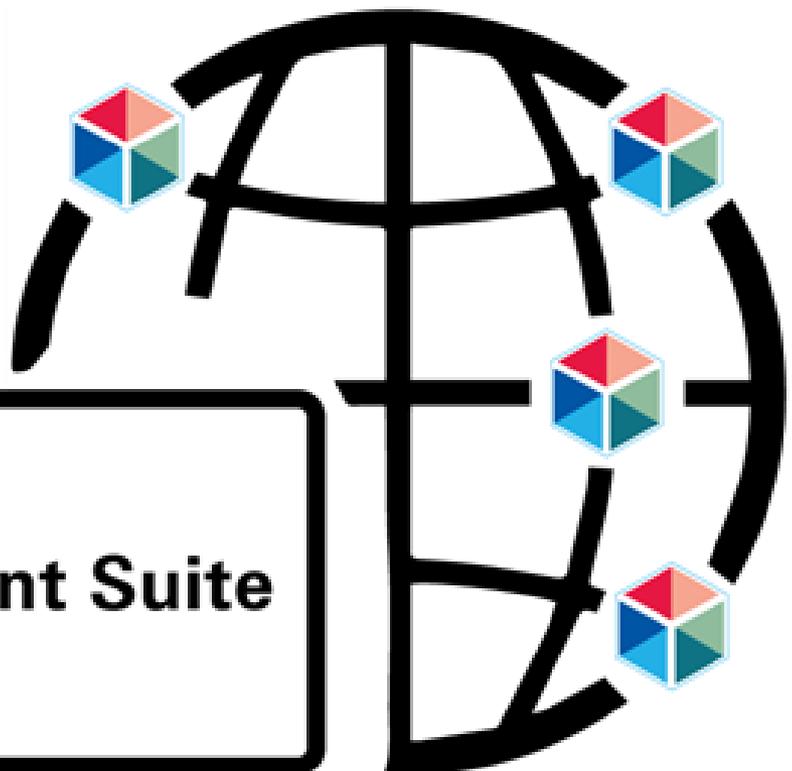




Cubro Vitrum Management Suite

May 2018



Cubro Vitrum Management Suite

- For network monitoring experts and network administrators using Cubro Packetmasters who want centralised control of multiple Cubro Packetmasters and enhance the efficiency of the business, the Cubro Vitrum is a versatile network management software that offers network topology visualisation.
- The visualisation of the software platform gives a better overview of the network and its traffic.
- The batch backup, upgrade and the error center allow for easy management of Cubro's devices.
- It is capable of including third party devices in the visualisations. Kibana and Grafana integration allow the user to create and customize graphical dashboards that show all the necessary information at one glance.

Vitrium Network Devices Network Map Monitoring Settings User

Map Mobil Monitoring Monitoring Add new map

Show/hide menu

Device List

Device

Filter ...

DAK EX2 (IP: 192.168.2.101)
DAK Raspberry (IP: 192.168.2.102)
EX2 192.168.2.202 (IP: 192.168.2.202)
EX2 (IP: 192.168.1.211)
EX5-2 (IP: 192.168.1.252)
EX32plus 192.168.2.233 (IP: 192.168.2.233)
EX20400 (IP: 192.168.1.240)
EX48400 192.168.1.249 (IP: 192.168.1.249)
EX48400 (IP: 192.168.1.248)
Internet Connection (IP: null)
NII EX2 (IP: 192.168.2.160)
Optical Tap Rack1 (IP: null)
Optical Tap Rack2 (IP: null)
Optical Tap Rack3 (IP: null)
PHK EX2 (IP: 192.168.2.130)
Probe 1 (IP: null)

