

Information Note

Syslog

– Vega 400, Vega 100 and Vega 50



Syslog provides a method for delivering log, audit, debug and QoS information from the Vega to a PC or other computer.

Introduction to Syslog

Syslog is a standard protocol that many systems use to send logging data to monitoring computers. There are many Syslog servers available (aka Syslog Daemons), to run on PCs, Linux systems and other computers. What can be done with the Syslog data is very dependent on the Syslog server, but typically the Syslog information can be displayed in real-time on a screen and also logged to a file simultaneously.

Configuring Syslog on a Vega

Vega gateways support five types of Syslog information,

1. Log data (equivalent to log display on)
2. Billing / CDR data (equivalent to bill display on)
3. Console audit (a log of all serial, web, and telnet commands for all consoles)
4. Debug information (equivalent to debug on)
5. QoS

Vega gateways support up to 5 Syslog sessions; each Syslog session can be configured to send one or more of these sets of information.

The Syslog data that the Vega sends is always UDP.

To configure Syslog sessions, on the web browser select [Logging](#) on the left hand menu, then [SYSLOG](#) in the **SYSLOG Configuration** section.

SYSLOG Servers									
Server	Name	Host	Port	Logging	Billing	Console	Debug	QoS	Chg?
1	DEFAULT_SYSLOG	0.0.0.0	514	1	1	1	0	0	Modify

[Add](#) [Delete](#)

To configure a Syslog session, select [Modify](#)

SYSLOG Server Configuration	
Server 1	
Name	<input type="text" value="DEFAULT_SYSLOG"/>
Host	<input type="text" value="0.0.0.0"/>
Port	<input type="text" value="514"/>
Logging	<input checked="" type="checkbox"/>
Billing	<input checked="" type="checkbox"/>
Console	<input checked="" type="checkbox"/>
Debug	<input type="checkbox"/>
QoS	<input type="checkbox"/>

[Submit](#)

The Name field is for self-documentation purposes; Host is the IP address of the Syslog server to send the messages to. Port is the UDP port number to send the messages to. Logging, Billing, Console, Debug and QoS define the types of information to send to this Syslog server.

The changes made can be activated by selecting [Apply Changes](#) after the [Submit](#).

It is often desirable to keep different types of data separate; by running multiple Syslog servers on the destination computer and allocating each server instance a different receiving IP port number the different types of Syslog data can be kept separate, but still stored on a single destination computer.

On the Vega, corresponding SYLOG Server Configurations can be defined – each with the same Host IP addresses, but differing Port numbers – port numbers which match the values set up on the destination computer.

NOTE

1. For Vega 400 ensure that the LAN profile in the **LAN Configuration** section on the [LAN](#) page is set up correctly to allow Syslog messages to be sent to the Syslog server.
2. Syslog can produce a significant amount of data traffic, especially if multiple syslog logging options are selected and multiple syslog destinations are chosen – this can affect LAN bandwidth and gateway performance.

Syslog applications

There are a number of Syslog applications available, both free and charged-for. Often the free versions are cut down versions of the one you have to pay for. Typically the free versions support less entries, and / or will not save the Syslog records to the computer disc.

Examples of Syslog applications are:

www.kiwisyslog.com - free version ... relatively small display history, but log messages are logged to disc. Registering the program enables more features.

www.weird-solutions.com/product/syslogt.html - Syslog Turbo, free version ... N.B. select 'View all messages' in the database display page. Seems to need manual refresh to update screen.

http://support.3com.com/software/utilities_for_windows_32_bit.htm - 3CSyslog.zip - free version

<http://www.winsyslog.com/en/Download/> - 30 day full trial which then resorts to a freeware cut down functionality mode.

Mapping Vega nomenclature to Syslog nomenclature

The following mappings are used to map Vega message types onto Syslog message types:

Vega Message	Syslog Message <facility>.<severity> (facility.severity)
Logging: - Info - Alert - Warn - Failure - Error - Fatal	3.6 (daemon.informational) 3.5 (daemon.notice) 3.4 (daemon.warning) 3.1 (daemon.alert) 3.3 (daemon.error) 3.0 (daemon.emergency)
Billing	13.6 (log-audit.informational)
Console	1.6 (user-level.informational)
Debug	1.7 (user-level.debug)
QoS	14.6 (log-alert.informational)

Debug options

To select the information to be sent on the Debug Syslog stream, a debug mask needs to be set up. This is accomplished using one or more `debug enable` commands, followed by `debug on` (to display the data on the console on which the command was executed) or `debug memory w` (to run the debug silently).

The debug options available depend upon the code version being run – VegaStream engineering will supply the relevant information if debug logging is required.

QoS options

Once the Syslog information has been configured and QoS has been selected for the SYSLOG Server, the QoS entries need to be configured.

On the web browser select [QoS](#) on the left hand menu

Ensure that QoS statistics are enabled, in the **Control** section:

QoS Statistics

Control	
Enable	<input checked="" type="checkbox"/>
Call Detail Records	<input type="checkbox"/>

Then scroll down to the **QoS Syslog Controls** section:

QoS Syslog Controls	
Network Events Log	<input type="checkbox"/>
Codec Log	<input type="checkbox"/>
QoS Profile Log	<input type="checkbox"/>
Billing Log	<input type="checkbox"/>
Network Stats Log	<input type="checkbox"/>
Telephony Stats Log	<input type="checkbox"/>
Load Stats Log	<input type="checkbox"/>
<input type="button" value="Submit"/>	

enable the desired QoS records to be sent to the Syslog server.

Further details about configuring QoS for SYSLOG can be found in Information note “IN_15 QoS_Statistics”.

Syslog status

To see the current settings of syslog, type

➤ show syslog

SYSLOG STATS

Server	IP	Mode	Attempts	Errors
Main_Server	192.168.1.2	log bill console	15	0
My_PC	192.168.1.78	log bill	8	0
Eng_laptop	192.168.1.66	debug	2	0

Attempts = Number of Syslog messages prepared for sending

Errors = Number of Syslog messages that failed to be sent, e.g. because of internal resources or the configured IP address has 'no route to destination'.
(Because UDP Syslog does not support handshaking, the fact that there are zero errors does not guarantee that the Syslog server has received all the messages.)

Identification of SYSLOG message types in SYSLOG output

At the start of SYSLOG messages, textual identifiers indicate the types of message:

LOG:	Logging messages
BILL:	Billing data
xx WWW:	Console commands from Web browser (xx = Session ID)
xx Telnet:	Console commands from Telnet (xx = Session ID)
INTERNAL ACTION:	Console messages about Autoexec commands
H323	Debug H.323 related messages
SIP	Debug SIP related messages
ISDN	Debug ISDN telephony related messages
ROUTER	Debug dial planner / router related messages
DSPGG	Debug DSP related messages
window type	Debug message of LCD screen display messages
QOS:	Quality of Service data

Other related documents.

Please see the Vega primer.

For details about QoS statistics see Information Note IN_15 QoS_statistics

Syslog functionality is specified in RFC 3164.

Contact Details

Email: support@vegastream.com

Web: www.vegastream.com

www.vegaassist.com

EMEA Office
VegaStream Limited
The Western Centre
Western Road
Bracknell
Berks RG12 1RW
UK

+44 (0) 1344 784900

USA Office
VegaStream Inc.
10445 Pacific Center Court
San Diego
CA 92121
USA

+1 858 824 6388