



**DATACOM**  

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**SYSTEMS INC**

**VS-1012-F, VS-1024-F, VS-1112-F**

**VS-1124-F, VS-1212-F, VS-1224-F**

# **Network Packet Brokers**

## **Command Line Interface**

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## 2 Overview

This Command Line Interface for the VS-10XX-F, VS-11XX-F, and the VS-12XX-F Data Access Switch is intended to provide you with CLI information about your Data Access Switch. Additional support, documentation and help can be found on the Datacom Systems website: <http://www.datacomsystems.com>.

## 3 Command Line Interface (CLI)

The Command Line Interface (CLI) is used to:

- Set IP address (default 192.168.1.1), Subnet Mask (default 255.255.0.0) and Gateway (default 192.168.1.0)
- Set Management Port
- Set the configurations for the Any-to-Any ports
- Enables the user to select which ports or groups of ports receive the data stream copies

### 3.1 Basic Functionality

**Window Size Functionality:** The CLI window has a limited number of character spaces available (80 characters per line). If more data than can fit on one line, the line will scroll left.

**Character Handling:** Printable characters (ASCII codes 32-126) and non-printable codes noted below:

Non-Printable Character	Description
• <enter key>	Executes command; places command in history buffer
• <backspace key>	Erases previous character entry; removes history buffer entry

**Connectivity/Authentication Functionality:** Connectivity to this product is made through the Management RJ45 or Serial DB9 port and authentication is required.

**Base Prompt:** This is the text presented to the user logging in to use the CLI (default values shown). All Usernames and passwords are case-sensitive.

```
Enter Username: Administrator
Enter Password: admin
>
```

**Command Syntax:** All commands, either the exact long form or the shortcut form, are entered after the prompt (default >) at the cursor. No auto-fill mode is available.

**Command History Navigation:** The up and down arrow keys may be used to cycle through previously entered commands.

## 3.2 Filtering

### 3.2.1 ADD FILTER (AD FI)

<b>Usage Guidelines</b>	This command is used to create a filter. Once created, the filter will be added to the filter list. Filters in this list can be used to apply traffic limitations to ports.
<b>Syntax</b>	ADD FILTER <filtername> (expression) <description>
<b>Example</b>	ADD FILTER IP_FILTER (ip.src==172.16.1.1) This filter only allows the IP 172.16.1.1
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Expression must be enclosed in ().</li> <li>• Filtername can have a max of 64 characters. No spaces allowed.</li> <li>• Description can have a max of 512 characters.</li> <li>• Filtername is case sensitive.</li> </ul>

### 3.2.2 ADD FILTER OVERWRITE (AD FI OV)

<b>Usage Guidelines</b>	This command is used to create or overwrite a filter. If an existing filter has the same name, it will be overwritten. Once created, the filter will be added to the filter list. Filters in this list can be used to apply traffic limitations to ports.
<b>Syntax</b>	ADD FILTER OVERWRITE <filtername> (expression) <description>
<b>Example</b>	ADD FILTER OVERWRITE IP_FILTER (ip.src==172.16.1.1) This filter only allows the IP 172.16.1.1
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Expression must be enclosed in ().</li> <li>• Filtername can have a max of 64 characters. No spaces allowed.</li> <li>• Description can have a max of 512 characters.</li> <li>• Filtername is case sensitive.</li> </ul>

### 3.2.3 DELETE FILTER (DE FI)

<b>Usage Guidelines</b>	This command is used to delete a filter from the filter list. Note that deleting the filter from the filter list will not remove it from any ports it has been applied to.
<b>Syntax</b>	DELETE FILTER <filtername>
<b>Example</b>	DELETE FILTER IP_FILTER
<b>Command Notes</b>	Filtername is case sensitive.

### 3.2.4 DELETE FILTER DESC (DE FI DE)

<b>Usage Guidelines</b>	This command is used to delete the description of the indicated filter.
<b>Syntax</b>	DELETE FILTER DESC <filename>
<b>Example</b>	DELETE FILTER DESC IP_FILTER
<b>Command Notes</b>	Filename is case sensitive.

### 3.2.5 SET PORT FILTER (SE PO FI)

<b>Usage Guidelines</b>	This command is used to assign a filter that is located in the filter list to a port. It must be assigned to either the ingress or egress portion of the port.
<b>Syntax</b>	SET PORT FILTER [ PORT_#   PORT-LIST   ALL] [ INGRESS   EGRESS ] <filename>
<b>Example</b>	SET PORT FILTER 3,4,5 egress IP_FILTER
<b>Command Notes</b>	<p>Two permanent default filters exist and can be used to apply to a port:</p> <ul style="list-style-type: none"> <li>• <b>PASS-ALL</b> will pass all traffic</li> <li>• <b>PASS-NONE</b> will block all traffic from being received or transmit on the port</li> </ul>

### 3.2.6 SHOW FILTER EXPRESSION (SH FI EX)

<b>Usage Guidelines</b>	This command is used to display the expression associated with a filter. This will show the criteria that the filter will include or exclude from the traffic on an assigned port.
<b>Syntax</b>	SHOW FILTER EXPRESSION <filename>
<b>Example</b>	SHOW FILTER EXPRESSION IP_FILTER
<b>Command Notes</b>	Filename is case sensitive.

### 3.2.7 SHOW FILTERS (SH FI)

<b>Usage Guidelines</b>	This command is used to display a list of all filters that are in the filter list. Their respective descriptions are displayed under the filter name.
<b>Syntax</b>	SHOW FILTERS
<b>Example</b>	SHOW FILTERS
<b>Command Notes</b>	This command will not show filters that have been applied to ports, but are not located in the filter list.

### 3.2.8 SHOW FILTERS FILTERED (SH FI FI)

<b>Usage Guidelines</b>	This command is used to display a list containing a set of filters that are in the filter list. Search criteria may be specified to narrow down the list of filters. Their respective descriptions are displayed under the filter name.
<b>Syntax</b>	SHOW FILTERS FILTERED <string>
<b>Example</b>	SHOW FILTERS FILTERED IP
<b>Command Notes</b>	This command will only search for matches within the Filtername. Filter Descriptions are not searched.

### 3.2.9 SHOW PORT FILTER

<b>Usage Guidelines</b>	This command is used to display the filter that is assigned to a specific port, or a group of ports. The location of the filter (ingress/egress), filter name, and expression are displayed.
<b>Syntax</b>	SHOW PORT FILTER [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	SHOW PORT FILTER 3

## 3.3 Group Management

### 3.3.1 ADD GROUP MEMBER (AD GR ME)

<b>Usage Guidelines</b>	This command is used to add ports to the membership of a group.
<b>Syntax</b>	ADD GROUP MEMBER <name> {list}
<b>Example</b>	ADD GROUP MEMBER Group_A 3,4,5
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• The group name in this command is case sensitive.</li> <li>• A maximum of 23 ports may be added to a port group.</li> </ul>

### 3.3.2 CREATE GROUP (CR GR)

<b>Usage Guidelines</b>	This command is used to create a group. Groups are used to create load balancing configurations or to quickly configure multiple ports at the same time.
<b>Syntax</b>	CREATE GROUP <name>
<b>Example</b>	CREATE GROUP Group_A
<b>Command Notes</b>	The group name in this command is case sensitive.

### 3.3.3 DELETE GROUP (DE GR)

<b>Usage Guidelines</b>	This command is used to delete a group from the group list.
<b>Syntax</b>	DELETE GROUP <name>
<b>Example</b>	CREATE GROUP Group_A
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• The group name in this command is case sensitive.</li> <li>• If the group is part of an active LBC, the group will not be deleted.</li> </ul>

### 3.3.4 REMOVE GROUP MEMBER (RE GR ME)

<b>Usage Guidelines</b>	This command is used to remove a port from the membership of a group.
<b>Syntax</b>	REMOVE GROUP MEMBER <name> {list}
<b>Example</b>	REMOVE GROUP MEMBER Group_A 4
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• The group name in this command is case sensitive.</li> <li>• If the group is part of an active LBC, the member will not be deleted.</li> </ul>

### 3.3.5 SET GROUP DESCRIPTION (SE GR DE)

<b>Usage Guidelines</b>	This command is used to set the description on a group.
<b>Syntax</b>	SET GROUP DESCRIPTION <name> <description>
<b>Example</b>	SET GROUP DESCRIPTION Group_A This group is used to load balance ports 4 and 5.
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• The group name in this command is case sensitive.</li> <li>• Description can be a max of 512 characters.</li> </ul>

### 3.3.6 SHOW GROUP (SH GR)

<b>Usage Guidelines</b>	This command is used to show the statistics for a specific group, or all groups present in the configuration.
<b>Syntax</b>	SHOW GROUP <name>   LIST [DETAILED]
<b>Example</b>	SHOW GROUP LIST DETAILED
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• The group name in this command is case sensitive.</li> <li>• Adding "DETAILED" will cause the output to provide additional information.</li> </ul>

### 3.3.7 SHOW GROUP MEMBERSHIP (SH GR ME)

<b>Usage Guidelines</b>	This command is used to show the group that a port is part of.
<b>Syntax</b>	SHOW GROUP MEMBERSHIP <port>
<b>Example</b>	SHOW GROUP MEMBERSHIP 5

## 3.4 Load Balancing

### 3.4.1 CREATE LBC (CR LB)

<b>Usage Guidelines</b>	This command is used to create a load balancing configuration. Required fields must be populated before it can be used.
<b>Syntax</b>	CREATE LBC <name>
<b>Example</b>	CREATE LBC LBC_1
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>The LBC name in this command is case sensitive.</li> </ul>

