# EdgeLens®

## **Inline Security Packet Broker**

User Guide By Garland Technology

INT10G8LR56 / INT10G8SR56



## Garland Technology: Integrated Bypass System Firmware Rev Level: 1.1.11

Office: 716-242-8500 garlandtechnology.com/support garlandtechnology.com





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## 1. INT10G8xx56 DashBoard



IP Management Interface Serial Interface

PS2 PS1 SYS	- Power Supply 2 LED - Power Supply 1 LED - System LED
L/A1 L/A2 BP Up Arrow SFP Port 9 Down Arrow SFP Port 10	<ul> <li>Link/Activity LED Network Port 1, TAP 1</li> <li>Link/Activity LED Network Port 2, TAP 1</li> <li>Bypass LED Tap 1</li> <li>Link/Activity LED Bypass Port TAP 1</li> <li>Link/Activity LED Bypass Port TAP 1</li> </ul>
L/A3 L/A4 BP Up Arrow SFP Port 11 Down Arrow SFP Port 12	<ul> <li>Link/Activity LED Network Port 3, TAP 2</li> <li>Link/Activity LED Network Port 4, TAP 2</li> <li>Bypass LED Tap 2</li> <li>Link/Activity LED Bypass Port TAP 2</li> <li>Link/Activity LED Bypass Port TAP 2</li> </ul>
L/A5 L/A6 BP Up Arrow SFP Port 13 Down Arrow SFP Port 14	<ul> <li>Link/Activity LED Network Port 5, TAP 3</li> <li>Link/Activity LED Network Port 6, TAP 3</li> <li>Bypass LED Tap 3</li> <li>Link/Activity LED Bypass Port TAP 3</li> <li>Link/Activity LED Bypass Port TAP 3</li> </ul>
L/A7 L/A8 BP Up Arrow SFP Port 15 Down Arrow SFP Port 16	<ul> <li>Link/Activity LED Network Port 7, TAP 4</li> <li>Link/Activity LED Network Port 8, TAP 4</li> <li>Bypass LED Tap 4</li> <li>Link/Activity LED Bypass Port TAP 4</li> <li>Link/Activity LED Bypass Port TAP 4</li> </ul>
Up Arrows SFP Ports 17-39 Down Arrows SFP Ports 18-40	- Link/Activity LEDs - Link/Activity LEDs
Up Arrow QSFP Ports 41-43 Down Arrow QSFP Ports 42-44	- Link LED - Link LED





## 2. INT10G8xx56 System



Select System to display or change the system options.

	Dashboard Bypass Taps Packet Broker	Port Info System		Welcome admin Log out
System Info				
General	System Information			
User Settings	Chassis Name Chassis Model INT10G8SR56			
Network Settings	Chassis Serial         23720020006           Software Version         1.1.11			
Date & Time				
Syslog				
Snmp				
Export Configuration				
Import Configuration				
Software Upgrade				
Reboot				

## General -

Displays the current general system configuration.

General	<ul> <li>select to display the current chassis name and key press timeout</li> </ul>
Edit Configuration	- select to change the chassis name or key press timeout
Chassis Name	- enter 1 to 32 characters
Key Press Timeout	<ul> <li>enter 60 to 3600 seconds, default 300</li> </ul>
Save	<ul> <li>select to save any changes</li> </ul>
Cancel	<ul> <li>select to return to general system settings</li> </ul>





## User Settings -

Displays the current user configuration.

Username & Password	<ul> <li>select to change the local GUI and serial port username and password (default=admin/gtadmin1). Cannot change if logged in via TACACS</li> </ul>
Authentication Settings	- select to change the login authentication settings
Local Authentication	- enabled by default, may be disabled if TACACS authentication is enabled
TACACS Authentication	- select to enable TACACS authentication
IP Address	- enter the TACACS server IP address
Secret Word	- enter to use a key on the TACACS server (3-20 characters)
Save	- select to save any changes
Cancel	- select to return to user settings
TACACS Test	<ul> <li>select to test the TACACS authentication</li> </ul>
Username	- enter the username defined in the TACACS server
Password	<ul> <li>enter the password defined in the TACACS server</li> </ul>
Test	<ul> <li>select to verify username/password authentication to the TACACS server</li> </ul>
TACACS Ping	- select to ping the TACACS server IP address

## **Network Settings -**

Displays the current network configuration.

