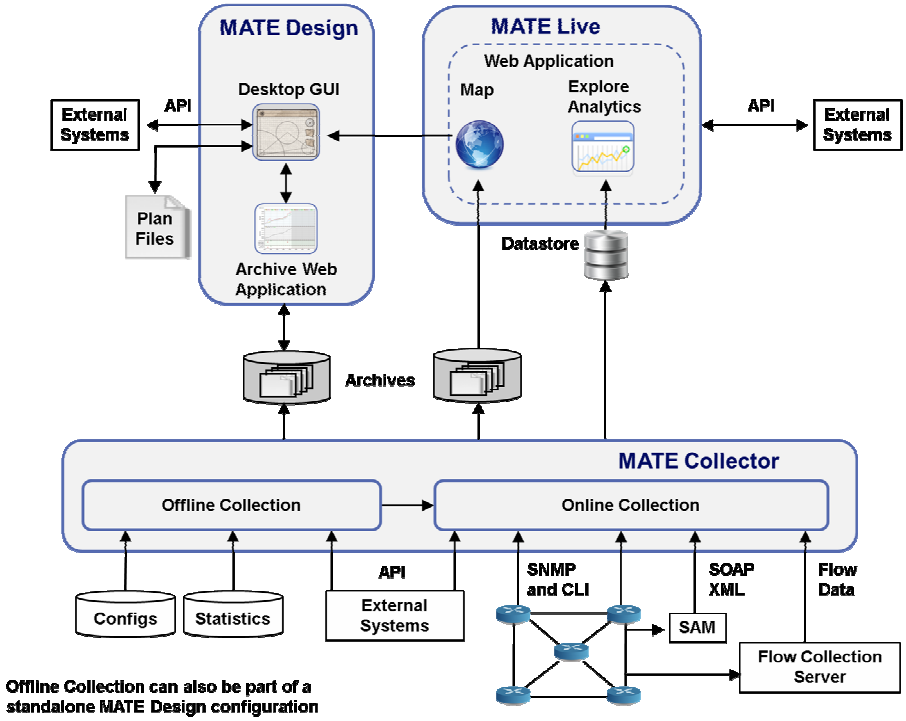
MATE Collector

Product Overview

MATE™ Collector software gathers and maintains information on infrastructure elements, topology, operational states, and traffic statistics for network planning and analytics. The software:

- Offers a complete solution for offline and online data collection in a single platform.
- Integrates with MATE Design and MATE Live software for capacity planning, failure analysis, traffic engineering, and network health and traffic trends analysis (Figure 1).
- Collects, aggregates, and correlates exported NetFlow (v5, v9), IPFIX, JFlow, CFlow, and Border Gateway Protocol (BGP) prefix data that can be imported into business intelligence solutions.

Figure 1. MATE Collector Integrates with MATE Design and MATE Live



The MATE Collector Difference

- **Comprehensive**: Supports multiple vendors, including Cisco®, Juniper, Alcatel-Lucent, and Huawei, and multiple data sources.
- **Versatile**: Supports major IP Multiprotocol Label Switching (IP/MPLS) network protocols, including Open Shortest Path First (OSPF) v2 and v3, Intermediate System-to-Intermediate System (IS-IS), BGP, IP multicast, Resource Reservation Protocol - Traffic Engineering (RSVP-TE, FRR LSPs), IP, and Label Distribution Protocol (LDP), as well as Layer 2 and Layer 3 VPNs.

