AIOps with OptOSS AI

Recognize known/uncover unknown anomalies; reduce incident MTTR

FEATURES

- **Data Ingestion**
  - Topology Discovery
  - Top Down or Bottom Up Overview
  - Activity Monitoring
- **Data Management**
  - Data-Parsing
  - Auto-Labeling
  - Data-Fusion
- **Data Processing (ML)**
  - Anomaly Detection
  - Cross-Correlation
  - Alarm Clustering
- **Analytics + Automation**
  - Automation
  - Data + Anomaly Mining
  - Root Cause Determination
- **Data Visualisation**
  - Broad Customization
  - End-to-End Overview
  - Knowledge Recycling

KEY BENEFITS

Reduce MTTR
Based on previous deployments for Telecom customers, orders of magnitude reduction in MTTR for severe incidents is feasible.

Real-Time Insights
Provide Ops teams with context-rich and actionable insights about the real-time health and performance of the infrastructure and services.

Empower Operators with RPA
Intelligently automate repetitive and mundane tasks, and enable Ops teams to switch to a pro-active "superhuman" mode of operating.

Knowledge Recycling
The OptOSS AI platform enables a new way to create, share, reuse, and retain expert knowledge & skills.

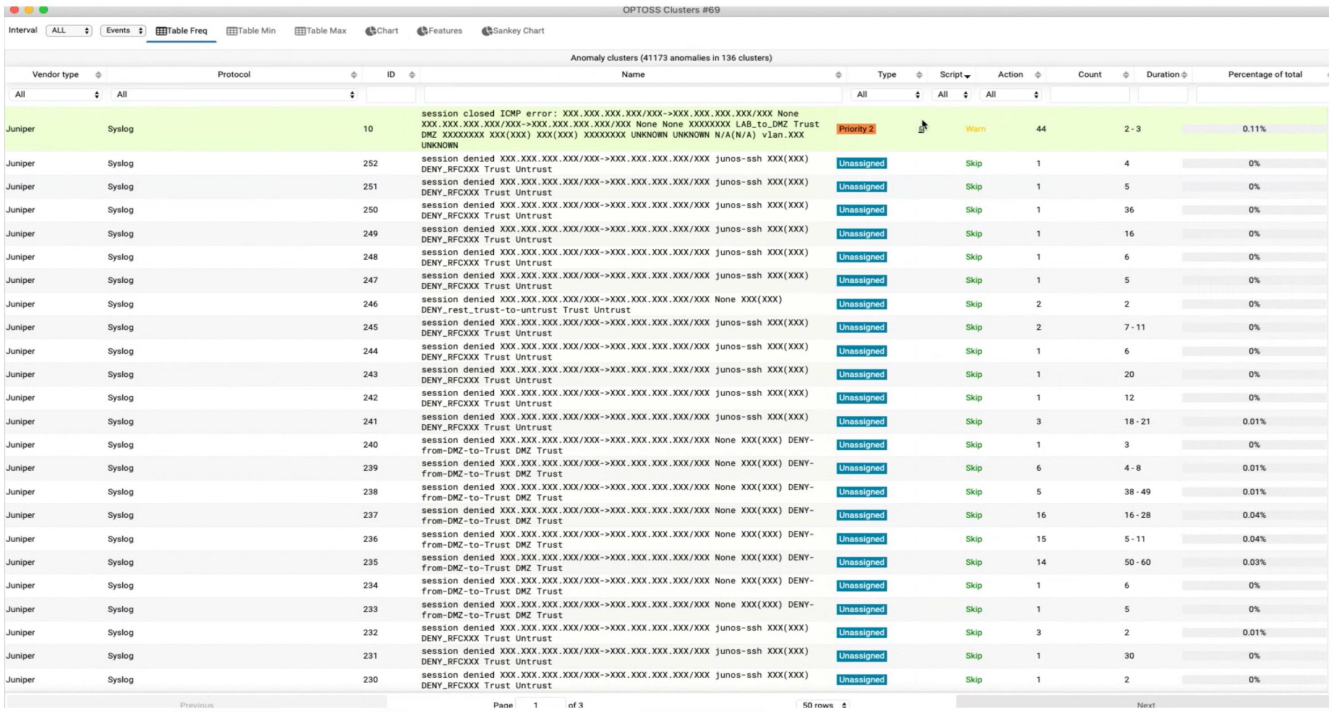
OptOSS AI GUI

What is OptOSS AI

OptOSS AI is an Artificial Intelligence enabled platform for monitoring, analysing, and managing complex networks in real time. Both structured and unstructured time-series data can be streamed into OptOSS AI, where irregular patterns are detected within 3s of the data being received. A patented process helps to detect, cluster, label and recognise millions of known and unknown irregularities that crop up on critical infrastructures and to distill the gist of meaning helping human operators in their daily jobs. Crucially, the majority of new and repeating issues are automatically spotted by OptOSS AI — in any raw data — without the need for clean labeled training data.

