EdgeSafe[™]

Bypass Network TAP

Quick Start Guide By Garland Technology

P10GMSBPE / P10GSSBPE



Garland Technology: Bypass System Firmware Rev Level: 1.1.11

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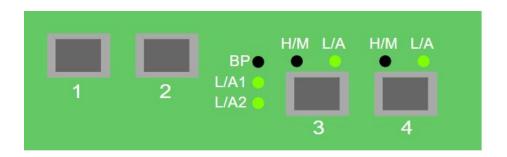
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P10GxxBPE Dashboard



L/A1	- Link/Activity LED Network Port 1
L/A2	 Link/Activity LED Network Port 2
BP	 Bypass LED if placed in bypass mode
L/A Port 3	- Link/Activity LED Port 3
L/A Port 4	- Link/Activity LED Port 4
H/M Port 3	- Heartbeat missed if placed in bypass mode
H/M Port 4	- Heartbeat missed if placed in bypass mode





P10GxxBPE System

GARLAND See every bit, byte, and packet	Dashboard	Port Info	System		Welcome admin	Log out
				$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
				Mode Selected: Breakout ProGSSBPE Breakout v Set		

Select System to display or change the system options.

		Welcome admit
System Info		
Seneral	System Information	
lser Settings	Chassis Name Chassis Model P10GSSBPE	
Network Settings	Chassis Serial 23680020013 Software Version 1.1.11	
Date & Time		
Syslog		
Snmp		
xport Configuration		
mport Configuration		
Software Upgrade		
Reboot		

General -

Displays the current general system configuration.

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





User Settings -

Displays the current user configuration.

Username & Password	 select to change the local GUI and serial port username and password (default=admin/gtadmin1). Cannot change if logged in via TACACS
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	- select to test the TACACS authentication
Username	- enter the username defined in the TACACS server
Password	- enter the password defined in the TACACS server
Test	 select to verify username/password authentication to the TACACS server
TACACS Ping	- select to ping the TACACS server IP address

Network Settings -

Displays the current network configuration.

Edit Settings Enable DHCP	 select to change the network settings select to enable DHCP
IP Address	 displays the management IP address defined at turn up. If desired a new management IP address may be entered
Mask	- displays the mask defined at turn up. If desired a new mask may be entered
Gateway	 displays the gateway defined at turn up. If desired a new gateway may be entered
DNS1	- enter the desired DNS1 server
DNS2	- enter the desired DNS2 server
Save	- select to save any changes
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	 displays the current timezone. May be changed by using the pull down panel
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	- select to change the syslog configuration
Enable Syslog Config	 select to enable syslog
Unit ID	 enter the unit ID for syslog messages, optional
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

USER GUIDE

EdgeSafe | P10GxxBPE



USER GUIDE EdgeSafe | P10GxxBPE

Snmp -

Displays the current SNMP configuration.

Edit Configuration Enable SNMP Config	 select to change the snmp configuration select to enable snmp
Access Port	 displays the current access port, default 161. If desired a new port number may be entered
Trap Port	- displays the current trap port, default 162. If desired a new port number may be entered
Trap IP Address	 displays the current snmp server. If desired a new snmp server may be entered
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	 the default is gtpublic, but not visible. If desired a new V2 community password may be entered

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	- select to upload a configuration file to the unit
Choose File	 select to choose the configuration file
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.

ancel

Reboot -

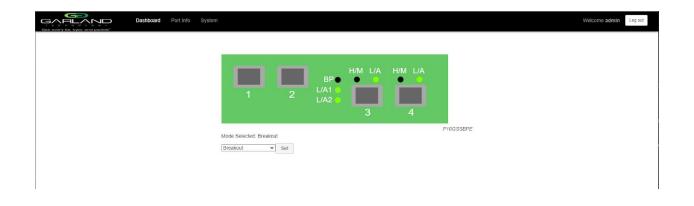
Provides the ability to reboot the unit. This will affect traffic for @ 15 seconds.

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





P10GxxBPE Port Info



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

tatistics	Save	Port	Configu	Link	Set Speed	Speed	Mode	SFP Data	Split
	Refresh	1	port01		10G V	10G	Normal ~	unknown unknown	Spin
		2	port02	•	10G ¥	10G	Normal 🗸	FINISAR CORP. FTLX8571D3BCL	
		3	port03	•	10G ¥	10G	Normal 🗸	FINISAR CORP. FTLX1471D3BCV	
		4	port04		10G ¥	10G	Normal 🗸	FINISAR CORP. FTLX1471D3BCV	





Port Configuration -

Displays the current port configurations.

