SpeedTouch™510/530

Multi-User ADSL Gateways

CLI Reference Guide

Release R4.2.7

500
SERIES

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SpeedTouch™

510/530

CLI Reference Guide

Release R4.2.7

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About this Document

Introduction

Welcome to the SpeedTouch™ Command Line Interface (CLI) Reference Guide!

For the Service Provider, this Reference Guide aims to be a concise and practical document for creating a customized Service Template file, based on the SpeedTouch™ CLI command set, to be used by the end-user to configure the SpeedTouch™ and PC(s).

For the fastidious user, this Reference Guide aims to be a handbook for advanced and detailed configuration and troubleshooting of the SpeedTouch™ via its character based CLI command set.

Applicability

This CLI Reference Guide covers the CLI commands of the following Digital Subscriber Line (DSL) SpeedTouch™ products:

- SpeedTouch™510(i) Multi-User ADSL Gateway (R4.2.7)
- SpeedTouch™530(i) Multi-User ADSL Gateway (R4.2.7)

For readability, all are referred to as SpeedTouch™ throughout this document unless a specific variant is concerned.

Contents

The Reference Guide consists of two main parts:

- CLI Navigation:
  This chapter familiarizes the user with the SpeedTouch™ CLI. It describes general manipulations to navigate through the CLI and to perform some operations on the CLI.
- CLI Command Description:
  The other chapters describe all the available CLI commands of the SpeedTouch™ per command group and in alphabetical order.
  Each command is described in a systematic manner:
  - The full name of the CLI command (including the group selection)
  - A short description of the CLI command, if necessary completed by a description of the possible impact on the user and/or the SpeedTouch™
  - The syntax of the command with a description of each parameter
  - An example to demonstrate the use of the CLI command
  - A list of related CLI commands.

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Updates

Due to the continuous evolution of SpeedTouch™ technology, existing products are regularly improved.

For more information on the latest technological innovations, software upgrades, and documents, please visit the SpeedTouch™ web site at:

www.speedtouch.com

CLI Navigation

Introduction

This chapter familiarizes the user with the SpeedTouch™ CLI. It describes general manipulations:

- to navigate through the CLI
- to perform some operations on the CLI.

Contents

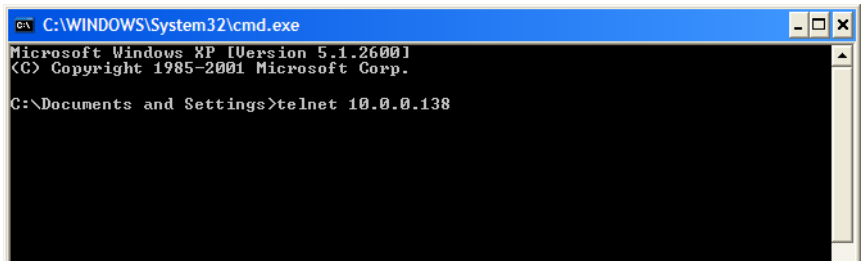
This chapter covers the following topics:

Accessing the Command Line Interface

Users can access the Command Line Interface via a Telnet session. This requires that TCP/IP connectivity exists between the host from which the Telnet session is opened and the SpeedTouch™.

.Proceed as follows to open a Telnet session:

1. Open a Command Prompt window, e.g. by clicking *Start* > *All Programs* > *Accessories* > *Command Prompt*.
2. At the prompt, type *telnet* followed by the IP address of the SpeedTouch™ (default is 10.0.0.138).



As soon a session to the CLI is opened, the SpeedTouch™ banner pops up, followed by the CLI prompt.

If the SpeedTouch™ is protected by a username and a system password, authentication will be required before access is granted.

The following figure shows an example of the SpeedTouch™510 banner after opening a session and authentication.

```
Username : johndoe
Password : *******
------------------------------------------------------------------------
*
*                                 ______  SpeedTouch 510
*                              ___/_____/\
*                             /         /\\  Version 4.2.7.0
*                          _____/__      /  \\
*                        _/       /\_____/___ \  Copyright (c) 1999-2004,
*                       //       /  \       /\ \                THOMSON
*        ________/_/_______/     \     / _\/______
*       /       / \        \     /    / /        /\
*    __/       /   \        \   /    / /        / _\__
*   / /       /     \_______\/    / /        / /    /\
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*             /__________/      \    \  /
*             \    _____  \      /_____\/
*              \ /     /\  \     /___\/
*               /_____/  \  \   /
*               \     \  /___\/
*                \_____\/
*
------------------------------------------------------------------------
=>
```

Basic Navigation and Manipulation

Manipulation commands are commands that manipulate operations on the command line, for example changing the command group, go to the beginning of the command line, go to the end of the command line, etc.

Command group navigation

From top level, you can change to a command group by executing the name of the desired command group.

To obtain a list of all available command groups, execute *help* from the top level.

The example below shows every possible CLI command group for the SpeedTouch™510.

```
=>help
Following commands are available :
help             : Displays this help information
menu             : Displays menu
?                : Displays this help information
exit             : Exits this shell.
..               : Exits group selection.
saveall          : Saves current configuration.

Following command groups are available :

adsl             atm             autopvc         bridge          cip
config           dhcp            dns             env             eth
ethoa            firewall        ip              ipoa            ipqos
label            language        nat             phonebook       pppoa
pppoe            pptp            qosbook         script          snmp
software         switch          system          systemlog       td
upnp
=>
```

The following command groups are specific for certain variants:

- **usb** is only available for the SpeedTouch™530.

To return to top level, or to go up one level (in case of nested command groups), enter .. at the prompt.

Example:

```
=>phonebook
[phonebook]=>
[phonebook]=>..
=>
```

The Help Command

Execute *help* or *?* from top level to list all available commands and command groups for the SpeedTouch™.

Example for the SpeedTouch™510:

```
=>help
Following commands are available :

help             : Displays this help information
menu             : Displays menu
?                : Displays this help information
exit             : Exits this shell.
..               : Exits group selection.
saveall          : Saves current configuration.

Following command groups are available :

adsl             atm             autopvc         bridge          cip
config           dhcp            dns             env             eth
ethoa            firewall        ip              ipoa            ipqos
label            language        nat             phonebook       pppoa
pppoe            pptp            qosbook         script          snmp
software         switch          system          systemlog       td
upnp
=>
```

You can execute the *help* or *?* command from each command group selection. This results in a list of the available commands (and nested command groups, if available) in this particular command group.

Example:

```
=>firewall
[firewall]=>
[firewall]=>?
Following commands are available :

tron          : Enables verbose console messaging.
troff         : Disables verbose console messaging.
match         : Defines an ip packet match.
assign        : Assign a chain to an entry point.
list          : Shows a list of all the hooks with the chain attached.
flush         : Clears all hooks. If a hook is provided, that hook is cleared.

Following command groups are available :

chain         rule

[firewall]=>
```

As both help and ? have the exact same functionality in the SpeedTouch™ CLI, the help command may always be equally replaced by the ? command.

Executing e.g. *help firewall* from top level gives the same result as executing *help* from the firewall command group selection.

Example:

```
=>firewall help
Following commands are available :

assign           : Assign a chain to an entry point.
unassign         : Clear a specific hook
list             : Shows a list of all the hooks with the chains attached.
flush            : Clears all hooks, chains and rules
tron             : Enables verbose console messaging.
troff            : Disables verbose console messaging.

Following command groups are available :

chain           rule

=>
```

Entering help followed by a specific command, e.g. *help firewall assign* (starting from top level) or *help assign* (executed from the firewall command group selection) results in a description of the syntax for the command.

Example:

```
=>help firewall assign
Assign a chain to an entry point.
Syntax : assign hook = <{input|sink|forward|source|output}> chain = <string>

Parameters :
   hook = <{input|sink|forward|source|output}>
     Name of hook to assign chain to.
   chain = <string>
     Name of chain to use.

=>
```

Executing help all will generate the complete listing of all available CLI commands with syntax description.

Command Completion

The CLI features command completion, which means that when starting to enter a command it can be completed by pressing the TAB key.

For the completion to be successful, the part to be added must be unique. Completion works for the command groups, for the commands, for the options, but not for values.

Example:

Pressing *a* and TAB at the *firewall* command group selection results in the full *assign* command being completed. Entering *firewall a* and pressing the TAB key from top level gives the same result.

```
=>firewall
[firewall]=>"a+TAB"
[firewall]=>assign
```

Command Line Navigation

- Press CTRL+A to go to the beginning of the command line.
- Press CTRL+L to go to the end of the command line.

Breaking off Commands

You can break off a command by pressing CTRL+G. This can be useful in a situation where a user is prompted to enter a value which he does not know and wants to quit the command. Instead of being prompted over and over again for the same value, this allows to quit the command and return to the command line prompt.

In the example below, CTRL+G is pressed after the third prompt *chain* =

```
[firewall]=>match
chain =
chain =
chain = “CTRL+G”
[firewall]=>
```

History of Commands

Use the UP and DOWN ARROW keys to select a previously executed command. Press ENTER to execute the selected command.

Example:

```
=>firewall
[firewall]=>list
assign     hook=input chain=input
assign     hook=sink chain=sink
assign     hook=forward chain=forward
assign     hook=source chain=source
[firewall]=> “UP ARROW”
[firewall]=>:firewall list
```

Command Line Interface Top Level Structure

The table below shows the available command groups for the different SpeedTouch™ variants:

Command group	Available?
adsl	Only for the SpeedTouch™510 ADSL/POTS and the SpeedTouch™510i ADSL/ISDN variants.
atm	Yes.
autopvc	Yes.
bridge	Yes.
cip	Yes
config	Yes.
dhcp	Yes.
dns	Yes.
env	Yes.
eth	Yes.
ethoa	Yes.
firewall	Yes.
ip	Yes.
ipoa	Yes.
ipqos	Yes.
label	Yes.
language	Yes.
nat	Yes.
phonebook	Yes.
pppoa	Yes.
pppoe	Yes.
pptp	Yes.
qosbook	Yes.
script	Yes.
snmp	Yes.
software	Yes.
switch	Only for SpeedTouch™ devices with a four port switch.
system	Yes.
systemlog	Yes.
td	Yes.
upnp	Yes.
usb	Only for the SpeedTouch™530 USB variant.

Command Line Interface Commands

Command Execution

All CLI commands are commands that operate on, or configure, the SpeedTouch™ settings.
The CLI commands can be executed:

- from top level, preceded by the name of the command group from which the command should be executed.
  E. g. *firewall list*.

```
=>firewall list
assign hook=input chain=input
assign hook=sink chain=sink
assign hook=forward chain=forward
assign hook=source chain=source
=>
```

- from within the command group itself, using the reduced form of the command.
  E.g. *list* at the *firewall* command group selection.

```
=>firewall
[firewall]=>list
assign hook=input chain=input
assign hook=sink chain=sink
assign hook=forward chain=forward
assign hook=source chain=source
[firewall]=>
```

Note ! in a command means 'NOT', e.g. the [!]syn parameter in the firewall rule create command.

Entering a CLI Command

A CLI command can be entered in one of the following ways:

1 As a completely built-up command with all its parameters.
E.g. the command *firewall assign hook=input chain=input*.

```
=>firewall assign hook=input chain=input
=>
```

2 Just the command itself without its parameters. After pressing *Enter*, you are prompted to complete the command with the required and the optional parameters.
The example below is the equivalent of the command *firewall assign hook=input chain=input*.

```
=>firewall assign
hook  =  input
chain =  input
=>
```

- For required CLI command parameter values, either enter a value or scroll through the possible values with the arrow keys.
- For optional CLI command parameters, either enter a value or simply press *Enter* without giving a value.

Note This manner of entering a command is not applicable to all the CLI commands.
E.g. *system config*, *upnp config*, ...

Menu-driven CLI Navigation

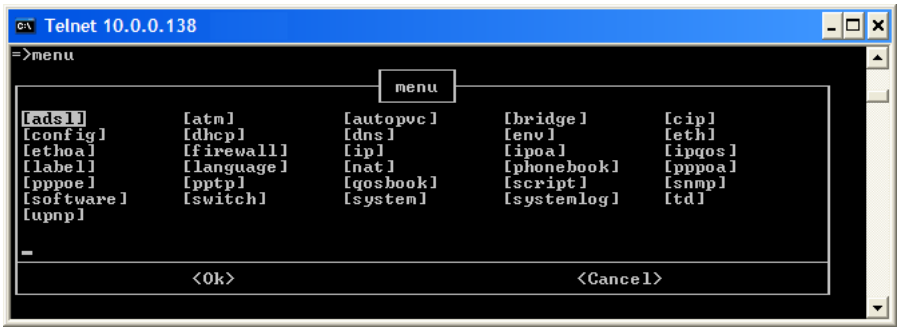
Introduction

To improve the user-friendliness of the SpeedTouch™ CLI, the CLI features a menu-driven interface. The semi-graphical menu offers an attractive and easy-to-use configuration environment for the CLI.

Calling the menu

To call the menu-driven interface, type *menu* at the CLI prompt.

Example (for the SpeedTouch™510):



Leaving the menu

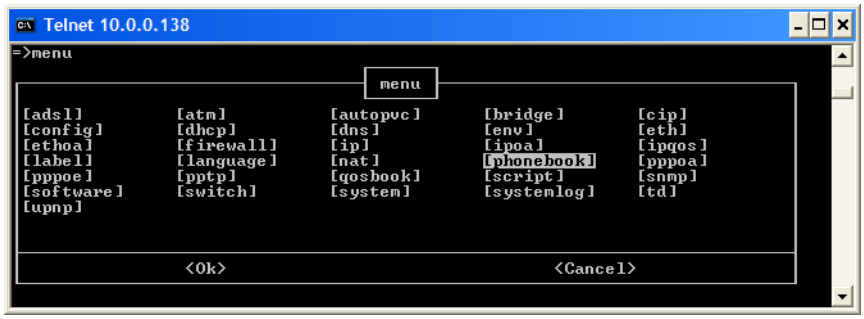
To leave the menu-driven interface, use the TAB key to go to the *Cancel* field and press ENTER.

Note This can be done on any level of the menu, i.e. there is no need to return to the top level.

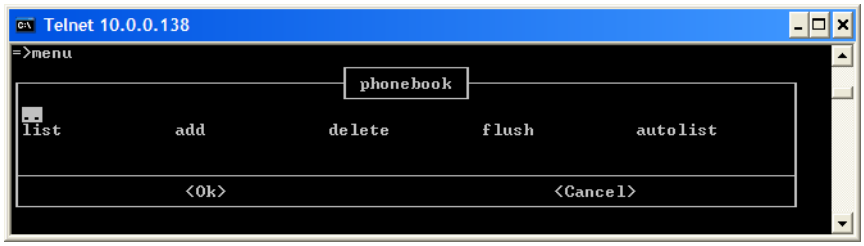
Navigating through the menu

Follow the procedure below to navigate through the menu and select CLI commands:

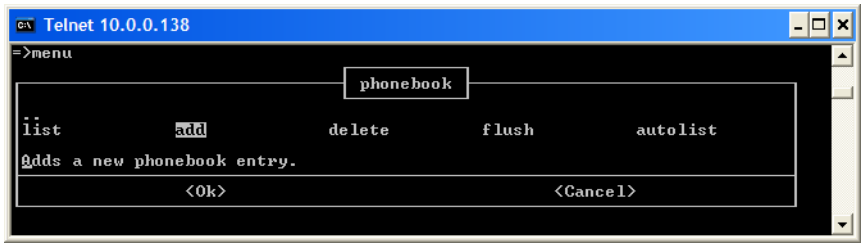
1 Browse through the CLI command groups with the ARROW keys:



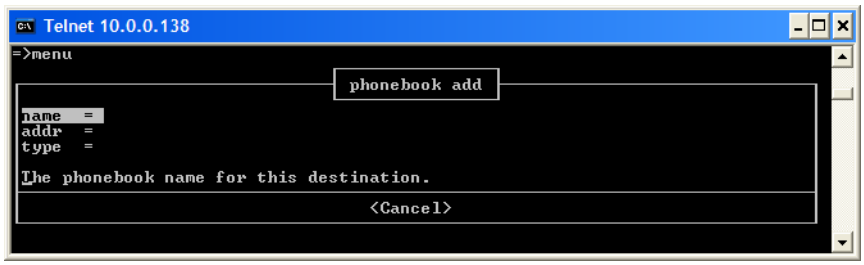
2 Press ENTER to select a command group. The figure below shows the menu after the *phonebook* command group has been selected:



3 Browse through the CLI commands with the ARROW keys or select .. to go back up one level:

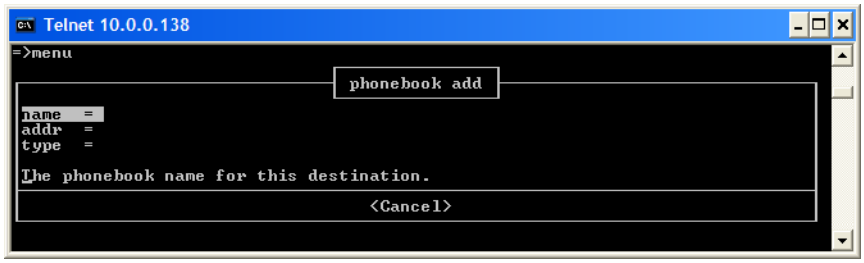


4 Press ENTER to select the command. The figure below shows the menu after the *add* command has been selected:

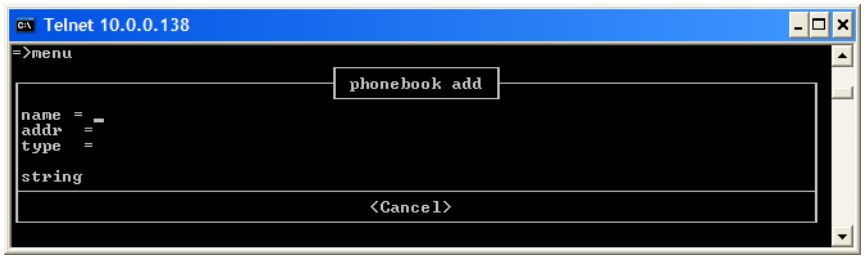


Entering parameter values

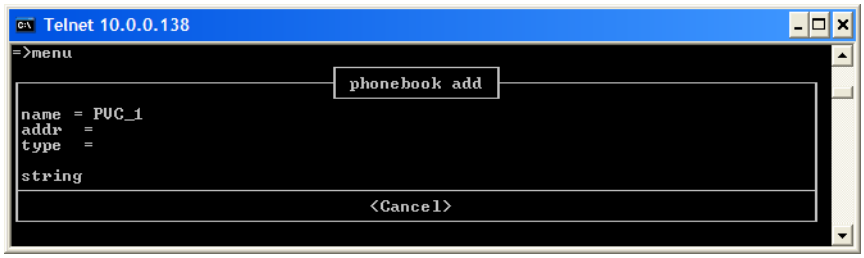
1 Browse through the parameters with the ARROW keys:



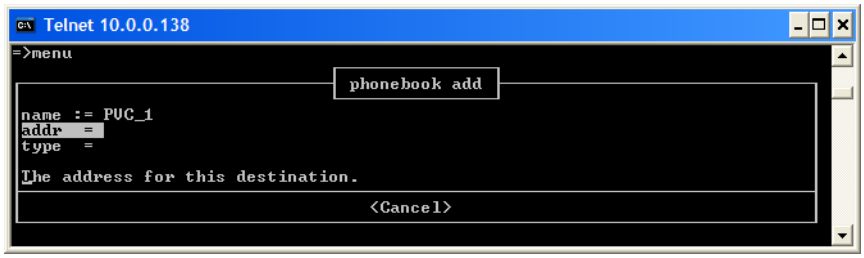
2 To enter a value for a parameter, press ENTER:



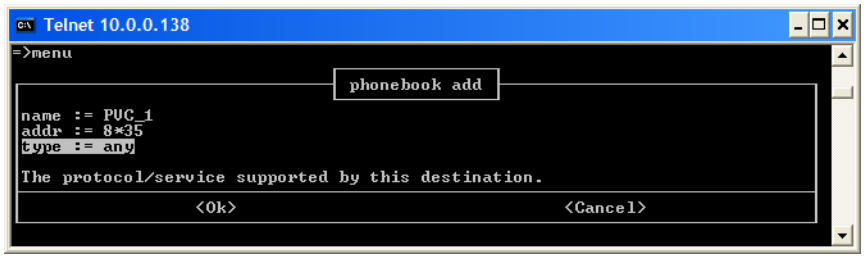
3 Fill in the parameter value and press ENTER:



4 Use the ARROW keys to scroll to the next parameter:



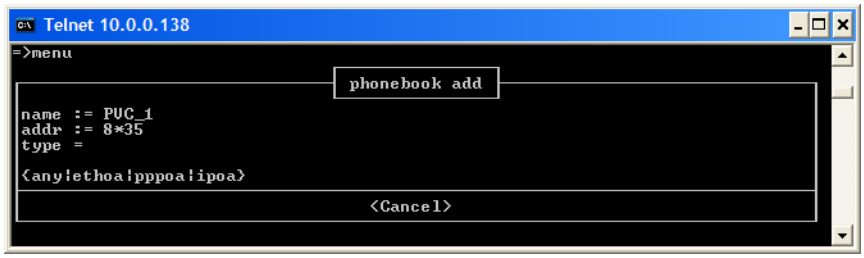
5 When all the necessary parameters have been entered, use the TAB key to go to the OK field and press ENTER.



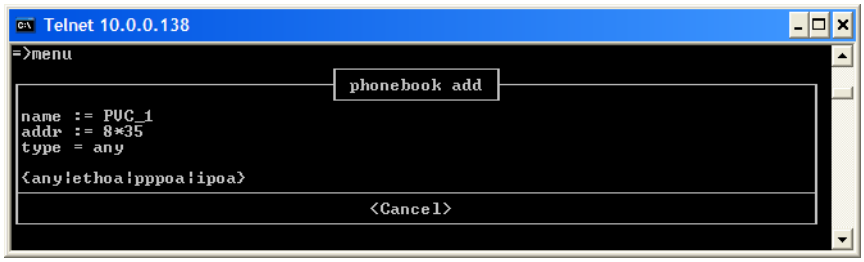
Note Do not forget to save your changes by executing *saveall* (from any CLI prompt).

Preset parameter values

In case preset values are provided for a parameter, they are shown at the bottom of the menu.



You can scroll through these preset values with the ARROW keys or enter the value manually.



Service Template Files and the CLI

Service Template Files

The Service Template files, used by the Setup wizard, or directly uploaded via the SpeedTouch™ web pages, consist of a set of CLI commands. Only CLI commands, which are part of the SpeedTouch™ CLI command set, may be used in the .ini and .def files.

For readability, Service Template files are partitioned in paragraphs. These paragraphs reflect a CLI command group selection in the SpeedTouch™ CLI. However, due to internal processing, not all paragraph names are the same as their corresponding CLI command group selection.

The table below shows the relationship between the [<configuration>.ini] paragraphs and the available SpeedTouch™ CLI commands:

[<configuration>.ini] paragraphs	Available SpeedTouch™ CLI commands
[adslisdn.ini]	The adsl CLI command group (only for a ADSL/ISDN variant)
[adslpots.ini]	The adsl CLI command group (only for a ADSL/POTS variant)
[autoip.ini]	The ip auto CLI command subgroup
[autopvc.ini]	The autopvc CLI command subgroup
[bridge.ini]	The bridge CLI command group
[cip.ini]	The cip CLI command group
[dhcc.ini]	The dhcp client CLI command subgroup
[dhcp.ini]	The dhcp server CLI command subgroup
[dhcr.ini]	The dhcp relay CLI command subgroup
[diagnostics.ini]	The ip ping CLI command
[dnsc.ini] and [dnsd.ini]	The dns CLI command group
[env.ini]	The env CLI command group
[eth.ini]	The eth CLI command group
[ethoa.ini]	The ethoa CLI command group
[ip.ini]	The ip CLI command group
[ipoa.ini]	The cip CLI command group
[ipqos.ini]	The ipqos CLI command group
[label.ini]	The label CLI command group
[language.ini]	The language CLI command group
[nat.ini]	The nat CLI command group
[oam.ini]	The atm oam CLI command subgroup
[pfirewall.ini]	The firewall CLI command group
[phone.ini]	The phonebook CLI command group

[<configuration>.ini] paragraphs	Available SpeedTouch™ CLI commands
[pppoa.ini]	The pppoa CLI command group
[pppoe.ini]	The pppoe CLI command group
[pppoerelay.ini]	The pppoe relay CLI command subgroup
[pptp.ini]	The pptp CLI command group
[qos.ini]	The qosbook CLI command group
[script.ini]	The script CLI command group
[snmp.ini]	The snmp CLI command group
[switch.ini]	The switch CLI command group (only for SpeedTouch™ devices with a four port switch).
[system.ini]	The system CLI command group
[upnp.ini]	The upnp CLI command group
[usb.ini]	The usb CLI command group

CLI Commands in Service Template Files

CLI commands in a paragraph of a Service Template file should always be constructed in their complete form. Uncompleted CLI commands, i.e. commands in which required parameters are not specified, will be discarded by the CLI commend interpreter. This may result in a wrongly configured SpeedTouch™.

In Service Template files, the use of customization variables allow the Setup wizard to invite the end-user to provide some input regarding the settings of the SpeedTouch™. The declaration of such customization variables must be done in the [env.ini] paragraph of the Service Template file. A preset (i.e. default) value can be declared for a customization variable. Further use of these customization variables is allowed through all other paragraphs, even several times.

When a customization variable is used in a CLI command, the value of the variable must always conform to the syntax of the CLI command.

Customizing Service Template Files

For more information on the customization possibilities of the SpeedTouch™, the Setup wizard and the configuration profile files, please check the SpeedTouch™ support pages at:

www.speedtouch.com

Direct FTP Access

The SpeedTouch™ File System

The SpeedTouch™ permanent storage, further referred to as 'file system', exists of nonvolatile memory responsible for storing, retrieving and maintaining the SpeedTouch™ software image(s), Service Template files and optionally default settings files.

The file system of the SpeedTouch™ is accessible via the File Transfer Protocol (FTP) transport protocol. This allows to transfer the SpeedTouch™ software image(s) and/or Service Template files and default settings files.

Proceed as indicated in the example below to open an FTP session to the SpeedTouch™ file system:

```
/home/doejohn{1}$ftp 10.0.0.138
Connected to 10.0.0.138
220 Inactivity timer = 120 seconds. Use 'site idle <secs>' to change.
Name (10.0.0.138:doejohn):
331 SpeedTouch™ (00-90-D0-01-02-03) User 'doejohn' OK. Password required.
Password : ######
330 OK
ftp>
```

SpeedTouch™ File System Structure

The files system features a tiny multilevel directory structure with a single root node called 'root' and two leaf nodes called 'active' and 'dl'. The 'root' contains:

- all the necessary files for the SpeedTouch™ to boot correctly.
- the 'active' subdirectory always contains the software image in execution, i.e. the active software image.
- the 'dl' directory contains the dormant software image, i.e. the passive software image . If you have made changes to the SpeedTouch™ configuration and saved them (be it via a Telnet session, via the web pages or via the Setup wizard), a user.ini Service Template file is created in the 'dl' subdirectory.
  In other words, after each 'Save all', or config save all, the user.ini Service Template file present in the 'dl' subdirectory reflects the current configuration of the SpeedTouch™.

SpeedTouch™ File System Access Rights

From the ‘root’ directory, you can access the ‘active’ and ‘dl’ subdirectories. No read/write permission is granted for the ‘root’ directory.

Following access rights apply for the subdirectories:

- for the 'active' subdirectory:
  - Listing of 'active' subdirectory files (dir)
  - FTP (m)get of (multiple) 'active' subdirectory files
- for the 'dl' subdirectory:
  - Listing of 'dl' subdirectory files (dir)
  - FTP (m)get of (multiple) 'dl' subdirectory files
  - FTP (m)put of (multiple) 'dl' subdirectory files
  - FTP (m)delete of (multiple) 'dl' subdirectory files.

FTP File Transfer

To allow correct file transfers, set the transfer mode to “binary”.

Note Turn on the hashing option to see the progression of the file transfer.

Example:

```
/home/doejohn{1}$ftp 10.0.0.138
Connected to 10.0.0.138
220 Inactivity timer = 120 seconds. Use 'site idle <secs>' to change.
Name (10.0.0.138:doejohn):
331 SpeedTouch™ (00-90-D0-01-02-03) User 'doejohn' OK. Password required.
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>
```

Quote Site Command

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

Example:

To execute the ‘firewall list’ command, type the following at the FTP prompt:

```
ftp> quote site firewall list
200- :firewall assign hook=input chain=None
200- :firewall assign hook=sink chain=sink
200- :firewall assign hook=forward chain=forward
200- :firewall assign hook=source chain=source
200- :firewall assign hook=output chain=None
200-
200 CLI command "firewall list" executed
ftp>
```

ADSL Commands

Contents

This chapter covers the following commands:

adsl config

Show/set the Asymmetric Digital Subscriber Line (ADSL) configuration.

Although the command is the same for both SpeedTouch™ ADSL/POTS and SpeedTouch™ ADSL/ISDN variants, the command features specific parameter values per variant:

SYNTAX FOR ADSL/Plain Old Telephone Service (POTS) variants:

```
adsl config          [opermode = <{ansi|g.dmt_annex_a|g.lite|multimode}>]
                     [maxbitspertoneUS = <number{10-14}>][trace = <{off|on}>]
```

where:

opermode	The operational mode of the SpeedTouch™ modem. Choose between: • ansi • g.dmt_annex_a • g.lite • multimode. The default is *multimode*.	OPTIONAL
maxbitspertoneUS	A number between 10 and 14 (bits per tone). Represents the maximum number of bits which can be allocated to each ADSL DMT tone in the upstream direction. The default is *13*.	OPTIONAL
trace	Enable/disable adsl tracing.	OPTIONAL

SYNTAX FOR ADSL/Integrated Services Digital Network (ISDN) variants:

```
adsl config          [opermode = <{etsi|g.dmt_annex_b|multimode}>]
                     [maxbitspertoneUS = <number{10-14}>][trace = <{off|on}>]
```

where:

opermode	The operational mode of the SpeedTouch™ modem. Choose between: • ansi • g.dmt_annex_b • multimode. The default is *multimode*.	OPTIONAL
maxbitspertoneUS	A number between 10 and 14 (bits per tone). Represents the maximum number of bits which can be allocated to each ADSL DMT tone in the upstream direction. The default is *13*.	OPTIONAL
trace	Enable/disable adsl tracing.	OPTIONAL

Note If the command *adsl config* is executed and no parameters are specified, then the current ADSL configuration is shown.

adsl info

Show ADSL statistics and information about the SpeedTouch™ DSL line status.

Although the same command is used for both SpeedTouch™ ADSL/POTS and SpeedTouch™ ADSL/ISDN variants, the command features specific output parameters and counters per variant.

SYNTAX:

```
adsl info
```

EXAMPLE (for a SpeedTouch™ ADSL/POTS variant):

```
=>adsl info
Modemstate              :  up
Operation Mode          :  G.DMT Annex A  [POTS Overlay Mode]
Channel Mode            :  fast
Number of resets        :  1

Vendor (ITU)               Local           Remote
  Country               :  0f              0f
  Vendor                :  ALCB            ALCB
  VendorSpecific        :  0000            0000
  StandardRevisionNr    :  01              01

                           Downstream       Upstream
Margin       [dB]       :  25              31
Attenuation  [dB]       :  26              15

Available Bandwidth        Cells/s          Kbit/s
 Downstream     :          7924             3360
 Upstream       :          452              192

Transfer statistics
  Total since power On     Cells            Kbit
    Downstream           : 10153            4304
    Upstream             : 3399             1441
  Current Connection
    Downstream           : 10153            4304
    Upstream             : 3399             1441
    Errors
      Received FEC       : 0
      Received CRC       : 0
      Received HEC       : 0
```

.. Continued output on following page ..

.. Continued output ..

```
    Far End Failure
      No Failure
    Near end failure
      No failure
    Far end failures since reset
      Loss of frame:          0 failures
      Loss of signal:         0 failures
      Loss of power:          0 failures
      Loss of link:           0 failures
      Errored seconds:        0 seconds
    Far end failures last 15 minutes
      Loss of frame:          0 seconds
      Loss of signal:         0 seconds
      Loss of power:          0 seconds
      Loss of link:           0 seconds
      Errored seconds:        0 seconds
    Far end failures current day
      Errored seconds:        0 seconds
    Far end failures previous day
      Errored seconds:        0 seconds
    Near end failures since reset
      Loss of frame:          0 failures
      Loss of signal:         0 failures
      Loss of power:          0 failures
      Errored seconds:        0 seconds
    Near end failures last 15 minutes
      Loss of frame:          0 seconds
      Loss of signal:         0 seconds
      Loss of power:          0 seconds
      Errored seconds:        0 seconds
    Near end failures current day
      Errored seconds:        0 seconds
    Near end failures previous day
      Errored seconds:        0 seconds
=>
```

ATM Commands

Contents

This chapter covers the following commands:

atm oam ccconfig

Configure Operation and Maintenance (OAM) Continuity Check (CC) on the connection.

SYNTAX:

```
atm oam ccconfig      port = <{dsl0|dsl1|atm2|atm3|aal5|atm5} or number>
                      vpi = <number{0-15}>
                      [vci = <number{0-511}>]
                      [transmit = <{disabled|enabled}>]
                      [receive = <{disabled|enabled}>]
                      [auto = <{disabled|enabled}>]
                      [span = <{segment|end2end}>]
```

where:

port	The ATM port number. Choose between: • DSL0 • DSL1 • ATM2 • ATM3 • AAL5 • ATM5. Or specify a port number (dsl0 has port number 0, ..., atm5 has port number 5).	REQUIRED
vpi	A number between 0 and 15. Represents the Virtual Path Identifier (VPI)	REQUIRED
vci	A number between 0 and 511. Represents the Virtual Channel identifier (VCI). For a VP cross-connection, use *VCI=0* or do not specify.	OPTIONAL
transmit	Enable or disable transmission of CC cells. The default is *disabled*.	OPTIONAL
receive	Enable or disable loss of continuity. The default is *disabled*.	OPTIONAL
auto	Enable or disable remote CC activation and deactivation. The default is *disabled*.	OPTIONAL
span	End2end or segment continuity check.	OPTIONAL

RELATED COMMANDS:

atm oam cclist	Show current CC configuration.
atm oam ccsend	Send CC activate/deactivate to connection.

atm oam cclist

Show current OAM CC configuration.

SYNTAX:

```
atm oam cclist
```

EXAMPLE (default configuration):

```
=>atm oam cclist
PORT = 0 VPI = 15 VCI =  64 End2End Mode = Auto Segment Mode = Auto
PORT = 0 VPI = 15 VCI =  16 End2End Mode = Auto Segment Mode = Auto
PORT = 0 VPI = 0 VCI =  16 End2End Mode = Auto Segment Mode = Auto
=>
```

RELATED COMMANDS:

atm oam ccconfig	Configure CC on the connection.
atm oam ccsend	Send CC activate/deactivate to connection.

atm oam ccsend

Send CC activate/deactivate to connection.

SYNTAX:

```
atm oam ccsend        port = <{dsl0|dsl1|atm2|atm3|aal5|atm5} or number>
                      vpi = <number{0-15}>
                      [vci = <number{0-511}>]
                      [span = <{segment|end2end}>]
                      [action = <{activate|deactivate}>]
                      [direction = <{source|sink|both}>]
```

where:

port	The ATM port number. Choose between: • DSL0 • DSL1 • ATM2 • ATM3 • AAL5 • ATM5. Or specify a port number (dsl0 has port number 0, ..., atm5 has port number 5).	REQUIRED
vpi	A number between 0 and 15. Represents the Virtual Path Identifier (VPI).	REQUIRED
vci	A number between 0 and 511. Represents the Virtual Channel identifier (VCI). For a VP cross-connection, use *VCI=0* or do not specify.	OPTIONAL
span	End2end or segment continuity check.	OPTIONAL
action	Enable or disable CC. The default is *disabled*.	OPTIONAL
direction	Indicates the direction of CC activity. Select either: • source • sink • both. If not specified, CC is activated/deactivated for both directions.	OPTIONAL

RELATED COMMANDS:

atm oam ccconfig	Configure CC on the connection.
atm oam cclist	Show current CCconfiguration.

atm oam config

Configure OAM cell settings.

SYNTAX:

```
atm oam config          [clp = <number{0-1}>]
                        [loopbackid = <string>]
```

where:

clp	The CLP bit value of the OAM cells. Choose between: • 0 • 1.	OPTIONAL
loopbackid	The loopback id (hexadecimal string) for processing of segment loopback cells. The default is *6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a*.	OPTIONAL

atm oam mode

Configure the OAM data blocking mode.

SYNTAX:

```
atm oam mode          port = <{dsl0|dsl1|atm2|atm3|aal5|atm5} or number>
                      blocking = <{disabled|enabled}>
```

where:

port	The port for which OAM blocking is configured. Choose between: • DSL0 • DSL1 • ATM2 • ATM3 • AAL5 • ATM5 Or specify a port number (dsl0 has port number 0, ..., atm5 has port number 5).	REQUIRED
blocking	Enable or disable the OAM data blocking mode on this port. The default is *enabled*.	REQUIRED

atm oam ping

Sends ATM loopback cells.

SYNTAX:

```
atm oam ping          dest = <string>
                      [count = <number{1-1000000}>]
                      [interval = <number{100-1000000}>]
```

where:

dest	The destination address for the request. Can be any phonebook entry.	REQUIRED
count	A number between 1 and 1000000. Represents the number of pings to send.	OPTIONAL
interval	A number between 100 and 1000000 (milliseconds). Represents the interval between packets.	OPTIONAL

EXAMPLE:

```
=>atm oam ping dest=Sascha count=10 interval=200
loopback: successful, sequence: 1 time: 7762 usec
loopback: successful, sequence: 2 time: 8239 usec
loopback: successful, sequence: 3 time: 11100 usec
loopback: successful, sequence: 4 time: 9384 usec
loopback: successful, sequence: 5 time: 7209 usec
loopback: successful, sequence: 6 time: 20008 usec
loopback: successful, sequence: 7 time: 9651 usec
loopback: successful, sequence: 8 time: 9593 usec
loopback: successful, sequence: 9 time: 8411 usec
loopback: successful, sequence: 10 time: 41656 usec


--- loopback statistics ---
10 loopbacks transmitted, 10 successful, 0% loss, time 600 ms
rtt min/avg/max = 7209/13301/41656
=>
```

atm oam status

Show OAM data blocking mode of all ports.

SYNTAX:

```
atm oam status
```

EXAMPLE:

```
=>atm oam status
  OAM config dump
-------------------
        CLP bit value : 1
        Loopback id   : 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a 6a

  OAM data blocking mode
--------------------------
        Port dsl0: blocking
        Port dsl1: blocking
        Port atm2: blocking
        Port atm3: blocking
        Port aal5: blocking
        Port atm5: blocking
=>
```

AutoPVC Commands

Contents

This chapter covers the following commands:

autopvc config

Configure autopvc.

SYNTAX:

```
autopvc config      [mode = <{pseudo|passive|active}>]
                    [type = <{bridge|pppoerelay}>]
                    [opmode = <{partial|full}>]
                    [overwrite = <{disabled|enabled}>]
                    [peakrate = <number{0-27786}>]
```

where:

mode	Select the autopvc mode: • pseudo: enable only pseudo-ILMI (VP/VC 15/16). When connection parameters are written to the MIB, display this information on CLI or web-interface but do not use these parameters for configuration. • passive: enable both ILMI (VP/VC 0/16) and pseudo-ILMI (VP/VC 15/16). When connection parameters are written to the MIB, display this information on CLI or web-interface but do not use these parameters for configuration. • active: enable both ILMI (VP/VC 0/16) and pseudo-ILMI (VP/VC 15/16). When connection parameters are written to the MIB, use these parameters to configure phonebook entries, qosbook profiles and bind bridge or PPPoE interfaces on top. The default is *passive*.	OPTIONAL
type	Type of autopvc: • bridge • pppoerelay: an ETHoA interface will be created, will be bound to the ILMI PVC and will be added to the PPPoE relay as relay port. The default is *bridge*.	OPTIONAL
opmode	Operational autopvc mode: • partial: only read the ILMI VPC and VCC MIB tables • full: read all supported MIB tables. The default is *partial*.	OPTIONAL
overwrite	Enable/disable UBR peak rate overwrite.	OPTIONAL
peakrate	A number between 0 and 27786. Represents the UBR peak rate (in kilobits per second). **Note** 0 indicates the linerate.	OPTIONAL

EXAMPLE:

```
=>autopvc config
Autopvc mode    : pseudo
Autopvc opmode  : partial
Autopvc type    : bridge
Autopvc standard: down
Autopvc pseudo  : up
UBR overwrite   : disabled
UBR peak rate   : linerate
=>
```

RELATED COMMANDS:

autopvc info	Show retrieved information.

autopvc info

Show retrieved information.

SYNTAX:

```
autopvc info          [table = <{Vpc|Vcc}>]
```

where:

table	Choose the autopvc table for which the information must be shown. Choose between: • Vpc • Vcc.	OPTIONAL

EXAMPLE (default configuration):

```
=>autopvc info
Address  Type     BestEff      Par1     Par2     Par3     Par4     Par5
8.35     ubr      Enabled  Tx: 451      0        0        0        0
                           Rx: 7923     0        0        0        0
=>
```

RELATED COMMANDS:

autopvc config	Configure autopvc.

Bridge Commands

Contents

This chapter covers the following commands:

bridge config

Show/set bridge ageing policy for dynamically learned Medium Access Control (MAC) addresses.

SYNTAX:

```
bridge config          [age = <number {10 - 100000}>]
                       [filter = <{no_WAN_broadcast|PPPoE_only|none}>]
```

where:

age	A number between 10 and 100000 (seconds). Represents the lifetime of a dynamically learned MAC address. The default is *300*.	OPTIONAL
filter	The bridge filter to be applied for all WAN bridge ports. Choose between: • no_WAN_broadcast: broadcasts from the SpeedTouch™ itself to the WAN are filtered out, broadcasts from the LAN to the WAN are still passed through. • PPPoE_only: only PPPoE broadcasts are passed through, all others are filtered out • none: no broadcasts are filtered out. The default is *no_WAN_broadcast*.	OPTIONAL

EXAMPLE:

```
=>bridge config
Ageing : 300
Filter : no_WAN_broadcast
=>bridge config age=600
=>bridge config
Ageing : 600
Filter : no_WAN_broadcast
=>
```

RELATED COMMANDS:

bridge ifadd	Create a bridged Ethernet interface.
bridge ifattach	Attach a bridge interface.
bridge ifdelete	Delete a bridge interface.
bridge ifdetach	Detach a bridge interface.
bridge iflist	Show current bridge configuration.

bridge flush

Flush bridge interfaces and parameters.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
bridge flush
```

bridge ifadd

Create a bridged Ethernet interface.

SYNTAX:

```
bridge ifadd          [intf = <intfname>]
                      [dest = <string>]
```

where:

intf	The bridged Ethernet interface name. If not specified, the destination name will double as interface name.	OPTIONAL
dest	The destination address for the new interface. Typically a phonebook entry. Browse through the available entries via the ARROW UP and ARROW DOWN keys.	OPTIONAL

EXAMPLE:

```
=>bridge iflist
OBC       : Internal
            Connection State: connected
            Port: OBC    PortNr: 0    PortState: forwarding
            RX bytes:  75783     frames:  572
            TX bytes:  82843610  frames:  341554  dropframes:  0

ethport1  : Internal
            Connection State: connected
            Port: ethport1   PortNr: 1    PortState: forwarding
            RX bytes:  156472129 frames:  5903256
            TX bytes:  75689     frames:  425     dropframes:  5561702

usb_bridge :  dest : usb_port
              Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
              Connection State: connected
              Port: wan2   PortNr: 4    PortState: forwarding
              RX bytes: 0          frames: 0
              TX bytes: 0          frames: 0            dropframes: 0
=>bridge ifadd intf=TestBridge
=>bridge iflist
OBC       : Internal
            Connection State: connected
            Port: OBC    PortNr: 0    PortState: forwarding
            RX bytes:  75783     frames:  572
            TX bytes:  82843610  frames:  341554  dropframes:  0

...

usb_bridge :  dest : usb_port
              Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
              Connection State: connected
              Port: wan2   PortNr: 4    PortState: forwarding
              RX bytes: 0          frames: 0
              TX bytes: 0          frames: 0            dropframes: 0

TestBridge: dest : (none)
            Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
            Connection State: not-connected
            Port: (Unassigned)   PortNr: (Unknown)   PortState: forwarding
=>
```

RELATED COMMANDS:

bridge ifattach	Attach a bridge interface.
bridge ifconfig	Configure a bridge interface.
bridge ifdelete	Delete a bridge interface.
bridge ifdetach	Detach a bridge interface.
bridge iflist	Show current bridge configuration.

bridge ifattach

Attach (i.e. connect) a bridged Ethernet interface.

SYNTAX:

```
bridge ifattach      intf = <intfname>
```

where:

intf	The name of the interface to attach. Browse through the available entries via the ARROW UP and ARROW DOWN keys.	REQUIRED

EXAMPLE:

```
=>bridge iflist
OBC       : Internal
            Connection State: connected
            Port: OBC    PortNr: 0    PortState: forwarding
            RX bytes:  75783     frames:  572
            TX bytes:  82843610  frames:  341554  dropframes:  0

ethport1  : Internal
            Connection State: connected
            Port: ethport1   PortNr: 1    PortState: forwarding
            RX bytes:  156472129 frames:  5903256
            TX bytes:  75689     frames:  425     dropframes:  5561702

usb_bridge :  dest : usb_port
              Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
              Connection State: connected
              Port: wan2   PortNr: 4    PortState: forwarding
              RX bytes: 0          frames: 0
              TX bytes: 0          frames: 0            dropframes: 0

TestBridge: dest : (none)
            Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
            Connection State: not-connected
            Port: (Unassigned)   PortNr: (Unknown)   PortState: forwarding

=>bridge ifattach intf=TestBridge
=>bridge iflist
OBC       :  Internal
             Connection State: connected  Port: OBC  PortState: forwarding

...

