

Cisco Prime Carrier Management

Unified Management for Multidomain Carrier Networks

Challenges

Over the past decade, carrier networks have become increasingly complex due to heterogeneity—consisting of multiple devices, technologies, and applications that serve multiple client access and service domains. Moving forward, the increasing demand for cloud-based applications and services that rely on a highly intelligent network for service assurance is expected to place more pressure on network operations. Service providers are evolving their network architectures and design to accommodate the changes in service requirements and to deliver a wide range of services to a very broad customer base.

[Cisco Prime™ Carrier Management](#) helps address the primary challenge in operating and managing such a complex network—the disparate tools and systems. It provides an integrated approach to meet the scale and efficiency required for service providers to remain competitive.

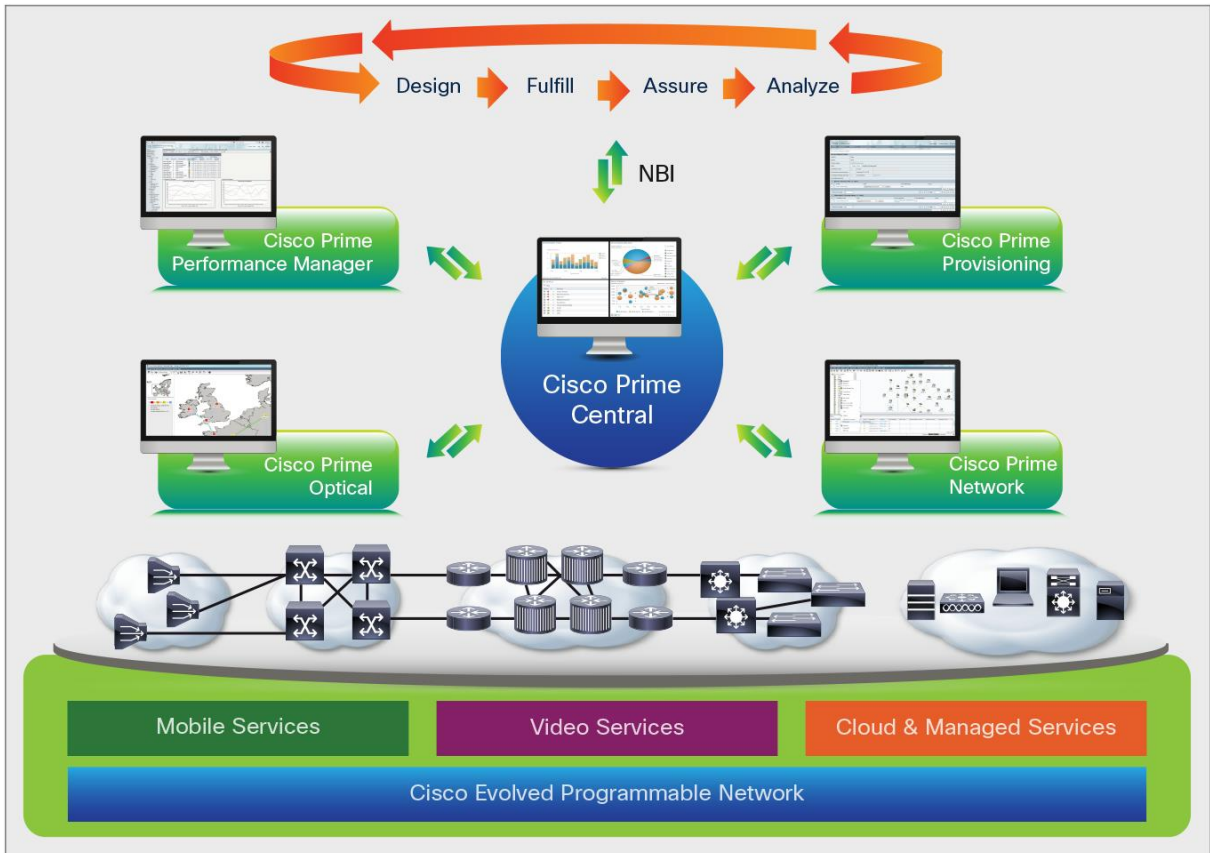
Business Benefits

Cisco Prime Carrier Management is an integrated suite of software applications that simplifies the lifecycle management of carrier-grade networks. It is a flexible, end-to-end solution for managing multiple service domains across the entire network—from subscriber access all the way to the data center—supporting voice, video, mobile, cloud, and managed services. See Figure 1.

Cisco Prime Carrier Management helps service providers to:

- Improve business agility by accelerating service deployments through a powerful and integrated approach to operations and by automating design, fulfillment, assurance, and analysis tasks
- Reduce total cost of ownership through a unified management of the entire carrier network, supporting multiple domains
- Achieve unparalleled manageability of Cisco® equipment and technologies—the Cisco Advantage—through deep modeling of the network
- Enhance customer experience by facilitating proactive service assurance
- Enjoy deployment flexibility by adopting the solution components as an integrated suite or incrementally as business needs evolve

Figure 1. Unified Management for Multidomain Carrier Networks



Solution Components

The Cisco Prime Carrier Management suite consists of:

- [Cisco Prime Central](#)
Increases efficiencies in network and service lifecycle management tasks through centralized access to integrated operator workflows.
- [Cisco Prime Provisioning](#)
Accelerates service deployments through rapid, automated and profile-based provisioning.
- [Cisco Prime Performance Manager](#)
Improves quality of service (QoS) by gathering actionable performance statistics across the entire network.
- [Cisco Prime Optical](#)
Helps manage the optical network with scalability through automated configuration, provisioning, and troubleshooting.
- [Cisco Prime Network](#)
Provides comprehensive device operation, administration, and fault management for carrier networks and services, supporting multivendor environments.

Architectural Use Cases

The Cisco Prime Carrier Management supports the following use cases:

- [Evolved Programmable Networks](#) (EPN)
Simplifies the lifecycle management of Carrier Ethernet, Unified Multiprotocol Label Switching (MPLS), Packet Optical Transport, and Cable Access networks through intelligent and automated management. Cisco Prime for EPN supports highly scalable core, aggregation, and access equipment, including the [Cisco ASR 9000](#) Series Routers, the [Cisco NCS 6000](#) Series Routers, and the [Cisco CRS](#) Series Routers.
- [Mobility](#)
Helps provide outstanding mobile service assurance through integrated operator workflows across small cells, Unified Radio Access Network (RAN) Backhaul and Evolved Packet Core. Cisco Prime for Mobility supports [Cisco Mobile Internet](#) solutions, including the [Cisco ASR 5000 Series](#), the [Cisco ASR 5500](#) core multimedia services platforms and the [Cisco Universal Small Cell](#) platforms.
- [Data Center Assurance](#)
Enhances cloud service assurance through simplified fault monitoring and performance management of data center resources. Cisco Prime for Data Center Assurance is tightly aligned with the Cisco Unified Data Center architecture and supports a breadth of data center computing, networking, and storage devices and platforms, including [Cisco UCS](#)® servers, [Cisco Nexus](#)® Series Switches, and [Cisco MDS](#) solutions.

About Cisco Prime

The Cisco Prime portfolio of IT and service provider management offerings empowers organizations to more effectively manage their networks and the services they deliver. Built on a service-centered foundation, Cisco Prime supports integrated lifecycle management through an intuitive workflow-oriented user experience—providing A-to-Z management for evolved programmable networks, mobility, video, cloud, and managed services.

For More Information

For more information on Cisco Prime products for carrier-grade networks, please email ask-prime-sp@cisco.com.



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