Allied Telesyn®

How To | Configure Windows XP PPPoE client to PPPoE Access Concentrator with RADIUS Authentication

Introduction

The AlliedWare software includes a PPPoE access concentrator (AC) implementation that can support 100s of simultaneous connections (the number of supported connections varies from product to product).

The purpose of this document is to provide a simple example of how to configure the AlliedWare PPPoE AC to interoperate with the Windows XP PPPoE client, and to use a Radius server for user authentication.

What information will you find in this document?

This document contains the following information:

- A description of the configuration script required on the Allied Telesyn router or switch.

- A step-by-step guide to setting up the PPPoE client under Windows XP.

- A list of the parameters that need to be configured on the user definition on the RADIUS server.

Which product and software version does this information apply to?
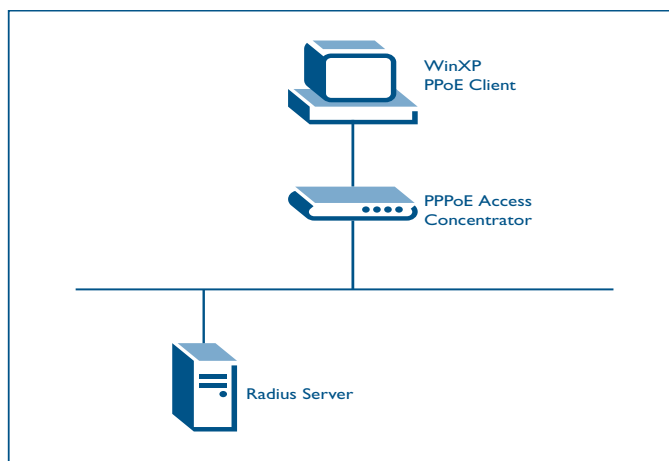
The information provided in this document applies to the following products:

Products:
- AR400 series

- AR700 series

- Rapier series

- AT-8948

- AT9900 series

Software version: 2.4.1+

PPPoE Access Concentrator configuration

Let us go through the steps required to configure the PPPoE Access concentrator service on the switch/router.

▶ **Give the unit a name:**

```
set system name="PPPoE_AC"
```

▶ **Create a PPP template:**

The purpose of the template is this: When the access concentrator receives a connection from the client, the access concentrator must create a DYNAMIC PPP interface, i.e. an interface that will only be in existence while the client connection is up. But, when the access concentrator creates the dynamic PPP interface, it must know what properties to have on this PPP interface - for example, will it have LQR on or LQR off; will it have BAP on or BAP off; will it use PAP authentication or CHAP authentication?

So, in order to give the answers to those questions, we create the PPP template, to tell the access concentrator that when it creates the dynamic PPP interface, that it must give it the properties that are set on this template.

```
create ppp template=1
set ppp template=1 bap=off authentication=chap
```

▶ **Create a VLAN to attach the AC service to:**

On a switch, you may wish to create a VLAN to attach the AC service to.

```
create vlan="vlan2" vid=2
add vlan="2" port=20-24
```

▶ Create an AC service:

Create the AC service, and specify template 1 as the template it will use when creating dynamic PPP interfaces. Also set the maximum number of simultaneous PPP links that the Access Concentrator can support (in this case, 300). Also, if the PPPoE connections are being made via a switch port, then you MUST specify which VLAN to attach the AC service to.

```
add ppp acservice=Lanservice template=1 maxsessions=300 vlan=2
ena ppp accessconcentrator
```

▶ Attach an IP interface to the unit:

```
enable ip
add ip int=vlan1 ip=165.1.1.50 mask=255.255.255.0
add ip rou=0.0.0.0 mask=0.0.0.0 int=vlan1 next=165.1.1.254
```

▶ Specify the Radius server it will use for authentication requests:

Specify the Radius server it will use for authentication requests.

```
add RADIUS server=165.1.1.1 secret="secret" port=1812
```
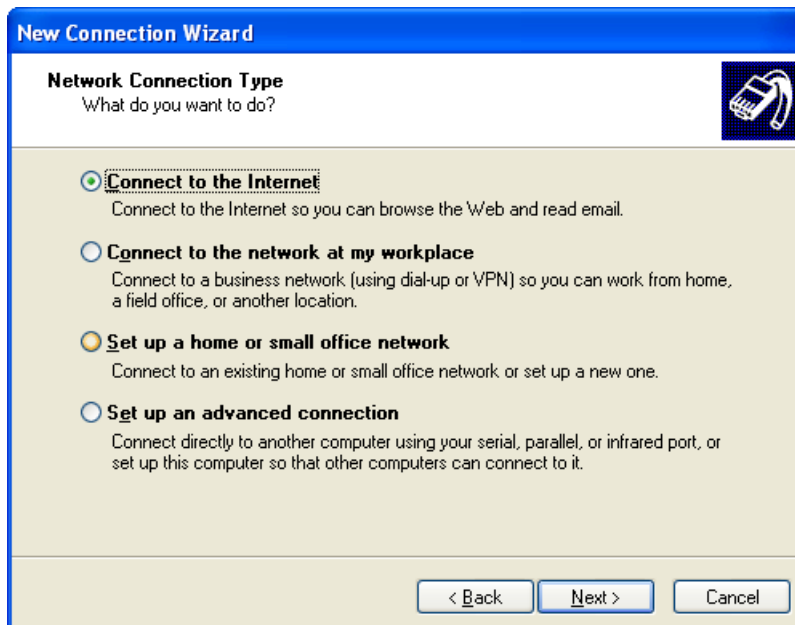
Windows XP PPPoE Client configuration

