



Tap aggregation manager

The Tap Aggregation Manager (TAM) is a GUI front-end for configuring and monitoring Tap Aggregation features of Arista switches. Version 2.0, introduced in EOS-4.15.0F, includes several new features and enhancements, and supports new platforms.

- new tabbed interface design with resizable sidebars
- enhanced ACL Editor in its own tab
- enhanced interface visualization and bundling
- traffic steering configuration via ACLs, Class Maps and Policy Maps
- support for DCS-7500 series switches
- IP V6 ACL support
- new guided Tour to orient first time users



Configuration

Basic configuration

- In order to start the TAM, simply enable Command API on the switch:

```
7150 (config) #management api http-commands
7150 (config-mgmt-api-http-cmds) #no shutdown
```

- TAM can then be accessed at from a web browser at the following URL:

```
http[s]://<switch>/apps/TapAgg/
```

Enabling HTTPS

If you want to enable HTTPS, use the following commands:

```
7150 (config) #management api http-commands
7150 (config-mgmt-api-http-cmds) #no protocol http
7150 (config-mgmt-api-http-cmds) #protocol https
7150 (config-mgmt-api-http-cmds) #no shutdown
```

Guided tour

There is a guided tour that can be launched by clicking the **Tour** button in the top right corner of the header bar. The tour will walk through the various views and tabs to give a brief overview of the app. Use the **Back** and **Next** buttons or the left and right arrow keys to navigate back and forth between the steps of the tour.

The remainder of the tour can be skipped at any time by clicking the **Skip** button or clicking anywhere outside of the tour dialog.

Main screen layout

The main TAM screen is divided into a header area and a main content area with three tabs for:

- Connections
- ACLs
- Traffic Steering

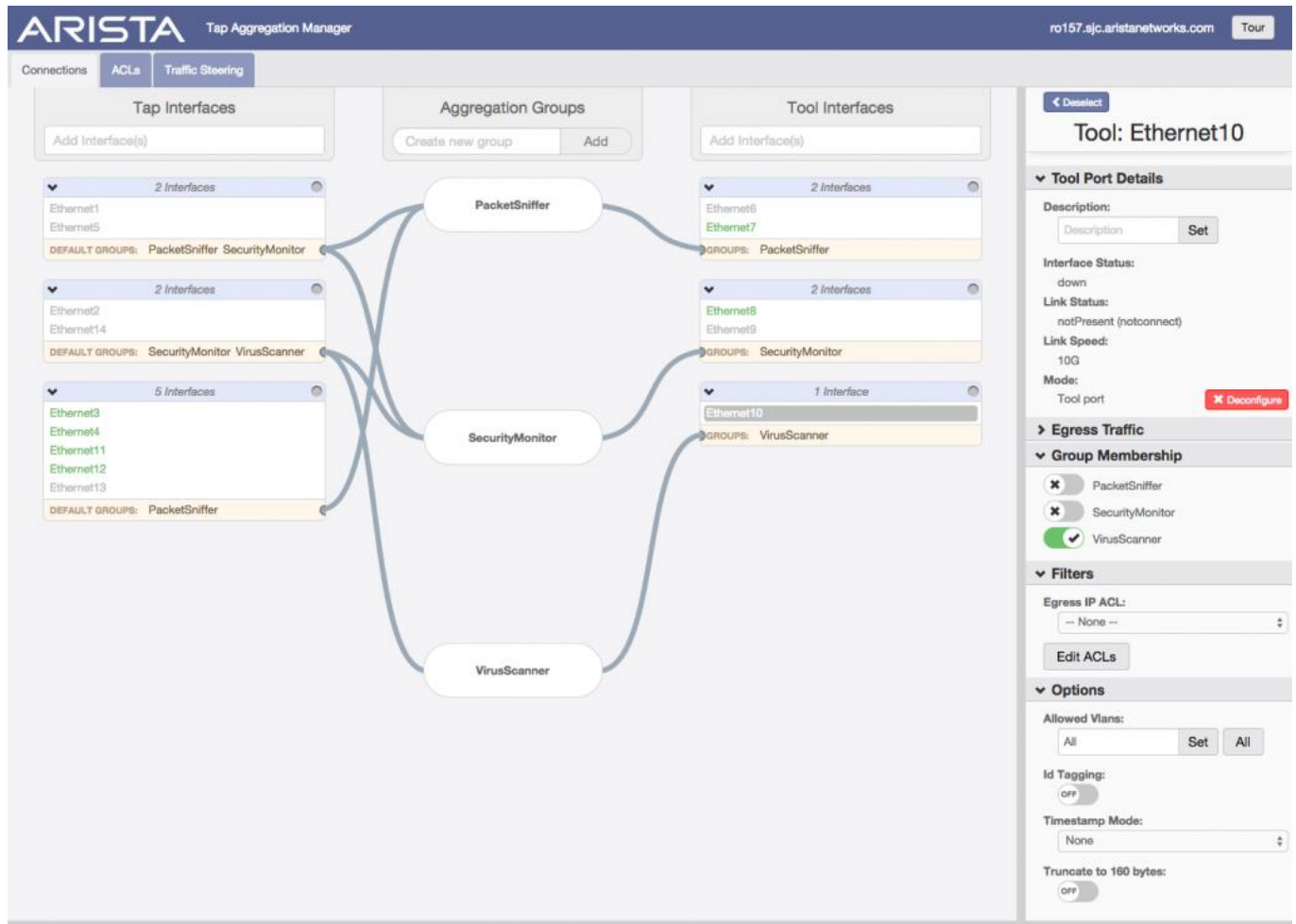


Figure: Main Screen Layout

Connections tab

The Connections tab is split into an overview area on the left side of the screen and a context-specific Configuration Sidebar on the right side of the screen.

Clicking on an element in the overview area will retarget the Configuration Sidebar to show information related to the clicked element. The different types of elements that can be clicked are:

- Tool Interfaces
- Tap Interfaces
- Aggregation Groups

In addition, clicking anywhere in the blank area of the overview area, or clicking the **Deselect** button at the top of the Configuration Sidebar, will show details about the Switch itself in the Configuration Sidebar.