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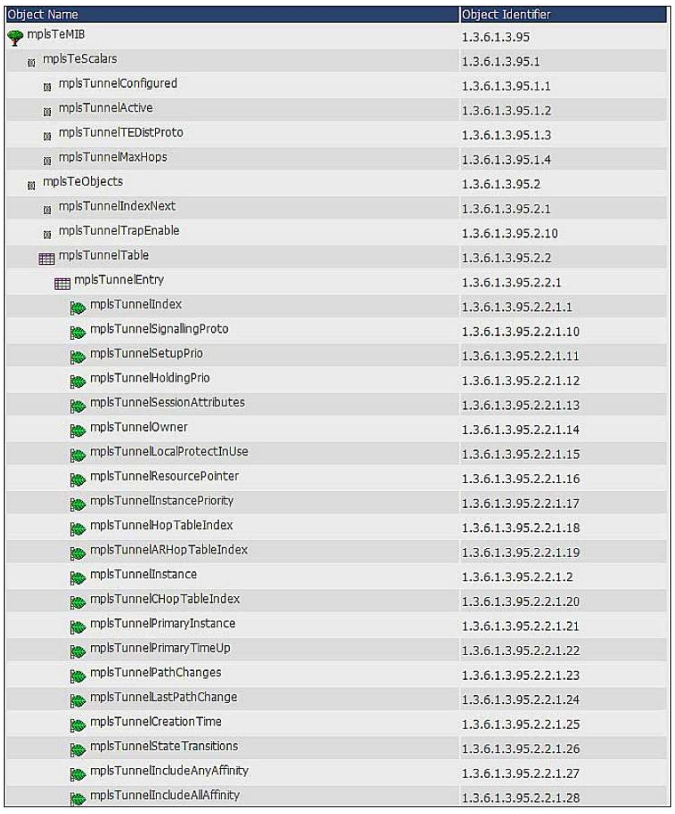
- **High performance**: Discovers network objects and collects data from large complex IP/MPLS networks in minutes.
- **Automated**: Captures network topology, state, and measurement changes using a scheduled collection process, helping to ensure synchronization between the real network and the visualized, analyzed, or planned network.
- **Flexible**: Accesses and interprets configurations across multiple operating systems and vendors.

MATE Collector Use Cases

- **Offline deployments**: Collect configuration and statistics from existing data sources, including Interior Gateway Protocol (IGP) databases and parsed router configuration files.
- **Online deployments**: Discover network topology, routing information, operational state, and traffic statistics using Simple Network Management Protocol (SNMP) and command-line interface (CLI) commands. Interfaces to round robin database tool (RRDtool) and other third-party management systems, including Alcatel-Lucent Service Aware Manager (SAM), are also available.
- **Integrated offline and online deployments**: Gather data available only through configuration files, such as explicit-path label switched paths (LSPs), in combination with online discovery and collection.
- **Flow collection**: Receive detailed traffic information for peering analysis and costing exercises.

Figure 2 shows an example of the MPLS TE information captured by MATE Collector.

Figure 2. Sample SNMP MIB Objects Obtained Through Online Collection



Object Name	Object Identifier
mplsTeMIB	1.3.6.1.3.95
mplsTeScalars	1.3.6.1.3.95.1
mplsTunnelConfigured	1.3.6.1.3.95.1.1
mplsTunnelActive	1.3.6.1.3.95.1.2
mplsTunnelTEDistProto	1.3.6.1.3.95.1.3
mplsTunnelMaxHops	1.3.6.1.3.95.1.4
mplsTeObjects	1.3.6.1.3.95.2
mplsTunnelIndexNext	1.3.6.1.3.95.2.1
mplsTunnelTrapEnable	1.3.6.1.3.95.2.10
mplsTunnelTable	1.3.6.1.3.95.2.2
mplsTunnelEntry	1.3.6.1.3.95.2.2.1
mplsTunnelIndex	1.3.6.1.3.95.2.2.1.1
mplsTunnelSignallingProto	1.3.6.1.3.95.2.2.1.10
mplsTunnelSetupPrio	1.3.6.1.3.95.2.2.1.11
mplsTunnelHoldingPrio	1.3.6.1.3.95.2.2.1.12
mplsTunnelSessionAttributes	1.3.6.1.3.95.2.2.1.13
mplsTunnelOwner	1.3.6.1.3.95.2.2.1.14
mplsTunnelLocalProtectInUse	1.3.6.1.3.95.2.2.1.15
mplsTunnelResourcePointer	1.3.6.1.3.95.2.2.1.16
mplsTunnelInstancePriority	1.3.6.1.3.95.2.2.1.17
mplsTunnelHopTableIndex	1.3.6.1.3.95.2.2.1.18
mplsTunnelARHopTableIndex	1.3.6.1.3.95.2.2.1.19
mplsTunnelInstance	1.3.6.1.3.95.2.2.1.2
mplsTunnelCHopTableIndex	1.3.6.1.3.95.2.2.1.20
mplsTunnelPrimaryInstance	1.3.6.1.3.95.2.2.1.21
mplsTunnelPrimaryTimeUp	1.3.6.1.3.95.2.2.1.22
mplsTunnelPathChanges	1.3.6.1.3.95.2.2.1.23
mplsTunnelLastPathChange	1.3.6.1.3.95.2.2.1.24
mplsTunnelCreationTime	1.3.6.1.3.95.2.2.1.25
mplsTunnelStateTransitions	1.3.6.1.3.95.2.2.1.26
mplsTunnelIncludeAnyAffinity	1.3.6.1.3.95.2.2.1.27
mplsTunnelIncludeAllAffinity	1.3.6.1.3.95.2.2.1.28