### 3.4.2 DELETE LBC (DE LB)

<b>Usage Guidelines</b>	This command is used to delete a load balancing configuration. The LBC must be made inactive before it can be deleted.
<b>Syntax</b>	DELETE LBC <name>
<b>Example</b>	DELETE LBC LBC_1
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>The LBC name in this command is case sensitive.</li> </ul>

### 3.4.1 SET HASH (SE HA )

<b>Usage Guidelines</b>	This command changes the hash algorithm that is used to split the traffic in a load balancing group. The change is immediate and will impact the flow of traffic between egress ports on all load balancing configurations.			
<b>Syntax</b>	SET HASH [DEF(AULT)]   [criteria][criteria][criteria].....[etc]			
<b>Example</b>	SET HASH IP MAC PORTS			
<b>Command Notes</b>	<b>Available criteria:</b>			
	<b>L2</b>	<b>L3</b>	<b>L4</b>	<b>SMAC</b>
	<b>DMAC</b>	<b>VLAN</b>	<b>TYPE</b>	<b>PROTO</b>
	<b>SIP</b>	<b>DIP</b>	<b>TCP</b>	<b>UDP</b>
	<b>SPORT</b>	<b>DPORT</b>	<b>L2SYM</b>	<b>L3SYM</b>

### 3.4.2 SET LBC DESCRIPTION (SE LB DE)

<b>Usage Guidelines</b>	This command is used to add a description to a created load balancing description.
<b>Syntax</b>	SET LBC DESCRIPTION <name> <description>
<b>Example</b>	SET LBC DESCRIPTION LBC_1 Monitor output from firewall
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>The LBC name in this command is case sensitive.</li> <li>Description can be a max of 512 characters.</li> </ul>

### 3.4.3 SET LBC EGRESS-PORTS (SE LB EG)

<b>Usage Guidelines</b>	This command is used to allocate a port group to be the egress set of a load balancing configuration. These ports will transmit the load balanced traffic.
<b>Syntax</b>	SET LBC EGRESS-PORTS <name> <PortGroupName>
<b>Example</b>	SET LBC EGRESS-PORTS LBC_1 Group_A
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>The LBC and Group name in this command are both case sensitive.</li> </ul>

### 3.4.4 SET LBC INGRESS-PORTS (SE LB IN)

<b>Usage Guidelines</b>	This command is used to allocate a port or port group to be the ingress set of a load balancing configuration. These ports will be the source for the load balanced traffic.
<b>Syntax</b>	SET LBC INGRESS-PORTS <name> [ <port#>   <PortGroupName> ]
<b>Example</b>	SET LBC INGRESS-PORTS LBC_1 12
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>The LBC name in this command is case sensitive.</li> </ul>

### 3.4.5 SET LBC STATE (SE LB ST)

<b>Usage Guidelines</b>	This command is used to set a created load balancing configuration into one of three states. The load balancing configuration needs to be configured with ingress and egress ports before it can be set to "Active".
<b>Syntax</b>	SET LBC STATE <name> <state>
<b>Example</b>	SET LBC STATE LBC_1 ACTIVE
<b>Command Notes</b>	<p>Possible LBC states include:</p> <ul style="list-style-type: none"> <li><b>ACTIVE</b> - Activate this configuration (PASS TRAFFIC)</li> <li><b>INACTIVE</b> - Deactivate this configuration (No Traffic)</li> <li><b>RECOVER-ALL</b> - Re-activate the configuration (Recover ports) bringing recovered ports back into the balance group</li> </ul>

### 3.4.6 SET LBG ADMIN-STATE (SE LB AD)

<b>Usage Guidelines</b>	This command is used to change the state of a port in the egress portion of a load balancing configuration. Ports can be configured to one of two admin-states.
<b>Syntax</b>	SET LBG ADMIN-STATE <name> <port#> [ AC(TIVE)   FA(ILOVER)
<b>Example</b>	SET LBG ADMIN-STATE LBC_1 4 FAILOVER
<b>Command Notes</b>	Possible admin-states include: <ul style="list-style-type: none"> <li>• <b>ACTIVE</b> - Activate this port (PASS TRAFFIC)</li> <li>• <b>FAILOVER</b> - Deactivate this port (No Traffic)</li> </ul>

### 3.4.7 SET LBG PORT-STATE (SE LB PO)

<b>Usage Guidelines</b>	This command is used to change the link state of a port in the egress portion of a load balancing configuration. A port must be set to “active” after it is brought “up” in order to pass traffic.
<b>Syntax</b>	SET LBG PORT-STATE <name> <port#> [ UP   DOWN ]
<b>Example</b>	SET LBG PORT-STATE LBC_1 4 UP
<b>Command Notes</b>	Possible admin-states include: <ul style="list-style-type: none"> <li>• <b>UP</b>- Attempt to force the state of the port up</li> <li>• <b>DOWN</b>- Attempt to force the state of the port down</li> </ul>

### 3.4.8 SHOW LBC (SH LB)

<b>Usage Guidelines</b>	This command is used to display information for one load balancing configuration, or a list of all created. Will display information including: Name, Description, Ingress ports, Egress ports, load balancing groups contained, link state, etc.
<b>Syntax</b>	SHOW LBC [ <name>   LI(ST) [DE(TAILED)] ]
<b>Example</b>	SHOW LBC LIST DETAILED
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• The LBC name in this command is case sensitive.</li> </ul>

## 3.5 Management Port Settings

### 3.5.1 SET GATEWAY (SE GA)

<b>Usage Guidelines</b>	This command is used to configure the gateway address for the management port on the switch.
<b>Syntax</b>	SET GATEWAY <IPv4 address>
<b>Example</b>	SET GATEWAY <192.168.1.1>



### 3.5.2 SET IP (SE IP)

<b>Usage Guidelines</b>	This command is used to configure the IP address for the management port on the switch.
<b>Syntax</b>	SET IP <IPv4 address>
<b>Example</b>	SET IP <192.168.1.25>

### 3.5.3 SET MANAGEMENT PORT (SE MA PO)

<b>Usage Guidelines</b>	This command is used to turn the network management port on the switch on or off.
<b>Syntax</b>	SET MANAGEMENT PORT [ ON   OFF ]
<b>Example</b>	SET MANAGEMENT PORT ON
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Turning the management port off will result in SSH, Telnet and the GUI becoming unavailable. The only way to access the switch in this state is through the serial port.</li> </ul>

### 3.5.4 SET PING (SE PI)

<b>Usage Guidelines</b>	This command is used to determine if the switch will respond to ICMP echo requests.
<b>Syntax</b>	SET PING [ ON   OFF ]
<b>Example</b>	SET PING ON

### 3.5.5 SET SSH (SE SS)

<b>Usage Guidelines</b>	This command is used to determine if the switch will respond to SSH connection attempts.
<b>Syntax</b>	SET SSH [ ON   OFF ]
<b>Example</b>	SET SSH ON

### 3.5.6 SET SUBNET (SE SU)

<b>Usage Guidelines</b>	This command is used to configure the subnet address for the management port on the switch.
<b>Syntax</b>	SET SUBNET <IPv4 address>
<b>Example</b>	SET SUBNET <255.255.255.0>

### 3.5.7 SET TCP PORT (SE TC PO)

<b>Usage Guidelines</b>	This command is used to configure the upgrade port on the switch. This port is used by FLASHutils to upgrade the firmware on the switch.
<b>Syntax</b>	SET TCP PORT <port>
<b>Example</b>	SET TCP PORT 2370
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Default TCP port is 2370. If modified, FLASHutils may also need to be configured to reflect the change.</li> </ul>

### 3.5.8 SET TELNET (SE TE)

<b>Usage Guidelines</b>	This command is used to configure the upgrade port on the switch. This port is used by FLASHutils to upgrade the firmware on the switch.
<b>Syntax</b>	SET TCP PORT <port>
<b>Example</b>	SET TCP PORT 2370
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Default TCP port is 2370. If modified, FLASHutils may also need to be configured to reflect the change.</li> <li>• Accepted ports are 1-65535</li> </ul>

### 3.5.9 SHOW MANAGEMENT (SH MA)

<b>Usage Guidelines</b>	This command is used to display the management port related information. This includes the IP, subnet, gateway, TCP port, and MAC Address.
<b>Syntax</b>	SHOW MANAGEMENT
<b>Example</b>	SHOW MANAGEMENT

## 3.6 NTP

### 3.6.1 ADD NTP SERVER (AD NT SE)

<b>Usage Guidelines</b>	This command is used to add a new NTP server to the configuration of the switch.
<b>Syntax</b>	ADD NTP SERVER <IP address>
<b>Example</b>	ADD NTP SERVER 192.168.10.5

### 3.6.2 CLEAR NTP SERVER-LIST (CL NT SE)

<b>Usage Guidelines</b>	This command is used to remove all NTP servers from the NTP list on the switch.
<b>Syntax</b>	CLEAR NTP SERVER-LIST
<b>Example</b>	CLEAR NTP SERVER-LIST

### 3.6.3 REMOVE NTP SERVER (RE NT SE)

<b>Usage Guidelines</b>	This command is used to remove a specific NTP server from the server list.
<b>Syntax</b>	REMOVE NTP SERVER <IP Address>
<b>Example</b>	REMOVE NTP SERVER 192.168.10.5

