Product management vital for NGN success

As operators move to IP and adopt next-generation networks (NGNs), they become able to deliver a variety of innovative converged services. In the environment of single-purpose networks, each parallel network was essentially on its own. The lead time for new services was long, and the equipment provider bore much of the responsibility for developing products and services.

The advent of NGN architectures is eliminating the need to install service-specific infrastructure. The software-centric and application-driven nature of NGN-based services provides significant flexibility in terms of creating and delivering services. NGN architectures promote an IT-centric approach that enables software developers, not just telecoms experts, to create and deploy real-time multimedia services. New service capabilities can be created using a modular, building-block approach, with service logic acting as reusable code.

But improved flexibility brings with it challenges in terms of packaging more-complex products and managing product information, because operators do not normally sell individual service capabilities a la carte. Instead, they package them into product offerings that are defined in marketable terms. To add to the challenge, these offerings have many configuration choices and commercial rules associated with them. In today's market, therefore, operators' business success is going to be determined primarily by the variety and quality of the market-facing products and packages they deliver, rather then just the capabilities deployed and available in their underlying networks.

As the number of NGN deployments grows, network enablement will become a much smaller piece of the new-product-introduction (NPI) cycle. Systematic definition of product offerings, dissemination of product data across operational- and business-support systems (OSS/BSS) and configuration of operational systems to begin taking and fulfilling orders will cause NPI bottleneck problems. Of course, operators are already facing all of these challenges, but in an NGN world, the relative cost and impact of such problems will be dramatically accentuated.

A new approach is needed if operators are to survive and thrive in this new world. The ad hoc tools and approaches being used by product and marketing managers to define market offers and manage product portfolios, and the manually intensive approaches used today for updating product data in OSS/BSS applications, will break down rapidly in an environment with a huge increase in the service and content capabilities enabled in the network, either directly by operators or through partner providers. The return on investment from an NGN infrastructure will be considerably weakened if operators do not figure out how to bridge the gap between the network and the market.

Addressing how new service capabilities can be brought to life quickly in the form of market-ready products that are systematically defined and reflected in operational systems cannot be an afterthought. This problem has to be solved as part of implementing an NGN.

Managing product life-cycles

Operators need to adopt a comprehensive approach based on product-life-cycle management (PLM) to create, manage and deploy market offerings in order to keep pace with the new rate of product introduction that NGNs will enable. Such an approach should enable line-of-business, IT and network teams to collaborate more efficiently and effectively throughout the entire product-development cycle, from planning to service deployment, to speed up product introduction.

Such systems offer an environment to collaboratively construct, manage and deploy a catalog of products. They also enable the creation of a layered model that includes the full technical and commercial definition of products.

Operators need to consider two key integration factors when implementing a PLM system. First, how does a PLM system interact with the "lower" service-delivery platform (SDP) or network layer, where service capabilities are created and executed? Second, how does a PLM system connect to the "higher" BSS/OSS layer, where product information is consumed and where processes for product ordering, fulfillment and billing are managed?

In a PLM system that involves one-way integration with the SDP, the definitions and characteristics of service capabilities are imported from the SDP into the PLM system as the service capabilities are created and deployed in the SDP. Product managers have instant access to available service definitions, which they can use to quickly create product- and commercial-offering definitions. Two-way integration with the SDP would have the definition process begin and end in the PLM application, giving product managers the ability to set the requirements for new service capabilities, and would support a closed-loop mechanism to speed up the launch of creative products.

PLM systems bridge the gap between the network and the market by helping bring service capabilities to life in the form of marketable product offerings and packages. 3GW

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