WANPIPE™

Multi-protocol WANPIPE Driver

OPERATIONAL M A N U A L

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Introduction

At the heart of WANPIPE operation is the 'wanrouter' operation script. It is used to start/stop/restart and display WANPIPE current status and environment.

'wanrouter' usage

/usr/sbin/wanrouter <cr>

WANPIPE: WAN Router startup script

Usage: wanrouter: {options} <wanpipe#> <interface>

wanrouter start : Starts all devices specified in
/etc/wanpipe/wanrouter.rc WAN_DEVICES

wanrouter stop : Stops all devices specified in
/etc/wanpipe/wanrouter.rc WAN_DEVICES

wanrouter start wanpipe# : Start a single device

wanrouter stop wanpipe# : Stops a single device
(# can range from 1 to 16)

wanrouter restart   : Restart all devices specified in
/etc/wanpipe/wanrouter.rc WAN_DEVICES

wanrouter restart wanpipe# : Restart a single device
(# can range from 1 to 16)

wanrouter start wanpipe# if_name   : Start a single interface on device

wanrouter stop wanpipe# if_name   : Stops a single interface on device
(# can range from 1 to 16)

wanrouter restart wanpipe# if_name : Restart a single interface on device
(# can range from 1 to 16)

wanrouter list   : List all active devices

wanrouter modules   : Show wanpipe kernel modules

wanrouter status   : Display status for all active devices

wanrouter summary   : Summary of config files in /etc/wanpipe

wanrouter hwprobe   : Display wanpipe hardware probe info.

wanrouter debug   : Check current wanpipe environment.
                         After a startup error run this command to
                         get a possible solution
                         i.e. wanrouter start; wanrouter debug;

wanrouter debug if_name : Display common debugging statistics
                         In case of line problems save to file,
                         wait 2-5mi and send to Sangoma Tech Support
                         i.e. wanrouter debug wp1fr16 > debug_file;

wanrouter messages   : Display wanpipe kernel event messages
                         i.e. /var/log/messages

wanrouter conflog   : Display wanpipe configuration parsing messages
                         i.e. /var/log/wanrouter

wanrouter version   : wanpipe version information.

WANPIPE Environment Check

Automated environment check, can be performed using the wanrouter command. Also after a startup failure wanrouter debug option will identify an error and offer possible solutions:

    wanrouter debug

Make sure that the new WANPIPE kernel modules have been installed correctly and that they can be loaded into the kernel, and the hardware is detected.

    /usr/sbin/wanrouter hwprobe

Check that a configuration file exists in /etc/wanpipe directory.

    /usr/sbin/wanrouter summary

Make sure that no WANPIPE devices are currently running on the system

/usr/sbin/wanrouter list

WANPIPE Startup/Shutdown

Please note that all kernel driver output messages are located in /var/log/messages file.

Run 'tail -f /var/log/messages' in a separate console window, to monitor WANPIPE start/stop and operation messages.

To start/stop/restart WANPIPE devices listed in /etc/wanpipe/wanrouter.rc file: (default is wanpipe1)

      /usr/sbin/wanrouter start
      /usr/sbin/wanrouter stop
      /usr/sbin/wanrouter restart

To start/stop/restart single wanpipe device: (eg: wanpipe2)

 This command is useful when running multiple devices and would like to operate on a singe device.

      /usr/sbin/wanrouter start wanpipe2
      /usr/sbin/wanrouter stop wanpipe2
      /usr/sbin/wanrouter restart wanpipe2

To start/stop/restart a single network interface from a /etc/wanpipe/wanpipe1.conf configuration file:

 This command is useful when adding an extra frame relay DLCI. Also to reconfigure a single DLCI.

      /usr/sbin/wanrouter start wanpipe2 wp2_fr18
      /usr/sbin/wanrouter stop wanpipe2 wp2_fr18
      /usr/sbin/wanrouter restart wanpipe2 wp2_fr18

To view current status and configuration of active devices:

/usr/sbin/wanrouter status

Error Debugging

Startup/Shutdown Wanrouter Errors

After a startup failure run wanrouter debug
option for more information and possible solutions:

wanrouter debug

Configuration Syntax Errors:

All wanpipe configuration file syntax errors are reported in /var/log/wanrouter

wanrouter conflogs

or

cat /var/log/wanrouter

Kernel Driver Errors:

All device driver errors and events will be
displayed in /var/log/messages:

wanrouter messages

or

tail -f /var/log/messages

Line Errors and Driver Statistics

After a successful WANPIPE startup any extra
debugging, such as line tracing or CSU/DSU
debugging will be done using:

/usr/sbin/wanpipemon –g

Automated Line Debugging

For automated line debugging run the wanrouter debug if_name command. It will display the most common statistics that deal with line problems.

wanrouter debug if_name (where if_name is the name of wanpipe interface)

Detailed line debugging

Use the wanpipemon utility to view line and protocol ststistics and run line traces. For information on the commands, enter:

Wanpipemon

Sangoma Tech Support

When reporting problems to Sangoma Tech Support please
dump the current system debug information into
a temporary file and send it via email.

1. wanrouter debug if_name > sangoma_debug_file.txt
   (where if_name is wanpipe interface name: eg wp1fr16)

2. Wait for 2-5 minutes

3. Stop the debug by pressing ENTER

4. Email sangoma_debug_file.txt to Sangoma Tech Support

Please refer to README-4.debugging.