OpenNMS

Introduction to OpenNMS

v1.1

What is OpenNMS?

Vision: A world where monitoring just happens

Scalable

Monitors tens of thousands of devices while processing terabytes of data from a single instance.

Extensible

Extensible platform enabling adaptation and integration into core business processes.

Open Source

Published under the AGPLv3 license, OpenNMS is a fully open source solution.

Supported

Sustained by a large community of users and supported commercially by The OpenNMS Group

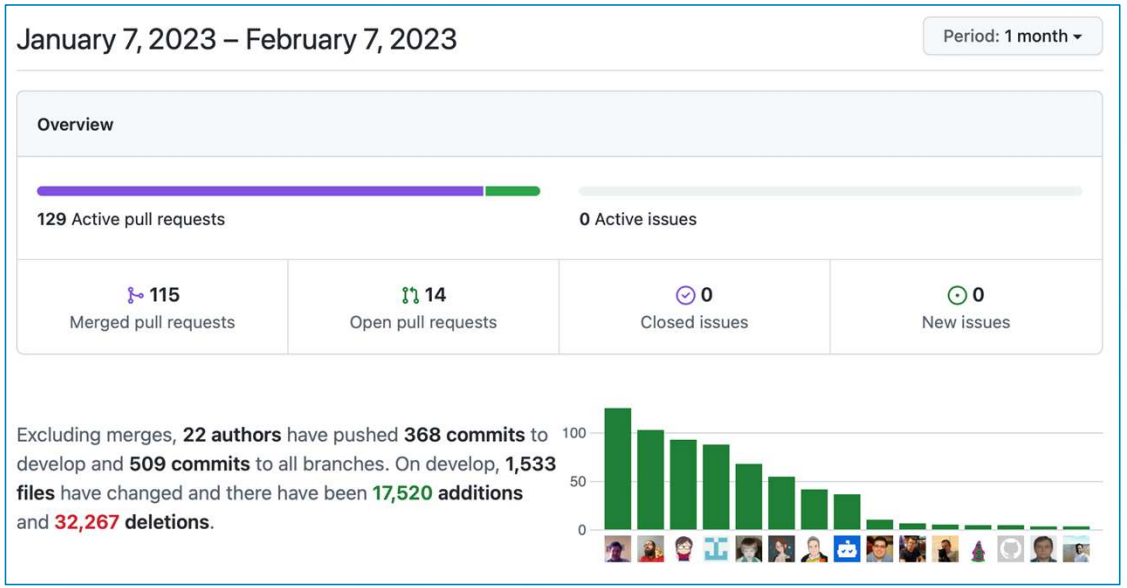
OpenNMS is a scalable and highly configurable open-source network management platform with comprehensive fault, performance, and traffic monitoring.

It easily integrates with your core business applications and workflows to monitor and visualize everything in your network.

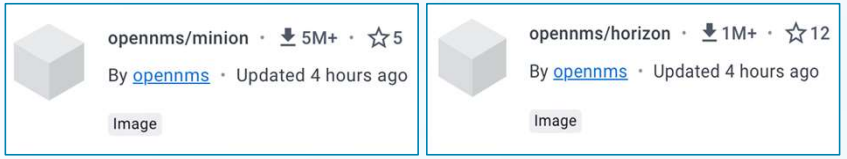
OpenNMS Open Source Community

9M Minion Container Downloads!

