

Setting up the DHP-300 with your Existing Network

Using the DHP-300 is a simple and easy approach to adding devices to your existing Network where difficulties exist with Wireless Installations and the like. The DHP-300 is simplistic in its installation where as in a few minutes of your time the installation can be completed while taking the advantage of using the electrical wiring that run through your house and plugging the DHP-300 into an available Power Socket. How you ask can this be done? Well the frequency at which the data travels at is different from your existing electrical transfers.

Setup Guide:

This setup guide will demonstrate the installation while using two DHP-300's, as two is the minimum requirement for creating a Network. Below we will cover the installation needed for a computer upstairs to connect a Router/Switch downstairs to allow for the computer upstairs to attain access to the Internet using Powerline HD Technology.

NOTE: For the installation to be successful you will need to ensure that your electrical wiring is on the same electrical circuit; else a Network using two DHP-300's will not be possible. If you are unsure on this topic D-Link would recommend contacting a certified Electrician to help assist this situation.

1. Plug an Ethernet Cable into the Ethernet Port on the first DHP-300's, then plug it into a Power Socket. Connect the remaining end into a spare Ethernet Port on your Router/Switch.
2. On the computer upstairs ensure that your Network adapter is configured for DHCP:

Windows XP Users:

Click on Start > Control Panel > Network Connections > Right click on your "Local Area Connection" icon, select Properties. "Highlight Internet Protocol (TCP/IP)", click on Properties button. Ensure the "Obtain an IP address automatically" and "Obtain DNS server address automatically" is selected.

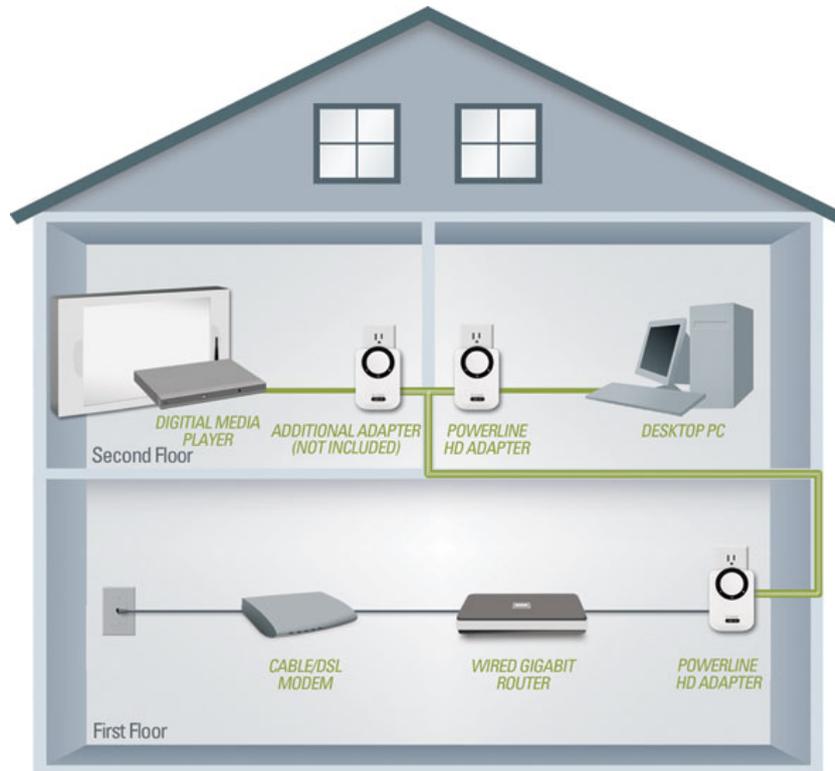
Windows Vista Users:

Click on Start > Control Panel > Network and Internet > Network and Sharing Center > Click on "Manage network connections", Right click on your "Local Area Connection" icon, select Properties. Highlight "Internet Protocol Version 4 (TCP/IPv4)", click the Properties button. Ensure the "Obtain an IP address automatically" and "Obtain DNS server address automatically" is selected.

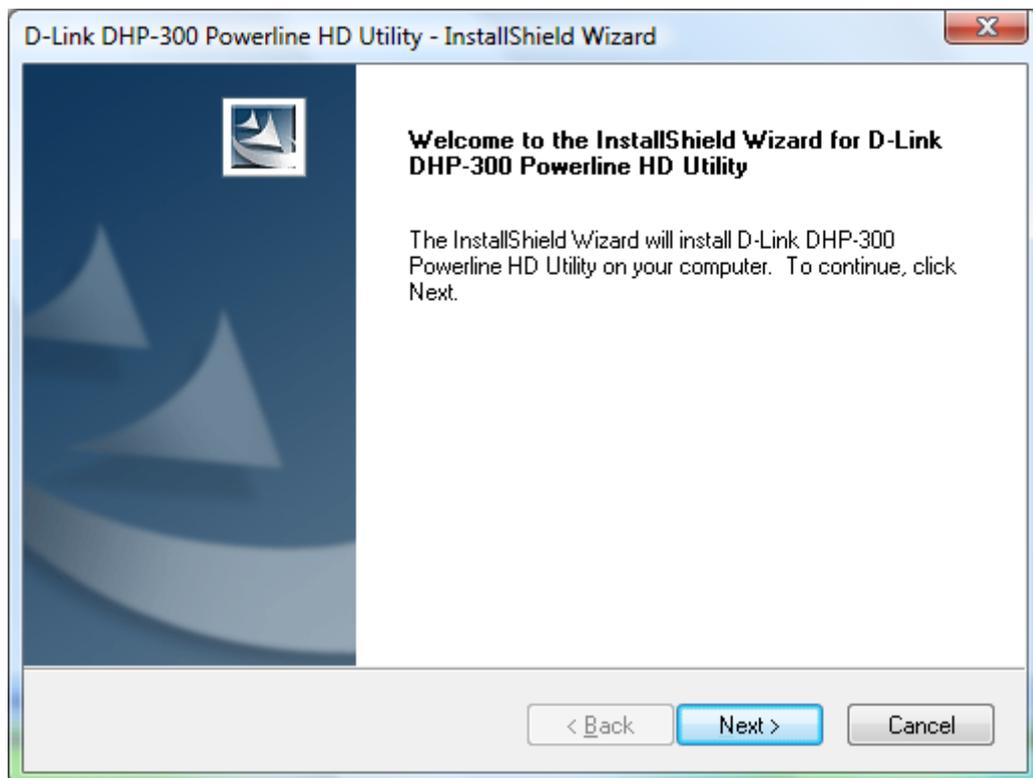
3. Connect the second DHP-300 to your computer upstairs, plug another Ethernet Cable to the DHP-300 Ethernet Port and connect the remaining end to your Network Adapter, now plug it into a Power Socket.