### 3.6.4 SHOW NTP (SH NT)

<b>Usage Guidelines</b>	This command is used to display a list of all configured NTP servers, as well as the current NTP synchronization status of the switch.
<b>Syntax</b>	SHOW NTP
<b>Example</b>	SHOW NTP

### 3.6.5 SHOW NTP SERVER-LIST (SH NT SE)

<b>Usage Guidelines</b>	This command is used to display a list of all configured NTP servers.
<b>Syntax</b>	SHOW NTP SERVER-LIST
<b>Example</b>	SHOW NTP SERVER-LIST

### 3.6.6 SHOW NTP STATUS (SH NT ST)

<b>Usage Guidelines</b>	This command is used to display the current NTP synchronization status of the switch.
<b>Syntax</b>	SHOW NTP STATUS
<b>Example</b>	SHOW NTP STATUS

## 3.7 Port Configuration

### 3.7.1 DELETE PORT DESC (DE PO DE)

<b>Usage Guidelines</b>	This command is used to delete the description configured on a port.
<b>Syntax</b>	DELETE PORT DESC <port>
<b>Example</b>	DELETE PORT DESC 5

### 3.7.2 DELETE PORT NAME (DE PO NA)

<b>Usage Guidelines</b>	This command is used to delete the name configured on a port.
<b>Syntax</b>	DELETE PORT NAME <port>
<b>Example</b>	DELETE PORT NAME 5

### 3.7.3 GET LINK SUMMARY (GE LI SU)

<b>Usage Guidelines</b>	This command is used to display a chart of media type, state, filters, load balancing status, PGA groups, configured speed, and negotiated speed for each port on the switch.
<b>Syntax</b>	GET LINK SUMMARY
<b>Example</b>	GET LINK SUMMARY

### 3.7.4 GET PORT COUNTERS (GE PO CO)

<b>Usage Guidelines</b>	This command is used to display the traffic counters for ports. These statistics include statistics such as packet size and error frames.
<b>Syntax</b>	GET PORT COUNTERS [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	GET PORT COUNTERS 3,4,5

### 3.7.5 RESET PORT COUNTERS (RE PO CO)

<b>Usage Guidelines</b>	This command is used to reset the traffic counters for ports.
<b>Syntax</b>	RESET PORT COUNTERS [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	RESET PORT COUNTERS ALL

### 3.7.6 SET PORT DESC (SE PO DE)

<b>Usage Guidelines</b>	This command is used to set a description for a specific port.
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<b>Syntax</b>	SET PORT DESC <port> TO <string>
<b>Example</b>	SET PORT DESC 4 TO Second monitor output.
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Description can be a max of 512 characters.</li> </ul>

### 3.7.7 SET PORT NAME (SE PO NA)

<b>Usage Guidelines</b>	This command is used to set a name for a specific port.
<b>Syntax</b>	SET PORT NAME <port> TO <string>
<b>Example</b>	SET PORT NAME 5 TO Monitor_3

### 3.7.8 SET PORT SPEED (SE PO SP)

<b>Usage Guidelines</b>	This command is used to set the speed for a specific port, list of ports, or all ports. The speed must match the media of the SFP in the port.
<b>Syntax</b>	SET PORT SPEED [ PORT_#   PORT-LIST   ALL] <Speed>
<b>Example</b>	SET PORT SPEED 3,4,5 CU-AUTO
<b>Command Notes</b>	Possible speeds are: <ul style="list-style-type: none"> <li>CU-100M</li> <li>CU-AUTO</li> <li>1000X-Manual</li> <li>1000X-Auto</li> <li>10G</li> </ul>

### 3.7.9 SET PORT TYPE (SE PO TY)

<b>Usage Guidelines</b>	This command is used to set the port type of a specific port. Port types determine where traffic is able to be steered. (Ex. Monitor cannot steer to other ports). Interconnect ports can be steered to and receive from all other interconnect ports. Default setting is Interconnect.
<b>Syntax</b>	SET PORT TYPE <port> TO <type>
<b>Example</b>	SET PORT TYPE 5 TO MONITOR
<b>Command Notes</b>	Possible port types are: <ul style="list-style-type: none"> <li>Network</li> <li>Monitor</li> <li>Active Monitor</li> <li>Interconnect</li> </ul>

### 3.7.10 SHOW PORT CONFIG (SH PO CO)

<b>Usage Guidelines</b>	This command is used to display various configurable port settings applied to the ports on the switch. Fields include name, description, type, media, configured speed, negotiated speed.
<b>Syntax</b>	SHOW PORT CONFIG [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	SHOW PORT CONFIG ALL

### 3.7.11 SHOW PORT DESC (SH PO DE)

<b>Usage Guidelines</b>	This command is used to display the description of a specific port, or of multiple ports.
<b>Syntax</b>	SHOW PORT DESC [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	SHOW PORT DESC ALL

### 3.7.12 SHOW PORT NAME (SE PO NA)

<b>Usage Guidelines</b>	This command is used to display the name of a specific port, or of multiple ports.
<b>Syntax</b>	SHOW PORT NAME [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	SHOW PORT NAME ALL

### 3.7.13 SHOW PORT STATS (SH PO ST)

<b>Usage Guidelines</b>	This command is used to display port information including Rx power, SFP vendor, SFP part number, media, configured speed, link status.
<b>Syntax</b>	SHOW PORT STATS [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	SHOW PORT STATS 7

### 3.7.14 SHOW PORT TYPE (SH PO TY)

<b>Usage Guidelines</b>	This command is used to display the port type associated with a specific port, or a list of ports.
<b>Syntax</b>	SHOW PORT TYPE [ PORT_#   PORT-LIST   ALL ]
<b>Example</b>	SHOW PORT TYPE ALL

## 3.8 Port Group Associations

### 3.8.1 CREATE PGA (CR PG )

<b>Usage Guidelines</b>	<p>The Port Group will operate as a single logical unit for Up/Down link state propagation. Any one port that is physically down will cause all other ports in that port group to also be brought down.</p> <p>All ports in a port group must be physically Link UP in order for the remaining ports to be up.</p>
<b>Syntax</b>	CREATE PGA <name> <PORT-LIST>
<b>Example</b>	CREATE PGA Security 4,5,6
<b>Command Notes</b>	<p><b>&lt;name&gt;</b> - Unique name of the Port Group Association. 2-64 characters. Character set: [A-Za-z][A-Za-z0-9.@_ -]</p> <p><b>&lt;PORT-LIST&gt;</b> - Port #, a Port-List(1,3,6-10), or the keyword 'ALL'.</p> <p><b>NOTE:</b> At least 2 ports must be defined in the port list</p>

### 3.8.2 DELETE PGA (DE PG )

<b>Usage Guidelines</b>	Delete an existing Port Group Association. The ports involved in the PGA will be logically separate. If a port that is part of a port group is physically Link UP and logically Link DOWN when the port group is deleted, it will become active after the deletion of the PGA.
<b>Syntax</b>	DELETE PGA <name>
<b>Example</b>	DELETE PGA Security

### 3.8.3 SHOW PGA (SH PG )

<b>Usage Guidelines</b>	Display all configured Port Group Associations in a list including the PGA names and the related ports.
<b>Syntax</b>	SHOW PGA
<b>Example</b>	SHOW PGA

## 3.9 Port Steering

### 3.9.1 RESET PORT MONITORS (RE PO MO)

<b>Usage Guidelines</b>	This command is used to clear all port steering configurations made on all ports.
<b>Syntax</b>	RESET PORT MONITORS
<b>Example</b>	RESET PORT MONITORS
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• This command may interrupt traffic flow between ports that are connected through port steering.</li> <li>• Ports involved in load balancing configurations will not be reset.</li> </ul>

### 3.9.2 SET PORT MONITOR (SE PO MO) -Tx

<b>Usage Guidelines</b>	This command is used to assign port steering between two ports. Traffic arriving at the switch from the second parameter will be sent to the first parameter.
<b>Syntax</b>	SET PORT MONITOR <Tx-port> FROM [ NONE   Rx-Port ]
<b>Example</b>	SET PORT MONITOR 7 FROM 3,4,5
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Final parameter can be a comma separated list.</li> <li>• "NONE" in the second parameter will clear port steering for the port.</li> </ul>

### 3.9.3 SET PORT MONITOR (SE PO MO) -Rx

<b>Usage Guidelines</b>	This command is used to assign port steering between two ports. Traffic arriving at the switch from the first parameter will be sent to the second parameter.
<b>Syntax</b>	SET PORT MONITOR <Rx-port> TO [ NONE   Tx-port ]
<b>Example</b>	SET PORT MONITOR 10 TO 11
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Final parameter can be a comma separated list.</li> <li>• "NONE" in the second parameter will clear port steering for the port.</li> </ul>

### 3.9.4 SHOW PORT ROUTING (SH PO RO)

<b>Usage Guidelines</b>	This command is used to display a chart showing all port steering configurations and ports involved in load balancing configurations. Horizontal axis of the chart shows the input ports, vertical axis shows the output ports.
<b>Syntax</b>	SHOW PORT ROUTING
<b>Example</b>	SHOW PORT ROUTING



### 3.9.5 SET PORT RX (RE PO RX)

<b>Usage Guidelines</b>	This command is used to set port steering to direct traffic between ports. Command overrides safety checks that are present in the SE PO MO command, and if used without an understanding of the full routing of the device may lead to unstable traffic situations. Using this command, ports that are involved in load balancing groups may also be used to steer traffic.
<b>Syntax</b>	SET PORT RX <Rx-Port> TO <Tx-Port>
<b>Example</b>	SET PORT RX <Rx-Port> TO <Tx-Port>
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Final parameter can be a comma separated list.</li> <li>• "NONE" in the second parameter will clear port steering for the port.</li> </ul>