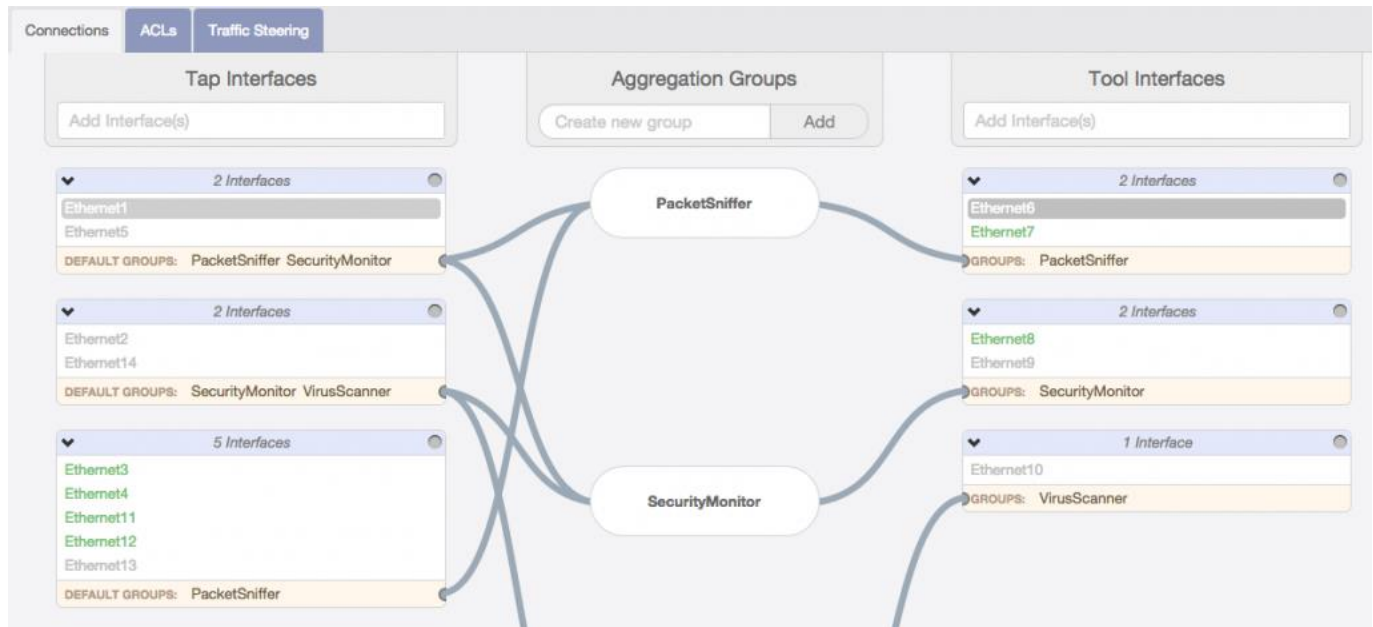


Figure: Connections Tab

Interface bundling

Interfaces with similar characteristics are grouped under a single collapsible UI element.

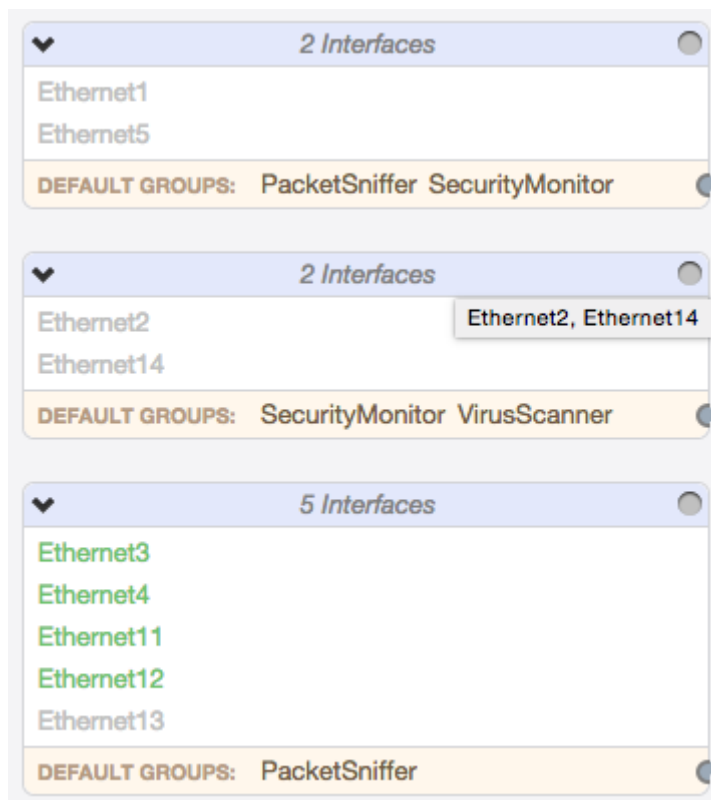


Figure: Interface Bundles (Tap)



Specifically, the attributes that must be the same in order for interfaces to be bundled together are:

Taps

- Aggregation Group names
- Direct interface names (both ports and port channels)
- Policy map applied to the tap (can only have one)