Edit Settings	<ul> <li>select to change the network settings</li> </ul>
Enable DHCP	- select to enable DHCP
IP Address	<ul> <li>displays the management IP address defined at turn up. If desired a new management IP address may be entered</li> </ul>
Mask	<ul> <li>displays the mask defined at turn up. If desired a new mask may be entered</li> </ul>
Gateway	<ul> <li>displays the gateway defined at turn up. If desired a new gateway may be entered</li> </ul>
DNS1	- enter the desired DNS1 server
DNS2	- enter the desired DNS2 server
Save	<ul> <li>select to save any changes</li> </ul>
Cancel	- select to return to network settings





## Date & Time -

Displays the current date and time configuration.

Edit Settings	- select to change the network settings
Timezone	<ul> <li>displays the current timezone. May be changed by using the pull down panel</li> </ul>
UTC	- displays the utc. May be changed by using the pull down panel
NTP	- select to enable NTP timing
Use Pool	- select to use a pool for NTP timing
IP Address	- enter the IP address for the NTP server used for NTP timing
Save	- select to save any changes
Cancel	- select to return to date & time settings

### Syslog -

Displays the current syslog configuration.

Edit Settings Enable Syslog Config	<ul> <li>select to change the syslog configuration</li> <li>select to enable syslog</li> <li>enter the unit ID for evalues measures, entioned</li> </ul>
Protocol	- displays the current protocol, default UDP. May be changed to
	TCP by using the pull down panel
IP Address	- displays the current syslog server. If desired a new syslog server may be entered
Port	- displays the current udp/tcp port default 514. If desired a new
	port number may be entered
Save	- select to save any changes
Cancel	- select to return to syslog configuration





## Snmp -

Displays the current SNMP configuration.

Edit Configuration Enable SNMP Config Access Port	<ul> <li>select to change the snmp configuration</li> <li>select to enable snmp</li> <li>displays the current access port, default 161. If desired a new port number may be entered</li> </ul>	
Trap Port	- displays the current trap port, default 162. If desired a new port number may be entered	
Trap IP Address	<ul> <li>displays the current snmp server. If desired a new snmp server may be entered</li> </ul>	
Protocol	- displays the current protocol, default V2 Read/Write. If desired the protocol may be changed to V2 Read Only or V3 by using the pull down panel	
V2 Community Password	<ul> <li>the default is gtpublic, but not visible. If desired a new V2 community password may be entered</li> </ul>	
If the protocol was changed to V3 the following options will appear. The unit supports snmp V3 MD5 and DES.		

V3 User	- enter the snmp V3 username, 8-20 characters
V3 Auth Pass	- enter the snmp V3 authentication password, 8-20 characters
V3 Priv Pass	- enter the snmp V3 privacy password, 8-20 characters
Save	- select to save any changes
Cancel	- select to return to snmp configuration

## **Export Configuration -**

Provides the ability to download the unit's configuration. The date/time and network settings are excluded. The download path is determined by the browser.

Export Configuration	- select to to download the current configuration.
GREEN Export	- select to start download

#### **Import Configuration -**

Provides the ability to upload a new configuration file to the unit. This will overwrite the unit's current configuration excluding the date/time and network settings.

Import Configuration	<ul> <li>select to upload a configuration file to the unit</li> </ul>
Choose File	<ul> <li>select to choose the configuration file</li> </ul>
Upload	- select to upload the configuration file
Restart Import	- select to choose a different configuration file or cancel
Configure	- select to load the configuration file on the unit





#### Software Upgrade -

Provides the ability to upgrade the unit's firmware. All of the existing configurations will be saved to the new firmware.

Software Upgrade	<ul> <li>select to upgrade the unit's firmware</li> </ul>
Choose File	<ul> <li>select to choose the firmware</li> </ul>
Reset	- select to choose a different firmware or cancel
Upload	<ul> <li>select to load the firmware on the unit.</li> </ul>

#### Reboot -

Provides the ability to reboot the unit. This will affect traffic for @ 15 seconds.

Reboot	- select to reboot the unit
Reboot	- select to reboot the unit





## 3. INT10G8xx56 Port Info



Select Port Info to display or change port configuration and display port statistics.