## 3.10 RADIUS

### 3.10.1 ADD RADIUS (AD RA)

<b>Usage Guidelines</b>	This command is used to add a new RADIUS server to the list of RADIUS servers. Only an IP address is required to add a server, port and secret are optional.
<b>Syntax</b>	ADD RADIUS [ <IP>   <IP:Port> ] <Secret>
<b>Example</b>	ADD RADIUS 192.168.1.30:1812 SecretRadius
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Default RADIUS port is 1812.</li> </ul>

### 3.10.2 DELETE RADIUS (DE RA)

<b>Usage Guidelines</b>	This command is used to delete a RADIUS server from the list of RADIUS servers.
<b>Syntax</b>	DELETE RADIUS <IP><:Port>
<b>Example</b>	DELETE RADIUS 192.168.1.30:1812

### 3.10.3 SET RADIUS SECRET (SE RA SE)

<b>Usage Guidelines</b>	This command is used to configure an existing RADIUS server to have a secret.
<b>Syntax</b>	SET RADIUS SECRET <ip><:Port> <Secret>
<b>Example</b>	SET RADIUS SECRET 192.168.1.30:1812 RadiusSecret

### 3.10.4 SET RADIUS TIMEOUT (SE RA TI)

<b>Usage Guidelines</b>	This command is used to configure an existing RADIUS server to have a timeout.
<b>Syntax</b>	SET RADIUS TIMEOUT <ip><:Port> <timeout>
<b>Example</b>	SET RADIUS TIMEOUT 192.168.1.30:1812 30
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Timeout value must be 1-60 minutes.</li> </ul>

### 3.10.5 SHOW RADIUS (SH RA)

<b>Usage Guidelines</b>	This command is used to display all information for all RADIUS servers on the server list. Information includes IP, port, secret, and timeout values for all servers.
<b>Syntax</b>	SHOW RADIUS
<b>Example</b>	SHOW RADIUS

## 3.11 SNMP

### 3.11.1 DELETE SNMPV2C READCOMMUNITY (DE V2 RC)

<b>Usage Guidelines</b>	This command is used to delete the existing READCOMMUNITY value that is configured.
<b>Syntax</b>	DELETE SNMPV2C READCOMMUNITY
<b>Example</b>	DELETE SNMPV2C READCOMMUNITY

### 3.11.2 DELETE SNMPV2C TRAP (DE V2 TR)

<b>Usage Guidelines</b>	This command is used to delete the existing trap destination configured for SNMPv2C.
<b>Syntax</b>	DELETE SNMPV2C TRAP <Trap Dest IP Address> <port> <community string>
<b>Example</b>	DELETE SNMPV2C TRAP 192.168.1.40 1642 WCstring
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Community string is case sensitive.</li> </ul>

### 3.11.3 DELETE SNMPV2C WRITECOMMUNITY (DE V2 WC)

<b>Usage Guidelines</b>	This command is used to delete the existing SNMPv2C WRITECOMMUNITY.
<b>Syntax</b>	DELETE SNMPV2C WRITECOMMUNITY
<b>Example</b>	DELETE SNMPV2C WRITECOMMUNITY

### 3.11.4 DELETE SNMPV3 TRAP (DE V3 TR)

<b>Usage Guidelines</b>	This command is used to delete the existing trap destination configured for SNMPv3.
<b>Syntax</b>	DELETE SNMPV3 TRAP <Trap Dest IP Address> <port> <username> <security level>
<b>Example</b>	DELETE SNMPV3 TRAP 192.168.1.40 1632 admin authPriv
<b>Command Notes</b>	<p>Security types are:</p> <ul style="list-style-type: none"> <li>• <b>noAuthNoPriv</b></li> <li>• <b>authNoPriv</b></li> <li>• <b>authPriv</b></li> </ul> <p>Username is case sensitive.</p>

### 3.11.5 DELETE SNMPV3 USER (DE V3 US)

<b>Usage Guidelines</b>	This command is used to delete the existing SNMPv3 user.
<b>Syntax</b>	DELETE SNMPV3 USER <username>
<b>Example</b>	DELETE SNMPV3 USER admin
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is case sensitive.</li> </ul>

### 3.11.6 RESET SNMP DEFAULTS (RE SN DE)

<b>Usage Guidelines</b>	This command is used to reset all SNMP setting to their default values. This will eliminate all values for both SNMPv2C and SNMPv3.
<b>Syntax</b>	RESET SNMP DEFAULTS
<b>Example</b>	RESET SNMP DEFAULTS

### 3.11.7 SET SNMP (SE SN)

<b>Usage Guidelines</b>	This command is used to turn on SNMPv2C and SNMPv3. SNMP must be configured before it will run.
<b>Syntax</b>	SET SNMP [ ON   OFF ]
<b>Example</b>	SET SNMP ON

### 3.11.8 SET SNMPV2C READCOMMUNITY (SE V2 RC)

<b>Usage Guidelines</b>	This command is used to set the value for the READCOMMUNITY in SNMPv2c.
<b>Syntax</b>	SET SNMPV2C READCOMMUNITY <readcommunity string>
<b>Example</b>	SET SNMPV2C READCOMMUNITY RC_string
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>String is case sensitive.</li> </ul>

### 3.11.9 SET SNMPV2C TRAP (SE V2 TR)

<b>Usage Guidelines</b>	This command is used to set up the criteria for the SNMPv2C trap.
<b>Syntax</b>	SET SNMPV2C TRAP <Trap Dest IP Address> <port> <community string>
<b>Example</b>	SET SNMPV2C TRAP 192.168.1.44 1232 RC_string
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>String is case sensitive.</li> </ul>

### 3.11.10 SET SNMPV2C WRITECOMMUNITY (SE V2 WC)

<b>Usage Guidelines</b>	This command is used to set the value for the WRITECOMMUNITY in SNMPv2c.
<b>Syntax</b>	SET SNMPV2C WRITECOMMUNITY <writecommunity string>
<b>Example</b>	SET SNMPV2C WRITECOMMUNITY WC_string
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>String is case sensitive.</li> </ul>

### 3.11.11 SET SNMPV3 MONITORUSER (SE V3 MU)

<b>Usage Guidelines</b>	This command is used to set up the monitor user for SNMPv3, along with pertinent criteria.
<b>Syntax</b>	SET SNMPV3 MONITORUSER <name> <auth> <authPass> <priv> <privPass>
<b>Example</b>	SET SNMPV3 MONITORUSER admin MD5 abcdefghijklmnop DES zyxwvutsrqponm
<b>Command Notes</b>	<p>Auth types are:</p> <ul style="list-style-type: none"> <li><b>MD5</b></li> <li><b>SHA</b></li> </ul> <p>Priv types are:</p> <ul style="list-style-type: none"> <li><b>DES</b></li> <li><b>AES</b></li> </ul> <ul style="list-style-type: none"> <li>Each password must be at least 12 characters.</li> <li>Name is case sensitive.</li> </ul>

### 3.11.12 SET SNMPV3 SUPERUSER (SE V3 SU)

<b>Usage Guidelines</b>	This command is used to set up the super user for SNMPv3, along with pertinent criteria.
<b>Syntax</b>	SET SNMPV3 SUPERUSER <name> <auth> <authPass> <priv> <privPass>
<b>Example</b>	SET SNMPV3 SUPERUSER admin MD5 abcdefghijklmnop DES zyxwvutsrqponm
<b>Command Notes</b>	<p>Auth types are:</p> <ul style="list-style-type: none"> <li>• MD5</li> <li>• SHA</li> </ul> <p>Priv types are:</p> <ul style="list-style-type: none"> <li>• DES</li> <li>• AES</li> </ul> <ul style="list-style-type: none"> <li>• Each password must be at least 12 characters.</li> <li>• Name is case sensitive.</li> </ul>

### 3.11.13 SET SNMPV3 TRAP (SE V3 TR)

<b>Usage Guidelines</b>	This command is used to set the criteria for a SNMPv3 trap.
<b>Syntax</b>	SET SNMPV3 TRAP <TrapDest IP> <port> <username> <security level>
<b>Example</b>	SET SNMPV3 TRAP 192.168.1.46 2321 admin authNoPriv
<b>Command Notes</b>	<p>Security types are:</p> <ul style="list-style-type: none"> <li>• noAuthNoPriv</li> <li>• authNoPriv</li> <li>• authPriv</li> </ul> <ul style="list-style-type: none"> <li>• Username is case sensitive.</li> </ul>

### 3.11.14 SHOW SNMP (SH SN)

<b>Usage Guidelines</b>	This command is used to display all SNMPv2C and SNMPv3 configurations.
<b>Syntax</b>	SHOW SNMP
<b>Example</b>	SHOW SNMP

### 3.11.15 SHOW SNMPV2C READCOMMUNITY (SH V2 RC)

<b>Usage Guidelines</b>	This command is used to display value set for the SNMPV2c read community.
<b>Syntax</b>	SHOW SNMPV2C READCOMMUNITY
<b>Example</b>	SHOW SNMPV2C READCOMMUNITY

### 3.11.16 SHOW SNMPV2C TRAP (SH V2 TR)

<b>Usage Guidelines</b>	This command is used to display criteria of all configured SNMPv2C traps.
<b>Syntax</b>	SHOW SNMPV2C TRAP
<b>Example</b>	SHOW SNMPV2C TRAP

