



Network Systems Monitoring

Online Workshop – May 2021

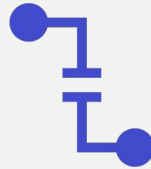
Lanka Education and Research Network

Overview



What is Monitoring:

Check the status of a network



What to Monitor:

Infrastructure – Routers,
Switches, Servers, Environment,
Physical Connections, etc

Services – DNS, HTTP, SMTP etc



Why to Monitor:

Check their Reachability,
Availability

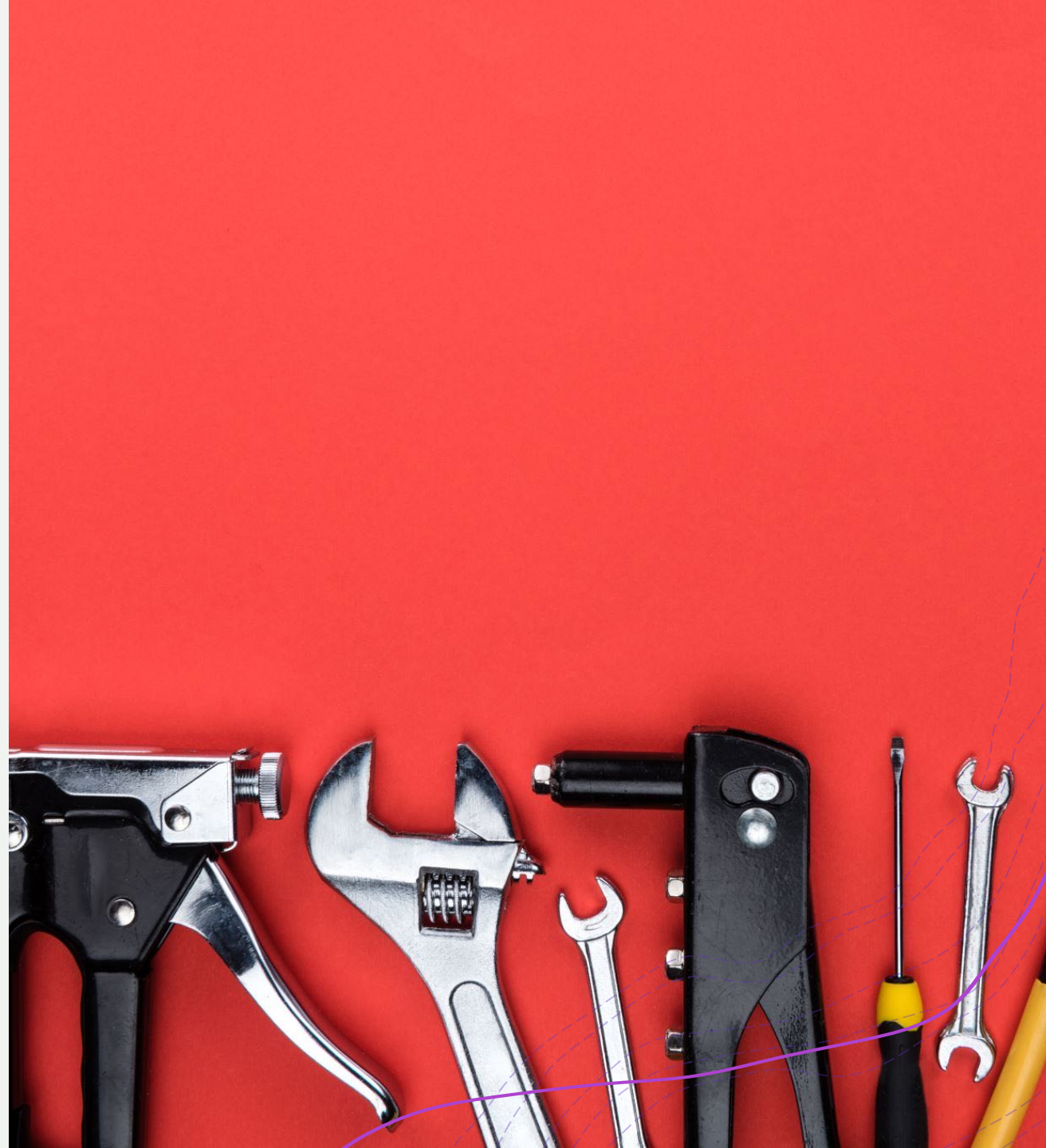
Check their Utilization?