TestBridge: dest : TestBridge
            Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
            Connection State: connected
            Port: wan0   PortNr: 5    PortState: forwarding
            RX bytes: 0          frames: 0
            TX bytes: 0          frames: 0            dropframes: 0
=>
```

RELATED COMMANDS:

bridge ifadd	Create a bridged Ethernet interface.
bridge ifconfig	Configure a bridge interface.
bridge ifdelete	Delete a bridge interface.
bridge ifdetach	Detach a bridge interface.
bridge iflist	Show current bridge configuration.

bridge ifconfig

Configure a bridge interface.

SYNTAX:

```
bridge ifconfig      intf = <intfname>
                     [dest = <string>]
                     [qos = <string>]
                     [encaps = <{llc/snap|vcmux}>]
                     [fcs = <{off|on}>]
                     [portstate = <{disabled|learning|forwarding}>]
                     [retry = <number {0-65535}>]
```

where:

intf	The name of the bridge interface to configure.	REQUIRED
dest	The destination for this interface. Typically a phonebook entry. This parameter only needs to be specified when an interface has been created without specified destination.	OPTIONAL
qos	The name of the Quality Of Service (QoS) book entry to apply on this bridge interface.	OPTIONAL
encaps	The type of encapsulation to be used for this bridge interface. Choose between: • llc/snap • vcmux.	OPTIONAL
fcs	Whether or not to include the Ethernet FCS in the packet header on the WAN side. Choose between: • off • on. The default is *off*. **Note** FCS is normally left off.	OPTIONAL
portstate	The bridge portstate for this interface. Choose between: • disabled • learning • forwarding.	OPTIONAL
retry	A number between 0 and 65535. Represents the number of times the SpeedTouch™ retries to set up a WAN connection before giving up. The default is *10*.	OPTIONAL

Note In case of a SpeedTouch™530 device: NEVER change or delete the usb_bridge interface!

EXAMPLE:

```
=>bridge iflist intf=TestBridge
TestBridge: dest : TestBridge
            Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
            Connection State: connected
            Port: wan0   PortNr: 5    PortState: forwarding
            RX bytes: 0          frames: 0
            TX bytes: 0          frames: 0            dropframes: 0
=>bridge ifconfig intf=TestBridge encaps=vcmux retry=15
=>bridge iflist intf=TestBridge
TestBridge: dest : TestBridge
            Retry : 15  QoS : default  Encaps : vcmux  Fcs : off
            Connection State: connected
            Port: wan0   PortNr: 5    PortState: forwarding
            RX bytes: 0          frames: 0
            TX bytes: 0          frames: 0            dropframes: 0
=>
```

RELATED COMMANDS:

bridge ifadd	Create a bridged Ethernet interface.
bridge ifattach	Attach a bridge interface.
bridge ifdelete	Delete a bridge interface.
bridge ifdetach	Detach a bridge interface.
bridge iflist	Show current bridge configuration.

bridge ifdelete

Delete a bridge interface.

SYNTAX:

```
bridge ifdelete      intf = <intfname>
```

where:

intf	The name of the interface name to be deleted. Browse through the available entries via the ARROW UP and ARROW DOWN keys.	REQUIRED

EXAMPLE:

```
=>bridge ifdelete intf=TestBridge
=>bridge iflist
OBC       : Internal
            Connection State: connected
            Port: OBC    PortNr: 0    PortState: forwarding
            RX bytes:  75783     frames:  572
            TX bytes:  82843610  frames:  341554  dropframes:  0

ethport1  : Internal
            Connection State: connected
            Port: ethport1   PortNr: 1    PortState: forwarding
            RX bytes:  156472129 frames:  5903256
            TX bytes:  75689     frames:  425     dropframes:  5561702

usb_bridge :  dest : usb_port
              Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
              Connection State: connected
              Port: wan2   PortNr: 4    PortState: forwarding
              RX bytes: 0          frames: 0
              TX bytes: 0          frames: 0            dropframes: 0
=>
```

Note In case of a SpeedTouch™530 device: NEVER change or delete the usb_bridge interface!

RELATED COMMANDS:

bridge ifadd	Create a bridged Ethernet interface.
bridge ifattach	Attach a bridge interface.
bridge ifconfig	Configure a bridge interface.
bridge ifdetach	Detach a bridge interface.
bridge iflist	Show current bridge configuration.

bridge ifdetach

Detach (i.e. disconnect) a bridge interface.

SYNTAX:

```
bridge ifdetach      intf = <intfname>
```

where:

intf	The name of the bridge interface to be detached. Browse through the available entries via the ARROW UP and ARROW DOWN keys.	REQUIRED

EXAMPLE:

```
=>bridge iflist intf=TestBridge
TestBridge: dest : TestBridge
            Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
            Connection State: connected
            Port: wan0   PortNr: 5    PortState: forwarding
            RX bytes: 0          frames: 0
            TX bytes: 0          frames: 0            dropframes: 0
=>bridge ifdetach intf=TestBridge
=>bridge iflist intf=TestBridge
TestBridge: dest : TestBridge
            Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
            Connection State: not-connected
            Port: (Unassigned)   PortNr: (Unknown)   PortState: forwarding
=>
```

Note In case of a SpeedTouch™530 device: NEVER change or delete the usb_bridge interface!

RELATED COMMANDS:

bridge ifadd	Create a bridged Ethernet interface.
bridge ifattach	Attach a bridge interface.
bridge ifconfig	Configure a bridge interface.
bridge ifdelete	Delete a bridge interface.
bridge iflist	Show current bridge configuration.

bridge iflist

Show the current state of all or the selected bridge interfaces.

SYNTAX:

```
bridge iflist          [intf = <intfname>]
```

where:

intf	The name of the bridge interface for which the configuration must be shown. Browse through the available entries via the ARROW UP and ARROW DOWN keys. If no interface is specified, all bridge interfaces are shown.	OPTIONAL

EXAMPLE:

```
=>bridge iflist
OBC       : Internal
            Connection State: connected
            Port: OBC    PortNr: 0    PortState: forwarding
            RX bytes:  75783     frames:  572
            TX bytes:  82843610  frames:  341554  dropframes:  0

ethport1  : Internal
            Connection State: connected
            Port: ethport1   PortNr: 1    PortState: forwarding
            RX bytes:  156472129 frames:  5903256
            TX bytes:  75689     frames:  425     dropframes:  5561702

usb_bridge :  dest : usb_port
              Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
              Connection State: connected
              Port: wan2   PortNr: 4    PortState: forwarding
              RX bytes: 0          frames: 0
              TX bytes: 0          frames: 0            dropframes: 0

TestBridge: dest : TestBridge
            Retry : 10  QoS : default  Encaps : llc/snap  Fcs : off
            Connection State: connected
            Port: wan0   PortNr: 5    PortState: forwarding
            RX bytes: 83          frames: 13
            TX bytes: 30740       frames: 341554        dropframes: 0
=>
```

Note In case of a SpeedTouch™530 device: NEVER change or delete the usb_bridge interface!

DESCRIPTION:

RX bytes	The number of Received bytes.
TX bytes	The number of Transmitted bytes.
OBC	On Board Controller: indicates the physical bridge port.

RELATED COMMANDS:

bridge ifadd	Create a bridged Ethernet interface.
bridge ifattach	Attach a bridge interface.
bridge ifconfig	Configure a bridge interface.
bridge ifdelete	Delete a bridge interface.
bridge ifdetach	Detach a bridge interface.

bridge macadd

Add a static MAC address to the filtering database.
This command allows to manually add static addresses, which should normally be dynamically discovered by the bridge itself.

SYNTAX:

```
bridge macadd        intf = <intfname>
                     hwaddr = <hardware-address>
```

where:

intf	The name of the bridge interface for which the MAC address must be added.	REQUIRED
hwaddr	The Ethernet MAC address of the new entry.	REQUIRED

EXAMPLE:

```
=>bridge maclist
00:0d:9d:47:dd:aa -- dynamic, ethport1, 300 seconds
00:90:d0:72:88:64 -- permanent
01:00:5e:00:00:67 -- static
01:00:5e:7f:ff:fa -- static
01:80:c2:00:00:00 -- permanent
01:80:c2:00:00:01 -- permanent
01:80:c2:00:00:02 -- permanent
01:80:c2:00:00:03 -- permanent
...
01:80:c2:00:00:0e -- permanent
01:80:c2:00:00:0f -- permanent
01:80:c2:00:00:10 -- permanent
ff:ff:ff:ff:ff:ff -- permanent
=>bridge macadd intf=ethport2 hwaddr=00:80:9f:01:23:45
=>bridge maclist
00:0d:9d:47:dd:aa -- dynamic, ethport1, 300 seconds
00:80:9f:01:23:45 -- static
00:90:d0:72:88:64 -- permanent
01:00:5e:00:00:67 -- static
01:00:5e:7f:ff:fa -- static
01:80:c2:00:00:00 -- permanent
01:80:c2:00:00:01 -- permanent
01:80:c2:00:00:02 -- permanent
01:80:c2:00:00:03 -- permanent
01:80:c2:00:00:0e -- permanent
01:80:c2:00:00:0f -- permanent
01:80:c2:00:00:10 -- permanent
ff:ff:ff:ff:ff:ff -- permanent
=>
```

RELATED COMMANDS:

bridge macdelete	Delete a MAC address entry.
bridge maclist	Show current filtering database.

bridge macdelete

Remove a MAC address from the filtering database.

SYNTAX:

```
bridge macdelete    hwaddr = <hardware-address>
```

where:

hwaddr	The Ethernet MAC address of the entry which must be deleted.	REQUIRED

EXAMPLE:

```
=>bridge maclist
00:0d:9d:47:dd:aa -- dynamic, ethport1
00:80:9f:01:23:45 -- static
00:90:d0:72:88:64 -- permanent
01:00:5e:00:00:67 -- static
01:00:5e:7f:ff:fa -- static
01:80:c2:00:00:00 -- permanent
01:80:c2:00:00:01 -- permanent
01:80:c2:00:00:02 -- permanent
01:80:c2:00:00:03 -- permanent
...
01:80:c2:00:00:0e -- permanent
01:80:c2:00:00:0f -- permanent
01:80:c2:00:00:10 -- permanent
ff:ff:ff:ff:ff:ff -- permanent
=>bridge macdelete hwaddr=00:80:9f:01:23:45
=>bridge maclist
00:0d:9d:47:dd:aa -- dynamic, ethport1
00:90:d0:72:88:64 -- permanent
01:00:5e:00:00:67 -- static
01:00:5e:7f:ff:fa -- static
01:80:c2:00:00:00 -- permanent
01:80:c2:00:00:01 -- permanent
01:80:c2:00:00:02 -- permanent
01:80:c2:00:00:03 -- permanent
01:80:c2:00:00:0e -- permanent
01:80:c2:00:00:0f -- permanent
01:80:c2:00:00:10 -- permanent
ff:ff:ff:ff:ff:ff -- permanent
=>
```

RELATED COMMANDS:

bridge macadd	Add a static MAC address to the filtering database.
bridge maclist	Show current filtering database.

bridge maclist

Show the current MAC address filtering database.

SYNTAX:

```
bridge maclist
```

EXAMPLE:

```
=>bridge maclist
00:0d:9d:47:dd:aa -- dynamic, ethport1, 300 seconds
00:90:d0:72:88:64 -- permanent
01:00:5e:00:00:67 -- static
01:00:5e:7f:ff:fa -- static
01:80:c2:00:00:00 -- permanent
01:80:c2:00:00:01 -- permanent
01:80:c2:00:00:02 -- permanent
01:80:c2:00:00:03 -- permanent
01:80:c2:00:00:04 -- permanent
01:80:c2:00:00:05 -- permanent
01:80:c2:00:00:06 -- permanent
01:80:c2:00:00:07 -- permanent
01:80:c2:00:00:08 -- permanent
01:80:c2:00:00:09 -- permanent
01:80:c2:00:00:0a -- permanent
01:80:c2:00:00:0b -- permanent
01:80:c2:00:00:0c -- permanent
01:80:c2:00:00:0d -- permanent
01:80:c2:00:00:0e -- permanent
01:80:c2:00:00:0f -- permanent
01:80:c2:00:00:10 -- permanent
ff:ff:ff:ff:ff:ff -- permanent
=>
```

RELATED COMMANDS:

bridge macadd	Add a static MAC address to the filtering database.
bridge macdelete	Delete a MAC address entry.

CIP Commands

Contents

This chapter covers the following commands:

cip flush

Flush complete Classical IP over ATM (IP oA) configuration.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
cip flush
```

cip ifadd

Create a Classical IP oA interface at the local side of the Logical IP Subnet (LIS).

SYNTAX:

```
cip ifadd           addr = <ip-address>
                    [netmask = <ip-mask (dotted or cidr)>]
                    [uniaddr = <portspec:address[.selector]>]
```

where:

addr	The Classical IP oA interface's local IP address in the LIS.	REQUIRED
netmask	The LIS's subnetmask.	OPTIONAL
uniaddr	The UNI-address/port specification for incoming connections, e.g. 'A0:*.03': ADSL port, any address, selector 3.	OPTIONAL

Note This parameter is only applicable in an Switched Virtual Channel (SVC) environment.
In most cases, the Classical IP oA LIS is built in a Permanent Virtual Channel (PVC) environment.

EXAMPLE:

```
=>cip iflist
cip1         addr = 172.16.0.5  mask = 255.255.255.0
             UNI address = A0:*.04
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
=>cip ifadd addr=172.16.1.1 netmask=255.255.255.0
=>cip iflist
cip1         addr = 172.16.0.5  mask = 255.255.255.0
             UNI address = A0:*.04
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
cip0         addr = 172.16.1.1  mask = 255.255.255.0
             UNI address = A0:*.03
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
=>
```

RELATED COMMANDS:

cip ifdelete	Delete a Classical IP oA interface.
cip iflist	Show current Classical IP oA configuration.

cip ifdelete

Delete a Classical IP oA interface at the local side of the LIS.

SYNTAX:

```
cip ifdelete          addr = <ip-address>
```

where:

addr	The Classical IP oA interface's local IP address in the LIS.	REQUIRED

EXAMPLE:

```
=>cip iflist
cip0         addr = 172.16.1.1  mask = 255.255.255.0
             UNI address = A0:*.03
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
cip1         addr = 172.16.0.5  mask = 255.255.255.0
             UNI address = A0:*.04
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
=>cip ifdelete addr=172.16.1.1
=>cip iflist
cip1         addr = 172.16.0.5  mask = 255.255.255.0
             UNI address = A0:*.04
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
=>
```

RELATED COMMANDS:

cip ifadd	Create a Classical IP oA interface at the local side of the Logical IP Subnet.
cip iflist	Show current Classical IP oA configuration.

cip iflist

Show current Classical IP oA configuration.

SYNTAX:

```
cip iflist
```

EXAMPLE:

```
=>cip iflist
cip0         addr = 172.16.1.1  mask = 255.255.255.0
             UNI address = A0:*.03
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
cip1         addr = 172.16.0.5  mask = 255.255.255.0
             UNI address = A0:*.04
             inarp_reqs_in  =  0   inarp_repl_in  =  0   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out =  0   inarp_inv_out =  0
=>
```

DESCRIPTION:

inarp_reqs_in/inarp_reqs_out	Incoming/outgoing inverse ARP requests.
inarp_repl_in/inarp_repl_out	Incoming/outgoing inverse ARP replies.
inarp_inv_in/inarp_inv_out	Incoming/outgoing invalid inverse ARP messages.

EXAMPLE INPUT/OUTPUT: EVOLUTION OF ARP REQUESTS IN A NETWORKED ENVIRONMENT:

```
=>cip iflist
cip0         addr = 200.200.200.138  mask = 255.255.255.0
             UNI address = A0:*.03
             inarp_reqs_in  = 18   inarp_repl_in  = 75   inarp_inv_in  =  0
             inarp_reqs_out = 18   inarp_repl_out = 75   inarp_inv_out =  0
=>cip iflist
cip0         addr = 200.200.200.138  mask = 255.255.255.0
             UNI address = A0:*.03
             inarp_reqs_in  = 22   inarp_repl_in  = 75   inarp_inv_in  =  0
             inarp_reqs_out = 22   inarp_repl_out = 75   inarp_inv_out =  0
=>cip iflist
cip0         addr = 200.200.200.138  mask = 255.255.255.0
             UNI address = A0:*.03
             inarp_reqs_in  = 22   inarp_repl_in  = 76   inarp_inv_in  =  0
             inarp_reqs_out = 22   inarp_repl_out = 76   inarp_inv_out =  0
=>
```

RELATED COMMANDS:

cip ifadd	Create a Classical IP oA interface at the local side of the Logical IP Subnet.
cip ifdelete	Delete a Classical IP oA interface.

cip pvcadd

Create a PVC Address Resolution Protocol (ARP) entry for destinations which are not RFC1577/RFC2225 compliant.

SYNTAX:

```
cip pvcadd              dest = <phonebook name>
                        [destaddr = <ip-address>]
                        [mtu = <number {273-20000}>]
```

where:

dest	The ATM address (hardware address) of the destination host. Typically a phonebook name.	REQUIRED
destaddr	The IP address of the destination host Typically for destinations without Inverse ATMARP support.	OPTIONAL
mtu	A number between 273 and 20000. Represents the maximum ATM Adaption Layer 5 (AAL5) packet size (in bytes) for this connection. The default is *9180 bytes*.	OPTIONAL

EXAMPLE:

```
=>phonebook list
Name         Type    Use   Address
Br1          bridge  1     8.35
Br2          bridge  1     8.36
Br3          bridge  1     8.37
Br4          bridge  0     8.38
RELAY_PPP1   ppp     0     8.48
RELAY_PPP2   ppp     0     8.49
RELAY_PPP3   ppp     0     8.50
RELAY_PPP4   ppp     0     8.51
PPP1         ppp     1     8.64
PPP2         ppp     1     8.65
PPP3         ppp     1     8.66
DHCP_SPOOF   ppp     1     8.67
CIPPVC1      cip     0     8.80
CIPPVC2      cip     0     8.81
CIPPVC3      cip     0     8.82
CIPPVC4      cip     0     8.83
=>cip pvclist
=>cip pvcadd dest CIPPVC1 destaddr 172.16.1.2 mtu 546
=>cip pvclist
CIPPVC1       atmport  = 0     vpi  = 8    vci  = 80   dest_ip  = 172.16.1.2
              encaps   = llc   mtu  = 546
=>
```

RELATED COMMANDS:

cip pvcdelete	Delete a PVC ARP entry.
cip pvclist	Show current PVC ARP entries.

cip pvcdelete

Delete a PVC ARP entry.

SYNTAX:

```
cip pvcdelete          dest = <phonebook name>
```

where:

dest	Typically a phonebook entry name. Represents the ATM address (hardware address) or name of the entry to be deleted.	REQUIRED

EXAMPLE:

```
=>cip pvclist
CIPPVC1       atmport  = 0     vpi  = 8    vci  = 80   dest_ip  = 172.16.1.2
              encaps   = llc   mtu  = 546
=>cip pvcdelete dest=CIPPVC1
=>cip pvclist
=>
```

RELATED COMMANDS:

cip pvcadd	Create a PVC ARP entry.
cip pvclist	Show current PVC ARP entries.

cip pvclist

Show current PVC ARP entries.

SYNTAX:

```
cip pvclist
```

EXAMPLE:

```
=>cip pvclist
CIPPVC1       atmport = 0     vpi = 8    vci = 80   dest_ip = 172.16.1.2
              encaps  = llc   mtu = 546
=>
```

EXAMPLE INPUT/OUTPUT IN A NETWORKED ENVIRONMENT:

```
=>cip iflist
cip0         addr = 200.200.200.138  mask = 255.255.255.0
             UNI address = A0:*.03
             inarp_reqs_in  =  0   inarp_repl_in  = 75   inarp_inv_in  =  0
             inarp_reqs_out =  0   inarp_repl_out = 75   inarp_inv_out =  0
=>cip pvclist
699           atmport = 0     vpi = 6    vci = 99   dest_ip = 172.16.1.3
              encaps  = llc   mtu = 9180
8.50          atmport = 0     vpi = 8    vci = 50   dest_ip = 200.200.200.14
              encaps  = llc   mtu = 9180
=>
```

RELATED COMMANDS:

cip pvcadd	Create a PVC ARP entry.
cip pvcdelete	Delete a PVC ARP entry.

Config Commands

Contents

This chapter covers the following commands:

config backup

Store current configuration to backup file.

SYNTAX:

```
config backup     filename = <user configuration filename>
```

where:

filename	Filename for backup file of current configuration.	REQUIRED

RELATED COMMANDS:

config dump	Show the saved configuration file.
config list	Save complete runtime configuration.

config dump

Show the saved configuration file.

SYNTAX:

```
config dump
```

RELATED COMMANDS:

config backup	Store current configuration to backup file.
config list	Load complete saved or default configuration.

config erase

Erase a user configuration file.

Note If no filename is specified, all the user configuration files, saved in the SpeedTouch™ permanent storage, are deleted.

SYNTAX:

```
config erase      [filename = <user configuration filename>]
```

where:

filename	Name of the configuration file to erase.	OPTIONAL

RELATED COMMANDS:

config flush	Flush complete runtime configuration.
config load	Load complete saved or default configuration.
config save	Save complete runtime configuration.

config flush

Flush complete current configuration without affecting saved configurations.

This flush command combines all flush commands: bridge flush, cip flush, dhcp client flush, dhcp relay flush, dhcp server flush, dhcp server lease flush, dhcp server pool flush, dns flush, env flush, ethoa flush, firewall flush, firewall chain flush, firewall rule flush, ip flush, ip auto flush, ipoa flush, label flush, label chain flush, label rule flush, nat flush, phonebook flush, pppoa flush, pppoe flush, pppoe relay flush, pptp flush, qosbook flush, script flush, switch group flush, system flush and upnp flush.

SYNTAX:

```
config flush      [flush_ip = <{no|yes}>]
```

where:

flush_ip	Flush IP settings (yes) or not (no). The default is *no*. **Note** Not keeping the IP settings could cause lost IP connectivity in the LAN.	OPTIONAL

EXAMPLE:

```
=>ip rtlist
   Destination        Source        Gateway        Intf     Mtrc
   10.0.0.0/24        10.0.0.0/24   10.0.0.140     eth0     0
   172.16.0.5/32      0.0.0.0/0     172.16.0.5     cip1     0
   10.0.0.140/32      0.0.0.0/0     10.0.0.140     eth0     0
   127.0.0.1/32       0.0.0.0/0     127.0.0.1      loop     0
   10.0.0.0/24        0.0.0.0/0     10.0.0.140     eth0     0
   172.16.0.0/24      0.0.0.0/0     172.16.0.5     cip1     1
=>config flush flush_ip=no
=>ip rtlist
   Destination        Source        Gateway        Intf     Mtrc
   10.0.0.0/24        10.0.0.0/24   10.0.0.140     eth0     0
   10.0.0.140/32      0.0.0.0/0     10.0.0.140     eth0     0
   127.0.0.1/32       0.0.0.0/0     127.0.0.1      loop     0
   10.0.0.0/24        0.0.0.0/0     10.0.0.140     eth0     0
=>config flush flush_ip=yes

######### ALL TCP/IP CONNECTIVITY IS LOST ##########
```

RELATED COMMANDS:

config erase	Erase a user configuration file.
config load	Load complete saved or default configuration.
config save	Save current runtime configuration.

config list

Show the current configuration set.

SYNTAX:

```
config list          [templates = <{no|yes}>]
```

where:

templates	List the template files (yes) or not (no) The default is *no*.	OPTIONAL

EXAMPLE:

```
=>config list templates=yes
Configurations file(s):
  user.ini
Template file(s)
  No template files present
Factory template file(s) :
  pppoe.tpl
  pppoa.tpl
  br.tpl
=>
```

RELATED COMMANDS:

config backup	Store current configuration to backup file.
config dump	Show the saved configuration file.

config load

Load complete saved (backup) or default configuration file.

Note Use the command *config flush* before using the command *config load*.

SYNTAX:

```
config load       [load_ip = <{no|yes}>]
                  [defaults = <{yes|no}>]
                  [flush = <{yes|no}>]
                  [echo = <{no|yes}>]
                  [filename = <string>]
```

where:

load_ip	Load IP settings (yes) or not (no). **Note** Not keeping the IP settings could cause lost IP connectivity in the LAN.	OPTIONAL
defaults	Load default configuration (yes) or saved configuration (no). **Note** If this parameter is not specified, the saved configuration will be loaded.	OPTIONAL
flush	Flush the current configuration before loading a new configuration (yes) or not (no).	OPTIONAL
echo	Echo each command string when loaded (yes) or not (no).	OPTIONAL
filename	Configuration filename.	OPTIONAL

EXAMPLE:

```
=>ip rtlist
   Destination        Source        Gateway        Intf     Mtrc
   10.0.0.0/24        10.0.0.0/24   10.0.0.140     eth0     0
   172.16.0.5/32      0.0.0.0/0     172.16.0.5     cip1     0
   10.0.0.140/32      0.0.0.0/0     10.0.0.140     eth0     0
   127.0.0.1/32       0.0.0.0/0     127.0.0.1      loop     0
   172.16.0.0/24      0.0.0.0/0     172.16.0.5     cip1     1
=>config flush flush_ip=no
=>ip rtlist
   Destination        Source        Gateway        Intf     Mtrc
   10.0.0.0/24        10.0.0.0/24   10.0.0.140     eth0     0
   10.0.0.140/32      0.0.0.0/0     10.0.0.140     eth0     0
   127.0.0.1/32       0.0.0.0/0     127.0.0.1      loop     0
=>config load flush=yes
=>ip rtlist
   Destination        Source        Gateway        Intf     Mtrc
   10.0.0.0/24        10.0.0.0/24   10.0.0.140     eth0     0
   10.0.0.140/32      0.0.0.0/0     10.0.0.140     eth0     0
   172.16.0.5/32      0.0.0.0/0     172.16.0.5     cip1     0
   127.0.0.1/32       0.0.0.0/0     127.0.0.1      loop     0
   172.16.0.0/24      0.0.0.0/0     172.16.0.5     cip1     1
=>
```

RELATED COMMANDS:

config erase	Erase a user configuration file.
config flush	Flush complete runtime configuration.
config save	Save current runtime configuration.

config save

Save the current configuration, i.e. all existing configurations and modifications entered by the user.
The result of executing this command is a user.ini file saved in the SpeedTouch™ permanent storage. This file can be downloaded via the SpeedTouch™ web pages or via an FTP session.

SYNTAX:

```
config save
```

RELATED COMMANDS:

config erase	Erase a user configuration file.
config flush	Flush complete runtime configuration.
config load	Load complete saved or default configuration.

DHCP Commands

Contents

This chapter covers the following commands

dhcp client clear

Clear Dynamic Host Configuration Protocol (DHCP) client statistics.

SYNTAX:

```
dhcp client clear
```

EXAMPLE:

```
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :  0
OFFERs     recv         :  0
ACKs     recv           :  0
NAKs     recv           :  0
Pure BOOTP REPLIES      :  0
Other message types     :  0
DISCOVERs sent          :  253
REQUESTs sent           :  9
DECLINEs sent           :  0
RELEASEs  sent          :  0
INFORMs   sent          :  0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 19,  in use: 1,  free: 94 %
=>dhcp client clear
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :  0
OFFERs     recv         :  0
ACKs     recv           :  0
NAKs     recv           :  0
Pure BOOTP REPLIES      :  0
Other message types     :  0
DISCOVERs sent          :  0
REQUESTs sent           :  0
DECLINEs sent           :  0
RELEASEs  sent          :  0
INFORMs   sent          :   0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 19,  in use: 1,  free: 94 %
=>
```

RELATED COMMANDS:

dhcp client stats	Show DHCP client statistics.

dhcp client config

Show/set DHCP client configuration.

SYNTAX:

```
dhcp client config    [trace = <{off|on}>]
```

where:

trace	Enable tracing (on) or not (off).	OPTIONAL

EXAMPLE:

```
=>dhcp client config
tracing: off
=>dhcp client config trace=on
=>dhcp client config
tracing: on
=>
```

RELATED COMMANDS:

dhcp client ifconfig	Configure a DHCP lease created for a specific interface.

dhcp client flush

Flush complete DHCP client configuration and dynamic interfaces.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
dhcp client flush
```

EXAMPLE:

```
=>dhcp client iflist
NewETHoA      :  [SELECTING]
               flags=  uc
               IP address    :  10.0.0.10
               HW address    :  0:90:d0:01:47:de
               DHCP server   :  255.255.255.255
               hostname      :  NewLease
               req.leasetime=   10800 s
               trying to get a lease for 8 min, 32 sec
               transmission of DISCOVER in 57 sec
               retransmission timeout:  64
               nbr of retransmissions:  14
Number of leases:  1
Total size of table: 19,  in use: 1,  free: 94 %
=>dhcp client flush
=>dhcp client iflist
No dynamic interfaces defined.
=>
```

dhcp client ifadd

Create a DHCP lease for a specific interface.

SYNTAX:

```
dhcp client ifadd     intf = <interface name>
```

where:

intf	The name of the dynamic interface to be created.	REQUIRED

EXAMPLE:

```
=>dhcp client iflist
No dynamic interfaces defined.
=>dhcp client ifadd intf=NewEthoa
=>dhcp client iflist
NewETHoA    :  [INIT]
             flags=  uc
             IP address    :  0.0.0.0
             HW address    :  00:90:d0:01:47:de
             DHCP server   :  255.255.255.255
Number of leases:     1
Total size of table: 19,  in use: 1,  free: 94 %
=>
```

RELATED COMMANDS:

dhcp client ifattach	Attach a DHCP lease to an interface.
dhcp client ifconfig	Configure a DHCP lease created for a specific interface.
dhcp client ifdelete	Delete a dynamic interface.
dhcp client iflist	Show all dynamic interfaces.

dhcp client ifattach

Attach a DHCP lease to a dynamic interface.

Note Create the interface first with the command *dhcp client ifadd*.

SYNTAX:

```
dhcp client ifattach    intf = <interface name>
```

where:

intf	The name of the dynamic interface to be attached.	REQUIRED

EXAMPLE:

```
=>dhcp client iflist
NewETHoA    :  [INIT]
             flags=  uc
             IP address      :  0.0.0.0
             HW address      :  00:90:d0:01:47:de
             DHCP server     :  255.255.255.255
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>dhcp client ifattach intf=NewETHoA
=>dhcp client iflist
NewETHoA    :  [SELECTING]
             flags=  uc
             IP address      :  10.0.0.10
             HW address      :  0:90:d0:01:47:de
             DHCP server     :  255.255.255.255
             hostname        :  NewLease
             req.leasetime   =  10800 s
             trying to get a lease for 8 min, 32 sec
             transmission of DISCOVER in 57 sec
             retransmission timeout: 64
             nbr of retransmissions: 14
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>
```

RELATED COMMANDS:

dhcp client ifadd	Create a DHCP lease for a specific interface.
dhcp client ifconfig	Configure a DHCP lease created for a specific interface.
dhcp client ifrelease	Release a lease attached to a dynamic interface.
dhcp client iflist	Show all dynamic interfaces.

dhcp client ifconfig

Show/set the configuration of DHCP lease created for a specific interface.

Note Use the command *dhcp client ifrelease* before configuring the dhcp client.

SYNTAX:

```
dhcp client ifconfig    intf = <interface name>
                        [clientid = <{client-id|none}>]
                        [hostname = <hostname|"">]
                        [addr = <ip-address>]
                        [leasetime = <number>]
                        [addrtrans = <{none|pat}>]
                        [dns = <{off|on}>]
                        [gateway = <{off|on}>]
                        [metric = <number{0-100}>]
                        [dnsmetric = <number{0-100}>]
```

where:

intf	The name of the dynamic interface to be configured.	REQUIRED
clientid	The client identity to be associated with the lease. Use *none* in case no clientid should be associated with this lease.	OPTIONAL
hostname	The host name of the client to be associated with the lease. Use “” in case no hostname should not be associated with this lease.	OPTIONAL
addr	The preferred dynamic IP address.	OPTIONAL
leasetime	A number between 0 and 1814400 (seconds). Represents the preferred time the client wants to use an address. The default is *7200* (2 hours). **Note** Specifying -1 makes the lease permanent.	OPTIONAL
addrtrans	Automatically enable address translation for this dynamic interface (pat) or not (none).	OPTIONAL
dns	Request (and accept) DNS server IP addresses (on) or not (off).	OPTIONAL
gateway	Request (and accept) gateway IP addresses (on) or not (off).	OPTIONAL
metric	A number between 0 and 100. Represents the gateway route metric. The default is *1*.	OPTIONAL
dnsmetric	A number between 0 and 100. Represents the DNS route metric. The default is *1*.	OPTIONAL

EXAMPLE:

```
=>dhcp client iflist
NewETHoA    :  [INIT]
             flags=  uc
             IP address      :  0.0.0.0
             HW address      :  00:90:d0:01:47:de
             DHCP server     :  255.255.255.255
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 4 %
=>dhcp client ifconfig intf=NewETHoA hostname=NewLease addr=10.0.0.10 leasetime=10800
=>dhcp client iflist
NewETHoA    :  [INIT]
             flags=  uc
             IP address      :  10.0.0.10
             HW address      :  00:90:d0:01:47:de
             DHCP server     :  255.255.255.255
             hostname        :  NewLease
             req.leasetime   =  10800 s
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 4 %
=>
```

RELATED COMMANDS:

dhcp client ifadd	Create a DHCP lease for a specific interface.
dhcp client ifdelete	Delete a dynamic interface.
dhcp client iflist	Show all dynamic interfaces.
dhcp client ifrelease	Release a lease attached to a dynamic interface.

dhcp client ifdelete

Delete a dynamic interface.

SYNTAX:

```
dhcp client ifdelete    intf = <interface name>
```

where:

intf	The name of the dynamic interface to be deleted.	REQUIRED

EXAMPLE:

```
=>dhcp client iflist
NewETHoA    :  [SELECTING]
             flags=  uc
             IP address      :  10.0.0.10
             HW address      :  00:90:d0:01:47:de
             DHCP server     :  255.255.255.255
             hostname        :  NewLease
             req.leasetime   =  10800 s
             trying to get a lease for 8 min, 32 sec
             transmission of DISCOVER in 57 sec
             retransmission timeout:  64
             nbr of retransmissions:  14
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>dhcp client ifdelete intf NewETHoA
=>dhcp client iflist
No dynamic interfaces defined.
=>
```

RELATED COMMANDS:

dhcp client ifadd	Create a DHCP lease for a specific interface.
dhcp client ifattach	Attach a DHCP lease to an interface.
dhcp client ifconfig	Configure a DHCP lease created for a specific interface.
dhcp client iflist	Show all dynamic interfaces.
dhcp client ifrelease	Release a lease attached to a dynamic interface.

dhcp client iflist

Show all dynamic interfaces.

SYNTAX:

```
dhcp client iflist
```

EXAMPLE:

```
=>dhcp client iflist
NewETHoA    :  [INIT]
            flags=  uc
            IP address      :  0.0.0.0
            HW address      :  00:90:d0:01:47:de
            DHCP server     :  255.255.255.255
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>
```

EXAMPLE INPUT/OUTPUT IN A NETWORKED ENVIRONMENT:

The SpeedTouch™ is configured as DHCP client on its Ethernet interface eth0.

```
=>dhcp client iflist
eth0      :  [BOUND]
            flags=  uc
            IP address    :  10.0.0.3
            HW address    :  00:90:d0:01:47:f1
            DHCP server   :  10.10.1.1
            lease renewal in      5  days, 1  h, 26 min, 45 sec
            lease rebinding in    8  days, 20 h, 34 min, 15 sec
            lease expires in      10 days, 2  h, 56 min, 45 sec
Number of leases:  1
Total size of table: 18,   in use: 1,   free: 94 %
=>dhcp client iflist
eth0      :  [BOUND]
            flags=  uc
            IP address    :  10.0.0.3
            HW address    :  00:90:d0:01:47:f1
            DHCP server   :  10.10.1.1
            lease renewal in      5  days, 1  h, 25 min, 27 sec
            lease rebinding in    8  days, 20 h, 32 min, 57 sec
            lease expires in      10 days, 2  h, 55 min, 27 sec
Number of leases:  1
Total size of table: 18,   in use: 1,   free: 94 %
=>
```

RELATED COMMANDS:

dhcp client ifadd	Create a DHCP lease for a specific interface.
dhcp client ifdelete	Delete a dynamic interface.

dhcp client ifrelease

Release a lease attached to a dynamic interface.

SYNTAX:

```
dhcp client ifrelease   intf = <interface name>
```

where:

intf	The name of the dynamic interface.	REQUIRED

EXAMPLE:

```
=>dhcp client iflist
NewETHoA    :  [SELECTING]
             flags=  uc
             IP address      :  10.0.0.10
             HW address      :  00:90:d0:01:47:de
             DHCP server     :  255.255.255.255
             hostname        :  NewLease
             req.leasetime   =  10800 s
             trying to get a lease for 8 min, 32 sec
             transmission of DISCOVER in 57 sec
             retransmission timeout:  64
             nbr of retransmissions:  14
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>dhcp client ifattach intf=NewETHoA
=>dhcp client iflist
NewETHoA    :  [SELECTING]
             flags=  uc
             IP address      :  0.0.0.0
             HW address      :  00:90:d0:01:47:de
             DHCP server     :  255.255.255.255
             hostname        :  NewLease
             req.leasetime   =  10800 s
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>
```

EXAMPLE INPUT/OUTPUT IN A NETWORKED ENVIRONMENT:

The SpeedTouch™ is configured as DHCP client on its Ethernet interface eth0.

```
=>dhcp client iflist
eth0      :  [BOUND]
             flags=  uc
             IP address    :  10.0.0.3
             HW address    :  00:90:d0:01:47:f1
             DHCP server   :  10.10.1.1
             lease renewal in      5  days, 58 min, 45 sec
             lease rebinding in    8  days, 20 h, 6  min, 18 sec
             lease expires in      10 days, 2  h, 28 min, 48 sec
Number of leases:  1
Total size of table: 18,   in use: 1,   free: 94 %
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :               0
DECLINEs sent           :               0
RELEASEs  sent          :               0
INFORMs   sent          :               0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 19,   in use: 1,   free: 94 %
=>dhcp client ifrelease intf=eth0
=>(CTRL + Q)
=>STATE ACTIVATE !
STATE IDLE !
STATE ACTIVATE !
dhcc: intf 1  releases 10.0.0.3 to server 10.10.1.1.
dhcc: 10.0.0.3 deleted: ok.
STATE IDLE !
STATE ACTIVATE !
.............
dhcc: intf 1 in init state.
n_send() broadcast triggered; To be verified
dhcc: broadcast discover on intf 1.
=>(CTRL + S)
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :               0
DECLINEs sent           :               0
RELEASEs  sent          :               1
INFORMs   sent          :               0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 19,   in use: 1,   free: 94 %
=>
```

RELATED COMMANDS:

dhcp client ifattach	Attach a DHCP lease to an interface.
dhcp client ifconfig	Configure a DHCP lease created for a specific interface.
dhcp client ifdelete	Delete a dynamic interface.

dhcp client ifrenew

Renew the lease of a dynamic interface.

SYNTAX:

```
dhcp client ifrenew  intf = <interface name>
```

where:

intf	The name of the dynamic interface.	REQUIRED

EXAMPLE:

```
=>dhcp client iflist
NewETHoA    :  [BOUND]
            flags=  uc
            IP address    :  10.0.0.10
            HW address    :  00:90:d0:01:47:f1
            DHCP server   :  255.255.255.255
            hostname      :  NewLease
            req.leasetime =  10800 s
            lease renewal in      5  days, 58 min, 48 sec
            lease rebinding in    8  days, 20 h, 6  min, 18 sec
            lease expires in      10 days, 2  h, 28 min, 48 sec
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>dhcp client ifrenew intf=NewETHoA
=>dhcp client iflist
NewETHoA    :  [SELECTING]
            flags=  uc
            IP address      :  10.0.0.10
            HW address      :  00:90:d0:01:47:de
            DHCP server     :  255.255.255.255
            hostname        :  NewLease
            req.leasetime   =  10800 s
            trying to get a lease for 12 sec
            transmission of DISCOVER in 24 sec
            retransmission timeout:  64
            nbr of retransmissions:  11
Number of leases:  1
Total size of table: 19,   in use: 1,   free: 94 %
=>
```

EXAMPLE INPUT/OUTPUT IN A NETWORKED ENVIRONMENT:

The SpeedTouch™ is configured as DHCP client on its Ethernet interface eth0.