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Your Network should look similar to the below diagram:



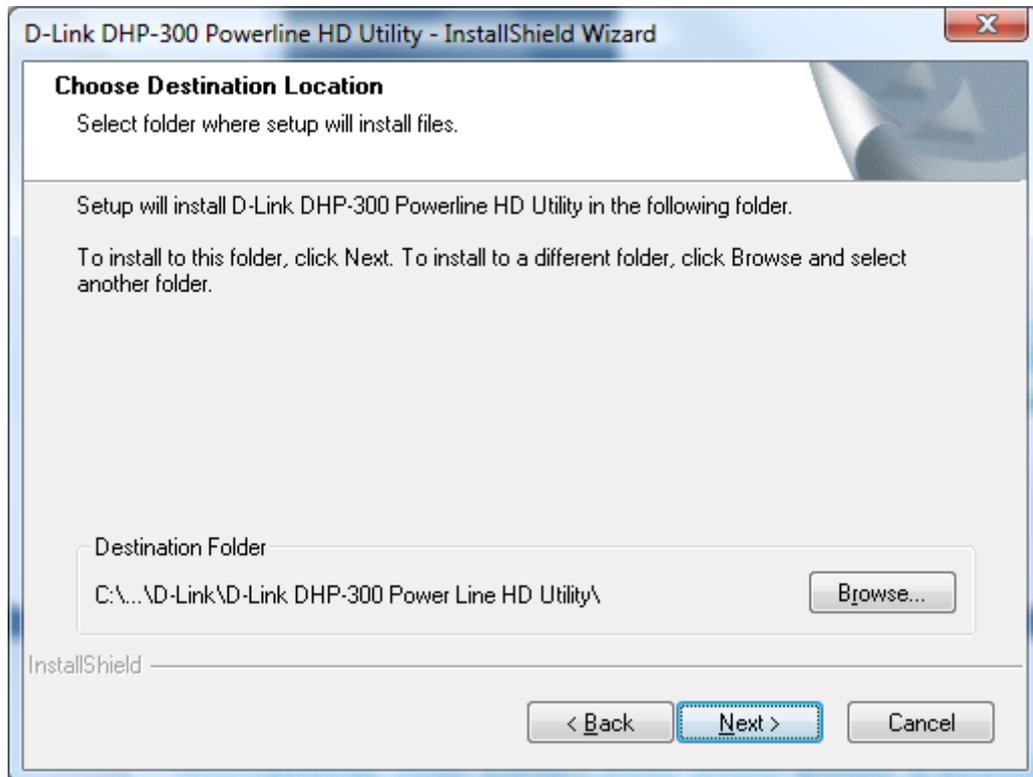
4. Insert the accompanied Installation CD-ROM into your CD/DVD-ROM Drive and allow it to Autorun and/or explore the CD/DVD-ROM Drive and click on the "setup.exe" file.
5. When the Setup initialises you will shortly be prompted with the below screen:



