

# SpeedTouch<sup>TM</sup>716<sub>V5</sub> (WL)

Residential ADSL Gateway with VoIP (SIP)



User's Guide









# SpeedTouch<sup>TM</sup> 716<sub>V5</sub> (VVL)

User's Guide SIP



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### About this User's Guide

### Used symbols

The following symbols are used in this User's Guide:



A *note* provides additional information about a topic.



A *tip* provides an alternative method or shortcut to perform an action.



A *caution* warns you about potential problems or specific precautions that need to be taken.

### Terminology

Generally, the SpeedTouch<sup>TM</sup>716 $_{v5}$ (i) and the SpeedTouch<sup>TM</sup> 716 $_{v5}$ (i) WL will be referred to as SpeedTouch<sup>TM</sup> in this User's Guide.

# Documentation and software updates

THOMSON continuously develops new solutions, but is also committed to improve its existing products.

For suggestions regarding this document, please contact documentation.speedtouch@thomson.net.

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# 1 Getting to know your SpeedTouch™

### Introduction

With the SpeedTouch<sup>TM</sup>716<sub>v5</sub> (WL) (Wireless) Residential DSL Gateway with Voice over IP (VoiP) you can build a secure home or small office network, seamlessly connecting wired and wireless devices, surf the Internet at high speed, make and receive phone calls over the Internet or over the traditional phone line - all combined in one device.

### Installation

For more information on how to set up, install and wire your SpeedTouch™ and set up Internet connection, refer to the Installation and Setup Guide.

### Configuration

This User's Guide will help you configuring your SpeedTouch™.

### Before you begin

Before connecting the SpeedTouch $^{\text{TM}}$ , please read the SpeedTouch $^{\text{TM}}$  Quick Installation Guide and the Safety Instructions and Regulatory Notices.

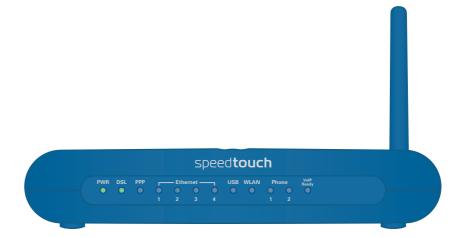




# 1.1 SpeedTouch™ LED Behaviour

Front panel LEDs

The SpeedTouch $^{\text{TM}}$  is equipped with a number of LEDs on its front panel, indicating the state of the device during normal operation.



The following table shows the meaning of the different LEDs.

Indicator			Description
Name	Colour	State	
PWR	Green	Solid on	Power on, normal operation
	Red	Solid on	Startup pending
		Blinking	Updating firmware
	Orange	Solid on	Bootloader active
	Off		Power off
DSL	Green	Blinking	DSL line trying to detect carrier signal
		High speed blinking	DSL line trying to synchronise
		Solid on	DSL line synchronised, no Internet activity
	Off		Power off or DSL line not synchronised
PPP	Green	Blinking	Internet activity
		Solid on	At least one PPPoA or PPPoE connection is up. Users can access the Internet.
	Off		No PPPoA or PPPoE connection





Indicator			Description
Name	Colour	State	
Ethernet 1-4	Green	Blinking	Ethernet activity
		Solid on	Ethernet connection, no activity
	Off		No Ethernet connection
USB	Green	Blinking	USB activity
		Solid on	USB connection, no activity
	Off		Power off or wait for USB connection going up
WLAN	Green	Blinking	Wireless activity
(SpeedTouch™ 706 WL,		Solid on	Wireless LAN enabled
716 <sub>v</sub> ₅ WL and 780 WL only)	Off		Wireless LAN disabled
Phone 1-2	Green	Solid on	The phone is off hook
	Off		The phone is on hook or no phone connected
VoIP Ready	Green	Solid on	VoIP service up
		Blinking	VoIP activity
	Off		VoIP service down





# 1.2 Accessing your SpeedTouch™

### Access methods

Your SpeedTouch  $^{\text{TM}}$  is accessible in one of the following ways:

Access Method	Can be used to
Web browser	Configure your SpeedTouch™ via HTTP or HTTPS. For more information, see "1.2.1 Access via the Web Interface" on page 7.
Command Line Interface (CLI)	Fine-tune your SpeedTouch™ configuration. For more information, see "1.2.2 Access via CLI" on page 8.
File Transfer Protocol (FTP)	Back up and restore data on your SpeedTouch™. For more information, see "1.2.3 Access via FTP" on page 10.
Remote Assistance	Allow a remote user to help you configuring your SpeedTouch™. For more information, see "1.2.4 Remote Assistance" on page 13.





### 1.2.1 Access via the Web Interface

To access the SpeedTouch™ via the Web interface Proceed as follows:

- 1 Open a Web browser.
- In the address bar, type your SpeedTouch™'s IP address or DNS host name (http://speedtouch.lan or 192.168.1.254 by default)



You can access the pages via HTTP or HTTPS.

For remote assistance the secure version HTTPS is used in combination with certificates. Simply provide your ISP with the link as shown, user name and password before he can log on to the pages. For more information, see "1.2.4 Remote Assistance" on page 13.

The SpeedTouch<sup>TM</sup> Home page appears, from where you can navigate to all the configurable aspects of the SpeedTouch<sup>TM</sup>.

For more information on the Web pages, see "5 SpeedTouch™ Web Interface" on page 47.





### 1.2.2 Access via CLI

To access the SpeedTouch™ via the Command Line Interface (CLI)

You can access the Command Line Interface (CLI) via:

- A Telnet session
  - This requires a TCP/IP connection between the host from which the Telnet session is opened and the SpeedTouch™. Your SpeedTouch™ and the connected computer must have an IP address in the same subnet.
- Quote site commands (over FTP)For more information, see " Quote site command" on page 12.

For more information on CLI commands, see the SpeedTouch  $^{\text{TM}}$  CLI Reference Guide.





# To start a Telnet session

### Proceed as follows:

1 Open a telnet application.



You can use the Command Prompt window.

In Microsoft Windows XP for instance:

- 1 On the Windows taskbar, click Start.
- 2 Select (All) Programs > Accessories > Command Prompt.
- 2 Connect to your SpeedTouch™.



In the Command Prompt window:

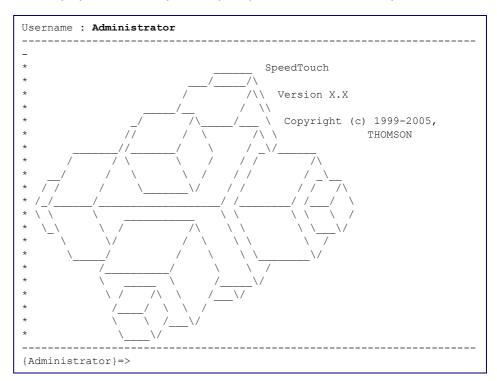
At the prompt, type telnet followed by the IP address of your SpeedTouch<sup>TM</sup> (192.168.1.254 by default).

3 Enter your SpeedTouch™ security user name and password.



The default user is 'Administrator' and the default password is blank.

As soon as you have opened a session to the CLI, the SpeedTouch  $^{\text{TM}}$  banner is displayed, followed by the CLI prompt, as shown in the example below.







### 1.2.3 Access via FTP

To access the SpeedTouch™ via the File Transfer Protocol (FTP) You can access the file system of the SpeedTouch™ via the File Transfer Protocol (FTP), in order to:

- Restore or back up configuration files, templates or language packs.
- Upgrade your configuration.

### File system

The SpeedTouch™ file system is stored on non-volatile memory and contains the SpeedTouch™ software, service template files and (optionally) default setting files.

### To open an FTP session

Proceed as follows:

Open a **Command Prompt** window.



In Microsoft Windows XP for instance:

- On the Windows taskbar, click Start.
- 2 Select (All) Programs > Accessories > Command Prompt.
- 2 At the prompt, type ftp followed by the IP address of your SpeedTouch™ (192.168.1.254 by default).
- 3 Enter your SpeedTouch™ security user name and password.



The default user is 'Administrator' and the default password is blank.

The example below shows an FTP session to the SpeedTouch™ file system.

```
C: C:\WINDOWS\system32\cmd.exe - ftp 192.168.1.254

Microsoft Windows XP [Uersion 5.1.2600]

(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\nielsenv\ftp 192.168.1.254

Connected to 192.168.1.254.

C200 Inactivity timer = 120 seconds. Use 'site idle \langle secs\rangle' to change.

User \langle (192.168.1.254:\langle (none)\rangle: Administrator \overline{\sigma}

331 SpeedTouch \langle (00-0E-50-5A-D9-A0) Password required.

Password:

230 OK

ftp\rangle
```

### File system structure

The structure of the file system is very simple: it consists of a single root directory called *root* and a subdirectory called *dl* (download).

- The root directory contains:
  - ▶ all the necessary files for the SpeedTouch™ to start correctly
  - the dl directory
- The **dl** directory contains the software image.



If you made changes to the SpeedTouch $^{\text{TM}}$  configuration and saved them, a user.ini configuration settings file is created in the  $\emph{dl}$  subdirectory.





# File system access rights

In the different directories you have the following rights:

Directory	Access rights
root	NO read/write
dl	read/write

# Common FTP commands

Depending on the access rights you have in a directory, you can use one of the following commands:

Use the command	to
cd	access another directory than the one currently open. Example: ftp>cd dl.
dir	list the directory files. Example: ftp>dir.
bin	set the transfer mode to 'binary'.
hash	turn on the hashing option.
put	upload files.  Example: ftp>put C:/MyBackupFiles/user.ini.  A configuration file must be uploaded to the dl directory.
get	download files.  Example: ftp>get user.ini.  Downloading the configuration file must be done from the dl directory.
delete	delete files.
bye	quit FTP.



### FTP file transfer

To allow correct file transfers, set the transfer mode to "binary": at the ftp prompt, type bin and press ENTER.



Turn on the hashing option to see the progression of the file transfer: At the ftp prompt, type hash and press ENTER.

### Example.

```
/home/doejohn{1}$ftp 192.168.1.254
Connected to 192.168.1.254
220 Inactivity timer = 120 seconds. Use 'site idle <secs>' to change.
Name (192.168.1.254:doejohn):
331 SpeedTouch™ (00-90-D0-01-02-03) User 'doejohn' OK. Password requir
ed.
Password : #####
330 OK
ftp>
ftp>bin
200 TYPE is now 8-bit binary
ftp>
ftp>hash
200Hash mark printing on (8192 bytes/hash mark).
ftp>cd dl
250 Changed to /dl
ftp>put C:\user.ini
200 Connected to 192.168.1.10 port 1271
150 Opening data connection for user.ini
226 File written successfully
ftp: 256 bytes sent in 0,000Seconds 256000,000Kbytes/sec.
ftp>
```

### Quote site command

All the CLI commands can be executed from within an FTP session. Only complete CLI commands (in other words, the complete command syntax with all the parameters already specified) can be executed.

Example: To execute the CLI command :ip iplist to list all IP addresses currently assigned to SpeedTouch $^{\text{TM}}$  interfaces, at the FTP prompt, type 'quote site ip iplist' and press ENTER.

```
ftp> quote site ip iplist
200- Interface Type IP-address Point-to-point/Mask 200- 2 LocalNetwork Ethernet 10.0.0.138 255.255.255.0
200- 2
        LocalNetwork Ethernet *192.168.1.254
                                                     255.255.255.0
         Internet
200- 1
                       Serial
                                  81.240.198.191
                                                      81.240.198.1
200- 0
        loop
                       Internal 127.0.0.1
                                                     255.255.255.255
200-
200 CLI command "ip iplist" executed
ftp>
```

For more information on CLI commands, see the SpeedTouch™ CLI Reference Guide.





### 1.2.4 Remote Assistance

# To access the SpeedTouch™ remotely

You can make your SpeedTouch accessible from the Internet with regard to remote support. In this way, you can allow your help desk to access your SpeedTouch™ remotely.

# To enable remote access

### Proceed as follows:

- Go to the SpeedTouch™ pages, as described in "1.2.1 Access via the Web Interface" on page 7.
- 2 In the menu, select Toolbox > Remote Assistance.
- 3 Click Enable Remote Assistance.
- 4 Provide the following parameters to your help desk:
  - URL (the HTTPS link)
  - User name
  - Password

Your ISP is now able to access your SpeedTouch™ via the HTTPS link in combination with the provided certificate (a secure authentication mechanism).



For security reasons, remote assistance will be automatically disabled after 20 minutes of inactivity, or after restarting your SpeedTouch $^{TM}$ .

# To disable remote access

### Proceed as follows:

- 1 Go to the SpeedTouch™ pages, as described in "1.2.1 Access via the Web Interface" on page 7.
- 2 In the menu, select Toolbox > Remote Assistance.
- 3 Click Disable Remote Assistance.



### **Chapter 1**

Getting to know your SpeedTouch™





# 2 Local Network Setup

### Introduction

The SpeedTouch  $^{\text{TM}}$  offers you the following local networking solutions:

- Wired Ethernet
- ▶ USB (v1.1)
- Wireless Ethernet on the SpeedTouch™716v5 WL

### Device settings

Once you have connected a device, you can personalise its settings. For more information, see " Configure" on page 99.





### 2.1 Wired Ethernet

### Local network

The Ethernet ports on the back panel allow you to connect the SpeedTouch™ to an existing 10 or 100Base-T Ethernet network or one (or more) computer(s) with an installed Ethernet card.

Using the SpeedTouch™ Ethernet switch, you can create a local Ethernet network of up to four devices, without needing extra networking devices.



In the SpeedTouch™ package, a yellow full-wired straight-through RJ-45/RJ-45 Ethernet cable is included.

# Standard wiring procedure

Use the yellow Ethernet cable provided to wire your computer's Ethernet port to one of the SpeedTouch™'s Ethernet ports.



The Ethernet cable can also be used to wire an Ethernet port of your SpeedTouch™ to any external Ethernet hub or switch.

Please follow the installation instructions supplied with the external hub or switch for connections and Ethernet cabling.

### Device settings

Once you have connected a device, you can personalise its settings.

For more information, see "Device settings" on page 15.

# Managed Ethernet switch

Your SpeedTouch™ intelligently switches data between the devices on your LAN, using priority queuing to ensure that higher priority messages are delivered first and in real time. This feature maximizes your network performance.

The managed Ethernet switch allows you to configure a Virtual Local Area Network (VLAN), group ports or isolate a port, configure secure channel connections, define Quality of Service (QoS), and configure port mirroring, allowing monitoring from one port to another.

You can configure the managed Ethernet switch manually using CLI (For more information, see the SpeedTouch™ CLI Reference Guide).





### 2.2 USB

# Supported operating systems

USB connectivity on the SpeedTouch  $^{\text{TM}}$  is supported for the following operating systems:

- Microsoft Operating Systems:
  - Microsoft Windows 98SE
  - Microsoft Windows Millennium
  - Microsoft Windows 2000
  - Microsoft Windows XP

You may need the Microsoft Windows installation CD-ROM during installation.



The installation procedures might be slightly different depending on the Microsoft Windows operating system you are using.

