Cisco Assurance Services for IP Next-Generation Networks

Real-time network health checks, proactive management, and optimization enhance your IP next-generation network (NGN) performance and customer experience by predicting and preempting problems before they affect the network.

Introduction

Service providers today are delivering a rich set of converged services over IP NGNs. However, multiservice convergence, a sharp growth in subscribers, ever-increasing IP video traffic, rapid technology evolution, and the expectation to increase response time to customers are creating unique operational challenges. In this new environment, it is vital to proactively manage the network's health in order to optimize the ability to meet changing demands and ensure reliable service that will prevent costly outages.

As part of its operational support portfolio, Cisco is introducing Cisco® Assurance Services for IP NGN. These services enable service providers to monitor the health of their network in real time and optimize the management of faults, availability, performance, and capacity. Using the Smart Services Architecture, which includes device-level diagnostics, real-time tools with network-level visibility, and predictive analytics, issues are detected before they affect the network and end-user experience.

Cisco Assurance Services for IP NGN can be customized to focus on specific issues such as network availability, performance, and capacity or provide broader operational support to address service provider network and services assurance requirements.

Cisco Assurance Services Overview

Cisco Assurance Services for IP NGN are an evolution of the existing service provider Network Optimization Service (NOS) offer and extend it by adding real-time network monitoring, network health checks, and predictive management capabilities. Service provider NOS currently consists of four important service components: annual assessments, non-real-time health checks, network support, and continuous learning. Cisco Assurance Services for IP NGN with *Smart Capabilities* complement customer capabilities with Cisco expertise and best practices to operationalize IP NGN.

Figure 1 Evolving Service Provider Support Services for IP NGN

Primary Components of Cisco Assurance Services for IP NGN

- Four management service modules:

Service	Description
Fault Management Service	Real-time correlation, impact analysis, and management of network events. To identify defects and restore network and service outages in the shortest possible time
Performance Management Service	Real-time monitoring and measurement of key performance indicators (KPIs) and key quality indicators (KQIs). To proactively analyze and identify potential outages and performance degradation issues
Availability Management Service	Identify outage trends to minimize problem recurrence, analyze against availability targets, and provide recommendations in line with targets
Capacity Management Service	Analyze network resource limitations, forecast traffic patterns and growth, and provide fine-tuning or upgrade recommendations necessary to avoid service impact or provisioning bottlenecks

- **Cisco Proactive NOC (PNOC) Platform:** An integrated assurance platform to monitor and collect data in real time and predict network-affecting problems. This platform pre-integrates off-the-shelf NOC applications with support for Cisco technology extension and embedded Cisco intellectual capital for predictive analysis.

- **Cisco Network Health Framework (NHF):** An innovative framework to analyze the real-time data from the PNOC platform, prioritize health-affecting issues, and report network health trends. Further, the data collected is compared against a predefined baseline and threshold to benchmark the health of the network.

- **Cisco NOC facilities:** The PNOC platform is deployed in Cisco NOC facilities, where experts remotely monitor the network health in real time and proactively analyze and identify potential issues using the NHF.

- **Network audit and assessments:** A collection of network and device-level audits and assessments.

- **Certified Cisco operations expertise:** Professionals with deep expertise in Cisco technologies, tools, and platforms. This team remotely monitors the network from Cisco NOC and provides reports and recommendations.
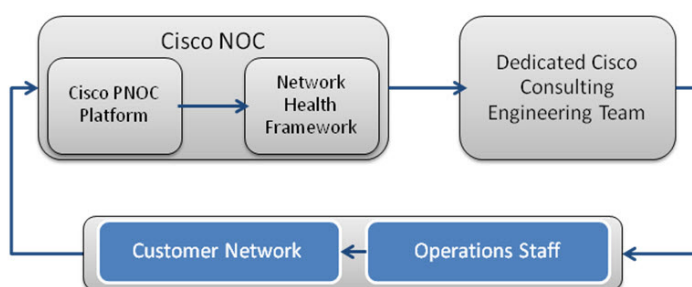

Figure 2 Primary Components of Cisco Assurance Services for IP NGN

Features

- 24-hour real-time monitoring of device, network, and service-level data for proactive analysis and problem notifiction
- Efficient event filtering and correlation and identification, and prevention of service-affecting problems enabled by the PNOC platform
- A patented, analytical framework for providing real-time visibility into the health of the network
- A dependable set of Cisco certified operations experts and proven methodologies, tools, and intellectual capital
- Customized services with flexible delivery model to meet customers' unique requirements
- Multiple levels of support based on the choice of service
- Advanced service-level agreements (SLAs) to back the selected services and support levels

Benefits

Network assurance: Cisco Assurance Services for IP NGN improve network performance and reliability by using real-time network health checks. These services are proactive and preemptive and therefore can identify potential problems before problems affect the network. Assurance Services will enhance the customer experience through quality of service.

Cost-reducing operational efficiency: These services bring together Cisco best practices to complement customer process, improve operational efficiencies, and eliminate or reduce outages to lower operational expense. Costs are further reduced and investment optimized with enhanced visibility into the network's health and by using Cisco tools and expertise.

Time-to-market (TTM) competitiveness: Cisco Assurance Services allow service providers to operationalize and accelerate TTM, enabling them to respond quickly to competitive situations and changing customer demands. They also permit service providers to rapidly scale their network, enabling service growth and an increased subscriber base.

SLAs backed by Cisco: These services are backed with mutually agreed KPI and SLAs to drive outcome.

Why Cisco Services?

Cisco is a worldwide technology leader with extensive experience working with major service providers around the world. Cisco's comprehensive portfolio of services and proven methodologies is well tested and easily deployable with little integration effort, providing better visibility into the network while simplifying operations.

Cisco provides access to experienced and well-trained Cisco experts, certified on service provider networks, technologies, and network management needed to support, assist, and resolve network issues. Backed by service-level agreements, Cisco works together with the client to lower risk.

Customers will benefit from access to:	
People:	Cisco certified experts with unmatched expertise with Cisco technologies
Processes:	Best practices and methodologies from supporting many IP NGNs
Platforms and Intellectual Capital:	IP NGN audits, assessments, and tools; repository of engineering rules; network health baseline and thresholds; integrated assurance platform
Advanced SLAs backed by Cisco:	For fault, availability, performance, and capacity management

These services allow customers to focus on their day-to-day operations. Cisco proactive support improves and evolves the network while preempting problems, thus avoiding negative impacts to their network and customer experience.

For More Information

For more information on Cisco Assurance Services for IP NGN, please contact your local account representative or visit www.cisco.com/en/US/products/ps6889/serv_category_home.html

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