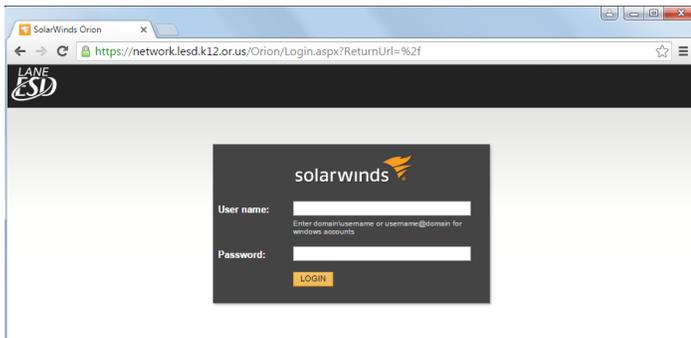# Lane ESD Network Monitoring Tools

School districts receiving Lane ESD internet services now have access to a new suite of network monitoring tools, powered by SolarWinds. Contact Lane ESD NOC (noc@lesd.k12.or.us) to register for an account.
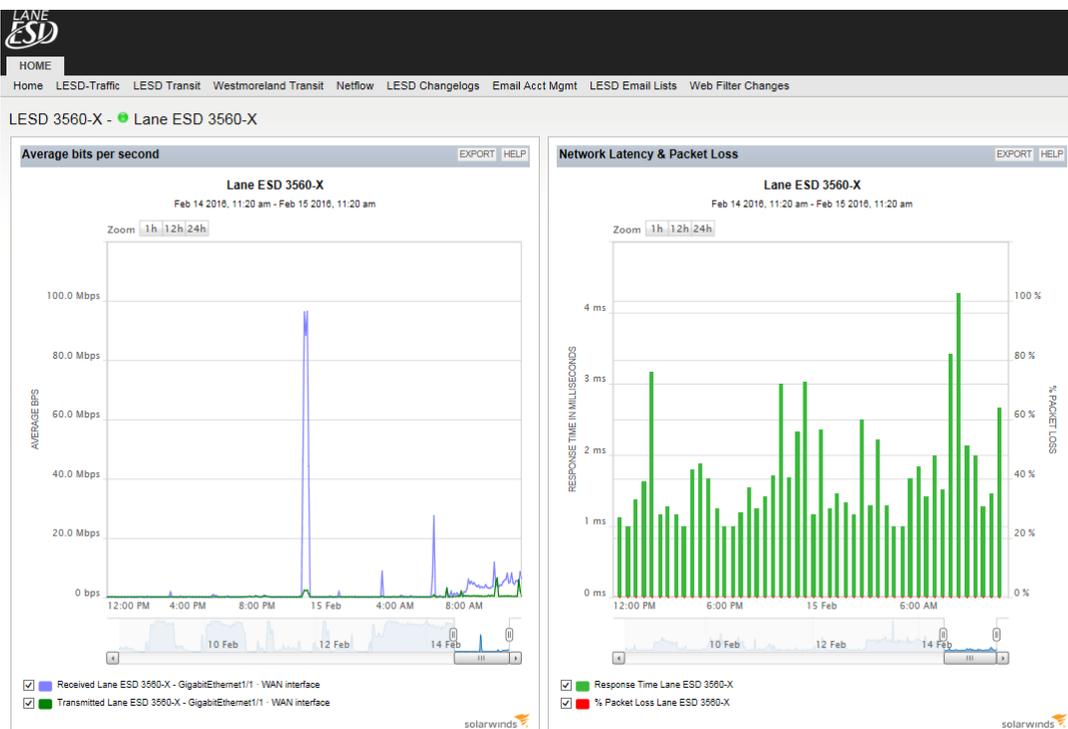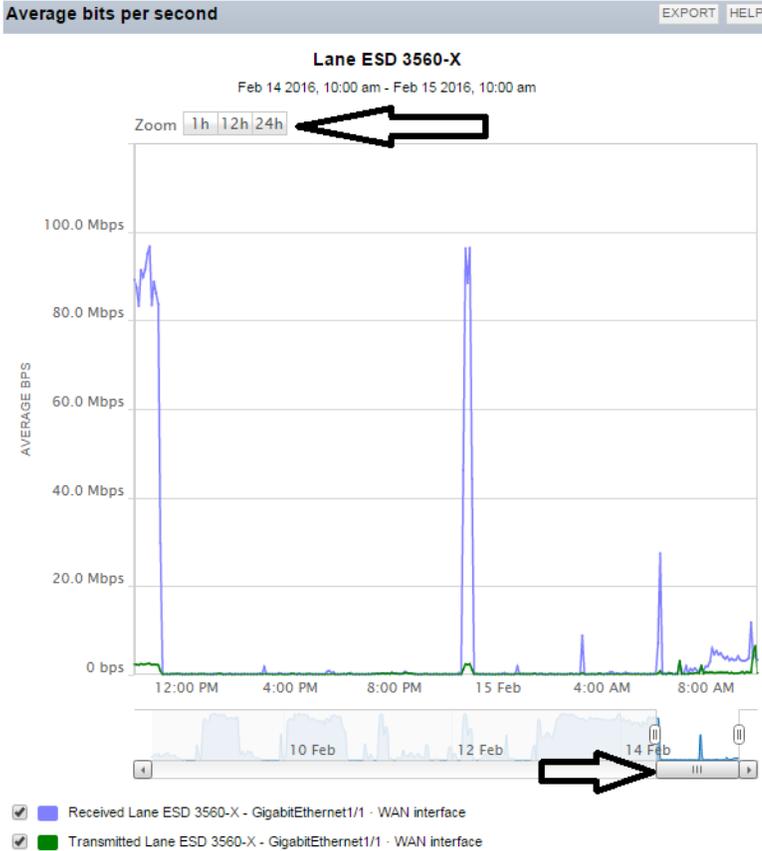
To access your account, please visit: https://www.network.lesd.k12.or.us