- Mac Operating Systems:
  - Mac OS X Jaguar (10.2)
  - Mac OS X Panther (10.3)
  - Mac OS X Tiger (10.4)

### System requirements

- For Microsoft Windows 98SE/ME:
  - Pentium processor 166 MHz or compatible
  - > 32 megabytes (MB) of memory
  - > 30 MB of free disk space
- For Microsoft Windows 2000/XP:
  - Pentium II processor or compatible
  - 64 MB of memory
  - > 30 MB of free disk space
- For Mac OS X:
  - ▶ 128 MB of memory
  - 30 MB of free disk space

### Prerequisites

It is highly recommended to remove any SpeedTouch™ USB driver installation that may reside on your computer before you install USB drivers from the SpeedTouch™ Setup CD delivered with your SpeedTouch™.

Make sure both your computer and your SpeedTouch  $^{\text{TM}}$  are turned on and operational.



In the SpeedTouch<sup>™</sup> package, a blue USB cable is included to connect a single computer to your SpeedTouch<sup>™</sup>.





### To install Windows USB drivers

The first time you connect the SpeedTouch™ to your computer through the USB port, you will be prompted for a USB driver as soon as you plug the USB cable into the computer.

You can find the required USB driver software on the Setup CD. The installation is Plug and Play, meaning that installation requires almost no effort.

### Proceed as follows:

1 Insert the blue USB cable into the SpeedTouch™ USB port marked with the **USB** logo:



A USB logo looks like this:



2 Insert the other end of the USB cable into (one of) the USB port(s) of your computer. In most cases your computer's USB port is marked with the same USB symbol.



You can also connect your computer to the SpeedTouch™ via a USB

Microsoft Windows will automatically recognise the Thomson USB Remote NDIS device.



The Windows Found New Hardware Wizard appears:

This wizard will guide you through the installation procedure of the USB drivers.

3 Click Next to continue.



The Windows Found New Hardware Wizard may ask your authorisation to connect to Windows Update to search for software. If this is the case, select No, not this time, and then click Next.

Select Install the software automatically (Recommended), and then click

The USB driver is being installed. After a while a completing dialogue will appear.

Click Finish to complete the installation.

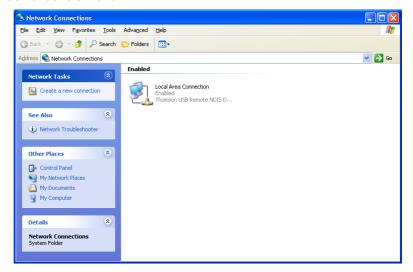
Your USB connection is installed and ready for use.





### To verify USB connectivity in Windows

The SpeedTouch™ USB connection is represented as a local network interface. You can easily check this interface by opening the Network Connections window from Windows' Control Panel.



### To install Mac USB drivers

You can find the required USB driver software on the Setup CD. The installation is Plug and Play, meaning that installation requires almost no effort.

### Proceed as follows:

Insert the blue USB cable into the SpeedTouch™ USB port marked with the USB logo.



A USB logo looks like this:



2 Plug the other end of the USB cable into (one of) the USB port(s) of your computer. In most cases your computer's USB port is marked with the same USB symbol.



You can also connect your computer to the SpeedTouch™ via a USB hub, provided that the hub is autonomously powered.

Mac OS X will automatically recognise the detection of a new port.

- 3 Make sure the SpeedTouch™ Setup CD is inserted, and then click **OK**.
- In the Network window, click Apply Now.

### Device settings

Once you have connected a device, you can personalise its settings. For more information, see " Device settings" on page 15.





### 2.3 Wireless Ethernet

### Introduction

The SpeedTouch™ 716<sub>v5</sub> WL Wi-Fi® certified IEEE 802.11g compliant wireless access point allows multiple computers to connect wirelessly to your local network over the SpeedTouch™ Wireless LAN environment. The SpeedTouch™ is backward compatible with IEEE 802.11b, which means 802.11b and 802.11g devices can coexist in the same wireless network.

The Wireless Distribution System (WDS) on your SpeedTouch™ allows you to extend the range of your wireless network. To be able to use WDS, you will need to introduce an additional WDS-enabled access point into your wireless network.

To be able to connect the computers, make sure that a wireless client adapter (WLAN client) is installed on each computer you want to connect via the WLAN.

# Wireless client requirements

All wireless client adapters compliant to 802.11g and/or 802.11b can communicate with the SpeedTouch™ and other members of the SpeedTouch™ (W)LAN environment. However, be aware that only 802.11g compliant wireless clients are able to gain full profit of the 54 Mb/s (Max) bandwidth delivered by the SpeedTouch™.

It is highly recommended to use only wireless client adapters that are Wi-Fi<sup>TM</sup> certified to ensure smooth interoperability with the SpeedTouch<sup>TM</sup>'s WLAN.





### 2.3.1 Wireless Basics

### 802.11b/g

- 802.11b is an IEEE standard, operating at 2,4 GHz at a speed of up to 11 Mb/s.
- 802.11g, a newer IEEE standard also operating at 2,4 GHz, gives you up to 54 Mb/s speed, more security and better performance.

### Wireless Fidelity

The Wi-Fi certification ensures that your SpeedTouch™ will interoperate with any Wi-Fi certified 802.11g and 802.11b compliant wireless device.

### **Access Point**

The SpeedTouch™ Wireless LAN Access Point (AP) behaves as a networking hub allowing to wirelessly interconnect several devices to the local (W)LAN and to provide access to the Internet.

### Network Name or SSID

The WLAN's 'radio' link is a shared medium. As no physical connection exists between the SpeedTouch™ and wireless clients, a name must be given to allow unique identification of your WLAN radio link. This is done by the Service Set ID (SSID), also referred to as Network Name. Wireless clients must be part of this SSID environment in order to be able to communicate with other clients on the (W)LAN -including the SpeedTouch™.

### Radio channels

The 802.11g standard allows several WLAN networks using different radio channels to be co-located. The SpeedTouch™ supports multiple radio channels and is able to select the best radio channel at each startup.

You can choose to set the channels automatically or manually.



The different channels overlap. To avoid interference with another access point, make sure that the separation (in terms of frequency) is as high as possible. It is recommended to keep at least 3 channels between 2 different access points.

The SpeedTouch™ supports all channels allowed for wireless networking. However, depending on local regulations, the number of channels actually allowed to be used may be additionally restricted, as shown in the table below.

Regulatory Domain	Allowed Radio Channels
China	1 to 13
Europe	1 to 13
Israel	5 to 8
Japan	1 to 14
Jordan	10 to 13
Thailand	1 to 14
USA / Canada	1 to 11





### **Antennas**

Direct the external antenna to allow optimization of the wireless link. If for example the antenna is erect, wireless links in the horizontal plane are favoured. Please note that the antenna characteristics are influenced by the environment, that is by reflections of the radio signal against walls or ceilings. It is advisable to use the received signal strength as indicated by the wireless client manager to optimize the antenna position for the link to a given client.

Concrete walls weaken the radio signal and thus affect the connection.





# 2.3.2 Connecting Wireless Clients for the First Time

# Wireless default settings

After every Reset-to-Defaults, the SpeedTouch™ wireless access point configuration is returned to its initial default settings.

### These default settings are:

- Security level is low (security disabled) for an easy first use, meaning the data will not be encrypted. Wireless security settings are described in "2.3.3 Wireless Security" on page 25.
- This default network name (SSID) is printed on the identification label located on the bottom of your SpeedTouch™ and is unique for each device. It consists of the concatenation of the word "SpeedTouch" and 6 hexadecimal characters, without any spaces, for example SpeedTouch123456.
- ► The SpeedTouch™ is broadcasting its network name (SSID).
- The radio channel number is set to 'automatically scan for the best radio channel'
- Registration is not activated. New stations are allowed automatically. The Access Control List is open and empty. No wireless client will be denied access to the SpeedTouch™ based on its physical hardware address.



The default wireless settings may differ from the settings listed above depending on your Service Provider's requirements. If this is the case, refer to the installation/configuration instructions provided by your Service Provider.

# To prepare wireless clients for the first time

### Make sure that:

- ▶ The SpeedTouch™ is turned on and ready for service.
- The SpeedTouch™ is in its default configuration.
  If necessary, reset the SpeedTouch™ to its default configuration (See "6.4 Reset to Factory Defaults" on page 118 for more information).
- A wireless client adapter is installed on your computer.
- The wireless client adapter's IP configuration is set to dynamically obtain its IP configuration (DHCP) this is usually the default. For more information, see the documentation of your wireless client adapter.

# To configure wireless clients for the first time

The wireless client must be correctly configured for the default network name. As the SpeedTouch™ broadcasts its network name to the wireless clients, you can select the SpeedTouch™ wireless network from a list of available networks. Depending on your wireless client a wireless icon may become green or a message similar to the following may appear: "Successfully joined Wireless network SpeedTouch123456".



Some wireless clients do not automatically join a wireless network. If so, follow the instructions for the wireless client software to initiate association.





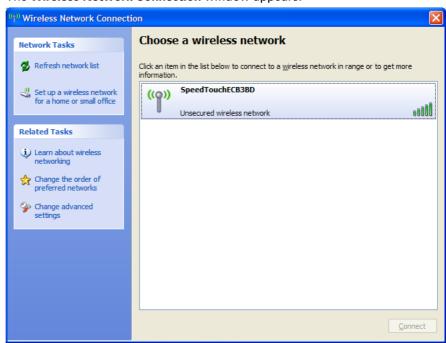
# First-time association example

The example below shows how the SpeedTouch™ wireless network is presented towards a Windows XP Service Pack 2 system.



Proceed as follows to associate your wireless client to the SpeedTouch™:

1 Click the network icon in the notification area: The Wireless Network Connection window appears:



2 In the Choose a wireless network list, select the SpeedTouch™ wireless network and click Connect.

The following window appears:



3 Click Connect Anyway.

Your computer is now connected to the SpeedTouch™ wireless network.





For other Operating Systems the wireless client will in most cases be configured via dedicated client managers.



# 2.3.3 Wireless Security

### Introduction

Since the SpeedTouch™ wireless environment is a radio environment, precautions must be taken to ensure that your wireless network is safe from malicious intruders.

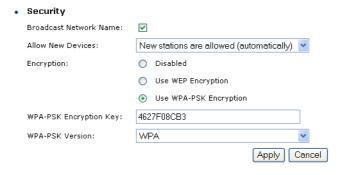
To secure your wireless network, the following wireless access point settings can be personalised:

- Your Network Name (SSID)
- ACL setting
- Data encryption

### Security settings

To personalise the wireless security settings on your SpeedTouch™:

- **1** Go to the SpeedTouch™ Web pages.
- 2 In the menu, select Home Network.
- 3 Click your WLAN.
- 4 In the upper right corner, click Configure.
- 5 On the Wireless Access Point page, you can modify the Security settings.



### Network Name (SSID)

On the Wireless Access Point page, you can give a new name to your Network Name (SSID).

Under **Security**, you can clear **Broadcast Network Name (SSID)**, to prohibit the Network Name from being broadcast.





# Access Control List (ACL)

The SpeedTouch™ features a managed Access Control List (ACL).

On the Wireless Access Point page, you have the following options for the ACL: New stations are

- Allowed (automatically): All new stations can access the SpeedTouch™.
- Allowed (via registration): Only allowed stations in the ACL have access. You can add new stations via:
  - The Search for wireless devices task.

For more information, see "Registering wireless clients" on page 27.

Not allowed: Only allowed stations in the ACL have access. You can add new stations to the ACL only via the Search for wireless devices task. For more information, see "Registering wireless clients" on page 27.

### Data encryption

To set up wireless connectivity, you can choose different levels of security:

Security disabled (default)

No security; the data will not be encrypted, no authentication process will be used.

WEP (Wired-Equivalent Privacy)

Traffic between the SpeedTouch™ and the clients is encrypted by sharing a pre-defined 64-bit or a 128-bit Network key for secure communication with legacy 802.11b clients.



The default 64 bit hexadecimal WEP key is printed on the identification label located at the bottom of the SpeedTouch™ and is unique for each device

WPA-PSK (Wi-Fi Protected Access Pre-Shared Key)

The highest form of security available for home users. Make sure that your wireless client and client manager are compatible with it.



The default WPA-Personal pass phrase is printed on the identification label located at the bottom of the SpeedTouch™ and is unique for each device.

The WPA-Personal pass phrase must consist of 8 to 63 ASCII characters or 8 to 64 HEX digits.



Wireless access points may already have been configured during the Home Install Wizard.



If you change wireless settings, wireless clients will be disconnected. In this case, you need to reconfigure the wireless clients before you can connect to the Internet again.





# 2.3.4 Connecting Additional Wireless Clients

### Preconditions

### Make sure that:

- The SpeedTouch™ is turned on and ready for service.
- The SpeedTouch™ has been configured as DHCP server (default).
- The wireless client adapters have been installed on all the computers you want to connect to the WLAN.

### Security issues

- Depending on the personalised wireless settings:
  - Make sure you use the same encryption or security level on the client as on your SpeedTouch™. If for instance WPA-PSK is enabled on the SpeedTouch™, you must also configure the wireless client to use WPA-PSK and configure the same WPA-PSK pass phrase.
  - If the Network Name (SSID) is not broadcast, you must configure the wireless client for the SpeedTouch™ Network Name. Refer to the documentation of your wireless client for more information.
- If the SpeedTouch™ ACL settings are set to:
  - ▶ New stations are allowed (automatically), your device can access the SpeedTouch™ WLAN without additional configuration.
  - New stations are allowed (via registration), you have to register your wireless client(s). For more information, see "Registering wireless clients" on page 27.
  - New stations are not allowed, you have to search for wireless client(s) using the SpeedTouch™ web pages, see "Registering wireless clients" on page 27.

# Registering wireless clients

Proceed as follows to add a wireless client to the ACL:

- 1 Go to the SpeedTouch™ Web pages.
- 2 In the menu, select Home Network > Devices.
- 3 In the Pick a task list, click Search for wireless devices.

The SpeedTouch™ searches for new wireless stations that use the encryption key of the SpeedTouch™ Access Point.

The SpeedTouch™ takes you to the Home Network. The new station will be shown next to the name of the SpeedTouch™ WLAN.

- 4 Click the name of the new station.
- 5 Click Configure.
- 6 Select Allowed on WLAN, and then click Apply.

The device is added to the ACL and will always be allowed to connect to the SpeedTouch $^{TM}$ .



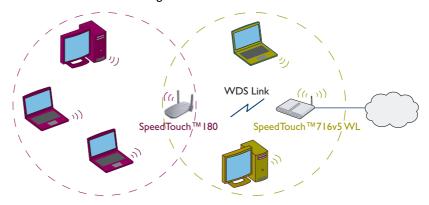


# 2.3.5 Extending the Range of Your Wirelstess Network

### Wireless Distribution System (WDS)

The SpeedTouch™ features the Wireless Distribution System (WDS) functionality. This feature allows you to extend the range of your wireless network by introducing one or more WDS-enabled devices into your wireless network.

WDS enables data packets to pass from one wireless access point to another, as if the access points were ports on a wired Ethernet switch. WDS allows you to extend the range of your SpeedTouch<sup>TM</sup> by means of one or more wireless repeaters, like for instance a SpeedTouch<sup>TM</sup>180. The following illustration depicts two WDS-enabled devices communicating via WDS.





The SpeedTouch™ allows you to add up to four wireless repeaters.



Repeaters extend the coverage area of your wireless LAN. However, bear in mind that throughput is reduced for wireless clients that are connected through a repeater.

