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www.pipelinepub.com Volume 3, Issue 10

Next Generation Services Will Need Next Generation OSS: Challenges that Providers Face when Moving into Converged Services

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The telecommunications industry is going through a fundamental market transformation prompted by competitive pressures. In response to this change, service providers are seeking to offer an ever-widening range of services to their customers quickly and cost effectively. Voice, video, and data are becoming the service foundation with Internet Protocol (IP) as the medium. To be competitive with these services, providers must ensure high service quality and customer centricity. Add to the equation an average revenue per user (ARPU) that is diminishing and customers demonstrating their preference for buying all of their communications services from a single vendor – the stakes have never been so high.

To address this new market paradigm, carriers are transforming their networks and integrating their customer facing network with their back office IT infrastructure to create new efficiencies. While convergence can be thought of in the context of product or service creation (e.g. the triple play described above), service providers must pay close attention to the convergence required between the Operational Support Systems (OSS) and Business Support Systems (BSS) to support the convergence of the service platform. With the cost of subscriber acquisition on the rise and the immediate need to initiate service innovation to attract and retain customers, what are the transformational guidelines that must be observed to support convergence?

In the process of identifying best practice Next Generation OSS (NGOSS) tenets, it is prudent to first understand what areas of the business are impacted. The need to deliver a plethora of services to a broad set of devices in a rapid fashion creates an external business driver for historically separate organizations to now collaborate in a near real-time fashion (Enterprise IT, BSS, OSS, etc.). This required collaboration results in change that spans throughout the organization.

Business systems are now required to embrace an ever changing mix or bundle of offerings within the service catalog. The customer care organization is now asked to support a more comprehensive (converged) service offering. Those in charge of product lifecycles are now being required to incorporate third party content and service ecosystem partners in support of meaningful collaboration that deliver unique product offerings. Notwithstanding, Operations is significantly impacted as they are now required to support an increasingly complex network

(comprised of both legacy and next generation infrastructure, self service portals, etc.) designed to deliver a multitude of interdependent services while being asked to monitor and measure an individual's "customer experience".

So it is fair to say that the adoption of a convergence strategy is very disruptive to the business, but who really expected it to be easy with so much to gain for those who are successful? Building the next generation delivery platform could act as an enabler in driving the convergence throughout the organization itself. The following are suggested design tenets (many of which may seem obvious but bear repeating) for the Communication Service Provider, or CSP, that is embarking on the NGOSS development mission:

- *Investments should be made with both scale and performance in mind:*

The CSP is building a delivery platform not only for today, but for the future. A new generation of OSS solutions that can support a customer base in the millions, providing visibility into the significant delivery infrastructure and scores of third party integrations are required to deliver the service without jeopardizing performance.

These systems should be "highly available" or "redundant," and support automation at every level (tools/people/process) in driving towards a service-centric operations model that is conducive to high quality attainment. Quality awareness becomes increasingly important given the customers' "all or nothing approach" stated earlier, raising the stakes for the CSP.

As part of this next generation OSS (NGOSS), cost efficiencies would be an expected outcome via the creation of a common operating model, but should not be the driving force behind OSS adoption.

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- *Solutions should be modular in design, promoting open inter-operability:*

Modularity is a key attribute to any solution component, as it allows the flexibility to leverage existing investments vs. "throwing the baby out with the bath water." There is good knowledge built into legacy expert systems; accordingly, CSP's should look for support systems that can add incremental value to solutions they have today, creating

the foundation for a common operating model, and over time, develop a phased migration path that supports consolidation and operating expenditure reduction through vendor consolidation.

- *Solutions should be capable of “seeing end to end”:*

Real-time video services such as IPTV have a much higher duty on the network and are more sensitive to degradation in comparison to traditional accessed web services or VoIP, for that matter. In addition, services themselves are converging, becoming more customer-centric and interactive. This service sensitivity and complexity has forced the hand of the CSP to require OSS instrumentation that can see “End to End” in order to fully understand and ensure High Service Quality. Assuring High Service Quality is a key differentiator to the CSP in contrast to a carrier that solely offers the transport.

- *Solutions should support a service neutral architecture to streamline timely CSP product launches:*

As the need for CSP’s to differentiate increases, so does the need for new services. The CSP’s NGOSS needs to be both agile and capable of quickly adapting to new services and business models. The OSS support structure must be ‘open’ and able to adapt to flexible and extensible service definitions that, at times, rely on 3rd party data sources for orchestration. Automation, with provisioning systems for example, plays a key role in supporting service quality sustainability. The net-net result is a timely product service launch that benefits from a single converged delivery system that yields cost efficiencies.

Having the ability to launch a new converged product or service quickly and efficiently, adding intrinsic customer value and accompanying revenue, will define the winners and losers in this new market paradigm. Being mindful of the OSS tenets listed above can help in developing a guiding OSS strategy for the next generation service provider, and may in fact, play a supporting role in driving organizational convergence as well.