GARLAN Bee every bit, byte, and pa		Dashboard	Bypass Taps	Packe	t Broker Port	info Sys	tem		
Port Configuration									
Port Statistics		Port	Configu	ratio	n				
	Save	Port	Description	Link	Set Speed	Speed	Mode	SFP Data	Split
	Refresh	1	port01	•	10G 🛩	10G	Normal ~	FINISAR CORP. FTLX8571D3BCV	
		2	port02	٠	10G ¥	10G	Normal 🗸	FINISAR CORP. FTLX8571D3BCV	
		3	port03	•	10G 🗸	10G	Normal 🗸	FINISAR CORP. FTLX8571D3BCV	
		4	port04	•	10G 🛩	10G	Normal 🗸	FINISAR CORP. FTLX8571D3BCV	
		5	port05	•	10G ¥	10G	Normal 🗸	FINISAR CORP. FTLX8571D3BCV	
		6	port06	•	10G 🛩	10G	Normal ~	FINISAR CORP. FTLX8571D3BCV	
		7	port07		10G ¥	10G	Normal ~	FINISAR CORP. FTLX8571D3BCV	
		8	port08	•	10G 🛩	10G	Normal 🗸	FINISAR CORP. FTLX8571D3BCV	
		9	port09	•	10G ¥	10G	Normal 🗸	FINISAR CORP. FTLX8574D3BCV	
		10	port10	•	10G 🛩	10G	Normal 🗸	FINISAR CORP. FTLX8571D3BCL	
		11	port11	•	10G ¥	10G	Normal ~	FINISAR CORP. FTLX8574D3BCV	
		12	port12	•	10G 🗸	10G	Normal 🗸	FINISAR CORP. FTLX8574D3BCV	
		13	port13	•	10G ¥	10G	Normal ~	FINISAR CORP. FTLX8574D3BCV	
		14	port14	•	10G 🛩	10G	Normal 🗸	FINISAR CORP. FTLX8574D3BCL	
		15	port15	•	10G ¥	10G	Normal 🗸	FINISAR CORP. FTLX8574D3BCV	
				_			· · · ·	FINISAR CORP.	





## Port Configuration -

Displays the current port configurations.

Port	- displays the physical port number
Description	- displays the current port descriptions, default port01 to port44
port01-port044	- select port 01-44 in the description column to change the port's description.
Edit Description	- enter the new port description, (1 to 32 characters)
Set	- select to save the new description
Cancel	- select to cancel and return to port configurations
Link	- displays the current port link status. GREEN port has
	link. RED port does not have link.
Set Speed	- displays the current port speed, default 10G. Use the pull down panel to change the port speed to 1G.
Speed	- displays current port speed
Mode	- swelect the pull down panel to change the port mode,
	default=Normal. The port mode options include: Nornal, Loopback, Listen Only and Force Link.
SFP Data	- displays the manufacturer and part number of a SFP or QSFP inserted into the unit. Not all SFPs or QSFPs support this function
Split	- displays the current status of the QSFP ports 41-44. By default the QSFP ports are 40G. These ports may be split into 4x10G.
Save	- select to save any changes
Refresh	<ul> <li>select to refresh the port configurations</li> </ul>

Splitting 40G ports.

Scroll down to the QSFP ports 41-44. Select the box in the Split column for the port. Select Save

Unsplitting 40G ports.

Scroll down to the QSFP ports 41-44. Deselect the box in the Split column for the port. Select Save





	JO ocket <sup>*</sup>	Dashboard By	/pass Taps Pack	et Broker Port I	nfo System			
ort Configuration								
ort Statistics	Port St	tatistics						
	Refresh	Port	Receive	Receive	Receive	Transmit	Transmit	Transmit
	Clear		Packets	Discards	Errors	Packets	Discards	Errors
		01	0	0	0	0	0	0
		02	0	0	0	0	0	0
		03	0	0	0	0	0	0
		04	0	0	0	U	0	0
		05	0	0	0	0	0	0
		06	0	0	0	0	0	0
		07	0	0	0	0	0	0
		08	0	0	0	0	0	0
		09	13042	0	0	13042	0	0
		10	13042	0	0	13042	0	0
		11	13042	0	0	13042	0	0
		12	13042	0	0	13042	0	0
		13	13042	0	0	13042	0	0
		14	13042	0	0	13042	0	0
		15	13042	0	0	13042	0	0
		16	13042	0	0	13042	0	0
		17	0	0	0	0	0	0
		18	0	0	0	0	0	0
		19	0	0	0	0	0	0
		20	0	0	0	0	0	0
		21	0	0	0	0	0	0
		22	0	0	0	0	0	0
		23	0	0	0	0	0	0
		24	0	0	0	0	0	0

## **Port Statistics -**

Displays the current port statistics. The statistics do not automatically refresh. Select Refresh to update the statistics.