Drawing Tools

Selection

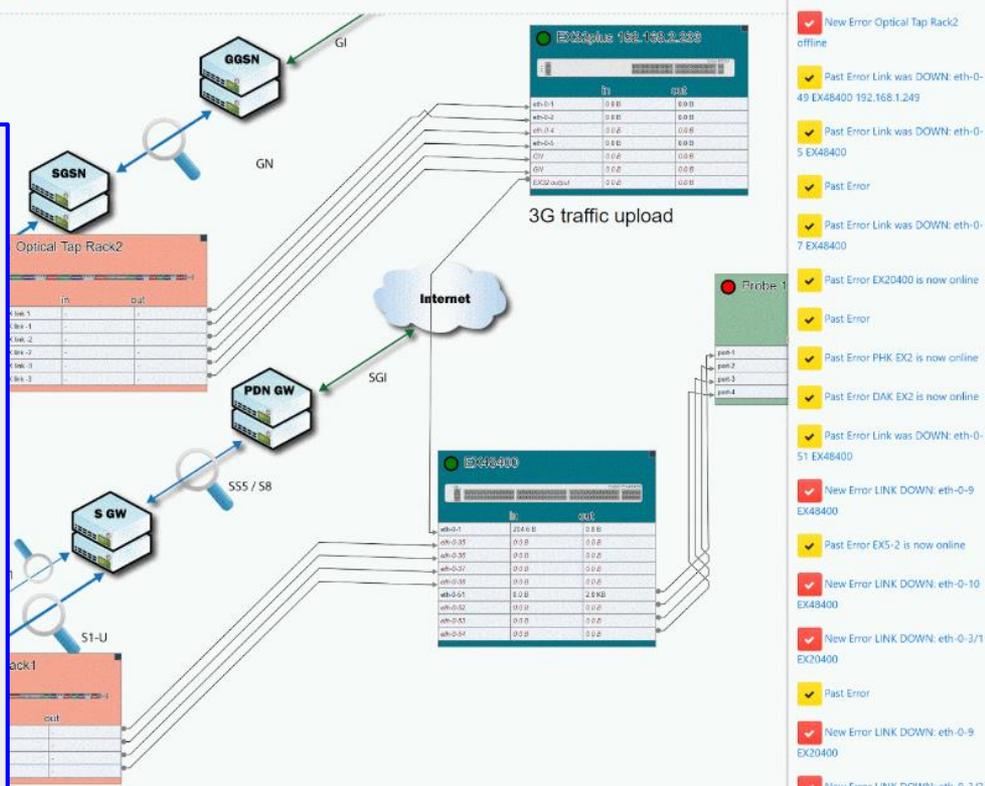
Map Settings

Map Tools

Navigation

Main features and benefits:

- Single point of controlling for a network visibility solution
- Inventory database
- Meta to real world correlation
- Troubleshooting the TAP network
- Help to extract only the relevant Data
- Reduce monitoring costs
- Cuts down on the mean time to resolution (MTTR)
- Security protect data from unlawful usage
- Extended Monitoring and Statistics of the TAP System
- Full automated Applications