What's their Performance

Figure out their Faults and
Outages

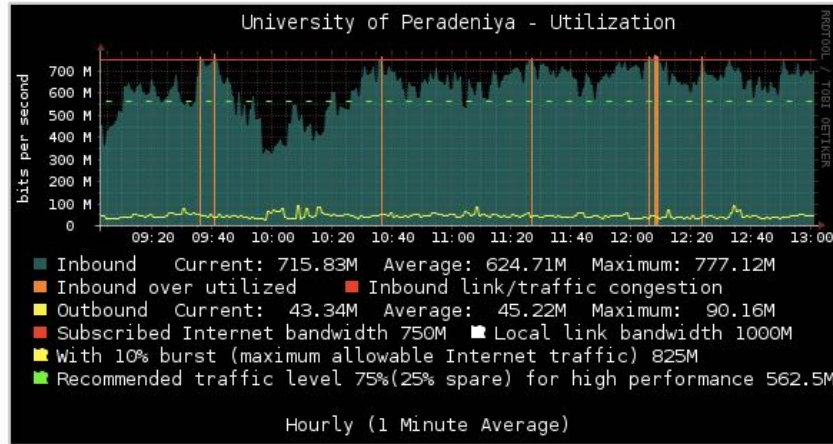
Monitoring

- + Tools we Use:
 - + Cacti
 - + Nagios
 - + Icinga2
 - + LibreNMS
 - + NFSens
 - + Nmon
 - + Htop
 - + Munin

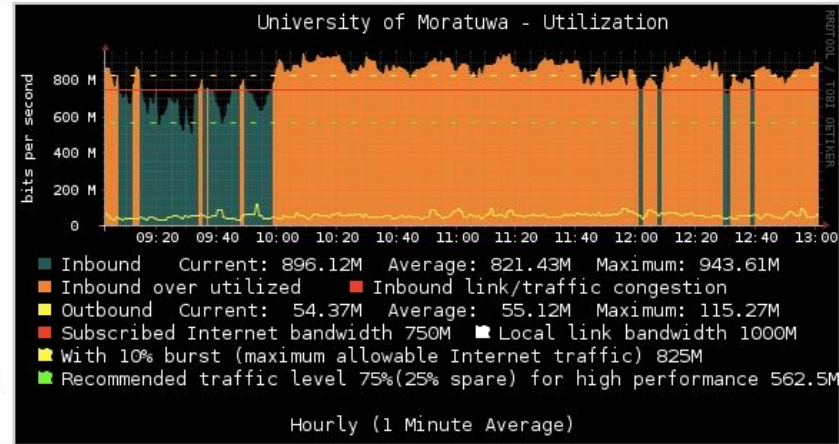


Monitoring

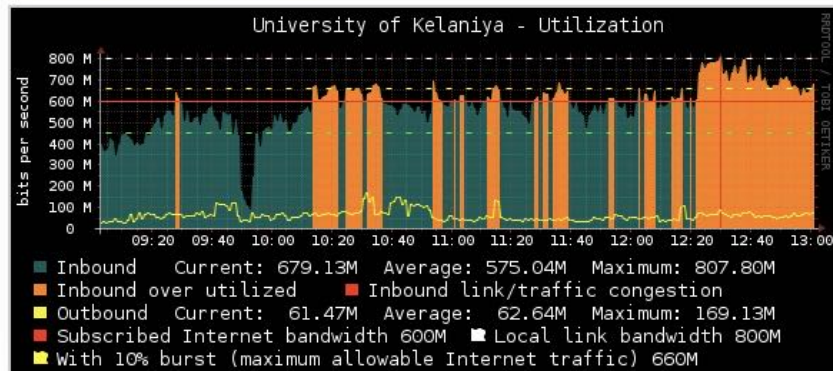
University of Peradeniya (D61429)



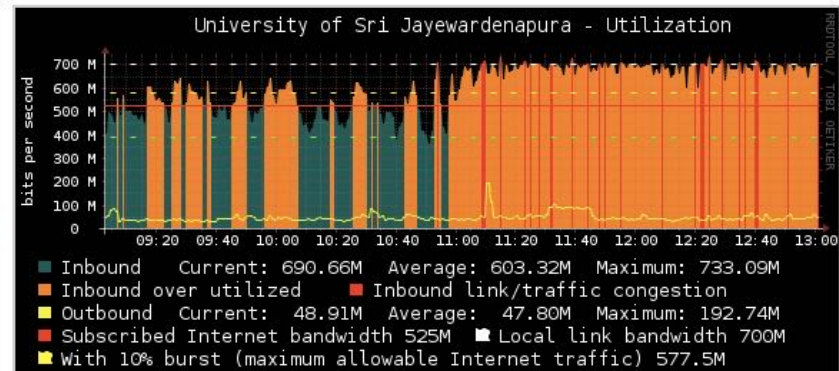
University of Moratuwa (D61427)



