

# Cisco Provider Connectivity Assurance

Proactive assurance for exceptional digital experiences

Want to detect and fix hidden issues in your network before end-user quality of experience is impacted? Cisco® Provider Connectivity Assurance (formerly Accedian Skylight) delivers subsecond performance monitoring with unparalleled precision for business-critical networks, services, and applications. Take preventive actions with AI-native predictive analytics and insights.



## Benefits

- Gain real-time control over and visibility into your entire network, services, and application performance with high-resolution, subsecond monitoring and accurate Key Performance Indicators (KPIs).
- Simplify operations and troubleshooting with a single view of your network and end-to-end service quality, backed by AI-enabled analytics for rapid anomaly detection and root cause isolation.
- Find and fix problems before your end users are impacted with proactive monitoring and predictive analytics.
- Differentiate services with advanced SLAs and end-customer reporting with proactive alerts.
- Transform your infrastructure and lower costs with automated service activation and assurance for closed-loop control.

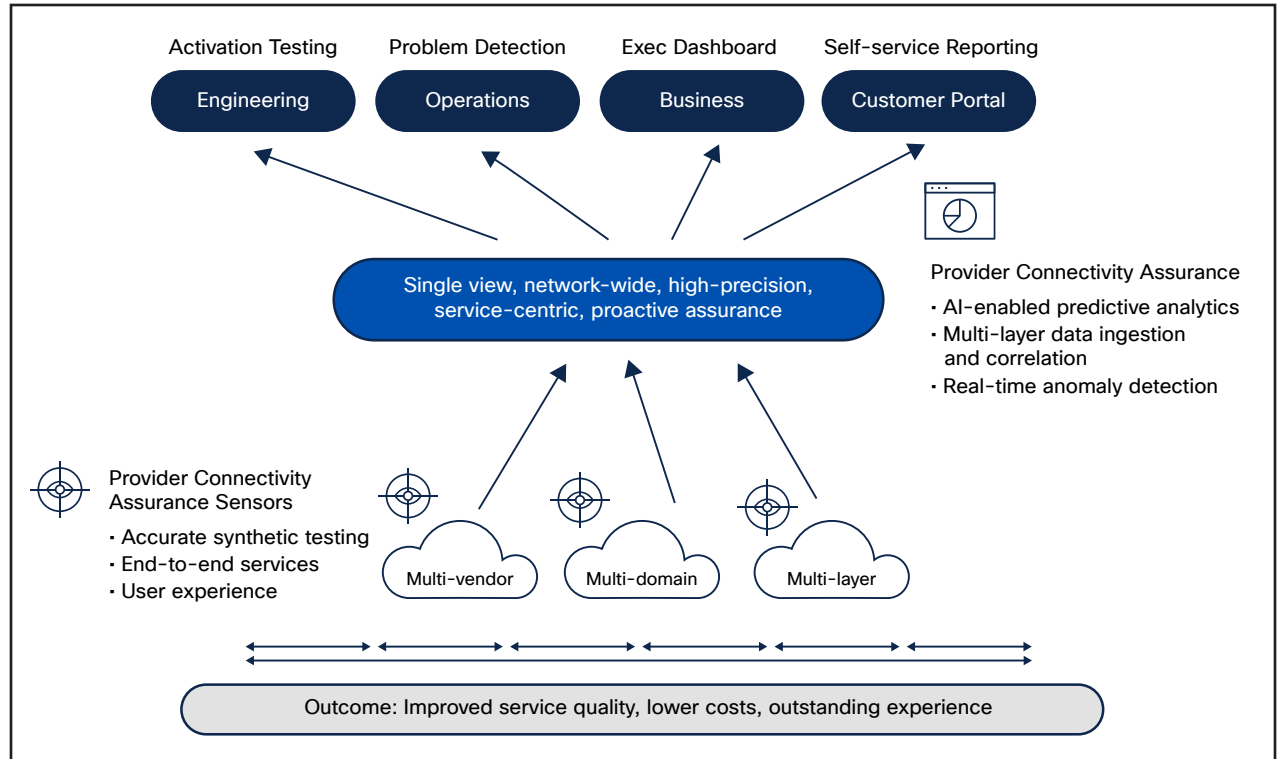


Figure 1. Cisco Provider Connectivity Assurance provides real-time visibility and unparalleled accuracy for consistent digital experiences that meet expectations

## Overview

Provider Connectivity Assurance is designed to deliver granular service-centric performance visibility and “provider-grade” assurance for Communications Service Providers (CSPs) and any business or public sector entity that operates their own private network. Continuous,

real-time visibility into end-to-end network and service quality, as well as per-segment visibility with microsecond precision, enables you to proactively identify and resolve performance issues across your entire multi-vendor, multi-layer, and multi-domain network infrastructure.

The solution combines advanced data collection, analytics, and visualization capabilities to give network teams a deep understanding in real time and a single view of network and application behavior. Granular performance metrics from Provider Connectivity Assurance Sensors are correlated with Cisco telemetry and/or third-party data, and AI-enabled analytics provide real-time anomaly detection and predictive insights to speed up troubleshooting and automate issue remediation.

Provider Connectivity Assurance solves the challenges of fragmented multi-domain tools, blind spots in terms of visibility for services that span multiple network layers or multi-vendor stacks, and slow, reactive operations and customer experience management. Leveraging real-time, service-centric, and end-to-end visibility into network services and AI-driven analytics enables proactive management for more seamless digital experiences. Provider Connectivity Assurance creates value and allows our customers to offer more differentiated services with end-customer reporting portals, exceptional Quality of Experience (QoE), and enhanced Service-Level Agreements (SLAs).

