

A good view is a **cloudy view**

Our hyper-connected and intelligent digital world presents great opportunities for operators if they embrace cloud transformation to offer transformative new services. Delivering IT resources on the cloud and on-demand can help operators lower costs, engender innovation agility, and generate new revenues.

By Ronald Chung



Gartner predicts that the cloud service market will be worth more than US\$200 billion by 2020, US\$10 billion of which will be up for grabs. Operators are better placed than other cloud service providers to deliver cloud services to various verticals and governments thanks to a legacy of high brand equity, strong

cloud infrastructure, excellent local service support, assured network performance, secure data center networks, and managed IT services.

For enterprises, cloud services are becoming indispensable, which IT budgets are increasingly reflecting. In response, more than twenty major operators have mapped out digital transformation

plans to align their businesses with an enterprise IT strategy.

There are a number of possible starting points for transformation: modernizing data centers or constructing new ones, providing managed cloud services and public cloud services, migrating telecom services to telecom clouds, optimizing BOSS (business and

operation support system) with operation and support clouds, and NFVI (network function virtualization infrastructure).

For example, Deutsche Telekom and Telefónica already offer public cloud services, and South Africa's MTN has unveiled its Reload 2020 strategy, which includes a cloud platform. The three major Chinese operators – China Telecom, China Mobile and China Unicom – have launched digital transformation strategies to tap the cloud for silver from the Internet of Things (IoT), Internet +, telecom services, and public clouds.

Breathing life into business

Enterprises are relying more on operator cloud platforms, requiring operators to develop cloud services portfolios with tailored support and services that meet the needs of different verticals, including public clouds, vertical market clouds, and managed enterprise clouds.

In fact, operators are likely to become business advisors to customers by serving as the prime contractor in government and vertical market projects and as solution planners for all sizes of enterprise. To play such a role, operators need to build up a cloud ecosystem and partnership management capabilities.

Operators will therefore need to propose mature, stable, and manageable IT solutions that meet the requirements of customer projects.

The way to reach the clouds

Cloud transformation is not as simple as just

deploying a platform and selling capabilities. It calls for an entirely new business model with new business operation processes, security compliance, selling approaches, pricing models and support services. To manage, market, and run a new cloud business, operators either need to parcel this work to their IT divisions or set up new digital divisions or new subsidiaries.

As a leading ICT solution provider, Huawei has identified four main areas of cloud transformation for which it can provide operators with full support: modernizing data centers, cloudifying internal IT systems, cloudifying telecom services, and providing B2B cloud services.

Data center modernization: forms the foundation of cloud transformation. Modernizing data centers simplifies telcos' internal IT and resource allocation for external customers, including public or enterprise cloud services. It centralizes physical, network, IT and virtualized resources, facilitating management and monitoring. Operators use a number of business and support systems, which carry out functions such as sales and marketing, accounting, and billing to deliver commercial cloud services and other cloudified telecom services.

Modernizing data centers involves expanding IT systems and replacing IT equipment. The various systems can create a heterogeneous IT environment with servers and storage from multiple vendors. But, this can lead to issues with vendor management, SLAs, and cost control, especially when new service plans and new business or market opportunities are in play.

Internal IT cloudification: simplifies central

resource management and distributed resource allocation in heterogeneous IT environments so different departments can retain assigned, allocated, and virtualized IT resources on the cloud platform.

Operators are adopting new and different business models for traditional services, including core, mobile, and value-added services (VAS), which are still dependable sources of revenue. Technological advancements such as software and hardware decoupling can boost service deployment agility and allow more dynamic network resource scaling and management. Operators are using cloud technology to implement NFV and migrate VAS to the cloud, making them much more like Internet firms that are able to achieve rapid deployment and launch core services or VAS.

Cloudification will provide operators with new opportunities to sell B2B cloud services, such as IT resources and IT applications. To target different enterprise sectors, operators will need to understand market solutions and major government ICT policies, such as Industry 4.0, Internet Plus, and Industrial Internet.

In the enterprise market, operators will be able to provide vertical clouds using simple IaaS (infrastructure as a service) with specific PaaS (platform as a service) and SaaS (software as a service)

applications to deliver self-service web portals. Through these, companies can access IT on-demand, online, and in real time to meet their needs for service support, data localization, and data privacy. Global operators will be able to leverage their worldwide sales networks to offer enterprise ICT service packages that bundle VPNs, leased lines, and telecom services for multinational companies that lack local IT support in certain locations.

In the vertical market and government sectors, telcos will require industry knowledge and standards to support customers. Operators will be well placed to attract this market due to strong brand equity, network and IT infrastructure readiness, trusted business partner status, support and service quality, and expertise. Operators will also be able to up-sell NBN (national broadband networks) and national data center solutions to help governments formulate national ICT policies and plan G2C (government to citizen), G2B (government to business) and G2G (government to government) e-gou strategies.

When it comes to the four areas of cloud transformation – modernizing data centers, cloudifying internal IT systems, cloudifying telecom services, and providing B2B cloud services – Huawei's business visualization service sets out the transformation process, from

existing data center infrastructure to cloud data center infrastructure. It also shows how cloud resources can improve the efficiency of service operations, how traditional telecom services can be evolved into cloudified telco services using new NFV infrastructure, and how cloud services can help operators enter different enterprise sectors. The business visualization service also outlines product capabilities, solution approaches, business consultation, and enterprise architecture.

Time and again, operators have chosen Huawei as their primary cloud transformation partner. Deutsche Telekom did so for its Open Telekom Cloud project, praising Huawei's tech knowhow, R&D capabilities, and efficient leadership, which it stated helped expedite the launch of the public cloud. China Telecom partnered with Huawei on a cloud transformation project for Jiaxing city government's IT services, with many factors working in Huawei's favor when it came to selection: its powerful brand presence in China, strong software development and support capabilities, integration with the China Telecom network infrastructure, and adoption of a new business service model.

Cloud transformation is the way forward, and choosing the right partner can unlock the door to future business successes. 