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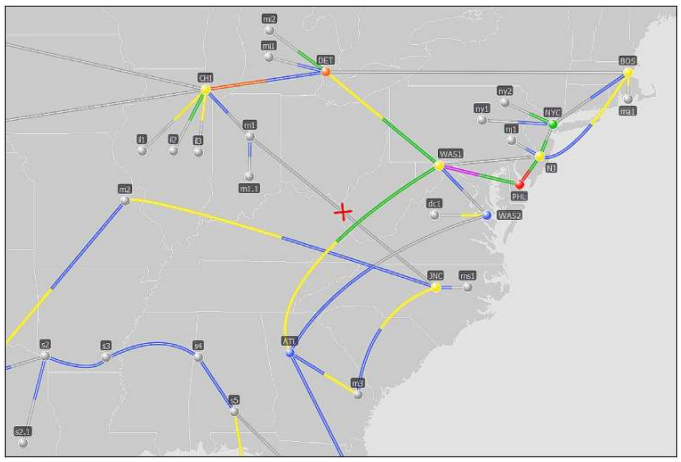
Figure 3 shows topological and traffic information rendered in MATE Design from MATE Collector discovery.

Figure 3. MATE Collector Automatically Gathers and Maintains Network State and Traffic Data



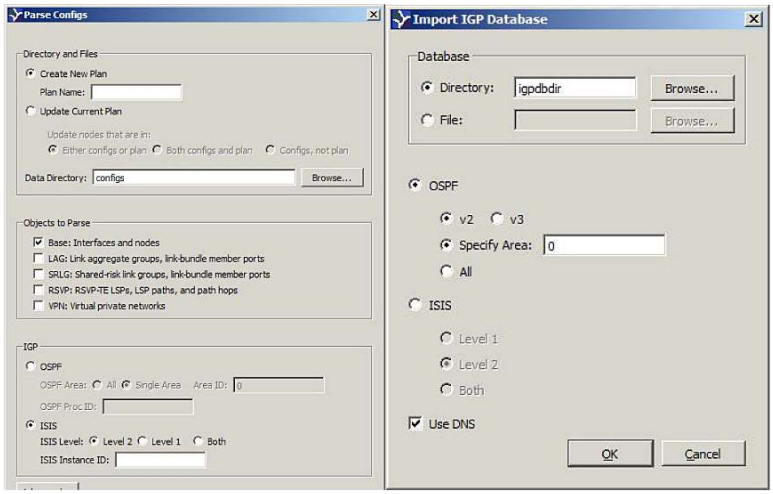
MATE Collector Solution

MATE Collector continuously takes snapshots of the operating network to capture changes and generates data files that can then be used by MATE Design and MATE Live, to provide precise modeling of complex networks. These files can include the network configuration, a visual layout, LSP and multicast routes, the operational state of network objects, and detailed traffic information.

MATE Collector also gathers and aggregates exported NetFlow and related flow measurements, which can be used to construct accurate demand-traffic data for MATE Design and MATE Live, and for business intelligence solutions.

Figure 4 shows offline data collection interfaces.

Figure 4. Offline Data Collection Through Parse Configs and Through Import IGP Database



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System Requirements

MATE Collector runs on Linux and Solaris x86 servers. For a complete list of system requirements, please visit http://www.cisco.com.

Ordering Information

MATE Collector software licenses are based on user, application, technology, and device count. Licenses are either perpetual or subscription and node-lock or floating. MATE Design and MATE Live are ordered separately.

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