### **Preconditions**

### Make sure that:

- Your wireless repeater is be WDS enabled.
- ▶ Both your SpeedTouch™ and your wireless repeater use:
  - The same WEP key if WEP is enabled.



WPA encryption is not supported when using WDS.

The same *fixed* channel.



The SpeedTouch<sup>TM</sup> and your wireless repeater do not necessarily need to use the same SSID. Using different SSIDs allows you to force your wireless clients to use either the access point of the SpeedTouch<sup>TM</sup> or the one of your wireless repeater.



### To configure WDS

Proceed as follows:

- Go to the SpeedTouch™ Web pages.
- 2 In the menu, select Home Network.
- 3 Click your WLAN.
- In the upper right corner, click Configure.

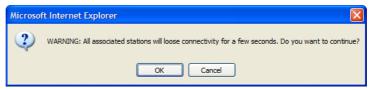


5 On the Wireless Access Point page, in the Pick a task list, click Configure WDS.



- Scan for wireless accesspoints
- Select WDS Enabled. 6
- 7 In the Pick a task list, click Scan for wireless access points.

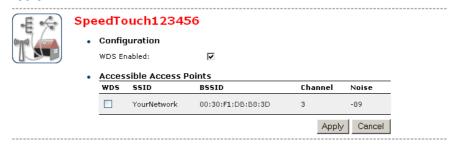
A warning is displayed.



8 Click OK.

The SpeedTouch™ scans for access points on the same radio channel.

9 Select your repeater in the List of Accessible Access Points, and then click Apply.





# **Chapter 2**Local Network Setup







### 3 Internet Connectivity Dial-In Clients

#### Introduction

If you want to set up initial Internet connectivity using the Home Install Wizard on the Setup CD or the embedded Easy Setup, refer to the provided Installation and Setup Guide.

#### Access methods

Depending on the configuration of the SpeedTouch™ you may have:

Direct access:

As soon as the initial configuration is finished, immediate and uninterrupted WAN access is provided.



If you have direct access, the remote organisation might ask for a user name and password on an Internet welcome page.

Dial-in access:

Access must be explicitly established, that is by "dialling" into a Broadband Remote Access Server (BRAS).

Depending on the SpeedTouch™ configuration, dial-in access is provided via the SpeedTouch™'s Routed PPPoA or Routed PPPoE packet services with embedded PPP client.

#### Connection protocols

The applied connection protocol model depends on the service profile you selected to configure the SpeedTouch™ and should correspond with the Service Provider's requirements. If, for instance, your ISP provides PPPoE, you should configure PPPoE.

You can find more information on connection protocols in the Internet Connection Configuration Guide.

#### Dial-in clients

There are different ways to dial in, depending on the operating system on your computer and your preferences.

Dial-in method:		canbeusedonfollowing operating system:	For more information, see:
Embedded PPP dial-in client:			
1	Dial-in client on embedded pages	Windows, Mac, unix, other	"3.1 SpeedTouch™ Web Pages"
2	Windows XP/UPnP (Internet Gateway Device)	Windows XP	"3.2 Internet Gateway Device Control Agent" on page 35





## Embedded PPP dial-in clients

The SpeedTouch<sup>TM'</sup>s embedded PPP dial-in client allows you to establish an Internet connection for computers residing on your local network, using only one computer of the network to control the client.

If this computer runs:

- Any Operating System
  you can always use the SpeedTouch™ Web pages.
   See "3.1 SpeedTouch™ Web Pages" on page 33 to proceed.
- Windows XP you can use the Windows XP Internet Gateway Device Control Client. See "3.2 Internet Gateway Device Control Agent" on page 35 to proceed.

## Broadband host PPPoE dial-in clients

You can also connect to the Internet using a Broadband PPPoE dial-in application. The PPP over Ethernet connection scenario provides PPP-like dial-in behaviour over the virtual Ethernet segment.

To be able to use a broadband dial-in application on your computer for connecting to the Internet, the SpeedTouch<sup>TM</sup> needs to be configured for Bridged Ethernet or Routed PPPoE (with PPPoE relay) via the SpeedTouch<sup>TM</sup> Home Install Wizard on the Setup CD or the embedded Easy Setup. .

If your computer runs	you can use
Windows XP	the Windows XP broadband dial-in client
Mac OS X	a Mac OS X broadband dial-in client
	a broadband PPPoE dial-in client provided by you Service Provider



Upon availability of OS-specific PPPoE dial-in client applications, the latter method is Operating System independent.

For PPPoE session connectivity from a Mac OS 8.6/9.x, a Windows 95/98(SE)/ME/2000 or a Linux system, a host PPPoE dial-in application is mandatory.





### 3.1 SpeedTouch™ Web Pages

### Introduction

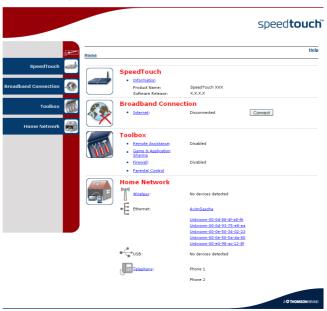
As the SpeedTouch™ Web pages are controllable from any Operating System with an installed Web browser, the method to establish PPP sessions described later, can be used on any computer system.

For more information on Internet connection setup, refer to the provided Installation and Setup Guide.

## Starting an Internet session

Proceed as follows to start an Internet session:

1 Open a Web browser on your computer and browse to the SpeedTouch™ Web pages (see "1.2.1 Access via the Web Interface" on page 7 for more information).



The SpeedTouch™ home page appears by default.

2 Click Connect at the appropriate broadband connection.



You might be requested to enter your user name and password.

The SpeedTouch™ embedded PPP dial-in client establishes the Internet connection.

3 Browse the Web.

### Monitoring your Internet connection

You can view and monitor your connection to the Internet as long as the session is running via:

- The SpeedTouch™ System Information page: see "5.3.1 Information" on page 56.
- The SpeedTouch™ Diagnostics task: see "5.4.1 Connectivity Check" on page 64.





# Terminating an Internet session

Proceed as follows to close an active PPP connection:

- Go to the SpeedTouch™ Web pages.
- 2 Click **Disconnect** at the appropriate broadband connection.

The SpeedTouch™ embedded PPP dial-in client closes the Internet connection. The Internet Link status changes to **Disconnected** and your computer is offline.





### 3.2 Internet Gateway Device Control Agent

### Introduction

Windows XP users can easily establish PPP sessions, thanks to the Windows XP Internet Gateway Device (IGD) Discovery and Control Client that allows you to control the SpeedTouch™ directly from you computer.



The IGD Control Client only allows to connect or disconnect a fully configured connection.

### **Preconditions**

#### Make sure that:

- The following subcomponents of the Windows XP Networking Services are added to your Windows XP system:
  - ▶ UPnP<sup>TM</sup> (see "SpeedTouch<sup>TM</sup> not detected by UPnP<sup>TM</sup> or IGD Control Client" on page 115).
  - IGD Discovery and Control Client (see "Adding IGD Discovery and Control" on page 116).
- ▶ UPnP<sup>TM</sup> is enabled on your SpeedTouch<sup>TM</sup>. To enable UPnP, see "5.5.5 Game & Application Sharing" on page 76.

## Starting an Internet session

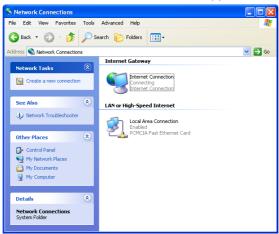
Proceed as follows to start an Internet session:

- 1 In the Windows taskbar, click Start.
- 2 Select (Settings >) Control Panel.

The Control Panel window appears.

3 Go to (Network and Internet Connections >) Network Connections.

The Network Connections window appears.



You will find an **Internet Gateway** icon, representing the SpeedTouch™ IGD Internet connection ability.

4 Double-click the Internet Connection icon.

The SpeedTouch™ embedded PPP dial-in client establishes the Internet connection. The **Internet Gateway** icon displays **Connected** and your computer is online.

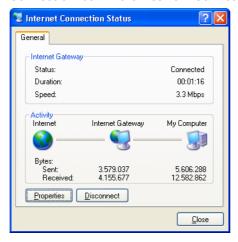
5 Open a Web browser and surf the Internet.





## Internet connection status

As long as the SpeedTouch<sup>TM</sup> embedded PPP dial-in client is connected, you can view the connection status and some counters by double-clicking the **Internet Connection** icon in the **Network Connections** window.



## Terminating an Internet session

Proceed as follows to terminate an Internet session:

- 1 In the Windows taskbar, click Start.
- Select (Settings >) Control Panel > (Network and Internet Connections >) Network Connections.
- 3 In the Network Connections window, right-click the Internet Connection icon and select Disconnect to close the session.



You can also double-click the icon. Then the **Internet Connection Status** window will appear on which a **Disconnect** button is available to close the session.

4 The SpeedTouch™ embedded PPP dial-in client will close the Internet connection. The Internet Gateway icon displays Disconnected and your computers are offline.



### 4 Voice over IP

#### Voice over IP

Internet telephony or Voice over IP (VoIP) can be defined as the transfer of telephone calls over your Internet connection.

## The SpeedTouch™ VolP solution

With your SpeedTouch™ you can make Internet and regular telephone calls using traditional analogue phones, connected to your SpeedTouch™.



As VoIP signalling protocol your SpeedTouch™ uses the Session Initiation Protocol (SIP), defined in RFC 3261.

### Multi-line service

The voice service on your SpeedTouch™ provides additional lines without the need for additional copper pairs. The additional lines allow you to make and receive several internal and external Internet calls simultaneously.

Fax

You can also connect a fax machine to your SpeedTouch™ in order to send and receive faxes over your Internet connection or over the traditional phone line.

# What you need from your ISP

The following SIP configuration parameters are provided by your ISP:

- Uniform Resource Identifier (URI)
- User name
- Password
- IP address and port number (usually 5060) of the provider's registrar
- IP address and port number (usually 5060) of the provider's SIP proxy server

### Uniform Resource Identifier

The SIP Uniform Resource Identifier (URI) is a unique name used to identify and locate your telephone. The SIP URI can have a numerical format or the format user@host.

### Examples:

- 3443614
- username@hostname.org
- username@192.168.10.1
- > 3443614@hostname.org



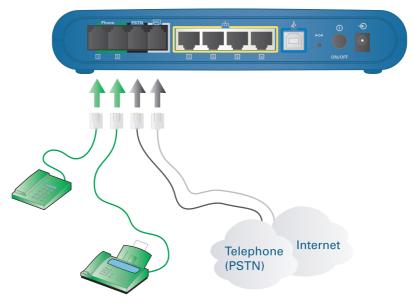
If your provider gives you an URI in the format containing an '@', your service provider will tell you whether the '@' can be formed on your phone by dialing a '1', '\*', or '#'.



## 4.1 Telephony Setup

### Telephony installation

The SpeedTouch™ is equipped to connect one or two analogue phones or faxes.



Use a phone cable with RJ-11 connectors to:

- 1 Wire the SpeedTouch™ Phone port(s) to your phone(s) or fax.
- Wire the SpeedTouch<sup>™</sup> PSTN port to your telephone wall outlet or distributed filter depending on your Service Provider's specific needs.



This is only required if you still want to make phone calls using the regular telephone line.



Be aware that, if the PSTN port is not wired to your telephone wall outlet or distributed filter, emergency calls are not always possible!



As distributed filters are country-specific, you cannot use the device everywhere.

### Telephony configuration

The telephony service might already have been configured on your SpeedTouch™ during initial setup.

If not, follow the instructions below:

- ▶ Enable the telephony service
- Assign phone numbers
- Configure the telephony service



Your Internet connection must be up and running before you can configure Internet telephony.



## Enable the telephony service

Proceed as follows to enable the telephony service:

1 Go to the SpeedTouch™ Web pages.



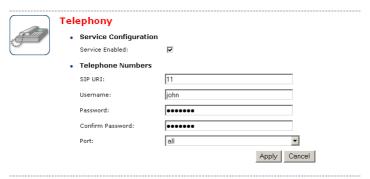
For more information, see "1.2.1 Access via the Web Interface" on page 7.

- 2 In the menu, select Toolbox > Telephony.
- 3 In the upper right corner, click Configure.
- 4 Select Service Enabled.
- 5 Click Apply.

### Assign phone numbers

Proceed as follows to configure your Internet SIP telephone numbers:

- **1** Go to the SpeedTouch™ Web pages.
- 2 In the menu, select Toolbox > Telephony.
- 3 In the upper right corner, click Configure.
- 4 Assign phone numbers to phone port 1 (FXS1) and phone port 2 (FXS2). If you want to use the same number for both ports, select Port 'all'.





The phone numbers are provided by your provider.

5 Click Apply.

## Configure the telephony service

Proceed as follows to configure the SIP telephony service:

- **1** Go to the SpeedTouch™ Web pages.
- 2 In the menu, select Toolbox > Telephony.
- 3 In the upper right corner, click Expert configure.
- 4 Enter the IP address and the port number of the registrar and the proxy, as



### provided by your ISP:

Home > Toolbo	ox > <u>Telephony</u>	Overview   Details   Confiqure   Expert Configure   Help
	Telephony	
	Service Configuration	on
*****	Registrar:	10.50.2.60
	Registrar Port:	5060
	Proxy:	10.50.2.60
	Proxy Port:	5060
	Expire Time:	3600
		Apply Cancel



Some of the SIP components are explained below:

- **Proxy**: The SIP proxy server at your provider's forwards signalling messages between the caller and callee.
- Registrar: The SIP registrar resembles a DNS, as it matches your URI with your IP address. Your SpeedTouch™ will periodically depending on the expire time register its correct IP address with the SIP registrar that may be collocated with the proxy server.
- Expire Time: This is the frequency with which your IP address is updated on the registrar.
- 5 Click Apply.

# Verifying telephone connectivity

Proceed as follows to verify the voice connection:

- 1 Make sure the SpeedTouch™ is turned on and ready for service.
- 2 Check whether your phone is properly attached to the SpeedTouch™.
- 3 Make sure the Internet telephony service is enabled and configured.
- 4 The VolP Ready LED must be lit.
- **5** Pick up your phone, wait for the dialling tone, and dial the number. If you dial a '#' after the phone number, the phone number will be called instantly.



The phone(s) attached to the SpeedTouch™ can receive incoming VoIP calls, as long as your SpeedTouch™ is turned on and the VoIP Ready LED is lit

For calls over the regular phone line, your phones are line powered by the telephone company and can therefore always be reached, even if the modem is turned off.



### Multiple identities

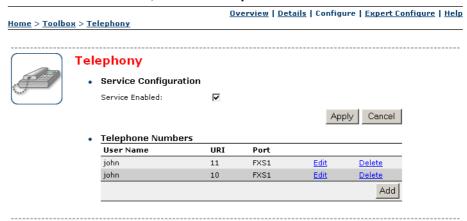
You can assign up to three Internet telephone numbers or URIs to one or both phone ports or assign a common number to both phone ports.



The phone numbers are provided by your provider.

#### Proceed as follows:

- **1** Go to the SpeedTouch™ Web pages.
- 2 In the menu, select Toolbox > Telephony.
- 3 In the upper right corner, click Configure.
- 4 In the Pick a task list, click Use multiple identities.



- 5 Click Add.
- **6** Enter another URI, your user name and password.
- 7 Choose the phone port for which you want to use this telephone number.
- 8 Click Apply.