TRAFFIC PAGE

After logging in, you are first directed to your district traffic page.

Average bits per second EXPORT HELP

Lane ESD 3560-X
Feb 14 2016, 10:00 am - Feb 15 2016, 10:00 am

Zoom 1h 12h 24h

100.0 Mbps

80.0 Mbps

AVERAGE BPS

60.0 Mbps

40.0 Mbps

20.0 Mbps

0 bps

12:00 PM   4:00 PM   8:00 PM   15 Feb   4:00 AM   8:00 AM

10 Feb   12 Feb   14 Feb

☑ ■ Received Lane ESD 3560-X - GigabitEthernet1/1 · WAN interface
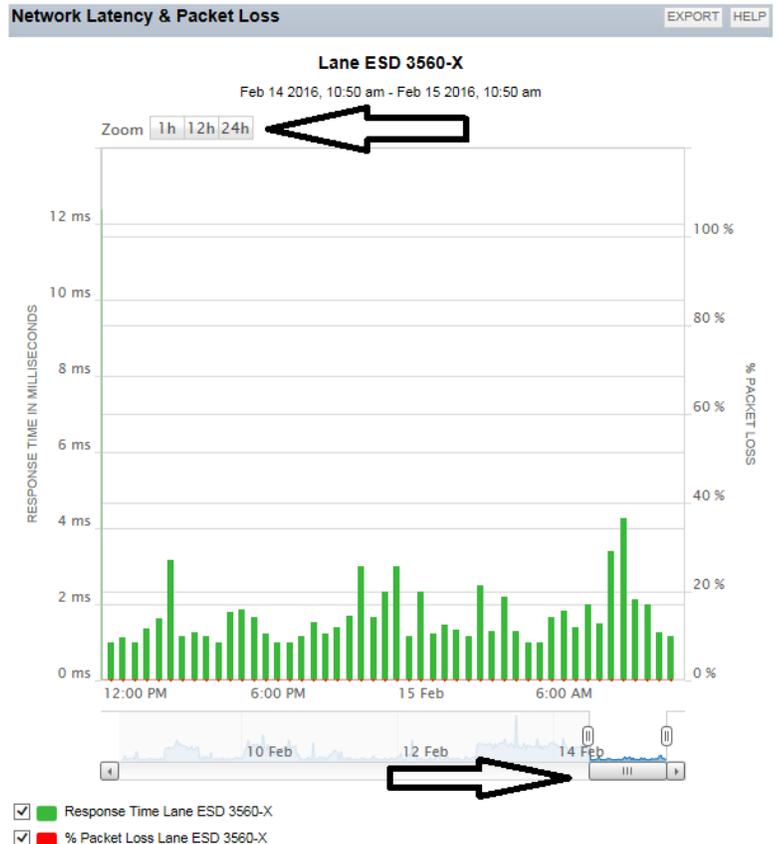☑ ■ Transmitted Lane ESD 3560-X - GigabitEthernet1/1 · WAN interface