Tools

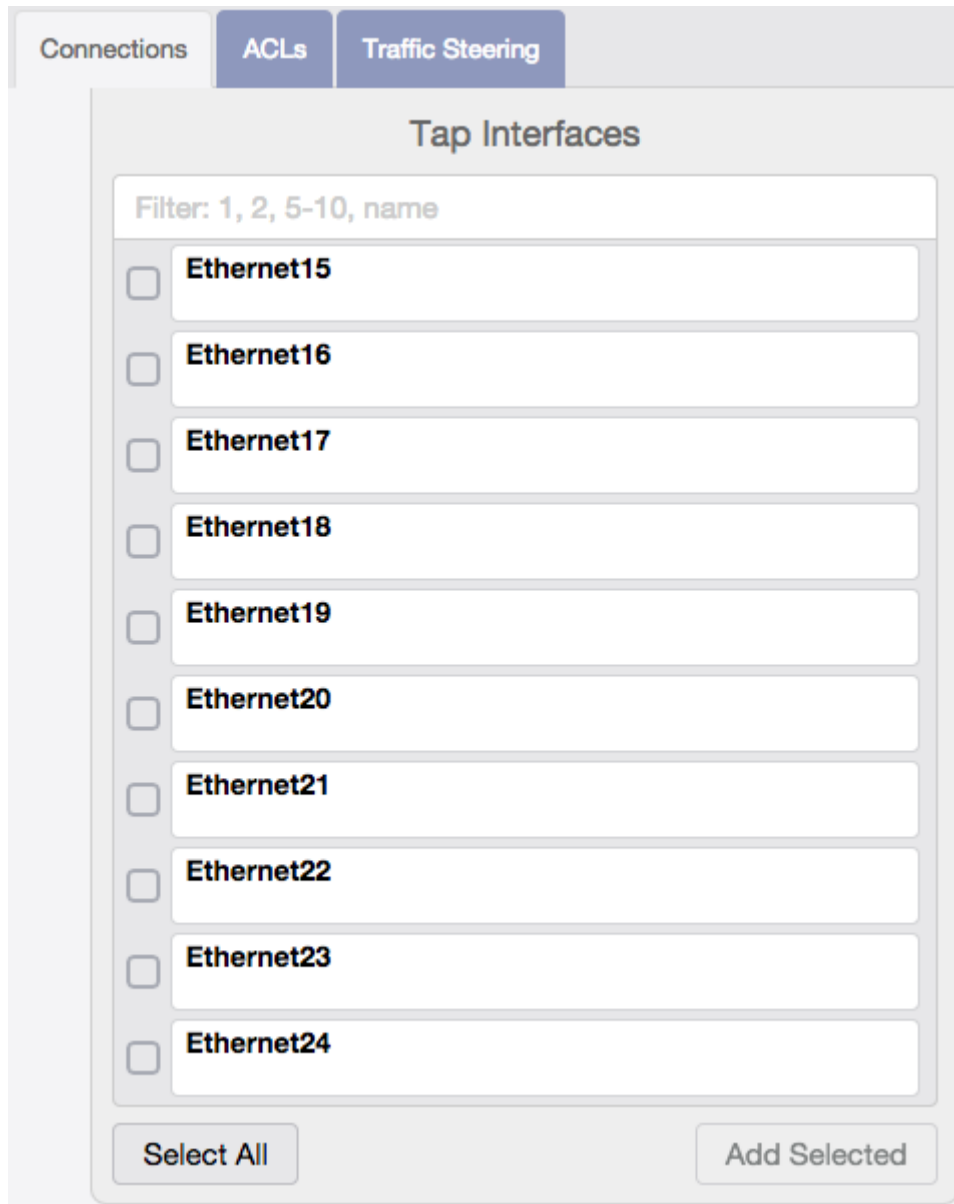
- Aggregation Group names
- Direct interface names (both ports and port channels)

This reduces UI clutter and allows the UI to scale for modular chassis switches such as the DCS-7508E which can have over 1000 interfaces.

Interface filtering

When clicking the *Add Interface(s)* edit box under *Tap Interfaces* at the top of the overview area, a dropdown list appears showing all available interfaces. Type in a filter string into the filter box to show only specific interfaces (e.g., if you type "10-20", then only interfaces in the range 10-20 will appear, such as Ethernet10, Ethernet11, etc.)

The same filtering is provided when clicking on the *Add Interface(s)* edit box under *Tool Interfaces*.



Connections | **ACLs** | Traffic Steering

Tap Interfaces

Filter: 1, 2, 5-10, name

- ☐ Ethernet15
- ☐ Ethernet16
- ☐ Ethernet17
- ☐ Ethernet18
- ☐ Ethernet19
- ☐ Ethernet20
- ☐ Ethernet21
- ☐ Ethernet22
- ☐ Ethernet23
- ☐ Ethernet24

Select All | Add Selected

Figure: Interface Filter Popup

Configuration sidebar

The configuration sidebar shows context-specific information based on what is selected on the Connections Tab. Information is organized into a set of vertical sub-sections which can be opened or closed as desired.

NOTE: Sidebar sub-sections remember their open/closed status as the user navigates the UI from tab to tab and view to view. The sub-sections do not, however, remember their status across a browser refresh.

Switch

When no other element is selected, the Configuration Sidebar shows information related to the Switch itself.

Switch Details

Device: ro157

▼ Switch Details

Model:

Arista DCS-7150S-24-F

Version:

4.15.0F-2390404.evansbugfixeric
(engineering build)

Serial:

JPE12460964

Uptime:

52 mins ago

Tap Aggregation

ON

LANZ

OFF

View

Running Config

Config Diff

Save Config

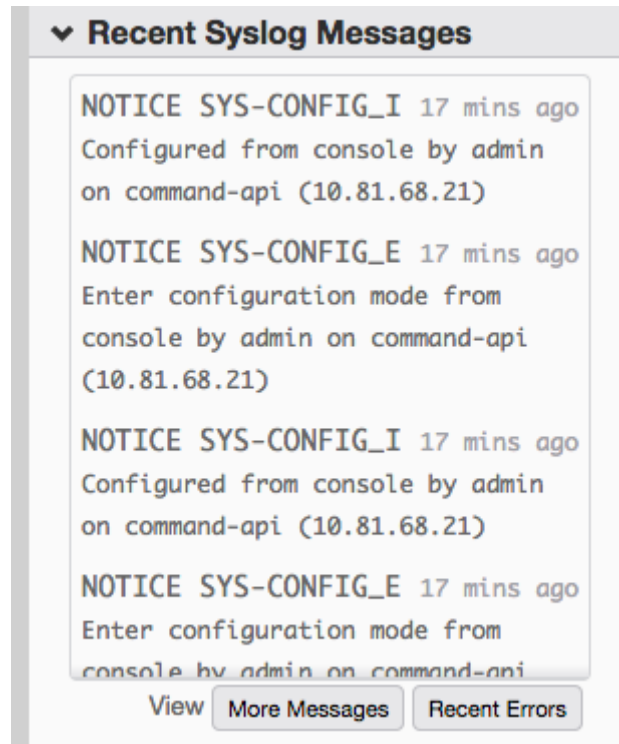


Figure: Switch Sidebar

Running config

When the Switch is selected in the Configuration Sidebar, the user can view or save the current Running Config of the switch and see a Config diff using the **Running Config**, **Save Config** and **Config Diff** buttons respectively.



