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VERSAstream VS-2024-F
FASTstart with Filtering

January 28, 2014

VERSAstream VS-2024 Filtering

- Setting up port steering and filtering on your VS-2024-F can be completed once you understand a few basics.
  - 1. Setup your ports and make sure you have link on each one
  - 2. Understand the type of traffic on your network
  - 3. Know how you will apply aggregation, replication and filtering to get your desired monitoring result
  - Use Configuration Maps to steer traffic between ports
  - Use filter templates, applied within configuration maps, to either pass or deny traffic

  - Note: default login: root default password: admin123
  - Default IP address: 10.0.0.1
  - Serial Port 115200 8-N-1 No Flowcontrol
  - Google Chrome is the preferred browser

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Setup your ports, pay special attention to the make/model of the SFP+/SFP transceiver that you are using, since the speed may be negotiable

Port List

All enabled ports Polling 5 sec Properties

	name	description	privilege	ID	status	link status	speed	mode
	P1	Physical Port	Full	1	enabled		1 Gbps	regular
	P2	Physical Port	Full	2	enabled		1 Gbps	regular
	P3	Physical Port	Full	3	enabled		1 Gbps	regular

Note: If you are connecting an external fiber tap to the VS-2024, you may need to turn off autonegotiation and force the speed on the VS-2024. Fiber taps only send out a TX fiber for monitoring, so only plug the fiber from the tap into the RX side of the SFP.

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- Port Routing with configuration maps
  - These maps allow you to direct traffic through the device.
  - You can only have one filter per map, so you may need to route some traffic through loopback ports to add multiple filter types
  - Filters can have multiple criteria (i.e. subnet 1, 2, 3), but you cannot mix pass/deny criteria in the same filter, so if you want some things to pass and others to be denied, you'll need to have multiple filters
  - Loopback ports don't need to have transceivers, but you do need to set these ports for loopback (see below)

	P12	Physical Port	Full	12	loopback		10 Gbps	regular
	P13	Physical Port	Full	13	loopback		10 Gbps	regular
	P14	Physical Port	Full	14	loopback		10 Gbps	regular

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- Configuration maps can be made to simply send traffic through the device, with a default pass all filter

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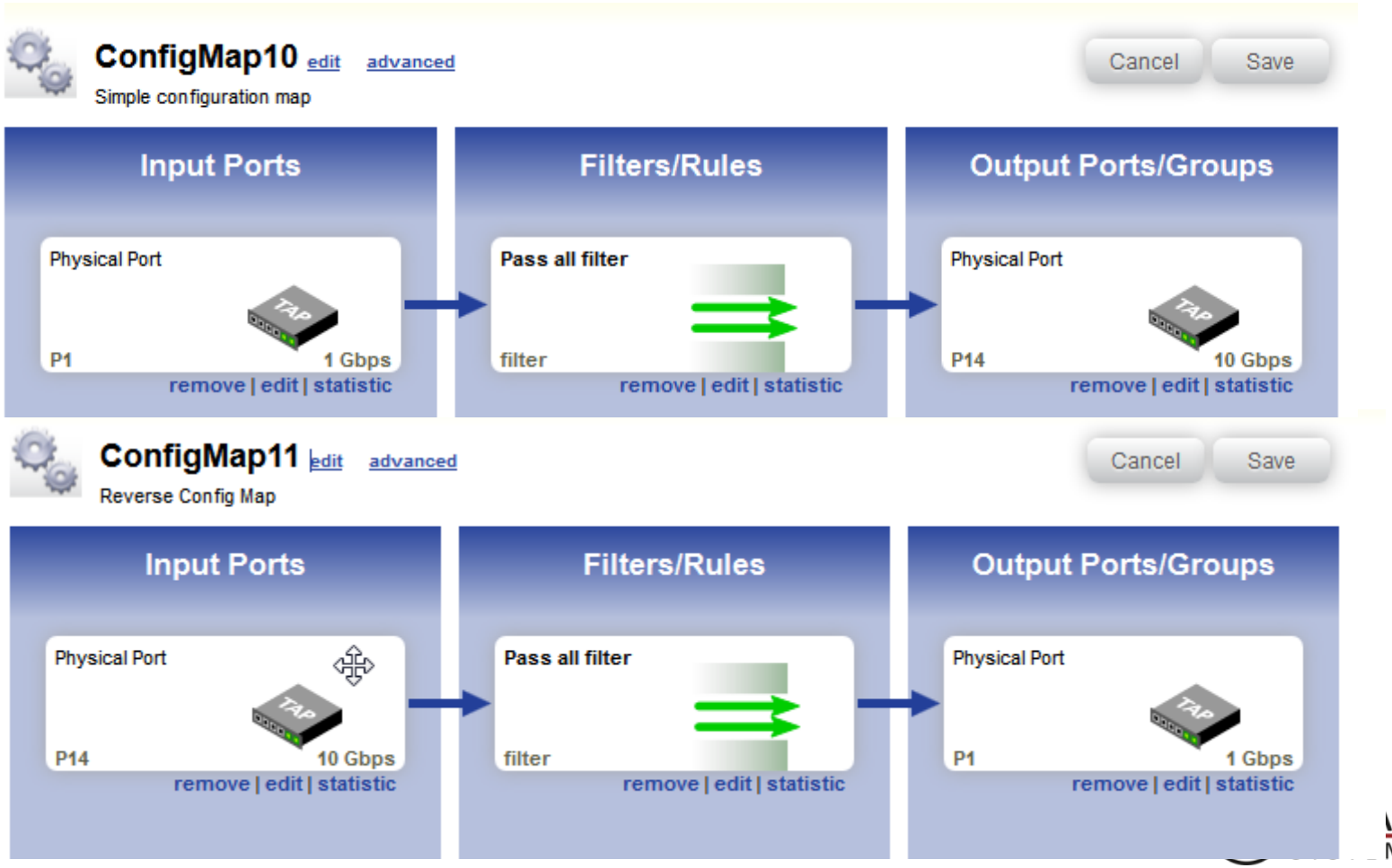
- For bi-directional traffic, simply create two configuration maps, one for each direction



