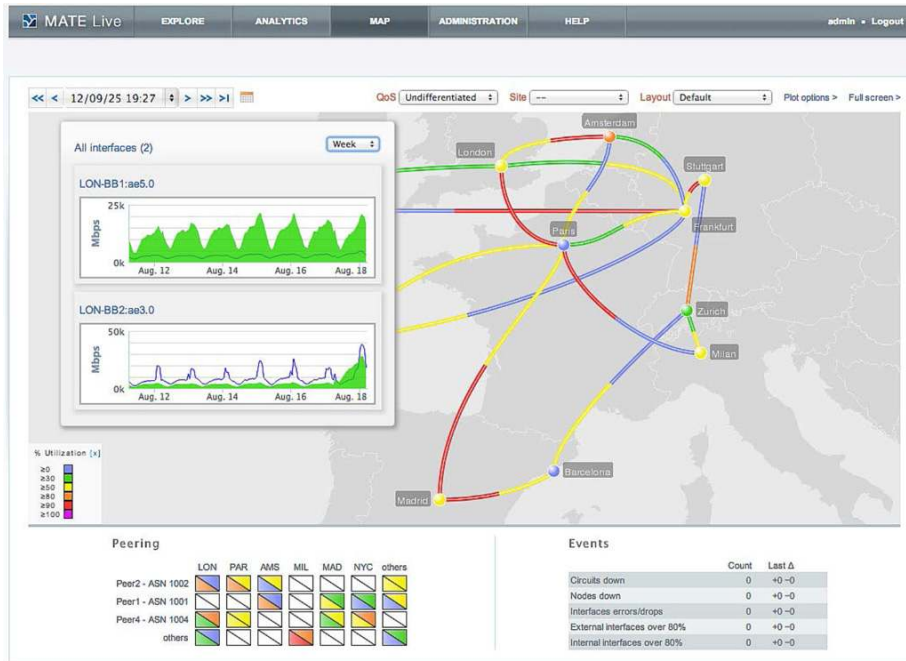# MATE Live

Product Overview

MATE™ Live software rapidly delivers in-depth network analytics with efficient navigation for both current (live) and historical data to help you make critical business and technical decisions. The software:

- Allows network operations teams to quickly pinpoint and troubleshoot network issues.
- Provides measurement, trending, and health monitoring capabilities to maintain high-performance networks.
- Simplifies and improves forecasting and network planning when combined with Mate Design software.

The MATE Live Difference

- Instantly analyze network health and traffic trends spanning hours to years (Figure 1).
- Create easy-to-understand and detailed user-configurable reports and graphs.
- Explore operational attributes of physical and logical interfaces, link state packets, and nodes, and view demand information
- Identify suboptimal utilization of physical and logical LAGs and define thresholds to monitor
- Keep network states confidential by establishing user credentials and roles.
- Visualize multivendor networks with a near-real-time "weather map."
- Collect and correlate decades of network data for carrier-class scale with no performance degradation.
- Deploy easily with a low cost to maintain.

Figure 1.   Visualization of Network Health

MATE Live Use Cases

- Quickly detect backbone congestion, assess currently impacted Label Switched Paths (LSPs), and determine reroutes based on size and path.

- Identify which LSPs most frequently reroute or remain off shortest paths to improve network performance.

- Monitor top peers and their growth, and verify that traffic is balanced across peers and sites.

- Report on network traffic and trends to determine the impact of new services or launches for a market or site.

- Create trending reports for forecast planning, such as site-to-site traffic trends per class of service.

MATE Live Solution

Service providers depend on their networks to deliver a wide range of services. With so many services dependent on the backbone infrastructure, service providers must quickly and proactively identify and analyze network issues. And as new services are rolled out, providers need to forecast the effects on the network.

MATE Live offers a comprehensive, easily navigable network analytics and dynamic visualization solution for making timely, informed technical and business decisions. This solution was developed by working with service providers to address their requirements for visibility, automation, and best practices. MATE Live fully integrates with Mate Design and MATE Collector, Cisco's industry-leading solutions for designing, engineering, and planning IP Multiprotocol Label Switching (IP/MPLS) networks. With a streamlined, intuitive workflow and highly interactive web interface, MATE Live presents both current and historical network views and immediate analysis at your fingertips.

MATE Live comprises three essential integrated features: Explore, Map, and Analytics (Table 1).

Table 1.   MATE Live Components

Explore	Provides interactive network exploration and the ability to navigate through current network information and visualize historical raw data.
Analytics	Generates reports on traffic trends and chronic and systemic issues, as well as alerts based on report results.
Map	Displays network operations on a near-real-time interactive weather map. You can browse regional and site maps, identify congestion, and use the navigation capabilities to gain detailed views of critical traffic and network issues.