Figure: Running Config and Config Diff Popups

Syslog / Errors

When the Switch is selected in the Configuration Sidebar, the user can view recent Syslog messages or errors by clicking the **More Messages** or **Recent Errors** buttons respectively.

A screenshot of a terminal window titled "Recent syslog errors". The window has a white background and a thin grey border. At the top, the title is in a large, bold, black font. Below the title, the text "No messages" is displayed in a smaller, regular black font. In the bottom right corner, there is a blue rectangular button with the word "Close" in white text.

Deselect

Tap: Ethernet1

Tap Port Details

Description:

Description
Set

Interface Status:
down

Link Status:
notPresent (notconnect)

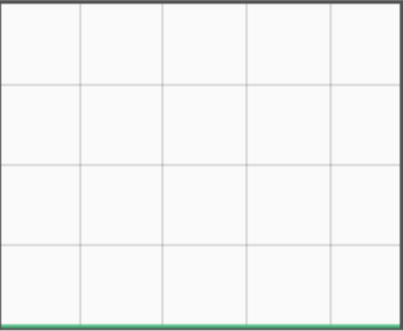
Link Speed:
10G

Mode:
Tap port

X Deconfigure

Ingress Traffic

10G
8G
5G
3G
0



15:48:0015:49:0015:50:0015:51:00

Time

Statistics
Clear

Rx Packets	0	Rx Drops	0
Rx Octets	0	Rx Errors	0

Group Membership

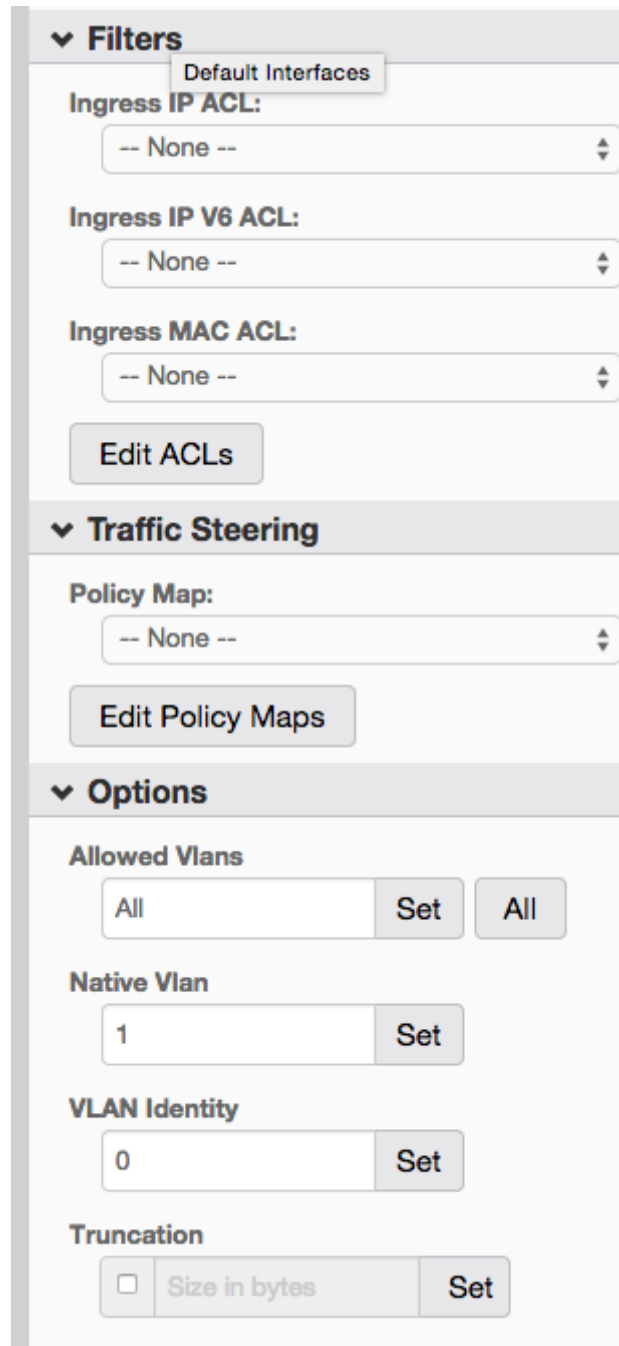
☒
PacketSniffer

☒
SecurityMonitor

☐
VirusScanner

Default Interfaces

Add Interface(s)



The screenshot shows the 'Tap Interface Sidebar' with three main sections:

- Filters**: Contains three dropdown menus for 'Ingress IP ACL:', 'Ingress IP V6 ACL:', and 'Ingress MAC ACL:', all set to '-- None --'. Below them is an 'Edit ACLs' button.
- Traffic Steering**: Contains a 'Policy Map:' dropdown menu set to '-- None --' and an 'Edit Policy Maps' button.
- Options**: Contains four sub-sections:
 - Allowed Vlans**: A text input with 'All', a 'Set' button, and a button labeled 'All'.
 - Native Vlan**: A text input with '1' and a 'Set' button.
 - VLAN Identity**: A text input with '0' and a 'Set' button.
 - Truncation**: A checkbox (unchecked) followed by a text input with 'Size in bytes' and a 'Set' button.

Figure: Tap Interface Sidebar

- **Tap Port Details** – Allows for interface status changes with the **Shutdown** button when the interface is up and the **Enable** button when the interface is down.
- **Ingress Traffic** – A graph showing the recent ingress traffic for the selected interface.
- **Group Membership** – A list of all the Groups of which this Tap is a member.
- **Default Interfaces** – Users can direct traffic to specific Tool interfaces without the need for a Tap Aggregation Group.