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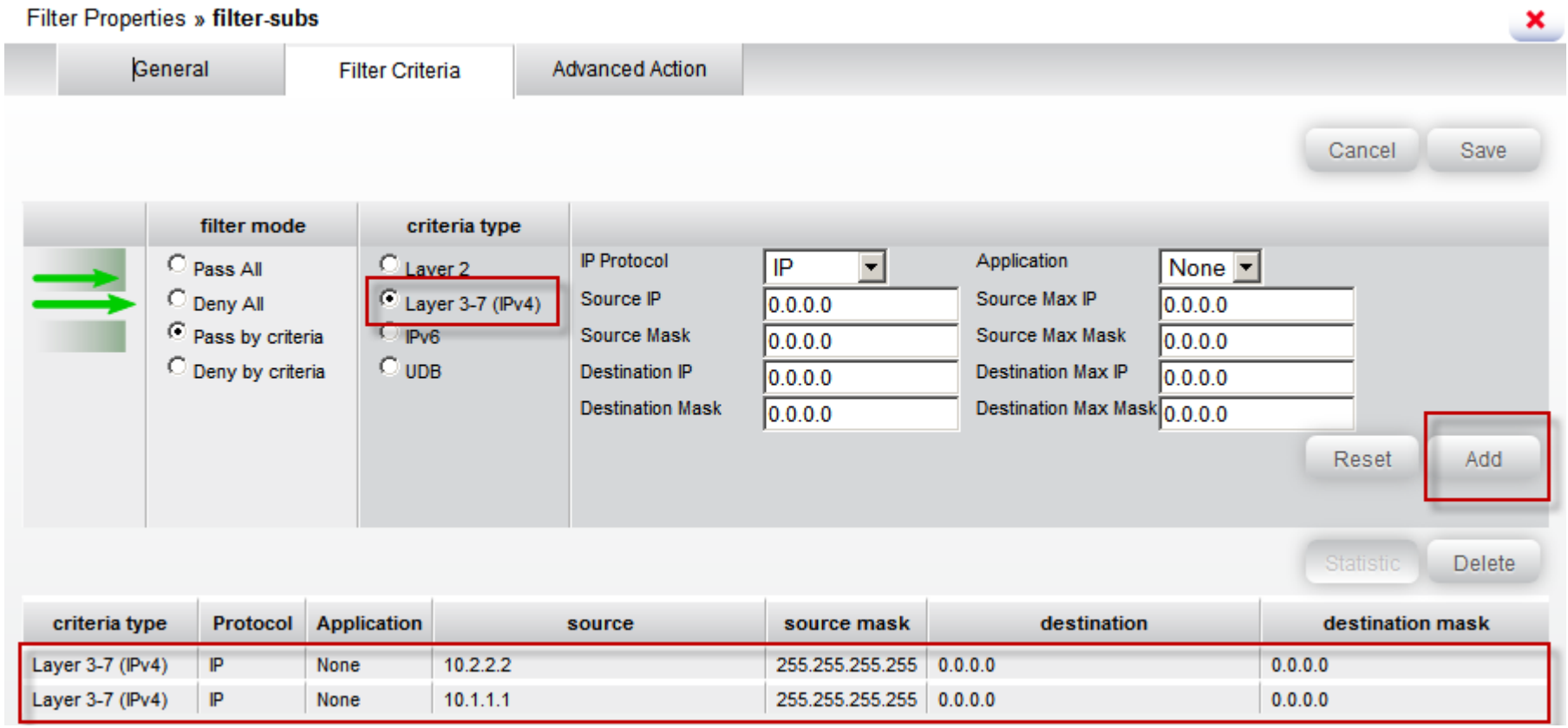
- Filters can have multiple criteria for packet selection. To implement, click the add button. Each filter will only Pass criteria or Deny criteria but not both