Port Receive Packets Receive Discards	<ul> <li>displays the physical port number</li> <li>displays the number of receive packets</li> <li>displays the number of receive packets discarded</li> </ul>
Receive Errors Transmit Packets Transmit Discards	<ul> <li>displays the number of receive packet errors</li> <li>displays the number of transmit packets</li> <li>displays the number of transmit packets discarded</li> </ul>
Transmit Errors Refresh Clear	<ul> <li>displays the number of transmit packet errors</li> <li>select to update the port statistics</li> <li>select to clear and refresh the port statistics</li> </ul>





## 4. INT10G8xx56 Bypass Taps



Bypass Taps - select Bypass Taps

Provides access to display or change the bypass tap settings, the Heartbeat per second rate and the number of lost heartbeats



Displays the current tap status.



P1 P2	- Network Port 1, Tap 1 - Network Port 2, Tap 1
P3 P4	- Network Port 3, Tap 2 - Network Port 4, Tap 2
P5 P6	- Network Port 5, Tap 3 - Network Port 6, Tap 3
P7 P8	- Network Port 7, Tap 4 - Network Port 8, Tap 4
Tap 1-4 Colored Area	<ul> <li>displays the current tap status. The tap status conditions include, GREEN Inline, RED Bypass, GREEN Inline (Forced), RED Bypass (Forced)</li> </ul>
Edit Pencil	- select to add a description for each tap
Description box	- enter the desired tap description, 1-15 characters
Check	- select to save the new tap description
No	- select to discard changes and close tap description
Heartbeat Settings	<ul> <li>select to display or change the heartbeat settings. The heartbeat settings control taps 1-4</li> </ul>
No. Of Lost HB Packets (10-500	<ul> <li>defines the number of heartbeats that must be lost for the tap to switch from inline to bypass</li> </ul>
Heartbeats per second (10-500)	- defines the number of heartbeats that are sent per second

## Tap Settings -

Changes to any tap may be made individually. The settings include:

Tap Modes	Active, Force Bypass, Force inline
Fail Mode	Open, Closed
LFP	enable/disable
Reverse Bypass	enable/disable







Change a tap's settings, place the cursor on the desired tap and double press the left mouse button.

The tap panel will appear, Tap 1 in this example.







- Network Port 1, Tap 1
- Network Port 2, Tap 1
- Inline Appliance (bypass) Port, Tap 1
- Inline Appliance (bypass) Port, Tap 1
<ul> <li>select to display or change the current tap settings</li> </ul>
<ul> <li>select to save changes to the tap settings</li> </ul>
<ul> <li>select to disregard changes to the tap settings and return to bypass tap</li> </ul>

Edit Tap Settings

- select to display or change the current tap settings

The default settings:

TAP Modes	- Active
Fail Mode	- Open
Enable LFP	<ul> <li>disabled</li> </ul>
Reverse Bypass	- disabled

Configure Inline Appliance	3
All form fields are required.	
TAP Modes	
Active	
○ Force Bypass	
O Force Inline	
Fail Mode	
Open	
○ Closed	
Enable LFP	
Reverse Bypass 🗌	
F	Accept Cancel





Change the tap by selecting the new setting(s).

- select to change the tap to the new settings. After selecting
accept the tap display will appear. Save must be selected
on tap display for the new tap settings to be saved
- select to disregard tap changes or keep original settings
and return to the tap display

### Monitor Ports -



Monitor ports may be added to any tap. Each tap may have up to two monitor ports per network port, total of four monitor ports per tap. The monitor ports may be added to monitor the traffic on one or both network ports, to monitor the ingress, egress or both (ingress and egress). If a monitor port is defined as both (ingress and egress), it could be oversubscribed if the ingress and egress bandwidths of a network port exceeds 10G.

Create a monitor port by placing the cursor on the desired port above the tap. Press the left mouse button and hold to select the port. Drag the port to the desired network port. The default of any monitor port is ingress. Change the monitor port traffic by placing the cursor on the ingress panel and press the left mouse button. Additional monitor ports may be added using the same procedure.





