK, Close, then Next to Finish

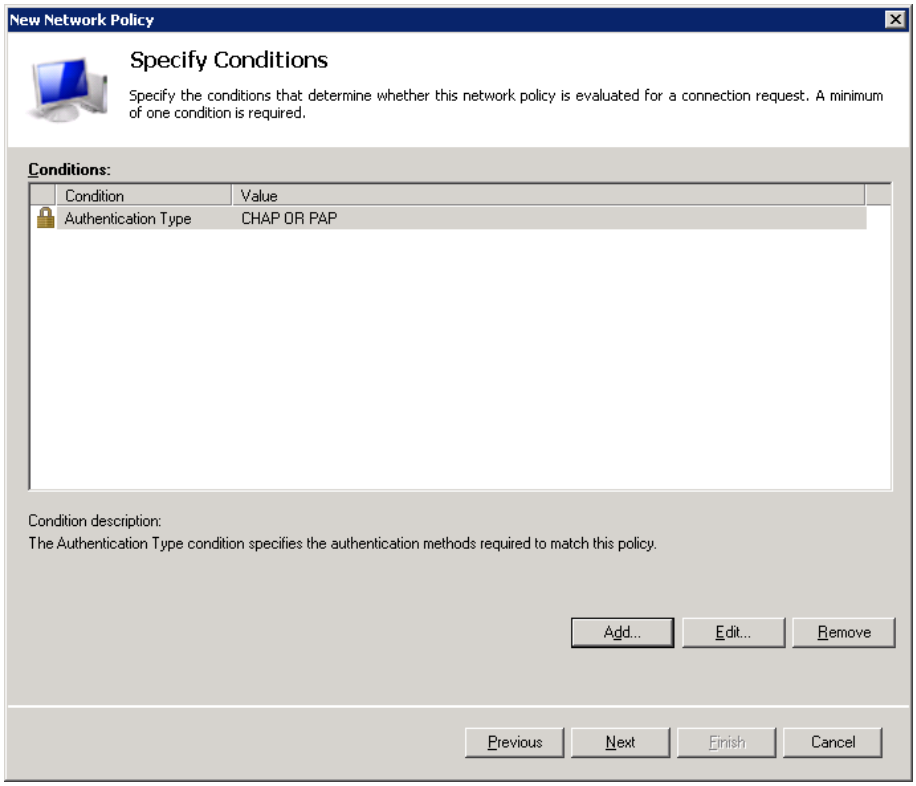


Step 4.4 Configure Network Policies

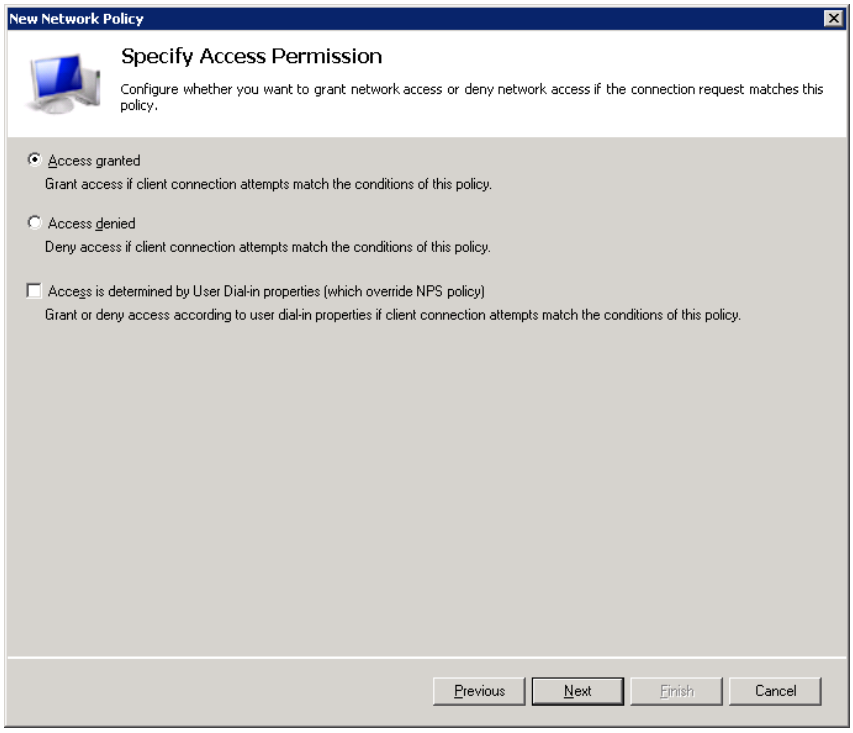
Go to Server Manager -> Roles -> Network Policy and Access Services -> NPS -> Policies, right click Network Policies -> New, then Next