3G traffic upload

eth	in	out
eth-0-1	0.0B	0.0B
eth-0-2	0.0B	0.0B
eth-0-3	0.0B	0.0B
eth-0-4	0.0B	0.0B
eth-0-5	0.0B	0.0B
eth-0-6	0.0B	0.0B
eth-0-7	0.0B	0.0B
eth-0-8	0.0B	0.0B
eth-0-9	0.0B	0.0B
eth-0-10	0.0B	0.0B
eth-0-11	0.0B	0.0B
eth-0-12	0.0B	0.0B
eth-0-13	0.0B	0.0B
eth-0-14	0.0B	0.0B
eth-0-15	0.0B	0.0B
eth-0-16	0.0B	0.0B
eth-0-17	0.0B	0.0B
eth-0-18	0.0B	0.0B
eth-0-19	0.0B	0.0B
eth-0-20	0.0B	0.0B
eth-0-21	0.0B	0.0B
eth-0-22	0.0B	0.0B
eth-0-23	0.0B	0.0B
eth-0-24	0.0B	0.0B
eth-0-25	0.0B	0.0B
eth-0-26	0.0B	0.0B
eth-0-27	0.0B	0.0B
eth-0-28	0.0B	0.0B
eth-0-29	0.0B	0.0B
eth-0-30	0.0B	0.0B
eth-0-31	0.0B	0.0B
eth-0-32	0.0B	0.0B
eth-0-33	0.0B	0.0B
eth-0-34	0.0B	0.0B
eth-0-35	0.0B	0.0B
eth-0-36	0.0B	0.0B
eth-0-37	0.0B	0.0B
eth-0-38	0.0B	0.0B
eth-0-39	0.0B	0.0B
eth-0-40	0.0B	0.0B
eth-0-41	0.0B	0.0B
eth-0-42	0.0B	0.0B
eth-0-43	0.0B	0.0B
eth-0-44	0.0B	0.0B
eth-0-45	0.0B	0.0B
eth-0-46	0.0B	0.0B
eth-0-47	0.0B	0.0B
eth-0-48	0.0B	0.0B
eth-0-49	0.0B	0.0B
eth-0-50	0.0B	0.0B
eth-0-51	0.0B	0.0B
eth-0-52	0.0B	0.0B
eth-0-53	0.0B	0.0B
eth-0-54	0.0B	0.0B
eth-0-55	0.0B	0.0B
eth-0-56	0.0B	0.0B
eth-0-57	0.0B	0.0B
eth-0-58	0.0B	0.0B
eth-0-59	0.0B	0.0B
eth-0-60	0.0B	0.0B
eth-0-61	0.0B	0.0B
eth-0-62	0.0B	0.0B
eth-0-63	0.0B	0.0B
eth-0-64	0.0B	0.0B
eth-0-65	0.0B	0.0B
eth-0-66	0.0B	0.0B
eth-0-67	0.0B	0.0B
eth-0-68	0.0B	0.0B
eth-0-69	0.0B	0.0B
eth-0-70	0.0B	0.0B
eth-0-71	0.0B	0.0B
eth-0-72	0.0B	0.0B
eth-0-73	0.0B	0.0B
eth-0-74	0.0B	0.0B
eth-0-75	0.0B	0.0B
eth-0-76	0.0B	0.0B
eth-0-77	0.0B	0.0B
eth-0-78	0.0B	0.0B
eth-0-79	0.0B	0.0B
eth-0-80	0.0B	0.0B
eth-0-81	0.0B	0.0B
eth-0-82	0.0B	0.0B
eth-0-83	0.0B	0.0B
eth-0-84	0.0B	0.0B
eth-0-85	0.0B	0.0B
eth-0-86	0.0B	0.0B
eth-0-87	0.0B	0.0B
eth-0-88	0.0B	0.0B
eth-0-89	0.0B	0.0B
eth-0-90	0.0B	0.0B
eth-0-91	0.0B	0.0B
eth-0-92	0.0B	0.0B
eth-0-93	0.0B	0.0B
eth-0-94	0.0B	0.0B
eth-0-95	0.0B	0.0B
eth-0-96	0.0B	0.0B
eth-0-97	0.0B	0.0B
eth-0-98	0.0B	0.0B
eth-0-99	0.0B	0.0B
eth-0-100	0.0B	0.0B