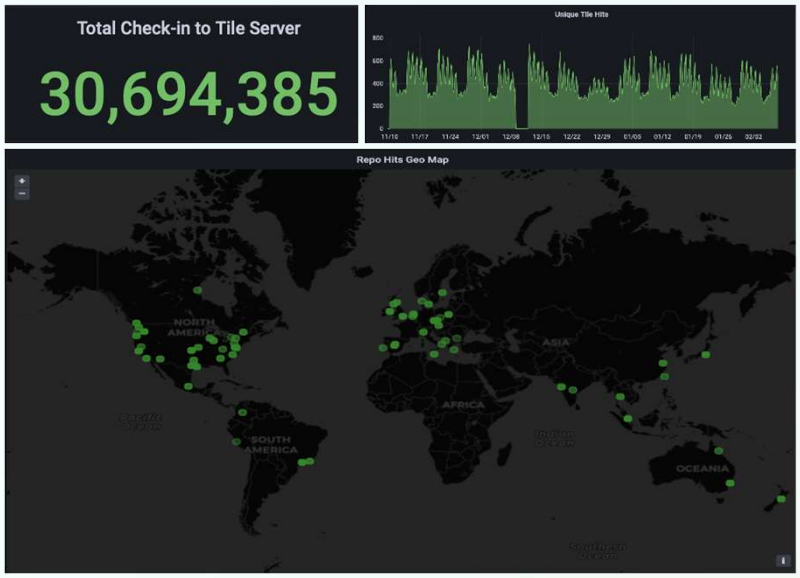
GitHub Stats



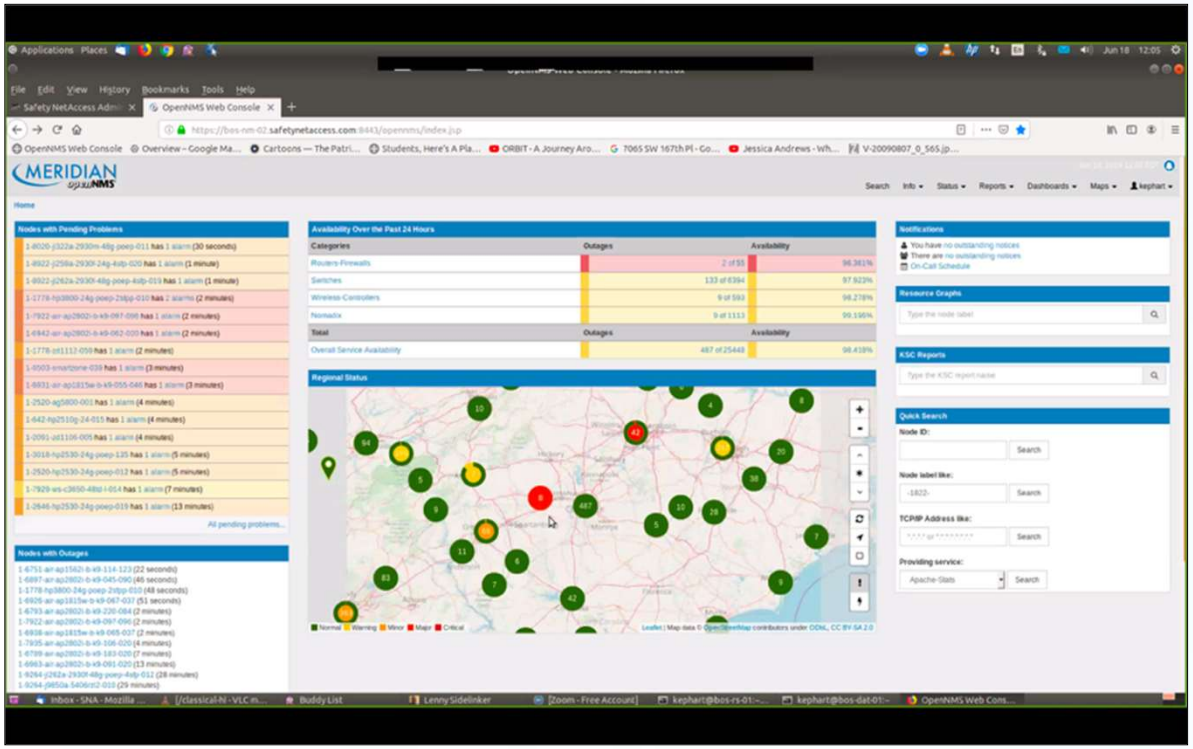
DockerHub Stats



Web Stats (90 Days)

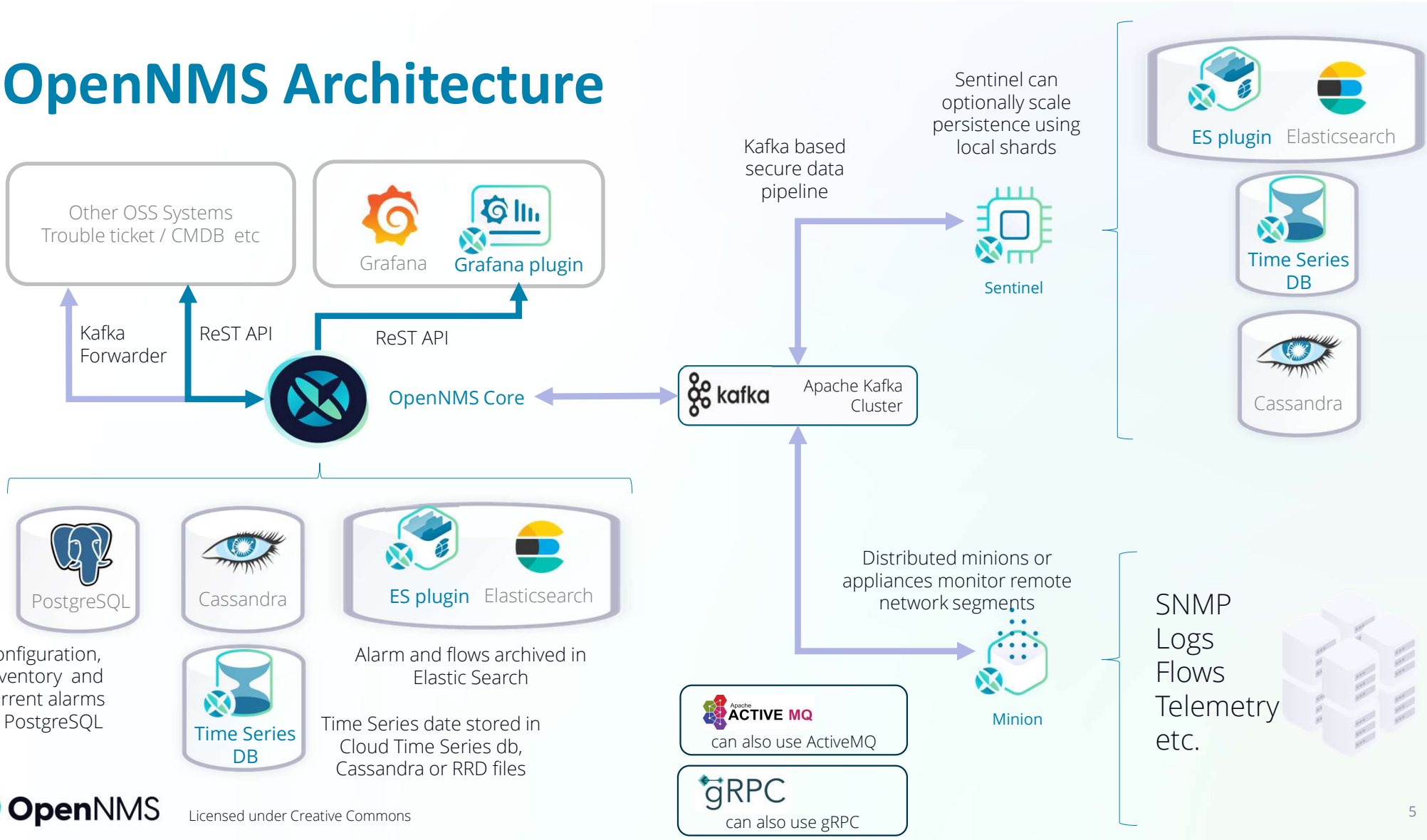


The OpenNMS Solution



- Event Management
- Fault / Alarm Management
- Performance Management
- Network Traffic Management
- Network Inventory Management
- AI Correlation