### Telephony statistics

The telephony statistics page gives you:

- **Call Statistics**: an overview of the successful, unsuccessful, missed or total number of incoming or outgoing calls per phone.
- ▶ Call Log: detailed statistics per call.

Proceed as follows to retrieve the statistics:

- **1** Go to the SpeedTouch<sup>™</sup> Web pages (http://speedtouch.lan or 192.168.1.254).
- 2 In the menu, select Toolbox > Telephony.
- 3 In the Pick a task list, click View telephony statistics and logs.



Your last ten calls (outgoing, incoming, missed or unsuccessful) are also shown in **Toolbox > Telephony**.





## 4.2 Supplementary Telephony Services

# Supported telephony services

Depending on your provider's configuration, the following services will be available.

Service	Description
Call Hold	Allows you to put a call on hold, to dial another number, and to switch between the active and held call whenever you want, or to terminate the active or held call.
Call Waiting	Allows you to answer or reject an incoming call while you are in a conversation.
Call Transfer	Allows you to transfer a call to another person.
Conference Call (3 Parties)	Allows you to make a conference call.
Calling Line Identification Presentation (CLIP)	Allows you to see the phone number of the person who is calling you on your phone display.  If you cannot take the call, the phone number is stored on the SpeedTouch™ Web pages, guaranteeing you do not miss important calls.  CLIP will only work if CLIR is deactivated on the calling phone.
Calling Line Identification Restriction (CLIR)	Restricts the transmission of your phone number when you make a call, in order to protect your confidentiality. Your phone number will not appear on the screen of your partner. When this service is activated, your phone number will never be transmitted.  To activate CLIR on call basis, see "Using the services on the phone" on page 45.
Forced FXO	Allows you to force the SpeedTouch™ to make the phone call over the PSTN, that is the regular telephone line.

For more information on how to use some of these services, see "Using the services on the phone" on page 45.





## Activating/Deactivating the services

Before you can use a telephony service, the service needs to be activated. This might have been done during the initial setup of your SpeedTouch™.

If not, you can activate or deactivate a particular telephony service:

- on the SpeedTouch™ Web pages: see " (De)activating services on the Web pages".
- by dialling the activation code on your telephone: see " (De)activating services on your telephone".

# (De)activating services on the Web pages

Proceed as follows to activate a service on the Web pages:

- 1 Go to the SpeedTouch™ Web pages.
- 2 In the menu, select Toolbox > Telephony.
- 3 In the upper right corner, click Configure.
- 4 In the Pick a task list, click Configure telephony services.

A list of telephony services provided by your Service Provider appears:

• Telephony Services

Service	Code	Activated
Call Hold	22	✓
Call Waiting	43	✓
Call Transfer	96	☑
Conference Call (3 Party);	95	ᅜ
Calling Line Identification Presentation	30	✓
Calling Line Identification Restriction	31	V
Forced FXO	01	☑
		Apply Cancel

5 Select the services you want to activate.



To deactivate the service, clear the corresponding check box.

6 Click Apply.

# (De)activating services on your telephone

Proceed as follows to activate a service using the attached telephone:

- **1** Take the phone off the hook.
- 2 Dial an '\*' followed by the activation code. If you dial a '#' after the activation code, the service will be activated instantly.



The activation code depends on your provider's configuration. The activation codes can be found on the **Telephony Services** Web page.

To deactivate the service, dial a '#' followed by the activation code.

3 Wait for the confirmation tone, and place the phone on the hook.



The Forced FXO service cannot be activated on your phone.



# Using the services on the phone

The following table explains how to use a telephony service. The commands depend on your provider's configuration and might be different from those described here. For more information, see your provider's documentation.



Make sure your phone is off-hook when you dial the commands.



If your phone does not have an R or another hook flash button, put down the hook for 1/2 second and then dial the command number.

To use the service:	Proceed as follows:	
Call Hold	To put person A on hold:  1 Dial <i>R</i> , <i>2</i> to put the call with person A on hold.	
	2 Dial <i>R</i> , <i>1</i> to retrieve the call on hold.	
	To put person A on hold and set up a call to person B:	
	1 Dial <i>R</i> , 2 to put the call with person A on hold.	
	Wait for the dialling tone, and dial the number of person B.	
	3 Dial R, 2 to switch back to person A.	
	Person B is put on hold.	
Call Waiting	You are in a phone conversation with person A while person B is calling you. The phone produces a waiting tone and - if CLIP is enabled and CLIR disabled - displays the number of person B.	
	Do one of the following:	
	To reject the incoming call, dial <b>R</b> , <b>0</b> .	
	To terminate the first call and to switch to the waiting call, dial R, 1.	
	If you do not want to terminate the first call, dial <b>R</b> , <b>2</b> to keep the first caller on hold while answering the second call.	
	To return to person A while putting person B on hold, dial R, 2.	
	To return to person A while terminating the call with person B, dial <i>R</i> , <i>1</i> .	
Call Transfer	You receive a phone call from person A and you want to transfer him to person B.	
	1 Dial <i>R</i> , 2.	
	2 Wait for the dialling tone.	
	3 Dial the number of person B.	
	Person B picks up the phone.	
	4 Dial R, 4 to transfer the call.	
	5 Hang up.	





To use the service:	Proceed as follows:	
Conference Call (3 Parties)	<ol> <li>To set up a conference call:</li> <li>Call person A.</li> <li>Dial R, 2.         Person A is put on hold.     </li> <li>Wait for the dialling tone.</li> <li>Dial the number of person B.         Person B picks up the phone.     </li> <li>Dial R, 3.</li> <li>Once the conference call has been established, you can:</li> <li>Dial R, 2 to put the 2 calls on hold.</li> <li>Dial R, 3 to retrieve the 2 held calls.</li> </ol>	
CLIR on call basis	It is possible to hide your phone number for one particular call. Dial *31* directly followed by the phone number of person A.	
Forced FXO	To make a phone call over the regular telephone line:  1 Dial *01*.  2 Wait for the dialling tone, and then dial the phone number of person A.	

### Command overview

The table below lists all standard service codes of the telephony services. These might be different on your SpeedTouch $^{TM}$ , depending on your provider.

Phone command:	Is used to:	
R 0	<ul><li>drop a held call</li><li>reject an incoming call</li></ul>	
R 1	<ul> <li>terminate an active call and switch to the waiting or held call</li> </ul>	
R 2	<ul> <li>put a call on hold</li> <li>switch between active and waiting or held call</li> <li>put a conference call on hold</li> </ul>	
R 3	establish a 3-party conference call	
R 4	transfer a call	
*31*	<ul> <li>make an anonymous call (use CLIR) on call basis</li> </ul>	
*01*	use the regular telephone line	

### Address book

On the SpeedTouch™ Web pages, an address book is available list your contacts, so that you can easily call or e-mail them. For more information, see "5.5.2 Address Book" on page 70.



## 5 SpeedTouch™ Web Interface

### Embedded

The SpeedTouch<sup>TM</sup> comes with embedded Web pages, providing an interface to the software installed on the device. It allows easy setup and management of the SpeedTouch<sup>TM</sup> via your Web browser from any PC connected to the SpeedTouch<sup>TM</sup>.

See "1.2.1 Access via the Web Interface" on page 7 to access the pages.

# SpeedTouch™ documentation

### Consult:

► The SpeedTouch™ Installation and Setup Guide for more information on setup and installation procedures.



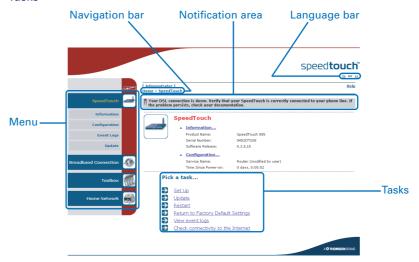


## 5.1 Navigation

### Navigation components

The SpeedTouch  $^{\text{TM}}$  Web interface consists of the following components:

- Menu
- Language Bar
- Navigation Bar
- Notification Area
- Tasks





### 5.1.1 Menu

### Menu items

The menu is located on the left side of the page and consists of the following menu items:

SpeedTouch:

Provides basic information on the SpeedTouch $^{\text{TM}}$ .

▶ Broadband Connection:

Allows you to view/configure your broadband connections.

Toolbox:

Allows you to assign games or applications to a device and secure your Internet connection.

▶ Home Network:

Allows you to manage your local network.

# Collapsing and expanding the menu

You can collapse/expand the menu by clicking the arrow located at the top of the menu.







## 5.1.2 Language Bar

Language bar

The language bar is located under the SpeedTouch<sup>TM</sup> logo and allows you to change the language of the SpeedTouch<sup>TM</sup> Web interface.



The language bar will only be shown if more than one language is available.



## 5.1.3 Navigation Bar

### Navigation bar

The navigation bar is located at the top of the page and allows you to:

- View the current user name.
   Click this name to change your password or switch to another user.
- View the current position on the SpeedTouch™ Web interface.
- ▶ Get context-related **Help** information.

### Display level

Depending on the page you are viewing, the following buttons will be available:

- Overview to view a summary of the current status or configuration.
- Details to view more detailed information on the current status or configuration.
- Configure to change the current settings.





## 5.1.4 Notification Area

### Notification area

The notification area is located under the Navigation Bar and is used to display:

- Error messages, indicated by a red traffic light.
- Warnings, indicated by an orange traffic light.
- Information, indicated by a green traffic light.



If none of these events occur, the notification area will not be shown.



## 5.1.5 Tasks

Tasks

To allow a quick configuration of your SpeedTouch<sup>TM</sup>, some pages may offer you a number of related tasks in the **Pick a task** list. These tasks will guide you to the page where you can perform the selected task.





### 5.2 Home

# SpeedTouch™ home page

The SpeedTouch<sup>TM</sup> home page gives you a short overview of all the configurable aspects of the SpeedTouch<sup>TM</sup>:

- SpeedTouch
- Broadband Connection
- Toolbox
- ▶ Home Network









## 5.3 SpeedTouch

### The SpeedTouch menu

The **SpeedTouch** menu consists of the following items:

- Information
- Configuration
- Event Logs

### The SpeedTouch page

The **SpeedTouch** page gives you some basic information on the SpeedTouch™:

- Product Information
- Configuration







### 5.3.1 Information

### Information

The **Information** page summarizes important information on your SpeedTouch $^{\text{TM}}$ . You may need this information when you contact your helpdesk.



### **System Information**

This page summarizes important information on your SpeedTouch. You may need this information when you contact your helpdesk.

 Product Name:
 SpeedTouch XXX

 Serial Number:
 0452DT108

 Software Release:
 X.X.X.X

 Software Variant:
 AA

 Boot Loader Version:
 1.0.16

 Product Code:
 35723430

 Board Name:
 BANT-K



## 5.3.2 SpeedTouch™ Easy Setup

### Easy Setup Wizard

The Easy Setup Wizard helps you to configure your SpeedTouch  $^{\rm TM}$  Internet connection.

Proceed as follows to configure the SpeedTouch  $^{\text{TM}}$  using the SpeedTouch  $^{\text{TM}}$  Easy Setup wizard:

- 1 In the left menu, click **SpeedTouch**.
- 2 In the Pick a task list, click Set up.

The **Easy Setup** wizard will now guide you through the configuration of your SpeedTouch $^{\rm TM}$ .







### 5.3.3 Restart

# Restarting your SpeedTouch™

### Proceed as follows:

- 1 In the left menu, click **SpeedTouch**.
- 2 In the Pick a task list, click Restart. The following message appears:



3 Click Yes, restart my SpeedTouch.

The SpeedTouch $^{\text{TM}}$  restarts.

The SpeedTouch™ returns to the Home page.





### 5.3.4 Configuration

Overview

The **Overview** page displays the current configuration of your SpeedTouch™.

**Details** 

The **Details** page displays more detailed information on the current configuration of your SpeedTouch $^{TM}$ .

### Configure

The **Configure** page allows you to change the current configuration.



#### System Configuration

This page lets you configure your SpeedTouch.

Service Configuration

You cannot directly edit the service settings of your SpeedTouch. In order to modify those settings, you must use the <u>Configuration Wizard</u> and follow the instructions appearing on the screen.

	Service Name:	Routed PPPoE on 0/35 and 8/35
•	Time Configuration	
	Auto-configuration:	
	Date (dd-mm-yyyy):	
	Time (hh:mm:ss):	: :
	Timezone:	(UTC+01:00) Amsterdam, Bern, Rome, Str 💌
	Summer Time:	
•	System Configuration	
	Web Browsing Interception:	Disabled
		Apply Cancel

### If you want to:

- ▶ Reconfigure your SpeedTouch<sup>TM</sup>: Click Configuration Wizard under Service Configuration. For more information, see "5.3.2 SpeedTouch<sup>TM</sup> Easy Setup" on page 57.
- Configure the time settings of your SpeedTouch™:
  - Select Auto-configuration if you want the SpeedTouch™ to use a time server to synchronise its clock to a dedicated time server.
  - Clear Auto-configuration to manually configure the SpeedTouch™ time settings.
- Disable/enable Web browsing interception or set it to automatic: In the Web Browsing Interception list, click the Web browsing interception setting of your choice.
  - If you disable Web browsing interception or set it to automatic you will not be able to use Parental Control.

Click Apply to apply and save your settings.





### 5.3.5 Back up & Restore

### Introduction

The Back up & Restore page allows you to:

- Save your current configuration.
- Restore a previously saved configuration.



#### **Backup & Restore**

This page enables you to save and restore the configuration of your SpeedTouch. Follow instructions below...

Backup current configuration

In order to store the current configuration of your SpeedTouch, click on the `Backup Configuration Now...' button. You will be prompted by your web browser to store the configuration file locally on your hard disk. Choose a location and store the file on your computer.

Backup Configuration Now...

· Restore saved configuration

You can restore a configuration file you have previously stored on your computer.

Click on `Browse', choose the configuration file you want to restore on your SpeedTouch and click on `Restore Configuration Now...' to restore the configuration.

Configuration File:		Browse
Restore Configuration N	low	

# Accessing the Backup & Restore page

### Proceed as follows:

- 1 In the SpeedTouch menu, click Configuration.
- 2 Click Configure.
- 3 In the Pick a task list, click Save or Restore Configuration.

## Saving your current configuration

### Proceed as follows:

- 1 Click Back up Configuration Now.
- 2 Click Save.
- 3 Choose a location to save your backup file and click Save.

# Restoring a previously saved configuration

### Proceed as follows:

- 1 Click Browse.
- 2 Select the configuration file you want to restore and click **Open**.
- 3 Click Restore Configuration Now.

The SpeedTouch  $^{\text{TM}}$  loads your configuration and restarts.

At the end of the procedure, the SpeedTouch™ returns to the Home page.



### 5.3.6 Reset to Factory Defaults

### Introduction

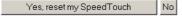
The **Reset to Factory Defaults** page allows you to reset the SpeedTouch™ to return to the initial configuration of your SpeedTouch™. All your changes will be deleted. The following message appears:



### **Warning: Reset to Factory Defaults**

You are about to reset your SpeedTouch to factory default settings. All active connections will be disconnected.

Do you want to proceed?



### Resetting the SpeedTouch™ factory defaults

### Proceed as follows:

- In the left menu, click SpeedTouch.
- In the Pick a task list, click Return to Factory Default Settings.
- 3 Click Yes, reset my SpeedTouch.



If you reset your SpeedTouch™ to factory default settings, all active connections will be disconnected.





