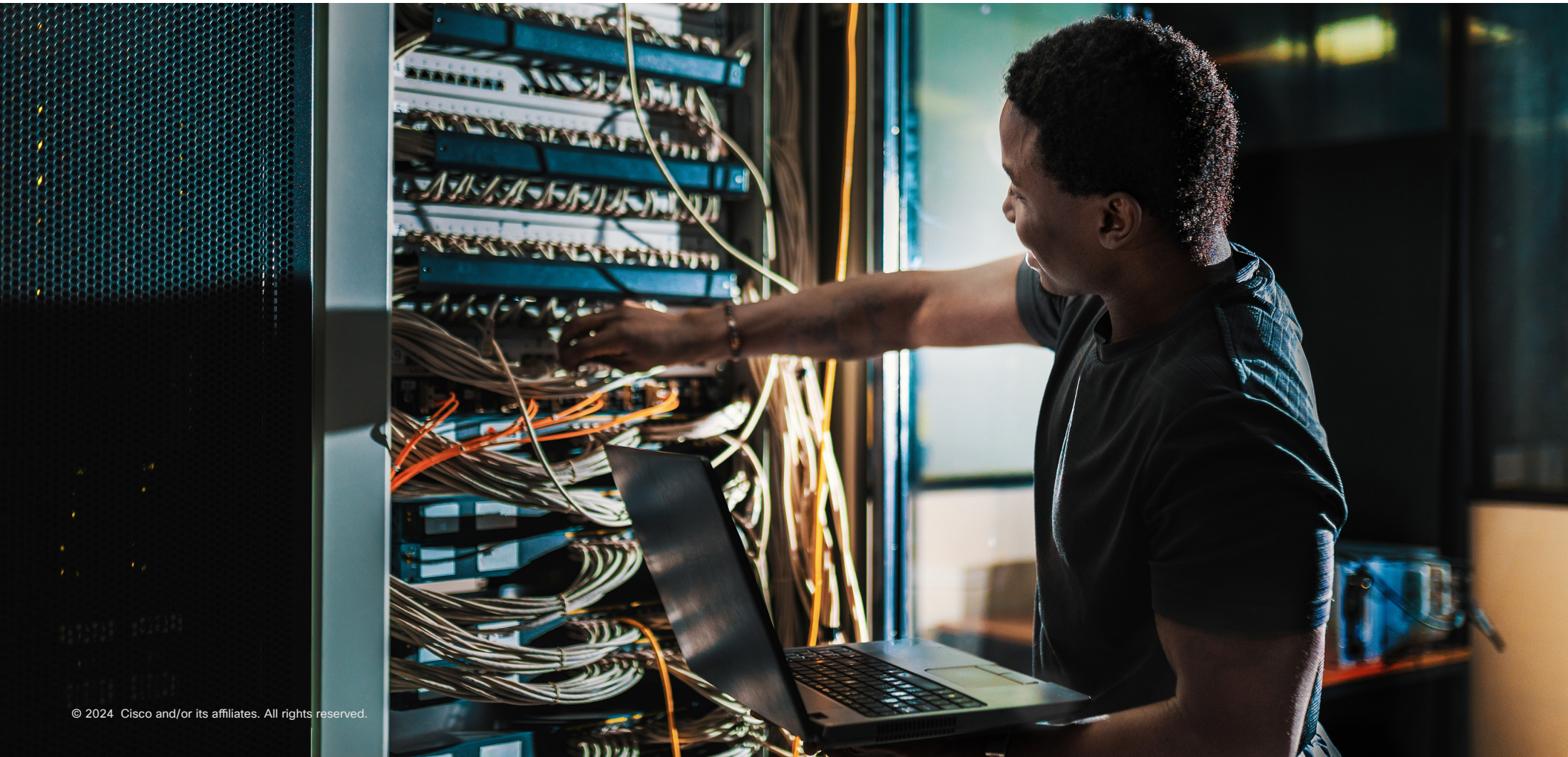


# How to Optimize Network and Application Performance



## How to Optimize Network and Application Performance for Financial Services Organizations with Cisco Provider Connectivity Assurance

Customers expect fast, reliable, and secure services from financial institutions. At the same time, these institutions are grappling with cost reduction, productivity improvement, and regulatory compliance. To meet customer expectations, they must optimize their network and application performance, which act as the backbone of their service quality and customer satisfaction.