Dashboard Bypass Taps Packet Broker Port Info System	Welcome admin Log out
Ports 01 03 05 07 09 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41.1 41.2 41.3 41.4 43.1 43.2 43.3 02 04 06 06 10 12 14 16 18 20 22 24 26 28 30 32 34 36 36 40 42.1 42.2 42.3 42.4 44.1 44.2 44.3	43.4
P1 P2 NORESS 25 × 9 10	
✓ Edit Tap Settings Save Cancel	

Save - select to change the tap to the new settings. After selecting save the tap display will appear. Save must be selected on tap display for the new tap settings to be saved - select to disregard tap changes or keep original settings and return to the tap display





## 5. INT10G8xx56 Packet Broker



Packet Broker

- select Packet Broker

Provides access to create, display or change, Filter Templates, Load Balance Groups, Load Balance Policy, Config Maps, Filters, Egress Filters or Stats.

Dee every bit, byte, and pact	Dashboard Bypass Taps Packet Broker Port Info System	Wetcome admin Log out
Configuration Maps		
Filter Templates	Packet Broker Configurations	
Load Balancing Groups	System Filters Resource	
Load Balancing Policy	Max         Used         Available           Filters         1024         1         1023           Egress Filters         512         0         512	
	Save Refresh Clear Counters Create Config Map Filter Templates Delete Selected	
	Enable         Priority         Name         Ingress Ports         Filter Match         Egress Ports         View Counts         Set Priority         Edit         Delete (select all =)	
	✓ 1 ABC_Company 17 0 18 ∧ ∨ Set 6	
4		

## Displays the current packet broker configurations.





## System Filters Resource -

Filters Max Filters Used Filters Available	<ul> <li>displays the maximum number of filters for the unit, 1024</li> <li>displays the number of filters assigned to config maps, 0-1024</li> <li>displays the number of filters available for the unit, 1024-0</li> </ul>
Egress Filters Max Egress Filters Used	<ul> <li>displays the maximum number of egress filters for the unit, 512</li> <li>displays the number of egress filters assigned to config maps, 0-512</li> </ul>
Egress Filters Available	<ul> <li>displays the number of egress filters available for the unit, 512-0</li> </ul>
Configuration Map Options -	
Save	- select to save config maps in enabled/disabled state
Refresh	<ul> <li>select the update filter match stats</li> </ul>
Clear Counters	<ul> <li>select to clear and update filter match stats. Also clears and updates port stats</li> </ul>
Create Config Map	<ul> <li>select to create a new config map</li> </ul>
Filter Templates	<ul> <li>select to navigate to the Filter Templates display</li> </ul>
Delete Selected	- select to delete selected config map(s)
Enable	<ul> <li>select to change a config map status, enable/disable. The save must be selected to save the status</li> </ul>
Priority	<ul> <li>displays the config map priority. 1 is the highest priority.</li> </ul>
Name	- displays the config map name
Ingress Ports	- displays the ingress port(s) for the config map
Filter Match	<ul> <li>displays the numbers of packets that have matched the filter applied to the config map</li> </ul>
Egress Port	<ul> <li>display the egress port(s) for the config map</li> </ul>
View Counts	<ul> <li>select to display the packet counts for the ingress port, filter and egress port for the config map</li> </ul>
Set Priority	<ul> <li>select the up arrow to change the config map to a higher priority. Use the down arrow to change the config map to a lower priority. Select the set to enter a priority number for the config map</li> </ul>
Edit	<ul> <li>select to add/change/remove the config map name, add/change/remove the config map description, add/remove load balance group(s) on the config map, add/remove ingress port(s) on the config map, add/change/remove filter(s) on the config map, add/remove egress port(s) on the config map or add/change/remove egress filter(s) on the egress port(s) on the config map</li> </ul>

Delete (select all) - select to delete selected config maps





## **Navigation Options -**

Filter Templates	- select to navigate to the filter template display
Load Balance Groups	- select to navigate to the load balance display
Load Balance Policy	- select to navigate to the load balance policy display

## Filter Templates -

Bee every bit, byte, and pac	Dashboard Bypass Taps Packet Broker Port Info System	Welcome admin Log out
Configuration Maps		
Filter Templates	Packet Broker Configurations	
Load Balancing Groups	System Filters Resource	
Load Balancing Policy	Max         Used         Available           Fiters         1024         1         1023           Egress Filters         512         0         512	
	Save Refrest Clear Counters Create Config Map Filter Templates Delete Selected	
	Enable         Priority         Name         Ingress Ports         Filter Match         Egress Ports         View Counts         Set Priority         Edit         Delete (select all T)	
	✓ 1 ABC_Company 17 0 18 JI ^ ∨ Set C □	

Any previously created filter templates will be displayed.