### 5.3.7 Event Logs

### **Event Logging**

The **Event Logs** page summarizes the last events recorded on your SpeedTouch™.



#### **Recorded Events**

The **Recorded Events** table gives you an overview of the last event logs that have been recorded since the SpeedTouch™ was turned on. The first column of the table indicates the importance of the event log.

Indicator	Description
8	Informational
	Warning
8	Error

### Category

The **Category** list allows you to filter the events shown in the **Recorded Events** table. For example, by clicking **Security** you can view all security related events, for example generated by the SpeedTouch™ firewall.





### 5.4 Broadband Connection

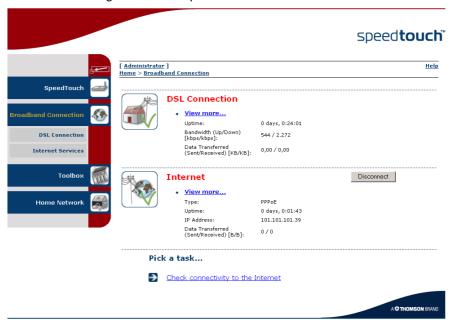
# The Broadband Connection menu

The Broadband Connection menu consists of following menu items:

- DSL Connection
- Internet Services

# The Broadband Connection page

The **Broadband Connection** page gives you a short status overview of the connections configured on the SpeedTouch<sup>TM</sup>.



Click View more to see more information on the selected broadband connection.



If you configured a dial-up connection, you can establish/terminate the connection by clicking **Connect/Disconnect**.

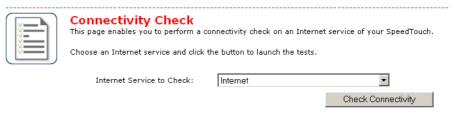




### 5.4.1 Connectivity Check

### Introduction

On this page, you can perform a connectivity check on an Internet service of your SpeedTouch™. The following message appears:



# Checking your Internet connectivity

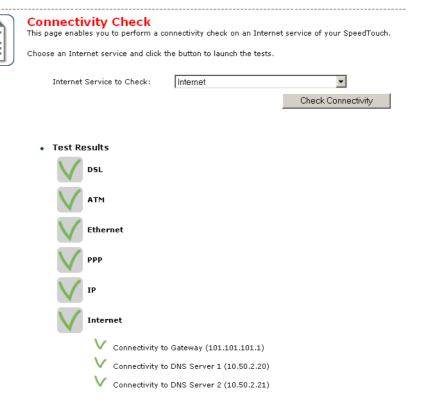
### Proceed as follows:

- 1 In the left menu, click Broadband Connection.
- 2 In the Pick a task list, click Check connectivity to the Internet.
- 3 In the Internet Service to Check list, click the Internet service that you want to check.
- 4 Click Check Connectivity.

The SpeedTouch™ lists the test results in the **Test Results** list.

## Analysing the test results

If the test is successful, you will get a list of green check marks. Otherwise a red cross will indicate which tests have failed.







# 5.4.2 DSL Connection

Overview

Click **Overview** to view basic information on your DSL connection.

Details

Click **Details** to view more detailed information on your DSL connection.



### **DSL Connection**

Link Information

HEC Errors (Up/Down):

Uptime: 4 days, 4:19:08 Modulation: G.992.1 Annex A Bandwidth (Up/Down) [kbps/kbps]: 512 / 4.640 Data Transferred (Sent/Received) [MB/MB]: 36,15 / 385,19 Output Power (Up/Down) 11,5 / 19,5 [dBm]: Line Attenuation (Up/Down) 14,0 / 25,0 [dB]: SN Margin (Up/Down) [dB]: 19,0 / 19,5 Vendor ID (Local/Remote): TMMB / ALCB Loss of Framing (Local/Remote): Loss of Signal (Local/Remote): 0/0 Loss of Power (Local/Remote): 0/0 Loss of Link (Remote): Error Seconds 0/0 (Local/Remote): FEC Errors (Up/Down): 0/0 CRC Errors (Up/Down): 0/0

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# 5.4.3 Internet Services

# Internet Services information

The Internet Services page displays information on your Internet Connection(s).



### Internet

Disconnect

• View more...

 Type:
 PPPoE

 Uptime:
 1 day, 4:14:25

 IP Address:
 217.136.53.59

 Data Transferred (Sent/Received) [MB/MB]:
 14,70 / 328,71



If you configured a dial-up connection you can establish/terminate the connection by clicking **Connect/Disconnect**.

To view more detailed information on a specific connection, click the **View more** link of the corresponding connection.





# 5.4.4 Internet Service Settings

# Accessing the Internet Service Settings page

Proceed as follows:

- In the Broadband Connection menu, click Internet Services.
- 2 Click the View more link of the Internet service you want to view.

#### Overview

The **Overview** page gives you basic information on the selected Internet Service.



If you configured a connection you can establish/terminate the connection by clicking **Connect/Disconnect**.

#### Details

The **Details** page gives you more detailed information on the selected Internet Service.



#### Internet

Disconnect

• Connection Information

Uptime: 1 day, 4:13:24
Data Transferred
(Sent/Received) [KB/B]: 14,65 / 325,99

Connection Settings

PVC Info (VPI.VCI): 8.35 Type: PPPoE

PPP Settings

Username: cpesit@rednet
Password: \*\*\*\*\*\*\*\*
Connection Mode: Always-On
Service Name: -

Concentrator Name: 15031100007146-Redback

TCP/IP Settings

 IP Address:
 101.101.101.39/32

 Default Gateway:
 101.101.101.1

 Primary DNS:
 10.50.2.20

 Secondary DNS:
 10.50.2.21



If you configured a dial-up connection you can establish/terminate the connection by clicking **Connect/Disconnect**.





# 5.5 Toolbox

#### The Toolbox menu

The **Toolbox** menu consists of the following menu items:

Remote Assistance

Allows you to make your SpeedTouch™ accessible for remote support.

Address Book

Allows you to add, edit or delete contacts.

Telephony

Allows you to configure your Voice over IP (VoIP) network.

Game & Application Sharing

Allows you to share services and games that you run in your private network towards the Internet.

Parental Control

Allows you to block/allow access to specific Web sites.

Firewall

Allows you to configure the security level of the SpeedTouch™ firewall.

▶ Intrusion Detection

Allows you to view the intrusions you are protected against.

Dynamic DNS

Allows you to assign a DNS host name to your broadband connection(s).

User Management

Allows you to manage the users configured on your SpeedTouch™.

## The Toolbox page

The **Toolbox** page gives you an overview of the available services and their current status. You can click on the names of these services to go to the corresponding Web page.







# 5.5.1 Remote Assistance

# Enabling Remote Assistance

The **Remote Assistance** page allows you to make your SpeedTouch™ accessible for remote support.





If you want to enable remote assistance, you must be connected to the Internet.

Proceed as follows to use remote assistance:

- 1 If necessary, type a password in the **Password** box.
- 2 Click Enable Remote Assistance.
- 3 Pass the information listed under:
  - URL
  - Username
  - Password

to your technical support, in order for them to be able to access your SpeedTouch $^{\mathsf{TM}}$ .



Once the technical support is connected, no other connections can be made.

# Terminating remote assistance

The remote assistance session ends:

- if the technical support disables remote assistance.
- after 20 minutes of inactivity.
- ▶ after restarting your SpeedTouch™.



SpeedTouch™ Web Interface

# 5.5.2 Address Book

## The Address Book page

The **Address Book** page allows you to add, edit or delete contacts so that you can easily call or e-mail them.



### **Address Book**

Contacts



#### Contact Details

Per Contact following information can be specified:

- Last and First Name
- Business, Home and Mobile telephone number
- The Voice over IP SIP URI
- ▶ E-mail address

## Managing contacts

you can freely add, edit or delete contacts from your address book.

You can:

- Click Add to add a contact.
- Click Edit to edit a contact.
- Click Delete to delete a contact.

All information provided per contact is optional except for the Last and First Name, and can be updated or completed at any time.



The Address book resides on the SpeedTouch™, so everyone that is allowed access to the SpeedTouch™ web interface can view and use the Address book.

### Using the Address book

The contact details of a contact in your Address book allow you to directly make a call or send a message from out the SpeedTouch™ web interface.

Per contact you can click (if available):

- **Business:** to make a call to the contact's business telephone number
- **Home**: to make a call to the contacts home telephone number
- Mobile: to make a call to the contact's mobile telephone number
- Other or SIP uri: to make a call to the contact's VoIP telephone number
- **E-mail**: for sending an E-mail message to the contact.



Am E-mail client must be installed on the host from which you initiate the E-mail message.





# 5.5.3 Telephony

### Introduction

The SpeedTouch™ is equipped with:

- Two Phone ports allowing you to connect up to two phones for making phone calls over the Internet.
- One PSTN port allowing you to make phone calls over the Public Switched Telephone Network (PSTN) network.



For more information on how to set up your Voice over IP (VoIP) network, consult the User's Guide on the SpeedTouch™ Setup CD.

#### Overview

On this page you can view the ten last calls (or missed calls) handled by your SpeedTouch<sup>TM</sup>. Incoming and Outgoing calls are indicated as follows:

Indicator	Description
<b>→</b>	Incoming call
<b>←</b>	Outgoing call

To view the complete list, click **View telephony statistics and logs** in the **Pick a task** list.



For more information, see "5.5.4 Telephony Statistics" on page 75.

## Details

On this page you can view detailed information on your current VoIP configuration.



## Telephony

Service Configuration
 Service Enabled: Yes

Telephone Numbers

 SIP URI:
 11

 Username:
 johndoe

 Password:
 \*\*\*\*\*\*\*\*\*

 Port:
 FXS1





## Configure

This page allows you to:

- Disable/enable the telephone service.
- Configure your VoIP settings:
  - ▶ SIP Uniform Resource Identifier (URI)
  - Username and password:

The username and password are used when authentication is requested by another SIP entity such as a Proxy or Registrar.

Port:

The voice port that will be associated with this account.



# Telephony

•	Service Configuration		
	Service Enabled:	<b>☑</b>	
•	Telephone Numbers		
	SIP URI:	11	
	Username:	john	
	Password:	•••••	
	Confirm Password:	•••••	
	Port:	all	•
		Apply (	Cancel

# **Expert Configure**

On this page you can view/change the following SIP parameters:

Registrar:

The IP address of your SIP registrar.

Registrar Port:

The port used by your SIP registrar (usually port 5060). This port will be used to contact the SIP registrar.

Proxy:

The IP address of your SIP proxy.

Proxy Port:

The port used by your SIP proxy (usually port 5060). This port will be used to contact the SIP proxy server.

Expire Time

When the **Expire Time** is not filled in, a default value of 3600 seconds will be used



#### Telephony

 Service Configuration

 Registrar:
 10.50.2.60

 Registrar Port:
 5060

 Proxy:
 10.50.2.60

 Proxy Port:
 5060

 Expire Time:
 3600

 Apply
 Cancel

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# Telephony services table

To view the telephony services:

- 1 In the upper right corner, click **Details**.
- 2 In the Pick a task list, click View telephony services.

Configure View the telephony services:

- 1 In the upper right corner, click Configure.
- 2 In the Pick a task list, click Configure telephony services.

This table consists of the following columns:

#### Services:

Depending on you provider's configuration, the following services will be available:

#### Call Hold:

Allows you to put a call on hold, and return to the call whenever you want. When the call is on hold you can dial another number or take an incoming call.

## Call Waiting:

Allows you to you to answer or reject an incoming call while you are in a conversation.

#### Call Transfer:

Allows you to transfer a call to another person.

#### Conference Call (3 Party):

Allows you to make a conference call.

#### Calling Line Identification Presentation:

Allows you to see the phone number of the person who is calling you on your phone display and in the statistics.

# Calling Line Identification Restriction:

Allows you to hide your phone number when making phone calls.

#### Forced FXO:

Allows you to force the SpeedTouch  $^{\text{TM}}$  to make the phone call over the PSTN.

## Code:

Displays the code assigned to this service. To:

- Activate a service dial "\*" followed by the corresponding code.
- Deactivate a service dial "#" followed by the corresponding code.

The service will automatically be activated after a few seconds. To immediately activate it, dial "#" after dialling the code.

#### Activated:

Indicates whether the service is activated or not.



To activate a service, click **Configure** in the upper right corner.





# • Telephony Services

Service	Code	Activa	ited
Call Hold	22	✓	
Call Waiting	43		
Call Transfer	96	✓	
Conference Call (3 Party);	95	✓	
Calling Line Identification Presentation	30	✓	
Calling Line Identification Restriction	31		
Private Number	99	✓	
Forced FXO	01	✓	
		Apply	Cano





# 5.5.4 Telephony Statistics

# On this page

On this page, you can view:

- Call Statistics
- Call Log

## Call Statistics

The Call Statistics page allows you to view the number of:

- Successful incoming calls
- Missed incoming calls
- Successful outgoing calls
- Failed outgoing calls

for the two phones separately or combined.



# **Telephony Statistics**

Call Statistics

	Phone1	Phone2	Total	
Incoming Successfull	2	0	2	
Incoming Missed	0	0	0	
Outgoing Succesfull	1	0	1	
Outgoing Failed	1	0	1	

Call Log

	Time	Local Number	Remote Number	Duration	Port
<b>→</b>	01/01/70 00:35:40	11		0 days, 0:00:21	FXS1
<b>→</b>	01/01/70 00:34:45	11		0 days, 0:00:46	FXS1
<b>←</b>	01/01/70 00:34:18	11	20	0 days, 0:00:14	FXS1
<b>←</b>	01/01/70 00:10:11	11	24	0 days, 0:00:04	FXS1

## Call Log

The **Call Log** page allows you to view a list of the telephone calls handled by the SpeedTouch $^{TM}$ . Incoming and Outgoing calls are indicated as follows:

Indicator	Description
<b>→</b>	Incoming call
+	Outgoing call





# 5.5.5 Game & Application Sharing

### Overview

The **Overview** page summarizes the applications or games installed on a particular local host on your network, for which the SpeedTouch™ should accept inbound initiated connections coming from the Internet.

## Configure

On the Configure page, you can:

▶ Select **Use UPnP** to enable UPnP on the SpeedTouch<sup>TM</sup>.

UPnP provides NAT-Traversal: UPnP aware applications on a PC will automatically create Hyper-NAT entries on the SpeedTouch<sup>TM</sup> for incoming traffic on the protocol ports this type of traffic needs. As a consequence these applications are able to traverse the SpeedTouch<sup>TM</sup> without the need for extra and manual configuration.



UPnP is an architecture for transparent peer-to-peer connectivity of computers, intelligent appliances, and (wireless) devices. It enables seamless operation of a wide range of games and messaging applications.

For security reasons you are able to configure the UPnP policy towards Windows XP and UPnP aware applications and Operating Systems.

In case you select the **Use Extended Security** check box, only limited UPnP operation between a host running MS Windows XP and the SpeedTouch™ is allowed: A local host is:

- NOT allowed to connect/disconnect the SpeedTouch™ Internet Gateway Device (IGD) connection.
- Allowed to add/delete Hyper-NAT entries only for its own IP address, not for other local hosts.

If you clear the **Use Extended Security** check box, all UPnP- and IGD-based communication between any local host and the SpeedTouch™ is allowed.





Assign a game or application to a specific network device.