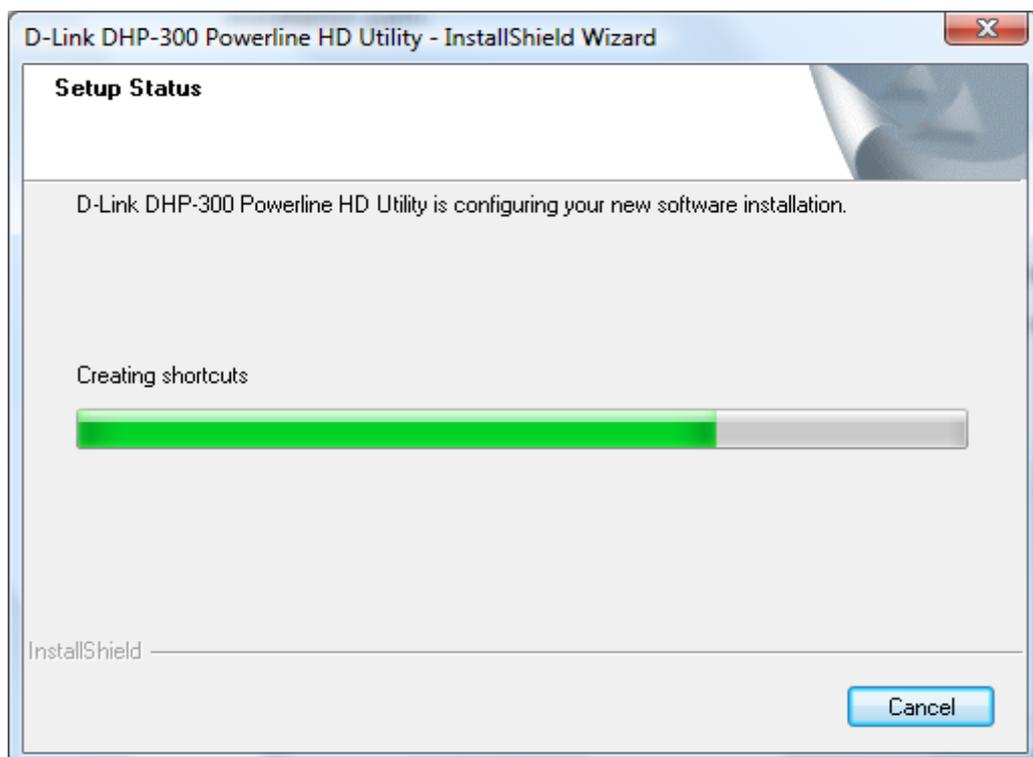
6. Click on the Next button to commence the installer.

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7. Allow for the default installation path or custom it to your liking; during this guide the default installation path was used:

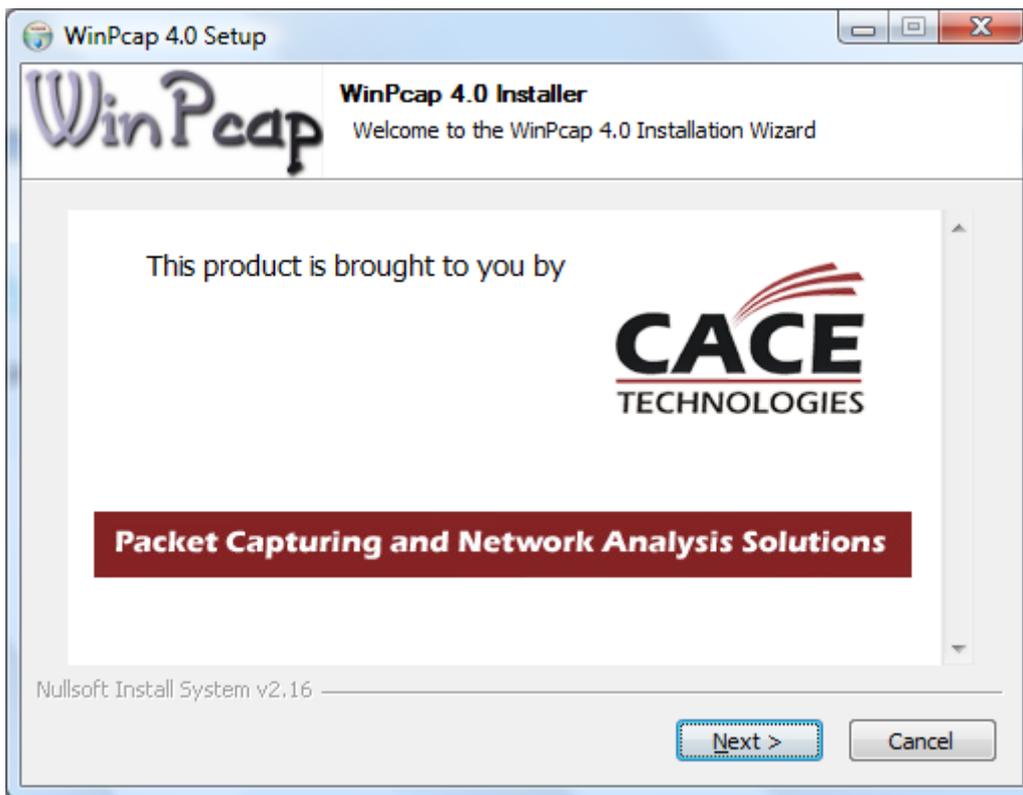


8. Click on the Next button.
9. The required files will now be installed:



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10. You will then be prompted to install “WinPcap 4.0”, this will be used to discover the DHP-300’s on your network:

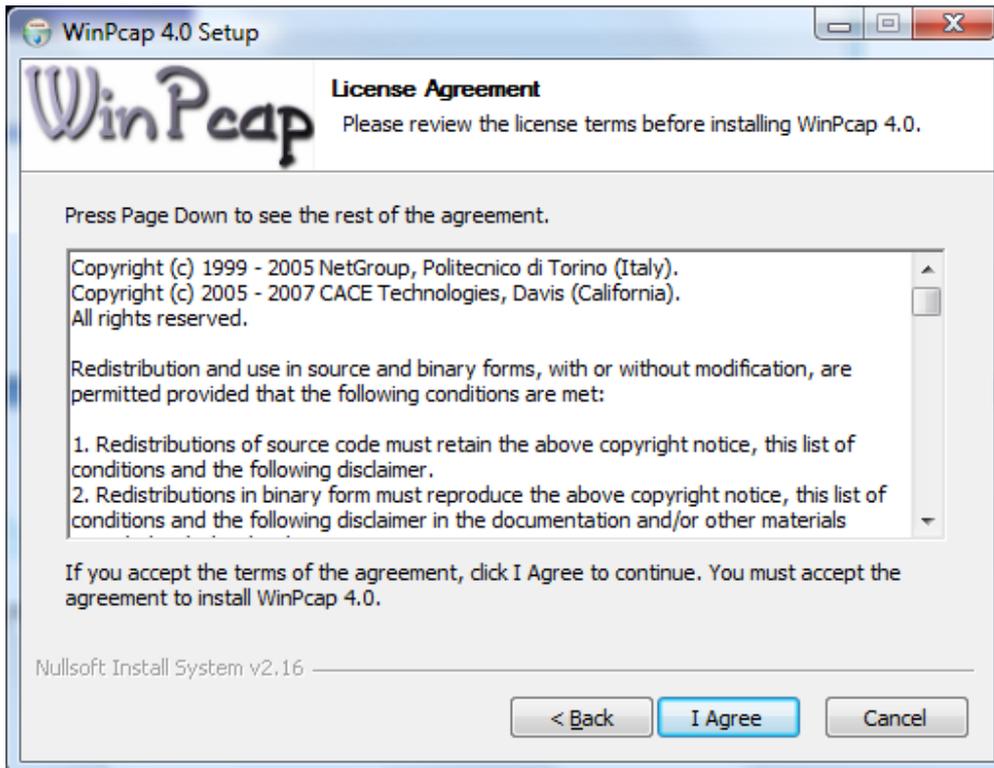


11. Click on the Next button to commence setup.

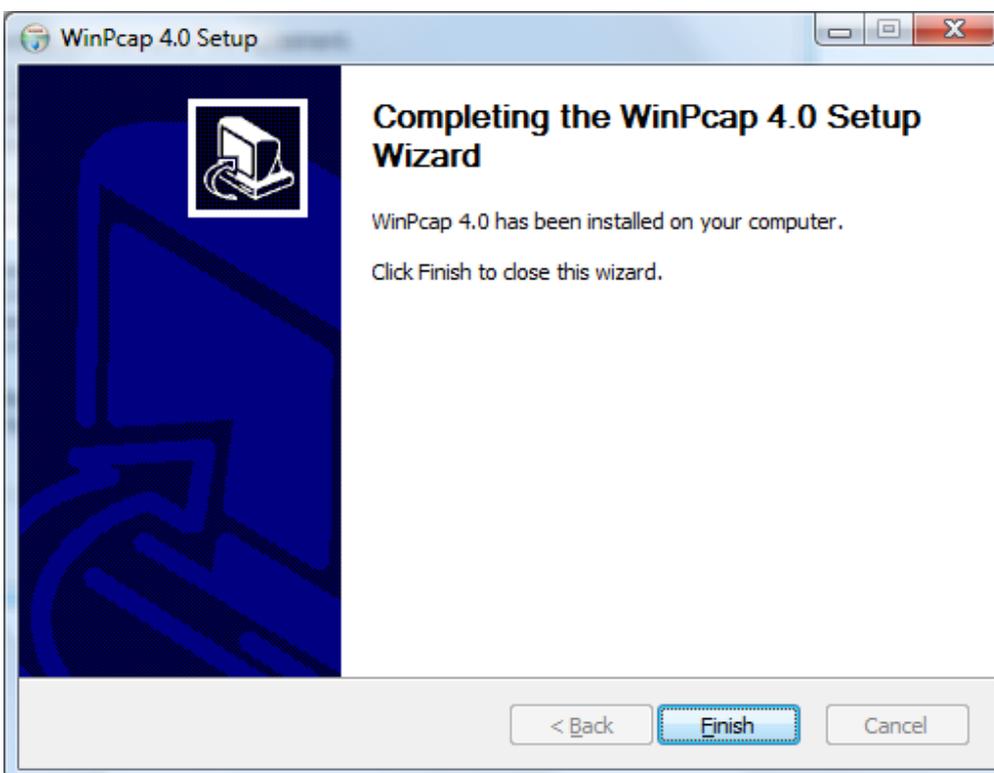


12. Click the Next button once again:

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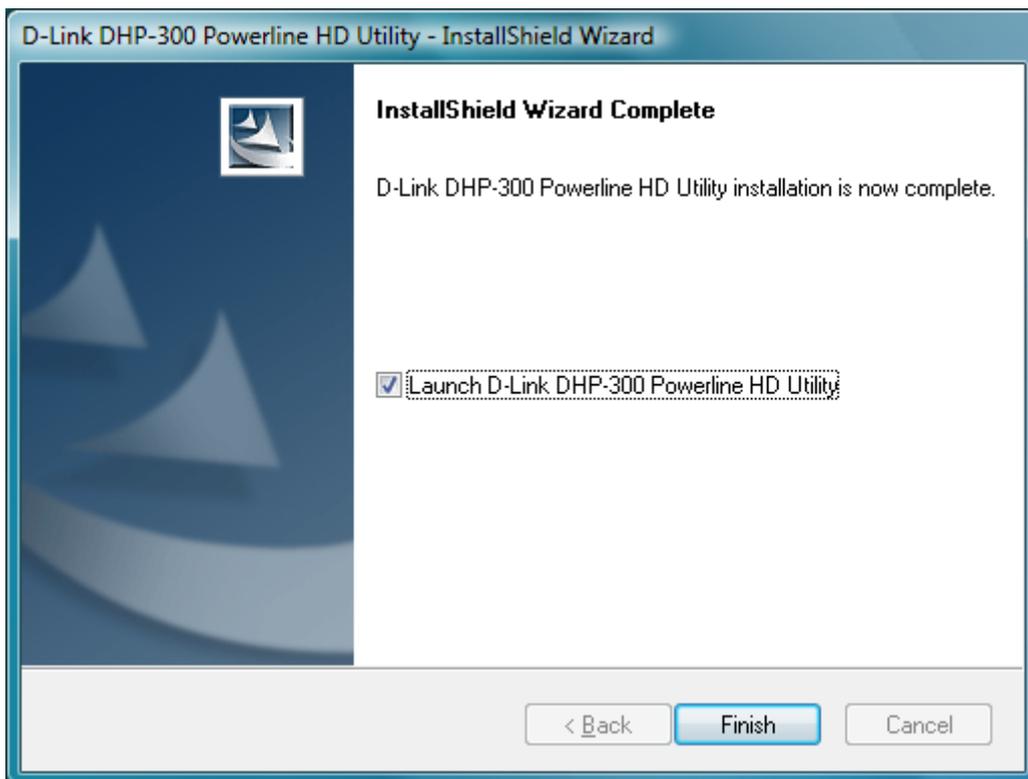
13. Click on the I Agree button to accept the License Agreement:



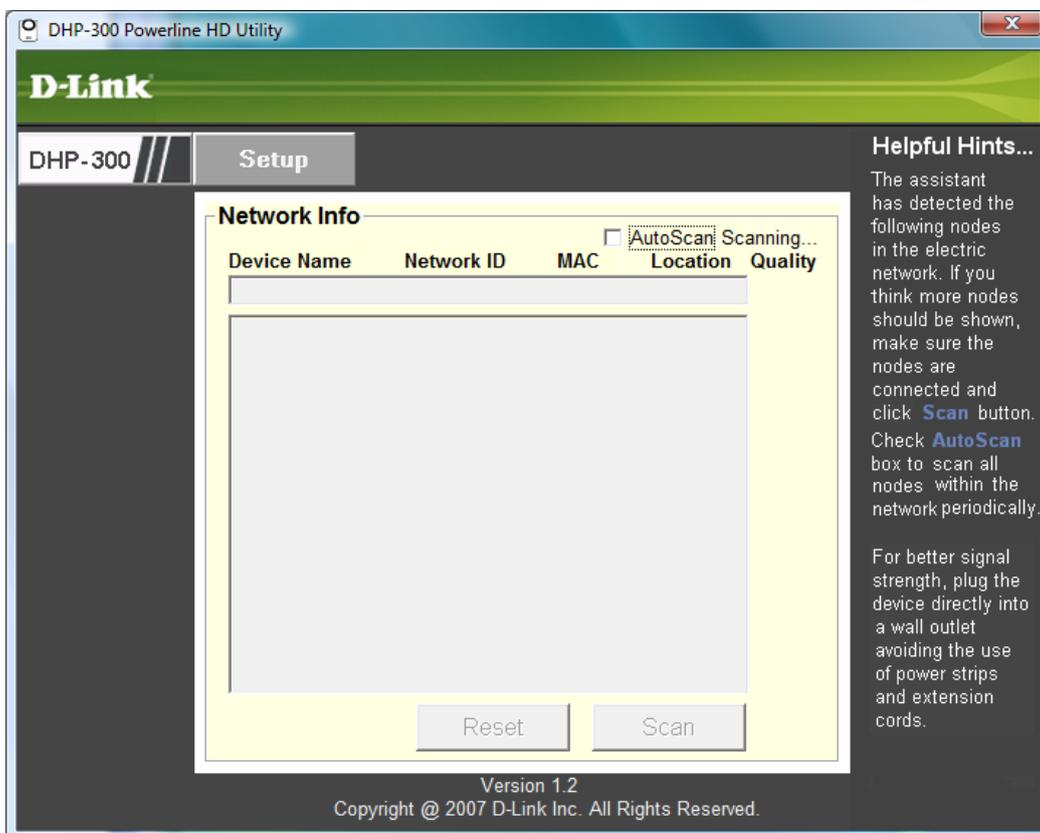
14. Click on the Finish button to complete the installation process.

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15. Finally click on the Finish button again to start the Utility required to setup the DHP-300's:



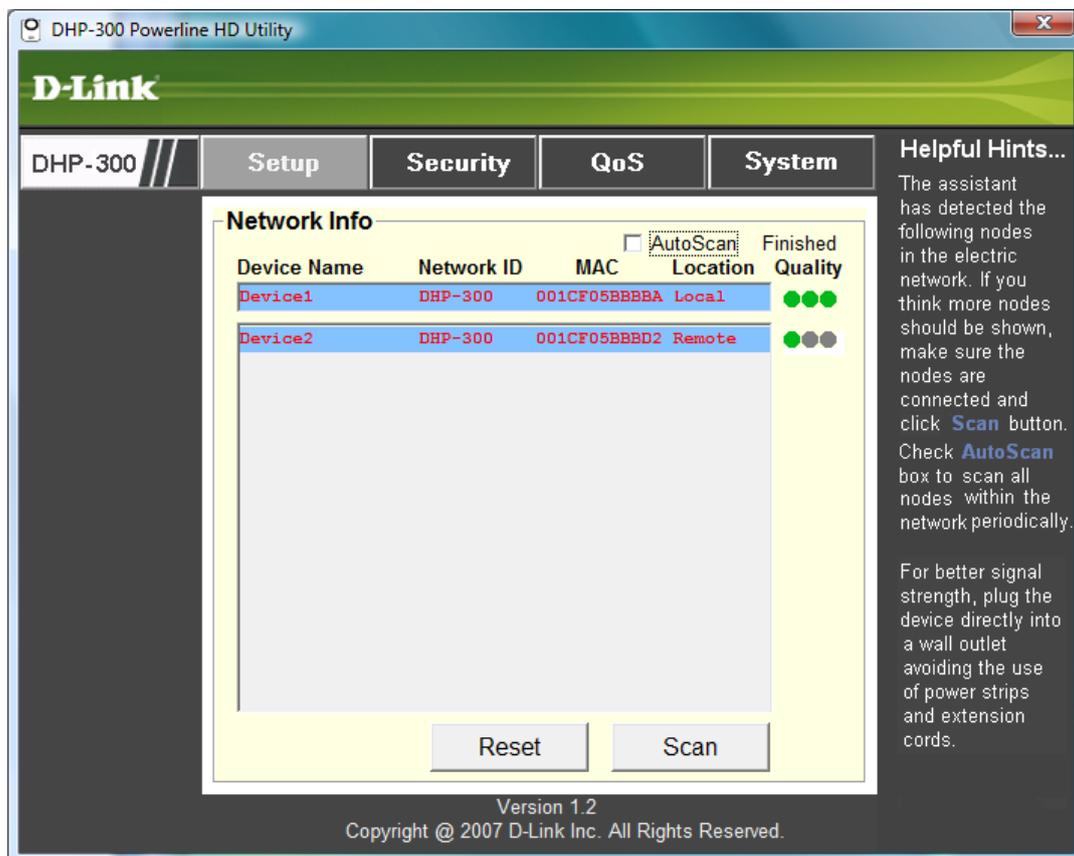
16. You should now see the screen below having successfully installed the D-Link DHP-300 Powerline HD Utility:



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Detection:

Having connected two DHP-300 to your existing Network, in a few seconds you should be able to see the utility having detected the two DHP-300 as per below:



NOTE: With the AutoScan feature enabled the utility will scan for new devices every 10 seconds.

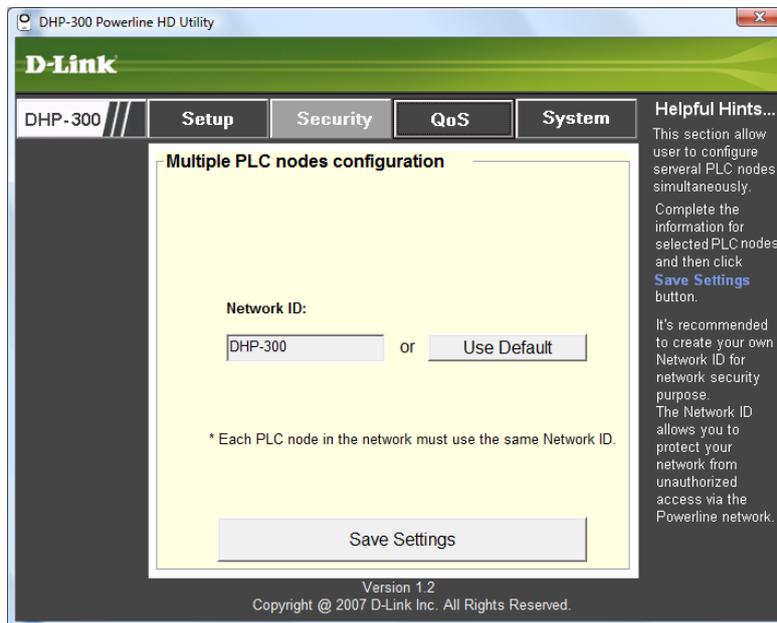
Configuration:

In the Setup of the Utility you will see that both devices are highlighted, this will allow you configure both devices at the same time, where as if you were to select one of them then only the one highlighted will the configuration be changed.

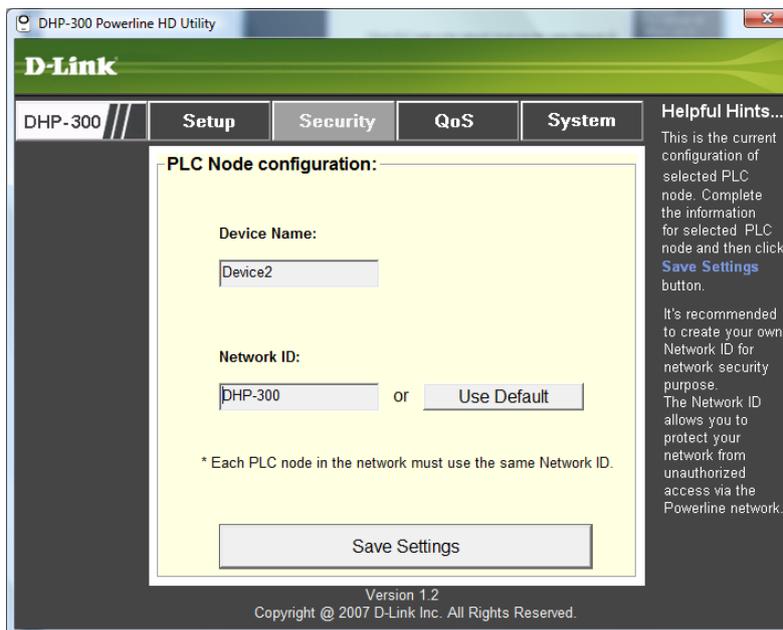
NOTE: If you were to have multiple DHP-300's in your network it is recommended to configure the Remote unit first, then your Local connected unit.