- **Filters** – Enables adding either L2 or L3 ingress access-lists to the tap interface selected, please use the **Edit ACLs** button to add/remove/change current access-lists.
- **Traffic Steering** – Allows application of Traffic Steering policies to be applied via the GUI, please use the **Edit Policy Maps** button to add/remove/change current policy maps.
- **Options** – Filter VLANs with the Allowed Vlans selection box. Modify native vlan with the Native Vlan selection box.

Tool port

Clicking on a Tool interface in the Connections Tab will retarget the Configuration Sidebar to show the details for that Tool interface.

Deselect

Tool: Ethernet6

▼ Tool Port Details

Description:

Description
Set

Interface Status:

down

Link Status:

notPresent (notconnect)

Link Speed:

10G

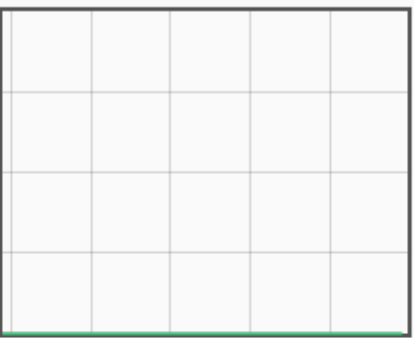
Mode:

Tool port

X Deconfigure

▼ Egress Traffic

10G
8G
5G
3G
0

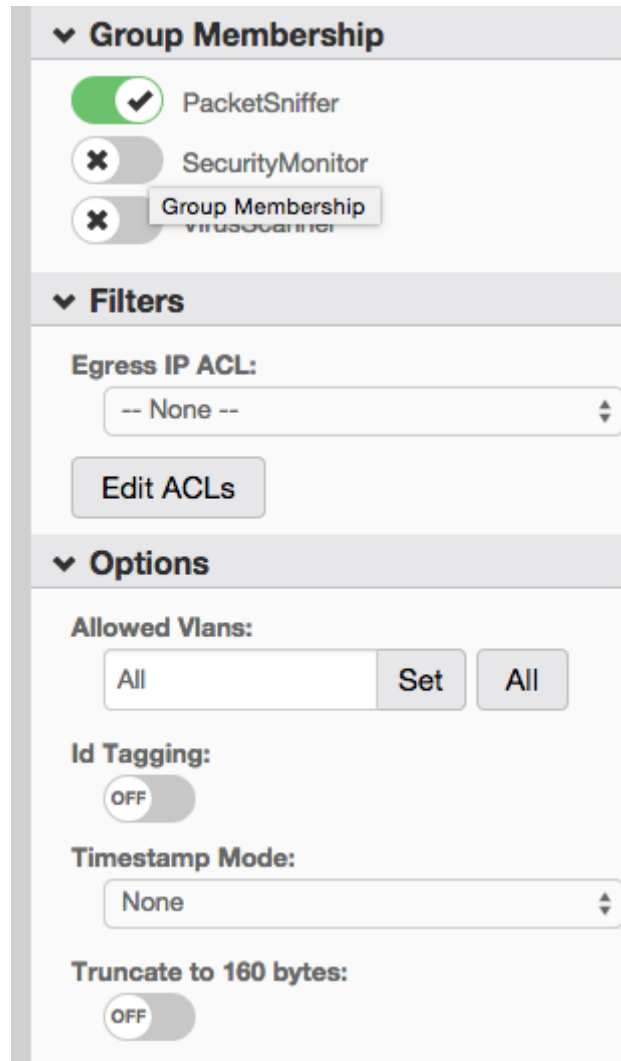


15:48:0015:49:0015:50:0015:51:0015:52:00

Time

Statistics
Clear

Tx Packets	0	Tx Drops	0
Tx Octets	0	Tx Errors	0



The screenshot shows a sidebar with three main sections:

- Group Membership:** Contains three items: 'PacketSniffer' (checked), 'SecurityMonitor' (unchecked), and 'Group Membership' (unchecked). A tooltip is visible over the 'Group Membership' item.
- Filters:** Includes a dropdown for 'Egress IP ACL:' set to '-- None --' and an 'Edit ACLs' button.
- Options:** Includes:
 - 'Allowed Vlans:' with a dropdown set to 'All', a 'Set' button, and an 'All' button.
 - 'Id Tagging:' with a toggle switch set to 'OFF'.
 - 'Timestamp Mode:' with a dropdown set to 'None'.
 - 'Truncate to 160 bytes:' with a toggle switch set to 'OFF'.

Figure: Tool Interface Sidebar

- **Tool Port Details** – Allows for interface status changes with the **Shutdown** button when the interface is up and the **Enable** button when the interface is down.
- **Egress Traffic** – A graph showing the recent egress traffic for the selected interface.
- **Group Membership** – A list of all the Groups of which this Tool is a member.
- **Filters** – Allows selection of an ACL to apply to egress traffic. Currently only IP ACLs are supported.
- **Options** – Set the configuration of Allow Vlans, enable/disable Id Tagging, set the Timestamp Mode, and enable/disable egress packet truncation to 160 bytes.

Aggregation group

Clicking on an Aggregation Group interface in the Connections Tab will retarget the Configuration Sidebar to show the details for that Aggregation Group.

