

Cisco Quantum Policy Suite for Mobile



The Cisco® Quantum Policy Suite for Mobile is a proven carrier-grade policy, charging, and subscriber data management solution that enables service providers to rapidly create and bring new services to market, delivering a better user experience, optimizing resource usage, and generating new monetization opportunities.

Challenge

The Cisco Visual Networking Index (VNI) Global Mobile Data Traffic Forecast predicts that mobile data traffic volume will grow 18-fold from 2011 to 2016. To compete in this rapidly changing environment, mobile service providers need a policy solution that does more than contain network costs. They need a solution that acts as an intelligence layer for mobile data services to provide a personalized and optimized experience for their subscribers. Policy is more than Policy and Charging Rules Function (PCRF); it is a platform for service innovation.

Solution

The Cisco Quantum Policy Suite for Mobile provides an intelligent control plane solution, including southbound interfaces to various policy control enforcement functions (PCEFs) in the network, and northbound interfaces to OSS/BSS and subscriber applications, IP multimedia subsystems (IMSs), and web applications (Figure 1). The Quantum Policy Suite core modules are enabled individually or deployed as an integrated end-to-end policy, charging, and service creation solution.

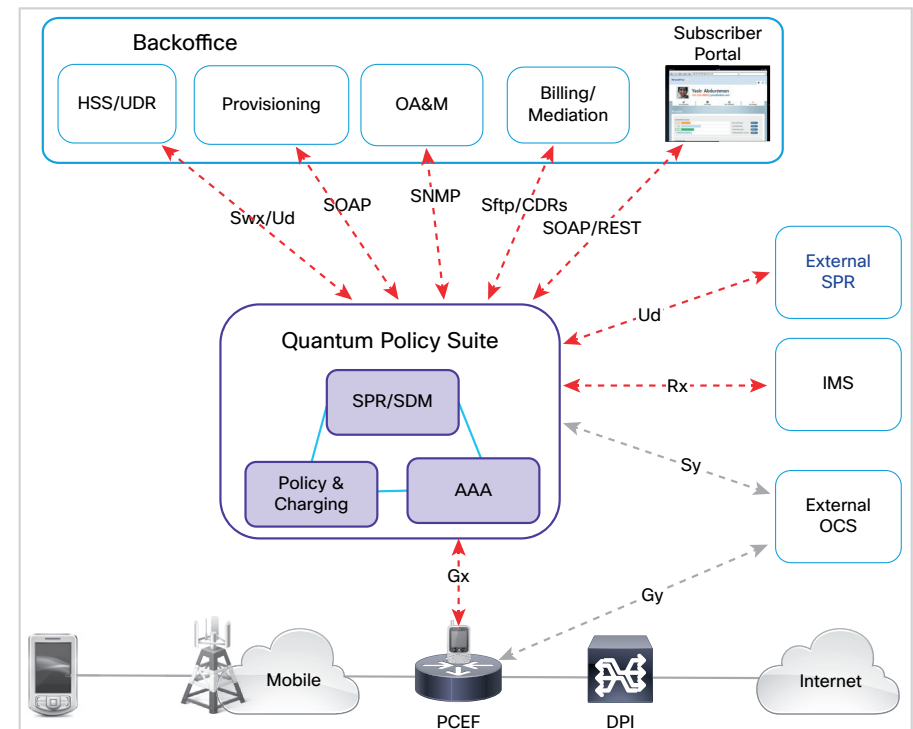
- **Policy module** implements PCRF, which provides real-time management of subscribers, applications, and network resources based on service provider-configured business rules. The Quantum Policy Server controls and coordinates the subscriber's session across multiple enforcement points in the network, executing key revenue-generating actions such as:
 - Subscriber session authorization
 - Service selection and personalization
 - Quality of service (QoS) and bandwidth control
 - Session- and application-specific quota authorization and tracking
 - Application-based admission control

- **Charging module** supports online charging services (OCS) with real-time rating rules. The Quantum Charging Server offers an easily deployed prepaid OCS solution, including integration with external intelligent network (IN) systems. One-time, recurring, rollover, and top-up balances are supported, against which both default and user-personalized thresholds may be defined. Quotas may also be shared across groups, such as family, corporate, or multiple-device plans.

The solution includes the following optional feature modules:

- Subscriber Management
- Quota
- VoLTE
- External Policy and Charging Integration
- External SPR Integration

Figure 1. Cisco Quantum Policy Suite Solution Architecture





Competitive Benefits

Carrier-Grade Reliability

The Cisco Quantum Policy Suite for Mobile virtual architecture supports flexible and cost-effective carrier-grade strategies. Virtual instances are spread across multiple blade servers for full hardware and software redundancy within a Quantum Policy Suite cluster. Should a blade server fail, incoming requests are directed to available virtual instances on other blade servers. This helps ensure high availability and fault tolerance against software faults as well as hardware failures.

Unmatched Scalability

The Cisco Quantum Policy Suite for Mobile scales to support both today's networks and upcoming next-generation networks, such as LTE with VoLTE, which are driving policy transactions per second (TPS) to unprecedented heights. The Quantum Policy Suite is built to handle high TPS at low latencies. The solution can be sized to fit your network performance requirements and grow with them through the addition of blades in the system, resulting in lower total cost of ownership when compared to traditional PCRF models.

Service Creation Velocity

The Cisco Quantum Policy Suite for Mobile is purpose-built for rapid solution rollout and extensibility. Prepackaged use case templates are provided to accelerate time to market. The extensible nature of the Quantum Policy Suite enables service providers to go beyond standard policy definition to support nonstandard, proprietary interfaces and customized service logic without affecting the core platform.

Why Cisco?

Cisco has extensive deployment experience with policy and charging control applications among mobile operators around the world. The Cisco Quantum Policy Suite for Mobile provides unparalleled scalability, the single most crucial feature required in policy and charging control solutions today. It encompasses a comprehensive set of capabilities on a fully virtualized, network-independent platform.

Cisco Services

Cisco Services are proven to rapidly deliver mobile Internet solutions, resulting in top-quality voice, data, and video for a powerful customer experience and faster realization of increased revenue and market share.

For More Information

For information on the Cisco Quantum family of products, visit http://www.cisco.com/en/US/products/ps13188/Products_Sub_Category_Home.html