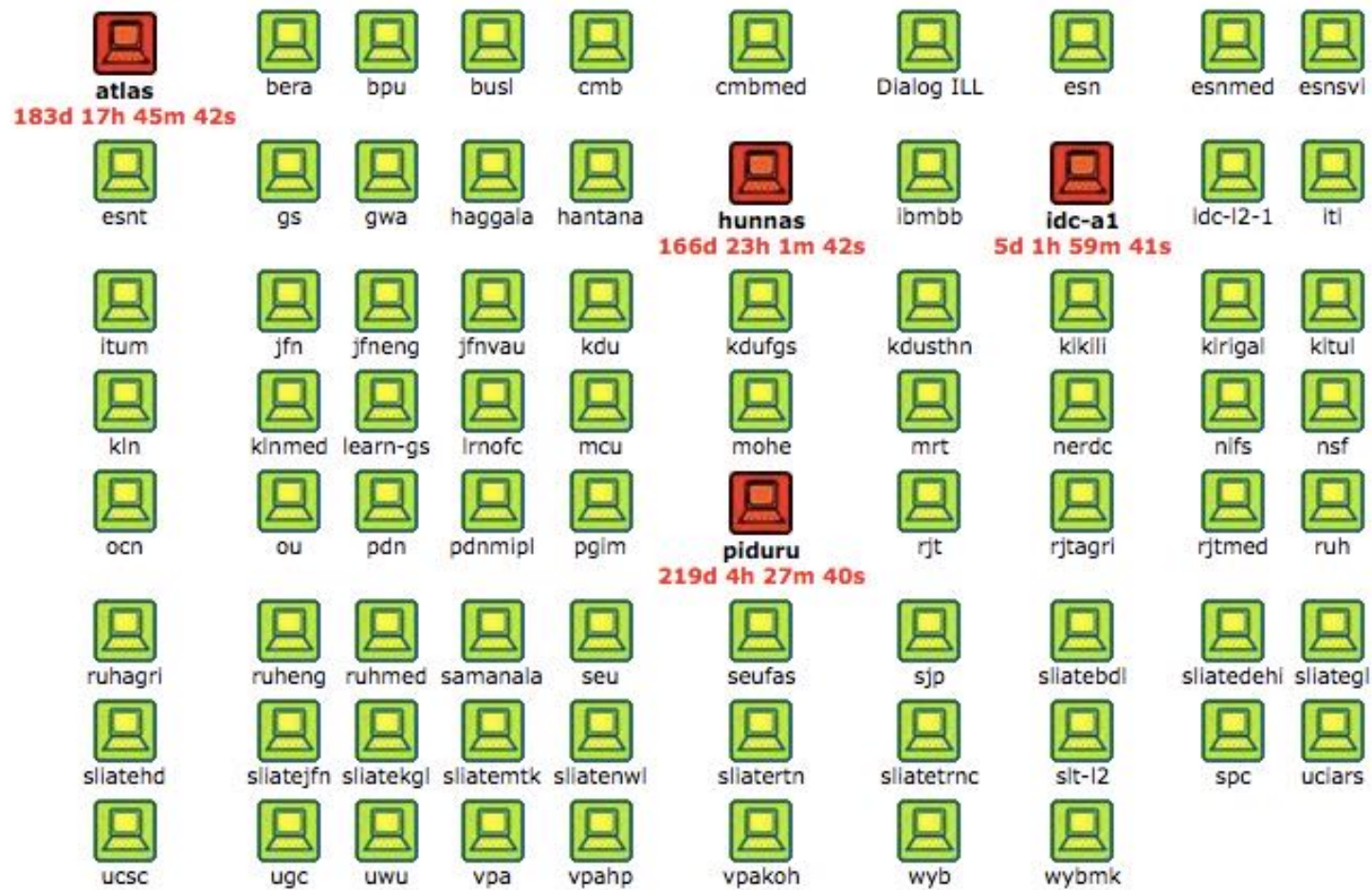
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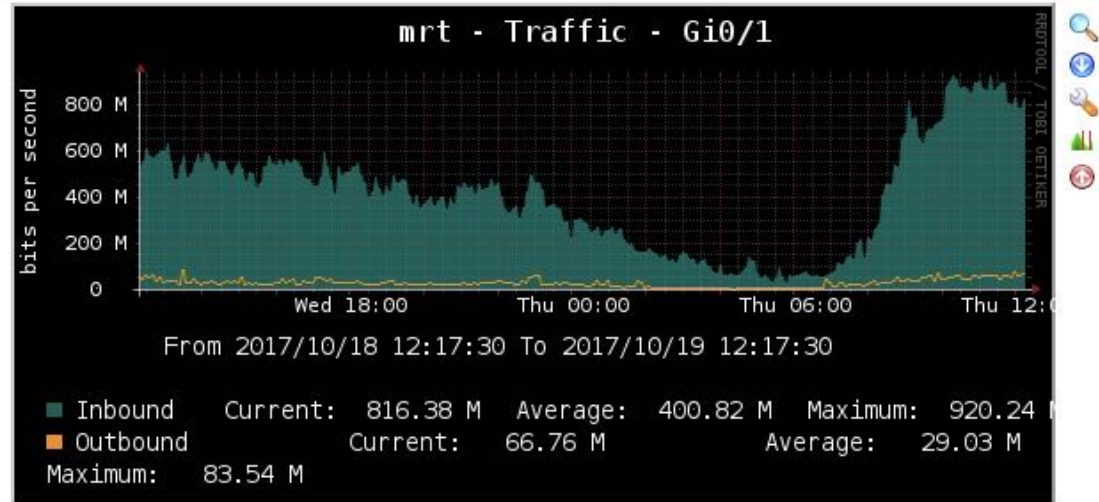
University of Sri Jayewardenapura (D61380)



