

Oracle Communications Unified Topology

Communication Service Providers (CSPs), Managed Service Providers (MSPs) and other enterprises have struggled to visualize their expanding networks in a singular view until now. Legacy inventory systems and siloed CMDBs make it very difficult to understand real problems occurring on the network on a timely basis.

Oracle Communications Unified Topology dynamically consumes topology information from any data source and instantly displays the network topology of your physical and virtual devices.

A single view of the network

Oracle Communications Unified Topology is a key component of Oracle's Unified Assurance solution shown below.

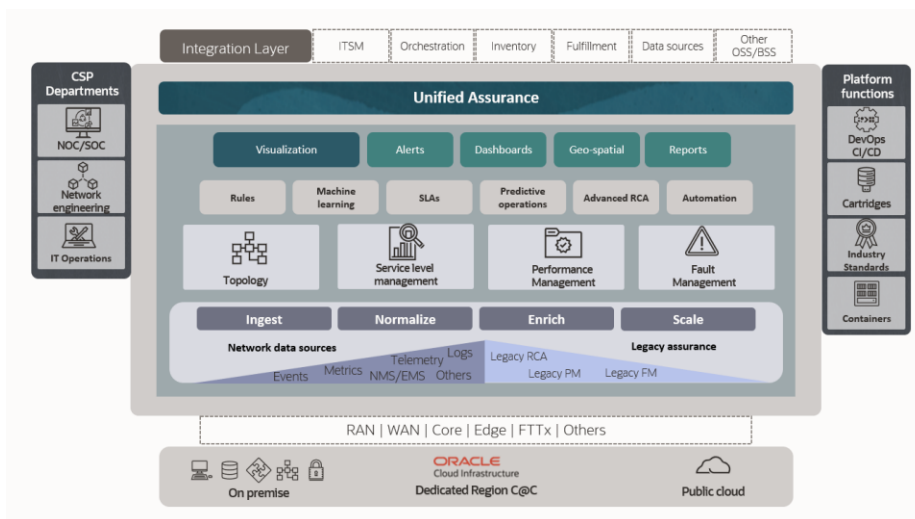


Image 1. Oracle's Unified Assurance solution.

It provides integrated auto-discovery, topology mapping, and root-cause analysis to give customers a dynamic representation of their networks. Unified Topology allows organizations to automatically discover their networks, create dynamic topology-based maps, present real time status indicators for each node, and perform connectivity-based Probable Root Cause Analysis (PRCA) to provide downstream suppression.

Navigate topology paths via algorithms like shortest path or weighted path to find the most optimized or cost efficient routes. Circuit Views allow you to see your topology from an A to Z view, with panels describing each end of the circuit. Real time health status enables drill downs into device health, performance, and fault information.

Key benefits

Oracle Communications Unified Topology allows service providers to realize a centralized approach to topology management, with an end-to-end view of their network through a single pane of glass:

- Provides accurate and up-to-date network inventory
- Key tool for help desk and managers to drill into device attributes
- Improves network availability and reliability due to faster MTRR delivered via correlation & topology displays
- Improved operational efficiency via correlation & real-time displays
- Automates management efforts
- Complete visibility of your network devices
- Improves accuracy of inventory data to provide for more informed decision making

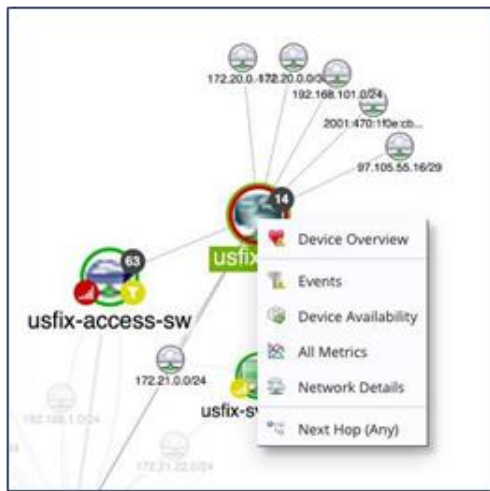


Image 2. Oracle Communications Unified Topology Assurance turns data into insights.

Network inventory collection

Oracle Communications Unified Topology Assurance offers an ideal solution for organizations needing to consolidate network inventory topology onto a single pane of glass. Customers leverage out-of-the-box SNMP collection agents to retrieve and display a variety of useful information. The standard agent collects Interfaces, IP Routes, ARP Table, MAC Addresses, and CDP Neighbors.