```
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :               0
OFFERs     recv         :               0
ACKs     recv           :               0
NAKs     recv           :               0
Pure BOOTP REPLIES      :               0
Other message types     :               0
DISCOVERs sent          :               0
REQUESTs sent           :               0
DECLINEs sent           :               0
RELEASEs  sent          :               1
INFORMs   sent          :               0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 18,   in use: 1,   free: 94 %
=>dhcp client ifrenew intf=eth0
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :               0
OFFERs     recv         :               1
ACKs     recv           :               1
NAKs     recv           :               0
Pure BOOTP REPLIES      :               0
Other message types     :               0
DISCOVERs sent          :               1
REQUESTs sent           :               1
DECLINEs sent           :               0
RELEASEs  sent          :               1
INFORMs   sent          :               0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 18,   in use: 1,   free: 94 %
=>(CTRL + Q)
..................
STATE IDLE !
STATE ACTIVATE !
dhcc: intf 1 renews lease 10.0.0.3.
dhcc: intf 1 requests 10.0.0.3 from 10.10.1.1
dhcc: 10.10.1.1 acks 10.0.0.3 to intf 1.
dhcc: lease 10.0.0.3 bound to intf 1.
STATE IDLE !
STATE ACTIVATE !
...........
=>(CTRL + S)
```

RELATED COMMANDS:

dhcp client ifadd	Create a DHCP lease for a specific interface.
dhcp client ifattach	Attach a DHCP lease to an interface.

dhcp client stats

Show DHCP client statistics.

SYNTAX:

```
dhcp client stats
```

EXAMPLE:

```
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :               0
OFFERs     recv         :               1
ACKs     recv           :               1
NAKs     recv           :               0
Pure BOOTP REPLIES      :               0
Other message types     :               0
DISCOVERs sent          :               244
REQUESTs sent           :               9
DECLINEs sent           :               0
RELEASEs  sent          :               1
INFORMs   sent          :               0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 19,   in use: 1,   free: 94 %
=>
```

RELATED COMMANDS:

dhcp client clear	Clear DHCP client statistics.

dhcp relay add

Add a DHCP server to the DHCP server list.

SYNTAX:

```
dhcp relay add      addr = <ip-address>
                    [intf = <none|interface_name>]
                    [giaddr = <ip-address>]
```

where:

addr	The DHCP server IP address.	REQUIRED
intf	The name of the relay interface. Use *None* to indicate that no interface is specified.	OPTIONAL
giaddr	The *giaddr* field to be used in relayed DHCP packets.	OPTIONAL

RELATED COMMANDS:

dhcp relay config	Set the relay configuration settings.
dhcp relay delete	Delete a DHCP server from the DHCP server list.

dhcp relay config

Set the relay configuration settings.

SYNTAX:

```
dhcp server config    [agentinfo = <{off|on}>]
                      [agentmismatch = <{off|on}>]
                      [trace = <{off|on}>]
```

where:

agentinfo	Sets the relay agent info status (RFC3046) off or on. The default is *off*.	OPTIONAL
agentmismatch	Forward/Drop DHCP reply packet when a relay agent info mismatch is detected (RFC3046) (on) or not (off). The default is *off*.	OPTIONAL
trace	Disable verbose console logging and generation of debug traces (off) or enable verbose console logging and generation of debug traces (on). The default is *off*.	OPTIONAL

EXAMPLE:

```
=>dhcp relay config
Agent info status : off
Drop agent info mismatch status : off
Verbose console logging : off
=>dhcp relay config agentinfo=on
=>dhcp relay config
Agent info status : on
Drop agent info mismatch status : off
Verbose console logging : off
=>
```

RELATED COMMANDS:

dhcp relay add	Add a DHCP server to the DHCP server list.
dhcp relay delete	Delete a DHCP server from the DHCP server list.

dhcp relay delete

Delete a DHCP server from the DHCP server list.

SYNTAX:

```
dhcp relay delete     addr = <ip-address>
                      [intf = <interface name>]
```

where:

addr	The DHCP server IP address.	REQUIRED
intf	The name of the dynamic interface.	OPTIONAL

RELATED COMMANDS:

dhcp relay add	Add a DHCP server to the DHCP server list.
dhcp relay config	Set the relay configuration settings.

dhcp relay flush

Flush the DHCP relay settings.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
dhcp relay flush
```

EXAMPLE:

```
=>dhcp relay list
  DHCP server       Interface         giaddr
-------------------------------------------------------
  127.0.0.1
=>dhcp relay flush
=>dhcp relay list
No dynamic interfaces defined.
=>
```

dhcp relay ifconfig

Configure a relay interface.

SYNTAX:

```
dhcp relay ifconfig   intf = <interface name>
                      [relay = <{off|on}>]
                      [maxhops = <number{0-16}>]
                      [remoteid = <password>]
                      [trusted = <{no|yes}>]
```

where:

intf	The name of the dynamic interface to be configured.	REQUIRED
relay	Sets the relay status.	OPTIONAL
maxhops	A number between 0 and 16. Represents the maximum number of hops allowed in the DHCP packet. The default is *4*.	OPTIONAL
remoteid	Sets the remote id as specified in RFC3046.	OPTIONAL
trusted	Drop/Forward DHCP request packet when the DHCP Relay Agent Option is enabled (with the command *dhcp relay config agentinfo=on*) and the giaddr field is 0 (RFC3046).	OPTIONAL

EXAMPLE:

```
=>dhcp relay ifconfig
intf = pppoa_pppoa
[relay] = off
[maxhops] = 4
[remoteid] =
[trusted] = no
=>
```

RELATED COMMANDS:

dhcp relay config	Set the relay configuration settings.
dhcp relay iflist	Show all dynamic interfaces.

dhcp relay iflist

Show all dynamic interfaces.

SYNTAX:

```
dhcp relay iflist     [intf = <interface name>]
```

where:

intf	The name of the dynamic interface to be configured.	OPTIONAL

EXAMPLE:

```
=>dhcp relay iflist
pppoa_pppoa :
    admin state = down    oper state = down
    max hops = 4
    trusted = no    remote id =

eth0 :
    admin state = up    oper state = up
    max hops = 4
    trusted = no    remote id =

=>
```

RELATED COMMANDS:

dhcp relay ifconfig	Configure a relay interface.

dhcp relay list

List the DHCP server list.

SYNTAX:

```
dhcp relay list
```

EXAMPLE:

```
=>dhcp relay list
  DHCP server       Interface         giaddr
-------------------------------------------------------
  127.0.0.1         eth0              10.0.0.138
=>
```

RELATED COMMANDS:

dhcp relay add	Add a DHCP server to the DHCP server list.
dhcp relay config	Set the relay configuration settings.
dhcp relay delete	Delete a DHCP server from the DHCP server list.

dhcp relay stats

Show DHCP relay statistics.

SYNTAX:

```
dhcp relay stats
```

EXAMPLE:

```
=>dhcp relay stats
  DHCP relay statistics
-------------------------
Client packet relayed   :        64
Server packet relayed   :         0
Bogus relay agent       :         0
Bogus giaddr recv       :         0
Corrupt agent option    :         0
Missing agent option    :         0
Bad circuit id          :         0
Missing circuit id      :         0
=>
```

dhcp server clear

Clear SpeedTouch™ DHCP server statistics.

SYNTAX:

```
dhcp server clear
```

EXAMPLE:

```
=>dhcp client stats
Corrupted packet recv   :               0
OFFERs     recv         :               9575
ACKs     recv           :               121
NAKs     recv           :               0
Pure BOOTP REPLIES      :               0
Other message types     :               0
DISCOVERs sent          :               9552
REQUESTs sent           :               142
DECLINEs sent           :               0
RELEASEs  sent          :               0
INFORMs   sent          :               0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 19,   in use: 1,   free: 94 %
=>dhcp server clear
=>dhcp client stats
DHCP client statistics:
Corrupted packet recv   :               0
OFFERs     recv         :               0
ACKs     recv           :               0
NAKs     recv           :               0
Pure BOOTP REPLIES      :               0
Other message types     :               0
DISCOVERs sent          :               0
REQUESTs sent           :               0
DECLINEs sent           :               0
RELEASEs  sent          :               0
INFORMs   sent          :               0
Number of dynamic interfaces:  1
Memory usage:
Table size of dyn leases: 19,   in use: 1,   free: 94 %
=>
```

RELATED COMMANDS:

dhcp server stats	Show DHCP server statistics.

dhcp server config

Show/set SpeedTouch™ DHCP server configuration settings.

SYNTAX:

```
dhcp server config    [autodhcp = <{off|on}>]
                      [scantime = <number>]
                      [state = <{disabled|enabled}>]
                      [trace = <{off|on}>]
```

where:

autodhcp	Allow the SpeedTouch™ to present itself as DHCP client (AutoDHCP mode) at boot time and probe for another DHCP server on the network for some time before starting its own DHCP server (on) or immediately start the DHCP server (off).	OPTIONAL
scantime	A number between 0 and 1814400 (seconds). Represents the time for which the SpeedTouch™ scans for another DHCP server to be active in the network. The default is *20*.	OPTIONAL
state	State of the DHCP server (enabled/disabled).	OPTIONAL
trace	Disable (off) or enable (on) verbose console logging and generation of debug traces. The default is *off*.	OPTIONAL

EXAMPLE:

```
=>dhcp server config
autodhcp: on
scantime: 20s
state: disabled
tracing: off
=>dhcp server config scantime=30 tracing=on
=>dhcp server config
autodhcp: on
scantime:30s
state: disabled
tracing: on
=>
```

RELATED COMMANDS:

dhcp server stats	Show current DHCP server state and statistics.

dhcp server flush

Flush all DHCP server pool and lease entries.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
dhcp server flush
```

RELATED COMMANDS:

dhcp server stats	Show current DHCP server state and statistics.
dhcp server config	Show/set current DHCP server configuration.

dhcp server policy

Show/set SpeedTouch™ DHCP server policy.

SYNTAX:

```
dhcp server policy    [verifyfirst = <off|on>]
                      [trustclient = <off|on>]
```

where:

verifyfirst	Probe the network for conflicting IP addresses before giving a suggested IP address to the requesting DHCP client (on) or not (off).	OPTIONAL
trustclient	Take the IP address suggested by a DHCP client into account (on) or not (off).	OPTIONAL

EXAMPLE:

```
=>dhcp server policy
Verify first:   off
Trust client:   on
=>dhcp server policy verifyfirst=on trustclient=off
=>dhcp server policy
Verify first:   on
Trust client:   off
=>
```

RELATED COMMANDS:

dhcp server stats	Show current DHCP server state and statistics.
dhcp server config	Show/set current DHCP server configuration.

dhcp server stats

Show SpeedTouch™ DHCP server statistics.

SYNTAX:

```
dhcp server stats
```

EXAMPLE:

```
=>dhcp server stats
DHCP Server State:   Stopped
DHCP server statistics:
Corrupted packet recv           :         0
DISCOVER                        :         2451
REQUEST                         :         28
DECLINE                         :         0
RELEASE                         :         22
INFORM                          :         1
Pure BOOTP REQUESTS             :         2
Other message types             :         0
OFFERs sent                     :         2451
ACKs sent                       :         19
NAKs sent                       :         0
Relay agent options dropped     :         0
Lease table got full    : no
Ping table got full     : no
Second dhcp server seen : no
Total size of lease table: 32, in use: 16, free: 50 %
=>
```

DESCRIPTION:

The stat …	indicates …
DHCP server state	the state of the SpeedTouch™ DHCP server.
Corrupted packet recv	the number of corrupted packets (not complaint to RFC2131) received from the LAN.
DISCOVER	the number of DHCP server discovery packets received from the Local Area Network (LAN). These broadcasts are sent by potential DHCP clients to locate available DHCP servers.
REQUEST	the number of DHCP address lease requests received from the LAN.
DECLINE	the number of DHCP address lease requests declined.
RELEASE	the number of DHCP address release requests received from DHCP clients.
INFORM	the number of information requests received from DHCP clients.
Pure BOOTP requests	the number of BOOTP requests received from the LAN.
Other message types	the number of other messages received from the LAN.
OFFERs sent	the number of IP address offers sent in reply to DHCP requests.
ACKs sent	the number of ACKnowledgement replies sent to successfully configured DHCP clients.
NAKs sent	the number of Not-AcKnowledgement replies sent to wrongly configured DHCP clients.
Relay agent options dropped	
Lease table got full	whether the maximum number of DHCP leases is reached or not.
Ping table got full	whether the history list of IP address pings got full or not. These pings are sent by the SpeedTouch™ DHCP server to verify whether the IP address is already in use on the LAN or not (*dhcp server policy verifyfirst=yes*).
Second DHCP server seen	whether a concurrent DHCP server was found on the LAN or not.

RELATED COMMANDS:

dhcp server clear	Clear DHCP server statistics.

dhcp server lease add

Assign a DHCP server lease to a DHCP host in the local network.

SYNTAX:

```
dhcp server lease add  clientid = <client-id>
                       pool = <string>
                       [addr = <ip-address>]
                       [offset = <number>]
                       [leasetime = <number>]
                       [hostname = <{hostname|""}>]
```

where:

clientid	The DHCP client identification string of the booting host.	REQUIRED
pool	The name of the DHCP server pool from which the DHCP lease should be taken. **Note** Use the command *dhcp server pool list* for a list of available DHCP server pools.	REQUIRED
addr	The favoured IP address for this DHCP host. This IP address, if specified, must be in the range of the DHCP server pool specified.	OPTIONAL
offset	A number between 0 and the integer number defined by the number of available IP addresses in the DHCP server pool. Represents the IP address offset in the DHCP server pool preserved for this host. Not specifying this parameter does not preserve an IP address for the host.	OPTIONAL
leasetime	A number between 0 and 1814400 (seconds). Represents the time the host is allowed to use this address, before renewing. **Note** Specifying -1 makes the lease permanent.	OPTIONAL
hostname	The hostname to add to the local Domain Name System (DNS) table for this host. Use “” if no hostname is associated with this lease.	OPTIONAL

EXAMPLE:

```
=>dhcp server lease list
Lease          Pool          TTL           State      Clientid
0  0.0.0.0     dhcp_pool_1   00:26:40      FREE       00:90:D0:12:34:56
=>dhcp server lease add clientid=01:23:55:67:89:ab pool=Local_pool leasetime=3600
=>dhcp server lease list
Lease          Pool          TTL           State      Clientid
0  0.0.0.0     dhcp_pool_1   00:26:40      FREE       00:90:D0:12:34:56
1  10.0.0.1    local_pool    00:59:22      USED       01:23:45:67:89:AB
=>
```

RELATED COMMANDS:

dhcp server lease delete	Delete a DHCP lease.
dhcp server lease flush	Delete all DHCP leases.
dhcp server lease list	Show current DHCP leases.

dhcp server lease delete

Delete a DHCP lease.

SYNTAX:

```
dhcp server lease delete  [clientid = <clientid|none>]
                          [index = <number>]
```

where:

clientid	The DHCP client identification string of the DHCP lease. If no DHCP client is specified, all DHCP clients are deleted.	OPTIONAL
index	The index number of the entry to be deleted. **Note** Use the command *dhcp server lease list* to see a list of the index numbers of all current DHCP leases.	OPTIONAL

EXAMPLE:

```
=>dhcp server lease list
Lease         Pool         TTL          State      Clientid
0  0.0.0.0    dhcp_pool_1  00:26:40     FREE       00:90:D0:12:34:56
1  10.0.0.1   local_pool   00:59:22     USED       01:23:45:67:89:AB
=>dhcp server lease delete index=0
=>dhcp server lease list
Lease         Pool         TTL          State      Clientid
1  10.0.0.1   local_pool   00:59:22     USED       01:23:45:67:89:AB
=>
```

RELATED COMMANDS:

dhcp server lease add	Add a DHCP lease manually.
dhcp server lease flush	Delete all DHCP leases.
dhcp server lease list	Show current DHCP leases.

dhcp server lease flush

Flush complete DHCP server configuration and dynamic leases.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
dhcp server lease flush   [pool = <string>]
```

where:

pool	The name of the DHCP server pool to be flushed. Only the leases belonging to this pool will be deleted.	OPTIONAL

EXAMPLE:

```
=>dhcp server lease list
Lease          Pool          TTL          State      Clientid
0  0.0.0.0     dhcp_pool_1   00:26:40     FREE       00:90:D0:12:34:56
1  10.0.0.1    local_pool    00:59:22     USED       01:23:45:67:89:AB
2  10.0.0.101  local_pool    00:21:01     USED       01:23:89:AB:80:CD
3  10.0.0.132  local_pool    00:45:37     USED       09:D0:25:CE:F1:31
5  10.0.0.5    local_pool    00:21:11     USED       AB:33:A1:7C:89:DD
4  10.0.0.6    local_pool    00:59:01     USED       E3:81:9F:11:11:11
8  10.0.0.8    local_pool    00:01:00     USED       08:80:09:90:AB:DC
9  10.0.0.15   local_pool    00:00:23     USED       08:93:DA:AE:01:AF
=>dhcp server lease flush
=>dhcp server lease list
=>
```

RELATED COMMANDS:

dhcp server lease add	Add a DHCP lease manually.
dhcp server lease delete	Delete a DHCP lease.
dhcp server lease list	Show current DHCP leases.

dhcp server lease list

List current DHCP leases, indicated by their index number.

SYNTAX:

```
dhcp server lease list    [clientid = <clientid|none>]
                          [index = <number>]
```

where:

clientid	The DHCP client identification string of the DHCP lease. If no DHCP client is specified, all DHCP clients are listed.	OPTIONAL
index	The index number of the entry to be deleted.	OPTIONAL

EXAMPLE:

```
=>dhcp server lease list
Lease         Pool         TTL          State      Clientid
0  0.0.0.0    dhcp_pool_1  00:26:40     FREE       00:90:D0:12:34:56
1  10.0.0.1   local_pool   00:59:22     USED       01:23:45:67:89:AB
2  10.0.0.101 local_pool   00:21:01     USED       01:23:89:AB:80:CD
3  10.0.0.132 local_pool   00:45:37     USED       09:D0:25:CE:F1:31
5  10.0.0.5   local_pool   00:21:11     USED       AB:33:A1:7C:89:DD
4  10.0.0.6   local_pool   00:59:01     USED       E3:81:9F:11:11:11
8  10.0.0.8   local_pool   00:01:00     USED       08:80:09:90:AB:DC
9  10.0.0.15  local_pool   00:00:23     USED       08:93:DA:AE:01:AF
=>
```

RELATED COMMANDS:

dhcp server lease add	Add a DHCP lease manually.
dhcp server lease delete	Delete a DHCP lease.
dhcp server lease flush	Delete complete DHCP server configuration and dynamic leases.

dhcp server pool add

Add a DHCP server pool.

SYNTAX:

```
dhcp server pool add   [name = <string>]
                       [index = <number>]
```

where:

name	A name for the DHCP server pool. If not specified, the name is "dhcp_pool_x", where x is a subsequent number.	OPTIONAL
index	The number of the pool before which you want the new pool to be added.	OPTIONAL

EXAMPLE:

```
=>dhcp server pool list
Pool            Start           End             State           PPP
0 dhcp_pool_1   0.0.0.0         0.0.0.0         FREE
1 My_LAN_Pool   10.0.0.1        10.0.0.254      USED
2 dhcp_pool_2   0.0.0.0         0.0.0.0         FREE
=>dhcp server pool add
=>dhcp server pool list
Pool            Start           End             State           PPP
0 dhcp_pool_1   0.0.0.0         0.0.0.0         FREE
1 My_LAN_Pool   10.0.0.1        10.0.0.254      USED
2 dhcp_pool_2   0.0.0.0         0.0.0.0         FREE
3 dhcp_pool_3   0.0.0.0         0.0.0.0         FREE
=>dhcp server pool add name=POOL_EXTRA1
=>dhcp server pool list
Pool            Start           End             State           PPP
0 dhcp_pool_1   0.0.0.0         0.0.0.0         FREE
1 My_LAN_Pool   10.0.0.1        10.0.0.254      USED
2 dhcp_pool_2   0.0.0.0         0.0.0.0         FREE
3 dhcp_pool_3   0.0.0.0         0.0.0.0         FREE
4 POOL_EXTRA1   0.0.0.0         0.0.0.0         FREE
=>ppp ifconfig name=PPP_Test pool=POOL_EXTRA1
=>dhcp server pool list
Pool            Start           End             State           PPP
0 dhcp_pool_1   0.0.0.0         0.0.0.0         FREE
1 My_LAN_Pool   10.0.0.1        10.0.0.254      USED
2 dhcp_pool_2   0.0.0.0         0.0.0.0         FREE
3 dhcp_pool_3   0.0.0.0         0.0.0.0         FREE
4 POOL_EXTRA1   0.0.0.0         0.0.0.0         FREE            PPP_Test
=>
```

RELATED COMMANDS:

dhcp server pool delete	Delete a DHCP server pool.
dhcp server pool flush	Delete all DHCP server pools.
dhcp server pool list	Show current DHCP server pools.

dhcp server pool config

Configure an existing DHCP server pool. Before you are able to configure the DHCP server pool, you must create it via the command *dhcp server pool add*.

SYNTAX:

```
dhcp server pool config   name = <string>
                          [index = <number>]
                          [intf = <string>]
                          [poolstart = <ip-address>]
                          [poolend = <ip-address>]
                          [netmask = <ip-mask(dotted or cidr)>]
                          [gateway = <ipaddress | 0>]
                          [server = <ipaddress | 0>]
                          [primdns = <ipaddress | 0>]
                          [secdns = <ipaddress | 0>]
                          [dnsmetric = <number{0-100}>]
                          [primwins = <ipaddress | 0>]
                          [secwins = <ipaddress | 0>]
                          [leasetime = <number>]
                          [unnumbered = <{no|yes}>]
                          [localgw = <{off|on}>]
```

where:

name	The name of the DHCP server pool to configure.	REQUIRED
index	A number between 0 (highest priority) and the highest number (lowest priority) found in the list of existing DHCP server pools. Represents a (higher) priority for the DHCP server pool.	OPTIONAL
intf	The interface for which the pool is allowed to lease IP addresses.	OPTIONAL
poolstart	The lowest IP address in the DHCP address range to use for leasing. Default value of this parameter is 0.0.0.0 (not specified), which means that the lowest IP address of the pool will be defined by the remote server via Internet Protocol Control Protocol (IPCP) as soon as the Point-to-Point Protocol (PPP) IPCP subnetmasking connection is established.	OPTIONAL
poolend	The highest IP address in the DHCP address range to use for leasing. Default value of this parameter is 0.0.0.0 (not specified), which means that the highest IP address of the pool will be defined by the remote server via IPCP as soon as the PPP IPCP subnetmasking connection is established.	OPTIONAL
netmask	The applicable netmask for the DHCP leases.	OPTIONAL
gateway	The IP address of the default gateway for the DHCP clients. Default value of this parameter is 0 (not specified), which means that the gateway IP address will be communicated by the remote server as soon as the PPP IPCP subnetmasking connection is established or that the SpeedTouch™ acts as the LAN default gateway.	OPTIONAL

server	The IP address of the DHCP server for DHCP clients.	OPTIONAL
primdns	The IP address of the primary DNS server for the DHCP clients. Default value of this parameter is 0 (not specified), which means that the IP address of the DNS server will be communicated by the remote server as soon as the PPP IPCP subnetmasking connection is established or that the SpeedTouch™ acts as the LAN DNS server.	OPTIONAL
secdns	The IP address of the optional secondary DNS server for DHCP clients. Default value of this parameter is 0 (not specified), which means that the gateway IP address will be communicated by the remote server as soon as the PPP IPCP subnetmasking connection is established.	OPTIONAL
dnsmetric	The DHCP server pool DNS route metric.	OPTIONAL
primwins	The IP address of the primary WINS server for DHCP clients.	OPTIONAL
secwins	The IP address of the secondary WINS server for DHCP clients.	OPTIONAL
leasetime	A number between 0 and 1814400 (seconds). Represents the time for which a client can use its dynamically allocated IP address. The default is *7200*. **Note** Specifying -1 makes the lease permanent.	OPTIONAL
unnumbered	Assign an IP address from this pool to the DHCP server or not (dynamic pools only).	OPTIONAL
localgw	Proxy for a virtual default gateway residing in same subnet of DHCP client instead of the remote peer address.	OPTIONAL

EXAMPLE:

```
=>dhcp server pool list
Pool            Start           End           Intf           State
0 LAN_Private   10.0.0.1        10.0.0.254    eth0           USED
=>dhcp server pool config name=My_Pool poolstart=192.6.11.101 |
poolend=192.6.11.254 netmask=255.255.255 gateway=192.6.11.100 leasetime=21600
=>dhcp server pool list
Pool            Start           End           Intf           State
0 LAN_Private   10.0.0.1        10.0.0.254    eth0           USED
1 My_Pool       192.6.11.101    192.6.11.254  eth0           USED
=>
```

RELATED COMMANDS:

dhcp server pool list	Show current DHCP server pools.

dhcp server pool delete

Delete a DHCP server pool.

SYNTAX:

```
dhcp server pool delete   name = <string>
```

where:

name	The name of the DHCP server pool to delete. **Note** Use the command *dhcp server pool list* to see a list of all current DHCP leases.	REQUIRED

EXAMPLE:

```
=>dhcp server pool list
Pool            Start           End             Intf            State
0 LAN_Private   10.0.0.1        10.0.0.254      eth0            USED
1 My_Pool       192.6.11.101    192.6.11.254    eth0            USED
=>dhcp server pool delete name=My_Pool
=>dhcp server pool list
Pool            Start           End             Intf            State
0 LAN_Private   10.0.0.1        10.0.0.254      eth0            USED
=>
```

RELATED COMMANDS:

dhcp server pool add	Add a DHCP server pool.
dhcp server pool flush	Delete all DHCP server pools.
dhcp server pool list	Show current DHCP server pools.

dhcp server pool flush

Flush all DHCP server pools.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
dhcp server pool flush
```

EXAMPLE:

```
=>dhcp server pool list
Pool            Start           End             Intf            State
0 LAN_Private   10.0.0.1        10.0.0.254      eth0            USED
1 My_Pool       192.6.11.101    192.6.11.254    eth0            USED
=>dhcp server pool flush
=>dhcp server pool list
=>
```

RELATED COMMANDS:

dhcp server pool add	Add a DHCP server pool.
dhcp server pool delete	Delete a DHCP server pool.
dhcp server pool list	Show current DHCP server pools.

dhcp server pool list

List current DHCP server pools.

SYNTAX:

```
dhcp server pool list   [name = <string>]
```

where:

name	The name of the DHCP server pool to be shown. **Note** Use the command *dhcp server pool list* to see a list of all current DHCP server pools.	OPTIONAL

EXAMPLE:

```
=>dhcp server pool list
Pool            Start           End             Intf            State
0 LAN_Private   10.0.0.1        10.0.0.254      eth0            USED
1 My_Pool       192.6.11.101    192.6.11.254    eth0            USED
=>
```

RELATED COMMANDS:

dhcp server pool add	Add a DHCP server pool.
dhcp server pool delete	Delete a DHCP server pool.
dhcp server pool flush	Delete all DHCP server pools.

DNS Commands

Contents

This chapter covers the following commands:

dns add

Add an entry to the local Domain Name System (DNS) table.

SYNTAX:

```
dns add          hostname = <string>
                 [addr = <ip-address>]
```

where:

hostname	The name of the IP host to add (without the (sub)domain name).	REQUIRED
addr	The IP address of the host (without mask).	OPTIONAL
	Note If this parameter is not specified, the hostname applies to the SpeedTouch™ itself.	

EXAMPLE:

```
=>dns list
Domain: business.lan
Nr.       Hostname             IP Address
0         SpeedTouch™          *.*.*.*
1         TestHost             10.0.0.140
2         HTTP_Server          10.0.0.8
Total Table Size: 73 entries
Amount used: 3 (4%)
=>dns add hostname=FTP_Server addr=10.0.0.7
=>dns list
Domain: business.lan
Nr.       Hostname             IP Address
0         SpeedTouch™          *.*.*.*
1         TestHost             10.0.0.140
2         HTTP_Server          10.0.0.8
3         FTP_Server           10.0.0.7
Total Table Size: 73 entries
Amount used: 4 (5%)
=>
```

RELATED COMMANDS:

dns list	List the contents of the local DNS table.
dns delete	Delete an entry from the local DNS table by index.

dns clear

Clear the local DNS table.

SYNTAX:

```
dns clear
```

EXAMPLE:

```
=>dns list
Domain: business.lan
Nr.             Hostname            IP Address
0               SpeedTouch™          *.*.*.*
1               TestHost            10.0.0.140
2               HTTP_Server         10.0.0.8
3               FTP_Server          10.0.0.7
Total Table Size: 73 entries
Amount used: 4 (5%)
=>dns clear
=>dns list
Domain: business.lan
Nr.             Hostname            IP Address
Total Table Size: 73 entries
Amount used: 0 (0%)
=>
```

RELATED COMMANDS:

dns list	List the contents of the local DNS table.

dns clrstats

Clear the DNS statistics.

SYNTAX:

```
dns clrstats
```

EXAMPLE:

```
=>dns stats
DNS Statistics:
Corrupted packets recv              :     0
Local questions resolved            :     0
Local neg answers sent              :     4
Total DNS packets fwd               :     0
External answers recv               :     0
Fwd table full, discard             :     0
Spurious answers                    :     0
Unknown query types                 :     0

Total number of packets received    :     4

=>dns clrstats
DNS statistics cleared.
=>dns stats
DNS Statistics:
Corrupted packets recv              :     0
Local questions resolved            :     0
Local neg answers sent              :     0
Total DNS packets fwd               :     0
External answers recv               :     0
Fwd table full, discard             :     0
Spurious answers                    :     0
Unknown query types                 :     0

Total number of packets received    :     0

=>
```

RELATED COMMANDS:

dns stats	Print the DNS server/forwarder statistics.

dns delete

Delete an entry from the local DNS table by index.

SYNTAX:

```
dns delete        index = <number>
```

where:

index	The index of the entry to be deleted.	REQUIRED
	Note Use *dns list* to see a list of the index numbers of all current DNS entries.	

EXAMPLE:

```
=>dns list
Domain: business.lan
Nr.             Hostname            IP Address
0               SpeedTouch™          *.*.*.*
1               TestHost            10.0.0.140
2               HTTP_Server         10.0.0.8
3               FTP_Server          10.0.0.7
Total Table Size: 73 entries
Amount used: 4 (5%)
=>dns delete index=2
=>dns list
Domain: business.lan
Nr.             Hostname            IP Address
0               SpeedTouch™          *.*.*.*
1               TestHost            10.0.0.140
3               FTP_Server          10.0.0.7
Total Table Size: 73 entries
Amount used: 3 (4%)
=>
```

RELATED COMMANDS:

dns add	Add an entry to the local DNS table.
dns list	List current DNS entries.

dns domain

Set the local DNS domain name.

SYNTAX:

dns domain	domain = <string>

where:

domain	The local DNS domain name of this domain.	REQUIRED

EXAMPLE:

```
=>dns list
Domain: business.lan
Nr.             Hostname            IP Address
0               SpeedTouch™         *.*.*.*
1               TestHost            10.0.0.140
2               HTTP_Server         10.0.0.8
3               FTP_Server          10.0.0.7
Total Table Size: 73 entries
Amount used: 4 (5%)
=>dns domain domain=office.home.lan
=>dns list
Domain: office.home.lan
Nr.             Hostname            IP Address
0               SpeedTouch™         *.*.*.*
1               TestHost            10.0.0.140
2               HTTP_Server         10.0.0.8
3               FTP_Server          10.0.0.7
Total Table Size: 73 entries
Amount used: 4 (5%)
```

RELATED COMMANDS:

dns list	List the contents of the local DNS table.

dns flush

Flush the complete SpeedTouch™ DNS server/forwarder configuration and static entries.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
dns flush
```

EXAMPLE:

```
=>dns list
Domain: office.home.lan
Nr.             Hostname            IP Address
4*              Z7V1D8              10.0.0.29
0               SpeedTouch™          *.*.*.*
1               TestHost            10.0.0.140
2               Default             10.0.0.8
3               ftpserver           172.16.0.1
Total Table Size: 73 entries
Amount used: 5 (6%)
=>dns flush
=>dns list
Domain: lan
Nr.             Hostname            IP Address
3*              Z7V1D8              10.0.0.29
Total Table Size: 73 entries
Amount used: 1 (1%)
=>
```

dns fwdadd

Add a DNS forwarding entry. The entries in the forwarding list determine which DNS server should be used for which PC. If an identification cannot be established within the local LAN, the request is forwarded to another DNS server, on another network (Internet/LAN to LAN connection). The connection is negotiated within a PPP link.

SYNTAX:

```
dns fwdadd        dns = <ip-address>
                  src = <ip-address>
                  mask = <ip-mask (dotted or cidr)>
                  [metric = <number{0-100}>]
                  [direct = <no/yes>]
```

where:

dns	The IP address of the (remote) DNS server.	REQUIRED
src	The source IP address (pool) of the host(s) using this DNS server.	REQUIRED
mask	The appropriate source IP (sub)netmask.	REQUIRED
metric	A number between 0 and 100. Represents the metric (weight factor) for this DNS route.	OPTIONAL
direct	Selects whether DNS replies are sent directly back to the client or are being relayed by the DNS forwarder.	OPTIONAL

EXAMPLE:

```
=>dns fwdlist
DNS               SRC                 Metric Direct Permanent
10.0.0.138      10.0.0.2                 1     no    yes
=>dns fwdadd dns=10.0.0.138 src=10.0.0.3 mask=24 direct=1
Dns forwarding server added.
=>dns fwdlist
DNS               SRC                 Metric Direct Permanent
10.0.0.138      10.0.0.2                 1     no    yes
10.0.0.138      10.0.0.3                 1     yes   yes
=>
```

RELATED COMMANDS:

dns fwddelete	Delete a DNS forwarding entry.
dns fwdlist	List all forwarding entries.

dns fwddelete

Delete a DNS forwarding entry.

SYNTAX:

```
dns fwddelete     src = <ip-address>
                  mask = <ip-mask (dotted or cidr)>
                  [dns = <ip-address>]
```

where:

src	The source IP address (pool) of the hosts to remove the entry for.	REQUIRED
mask	The source IP (sub)netmask.	REQUIRED
dns	The IP address of the (remote) DNS server (in case of multiple DNS server entries).	OPTIONAL

EXAMPLE:

```
=>dns fwdlist
DNS               SRC                 Metric Direct Permanent
10.0.0.138      10.0.0.2                 1     no    yes
10.0.0.138      10.0.0.3                 1     yes   yes
=>dns fwddelete dns=10.0.0.138 src=10.0.0.3 mask=24 direct=1
Dns forwarding server deleted.
=>dns fwdlist
DNS               SRC                 Metric Direct Permanent
10.0.0.138      10.0.0.2                 1     no    yes
=>
```

RELATED COMMANDS:

dns fwdadd	Add a DNS forwarding entry.
dns fwdlist	List all forwarding entries.

dns fwdlist

List all forwarding entries.

SYNTAX:

```
dns fwdlist
```

EXAMPLE:

```
=>dns fwdlist
DNS forwarding servers:
DNS             SRC             MASK            Direct
10.0.0.138      10.0.0.0        255.255.255.0   yes
192.6.11.150    192.6.11.0      255.255.255.0   yes
=>
```

RELATED COMMANDS:

dns fwdadd	Add a DNS forwarding entry.
dns fwddelete	Delete a DNS forwarding entry.
dns fwdtable	Show DNS forwarding table.

dns fwdtable

Show DNS forwarding table, i.e. list all currently unresolved DNS requests.

SYNTAX:

```
dns fwdtable
```

EXAMPLE:

```
=>dns fwdtable
Forwarding table:
Nr.  Ip Address    (port#):id(hex)  (expiry)     dns server     tries
0    10.10.10.12   (54751):8331     (13 sec)     10.10.10.112   1
Timeout: 15 seconds
Table size: 10
amount of table used: 1 (10%)
=>
```

RELATED COMMANDS:

dns fwdlist	Show current DNS forwarding entries.

dns list

List the contents of the local DNS table.

SYNTAX:

```
dns list
```

EXAMPLE:

```
=>dns list
Domain: office.home.lan
Nr.             Hostname            IP Address
4*              Z7V1D8              10.0.0.29
0               SpeedTouch™         *.*.*.*
1               TestHost            10.0.0.140
2               Default             10.0.0.8
3               ftpserver           172.16.0.1
Total Table Size: 73 entries
Amount used: 5 (6%)
=>
```

EXAMPLE INPUT/OUTPUT IN A NETWORKED ENVIRONMENT:

The SpeedTouch™ is configured as DNS server.

```
=>dns list
Domain: SpeedLAN.local
Nr.             Hostname            IP Address
0               SpeedTouch™         *.*.*.*
1               Server              10.10.1.1
2               Client              10.0.0.3
Total Table Size: 73 entries
Amount used: 3 (4%)
=>
```

RELATED COMMANDS:

dns add	Add an entry to the local DNS table.
dns delete	Delete an entry from the local DNS table by index.

dns nslookup

Look up a name or an IP address via local DNS.

SYNTAX:

```
dns nslookup      lookup = <string>
```

where:

lookup	The DNS hostname or IP address to query.	REQUIRED

EXAMPLE:

```
=>dns list
Domain: office.home.lan
Nr.             Hostname            IP Address
4*              Z7V1D8              10.0.0.29
0               SpeedTouch™         *.*.*.*
1               TestHost            10.0.0.140
2               Default             10.0.0.8
3               ftpserver           172.16.0.1
Total Table Size: 73 entries
Amount used: 5 (6%)
=>dns nslookup lookup=TestHost
Name:    TestHost
Address: 10.0.0.140
=>dns nslookup lookup=10.0.0.29
Name:    Z7V1D8
Address: 10.0.0.29
=>
```

RELATED COMMANDS:

dns list	List the contents of the local DNS table.

dns start

Start the local DNS server and forwarder.

SYNTAX:

```
dns start
```

EXAMPLE:

```
=>dns status
DNS server status: Stopped
DNS table size                        :  73,  in use:  4,  free:  94 %
DNS forwarding table size             :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size  :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: off
=>dns start
DNS server started.
=>dns status
DNS server status: Started
DNS table size                        :  73,  in use:  4,  free:  94 %
DNS forwarding table size             :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size  :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: off
=>
```

RELATED COMMANDS:

dns status	Show the current status of the DNS server/forwarder.
dns stop	Stop the local DNS server/forwarder.

dns stats

Show the DNS server/forwarder statistics.

SYNTAX:

```
dns stats
```

EXAMPLE INPUT/OUTPUT IN A NETWORKED ENVIRONMENT:

The SpeedTouch™ is configured as DNS server.

```
=>dns list
Domain: SpeedLAN.local
Nr.             Hostname             IP Address
0               SpeedTouch™          *.*.*.*
1               Server               10.10.1.1
2               Client               10.0.0.3
Total Table Size: 73 entries
Amount used: 3 (4%)
=>dns stats
DNS Statistics:
Corrupted packets recv             :     0
Local questions resolved           :     1
Local neg answers sent             :     0
Total DNS packets fwd              :     0
External answers recv              :     0
Fwd table full, discard            :     0
Spurious answers                   :     0
Unknown query types                :     0
Total number of packets received   :     1
=>(Ping Client.SpeedLAN.local)
=>(CTRL + Q)
dnsd: Internet class type A request received from 10.10.1.1.
dnsd: Client.SpeedLAN.local found in local database.
dnsd: Client.SpeedLAN.local resolved into 10.0.0.3.
=>(Ping Server.SpeedLAN.local)
dnsd: Internet class type A request received from 10.10.1.1.
dnsd: Server.SpeedLAN.local found in local database.
dnsd: Server.SpeedLAN.local resolved into 10.0.0.3.
=>(CTRL + S)
=>dns stats
DNS Statistics:
Corrupted packets recv             :     0
Local questions resolved           :     3
Local neg answers sent             :     0
Total DNS packets fwd              :     0
External answers recv              :     0
Fwd table full, discard            :     0
Spurious answers                   :     0
Unknown query types                :     0
Total number of packets received   :     3
=>
```

RELATED COMMANDS:

dns clrstats	Clear the DNS server/forwarder statistics.

dns status

Show the current status of the DNS server/forwarder.

SYNTAX:

```
dns status
```

EXAMPLE:

```
=>dns status
DNS server status: Stopped
DNS table size                          :  73,  in use:  4,  free:  94 %
DNS forwarding table size               :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size   :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: off
=>
```

dns stop

Stop the local DNS server/forwarder.

SYNTAX:

```
dns stop
```

EXAMPLE:

```
=>dns status
DNS server status: Started
DNS table size                          :  73,  in use:  4,  free:  94 %
DNS forwarding table size               :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size   :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: off
=>dns stop
DNS server stopped.
=>dns status
DNS server status: Stopped
DNS table size                          :  73,  in use:  4,  free:  94 %
DNS forwarding table size               :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size   :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: off
=>
```

RELATED COMMANDS:

dns status	Show the current status of the DNS server/forwarder.
dns start	Start the local DNS server and forwarder.

dns toutfwd

Set the DNS forwarding timeout.

SYNTAX:

```
dns toutfwd       timeout = <number>
```

where:

timeout	A number (of seconds). Represents the query forwarding timeout. This parameter determines how long the SpeedTouch™ DNS server should try to contact a (remote) DNS server before (temporarily) declaring the DNS requests unresolved. The default is *15*.	REQUIRED

EXAMPLE:

```
=>dns fwdtable
Forwarding table:
Nr.  Ip Address    (port#):id(hex)  (expiry)    dns server    tries
0    10.10.10.12   (54751):8331     (13 sec)    10.10.10.112  1
Timeout: 15 seconds
Table size: 10
amount of table used: 1 (10%)
=>dns toutfwd timeout=20
Current timeout: 15 seconds
Timeout set to: 20 seconds
=>dns fwdtable
Forwarding table:
Nr.  Ip Address    (port#):id(hex)  (expiry)    dns server    tries
0    10.10.10.12   (54751):8331     (13 sec)    10.10.10.112  1
Timeout: 20 seconds
Table size: 10
amount of table used: 1 (10%)
=>
```

RELATED COMMANDS:

dns fwdadd	Add a DNS forwarding entry.
dns fwddelete	Delete a DNS forwarding entry.
dns fwdlist	Show the current DNS forwarding entries.
dns fwdtable	Show the DNS forwarding table.

dns troff

Disable verbose console messaging. No debug traces are generated.

SYNTAX:

```
dns troff
```

EXAMPLE:

```
=>dns status
DNS server status: Started
DNS table size                        :  73,  in use:  4,  free:  94 %
DNS forwarding table size             :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size  :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: on
=>dns troff
=>dns status
DNS server status: Started
DNS table size                        :  73,  in use:  4,  free:  94 %
DNS forwarding table size             :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size  :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: off
=>
```

RELATED COMMANDS:

dns fwdlist	Show the current DNS forwarding entries.
dns fwdtable	Show the DNS forwarding table.
dns status	Show the current status of the DNS server/forwarder.
dns tron	Enable verbose console messaging.

dns tron

Enable verbose console messaging. Debug traces are generated.

SYNTAX:

```
dns tron
```

EXAMPLE:

```
=>dns status
DNS server status: Started
DNS table size                        :  73,  in use:  4,  free:  94 %
DNS forwarding table size             :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size  :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: off
=>dns tron
Tracing on.
=>dns status
DNS server status: Started
DNS table size                        :  73,  in use:  4,  free:  94 %
DNS forwarding table size             :  10,  in use:  0,  free:  100 %
DNS forwarding dns servers table size  :  25,  in use:  4,  free:  84 %
No dns cache.
Tracing: on
=>(CTRL + Q)
dnsd: Internet class type A request received from 10.0.0.10.
dnsd: aa.aa.be is outside our domain: forward.
dnsd: forwarding request from 10.0.0.10 (1318,0x0001) to 138.203.68.61
      (try=1): 'reply to ant' mode.
dnsd: Internet class type A request received from 10.0.0.10.
dnsd: aa.aa.be is outside our domain: forward.
dnsd: forwarding request from 10.0.0.10 (1318,0x0001) to 138.203.68.11
      (try=2): 'reply to ant' mode.
dnsd: forward answer from 138.203.68.11 to 10.0.0.10 (1318,0001).
dnsd: Internet class type A request received from 10.0.0.10.
dnsd: aa.aa.be.lan unknown: return error.
......
=>(CTRL + S)
```

RELATED COMMANDS:

dns fwdlist	Show the current DNS forwarding entries.
dns fwdtable	Show the DNS forwarding table.
dns status	Show the current status of the DNS server/forwarder.
dns troff	Disable verbose console messaging.

Env Commands

Contents

This chapter covers the following commands

env flush

Flush all non-system environment variables.