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Notice when you have all highlighted then click on the Security Tab, it will reference “Multiple PLC nodes configuration”:



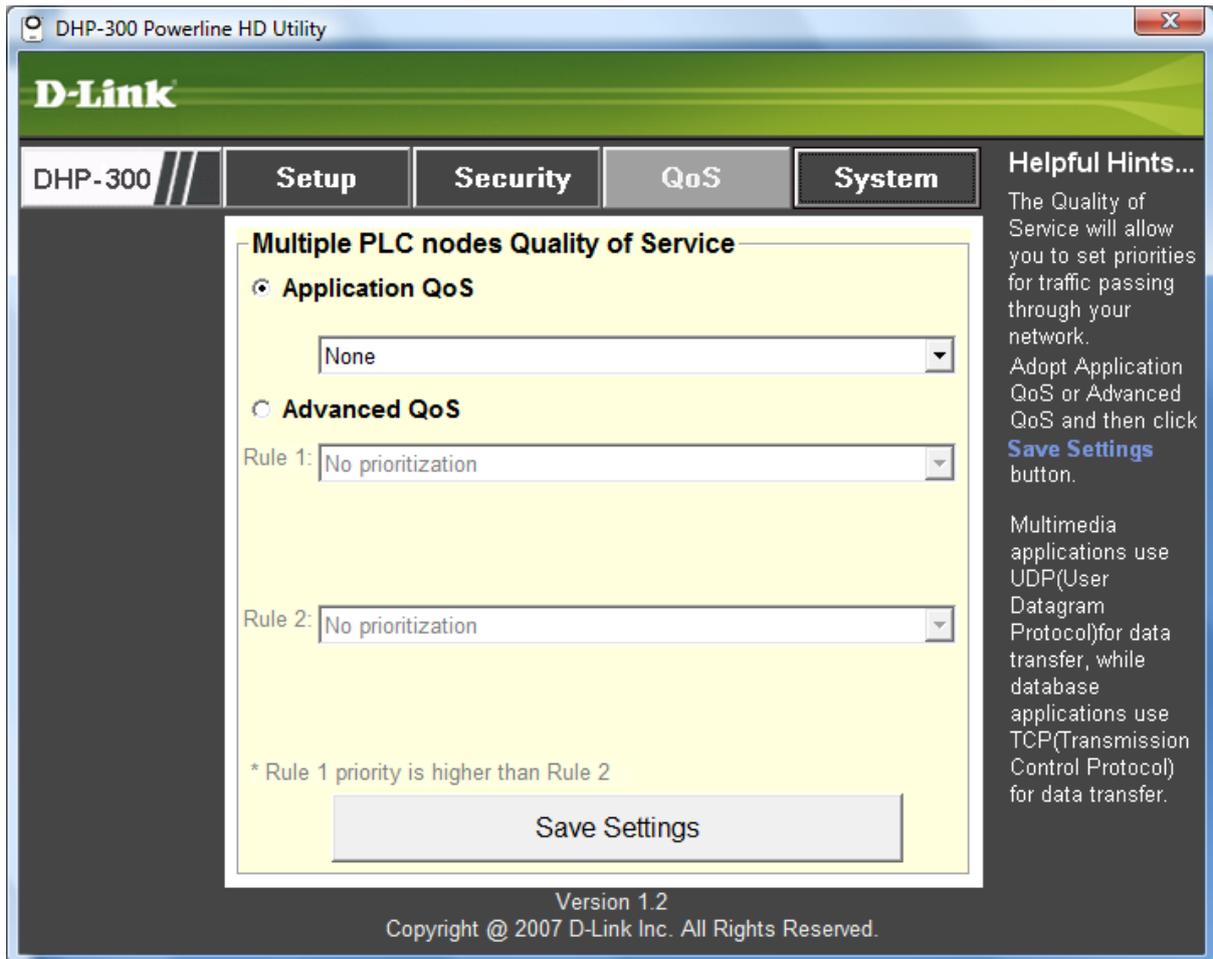
If you were to select the Remote DHP-300 then it will reference “PLC Nodes configuration”:



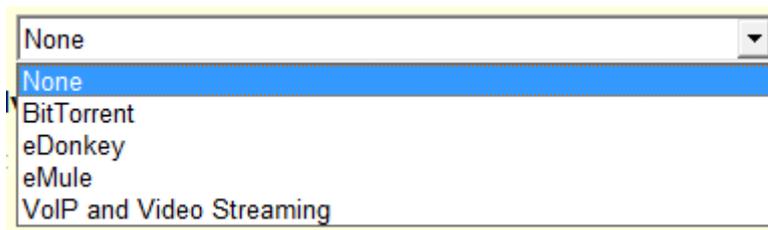
The Device Name can be customised (recommended without spaces). In order for there to be a successful network connection and allow communication then the Network ID must be the same (recommended without spaces). For this demonstration it was left with the default values. Once you are satisfied with the Device Name and Network ID, then you may click on the Save Settings button.