The graph on the left side of the district traffic page indicates the total average bits per second received and transmitted from the Lane ESD equipment servicing your district. There are three ways to adjust the data time frames in the graph:

1. You can click the zoom buttons for 1h, 12h, and 24h periods

2. You can click on the interactive graph, and hold down and drag, to create a custom time frame.

3. You can adjust the time frame slider at the bottom of the graph.

You can use the check boxes at the bottom of the graph to deselect received or transmitted traffic.

The graph on the right of the traffic page shows the latency and packet loss measured between Lane ESD's monitoring server at the Willamette Internet Exchange (WIX) and the Lane ESD's equipment in your district.

This graph shows the ping responses between the two devices. Latency is represented as green bars and is measured in milliseconds. Packet loss is represented as red lines indicating percentage lost.

Network Latency & Packet Loss EXPORT HELP

Lane ESD 3560-X
Feb 14 2016, 10:50 am - Feb 15 2016, 10:50 am

Zoom 1h 12h 24h

12 ms   100 %

10 ms   80 %

RESPONSE TIME IN MILLISECONDS

8 ms   60 %

% PACKET LOSS

6 ms

4 ms   40 %

2 ms   20 %

0 ms   0 %

12:00 PM   6:00 PM   15 Feb   6:00 AM

10 Feb   12 Feb   14 Feb

☑ ■ Response Time Lane ESD 3560-X
☑ ■ % Packet Loss Lane ESD 3560-X

TRANSIT TRAFFIC PAGE

The graphs on the transit traffic page show the rate and utilization of transit traffic used by your district.

The graph on the left side of the transit traffic page shows the transit average bits per second. The graph on the right of the transit traffic page is the transit utilization graph. This shows how much of the rate-limit is being used.

Your district's rate-limit is indicated at the bottom of the page, under the CBQoS Policy Details section.

NETFLOW TRAFFIC ANALYZER

HOME

Home   LESD-Traffic   LESD Transit   Westmoreland Transit   Netflow   LESD Changelogs   Email Acct Mgmt   LESD Email Lists   Web Filter Changes
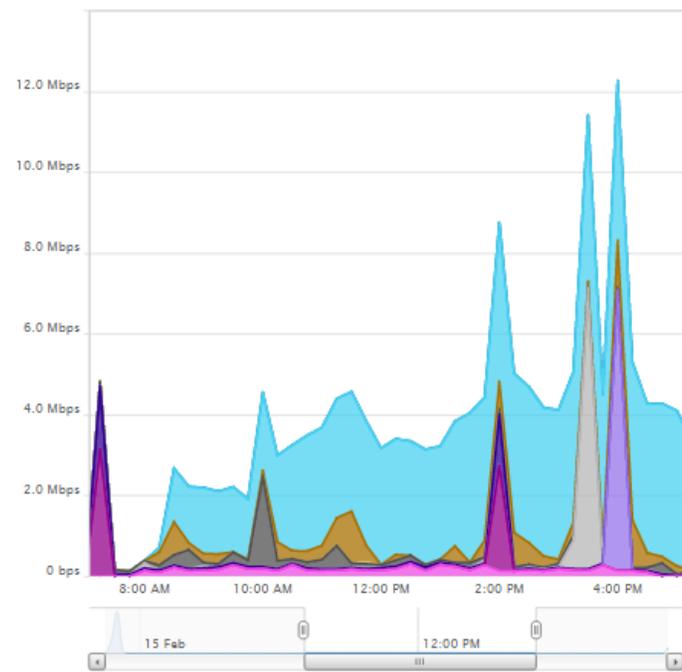
⇧

