

The cloud: A call for action for the competitive telecom operator

by João Moura, Executive President, TelComp

Cloud is the next information technology wave for individuals, companies and Governments. As a result, the telecom and IT value chains are being completely reconfigured. But cloud could be a strategic opportunity for telephone companies (*telcos*) to reinvent themselves, building market recognition as important players in a commoditized data transmission world. This new environment could favour competitive telecom operators over the incumbents.



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Traditional fixed telephony is declining. The idea of a home number phone is disappearing. Communication is becoming personal and mobile but not on a plain vanilla cellular phone. Mobile communication now means a combination of voice, text message, image, video and the Internet, all accessible through multiple devices connecting to mobile, WiFi and other networks.

The traditional IT environment has also changed dramatically. Centralized systems have been replaced by distributed computing, dominated by personal computers and multiple data centres. The Internet created a platform for new collaborative working models congregating different departments within traditional organization boundaries and, later, creating new collaboration flows linking suppliers, customers and other stakeholders in a completely new ecosystem. The new broadband telecommunication infrastructure, powered by remarkable advances on the information technology frontier, enabled important business changes transforming the traditional corporation models.

Converging consumer and enterprise markets

Telecom and IT markets were traditionally segmented into two broad categories: consumers and corporate markets. Hardware, software, applications and the like were developed and marketed, targeting the specific requirements of these categories.

The Internet, broadband communications and the cloud computing concept created a convergent path to the consumer and corporate market segment requirements. Both segments are now demanding superfast broadband and super computing power. On the applications side, convergence is also a reality.

Google started with a search engine originally designed to improve individuals' Internet experience but quickly evolved towards a business model based on a solid commercial platform, offering innovative solutions to the corporate market. Several other apps were launched afterwards, attracting consumers first, and then creating revenue flows from corporations. Facebook's

story is no different: from a consumer app to a business solutions provider with strong revenue flow potential. Video applications came along following a similar approach: new tools introduced to allow easy access to short videos for amusement purposes rapidly evolved to become a marketing and promotional media tool serving a multiplicity of business purposes.

These are some prominent examples of a new breed of services that created business models based on the Internet and cloud computing technologies to serve corporate and consumer purposes. Broadband demand fuelled by these technologies is growing dramatically in both market segments. Consumers using video apps, IPTV and branded products such as iCloud, could generate broadband traffic at the level of a corporation.

The cloud technology that allowed those applications to flourish is enabling the shift from the traditional in-company hardware and software infrastructures to cloud-based facilities. We can see the same movement

on the consumer side, for example with new laptops designed without built-in memory and processor that also eliminate the need for individual software package licences: everything is now readily available on the cloud.

IT business models also evolved from the traditional wholly owned hardware and software concept to a new world in which infrastructure, platform and software are offered as a service, with most resources based on the cloud, ready to be consumed on demand.

This is a major paradigm shift and is not evolving without skepticism. Reactions to major changes to the status quo are quite common and it is no different in this case. CIOs all over the world are raising security issues among other factors to postpone cloud adoption. These are relevant and valid issues and concerns but, eventually, not much different from security hurdles faced in the current environment. Starting with non-critical applications, most corporations are migrating an increasing proportion of IT resources to the cloud.

From the consumer perspective, users seem to be more comfortable moving and sharing personal data, enjoying music and films, for example, using cloud-based tools delivered by Apple, Amazon, Netflix, Google and other innovators emerging all the time. Even the data leakage or privacy violation events that are frequently reported are not discouraging quick adoption and substantial data traffic growth rates.

The next information technology wave

This is an unstoppable trend. Cloud is regarded as the next information technology wave for individuals, companies and Governments. New services and products, enhanced collaboration, information-sharing capabilities and reduced IT costs are all important factors driving rapid cloud adoption. As a consequence, cloud business projections are in the 25-39 per cent CAGR range over the coming years. Gartner, for example, estimates that cloud business will grow from US\$59 billion in 2009 to US\$149 billion in 2014.