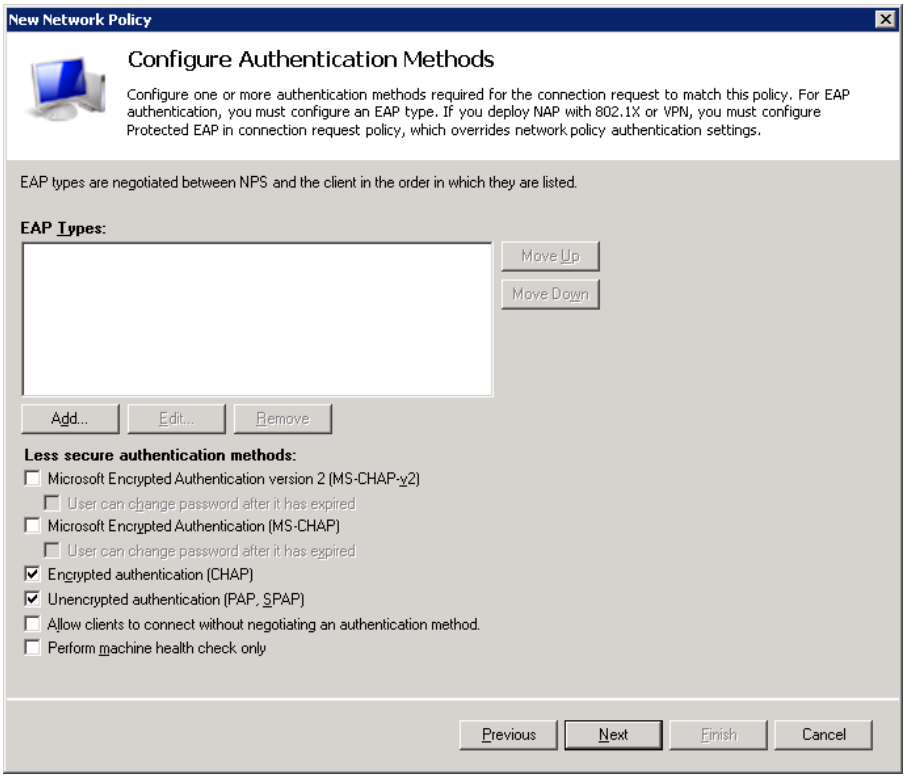
add condition -> Authentication Type, check CHAP and PAP, OK then Next



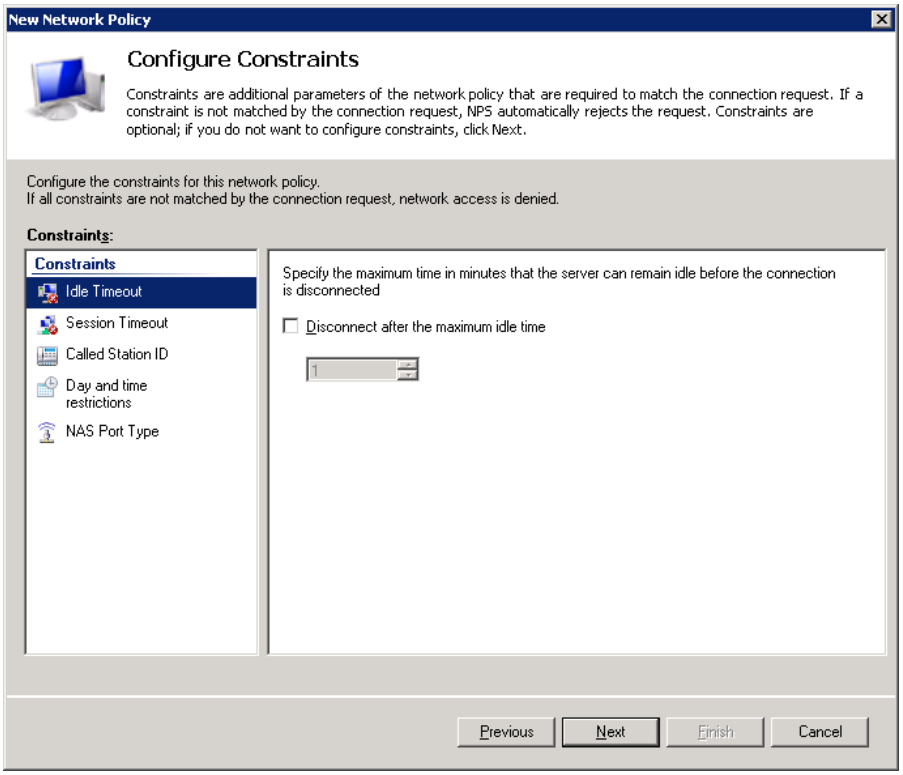
Specify Access Permission, check Access granted, then Next