The first two graphs on the NetFlow page show the top ten receivers and transmitters of your district traffic. You have the option to designate the direction (Ingress, Egress, or Both) of the selected endpoint traffic.
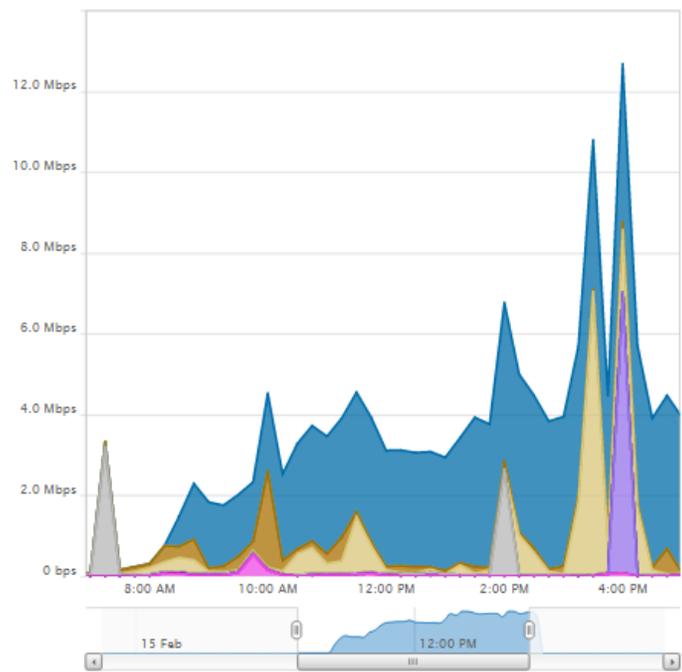
LESD Netflow

Last 1 Days ☑ Both ☑

Flow Navigator

Top 10 Receivers   HELP
BOTH, LAST 1 DAYS, RATE (KBPS)

HOSTNAME	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS	PERCENT
⊞ ■ ✔ backup.lesd.k12.or.us	0 bytes	14.6 Gbytes	0	10.3 M	32.96%
⊞ ■ ✔ mbp82tech-arne.lesd.k12.or.us	0 bytes	12.2 Gbytes	0	9.43 M	27.45%
⊞ ■ ✔ IM132TECH-CYEE	0 bytes	1.4 Gbytes	0	1.19 M	3.23%
⊞ ■ ✔ nearline.lesd.k12.or.us	0 bytes	1.4 Gbytes	0	1.07 M	3.06%
⊞ ■ ✔ archive.lesd.k12.or.us	0 bytes	1.1 Gbytes	0	1.13 M	2.5%
⊞ ■ ✔ 163.41.59.245	0 bytes	905.8 Mbytes	0	648.59 k	2.04%

Top 10 Transmitters   HELP
BOTH, LAST 1 DAYS, RATE (KBPS)