Probe 1

eth-0-1

eth-0-2

eth-0-3

eth-0-4

eth-0-5

eth-0-6

eth-0-7

eth-0-8

eth-0-9

eth-0-10

eth-0-11

eth-0-12

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eth-0-91

eth-0-92

eth-0-93

eth-0-94

eth-0-95

eth-0-96

eth-0-97

eth-0-98

eth-0-99

eth-0-100

Ack all Error Notifications

Past Error Link was DOWN: eth-0-49 EX48400

New Error Optical Tap Rack2 offline

Past Error Link was DOWN: eth-0-49 EX48400 192.168.1.249

Past Error Link was DOWN: eth-0-5 EX48400

Past Error

Past Error Link was DOWN: eth-0-7 EX48400

Past Error Link EX20400 is now online

Past Error

Past Error PHK EX2 is now online

Past Error DAK EX2 is now online

Past Error Link was DOWN: eth-0-51 EX48400

New Error LINK DOWN: eth-0-9 EX48400

Past Error EX5-2 is now online

New Error LINK DOWN: eth-0-10 EX48400

New Error LINK DOWN: eth-0-3/1 EX20400

Past Error

New Error LINK DOWN: eth-0-9 EX20400

New Error LINK DOWN: eth-0-3/2

Cubro Vitrium Management Suite



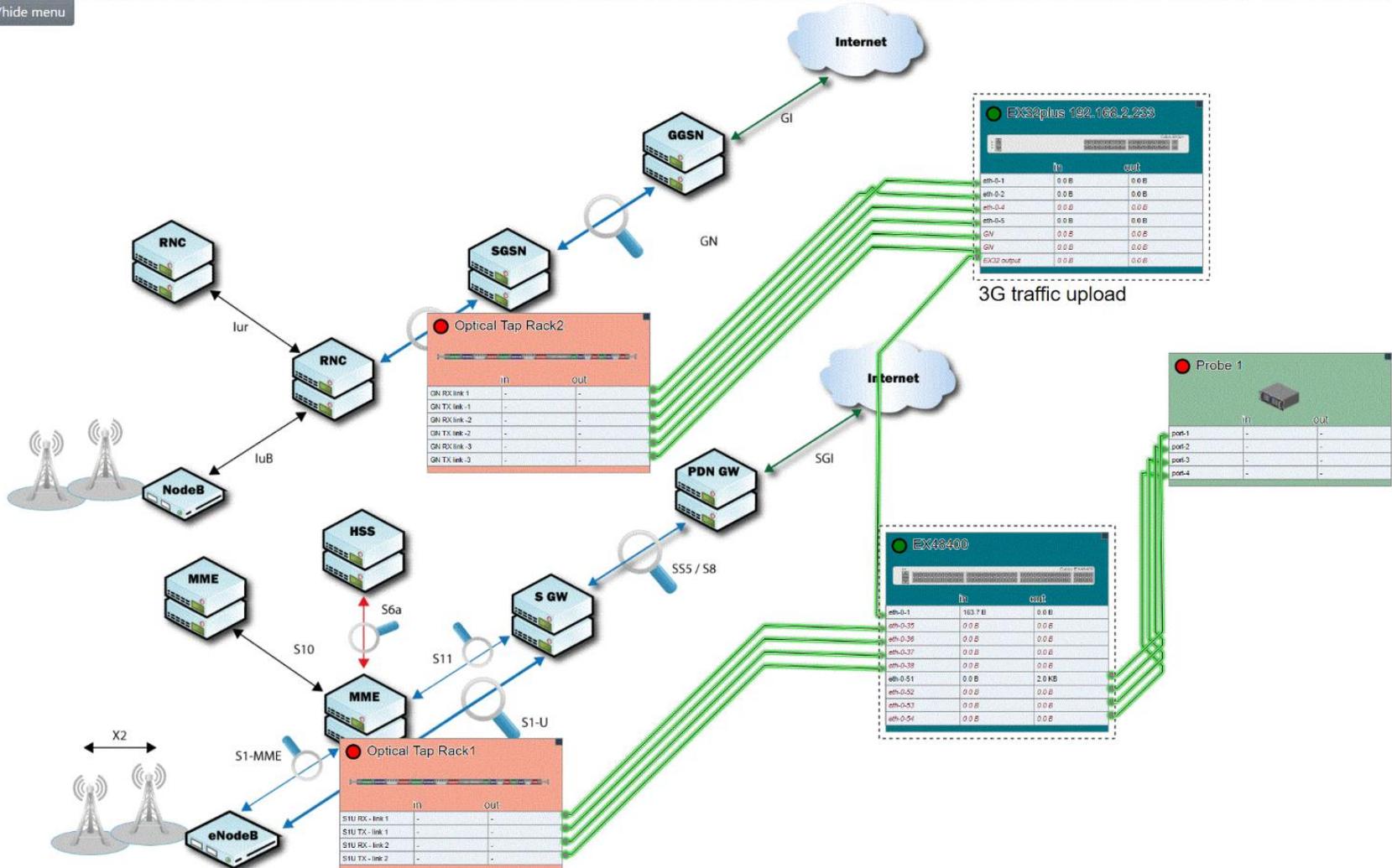
Vitrium Network Devices Network Map Monitoring Settings User

Map

Mobil Monitoring Monitoring

Add new map

Show/hide menu



- Instant remote collaboration
- Network Visualization Map allows you to see the network topology at one glance.
- Inventory Database allows you to keep track of all your devices easily. No need to remember IP addresses, just one click forwards you to the management website of that device; assign names and notes to every device and port and readily see what every piece of network equipment does.
- Batch Backup and Upgrade with a single click. Batch upgrade makes it easy to keep your devices up to date. Upgrade scheduling allows you to hit that 3 am upgrade window without trouble.

Cubro Vitrium Management Suite



Vitrium Network Devices Network Map Monitoring Settings User

Map Mobil Monitoring multi site Add new map

Show/hide menu

Device List

Filter...