SYNTAX:

```
env flush
```

EXAMPLE :

```
=>env list
_COMPANY_NAME=THOMSON
_COMPANY_URL=http://www.thomson.net
_PROD_NAME=SpeedTouch
...
_COMPANY_ID=ALCL
_COPYRIGHT=Copyright (c) 1999-2004, THOMSON
_TPVERSION=1.2.0
_ETHERNET=SWITCH
_MACADDR=00-90-D0-8D-A5-04
_UDN=uuid:UPnP-SpeedTouch510-1_00-90-D0-8D-A5-04
_IGDX_VERSION=1.1
_WIZ_AUTOPOPUP=1
CONF_REGION=World
CONF_PROVIDER=Advanced
CONF_DESCRIPTION=Routed PPP configuration
CONF_SERVICE=Routed PPP DHCP - NAT
CONF_DATE=Configuration modified manually
HOST_SETUP=auto
UPGRADE_URL=http://www.speedtouch.com/upgrade500.htm
CONF_TPVERSION=1.2.0
COLUMNS=80
ROWS=24
SESSIONTIMEOUT=0
=>env flush
=>env list
_COMPANY_NAME=THOMSON
_COMPANY_URL=http://www.thomson.net
_PROD_NAME=SpeedTouch
...
_COMPANY_ID=ALCL
_COPYRIGHT=Copyright (c) 1999-2004, THOMSON
_TPVERSION=1.2.0
_ETHERNET=SWITCH
_MACADDR=00-90-D0-8D-A5-04
_UDN=uuid:UPnP-SpeedTouch510-1_00-90-D0-8D-A5-04
_IGDX_VERSION=1.1
_WIZ_AUTOPOPUP=1
=>
```

RELATED COMMANDS:

env list	List all environment variables.

env get

Get the current value of a environment variable.

SYNTAX:

```
env get                 var = <string>
```

where:

var	The name of the environment variable. Use the command *env list* to see a list of all environment variables.	REQUIRED

EXAMPLE:

```
=>env get var=ATM_addr
8*35
=>
```

RELATED COMMANDS:

env list	List all current environment variables.
env set	Create and set a non-system environment variable.

env list

Show all currently available environment variables.

SYNTAX:

```
env list
```

EXAMPLE:

```
=>env list
_COMPANY_NAME=THOMSON
_COMPANY_URL=http://www.thomson.net
_PROD_NAME=SpeedTouch
_PROD_URL=http://www.speedtouch.com
_PROD_FRIENDLY_NAME=SpeedTouch 510
_PROD_DESCRIPTION=DSL Internet Gateway Device
_PROD_NUMBER=510
_BOARD_SERIAL_NBR=0311LZGYP
_PROD_SERIAL_NBR=CP0311LZGYP
_FII=4.2.7.9.0
_BUILD=4.2.7.9.0
_BOOTLOADER_VERSION=Not retrievable
_BUILDVARIANT=AA
_MODEMLABEL=
_PHYSLAYERTYPE=POTS
_BUILDNAME=LLT6AA4.279
_PRL=3EC36939AAAB
_FIA=ND
_BOARD_NAME=ADNT-Q
_COMPANY_ID=ALCL
_COPYRIGHT=Copyright (c) 1999-2004, THOMSON
_TPVERSION=1.2.0
_ETHERNET=SWITCH
_MACADDR=00-90-D0-8D-A5-04
_UDN=uuid:UPnP-SpeedTouch510-1_00-90-D0-8D-A5-04
_IGDX_VERSION=1.1
_WIZ_AUTOPOPUP=1
CONF_REGION=World
CONF_PROVIDER=Advanced
CONF_DESCRIPTION=Routed PPP configuration
CONF_SERVICE=Routed PPP DHCP - NAT
CONF_DATE=Configuration modified manually
HOST_SETUP=auto
UPGRADE_URL=http://www.speedtouch.com/upgrade500.htm
CONF_TPVERSION=1.2.0
COLUMNS=80
ROWS=24
SESSIONTIMEOUT=0
=>
```

RELATED COMMANDS:

env set	Create and set a non-system environment variable.
env unset	Delete a non-system environment variable.

env set

Create and set a non-system environment variable or change the value of a non-system environment variable.

SYNTAX:

```
env set                 var = <string>
                        value = <translated string>
```

where:

var	The name of the environment variable. When creating an environment variable, any name is allowed, however spaces are not allowed and the name may not start with "CONF", "HOST", an underscore "_" or the dollar sign "$".	REQUIRED
value	A quoted translated string which defines the value of the environment variable. The value of system variables (built-in variables with names starting with an underscore "_", "CONF" or "HOST") cannot be changed.	REQUIRED

EXAMPLE:

For infinite TELNET time out, set the value of the variable SESSIONTIMEOUT to 0:

```
=>env set var=SESSIONTIMEOUT value=0
=>
```

RELATED COMMANDS:

env get	Show the value of an environment variable.
env list	List all current environment variables.
env unset	Delete a non-system environment variable.

env unset

Delete a non-system environment variable.

SYNTAX:

```
env unset          var = <string>
```

where:

var	The name of the environment variable to delete. System variables (built-in variables with names starting with an underscore "_", "CONF" or "HOST") cannot be unset, changed or deleted.	REQUIRED

EXAMPLE:

```
=>env list
_COMPANY_NAME=THOMSON multimedia
_COMPANY_URL=http://www.speedtouch.com
_PROD_NAME=SpeedTouch
.....
CONF_DATE=March 2004
HOST_SETUP=user
ATM_addr=8*35
=>env unset var=ATM_addr
=>env list
_COMPANY_NAME=THOMSON multimedia
_COMPANY_URL=http://www.speedtouch.com
_PROD_NAME=SpeedTouch
.....
CONF_DATE=March 2004
HOST_SETUP=user
=>
```

RELATED COMMANDS:

env list	List all current environment variables.
env set	Create and set a non-system environment variable.

Eth Commands

Contents

This chapter covers the following commands:

eth config

Enable/disable the Ethernet interface.

SYNTAX:

```
eth config          intf = <number {1-4}>
                    [state = <{enabled|disabled}>]
```

where:

intf	The Ethernet interface to be configured.	REQUIRED
state	Enable or disable the Ethernet interface. The default is *enabled*.	OPTIONAL

EXAMPLE:

```
=>eth config
ETH Intf 1  port state = UP [forwarding]
ETH Intf 2  port state = UP [forwarding]
ETH Intf 3  port state = UP [forwarding]
ETH Intf 4  port state = UP [forwarding]
=>eth config intf=4 state=disabled
=>eth config
ETH Intf 1  port state = UP [forwarding]
ETH Intf 2  port state = UP [forwarding]
ETH Intf 3  port state = UP [forwarding]
ETH Intf 4  port state = DOWN [disabled]
=>
```

RELATED COMMANDS:

eth iflist	Show Ethernet port configuration and current operating mode.

eth ifconfig

Configure the Ethernet port.

SYNTAX:

```
eth ifconfig        intf = <number {1-4}>
                    type = <{auto|10BaseTHD|10BaseTFD|100BaseTHD|100BaseTFD}
                    or number>
```

where:

intf	The Ethernet interface to be configured.	REQUIRED
type	The Ethernet type. Select either: • auto: Auto negotiation of Ethernet communication speed (10Mb/s or 100Mb/s) and Duplex mode (half duplex or full duplex). • 10BaseTHD: 10Mb/s communication speed in half duplex mode. • 10BaseTFD: 10Mb/s communication speed in full duplex mode. • 100BaseTHD: 100Mb/s communication speed in half duplex mode. • 100BaseTFD: 100Mb/s communication speed in full duplex mode. or enter a number between 0 (auto) and 5 (100BaseTFD). The default is *auto*. **Note** This value should never be changed, except in case of communication problems.	REQUIRED

RELATED COMMANDS:

eth iflist	Show Ethernet port configuration and current operating mode.

eth iflist

Show the Ethernet port configuration and current operating status.

SYNTAX:

```
eth iflist
```

EXAMPLE:

```
=>eth iflist
Intf   Type            Result Type
1      auto            100BaseTFD
2      auto            100BaseTFD
3      auto            100BaseTFD
4      auto            100BaseTFD
=>
```

DESCRIPTION:

Type	Indicates the configured Ethernet communication speed and duplex mode.
Result type	Indicates the effective operating status if *Type* equals *auto*. In other cases, when the Ethernet types do NOT match, *Result Type* will equal *unknown* and no Ethernet connectivity will exist.

RELATED COMMANDS:

eth ifconfig	Configure the Ethernet port.

ETHoA Commands

Contents

This chapter covers the following commands:

ethoa flush

Flush ETHoA interfaces.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
ethoa flush
```

EXAMPLE:

```
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
=>ethoa flush
=>ethoa iflist
=>
```

ethoa ifadd

Create a new ETHoA interface.

SYNTAX:

```
ethoa ifadd       [intf = <string>]
                  [dest = <phonebook entry>]
```

where:

intf	The name for the new ETHoA interface. If not specified, the destination will double as interface name.	OPTIONAL
dest	The destination for the new ETHoA interface. Typically, a phonebook entry.	OPTIONAL

EXAMPLE:

```
=>ethoa iflist
Newethoa     : dest : Br3
               Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
               Connection State : connected
               RX bytes: 0    frames: 0
               TX bytes: 0    frames: 0         dropframes: 0
=>phonebook list
Name         Type       Use     Address
Br1          bridge     1       8.35
Br2          bridge     1       8.36
CIPPVC3      cip        1       8.82
CIPPVC4      cip        1       8.83
=>ethoa ifadd intf=Moreethoa dest=Br4
=>ethoa iflist
Newethoa     : dest : Br3
               Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
               Connection State : connected
               RX bytes: 0    frames: 0
               TX bytes: 0    frames: 0         dropframes: 0
Moreethoa    : dest : Br4
               Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
               Connection State : not-connected
=>
```

RELATED COMMANDS:

ethoa ifattach	Attach an ETHoA interface.
ethoa ifconfig	Configure an ETHoA interface.
ethoa ifdelete	Delete an ETHoA interface.
ethoa ifdetach	Detach an ETHoA interface.
ethoa iflist	Show current ETHoA interfaces.

ethoa ifattach

Attach (i.e. connect) an ETHoA interface.

SYNTAX:

```
ethoa ifattach    intf = <intfname>
```

where:

intf	The name of the ETHoA interface to attach.	REQUIRED

EXAMPLE:

```
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
Moreethoa    : dest : Br4
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : not-connected
=>ethoa ifattach intf=Moreethoa
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0     frames: 0
             TX bytes: 0     frames: 0        dropframes: 0
Moreethoa    : dest : Br4
             Retry : 10      QoS : default    Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0     frames: 0
             TX bytes: 0     frames: 0        dropframes: 0
=>
```

RELATED COMMANDS:

ethoa ifadd	Create a new ETHoA interface.
ethoa ifconfig	Configure an ETHoA interface.
ethoa ifdelete	Delete an ETHoA interface.
ethoa ifdetach	Detach an ETHoA interface.
ethoa iflist	Show current ETHoA interfaces.

ethoa ifconfig

Configure an ETHoA interface.

SYNTAX:

```
ethoa ifconfig    intf = <intfname>
                  [dest = <intfname>]
                  [qos = <string>]
                  [encaps = <{llc/snap|vcmux}>]
                  [retry = <number {0-65535}>]
```

where:

intf	The name of the ETHoA interface to be configured.	REQUIRED
dest	The destination for this interface. Typically a phonebook entry. This parameter needs only to be specified in case of an interface created without specified destination.	OPTIONAL
qos	The name of a qosbook entry defining the QoS parameters for the WAN link.	OPTIONAL
encaps	The type of encapsulation to be used for this ETHoA interface. Choose between: • llc/snap • vcmux.	OPTIONAL
retry	A number between 0 and 65535. Represents the number of WAN connection setup retries before giving up. The default is *10*.	OPTIONAL

EXAMPLE:

```
=>ethoa iflist
Moreethoa    : dest : Br4
             Retry : 10     QoS : default     Encaps : vcmux     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
=>ethoa ifconfig intf=Moreethoa encaps=llc/snap retry=15
=>ethoa iflist
Moreethoa    : dest : Br4
             Retry : 15     QoS : default     Encaps : llc/snap  Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
=>
```

RELATED COMMANDS:

ethoa ifadd	Create a new ETHoA interface.
ethoa ifattach	Attach an ETHoA interface.
ethoa ifdelete	Delete an ETHoA interface.
ethoa ifdetach	Detach an ETHoA interface.
ethoa iflist	Show current ETHoA interfaces.

ethoa ifdelete

Delete an ETHoA interface.

SYNTAX:

```
ethoa ifdelete    intf = <intfname>
```

here:

intf	The name of the ETHoA interface.	REQUIRED

EXAMPLE:

```
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
Moreethoa    : dest : Br4
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : not-connected
=>ethoa ifdelete intf=Moreethoa
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
=>
```

RELATED COMMANDS:

ethoa ifadd	Create a new ETHoA interface.
ethoa ifattach	Attach an ETHoA interface.
ethoa ifconfig	Configure an ETHoA interface.
ethoa ifdetach	Detach an ETHoA interface.
ethoa iflist	Show current ETHoA interfaces.

ethoa ifdetach

Detach an ETHoA interface.

SYNTAX:

```
ethoa ifdetach  intf = <intfname>
```

where:

intf	The name of the ETHoA interface.	REQUIRED

EXAMPLE:

```
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default    Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
Moreethoa    : dest : Br4
             Retry : 10      QoS : default    Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0     frames: 0
             TX bytes: 0     frames: 0         dropframes: 0
=>ethoa ifdetach intf=Moreethoa
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
Moreethoa    : dest : Br4
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : not-connected
=>
```

RELATED COMMANDS:

ethoa ifadd	Create a new ETHoA interface.
ethoa ifattach	Attach an ETHoA interface.
ethoa ifconfig	Configure an ETHoA interface.
ethoa ifdelete	Delete an ETHoA interface.
ethoa iflist	Show current ETHoA interfaces.

ethoa iflist

Show all or a specified ETHoA interface(s).

SYNTAX:

```
ethoa iflist      [intf = <intfname>]
```

where:

intf	The name of the ETHoA interface.	OPTIONAL
	Note If not specified, all ETHoA interfaces are shown.	

EXAMPLE:

```
=>ethoa iflist
Newethoa     : dest : Br3
             Retry : 10     QoS : default     Encaps : llc/snap    Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
Moreethoa    : dest : Br4
             Retry : 10     QoS : default     Encaps : llc/snap     Fcs : off
             Connection State : connected
             RX bytes: 0    frames: 0
             TX bytes: 0    frames: 0         dropframes: 0
=>
```

RELATED COMMANDS:

ethoa ifadd	Create a new ETHoA interface.
ethoa ifattach	Attach an ETHoA interface.
ethoa ifconfig	Configure an ETHoA interface.
ethoa ifdelete	Delete an ETHoA interface.
ethoa ifdetach	Detach an ETHoA interface.

Firewall Commands

Contents

This chapter covers the following commands:

firewall assign

Assign a chain to an entry point. An entry point, also referred to as hook or a Packet Interception Point (PIP), is the location where packets are intercepted to be compared against a chain of rules.

SYNTAX:

```
firewall assign      hook = <{input|sink|forward|source|output}>
                     chain = <string>
```

where:

hook	The name of the entry point to which a chain must be assigned. Choose between: • input: The point of all incoming traffic. At this point, it can be determined whether the packet is allowed to reach the SpeedTouch™ IP router or local host. • sink: The point of all traffic destined to the SpeedTouch™ IP router itself. At this point, it can be determined whether the packet is allowed to address the local host. • forward: The point of all traffic to be forwarded by the SpeedTouch™ IP router. At this point, it can be determined whether the packet is allowed to be handled, i.e. routed. • source: The point of all traffic sourced by the SpeedTouch™ IP router. At this point, it can be determined whether the packet is allowed to leave the local host. • output: The point of all outgoing traffic. At this point, it can be determined whether the packet is allowed to leave the SpeedTouch™ IP router or local host.	REQUIRED
chain	The name of the chain to be used.	REQUIRED

EXAMPLE:

```
=>firewall list
assign     hook=sink        chain=sink
assign     hook=forward     chain=forward
assign     hook=source      chain=source
=>firewall chain create chain=Telnet
=>firewall assign hook=sink chain=Telnet
=>firewall list
assign     hook=sink        chain=Telnet
assign     hook=forward     chain=forward
assign     hook=source      chain=source
=>
```

RELATED COMMANDS:

firewall flush	Clear all hooks.
firewall list	Show a list of all chain assignments.
firewall unassign	Clear a specific hook.

firewall flush

Clear all hooks, chains and rules.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
firewall flush
```

EXAMPLE:

```
=>firewall load
=>firewall list
assign     hook=sink        chain=sink
assign     hook=forward     chain=forward
assign     hook=source      chain=source
=>firewall flush hook=sink
=>firewall list
assign     hook=forward     chain=forward
assign     hook=source      chain=source
=>firewall flush
=>firewall list
=>
```

RELATED COMMANDS:

firewall assign	Assign a chain to an entry point.

firewall list

Show the association(s) between all hooks or a specified hook and their chain(s).

SYNTAX:

```
firewall list          [hook = <{input|sink|forward|source|output}>]
```

where:

hook	The name of the hook for which the associations must be shown. Choose between: • input • sink • forward • source • output. **Note** If this parameter is not specified, the associations for all hooks are shown.	OPTIONAL

EXAMPLE:

```
=>firewall list
firewall assign hook=input chain=None
firewall assign hook=sink chain=sink
firewall assign hook=forward chain=forward
firewall assign hook=source chain=source
firewall assign hook=output chain=None
=>firewall list hook=input
firewall assign hook=input chain=None
=>firewall list hook=forward
firewall assign hook=forward chain=forward
=>
```

RELATED COMMANDS:

firewall assign	Assign a chain to an entry point.
firewall flush	Clear associations for all or a selected entry point(s).

firewall troff

Disable verbose console messaging.

SYNTAX:

```
firewall troff
```

EXAMPLE:

```
=>firewall troff
```

RELATED COMMANDS:

firewall tron	Enable verbose console messaging.

firewall tron

Enable verbose console messaging.

SYNTAX:

```
firewall tron
```

EXAMPLE:

```
=>firewall tron
```

RELATED COMMANDS:

firewall troff	Disable verbose console messaging.

firewall unassign

Clear a specific hook.

SYNTAX:

```
firewall unassign     hook = <{input|sink|forward|source|output}>
```

where:

hook	The name of the hook to be cleared. Choose between: • input • sink • forward • source • output.	REQUIRED

RELATED COMMANDS:

firewall assign	Assign a chain to a hook.
firewall flush	Clear all hooks.
firewall list	Show a list of all chain assignments.

firewall chain create

Create a new chain.

SYNTAX:

```
firewall chain create   chain = <string>
```

where:

chain	The name of the chain to be created.	REQUIRED

EXAMPLE:

```
=>firewall chain list
Tempo, source, forward, sink
=>firewall chain create chain=Telnet
=>firewall chain list
Telnet, Tempo, source, forward, sink
=>
```

RELATED COMMANDS:

firewall chain delete	Delete a chain.
firewall chain list	Show a list of all current chains.

firewall chain delete

Delete a chain.

SYNTAX:

```
firewall chain delete   chain = <string>
```

where:

chain	The name of the chain to be deleted.	REQUIRED

EXAMPLE:

```
=>firewall chain list
Telnet, Tempo, source, forward, sink
=>firewall chain list
Telnet, Tempo, source, forward, sink
=>firewall chain delete chain=Tempo
=>firewall chain list
Telnet, source, forward, sink
=>
```

RELATED COMMANDS:

firewall chain create	Create a chain.
firewall chain list	Show a list of all chains.

firewall chain flush

Flush all chains.

SYNTAX:

```
firewall chain flush
```

EXAMPLE:

```
=>firewall chain list
source, forward, sink
=>firewall chain flush
=>firewall chain list
=>
```

firewall chain list

Show a list of all current chains.

SYNTAX:

```
firewall chain list
```

EXAMPLE INPUT/OUTPUT:

```
=>firewall chain list
source, forward, sink
=>firewall chain create chain=Telnet
=>firewall chain list
Telnet, source, forward, sink
=>
```

RELATED COMMANDS:

firewall assign	Assign a chain to an entry point.
firewall chain create	Create a chain.
firewall chain delete	Delete a chain.

firewall rule clear

Clear statistics

SYNTAX:

```
firewall rule clear   [chain = <string>]
                      [index = <number>]
```

where:

chain	The name of the chain in which the rule is to be found. **Note** If no chain is specified, the statistics of all the chains will be cleared.	OPTIONAL
index	The index number (determined by the position) of the rule in the chain.	OPTIONAL

EXAMPLE:

```
=>firewall rule stats
Chain Telnet,   index 0,     packets 0,     bytes 0
Chain Telnet,   index 1,     packets 0,     bytes 0
Chain Telnet,   index 2,     packets 0,     bytes 0
Chain source,   index 0,     packets 203,   bytes 15229
Chain source,   index 1,     packets 0,     bytes 0
Chain source,   index 2,     packets 0,     bytes 0
Chain forward,  index 0,     packets 0,     bytes 0
Chain sink,     index 0,     packets 202,   bytes 10159
Chain sink,     index 1,     packets 0,     bytes 0
Chain sink,     index 2,     packets 0,     bytes 0
=>firewall rule clear chain=source index=0
=>firewall rule stats
Chain Telnet,   index 0,     packets 0,     bytes 0
Chain Telnet,   index 1,     packets 0,     bytes 0
Chain Telnet,   index 2,     packets 0,     bytes 0
Chain source,   index 0,     packets 11,    bytes 559
Chain source,   index 1,     packets 0,     bytes 0
Chain source,   index 2,     packets 0,     bytes 0
Chain forward,  index 0,     packets 0,     bytes 0
Chain sink,     index 0,     packets 409,   bytes 21535
Chain sink,     index 1,     packets 0,     bytes 0
Chain sink,     index 2,     packets 0,     bytes 0
=>
```

RELATED COMMANDS:

firewall rule create	Create a rule.
firewall rule delete	Delete a specified rule in a chain.
firewall rule flush	Delete all rules in a chain.
firewall rule list	Show a list of all (or a specified) chains' rules.
firewall rule stats	Show statistics for all (or a specified) chains' rules.

firewall rule create

Create a rule.

Note If a value is preceded by a "!", it means "NOT".
E.g. "dstintfgrp=!wan" means "if dstintfgrp is different from WAN".

SYNTAX:

```
firewall rule create  chain = <string>
                      [index = <number>]
                      [srcintf [!]= <string>]
                      [srcintfgrp [!]= <{wan|local|lan} or number>]
                      [src [!]= <ip-address>]
                      [dstintf [!]= <string>]
                      [dstintfgrp [!]= <{wan|local|lan} or number>]
                      [dst [!]= <ip-address>]
                      [tos [!]= <number{1-255}>]
                      [precedence [!]= <number{0-7}>]
                      [dscp [!]= <number{0-63}>]
                      [prot [!]= <{<supported IP protocol name>|<number>}>]
                      [syn = <yes|no>]
                      [urg = <yes|no>]
                      [ack = <yes|no>]
                      [srcport [!]= <{<supported TCP/UDP port name>|<number>}>]
                      [srcportend = <{<supported TCP/UDP port name>|<number>}>]
                      [dstport [!]= <{<supported TCP/UDP port name>|<number>}>]
                      [dstportend = <{<supported TCP/UDP port name>|<number>}>]
                      [icmptype [!]= <{<supported ICMP type name>|<number>}>]
                      [icmpcode [!]= <number{0-15}>]
                      [icmpcodeend = <number{0-15}>]
                      [clink = <string>]
                      [log = <{no|yes}>]
                      action = <{accept|deny|drop|count}>
```

where:

chain	The name of the chain in which the rule must be inserted.	REQUIRED
index	The number of the rule before which the new rule must be added.	OPTIONAL
srcintf	The name of the interface the packet should [or should NOT] arrive on to make this rule apply. **Note** NOT applicable if used in a chain assigned to the *output* hook.	OPTIONAL

srcintfgrp	The interface group the packet should [or should NOT] arrive on. Choose between: • wan • local • lan. **Note** NOT applicable if used in a chain assigned to the *output* hook.	OPTIONAL
src	The source IP address (range) the packet should [or should NOT] come from. (Supports cidr notation).	OPTIONAL
dstintf	The name of the interface the packet should [or should NOT] be going to. **Note** NOT applicable if used in a chain assigned to the *output* hook.	OPTIONAL
dstintfgrp	The interface group the packet should [or should NOT] be going to. Choose between: • wan • local • lan. **Note** NOT applicable if used in a chain assigned to the *output* hook.	OPTIONAL
dst	The destination IP address (range) the packet should [or should NOT] be going to (supports cidr notation).	OPTIONAL
precedence	A number between 0 and 7. Represents the precedence in the IP packet (part of tos).	OPTIONAL
dscp	A number between 0 and 63. Represents the DSCP in the IP packet (part of tos).	OPTIONAL
tos	A number between 0 and 255. Represents the Type Of Service specification which should be expected [or NOT expected] in the IP packet. The Type of Service numbering specification is in accordance to the latest version of *RFC1700: Assigned numbers*.	OPTIONAL

prot	The protocol (name or number) expected [or NOT expected] in the IP packet. Choose between: • icmp • igmp • ipinip • tcp • udp • ah • esp • ipcomp or, alternatively, specify the protocol number.	OPTIONAL
syn	Expect TCP SYN flag set (yes) or not (no). In combination with TCP ACK, this allows selection of incoming versus outgoing TCP connections.	OPTIONAL
urg	Expect TCP URG flag set (yes) or not (no).	OPTIONAL
ack	Expect TCP ACK flag set (yes) or not (no).	OPTIONAL
srcport	The TCP/UDP port (or beginning of range) the packet should [or should NOT] be from. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
srcportend	The source TCP/UDP port range end (inclusive)(Only applicable for ranges). Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
dstport	The TCP/UDP port (or beginning of range) the packet should [or should NOT] be going to. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
dstportend	The destination TCP/UDP port range end (inclusive) (Only applicable for ranges). Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL

icmptype	The expected [or NOT expected] ICMP type (name or number) of the packet. Select one of the supported ICMP type names (See " Supported ICMP Type Names" on page 415 for a listing of ICMP type names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
icmpcode	A number between 0 and 15. Represents the expected [or NOT expected] ICMP code (or beginning of range) of the packet as specified in the latest version of *RFC1700: Assigned numbers*.	OPTIONAL
icmpcodeend	A number between 0 and 15. Represents the ICMP code range end. Only applicable for ranges.	OPTIONAL
clink	The name of the chain to be parsed when this rule applies (action is ignored).	OPTIONAL
log	Logging is done when this rule applies.	OPTIONAL
action	Action to be taken when this rule applies. Choose between: • accept: the packet may pass. • deny: ICMP error destination unreachable. An error message is sent back to the sender. • drop: packet disappears. It is silently dropped, i.e. without sending an error message to the sender. • count: update of statistics. Has no influence on the packet.	REQUIRED

RELATED COMMANDS:

firewall rule clear	Clear statistics for a given rule.
firewall rule delete	Delete a specified rule in a chain.
firewall rule flush	Delete all rules in a chain.
firewall rule list	Show a list of all (or a specified) chains' rules.
firewall rule stats	Show statistics for all (or a specified) chains' rules.

firewall rule delete

Delete a rule.

SYNTAX:

```
firewall rule delete   chain = <string>
                       index = <number>
```

where:

chain	The name of the chain in which the rule must be deleted.	REQUIRED
index	The index number of the rule in the chain.	REQUIRED
	Note Use *firewall rule list* first to determine the index number of the applicable rule.	

EXAMPLE:

```
=>firewall rule list   chain=Telnet
:firewall  rule create chain=Telnet index=0 srcintfgrp=lan src=10.0.0.0/8
dst=200.200.200.1/32 prot=tcp srcport=1024 srcportend=65535 dstport=telnet
action=accept
:firewall  rule create chain=Telnet index=1 srcintfgrp=wan
src=200.200.200.1/32 dst=10.0.0.0/8 prot=tcp srcport=telnet dstport=1024
dstportend=65535 action=accept
:firewall  rule create chain=Telnet index=2 action=drop
=>firewall rule delete chain=Telnet index=1
=>firewall rule list   chain=Telnet
:firewall  rule create chain=Telnet index=0 srcintfgrp=lan src=10.0.0.0/8
dst=200.200.200.1/32 prot=tcp srcport=1024 srcportend=65535 dstport=telnet
action=accept
:firewall  rule create chain=Telnet index=1 action=drop
=>
```

RELATED COMMANDS:

firewall rule clear	Clear statistics for a given rule.
firewall rule create	Create a rule.
firewall rule flush	Delete all rules in a chain.
firewall rule list	Show a list of all (or a specified) chains' rules.
firewall rule stats	Show statistics for all (or a specified) chains' rules.

firewall rule flush

Flush all rules created for a chain(s). The chain itself is not removed.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
firewall rule flush  [chain = <string>]
```

where:

chain	The name of the chain to be emptied. **Note** If this parameter is not specified, all rules for all chains are deleted.	OPTIONAL

EXAMPLE:

```
=>firewall rule list   chain=Telnet
:firewall  rule create chain=Telnet index=0 srcintfgrp=lan src=10.0.0.0/8 |
dst=200.200.200.1/32 prot=tcp srcport=1024 srcportend=65535 dstport=telnet |
action=accept
:firewall  rule create chain=Telnet index=1 srcintfgrp=wan |
src=200.200.200.1/32 dst=10.0.0.0/8 prot=tcp srcport=telnet dstport=1024 |
dstportend=65535 action=accept
:firewall  rule create chain=Telnet index=2 action=drop
=>firewall rule flush  chain=Telnet
=>firewall rule list   chain=Telnet
=>
```

RELATED COMMANDS:

firewall rule clear	Clear statistics for a given rule.
firewall rule create	Create a rule.
firewall rule delete	Delete a specified rule in a chain.
firewall rule list	Show a list of all (or a specified) chains' rules.
firewall rule stats	Show statistics for all (or a specified) chains' rules.

firewall rule list

Show a list of rules.

SYNTAX:

```
firewall rule list    [chain = <string>]
```

where:

chain	The name of the chain for which the rules must be listed.	OPTIONAL
	Note If this parameter is not specified, all rules for all chains are shown.	

EXAMPLE:

```
=>firewall rule list   chain=Telnet
:firewall  rule create chain=Telnet index=0 srcintfgrp=lan src=10.0.0.0/8 |
dst=200.200.200.1/32 prot=tcp srcport=1024 srcportend=65535 dstport=telnet |
action=accept
:firewall  rule create chain=Telnet index=1 srcintfgrp=wan |
src=200.200.200.1/32 dst=10.0.0.0/8 prot=tcp srcport=telnet dstport=1024 |
dstportend=65535 action=accept
:firewall  rule create chain=Telnet index=2 action=drop
=>firewall rule list
:firewall  rule create chain=source index=0 dstintfgrp=!wan action=accept
:firewall  rule create chain=source index=1 prot=udp dstport=dns |
action=accept
:firewall  rule create chain=source index=2 prot=udp dstport=67 action=accept
:firewall  rule create chain=source index=3 action=drop
:firewall  rule create chain=forward index=0 srcintfgrp=wan dstintfgrp=wan |
action=drop
:firewall  rule create chain=sink index=0 srcintf=eth0 srcbridgeport=1 |
action=accept
:firewall  rule create chain=sink index=1 srcintfgrp=!wan action=accept
:firewall  rule create chain=sink index=2 prot=udp dstport=dns action=accept
:firewall  rule create chain=sink index=3 prot=udp dstport=68 action=accept
:firewall  rule create chain=sink index=4 action=drop
:firewall  rule create chain=Telnet index=0 srcintfgrp=lan src=10.0.0.0/8 |
dst=200.200.200.1/32 prot=tcp srcport=1024 srcportend=65535 dstport=telnet |
action=accept
:firewall  rule create chain=Telnet index=1 srcintfgrp=wan |
src=200.200.200.1/32 dst=10.0.0.0/8 prot=tcp srcport=telnet dstport=1024 |
dstportend=65535 action=accept
:firewall  rule create chain=Telnet index=2 action=drop
=>
```

RELATED COMMANDS:

firewall rule clear	Clear statistics for a given rule.
firewall rule create	Create a rule.
firewall rule delete	Delete a specified rule in a chain.
firewall rule flush	Delete all rules in a chain.
firewall rule stats	Show statistics for all (or a specified) chains' rules.

firewall rule stats

Show statistics, i.e. the number of packets and bytes which have passed the hooks.

SYNTAX:

```
firewall rule stats   [chain = <string>]
                      [index = <number>]
```

where:

chain	The name of the chain for which the statistics must be listed. In case this parameter is not specified, the statistics for the rules applicable to all chains are shown.	OPTIONAL
index	The index number of the chain's rule for which the statistics must be listed. Use *firewall rule list* first to determine the index number of the applicable rule. In case this parameter is not specified, the statistics for all rules applicable to the specified chain are shown.	OPTIONAL

EXAMPLE:

```
=>firewall rule list   chain=Test
:firewall  rule create chain=Test index=0 srcintfgrp=lan src=200.200.0.1/32
dst=200.200.0.2/32 prot=udp srcport=0 srcportend=65535 dstport=telnet
action=deny
=>firewall  rule clear
=>firewall  rule stats
Chain sink,    index 0,  packets 43,   bytes 1743
Chain sink,    index 1,  packets 0,    bytes 0
Chain sink,    index 2,  packets 0,    bytes 0
Chain sink,    index 3,  packets 0,    bytes 0
Chain forward, index 0,  packets 0,    bytes 0
Chain source,  index 0,  packets 43,   bytes 1977
Chain source,  index 1,  packets 0,    bytes 0
Chain source,  index 2,  packets 0,    bytes 0
Chain Test,    index 0,  packets 0,    bytes 0
=>firewall rule stats
Chain sink,    index 0,  packets 104,  bytes 6143
Chain sink,    index 1,  packets 0,    bytes 0
Chain sink,    index 2,  packets 0,    bytes 0
Chain sink,    index 3,  packets 0,    bytes 0
Chain forward, index 0,  packets 0,    bytes 0
Chain source,  index 0,  packets 43,   bytes 1977
Chain source,  index 1,  packets 0,    bytes 0
Chain source,  index 2,  packets 0,    bytes 0
Chain Test,    index 0,  packets 44,   bytes 21032
=>
```

DESCRIPTION:

The statistics for the ‘Test‘ chain are the result of sending UDP packets to the SpeedTouch™. The chain ‘Test‘ is assigned to the hook ‘input‘ and prohibits the sending of UDP packets from one host to another.

EXAMPLE INPUT/OUTPUT IN A NETWORKED ENVIRONMENT:

The SpeedTouch™ is configured as DHCP client on its Ethernet interface eth0.

```
=>firewall rule list   chain=Sending
:firewall  rule create chain=Sending index=0 srcintfgrp=lan src=10.0.0.3/32
dst=10.10.1.1/32 prot=icmp action=count
:firewall  rule create chain=Sending index=1 srcintfgrp=lan src=10.10.1.1/32
dst=10.0.0.3/32 prot=icmp action=count
=>firewall rule stats
Chain source,   index 0,  packets 0,    bytes 0
Chain source,   index 1,  packets 0,    bytes 0
Chain source,   index 2,  packets 0,    bytes 0
Chain source,   index 3,  packets 0,    bytes 0
Chain forward,  index 0,  packets 0,    bytes 0
Chain sink,     index 0,  packets 0,    bytes 0
Chain sink,     index 1,  packets 144,  bytes 5844
Chain sink,     index 2,  packets 0,    bytes 0
Chain sink,     index 3,  packets 0,    bytes 0
Chain sink,     index 4,  packets 0,    bytes 0
Chain sink,     index 5,  packets 0,    bytes 0
Chain sending,  index 0,  packets 0,    bytes 0
Chain sending,  index 1,  packets 0,    bytes 0
=>firewall rule clear
=>(Ping from server 10.10.1.1 to client 10.0.0.3)
=>firewall rule stats
Chain source,   index 0,  packets 0,    bytes 0
Chain source,   index 1,  packets 0,    bytes 0
Chain source,   index 2,  packets 0,    bytes 0
Chain source,   index 3,  packets 0,    bytes 0
Chain forward,  index 0,  packets 0,    bytes 0
Chain sink,     index 0,  packets 0,    bytes 0
Chain sink,     index 1,  packets 42,   bytes 1782
Chain sink,     index 2,  packets 0,    bytes 0
Chain sink,     index 3,  packets 0,    bytes 0
Chain sink,     index 4,  packets 0,    bytes 0
Chain sink,     index 5,  packets 0,    bytes 0
Chain sending,  index 0,  packets 4,    bytes 240
Chain sending,  index 1,  packets 4,    bytes 240
=>
```

RELATED COMMANDS:

firewall rule clear	Clear statistics for a given rule.
firewall rule create	Create a rule.
firewall rule delete	Delete a specified rule in a chain.
firewall rule flush	Delete all rules in a chain.
firewall rule list	Show a list of all (or a specified) chains' rules.

IP Commands

Contents

This chapter covers the following commands:

ip apadd

Assign an Internet Protocol (IP) address to an IP interface.

SYNTAX:

```
ip apadd                addr = <ip-address>
                        [netmask = <ip-mask (dotted or cidr)>]
                        intf = <interface name>
                        [pointopoint = <ip-address>]
                        [addrtrans = <{none|pat}>]
                        [addroute = <{no|yes}>]
```

where:

addr	The new IP address to be added.	REQUIRED
netmask	The subnetmask associated with this address.	OPTIONAL
intf	The IP interface name.	REQUIRED
pointopoint	The remote IP address in case of a dedicated point-to-point link.	OPTIONAL
addrtrans	Indicates whether network address translation mode is allowed (pat) for this IP address or not (none).	OPTIONAL
addroute	Add typical net/subnet routes automatically according to the default (or specified) subnet mask (yes) or not (no).	OPTIONAL

EXAMPLE:

```
=>ip aplist
1 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet  addr:10.10.10.147    Bcast:10.10.10.255     Mask:255.0.0.0
  UP RUNNING  pat  MTU:1500  ReasmMAX:65535  Group:2
  IPRX  bytes:19791886  unicastpkts:11341  brcastpkts:290555
  IPTX  bytes:839550    unicastpkts:11477  brcastpkts:0  droppkts:0
  HWRX  bytes:0         unicastpkts:0      brcastpkts:0
  HWTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
0 loop  Type:0
  inet  addr:127.0.0.1       Bcast:127.255.255.255  Mask:255.0.0.0
  UP RUNNING       MTU:1500  ReasmMAX:65535  Group:1
  IPRX  bytes:116       unicastpkts:0      brcastpkts:2
  IPTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
  HWRX  bytes:0         unicastpkts:0      brcastpkts:0
  HWTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
=>ip apadd addr=10.0.0.2 netmask=255.255.255.0 intf=eth0 addrtrans=pat
addroute=yes
=>ip aplist
2 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet  addr:  10.0.0.2      Bcast:10.0.0.255       Mask:255.255.255.0
  UP RUNNING  pat  MTU:1500  ReasmMAX:65535  Group:2
  IPRX  bytes:0         unicastpkts:0      brcastpkts:0
  IPTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
  HWRX  bytes:0         unicastpkts:0      brcastpkts:0
  HWTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
1 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet  addr:  10.10.10.147  Bcast:  10.10.10.255     Mask:  255.0.0.0
  UP RUNNING  pat  MTU:1500  ReasmMAX:65535  Group:2
  IPRX  bytes:19810763  unicastpkts:11515  brcastpkts:290669
  IPTX  bytes:853114    unicastpkts:11662  brcastpkts:0  droppkts:0
  HWRX  bytes:0         unicastpkts:0      brcastpkts:0
  HWTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
0 loop  Type:0
  inet  addr:127.0.0.1       Bcast:127.255.255.255    Mask:255.0.0.0
  UP RUNNING       MTU:1500  ReasmMAX:65535  Group:1
  IPRX  bytes:116       unicastpkts:0      brcastpkts:2
  IPTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
  HWRX  bytes:0         unicastpkts:0      brcastpkts:0
  HWTX  bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
=>
```

RELATED COMMANDS:

ip apdelete	Remove an IP address from an interface.
ip aplist	Show current IP addresses.

ip apdelete

Remove an IP address from an IP interface.

SYNTAX:

```
ip apdelete          addr = <ip-address>
```

where:

addr	The IP address to be deleted.	REQUIRED

EXAMPLE:

```
=>ip aplist
2 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet  addr:10.0.0.2        Bcast:10.0.0.255       Mask:255.255.255.0
  UP RUNNING  pat       MTU:1500  ReasmMAX:65535  Group:2
  IPRX   bytes:0         unicastpkts:0      brcastpkts:0
  IPTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
1 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet   addr:10.10.10.147   Bcast:   10.10.10.255  Mask:   255.0.0.0
  UP RUNNING  pat  MTU:1500  ReasmMAX:65535  Group:2
  IPRX   bytes:19791886  unicastpkts:11341  brcastpkts:290555
  IPTX   bytes:839550    unicastpkts:11477  brcastpkts:0  droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
0 loop  Type:0
  inet   addr:127.0.0.1      Bcast:127.255.255.255  Mask:255.0.0.0
  UP RUNNING            MTU:1500  ReasmMAX:65535  Group:1
  IPRX   bytes:116       unicastpkts:0      brcastpkts:2
  IPTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
=>ip apdelete addr=10.0.0.2
=>ip aplist
1 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet  addr:10.10.10.147    Bcast:   10.10.10.255  Mask:   255.0.0.0
  UP   RUNNING    pat   MTU:1500    ReasmMAX:65535   Group:2
  IPRX   bytes:19791886  unicastpkts:11341  brcastpkts:290555
  IPTX   bytes:839550    unicastpkts:11477  brcastpkts:0  droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
0 loop         Type:0
  inet   addr:127.0.0.1      Bcast:127.255.255.255  Mask:255.0.0.0
  UP   RUNNING          MTU:1500      ReasmMAX:65535   Group:1
  IPRX   bytes:116       unicastpkts:0      brcastpkts:2
  IPTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0  droppkts:0
=>
```

RELATED COMMANDS:

ip apadd	Add an IP address to an interface.
ip aplist	Show current IP addresses.

ip aplist

Show a list of all configured IP addresses.

SYNTAX:

```
ip aplist
```

EXAMPLE:

```
=>ip aplist
2 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet addr:   10.0.0.2      Bcast:   10.0.0.255     Mask:   255.255.255.0
  UP RUNNING    pat   MTU:1500    ReasmMAX:65535   Group:2
  IPRX   bytes:0         unicastpkts:0      brcastpkts:0
  IPTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
1 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet addr:   10.10.10.147    Bcast:   10.10.10.255    Mask:   255.0.0.0
  UP RUNNING    pat   MTU:1500    ReasmMAX:65535   Group:2
  IPRX   bytes:19791886  unicastpkts:11341  brcastpkts:290555
  IPTX   bytes:839550    unicastpkts:11477  brcastpkts:0     droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
0 loop  Type:0
  inet   addr:127.0.0.1     Bcast:127.255.255.255    Mask:255.0.0.0
  UP RUNNING          MTU:1500    ReasmMAX:65535   Group:1
  IPRX   bytes:116       unicastpkts:0      brcastpkts:2
  IPTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
=>
```

RELATED COMMANDS:

ip apadd	Add an IP address to an interface.
ip apdelete	Remove an IP address from an interface.

ip arpadd

Add an entry to the ARP cache of a broadcast IP interface.

SYNTAX:

```
ip arpadd              intf = <interface name>
                       ip = <ip-range>
                       [hwaddr = <hardware-address>]
```

where:

intf	The IP interface name.	REQUIRED
ip	The IP address [range] of the entry to be added.	REQUIRED
hwaddr	The hardware address (e.g. the Ethernet MAC address) of the entry to be added.	OPTIONAL

EXAMPLE:

```
=>ip arplist
Intf            IP-address        HW-address              Type
eth0            10.0.0.1          00:01:42:5f:7d:81       DYNAMIC
eth0            10.0.0.8          00:a0:24:ae:66:e1       DYNAMIC
eth0            10.0.1.99         52:41:53:20:20:4d       STATIC
eth0            10.0.1.100        52:41:53:20:f0:90       STATIC
=>ip arpadd intf=eth0 ip=10.0.0.2 hwaddr=00:10:a4:d0:9a:db
=>ip arplist
Intf            IP-address        HW-address              Type
eth0            10.0.0.1          00:01:42:5f:7d:81       DYNAMIC
eth0            10.0.0.8          00:a0:24:ae:66:e1       DYNAMIC
eth0            10.0.1.99         52:41:53:20:20:4d       STATIC
eth0            10.0.1.100        52:41:53:20:f0:90       STATIC
eth0            10.0.0.2          00:10:a4:d0:9a:db       STATIC
=>
```

RELATED COMMANDS:

ip arpdelete	Delete an ARP entry.
ip arplist	Show current ARP cache.

ip arpdelete

Remove an entry from the ARP cache.

SYNTAX:

```
ip arpdelete          intf = <interface name>
                      ip = <ip-range>
                      [hwaddr = <hardware-address>]
```

where:

intf	The interface name.	REQUIRED
ip	The IP address [range] of the entry to be deleted.	REQUIRED
hwaddr	The hardware address (e.g. the Ethernet MAC address) of the entry to be deleted.	OPTIONAL

EXAMPLE:

```
=>ip arplist
Intf            IP-address        HW-address               Type
eth0            10.0.0.1          00:01:42:5f:7d:81        DYNAMIC
eth0            10.0.0.8          00:a0:24:ae:66:e1        DYNAMIC
eth0            10.0.1.99         52:41:53:20:20:4d        STATIC
eth0            10.0.1.100        52:41:53:20:f0:90        STATIC
eth0            10.0.0.2          00:10:a4:d0:9a:db        STATIC
=>ip arpdelete intf=eth0 ip=10.0.0.2 hwaddr=00:10:a4:d0:9a:db
=>ip arplist
Intf            IP-address        HW-address               Type
eth0            10.0.0.1          00:01:42:5f:7d:81        DYNAMIC
eth0            10.0.0.8          00:a0:24:ae:66:e1        DYNAMIC
eth0            10.0.1.99         52:41:53:20:20:4d        STATIC
eth0            10.0.1.100        52:41:53:20:f0:90        STATIC
eth0            10.0.0.2          00:10:a4:d0:9a:db        STATIC
=>
```

RELATED COMMANDS:

ip arpadd	Add a static ARP entry.
ip arplist	Show current ARP cache.

ip arplist

Show the ARP cache.

SYNTAX:

```
ip arplist
```

EXAMPLE:

```
=>ip arplist
Intf            IP-address        HW-address              Type
eth0            10.0.0.1          00:01:42:5f:7d:81       DYNAMIC
eth0            10.0.0.8          00:a0:24:ae:66:e1       DYNAMIC
eth0            10.0.1.99         52:41:53:20:20:4d       STATIC
eth0            10.0.1.100        52:41:53:20:f0:90       STATIC
eth0            10.0.0.2          00:10:a4:d0:9a:db       STATIC
=>
```

RELATED COMMANDS:

ip arpadd	Add a static entry to the ARP cache.
ip arpdelete	Delete an entry from the ARP cache.

ip config

Show/set global IP stack configuration options.

SYNTAX:

```
ip config               [forwarding = <{off|on}>]
                        [firewalling = <{off|on}>]
                        [redirects = <{off|on}>]
                        [sourcerouting = <{off|on}>]
                        [netbroadcasts = <{off|on}>]
                        [ttl = <number{0-255}>]
                        [fraglimit = <number{1-1024}>]
                        [defragmode = <{normal|always|nat}>]
                        [addrcheck = <{off|own|static|dynamic}>]
                        [mssclamping = <{off|on}>]
```

where:

forwarding	Disable (off) or enable (on) the IP routing functionality.	OPTIONAL
firewalling	Enable (on) or disable (off) IP firewalling (master switch). If applicable, the CLI firewall level allows configuration of the SpeedTouch™ firewall. The default is *on* (for security reasons). **Note** It is strongly recommended never to disable the SpeedTouch™ firewall.	OPTIONAL
redirects	Disable (off) or enable (on) the sending of ICMP redirect messages. A router can send a redirect message in case a shorter path than the path followed is discovered. The default is *off* (for security reasons).	OPTIONAL
sourcerouting	Disallow (off) or allow (on) IP source routed packets. IP source routed packets are packets with the route to follow specified in the header. The default is *off* (for security reasons).	OPTIONAL
netbroadcasts	Disallow (off) or allow (on) net directed broadcasts. The default is *off*. In case netbroadcasts are allowed, no traces of netbroadcasts are generated.	OPTIONAL
ttl	A number between 0 and 255. Represents the default Time To Live (TTL) for locally generated IP packets. This parameter determines the number of hop-counts the IP packet may pass before it is dropped. Generally, the time-to-live is 64 hop-counts. By limiting the time-to-live, continuous circulation of IP packets on the network without ever reaching a destination is avoided.	OPTIONAL

fraglimit	A number between 1 and 1024. Represents the maximum number of IP packet fragments waiting for completion. Generally, the fragmentation limit is 64. By limiting the fragmentation limit, the depletion of the buffer is avoided.	OPTIONAL
defragmode	Define which packets are reassembled under which circumstances. Choose between: • normal: Packets to be forwarded will not be reassembled. Packets with local destination, i.e. destined for the SpeedTouch™, are reassembled. • always: Packets are always reassembled. • nat: Same behavior as *normal*, except for packets to be forwarded through the Network Address Translation (NAT) engine. Packets on which address translation is performed are reassembled as the NAT engine requires the entire packet.	OPTIONAL
addrcheck	Set the level of IP address checks. Choose between: • off: No address checking is performed. For advanced users only; in normal circumstances there should always be some kind of address checking. • own: Minimum level of checking. Only the address configuration on the SpeedTouch™ is checked. • static: Checking of the address configuration of the SpeedTouch™ and also of traffic: addresses of incoming packets; this checking is related to constants (e.g. an address may not be entirely composed of one's or zero's). • dynamic: Besides the address configuration of the SpeedTouch™ itself, and besides the checking of traffic on a constants level, additional checking is performed on the IP addresses that are determined by the configuration, more specifically by the network.	OPTIONAL
mssclamping	Disable (off) or enable (on) mss clamping for low mtu interfaces. Mss clamping assures that the size of a TCP packet never exceeds the available mtu of the outgoing interface. **Note** It is recommended not to disable this parameter.	OPTIONAL

EXAMPLE:

```
=>ip config
Forwarding on
Firewalling off
Sendredirects off
Sourcerouting on
NetBroadcasts off
Default TTL 128
Fraglimit 32 fragments
Fragcount currently  0 fragments
Defragment mode : always
Address checks : static
Mss clamping : on
=>ip config firewalling=on ttl=64 fraglimit=64 defragmode=nat
=>ip config
Forwarding on
Firewalling on
Sendredirects off
Sourcerouting on
NetBroadcasts off
Default TTL 64
Fraglimit 64 fragments
Fragcount currently  0 fragments
Defragment mode : nat
Address checks : static
Mss clamping : on
=>
```

RELATED COMMANDS:

ip ifconfig	Configure interface parameters.

ip flush

Flush complete IP configuration. Dynamic configurations (e.g. from PPP or CIP links) remain.

Note 1.The flush command does not impact previously saved configurations.
2. As the command *ip flush* causes all local IP connectivity to be deleted, do not use this command during an IP based local connection, e.g. a Telnet CLI session, or web based CLI access.

SYNTAX:

```
ip flush
```

EXAMPLE:

```
=>ip aplist
3  cip1     Type:ATM
   inet   addr:172.16.0.5     Bcast:172.16.0.255     Mask:255.255.255.0
   UP  RUNNING    pat  MTU:9180    ReasmMAX:65535   Group:0
   IPRX   bytes:0      unicastpkts:0     brcastpkts:0
   IPTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
   HWRX   bytes:0      unicastpkts:0     brcastpkts:0
   HWTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
2  eth0     Type:EthernetHWaddr 00:80:9f:24:ab:cf  BRHWaddr ff:ff:ff:ff:ff:ff
   inet addr: 10.0.0.2   Bcast: 10.0.0.255         Mask: 255.255.255.0
   UP  RUNNING    pat  MTU:1500    ReasmMAX:65535   Group:2
   IPRX   bytes:0      unicastpkts:0     brcastpkts:0
   IPTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
   HWRX   bytes:0      unicastpkts:0     brcastpkts:0
   HWTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
0  loop    Type:0
   inet   addr:127.0.0.1     Bcast:127.255.255.255    Mask:255.0.0.0
   UP  RUNNING         MTU:1500    ReasmMAX:65535   Group:1
   IPRX   bytes:116    unicastpkts:0     brcastpkts:2
   IPTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
   HWRX   bytes:0      unicastpkts:0     brcastpkts:0
   HWTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
=>ip flush
=>ip aplist
3  cip1     Type:ATM
   inet   addr:172.16.0.5     Bcast:172.16.0.255     Mask:255.255.255.0
   UP  RUNNING    pat  MTU:9180    ReasmMAX:65535   Group:0
   IPRX   bytes:0      unicastpkts:0     brcastpkts:0
   IPTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
   HWRX   bytes:0      unicastpkts:0     brcastpkts:0
   HWTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
0  loop     Type:0
   inet addr: 127.0.0.1 Bcast:127.255.255.255      Mask:255.0.0.0
   UP  RUNNING         MTU:1500    ReasmMAX:65535   Group:1
   IPRX   bytes:116    unicastpkts:0     brcastpkts:2
   IPTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
   HWRX   bytes:0      unicastpkts:0     brcastpkts:0
   HWTX   bytes:0      unicastpkts:0     brcastpkts:0     droppkts:0
=>
```

ip ifconfig

Configure IP interface parameters.

SYNTAX:

```
ip ifconfig       intf = <interface name>
                  [mtu = <number{68-20000}>]
                  [status = <{down|up}>]
                  [hwaddr = <hardware-address>]
                  [group = <{wan|local|lan}> or number]
                  [linksensing = <{off|on}>]
```

where:

intf	The IP interface name.	REQUIRED
mtu	A number between 68 and 20000. Represents the maximum transmission unit, i.e. the maximum packet size (including IP header) to use on this interface. The default value depends on the connection and packet service for which the interface was created.	OPTIONAL
status	The administrative status of the interface. Choose between: • down • up.	OPTIONAL
hwaddr	The hardware address (e.g. the Ethernet MAC address) of this IP interface.	OPTIONAL
group	The group to which this interface belongs (e.g. for oriented firewalling).	OPTIONAL
linksensing	The IP interface's awareness of link state transitions.	OPTIONAL

EXAMPLE:

```
=>ip iflist
Interface   GRP  MTU   RX        TX        TX-DROP  STATUS  HWADDR
0   loop    1    1500  116       0         0        UP
1   eth0    2    3000  21045795  1019664   0        UP      00:80:9f:24:ab:cf
2   ETHoA   0    1500  0         0         0        UP      00:80:9f:24:ab:cf
5   cip0    0    9180  0         0         0        UP
=>ip ifconfig intf=eth0 mtu=1500
=>ip iflist
Interface  GRP   MTU   RX        TX        TX-DROP  STATUS  HWADDR
0   loop    1    1500  116       0         0        UP
1   eth0    2    1500  21054963  1025417   0        UP      00:80:9f:24:ab:cf
2   ETHoA   0    1500  0         0         0        UP      00:80:9f:24:ab:cf
5   cip0    0    9180  0         0         0        UP
=>
```

RELATED COMMANDS:

ip config	Show/set global IP stack configuration options.

ip iflist

Show all IP interfaces.

SYNTAX:

```
ip iflist
```

EXAMPLE:

```
=>ip iflist
Interface    GRP  MTU   RX        TX        TX-DROP  STATUS  HWADDR
0   loop     1    1500  116       0         0        UP
1   eth0     2    3000  21045795  1019664   0        UP      00:80:9f:24:ab:cf
2   ETHoA    0    1500  0         0         0        UP      00:80:9f:24:ab:cf
5   cip0     0    9180  0         0         0        UP
=>
```

RELATED COMMANDS:

ip ifconfig	Configure interface parameters.

ip ifwait

Wait for a status change of an IP interface.

SYNTAX:

```
ip ifwait           intf = <interface name>
                    [timeout = <number{1-600000}>]
                    [adminstatus = <{down|up}>]
                    [operstatus = <{down|up}>]
                    [linkstatus = <{down|up}>]
```

where:

intf	The IP interface name.	REQUIRED
timeout	A number between 1 and 600000 (seconds). Represents the timeout.	OPTIONAL
adminstatus	The administrative state of the interface. Choose between: • down • up.	OPTIONAL
operstatus	The operational state of the interface. Choose between: • down • up.	OPTIONAL
linkstatus	The link state of the interface. Choose between: • down • up.	OPTIONAL

ip mcadd

Add a MC address to a MC capable interface.

SYNTAX:

```
ip mcadd          intf = <interface name>
                  addr = <ip-address>
                  [mask = <ip-mask(dotted or cidr)>]
```

where:

intf	The IP interface name.	REQUIRED
addr	The Multicast IP address.	OPTIONAL
mask	The Multicast IP address mask associated with this address (use 0 for promiscuous mode).	OPTIONAL

RELATED COMMANDS:

ip mcdelete	Delete a MC address to a MC capable interface.
ip mclist	List all MC addresses.

ip mcdelete

Delete a MC address to a MC capable interface.

SYNTAX:

```
ip mcadd          intf = <interface name>
                  addr = <ip-address>
                  [mask = <ip-mask(dotted or cidr)>]
```

where:

intf	The IP interface name.	REQUIRED
addr	The Multicast IP address.	OPTIONAL
mask	The Multicast IP address mask associated with this address (use 0 for promiscuous mode).	OPTIONAL

RELATED COMMANDS:

ip mcadd	Add a MC address to a MC capable interface.
ip mclist	List all MC addresses.

ip mclist

List all MC addresses.

SYNTAX:

```
ip mclist
```

RELATED COMMANDS:

ip mcadd	Add a MC address to a MC capable interface.
ip mcdelete	Delete a MC address to a MC capable interface.

ip ping

Send ICMP ECHO_REQUEST packets.

SYNTAX:

```
ip ping                 addr = <ip-address>
                        [count = <number{1-1000000}>]
                        [size = <number{1-20000}>]
                        [interval = <number{100-1000000}>]
                        [listen = <{off|on}>]
```

where:

addr	The destination IP address.	REQUIRED
count	A number between 1 and 1000000. Represents the number of pings to send.	OPTIONAL
size	A number between 1 and 20000 (bytes). Represents the size of the ping packet(s).	OPTIONAL
interval	A number between 100 and 10000000 (milliseconds). Represents the intermediate interval between two sent ICMP packets.	OPTIONAL
listen	Listen for incoming ICMP packets (on) or only send ICMP packets (off).	OPTIONAL

EXAMPLE:

```
=>ip ping addr=10.0.0.148 listen=off
=>ip ping addr=10.0.0.148 listen=on
9 bytes from 10.0.0.148: Echo Request
=>ip ping addr=10.0.0.148 count=15 listen=on
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
9 bytes from 10.0.0.148: Echo Request
=>
```

RELATED COMMANDS:

ip sendto	Send UDP packets.

ip rtadd

Add a route to the SpeedTouch™ routing table.

SYNTAX:

```
ip rtadd              dst = <ip-address>
                      [dstmsk = <ip-mask(dotted or cidr)>]
                      [label = <string>]
                      [gateway = <ip-address>]
                      [intf = <interface name>]
                      [metric = <number{0-100}>]
```

where:

dst	The destination IP address(es) for this route. Supports cidr notation.	REQUIRED
dstmsk	The destination IP address mask.	OPTIONAL
label	The name of the label.	OPTIONAL
gateway	The IP address of the next hop. Must be directly connected.	OPTIONAL
	Note The parameters *gateway* and *intf* are mutually exclusive.	
intf	Only for special interface routes: the outgoing IP interface name.	OPTIONAL
	Note The parameters *gateway* and *intf* are mutually exclusive.	
metric	The metric for this route (weight factor).	OPTIONAL

EXAMPLE:

```
=>ip rtlist
        Destination Label         Gateway       Intf Mtrc Status
        10.0.0.0/24           10.0.0.140        eth0   0  [UP]
      10.0.0.140/32           10.0.0.140        eth0   0  [UP]
       127.0.0.1/32            127.0.0.1        loop   0  [UP]
=>ip rtadd dst=10.10.0.0/24 src=10.0.0.0/24 gateway=10.0.0.140
=>ip rtlist
        Destination Label         Gateway       Intf Mtrc Status
        10.0.0.0/24           10.0.0.140        eth0   0  [UP]
       10.10.0.0/24           10.0.0.140        eth0   0  [UP]
      10.0.0.140/32           10.0.0.140        eth0   0  [UP]
       127.0.0.1/32            127.0.0.1        loop   0  [UP]
=>
```

RELATED COMMANDS:

ip rtdelete	Remove a route from the routing table.
ip rtlist	Show current routing table.

ip rtdelete

Delete a route from the routing table.

SYNTAX:

```
ip rtdelete          dst = <ip-address>
                     [dstmsk = <ip-mask(dotted or cidr)>]
                     [label = <string>]
                     [gateway = <ip-address>]
                     [intf = <interface name>]
```

where:

dst	The destination IP address(es) for this route. Supports cidr notation.	REQUIRED
dstmsk	The destination IP address mask.	OPTIONAL
label	The name of the label.	OPTIONAL
gateway	The IP address of the next hop. Must be directly connected. **Note** The parameters *gateway* and *intf* are mutually exclusive.	OPTIONAL
intf	Only for special interface routes: the outgoing IP interface name. **Note** The parameters *gateway* and *intf* are mutually exclusive.	OPTIONAL

EXAMPLE:

```
=>ip rtlist
        Destination Label         Gateway       Intf Mtrc Status
        10.0.0.0/24           10.0.0.140        eth0   0  [UP]
       10.10.0.0/24           10.0.0.140        eth0   0  [UP]
      10.0.0.140/32           10.0.0.140        eth0   0  [UP]
       127.0.0.1/32            127.0.0.1        loop   0  [UP]
=>ip rtdelete dst=10.10.0.0/24 src=10.0.0.0/24 gateway=10.0.0.140
=>ip rtlist
        Destination Label         Gateway       Intf Mtrc Status
        10.0.0.0/24           10.0.0.140        eth0   0  [UP]
      10.0.0.140/32           10.0.0.140        eth0   0  [UP]
       127.0.0.1/32            127.0.0.1        loop   0  [UP]
=>
```

RELATED COMMANDS:

ip rtadd	Add a route to the routing table.
ip rtlist	Show current routing table.

ip rtlist

Show the current routing table.

SYNTAX:

```
ip rtlist
```

EXAMPLE:

```
=>ip rtlist
        Destination Label         Gateway       Intf Mtrc Status
        10.0.0.0/24           10.0.0.140        eth0   0  [UP]
       10.0.0.140/32          10.0.0.140        eth0   0  [UP]
        127.0.0.1/32           127.0.0.1        loop   0  [UP]
=>
```

RELATED COMMANDS:

ip rtadd	Add a route to the routing table.
ip rtdelete	Remove a route from the routing table.

ip sendto

Send UDP packets.

SYNTAX:

```
ip sendto           addr = <ip-address>
                    [count = <number{1-1000000}>]
                    [size = <number{1-20000}>]
                    [interval = <number{100-1000000}>]
                    [listen = <{off|on}>]
                    [srcport = <number{1-65535}>]
                    dstport = <number{1-65535}>
```

where:

addr	The destination IP address.	REQUIRED
count	A number between 1 (default) and 1000000. Represents the number of UDP packets to send.	OPTIONAL
size	A number between 1 (default) and 20000 (bytes). Represents the size of the ping packet(s).	OPTIONAL
interval	A number between 100 (default) and 10000000 (milliseconds). Represents the intermediate interval between two sent UDP packets.	OPTIONAL
listen	Listen for incoming UDP packets (on) or only send UDP packets (off). The default is *off*.	OPTIONAL
srcport	The UDP source port number to use.	OPTIONAL
dstport	The UDP destination port number to send to.	REQUIRED

EXAMPLE:

```
=>ip sendto addr=10.0.0.148 listen=on srcport=19 dstport=1025
=>ip sendto addr=10.0.0.148 listen=on srcport=19 dstport=1025
1 bytes from 10.0.0.148:1025
41                                              A
=>ip sendto addr=10.0.0.148 count=3 listen=on srcport=19 dstport=1025
1 bytes from 10.0.0.148:1025
41                                              A
1 bytes from 10.0.0.148:1025
41                                              A
1 bytes from 10.0.0.148:1025
41                                              A
=>
```

RELATED COMMANDS:

ip ping	Send ICMP ECHO_REQUEST packets.

ip traceroute

Send ICMP/UDP packets to trace the ip path.

SYNTAX:

```
ip traceroute          addr = <ip-address>
                       [count = <number{1-10}>]
                       [size = <number{1-20000}>]
                       [interval = <number{1000-60000}>]
                       [maxhops = <number{1-255}>]
                       [dstport = <number{1-65535}>]
                       [maxfail = <number{0-255}>]
                       [type = <{icmp|udp}>]
                       [utime = <{no|yes}>]
```

where:

addr	The destination IP address.	REQUIRED
count	A number between 1 and 10. Represents the number of times to reissue a traceroute request with the same time to live. The default is *3*.	OPTIONAL
size	A number between 1 and 20000 (bytes). Represents the size of the traceroute packet(s). The default is *1*.	OPTIONAL
interval	A number between 100 and 10000000 (milliseconds). Represents the intermediate interval between two packets. The default is *1000*.	OPTIONAL
maxhops	A number between 1 and 255. Represents the upper limit on the number of routers through which a packet can pass. The default is *30*.	OPTIONAL
dstport	A number between 1 and 65535. Represents the UDP destination port number to send to.	OPTIONAL
maxfail	A number between 0 and 255. Represents the maximum number of consecutive timeouts allowed before terminating a traceroute request. The default is *5*.	OPTIONAL
type	The type of traceroute packet(s). Choose between: • icmp (default) • udp.	OPTIONAL
utime	Display time in useconds (yes) or not (no). The default is *yes*.	OPTIONAL

EXAMPLE:

```
=>ip traceroute addr = 192.193.195.250 count=3 size=1 interval=1000 maxhops=30 dstport=33433
maxfail=5 type=icmp utime=yes
:ip traceroute addr=192.193.195.250
ttl=1   192.193.195.250 676 us  1351 us 648 us

=>
```

ip auto flush

Flush the autoIP interfaces.

SYNTAX:

```
ip auto flush
```

ip auto ifadd

Create a new autoIP interface.

SYNTAX:

```
ip auto ifadd          intf = <interface name>
                       [addr = <ip-address>]
```

where:

intf	The name of the IP interface for which a link-local address has to be allocated.	REQUIRED
addr	The preferred link-local IP address.	OPTIONAL

RELATED COMMANDS:

ip auto flush	Flush the autoIP interfaces.
ip auto ifdelete	Delete an existing autoIP interface.
ip auto iflist	Show the autoIP interfaces.

ip auto ifattach

Select and assign a link-local address to an autoIP interface.

SYNTAX:

```
ip auto ifattach      intf = <interface name>
```

where:

intf	The name of the IP interface for which a link-local address has to be attached.	REQUIRED

RELATED COMMANDS:

ip auto ifdetach	Release the link-local address for the given autoIP interface.

ip auto ifconfig

Configure an autoIP interface.

SYNTAX:

```
ip auto ifconfig      intf = <interface name>
                      [addr = <ip-address>]
                      [poolstart = <ip-address>]
                      [poolend = <ip-address>]
                      [netmask = <ip-mask(dotted or cidr)>]
                      [claim = <number{0-65535}>]
                      [defence = <number{0-65535}>]
                      [probe = <number{0-65535}>]
                      [interval = <number{1-65535}>]
```

where:

intf	The name of the autoIP interface to configure.	REQUIRED
addr	The preferred link-local IP address.	OPTIONAL
poolstart	The start IP address of the link-local address pool.	OPTIONAL
poolend	The end IP address of the link-local address pool.	OPTIONAL
netmask	The netmask of the link-local IP address pool.	OPTIONAL
claim	A number between 0 and 65535. Represents the number of link-local address selection retries before giving up. The default is *10*.	OPTIONAL
defence	A number between 0 and 65535. Represents the number of times the link-local address is defended before releasing the address. The default is *5*.	OPTIONAL
probe	A number between 0 and 65535. Represents the number of ARP probes to be sent before accepting a link-local address. The default is *4*.	OPTIONAL
interval	A number between 1 and 65535 (seconds). Represents the time interval between two ARP probe transmissions. The default is *2*.	OPTIONAL

ip auto ifdelete

Delete an existing autoIP interface.

SYNTAX:

```
ip auto ifdelete      intf = <interface name>
```

where:

intf	The name of the IP interface to be deleted. Typically, a phonebook entry.	REQUIRED

RELATED COMMANDS:

ip auto flush	Flush the autoIP interfaces.
ip auto ifadd	Create a new autoIP interface.
ip auto iflist	Show the autoIP interfaces.

ip auto ifdetach

Release the link-local address for the given autoIP interface.

SYNTAX:

```
ip auto ifdetach      intf = <interface name>
```

where:

intf	The name of the IP interface for which a link-local address has to be detached.	REQUIRED

RELATED COMMANDS:

ip auto ifattach	Select and assign a link-local address to an autoIP interface.

ip auto iflist

Show the autoIP interfaces.

SYNTAX:

```
ip auto iflist        [intf = <interface name>]
```

where:

intf	The name of the interface to be listed. If no name is specified, all the autoIP interfaces are shown.	OPTIONAL

EXAMPLE:

```
=>ip auto iflist
eth0      : [CLAIMED] 169.254.138.1
            poolstart = 169.254.1.1  poolend = 169.254.254.254  netmask = 255.255.0.0
            claim : 10  defence : 5  probe : 4  interval : 2 (sec)
            probes sent = 2
            collisions  = 0

=>
```

RELATED COMMANDS:

ip auto ifadd	Create a new autoIP interface.
ip auto ifdelete	Delete an existing autoIP interface.

IPoA Commands

Contents

This chapter covers the following commands:

ipoa flush

Flush complete IPoA configuration.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
ipoa flush
```

ipoa ifadd

Create a new IPoA interface.

SYNTAX:

```
ipoa ifadd        [intf = <string>]
                  [dest = <phonebook entry>]
```

where:

intf	The name for the new IPoA interface. If not specified, the destination will double as interface name.	OPTIONAL
dest	The destination for the new IPoA interface. Typically, a phonebook entry.	OPTIONAL

EXAMPLE:

```
=>ipoa iflist
IPoA_1     :   dest : IPoA_1
               Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
               Connection State : connected

=>phonebook list
Name      Type    Use  Address
IPoA_1    ipoa    1    8.35
IPoA_2    ipoa    0    8.36
=>ipoa ifadd dest=IPoA_2
=>ipoa iflist
IPoA_1     :   dest : IPoA_1
               Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
               Connection State : connected

IPoA_2     :   dest : IPoA_2
               Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
               Connection State : not-connected

=>
```

RELATED COMMANDS:

ipoa flush	Flush complete IPoA configuration.
ipoa ifattach	Attach (i.e. connect) an IPoA interface.
ipoa ifconfig	Configure an IPoA interface.
ipoa ifdelete	Delete an IPoA interface.
ipoa ifdetach	Detach an IPoA interface.
ipoa iflist	Show current IPoA interfaces.

ipoa ifattach

Attach (i.e. connect) an IPoA interface.

SYNTAX:

```
ipoa ifattach     intf = <intfname>
```

where:

intf	The name of the IPoA interface to attach.	REQUIRED

EXAMPLE:

```
=>ipoa iflist
IPoA_PVC1   :   dest : Br4
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected

Br3      :   dest : Br3
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : not-connected

=>ipoa ifattach intf=Br3
IPoA_PVC1   :   dest : Br4
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected

Br3      :   dest : Br3
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected

=>
```

RELATED COMMANDS:

ipoa ifadd	Create a new IPoA interface.
ipoa ifconfig	Configure an IPoA interface.
ipoa ifdelete	Delete an IPoA interface.
ipoa ifdetach	Detach an IPoA interface.
ipoa iflist	Show current IPoA interfaces.

ipoa ifconfig

Configure an IPoA interface.

SYNTAX:

```
ipoa ifconfig     intf = <string>
                  [dest = <intfname>]
                  [qos = <string>]
                  [encaps = <{llc/snap|vcmux}>]
                  [retry = <number {0-65535}>]
```

where:

intf	The name of the IPoA interface to configure.	REQUIRED
dest	The destination for this interface. Typically a phonebook entry. This parameter needs only to be specified in case of an interface created without specified destination.	OPTIONAL
qos	The name of a configured Quality of Service book entry. If not specified, the default Quality of Service book entry will be used.	OPTIONAL
encaps	The type of encapsulation to be used for this bridge interface. Choose between: • llc/snap • vcmux.	OPTIONAL
retry	A number between 0 and 65535. Represents the number of Wide Area Network (WAN) connection setup retries before giving up. The default is *10*.	OPTIONAL

EXAMPLE:

```
=>ipoa iflist
IPoA_PVC1   :   dest : Br4
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected

=>ipoa ifconfig intf=IPoA_PVC1 encaps=llc/snap retry=15
=>ipoa iflist
IPoA_PVC1    :  dest : Br4
                Retry : 15    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0      dropframes: 0
=>
```

RELATED COMMANDS:

ipoa ifadd	Create a new IPoA interface.
ipoa ifattach	Attach (i.e. connect) an IPoA interface.
ipoa ifdelete	Delete an IPoA interface.
ipoa ifdetach	Detach an IPoA interface.
ipoa iflist	Show current IPoA interfaces.

ipoa ifdelete

Delete an IPoA interface.

SYNTAX:

```
ipoa ifdelete     intf = <intfname>
```

where:

intf	The name of the IPoA interface.	REQUIRED

EXAMPLE:

```
=>ipoa iflist
Newipoa     :   dest : Br3
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0     dropframes: 0
Moreipoa        dest : Br4
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : not-connected
=>ipoa ifdelete intf=Moreipoa
=>ipoa iflist
Newipoa     :   dest : Br3
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0     dropframes: 0
=>
```

RELATED COMMANDS:

ipoa ifadd	Create a new IPoA interface.
ipoa ifattach	Attach (i.e. connect) an IPoA interface.
ipoa ifconfig	Configure an IPoA interface.
ipoa ifdetach	Detach an IPoA interface.
ipoa iflist	Show current IPoA interfaces.

ipoa ifdetach

Detach an IPoA interface.

SYNTAX:

```
ipoa ifdetach     intf = <intfname>
```

where:

intf	The name of the IPoA interface.	REQUIRED

EXAMPLE:

```
=>ipoa iflist
Newipoa     :   dest : Br3
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0      dropframes: 0
Moreipoa        dest : Br4
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0      dropframes: 0
=>ipoa ifdetach intf=Moreipoa
=>ipoa iflist
Newipoa     :   dest : Br3
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0      dropframes: 0
Moreipoa        dest : Br4
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : not-connected
=>
```

RELATED COMMANDS:

ipoa ifadd	Create a new IPoA interface.
ipoa ifattach	Attach (i.e. connect) an IPoA interface.
ipoa ifconfig	Configure an IPoA interface.
ipoa ifdelete	Delete an IPoA interface.
ipoa iflist	Show current IPoA interfaces.

ipoa iflist

Show all or a specified IPoA interface(s).

SYNTAX:

```
ipoa iflist       [intf = <intfname>]
```

where:

intf	The name of the IPoA interface. If not specified all IPoA interfaces are listed.	OPTIONAL

EXAMPLE:

```
=>ipoa iflist
Newipoa     :   dest : Br3
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0      dropframes: 0
Moreipoa        dest : Br4
                Retry : 10    QoS : default    Encaps : llc/snap    Fcs : off
                Connection State : connected
                RX bytes: 0      frames: 0
                TX bytes: 0      frames: 0      dropframes: 0
=>
```

RELATED COMMANDS:

ipoa ifadd	Create a new IPoA interface.
ipoa ifattach	Attach (i.e. connect) an IPoA interface.
ipoa ifconfig	Configure an IPoA interface.
ipoa ifdelete	Delete an IPoA interface.
ipoa ifdetach	Detach an IPoA interface.

IPQoS Commands

Contents

This chapter covers the following commands:

ipqos config

Configure Internet Protocol (IP) Quality of Service (QoS) for a given destination interface for the IP QoS queues instantiation.

Note When enabling/disabling of IP QoS, take the following into account:

- if the WAN interface (e.g. PPPoA, IPoA, ...) is detached at the time of enabling/disabling IP QoS, then the WAN interface has to be attached in order for the enabling/disabling of IP QoS to take effect.
- if the WAN interface is attached at the time of enabling/disabling IP QoS, then the WAN interface has to be detached and then re-attached in order for the enabling/disabling of IP QoS to take effect.

SYNTAX:

```
ipqos config      dest = <string>
                  [state = <{disabled|enabled}>]
                  [discard = <{tail|early}>]
                  [realtimerate = <number{1-100}>]
                  [burstsize = <number{1-128}>]
                  [maxpackets = <number{0-100}>]
                  [maxbytes = <number{0-128}>]
```

where:

dest	The destination interface for the IP QoS queues instantiation. Typically, a phonebook entry.	REQUIRED
state	This parameter enables or disables IP QoS for the interface. The default is *disabled*.	OPTIONAL
discard	Determines the packet discard strategy in case of congestion. Choose between: • tail: Tail Drop: arriving packets will be dropped as soon as the destination queue is in an overflow state. • early: Early Packet discard: arriving packets will be dropped early according to the BLUE active queue management algorithm. The default is *early*.	OPTIONAL
realtimerate	A number between 1 and 100. Represents a percentage of the interface bandwidth for rate-limiting of the Real Time queue. In case of congestion, the Real Time queue will only use this percentage of the interface bandwidth when there is also traffic on the other queues. The default is *80*.	OPTIONAL
burstsize	A number between 1 and 128. Represents the realtime queue burstsize (in kilobytes) for rate limiting.	OPTIONAL
maxpackets	A number between 0 and 100. Represents the maximum number of packets in all IP QoS queues instantiated for one interface.	OPTIONAL

maxbytes	A number between 0 and 128. Represents the maximum size in kilobytes in all IP QoS queues instantiated for one interface.	OPTIONAL

EXAMPLE:

```
=>ipqos config
dest = PVC_1
[state] = enabled
[discard] = early
[realtimerate] =
[burstsize] =
[maxpackets] =
[maxbytes] =
:ipqos config dest=PVC_1 state=enabled discard=early
=>
```

RELATED COMMANDS:

ipqos list	List IP QoS configuration.

ipqos list

List IP QoS configuration.

SYNTAX:

```
ipqos list
```

EXAMPLE:

```
=>ipqos list
Name  State      Discard    Packets    Kbytes     Rate     Burstsize
PVC_1 enabled    early      0          0          100%     2
=>
```

RELATED COMMANDS:

ipqos config	Configure IP QoS for a given destination interface for the IP QoS queues instantiation.

ipqos queue clear

Clear IP QoS statistics.

SYNTAX:

```
ipqos queue clear
```

EXAMPLE:

```
=>ipqos queue stats
Name  Queue      # packets  # packets  # packets  # packets  # packets  Marking
                   added      marked     removed    dropped    replaced
PVC_1 0            1240       0          1240       0          0        0
      1            0          0          0          0          0        0
      2            0          0          0          0          0        0
      3            234        0          234        0          0        0
=>ipqos queue clear
=>ipqos queue stats
Name  Queue      # packets  # packets  # packets  # packets  # packets  Marking
                   added      marked     removed    dropped    replaced
PVC_1 0            0          0          0          0          0        0
      1            0          0          0          0          0        0
      2            0          0          0          0          0        0
      3            0          0          0          0          0        0
=>
```

RELATED COMMANDS:

ipqos queue config	Configure IP QoS subqueues.
ipqos queue list	List IP QoS subqueue configuration.

ipqos queue config

Configure IP QoS subqueues.

SYNTAX:

```
ipqos queue config   dest = <string>
                     queue = <number{0-3}>
                     [propagate = <{disabled|enabled}>]
                     [maxpackets = <number{0-100}>]
                     [maxbytes = <number{0-128}>]
```

where:

dest	The destination interface for the IP QoS queues instantiation. Typically, a phonebook entry.	REQUIRED
queue	A number between 0 and 3. Represents the number of the queue, where: • 3 is the Real Time queue • 2 is the High queue • 1 is the Medium queue • 0 is the Best Effort queue.	OPTIONAL
propagate	Higher priority packets will be queued in a lower priority queue, instead of being dropped, as soon as the destination queue is in overflow state. The packet will be put in a lower priority queue only once. Choose between disabled or enabled. The default is *disabled*. **Note** The propagate flag for the lowest priority subqueue (the Best Effort queue) has no meaning.	OPTIONAL
maxpackets	A number between 0 and 100. Represents the maximum number of packets in this queue.	OPTIONAL
maxbytes	A number between 0 and 128. Represents the maximum size in kilobytes of this queue.	OPTIONAL

EXAMPLE:

```
=> ipqos queue config dest=PVC_1 queue=2 propagate=enabled packets=20
=>ipqos queue list
Name  Queue      Propagate  Packets    Kbytes
PVC_1 0                     0          24
      1          disabled   0          24
      2          enabled    20         24
      3          disabled   0          20
=>
```

RELATED COMMANDS:

ipqos queue list	List IP QoS subqueue configuration.
ipqos queue stats	IP QoS subqueue statistics.

ipqos queue list

List IP QoS subqueue configuration.

SYNTAX:

```
ipqos queue list
```

EXAMPLE (the default configuration is shown):

```
=>ipqos queue list
Name  Queue      Propagate  Packets    Kbytes
PVC_1 0                     0          24
      1          disabled   0          24
      2          disabled   0          24
      3          disabled   0          20
=>
```

RELATED COMMANDS:

ipqos queue config	Configure IP QoS subqueues.
ipqos queue stats	IP QoS subqueue statistics.

ipqos queue stats

Show IP QoS subqueue statistics.

SYNTAX:

```
ipqos queue stats
```

EXAMPLE:

```
=>ipqos queue stats
Name  Queue      # packets  # packets  # packets  # packets  # packets  Marking
                   added      marked     removed    dropped    replaced
PVC_1 0            1240       0          1240       0          0        0
      1            0          0          0          0          0        0
      2            0          0          0          0          0        0
      3            234        0          234        0          0        0
=>
```

RELATED COMMANDS:

ipqos queue config	Configure IP QoS subqueues.
ipqos queue list	List IP QoS subqueue configuration.

Label Commands

Contents

This chapter covers the following commands:

label add

Create a new label.

SYNTAX:

```
label add              name = <string>
```

where:

name	The name of the label to be added.	REQUIRED

EXAMPLE:

```
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
=>label add name=Label1
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
Label1         increase   0        0        disabled 0        disabled 0    0        disabled
=>
```

RELATED COMMANDS:

label config	Configure a label.
label delete	Delete a label.

label config

Configure a label.

SYNTAX:

```
label config        name = <string>
                    [classification = <{ignore|overwrite|increase}>]
                    [defclass = <number{0-15}>]
                    [ackclass = <number{0-15}>]
                    [ttloverwrite = <{disabled|enabled}>]
                    [ttl = <number{0-255}>]
                    [tosmarking = <{disabled|enabled}>]
                    [tos = <number{0-255}>]
                    [trace = <{disabled|enabled}>]
```

where:

name	The name of the label to be configured.	REQUIRED
classification	Select the method of classification, i.e. determine what the Layer 3 class assigment must do with the priority of the data packet (as set by Layer 2). Choose between: • ignore: Ignore the class parameters (defclass and ackclass), but use the class as set by Layer 2 (VLAN user priority, ATM QoS). • overwrite: Change the class to defclass/ackclass, overwriting the value set by Layer 2 (VLAN user priority, ATM QoS). • increase: Change the class according to defclass/ackclass, but only if the defclass value is higher than the class value already set by Layer 2. The default is *increase*.	OPTIONAL
defclass	A number between 0 and 15. Represents the default priority class of the assigned connection.	OPTIONAL
ackclass	A number between 0 and 15. Represents the priority class of the ACK segments of the TCP connection.	OPTIONAL
ttloverwrite	Enable or disable ttl overwrite. When on forwarding the Time To Live (TTL) field of the IP header is decremented, an IGMP packet with TTL=1 would be dropped. To support forwarding of IGMP packets, the TTL value can be overwritten	OPTIONAL
ttl	A number between 0 and 255. The TTL value to be used for ttl overwrite.	OPTIONAL

tosmarking	Enable/disable tos marking. Choose between: • disabled • enabled. The default is *disabled*.	OPTIONAL
tos	A number between 0 and 255. Represents the Type of Service (ToS) specification in the IP packet (used for tosmarking). The default is *0*.	OPTIONAL
trace	Enable/disable tracing for this label. Choose between: • disabled • enabled. The default is *disabled*.	OPTIONAL

EXAMPLE:

```
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
Label1         increase   0        0        disabled 0        disabled 0    0        disabled
=>label config name=Label1 classification=increase defclass=7 ackclass=7
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
Label1         increase   7        7        disabled 0        disabled 0    0        disabled
=>
```

RELATED COMMANDS:

label add	Add a label.
label delete	Delete a label.

label delete

Delete a label.