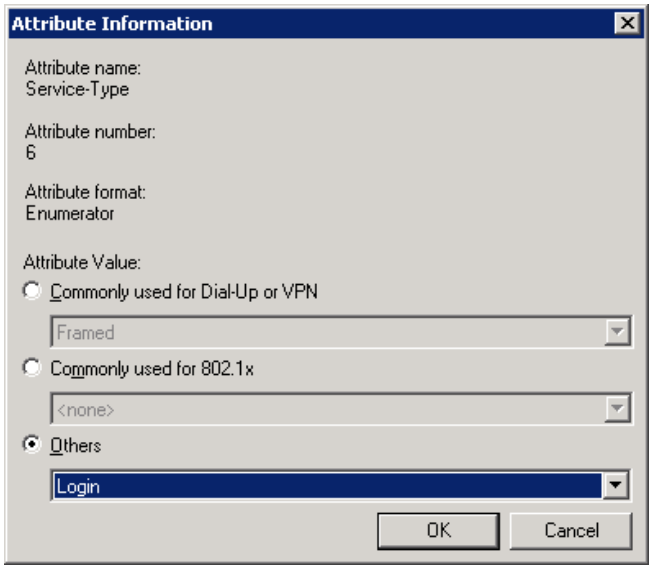
Configure Authentication Methods, check CHAP and PAP, then Next and No for “View the corresponding Help topic?”



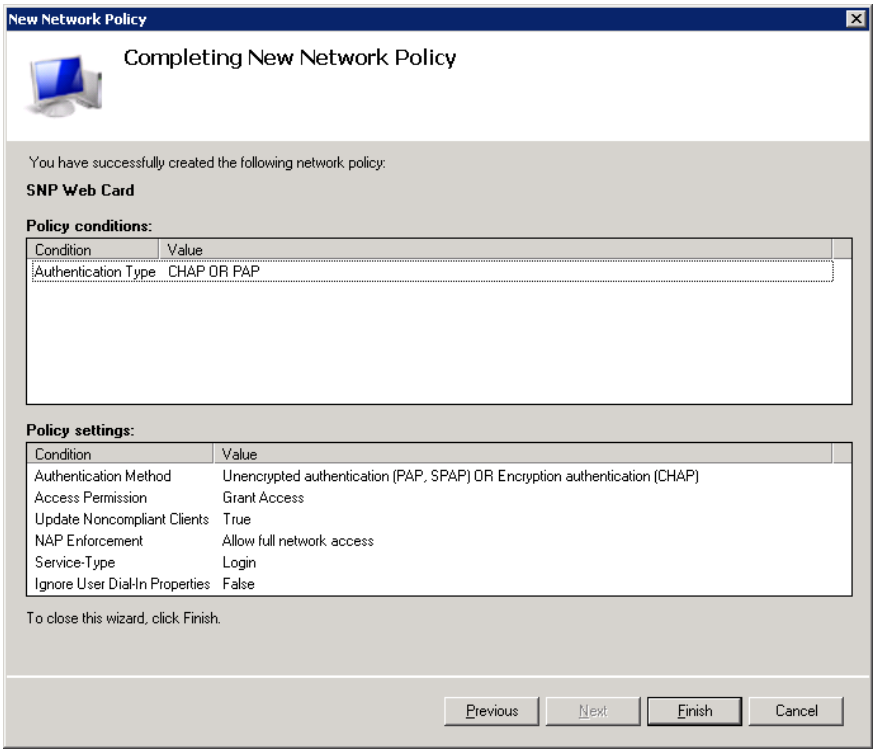
Configure Constraints. Leave unchanged.



Configure Settings, clear out anything in the Radius Attributes Standard except Service-type, edit Service-type and select Login for Others:



Ok then click Next to Finish



Status

Effective until further notice.