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Product Description

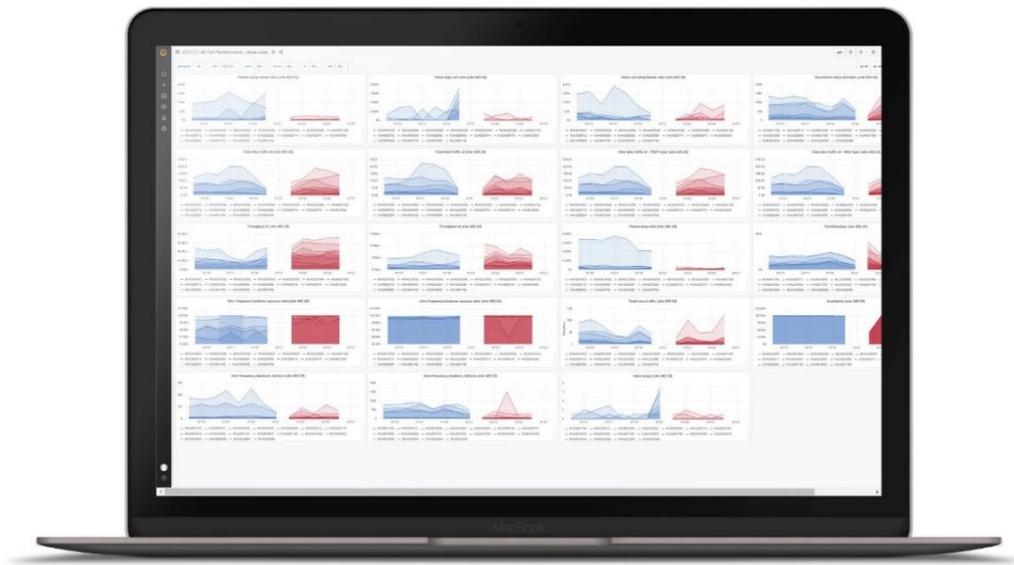
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Inhoud

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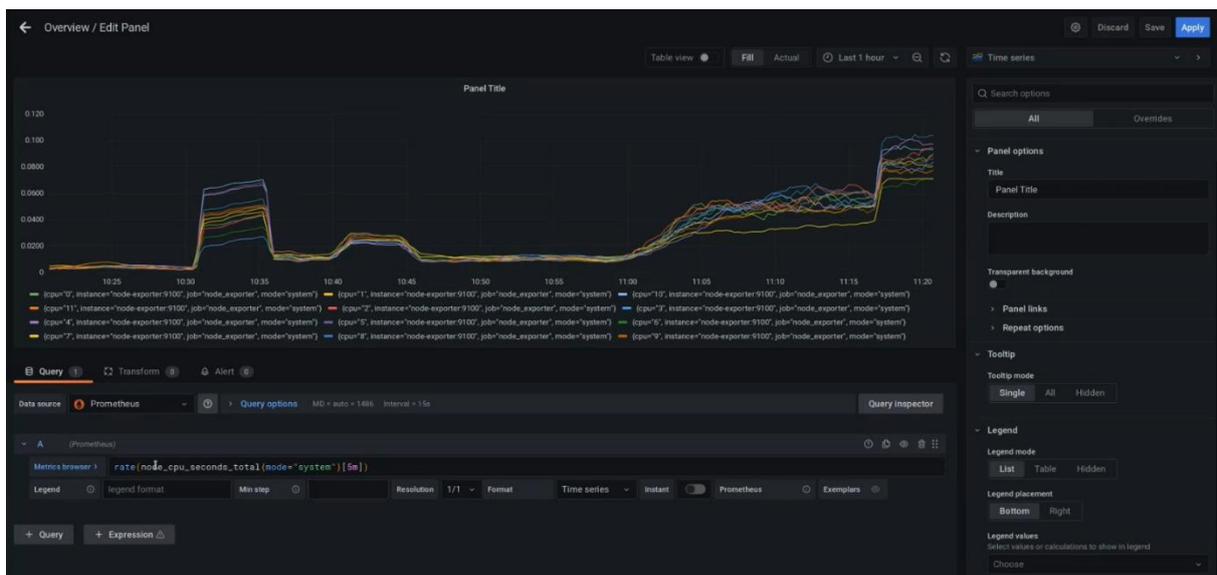
1. Product Positioning

1OPTIC is a high-performance, modular data platform which processes data from all your sources and combines them into one integrated system for both online and offline data analysis using industry-leading technologies.



