

## Cisco Service Control Deployment Services: Subscriber Manager

### Cisco Service Control Integration Level 2: Enhanced Subscriber Awareness

After the Cisco® Service Control Engine (SCE) and Collection Manager are deployed, much data about applications and traffic flows is available to service providers through reporting tools. When the Subscriber Manager middleware software product is added on a server, subscriber information can be correlated with this usage data dynamically. The Subscriber Manager stores the network IDs that map to the subscriber IDs and policy information per subscriber. It can also serve as a stateful cache between one or more Cisco SCEs and authentication, authorization, and accounting (AAA) servers; Dynamic Host Configuration Protocol (DHCP) servers; or other operational support systems (OSSs). Correlation of application and traffic data can be based on the subscriber's name, address, MAC address, or modem ID, along with the policies governing the subscriber's service plan.

### Customer Segmentation

With this correlated usage and subscriber information, service providers can see which subscribers are using which resources and how much bandwidth they consume. Operations and marketing messages can be targeted directly to individual subscribers, based on their usage. Customer segmentation is possible (Table 1), allowing service providers to better understand customer segments and more appropriately offer and price services to meet their needs while also optimizing revenues.

**Table 1.** Customer Segmentation Based on Usage Analysis

Demographic Clusters	Application Use	Consumption Pattern	Characteristics
University Students	P2P, Gaming, IM, e-mail, browsing, VoIP	Heavy All-Day Use	High turnover, price-sensitive, not "time-sensitive"
25–44 Years Old	P2P, Gaming, IM, e-mail, browsing, VoIP	Moderate, Evening Use	Lower turnover, not as sensitive to price
Telecommuters/ Business Users	VoIP, VPN, browsing, e-mail, IM	Moderate Daily Use, Moderate Evening Use	Potential for low turnover, highest ARPU, "time sensitive."
Families with Children	IM, browsing, VoIP e-mail	Light Daily Use, Moderate Evening Use	Potential for low turnover, moderate ARPU
55–74 Years Old (Late Majority)	Browsing, e-mail, VoIP, IM	Light Daily Use, Light Evening Use	Potential for extremely low turnover, low cost

ARPU: Average Revenue per User

IM: Instant Messaging

P2P: Peer-to-Peer

With the Subscriber Manager, custom reporting is possible through decision support systems. Traffic and subscriber information and reports can be obtained by various departments within a service provider organization and presented in easy-to-understand charts and graphs.

## Traffic Optimization

With information about traffic flows correlated with subscriber information, service providers can more intelligently apply various controls to network traffic. These controls can improve the overall subscriber experience by enhancing network performance. They can also reduce transit charges and costly network upgrades, putting the service provider in better control of the distribution of network resources. Traffic optimization features may include:

- Blocking unsolicited e-mail
- Time-based control of peer-to-peer and other applications
- Global and per-user control of peer-to-peer and other applications
- Identification and control of malicious traffic
- Analysis and control of high-speed data access traffic, such as downlink packet access (HSDPA), broadband, and Wi-Fi

Please refer to the Cisco Service Control Overview brochure and other service control level brochures for more information. Cisco service control solutions are based on a sequential deployment strategy with network elements and technologies enabling enhanced levels of service control.

## Modular Approach to Cisco Services

Cisco Services lets you can choose exactly the assistance you require, whether that means consultation with a subject matter expert (SME); a detailed deployment assessment; full deployment services with design, installation, configuration, and testing; or customized services.

Consultation with a Cisco SME is available in one-week or two-week increments. These engagements can help reduce time to deployment by making available a dedicated expert who works with the in-house installation team to provide guidance and recommendations during the initial install. Service control level 2 engagements include an "Installation and Usage Report Service Package" that details the full lifecycle services for deployment of the Subscriber Manager. The Cisco consultant guides the team through installation, report setup, and day 2 support needs.

Deliverables: Installation assistance and recommendations

- Report setup assistance and configuration of reports

Consulting Support and Review Services feature Cisco Services consultants assisting customers in the design, staging, testing, deployment, and acceptance testing phases of all service control projects.

Deliverables include review and comments on:

- Low-level design document
- Site requirements specification
- Network staging plan
- Network implementation plan
- Network ready for use document

Full Deployment Services are available for customers who want to engage Cisco Services for installation of the Subscriber Manager using the Cisco prepare, plan, design, implement, operate, and optimize (PPDIOO) methodology. These phases include project management, design, and implementation consulting and integration services. Under this option, Cisco Services takes ownership for the tasks and deliverables specified under a fixed-price statement of work (SoW).

The Cisco Services team will assess the current network and systems architecture and develop a high-level architecture for the service control solution based on business requirements during the planning phase of the project. After a high-level architecture is agreed upon, the team will prepare an overall project plan. A detailed design document will be developed during the design phase. The implementation plan will cover a lab validation phase of the design, a market trial for a test market, and a production rollout for all markets. The implementation team will transition the implemented system to operations by providing knowledge transfer and “as built” documents to the operations staff. Customers needing operations support can purchase ongoing subscription services for maintaining and operating the system.

Full deployment services for the Subscriber Manager include:

- Deployment of Subscriber Manager and integration with AAA and DHCP servers
- Deployment of high-availability configurations for Cisco SCE, Collection Manager, and Subscriber Manager in previous phases

Deliverables for full deployment services for the Subscriber Manager include:

- Customer requirements document
- Site requirements specification
- Project plan
- Project management
- Solution design document
- Implementation plan
- Hardware and software installation
- Configuration
- Acceptance test plan
- Acceptance testing and test report
- Knowledge transfer on implemented system
- Documentation on implemented system

Customization services are also available for Cisco Service Control solutions that may require integration with an external database, customized reporting, high-availability configurations, policy server integration, and other activities.

### **Using Cisco Expertise**

Cisco engineers help service providers rapidly plan, design, test, install, and optimize Cisco Service Control products and technologies while mitigating risks and accelerating time to market for new services. Cisco Services uses best practices and proven methodologies for each phase of the project lifecycle. We utilize tools and test labs and collaborate with partners as necessary to help ensure the stability, availability, transparent integration, and lower cost of ownership of Cisco solutions. Cisco Services has an award-winning global technical assistance center, an extensive network of certified partners, and customer portals. Our customers have access to an extensive

collection of certified IP experts with years of experience in all phases of deploying and supporting network infrastructures both large and small.

**For More Information**

For more information about Cisco Services for deployment of the Subscriber Manager, please visit us at: <http://www.cisco.com/en/US/products/>.



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