Port Description port01-port04	 displays the physical port number displays the current port descriptions, default port01 to port04 select port 01-04 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 port description
Cancel	 select to cancel and return to port configuration
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, Auto is non-functional
Speed	- displays current port speed
Mode	 select the pull down panel to change the port mode, default=Normal. The port mode options include: Nornal, Loopback and Listen Only. Force Link in non-functional.
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	- non-functional
Save	- select to save any changes
Refresh	- select to refresh the port configurations

ort Statistics	Port St	atistics						
	Refresh	Port	Receive Packets	Receive Discards	Receive Errors	Transmit Packets	Transmit Discards	Transmit Errors
	Clear	01	670296098887	0	0	and the second	0	0
		02	670295868955	0	0	670296102860	0	0
		03	0	0	0	670296106603	0	0
		04	0	0	0	670295876464	0	0





Port Statistics -

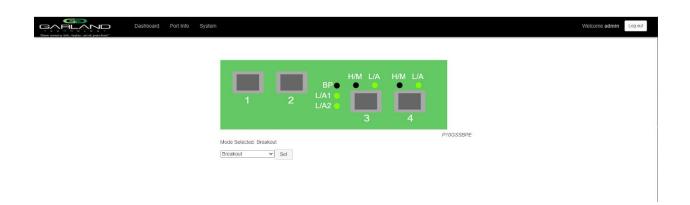
Displays the current port statistics. The statistics do not automatically refresh. Select Refresh to update the statistics.

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

INT10G8xx56 Modes







Select Bypass Taps to display or change the bypass tap settings.

Displays the current mode.

The P10GxxBPE supports the following modes, Bypass, Span, Span (Packet Inject), Breakout, Filter and Aggregate.

Bypass Mode -





Databoard Bypass Taps	the System	Welcome admin Log auf
Mode Set	 use the mode pull down panel select Bypass select to set the unit in the bypass mode 	
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

See every bit, byte, and packet*	Dashboard	Bypass Taps	Port Info	System			Welcome admin	Log out
			~					
			P1		Inline	P2		
			Heartbea	at Settings				

Displays the current tap status.





P1 P2	- Tap Network Port 1 - Tap Network Port 2
Tap Colored Area	 displays the current tap status. The tap status conditions include, GREEN Inline, RED Bypass, GREEN Inline (Forced), RED Bypass (Forced)
Edit Pencil	- select to add a description for the 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	 select to display or change the heartbeat settings. The heartbeat settings control taps 1-4
No. Of Lost HB Packets (10-50	0) - defines the number of heartbeats that must be lost for the tap to switch from inline to bypass
Heartbeats per second (10-100)) - defines the number of heartbeats that are sent per second

Tap Settings -

Changes to the tap include:

Active, Force Bypass, Force inline
Open
enable/disable
enable/disable

Dashboard	Bypass Taps	Port Info	System	Welcome admin	Log out
		,			
		P1	Inline P2		
		♥ Heartbea	Settings		

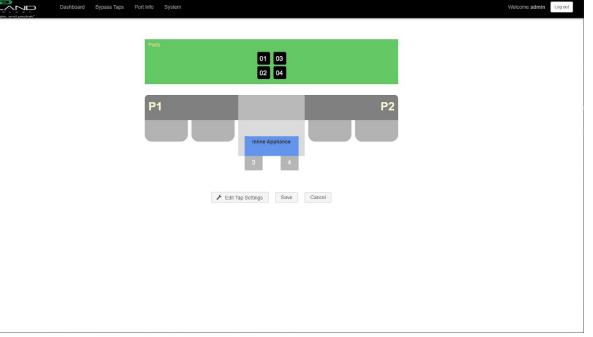
To change the tap's settings, place the cursor on the tap and double press the left mouse button.

The tap panel will appear.



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P1	- Tap Network Port 1
P2	- Tap Network Port 2
3	 Inline Appliance (bypass) Port
4	 Inline Appliance (bypass) Port
Edit Tap Settings	 select to display or change the current tap settings
Save	 select to save changes to the tap settings
Cancel	 select to disregard changes to the tap settings and return to bypass tap





Edit Tap Settings

- select to display or change the current tap settings

The default settings:

TAP Modes	- Active
Fail Mode	- Open
Enable LFP	 disabled
Reverse Bypass	- disabled

Configure Inline Appliance		×
All form fields are required.		
TAP Modes		
Active		
O Force Bypass		
O Force Inline		
Fail Mode		
Open		
Enable LFP		
Reverse Bypass 🗌		
	Accept Car	ncel

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

Accept

Cancel

select to change the tap with 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 changes or keep original settings

and return to the tap display

Span Mode -

See every bit, byte, and packet*		USER GUIDE EdgeSafe P10GxxBPE
Dashboard Dashboard	Port Info System	Welcome admin Log out
	Image: Span Image: Span	
Mode Set	 use the mode pull down panel select Span select to set the unit in the span mode 	
1	- Network Port	
2	- Span Port	
3	- Span Port	
4	- Span Port	

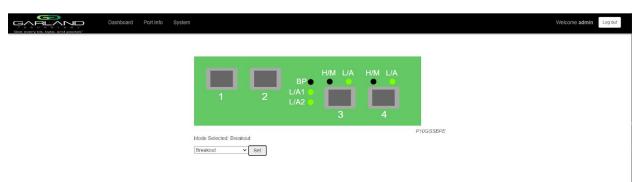
In this mode ingress traffic into network port 1 is sent to span ports 2, 3 and 4. In a loss of power condition, traffic from network port 1 is sent to span port 2, but not span ports 3 and 4.