### 3.11.17 SHOW SNMPV2C WRITECOMMUNITY (SH V2 WC)

<b>Usage Guidelines</b>	This command is used to display value set for the SNMPv2c write community.
<b>Syntax</b>	SHOW SNMPV2C WRITECOMMUNITY
<b>Example</b>	SHOW SNMPV2C WRITECOMMUNITY

### 3.11.18 SHOW SNMPV3 TRAP (SH V3 TR)

<b>Usage Guidelines</b>	This command is used to display criteria of all configured SNMPv3 traps.
<b>Syntax</b>	SHOW SNMPV3 TRAP
<b>Example</b>	SHOW SNMPV3 TRAP

### 3.11.19 SHOW SNMPV3 USERS (SH V3 US)

<b>Usage Guidelines</b>	This command is used to display all SNMPv3 users and their configured values.
<b>Syntax</b>	SHOW SNMPV3 TRAP
<b>Example</b>	SHOW SNMPV3 TRAP

## 3.12 Syslog

### 3.12.1 ADD SYSLOG SERVER (AD SY SE)

<b>Usage Guidelines</b>	This command is used to add a Syslog server with the specified IP address and port.
<b>Syntax</b>	ADD SYSLOG SERVER <IP Address><IP Port>
<b>Example</b>	ADD SYSLOG SERVER 1.1.1.2 112

### 3.12.2 CLEAR SYSLOG SERVER-LIST (CL SY SE)

<b>Usage Guidelines</b>	This command is used to delete all configured Syslog servers.
<b>Syntax</b>	CLEAR SYSLOG SERVER-LIST
<b>Example</b>	CLEAR SYSLOG SERVER-LIST

### 3.12.3 GET SYSLOG SERVER-LIST (GE SY SE)

<b>Usage Guidelines</b>	This command is used to display a list of all Syslog servers.
<b>Syntax</b>	GET SYSLOG SERVER-LIST
<b>Example</b>	GET SYSLOG SERVER-LIST

### 3.12.4 GET SYSLOG STATE (GE SY ST)

<b>Usage Guidelines</b>	This command is used to display the status of the Syslog service.
<b>Syntax</b>	GET SYSLOG STATE
<b>Example</b>	GET SYSLOG STATE

### 3.12.5 REMOVE SYSLOG SERVER (RE SY SE)

<b>Usage Guidelines</b>	This command is used to remove a specific Syslog server from the server list.
<b>Syntax</b>	REMOVE SYSLOG SERVER <IP Address> <IP Port>
<b>Example</b>	REMOVE SYSLOG SERVER 1.1.1.2 112

### 3.12.6 SET SYSLOG STATE (SE SY ST)

<b>Usage Guidelines</b>	This command is used to toggle the status of the Syslog service.
<b>Syntax</b>	SET SYSLOG STATE [ ON   OFF ]
<b>Example</b>	SET SYSLOG STATE ON

### 3.12.7 SHOW SYSLOG (SH SY)

<b>Usage Guidelines</b>	This command is used to display the status of the Syslog service, as well as any Syslog servers that have been configured in the server list.
<b>Syntax</b>	SHOW SYSLOG
<b>Example</b>	SHOW SYSLOG

## 3.13 System

### 3.13.1 DELETE SYS DESC (DE SY DE)

<b>Usage Guidelines</b>	This command is used to delete a configured system description.
<b>Syntax</b>	DELETE SYS DESC
<b>Example</b>	DELETE SYS DESC

### 3.13.2 EXIT (EX)

<b>Usage Guidelines</b>	This command is used to log the current user out and return to the login prompt. Must be used following the configuration of any IP settings for the management port.
<b>Syntax</b>	EXIT
<b>Example</b>	EXIT

### 3.13.3 GET KEEPALIVE INTERVAL (GE KE IN)

<b>Usage Guidelines</b>	This command is used to display the current system health keep alive interval in seconds.
<b>Syntax</b>	GET KEEPALIVE INTERVAL
<b>Example</b>	GET KEEPALIVE INTERVAL

### 3.13.4 HELP (HE)

<b>Usage Guidelines</b>	This command is used to display all of the available commands on the device. Commands are shown with syntax and descriptions.
<b>Syntax</b>	HELP <search field>
<b>Example</b>	HELP group
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Typing a value after help will filter the results to only include commands that contain an exact match of the value in the name.</li> </ul>

### 3.13.5 POWER STATUS (PO ST)

<b>Usage Guidelines</b>	This command is used to display the current status of the power supplies on the VERSAstream.
<b>Syntax</b>	POWER STATUS
<b>Example</b>	POWER STATUS



### 3.13.6 REBOOT (REBOOT)

<b>Usage Guidelines</b>	This command is used to perform a reboot. This will require a login once the VERSAstream has finished rebooting.
<b>Syntax</b>	REBOOT
<b>Example</b>	REBOOT

### 3.13.7 REGENERATE WEB CERTIFICATE (RE WE CE)

<b>Usage Guidelines</b>	This command is used to regenerate the Streamlite Web Certificate. If the GUI is in use when this command is entered, it will log the user out of the GUI.
<b>Syntax</b>	REGENERATE WEB CERTIFICATE
<b>Example</b>	REGENERATE WEB CERTIFICATE

### 3.13.8 RESTART WEB SERVER (RE WE SE)

<b>Usage Guidelines</b>	This command is used to restart the Streamlite Web Server. If the GUI is in use when this command is entered, it will log the user out of the GUI.
<b>Syntax</b>	REGENERATE WEB SERVER
<b>Example</b>	REGENERATE WEB SERVER

### 3.13.9 SET AUTHENTICATION ORDER (SE AU OR)

<b>Usage Guidelines</b>	This command is used to set the authentication order for login to the VERSAstream.
<b>Syntax</b>	SET AUTHENTICATION ORDER <Primary>[Secondary]
<b>Example</b>	SET AUTHENTICATION ORDER <Primary>[Secondary]
<b>Command Notes</b>	Auth types are: <ul style="list-style-type: none"> <li>• LOCAL</li> <li>• RADIUS</li> <li>• TACACS</li> </ul>

### 3.13.10 SET DATE (SE DA)

<b>Usage Guidelines</b>	This command is used to set the date on the VERSAstream.
<b>Syntax</b>	SET DATE <MMDDYY>
<b>Example</b>	SET DATE <102518>
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Valid year range 2000-2038</li> </ul>

### 3.13.1 SET FRAGMENT (SE FR )

<b>Usage Guidelines</b>	This command is used to set to enable the Fragmented dropped packets recovery feature.
<b>Syntax</b>	SET FRAGMENT [ON   OFF]
<b>Example</b>	SET FRAGMENT ON
<b>Command Notes</b>	Setting the feature to "ON" will allow the visibility of fragmented packets.

### 3.13.2 SET KEEPALIVE INTERVAL (SE KE IN)

<b>Usage Guidelines</b>	This command is used to set the current system health keep alive interval in seconds.
<b>Syntax</b>	SET KEEPALIVE INTERVAL <seconds>
<b>Example</b>	SET KEEPALIVE INTERVAL 20
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>To turn off the keep alive interval, enter a "0" for the seconds field.</li> </ul>

### 3.13.3 SET SESSION TIMEOUT (SE SE TI)

<b>Usage Guidelines</b>	This command is used to set length of inactivity on the CLI before the user is logged out.
<b>Syntax</b>	SET SESSION TIMEOUT <minutes>
<b>Example</b>	SET SESSION TIMEOUT 20
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>To turn off the keep alive interval, enter a "0" for the seconds field.</li> </ul>

### 3.13.4 SET SYS DESC (SE SY DE)

<b>Usage Guidelines</b>	This command is used to set the system description.
<b>Syntax</b>	SET SYS DESC <string>
<b>Example</b>	SET SYS DESC VERSAstream used for monitor devices 1-4
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Maximum of 512 characters allowed for description.</li> </ul>

### 3.13.5 SET SYS NAME (SE SY NA)

<b>Usage Guidelines</b>	This command is used to set the system name.
<b>Syntax</b>	SET SYS NAME <string>
<b>Example</b>	SET SYS NAME VERSAstream01
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Maximum of 64 characters allowed for name.</li> </ul>

### 3.13.6 SET TIME (SE TI)

<b>Usage Guidelines</b>	This command is used to set the system time.
<b>Syntax</b>	SET TIME [HHMMSS]
<b>Example</b>	SET TIME 173020
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Time is in 24-Hour format.</li> </ul>

### 3.13.7 SHOW (SH)

<b>Usage Guidelines</b>	This command is used to display many general system settings including IP settings, serial settings, services, firmware version etc.
<b>Syntax</b>	SHOW
<b>Example</b>	SHOW

### 3.13.8 SHOW AUTHENTICATION ORDER (SH AU OR)

<b>Usage Guidelines</b>	This command is used to display the current order of authentication that is followed for login attempts.
<b>Syntax</b>	SHOW AUTHENTICATION ORDER
<b>Example</b>	SHOW AUTHENTICATION ORDER

### 3.13.9 SHOW FIRMWARE VERSION (SH FW VE)

<b>Usage Guidelines</b>	This command is used to display the current firmware loaded on the VERSAstream.
<b>Syntax</b>	SHOW FIRMWARE VERSION
<b>Example</b>	SHOW FIRMWARE VERSION

### 3.13.10 SHOW PRODUCT (SH PR)

<b>Usage Guidelines</b>	This command is used to display the model, serial and firmware version of the VERSAstream.
<b>Syntax</b>	SHOW PRODUCT
<b>Example</b>	SHOW PRODUCT