Game & Application Sharing
This page summarizes the games and applications defined on your SpeedTouch. Each game or application can be assigned to a device on your local network.

#### Universal Plug and Play

Universal Plug and Play (UPnP) is a technology that enables seamless operation of a wide range of games and messaging applications.

Use UPnP:	<b>V</b>		
Use Extended Security:			
		Apply	Cancel

#### Assigned Games & Applications

Click on 'Unassign' to disable a game or a application or use the last row in the table to assign a game or application to a local network device.

If the game or the application you are looking for does not exist, <u>click here</u> to create it (you will be asked for game or application details).

Choose 'User-defined' in the device list and enter its IP address if the device you are looking for does not appear in the device list.

Game or Application	Device	Log		
FTP Server	<u>YourPC</u>	Off	<u>Edit</u>	<u>Unassign</u>
HTTP Server (World Wide Web)	YourPC	Off	<u>Edit</u>	<u>Unassign</u>
NetMeeting	<u>YourPC</u>	Off	<u>Edit</u>	<u>Unassign</u>
ABC (Another Bittorent Client)	YourPC 🔻			Add



# 5.5.6 Defined Games & Applications

Accessing the Defined Games & Applications Proceed as follows to access the **Defined Games & Applications** page:

- In the Toolbox menu, click Game & Application Sharing.
- In the Pick a task list, click Modify a game or application.

The Defined Games & Applications page

This page gives you an overview of the games and applications defined on your SpeedTouch™. Each game or application can be assigned to a device on your local network.



**Defined Games & Applications**This page summarizes the games and applications defined on your SpeedTouch. Each game or application can be assigned to a device on your local network.

Game or Application	Assigned to	Mode		
ABC (Another Bittorent Client)		Client	<u>Edit</u>	<u>Delete</u>
Age of Empires		Server	<u>Edit</u>	<u>Delete</u>
Age of Mythology		Server	<u>Edit</u>	<u>Delete</u>
AIM Talk		Client	<u>Edit</u>	<u>Delete</u>
Aliens vs. Predator		Server	<u>Edit</u>	<u>Delete</u>
America s Army		Server	<u>Edit</u>	<u>Delete</u>
Azureus		Client	<u>Edit</u>	<u>Delete</u>
Bay VPN		Server	<u>Edit</u>	<u>Delete</u>
<u>BearShare</u>		Server	<u>Edit</u>	<u>Delete</u>
<u>BitTorrent</u>		Client	<u>Edit</u>	<u>Delete</u>
Black and White		Server	<u>Edit</u>	<u>Delete</u>
Call of Duty		Server	<u>Edit</u>	<u>Delete</u>
Call of Duty - United Offensive		Server	<u>Edit</u>	<u>Delete</u>
CarbonCopy32		Server	<u>Edit</u>	<u>Delete</u>
Castle Wolfenstein		Server	<u>Edit</u>	<u>Delete</u>
Championship Manager 03-04		Server	<u>Edit</u>	Delete
Checkpoint FW1 VPN		Server	<u>Edit</u>	Delete
Command and Conquer Generals		Server	<u>Edit</u>	Delete
Command and Conquer Zero Hour		Server	<u>Edit</u>	Delete
Counter Strike		Server	<u>Edit</u>	<u>Delete</u>
Cu-SeeMe Cornell		Server	<u>Edit</u>	<u>Delete</u>
Cu-SeeMe White Pine 3.1.2 and 4.0		Server	Edit	Delete
Dark Reign 2		Server	<u>Edit</u>	Delete
Default Server		Server	Edit	Delete
Delta Force		Server	Edit	Delete
Destroyer Command		Server	<u>Edit</u>	Delete
<u>Diablo II</u>		Server	<u>Edit</u>	Delete
Direct Connect		Server	Edit	Delete
DirectX 7		Server	<u>Edit</u>	Delete
DirectX 8		Server	Edit	Delete
DirectX 9		Server	<u>Edit</u>	Delete
Doom3		Server	Edit	Delete
<u>Dune 2000</u>		Server	<u>Edit</u>	Delete
Dungeon Siege		Server	Edit	Delete
<u>eDonkey</u>		Server	<u>Edit</u>	Delete
Elite Force		Server	Edit	Delete
<u>eMule</u>		Server	Edit	Delete
Enemy Territory		Server	Edit	Delete
Everquest		Server	Edit	Delete
eun varauda		C	m dia	D-1-4-

# If you want to:

- View the translation rules of a game or application, click the name of the rule.
- Change the translation rules of a game or application, click the Edit link of the game or application.
- Remove a game or application from your SpeedTouch™, click the **Delete** link of the game or application.





# 5.5.7 Game or Application Definition

# Accessing the Game or Application Definition page

Proceed as follows to access the Game or Application Definition page:

- 1 In the Toolbox menu, click Game & Application Sharing.
- 2 In the Pick a task list, click Modify a game or application.
- 3 Click the name of the game or application you want to view/change.

### Overview

This page gives you an overview of the port mappings used to allow this service or game to be initiated from the Internet.



Consult the user's guide or support pages of your application to know which ports are being used by this application.

A service consists of one or more TCP/UDP port ranges. Each incoming port range can be translated into a different internal (local network) port range. Port ranges can be statically assigned to devices or dynamically assigned using an outgoing trigger.

## Configure

#### Under:

- Game or Application Name you can: Change the name of the game or application.
- Game or Application Definition you can: Change the TCP/UDP port definition for this game or application.



#### **Lotus Notes**

Game or Application Name

New Name:	Lotus Notes		
	A	Apply	Cancel

Game or Application Definition

A game or application is made of one or more TCP/UDP port ranges. Each incoming port range can be translated into a different internal (local network) port range. Port ranges can be statically assigned to devices or dynamically assigned using an outgoing trigger.

Protocol	Port Range	Translate To	Trigger Protocol	Trigger Port	
Any	1352 - 1352	1352 - 1352	-	-	Edit Delete
Any 🔻	to		Any		Add





# Adding a Port Translation rule

### Proceed as follows:

- 1 Click the **Edit** link of the TCP/UDP port definition of the game or application.
- 2 In the **Protocol** list, click the protocol the game or application uses.
- 3 In the **Port Range** box, type the port range the game or application uses.
- 4 In the **Translate To** box, type the port range to which the SpeedTouch<sup>™</sup> has to translate the ports specified under **Port Range**.
- 5 If you want to make a dynamic translation rule you must specify a trigger protocol and port.



As soon as the SpeedTouch $^{\text{TM}}$  receives outgoing traffic on this trigger port, it will activate this translation rule.

6 Click Apply.



# 5.5.8 New Game or Application

# Creating a new game or application

#### Proceed as follows:

- 1 In the Toolbox menu, click Game & Application Sharing.
- 2 In the Pick a task list, click Create a new game or application. The following window appears:



- **3** Type the name of the game or application in the **Name** box.
- 4 Click:
  - Clone Existing Game or Application if you want to start from the port mappings of the selected game or application.
  - Manual Entry of Port Maps if you want to manually configure the port mapping for this game or application.

The SpeedTouch™ creates the game or application and takes you to the Game or Application Definition page to configure the port mappings for this game or application.

5 Enter the necessary port mappings and click Add.





# 5.5.9 Parental Control

#### Parental Control

The SpeedTouch™ allows you to block/allow particular Web sites:

Based on the Web site's URL.



As within a Web site lots of references can be made to other URLs, it is recommended to use this feature in combination with content based filtering.

By redirecting a Web site to another Web site.



If your administrator account is configured as default user, make sure you configure a password for this account or change the default user. Otherwise users on your local network can browse to your SpeedTouch™ to disable your filtering rules.

For more information, see "5.5.14 User Management" on page 91 and "5.5.16 Change Default User" on page 94.

### Overview

The **Overview** page displays:

▶ The current Address Based Filtering rules.

# Configure

On the **Configure** page, you can:

- Deny access to a specific web site.
- Allow access to a specific Web site.
- ▶ Redirect a Web site.





# Deny access to a specific Web site

#### Use this feature if:

- Allow is selected under Action for Unknown Sites.
- **Block** is selected under **Action for Unknown Sites** and you want to make an exception on an allow rule. For example: you are allowing "provider.com" but you want to deny access to "mail.provider.com".
- A content category/group is allowed by Content Based Filtering and you want to make an exception. For example: you are allowing **Web Mail** content but you want to deny access to "mail.provider.com".

#### Proceed as follows:

- 1 Type the URL of the Web site you want to block (for example "mail.provider.com") in the **Web Site** box.
- 2 In the Action list, click:
  - Block if you want to block this Web site.
  - Redirect if you want to redirect to another page. Type the address of the redirect page in the Redirect box.
- 3 Click Add.

# Allow access to a specific Web site

#### Use this feature if:

- Block is selected under Action for Unknown Sites
- Allow is selected under Action for Unknown Sites and you want to make an exception on a block/redirect rule. For example: you are blocking "bank.com" but you want to allow access to "netbanking.bank.com".
- A content category/group is blocked by Content Based Filtering and you want to make an exception. For example: you are blocking **Finance / Investment** content but you want to allow access to "netbanking.bank.com".

## Proceed as follows:

- 1 Type the URL of the Web site you want to allow (for example "netbanking.bank.com") in the **Web Site** box.
- 2 Click Allow in the Action list.
- 3 Click Add.

# Redirect a Web site

#### Proceed as follows:

- 1 Type the URL of the Web site you want to redirect (for example "cracks.am") in the Web Site box.
- 2 Click Redirect in the Action list.
- Type the URL of the Web site you want to redirect to (for example "mycompany.com/internetpolicy.htm") in the **Redirect** box.
- 4 Click Add.





# Redirecting all Web

#### Proceed as follows:

- 1 Type "\*" in the Web Site box.
- 2 Click Redirect in the Action list.
- **3** Type the URL of the Web site you want to redirect to (for example "mycompany.com/internetpolicy.htm") in the **Redirect** box.
- 4 Click Add.
- 5 Type the URL of the Web site you want to redirect to (for example "mycompany.com/internetpolicy.htm") in the **Web Site** box.
- 6 Click Allow in the Action list.
- 7 Click Add.

# Configure content based filtering settings

## Under Content Based Filtering you can:

- Enable/disable content based filtering.
- Allow/block uncategorized Web sites.
- Select a content level in the Content Level list.



To change a content level definition, click the **Edit** link of the content level you want to change. For more information, see "5.5.10 Content Level" on page 85.



# 5.5.10 Content Level

# Accessing the Content Level page

Proceed as follows:

- 1 In the Toolbox menu, click Web Site Filtering.
- 2 Click Configure.
- 3 Click the Edit link of the content level you want to edit.

### Overview

The **Content Level** page gives you an overview of the different categories and their rules.

The following icons indicate whether the content type is allowed or not.

Icon	Description
V	The category/group is allowed.
×	The category/group is not allowed.
M	The group is partly allowed.

# Configure

This page allows you to change:

- The content level name.
- ▶ The content level description.
- The content level configuration.





# 5.5.11 Firewall

#### About the firewall

The firewall allows you to secure traffic from and to the SpeedTouch™. There are different security levels, depending on the degree of security you need.

#### Overview

The **Overview** page summarizes the overall security policy configured on your SpeedTouch $^{TM}$ .

# Configure

On the **Configure** page you can select the security level of the SpeedTouch™.



#### Firewall

This page summarizes the overall security policy configured on your SpeedTouch.

Security Settings

Security Level:

O BlockAll

Use this Security Level to block all traffic from and to the Internet. Game & Application sharing is not allowed by the firewall.

Standard

Use this Security Level to allow all outgoing connections and block all incoming traffic. Game & Application sharing is allowed by the firewall..

C Disabled

Disable the firewall. All traffic is allowed to pass through your SpeedTouch. Game & Application sharing is allowed by the firewall.



# Security Levels

Select one of following security levels:

#### BlockAll:

All traffic from and to the Internet is blocked. Game and Application Sharing is not allowed by the firewall.



Although BlockAll should block all connections, some mandatory types of traffic such as DNS will still be relayed between LAN and WAN via the SpeedTouch™.

#### > Standard:

All outgoing connections are allowed. All incoming connections are blocked, except for inbound connections assigned to a local host via Game and Application Sharing.

#### Disabled

All in- and outgoing traffic is allowed to pass through your SpeedTouch™, including Game and Application Sharing.
This is the default firewall level.



The firewall levels only have impact on the forward hook. This means that the handling of traffic from and to the Web pages of the SpeedTouch™ is independent of the selected firewall level.



Protocol checks will be performed on all accepted connections, irrespective of the chosen level. You can only disable protocol checks via the CLI.





# Details of a security level

To view the details of the currently active security level:

- 1 In the Toolbox menu, click Firewall.
- 2 Click the **Details** link.

Following information is provided per rule that is part of the security level

- The name of the rule
- The **Action** that is applied on the traffic when the rule is valid
- The Source and Destination interface or IP address (range) to which the rule applies
- The protocol or SpeedTouch™ Service for which the rule applies.
- The number of **Hits** (number of times that the rule was applied to traffic).

# Creating a new security level

#### Proceed as follows:

- 1 In the Toolbox menu, click Firewall.
- 2 In the upper right corner, click Configure.
- 3 In the Pick a task list, click Create a new Security Level.
- 4 In the Name box, type a name for the new security level.
- 5 Choose an existing security level to clone from.
- 6 Click Apply.

# Editing a security level

#### Proceed as follows:

- 1 In the Toolbox menu, click Firewall.
- 2 In the upper right corner, click Configure.
- 3 Select a security level, and then click the **Edit** link.

The firewall settings of the selected security level appear.

- 4 You can:
  - Select a row using the Edit link to modify the security rule.
  - Click Add to create a new security rule.
- **5** Edit or define following parameters of the rule:
  - The Name of the security rule
  - The Source Interface and IP Address (range)



Use **Any** as IP address in case all traffic for the interface should be parsed.

Or you can type a User-defined IP address (range).

The **Destination Interface** and **IP Address** (range)



Use **Any** as IP address in case all traffic for the interface should be parsed.

Or you can type a User-defined IP address (range).

The Service type of the traffic; this can be a protocol (dns, smtp, ...) or a specific SpeedTouch™ system service.





- **6** Select an **Action** that should be done on traffic for which the security rules applies:
  - ▶ Accept: to allow the traffic to pass
  - **Deny**: to drop the traffic (without notification)
  - **Count**: to let the traffic pass, but count it (Hits)
- 7 Click Apply.





# 5.5.12 Intrusion Detection

## Intrusion Detection

Your SpeedTouch™ protects your network against malicious intrusions. The **Intrusion Detection** page shows you the intrusions you are protected against.

The **Protected Intrusions** table shows the number of times the SpeedTouch™ actively protected your network against each intrusion since last statistics reset.





# 5.5.13 Dynamic DNS

## Dynamic DNS

The Dynamic DNS service allows you to assign a dynamic DNS host name (for example john.dyndns.org) to a broadband connection even if it is using a dynamic IP address. As soon as the device gets a new IP address, the dynamic DNS server updates its entry to the new IP address.

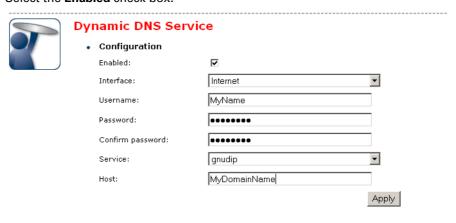
## Overview

Click **Overview** to view the different Dynamic DNS clients with their name, host names, interface and IP address.