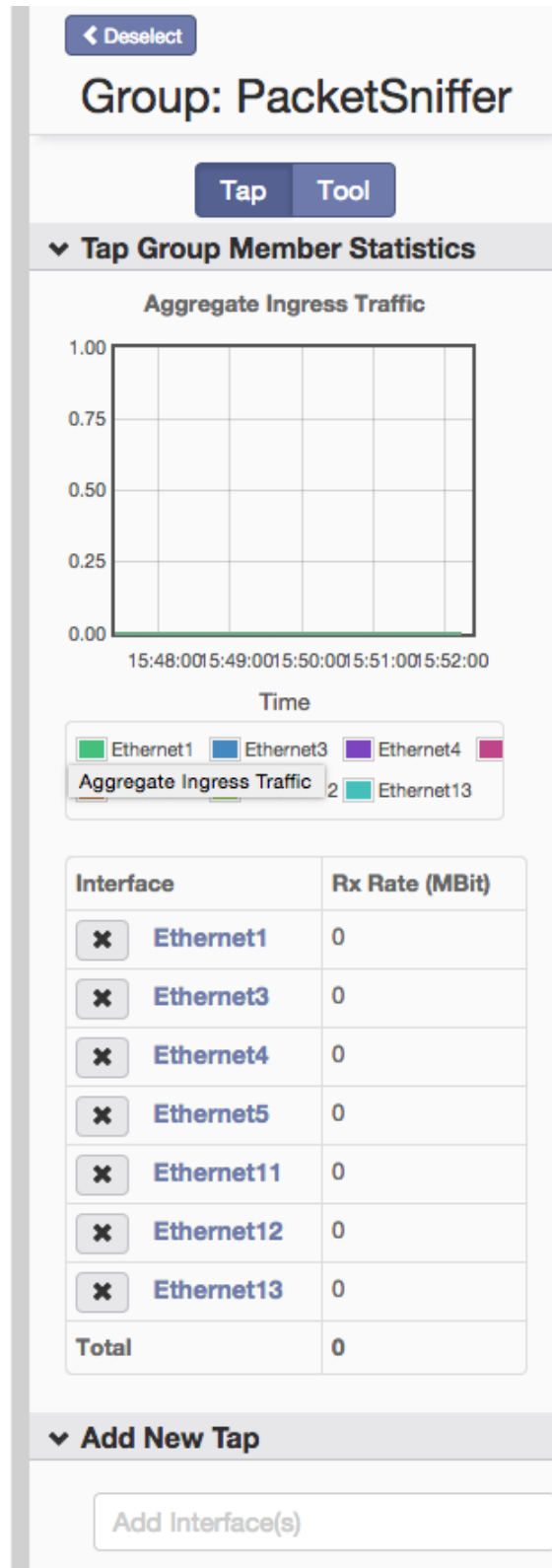


Figure: Aggregation Group Sidebar (Tap Selected)

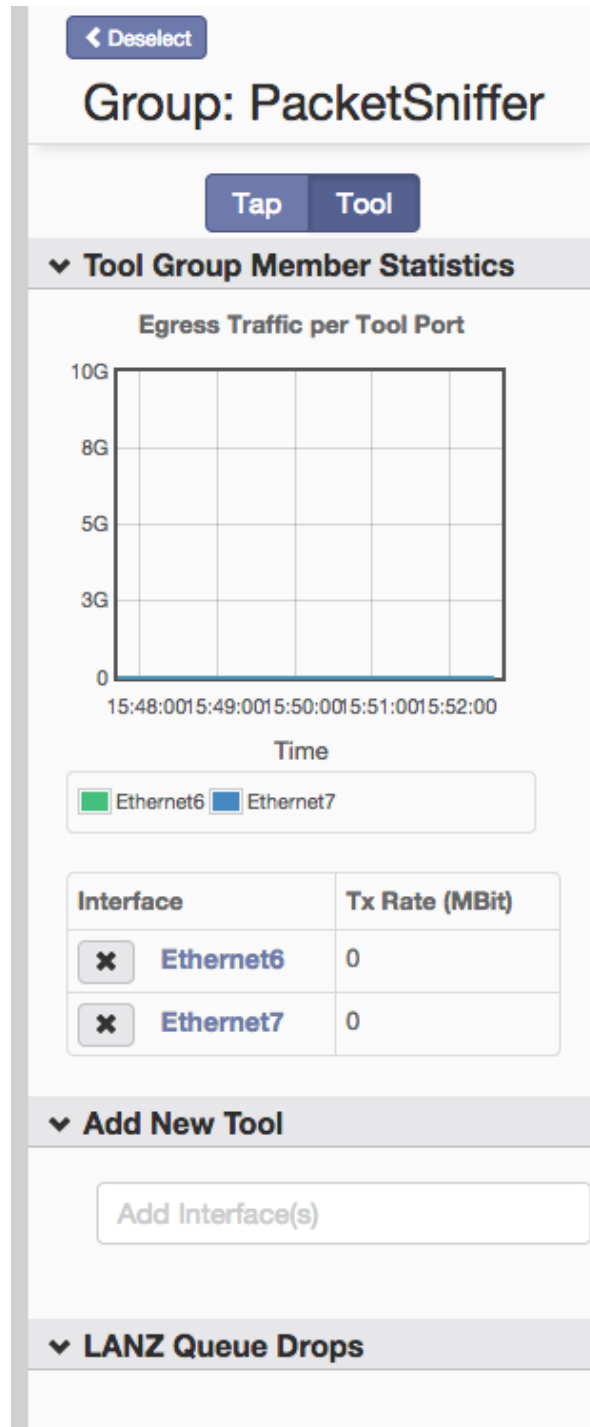


Figure: Aggregation Group Sidebar (Tool Selected)

- **Tap/Tool Toggle** – Toggling between Tap and Tool will change the context of the dialogs below.
- **Group Member Statistics** – Graph will show ingress or egress traffic depending on the selection of Tap or Tool toggle above. Also shows the member groups and allows them to be removed.

- **Add New Tap/Tool** – Provides the ability to add Tap or Tool interfaces to group depending on the selection of Tap or Tool toggle above.
- **LANZ Queue Drops** – for Tools only, shows a graph of LANZ packet drops.