### 3.13.11 SHOW SERIAL (SH SE)

<b>Usage Guidelines</b>	This command is used to display the serial port speeds currently configured.
<b>Syntax</b>	SHOW SERIAL
<b>Example</b>	SHOW SERIAL

### 3.13.12 SHOW SERVICE STATUS (SH SV ST)

<b>Usage Guidelines</b>	This command is used to display the status of various network services including SSH, Telnet, Ping, SNMP, Syslog, SNMP, and NTP.
<b>Syntax</b>	SHOW SERVICE STATUS
<b>Example</b>	SHOW SERVICE STATUS

### 3.13.13 SHOW SESSION TIMEOUT (SH SE TI)

<b>Usage Guidelines</b>	This command is used to display the current session timeout value.
<b>Syntax</b>	SHOW SESSION TIMEOUT
<b>Example</b>	SHOW SESSION TIMEOUT

### 3.13.14 SHOW SYS DESC (SH SY DE)

<b>Usage Guidelines</b>	This command is used to display the current system description.
<b>Syntax</b>	SHOW SYS DESC
<b>Example</b>	SHOW SYS DESC

### 3.13.15 SHOW SYS NAME (SH SY NA)

<b>Usage Guidelines</b>	This command is used to display the current system name.
<b>Syntax</b>	SHOW SYS NAME
<b>Example</b>	SHOW SYS NAME

### 3.13.16 SHOW TIME (SH TI)

<b>Usage Guidelines</b>	This command is used to display the current system time.
<b>Syntax</b>	SHOW TIME
<b>Example</b>	SHOW TIME

## 3.14 TACACS

### 3.14.1 ADD TACACS LOGIN (AD TA LO)

<b>Usage Guidelines</b>	This command is used to configure access for a new TACACS+ server.
<b>Syntax</b>	ADD TACACS LOGIN <ip><:Port> <Secret>
<b>Example</b>	ADD TACACS LOGIN 192.168.53.5:49 TACACS_Secret
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Port field is optional. No input will result in the default value of 49.</li> <li>• Secret can be up to 127 characters.</li> </ul>

### 3.14.2 ADD TACACS RIGHTS (AD TA RI)

<b>Usage Guidelines</b>	This command is used to configure rights for a TACACS+ server.
<b>Syntax</b>	ADD TACACS RIGHTS <ip><:Port> <Secret> <Authorization Service>
<b>Example</b>	ADD TACACS RIGHTS 192.168.53.5:49 TACACS_Secret Auth
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Port field is optional. No input will result in the default value of 49.</li> <li>• Secret can be up to 127 characters.</li> </ul>

### 3.14.3 DELETE TACACS LOGIN (DE TA LO)

<b>Usage Guidelines</b>	This command is used to delete existing TACACS server access information.
<b>Syntax</b>	DELETE TACACS LOGIN <ip><:Port>
<b>Example</b>	DELETE TACACS LOGIN 192.168.53.5:49
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Port field is optional. No input will result in the default value of 49.</li> </ul>

### 3.14.4 DELETE TACACS RIGHTS (DE TA RI)

<b>Usage Guidelines</b>	This command is used to delete existing TACACS server rights information.
<b>Syntax</b>	DELETE TACACS RIGHTS <ip><:Port>
<b>Example</b>	DELETE TACACS RIGHTS 192.168.53.5:49
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Port field is optional. No input will result in the default value of 49.</li> </ul>

### 3.14.5 SET TACACS LOGIN (SE TA LO)

<b>Usage Guidelines</b>	This command is used to set a secret for the login of a TACACS+ server.
<b>Syntax</b>	SET TACACS LOGIN <ip><:Port> <secret>
<b>Example</b>	DELETE TACACS RIGHTS 192.168.53.5:49 Login_Secret
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Port field is optional. No input will result in the default value of 49.</li> <li>Secret can be up to 127 characters.</li> </ul>

### 3.14.6 SET TACACS RIGHTS (SE TA RI)

<b>Usage Guidelines</b>	This command is used to set a secret for the rights of a TACACS+ server.
<b>Syntax</b>	SET TACACS RIGHTS <ip><:Port> <secret>
<b>Example</b>	SET TACACS RIGHTS 192.168.53.5:49 Rights_Secret
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Port field is optional. No input will result in the default value of 49.</li> <li>Secret can be up to 127 characters.</li> </ul>

### 3.14.7 SET TACACS SERVICE (SE TA SV)

<b>Usage Guidelines</b>	This command is used to set a service address for a TACACS server.
<b>Syntax</b>	SET TACACS SERVICE <ip><:Port> <service>
<b>Example</b>	SET TACACS SERVICE 192.168.53.5:49 Auth
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>Port field is optional. No input will result in the default value of 49.</li> </ul>

### 3.14.8 SET TACACS TIMEOUT (SE TA TI)

<b>Usage Guidelines</b>	This command is used to set a service address for a TACACS server.
<b>Syntax</b>	SET RADIUS TIMEOUT <ip><:Port> <timeout>
<b>Example</b>	SET RADIUS TIMEOUT 192.168.53.5:49 40
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Port field is optional. No input will result in the default value of 49.</li> <li>• Timeout value must be between 1 and 60 minutes.</li> </ul>

### 3.14.9 SHOW TACACS (SH TA)

<b>Usage Guidelines</b>	This command is used to display all TACACS configurations.
<b>Syntax</b>	SHOW TACACS
<b>Example</b>	SHOW TACACS

## 3.15 User Management

### 3.15.1 CREATE USER (CR US)

<b>Usage Guidelines</b>	This command is used to create a new user.
<b>Syntax</b>	CREATE USER <username>
<b>Example</b>	CREATE USER John_Doe
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Before the user can be used to login, a password must be created first.</li> <li>• Users start with no administrative access. This must be defined later on.</li> <li>• Username is cap sensitive.</li> </ul>

### 3.15.2 GET USER (GE US)

<b>Usage Guidelines</b>	This command is used to display all configured criteria for a specific user. This includes all privileges and user information.
<b>Syntax</b>	GET USER <username>
<b>Example</b>	GET USER John_Doe
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Before the user can be used to login, a password must be created first.</li> <li>• Users start with no administrative access. This must be defined later on.</li> <li>• Username is cap sensitive.</li> </ul>

### 3.15.3 REMOVE USER (RE US)

<b>Usage Guidelines</b>	This command is used to remove a user from the login list.
<b>Syntax</b>	REMOVE USER <username>
<b>Example</b>	REMOVE USER John_Doe
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is cap sensitive.</li> </ul>

### 3.15.4 REMOVE USER CELL (RE US CE)

<b>Usage Guidelines</b>	This command is used to clear the cell phone field in the user's information.
<b>Syntax</b>	REMOVE USER CELL <username>
<b>Example</b>	REMOVE USER CELL John_Doe
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is cap sensitive.</li> </ul>

### 3.15.5 REMOVE USER EMAIL (RE US EM)

<b>Usage Guidelines</b>	This command is used to clear the email field in user's information.
<b>Syntax</b>	REMOVE USER EMAIL <username>
<b>Example</b>	REMOVE USER EMAIL John_Doe
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is cap sensitive.</li> </ul>

### 3.15.6 REMOVE USER PHONE (RE US PH)

<b>Usage Guidelines</b>	This command is used to clear the Phone field in the user's information.
<b>Syntax</b>	REMOVE USER PHONE <username>
<b>Example</b>	REMOVE USER PHONE John_Doe
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is cap sensitive.</li> </ul>

### 3.15.7 SET USER ACCESS (SE US AC)



<b>Usage Guidelines</b>	This command is used to assign privilege levels to a specific user.
<b>Syntax</b>	SET USER ACCESS <username> <access> <privilege>
<b>Example</b>	SET USER ACCESS John_Doe PORT WRITE
<b>Command Notes</b>	<p>Access types are:</p> <ul style="list-style-type: none"> <li>• ADMIN</li> <li>• USER</li> <li>• PORT</li> <li>• IP</li> <li>• TIME</li> <li>• UPGRADE</li> <li>• SHOW</li> </ul> <p>Privilege types are:</p> <ul style="list-style-type: none"> <li>• NONE</li> <li>• READ</li> <li>• WRITE</li> </ul>

### 3.15.8 SET USER CELL (SE US CE)

<b>Usage Guidelines</b>	This command is used to assign a phone number to the cell field in a specified user's information.
<b>Syntax</b>	SET USER CELL <username> <phone_number>
<b>Example</b>	SET USER CELL John_Doe 01234567891
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is cap sensitive.</li> <li>• Phone number must be 1-16 digits (no spaces, no dashes, no alphas)</li> </ul>

### 3.15.9 SET USER EMAIL (SE US EM)

<b>Usage Guidelines</b>	This command is used to assign a phone number to the email field in a specified user's information.
<b>Syntax</b>	SET USER EMAIL <username> <email>
<b>Example</b>	SET USER EMAIL John_Doe john.doe@johndoe.com
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is cap sensitive.</li> <li>• Email must use the format: a[.b]@c.d</li> </ul>

### 3.15.10 SET USER PASSWORD (SE US PA)

<b>Usage Guidelines</b>	This command is used to assign a password to an existing user. A user must be assigned a password before it can be used to log in.
<b>Syntax</b>	SET USER PASSWORD <username> <password> <password>
<b>Example</b>	SET USER PASSWORD John_Doe paswd paswd
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username and passwords are cap sensitive.</li> </ul>