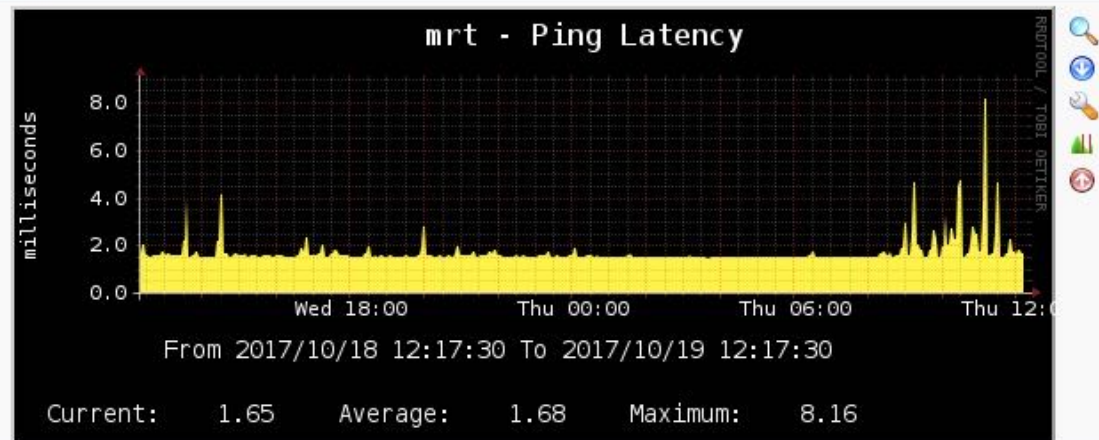
Monitoring



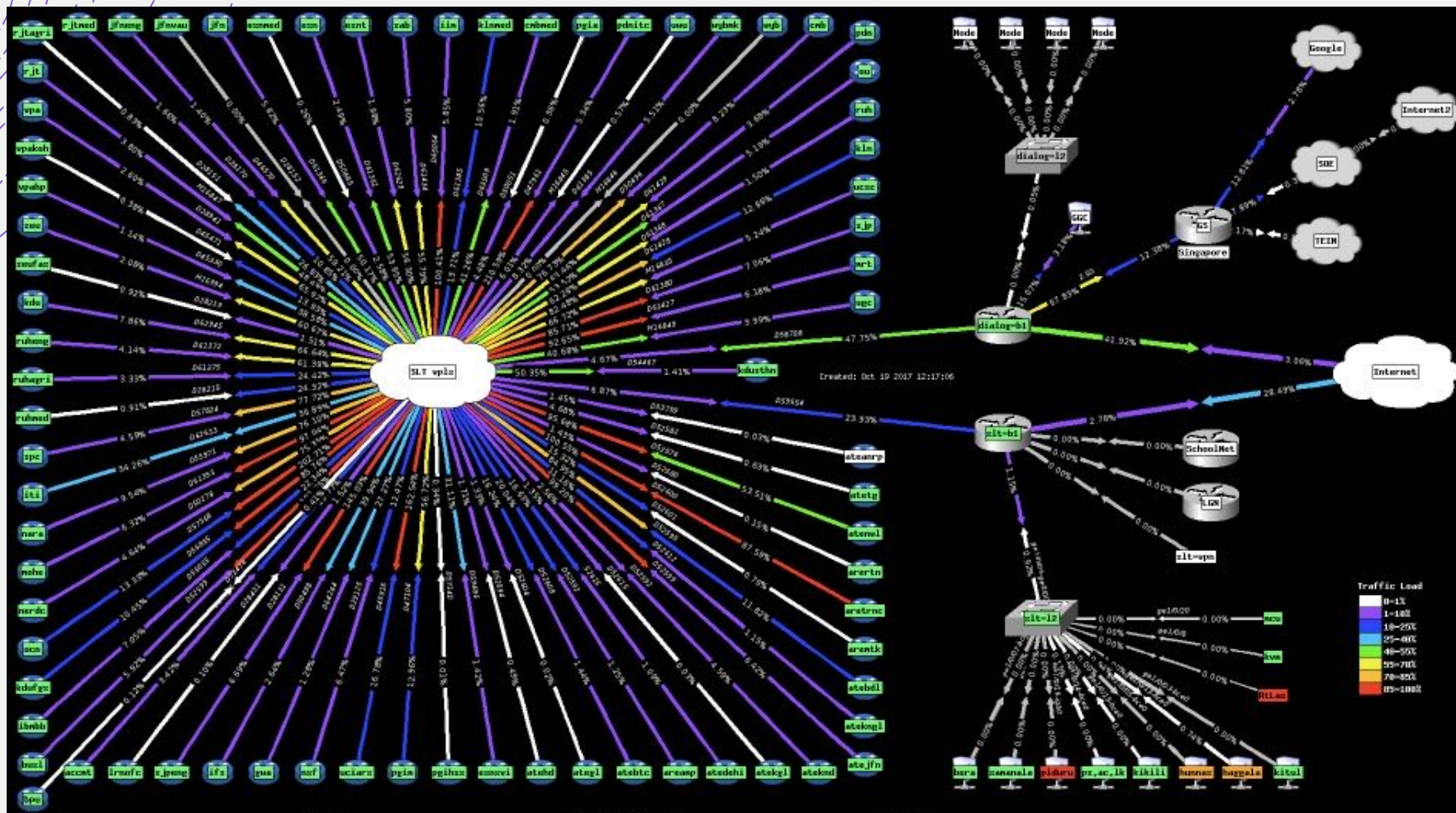
Monitoring



Graph Template: Unix - Ping Latency



Monitoring



Monitoring



Overview Devices Ports Health Apps Routing Plugins

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Global Search

Top-interfaces

Top 5 interfaces polled within 15 minutes

Device	Interface	Total traffic
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Device-summary-horiz

	Total	Up	Down	Ignored	Disabled