OptOSS AI virtuous cycle of education

Being able to detect known and unknown anomalous patterns without any training data allows Operators to extract meaningful insights with OptOSS AI from Day 1. As soon as data starts streaming in, OptOSS AI begins to autonomously detect and cluster anomalies into groups based on similarity. These are then brought to the Operator's attention, who then works to educate the system on the significance of the presented clusters. As Operators spend more time working with the system, they are not only granted the ability to get a full overview of the network, but they are empowered to intelligently automate away the mundane and repetitive tasks and re-orient themselves towards diagnosing new anomalous incidents. This virtuous cycle of education fits seamlessly into an Operator's day-to-day activities, and allows them to work much more effectively.



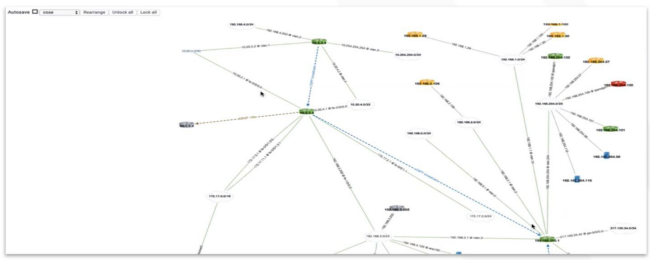
Anomaly Cluster View

Root Cause Analysis with OptOSS AI

If possible, OptOSS AI first connects to all routers, retrieves the most current network topology and creates a list of all networks to be audited.

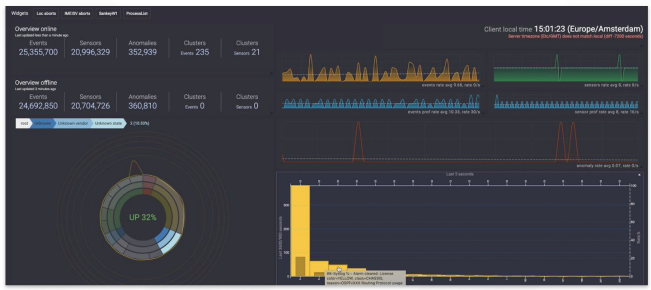
Next, it collects all hardware and software configurations and parameters from every discovered and supported element and then automatically monitors all additions and deletions of devices, components and their respective network links.

It creates precise audit reports and actual timely maps, rapidly collecting the most complete information about the managed network's inventory, topology, map of IP address space etc… This is all used together with real-time analysis of syslog events and SNMP alarms.



Network Map

After initial discovery and integration, OptOSS AI becomes an intelligent autonomous and dynamic system which helps operators with their daily operational routines. The base dashboard interface provides operators with a graphical 360° overview of Network Health, Activity & Performance.



Base dashboard interface

The Anomaly Cluster view can be consulted with as needed. When incidents are detected and brought to the Operator's attention as "Anomaly Clusters", this point-and-click interface provides the ability to 'zoom into' the full context of any anomalous activity, and allows for rapid root-cause analysis & remediation protocol invocation. OptOSS AI learns from this process, and allows for the correct remediation or alerting procedures to be initiated automatically next time. This feature frees up the Operators to focus on new incidents if and when they appear.