### 3.15.11 SET USER PHONE (SE US PH)

<b>Usage Guidelines</b>	This command is used to assign a phone number to the phone field in a specified user's information.
<b>Syntax</b>	SET USER PHONE <username> <phone_number>
<b>Example</b>	SET USER PHONE John_Doe 98765432109
<b>Command Notes</b>	<ul style="list-style-type: none"> <li>• Username is cap sensitive.</li> <li>• Phone number must be 1-16 digits (no spaces, no dashes, no alphas)</li> </ul>

### 3.15.12 SHOW CURRENT USER (SH CU US)

<b>Usage Guidelines</b>	This command is used to display the current logged in user.
<b>Syntax</b>	SHOW CURRENT USER
<b>Example</b>	SHOW CURRENT USER

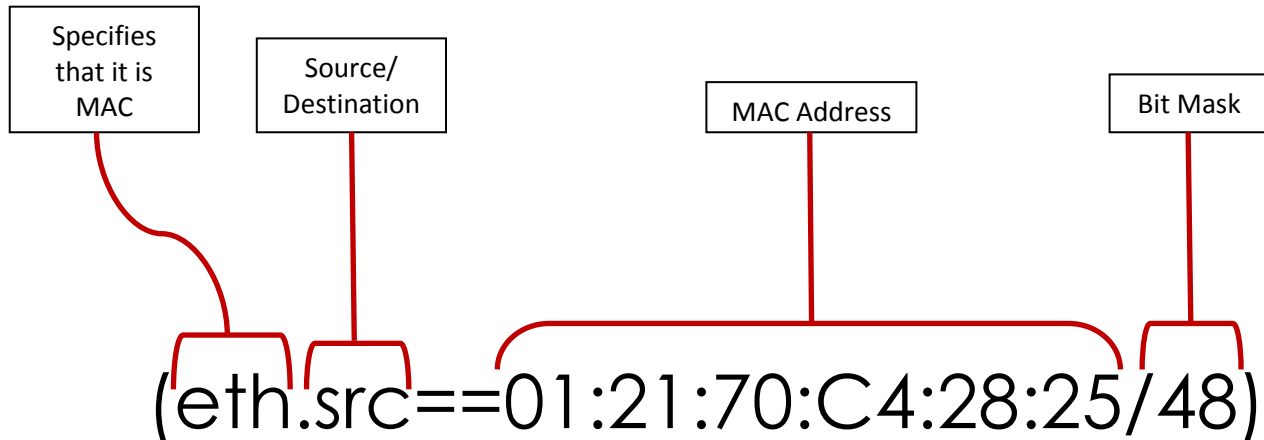
### 3.15.13 SHOW USERS (SH US )

<b>Usage Guidelines</b>	This command is used to display all created users on the VERSAstream, aside from the default Administrator.
<b>Syntax</b>	SHOW USERS
<b>Example</b>	SHOW USERS

## 4 CLI Filter Creation Guide

### 4.1 MAC Address Filters

#### 4.1.1 Syntax



#### 4.1.2 Allow by MAC Address

The following command will create a filter which will include all traffic with the source MAC address of 01:21:70:C4:28:25:

```
add filter AllowMAC (eth.src==01:21:70:C4:28:25/48)
```

#### 4.1.3 Deny by MAC Address

The following command will create a filter which will exclude all traffic with the source MAC address of 01:21:70:C4:28:25:

```
add filter DenyMAC (!(eth.src==01:21:70:C4:28:25/48))
```

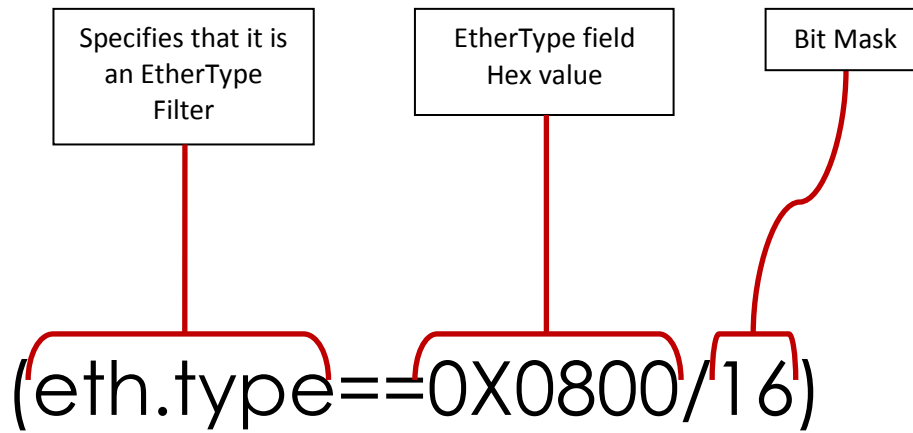
#### 4.1.4 Destination MAC Address

The following command will create a filter which will include all traffic with the destination MAC address of 01:21:70:C4:28:25:

```
add filter DestMAC (eth.dst==01:21:70:C4:28:25/48)
```

## 4.2 EtherType Filters

### 4.2.1 Syntax



### 4.2.2 Allow by EtherType

The following command will create a filter which will include all traffic with the EtherType of 0X0800 (IPv4 traffic):

```
add filter IPv4 (eth.type==0X0800/16)
```

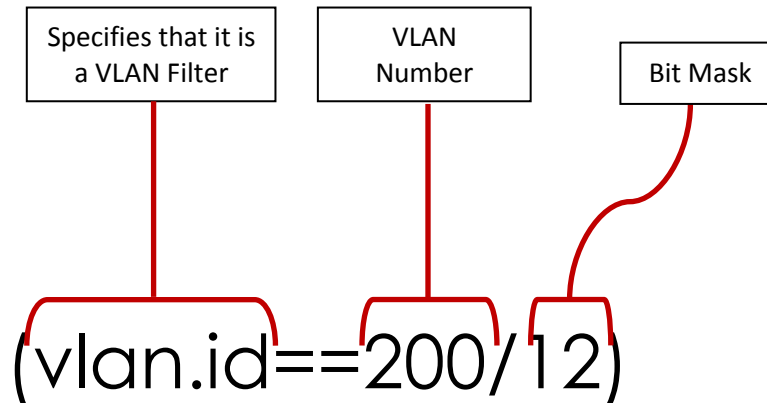
### 4.2.3 Deny by EtherType

The following command will create a filter which will exclude all traffic with the EtherType of 0X0800 (IPv4 traffic):

```
add filter NoIPv4 (!(eth.type==0X0800/16))
```

## 4.3 VLAN Filters

### 4.3.1 Syntax



### 4.3.2 Allow by VLAN ID

The following command will create a filter which will include all traffic that has the VLAN ID of 40:

```
add filter VL40 (vlan.id==40/12)
```

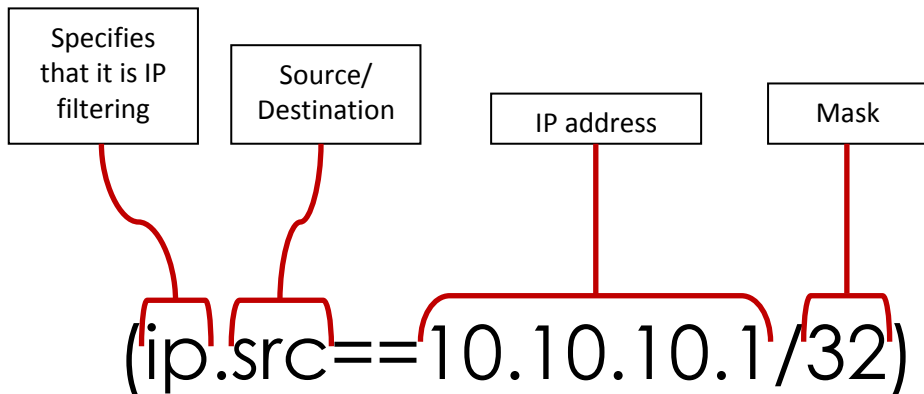
### 4.3.3 Deny by VLAN ID

The following command will create a filter which will exclude all traffic that has the VLAN ID of 40:

```
add filter NoVL40 (!(vlan.id==40/12))
```

## 4.4 IPv4 Address Filters

### 4.4.1 Syntax



### 4.4.2 Allow by IPv4 Address

The following command will create a filter which will include all traffic with the source IP address of 10.10.10.1:

```
add filter AllowIP (ip.src==10.10.10.1/32)
```

### 4.4.3 Deny by IPv4 Address

The following command will create a filter which will exclude all traffic with the source IP address of 10.10.10.1:

```
add filter DenyIP (!(ip.src==10.10.10.1/32))
```

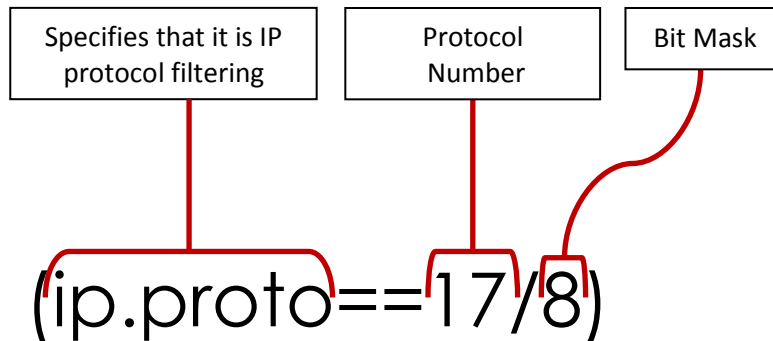
### 4.4.4 Destination IPv4 Address

The following command will create a filter which will include all traffic with the destination IP address of 10.10.10.1:

```
add filter DestIP (ip.dst==10.10.10.1/32)
```