### Inspire loyalty when you create a consistent customer experience

Cisco Provider Connectivity Assurance (formerly Accedian Skylight) is a comprehensive solution that covers all types of environments, including physical, virtual, cloud, and container. It tracks and analyzes the performance of network and application components from end to end – so you can find performance issues faster and solve them effectively.

If you've got a customer-centric approach in today's marketplace, you need immediate access to personal and financial information, customer support, new products, and various application-based services across a myriad of devices and platforms. Embracing this period of technological transformation will let financial services organizations deliver flawless customer experiences and stay competitive with new offerings.

As technology continues to change rapidly, being more agile at deploying new services with comprehensive performance visibility isn't just a strategic mission, it's critically imperative to maintain your customer experience.

Financial services organizations need a solution that can:

- Deliver an uninterrupted, seamless customer and end-user experience in an ever-evolving IT environment and infrastructure—confidently and consistently
- Mitigate disruptive latency and packet loss spikes from network traffic bursts. In a sub-microsecond world, millisecond latency metrics are the difference between boom or bust
- Maintain performance and keep track of end-user experience costs for on-premises and cloud-based applications

With change comes challenges—navigate them with confidence

Technology is evolving fast. The difference between significant profit and catastrophic loss now rests on how quickly and accurately organizations can collect and analyze data from a broad range of devices and disparate systems. Service degradation isn't just inconvenient; it's unacceptable to users, customers, and partners in a highly volatile fiscal environment. Easing and eliminating degradations caused by jitter, packet loss, and other factors must be urgent priorities.

1. **You need to identify the source of a degradation when it happens:** You need to be able to act and respond in real time. You must be able to quickly rule out your network or your ISP's network as the source of the problem.
2. **You need to be able to prevent performance degradations:** Mitigate degradations before they happen with a single solution that combines active, high-definition network testing and passive, traffic-based service experience monitoring. Understand end-user and application performance across your entire network so you can benefit from data insights that are all on a single pane of glass with predictive analytics.