SYNTAX:

```
label delete          name = <string>
                      [force = <{no|yes}>]
```

where:

name	The name of the label to be deleted.	REQUIRED
force	Force delete and cleanup references even when the label is still in use. Choose between: • no • yes. The default is *no*.	OPTIONAL

EXAMPLE:

```
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
Label1         increase   7        7        disabled 0        disabled 0    0        disabled
=>label delete name=Label1 force=yes
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
=>
```

RELATED COMMANDS:

label add	Add a label.
label config	Configure a label.

label flush

Delete all labels that are not in use.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
label flush
```

EXAMPLE:

In the example below, the label "Label1" is not in use:

```
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
Label1         increase   7        7        disabled 0        disabled 0    0        disabled
=>label flush
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
=>
```

label list

Show the association(s) between all hooks or a specified hook and their chain(s).

SYNTAX:

```
label list              [name = <string>]
```

where:

name	The name of the label to be shown.	OPTIONAL
	Note If no name is specified, all labels will be shown.	

EXAMPLE:

```
=>label list
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
BestEffort     increase   4        4        disabled 0        disabled 0    0        disabled
HighPriority   increase   10       10       disabled 0        disabled 0    0        disabled
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
RealTime       increase   14       14       disabled 0        disabled 0    0        disabled
=>label list name=MediumPriority
Name           Class      Defclass Ackclass Ttlover  Ttl      Tosmark  Tos  Use      Trace
MediumPriority increase   6        6        disabled 0        disabled 0    0        disabled
=>
```

RELATED COMMANDS:

label flush	Delete all labels that are not in use.

label troff

Disable verbose console messaging.

SYNTAX:

```
label troff
```

EXAMPLE:

```
=>label troff
```

RELATED COMMANDS:

label tron	Enable verbose console messaging.

label tron

Enable verbose console messaging.

SYNTAX:

```
label tron
```

EXAMPLE:

```
=>label tron
```

RELATED COMMANDS:

label troff	Disable verbose console messaging.

label chain create

Create a new chain.

SYNTAX:

```
label chain create      chain = <string>
```

where:

chain	The name of the chain to be created.	REQUIRED

EXAMPLE:

```
=>label chain list
:label chain create chain=user_labels
:label chain create chain=_auto_labels
=>label chain create chain = my_labels
=>label chain list
:label chain create chain=my_labels
:label chain create chain=user_labels
:label chain create chain=_auto_labels
=>
```

RELATED COMMANDS:

label chain delete	Delete a chain.
label chain list	Show a list of all current chains.

label chain delete

Delete a chain.

SYNTAX:

```
label chain delete      chain = <string>
```

where:

chain	The name of the chain to be deleted.	REQUIRED

EXAMPLE:

```
=>label chain list
:label chain create chain=my_labels
:label chain create chain=user_labels
:label chain create chain=_auto_labels
=>label chain delete chain = my_labels
=>label chain list
:label chain create chain=user_labels
:label chain create chain=_auto_labels
=>
```

RELATED COMMANDS:

label chain create	Create a chain.
label chain list	Show a list of all chains.

label chain flush

Flush all chains.

SYNTAX:

```
label chain flush
```

RELATED COMMANDS:

label chain create	Create a chain.
label chain delete	Delete a chain.
label chain list	Show a list of all chains.

label chain list

Show a list of all current chains.

SYNTAX:

```
label chain list
```

EXAMPLE:

```
=>label chain list
:label chain create chain=user_labels
:label chain create chain=_auto_labels
=>
```

RELATED COMMANDS:

label chain create	Create a chain.
label chain delete	Delete a chain.

label rule clear

Clear statistics for a given rule or all the rules.

SYNTAX:

```
label rule clear      [chain = <string>]
                      [index = <number>]
```

where:

chain	The name of the chain in which the rule is to be found. **Note** If this parameter is not specified, the statistics for all the rules in all chains will be cleared.	OPTIONAL
index	The index number (determined by the position) of the rule in the chain.	OPTIONAL

EXAMPLE:

```
=>label rule stats chain=user_labels index=2
Chain , index 2, packets 41, bytes 2722
=>label rule clear chain=user_labels index=2
=>label rule stats chain=user_labels index=2
Chain , index 2, packets 0, bytes 0
=>
```

RELATED COMMANDS:

label rule create	Create a rule.
label rule delete	Delete a specified rule in a chain.
label rule flush	Delete all rules in a chain.
label rule list	Show a list of all (or a specified) chains' rules.
label rule stats	Show statistics for all (or a specified) chains' rules.

label rule create

Create a rule.

Note If a value is preceded by a "!", it means "NOT".
E.g. "srcintfgrp=!wan" means "if srcintfgrp is different from WAN".

SYNTAX:

```
label rule create  chain = <string>
                   [index = <number>]
                   [srcintf [!]= <string>]
                   [srcintfgrp [!]= <{wan|local|lan} or number>]
                   [src [!]= <ip-range>]
                   [dst [!]= <ip-address>]
                   [tos [!]= <number{0-255}>]
                   [precedence [!]= <number{0-7}>]
                   [dscp [!]= <number{0-63}>]
                   [prot = <{<supported IP protocol name>|<number>}>]
                   [srcport [!]= <{<supported TCP/UDP port name>|<number>}>]
                   [srcportend = <{<supported TCP/UDP port name>|<number>}>]
                   [dstport [!]= <{<supported TCP/UDP port name>|<number>}>]
                   [dstportend = <{<supported TCP/UDP port name>|<number>}>]
                   [clink = <string>]
                   [log = <{no|yes}>]
                   label = <{None|link|<string>}>
```

where:

chain	The name of the chain in which the rule must be inserted.	REQUIRED
index	The number of the rule before which the new rule must be added.	OPTIONAL
srcintf	The name of the interface the packet should arrive on to make this rule apply.	OPTIONAL
srcintfgrp	The interface group the packet should arrive on.	OPTIONAL
src	The source IP address (range) the packet should come from. (Supports ip/mask notation).	OPTIONAL
dst	The destination IP address (range) the packet should be going to. (Supports ip/mask notation).	OPTIONAL
tos	A number between 0 and 255. Represents the Type Of Service specification which should be expected in the IP packet. The Type of Service numbering specification is in accordance to the latest version of *RFC1700: Assigned numbers*.	OPTIONAL
precedence	A number between 0 and 7. Represents the precedence in the IP packet (is part of tos).	OPTIONAL
dscp	A number between 0 and 63. Represents the DSCP in the IP packet (part of tos).	OPTIONAL

prot	The protocol (name or number) expected in the IP packet. Select one of the following protocol names: • icmp • igmp • ipinip • tcp • udp • ah • esp • ipcomp or, alternatively, specify the protocol number.	OPTIONAL
srcport	The TCP/UDP port (or beginning of range) the packet is coming from. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
srcportend	The source TCP/UDP port range end (inclusive) (only applicable for ranges). Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
dstport	The TCP/UDP port (or beginning of range) the packet is going to. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
dstportend	The destination TCP/UDP port range end (inclusive) (only applicable for ranges). Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL
clink	The name of the chain to be parsed when this rule applies.	OPTIONAL
log	Logging is done when this rule applies. Choose between no or yes.	OPTIONAL
label	Choose between: • None • link (when clink is used) • label name.	REQUIRED

RELATED COMMANDS:

label rule clear	Clear statistics for a given rule.
label rule delete	Delete a specified rule in a chain.
label rule flush	Delete all rules in a chain.
label rule list	Show a list of all (or a specified) chains' rules.
label rule stats	Show statistics for all (or a specified) chains' rules.

label rule delete

Delete a rule.

SYNTAX:

```
label rule delete      chain = <string>
                       index = <number>
```

where:

chain	The name of the chain in which a rule must be deleted.	REQUIRED
index	The index number of the rule in the chain.	REQUIRED
	Note Use the command *label rule list* first to determine the index number of the applicable rule.	

EXAMPLE:

```
=>label rule list
:label rule create chain=user_labels index=0 srcintfgrp=lan prot=tcp dstport=telnet label=Test
:label rule create chain=user_labels index=1 srcintfgrp=lan prot=tcp dstport=smtp label=Test
:label rule create chain=user_labels index=2 srcintfgrp=lan prot=tcp dstport=imap3 label=Test
:label rule create chain=user_labels index=3 srcintfgrp=lan prot=tcp dstport=imap2 label=Test
:label rule create chain=user_labels index=4 srcintfgrp=lan prot=tcp dstport=http label=Test
:label rule create chain=user_labels index=5 srcintfgrp=lan prot=tcp dstport=1080 label=Test
:label rule create chain=user_labels index=6 srcintfgrp=lan prot=tcp dstport=www-http label=Test
=>label rule delete chain=user_labels index=2
=>label rule list chain=user_labels
:label rule create chain=user_labels index=0 srcintfgrp=lan prot=tcp dstport=telnet label=Test
:label rule create chain=user_labels index=1 srcintfgrp=lan prot=tcp dstport=smtp label=Test
:label rule create chain=user_labels index=2 srcintfgrp=lan prot=tcp dstport=imap2 label=Test
:label rule create chain=user_labels index=3 srcintfgrp=lan prot=tcp dstport=http label=Test
:label rule create chain=user_labels index=4 srcintfgrp=lan prot=tcp dstport=1080 label=Test
:label rule create chain=user_labels index=5 srcintfgrp=lan prot=tcp dstport=www-http label=Test
=>
```

RELATED COMMANDS:

label rule clear	Clear statistics for a given rule.
label rule create	Create a rule.
label rule flush	Delete all rules in a chain.
label rule list	Show a list of all (or a specified) chains' rules.
label rule stats	Show statistics for all (or a specified) chains' rules.

label rule flush

Flush all rules created for a chain(s). The chain itself is not removed.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
label rule flush      [chain = <string>]
```

where:

chain	The name of the chain to be emptied. **Note** If this parameter is not specified, all rules for all chains are deleted.	OPTIONAL

RELATED COMMANDS:

label rule clear	Clear statistics for a given rule.
label rule create	Create a rule.
label rule delete	Delete a specified rule in a chain.
label rule list	Show a list of all (or a specified) chains' rules.
label rule stats	Show statistics for all (or a specified) chains' rules.

label rule list

Show a list of rules.

SYNTAX:

```
label rule list       [chain = <string>]
```

where:

chain	The name of the chain for which the rules must be listed. **Note** If this parameter is not specified, all rules for all chains are shown.	OPTIONAL

EXAMPLE INPUT AND OUTPUT:

```
=>label rule list chain=user_labels
:label rule create chain=user_labels index=0 srcintfgrp=lan prot=tcp dstport=telnet label=Test
:label rule create chain=user_labels index=1 srcintfgrp=lan prot=tcp dstport=smtp label=Test
:label rule create chain=user_labels index=2 srcintfgrp=lan prot=tcp dstport=imap3 label=Test
:label rule create chain=user_labels index=3 srcintfgrp=lan prot=tcp dstport=imap2 label=Test
:label rule create chain=user_labels index=4 srcintfgrp=lan prot=tcp dstport=http label=Test
:label rule create chain=user_labels index=5 srcintfgrp=lan prot=tcp dstport=1080 label=Test
:label rule create chain=user_labels index=6 srcintfgrp=lan prot=tcp dstport=www-http label=Test
=>
```

RELATED COMMANDS:

label rule clear	Clear statistics for a given rule.
label rule create	Create a rule.
label rule delete	Delete a specified rule in a chain.
label rule flush	Delete all rules in a chain.
label rule stats	Show statistics for all (or a specified) chains' rules.

label rule stats

Show statistics.

SYNTAX:

```
label rule stats      [chain = <string>]
                      [index = <number>]
```

where:

chain	The name of the chain for which the statistics must be listed. If this parameter is not specified, the statistics for the rules applicable to all chains are shown.	OPTIONAL
index	The index number of the rule for which the statistics must be listed. **Note** Use the command *label rule list* first to determine the index number of the applicable rule. If this parameter is not specified, the statistics for all rules applicable to the specified chain are shown.	OPTIONAL

EXAMPLE:

```
=>label rule stats
Chain user_labels, index 0, packets 25, bytes 3585
Chain user_labels, index 1, packets 0, bytes 0
Chain user_labels, index 2, packets 0, bytes 0
Chain user_labels, index 3, packets 0, bytes 0
Chain user_labels, index 4, packets 0, bytes 0
Chain user_labels, index 5, packets 0, bytes 0
Chain user_labels, index 6, packets 41, bytes 2722
Chain user_labels, index 7, packets 0, bytes 0
Chain user_labels, index 8, packets 0, bytes 0
Chain user_labels, index 9, packets 0, bytes 0
Chain user_labels, index 10, packets 0, bytes 0
Chain _auto_labels, index 0, packets 10, bytes 440
=>label rule stats chain=user_labels index=6
Chain , index 6, packets 41, bytes 2722
=>
```

RELATED COMMANDS:

label rule clear	Clear statistics for a given rule.
label rule create	Create a rule.
label rule delete	Delete a specified rule in a chain.
label rule flush	Delete all rules in a chain.
label rule list	Show a list of all (or a specified) chains' rules.

Language Commands

Contents

This chapter covers the following commands:

language config

Select a language.

SYNTAX:

```
language config        [language = <string>]
```

where:

language	Language code: OSI language code (2 chars) for language. Example: *en* for english.	OPTIONAL

RELATED COMMANDS:

language list	List available languages archives.
language remove	Remove one or all language archives.

language list

List the available languages archives. The currently selected language is indicated by a "*" next to the OSI language code.

SYNTAX:

```
language list
```

EXAMPLE:

```
=>language list
CODE LANGUAGE            VERSION FILENAME
 en* english             4.2.7.3 <system>
=>
```

RELATED COMMANDS:

language config	Select a language.
language remove	Remove one or all language archives.

language remove

Remove one or all language archives.

SYNTAX:

```
language remove      [file = <string>]
                     [all <{yes|no}>]
```

where:

file	The filename of the language archive to be removed.	OPTIONAL
all	Removes all languages archives. Choose between: • yes • no.	OPTIONAL

RELATED COMMANDS:

language config	Select a language.
language remove	Remove one or all language archives.

NAT Commands

Contents

This chapter covers the following commands:

nat applist

List available Network Address Translation / Port Address Translation (NAT/PAT) protocol helpers.

Certain protocols are 'sensitive' to NAT/PAT in that they do not function properly when dealing with it. This list shows which 'NAT/PAT-sensitive' applications are supported on the SpeedTouch™, i.e. the inherent knowledge of the SpeedTouch™ on this matter.

SYNTAX:

```
nat applist
```

EXAMPLE:

```
=>nat applist
Application  Proto DefaultPort
IP6TO4       6to4       1   OUTGOING
GRE          gre        1    INCOMING
PPTP         tcp     1723   OUTGOING INCOMING
ESP          esp        1   OUTGOING INCOMING
IKE          udp      500   OUTGOING INCOMING
SIP          udp     5060   OUTGOING INCOMING
JABBER       tcp    15222   OUTGOING
ILS          tcp        0   OUTGOING
H245         tcp        0   OUTGOING INCOMING
H323         tcp     1720   OUTGOING INCOMING
RAUDIO(PNA)  tcp     7070   OUTGOING
RTSP         tcp      554   OUTGOING
IRC          tcp     6667   OUTGOING
FTP          tcp       21   OUTGOING INCOMING
=>
```

RELATED COMMANDS:

nat bind	Create a new helper/port binding.
nat bindlist	List current NAT/PAT helper/port bindings.
nat unbind	Delete an existing helper/port binding.

nat bind

Create a new helper/port binding.

SYNTAX:

```
nat bind              application = <string>
                      port = <{<supported TCP/UDP port name>|<number>}>
                      [port_end = <{<supported TCP/UDP port name>|<number>}>]
```

where:

application	The name of a NAT/PAT application helper. The name must be spelled exactly as listed in the application list. Use the command *nat applist* to obtain the list of applications.	REQUIRED
port	The TCP/UDP port this application handler should work on. Select one of the supported TCP/UDP port names (see " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	REQUIRED
port_end	The TCP/UDP end port of the range of ports this application handler should work on. Select one of the supported TCP/UDP port names (see " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL

EXAMPLE:

```
=>nat bindlist
Application  Proto DefaultPort
SIP          udp   5060
...
FTP          tcp     21
IRC          tcp   6667
RAUDIO(PNA)  tcp   7070
=>nat bind application=RAUDIO(PNA) port=7071
=>nat bindlist
Application  Proto DefaultPort
SIP          udp   5060
...
FTP          tcp     21
IRC          tcp   6667
RAUDIO(PNA)  tcp   7070
RAUDIO(PNA)  tcp   7071
=>
```

RELATED COMMANDS:

nat applist	List available NAT/PAT protocol helpers.
nat bindlist	List current NAT/PAT helper/port bindings.
nat unbind	Delete an existing helper/port binding.

nat bindlist

List current NAT/PAT helper/port bindings.

SYNTAX:

```
nat bindlist
```

EXAMPLE:

```
=>nat bindlist
Application  Proto Port
SIP          udp   5060
GRE          gre   1
PPTP         tcp   1723
ILS          tcp   1002
ILS          tcp   389
H323         tcp   1720
FTP          tcp   21
RTSP         tcp   554
IRC          tcp   6667
RAUDIO(PNA)  tcp   7070
=>
```

RELATED COMMANDS:

nat applist	List available NAT/PAT protocol helpers.
nat bind	Create a new helper/port binding.
nat unbind	Delete an existing helper/port binding.

nat clear

Clear NAT/PAT connection database.

SYNTAX:

`nat clear`	`[addr = <ip-address>]`

where:

addr	An address-translation enabled IP address.	OPTIONAL
	Note If no IP address is specified, all IP addresses are cleared.	

nat config

Configure NAT parameters for IP session.

SYNTAX:

```
nat config              [timeout_ICMP = <string>]
                        [timeout_UDP = <string>]
                        [timeout_TCP = <string>]
                        [timeout_TCP_nego = <string>]
                        [timeout_other = <string>]
                        [ike_port = <{fixed|floated}>]
```

where:

timeout_ICMP	The interval of time for which an ICMP protocol session is allowed to remain valid without any activity. Syntax: <HH:MM> or <MM>.	OPTIONAL
timeout_UDP	The interval of time for which an UDP protocol session is allowed to remain valid without any activity. Syntax: <HH:MM> or <MM>.	OPTIONAL
timeout_TCP	The interval of time for which an TCP protocol session is allowed to remain valid without any activity. This timeout value applies to a TCP session during its data transfer phase. Syntax: <HH:MM> or <MM>.	OPTIONAL
timeout_TCP_nego	The interval of time for which an TCP protocol session is allowed to remain valid without any activity. This timeout value applies to a TCP session during its establishment and termination phases. Syntax :<HH:MM> or <MM>.	OPTIONAL
timeout_other	The interval of time for which an IP session for a protocol other than ICMP, UDP and TCP is allowed to remain valid without any activity. Syntax: <HH:MM> or <MM>.	OPTIONAL
ike_port	The IKE outside port number. This is the translation port number for IKEv1 (fixed to 500 or floated).	OPTIONAL

EXAMPLE:

```
=>nat config
Timeout ICMP idle            :  00h01m
Timeout UDP idle             :  00h05m
Timeout TCP idle             :  00h15m
Timeout TCP negotiation idle :  00h02m
Timeout Other idle           :  00h01m
IKE outside port number      : Floated
=>
```

nat create

Create a static NAT/PAT entry. Typically used to install specific servers behind the SpeedTouch™ NAT/PAT device.

SYNTAX:

```
nat create      protocol = <{<supported IP protocol name>|<number>}>
                inside_addr = <ip-address>
                [inside_port = <{<supported TCP/UDP port name>|<number>}>]
                outside_addr = <ip-address>
                [outside_port = <{<supported TCP/UDP port name>|<number>}>]
                [foreign_addr = <ip-address>]
                [foreign_port = <{<supported TCP/UDP port name>|<number>}>]
```

where:

protocol	The IP protocol name (or number) of the incoming stream. Select one of the supported protocol names (See " Supported Internet Protocol (IP) Protocol Names" on page 411 for a listing of protocol names supported by the SpeedTouch™). Alternatively, specify the protocol number.	REQUIRED
inside_addr	The IP address of the local host (intended to receive the incoming traffic) behind the SpeedTouch™ 's NAT/PAT device. Typically, a private IP address.	REQUIRED
inside_port	The port of the application on the local host. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number. Applicable for TCP and UDP protocols only. Other protocols do not need a port to be specified.	OPTIONAL
outside_addr	The apparent host IP address this application is running on, i.e. the NAT/PAT enabled WAN IP address of the SpeedTouch™. Use *0* to create a template. Such template will then be valid for any of SpeedTouch™ 's NAT/PAT enabled IP addresses, e.g. also dynamically assigned/negotiated IP addresses.	REQUIRED
outside_port	The apparent port number this application is running on. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number. Applicable for TCP and UDP protocols only. Other protocols do not need a port to be specified.	OPTIONAL
foreign_addr	The IP address of the in-front-of-NAT/PAT routable address. Use *0* to match all foreign addresses.	OPTIONAL

foreign_port	The port of the routable host. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number. Do not use *0* in case a foreign IP address is specified. Applicable for TCP and UDP protocols only. Other protocols do not need a port to be specified.	OPTIONAL

RELATED COMMANDS:

nat delete	Delete a static NAT/PAT entry.
nat disable	Disable NAT/PAT on a SpeedTouch™ IP address.
nat enable	Enable NAT/PAT on one of the SpeedTouch™ IP addresses.
nat list	List NAT/PAT connection database.

nat defserver

Define the default server behind the SpeedTouch™ NAT/PAT device that receives all (unknown) incoming packets.

In typical LAN configurations, one local 'default' server will be responsible for all WAN-LAN mail, http, ftp, ... connectivity. This command allows to specify this server. For specific services, use *nat create*.

SYNTAX:

```
nat defserver          [addr = <ip-address>]
```

where:

addr	The IP address of the server (on the 'inside') that will receive all (unknown) incoming packets. **Note** If not specified, the current default server is shown.	OPTIONAL

EXAMPLE INPUT/OUTPUT:

```
=>nat defserver
Default server is undefined
=>nat defserver addr=10.0.0.1
=>nat defserver
Default server is 10.0.0.1
=>
```

nat delete

Delete a static NAT/PAT entry.

SYNTAX:

```
nat delete   protocol = <{<supported IP protocol name>|<number>}>
             inside_addr = <ip-address>
             [inside_port = <{<supported TCP/UDP port name>|<number>}>]
             outside_addr = <ip-address>
             [outside_port = <{<supported TCP/UDP port name>|<number>}>]
             [foreign_addr = <ip-address>]
             [foreign_port = <{<supported TCP/UDP port name>|<number>}>]
```

where:

protocol	The IP protocol name (or number) of the incoming stream. Select one of the supported protocol names (See " Supported Internet Protocol (IP) Protocol Names" on page 411 for a listing of protocol names supported by the SpeedTouch™). Alternatively, specify the protocol number.	REQUIRED
inside_addr	The IP address of the local host (intended to receive the incoming traffic) behind the SpeedTouch™ 's NAT/PAT device. Typically, a private IP address.	REQUIRED
inside_port	The port of the application on the local host. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number. Applicable for TCP and UDP protocols only. Other protocols do not need a port to be specified.	OPTIONAL
outside_addr	The apparent host IP address this application is running on, i.e. the NAT/PAT enabled WAN IP address of the SpeedTouch™ . Use *0* to delete an entry valid for any of SpeedTouch™ 's NAT/PAT enabled IP addresses, e.g. also dynamically assigned/negotiated IP addresses.	REQUIRED
outside_port	The apparent port number this application is running on. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number. Applicable for TCP and UDP protocols only. Other protocols do not need a port to be specified.	OPTIONAL
foreign_addr	The IP address of the in-front-of-NAT/PAT routable address.	REQUIRED

foreign_port	The port of the routable host. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number. Applicable for TCP and UDP protocols only. Other protocols do not need a port to be specified.	OPTIONAL

RELATED COMMANDS:

nat create	Create a static NAT/PAT entry.
nat disable	Disable NAT/PAT on a SpeedTouch™ IP address.
nat enable	Enable NAT/PAT on one of the SpeedTouch™ IP addresses.
nat list	List NAT/PAT connection database.

nat disable

Disable NAT or PAT on the specified SpeedTouch™ IP address.

SYNTAX:

```
nat disable       addr = <ip-address>
```

where:

addr	The SpeedTouch™ IP address for which NAT/PAT must be disabled.	REQUIRED

EXAMPLE:

```
=>nat list
Indx Prot Inside-addr:Port Outside-addr:Port Foreign-addr:Port Flgs Expir State  Control
1    6    10.0.0.138:80    172.16.0.5:1080   0.0.0.0:0         19   8     9
2    17   10.0.0.138:138   10.0.0.140:138    10.0.0.20:138     11   20    10
3    17   10.0.0.138:137   10.0.0.140:137    10.0.0.254:137    11   20    10
4    17   10.0.0.138:7938  10.0.0.140:7938   10.0.0.96:4756    11   20    10
5    17   10.0.0.138:513   10.0.0.140:513    10.0.0.109:513    11   20    10
6    17   10.0.0.138:111   10.0.0.140:111    10.0.0.96:4756    11   20    10
=>nat disable addr 172.16.0.5
=>nat list
Indx Prot Inside-addr:Port Outside-addr:Port Foreign-addr:Port Flgs Expir State Control
1    17   10.0.0.138:138   10.0.0.140:138    10.0.0.20:138     11   20    10
2    17   10.0.0.138:137   10.0.0.140:137    10.0.0.254:137    11   20    10
3    17   10.0.0.138:7938  10.0.0.140:7938   10.0.0.96:4756    11   20    10
4    17   10.0.0.138:513   10.0.0.140:513    10.0.0.109:513    11   20    10
5    17   10.0.0.138:111   10.0.0.140:111    10.0.0.96:4756    11   20    10
=>
```

RELATED COMMANDS:

nat create	Create a static NAT/PAT entry.
nat delete	Delete a static NAT/PAT entry.
nat enable	Enable NAT/PAT on one of the SpeedTouch™ IP addresses.
nat list	List NAT/PAT connection database.

nat enable

Enable NAT/PAT on a SpeedTouch™ IP address.

SYNTAX:

```
nat enable        addr = <ip-address>
                  [type = <{none|pat}>]
```

where:

addr	The IP address to use for outgoing address translation. Must be one of the own IP addresses of the SpeedTouch™. **Note** Use the command *ip aplist* to obtain a list of all configured IP addresses.	REQUIRED
type	Enable port translation (pat) or not (none).	OPTIONAL

EXAMPLE:

```
=>ip aplist
1 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet   addr:10.10.10.147    Bcast:10.10.10.255     Mask:255.0.0.0
  UP RUNNING           MTU:1500    ReasmMAX:65535    Group:2
  IPRX   bytes:19791886  unicastpkts:11341  brcastpkts:290555
  IPTX   bytes:839550    unicastpkts:11477  brcastpkts:0     droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
0 loop  Type:0
  inet   addr:127.0.0.1       Bcast:127.255.255.255  Mask:255.0.0.0
  UP RUNNING           MTU:1500    ReasmMAX:65535    Group:1
  IPRX   bytes:116       unicastpkts:0      brcastpkts:2
  IPTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
=>nat enable addr=10.10.10.147 type=pat
=>ip aplist
1 eth0  Type:Ethernet  HWaddr  00:80:9f:24:ab:cf  BRHWaddr  ff:ff:ff:ff:ff:ff
  inet   addr:10.10.10.147    Bcast:10.10.10.255     Mask:255.0.0.0
  UP RUNNING    pat    MTU:1500    ReasmMAX:65535    Group:2
  IPRX   bytes:19791886  unicastpkts:11341  brcastpkts:290555
  IPTX   bytes:839550    unicastpkts:11477  brcastpkts:0     droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
0 loop  Type:0
  inet   addr:127.0.0.1       Bcast:127.255.255.255  Mask:255.0.0.0
  UP RUNNING           MTU:1500    ReasmMAX:65535    Group:1
  IPRX   bytes:116       unicastpkts:0      brcastpkts:2
  IPTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
  HWRX   bytes:0         unicastpkts:0      brcastpkts:0
  HWTX   bytes:0         unicastpkts:0      brcastpkts:0     droppkts:0
=>
```

RELATED COMMANDS:

nat create	Create a static NAT/PAT entry.
nat delete	Delete a static NAT/PAT entry.
nat disable	Disable NAT/PAT on a SpeedTouch™ IP address.
nat list	List NAT/PAT connection database.

nat flush

Flush complete NAT/PAT configuration.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
nat flush
```

RELATED COMMANDS:

nat create	Create a static NAT/PAT entry.
nat delete	Delete a static NAT/PAT entry.
nat disable	Disable NAT/PAT on a SpeedTouch™ IP address.
nat enable	Enable NAT/PAT on one of the SpeedTouch™ IP addresses.

nat list

Lists NAT/PAT connection database.

SYNTAX:

```
nat list        [addr = <ip-address>]
```

where:

addr	An address-translation enabled IP address.	OPTIONAL
	Note If no address is specified, all IP addresses are shown.	

EXAMPLE:

```
=>nat list
Indx Prot Inside-addr:Port Outside-addr:Port Foreign-addr:Port Flgs Expir State  Control
1    6    10.0.0.138:80    172.16.0.5:1080   0.0.0.0:0         19   8     9
2    17   10.0.0.138:138   10.0.0.140:138    10.0.0.20:138     11   20    10
3    17   10.0.0.138:137   10.0.0.140:137    10.0.0.254:137    11   20    10
4    17   10.0.0.138:7938  10.0.0.140:7938   10.0.0.96:4756    11   20    10
5    17   10.0.0.138:513   10.0.0.140:513    10.0.0.109:513    11   20    10
6    17   10.0.0.138:111   10.0.0.140:111    10.0.0.96:4756    11   20    10
=>
```

RELATED COMMANDS:

nat create	Create a static NAT/PAT entry.
nat delete	Delete a static NAT/PAT entry.
nat disable	Disable NAT/PAT on a SpeedTouch™ IP address.
nat enable	Enable NAT/PAT on one of the SpeedTouch™ IP addresses.

nat multinatadd

Add a MultiNAT configuration.

SYNTAX:

```
nat multinatadd   intf = <string>
                  inside_addr = <ip-range>
                  outside_addr = <ip-range>
                  [addroute = <{no|yes}>]
```

where:

intf	The IP interface name where MultiNAT has to be applied.	REQUIRED
inside_addr	The IP address of the host behind the address translation device that will receive the incoming traffic. Typically, a private IP address.	REQUIRED
outside_addr	The apparent host IP address this application will running on. Use *0* to create a template.	REQUIRED
addroute	Add multinat label routes automatically or not. The default is *yes*.	OPTIONAL

EXAMPLE:

```
=>ip rtlist
        Destination Label                Gateway       Intf Mtrc Status
  169.254.141.11/32                169.254.141.11       eth0   0  [UP]
 255.255.255.255/32                    10.0.0.138       eth0   0  [UP]
      10.0.0.138/32                    10.0.0.138       eth0   0  [UP]
       127.0.0.1/32                     127.0.0.1       loop   0  [UP]
        10.0.0.0/24                    10.0.0.138       eth0   0  [UP]
     169.254.0.0/16                169.254.141.11       eth0   0  [UP]
       224.0.0.0/4                     10.0.0.138*      eth0   0  [UP]
=>nat multinatadd intf=PPPoE_1 inside_addr=10.0.0.1 outside_addr=10.10.0.138
=>nat multinatlist
Indx   Intf         Inside-address       Outside-address
  64   PPPoE_1              10.0.0.1          10.10.0.138      Static MultiNAT
=>ip rtlist
        Destination Label                    Gateway       Intf Mtrc Status
         0.0.0.0/0  _from_10.0.0.1/32     10.10.0.138    PPPoE_1   0  [UP]
  169.254.141.11/32                    169.254.141.11       eth0   0  [UP]
 255.255.255.255/32                        10.0.0.138       eth0   0  [UP]
      10.0.0.138/32                        10.0.0.138       eth0   0  [UP]
       127.0.0.1/32                         127.0.0.1       loop   0  [UP]
        10.0.0.0/24                        10.0.0.138       eth0   0  [UP]
     169.254.0.0/16                    169.254.141.11       eth0   0  [UP]
       224.0.0.0/4                         10.0.0.138*      eth0   0  [UP]
=>
```

RELATED COMMANDS:

nat multinatdelete	Delete a MultiNAT configuration.
nat multinatlist	List MultiNAT configurations.

nat multinatdelete

Delete a MultiNAT configuration.

SYNTAX:

```
nat multinatdelete   index = <number>
```

where:

index	The MultiNAT index as listed by maplist.	REQUIRED

EXAMPLE:

```
=>nat multinatlist
Indx   Intf         Inside-address       Outside-address
  64   PPPoE_1              10.0.0.1          10.10.0.138      Static MultiNAT
=>nat multinatdelete index=64
=>nat multinatlist
Indx   Intf         Inside-address       Outside-address
=>
```

RELATED COMMANDS:

nat multinatadd	Add a MultiNAT configuration.
nat multinatlist	List MultiNAT configurations.

nat multinatlist

List MultiNAT configurations.

SYNTAX:

```
nat multinatlist   [intf = <string>]
```

where:

intf	The IP interface name for which the MultiNAT configuration must be listed. **Note** If no name is specified, all MultiNAT configurations are listed.	OPTIONAL

EXAMPLE:

```
=>nat multinatlist
Indx   Intf         Inside-address       Outside-address
  64   PPPoE_1              10.0.0.1          10.10.0.138      Static MultiNAT
=>
```

RELATED COMMANDS:

nat multinatadd	Add a MultiNAT configuration.
nat multinatdelete	Delete a MultiNAT configuration.

nat unbind

Delete an existing helper/port binding.

SYNTAX:

```
nat unbind          application = <string>
                    port = <{<supported TCP/UDP port name>|<number>}>
                    [port_end = <{<supported TCP/UDP port name>|<number>}>]
```

where:

application	The name of a NAT/PAT application helper. The name must be spelled exactly as listed in the application list. **Note** Use the command *nat applist* to list the names of the NAT/PAT application helpers.	REQUIRED
port	The TCP/UDP port this application handler is working on. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	REQUIRED
port_end	The TCP/UDP end port of the range of ports this application handler should work on. Select one of the supported TCP/UDP port names (See " Supported TCP/UDP Port Names" on page 412 for a listing of TCP/UDP port names supported by the SpeedTouch™). Alternatively, specify the protocol number.	OPTIONAL

EXAMPLE:

```
=>nat bindlist
Application  Proto Port
ESP          esp   1
...
RAUDIO(PNA)  tcp   7070
RAUDIO(PNA)  tcp   7072-7075
RTSP         tcp   554
SIP          udp   5060
=>nat unbind application=RAUDIO(PNA) port=7072 port_end=7075
=>nat bindlist
Application  Proto Port
ESP          esp   1
...
RAUDIO(PNA)  tcp   7070
RTSP         tcp   554
SIP          udp   5060
=>
```

RELATED COMMANDS:

nat applist	List available NAT/PAT protocol helpers.
nat bind	Create a new helper/port binding.
nat bindlist	List current NAT/PAT helper/port bindings.

Phonebook Commands

Contents

This chapter covers the following commands:

phonebook add

Add a phonebook entry.

SYNTAX:

```
phonebook add     name = <string>
                  addr = <atmchannel : PVC syntax is [port.]vpi.vci
                          port=dsl0|dsl1|...>
                  type = <{any|ethoa|pppoa|ipoa}>
```

where:

name	A free to choose phonebook name for the destination. Two limitations apply: • The name of a phonebook entry intended for the Relayed PPPoA (PPPoA-to-PPTP Relaying) packet service may not start with capital P or capital T • The name of a phonebook entry intended for the PPP-to-DHCP spoofing packet service must start with DHCP, e.g. 'DHCP_Spoof01'.	REQUIRED
addr	The ATM address for this destination. It is composed of a Virtual Path Identifier (VPI) and a Virtual Channel Identifier (VCI) identifying ATM virtual channels. In most cases the values are provided by the Service Provider. Accepted VPI: a number between 0 and 15 Accepted VCI: a number between 0 and 511.	REQUIRED
type	The Connection Service supported by the destination. Choose between: • any: All Packet Services • ethoa: Bridged Ethernet, Routed Ethernet, Bridged PPPoE and Routed PPPoE • pppoa: Routed PPPoA and Relayed PPPoA • ipoa: Classical IPoA and Routed IPoA.	REQUIRED

EXAMPLE:

```
=>phonebook list
Name       Type    Use    Address
usb_port   any     1      usb.0.35
PVC1       any     1      8.35
PVC2       ethoa   0      8.36
Br4        ethoa   0      8.38
CIPPVC3    ipoa    1      8.82
=>phonebook add name=PVC_Test addr=8.68 type=pppoa
=>phonebook list
Name       Type    Use    Address
usb_port   any     1      usb.0.35
PVC1       any     1      8.35
PVC2       ethoa   0      8.36
Br4        ethoa   0      8.38
CIPPVC3    ipoa    1      8.82
PVC_Test   pppoa   0      8.68
=>
```

Note The usb_port phonebook entry is only applicable in case of a SpeedTouch™530 variant. Do not change this phonebook entry in any way, or delete it from the phonebook!

RELATED COMMANDS:

phonebook delete	Remove a phonebook entry.
phonebook list	Show current phonebook.

phonebook autolist

Show auto PVCs, if supported by the Central Office DSLAM.

SYNTAX:

```
phonebook autolist
```

EXAMPLE INPUT/OUTPUT:

```
=>phonebook autolist
8.35
=>
```

RELATED COMMANDS:

phonebook list	Show current phonebook.

phonebook delete

Remove an unused phonebook entry.

SYNTAX:

```
phonebook delete    name = <string>
```

where:

name	The name of the phonebook entry to be deleted. Only applicable for phonebook entries that are not used, i.e. not configured for any packet service. **Note** Use the command *phonebook list* to check whether the entry is in use (*Use=1*) or not (*Use=0*).	REQUIRED

EXAMPLE:

```
=>phonebook list
Name       Type     Use     Address
usb_port   any      1       usb.0.35
PVC1       any      1       8.35
PVC2       ethoa    0       8.36
Br4        ethoa    0       8.38
CIPPVC3    ipoa     1       8.82
PVC_Test   pppoa    0       8.68
=>phonebook delete name=PVC_Test
=>phonebook list
Name       Type     Use     Address
usb_port   any      1       usb.0.35
PVC1       any      1       8.35
PVC2       ethoa    0       8.36
Br4        ethoa    0       8.38
CIPPVC3    ipoa     1       8.82
=>
```

Note In case of a SpeedTouch™530 variant, never delete the usb_port phonebook entry!

RELATED COMMANDS:

phonebook add	Add a phonebook entry.
phonebook list	Show current phonebook.

phonebook flush

Flush complete phonebook.

Note 1. Phonebook entries that are in use, cannot be flushed.
2.The flush command does not impact previously saved configurations.

SYNTAX:

```
phonebook flush
```

EXAMPLE:

```
=>phonebook list
Name      Type    Use    Address
usb_port  any     1      usb.0.35
PVC1      any     1      8.35
PVC2      ethoa   0      8.36
Br4       ethoa   0      8.38
CIPPVC3   ipoa    1      8.82
PVC_Test  pppoa   0      8.68
=>phonebook flush
=>phonebook list
Name      Type    Use    Address
=>
```

Note In case of a SpeedTouch™530 variant, flushing the Phonebook may cause the device to become inaccessible from its USB interface.

phonebook list

Show current phonebook.

SYNTAX:

```
phonebook list
```

EXAMPLE INPUT/OUTPUT:

```
=>phonebook list
Name       Type     Use     Address
usb_port   any      1       usb.0.35
PVC1       any      1       8.35
PVC2       ethoa    0       8.36
Br4        ethoa    0       8.38
CIPPVC3    ipoa     1       8.82
PVC_Test   pppoa    0       8.68
=>
```

Note The usb_port phonebook entry is only applicable in case of a SpeedTouch™530 variant. Do not change this phonebook entry in any way, or delete it from the phonebook!

RELATED COMMANDS:

phonebook add	Add a phonebook entry.
phonebook autolist	Show auto PVCs.
phonebook delete	Remove a phonebook entry.

PPPoA Commands

Contents

This chapter covers the following commands:

pppoa flush

Flush the current PPP configuration.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
pppoa flush
```

EXAMPLE:

```
=>pppoa iflist
pppoa1: dest : pppoa1
  Retry:  10  QoS  default encaps  VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  mru  addr  route  savepwd  pppoaOA
  trans addr = pat    mru = 1500
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP:    state = initial    retransm = 10    term. reason =
  IPCP:   state = initial    retransm = 0     term. reason =
=>pppoa flush
=>pppoa iflist
=>
```

pppoa ifadd

Create a new PPPoA interface.

SYNTAX:

```
pppoa ifadd       [intf = <string>]
                  [dest = <phonebook entry>]
```

where:

intf	The name for the new PPP interface. If not specified, the destination will double as interface name.	OPTIONAL
dest	The ATM channel to be used for this PPP interface. Typically, an phonebook entry.	OPTIONAL

EXAMPLE:

```
=>pppoa iflist
pppoa: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=10.0.0.0/1 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = up    link state = connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>pppoa ifadd intf=pppoa2 dest=pppoa2
=>pppoa iflist
pppoa: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=10.0.0.0/1 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = up    link state = connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

pppoa2: dest : pppoa2    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1500
    auth = auto  user =   password =
    admin state = down    oper state = down    link state = not-connected
    LCP : state = initial  retransm = 10  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>
```

RELATED COMMANDS:

pppoa ifattach	Attach a PPPoA interface.
pppoa ifconfig	Configure a PPPoA interface.
pppoa ifdelete	Delete a PPPoA interface.
pppoa ifdetach	Detach a PPPoA interface.
pppoa iflist	Show current PPPoA configuration.

pppoa ifattach

Attach (i.e. connect) a PPPoA interface.

SYNTAX:

```
pppoa ifattach    intf = <intfname>
```

where:

intf	The name of the PPPoA interface to be attached.	REQUIRED

EXAMPLE:

```
=>pppoa iflist
pppoa1: dest : pppoa1    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1500
    auth = auto  user =   password =
    admin state = down    oper state = down    link state = not-connected
    LCP : state = initial  retransm = 10  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>pppoa ifattach intf=pppoa1
=>pppoa iflist
pppoa1: dest : pppoa1    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1500
    auth = auto  user =   password =
    admin state = up    oper state = up    link state = connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>
```

RELATED COMMANDS:

pppoa ifadd	Create a new PPPoA interface.
pppoa ifconfig	Configure a PPPoA interface.
pppoa ifdelete	Delete a PPPoA interface.
pppoa ifdetach	Detach a PPPoA interface.
pppoa iflist	Show current PPPoA configuration.

pppoa ifconfig

Configure a PPPoA interface.

Note The interface to be configured may not be connected at the time of configuration. Use the command *pppoa ifdetach* prior to using the command *pppoa ifconfig*.