OpenNMS Architecture

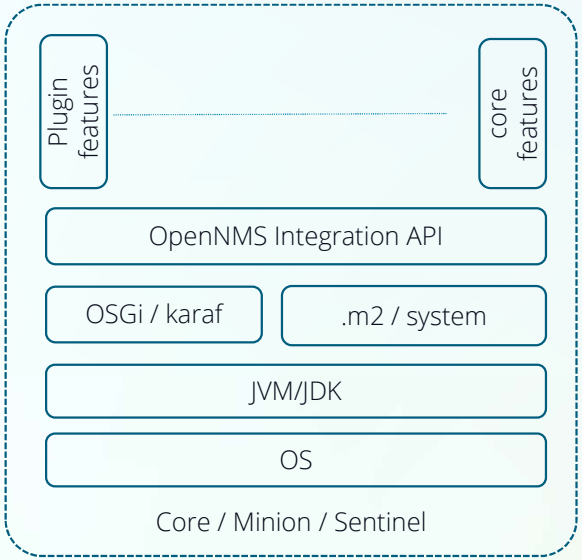


OpenNMS

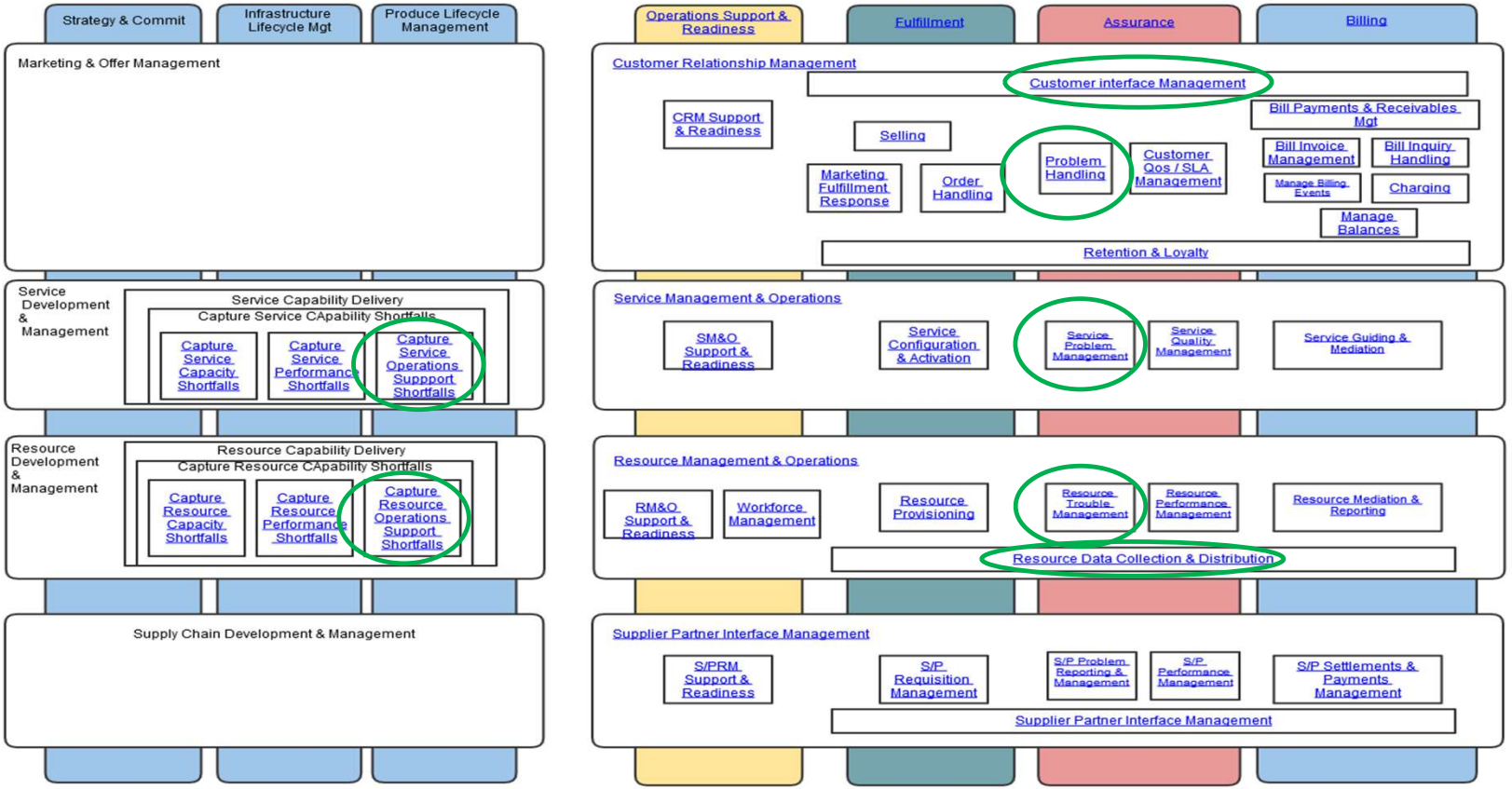
Plugin Architecture

- Key Features
- OpenNMS Integration API
  - Lifecycle Independent of core OpenNMS
  - Based on OSGi (Apache Karaf)
  - Class path / feature / bundle isolation
  - Reuse of code 'bundles' across plugins
- Plugin Capabilities
  - UI components which automatically register and extend the core dashboard
  - Configuration Components which add definitions for events / alarms / data collection / Correlation Rules
  - Topology Provider components which show up as domain specific topologies and can be used by ALEC
  - Interface components which provide new external API's (Data collection Protocols and Integration Protocols)

- Benefits
  - Allows new and complex functionality to be incrementally developed, tested and safely deployed in a production system

