

A person's hands are shown holding a glowing globe of network connections. The globe is composed of a network of blue and orange nodes connected by lines, with a bright yellow light emanating from the center. The background is dark blue.

vuSmartMaps™

Network Monitoring Solution



An award-winning AI and ML-powered monitoring platform from VuNet Systems.

Network Monitoring Solutions

VuNet Systems' Big Data and MLOps platform, **vuSmartMaps™** is a next generation Network Monitoring Solution providing in-depth visibility and insights of the health and performance of the devices, systems, and traffic of your IT network.

The enterprise grade network monitoring platform, powered by VuNet's innovative **Multi Vector Analytics (vuMVA™)** engine provides intelligent insights and accelerated diagnostics with powerful visualizations for operations team to quickly identify and stay ahead of all network issues and performance bottlenecks.



vuSmartMaps™ addresses the key problems that enterprises typically face in monitoring and managing their network infrastructure:

- 1 Unified Service Portal to provide real-time visibility into overall health of the network.
- 2 Detect isolation of regional offices when application-level connectivity to the DC applications drop.
- 3 Detect failure of primary or secondary links.
- 4 Real time visibility into DC/regional office equipment health and link bandwidth utilization.
- 5 SLA reports that provide information on link uptime on a per site /location basis and per ISP basis for weekly, monthly and extended periods.
- 6 Ability to understand the top talkers in terms of traffic in a link to identify top consumers
- 7 Ability to do analytics on patterns on failures, locations with frequent problems, problems at the same time of the day etc.

vuSmartMaps™ enables AI-driven IT Operations (AIOps) to address the above challenges. The platform has three primary components.

Data Ingestion & Handling Pipelines

vuSmartMaps™ can ingest structured and unstructured data, events, metrics and logs from many different data sources. It natively supports 500+ data sources. vuSmartMaps™ collects performance data (Golden Signals) from all the touchpoints of Network hierarchy in the IT infrastructure. It is very easy to add any new non-standard data source quickly.

Visualization Layer

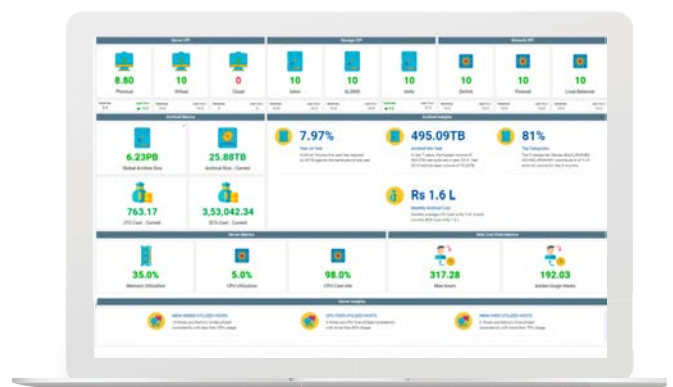
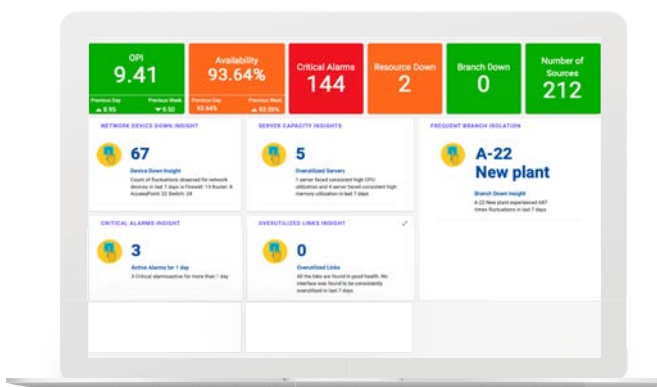
Pre-defined and canned storyboards and multi persona dashboards that addresses the needs of executives and operations teams.

Data & Machine Learning Correlation Layer

All the ingested data is correlated, transformed and enriched using vuMVA™ engine. The data is stored in a Bigdata database which is also used to create an IT operational data lake. This enables creation of various machine learning and data analytics use cases including anomaly detection and root cause determination.

vuSmartMaps™ comes with following ML led KPIs:

- **Operational Performance Indicator [OPI]**
Operational Performance from IT operations perspective, based on CPU, Memory and other Infra & App parameters
- **User Experience Index [UEI]**
User experience tracked across touchpoints of transaction flow
- **Automated Insights**
Uses automated data slicing, Natural Language Generation and user feedback based fine tuning of insights control and bubbling up of insights



Platform Capabilities

Inventory Management

Automated physical and logical discovery & tracking of network inventory along with contextual enrichment of collected inventory data to manage the assets.

Fault Management

Flexible adapters to enable availability monitoring of the network as well as standard and non-standard devices connected to the network and provide fault management alarms.

Performance Management

Performance Monitoring of Network Devices, Wireless Devices and Video Conference Devices to provide performance management related alarms.

Configuration Management

Configuration management along with the version maintenance for the network devices based on golden templates.

Proactive Alarm Console

Easily configurable, flexible alerts, providing diverse, rich reports (pdf, csv) into system performance.

Dynamic Data Enrichment

Our powerful Big Data platform consolidates network data and enriches it with business and domain context to make it information-rich to enable data-centric deployable AI models.

Anomaly Detection

Our autonomous ensemble models provide insights on anomalous log patterns across the networks and devices connected, exposing potential declines that prevent failures and empower Ops beyond pre-defined rules.

Advanced Correlation

Our correlation algorithms (Patent pending) correlates events across systems and devices in the network to create meaningful alerts.

Rich ready-made dashboard

We provide out-of-the-box dashboards that consumed rich data from the Big Data Analytics platform, enabling teams to monitor, identify, analyse, and visualize data resulting in actionable proactive and predictive insights.

Differentiators



Advanced Data Pipeline

Highly optimized adaptors to ingest heterogenous data and contextualize with static and dynamic enrichments into a single platform.



AI/ML KPIs

Built-in MLOps to detect anomalies, predict incidents, and use multi-dimensional KPIs to measure user experience, performance of IT systems and proactively identify anomalous behaviour.



Big Data and ML Ops Layer

Horizontal cluster platform performing at scale and larger retention period enabling Deployable AI models



Full-stack Platform

Multi-tenant platform with role-based access scaled to handle millions of events per minute with proactive alarm consoles.

Key Benefits

1

Effective root cause analysis and **faster remediation** resulting in **operational efficiencies**.

2

Proactively identify unusual behaviour to unearth and resolve issues.

3

Decreased MTTI with instant alerting of security and compliance red flags.

4

Any source & any format - on-premises, cloud, or hybrid.

5

Achieve upto **70% optimization** with MLOps led network visibility.

6


Ensured business success with real-time network experience tracking through statistical models.




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