## Configure

On the **Configure** page, you can assign a Dynamic DNS host name to a broadband connection. Proceed as follows:

- 1 Create an account at the Dynamic DNS service of your choice, for example:
  - www.dyndns.org
  - www.no-ip.com
  - www.dtdns.com
- 2 On the Dynamic DNS page, click Configure.
- 3 Select the Enabled check box.



- 4 If necessary, click the broadband connection to which you want to assign the Dynamic DNS hostname in the Interface list.
- 5 Type the user name and password of your Dynamic DNS service account in the corresponding fields.
- 6 In the **Service** list, click your Dynamic DNS service.
- 7 In the **Host** box, type the host name you want to assign to this interface (for example myspeedtouch.dyndns.org).
- 8 Click Apply.



# 5.5.14 User Management

### Overview

The **Overview** page gives you an overview of the currently configured users and their privileges.

Click the name of a user to edit his user account.



## **User Management**

This page provides you with information regarding the users configured on your SpeedTouch.

#### Local User Data

The table below shows the configured users who are able to access your SpeedTouch. You need to configure user privileges if you want to differentiate between people using your SpeedTouch. The current privileges of the user are mentioned in the privileges column.

Username	Privileges	Default User		
Administrator	Administrator	<b>V</b>	Edit	
<u>Jon</u>	User		<u>Edit</u>	<u>Delete</u>
<u>Melissa</u>	User		<u>Edit</u>	<u>Delete</u>
				Add

# Configure

On the **Configure** page, you can:

- Click Add to create a new user account.
- Click Edit to change a user account.
- Click Delete to remove a user.

# Types of users

The table below shows the types of users and their privileges:

User	Privileges
root	This is the root (master) account. This user has all privileges without any exceptions or limitations.
SuperUser	This user can perform any service via any access channel from any access origin.
TechnicalSupport	This user can perform any service via any access channel from WAN origin only.
Administrator	This user can perform any service via any access channel from LAN or Local origin only.
LAN_Admin	This user can perform only LAN related configurations via any access channel from any origin.
Poweruser	This user has access to the GUI (Service/overview page) via HTTP or HTTPS access channel from LAN origin only.





User	Privileges
WAN_Admin	This user can perform only WAN related configurations via any access channel from any origin.
User	This user has access to the GUI (Overview pages, remote assistance) via HTTP or HTTPS access channel from LAN origin only.
Guest	This user does not have any privileges.



# 5.5.15 Edit User

# Editing a user account

### Proceed as follows:

- 1 In the Toolbox menu, click User Management.
- 2 Under Local User Data, click the name of the user you want to edit.



### **Edit User**

This page allows you to edit the user settings. Besides resetting your password you're not allowed to change your own settings. If you want to have your settings changed, ask someone with higher privileges.

 User definition Name: Jon • User Administration Privileges: Reset Password Apply Cancel

The **Edit User** page appears. On this page, you can:

- Click Reset Password to reset the password of the selected user to the user name. So, if you reset the password of John his password will be "John".
- Change the administration rights of the selected user.



You can not change the administration rights of the account you are logged on with.





# 5.5.16 Change Default User

# The Default User page

On this page you can change the default user. If users browse to the SpeedTouch™ Web pages, they will be automatically logged on with this account.



To allow users to automatically log on under this account, this default user account must be configured with a blank password.

# Changing the default user

### Proceed as follows:

- 1 In the Toolbox menu, click User Management.
- 2 In the Pick a task list, click Set the default user.
- 3 The Change Default User page appears.



- 4 In the User Name list, click the name of the new default user.
- 5 Click Change Default User to confirm your choice.



# 5.5.17 Add User

# Adding users

### Proceed as follows:

- 1 In the Toolbox menu, click User Management.
- 2 In the Pick a task list, click Add new user.
- 3 The Add User page appears.



- 4 Under User definition you can configure:
  - The name of the new user.
    - The password of the new user will be equal to the user name; for example if the user name is John Doe, the password will be John Doe. Also when resetting a user, the password will be changed into the user name.
  - The administration rights of the new user.
    - (!)

You can only add users with less than or equal administration rights as yourself.





# 5.6 Home Network

### Home Network Menu

The **Home Network** menu consists of the following items:

- Devices
  - Allows you the view/configure the devices detected on your local network.
- Interfaces

Allows you to view/configure the interfaces that are available on the SpeedTouch  $^{\rm TM}$ .

# The Home Network page

The Home Network page gives you an overview of your SpeedTouch  $^{\text{TM}}$  network.

# Viewing (wireless) client information

If you click on a (wireless) client you can:

- View the (wireless) client's network settings.
- Configure the (wireless) client's network settings by clicking Configure.

# Viewing Telephony information

If you click **Telephony** you can view/change your VoIP configuration.

For more information, see "5.5.3 Telephony" on page 71.





# 5.6.1 Devices

#### Overview

The **Overview** page gives you an overview of the devices that are currently connected to the SpeedTouch<sup>™</sup> network. Click on a device name to get more information on a specific device.





The detected device 'dsldevice' is the SpeedTouch™ itself.

# Configure

The **Configure** page gives you an overview of the devices that are currently connected to the SpeedTouch $^{TM}$  network.

If you want to:

- Get more information on a specific device, click on the name of the device. See "5.6.2 Device Settings" on page 98 for more information.
- ▶ Edit a device from the **Detected Device(s)** list, click **Edit**.
- Delete a device from the **Detected Device(s)** list, click **Delete**.



Once a device connects to the SpeedTouch™ network, it will remain listed in the **Detected Device(s)** list until you delete it.





# 5.6.2 Device Settings

# Accessing the device settings page

Proceed as follows:

- 1 In the Home Network menu, click Devices.
- 2 In the **Detected Device(s)** list, click the name of the device you want to view.

#### Overview

The **Overview** page displays the following items:

- Information allows you to view:
  - Status shows whether the device is currently connected to the SpeedTouch™ network.
  - Type shows the device type.
  - Connected To shows the interface to which the device is currently connected.
- Addressing allows you to view:
  - Physical Address shows the MAC address of the device.
  - IP Address Assignment shows whether the device is using a static or dynamic IP address.
  - ▶ IP Address shows the current IP address of the device.
  - Always use the same address indicates whether the wireless client has a static DHCP lease or not.
  - DHCP Lease Time displays the time for which the wireless client can use this IP address.

### Connection Sharing:

Gives you an overview of the games or services that are currently assigned to this device. Click the name of the game or service to view the used port mappings.

For more information, see "5.5.7 Game or Application Definition" on page 79.

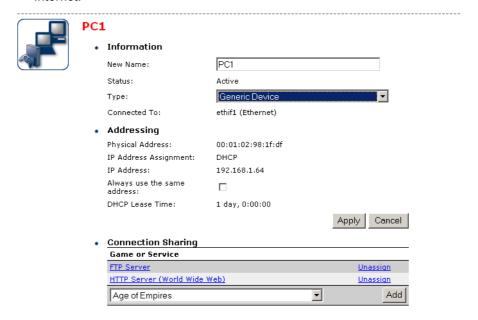




# Configure

The **Configure** page allows you to:

- Change the device information.
- Allow a game or service running on this device to be initiated from the Internet.







# 5.6.3 Assign Public IP

## Introduction

On this page you can assign the public IP address of your Internet Connection(s) to a specific device on your local network. You might want to do this if:

- You do not want to use the Network Address Translation engine of your SpeedTouch $^{TM}$ .
- This device is running server applications (Web server,...) and you want it to be accessible from the Internet.



You can also achieve this by creating a port mapping for the specified server, as described in "5.5.5 Game & Application Sharing" on

This device has to be considered as the unique access point to your local network (DMZ).



Be aware that the device to which you assign the public IP address will lose all security offered by the SpeedTouch™.

## Assigning the public IP address to a device

#### Proceed as follows:

- In the Home Network menu, click Devices.
- 2 In the Pick a task list, click Assign the public IP address of a connection to a device.
- 3 Click the **Edit** link of your Internet connection.
- 4 In the **Device** list, select the device you want to assign the public address to.



#### Assign the public IP address of a connection to a LAN device

This page allows you to assign the public IP address of your Internet Connection(s) to a specific device on your local network...

You might want to do this if:

- You encounter issues with some applications through the Network Address Translation engine of
- your SpeedTouch.

  This device is running server applications (web server, ...) and you want it to be accessible
- This device has to be considered as the unique entry to your local network (DMZ).



5 Click Apply.

> The SpeedTouch™ prompts you to make some adjustments as a result of the new configuration.

- 6 Click OK.
- 7 Release and renew the IP address of the device.



For more information, see your operating system's user guide or help.

8 If necessary, reassign server applications to this device.





### 5.6.4 Wireless Device Settings

#### Availability

This page is only available on SpeedTouch $^{\text{TM}}$  devices equipped with a wireless access point.

# Accessing the wireless device settings page

#### Proceed as follows:

- 1 In the Home Network menu, click Devices.
- In the Detected Device(s) list, click the name of the wireless device you want to view.

#### Overview

The **Overview** page displays the following items:

- Information allows you to view:
  - Status displays whether the device is currently connected to the SpeedTouch™ network.
  - **Type** displays the device type.
  - Connected To displays the interface to which the device is currently connected.
  - ► Allowed on LAN indicates whether the wireless client is allowed to connect to the SpeedTouch<sup>TM</sup> WLAN.
- Addressing allows you to view:
  - Physical Address displays the MAC address of the device.
  - IP Address Assignment displays whether the device is using a static or dynamic IP address.
  - ▶ IP Address displays the current IP address of the device.
  - Always use the same address indicates whether the wireless client has a static DHCP lease or not.
  - DHCP Lease Time displays the time for which the wireless client can use this IP address.

#### Connection Sharing:

Gives you an overview of the games or services that are currently assigned to this device. Click the name of the game or service to view the used port mappings.

For more information, see "5.5.7 Game or Application Definition" on page 79.

#### Configure

On the Configure page you can:

- Change the device information.
- Assign a static DHCP server lease to this device by selecting the Always use the same address check box.
- Allow a game or service running on this device to be initiated from the Internet.





### 5.6.5 Access Point Settings

#### Availability

This page is only available on SpeedTouch $^{\text{TM}}$  devices equipped with a wireless access point.

# Accessing the Access Point settings

#### Proceed as follows:

- 1 In the left menu, click Home Network.
- 2 Under Wireless, click the name of the Access Point you want to view or configure.



The Access Point names have the following format: "WLAN: " + Network Name, for example "WLAN: SpeedTouch123456".

#### Overview

The **Overview** page displays a brief overview of the current configuration.

#### Details

The **Details** page displays a more detailed overview of the current configuration.

Under Configuration, the following fields are available:

#### Interface Enabled:

Indicates whether the wireless interface is enabled or disabled.

#### Physical Address:

Displays the Base Service Set Identifier (BSSID) of the selected Access Point.

#### Network Name (SSID):

Displays the network name of your WLAN.

#### Interface Type:

Displays one of the following interface types:

- ▶ 802.11b
  - Only stations that are configured in 802.11b mode can associate.
- ▶ 802.11b(legacy)/g

This is a special compatibility mode for 802.11b/g and is in fact designed for older types of b-clients. Use this mode if you are experiencing problems with wireless clients that connect to the SpeedTouch™ Access Point.

- ▶ 802.11b/g
  - Only stations that are configured in 802.11b/g mode can associate.
- **802.11**g

Only stations that are configured in 802.11g mode can associate.

#### Actual Speed:

Displays the current transmission speed.

#### **▶** Channel Selection:

Displays whether you select a fixed channel yourself or the SpeedTouch™ selects a channel for you.

#### Region:

Displays your region.

#### **▶** Channel:

Displays the channel that is currently used by the Access Point.





#### Allow multicast from Broadband Network:

Displays whether you to allow/deny multicast messages from the Internet.



Large bandwidth streams, like video streams, have a large impact on your wireless performance.

#### ▶ WMM·

Displays whether WMM is enabled or disabled.



WMM or Wi-Fi MultiMedia enhances QoS at wireless driver level. It provides a mechanism to prioritise wireless data traffic to and from the associated (WMM capable) stations.

Under **Security** the following fields are available:

#### Broadcast Network Name:

By default the SpeedTouch™ broadcasts its network name, allowing you to easily recognise your wireless network in the list of available networks. Once you have configured your wireless clients, it is recommended to disable this feature by clearing this check box.

#### Allow New Devices:

Allows you to change the access control used by the SpeedTouch™.

#### Encryption:

Allows you to select an encryption level for your wireless network. The following encryption methods are supported by the SpeedTouch™:

- ▶ The Wired Equivalent Protocol (WEP)
- WPA-Pre Shared Key (WPA-PSK)



The default WEP key and the default WPA key are printed on the SpeedTouch $^{TM}$  bottom label.



Before configuring the SpeedTouch™ encryption, make sure you know which encryption methods are supported by your wireless client.

#### Configure

On the **Configure** page, you can change the configuration details displayed on the **Details** page.

#### **WEP**

The Wired Equivalent Privacy (WEP) algorithm protects wireless communication from eavesdropping.

WEP relies on a secret key that is shared between the wireless client (for example a laptop with a wireless Ethernet card and the SpeedTouch™. The fixed secret key is used to encrypt packets before they are transmitted. Meaning during transmission between client and AP ("in the air") the information in the packets is encrypted.



If your wireless client(s) support(s) WPA-PSK we recommend you to use WPA-PSK, because WEP encryption has been proven to have some security issues.

To enable WEP:

- 1 Select Use WEP Encryption
- 2 In the WEP Key Length list, click the desired Data Security level (either 64-bit or 128-bit and Alphanumeric or Hexadecimal).
- 3 In the **Encryption key** box, type a Network key of your choice. In case of:
  - ▶ 64 bit, Alphanumeric:

The 40-bit Network key must consist of 5 alphanumeric characters.

▶ 64 bit, Hexadecimal:

The 40-bit Network key must consist of 10 hexadecimal digits.





128 bit, Alphanumeric:

The 104-bit Network key consists of 13 alphanumeric characters.

128 bit, Hexadecimal:

The 104-bit Network key consists of 26 hexadecimal digits.

- 4 Click **Apply** to immediately apply your changes.
- 5 Configure your wireless client(s) with the same settings.

#### WPA-PSK

The SpeedTouch™ supports WPA-PSK, which offers three advantages over WEP:

- Authentication via a 4-way handshake to check whether the Pre-Shared Keys (PSKs) are identical.
  - Stronger encryption types:
    - Temporal Key Integrity Protocol (TKIP) (default): Instead of using a fixed WEP key, TKIP uses in pairs temporary session keys which are derived from the PSK during the 4-way handshake. For each packet it uses a different key. TKIP also provides a message integrity check (MIC) and a rekeying mechanism (in seconds).
    - Advanced Encryption Standard (AES): State-of-the-art encryption; can only be used if all wireless devices in your WLAN support AES.
- Message Integrity Check (MIC). Which is a strong mathematical function in which the recipient and transmitter each compute and compare the MIC. If they don't match it is assumed that a third person has been trying to read the data.

Proceed as follows to enable WPA-PSK:

- 1 Select Use WPA-PSK Encryption.
- In the WPA-PSK Encryption Key box, type a pass phrase (also known as Preshared key) of your choice. The pass phrase must consist of 8 to 63 ASCII characters or 64 HEX digits.
- 3 In the WPA-PSK Version list, click the desired WPA-PSK version.