The following screen captures are an example of how to configure the native Windows XP PPPoE client.
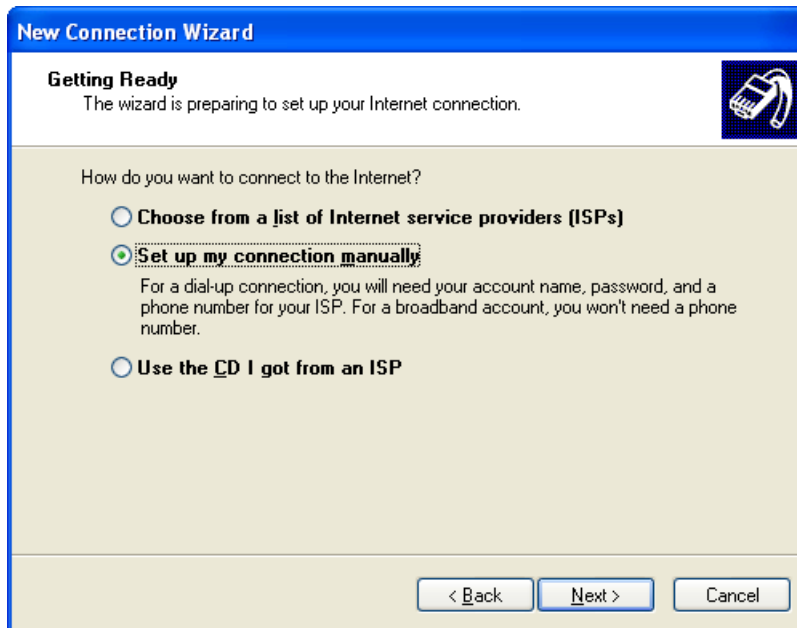
1. Click on **Start**, select **Control Panel**, select **Network Connections**, the **New Connection Wizard** will open.
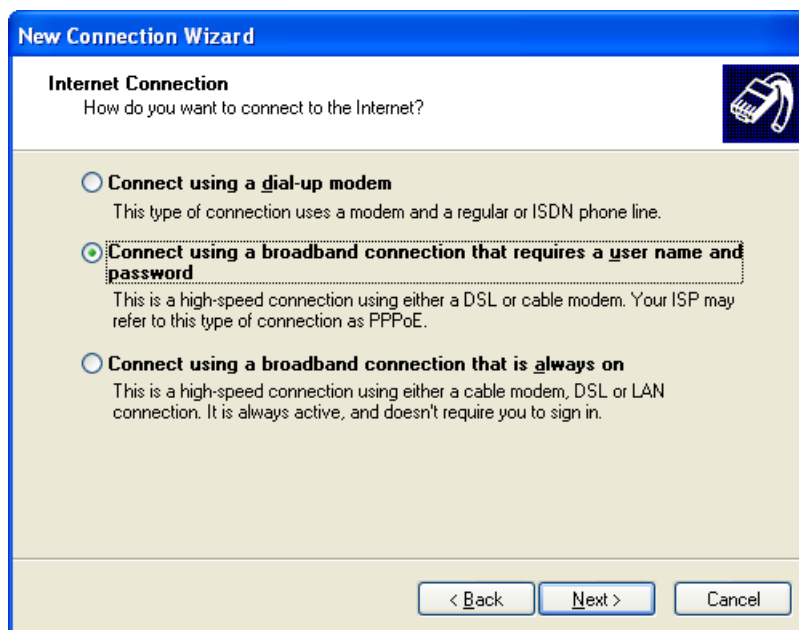

2. Click **Next**.

3. Select **Connect to the Internet** and click **Next**.

4. Select **Set up my connection manually** and click **Next**.

5. Select **Connect using a broadband connection that requires a user name and password**, then click **Next**.

6. Enter a name for the connection you are creating and click **Next**.

7. Enter the user name and password for the Radius server to authenticate. If you do not wish for other users to use this connection, then un-check the tick boxes at the bottom of the window. Click **Next**.

8. To complete the new connection, click on **Finish**. You can check the **Add a shortcut to this connection to my desktop,** if it is desired.

9. You should then be presented with the **Connect** window. Click **Connect** to make a connection, or on **Properties** to view your settings.

Radius Configuration

Below you will find an example entry from the users file for FreeRadius.

Note, if you wish to have the PPPoE access concentrator deliver an IP address to the PPPoE client, then it is important to have the Framed-IP-Address and Framed-IP-Netmask parameters configured on the user.

```
test    Auth-Type := Local, User-Password == "tester"
        Service-Type = Framed-User,
        Framed-Protocol = PPP,
        Framed-IP-Address = 172.16.3.33,
        Framed-IP-Netmask = 255.255.255.0,
        Framed-MTU = 1500
```

Connecting The (IP) World

Allied Telesyn ®