- DAK EX2 (IP: 192.168.2.101)
- DAK Raspberry (IP: 192.168.2.102)
- EX2 192.168.2.202 (IP: 192.168.2.202)
- EX2 (IP: 192.168.1.211)
- EX5-2 (IP: 192.168.1.252)
- EX32plus 192.168.2.233 (IP: 192.168.2.233)
- EX20400 (IP: 192.168.1.240)
- EX48400 192.168.1.249 (IP: 192.168.1.249)
- EX48400 (IP: 192.168.1.248)
- Internet Connection (IP: null)
- NIJ EX2 (IP: 192.168.2.160)
- Optical Tap Rack1 (IP: null)
- Optical Tap Rack2 (IP: null)
- Optical Tap Rack3 (IP: null)
- PHK EX2 (IP: 192.168.2.130)
- Probe 1 (IP: null)

Drawing Tools

Selection

Map Settings

Map Tools

Navigation

The network map displays a central hub connected to several devices. Two detailed views are shown: EX32plus (IP: 192.168.2.233) and EX48400 (IP: 192.168.1.249). Both views show a table of ports with columns for port name, in, and out. The EX32plus view shows ports eth-0-1 through eth-0-10 and EX20400. The EX48400 view shows ports eth-0-1 through eth-0-18. The network map also includes Internet clouds, a Probe, and Optical Tap Racks.

connected device list



Vitrium Network Devices Network Map Monitoring Settings User

Map Add new map

Show/hide menu

- Device List
- Drawing Tools
- Selection

Multi-selection Mode

Type

ID

Information

Description (map-specific)

Display only connected ports

Fill

Change Icon

Remove from Map

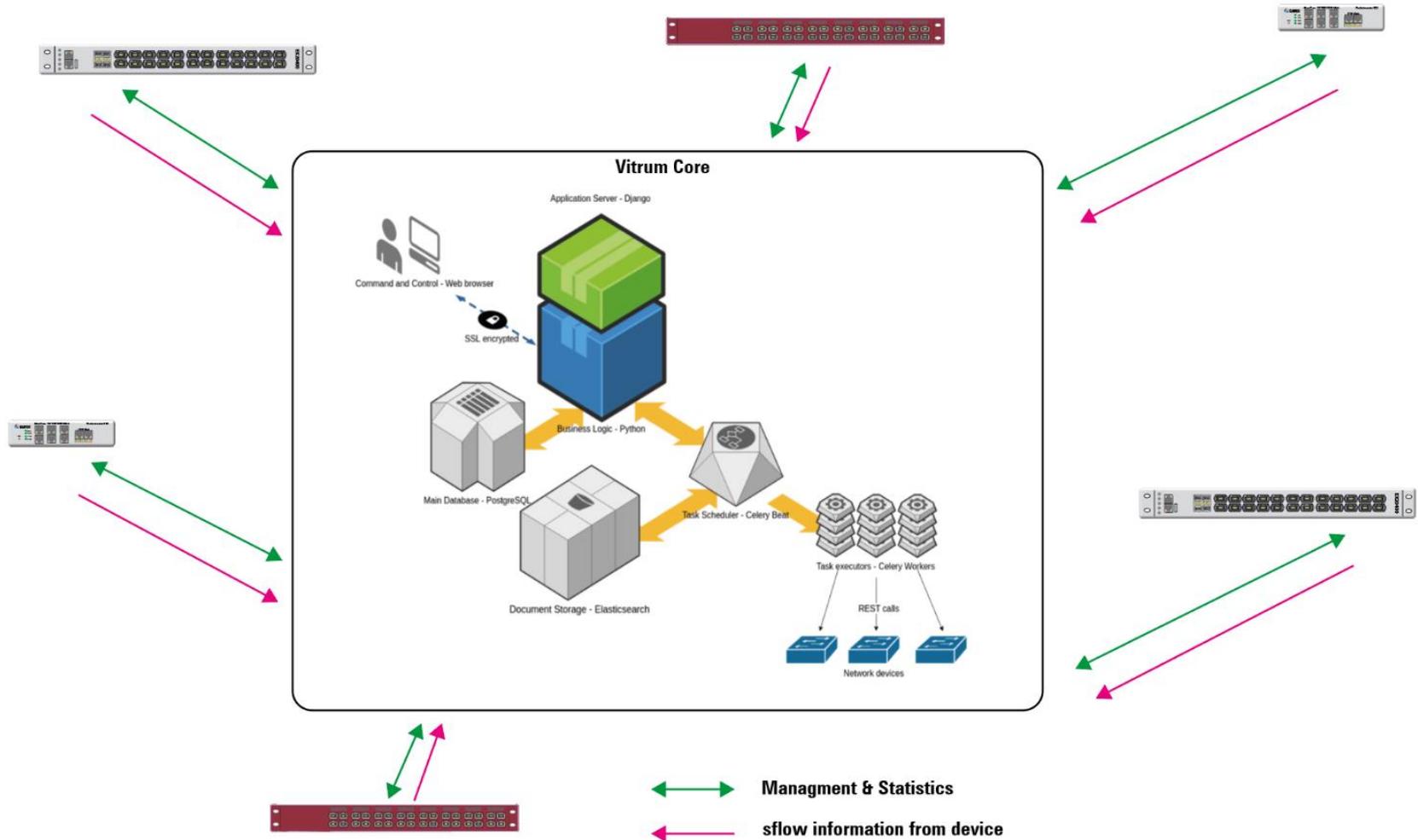
- Management Web UI
- Device Details
- Edit Device
- Create Port
- Delete Device