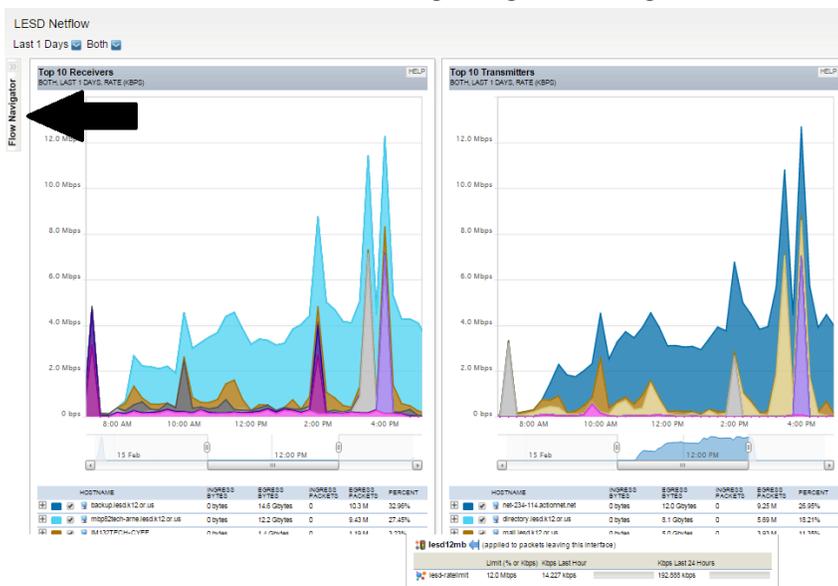| HOSTNAME	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS	PERCENT
⊞ ■ ✔ net-234-114.actionnet.net	0 bytes	12.0 Gbytes	0	9.25 M	26.95%
⊞ ■ ✔ directory.lesd.k12.or.us	0 bytes	6.1 Gbytes	0	5.69 M	18.21%
⊞ ■ ✔ mail.lesd.k12.or.us	0 bytes	5.0 Gbytes	0	3.93 M	11.35%
⊞ ■ ✔ cache.google.com	0 bytes	2.3 Gbytes	0	1.77 M	5.23%
⊞ ■ ✔ cms-fr.lesd.k12.or.us	0 bytes	1.1 Gbytes	0	801.71 k	2.56%
⊞ ■ ✔ wifi.lesd.k12.or.us	1.1 Gbytes	0 bytes	2.69 M	0	2.46%

The chart on the bottom left of the NetFlow page shows the twenty most bandwidth‑consuming conversations conducted over your network. Conversations are listed with the amount of data transferred in the conversation, in both bytes and packets.

The chart of the bottom right of the NetFlow page shows the top ten domains visited by your district. This resource provides a view of the domains responsible for the most traffic from all nodes in your district.
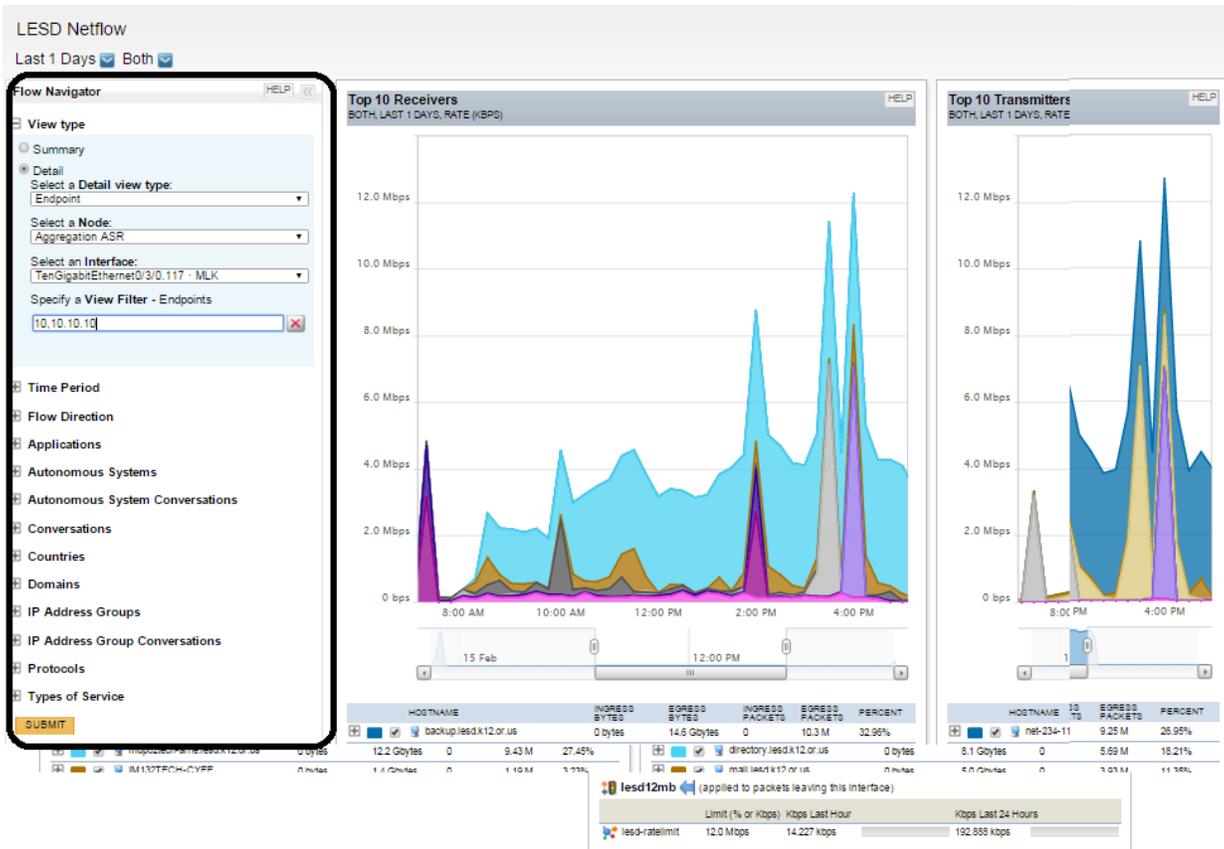
Top 20 Conversations
BOTH, LAST 1 DAYS — HELP