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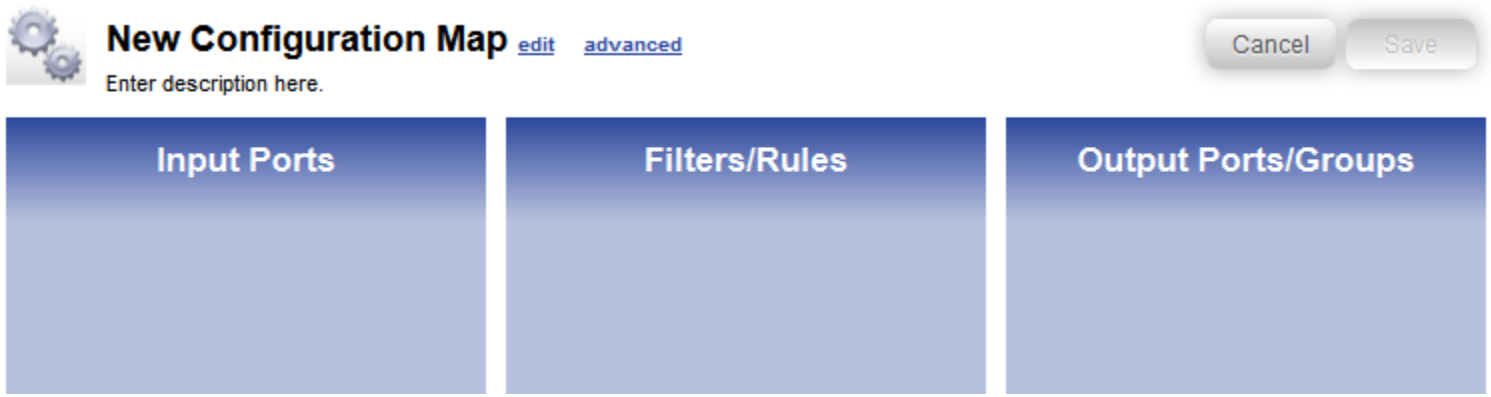
- To implement multiple filters with ports in loopback.
  - 1. Plan how many filters you may need to use
  - 2. Layout the port mapping required
  - 3. Plan your filtering criteria
  - 4. Build the filters
  - 5. Build the configuration maps with the associated filters



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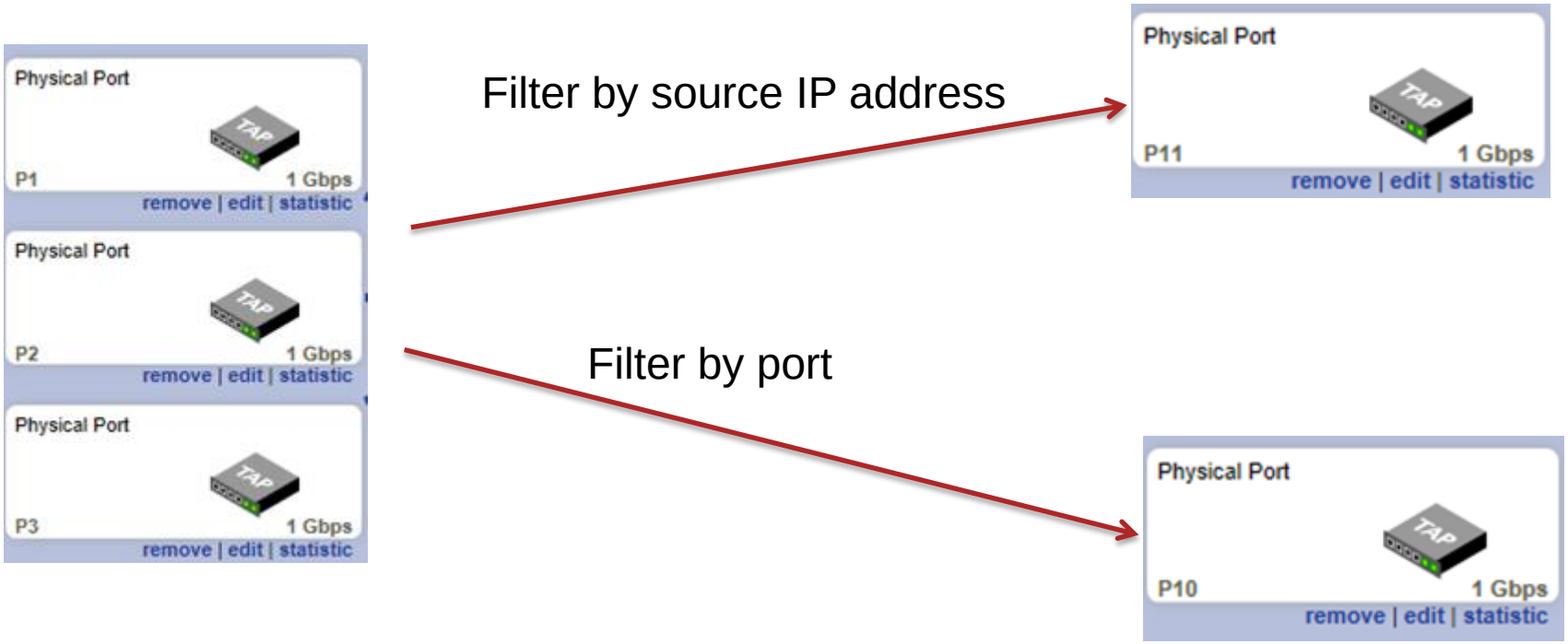
- Example 1: Aggregate multiple inputs together, then filter the aggregate to 2 outputs.
  - One output is filtered based on source IP address
  - Second output is filtered based on source port