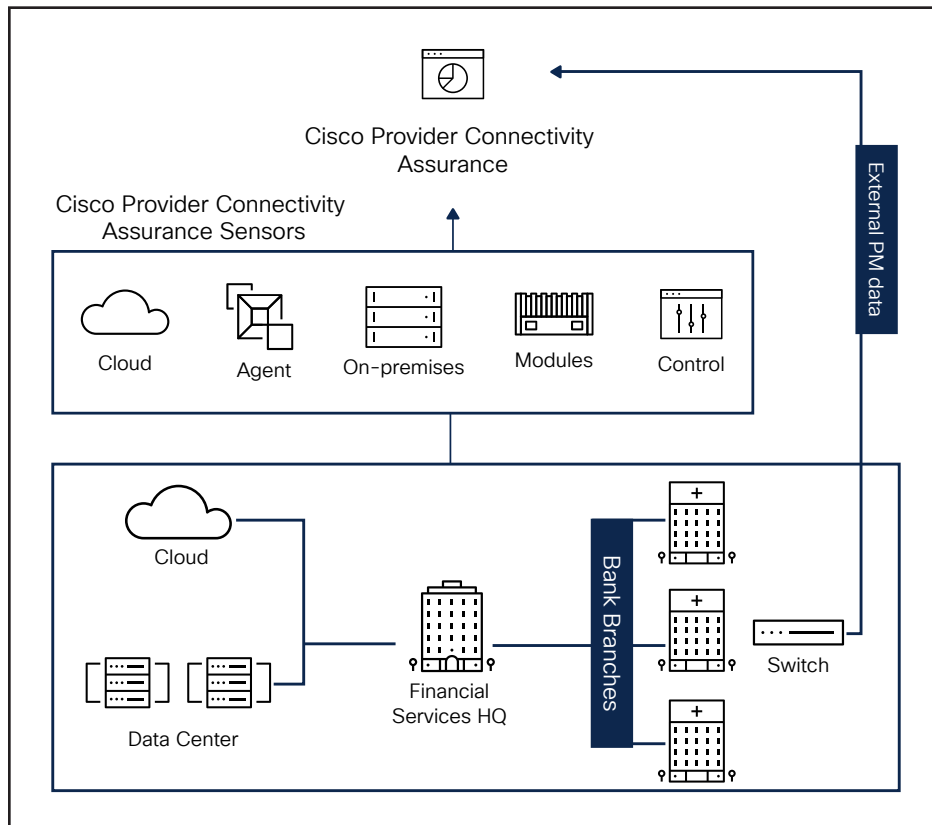


Figure 1. Provider Connectivity Assurance enterprise network visibility

See more so you can respond faster—before customer impact

### Detect the hidden

With a one millisecond granularity and one microsecond accuracy, once-hidden microbursts that slow down your network and irritate customers are easily identified with Provider Connectivity Assurance active monitoring sensors.

### Deliver extremely precise SLA monitoring

Monitor your infrastructure with the industry's finest granularity and with military precision. Provider Connectivity Assurance reports min/max/average every second and delivers one-way utilization, packet loss, availability, latency, and delay variation metrics, among other critical KPIs.

Accedian has combined active and passive monitoring in a single analysis tool, in one unified view, so you can gauge real-time analytics and get predictive insights about applications and networks. Segment your network views to support diverse teams and customers with dashboards and reporting tools that easily configure to correlate metadata with Provider Connectivity Assurance.

### Simplified service that's easy to get started

Provider Connectivity Assurance is a performance monitoring solution well-suited for all environments: on-premises, private cloud, and public cloud, from the core to the edge, delivering you performance visibility through a lightweight SaaS deployment model.

The traffic that it captures is processed and compressed, or turned into compact structured metadata, which cuts down on the amount of data



that needs to be sent and retained for visibility and history. It drastically reduces the amount of captured information sent over the network—20 to 50 Mbps for a full 10 Gbps link. And because Provider Connectivity Assurance is a software-only solution, you'll no longer need expensive data storage and capture appliances.

For service activation testing, Provider Connectivity Assurance enables your teams to test the exact service path using active, high-definition network testing capabilities for one-way and bidirectional flows, as well as L2 and L3 services. Provider Connectivity Assurance provides sensors for both active (L2-4) and passive (L2-7) monitoring that tracks live traffic and reports on network resource usage.