SYNTAX:

```
pppoa ifconfig    intf = <intfname>
                  [dest = <phonebook entry>]
                  [user = <string>]
                  [password = <password>]
                  [qos = <{default}>]
                  [encaps = <{vcmux|llc}>]
                  [pcomp = <{off|on}>]
                  [accomp = <{on|off|negotiate}>]
                  [trace = <{off|on}>]
                  [auth = <{pap|chap|auto}>]
                  [restart = <{off|on}>]
                  [retryinterval = <number{0-65535}>]
                  [passive = <{off|on}>]
                  [silent = <{off|on}>]
                  [echo = <{off|on}>]
                  [mru = <number{293-8192}>]
                  [laddr = <ip-address>]
                  [raddr = <ip-address>]
                  [netmask = <ip-mask(dotted or cidr)>]
                  [format = <{cidr|dotted|none}>]
                  [pool = <{none}>]
                  [savepwd = <{off|on}>]
                  [demanddial = <{off|on}>]
                  [primdns = <ip-address>]
                  [secdns = <ip-address>]
                  [dnsmetric = <number{0-100}>]
                  [idle = <number{0-1000000}>]
                  [idletrigger = <{RxTx|Rx|Tx}>]
                  [addrtrans = <{none|pat}>]
                  [unnumbered = <{off|on}>]
```

where:

intf	The name of the PPPoA interface to be configured.	REQUIRED
dest	The destination for this PPPoA interface. Typically, a phonebook entry.	OPTIONAL
user	The user name for remote PAP/CHAP authentication.	OPTIONAL
password	The password for remote PAP/CHAP authentication.	OPTIONAL
qos	The name of a qosbook entry defining the QoS parameters for the WAN link.	OPTIONAL

encaps	The WAN protocol encapsulation to be used on this interface. Choose between: • vcmux • llc. The default is *vcmux*.	OPTIONAL
pcomp	Try (on) or do not try (off) to negotiate PPPoA protocol compression (LCP PCOMP). The default is *off*.	OPTIONAL
accomp	Try (on), do never try (off) or negotiate (negotiate) to negotiate PPPoA address & control field compression (LCP ACCOMP). In most cases, LCP ACCOMP should not be disabled nor negotiated, i.e. the address field FF-03 should not be sent over ATM. Therefore by default this parameter is enabled (on). If the accomp parameter is set to 'negotiate', the local side of the PPPoA connection demands to do ACCOMP and adapts itself to the result of this negotiation.	OPTIONAL
trace	Enable (on) or disable (off) verbose console logging. The default is *off*.	OPTIONAL
auth	Select the authentication protocol. Choose between: • pap: Password Authentication Protocol (PAP) authentication will be forced • chap: Challenge Handshake Authentication Protocol (CHAP) authentication will be forced • auto: CHAP authentication will be used. If CHAP authentication is not successful, PAP authentication will be used instead. The default is *auto*.	OPTIONAL
restart	Automatically restart the connection when Link Control Protocol (LCP) link goes down (on) or do not restart automatically (off). The default is *off*.	OPTIONAL
retryinterval	A number between 0 and 65535 (seconds). Represents the intermediate interval between two retries to establish the connection on ATM level. The default is *10*.	OPTIONAL
passive	Put the link in listening state in case LCP times out (on) or not (off). This parameter allows to determine whether the link should be left open to wait for incoming messages from the remote side after 10 unsuccessful tries to establish the connection or not. The default is *off*.	OPTIONAL
silent	Do not send anything at startup and just listen for incoming LCP messages (on) or retry up to 10 times to establish the connection (off). The default is *off*.	OPTIONAL
echo	Send LCP echo requests at regular intervals (on) or not (off). The default is *on*.	OPTIONAL

mru	A number between 293 and 8192. Represents the maximum packet size the SpeedTouch™ should negotiate to be able to receive. The default is *1500*.	OPTIONAL
laddr	The local IP address of the peer-to-peer connection. Specifying a local IP address forces the remote side of the PPPoA link (if it allows to) to accept this IP address as the SpeedTouch™ PPPoA session IP address. If not specified, the SpeedTouch™ will accept any IP address. Typically the local IP address parameter is not specified.	OPTIONAL
raddr	The remote IP address of the peer-to-peer connection. Specifying a remote IP address forces the remote side of the PPPoA link (if it allows to) to accept this IP address as its PPPoA session IP address. If not specified, the SpeedTouch™ will accept any IP address. Typically the remote IP address parameter is not specified.	OPTIONAL
netmask	The subnetmask associated with this address. Specifying a subnetmask forces the remote side (if it allows to) to accept this subnetmask as the PPPoA session subnetmask. If not specified, the SpeedTouch™ will accept any subnetmask. The SpeedTouch™ will only request/accept a subnetmask if a DHCP server pool is associated, i.e. if the [pool] parameter is specified.	OPTIONAL
format	The negotiated subnetmask specified in the netmask parameter is specified in the dotted format (dotted) or in Classless Inter Domain Routing (CIDR) format (cidr). The default is *cidr*.	OPTIONAL
pool	The name of the free DHCP server pool to which the acquired IP subnet must be assigned.	OPTIONAL
savepwd	Save password (on), if supplied, or do not save the password (off). The default is *off*.	OPTIONAL
demanddial	Enable (on) or disable (off) the dial-on-demand feature. Nothing happens until packets are sent to this PPP interface.	OPTIONAL
primdns	The IP address of the primary DNS server. In case a primary DNS server is specified, the SpeedTouch™ will negotiate this IP address with the remote side. If not specified, the SpeedTouch™ will accept any IP address.	OPTIONAL
secdns	The IP address of the (optional) secondary DNS server. In case a secondary DNS server is specified, the SpeedTouch™ will negotiate this IP address with the remote side. If not specified, the SpeedTouch™ will accept any IP address.	OPTIONAL
dnsmetric	A number between 1 and 100. Represents the DNS route metric to be used for the negotiated DNS servers. The default is *1*.	OPTIONAL
idle	A number between 0 and 1000000 (seconds). Represents after how many seconds an idle link goes down. The default is *0*.	OPTIONAL

idletrigger	Consider the link being idle if no traffic is sent and/or received during the idle time. Choose between: • **RxTx**: The idle time period restarts when a packet is transmitted or received (default value) • **Rx**: The idle time period restarts when a packet is received. Transmitted packets are ignored • **Tx**: The idle time period restarts when a packet is transmitted. Received packets are ignored. The default is *RxTx*.	OPTIONAL
addrtrans	Automatically enable address translation for the IP address of this link (pat) or do not use address translation (none). The default is *none*.	OPTIONAL
unnumbered	Takes the local IP address from the *laddr* field and remote IP address from the IP address pool assigned to the incoming PPPoE link. In case the unnumbered parameter is disabled, the same IP address is used for each connection on the server side, thus reducing the number of used IP addresses.	OPTIONAL

EXAMPLE:

```
=>pppoa iflist
pppoa1: dest : pppoa1
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  pppoaOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = My_Connection@MY_ISP    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>pppoa ifconfig intf=pppoa1 prot=pppoa encaps=vcmux
=>pppoa iflist
pppoa1: dest : pppoa1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  pppoaOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = My_Connection@MY_ISP    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoa ifadd	Create a new PPPoA interface.
pppoa ifattach	Attach a PPPoA interface.
pppoa ifdelete	Delete a PPPoA interface.
pppoa ifdetach	Detach a PPPoA interface.
pppoa iflist	Show current PPPoA configuration.

pppoa ifdelete

Delete a PPPoA interface.

SYNTAX:

```
pppoa ifdelete    intf = <intfname>
```

where:

intf	The name of the PPPoA interface to be deleted.

EXAMPLE:

```
=>pppoa iflist
pppoa_pppoa: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=10.0.0.0/1 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = down    link state = retrying
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =
pppoa2: dest : pppoa2    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1500
    auth = auto  user =   password =
    admin state = down    oper state = down    link state = not-connected
    LCP : state = initial  retransm = 10  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =
=>pppoa ifdelete intf=pppoa2
=>pppoa iflist
pppoa_pppoa: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=10.0.0.0/1 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = down    link state = retrying
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =
=>
```

RELATED COMMANDS:

pppoa ifadd	Create a new PPPoA interface.
pppoa ifattach	Attach a PPPoA interface.
pppoa ifconfig	Configure a PPPoA interface.
pppoa ifdetach	Detach a PPPoA interface.
pppoa iflist	Show current PPPoA configuration.

pppoa ifdetach

Detach a PPPoA interface.

SYNTAX:

```
pppoa ifdetach    intf = <intfname>
```

where:

intf	The name of the PPPoA interface to be detached.	REQUIRED

EXAMPLE:

```
=>pppoa iflist
PPPoA_1: dest : PVC_1    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=0.0.0.0/0 (metric 1)
    auth = auto  user = johndoe  password = ********
    admin state = up    oper state = up    link state = connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>pppoa ifdetach intf=PPPoA_1
=>pppoa iflist
=>pppoa iflist
PPPoA_1: dest : PVC_1    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=0.0.0.0/0 (metric 1)
    auth = auto  user = johndoe  password = ********
    admin state = up    oper state = down  link state = not-connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>
```

RELATED COMMANDS:

pppoa ifadd	Create a new PPPoA interface.
pppoa ifattach	Attach a PPPoA interface.
pppoa ifconfig	Configure a PPPoA interface.
pppoa ifdelete	Delete a PPPoA interface.
pppoa iflist	Show current PPPoA configuration.

pppoa iflist

Show current configuration of a specific or all PPPoA interface(s).

SYNTAX:

```
pppoa iflist      [intf = <intfname>]
```

where:

intf	The name of the PPPoA interface for which the configuration must be shown. If this parameter is not specified, all PPPoA interfaces are shown.	OPTIONAL

EXAMPLE INPUT/OUTPUT:

```
=>pppoa iflist
pppoa: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=10.0.0.0/1 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = up      link state = connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

pppoa2: dest : pppoa2    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1500
    auth = auto  user =   password =
    admin state = down    oper state = down    link state = not-connected
    LCP : state = initial  retransm = 10  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>
```

RELATED COMMANDS:

pppoa ifadd	Create a new PPPoA interface.
pppoa ifattach	Attach a PPPoA interface.
pppoa ifconfig	Configure a PPPoA interface.
pppoa ifdelete	Delete a PPPoA interface.
pppoa ifdetach	Detach a PPPoA interface.

pppoa rtadd

Automatically add a route configuration to the routing table in case the specified PPPoA interface link comes up. This route configuration will determine which local hosts are allowed to use this link and/or which remote destinations should be or should not be reachable.

Note Use the command *pppoa ifdetach* for this interface prior to configuring routes.

SYNTAX:

```
pppoa rtadd      intf = <intfname>
                 dst = <ip-address>
                 [dstmsk = <ip-mask(dotted or cidr)>]
                 [label = <string>]
                 [src = <ip-address>]
                 [srcmsk = <ip-mask(dotted or cidr)>]
                 [metric = <number{0-100}>]
```

where:

intf	The name of the PPPoA interface.	REQUIRED
dst	The destination IP address for the route to be added when the link comes up.	REQUIRED
dstmsk	The destination IP mask. Depending on the destination netmask: • Any remote destination is reachable, i.e. the PPPoA connection acts as default route (*dstmsk=0*) • Only the remote (sub)net is reachable (*dstmsk=1*) • The actual destination mask will be the default netmask applicable for destination IP address • Only the single remote host is reachable (*dstmsk=32*) • Any valid (contiguous) netmask in case of Variable Length Subnet Masking (VLSM).	OPTIONAL
label	The name of the label.	OPTIONAL
src	The source IP address specification for the route to be added when the link comes up.	OPTIONAL

srcmsk	The source IP mask. Depending on the source netmask: • Everybody is allowed to use this PPPoA connection (*srcmsk=0*) • Only members of the same subnet as the host which opened the PPPoA connection are allowed to use the PPPoA connection (*srcmsk=1*) • The actual destination mask will be the netmask applicable for the IP address of the host which opened the PPPoA connection. • Only the host which opened the PPPoA connection is allowed to use the PPPoA connection (*srcmsk=32*) • Any valid (contiguous) netmask in case of VLSM.	OPTIONAL
metric	A number between 0 and 100. Represents the route metric, i.e. the cost factor of the route. Practically, the cost is determined by the hop count.	OPTIONAL

EXAMPLE:

```
=>pppoa iflist
pppoa1: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route : dst=0.0.0.0/0 - src=10.0.0.0/1 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = down    link state = not-connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>pppoa rtadd intf=pppoa1 dst=172.16.0.5 dstmsk=24 src=10.0.0.2 srcmask=24
=>pppoa iflist
pppoa1: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route = 10.0.0.2/24 - 172.16.0.5/24 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = down    link state = not-connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>
```

RELATED COMMANDS:

pppoa rtdelete	Delete the route specification for an upcoming PPPoA link.

pppoa rtdelete

Delete the route specification for a PPPoA link.

Note Use the command *pppoa ifdetach* for this interface prior to deleting route configurations.

SYNTAX:

```
pppoa rtdelete    intf = <intfname>
```

where:

intf	The PPPoA interface name for which to delete the route settings.	REQUIRED

EXAMPLE:

```
=>pppoa iflist
pppoa: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    route = 10.0.0.2/24 - 172.16.0.5/24 (metric 1)
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = down    link state = not-connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>pppoa rtdelete intf=pppoa1
=>pppoa iflist
pppoa_pppoa: dest : pppoa    [00:00:00]
    Retry : 10  QoS default  encaps VC-MUX
    mode = IP routing
    flags = echo magic accomp restart mru addr route savepwd
    dns metric = 0  trans addr = pat  mru = 1500
    auth = auto  user = johndoe@ISP  password = ********
    admin state = up    oper state = down    link state = not-connected
    LCP : state = starting  retransm = 1  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =

=>
```

RELATED COMMANDS:

pppoa rtadd	Configure a route specification for an upcoming PPPoA link.

PPPoE Commands

Contents

This chapter covers the following commands:

pppoe flush

Flush the current PPPoE configuration.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
pppoe flush
```

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry:  10  QoS  default encaps  VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1500
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP:    state = initial    retransm = 10    term. reason =
  IPCP:   state = initial    retransm = 0     term. reason =
=>pppoe flush
=>pppoe iflist
=>
```

pppoe ifadd

Create a new PPPoE interface.

SYNTAX:

```
pppoe ifadd      [intf = <string>]
                 [dest = <RELAY|phonebook entry>]
```

where:

intf	The name for the new PPPoE interface. If not specified, the destination parameter must be specified. In this case the name of the destination will double as interface name.	OPTIONAL
dest	The Ethernet port to be used for this PPPoE interface (e.g. an ETHoA name).	OPTIONAL

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : pppoe1    [00:00:00]
    Retry : 10
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1492
    auth = auto  user =   password =
    admin state = down    oper state = down    link state = not-connected
    LCP : state = initial  retransm = 10  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =
    acname : ---  service : ---
=>pppoe ifadd intf=PPPoE2 dest=pppoe2
=>pppoe iflist
PPPoE1: dest : pppoe1    [00:00:00]
    Retry : 10
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1492
    auth = auto  user =   password =
    admin state = down    oper state = down    link state = not-connected
    LCP : state = initial  retransm = 10  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =
    acname : ---  service : ---

PPPoE2: dest : pppoe2    [00:00:00]
    Retry : 10
    mode = IP routing
    flags = echo magic accomp restart mru addr savepwd
    dns metric = 0  mru = 1492
    auth = auto  user =   password =
    admin state = down    oper state = down    link state = not-connected
    LCP : state = initial  retransm = 10  term. reason =
    IPCP: state = initial  retransm = 0  term. reason =
    acname : ---  service : ---
=>
```

RELATED COMMANDS:

pppoe ifattach	Attach a PPPoE interface.
pppoe ifconfig	Configure a PPPoE interface.
pppoe ifdelete	Delete a PPPoE interface.
pppoe ifdetach	Detach a PPPoE interface.
pppoe iflist	Show current PPPoE configuration.

pppoe ifattach

Attach (i.e. connect) a PPPoE interface.

SYNTAX:

```
pppoe ifattach    intf = <intfname>
```

where:

intf	The name of the PPPoE interface to be attached.	REQUIRED

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>pppoe ifattach intf=PPPoE1
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = up      oper state = down    link state = connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoe ifadd	Create a new PPPoE interface.
pppoe ifconfig	Configure a PPPoE interface.
pppoe ifdelete	Delete a PPPoE interface.
pppoe ifdetach	Detach a PPPoE interface.
pppoe iflist	Show current PPPoE configuration.

pppoe ifconfig

Configure a PPPoE interface.

Note The interface to be configured may not be connected at the time of configuration. Use the command *pppoe ifdetach* prior to using the command *pppoe ifconfig*.

SYNTAX:

```
pppoe ifconfig    intf = <string>
                  [dest = <string>]
                  [user = <string>]
                  [password = <password>]
                  [acname = <quoted string>]
                  [servicename = <quoted string>]
                  [pcomp = <{off|on}>]
                  [accomp = <{on|off|negotiate}>]
                  [trace = <{off|on}>]
                  [concentrator = <{off|on}>]
                  [auth = <{pap|chap|auto}>]
                  [restart = <{off|on}>]
                  [retryinterval = <number{0-65535}>]
                  [passive = <{off|on}>]
                  [silent = <{off|on}>]
                  [echo = <{off|on}>]
                  [mru = <number{293-8192}>]
                  [laddr = <ip-address>]
                  [raddr = <ip-address>]
                  [netmask = <ip-mask(dotted or cidr)>]
                  [format = <{cidr|dotted|none}>]
                  [pool = <{none}>]
                  [savepwd = <{off|on}>]
                  [demanddial = <{off|on}>]
                  [primdns = <ip-address>]
                  [secdns = <ip-address>]
                  [dnsmetric = <number{0-100}>]
                  [idle = <number{0-1000000}>]
                  [idletrigger = <{RxTx|Rx|Tx}>]
                  [addrtrans = <{none|pat}>]
                  [unnumbered = <{off|on}>]
```

where:

intf	The name of the PPPoE interface to be configured.	REQUIRED
dest	The destination for this PPPoE interface. Typically, a phonebook entry.	OPTIONAL
user	The user name for remote PAP/CHAP authentication.	OPTIONAL
password	The password for remote PAP/CHAP authentication.	OPTIONAL
acname	The Access Concentrator name for a PPPoE connection. Use the command *pppoe ifscan* to see the names of available access concentrators, if any.	OPTIONAL

servicename	The Service Name for a PPPoE connection. Use the command *pppoe ifscan* to see the available service names, if any.	OPTIONAL
pcomp	Try (on) or do not try (off) to negotiate PPPoE protocol compression (LCP PCOMP). The default is *off*.	OPTIONAL
accomp	Try (on), do never try (off) or negotiate (negotiate) to negotiate PPPoE address & control field compression (LCP ACCOMP). In most cases, LCP ACCOMP should not be disabled nor negotiated, i.e. the address field FF-03 should not be sent over ATM. The default is *on*. If the accomp parameter is set to 'negotiate', the local side of the PPPoE connection demands to do ACCOMP and adapts itself to the result of this negotiation.	OPTIONAL
trace	Enable (on) or disable (off) verbose console logging. The default is *off*.	OPTIONAL
concentrator	The access concentrator is on this side of the PPPoE connection. Choose between: • on: the PPPoE connection is terminated on the Access Concentrator (here the SpeedTouch™ itself) • off: the SpeedTouch™ is PPPoE client. The default is *off*.	OPTIONAL
auth	Select the authentication protocol. Choose between: • pap: Password Authentication Protocol (PAP) authentication will be forced. • chap: Challenge Handshake Authentication Protocol (CHAP) authentication will be forced. • auto: CHAP authentication will be used. If CHAP authentication is not successful, PAP authentication will be used instead. The default is *auto*.	OPTIONAL
restart	Automatically restart the connection when Link Control Protocol (LCP) link goes down (on) or do not restart automatically (off). The default is *off*.	OPTIONAL
retryinterval	A number between 0 and 65535 (seconds). Represents the intermediate interval between two retries to establish the connection on ATM level. The default is *10*.	OPTIONAL
passive	Put the link in listening state in case LCP times out (on) or not (off). This parameter allows to determine whether the link should be left open to wait for incoming messages from the remote side after 10 unsuccessful tries to establish the connection or not. The default is *disabled*.	OPTIONAL
silent	Do not send anything at startup and just listen for incoming LCP messages (on) or retry up to 10 times to establish the connection (off). The default is *off*.	OPTIONAL
echo	Send LCP echo requests at regular intervals (on) or not (off). The default is *on*.	OPTIONAL

mru	A number between 293 and 8192. Represents the maximum packet size the SpeedTouch™ should negotiate to be able to receive. The default is *1492*.	OPTIONAL
laddr	The local IP address of the peer-to-peer connection. Specifying a local IP address forces the remote side of the PPPoE link (if it allows to) to accept this IP address as the SpeedTouch™ PPPoE session IP address. If not specified, the SpeedTouch™ will accept any IP address. Typically the local IP address parameter is not specified.	OPTIONAL
raddr	The remote IP address of the peer-to-peer connection. Specifying a remote IP address forces the remote side of the PPPoE link (if it allows to) to accept this IP address as its PPPoE session IP address. If not specified, the SpeedTouch™ will accept any IP address. Typically the remote IP address parameter is not specified.	OPTIONAL
netmask	The subnetmask associated with this address. Specifying a subnetmask forces the remote side (if it allows to) to accept this subnetmask as the PPPoE session subnetmask. If not specified, the SpeedTouch™ will accept any subnetmask. The SpeedTouch™ will only request/accept a subnetmask if a DHCP server pool is associated, i.e. if the [pool] parameter is specified.	OPTIONAL
format	The negotiated subnetmask specified in the netmask parameter is specified in the dotted format (dotted) or in Classless Inter Domain Routing (CIDR) format (cidr). The default is *cidr*.	OPTIONAL
pool	The name of the free DHCP server pool to which the acquired IP subnet must be assigned.	OPTIONAL
savepwd	Save password (on), if supplied, or do not save the password (off). The default is *off*.	OPTIONAL
demanddial	Enable (on) or disable (off) the dial-on-demand feature.	OPTIONAL
primdns	The IP address of the primary DNS server. In case a primary DNS server is specified, the SpeedTouch™ will negotiate this IP address with the remote side. If not specified, the SpeedTouch™ will accept any IP address.	OPTIONAL
secdns	The IP address of the (optional) secondary DNS server. In case a secondary DNS server is specified, the SpeedTouch™ will negotiate this IP address with the remote side. If not specified, the SpeedTouch™ will accept any IP address.	OPTIONAL
dnsmetric	A number between 1 and 100. Represents the DNS route metric to be used for the negotiated DNS servers. The default is *1*.	OPTIONAL
idle	A number between 0 and 1000000 (seconds). Represents after how many seconds an idle link goes down. The default is *0*.	OPTIONAL

idletrigger	Consider the link being idle if no traffic is sent and/or received during the idle time. Choose between: • **RxTx**: The idle time period restarts when a packet is transmitted or received. • **Rx**: The idle time period restarts when a packet is received. Transmitted packets are ignored. • **Tx**: The idle time period restarts when a packet is transmitted. Received packets are ignored. The default is *RxTx*.	OPTIONAL
addrtrans	Automatically enable address translation for the IP address of this link (pat) or do not use address translation (none). The default is *none*.	OPTIONAL
unnumbered	Takes the local IP address from the *laddr* field and remote IP address from the IP address pool assigned to the incoming PPPoE link. In case the unnumbered parameter is disabled, the same IP address is used for each connection on the server side, thus reducing the number of used IP addresses.	OPTIONAL

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 1)
  user name = My_Connection@MY_ISP    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>pppoe ifconfig intf=PPPoE1 encaps=vcmux
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 1)
  user name = My_Connection@MY_ISP    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoe ifadd	Create a new PPPoE interface.
pppoe ifattach	Attach a PPPoE interface.
pppoe ifdelete	Delete a PPPoE interface.
pppoe ifdetach	Detach a PPPoE interface.
pppoe iflist	Show current PPPoE configuration.

pppoe ifdelete

Delete a PPPoE interface.

SYNTAX:

```
pppoe ifdelete    intf = <intfname>
```

where:

intf	The name of the PPPoE interface to be deleted.

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1500
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
PPPoE2: dest : PVC2
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  savepwd  PPPoEOA
  mru = 1500
  user name =    password =
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>pppoe ifdelete intf=PPPoE2
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1500
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoe ifadd	Create a new PPPoE interface.
pppoe ifattach	Attach a PPPoE interface.
pppoe ifconfig	Configure a PPPoE interface.
pppoe ifdetach	Detach a PPPoE interface.
pppoe iflist	Show current PPPoE configuration.

pppoe ifdetach

Detach a PPPoE interface.

SYNTAX:

```
pppoe ifdetach    intf = <intfname>
```

where:

intf	The name of the PPPoE interface.	REQUIRED

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = up      oper state = up      link state = connected
  LCP: state = initial    retransm = 0      term. reason =
  IPCP: state = initial    retransm = 10    term. reason =
=>pppoe ifdetach =intf=PPPoE1
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoe ifadd	Create a new PPPoE interface.
pppoe ifattach	Attach a PPPoE interface.
pppoe ifconfig	Configure a PPPoE interface.
pppoe ifdelete	Delete a PPPoE interface.
pppoe iflist	Show current PPPoE configuration.

pppoe iflist

Show current configuration of all or a specified PPPoE interface(s).

SYNTAX:

```
pppoe iflist      [intf = <intfname>]
```

where:

intf	The name of the PPPoE interface. If this parameter is not specified, all PPPoE interfaces are shown.	OPTIONAL

EXAMPLE INPUT/OUTPUT :

```
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1500
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =

PPPoE2: dest : PVC2
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  savepwd  PPPoEOA
  mru = 1500
  user name =    password =
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoe ifadd	Create a new PPPoE interface.
pppoe ifattach	Attach a PPPoE interface.
pppoe ifconfig	Configure a PPPoE interface.
pppoe ifdelete	Delete a PPPoE interface.
pppoe ifdetach	Detach a PPPoE interface.

pppoe ifscan

Scan a PPPoE interface for available Access Concentrator names and Service Names.

Note Use the command *pppoe ifdetach* for this interface before performing a scan on it.

SYNTAX:

```
pppoe ifscan      intf = <intfname>
                  [time = <number{0-36000}>]
```

where:

intf	The name of the Routed PPPoE interface to be scanned.	REQUIRED
time	A number between 0 and 36000 (seconds). Represents the time to scan for services.	OPTIONAL

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PPPoE1
  Retry: 10    QoS    default    encaps    VC-MUX
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoEOA
  trans addr = pat    mru = 1492
  route = 0.0.0.0/0 - 0.0.0.0/0 (metric 0)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP: state = initial    retransm = 10    term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>pppoe ifscan intf=PPPoE1 time=45
        Service Name                          Access Concentrator

Done !
=>
```

RELATED COMMANDS:

pppoe ifconfig	Configure a PPPoE interface.

pppoe rtadd

Automatically add a route configuration to the routing table in case the specified PPPoE interface link comes up. This route configuration will determine which local hosts are allowed to use this link and/or which remote destinations should be or should not be reachable.

Note Use the command *pppoe ifdetach* for this interface prior to configuring routes.

SYNTAX:

```
pppoe rtadd       intf = <intfname>
                  dst = <ip-address>
                  [dstmsk = <ip-mask(dotted or cidr)>]
                  [label = <string>]
                  [src = <ip-address>]
                  [srcmsk = <ip-mask(dotted or cidr)>]
                  [metric = <number{0-100}>]
```

where:

intf	The name of the PPPoE interface.	REQUIRED
dst	The destination IP address for the route to be added when the link comes up.	REQUIRED
dstmsk	The destination IP mask. Depending on the destination netmask: • Any remote destination is reachable, i.e. the PPPoE connection acts as default route (*dstmsk=0*) • Only the remote (sub)net is reachable (*dstmsk=1*) • The actual destination mask will be the default netmask applicable for destination IP address • Only the single remote host is reachable (*dstmsk=32*) • Any valid (contiguous) netmask in case of Variable Length Subnet Masking (VLSM).	OPTIONAL
label	The name of the label.	OPTIONAL
src	The source IP address specification for the route to be added when the link comes up.	OPTIONAL

srcmsk	The source IP mask. Depending on the source netmask: • Everybody is allowed to use this PPPoE connection (*dstmsk=0*) • Only members of the same subnet as the host which opened the PPPoE connection are allowed to use the PPPoE connection (*dstmsk=1*) • The actual destination mask will be the netmask applicable for the IP address of the host which opened the PPPoE connection. • Only the host which opened the PPPoE connection is allowed to use the PPPoE connection (*dstmsk=32*) • Any valid (contiguous) netmask in case of VLSM.	OPTIONAL
metric	The route metric, i.e. the cost factor of the route. Practically, the cost is determined by the hop count.	OPTIONAL

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PVC3
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoE
  trans addr = pat    mru = 1492
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP : state = initial    retransm = 10   term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>pppoe rtadd intf=PPPoE1 dst=172.16.0.5 dstmsk=24 src=10.0.0.2 srcmask=24
=>pppoe iflist
PPPoE1: dest : PVC3
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoE
  trans addr = pat    mru = 1492
  route = 10.0.0.2/24 - 172.16.0.5/24 (metric 1)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP : state = initial    retransm = 10   term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoe rtdelete	Delete the route specification for an upcoming PPPoE link.

pppoe rtdelete

Delete the route specification for a PPPoE link.

Note Use the command *pppoe ifdetach* for this interface prior to deleting route configurations.

SYNTAX:

```
pppoe rtdelete    intf = <intfname>
```

where:

intf	The PPPoE interface name for which to delete the route settings.	REQUIRED

EXAMPLE:

```
=>pppoe iflist
PPPoE1: dest : PVC3
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoE
  trans addr = pat    mru = 1492
  route = 10.0.0.2/24 - 172.16.0.5/24 (metric 1)
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP : state = initial    retransm = 10   term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>pppoe rtdelete intf=PPPoE1
=>pppoe iflist
PPPoE1: dest : PVC3
  Retry: 10    QoS    default    encaps    LLC
  mode = IP Routing
  flags = echo  magic  accomp  restart  mru  addr  route  savepwd  PPPoE
  trans addr = pat    mru = 1492
  user name = guest    password = ********
  admin state = down    oper state = down    link state = not-connected
  LCP : state = initial    retransm = 10   term. reason =
  IPCP: state = initial    retransm = 0    term. reason =
=>
```

RELATED COMMANDS:

pppoe rtadd	Configure a route specification for an upcoming PPPoE link.

pppoe relay add

Add an Ethernet port to the PPPoE relay list.

SYNTAX:

```
pppoe relay add   port = <port name>
```

where:

port	The Ethernet port to be added to the PPPoE relay agent list.	REQUIRED

RELATED COMMANDS:

pppoe relay delete	Delete an Ethernet port from the PPPoE relay agent list.
pppoe relay flush	Remove all Ethernet ports from the PPPoE relay agent list and terminate all sessions.
pppoe relay portlist	List all Ethernet ports added to the PPPoE relay agent list.
pppoe relay sesslist	List all active PPPoE relay sessions.

pppoe relay delete

Delete an Ethernet port from the PPPoE relay agent list.

SYNTAX:

```
pppoe relay delete    port = <port name>
```

where:

port	The Ethernet port to be deleted from the PPPoE relay agent list.	REQUIRED

RELATED COMMANDS:

pppoe relay add	Add an Ethernet port to the PPPoE relay list.
pppoe relay flush	Remove all Ethernet ports from the PPPoE relay agent list and terminate all sessions.
pppoe relay portlist	List all Ethernet ports added to the PPPoE relay agent list.
pppoe relay sesslist	List all active PPPoE relay sessions.

pppoe relay flush

Remove all Ethernet ports from the PPPoE relay agent list and terminate all sessions.

SYNTAX:

```
pppoe relay flush
```

RELATED COMMANDS:

pppoe relay add	Add an Ethernet port to the PPPoE relay list.
pppoe relay delete	Delete an Ethernet port from the PPPoE relay agent list.
pppoe relay portlist	List all Ethernet ports added to the PPPoE relay agent list.
pppoe relay sesslist	List all active PPPoE relay sessions.

pppoe relay portlist

List all Ethernet ports added to the PPPoE relay agent list.

SYNTAX:

```
pppoe relay portlist
```

RELATED COMMANDS:

pppoe relay add	Add an Ethernet port to the PPPoE relay list.
pppoe relay delete	Delete an Ethernet port from the PPPoE relay agent list.
pppoe relay flush	Remove all Ethernet ports from the PPPoE relay agent list and terminate all sessions.
pppoe relay sesslist	List all active PPPoE relay sessions.

pppoe relay sesslist

List all active PPPoE relay sessions.

SYNTAX:

```
pppoe relay sesslist
```

RELATED COMMANDS:

pppoe relay add	Add an Ethernet port to the PPPoE relay list.
pppoe relay delete	Delete an Ethernet port from the PPPoE relay agent list.
pppoe relay flush	Remove all Ethernet ports from the PPPoE relay agent list and terminate all sessions.
pppoe relay portlist	List all Ethernet ports added to the PPPoE relay agent list.

PPTP Commands

Contents

This chapter covers the following commands:

pptp ifadd

Add a Point-to-Point Tunneling Protocol (PPTP) profile (backwards compatible with previous release, use profiles instead).

SYNTAX:

```
pptp ifadd        dest = <string>
                  [rate = <number{10-10000}>]
                  [encaps = <{vcmux|nlpid}>]
                  [ac = <{never|always|keep}>]
```

where:

dest	The WAN destination for this PPTP tunnel. Typically a phonebook entry.	REQUIRED
rate	A number between 10 and 10000. Represents the transmit speed in bits/s for the WAN link.	OPTIONAL
encaps	The type of WAN encapsulation. Choose between: • vcmux • nlpid - Network Layer Protocol IDentifiers (NLPID).	OPTIONAL
ac	The High-level Data Link Control (HDLC) framing option applicable to PPTP interfaces using this PPTP profile. Choose between: • always: Before relaying the encapsulated PPP frames over the PPPoA link, make sure that the address and control field (0xFF03) is always in front of the frames. • never: Before relaying the encapsulated PPP frames over the PPPoA link, make sure the address and control field will never be found in front of the frames. • keep: Do not change the frames arriving via the PPTP tunnel. The default is *never* (compliant to RFC2364). **Note** It is recommended to keep this setting.	OPTIONAL

pptp flush

Flush complete PPTP configuration.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
pptp flush
```

EXAMPLE:

```
=>pptp profadd name=Relay_PPP1 encaps=nlpid ac=always
=>pptp proflist
Profile      QoS      Encaps      AC
Relay_PPP1   default  nlpid       always
=>pptp flush
=>pptp proflist
=>
```

pptp list

Show current PPTP configuration.

SYNTAX:

```
pptp list
```

EXAMPLE INPUT/OUTPUT:

```
=>pptp list
Dialstr    Destination   QoS       Encaps   AC      State       User
           DIALUP_PPP3   default   vcmux    never   CONNECTED   (10.0.0.2)
=>
```

pptp profadd

Define a new PPTP profile.

SYNTAX:

```
pptp profadd      name = <string>
                  [qos = <string>]
                  [encaps = <{vcmux|nlpid}>]
                  [ac = <{never|always|keep}>]
```

where:

name	The name for the PPTP profile.	REQUIRED
qos	The name of the qosbook entry, containing the settings for this profile. This parameter never needs to be specified.	OPTIONAL
encaps	The type of WAN encapsulation applicable to PPTP interfaces using this PPTP profile. Choose between: • vcmux • nlpid - Network Layer Protocol IDentifiers (NLPID).	OPTIONAL
ac	The High-level Data Link Control (HDLC) framing option applicable to PPTP interfaces using this PPTP profile. Choose between: • always: Before relaying the encapsulated PPP frames over the PPPoA link, make sure that the address and control field (0xFF03) is always in front of the frames. • never: Before relaying the encapsulated PPP frames over the PPPoA link, make sure the address and control field will never be found in front of the frames. • keep: Do not change the frames arriving via the PPTP tunnel. The default is *never* (compliant to RFC2364). **Note** It is recommended to keep this setting.	OPTIONAL

EXAMPLE:

```
=>pptp proflist
Profile      QoS      Encaps      AC
Relay_PPP1   default  nlpid       always
=>pptp profadd name=PPTPLink encaps=vcmux ac=never
=>pptp proflist
Profile      QoS      Encaps      AC
Relay_PPP1   default  nlpid       always
PPTPLink     default  vcmux       never
=>
```

RELATED COMMANDS:

pptp profdelete	Delete a PPTP profile.
pptp proflist	Show current PPTP profiles.

pptp profdelete

Delete a PPTP profile.

SYNTAX:

```
pptp profdelete   name <string>
```

where:

name	The name for the PPTP profile.	REQUIRED

EXAMPLE:

```
=>pptp proflist
Profile      QoS      Encaps      AC
Relay_PPP1   default  nlpid       always
PPTPLink     default  vcmux       never
=>pptp profdelete name=PPTPLink
=>pptp proflist
Profile      QoS      Encaps      AC
Relay_PPP1   default  nlpid       always
=>
```

RELATED COMMANDS:

pptp profadd	Define a new PPTP profile.
pptp proflist	Show current PPTP profiles.

pptp proflist

Show all current PPTP profiles.

SYNTAX:

```
pptp proflist
```

EXAMPLE:

```
=>pptp proflist
Profile      QoS      Encaps      AC
Relay_PPP1   default  nlpid       always
PPTPLink     default  vcmux       never
=>
```

RELATED COMMANDS:

pptp profadd	Define a new PPTP profile.
pptp profdelete	Delete a PPTP profile.

QoSBook Commands

Contents

This chapter covers the following commands:

qosbook add

Add a Quality of Service (QoS) book entry.

SYNTAX:

```
qosbook add          name = <string>
                     class = <{ubr|cbr|vbr-rt|vbr-nrt}>
                     [tx_peakrate = <number{0-27786}>]
                     [tx_sustrate = <number{0-27786}>]
                     [tx_maxburst = <number{0-12240}>]
                     [rx_peakrate = <number{0-27786}>]
                     [rx_sustrate = <number{0-27786}>]
                     [rx_maxburst = <number{0-12240}>]
                     [framediscard = <{enabled|disabled}>]
```

where:

name	The name for the new QoS entry.	REQUIRED
class	The ATM service category. Choose between: • ubr: unspecified bit rate • cbr: constant bit rate • vbr-rt: variable bit rate - real time • vbr-nrt: variable bit rate - non real time.	REQUIRED
tx_peakrate	A number between 0 and 27786 (Kilobits per second). Indicates the peak rate (in kilobits per second) in the transmit (upstream) direction. Use *0* to indicate linerate for UBR.	OPTIONAL
tx_sustrate	A number between 0 and 27786 (Kilobits per second). Indicates the sustainable rate (in kilobits per second) in the transmit (upstream) direction (VBR only).	OPTIONAL
tx_maxburst	A number between 0 and 12240 (bytes per second). Indicates the maximum burst size (in bytes) in the transmit (upstream) direction (VBR only).	OPTIONAL
rx_peakrate	A number between 0 and 27786 (Kilobits per second). Indicates the peak rate (in kilobits per second) in the receive (downstream) direction. Use *0* to indicate linerate for UBR. If not specified, copy of the transmit peak rate (ATMF only).	OPTIONAL
rx_sustrate	A number between 0 and 27786 (Kilobits per second). Indicates the sustainable rate (in kilobits per second) in the receive (downstream) direction. If not specified, copy of the transmit sustainable rate (VBR ATMF only).	OPTIONAL
rx_maxburst	A number between 0 and 12240 (bytes per second). Indicates the maximum burst size (in bytes) in the receive (downstream) direction. If not specified, copy of the transmit maximum burst size (VBR ATMF only).	OPTIONAL
framediscard	Enable/disable frame discard.	OPTIONAL

EXAMPLE:

```
=>qosbook list
Name    Ref Type    TX peak  sust     burst    RX peak  sust     burst    framediscard
                    (Kbits)  (Kbits)  (bytes)  (Kbits)  (Kbits)  (bytes)
default 3   ubr     linerate 0        0        linerate 0        0        disabled
=>qosbook add name=TestVBR class=vbr-nrt tx_peakrate=1500 tx_sustrate=1000 tx_maxburst=100
rx_sustrate=1000 rx_maxburst=100 framediscard=enabled
=>qosbook list
Name    Ref Type    TX peak  sust     burst    RX peak  sust     burst    framediscard
                    (Kbits)  (Kbits)  (bytes)  (Kbits)  (Kbits)  (bytes)
default 3   ubr     linerate 0        0        linerate 0        0        disabled
TestVBR 0   vbr-nrt 1500     1000     144      1500     1000     144      enabled
=>
```

IMPORTANT NOTE:

The SpeedTouch™ always rounds up specified burst sizes to a multiple of 48 bytes, i.e. a multiple of ATM cells.

Example:
In the example above a burst size of 100 bytes is specified (tx_maxburst=100). The SpeedTouch™ will round up the burst size to the closest matching multiple of 48 bytes, as can be seen when displaying the profile via the command *qosbook list* (burst=144).

RELATED COMMANDS:

qosbook delete	Remove a QoS book entry.
qosbook list	Show current QoS book.

qosbook config

Set or change qosbook config parameters.

SYNTAX:

qosbook config	[format = <{bytes|cells}>]

format	The input/output format of the qosbook. Choose between: • bytes • cells. The default is *bytes*.	OPTIONAL

EXAMPLE:

```
=>qosbook list
Name    Ref Type    TX peak  sust     burst    RX peak  sust     burst    framediscard
                    (Kbits)  (Kbits)  (bytes)  (Kbits)  (Kbits)  (bytes)
default 3   ubr     linerate 0        0        linerate 0        0        disabled
=>qosbook config
qosbook format in bytes
=>qosbook config format=cells
=>qosbook config
qosbook format in cells
=>qosbook list
Name    Ref Type    TX peak  sust     burst    RX peak  sust     burst    framediscard
                    (cps)  (cps)  (cells)  (cps)  (cps)  (cells)
default 3   ubr     linerate 0        0        linerate 0        0        disabled
=>
```

qosbook delete

Remove a Quality of Service book entry.

SYNTAX:

```
qosbook delete        name = <string>
                      [force = <{no|yes}>]
```

where:

name	The name of the QoS book entry to be deleted.	REQUIRED
force	Force deletion of the entry even if it is still in use (yes) or do not force the deletion (no). The default is *no*.	OPTIONAL

EXAMPLE:

```
=>qosbook list
Name    Ref Type    TX peak  sust     burst    RX peak  sust     burst    framediscard
                    (Kbits)  (Kbits)  (bytes)  (Kbits)  (Kbits)  (bytes)
default 3   ubr     linerate 0        0        linerate 0        0        disabled
TestVBR 0   vbr-nrt 1500     1000     144      1500     1000     144      enabled
=>qosbook delete name=TestVBR
=>qosbook list
Name    Ref Type    TX peak  sust     burst    RX peak  sust     burst    framediscard
                    (Kbits)  (Kbits)  (bytes)  (Kbits)  (Kbits)  (bytes)
default 3   ubr     linerate 0        0        linerate 0        0        disabled
=>
```

RELATED COMMANDS:

qosbook add	Add a QoS book entry.
qosbook list	Show current QoS book.

qosbook flush

Flush complete Quality of Service book.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
qosbook flush
```

qosbook list

Show current Quality of Service book.

SYNTAX:

```
qosbook list
```

EXAMPLE:

```
=>qosbook list
Name    Ref Type    TX peak  sust     burst    RX peak  sust     burst    framediscard
                    (Kbits)  (Kbits)  (bytes)  (Kbits)  (Kbits)  (bytes)
default 3   ubr     linerate 0        0        linerate 0        0        disabled
TestVBR 0   vbr-nrt 1500     1000     144      1500     1000     144      enabled
=>
```

RELATED COMMANDS:

qosbook add	Add a QoS book entry.
qosbook delete	Remove a QoS book entry.

Script Commands

Introduction

Scripting is not a general purpose mechanism but is only used in the autoPVC/ILMI mechanism.

Note It is not recommended to change the default scripts.

Contents

This chapter covers the following commands:

script add

Add a line to a script.

SYNTAX:

```
script add          name = <string>
                    [index = <number>]
                    command = <quoted string>
```

where:

name	Name of script.	REQUIRED
index	Line number (0 = add).	OPTIONAL
command	Command.	REQUIRED

RELATED COMMANDS:

script delete	Delete a complete script or a line from a script.
script list	List script.

script delete

Delete a complete script or a line from a script.

SYNTAX:

```
script delete        name = <string>
                     [index = <number>]
```

where:

name	Name of script to be deleted. **Note** The names of the different scripts can be viewed with the command *script list*.	REQUIRED
index	Line number to be deleted. If no line number is specified, the whole script will be deleted.	OPTIONAL

RELATED COMMANDS:

script add	Add a line to a script.
script list	List script.

script flush

Flush all scripts.

Note The flush command does not impact previously saved configurations.

SYNTAX:

```
script flush
```

script list

List script(s).

SYNTAX:

`script list`	`[name = <string>]`

where:

name	Name of the script to be shown. If no name is specified, all the scripts are listed.	OPTIONAL

EXAMPLE

Some of the default scripts are shown below:

```
=>script list
Script: autopvc_add_qos
     0: qosbook add name _auto_$1_$2 class $3 tx_peakrate $4 tx_sustrate $5 tx_maxburst $6
        rx_peakrate $4 rx_sustrate $5 rx_maxburst $6 dynamic yes

...

Script: autopvc_add_bridge
     0: qosbook add name _auto_$1_$2 class $3 tx_peakrate $4 tx_sustrate $5 tx_maxburst $6
        rx_peakrate $4 rx_sustrate $5 rx_maxburst $6 dynamic yes
     1: phonebook add name _auto_$1_$2 addr $1.$2 type any dynamic yes
     2: bridge ifadd intf _auto_$1_$2 dest _auto_$1_$2
     3: bridge ifconfig intf _auto_$1_$2 qos _auto_$1_$2
     4: bridge ifattach intf _auto_$1_$2

Script: autopvc_delete_bridge
     0: bridge ifdetach intf _auto_$1_$2
     1: bridge ifdelete intf _auto_$1_$2
     2: phonebook delete name _auto_$1_$2
     3: qosbook delete name _auto_$1_$2

Script: autopvc_add_pppoerelay
     0: qosbook add name _auto_$1_$2 class $3 tx_peakrate $4 tx_sustrate $5 tx_maxburst $6
        rx_peakrate $4 rx_sustrate $5 rx_maxburst $6 dynamic yes
     1: phonebook add name _auto_$1_$2 addr $1.$2 type any dynamic yes
     2: ethoa ifadd intf _auto_$1_$2 dest _auto_$1_$2
     3: ethoa ifconfig intf _auto_$1_$2 qos _auto_$1_$2
     4: ethoa ifattach intf _auto_$1_$2
     5: ip ifwait intf _auto_$1_$2 timeout 15 adminstatus up
     6: pppoe relay add port _auto_$1_$2

...
=>
```

RELATED COMMANDS:

script add	Add a line to a script.
script delete	Delete complete script or line from script.

script run

Run a script.

SYNTAX:

```
script run              name = <string>
                        [par1 = <string>]
                        [par2 = <string>]
                        [par3 = <string>]
                        [par4 = <string>]
                        [par5 = <string>]
                        [par6 = <string>]
                        [par7 = <string>]
                        [par8 = <string>]
                        [par9 = <string>]
```

where:

name	Name of the script to be run. **Note** The names of the different scripts can be viewed with the command *script list*.	REQUIRED
par1 ... par9	Parameters to be used in the script.	OPTIONAL

SNMP Commands

Contents

This chapter covers the following commands:

snmp config

Show/set global Simple Network Management Protocol (SNMP) parameters.