See every bit, byte, and page	Dashboard Bypass Taps Packet Broker Port Info System Welcome admin Log ext.	
Configuration Maps		
Filter Templates	Filter Templates	
Load Balancing Groups	Create Template	
Load Balancing Policy	Name Description	

Create Template

select to create a new filter template



Filter Name Description

Pass All Pass By



The Create New Filter Template panel will appear. Filter templates may be created as pass all, pass by or deny by.

Fliter Name (0-16 Chars)	
Description (0-64 Chars)	
O Pass All	
Pass By	
O Deny By	
Source Mac Address	
Destination Mac Address	
Ether Type (Hex)	
Source IP Address 🔽	
10.10.10.10	
Source IP Mask	
255.255.255.255	
Destination IP Address	
Inner VLAN ID (0-4094)	
Outer VLAN ID (0-4094)	
DSCP (0-63)	
IP Protocol	
Layer 4 Source Port 🗌	
Layer 4 Destination Port	
	Save Template Cancel

- select if this filter template is to deny specific traffic defined b
the template
- select and enter all of the parameters for this filter template
<ul> <li>select to save the filter template</li> </ul>
- select to disregard changes and return to filter templates

The filter template will appear on the filter template display. Select the filter template to make changes or select the RED X to delete.

The filter template will also be presented on the create config map display.





## Load Balance Policy -

Dee every bit, byte, and page	Dashboard Bypass Taps Packet Broker Port Info System     wer*	Welcome admin Log out
Configuration Maps Filter Templates	Packet Broker Configurations	
Load Balancing Groups	System Filters Resource	
Load Balancing Policy	Max         Used         Available           Filters         1024         1         1023           Egress Filters         512         0         512           Save         Refresh         Clear Counters         Create Config Map         Filter Templates         Delete Selected	
	Enable         Priority         Name         Ingress Ports         Filter Match         Egress Ports         View Counts         Set Priority         Edit         Delete (select all □)           ✓         1         ABC_Company         17         0         18          ^         Set         10	

The current load balance policy is displayed.





## Load Balance Groups -

	Dashboard Bypass Taps Packet Broker Port Info System	Welcome admin Log ou
nfiguration Maps		
er Templates	Packet Broker Configurations	
ad Balancing Groups	System Filters Resource	
ad Balancing Policy	Max         Used         Available           Filters         1024         1         1023           Egress Filters         512         0         512	
	Save Refresh Clear Counters Create Config Map Filter Templates Delete Selected	
	Enable         Priority         Name         Ingress Ports         Filter Match         Egress Ports         View Counts         Set Priority         Edit         Delete (select all -)	
	✓ 1 ABC_Company 17 0 18 ∧ ∨ Set 16	

Any previously created load balance groups will be displayed.

Gene every bit, byte, and pad	v Ket-	Dashboard E	Bypass Taps	s Packet B	ker Port Info System Welcome admin	
Configuration Maps						
Filter Templates	Load B	Balancir	ng Gro	oups		
Load Balancing Groups	Create Gro	up				
Load Balancing Policy	Name	Description	Ports	Used By	ait la	
						I
Create Gro	up			-	select to create a load balance group	

The Create New Load Balance Group panel will appear.







Name Description enter the load balance group name, 0-16 characters
 enter the load balance group description, optional, 0-64 characters

Add ports to the load balance group by placing the cursor on the desired port above the new load balance group panel. Press the left mouse button and hold to select the port. Drag the port into the load balance group panel and release. To remove a port from the load balance group, place the cursor on the desired port and double press the left mouse button. Ports may be added to the load balance group in any combination of 10G, 40G or 40G split.

Save	<ul> <li>select to save the load balance group</li> </ul>
Cancel	- select to disregard changes and return to load balance groups

The load balance group will appear on the load balance group display.

Name	- displays the name of the load balance group
Description	<ul> <li>displays the description of the load balance group</li> </ul>
Ports	<ul> <li>displays the ports assigned to the load balance group</li> </ul>
Used By	<ul> <li>displays the name of the config map the load balance group is assigned</li> </ul>
Edit	- select the make changes to the load balance group
RED X	- select to delete the load balance group

The load balance group will also be presented on the create config map display.