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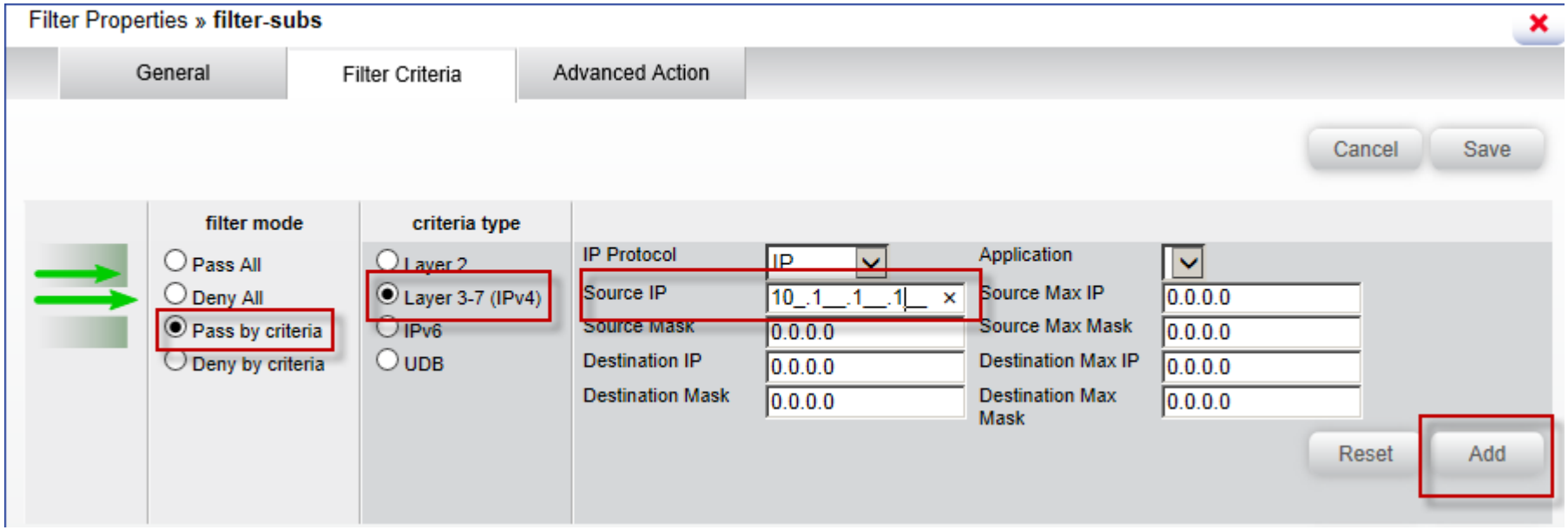
- Example 1 cont'd:
  - We'll plan on using 2 filters, one for the subnets and another for the ports
  - Go to Load Balancer->Filter Templates
  - Use the filter criteria tab to generate a "Pass by criteria", "Layer 3-7" filter with a Source IP of 10.1.1.1, then click Add



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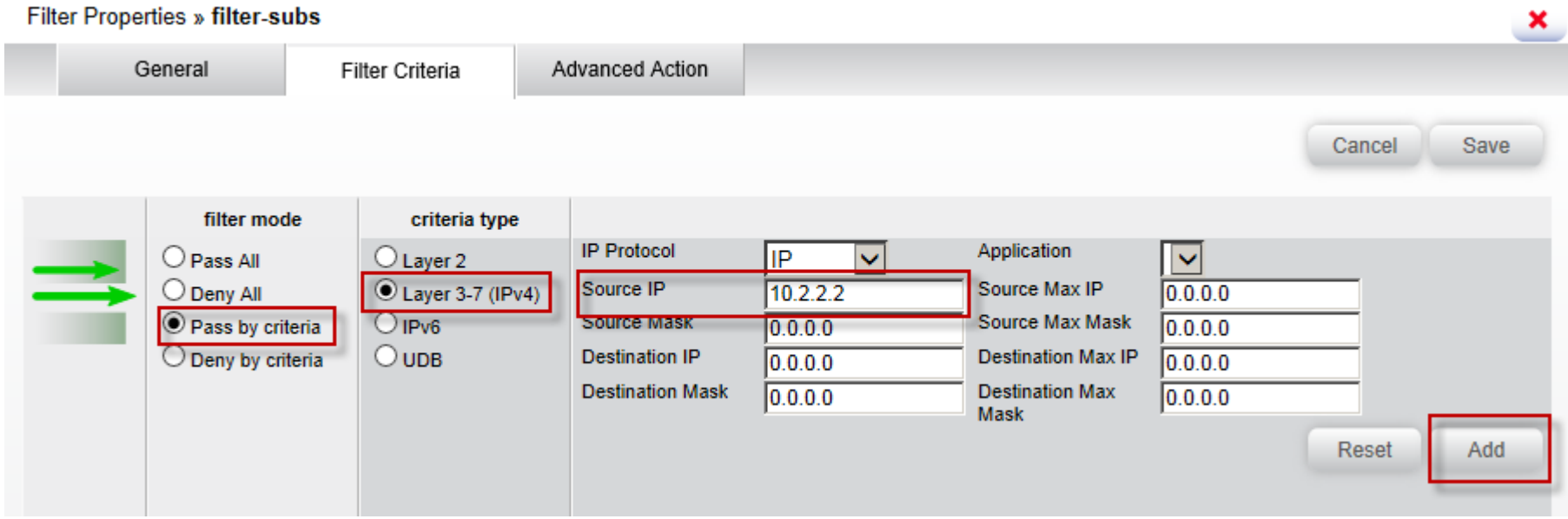
- Example 1 cont'd:
  - Then add the second subnet to filter on
  - Use the filter criteria tab to generate a "Pass by criteria", "Layer 3-7" filter with a Source IP of 10.2.2.2, then click Add