1OPTIC dashboard example

1OPTIC is an open ecosystem that integrates with your existing cloud or on-premises IT solutions and allows you to perform advanced Data Science projects including AI, Machine Learning, and beyond.



1OPTIC Dashboard example 2

2. Product Characteristics

2.1 Low Latency

All components in the 1OPTIC suite are built or selected for their performance, so that the system as a whole can operate with the lowest possible latency. This allows for both online and offline analysis and alerting from the same platform and datasets.

2.2 Openness

The platform is open for the customer to connect any tool and load any data from it. This makes it possible to integrate with existing tools that the users might already have a lot of experience with.

2.3 Vendor Independence

Because none of the components in the 1OPTIC suite assume that data should be in the format of a specific vendor, the platform in its totality supports the heterogeneous networks of systems that are found at many customers. This same property also provides the best support for projects where legacy systems are replaced with new systems, often from other vendors.

2.4 Multivendor Support

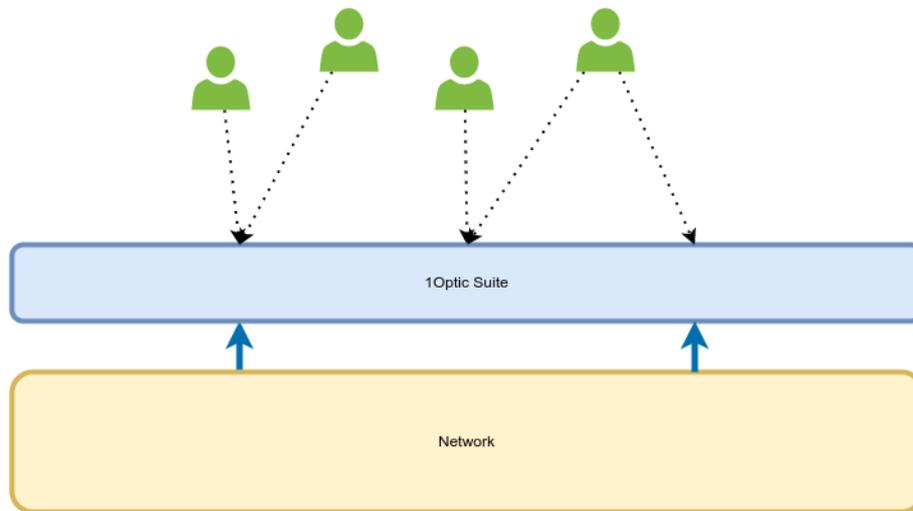
Next to the fact that the 1OPTIC suite is vendor-independent, it also supports storing data from multiple vendors at the same time. This is needed when e.g., equipment in a network is gradually replaced with equipment from another vendor. Also, naturally multi-vendor networks are well supported by this feature. The client can do before/after analysis and use the suite for other comparison scenarios with data from multiple vendors.

3. Architecture

The 1OPTIC suite is composed of a set of products that are carefully tuned to each other to work as a single system for monitoring all aspects of your network.

