A New Generation of Telco OS is Needed

The next generation of operations/business support system (OSS/BSS) will not be an OSS/BSS at all, but rather a platform where telcos can develop customer-targeted products and solutions, and carry out their internal operations – a tool where open telco capabilities can be leveraged to the better of the entire ecosystem. We call it the telco operations system (Telco OS).

Scan for mobile reading

By Zhu Guangping, Huawei Fellow

With the emergence of fixed and mobile broadband, the growth of the Internet has been explosive, with over three billion users now connected. Like water and electricity before it, the Internet has become a fundamental piece of social infrastructure, reshaping how we live and what we produce, but this is just the beginning. The integration of the digital and physical worlds is deepening. ICT and the Internet are driving the transformation of all sectors. Every business and organization must be reformed digitally to adapt to changing consumption patterns and user experience in a new era; telcos are no exception.

Digital natives are driving a shift in consumption behavior

Telcos must transform their operations to meet new consumption needs. With the modern Internet now over twenty years old, a new generation of young people (digital natives) has arisen with quite different consumption habits from their predecessors, characterized as ROADS (real-time, on-demand, all-online, DIY, and social). What's more, digital natives are also influencing their elders, stimulating other family members to get digitized by teaching them to use digital products and apps. Telcos need to transform their operations based on changes to consumer behavior that include how they discover, purchase, obtain, and use telco products and services, and how they get after-sales service. They should also consider the future, with their transformations based on future

business models and network architecture, including SDN, NFV, and cloud services. The new user experience, brought by new consumption behaviors and services, is the driving force of telco operations transformation.

ROADS consumption is prompting OSS/BSS evolution into Telco OS

The next generation of operations system is neither a simple internal support system nor an online marketing

> From the consumer perspective, a next-gen operations system is like an "online shop" where they can purchase telco products and services on a ROADS basis.

Zhu Guangping

portal. It requires a value-creation system, one that connects carriers, customers, and partners, as well as networks, applications, and content. From the consumer perspective, a next-gen operations system is like an "online shop" where they can purchase telco products and services on a ROADS basis. From the telco perspective, a next-gen operations system is a development platform that integrates telco assets to provide enterprise customers and consumers with products and solutions, including the network, IT infrastructure, self-operated and third-party applications & software, third-party content, and user data. This platform also helps internal operations teams automate and smarten their operations, while opening network capabilities to partners through application platform interfaces (APIs). From the partner perspective, a next-gen operations system is a "channel and customized development platform" where content providers and software developers can sell their products, and independent software vendors (ISVs) and system integrators (SIs) can use them for customized development and system integration. Add all this together, and a next-gen operations system is definitely not a traditional operations support system (OSS) or business support system (BSS). It is a tool for telcos to develop customer-targeted products and solutions, and for internal operations. We call it "Telco OS," where telcos leverage their open capabilities to build the industry chain.

Operations transformation based on intelligent automated infrastructure

Looking at the operations system from the perspective of end-user behavior and experience, we find that many operations problems are caused by infrastructure. Many telcos cannot provide customers with real-time online services on demand, and not because of OSS deficiencies, but because their network infrastructure is neither automated nor intelligent. SDN, NFV, and IT infrastructure cloudification place new requirements on the operating system; at the same time, they support telco operation transformation to automation and intelligence. Without the automation, cloudification, and scalability of infrastructure, it would be impossible for telcos to transform and achieve ROADS. Infrastructure transformation and operation transformation complement and support each other. They must be planned and performed based on customer experience.

The Internet has profoundly changed user consumption behavior and service experience. We must re-think telco operations transformation and the positioning of the operations system. In collaboration with industry partners, Huawei has studied both Internet impact on the network and best industry practices. We are actively exploring ways to transform operations. Leveraging open technologies and architecture, we help telcos build next-generation operations systems that adapt to changing user behavior and user experience, systems that support service development and operations, as well as industry chain building. ⊡⊡⊡

Editor: Jason jason.patterson@huawei.com