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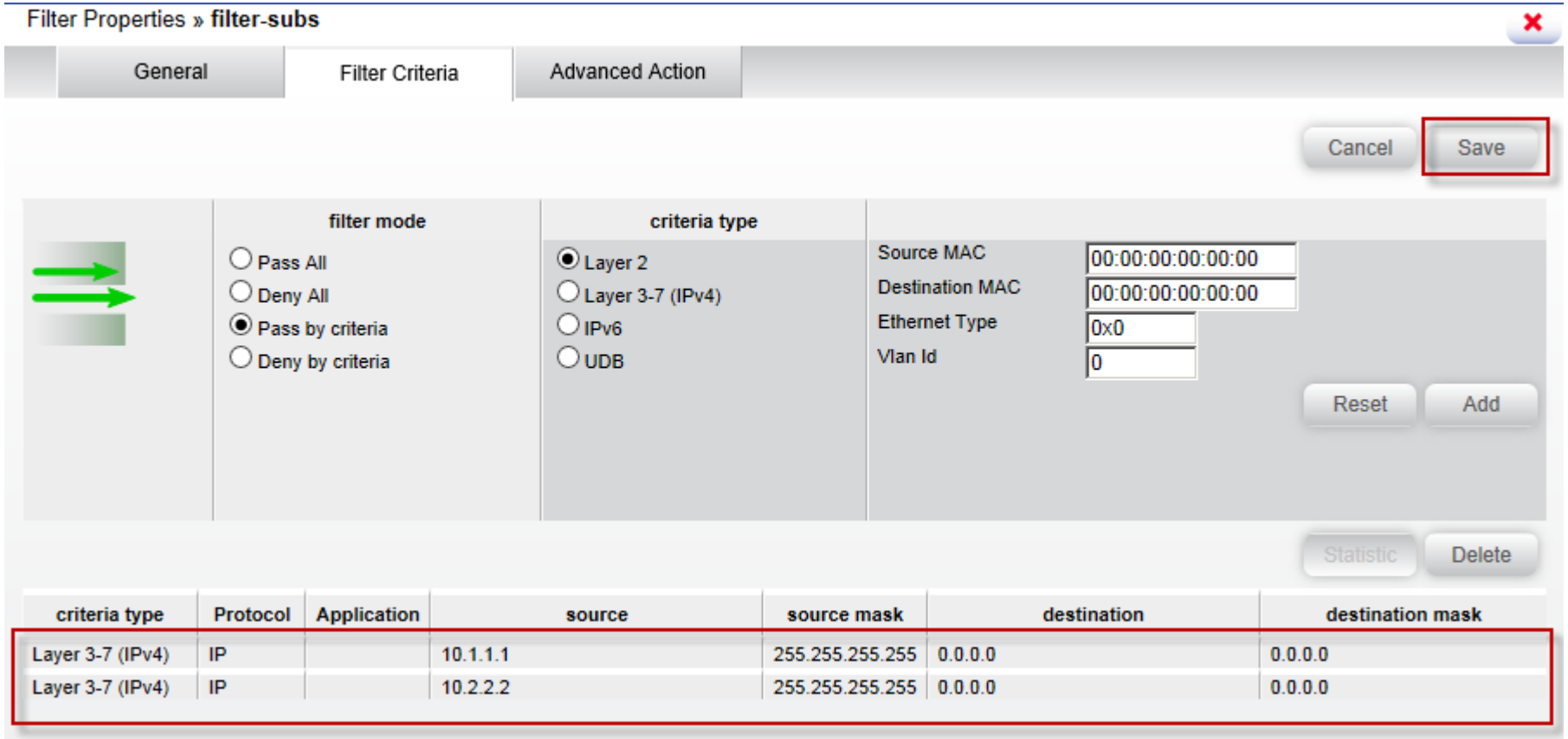
- Example 1 cont'd:
  - Note that both subnets appear at the bottom of this filter
  - Keep this filter by clicking the Save button