MATE Live Explore, based on near-real-time data, provides instant network exploration of the current network state across interfaces, nodes, LSPs, and demands. MATE Live Explore allows you to:
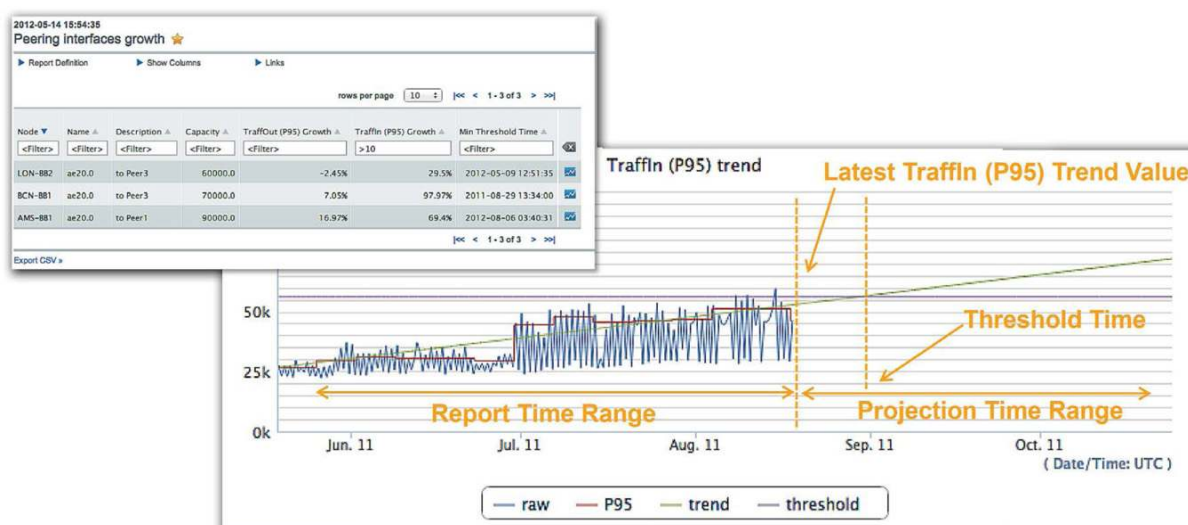
- Browse network objects based on their current properties.
- Filter and sort multiple fields to inspect the exact network node, interface, LSP, or demand.
- Jump between related information to quickly find the data you need.
- Instantly view historical data of an individual object with a simple click.

For example, you can use MATE Live Explore to examine operational attributes of interfaces, LSPs, demands, and nodes. For interfaces, you can identify the source, destination, and more. For LSPs, you can see the source and destination nodes, view traffic, and set up bandwidth and other critical attributes. You can also instantly access raw data for a quick analysis of selected objects.

MATE Live Analytics includes user-configurable reports (Figure 2), including:

- Traffic-trending reports for individual or aggregated interfaces, LSPs, or demands. Trending calculations can be based on linear, logarithmic, or exponential algorithms
- Identify traffic imbalance issues across LAGs using configurable congestion risk thresholds
- Health reports to identify chronic and systemic issues.
- Special reports based on historical data, groups (such as customer or market), time intervals, and time operations.
- Email alerts triggered by user-defined events.

Figure 2.   Interactive Network Exploration

You can schedule, filter, sort, and bookmark reports, as well as save them for future access.

You can use MATE Live Analytics to enhance the advanced planning capabilities of MATE Design. For example, you can:

- Create a traffic-trending report in MATE Live.
- Export the report to MATE Design.
- Create growth plans in MATE Design to visualize when and where optimization and upgrades to your network will be necessary.

MATE Live Map displays a weather map of the operating network for immediate visualization of current network health. You can see topology and capacity utilization and navigate to different geographical views, such as different continents or metro areas. You can also navigate down to site information and with a simple click, show graphs of interface traffic and node CPU and memory statistics. More at-a-glance information is available through configurable health panels that display peering traffic information, potential network events, such as capacity changes, and whether interfaces are operational.

MATE Live uses a time-series optimized datastore designed for scale, speed, flexibility, and minimal maintenance. This distributed, multithreaded datastore includes leading-edge innovations:

- Ability to scale to the largest service provider networks
- Decades of data stored with no performance degradation
- Flexible schema to accommodate new data
- Support for variable-rate data
- Online, incremental backups

MATE Collector is a required component that supports the MATE Live solution. MATE Collector features automated discovery of multivendor and multitechnology network environments, including devices, topology, and traffic statistics. MATE Collector provides continuous snapshots of the operating network and adapts to changes without the need for user intervention to keep information current. This information is used for generating the weather map and the datastore that feeds the exploration and reporting capabilities of MATE Live.

System Requirements

For a complete list of system requirements, please visit http://www.cisco.com.

Ordering Information

MATE Live base package includes the Explore component with access to basic nodes and interface statistics. You can purchase the Analytics and Map components separately as well as an advanced network data option, which enables access to RSVP LSPs and MATE demand data.

The entry-level planning package offers demand-based traffic trending on top of the base package for customers who require only trending and forecasting.

MATE Live software licenses are based on component, technology, and device count. Licenses are either perpetual or subscription. MATE Collector is ordered separately.

Cisco® offers training, deployment, and support services to help you achieve the most value from MATE products.

For information on licenses and pricing, or to place an order, please contact your Cisco account representative.

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