Span (Packet Inject) Mode -

See every bit, byte, and packet*		USER GUIDE EdgeSafe P10GxxBPE
Dashboard Port Info S	ystem	Welcome admin Log out
	Image: Span (Packet Inject) BP H/M L/A H/M L/A Image: Span (Packet Inject) Set Set F	YOGSSBPE
Mode		nel select Span (Packet Inject)
Set	- select to set the unit in the s	span (packet inject) mode
1 2	- Network Port - Span (Packet Inject) Port	
3	- Span (Packet Inject) Port	
4	- Span (Packet Inject) Port	

In this mode ingress traffic into network port 1 is sent to span ports 2, 3 and 4. Ingress traffic from packet inject ports 2, 3 and 4 are sent to network port 1. In a loss of power condition, traffic from network port 1 is sent to span port 2, but not span ports 3 and 4. Traffic from packet inject port 2 is sent to network port 1, but not from packet inject ports 3 or 4.

Breakout Mode -



See every bit, byte, and packet*	USER GUIDE EdgeSafe P10GxxBPE
Mode Set	 use the mode pull down panel select Breakout select to set the unit in the breakout mode
1 2 3 4	- Network Port - Network Port - Breakout Port (ingress traffic from network port 1) - Breakout Port (ingress traffic from network port 2)

In this mode ingress traffic into network port 1 is sent to network port 2 and breakout port 3. Ingress traffic into network port 2 is sent to network port 1 and breakout port 4. In a loss of power condition, ingress traffic from network port 1 is sent to network port 2 and ingress traffic from network port 2 is sent to network port 1, but there will be no breakout traffic to ports 3 or 4.

Aggregate Mode -

Breve every bet, bryce, and poschet	Port Info System Welcome admin
	I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I
Mode Set	 use the mode pull down panel select Aggregate select to set the unit in the aggregate mode
1 2 3 4	- Network Port - Network Port - Aggregate Port - Aggregate Port

In this mode ingress traffic into network port 1 is sent to network port 2 and aggregate ports 3 and 4. Ingress traffic into network port 2 is sent to network port 1 and aggregate ports 3 and 4. In a loss of power condition, ingress traffic from network port 1 is sent to network port 2 and ingress traffic from network port 2 is sent to network port 2 and ingress traffic from network port 2 is sent to network port 3 or 4.



Filter Mode -



Dashboard Packet Broker	Port Info System	Welcome admin	Log out
	Mode Selected: Filter P10GSSBPE		
Mode Set	- use the mode pull down panel select Filter - select to set the unit in the filter mode		
Packet Broker	- select Packet Broker		

Provides access to create, display or change, Filter Templates, Config Maps, Filters or Stats.

		Welcome admin
Configuration Maps	Packet Broker Configurations	
Filter Templates		
	System Filters Resource Max Used Available	
	Filters 500 1 499 Egress Filters 0 0 0	
	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 (select all a)	
	✓ 1 map 01 0 02 Jli ^ ∨ Set 03	

Displays the current packet broker configurations.



System Filters Resource -



Filters Max- displays the maximum number of filters for the unit, 500Filters Used- displays the number of filters assigned to config maps, 0-500Filters Available- displays the number of filters available for the unit, 500-0Egress Filters Max- N/AEgress Filters Used- N/AEgress Filters Available- N/A

Configuration Map Options -

Save	- select to save config maps in enabled/disabled state
Refresh	 select the update filter match stats
Clear Counters	 select to clear and update filter match stats. Also clears and updates port stats
Create Config Map	 select to create a new config map
Filter Templates	 select to navigate to the Filter Templates display
Delete Selected	- select to delete selected config map(s)
Enable	- select to change a config map status, enable/disable. The save must be selected to save the status
Priority	- displays the config map priority. 1 is the highest priority.
Name	- displays the config map name
Ingress Ports	- displays the ingress port(s) for the config map
Filter Match	 displays the numbers of packets that have matched the filter applied to the config map
Egress Port	- display the egress port(s) for the config map
View Counts	 select to display the packet counts for the ingress port(s), filter(s), egress port(s), egress filter(s) and load balance port(s) for the config map
Set Priority	- 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
Edit	 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
Delete (select all)	- select to delete selected config maps
· · · · ·	. .