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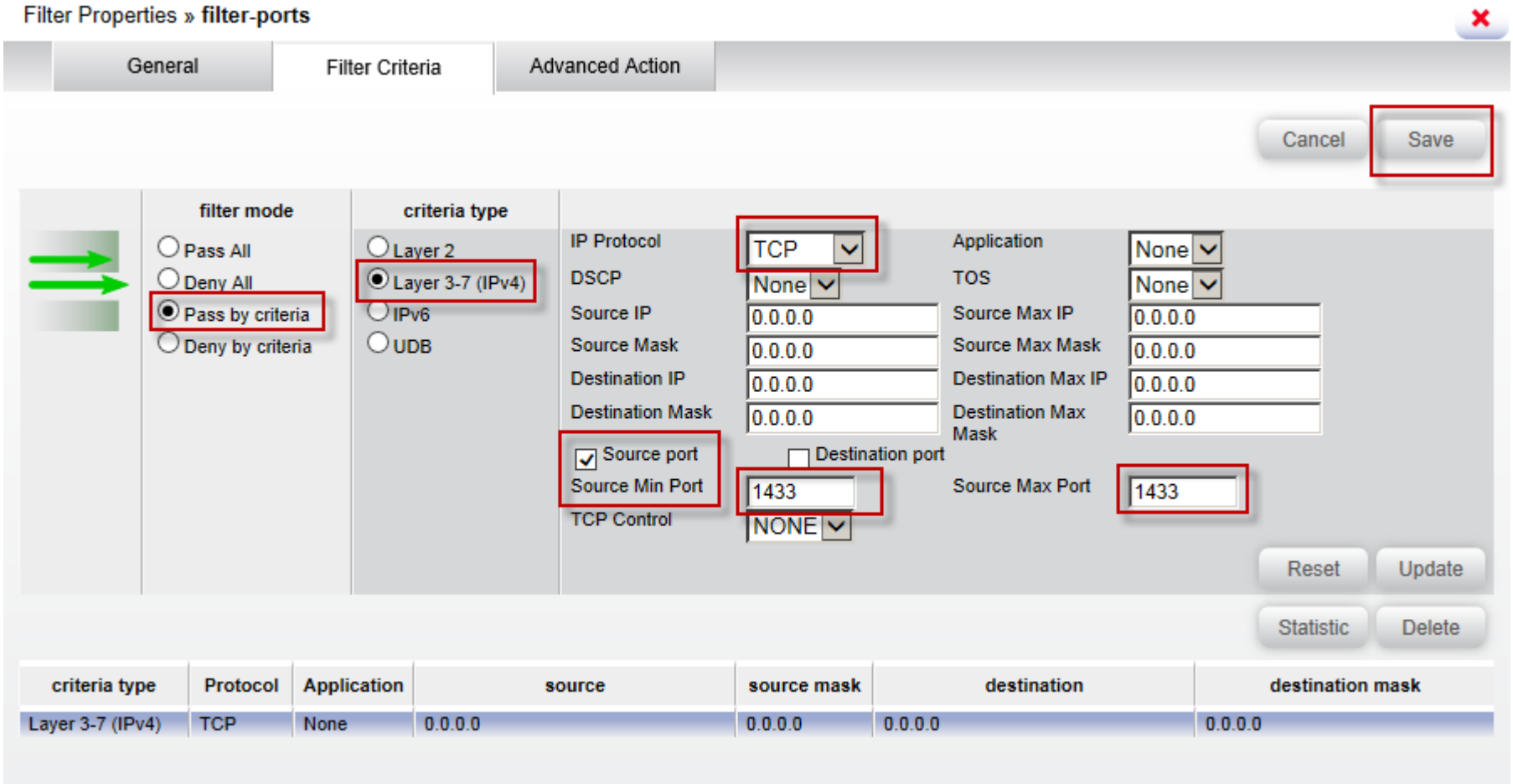
- Example 1 cont'd:
  - Create the port filter



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- Example 1 cont'd:
  - Create the configuration map by clicking New

Configuration Maps

Show All | New | Properties | Delete | Set Priorities

	name	privilege	date created	priority	packet matched count
	cfg4	Full	2014-01-28T16:14:31.662Z	2995	0
	cfg3	Full	2014-01-28T16:13:44.908Z	2996	0
	cfg2	Full	2014-01-28T16:12:09.010Z	2997	0
	Cfg1	Full	2014-01-28T16:04:47.208Z	2998	0