	in	out
GN RX link 1	-	-
GN TX link -1	-	-
GN RX link -2	-	-
GN TX link -2	-	-
GN RX link -3	-	-
GN TX link -3	-	-

	in	out
eth-0.1	0.0 B	0.0 B
eth-0.2	0.0 B	0.0 B
eth-0.4	0.0 B	0.0 B
eth-0.5	0.0 B	0.0 B
GN	0.0 B	0.0 B
GN	0.0 B	0.0 B
EX32 output	0.0 B	0.0 B

drill down to unit

Cubro Vitrium Management Suite

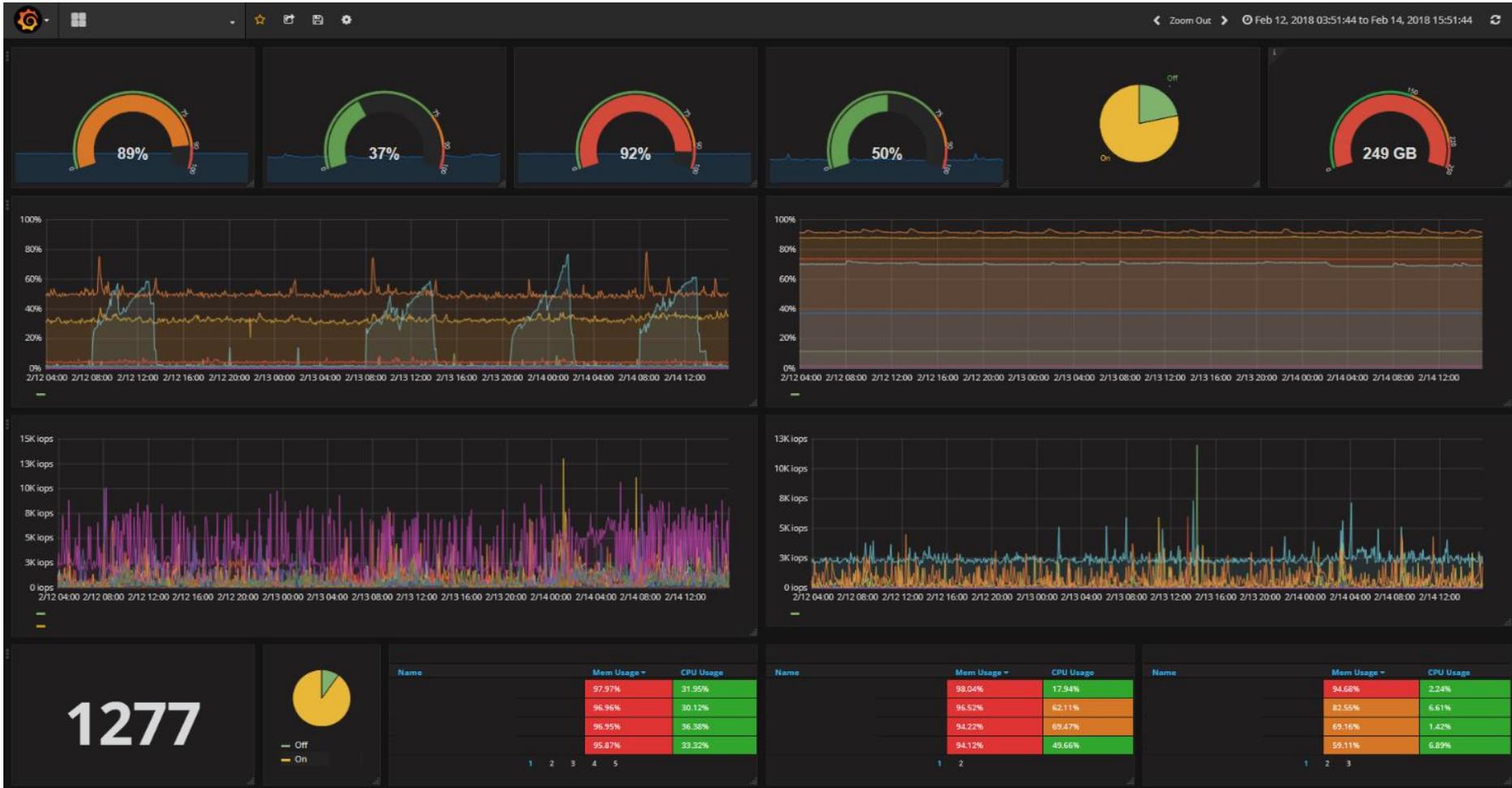


- Built-in Grafana and Kibana integration allows you to create customized dashboards. ***Want to show the difference between all ingress port counters and the egress counters of the aggregated output to see if you are losing packets?*** No problem! ***Want to have a graph showing the uptime of your devices?*** Easily done!
- The error center gathers error events (e.g. device went offline, or port went down) and alerts you using on-page notifications.
- Real-time collaboration - can be used by multiple users at the same time.
- Deployment via VM - All you need to do is import the Cubro Vitrum VM into your existing VMWare or VirtualBox host system and instantly start using it.
- Modular and scalable software design, cloud ready