## Create a Config Map -

	Dashboard Bypass Taps Packet Broker Port Info System ex-	Welcome admin Log out
Configuration Maps Filter Templates	Packet Broker Configurations	
Load Balancing Groups	System Filters Resource	
Load Balancing Policy	Max         Used         Available           Filters         1024         1         1023           Egress Filters         512         0         512	
	Save Refresh Clear Counters Create Config Map Filter Templates Detete Selected	
	Enable Priority Name Ingress Ports Filter Match Egress Ports View Counts Set Priority Edit (select all )	

Any previously created config maps will be displayed.

Create Config Map - select to create a config map

Gene every bil. byte, and pack	Dashboard Bypass Taps Packet Broker Port Info System Welcome admin Log out
Configuration Maps	
Filter Templates	Back To Map List
Load Balancing Groups	Marriel a
Load Balancing Policy	Name: • Z
	Description: • /
	Available Filters 1023/1024 Available Egress Filters 512/512
	Poris 01 03 05 07 09 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41.1 41.2 41.3 41.4 43.1 43.2 43.3 43.4 02 04 06 08 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42.1 42.2 42.3 42.4 44.1 44.2 44.3 44.4
	Load Balancing Groups           New         Test_LBG
	Filter Templates
	Ingress     Filter     Egress       Save       Reset

The create config map panel will appear.





Name Description Load Balance Groups	<ul> <li>enter the config map name, 0-16 characters</li> <li>enter the config map description, optional, 0-64 characters</li> <li>previously created load balance group template(s) are displayed and may be selected for the egress port. New may be selected for the egress port and created with the config map. If a previously created load balance group template is selected, port(s) may be added or removed from the template if desired. This will change the original load balance group template</li> </ul>
Filter Templates	- previously created filter template(s) are displayed and may be selected for the config map. New may be selected for the filter and created with the config map. If a previously created filter template is selected, the filter for the config map may be changed from the template. This will not change the original filter template. Is is advisable to rename the filter if a template was originally used so it can be distinguished from the template
Clear Map	- select to remove any changes on a new config map
Save	- select to save changes
Reset	<ul> <li>if editing an existing config map, select reset to reset changes back to original config map</li> </ul>

### **Ingress Ports -**

Add ingress port(s) to the config map by placing the cursor on the desired port above. Press the left mouse button and hold to select the port. Drag the port into the Ingress panel and release. To remove a port from the Ingress panel select the RED X. If more than one port is selected the traffic will be aggregated to the egress port(s) or load balance group.

GARLANS Bee every bit, byte, and pack	Dashboard Bypass Taps Packet Broker Port Info System Welco	ome admin	Log out	
Load Balancing Groups	Name: Description: Available Filters: 1024/1024 Available Egress Filters: 512/512			
	Perts 01 03 05 07 09 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41.1 41.2 41.3 41.4 43.1 43.2 43.3 02 04 06 08 10 12 14 16 18 20 22 24 26 28 50 32 34 56 38 40 42.1 42.2 42.3 42.4 44.1 44.2 44.3	43.4 44.4		
	Load Balanoing Groups New Test_LBG Filter Templates New Tost_FT			
	Ingress     Filter     Egress     Clear Map       Port 10     Save       Port 20     Reset			
4			_	

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#### Filters -

Add filter(s) to the config map by placing the cursor on the desired filter, a filter template or new. Press the left mouse button and hold to select the filter. Drag the filter into the Filter panel and release. To remove a filter from the Filter panel select the RED X for the desired filter. If multiple filters are added the traffic from the ingress port(s) will consider the filters by priority. The top filter is the highest priority. The filters will be considered as the first or the second or the third, etc. Filters may be selected and moved up or down to change their priority. Filters may be modified by selecting the GREEN filter icon.



## Egress Ports -

Add egress port(s) or load balance group to the config map by placing the cursor on the desired port or load balance group above. Press the left mouse button and hold to select. Drag the port or load balance group into the Egress panel and release. To remove a port or load balance group from the Egress panel select the RED X. If more than one port is selected for the egress a copy of the traffic from the ingress port(s) will be sent to each egress port. Separate egress port(s) may be combined with a load balance group. In this case the traffic from the ingress port(s) will be load balanced to the load balance port(s) and a copy will be sent to each egress port.