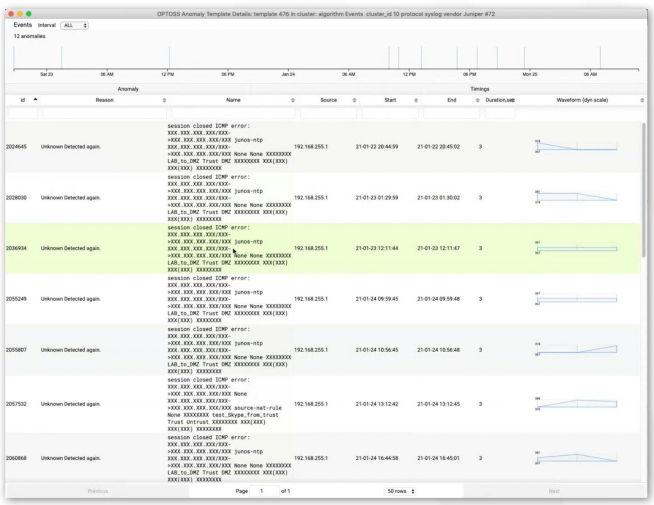
The Streaming Alarm view visualises historical + real-time activity

Anomaly Cluster View - drilling down for more context

Get the full story, not just a snippet

The Anomaly Cluster view can also be further used to gain the full contextual overview of an incident. Powerful data-mining scripts extract the relevant metrics in order to provide the full story.

Thanks to OptOSS AI's ability to cross-correlate across both time and topology, the Operator's ability to get to the bottom of a complex incident is vastly enhanced in terms of speed & precision.



Examples of information that is presented to the Operator for any given anomaly cluster include:

- potential service disruptions

- equipment failures

- suspicious activies

- errors & omissions

OptOSS AI - Customer Benefits

Reduce MTTR
Based on previous deployments for Telecom customers, orders of magnitude reduction in MTTR for severe incidents were achieved.

Real-Time Strategic Insights
Provide Ops teams with context-rich and actionable insights about the real-time performance of the infrastructure & services.

Empower Operators with RPA
Intelligently automate repetitive and mundane tasks, and enable Ops teams to switch to a pro-active "superhuman" mode of operating.

Knowledge Recycling
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Schedule a demo today

Schedule a demo to find out more about how OptOSS AI was able to help a leading Dutch Telecom generate real-time actionable insights, or how a leading CDN company reduced security exposure and saved 12% in base infrastructure costs within days of deployment. Our team is ready and excited to share how OptOSS AI can help you cope with ever-increasing complexity on your networks today!

OptOSS AI - Built for speed at scale

Performance
In a standard configuration, the platform can handily ingest and process >50,000 separate data points per second. Typical service provider deployments demonstrated performance of hundreds of thousands data points per second on general purpose COTS server hardware and it possible to arrange the product for mega-scale deployments, running modules concurrently or in certain hierarchical distributed system arrangements can even unlock processing performances of many millions of events per second.

Scalability
A typical OptOSS AI deployment can ingest data from over 10,000 connected devices, thereby covering all of your critical systems.The deployment architecture relies on customisable and modular design, which is highly flexible and provides room for future expansion.

Speed
OptOSS AI completes full network discovery in a matter of minutes if required, and takes less than 3 seconds from data ingestion to detection of anomalous behavior.

Value
Our 'rule-of-thumb' goes as follows: 1M events can be processed daily per €100 investment in hardware! Furthermore, negating the need for labelled training datasets (not to mention expensive data scientists) also saves a significant amount of time and expense compared to other AI approaches.

ABOUT OPT/NET

OPT/NET B.V. is a team that designs and builds comprehensive AI products based on decades of hardcore critical industry experience. Having served and protected the networks of clients all over the globe, the OPT/NET team was specially suited to develop a series of advanced AI products capable of dealing with an ever-increasing volume of data and complexity. Initially serving as a tool for our own telecom consulting practice, the OPT/NET AI engine has grown into a series of stand-alone platforms with unlimited potential across a variety of critical and data-intensive industries.

We believe in making humans superhuman, not replacing them. The OPT/NET AI Engine provides domain experts in both structured and unstructured data environments the ability to rapidly develop advanced real-time AI solutions that help them do their jobs more effectively, without requiring an advanced degree in data-science. Importantly, our solutions are human-driven, AI-assisted.

We meet the toughest problems head on. Our clients and partners have massive datasets, and extensive expertise in tackling industry-specific challenges. Our engineers have the most powerful generic AI platform at their disposal, and the skills and willingness to understand new and challenging environments. We're able to integrate new data streams into our award-winning AI platform, learn and optimise workflows, and generate valuable operational results in hours/days/weeks instead of months/years.

From telecom networks to disaster zones. From farmlands to the open ocean. From analysing log lines to multispectral satellite imagery. Our approach remains the same: forge real meaningful partnerships with our customers to empower them towards achieving more with
their data.

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