SYNTAX:

```
snmp config             [RWCommunity = <string>]
                        [ROCommunity = <string>]
                        [sysContact = <quoted string>]
                        [sysName = <quoted string>]
                        [sysLocation = <quoted string>]
```

where:

RWCommunity	The read-write community name. The default is *private*.	OPTIONAL
ROCommunity	The read-only community name. The default is *public*.	OPTIONAL
sysContact	The SNMP system contact. The default is *Service Provider*.	OPTIONAL
sysName	The SNMP system name. The default is *SpeedTouch*510.	OPTIONAL
sysLocation	The SNMP system location. The default is *Customer Premises*.	OPTIONAL

EXAMPLE (default configuration):

```
=>snmp config

Read-write SNMP community name  :  private
Read-only  SNMP community name  :  public
SNMP System Contact     : Service Provider
SNMP System Name        : SpeedTouch 610
SNMP System Location    : Customer Premises
=>
```

snmp get

Get from the supplied SNMP Object IDentifier (OID), e.g. get ObjectId=.1.3.6.1.2.1.1.1.0.

SYNTAX:

```
snmp get                [ObjectId = <string>]
```

where:

ObjectID	The Object Identifier. Object id to get from ... must include the instance which is 0 for scalar objects, e.g. .1.3.6.1.2.1.1.1.0 sysDescription. **Note** If not specified, the sysDescription OID .1.3.6.1.2.1.1.1.0 is assumed. Its value is SpeedTouch™.	OPTIONAL

EXAMPLE:

```
=>snmp get
VB_octetStr   .1.3.6.1.2.1.1.1.0                SpeedTouch™ 610
=>
```

RELATED COMMANDS:

snmp getNext	GetNext from the supplied SNMP OID.
snmp walk	Walk from the supplied SNMP OID.

snmp getNext

GetNext from the supplied SNMP OID.

SYNTAX:

```
snmp getNext          [ObjectId = <string>]
```

where:

[ObjectID]	The Object Identifier. Object id to getNext from e.g. .1.3.6.1.2.1.1 system returns sysDescription.	OPTIONAL

EXAMPLE:

```
=>snmp getNext ObjectId=.1.3.6.1.2.1.1.4.0
VB_octetStr   .1.3.6.1.2.1.1.5.0                Sascha
=>
```

RELATED COMMANDS:

snmp get	Get from the supplied SNMP OID.
snmp walk	Walk from the supplied SNMP OID.

snmp list

List all SNMP global parameters.

SYNTAX:

```
snmp list
```

EXAMPLE:

```
=>snmp list
Read-write SNMP community name  :  private
Read-only  SNMP community name  :  public
SNMP System Contact     : Service Provider
SNMP System Name        : SpeedTouch510
SNMP System Location    : Customer Premises
=>
```

snmp walk

Walk from the supplied SNMP Object IDentifier (OID).

SYNTAX:

```
snmp walk              [ObjectId = <string>]
```

where:

ObjectID	The Object Identifier. Object id to walk from e.g. .1.3.6.1.2.1.1 system walks the system group.	OPTIONAL

EXAMPLE:

```
=>snmp walk ObjectId=.1.3.6.1.2.1.1
VB_octetStr   .1.3.6.1.2.1.1.1.0                SpeedTouch™ 510
VB_objId      .1.3.6.1.2.1.1.2.0                .1.3.6.1.4.1.637.61.2
VB_timeTicks  .1.3.6.1.2.1.1.3.0                2927636
VB_octetStr   .1.3.6.1.2.1.1.4.0                Service Provider
VB_octetStr   .1.3.6.1.2.1.1.5.0                Sascha
VB_octetStr   .1.3.6.1.2.1.1.6.0                Customer Premises
VB_integer    .1.3.6.1.2.1.1.7.0                72
=>
```

RELATED COMMANDS:

snmp get	Get from the supplied SNMP OID.
snmp getNext	GetNext from the supplied SNMP OID.

Software Commands

Contents

This chapter covers the following commands:

software version

Show the software version.

SYNTAX:

```
software version
```

EXAMPLE:

```
=>software version
Flash image : 4.2.7.9.0
Build name  : LLT6AA4.279
=>
```

software upgrade

Reboot the modem to initiate the SW upgrade. New software available on a remote LAN host will be uploaded to the modem.

SYNTAX:

```
software upgrade
```

Switch Commands

Introduction

These commands are only applicable to the SpeedTouch™510 four port switch version.

Contents

This chapter covers the following commands:

switch group flush

Set all ports to the default settings, i.e. all ports in group 0.

SYNTAX:

```
switch group flush
```

EXAMPLE:

```
=>switch group list
Group 0 Ports: 4
Group 1 Ports: 1
Group 2 Ports: 2 3
=>switch group flush
=>switch group list
Group 0 Ports: 1 2 3 4
=>
```

RELATED COMMANDS:

switch group list	List all configured groups.
switch group move	Move a specified port to a specified group.

switch group list

List all configured groups.

SYNTAX:

```
switch group list
```

EXAMPLE:

```
=>switch group list
Group 0 Ports: 4
Group 1 Ports: 1
Group 2 Ports: 2 3
```

RELATED COMMANDS:

switch group flush	Set all ports to the default settings (all ports in group 0).
switch group move	Move a specified port to a specified group.

switch group move

Move a specified port to a specified group.

SYNTAX:

```
switch group move     group = <number{0-4}>
                      port = <number{1-4}>
```

where:

group	The group id to which the port must be moved.	REQUIRED
port	The port to be moved.	REQUIRED

EXAMPLE:

```
=>switch group list
Group 0 Ports: 1 2 3 4
=>switch group move group=3 port=1
=>switch group list
Group 0 Ports: 2 3 4
Group 3 Ports: 1
```

RELATED COMMANDS:

switch group flush	Set all ports to the default settings (all ports in group 0).
switch group list	List all configured groups.

switch mirror capture

Define the specified port to be the Mirror Capture Port.

Note Only one port can be the Mirror Capture Port at any one time.

SYNTAX:

```
switch mirror capture   port = <number{1-4}>
```

where:

port	The port to be the Mirror Capture Port. If no port number is specified, then the port number of the Mirror Capture Port is shown.	REQUIRED

EXAMPLE:

```
=>switch mirror capture port=2
=>switch mirror capture
Mirror capture port = 2
```

RELATED COMMANDS:

switch mirror egress	Enable or disable the specified port to be a Transmitted Port Mirroring.
switch mirror ingress	Enable or disable the specified port to be a Received Port Mirroring.

switch mirror egress

Enable or disable the specified port to be the Mirror Egress Port.

Note Only one port can be the Mirror Egress Port at any one time.
But a port can be the Mirror Egress Port and the Mirror Ingress Port at the same time.

SYNTAX:

```
switch mirror egress    port = <number{1-4}>
                        [state = <{enabled|disabled}>]
```

where:

port	The port to be the Mirror Egress Port. If no port number is specified, then the port number of the current Mirror Egress Port is shown.	REQUIRED
state	This parameter permits to enable/disable a port as Mirror Egress Port.	OPTIONAL

EXAMPLE:

Here port 1 is enabled as Mirror Egress Port

```
=>switch mirror egress port=1
=>switch mirror egress
Egress mirror port = 1
```

Here port 1 is disabled as Mirror Egress Port

```
=>switch mirror egress
Egress mirror port = 1
=>switch mirror egress port=1 state=disabled
=>switch mirror egress
=>
```

RELATED COMMANDS:

switch mirror capture	Define the specified port to be the Mirror Capture Port.
switch mirror ingress	Enable or disable the specified port to be a Received Port Mirroring.

switch mirror ingress

Enable or disable the specified port to be the Mirror Ingress Port.

Note Only one port can be the Mirror Ingress Port at any one time.
But a port can be the Mirror Egress Port and the Mirror Ingress Port at the same time.

SYNTAX:

```
switch mirror ingress  port = <number{1-4}>
                       [state = <{enabled|disabled}>]
```

where:

port	The port to be the Mirror Ingress Port. If no port number is specified, then the port number of the current Mirror Ingress Port is shown.	REQUIRED
state	This parameter permits to enable/disable a port as Mirror Ingress Port.	OPTIONAL

EXAMPLE:

Here port 2 is enabled as Mirror Ingress Port

```
=>switch mirror ingress port=2
=>switch mirror ingress
Ingress mirror port = 2
```

Here port 2 is disabled as Mirror Ingress Port

```
=>switch mirror ingress
Ingress mirror port = 2
=>switch mirror ingress port=2 state=disabled
=>switch mirror ingress
=>
```

RELATED COMMANDS:

switch mirror capture	Define the specified port to be the Mirror Capture Port.
switch mirror egress	Enable or disable the specified port to be a Transmitted Port Mirroring.

System Commands

Contents

This chapter covers the following commands:

system clearpassword

Clear current SpeedTouch™ system password.

Note To avoid unrestricted and unauthorized access to the SpeedTouch™, it is highly recommended to make sure the SpeedTouch™ is protected by a system password (can be set via the command *system setpassword*) and to change the password on a regular basis.

SYNTAX:

```
system clearpassword
```

EXAMPLE:

```
=>system clearpassword
Security notification: Password changed, use 'saveall' to make it permanent.
=>
```

RELATED COMMANDS:

system setpassword	Set/change current system password.

system config

Show/set SpeedTouch™ system configuration parameters.

Note For a good operation of UPnP™ and the discovery mechanism, it is highly recommended not to change the system config settings.

SYNTAX:

```
system config          [upnp = <{disabled|enabled}>]
                       [mdap = <{disabled|enabled}>]
                       [drst = <{disabled|enabled}>]
                       [led = <{green|red|orange|flash|off}>]
                       [digestauth = <{disabled|enabled}>]
                       [strictusername = <{disabled|enabled}>]
                       [dcache = <{disabled|enabled}>]
```

where:

upnp	Enable or disable UPnP™ discovery. The default is *enabled*.	OPTIONAL
mdap	Enable or disable proprietary discovery protocol. The default is *enabled*.	OPTIONAL
drst	Enable or disable DrSpeedTouch access. The default is *enabled*.	OPTIONAL
led	Set the SpeedTouch™ system LED color. Choose between: • green: solid green • red: solid red • orange: solid orange • flash: toggle between green and orange • off: LED is off. The default is *green*.	OPTIONAL
digestauth	Enable or disable HTTP digest authentication. The default is *disabled*.	OPTIONAL
strictusername	Enable or disable strict username check. The default is *disabled*.	OPTIONAL
dcache	Enable or disable data cache. The default is *enabled*. **Note** For internal use only. Do NOT alter in any way.	OPTIONAL

EXAMPLE:

```
=>system config
upnp discovery        : enabled
mdap discovery        : enabled
drst support          : enabled
digest authentication : disabled
strict username       : disabled
dcache                : enabled
=>
```

system flush

Flush current SpeedTouch™ system configuration, i.e. the System password and the system config settings (dcache excluded).

Note

1. To avoid unrestricted and unauthorized access to the SpeedTouch™, it is highly recommended to make sure the SpeedTouch™ is protected by a system password (via the command *system setpassword*) and to change the password on a regular basis.
2. The flush command does not impact previously saved configurations.

SYNTAX:

```
system flush
```

EXAMPLE:

```
=>system flush
Security notification: Password changed, use 'saveall' to make it permanent.
=>
```

system reboot

Reboot the SpeedTouch™. Non-saved configuration settings are lost after reboot.

SYNTAX:

```
system reboot
```

EXAMPLE:

```
=>system reboot
.....
(lost session connectivity due to reboot)
.....
```

system reset

Reset the SpeedTouch™ to its factory default settings and reboot the device. All user and Service Provider specific settings and all saved configuration changes are lost after reboot.

SYNTAX:

```
system reset          factory yes/no = <{yes|no}>
                      proceed no/yes = <{no|yes}>
```

where:

factory yes/no	Proceed with resetting the SpeedTouch™ device to its factory default settings (yes) or not (no). **Note** By default, the system reboot command is discarded if no explicit positive confirmation is given.	REQUIRED
proceed no/yes	Confirmation for resetting the modem.	REQUIRED

EXAMPLE:

```
=>system reset
---------------
 !! WARNING !!
---------------
The modem will be reset to (factory) defaults clearing all user (and ISP) settings.
Specifying <factory=yes> deletes user and ISP specific settings.
                         Connectivity with the ISP network might be lost.
           <factory=no>  deletes user specific settings only.
factory yes/no = no
proceed no/yes = no
:system reset factory yes/no=no proceed no/yes=no
=>
=>system reset
---------------
 !! WARNING !!
---------------
The modem will be reset to (factory) defaults clearing all user (and ISP) settings.
Specifying <factory=yes> deletes user and ISP specific settings.
                         Connectivity with the ISP network might be lost.
           <factory=no>  deletes user specific settings only.
factory yes/no = yes
proceed no/yes = yes
:system reset factory yes/no=yes proceed no/yes=yes

.....
(lost session connectivity due to reboot)
.....
```

system setpassword

Set/change the current SpeedTouch™ system password.

Note To avoid unrestricted and unauthorized access to the SpeedTouch™, it is highly recommended to make sure the SpeedTouch™ is protected by a system password (via the command *system setpassword*) and to change the password on a regular basis

SYNTAX:

```
system setpassword    [userid = <string>]
                      password = <password>
```

where:

userid	The new access userid.	OPTIONAL
password	The new access password.	REQUIRED

EXAMPLE:

```
=>system setpassword password=Sascha
Security notification: Password changed, use 'saveall' to make it permanent.
=>saveall
=>
```

RELATED COMMANDS:

system clearpassword	Clear current system password.

system stats

Show/set the SpeedTouch™ cpu and memory statistics.

SYNTAX:

```
system stats          [reset = <{no|yes}>]
```

where:

reset	Reset cpu statistics.	OPTIONAL

EXAMPLE:

```
=>system stats
Cpu statistics:
---------------
  Maximum cpu load: 75%
  Minimum cpu load: 4%
  Average cpu load: 13%
  Current cpu load: 10%

Memory statistics:
------------------
  CHIP memory        total/used/free/min (in KB): 891/517/374/374
  Application memory total/used/free/min (in KB): 3442/1307/2134/2071
=>
```

DESCRIPTION:

CHIP memory	Memory used by the CPU (first MB from the RAM) – not cached since it has to be realtime.
Application memory	Memory used by the applications.
min	The least amount of free memory detected during the uptime of the SpeedTouch™.

Systemlog Commands

Contents

This chapter covers the following commands:

systemlog flush

Flush all messages in the internal SpeedTouch™ Syslog message buffer.

SYNTAX:

```
systemlog flush
```

systemlog show

Show syslog messages in the internal SpeedTouch™ Syslog message buffer.

SYNTAX:

```
systemlog show          [fac = <supported facility name>]
                        [sev = <supported severity name>]
                        [hist = <{no|yes}>]
```

where:

fac	Optionally, Specify the facility name of the syslog messages to show. Use one of the supported facility names (See " Supported Syslog Facilities" on page 416 for a listing of syslog facility names supported by the SpeedTouch™). If not specified, the messages of all the facilities will be shown.	OPTIONAL
sev	Specify the lowest priority severity of the syslog messages to show. Specifying a severity actually means specifying to show the syslog messages with a severity as specified, and all messages with a higher severity. Use one of the supported severity names (See " Supported Syslog Severities" on page 417 for a listing of syslog facility names supported by the SpeedTouch™). If not specified, the messages of all the facilities will be shown.	OPTIONAL
hist	Show messages over several SpeedTouch™ reboots (yes) or show only messages since latest startup (no). If not specified, only the recent messages will be shown.	OPTIONAL

EXAMPLE:

```
=>syslog msgbuf show fac=kern sev=emerg hist=yes
<0> SysUpTime: 14:45:43 KERNEL Controlled restart (after internal error or
explicit system reboot)
<0> SysUpTime: 02:58:18 KERNEL Controlled restart (after internal error or
explicit system reboot)
<0> SysUpTime: 04 days 04:52:37 KERNEL Controlled restart (after internal
error or explicit system reboot)
<0> SysUpTime: 00:00:41 KERNEL Controlled restart (after internal error or
explicit system reboot)
=>syslog msgbuf show fac=kern sev=warning hist=yes
<4> SysUpTime: 00:00:00 KERNEL Cold restart
<0> SysUpTime: 14:45:43 KERNEL Controlled restart (after internal error or
explicit system reboot)
<4> SysUpTime: 00:00:00 KERNEL Warm restart
<0> SysUpTime: 02:58:18 KERNEL Controlled restart (after internal error or
explicit system reboot)
<4> SysUpTime: 00:00:00 KERNEL Warm restart
<0> SysUpTime: 04 days 04:52:37 KERNEL Controlled restart (after internal
error or explicit system reboot)
<4> SysUpTime: 00:00:00 KERNEL Warm restart
<0> SysUpTime: 00:00:41 KERNEL Controlled restart (after internal error or
explicit system reboot)
=>
```

systemlog send

Send syslog messages from the internal SpeedTouch™ Syslog message buffer to a specified local or remote syslog server host.

SYNTAX:

```
systemlog send        [fac = <supported facility name>]
                      [sev = <supported severity name>]
                      [hist = <{no|yes}>]
                      dest = <ip-address>
```

where:

fac	Specify the facility name of the syslog messages to show. Use one of the supported facility names (See " Supported Syslog Facilities" on page 416 for a listing of syslog facility names supported by the SpeedTouch™). If not specified, the messages of all the facilities will be shown.	OPTIONAL
sev	Specify the lowest priority severity of the syslog messages to show. Specifying a severity actually means specifying to show the syslog messages with a severity as specified, and all messages with a higher severity. Use one of the supported severity names (See " Supported Syslog Severities" on page 417 for a listing of syslog facility names supported by the SpeedTouch™).	OPTIONAL
hist	The show messages over several SpeedTouch™ reboots (yes) or show only messages since latest startup (no).	OPTIONAL
dest	The IP address of the remote host on the local or remote network, i.e. the collector's IP address, to send the syslog messages to.	REQUIRED

Note There will be no notification on whether the host has received the messages or not.

TD Commands

Contents

This chapter covers the following commands:

td call

Call a ‘Trace & Debug‘ command.

Note For qualified personnel only.

SYNTAX:

```
td call          cmd = <string>
```

where:

cmd	Quoted 'Trace & Debug' command string.	REQUIRED

UPnP Commands

Contents

This chapter covers the following commands:

upnp config

Configure UPnP™ parameter(s).

SYNTAX:

```
upnp config          [maxage = <number{60-999999}>]
                     [defcservice = <string>]
                     [writemode = <{full|natonly|readonly}>]
                     [safenat = <{disabled|enabled}>]
                     [preferredaddress = <ip-address>]
```

where:

maxage	This parameter allows to configure how often the SpeedTouch™ sends a notification message to advertise its presence as an Internet Gateway Device IGD) on the network. Setting this parameter to a low value will increase the number of packets sent over time on the network, but will make the state of the device more up to date. The default is *1800*.	OPTIONAL
defcservice	This parameter allows to configure the connection service to be used by the DrSpeedTouch™ application during the troubleshooting process (only when several connection services are configured on the SpeedTouch™, else only the default connection service).	OPTIONAL
writemode	Choose the set of rules to limit remote access from UPnP. Choose between: • full: the host will accept all the UPnP SET and GET actions. • natonly: GET and NAT related SET actions will be accepted, all other actions will be ignored. • readonly: the UPnP control point will only be able to retrieve information, all the SET actions are ignored.	OPTIONAL
safenat	Enable / disable check on safe NAT entries. If this check is enabled, all NAT create/delete requests for a LAN side IP address different from the source IP address of the UPnP message will be discarded.	OPTIONAL
preferredaddress	Preferred ip address for UPnP advertisements (enter 0.0.0.0 for none).	OPTIONAL

EXAMPLE (shows the default configuration):

```
=>upnp config

ssdp max-age               : 1800
default connection service :
write mode                 : full
safe nat entries           : disabled
preferred address          :
multicast interface(s)     : eth0 (10.0.0.138)
=>
```

upnp flush

Flush the UPnP™ configuration (i.e. reset to default configuration).

SYNTAX:

```
upnp flush
```

upnp list

List the devices and services currently offered by the SpeedTouch™.

Use this command to check whether a PPP connection is properly configured and thus advertised as a PPP service.

SYNTAX:

```
upnp list              [verbose = <number{0-2}>]
```

where:

verbose	Verbose level. The default is *1*.	OPTIONAL

EXAMPLE:

```
=>upnp list
Advertising UPnP devices on address: 10.0.0.138
---------------- device: IGD.xml ------------
++ Root Device: urn:schemas-upnp-org:device:InternetGatewayDevice:1
-- Service 1: urn:upnp-org:serviceId:layer3f
-- Service 2: urn:upnp-org:serviceId:lanhcm
-- Service 3: urn:upnp-org:serviceId:wancic
-- Service 4: urn:upnp-org:serviceId:wandsllc:PVC_1
-- Service 5: urn:upnp-org:serviceId:wanpppc:PPPoA_1
---------------------- end -----------------
---------------- device: DRST.xml ------------
++ Root Device: urn:schemas-upnp-org:device:DRST_Device:1
-- Service 1: urn:upnp-org:serviceId:layer3f_DRST
-- Service 2: urn:upnp-org:serviceId:devinfo_DRST
-- Service 3: urn:upnp-org:serviceId:lanhcm_DRST
-- Service 4: urn:upnp-org:serviceId:lanelc_DRST
-- Service 5: urn:upnp-org:serviceId:wancic_DRST
-- Service 6: urn:upnp-org:serviceId:wandsllc_DRST:PVC_1
-- Service 7: urn:upnp-org:serviceId:wanpppc_DRST:PPPoA_1
---------------------- end -----------------
=>
```

USB Commands

Introduction

These commands are valid only for the SpeedTouch™530 USB.

Contents

This chapter covers the following commands:

usb add

Adds a VP or VC cross-connection between the USB interface and the WAN interface.

SYNTAX:

```
usb add          wanvpi = <number{0-15}>
                 wanvci = <number{0-511}>
                 usbvpi = <number{0-15}>
                 usbvci = <number{0-511}>
                 [qos = <{default}>]
```

where:

wanvpi	A number between 0 and 15. Represents the Virtual Path Identifier (VPI) of WAN interface.	REQUIRED
wanvci	A number between 0 and 511. Represents the Virtual Channel Identifier (VCI) of WAN interface.	REQUIRED
usbvpi	A number between 0 and 15. Represents the Virtual Path Identifier (VPI) of USB interface.	REQUIRED
usbvci	A number between 0 and 511. Represents the Virtual Channel Identifier (VCI) of USB interface.	REQUIRED
qos	The name of a qosbook entry.	OPTIONAL

RELATED COMMANDS:

usb delete	Deletes a cross-connection on the USB interface.
usb list	Shows all cross-connections on the USB interface.

usb config

Enable/disable the USB interface.

SYNTAX:

```
usb config          [state = <{enabled|disabled}>]
```

where:

state	Enable or disable the USB interface.	OPTIONAL

EXAMPLE:

```
=>usb config
USB port state = UP [configured]
=>
```

usb delete

Deletes a cross-connection on the USB interface.

SYNTAX:

```
usb delete        wanvpi = <number{0-15}>
                  [wanvci = <number{0-511}>]
```

where:

wanvpi	A number between 0 and 15. Represents the Virtual Path Identifier (VPI) of WAN interface.	REQUIRED
wanvci	A number between 0 and 511. Represents the Virtual Channel Identifier (VCI) of WAN interface.	OPTIONAL

RELATED COMMANDS:

usb add	Adds a VP or VC cross-connection between the USB interface and the WAN interface.
usb list	Shows all cross-connections on the USB interface.

usb info

Show USB properties/statistics.

SYNTAX:

```
usb info
```

EXAMPLE:

```
=>usb info
  MACaddr = 00-90-d0-02-8a-a3
  Type = Device
  Rate = FullSpeed
  Power = SelfPowered
  Properties
    DataTransferType = Bulk
    DataAlternateSetting = 1
    MajorRelease = 1
    MinorRelease = 10
    NumberOfConfigurations = 1
    DeviceClass = Vendor Specific
    DeviceSubclass = 0
    Protocol = 0
    Ep0MaxPacketSize = 64 Bytes
  Statistics :
    ReservedBandwidth = Not Applicable
    Bytes tx = 406245
    Bytes rx = 238341
    Blocks tx = 6697
    Blocks rx = 4256
=>
```

usb list

Shows all cross-connections on the USB interface.

SYNTAX:

```
usb list
```

Abbreviations

The table below lists all the abbreviations used in the CLI Guide.

Abbreviation	Description
AAL5	ATM Adaption Layer 5
ACL	Access Control List
ADSL	Asymmetric Digital Subscriber Line
AF	Assured Forwarding
AH	Authentication Header
ARP	Address Resolution Protocol
ATM	Asynchronous Transfer Mode
ATMF	ATM Forum
BGP	Border Gateway Protocol
CA	Certificate Authority
CC	Continuity Check
CEP	Certificate Enrollment Protocol
CHAP	Challenge Handshake Authentication Protocol
CIDR	Classless Inter Domain Routing
CLI	Command Line Interface
CRL	Certificate Revocation List
DHCP	Dynamic Host Configuration Protocol
DN	Distinguished Name
DNS	Domain Name System
DSCP	Differentiated Services Code Point
DSL	Digital Subscriber Line
EF	Expedited Forwarding
EGP	Exterior Gateway Protocol
ESP	Encapsulating Security Payload
FTP	File Transfer Protocol
GRE	General Routing Encapsulation
GRP	Gateway Routing Protocol
HDLC	High-level Data Link Control

Abbreviation	Description
HTTP	HyperText Transfer Protocol
ICMP	Internet Control Message Protocol
IGD	Internet Gateway Device
IGMP	Internet Group Management Protocol
IKE	Internet Key Exchange
IMAP	Interim Mail Access Protocol
IMAP	Interactive Mail Access Protocol
IP	Internet Protocol
IPCP	Internet Protocol Control Protocol
IPCP	IP Payload Compression Protocol
IP oA	IP over ATM
IPSec	IP Security
IRC	Internet Relay Chat
ISDN	Integrated Services Digital Network
LAN	Local Area Network
LCP	Link Control Protocol
LDAP	Light-weight Directory Access Protocol
LIS	Logical IP Subnet
LLC	Logical Link Control
MAC	Medium Access Control
MD5	Message Digest 5
MER	MAC Encapsulated Routing
NAPT	Network Address and Port Translation
NAT	Network Address Translation
NBP	Name Binding Protocol
NLPID	Network Layer Protocol IDentifiers
NNTP	Network News Transfer Protocol
NTP	Network Time Protocol
OAM	Operation and Maintenance
OBC	On Board Controller
OID	Object IDentifier
PAP	Password Authentication Protocol

Abbreviation	Description
PBX	Private Branch Exchange
PHB	Per Hop Behavior
PIP	Packet Interception Point
PKCS	Public Key Cryptography Standard
PKI	Public Key Infrastructure
POP	Post Office Protocol
POTS	Plain Old Telephone Service
PPP	Point-to-Point Protocol
PPPoA	PPP over ATM
PPPoE	PPP over Ethernet
PPTP	Point-to-Point Tunneling Protocol
PSD	Power Spectral Density
PVC	Permanent Virtual Channel
QoS	Quality of Service
RIP	Routing Information Protocol
RTMP	RouTing Maintenance Protocol
RTSP	Real Time Stream Control Protocol
RTT	Round Trip Time
SAs	Security Associations
SHDSL	Symmetric High speed Digital Subscriber Line
SIP	Session Initiation Protocol
SMTP	Simple Mail Transfer Protocol
SNAP	Sub Network Access Protocol
SNMP	Simple Network Management Protocol
SNPP	Simple Network Paging Protocol
SNR	Signal-to-Noise Ratio
SNTP	Simple Network Time Protocol
SVC	Switched Virtual Channel
TCP	Transmission Control Protocol
TFTP	Trivial File Transfer Protocol
ToS	Type of Service
UDP	User Datagram Protocol

Abbreviation	Description
UPnP	Universal Plug and Play
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
VC	Virtual Channel
VCMUX	Virtual Channel MUltipleXing
VDSL	Very high speed Digital Subscriber Line
VLSM	Variable Length Subnet Masking
VP	Virtual Path
VPN	Virtual Private Networking
WAN	Wide Area Network
WCD	WAN Connection Device
WEP	Wired Equivalent Privacy
WFQ	Weighted Fair Queueing
WINS	Windows Internet Naming Service
WLAN	Wireless LAN
WWW	World Wide Web
ZIS	Zone Information System

Syslog Messages

Introduction

This chapter lists the different Syslog messages.

Contents

This chapter covers the following commands:

Auto-PVC Module

Facility	Severity	Contents
LOCAL5	WARNING	AUTOPVC script <script_name> failed
LOCAL5	WARNING	AUTOPVC script <script_name> failed
LOCAL5	WARNING	AUTOPVC script <script_name> (name1, qosb_name) failed
LOCAL5	WARNING	AUTOPVC script <script_name> (name1, qosb_name, name2) failed
LOCAL5	WARNING	AUTOPVC script 'autopvc_change_qos (itable[i].intf, name1, qosb_name) failed
LOCAL5	WARNING	AUTOPVC script <script_name> (name1, name2) failed

Configuration Module

Facility	Severity	Contents
USER	INFO	CONFIGURATION saved after running Embedded Setup Wizard
USER	INFO	CONFIGURATION saved by user <user_id>
USER	INFO	CONFIGURATION backup by user to file <filename>
USER	INFO	CONFIGURATION <conf_version> upgraded to version <version>)
KERN	INFO	SYSTEM reset by user <user_id> to factory defaults: user settings deleted

DHCP CLient Module

Facility	Severity	Contents
LOCAL2	WARNING	DHCP lease ip-address <ip-address> bound to intf <intf_id>
LOCAL2	WARNING	DHCP intf <intf_id> renews lease ip-address <ip-address>
LOCAL2	WARNING	DHCP intf <intf_id> rebinds lease ip-address <ip-address> from server (<ip-address>)
LOCAL2	WARNING	DHCP offer received from <ip-address> (can be relay agent) for intf <intf_id>
LOCAL2	WARNING	DHCP server (<ip-address>) offers <ip-address> to intf <intf_id>
LOCAL2	WARNING	DHCP unable to configure ip address: <ip-address> (bootp-reply)
LOCAL2	WARNING	DHCP bootp lease ip-address <ip-address> bound to intf <intf_id> from server (<ip-address>)
LOCAL2	WARNING	DHCP <ip-address> already configured on intf <intf_id>: failure
LOCAL2	WARNING	DHCP <ip-address> (<ip-address>) set on intf <intf_id>: {faillure||ok}
LOCAL2	WARNING	DHCP <ip-address> deleted: {faillure||ok}

DHCP Relay Module

Facility	Severity	Contents
LOCAL2	WARNING	DHCP relay: Dropping boot rqs on interface <intf_id> due to invalid giaddr for server (<ip-address>)
LOCAL2	WARNING	DHCP relay: Dropping boot reply with invalid relay agent option from <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot request containing the relay agent option from <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot reply to unknown interface from <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot reply to inactive interface <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot reply to inactive interface <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot request packet with spoofed giaddr field from <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot request received on unknown interface from <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot request on inactive interface <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot request with invalid hops field on interface <intf_id>
LOCAL2	WARNING	DHCP relay: Dropping boot request with invalid giaddr on interface <intf_id>

DHCP Server Module

Facility	Severity	Contents
LOCAL2	WARNING	DHCP server: %s cannot be send due to invalid server identifier
LOCAL2	WARNING	DHCP server: DHCPACK cannot be send due to invalid server identifier
LOCAL2	WARNING	DHCP server: DHCPNAK cannot be send due to invalid server identifier
LOCAL2	WARNING	DHCP Auto DHCP: server detected on LAN, own dhcp server disabled
LOCAL2	WARNING	DHCP Auto DHCP: no server detected on LAN, SpeedTouch server started
LOCAL2	WARNING	DHCP Auto DHCP: search for DHCP server stopped
LOCAL2	WARNING	DHCP server up
LOCAL2	WARNING	DHCP server went down

Firewall Module

Facility	Severity	Contents
AUTH	WARNING	FIREWALL Hook: <hookname> Rule ID:<rule_id> Protocol: ICMP Src_ip: <ip_address> Dst_ip: <ip_address> ICMP message type: <message_type_name || message_type_id > Action: <action>
AUTH	WARNING	FIREWALL Hook: <hookname> Rule ID:<rule_id> Protocol: <protocol_name> Src_ip_port: <ip-address:ip_port> Dst_ip_port: <ip-address:ip_port> Action: <action>

HTTP Module

Facility	Severity	Contents
AUTH	NOTICE	LOGOUT User <user_id> logged out on <connection_type> (<ip-address>)
AUTH	NOTICE	LOGOUT User <user_id> logged out on <connection_type>
AUTH	NOTICE	LOGOUT <session_name> session of user <user_id> killed (<ip-address>)
AUTH	NOTICE	LOGOUT <session_name> session of user <user_id> killed
AUTH	NOTICE	LOGIN User <user_id> tried to login on <connection_type> (from <ip-address>)
AUTH	NOTICE	LOGIN User <user_id> logged in on <connection_type> (from <ip-address>)
AUTH	NOTICE	LOGIN User logged in on <connection_type> (<ip-address>)
AUTH	NOTICE	LOGIN User <user_id> tried to log in on <connection_type>

Kernel Module

Facility	Severity	Contents
KERN	WARNING	KERNEL cold reset
KERN	WARNING	KERNEL warm reset
KERN	EMERG	KERNEL Controlled restart (after internal error or explicit system reboot)

Linestate Module

Facility	Severity	Contents
LOCAL5	NOTICE	xDSL linestate up (downstream: <bitrate_in> kbit/s, upstream: <bitrate_out> kbit/s)
LOCAL5	NOTICE	xDSL linestate down

Login Module

Facility	Severity	Contents
AUTH	NOTICE	LOGIN User <username> logged <in||out> on telnet (<ip address>)
AUTH	NOTICE	LOGIN User <username> logged in on http (<ip-address>)

NAPT Module

Facility	Severity	Contents
LOCAL4	INFO	NAPT Protocol: <TCP | UDP | ICMP> Open port: <port> Helper: <app_name> => <""failed"" | ""ok"">"

PPP Module

Facility	Severity	Contents
LOCAL0	WARNING	PPP Link up (<intf name>)
LOCAL0	WARNING	PPP Link down (<intf name>)
AUTH	ERROR	PPP PAP authentication failed (<intf name>) [protocol reject]
AUTH	INFO	PPP PAP on intf <intf_id> no response to PAP authenticate-request
AUTH	NOTICE	PPP PAP remote user <remote_user_name> successful authenticated
AUTH	ERROR	PPP PAP authentication for remote user <remote_user> failed
AUTH	DEBUG	PPP PAP Authenticate Ack received
AUTH	DEBUG	PPP PAP Authenticate Nack received
AUTH	DEBUG	PPP PAP Authenticate Request sent
AUTH	ERROR	PPP CHAP authentication failed (<intf name>)
AUTH	ERROR	PPP CHAP authentication failed [protocol reject(server)]
AUTH	ERROR	PPP CHAP authentication failed [protocol reject(client)]
AUTH	DEBUG	PPP CHAP Receive challenge (rhost = <hostname>)
AUTH	INFO	PPP CHAP Chap receive success : authentication ok
AUTH	DEBUG	PPP CHAP Challenge Send (Id = <challenge_id>)
AUTH	DEBUG	PPP CHAP Send status response: {ack || nack}

PPTP Module

Facility	Severity	Contents
LOCAL0	WARNING	PPTP tunnel (<Pbname>) up:(<ip addr>)
LOCAL0	WARNING	PPTP tunnel (<Pbname>) down:(<ip addr>)

Routing Module

Facility	Severity	Contents
SECURITY	INFO	LABEL Rule Id:<rule_id> Protocol: ICMP Src_ip: <ip_address> Dst_ip: <ip_address> ICMP message type: <message_type_name || message_type_id > Label: <label_name>
SECURITY	INFO	LABEL Rule Id:<rule_id> Protocol: <protocol_name> Src_ip: <ip_address> Dst_ip: <ip_address> Label: <label_name>

Software Module

Facility	Severity	Contents
KERN	INFO	SOFTWARE Copying all data files from <file_location> to <file_location>
KERN	INFO	SOFTWARE Switchover going down in <number> seconds
KERN	INFO	SOFTWARE No passive software found, duplicating active software
KERN	INFO	SOFTWARE Duplication of active software failed

UPnP Module

Facility	Severity	Contents
WARNING	SECURITY	UPnP<ActionName> refused for ip=<ip_address>
NOTICE	SECURITY	UPnP <ActionName> (<Error_string>) for ip=<ip_address>

Supported Key Names

Contents

This chapter lists all the key names supported by the SpeedTouch™, that can be used for completing CLI command parameters.

Supported Internet Protocol (IP) Protocol Names

For more information on the listed IP protocols, see RFC1340 or www.iana.org.

Protocol name	Number	Description
icmp	1	Internet Control Message Protocol (ICMP)
igmp	2	Internet Group Management Protocol (IGMP)
ipinip	4	IP in IP (encapsulation)
tcp	6	Transmission Control Protocol (TCP)
egp	8	Exterior Gateway Protocol (EGP)
udp	17	User Datagram Protocol (UDP)
rsvp	46	Resource Reservation Protocol (RSVP)
gre	47	General Routing Encapsulation (GRE)
ah	51	Authentication Header (AH)
esp	50	Encapsulating Security Payload (ESP)
vines	83	Vines
ipcomp	108	IP Payload Compression Protocol (IPCP)

Supported TCP/UDP Port Names

For more information on the listed TCP/UDP port assignments, see RFC1340 or www.iana.org.

Port name	Number	TCP	UDP	Description
echo	7	Y	Y	Echo
discard	9	Y	Y	Discard
systat	11	Y	Y	Active Users
daytime	13	Y	Y	Daytime
qotd	17	Y	Y	Quote of the Day
chargen	19	Y	Y	Character Generator
ftp-data	20	Y	Y	File Transfer (Default data)
ftp	21	Y	Y	File Transfer (Control)
telnet	23	Y	Y	Telnet
smtp	25	Y	Y	Simple Mail Transfer Protocol (SMTP)
time	37	Y	Y	Time
nicname	43	Y	Y	Who Is
dns	53	Y	Y	Domain Name System (DNS)
domain	53	Y	Y	Domain Name System (DNS)
sql*net	66	Y	Y	Oracle SQL*NET
bootps	67	Y	Y	Bootstrap Protocol Server
bootpc	68	Y	Y	Bootstrap Protocol Client
tftp	69	Y	Y	Trivial File Transfer Protocol (TFTP)
gopher	70	Y	Y	Gopher
finger	79	Y	Y	Finger
www-http	80	Y	Y	World Wide Web (WWW) HTTP
kerberos	88	Y	Y	Kerberos
rtelnet	107	Y	Y	Remote Telnet Service
pop2	109	Y	Y	Post Office Protocol (POP) - Version 2
pop3	110	Y	Y	Post Office Protocol (POP) - Version 3
sunrpc	111	Y	Y	SUN Remote Procedure Call
auth	113	Y	Y	Authentication Service
sqlserver	118	Y	Y	SQL Services
nntp	119	Y	Y	Network News Transfer Protocol (NNTP)

Port name	Number	TCP	UDP	Description
sntp	123	Y	Y	Simple Network Time Protocol (SNTP)
ntp	123	Y	Y	Network Time Protocol (NTP)
ingres-net	134	Y	Y	INGRES-NET Service
netbios-ns	137	Y	Y	NETBIOS Naming System
netbios-dgm	138	Y	Y	NETBIOS Datagram Service
netbios-ssn	139	Y	Y	NETBIOS Session Service
imap2	143	Y	Y	Interim Mail Access Protocol (IMAP) v2
sql-net	150	Y	Y	SQL-NET
pcmail-srv	158	Y	Y	PCMail Server
snmp	161	Y	Y	Simple Network Management Protocol (SNMP)
snmptrap	162	Y	Y	SNMP Trap
bgp	179	Y	Y	Border Gateway Protocol (BGP)
irc-o	194	Y	Y	Internet Relay Chat (IRC) - o
at-rtmp	201	Y	Y	AppleTalk RouTing Maintenance Protocol (RTMP)
at-nbp	202	Y	Y	AppleTalk Name Binding Protocol (NBP)
at-echo	204	Y	Y	AppleTalk Echo
at-zis	206	Y	Y	AppleTalk Zone Information System (ZIS)
ipx	213	Y	Y	
imap3	220	Y	Y	Interactive Mail Access Protocol (IMAP) v3
clearcase	371	Y	Y	ClearCase
ulistserv	372	Y	Y	UNIX Listserv
ldap	389	Y	Y	Lightweight Directory Access Protocol (LDAP)
netware-ip	396	Y	Y	Novell Netware over IP
snpp	444	Y	Y	Simple Network Paging Protocol (SNPP)
ike	500	Y	Y	ISAKMP
exec	512	Y	-	Remote process execution
biff	512	-	Y	Used by mail system to notify users of new mail received
login	513	Y	-	Remote login a la telnet
who	513	-	Y	Maintains data bases showing who's logged in to machines on a local net and the load average of the machine
syslog	514	-	Y	Syslog
printer	515	Y	Y	Spooler

Port name	Number	TCP	UDP	Description
talk	517	Y	Y	Like Tenex link, but across machine
ntalk	518	Y	Y	NTalk
utime	519	Y	Y	UNIX Time
rip	520	-	Y	Local routing process (on site); uses variant of Xerox NS Routing Information Protocol (RIP)
timed	525	Y	Y	Timeserver
netwall	533	Y	Y	For emergency broadcasts
uucp	540	Y	Y	uucpd
uucp-rlogin	540	Y	Y	uucpd remote login
new-rwho	540	Y	Y	uucpd remote who is
rtsp	554	Y	Y	Real Time Stream Control Protocol (RTSP)
whoami	565	Y	Y	whoami
ipcserver	600	Y	Y	SUN IPC Server

Supported ICMP Type Names

For more information on the listed ICMP type names, see RFC1340 or www.iana.org.

ICMP Type name	Number	Description
echo-reply	0	Echo Reply
destination-unreachable	3	Destination Unreachable
source-quench	4	Source Quench
redirect	5	Redirect
echo-request	8	Echo
router-advertisement	9	Router Advertisement
router-solicitation	10	Router Solicitation
time-exceeded	11	Time Exceeded
parameter-problems	12	Parameter problems
timestamp-request	13	Timestamp
timestamp-reply	14	Timestamp Reply
information-request	15	Information Request
information-reply	16	Information Reply
address-mask-request	17	Address Mask Request
address-mask-reply	18	Address Mask Reply

Supported Syslog Facilities

For more information on the listed Syslog facilities, see RFC3164.

Facilty Name	Hierarchy Code	Syslog facility (listed according descending importance)
kern	0	Kernel messages
user	8	User-level messages
mail	16	Mail system
daemon	24	System daemons
auth	32	Authorization messages
syslog	40	Syslog daemon messages
lpr	48	Line printer subsystem
news	56	Network news subsystem
uucp	64	UUCP subsystem
cron	72	Clock daemon
security	80	Security messages
ftp	88	FTP daemon
ntp	96	NTP subsystem
audit	104	Log audit
logalert	112	Log alert
clock	120	Clock daemon
local0 local1 local2 local3 local4 local5 local6 local7	128 136 144 152 160 168 176 184	Local use messages
all	-	All facilities (SpeedTouch™ specific facility parameter value.

Supported Syslog Severities

For more information on the listed Syslog severities, see RFC3164.

Severity Name	Hierarchy Code	Syslog severity (listed according descending importance)
emerg	0	Emergency conditions, system unusable
alert	1	Alert conditions, immediate action is required
crit	2	Critical conditions
err	3	Error conditions
warning	4	Warning conditions
notice	5	Normal but significant conditions
info	6	Informational messages
debug	7	Debug-level messages

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500
SERIES

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