The DHP-300 also has a QoS (Quality of Service) which is customised to your particular requirements. The same principal is applied to selection of one and or multiple DHP-300's for configuration. Clicking on the QoS Tab will show the below by default:

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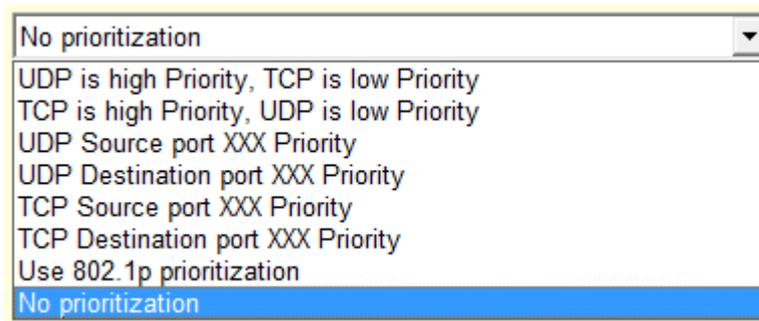
Application QoS is selected by default and with the drop down menu system you can assign QoS to the built in selections. As per below:



If you would like a more customised approach to QoS then you have the ability to select Advanced QoS. There are two rules which you can configure in multiple situations depending on your needs and requirements, remember that Rule 1 takes priority over Rule 2.

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Advanced QoS has the below drop down menu in place allowing for more defined criteria:



NOTE: The same principal is applied to Rule 2.

Selecting the "UDP Source port XXX Priority" provides the additional configuration, as per below:

A screenshot of the QoS configuration interface for Rule 1. The rule is named "UDP Source port XXX Priority". Below the rule name, there are two rows of input fields. The first row is labeled "Port:" and contains eight input boxes, each containing the number "0". The second row is labeled "Priority:" and contains eight dropdown menus. The first dropdown menu is set to "3", and the other seven are set to "0".

This will allow for eight Ports to be specified and to assign the Port with a Priority value. There are seven Priority classes. 0 being the Lowest and 7 being the Highest.

The same principal is applied with selecting:

- UDP Destination port XXX Priority.
- TCP Source port XXX Priority.
- TCP Destination port XXX Priority.

The "Use 802.1p prioritization" is derived from the IEEE 802.1p Standards.

Once you are satisfied with your QoS customization then continue to click on the Save Settings button.

The System Tab provides the ability to either factory reset one or multiple units at once.

The Upgrade Firmware feature allows you to upload the firmware to the DHP-300 with ease.

Successful Connection:

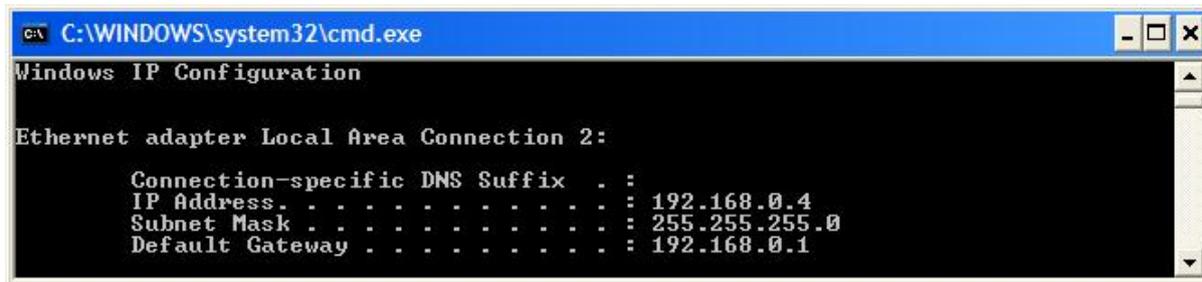
We can now determine if you are successfully connected via the use of the Powerline HD Technology. Your computer will have been assigned with a DHCP IP Address from your connected Router which is providing a response to DHCP requests.

In a command prompt use the following commands to check connectivity:

Windows XP Users:

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Click on Start > Run, type in "cmd" (without quotes) and press the Enter Key. In the command prompt type in "ipconfig" (without quotes), and you should see as per below:



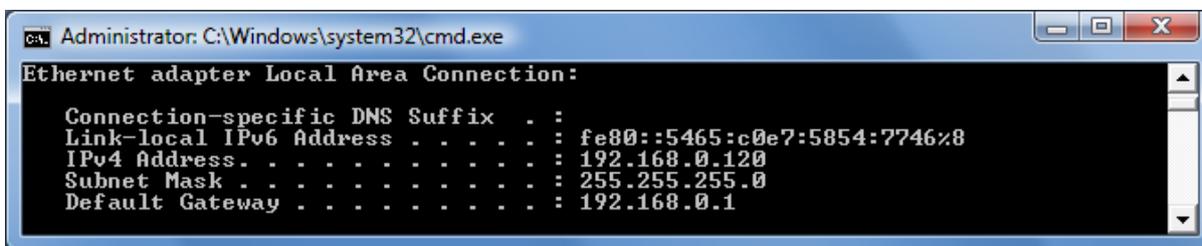
```
C:\WINDOWS\system32\cmd.exe
Windows IP Configuration

Ethernet adapter Local Area Connection 2:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.0.4
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1
```

Windows Vista Users:

Click on Start > type in "cmd" (without quotes) in the Start Search field, and then press the Enter Key. In the command prompt type in "ipconfig" (without quotes), as you should see as per below:



```
Administrator: C:\Windows\system32\cmd.exe
Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::5465:c0e7:5854:7746%8
    IPv4 Address . . . . . : 192.168.0.120
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1
```

Now that you know your Network Adapter has an IP Address from your Router, you may try to access the World Wide Web.

In your Internet Browser, in the Address Bar type in <http://www.dlink.com.au> to determine if you have a successful connection to the Internet.

If you are successful, you should see the below:



Provided you are able to see something similar to the above, Congratulations you have successfully configured a Network using the D-Link DHP-300 utilizing Powerline HD Technology.