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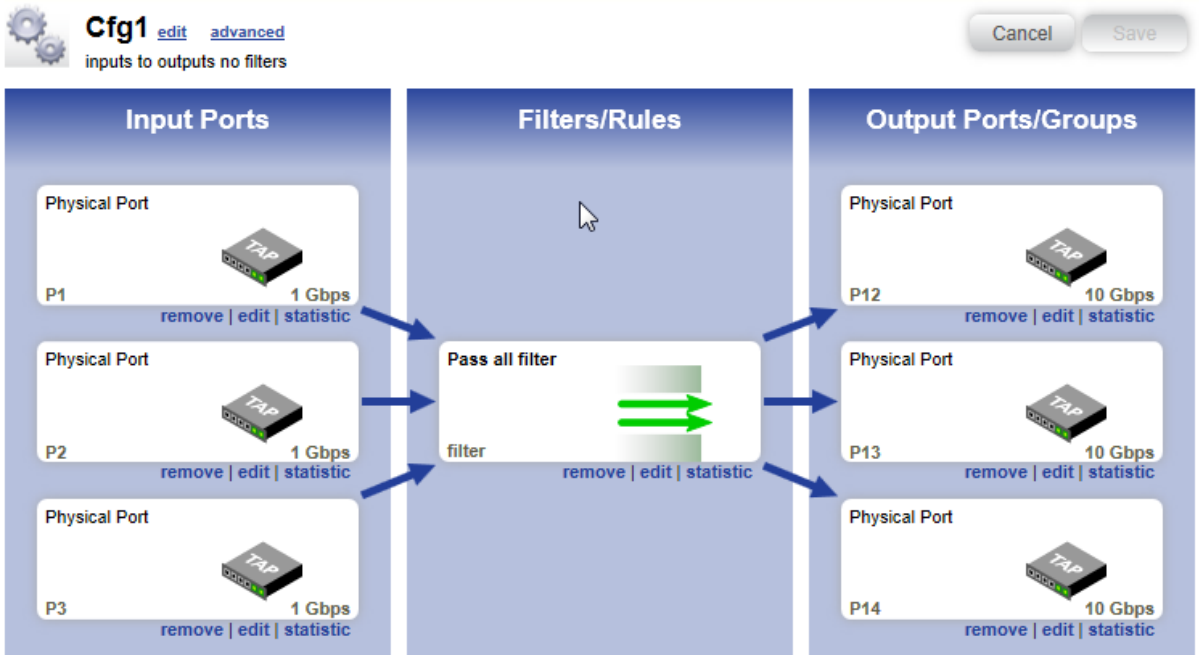
- Example 1 cont'd:
  - Aggregate multiple inputs together
  - Use loopbacks since each config map supports one filter
  - Ports 12, 13 and 14 are loopbacks (Note: Set each port status to loopback on the Ports page, and nothing is connected to these ports)



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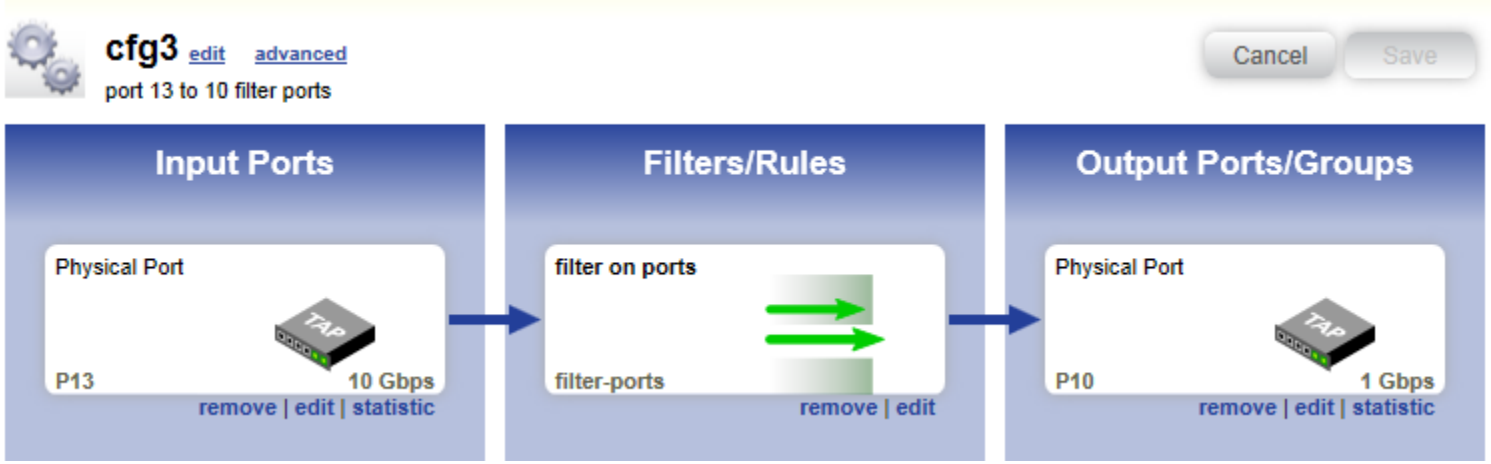
- Example 1 cont'd:
  - Port 13 is the aggregate of all input traffic, now apply a **port** filter prior to traffic leaving the device on monitoring port 10