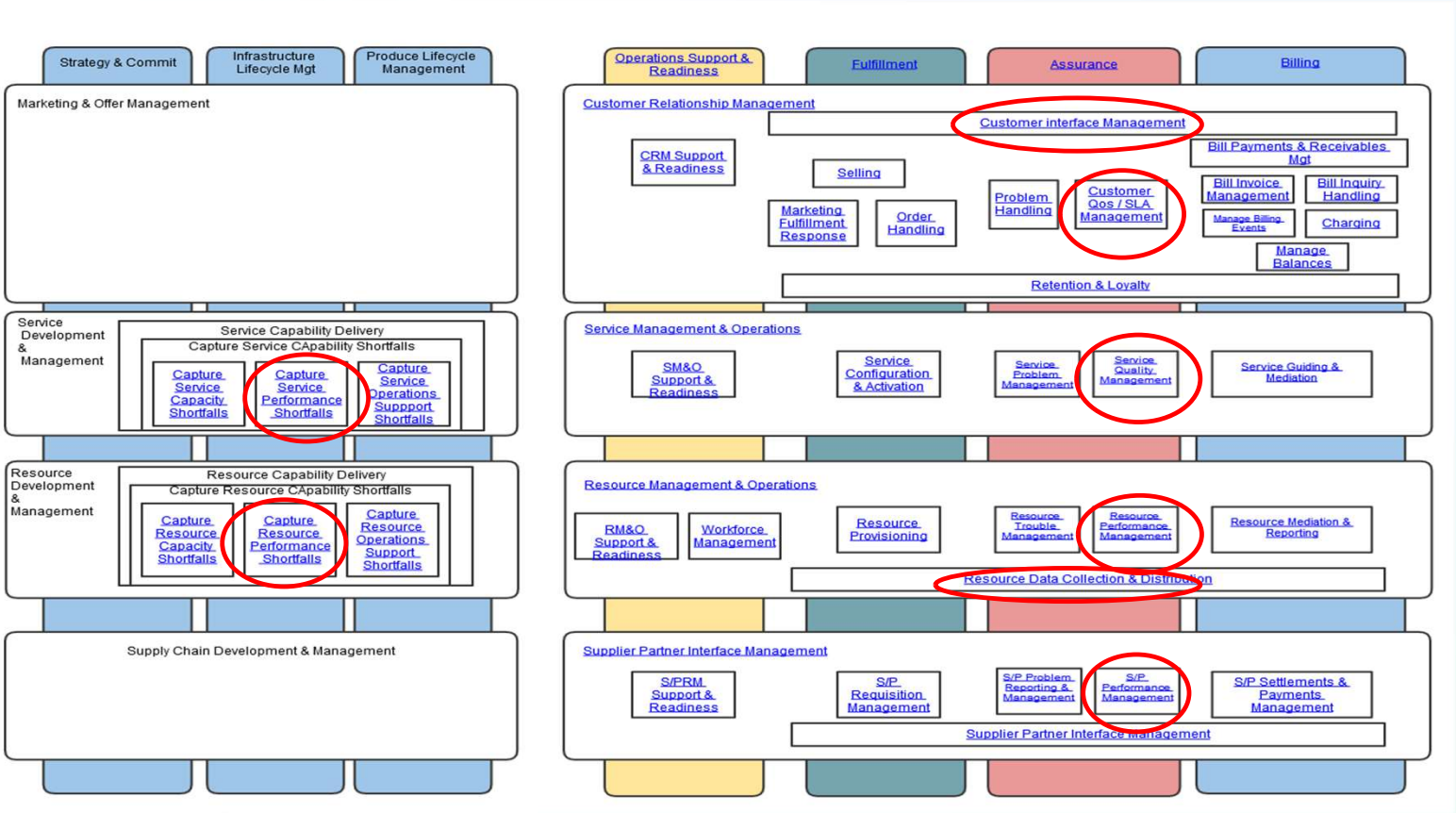


Problem Handling Touch Points



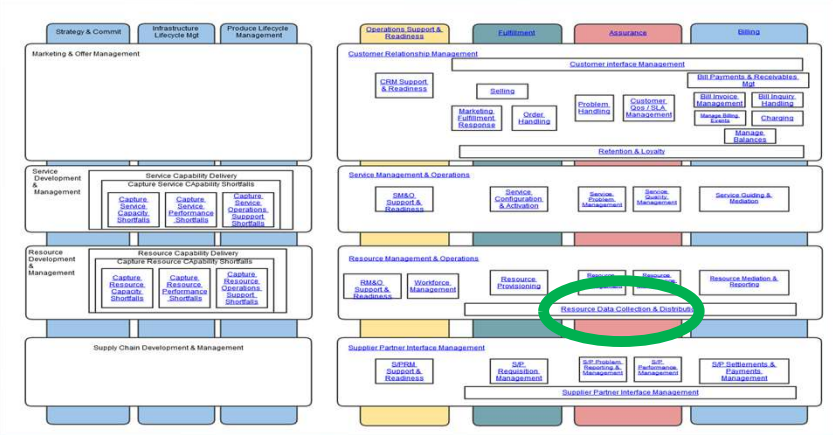
TM Forum Business Process Framework (eTOM)