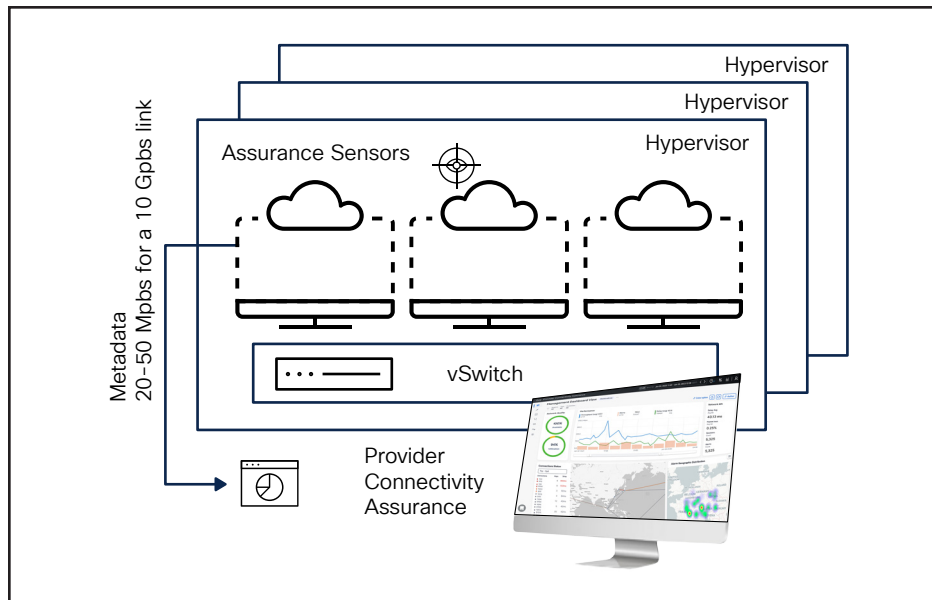


Figure 2. Cisco Provider Connectivity Assurance Sensors provide full performance visibility

## Better visibility, better customer experience: banking, insurance, and more

For retail and commercial banking, Provider Connectivity Assurance allows consistent multichannel banking service levels for all customers, including those in remote branches. It lets IT ops isolate application, network, and transaction performance issues 90% faster than traditional methods and provides instant alerts for user problems, as well as transaction slowdowns or failures.

It also gives IT ops the ability to track performance of every consumer transaction flowing across your banking network. By combining transaction profiling, network and application performance management, and end-user experience monitoring, you get complete banking application visibility.

Provider Connectivity Assurance lets you give users an exceptional user experience for policy issuance and underwriting, claims adjustment, and other online applications. It helps insurance providers ensure operational efficiency, which is why many insurance policy services are offered via mobile and served from the cloud today. Insurance applications moved from on-premises to the cloud must be maintained efficiently so that service—and the customer—is uninterrupted.

## Built for your modern hybrid infrastructures

Provider Connectivity Assurance is specifically designed for monitoring hybrid environments. It's an integrated, network and application performance monitoring platform that includes AI-driven analytics.

With real-time performance for application teams—from the macro intelligence perspective to the micro detail—you can use Provider Connectivity Assurance to maintain peak performance at all times. When challenges arise, you can quickly isolate and triage performance degradations or issues.

With Provider Connectivity Assurance you get:

- Microsecond microburst detection for immediate “proof of innocence” for network paths; especially critical in low-latency environments
- Active, high-definition network testing, and passive, traffic-based service experience monitoring in a single view for augmented data correlation and analytics, so you can identify and solve network issues faster
- Complete visibility of all network traffic from the network edge to the cloud and data center
- Comprehensive end-user experience status for all applications
- Visibility on 100% of application transactions and users
- A simple, lightweight deployment model with no agents or hardware to install, so you're up and running in minutes
- Real-time, high-fidelity performance monitoring for demanding financial services applications
- Comprehensive machine learning-driven analytics based on real-time and historical data

## Run at peak performance before, during, and after cloud migration

Make your migration of financial services applications to the cloud a smooth one. You get complete performance visibility throughout the migration, starting with baselining performance on-premises and ending with seamless digital experiences of migrated applications hosted in the cloud—all without requiring any additional hardware components. Meet your application performance and end-user experience performance goals with Provider Connectivity Assurance.

## The bottom line: see more, solve more, do more—all from one view

Creating and maintaining an exceptional user experience with low latency is a key part of digital transformation for the financial services industry. Financial institutions need to be focused on cutting-edge technology and be agile in adopting new solutions if they're going to stay ahead of the competition and deliver flawless experiences for customers and partners.

Performance degradation is unacceptable. Even minor packet loss, minimal delay, and almost imperceptible microbursts can impact customers and end users significantly. Downtime is unimaginable.

Provider Connectivity Assurance is a unified network and application monitoring with deep-diving abilities to find the source of any degradations for a faster solve. It's the industry's first performance analytics and monitoring solution that brings together high-definition active data and passive wire data analytics into a single unified view.