CONVERSATION	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS	PERCENT
Between mbp82tech-arne.lesd.k12.or.us (163.41.60.111) and net-234-114.actionnet.net (206.192.234.114)	324.8 Mbytes	12.0 Gbytes	6.22 M	9.25 M	27.68%
Between directory.lesd.k12.or.us (163.41.62.111) and backup.lesd.k12.or.us (163.41.122.109)	146.2 Mbytes	8.1 Gbytes	2.81 M	5.69 M	18.54%
Between mail.lesd.k12.or.us (163.41.62.121) and backup.lesd.k12.or.us (163.41.122.109)	68.0 Mbytes	3.7 Gbytes	1.31 M	2.63 M	8.55%
Between archive.lesd.k12.or.us (163.41.60.128) and mail.lesd.k12.or.us (163.41.62.121)	76.7 Mbytes	1.1 Gbytes	870.75 k	1.13 M	2.67%
Between cms-fr.lesd.k12.or.us (163.41.62.78) and backup.lesd.k12.or.us (163.41.122.109)	20.8 Mbytes	1.1 Gbytes	399.9 k	799.97 k	2.61%
Between 163.41.60.27 and vhost5.lesd.k12.or.us (163.41.62.43)	779.3 Mbytes	15.8 Mbytes	555.97 k	369.12 k	1.79%
Between cms-blachly.lesd.k12.or.us (163.41.62.86) and backup.lesd.k12.or.us (163.41.122.109)	14.2 Mbytes	771.7 Mbytes	272.25 k	544.45 k	1.77%
Between cache.google.com (140.211.86.42) and 163.41.59.245	12.3 Mbytes	770.3 Mbytes	285 k	542.76 k	1.76%
Between wifi.lesd.k12.or.us (163.41.60.250) and 163.41.77.60	696.2 Mbytes	73.8 Mbytes	722.56 k	301.6 k	1.74%
Between nearline.lesd.k12.or.us (163.41.60.116) and inv.lesd.k12.or.us (163.41.62.34)	14.1 Mbytes	731.8 Mbytes	256.44 k	515.67 k	1.68%
Between streaming201.radionomy.net (31.12.64.201) and 163.41.59.100	8.5 Mbytes	492.0 Mbytes	211.87 k	386.2 k	1.13%
Between 163.41.59.124 and 198.237.72.18	154.6 Mbytes	293.2 Mbytes	390.43 k	473.9 k	1.01%
Between webmail.lesd.k12.or.us (163.41.62.122) and backup.lesd.k12.or.us (163.41.122.109)	7.3 Mbytes	398.5 Mbytes	140.39 k	280.73 k	0.91%
Between cache.google.com (140.211.86.12) and IM132TECH-CYEE (163.41.60.46)	1.1 Mbytes	400.2 Mbytes	23.65 k	283.01 k	0.9%
Between a23-41-176-54.deploy.static.akamaitechnologies.com (23.41.176.54) and 163.41.60.14	1.8 Mbytes	299.8 Mbytes	43.66 k	211.53 k	0.68%
Between nearline.lesd.k12.or.us (163.41.60.116) and cms-blachly.lesd.k12.or.us (163.41.62.86)	6.4 Mbytes	255.8 Mbytes	114.35 k	262.51 k	0.59%
Between 163.41.59.100 and 198.237.72.18	66.6 Mbytes	168.8 Mbytes	160.47 k	230.69 k	0.53%
Between cache.google.com (140.211.86.57) and IM132TECH-CYEE (163.41.60.46)	219.1 Mbytes	13.9 Mbytes	158.46 k	89.36 k	0.53%
Between 13.107.4.50 and 163.41.60.10	1.6 Mbytes	219.0 Mbytes	38.72 k	160.12 k	0.5%
Between 75-170-72-146.eugn.qwest.net (75.170.72.146) and wifi.lesd.k12.or.us (163.41.60.250)	149.4 Mbytes	47.4 Mbytes	592 k	145.45 k	0.44%
Remaining traffic	1.3 Gbytes	9.3 Gbytes	4.29 M	9.17 M	23.96%