Navigation Options -



Filter Templates

- select to navigate to the filter template display

Filter Templates -

Configuration Maps			Dashboard	Packe	t Broker Port	info System					
System Filters Resource Max Used Available Filters 500 1 499 600 1000000000000000000000000000000000000											
Max Used Available Fitters 500 1 499 Egress Fitters 0 0 0 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	Filter Templates	Pack	et Bro	oker	Configur	ations					
Filters 500 1 499 Egress Filters 0 0 0 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 =)		System	Filters Re	esource							
Enable Priority Name Ingress Ports Filter Match Egress Ports View Counts Set Priority Edit Delete (select all)			50	00	1	499					
Enable Priority Name Ingress Ports Filter Match Egress Ports View Counts Set Priority Edit (select all)		Save	Refres	sh	Clear Counters	Create Cor	nfig Map F	ilter Templates	Delete Selected		
✓ 1 map 01 0 02 ∧ ∨ Set C5		Enable	Priority	Name	Ingress Ports	Filter Match	Egress Ports	View Counts	Set Priority	Edit	
		1	1	map	01	0	02	di	^	et 🖸	

Any previously created filter templates will be displayed.

Create Template

- select to create a new filter template

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

Create New Filter Template	
Filter 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	
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



USER GUIDE EdgeSafe | P10GxxBPE

	ishboard Packet Broker Port Info System Welcome ad	dmin Log out
See every bit byte, and packet*		
	emplates	
Create Ter		
Name	escription	
Filter Name	anter the filter name 0.16 observators	
	- enter the filter name, 0-16 characters	
Description	- enter the filter description, optional, 0-64 characters	
Pass All	- select if the filter template is to pass all traffic	
Pass By	 select if the filter template is to pass specific traffic defined by 	
	the template	
Deny by	 select if this filter template is to deny specific traffic defined by 	1
	the template	
Filter paramete		
Save Template	- select to save the filter template	
Cancel	 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.

Create a Config Map -

er Templates	Packet Broker Con				
	Packet Broker Cont	igurations			
	System Filters Resource				
	Max Used Filters 500 1 Egress Filters 0 0	Available 499 0			
	Save Refresh Clear Cou		er Templates Delete Selected	Edit Delete (select all)	
	✓ 1 map 01	0 02	dı ^ v Set	C D	





Any previously created config maps will be displayed.

Create Config Map

- select to create a config map

		Welcome admir
uration Maps emplates	Back To Map List	
	Name: • /	
	Description: • * Available Fitters 499/500 Available Egress Fitters 00	
	Ports 01 03 02 04	
	Filter Templates	
	Ingress Filter Egress Clear Map	
	Reset	

The create config map panel will appear.

Name Description Filter Templates	 enter the config map name, 0-16 characters enter the config map description, optional, 0-64 characters 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
Clear Map Save Reset	 was originally used so it can be distinguished from the template select to remove any changes on a new config map select to save changes if editing an existing config map, select reset to reset changes back to original config map





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).

See every bit, byte, and packet	Dashboard Packet Broker Port Info System	Welcome
Configuration Maps	Back To Map List	
Filter Templates		
	Name: • 🗸	
	Description: 🗸	
	Available Filters 499/500 Available Egress Filters 0/0	
	Parts	
	01 03 02 04	
	02 04	
	Filter Templates New test	
	Ingress Filter Egress	
	Clear Map	
	Port 01 × Save	
	Port 02 ×	
	Reset	

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.





Back To Map List				
Description: • 🖍				
Available Filters:499/500 Available Egress Filters:0/0				
Ports	01 03 02 04			
Filter Templates				
Ingress	Filter	Egress	Clear Map	
Port 02 X			Save	
	Pats Filter Templates New Gast Ingress Port 01 X	Pots 01 03 02 04 Filter Templates New Idat Ingress Filter	Ports O1 03 02 04 Filter Templates New Gost Filter Filter Egress Filter Egress Filter	Pots O1 03 O2 04 Filter Templates New tast Filter Templates Filter Templates Filter Templates Filter Save Save Save

Egress Ports -

Add egress port(s) to the config map by placing the cursor on the desired port above. Press the left mouse button and hold to select. Drag the port into the Egress panel and release. To remove a port 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.





		Welcome admin	Log out
Configuration Maps			
Filter Templates	Back To Map List		
	Name: o Z		
	Description: • 1		
	Available Filters 499/500 Available Egress Filters 0/0		
	Ports		
	01 03 02 04		
	Filter Templates		
	Ingress Filter Egress Port 01 K Feat		
	Port 02 x Port 02 x Save		
	Reset		
4			

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