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Dashboard Bypass Taps	Packet Broker Port Info System	Welcome admin Log out
Available Filters:1024/1024 Available Egress Filters:512/512		
Ports 1 03 05 07 09 02 04 06 08 10	11       13       15       17       19       21       23       25       27       29       31       33       55       3         12       14       16       18       20       22       24       26       28       30       32       34       36       3	7 39 41.1 41.2 41.3 41.4 43.1 43.2 43.3 43.4 8 40 42.1 42.2 42.3 42.4 44.1 44.2 44.3 44.4
Load Balancing Groups New Test_LBG		
Filter Templates		
Ingress Port 17 X Port 18 X Port 20 X	Filter Filter Filter Filter Fort 36 7 × Port 38 7 × Fest F3 7 × Filter Fort 38 7 × Resc Filter Filter Fort 38 7 × Filter Filter Filter Fort 38 7 × Filter Fi	r Map 3 H
<u>+</u>		

#### **Egress Filters -**

Each egress port may have a seperate egress filter(s). To add an egress filter select the gray egress filter icon for the desired port. The egress filter panel will appear. Existing filter templates or a new filter may be used as an egress filter. Add egress filter(s) by placing the cursor on the desired filter. Press the left mouse button and hold to select. Drag the filter to the Egress Filter panel and release.





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If new is selected the Edit Filter panel will appear. Egress filters must be pass by or deny by.

	Dashboard Bypass Taps Pack	et Broker Port Info System Welcome admin Log out
Configuration Maps		Edit Filter x
Eilter Templatee		Changes have been made to filter template: Egress Filters must be "Pass By" or "Deny By"
Load Balancing Groups	Available Filters:1024/1024 Available Egress Filters:512/512	Enable Filter 🔽 Filter Name (0-16 Chars)
Load Balancing Policy	Filter Templates	Description (0-44 Chars)  Pass By Deny By Source Mac Address Destination Mac Address Ether Type (Hex) Source IP Addres Destination IP Address Inner VLAN ID (0-4094) Outer VLAN ID (0-4094) Outer VLAN ID (0-4094) DSCP (0-63) IP Protocol Layer 4 Source Port Layer 4 Bestination Port Cancel Cancel
Filte Des Pas	er Name scription ss By	<ul> <li>enter the filter name, 0-16 characters</li> <li>enter the filter description, optional, 0-64 characters</li> <li>select if the filter is to pass specific traffic defined by the filter</li> </ul>
Der	יy by	<ul> <li>select if this filter is to deny specific traffic defined by the filter</li> </ul>
Acc Car	ept ncel	<ul> <li>select to save the filter</li> <li>select to disregard changes and return to egress filter</li> </ul>
GARLAN	Dashboard Bypass Taps Pack	et Broker Port Info System Welcome admin Log out
Configuration Maps Filter Templates Load Balancing Groups Load Balancing Policy	Available Filters:1024/1024 Available Egress Filters:512/512 Filter Templates New TestyFT	
	Bart 26 Ferrora Fillera	ck (





The filter(s) will appear on the egress filter display. If multiple egress filters are added the traffic will consider the filters by priority. The top filter is the highest priority. The filters will be considered as the first or the second or the third, etc. Filters may be selected and moved up or down to change their priority.

Back

- select after the egress filter(s) have been assigned

Dashboard Bypas	aps Packet Broker Port Info System		Welcome admin Log out
Available Filters:1024/1024 Available Egress Filters:512/512			
Ports 01 03 05 07 02 04 06 08	09 11 13 15 17 19 21 23 25 10 12 14 16 18 20 22 24 26	27       29       31       33       35       37       39       41.1       41.2       41.3       41.4       43.1       4         28       30       32       34       36       38       40       42.1       42.2       42.3       42.4       44.1       4	13.2 43.3 43.4 14.2 44.3 44.4
Load Balancing Groups New Test_LBG			
Filter Templates			
Ingress Port 17 ×	Filter	Egress Clear Map	
Port 18 × Port 20 ×	Test F2 Y × Test F3 Y ×	Port 38 🛛 🛪	
		Test_LBG 25 26 27 28	
	l		
4			

The config map will be displayed.

Save - select to save the config map

For questions, please contact Garland Technology Support at: 8AM-9PM (CST) Monday - Friday (Except for observed US Holidays) Tel: 716.242.8500 Online: garlandtechnology.com/support