Top 10 Domains
BOTH, LAST 1 DAYS — HELP

DOMAIN	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS	PERCENT
k12.or.us	2.6 Gbytes	30.8 Gbytes	16.46 M	25.62 M	60.7%
actionnet.net	324.8 Mbytes	12.0 Gbytes	6.22 M	9.25 M	22.15%
google.com	255.6 Mbytes	2.3 Gbytes	738.78 k	1.77 M	4.64%
akamaitechnologies.com	31.5 Mbytes	2.3 Gbytes	340.5 k	1.71 M	4.16%
fbcdn.net	3.5 Mbytes	705.5 Mbytes	62.72 k	542.23 k	1.28%
pandora.com	956.6 kbytes	667.8 Mbytes	10.65 k	493.45 k	1.21%
radionomy.net	8.5 Mbytes	492.6 Mbytes	211.87 k	386.71 k	0.9%
amazonaws.com	405.2 Mbytes	79.7 Mbytes	305.6 k	196.04 k	0.67%
aapimg.com	3.8 Mbytes	448.4 Mbytes	93.67 k	346.94 k	0.82%
1e100.net	20.1 Mbytes	310.5 Mbytes	70.25 k	276.05 k	0.6%
Remaining traffic	307.2 Mbytes	1.2 Gbytes	1.06 M	1.34 M	2.67%

To see more detailed information regarding traffic usage, click the Flow Navigator tool on the left side of the page.

LESD Netflow
Last 1 Days Both

Top 10 Receivers
BOTH, LAST 1 DAYS, RATE (KBPS) — HELP

Top 10 Transmitters
BOTH, LAST 1 DAYS, RATE (KBPS) — HELP

HOSTNAME	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS	PERCENT
backup.lesd.k12.or.us	0 bytes	14.6 Gbytes	0	10.3 M	32.96%
mbp82tech-arne.lesd.k12.or.us	0 bytes	12.2 Gbytes	0	9.43 M	27.45%
IM132TECH-CYEE	0 bytes	1.4 Gbytes	0	1.19 M	3.23%

HOSTNAME	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS	PERCENT
net-234-114.actionnet.net	0 bytes	12.0 Gbytes	0	9.25 M	26.95%
directory.lesd.k12.or.us	0 bytes	8.1 Gbytes	0	5.69 M	18.21%
mail.lesd.k12.or.us	0 bytes	5.0 Gbytes	0	3.63 M	11.25%

lesd12mb (applied to packets leaving this interface)

	Limit (% or Kbps)	Kbps Last Hour	Kbps Last 24 Hours
lesd-ratelimit	12.0 Mbps	14.227 Kbps	192.888 Kbps

FLOW NAVIGATOR

The Flow Navigator allows you to create your own custom NetFlow views where you can apply filters on all monitored objects (summary filtered views) or you can specify objects that you want to filter further (detail filtered views).

You can customize a filter that will enable you to display network traffic connected with a specified endpoint of origin or destination.