Performance Management Touch Points



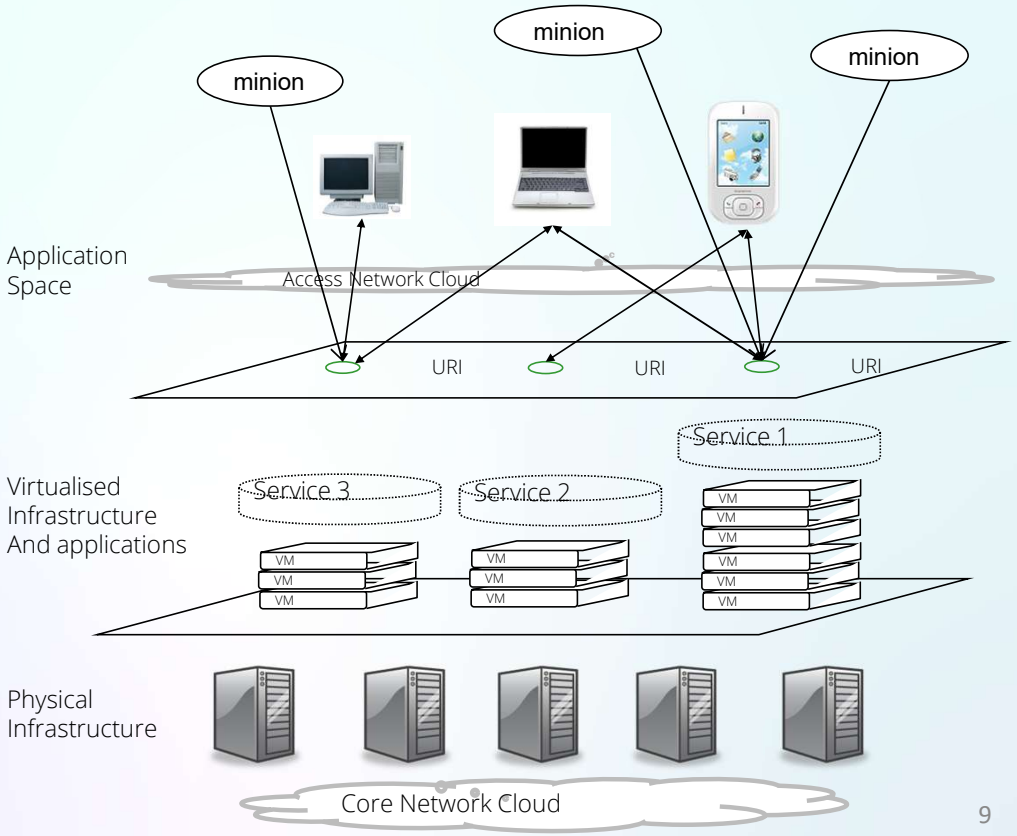
TM Forum Business Process Framework (eTOM)

Resource Data Collection at All Layers



- **Synthetic Transactions / Data Collection**
  - ICMP / HTTP / HTTPS
  - ReST / WS / XML
  - DHCP / DNS / FTP / LDAP Radius
  - IMAP / POP3 /SMTP / NTP
  - JDBC / JSR160 (JMX) / WMS / WBEM
  - NSClient (Nagios Agent) / NRPE (Nagios Remote Plugin Executor)
  - SMB / Citrix
  - SNMP / SSH TCP
- **Virtualisation**
  - VMware integration
  - Open Stack (being developed)
- **Service & Network discovery**
  - VMware integration
  - Policy driven Layer 2 network discovery

- **Remote Minions**
  - Remotely monitor services from multiple locations



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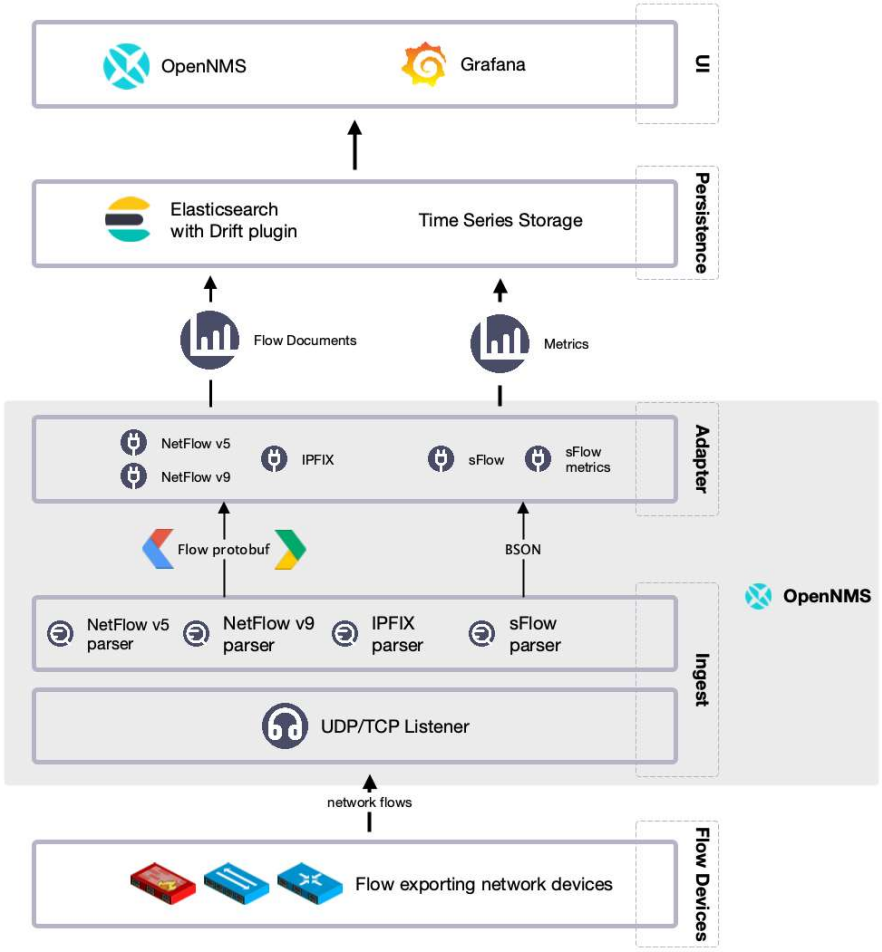
Flow Data Collection



OpenNMS

Traffic Analysis (NetFlow)

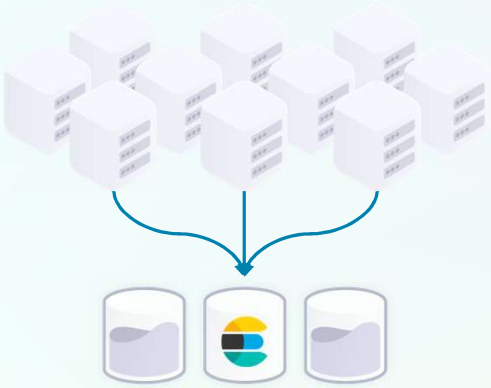
Who's using all the bandwidth?

