

Crosswork Network Automation Automated Assurance Use Cases



Drive proactive assurance operations and deliver standout customer experiences

To stay competitive, Communication Service Providers (CSPs) and other network operators need to be able to respond rapidly to service-impacting issues. However, current assurance tools are ill equipped to handle the needs of complex and dynamic, multivendor, multidomain networks. Processes are inefficient, context is limited, and tools are fragmented and domain specific. As a result, network service disrupts and dissatisfied customers churn.

Crosswork Network Automation’s automated assurance approach shifts the focus from reactive to proactive—so you can resolve problems quickly, even as you rein in capital and operational expense.

Advanced automation solutions work together to provide end-to-end visibility across the network. While continuous, data-driven insights let you optimize dynamically, taking swift actions to resolve anomalies for consistent service quality, performance, and end-user experience.

With simplified operational setup and unified operations, you can deliver the outstanding customer experiences and differentiated services your customers crave.

- Go beyond manual, inefficient processes. Avoid lengthy, manual instrumentation of the network and start monitoring service health immediately. Quickly launch differentiated services, and rapidly scale successful services.
- Drive collaboration across operational domains. Build unified operations across the Service Operations Center (SOC), Network

Operations Center (NOC), and engineering for operational efficiency.

- Identify critical issues before service is disrupted. Use anomaly detection with millisecond response times and predictive analytics to proactively troubleshoot and resolve problems before your customers are impacted.

Real-time monitoring, advanced traffic engineering, and machine learning-powered analytics work together so you can operate efficiently, optimize dynamically, and get to the root causes of problems fast for quick resolution.

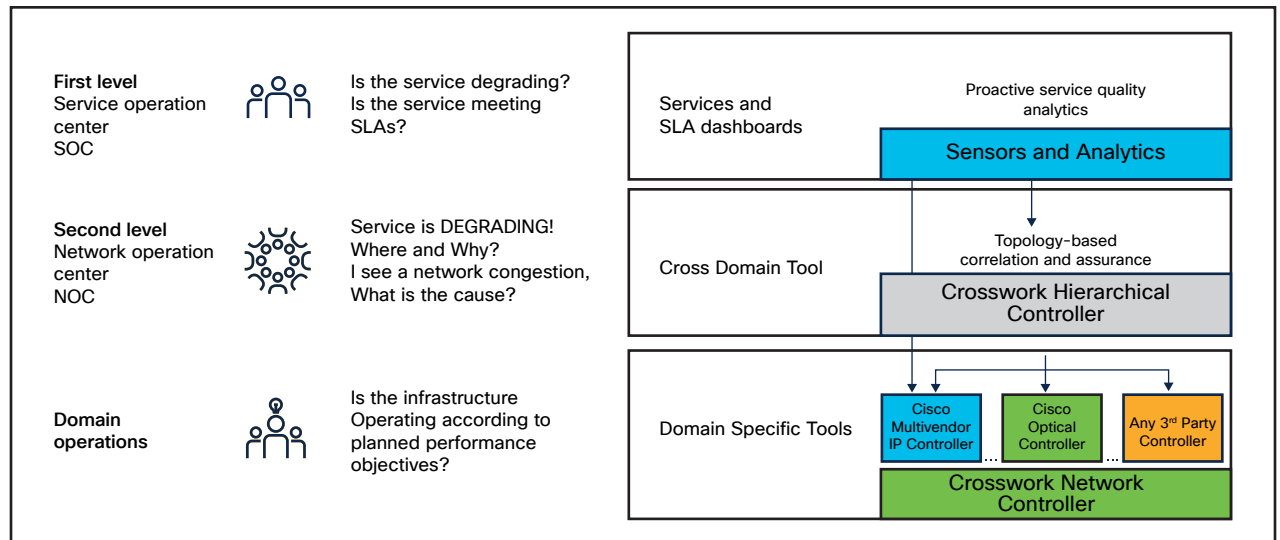


Figure 1. Unified, Service-Centric Approach

Benefits

- **Respond to network performance anomalies in milliseconds** and provide award-winning service Quality of Experience (QoE) by reducing Mean Time to Resolution (MTR).
- **Reduce Operating Expenses (OpEx)** by building efficiency in assurance operations across multivendor, multilayer, and multidomain transport networks.
- **Launch differentiated services faster** by reducing complexity and time needed to introduce services with stringent performance requirements.

Extend the benefits of intent-based networking with a top-down, customer experience-driven approach

Crosswork employs a unified, top-down approach to ensuring outstanding service QoE. It links service health that is monitored and maintained at the top all the way down to health of the infrastructure components that enable that service.

At the top, SOC operators use high-level analysis, dashboards, and real-time alerts to determine if service is degrading. If a problem is identified, operators in the NOC use active topology views to pinpoint underlying reasons behind problems for domain experts to understand which infrastructure component is impacted.

Bridge the gap between customer experience and network health

- **Accedian Skylight Sensors and Performance Analytics** (now part of Cisco) provide an integrated view of network and service quality in the cloud. You can test transport service end to end against the intent defined using machine learning-powered analytics for fast and precise performance insights.
- **Crosswork Hierarchical Controller** creates a unified “source of truth” across IP and optical networks with end-to-end visualization and software-defined control for the NOC. With a single dashboard view, operators can easily identify cause-effect relationships across layers.

- **Crosswork Network Controller** provides detailed topology visualization and granular visibility into changing network conditions, maximizing intent-based health monitoring and network optimization for the IP domain.
- **Cisco® Optical Controller** behaves as a provisioning controller for the optical network, collecting information about inventory and topology. Cisco Optical Controller monitors the topology (physical or virtual) of the network notifying of changes, while supporting optical path creation and deletion.

Get proactive and exceed service expectations today

When you deliver standout experiences to your customers, you boost their confidence, trust, and loyalty. Automated assurance can help you increase agility so you can launch new, differentiated services faster while driving efficient, cost-effective operations. Learn more in this [whitepaper](#).