3.1 Position

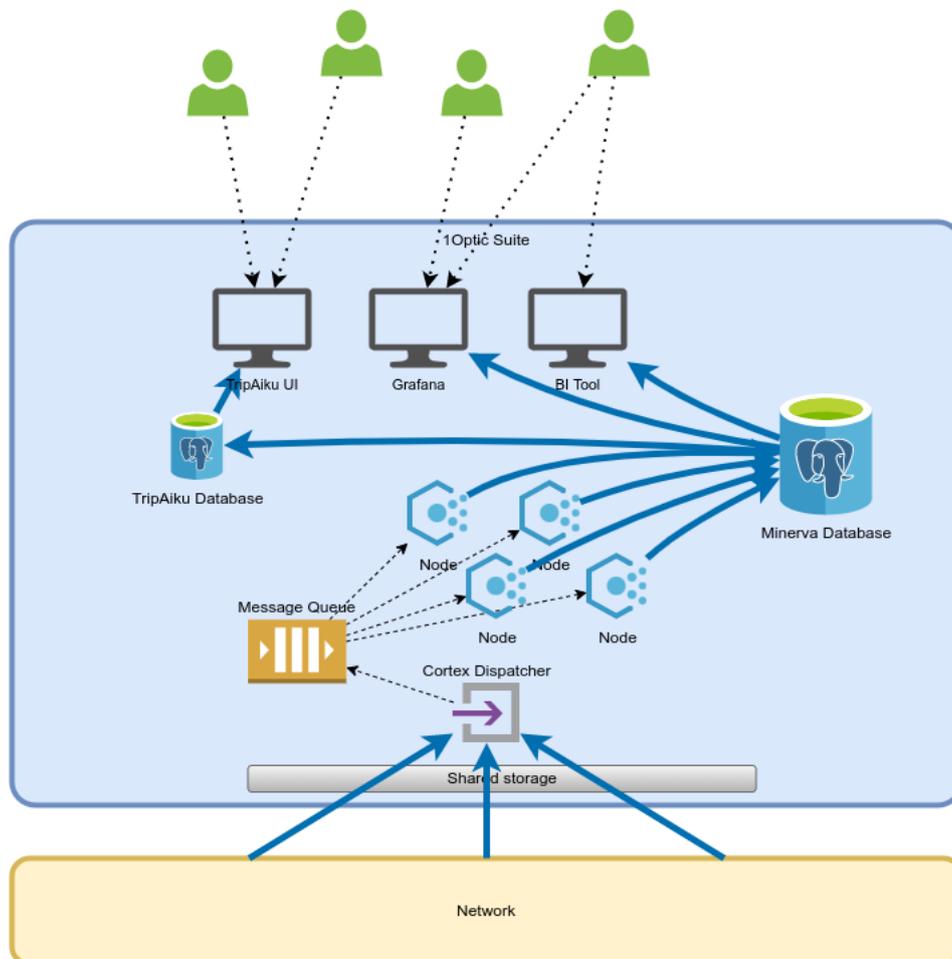
The suite is positioned between the users and the network to provide a clear, real-time view on all aspects of the network.



3.2 Software Architecture

The 1OPTIC architecture is designed for horizontal scalability. The exact configuration of a 1OPTIC deployment can be tailored to the needs of the customer, but the performance and scalability characteristics are ingrained in each component.

The use of message queues and parallel ingestion nodes are the clearest example of the scalability at this level.



4. Components

4.1 Minerva Database

The database where semi-raw data, aggregated data and other processed data is stored after processing by the nodes. All aggregations and other transformations are run inside this database.

4.2 Node

The ingestion nodes that process the raw data for storage in the Minerva database.

4.3 Message Queue

A RabbitMQ message broker provides the queues where messages for the ingestion nodes are stored until they are picked up by the nodes.

4.4 Cortex Dispatcher

Here all incoming data is stored and dispatched to the appropriate ingestion nodes. Advanced mechanisms for filtering and deduplication of incoming data are implemented here.

4.5 TripAiku Database

This database stores the notifications from the event sources, the rule engine, and the resulting tickets that are presented to the workflow system (TripAiku UI).

4.6 TripAiku UI

The TripAiku UI is the interface where end-users interact with the tickets that are generated by the TripAiku rule engine.

4.7 Grafana

A dashboarding GUI for customizable high performance dashboards based on the data in the Minerva database, but also combined with data from other sources. Because of the broad support for data sources, this is the ideal place to combine the data from those sources and gain valuable insights.

4.8 BI Tool

Data stored in the Minerva database is available through a vendor independent SQL interface, so that any BI Tool that may already exist in your organization can be used to explore and visualize that data.

4.9 Shared Storage

The data that is dispatched to the ingestion nodes is made available to them through the shared storage layer (NFS).

5. Use Cases

1OPTIC is suited for multiple use-cases. It is impossible to extensively write every feasible use-case below, feel free to contact us to inform whether your use-case would be suited.

5.1 Telecom Networks

The robust and high-performance characteristics of the 1OPTIC suite make it a good fit for the round-the-clock online monitoring requirements that supporting a telecom network requires. Because of the vendor agnostic nature of the platform, you do not need to change your monitoring tooling or retrain your personnel when equipment of a new vendor is introduced. Monitoring and support can continue uninterrupted, also providing the opportunity to do before-and-after analysis on swapped equipment.

5.2 IOT networks

IOT networks are known for their large numbers of sensors and variety of devices. Depending on the types of measurements, data can arrive at high frequencies or just once a day. The 1OPTIC suite can seamlessly integrate these various granularities of data from many distinct types of devices and display them on a single pane of glass.

5.3 Low volume setting

The scalability of the products in the suite also allow them to scale down to very small setups to cater for the needs of starting teams. Most of the components can easily share the same resources (server) so that the investments can stay in check.