Single source of truth

Who's talking to whom?

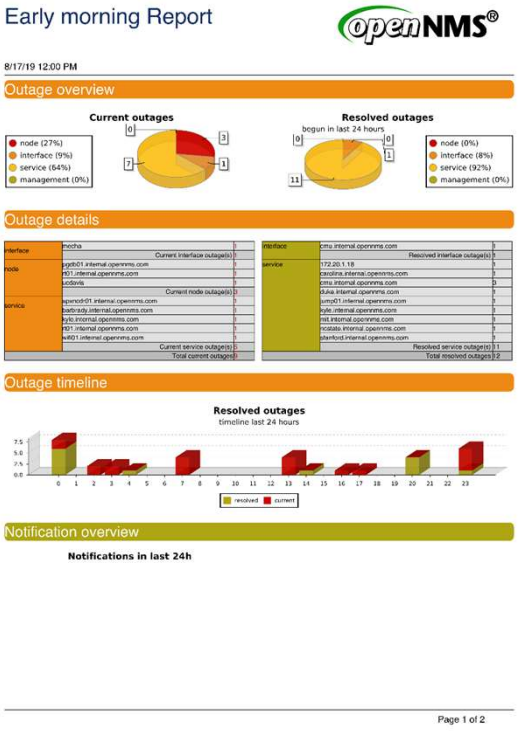
What are they talking about?

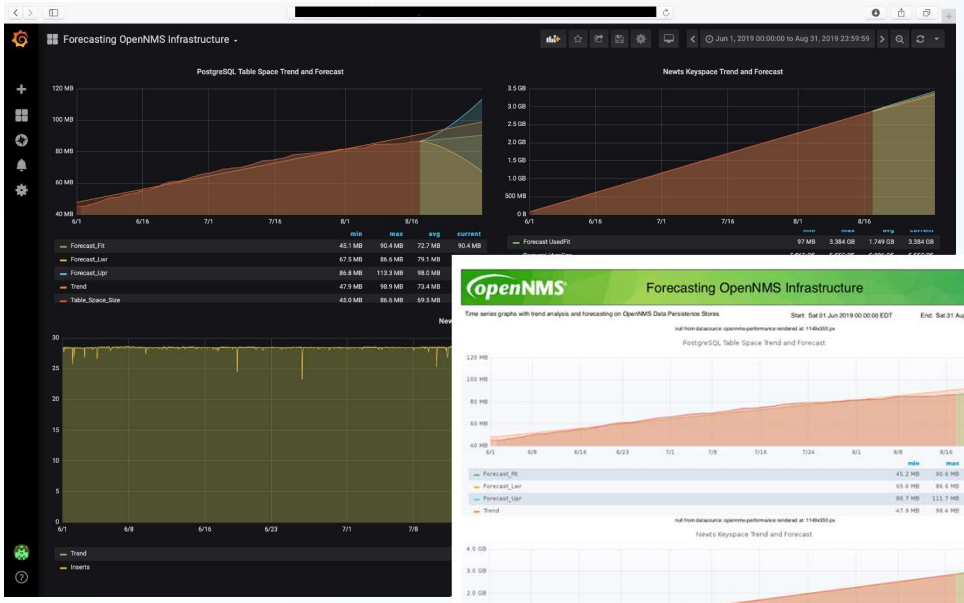
Be the hero when a security incident response team asks, "Do you have flows?"