## 4.5 Protocol Filters

### 4.5.1 Syntax



### 4.5.2 Allow by Protocol

The following command will create a filter which will include all traffic with the protocol TCP (Decimal value 6):

```
add filter AllowTCP (ip.proto==6/8)
```

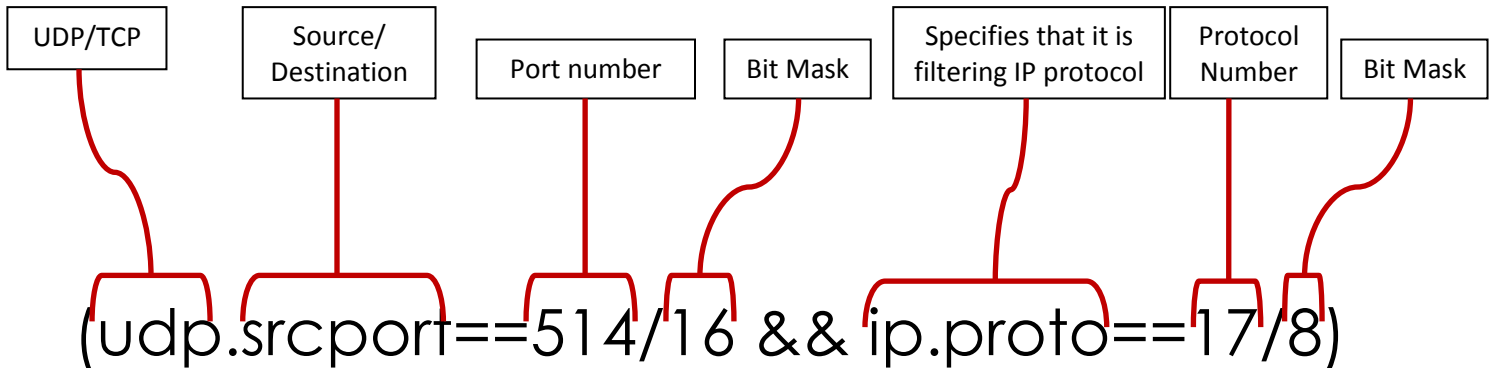
### 4.5.3 Deny by Protocol

The following command will create a filter which will exclude all traffic with the protocol TCP (Decimal value 6):

```
add filter DenyTCP (!(ip.proto==6/8))
```

## 4.6 Port Filters

### 4.6.1 Syntax



### 4.6.2 Allow by Port

The following command will create a filter which will include all traffic that has the source port of Syslog (UDP port 514):

```
(udp.srcport==514/16 && ip.proto==17/8)
```

### 4.6.3 Deny by Port

The following command will create a filter which will exclude all traffic that has the source port of Syslog (UDP port 514):

```
(!(udp.srcport==514/16 && ip.proto==17/8))
```

### 4.6.4 Destination Port

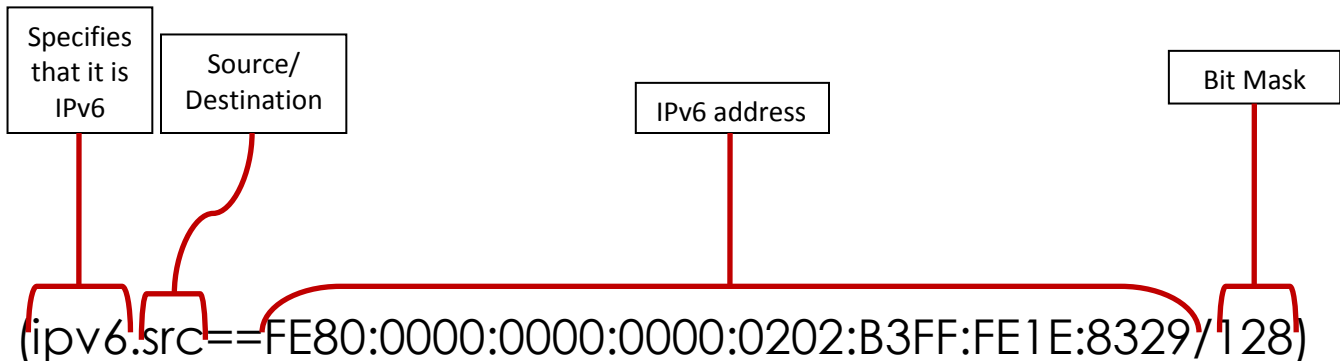
The following command will create a filter which will include all traffic that has the destination port of Syslog (UDP port 514):

```
(udp.dstport==514/16 && ip.proto==0x11/8)
```



## 4.7 IPv6 Address Filters

### 4.7.1 Syntax



### 4.7.2 Allow by IPv6 Address

The following command will create a filter which will include all traffic with the source IP address of FE80:0000:0000:0000:0202:B3FF:FE1E:8329:

```
add filter AllowIPv6
(ipv6.src==FE80:0000:0000:0000:0202:B3FF:FE1E:8329/128)
```

### 4.7.3 Deny by IPv6 Address

The following command will create a filter which will exclude all traffic with the source IP address of FE80:0000:0000:0000:0202:B3FF:FE1E:8329:

```
add filter DenyIPv6
(!(ipv6.src==FE80:0000:0000:0000:0202:B3FF:FE1E:8329/128))
```

### 4.7.4 Destination IPv6 Address

The following command will create a filter which will include all traffic with the destination IP address of FE80:0000:0000:0000:0202:B3FF:FE1E:8329:

```
add filter DestIPv6
(ipv6.dst==FE80:0000:0000:0000:0202:B3FF:FE1E:8329/128)
```

## 4.8 Adding Multiple Criteria to One Rule (AND expression)

Multiple fields may be populated within one rule of a filter. Each added criteria will further narrow down the range of the traffic that the rule applies to. To add multiple criteria to a single rule within an “add filter” command, the criteria must be all within parenthesis and separated by “&&”. Traffic must apply to all fields for the filter to include/exclude it. If the traffic only applies to one of multiple criteria stated in the rule it will be ignored. Below are a couple examples of rules that contain multiple criteria.

### 4.8.1 Filter for Protocol and MAC

This filter will only allow traffic that:

1. Has the source MAC address of 01:21:70:C4:28:25.
2. Is using TCP protocol.

```
add filter Mon1 (eth.src==01:21:70:C4:28:25/48 && ip.proto==6/8)
```

### 4.8.2 Filter out IP and Multicast MPLS

This filter will exclude all traffic that:

1. Has the source IP address of 192.168.1.12.
2. Is an MPLS multicast packet.

```
add filter Monitor2 (!(ip.src==192.168.1.12/32 && eth.type==0x8848/16))
```

## 4.9 Adding Multiple Rules to One Filter (OR expression)

Multiple rules may be added to one filter. Each added rule will expand the range of the traffic that the filter will apply to. To add multiple rules into a filter in an “add filter” command, each rule must be contained within parenthesis and separated by “||”. When adding multiple rules to a filter, traffic only needs to match one of the rules for the filter to apply to it. Only traffic that does not match any of the rules will be ignored by the filter. Below are a couple examples of filters that contain multiple rules.

### 4.9.1 Filter for multiple IPs

This filter will allow traffic that has any of the following criteria:

1. A source IP address of 19.6.1.10
2. A destination IP address of 19.6.5.15
3. A source IP address of 19.6.10.10

```
add filter IPSet ((ip.src==19.6.1.10/32) || (ip.dst==19.6.5.15/32) ||  
(ip.src==19.6.10.10/32))
```

### 4.9.2 Filter out a VLAN and MAC Address

This filter will exclude all traffic that has either of the following criteria:

1. A destination MAC address of 02:22:71:C5:29:26.
2. Has the VLAN ID 102.

```
add filter NoVL (!(eth.dst==02:22:71:C5:29:26/48 && vlan.id==102/12))
```

## Using a Mask to Filter for a Range of Criteria

A mask may be added to criteria in order to add a range of criteria to one rule in a filter. This is done by changing the mask at the end of the criteria expression. A few examples of creating filters with masks are shown below.

### 4.9.3 Filter for multiple IPv4 Addresses

This filter will allow all traffic with the IP address starting with “192.168”

```
add filter IPRange (ip.src==192.168.0.0/16)
```

### 4.9.4 Filter for multiple MAC Addresses

This filter will allow all traffic with the MAC address starting with “01:21:70”

```
add filter MACRange (eth.src==01:21:70:C4:28:25/24)
```

### 4.9.5 Filter for multiple IPv6 Addresses

This filter will allow all traffic with the IP address starting with “FE80:0000:B3FF:0000:0202”

```
(ipv6.src==FE80:0000:B3FF:0000:0202:0000:0000:0000/80)
```

## 6. Customer Service

Datacom Customer Service is available via telephone and Internet. Please leave a voice message and our Customer Service Staff will return your call as soon as possible. You may also find the assistance you need at our website: <http://www.datacomsystems.com>.

**Telephone:** +1 315 463-9541

**Internet website:** <http://www.datacomsystems.com>

## Datacom Systems Inc.

9 Adler Drive • East Syracuse, NY 13057

TEL: +1 315 463-9541 • FAX: +1 315 463-9557

<http://www.datacomsystems.com>

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