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Transforming Telco Core Communications in the Cloud

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After a decade of stagnant revenue exacerbated by rising operational costs, it's high time for growth-deprived telco service providers to consider leveraging the cloud for their voice and unified communications services. Legacy voice infrastructure and status quo mindsets remain huge barriers to service provider transformation and monetizing massive network investments with new services and technologies.

Long-seen as mature, reliable workhorses, core communications networks are an often-overlooked service area poised for innovation and efficiencies when delivered through the cloud, according to a new report, "Reinventing Core Communications: Strategic Imperatives for Growth," from London-based research firm Omdia.

"Telcos are already moving workloads to the cloud to achieve operational and scalability benefits," Omdia analysts stated in the report. "Leveraging the cloud for voice and communications infrastructure offers an opportunity to both optimize the management of the services and free up resources to pursue AI-driven and operationally driven innovation."

Service providers can no longer afford to do nothing. Global telco revenue dropped to $1.98 trillion in 2022, from $1.99 trillion in 2014. While heavy investments in fiber and 5G roll outs have enabled greater network bandwidth, they have not resulted in reduced operational expenditures (OpEx) as a percentage of top-line revenue. Service providers have failed to monetize the increased speed, service quality, and traffic volume.

Those financial pressures weigh on service providers as they also contend with a shrinking workforce with legacy voice engineering skills as long-time employees retire, and also from challenges in sourcing spare parts for their aging and siloed networks.

Making the Case for the Cloud

Service providers historically have been cautious in their approach to the cloud compared to other industries. As with most potential cloud customers, cost, control, security, and vendor lock-in are top concerns when considering a move from the on-premises environments that they have controlled for decades. While they've embraced the shared public cloud for some functions, including unified communications tools for large enterprises, they've opted to ride out their legacy voice network equipment that's been fully paid for and depreciated.

But as the cloud market matures, some service providers realize that limited growth is the true cost of maintaining those legacy networks. Providers surveyed by Omdia cited reduced capital expenditures and OpEx, better scalability, and the ability to redirect IT resources to more strategic growth areas among the most compelling reasons for moving core communications to the cloud.

Still hesitant service providers need not go all-in on the cloud at once. They can start with migrating their communications core and using cloud APIs to connect to their existing operations/business support systems. They can then gradually deploy new IT systems as overlays to their legacy estates, and gradually migrate additional legacy system functions, instead of taking an immediate, wholesale "rip and replace" approach.

In addition to simplifying their operational environments, service providers can integrate cloud-based analytics and AI tools to optimize service delivery, improve the customer experience, and create new revenue streams.

Choosing the Right Telco Cloud Model

The delivery of core communications currently is fragmented by customer type and size between service providers, and there are typically multiple third-party vendors. But a strategic shift to the cloud allows for consolidation of services into a single platform serving all customer accounts. Service providers can recover revenue lost to vendors now delivering their residential and small business voice services over the internet, and other vendors dominating the large enterprise market for business communications. The Omdia report outlines five telco cloud business models for service providers to consider, but singled out a "sell-through" model as most applicable to core communications. Under that model, service providers resell a cloud provider's services through either passive or integrated sell-through approaches. In addition to offloading platform responsibilities, benefits include ease of implementation and opportunities to differentiate offerings.

In the passive sell-through approach, service providers resell cloud vendors' own branded product suites – RingCentral, Cisco Webex, Microsoft Teams – via licenses and bundle them with related network and communications services and support. While features and functionality are essentially at parity, potential disadvantages include loss of brand equity, licensing complexity, channel conflict, reduced pricing flexibility, and lower margins. Those vendor platforms also do not offer a full range of traditional telco services, including residential services, POTs line replacement, SIP Trunking, and various more complex solutions making consolidation is impossible.

Under the integrated sell-through approach, service providers have more opportunity to differentiate packaging and feature sets, influence feature development, and integrate the services with other offers for a seamless customer experience. They can fully integrate the vendors' platforms into their own service and support bundles, retain brand equity and control pricing.

"In almost all our discussions with service providers…the most voiced catalyst to move to a vendor cloud model for core communications was realizing the benefits of a single platform in terms of integration, support, and skills resourcing," Omdia analysts said in their report.

The SMB Opportunity

Service providers adopting a single cloud platform for delivering core communications can easily extend those services with flexible pricing to a vastly underserved market segment – the nation's more than 33 million small and medium-sized businesses (SMBs).

SMBs – companies with fewer than 500 employees – account for 99.9 percent of all U.S. companies, and they still largely rely on the traditional telephone to conduct business.

While Omdia expects the number of public switched telephone network (PSTN) subscribers to decline at a compounded annual rate of 14.5 percent from 2022 to 2028, there still are tens of millions of residential and business wire-line connections in service across the United States. The Federal Communications Commission put the number at 95 million – a combination of plain old telephone service and VoIP connections – as of June 2022, the latest figure available. Fifty-five million of those were business lines.

"We believe PSTN voice will linger on for years due to regulatory requirements and the need for providers to deliver some type of telephony," the Omdia report stated. "Despite advances in technology and growth in the adoption of mobile communications, there is still a substantial base of customers that rely on fixed-line telephony services, including legacy PSTN services."

SMBs, whose biggest challenges are managing costs and finding and retaining customers, stand to benefit from enterprise-level analytics tools currently out of reach. Service providers can fill that void with an easy-to-use cloud communications platform that allows SMBs to use AI and other advanced data analytics tools to derive operational and customer insights from their phone calls. Service providers can bolster their offerings with features including authentication, speech recognition for transcription, and virtual assistants for scheduling and managing meetings. As they increasingly turn to mobile phones, SMBs also require native dialer capabilities that provide a single identity between their fixed and mobile devices.

Visionary service providers will reinvent themselves and their core communications in the cloud. The alternative is continuing to tread water in the status quo: maintaining a defensive posture with legacy networks that promise to become riskier and more costly at the expense of revenue growth as margins continue to erode.

“Telcos that have invested in fiber and 5G networks will increasingly be judged on how effectively they have been monetized,” according to the Omdia analysts. “The prospect is that in five years, many will fail the test when it comes to financial market analysis.”