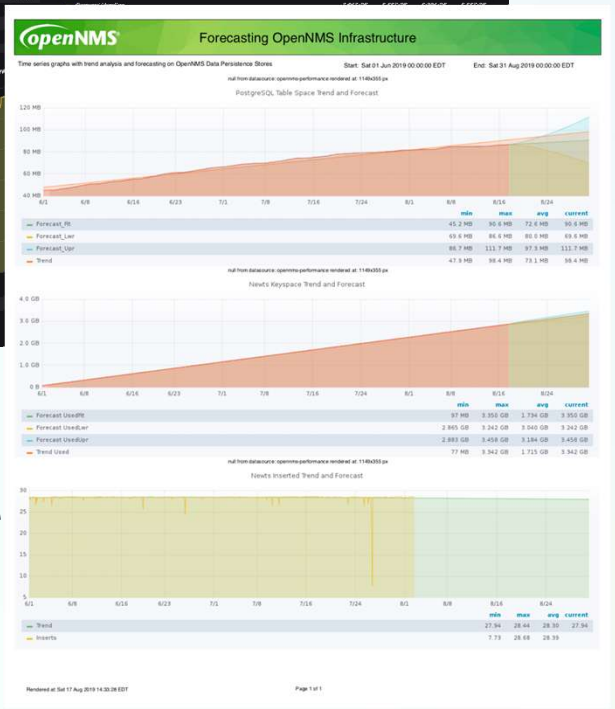


Network flow: data lake

Enterprise Reporting







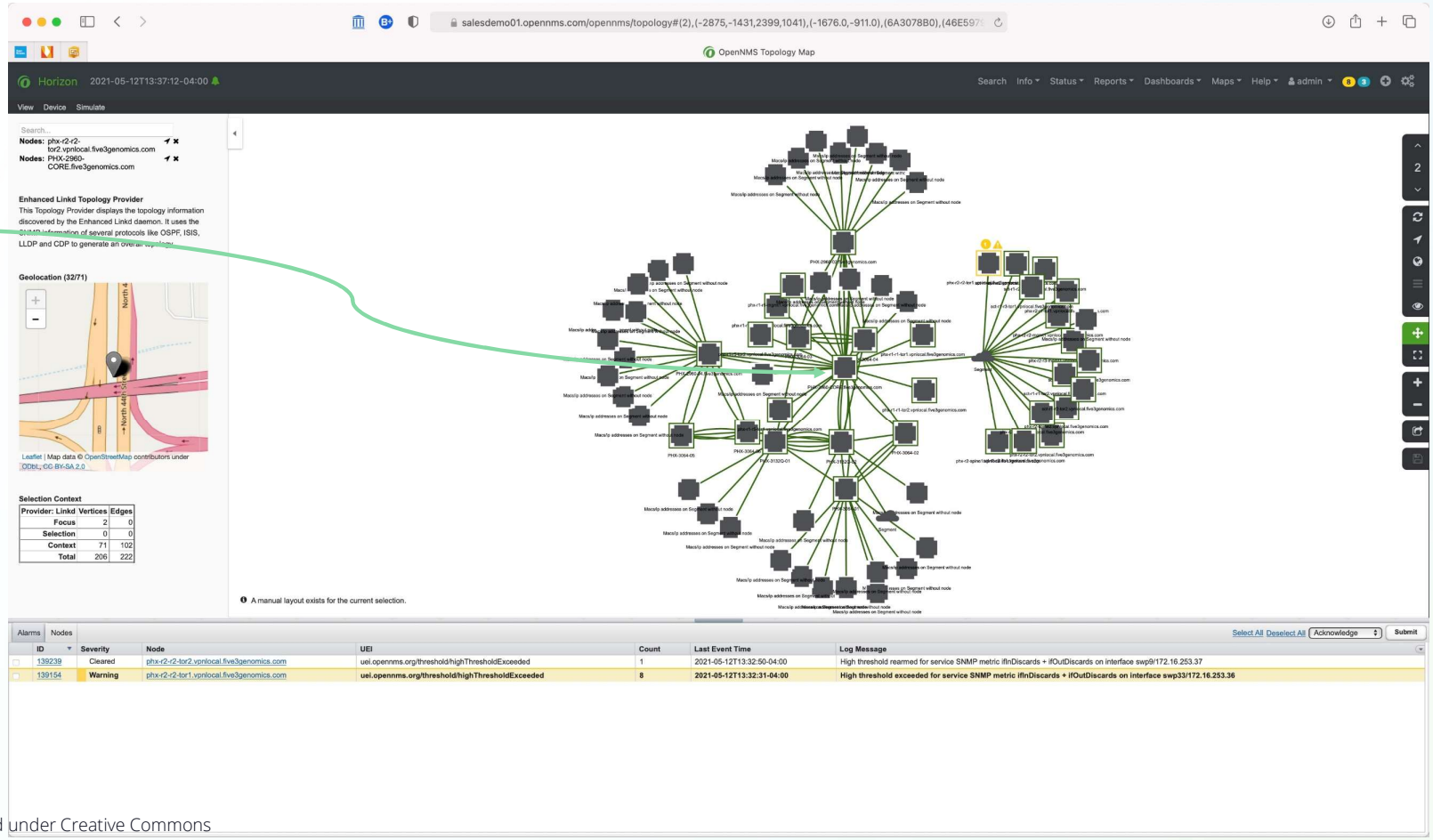
Run *any* Grafana Dashboard as an Enterprise Report