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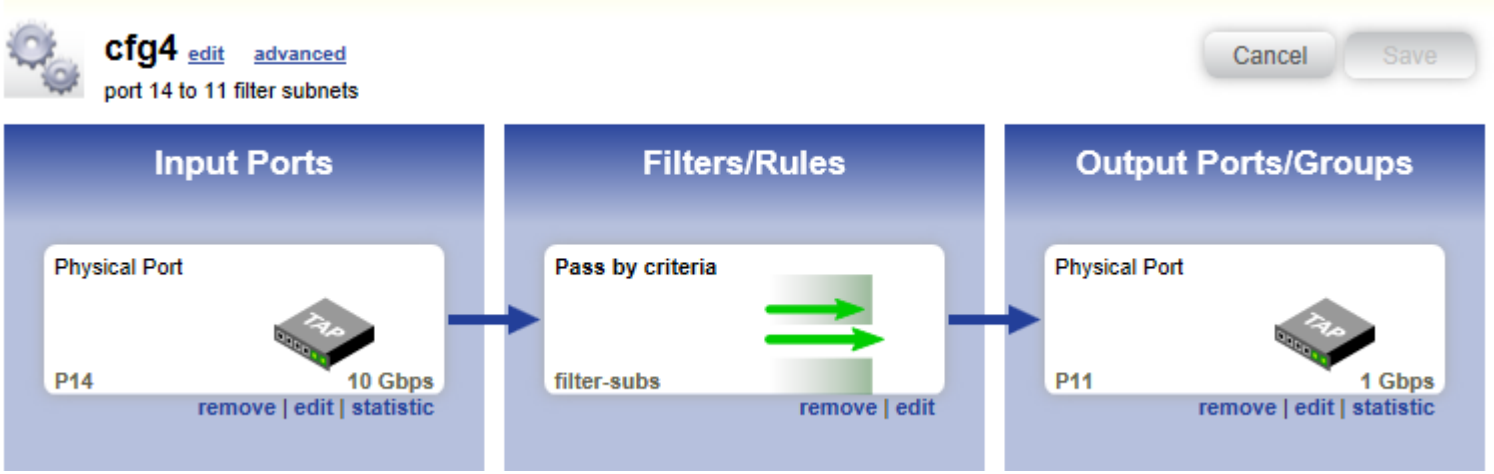
- Example 1 cont'd:
  - Port 14 is also an aggregate of all input traffic, now apply a **subnet** filter prior to traffic leaving the device on monitoring port 11



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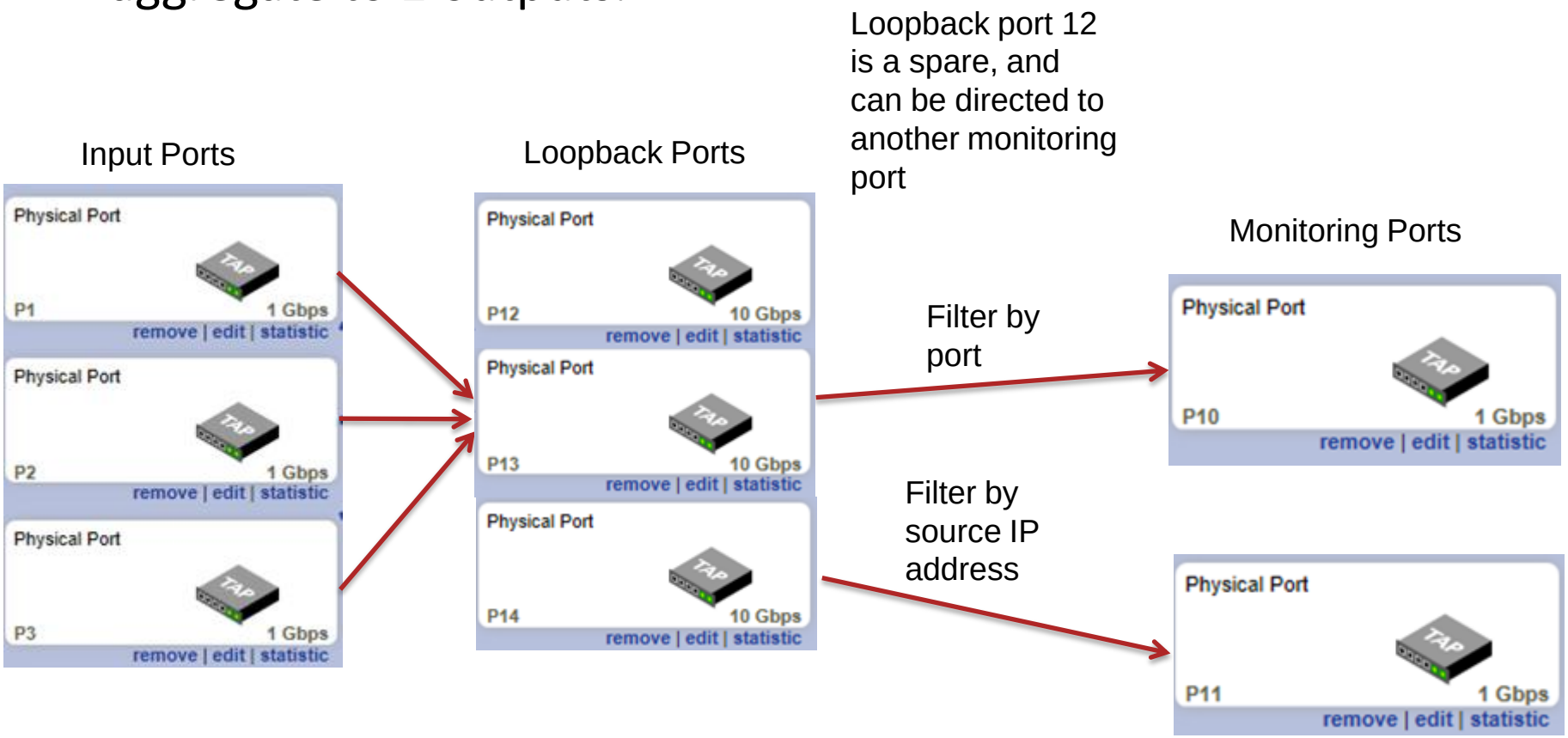
- Example 1: Aggregate multiple inputs together, then filter the aggregate to 2 outputs.



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