

What advantages does virtualized billing offer?

by Lucas Skoczowski, CEO, Redknee

Virtualization adds another mission-critical but often overlooked characteristic to a CSP's strategy: agility. Virtualization must go beyond cost savings to create strong business benefits, such as enabling new services to be rapidly rolled out or operations to be scaled elastically to empower the CSP to compete on the services themselves, rather than on mere IT efficiency.



Lucas Skoczowski is the CEO of Redknee, a communications software company created in 1999 that provides business-critical billing and charging software and solutions for communications service providers around the world. Lucas is responsible for strategic planning and execution, during which Redknee has consistently met and exceeded its goals, including financial performance, profitability, business and customer growth. Lucas has driven the development of Redknee's product portfolio, sales, and overall organizational performance.

Due to his exceptional leadership, Lucas has received the Ernst & Young Entrepreneur of the Year Award and the Top 40 Under 40 Award for Canada. Prior to Redknee, Lucas worked at Nortel Networks and Clearnet in various roles of Product Management.

Lucas serves on the Board of Directors for Redknee and 20-20 Technologies, the world's leading software developer of interior design and manufacturing software, and is a member of the Dean's Development Council for the Faculty of Engineering at the University of Waterloo. Lucas has a Bachelor of Science in Electrical Engineering from the University of Waterloo.

While it is evident the main business drivers for virtualization are the ability to do more and spend less, the benefits of virtualization for telecoms are not so obvious. Virtualization strategies in telecom network services and online BSS seek to consolidate equipment into COTS servers, storage systems and switches, then leverage isolated IT systems across the common hardware plane to maximize efficiency and reduce capital costs. Looking deeper into BSS/services, however, reveals the potential benefits of virtualization are related to cost and the ability to act and react quickly as a business.

The potential benefits of virtualization include: 'doing more' to positively impact the business by decreasing time to market

through pure software-based deployment; easier and faster introduction of new services; and the ability to adjust to unexpected spikes in service demands without interposing a hardware architecture.

There are also a number of advantages to lower costs (i.e., 'for less') through reduced CAPEX from shared hardware and operating systems; reduced power consumption and IT operations costs; separate hardware and software purchase cycles; reduced operational complexity and risk; and optimized system administration.

Gartner's Hype Circle for Virtualization 2013 observed that virtualization changes how IT is acquired, managed and used, and challenges how software is supported and licensed. It

influences new forms of applications and has become an enabler of cloud computing and other delivery models for providers and consumers alike. Virtualization can drive companies to treat IT like a business service.

In which use cases does virtualized billing make the most sense?

A layered approach achieves massive scale while preserving telco-grade integrity and availability over a virtualized environment. This architectural strategy provides the means to achieve the business promises made by virtualization, "to do more for less".

The virtualization strategy of a layered approach gives communications service providers (CSPs) a competitive edge in terms

of market reaction time and agility. This is because it enables decreased time to market, rapid configuration and quick patching by layering software to allow for live updates. Through the transactional logic that resides in the virtual machines, CSPs can easily and simply introduce new applications and changes transparently. CSPs can also enable adjustments to traffic spikes without changing infrastructure or reconfiguring, as cloud bursting is fully supported.

In addition, virtualization's promise to lower costs can be achieved by simply virtualizing the software. The real art, however, is performing on a shared hardware environment at scale. Taking advantage of a hardware connector shared with other systems will provide a means to reduce power and IT operational costs. Note that mission-critical applications still require their own high availability operations support.

Separate hardware and software purchase cycles allow CSPs to alleviate end-of-life problems that plague most long-standing network applications. In addition, independence from hardware supplier delivery cycles reduces CSP risk and costs, and gives them the ability to purchase based on price and performance. By enabling a common environment for operations, even for mission-critical operations like BSS and intelligent networking (IN) services, a virtualization approach that works at scale can allow for a more simplified IT operations environment.

How popular is virtualized billing / billing from the cloud, and with which customers?

Over time, online systems have evolved to support IN and open architectures, the move from client-server to blade technologies, and the adoption of virtualization technologies. Today's service providers are looking for ways to quickly launch and support new services. For example, Éxito Mobile, the first MVNO launched by a retailer in Colombia, was deployed using a cloud based billing service and achieved a 35 percent growth in its subscriber base.

Oi, one of the leading mobile operators in Brazil, is another example. It offered free Wi-Fi services during the FIFA World Cup, targeting tourists from all over the globe as they attended the world's largest sporting event. Oi provided Wi-Fi data access and data offload on their network. The cloud-based solution enabled to seamlessly transition users between Wi-Fi and cellular

connections without needing expensive Wi-Fi infrastructure upgrades. Another service provider leveraged cloud bursting and a single virtualized environment to support 1.4 billion busy hour prepaid transaction attempts on a complex configuration.

By leveraging a long-term strategy that focuses not only on the cost savings associated with virtualization, but also on the real business benefits of risk reduction, scalable performance and agile marketing, CSPs worldwide can compete using virtualized systems and agile business models. By recognizing that this strategy plays out in an evolving, complex IT operations environment, and maintaining focus on software agility and simplified integration points, today's cloud billing solutions are helping service providers perform in a more agile and competitive manner.

Is cloud billing table stakes for BSS vendors?

Experience shows that virtualized BSS – whether deployed in private clouds, public clouds or a hybrid configuration – can be used to increase operating rhythm, thus reducing business risk. By allowing service providers to test and launch new offers quickly, to manage capacity growth, and to hand off legacy offers that over-complicate operations – without failing regulatory compliance – virtualized systems actually reduce overall business risk for Tier 1 providers.

For these operators, cloud-based BSS provides both an additional test bed, and a means to respond more rapidly to competitive threats. As new offerings become mainstream, service providers can choose to migrate them from the cloud to their mainline systems according to their own timeline.

What new capabilities does virtualizing billing unlock?

Virtualization adds another mission-critical but often overlooked characteristic to a CSP's strategy: agility. Virtualization must go beyond cost savings to create strong business benefits, such as enabling new services to be rapidly rolled out or operations to be scaled elastically to empower the CSP to compete on the services themselves, rather than on mere IT efficiency.

The right approach is one that enables agile operations and provides a product-based solution, uses systems configuration rather

than a customization/services approach, and supports transparent virtualization. This allows CSPs to focus their energies on providing the types of services, and pricing and policy packages that enable them to compete rapidly without having to tie software strategy to hardware strategy. This true software approach provides unique value to CSPs, giving IT and network departments the freedom to source hardware and operating systems independent of their mission-critical applications. ●



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