Network Topology

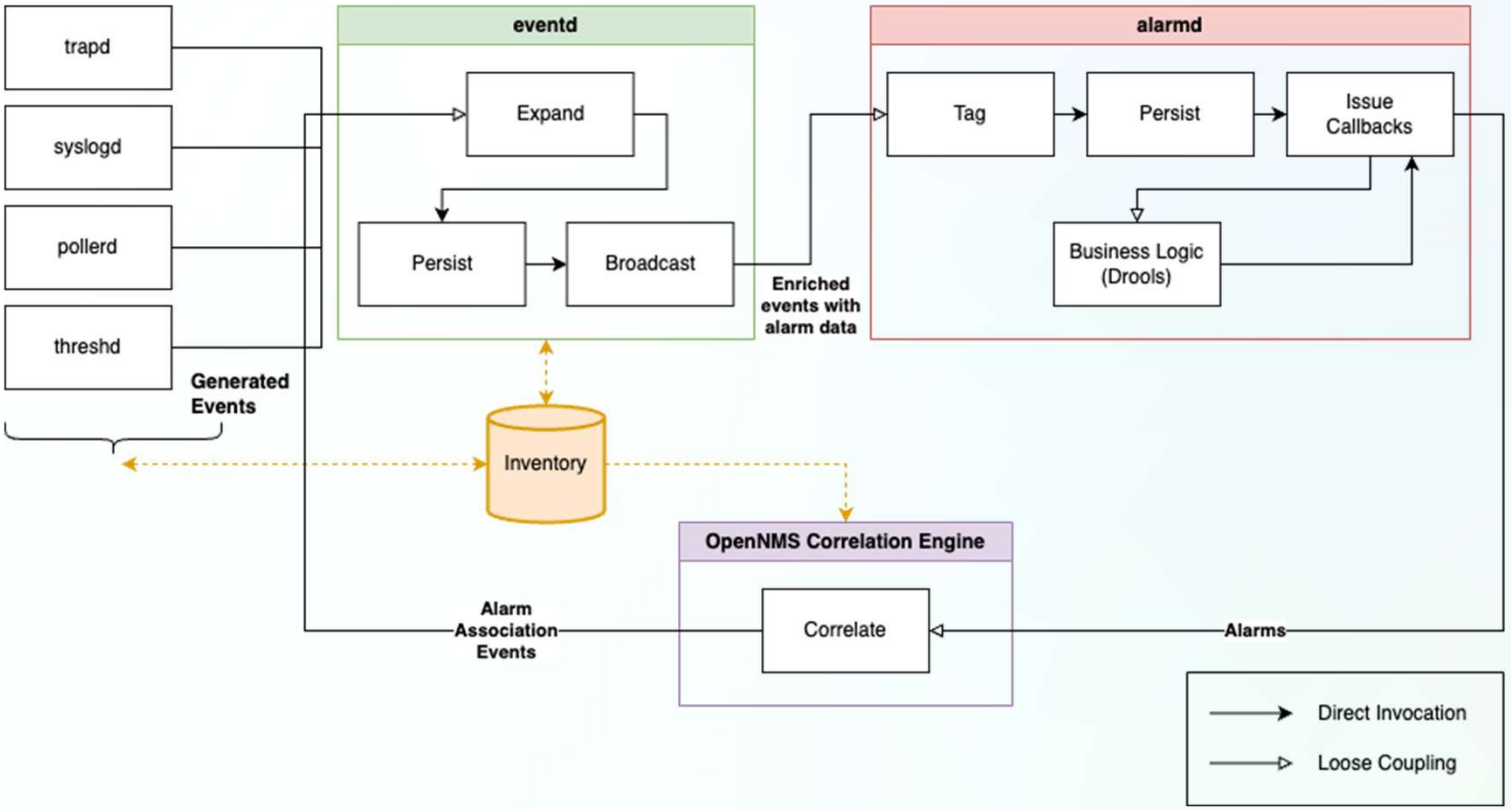
Focal Point Driven Context

Enhanced Linkd Discovery

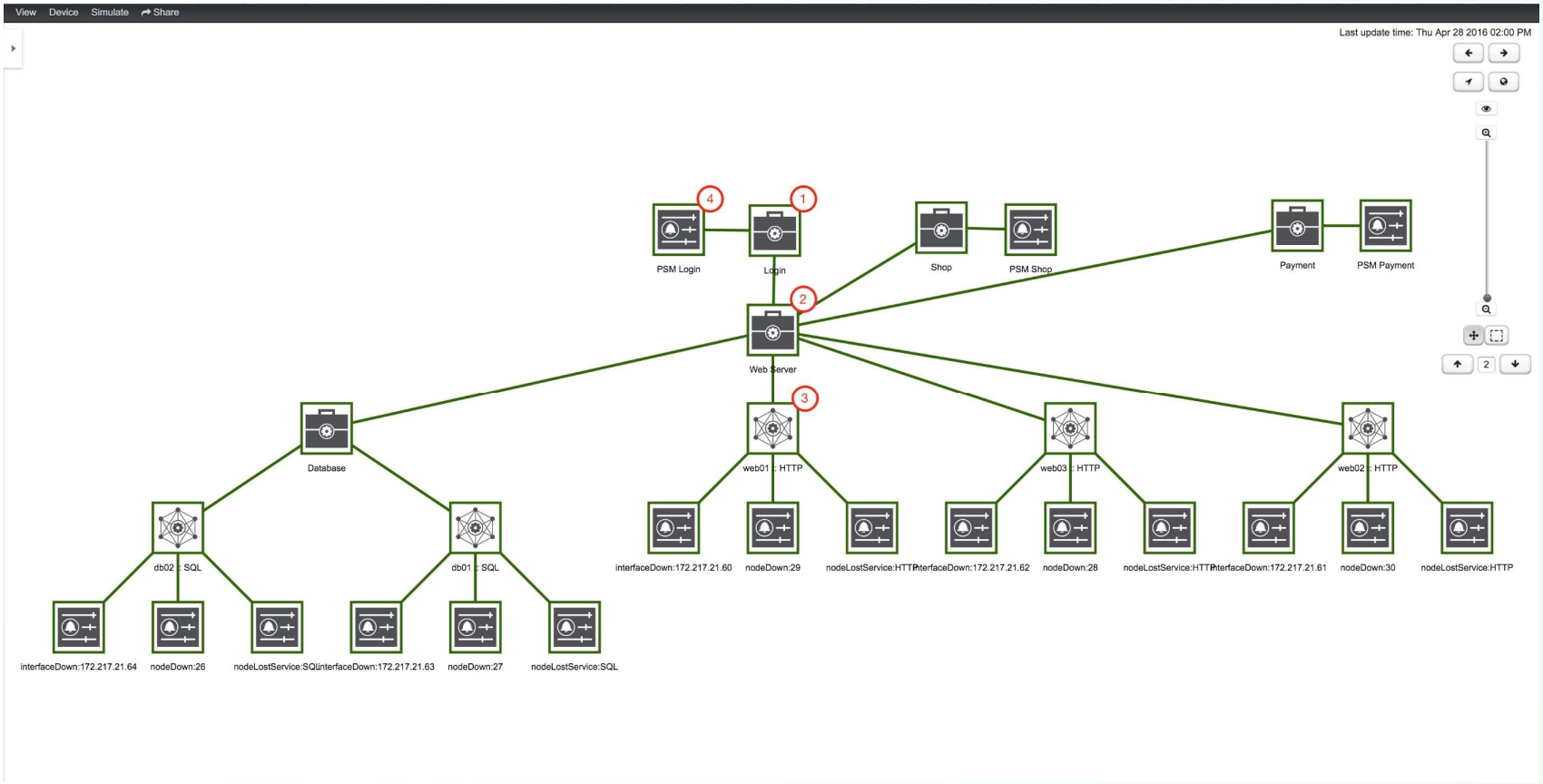
- ospf (layer 3)
- is-is
- cdp
- lldp
- bridge
- other (graph-ml)



Event and Alarm Corelation



Business Service Monitoring



Thank you!