## Simplified operations, seamless experiences

- Distributed networks, management complexity, and multiple silos of tools make it challenging to maintain visibility into and control over network and application performance.
- As businesses rely more on digital services and applications, there is a growing expectation of zero-trouble networks, real-time monitoring, and advanced predictive analytics to prevent issues and simplify troubleshooting.
- End-customers' perception of "slow" applications and networks can be measured in milliseconds, which requires subsecond detection of latency and intermittent issues.
- Service providers need to grow revenue from premium services that offer a high quality of service, advanced SLAs, and enriched real-time performance reporting, proactive alerts, and upgrades for end customers.

## What you buy

Provider Connectivity Assurance enables proactive assurance of business-critical networks, services, and applications with synthetic network and service testing and user experience monitoring. A range of software or hardware-based Assurance Sensors deliver standards-based testing and monitoring with unparalleled precision, including millisecond test measurement frequency, microsecond accuracy for time-based measurements, sub-1% packet loss detection, and one-way metrics. The Assurance Sensors are vendor independent, multi-domain, multi-layer, and easy to deploy everywhere at scale.

Network-wide performance can be visualized in a single view with the ability to drill down into granular metrics, real-time KPIs, and SLA reporting. This simplifies troubleshooting for faster root cause isolation and issue resolution and avoids the need to use multiple tools. Synthetic network performance can be analyzed together with real-time user experience metrics, and Cisco network telemetry and third-party data can be ingested and correlated for enriched insights. AI-powered analytics enable rapid anomaly detection, predictive forecasts, and dynamic threshold alerts to take preventive action before the end user's quality of experience is impacted. Open APIs drive northbound actions to any automation system and send insights to any observability platform.

The flexible dashboard and reporting interface allows network teams to easily visualize, analyze, and share performance data. The same multi-tenant solution can be offered to end customers for enhanced real-time performance visibility and SLA reporting, as a value-add to differentiate your network services.

## Key capabilities

- **Scale up with hosted Software as a Service (SaaS):** Deploy a managed, cloud-native solution with a low Total Cost of Ownership (TCO) that scales rapidly to provide real-time and highly granular network performance monitoring.\*
- **Harness the power of metadata:** Use metadata to discover correlations that more easily suggest potential root causes, filter and group data, and control permissions.
- **Leverage AI-enabled machine learning:** Reduce noise with data cleaning and deduplication, examine causality with trend analysis and correlations, capture anomalies with alerts based on baselines, and extrapolate future events with forecasting for more effective analysis and troubleshooting workflows.

\*On-premises deployments of Cisco Provider Connectivity Assurance are available conditionally on request.

- **Automate end-to-end service assurance:** Seamlessly add service assurance as you deploy a new service, and enable the network controller to take corrective or optimization actions on the network.
- **Collect data from diverse services and infrastructure:** Reduce data silos by unifying and correlating service performance and network performance in a single view for multiple stakeholders.

Table 1. Use Cases

Use case	Description
Real-time SLA visibility	Monitor and police SLAs for accountability while proactively addressing performance issues.
Critical network monitoring	Boost operational efficiency with proactive assurance and microsecond-level visibility across your network, driving down Mean Time to Resolution (MTTR) while enhancing QoE.
Business-to-Business (B2B) service differentiation	Multi-tenant end-customer portals for real-time SLA visibility and alerting, creating new revenue opportunities to upsell and differentiate your services.
Automated assurance	Drive closed-loop outcomes for the entire service lifecycle with real-time service visibility and predictive analytics for early issue detection.
Multi-layer assurance	Reduce the number of tools and MTTR with a single view of end-to-end service performance across multiple network layers, like segment routing and Routed Optical Networking.
Mobile backhaul and edge monitoring	Optimize digital experience with real-time service visibility while assuring your end-to-end 5G transport.



## Benefits

- 50% more efficient problem diagnosis
- 35% reduction in mean time to resolution
- 25% less churn from high-quality QoS
- 30% increase in sales by providing detailed visibility into congested links that need to be supplemented

Source: [ACG Research, Economic Benefits of Service-Centric Assurance Research paper, 2024](#)

## Services

Cisco offers a wide range of services to help accelerate your success in deploying and optimizing the Cisco Provider Connectivity Assurance platform on your network. The innovative Cisco Services offerings are delivered through a unique combination of people, processes, tools, and partners and are focused on helping you increase operating efficiency and improve your data center network. Cisco Advanced Services uses an architecture-led approach to help you align your data center infrastructure with your business goals and achieve long-term value. Cisco Smart Net Total Care® Service helps you resolve mission-critical problems with direct access at any time to Cisco network experts and award-winning resources.

“This is extremely powerful in terms of customer experience. It helps to avoid tickets as customers can see for themselves what happened with their service. This reduces tension and increases customer satisfaction.”

- Bart Janssens, Senior Specialist, Packet Architecture, Colt

“With service-centric assurance and granular visibility, we can prevent degradations, automate actions for improvements, and better communicate with our customers.”

- Mahesh Anjan, Senior Product Technology Executive, AT&T Business

## Proactively assure every service experience

Leverage Cisco Provider Connectivity Assurance’s AI-native predictive insights and real-time performance visibility to find and fix issues before experience is impacted. For additional information, visit [go2.cisco.com/provider-connectivity-assurance](https://go2.cisco.com/provider-connectivity-assurance), then contact your Cisco sales representative or Cisco authorized channel partner.