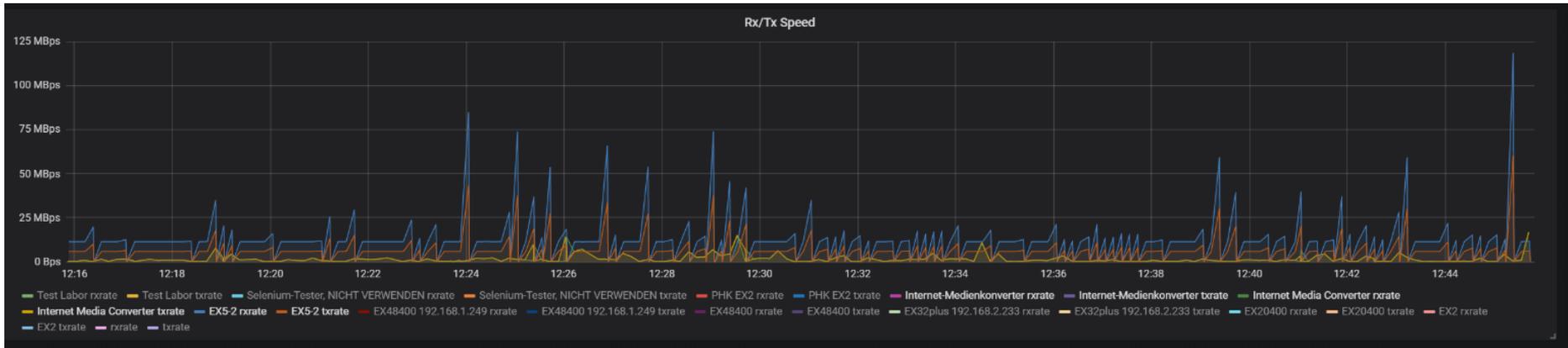
Open source tools gives you the option to modify or develop your own dashboard



Grafana Dashboard



Bandwidth port statistics



- Counter calculator - The counter calculator will work like a simple Excel sheet with live-updating data.
- Traffic analyzer - Using sFlow and similar technologies the traffic analyzer will give you an in-depth view of what is happening on your network. With this, for instance, you can figure out what kind of traffic is sent from which device to what IP.
- SNMP and email alarms - The Error Center will be able to forward the error notifications as SNMP traps or via email. Additionally, the status of all Cubro Network Packet Brokers and Cubro Vitrum will be accessible over SNMP polling.

Probes

Mobile Probes and
FlowVista

Network Packet Brokers

Packetmasters & Sessionmasters

TAPs

Optical, BIDI, Copper, Flex,
Converter, Aggregation

Bypass

Optical and Copper

Misc.

Breakout boxes and Media
Converters

Thank you

EMEA



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