ACLs tab

The ACLS tab provides the ability to create, delete (deconfigure) or edit ACLs. The following ACL types are supported:

- IP V4 ACLs
- IP V6 ACLs
- MAC ACLs

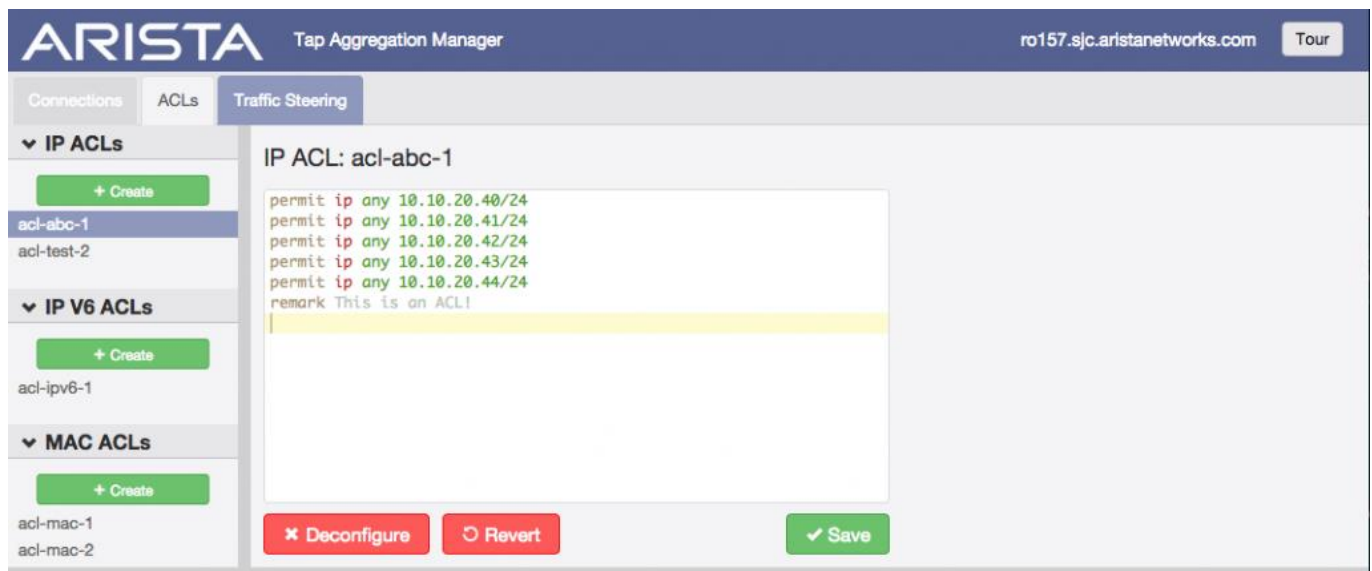


Figure: ACLs Tab

NOTE: If any of the ACL commands do not conform to the required format, then an error will be shown at the bottom of the screen.

Traffic steering tab

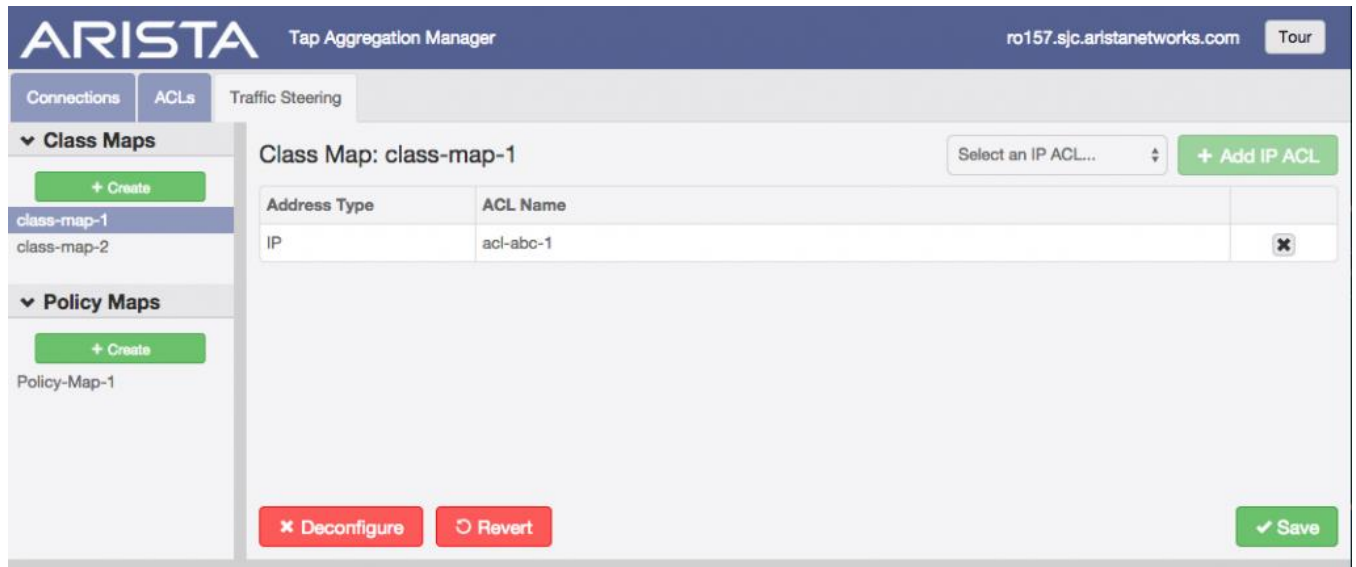
The Traffic Steering tab allows a user to create and edit traffic steering policies.

The lists on the left side of the screen show the existing Class Maps and Policy Maps. Click any item to select it and view its details in the right side of the screen.

The **Create** buttons allows a user to create a new Class Map or Policy Map.

The **Deconfigure** button will delete the current Class Map or Policy Map. The **Revert** button will undo all changes to the current Class Map or Policy Map and switch the display back to showing the current settings.