The Internet started transforming the way we communicate and went on to create fundamentally new collaborative networks, changing business models and value chain organizational architectures. Communication and entertainment patterns have also changed, affecting society so deeply that today it is politically inconceivable to limit broadband access to the affluent.

Quite the opposite: demand for broadband is the top universal requirement. Ubiquitous

broadband networks, rollout plans, affordable accesses to the Internet, etc. are all an integral part of Government plans to ignite dormant economies and help diminish poverty.

Broadband infrastructure and Internet access are key elements and the cloud computing concept is at centre stage, consolidating the new framework for the future of individual communication, entertainment, commerce and citizenship relations.

The key question is not if but how the telecom and IT value chains will be completely reconfigured. New players are coming to the game and displacing traditional telecom and IT providers from their market niches. How they will respond?

Network operators are called on to invest heavily to enlarge their footprint and add much more capacity to allow broadband-dependent applications to reach all population segments. How can this be made sustainable?

Government interventions via direct investments, tax and financial incentives, regulatory levers, for instance, are all valid and important elements, but cannot replace market-driven solutions. The net neutrality concept is worth preserving and new business models need to be fostered to let telecom operators' profit from the enormous data traffic fuelled by rapidly growing cloud computing, P2P applications, video and social communication demands. But data traffic growth does not necessarily increase telecom operator's revenues. In 2010, worldwide telecom revenues were flat, while hardware, software and related services posted double-digit growth rates. Traditional business lines are being eroded rapidly. Skype, for instance, turned out to be the world's largest long distance provider without a telecommunication network.

Cloud as a strategic opportunity

This is a call for change in the telecom world. Cloud could be a strategic opportunity for telcos. To be successful, operators must reinvent themselves, building market recognition as important players in a commoditized data transmission world. This is a non-trivial move. But it is important and necessary. Telcos' recent experiences in the mobile arena have shown how difficult it is to retain customers and revenues in the battle with device and platform providers. But this is not the end.

Telecom operators will have to draw from their core competencies and skill sets to

build new business models and stop the value erosion process.

Brand recognition, trustworthy image, customer base knowledge, sales force, standardized service offerings based on technology, scale and billing capabilities are all important credentials to enter these new markets. Existing networks, data centres, network management systems and the like are also important assets. But to offer infrastructure, platform and software as a service (*IaaS, PaaS and SaaS*) and deliver IT support services, including systems integration, application development and IT maintenance, new competencies are needed.

The customer's priority is the cloud services rather than the communication infrastructure. Customer loyalty is a challenge with solution providers. Telcos need to recover the control over the customer base and be perceived as a valuable partner. Moving towards a cloud services aggregator and distributor might be a viable alternative. The challenge is substantial. Competition is fierce and telcos are not the front-of-mind providers in this arena. Clear strategies to target market segments and tailor a meaningful service portfolio are the starting point. Flawless execution capability is also essential. The value proposition could be appealing initially to small- to medium-sized businesses, but could also evolve and reach the top of the pyramid.

Some telecom operators are already moving in this direction, but this is not a trivial task. Cultural changes such as new attitudes towards risk-taking, innovation, agility, and competitive costs are among the attributes required to be successful. Telcos historically are not particularly strong on these disciplines and managing the change process will be a major accomplishment.

The cloud is the strategic opportunity to change the game. Telcos need to monetize a fair portion of the new cloud services to survive and be able to invest and expand the communication infrastructure. There is no indication that application providers or other leading players in the industry are volunteering to take over responsibility to rollout new generation networks.

This new environment may be favourable to competitive telecom operators. They have been nurtured in a hostile environment, facing uneven competition from market-dominant telecom incumbents, and have learned to innovate constantly and develop flexibility and resilience. This is the mindset for the coming transformation of the new breed of telcos. ●