

Communications & High Tech

## Driving growth and high performance in China's communications industry with a next-generation operations support system

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The communications marketplace in China is more dynamic and challenging than ever. As operators embark on one of the largest infrastructure investments the world has ever seen, they must consider the underlying support systems needed to realize an adequate return and drive better business performance.

An operator's operations support system (OSS)—which performs management, inventory, engineering, planning and repair functions—is especially critical. It helps to industrialize next-generation products and services, bringing rigor, predictability and repeatability to service creation, control, fulfillment and assurance.

To deliver those benefits, the OSS must be as advanced as the network and services it supports. Without a next-generation operations support system, operators may not be able to meet their customers' increasing expectations for new IP-enabled services—which could result in losing a competitive edge.

To adapt more quickly to the OSS changes required to fully leverage a next-generation network, operators in China can benefit from what Accenture calls a "next-generation OSS common framework." The framework supports the new components needed to augment existing OSS platforms and also introduces new OSS functions as required. The framework adapts traditional OSS foundation blocks to meet the unique challenges of next-generation networks. It also supports many of the innovative services required to drive growth in the Chinese market, such as mobile broadband, VoIP and IPTV.

### Building a next-generation OSS

Why is proper attention to the OSS especially important today? Because a legacy operations support system cannot effectively address many of the network

challenges China's operators face, such as introducing services more rapidly, expanding to new customer segments in rural areas and putting in place an effective development environment that supports third-party collaboration. Providing end-to-end management capabilities is also critical.

The traditional OSS cannot respond to these challenges in part because it is designed around vertical and tightly integrated silos, with little cross-domain functionality. A legacy OSS is often inflexible, with high maintenance costs. It generally lacks device management and self-service capabilities, which are important to the delivery of new, profitable services.

To help operators in China work through and accommodate a more challenging operations environment, Accenture recommends adopting a next-generation OSS common framework. The framework adapts and augments traditional OSS foundation blocks to meet the new challenges of next-generation networks in the areas of:

- Creation: planning and design
- Fulfillment: customer order entry, order management, provisioning and activation
- Assurance: alarm and event management, trouble and ticketing management, performance management, service-level agreement management, service quality management and security management
- Foundation: inventory management, workforce management, network configuration, change management and customer device management

The framework also provides OSS extensions to support the implementation of service and network platforms for today's important network solutions as well as domains such as VoIP, IPTV, IP-VPN, mobile, cable and broadband wireline. The extensions cover all OSS domains, including interfaces to network/service plat-

forms, the business support system, service delivery platform and customer interaction management.

## Benefits

The next-generation OSS framework can deliver significant benefits to operators in China:

- Proactive monitoring delivers a higher quality of service to customers, managing service levels for various channel partners and customers. Typical direct financial benefits include a 20 percent reduction in field operators, 30 percent savings in the network operations center and a 20 percent reduction in call center costs.
- End-to-end management of service quality protects revenues by improving customer satisfaction and retention. Typical indirect benefits saving include a 20 percent reduction in customer chum, a 5 percent increase in take-up rates and a 20 percent reduction in penalties.
- Enhanced service creation capabilities result in faster time to market for new, revenue-generating services. Operators can typically realize a 5 percent to 20 percent reduction in network deployment time.
- Improved capabilities in areas such as configuration management minimize service downtime, cut operational costs for new deployments and reduce overall network maintenance costs. For example, one large European service provider with 2 million subscribers has saved more than \$2 million in the first year of a new configuration management solution.

Accenture recently worked with a full-service operator in China to perform an OSS planning project, which included assessing the company's existing OSS capabilities, analyzing the company's requirements over the next three to five years, developing a next-generation OSS blueprint and a roadmap for implementation.

The operator has realized several important benefits from its new, next-generation OSS:

- Support for full-service operations, including enhanced mobile operation capabilities, new IP-based services and fixed-mobile convergence.
- Improved customer-centricity, including faster, more effective customer service, proactive assurance solutions and more customer-centric service quality management capabilities.
- Better collaboration and consistency among locations, as well as among internal and external players, because of the common IT solution for all networks.
- Improved operations, including more mature capabilities in areas such as inventory life cycle management, network planning and design, data infrastructure and knowledge management.

## A roadmap to success

Based on Accenture's work helping global communications companies create a next-generation OSS to support growth and higher

average revenue per user, here are several keys to success.

### 1. Assess existing OSS capabilities in light of future network plans.

An analysis of the existing operations support system is a critical first step. By performing an assessment for one East Asian wireless network operator, Accenture identified the technology and marketplace trends affecting the company's operations support system and helped the operator migrate to a new OSS framework.

### 2. Create an overall services and OSS roadmap.

To support new products and achieve operational efficiencies, companies must work from a clear vision of what the architecture will ultimately look like. The roadmap to reach that destination should lay out each progressive phase of service introduction, matched to the corresponding OSS capabilities to optimize each phase.

A realistic release schedule is important to managing the journey toward a next-generation operations support system. For example, Accenture collaborated with a leading service provider in Europe on an assurance and monitoring program to support the provider's new VoIP offerings, working to ensure that the company's brand did not suffer from any loss of service quality. Part of this project involved driving a more mature service assurance capability—moving from a reactive approach to resolution of service problems to a more customer-centric approach in which issues could be solved proactively and even through a customer self-care capability.

Accenture and the provider worked to define a step-by-step OSS roadmap, focusing first on the consumer, then on the enterprise customer and finally on plans to extend to an all-IP network.

### 3. Integrate the OSS around a process-oriented enterprise application integration platform.

Tackling OSS development in a process-oriented manner enables companies to focus more on the capabilities to be delivered by the architecture and less on the actual systems. By using a modular approach—putting the most critical applications in place, then moving them as necessary within an integrated framework—companies ensure they are not locked into an infrastructure that requires massive expenses to evolve, fix and maintain. This combination of process and modularity lets companies create a hybrid operations support system—leveraging their existing systems and updating them as needed, introducing applications for new service needs in a flexible manner.

### 4. Consolidate systems to minimize cost and complexity.

Because redundant systems are costly to maintain and operate, companies must plan for system consolidation and rationalization. Consolidation is also the technical foundation for developing cross-domain capabilities that enable the end-to-end management critical to success within a next-generation services business model. In addition, consolidating services is critical for successful customer acquisition and retention, supported by more effective service and billing.

## Creating an OSS to support growth and high performance

Today's operators in China are likely to find that their legacy OSS will be a significant constraint on leveraging next-generation networks to support growth. A traditional operations support system does not support the kind of cross-domain functionality and open innovation needed to succeed in the current industry and technology environment. A legacy OSS can also result in excessive costs for implementation and maintenance.

Chinese operators in search of high performance are expanding their networking capabilities to enable next-generation broadband services. Although IP-based services will use more powerful access technologies and create innovative services for lower cost, next-generation services have a profound effect on operations. Companies must work now to create their next-generation OSS—an operating model capable of handling the unique requirements of broadband services.

Outlook Point of View  
September 2009, No. 1  
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