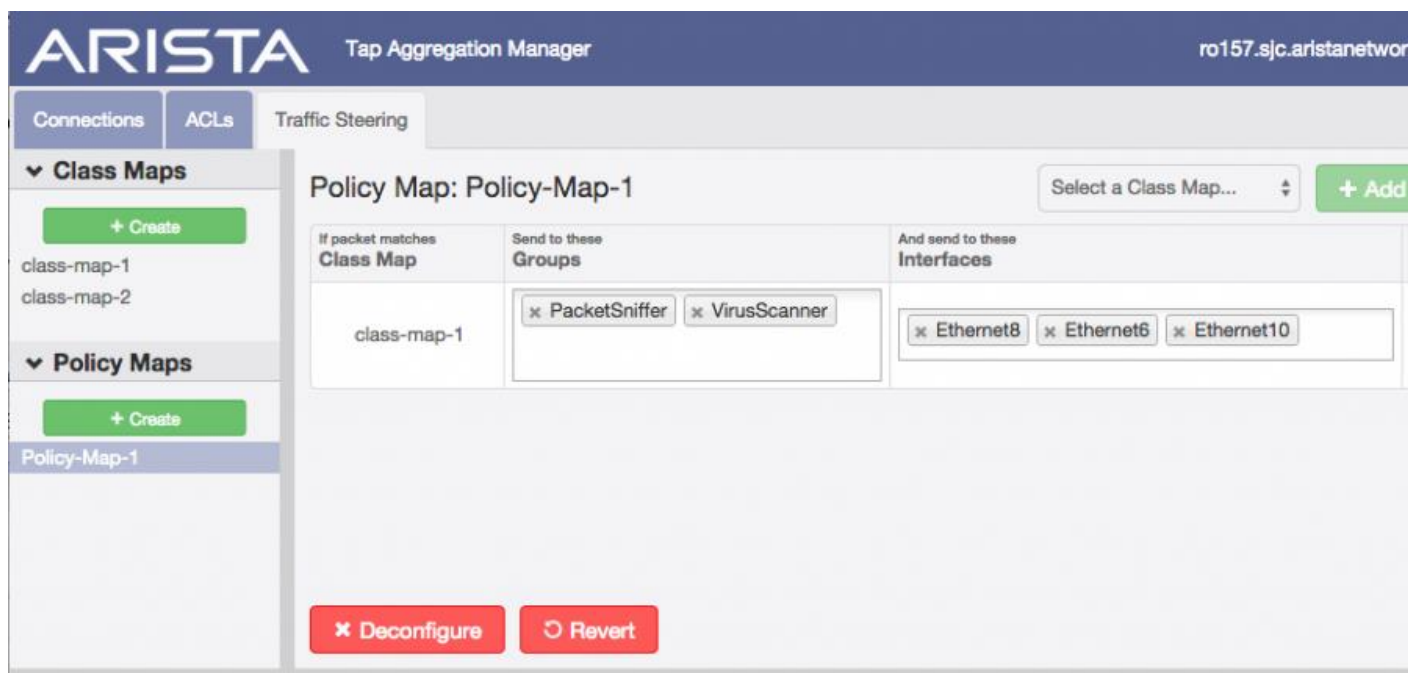
The **Save** button saves the current configuration of the Class Map or Policy Map to the switch.



The screenshot shows the 'Class Map Editor' for 'class-map-1'. The interface includes a sidebar with 'Class Maps' and 'Policy Maps' sections. The main area has a table for 'Class Map: class-map-1' with columns 'Address Type' and 'ACL Name'. A dropdown menu 'Select an IP ACL...' and a '+ Add IP ACL' button are in the top right. At the bottom, there are 'Deconfigure', 'Revert', and 'Save' buttons.

Address Type	ACL Name
IP	acl-abc-1

Figure: Traffic Steering – Class Map Editor



The screenshot shows the 'Policy Map Editor' for 'Policy-Map-1'. The interface includes a sidebar with 'Class Maps' and 'Policy Maps' sections. The main area has a table for 'Policy Map: Policy-Map-1' with columns 'If packet matches Class Map', 'Send to these Groups', and 'And send to these Interfaces'. A dropdown menu 'Select a Class Map...' and a '+ Add' button are in the top right. At the bottom, there are 'Deconfigure' and 'Revert' buttons.

If packet matches Class Map	Send to these Groups	And send to these Interfaces
class-map-1	<input checked="" type="checkbox"/> PacketSniffer <input checked="" type="checkbox"/> VirusScanner	<input checked="" type="checkbox"/> Ethernet8 <input checked="" type="checkbox"/> Ethernet6 <input checked="" type="checkbox"/> Ethernet10

Figure: Traffic Steering – Policy Map Editor

To add a Group to the Policy Map, click in the empty white space in the **Send to these Groups** column in the row corresponding to the Class Map you want to edit..

To add an Interface to the Policy Map, click in the empty white space in the **And send to these Interfaces** column in the row corresponding to the Class Map you want to edit.

Class Maps

When editing a Class Map, a user can select an IP ACL from the dropdown list in the upper right corner and then click Add IP ACL to add the ACL to the Class Map.



To remove an ACL from the current Class Map, click the **[X]** button in the rightmost column of the table.

Policy Maps

When editing a Policy Map, a user can select a Class Map from the dropdown list in the upper right corner and then click Add Class Map to add the Class map to the Policy Map.

To remove a Class Map from the current Policy Map, click the **[X]** button in the rightmost column of the table.

Note that if a user have added a VLAN Id tag number and now want to remove it, then delete all text from the VLAN Id field until it says "Default", then click Save. A more obvious UI will be added for this in the future.

Troubleshooting

If a situation occurs where the displayed information in the TAM interface is not what was expected, try refreshing the browser and see if it correct itself. If so, there may be a bug in the TAM, so please report all findings with as much detail as possible, including any steps to reproduce the behavior.

If the TAM appears to crash or otherwise becomes unresponsive, then open the JavaScript Console with **View->Developer->JavaScript Console**. Refresh the browser and then retry the operation that failed. Copy and paste any output from the JavaScript Console into a new bug report.

Limitations

- A tap aggregation group can only be removed via the TAM if there are no Tap/Tool interfaces associated with it.
- Tap Aggregation groups cannot be renamed – the workaround for this is removing and then re-adding the tap aggregation group under a different name.
- In order for the counter information to be accurate, the user's browser and switch time should be in the same time zone. Using an external sync mechanism such as NTP is recommended
- The **Focus** button has been removed from this release but will return in a future release.