Devices	158	141	17	0	0
Ports	1266	909	236	0	121

Top-devices

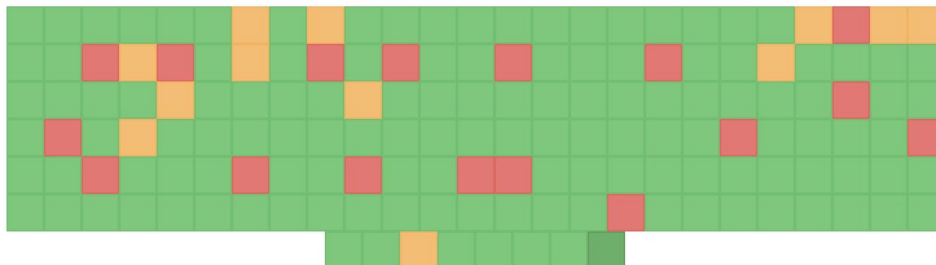
Top 5 devices (last 15 minutes)

Device	Total traffic
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Availability-map

✓141 ⚠12 ❌17



NOC

(Network Operations Center)





Objectives

- + Learn Network monitoring protocols
- + SNMP in details
- + How to Config SNMP
- + Configure LibreNMS
- + Configure Icinga
- + Configuring Alerts
 - + Email
 - + Telegram
 - + Slack