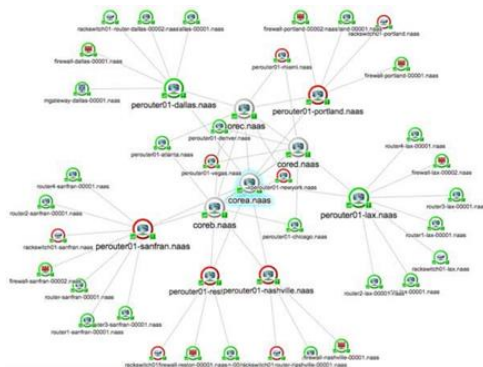


Image 3. Unified Topology can handle any hierarchy – logical or physical

Layer 2 + 3 stitching

Processing your Network Inventory Data for Topology Mapping and PRCA

Stitching collected network inventory into topology data is faster and easier with Oracle's rules-based stitching. The standard stitcher will process IP Routes (for Layer3) and CDP Neighbors / ARP (for Layer2), generating the hierarchy needed for PRCA (Probable Root Cause Analysis) correlation as well as the layout for the topology-based dashboard engine. The stitcher can also be enhanced to leverage other pieces of data to accommodate customer specific hierarchy updates to accurately reflect the client's actual environment. These updates leverage Oracle's HSE (Hierarchy Storage Engine) rules sets which are completely open and able to be modified directly by the customer with Perl based rules engine.

Key features

- Auto-discovery of network infrastructures
- SNMP deep discovery of devices
- Topology Overview reports showing number of devices or interfaces being managed, by type and by status
- Supports standard and customer topology hierarchies
- Open correlation engine supporting customer specific enhancements (not a black box correlation engine)
- Full integration with Dashboard Engine for real-time Topology Dashboards
- Supports custom topologies incorporating business logic and visualization (e.g., application modeling)

Custom stitching

Circuit hierarchy and discovery

Unified Topology's custom stitching capability also allows integration with business logic data stores, such as provisioning information linking a device/port to a circuit id. Integration with the billing/CRM system allows Oracle to link the circuit ID to a customer. With this hierarchy information, Unified Topology can be used to correlate customer/circuit impact.

Application modeling / discovery

Unified Topology offers vast capabilities in the Server/System/Application Monitoring arena. With the use of CMBD or application discovery agents, Unified Topology can map server-to-switch, server-to-server, app-to-server and application to application relationships to provide unique correlation and display capabilities.

Business logic discovery (SLM / BSM)

Service Level Management and Business Service Management are garnering significant mindshare from IT executives. Unified Topology plays a pivotal role by providing the capability to discover and autoconfigure BSM/SLM hierarchies. This process involves integrating with customer's billing and provisioning systems via Oracle's collection architecture to access the necessary information to auto create these SLM/BSM service trees.

Topology Management

Unified Topology can quickly and accurately depict topology changes in near-real time. The solution includes a fully integrated, cross-domain, topology and relationship management function to handle any technology – logical and physical.

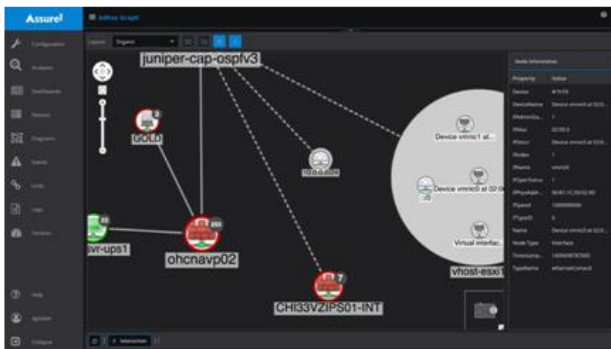


Image 4. Unified Topology can handle any hierarchy – logical or physical

Oracle Communications Unified Topology

Consume any source of topology for instant rendering in nearly any format imaginable.

Network Cartographer™

Change from Logical Layouts to Geo-Map based layouts to see logical or physical maps using Network Cartographer. Unified Topology Chronos Timeline, supported in Network Cartographer, allows you to understand how your topology changes & impacts over time in a visual manner.



Image 5. Topology visualization provided by Oracle Communications Unified Topology.

Chronos Timeline™

Unified Topology is constantly watching for alarming trends in real-time. As these changes impact topology, and as topology changes – it becomes very important to be able to monitor what happened as a result of topological changes. Unified Topology is the only product to bring time and impact together to allow Chronos Timeline, or time based navigation, to your topological and cartographic views.

Ad-hoc troubleshooting

Unified Topology allows you to see and visualize all of the health details of your network in a single pane. From a device, you can pop up fault, performance management, health, service management and other relevant panels to fully allow you to see what is happening in real-time – and as it happens.

Summary

Oracle Communications Unified Topology centralizes universal topology management. It enables CSPs, MSPs, and enterprises to:

- Dynamically ingest topology from nearly any available data source.
- Easily navigate and troubleshoot your network using real-time displays
- Handle millions of devices and topology links with an open and scalable platform
- Enhance and render nearly anything via open display models and easy to leverage markup language
- Go back in time; the Chronos Timeline™ allows you to see topological changes as they occurred.

Network Cartographer™

See your topology as logical or geospatial layout using Unified Topology's Network Cartographer geo-tagging support throughout your inventory, topology, events, and event history

Chronos Timeline™

Add the Chronos Timeline to topology views to navigate and visualize topology changes and impacts over time. Understanding changes can lead to better topological management

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