Depending on the WPA-PSK version you choose, one of the following WPA-PSK encryption will be set automatically:

▶ WPA: TKIP

WPA+WPA2: TKIP+AES

WPA2: AES

AES is not yet implemented in most clients but it is in the SpeedTouch $^{\text{TM}}$  because it will be the future security standard.

- 4 Click Apply to immediately apply your changes.
- 5 Configure your wireless client(s) with the same settings.

## Access control on the SpeedTouch™

The following modes are available:

New stations are allowed (automatically):

All New stations can access the SpeedTouch™ WLAN.

New stations are allowed (via registration):

Only allowed stations in the Access Control List (ACL) have access. You can add new stations via registration.

For more information, see " Allowing new wireless" on page 105

New stations are not allowed:

Only allowed stations in the Access Control List (ACL) have access.





#### Allowing new wireless

If you selected **New stations are allowed (via registration)** or in the **New stations are not allowed** list, wireless clients have to be added manually.

Proceed as follows:

- 1 In the Home Network menu, click Devices.
- 2 In the Pick a task list, click Search for wireless devices.

The SpeedTouch™ searches for new wireless stations that use the encryption key of the SpeedTouch™ Access Point.

The SpeedTouch<sup>TM</sup> takes you to the **Home Network**. The new station will be shown next to the name of the SpeedTouch<sup>TM</sup> WLAN.



To view the device settings, click the name of the new station. For more Information, see "5.6.4 Wireless Device Settings" on page 101.



### 5.6.6 Configuring WDS

#### Availability

This page is only available on SpeedTouch $^{\text{TM}}$  devices equipped with a wireless access point.

#### What is WDS

The **Wireless Distribution System** (WDS) allows you to extend the range of your wireless network by introducing one or more WDS-enabled devices into your wireless network.



You can only establish WDS links with WDS-enabled devices.

#### Configuring WDS

Proceed as follows to access the WDS pages on the SpeedTouch™:

- In the left menu, click Home Network.
- 2 Under Wireless, click the Access Point you want to configure for WDS.



The Access Point names have the following format: "WLAN: " + Network Name, for example "WLAN: SpeedTouch123456.

- 3 Click Configure.
- 4 In the Pick a task list, click Configure WDS.

### Establishing a WDS connection

#### Proceed as follows:

- 1 In the Pick a task list, click Scan for wireless Access Points.
  - The SpeedTouch  $^{\text{TM}}$  warns you that all associated stations will lose connectivity for a few seconds.
- 2 Click OK.
  - The SpeedTouch™ lists the results in the Accessible Access Points table.
- 3 Select the Access Point to which you want to establish a WDS connection.
- 4 Click Apply.
- 5 Configure this Access Point with:
  - The same WEP key if WEP is enabled.
  - The same fixed channel.

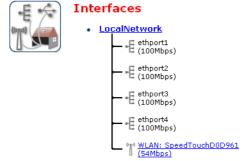




### 5.6.7 Interfaces

#### Interfaces overview

The Interfaces page gives you an overview of the interfaces used on your SpeedTouch™. If you want to know more about the network settings of a specific interface, click the name of the interface you want to view.







### 5.6.8 Interface Settings

#### Overview

The **Overview** page gives you an overview of the current interface settings.



#### Interface - LocalNetwork

TCP/IP Configuration

Auto-IP: Disabled Use DHCP Server: Enabled

IP Addresses

IP Address/Mask	Туре
10.0.0.138/24	Static
192.168.1.254/24	Static

 DHCP Pools
 Address Range
 Gateway

 LAN\_private
 192.168.1.64 - 192.168.1.253
 192.168.1.254

#### Configure

The Configure page allows you to:

- Change the IP address settings of the SpeedTouch™.
- Change the DHCP IP address pool settings.



Before changing the DHCP pools, make sure that at least one IP address of the SpeedTouch $^{\text{TM}}$  uses the same subnet as the IP addresses in the DHCP pools.

# Assigning a new IP address to the SpeedTouch™

Under IP Addresses, proceed as follows:

- 1 Type the IP address of your choice (for example 192.168.1.1) in the left text box.
- 2 Type subnet mask (for example 255.255.255.0) in the right text box.
- Click Add.

Network devices using the same subnet mask can now access the SpeedTouch $^{TM}$  using this IP address.





### 5.6.9 DHCP Pool

**DHCP** Pool page

On the **DHCP Pool** page, you can create/change a DHCP pool.

# Accessing the DHCP Pool page

#### Proceed as follows:

- 1 In the Home Network menu, click Interfaces.
- 2 Click the name of the interface which DHCP pool settings you want to change.
- 3 Click Configure.
- 4 Under DHCP Pools, click:
  - Add to add a new DCHP pool.
  - Edit to edit an existing DHCP pool.
  - Delete to delete an existing DHCP pool.



This link will only be shown if there are more than one DHCP pools.

#### The DHCP Pool page appears.



Your\_DHCP\_pool
Configure parameters for your DHCP pool.

#### Pool Configuration

Interface:	LocalNetwork
Start Address:	192.168.1.10
End Address:	192.168.1.20
Subnet Mask:	255.255.255.0
Server:	192.168.1.254
Gateway:	192.168.1.254
Primary DNS:	192.168.1.254
Secundary DNS:	0.0.0.0
Primary WINS:	0.0.0.0
Secondary WINS:	0.0.0.0
Lease Time:	Infinite
Always give same address to DHCP clients:	

Apply Cancel





# Components of the DHCP Pool page

The following settings are available for configuration:

#### Interface:

The SpeedTouch™ interface to which the DHCP pool applies.

#### Start Address:

The start IP address of the DHCP server's address pool.

#### **▶** End Address:

The end IP address of the DHCP server's address pool.



Both the start and end IP address define the IP address range used by the DHCP server to assign leases.

#### Subnet Mask:

The subnet mask of the DHCP server's address pool.

#### Server:

The SpeedTouch™ IP address used as DHCP server address.

#### Gateway:

The IP address that will be assigned to the DHCP clients as their default gateway.

#### Primary DNS:

The IP address of the primary DNS server.

#### Secondary DNS:

The IP address of the secondary DNS server.

#### Primary WINS:

The IP address of the primary WINS server.

#### Secondary WINS:

The IP address of the secondary WINS server.

#### Lease Time:

The time for which the DHCP client is allowed to use the assigned IP address:



If you select **Always give same address to DHCP clients**, the lease time will be automatically set to **Infinite**.

#### Always give same address to DHCP clients:

Select this check box if you always want to use the same IP address for the DHCP clients.



### 6 Troubleshooting

#### Introduction

This chapter suggest solutions for problems you may encounter while installing or configuring your SpeedTouch $^{TM}$ .

If the suggestions do not resolve the problem, look at the support pages on http://www.speedtouch.com/support or contact your service provider.

For Internet connection troubleshooting, refer to the provided Installation and Setup Guide.

#### **Topics**

#### In this chapter:

- ▶ General SpeedTouch™ Troubleshooting
- ▶ UPnP™ on Windows XP Systems
- ▶ Voice over IP Troubleshooting
- Reset to Factory Defaults





### 6.1 General SpeedTouch™ Troubleshooting

# SpeedTouch™ does not work

If none of the LEDs light up, make sure that:

- The SpeedTouch™ is plugged into a power socket outlet.
- You are using the correct power supply for your SpeedTouch™ device.



The power requirements for your SpeedTouch<sup>™</sup> are clearly indicated on the identification label on the bottom of the SpeedTouch<sup>™</sup>.

▶ The SpeedTouch™ is turned on via the push button at the back panel.

# SpeedTouch™ unreachable

If your SpeedTouch™ is cannot be reached due to misconfiguration, you might consider a hardware reset to factory defaults as described in "6.4 Reset to Factory Defaults" on page 118.



However, note that resetting the SpeedTouch™ to its factory settings will revoke all the changes you made to the configuration.

# Poor SpeedTouch™ performance

Make sure that the SpeedTouch™ is installed and configured as instructed in the Installation and Setup Guide or as instructed by the Service Provider.





### 6.1.1 Wired Ethernet Troubleshooting

#### LANLED does not light up

#### Make sure that:

- ▶ The LAN cable is securely connected to the 10/100Base-T port.
- You are using the correct cable type for your Ethernet equipment, that is UTP CAT5 with RJ-45 connectors.





### 6.1.2 Wireless Ethernet Troubleshooting

# Not able to connect wireless clients

#### Check the following:

- If registration is enabled, you must search for wireless devices via the embedded Web pages.
- Make sure the SpeedTouch™ Association Control List is not locked. You can check this on the Web pages. On the Wireless Access Point settings, make sure **New stations are not allowed** is NOT selected.

#### No wireless connectivity

#### Make sure that:

- ▶ Both the wireless client adapter and the SpeedTouch™ are allowed to connect through wireless channels as defined for local regulatory domain.
- The WLAN client is configured for the correct wireless settings (SSID, security settings).
- Check the signal strength, indicated by the wireless client manager. If the signal is low, try to place the SpeedTouch™ or to direct the SpeedTouch™'s antenna for optimal performance.
- Make sure that the wireless client adapter is enabled (message like "radio on").

# Poor wireless connectivity or reach

#### Check the following:

- Choose automatic channel selection or carefully select a radio channel that does not interfere with other radio channels.
- Make sure both the WLAN client adapter and the SpeedTouch™ are allowed to connect through wireless channels as defined for local regulatory domain.
- Check the location of the SpeedTouch™ in the building.
- Check the signal strength, indicated by the wireless client manager. If the signal is low, try to place the SpeedTouch™ or to direct the SpeedTouch™'s antenna for optimal performance.





### 6.2 UPnP™ on Windows XP Systems

# SpeedTouch™ not detected by UPnP™ or IGD Control Client

#### Check the following:

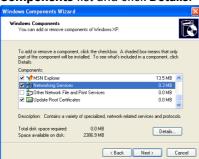
- Make sure the UPnP™ and Internet Gateway Device Control Client Networking components are added to your Windows XP system.
- Your computer doesn't support UPnP™ if you run an operating system other than Windows XP and Windows Millennium.
- Make sure that UPnP™ is not disabled in the SpeedTouch™ Web page; see "5.5.5 Game & Application Sharing" on page 76.

#### Adding UPnP™

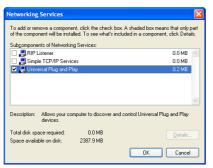
If you are running Microsoft Windows XP, it is recommended to add the  $\mathsf{UPnP^{TM}}$  component to your system.

#### Proceed as follows:

- In the Start menu, click (Settings >) Control Panel.
  The Control Panel window appears.
- 2 Click Add or Remove Programs.
  The Add or Remove Programs window appears.
- 3 Click Add/Remove Windows Components.
- 4 In the Windows Components Wizard, select Networking Services in the Components list and click Details.



5 In the Networking Services window, select Universal Plug and Play or UPnP User Interface and click OK.



- 6 Click Next to start the installation and follow the instructions in the Windows Components Wizard.
- 7 At the end of the procedure the wizard informs you that the installation was successful. Click **Finish** to quit.





## Adding IGD Discovery and Control

Your Windows XP system is able to discover and control Internet Gateway Devices (IGD), like the SpeedTouch™ on your local network. Therefore it is recommended to add the IGD Discovery and Control client to your system.

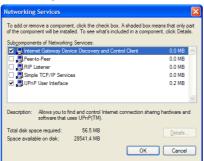
#### Proceed as follows:

- 1 On the Windows taskbar, click Start.
- 2 Select (Settings >) Control Panel > Add or Remove Programs.
- 3 In the Add or Remove Programs window, click Add/Remove Windows Components.

The Windows Components Wizard appears:



- 4 Select Networking Services in the Components list and click Details.
- 5 In the Networking Services window, Select Internet Gateway Device Discovery and Control Client and click OK.



- 6 Click Next to start the installation and follow the instructions in the Windows Components Wizard.
- 7 At the end of the procedure the wizard informs you that the installation was successful. Click **Finish** to quit.





### 6.3 Voice over IP Troubleshooting

#### Introduction

If you cannot establish a phone call via your SpeedTouch  $^{\text{TM}}$ , try the suggestions below.

#### Calling over VolP

If you have problems calling via VoIP, check whether:

- Your telephone is correctly connected to the SpeedTouch™.
- Your telephone is working on the PSTN network:
  - Connect your phone directly to PSTN.
  - Try to make a phone call.
- Your phone number, user name, and password is configured correctly.
- The registrar's and proxy server's IP address and port number are configured correctly.
- ▶ The PWR, PPP and VoIP Ready LEDs are on.



As soon as the VoIP Ready LED turns on, you will hear a click, indicating the switch from PSTN to VoIP.

#### Calling over PSTN

If you have problems calling via the regular phone line, check whether:

Your telephone is correctly connected to the SpeedTouch™.



If the SpeedTouch™ is turned off, phone calls are always routed over PSTN.

- Your telephone is working on the PSTN network:
  - Connect your phone directly to PSTN.
  - Try to make a phone call.
- The Forced FXO service is activated, or whether your service provider requested you to dial an extra prefix for making calls via PSTN.



If VoIP is enabled (VoIP Ready LED is on), and when making a forced FXO call, you will hear a click, indicating the switch from VoIP to PSTN.

# Problems with supplementary services

If you have a problem with a supplementary telephony service, check whether the service is activated.





### 6.4 Reset to Factory Defaults

# Resetting your SpeedTouch™

You might consider a reset to factory defaults as described below.



Be aware that a reset to factory defaults will revoke all configurational changes you made to the SpeedTouch™.

You can choose between:

- Software reset
- Hardware reset

A reset to factory default settings deletes the configuration profile settings. Therefore, after the reset, a reconfiguration of your SpeedTouch™ will be needed.

Also your WLAN clients will have to be re-associated, as described in "2.3.2 Connecting Wireless Clients for the First Time" on page 23.

#### Software reset

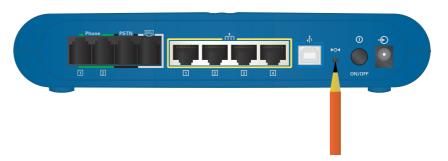
#### Proceed as follows:

- 1 Go to the SpeedTouch™ Web pages.
- 2 In the menu, select SpeedTouch > Configuration.
- 3 In the Pick a task list, click Reset my SpeedTouch to default settings. The SpeedTouch™ restarts.
- The SpeedTouch<sup>™</sup> returns to the SpeedTouch<sup>™</sup> home page (unless the IP address of your computer is not in the same subnet as the default IP address of the SpeedTouch<sup>™</sup>, being 192.168.1.254).

#### Hardware reset

#### Proceed as follows:

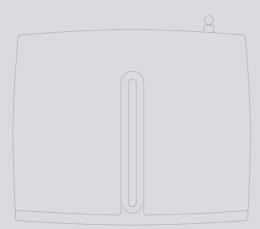
- 1 Make sure the SpeedTouch™ is turned on.
- Use a pen or an unfolded paperclip to push the recessed reset button on the back panel. The reset button is marked with a red circle. Push it until the power LED lights red - this will take about 7 seconds.



- 3 Release the reset button.
- 4 The SpeedTouch™ restarts.







Need more help?

Additional help is available online at www.speedtouch.com