Telecoms’ ICT business models: Surviving the digital paradigm

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Overview

The ICT business models of the telecom operators and IT services providers are about to get disrupted in the same fashion as how Over the Top Technologies (OTT) are remodelling the consumer ecosystem.

The “layering” of the ecosystem will fundamentally change for the existing players’ ability and means of monetising their investments. It is critical for the operators to understand this shift to best define their strategic positioning and comprehend the implications on their operating model(s).

Indeed, the service delivery over a single unified network such as Software-as-a-Service (SaaS) and Unified Communication (UC) are creating a “delineation” between the services and the underlying networks. This disrupts the traditional monetisation models of network operators. In the past they relied on a tight coupling of services and networks, monetising the network through the corresponding service. This is no longer an option.

Therefore, it is critical for operators to reassess the intrinsic economics of each layer of the ICT stack and redefine their role within the ‘new’ enterprise ICT mountain. They need to look at:

- What are the economics and monetisation models for the “connectivity/ bandwidth layer”?
- How to enhance/ differentiate the connectivity with the “mediation layer” through device management, security, analytics and cloud
infrastructure (IaaS/PaaS)?

- How to best participate in the “service layer”: UC, SaaS, IoT and what are the scale requirements?

If telecoms operators want to remain relevant in the ‘new’ digital paradigm, it is urgent that they consider the new business model requirements.

For example pure utility telcos vs. smart telcos. To survive, it is important that telecoms operators do the following:

- Utility telcos will need to run highly efficient networks at scale and structure the cost model to their advantage

- Smart telcos will also need to achieve utility economics and develop product and mediation capabilities to mediate digital services over the network infrastructure. While a number of telcos are aiming for the smart telco model, we see a great risk in achieving it without recognising the need to achieve utility level cost-structure/ efficiencies. Only the operator building on a very efficient platform will be able to truly become a smart telco

- Digital service providers require an understanding of the scale requirements by selectively hand-picking the services to provide (and those not to) and whom to partner with Given the strategic positioning selected, operators will have to understand a number of areas to transform their enterprise business in line with the new digital paradigm and create coherent business models across its five dimensions:
  - Asset ownership
  - Channels
  - Service model & customer experience
  - Organisation & capabilities
  - Partnership ecosystem

Digital services adoption by enterprises: takeaways for telcos

The delivery of services over a single network is transforming the enterprise ICT ecosystem: Software-as-a-Service (SaaS), Unified Communication and the Internet of Things (IoT) no longer need dedicated networks that can be monetised through services

1. **Cloud drives delineation of services from network**

Cloud is built on abstracting the IT complexity and making on-premise infrastructure investments non-economical. The tangible business benefits it enables will ensure its continued penetration.
The main implication of applications moving to the cloud is the delineation of services from network. For a long time operators have been able to monetise their network investments through very specific services. Vertically integrated ecosystems helped: cross-subsidies across networks, service and devices remove some of the customers’ barrier to entry. PSTN networks are the best illustration, where voice was the “killer” application. Given the separation between the service layer and the network, this monetisation model is no longer an option.

Operators will now need to learn how to monetise the bandwidth connectivity independently from the services running on top.
2. New business models winning: case in point, voice via hosted UC

The global fixed voice market is estimated at about US$130 billion in 2015 and enterprise voice makes up ~40% of that.

Enterprises now demand more than just a ‘voice’ service. The need is for a unified communications (UC) proposition that allows users to talk, share and interact across platforms as well as offer pricing and delivering flexibility that scales with the business’ needs.

Some operators have built good UC propositions, but at an overall level they lag behind in the breadth of services compared to the newer, more nimble players. A host of new players like 8x8 and RingCentral are disrupting telecom operators’ traditional dominance in voice.

Exhibit 3: Hosted PBX & UC players in North American market (Source: Infonetics)

Hosted PBX & UC players

Hosted UC leaders have disrupted the market through business model innovation across multiple dimensions:

- **Flexible pricing models:** Pay per user under different models – annual payment, monthly payments (with contract), monthly payments (no contract); VAS priced separately
- **Scale through partnerships:** Extensive partner network across access owners, system integrators, VARs and other channel or connectivity players
- **Ease of integration:** Integration with existing enterprise systems (ERP, CRM, …) for quick implementation and lower complexity
- **Strong business case around savings:** Guaranteeing ~50% lower costs versus traditional, on-premise solutions

While disruption in the voice space will negatively impact voice revenues (and associated lucrative margins) of operators, a broader and more important takeaway is the need to revamp traditional business models. Offering a closed ecosystem of offerings will no longer be viable in the new open, connected, digital paradigm.

All elements of the business (network, pricing, channels, service experience and partnerships) will need to be rethought from scratch.
3. Gaps in the IoT value chain present opportunity

The number of things connected to the internet is expected to grow exponentially from ~4 billion devices today to 12-50 billion by 2020, based on various estimates.

This growth is expected to be fuelled by cheap smartphone devices, pervasive connectivity and advancements in analytics. While most of the use cases today are in the consumer domain, future IoT growth is expected to be mainly driven through use cases in the business domain (Industrial IoT).

Exhibit 4: IoT size & segments

However, for IoT to cross the chasm from early adoption to pervasive use - especially in the business segment - gaps in the IoT value chain need to be addressed. Gaps in interoperability standards appear to be lessening with competing chipset suppliers, Intel & Qualcomm, among others coming together under the Open Connectivity Foundation (OCF) and 3GPP standardising the Narrow-Band IoT (NB-IOT) technology for IoT connectivity.

However, gaps still remain in enabling security, device management and aggregation. Supplementing their central position as connectivity providers with network and partnership capabilities, telcos can play a meaningful role in addressing these gaps.
Exhibit 5: IoT value chain gaps addressable by telcos

In summary, the new digital paradigm offers both challenges as well as opportunities to telecom operators. New business and delivery models are required to address enterprise needs and drive growth.

1. **Telco business models to serve enterprise digital needs**

Redefining the operator’s role within the enterprise ICT context requires answering three questions:

- What is the new enterprise ICT stack, given the digital revolution?
- Which areas of this stack should telcos focus on (business model)?
- How to actualise required business model(s)?

1. **The ‘new’ enterprise ICT stack**

If we assume that the services and the underlying connectivity will be procured and used differently, it is easy to conclude that the new enterprise ICT framework will include, at the bottom, pervasive bandwidth connectivity, and at the top, three types of services:

- People to People: Unified Communication
- People to Machine: Software as a Service (SaaS)
- Machine to Machine: Internet of Things (IoT)

There is also an opportunity for a third “enablement” or “mediation” layer inbetween the connectivity layer and the service layer. This layer should address the key adoption challenges:

- Proliferation of devices
- Security
- Drawing insights from large streams of data
- Scalable computing infrastructure & platforms

The enterprise stack would then evolve as shown below:
II. Bifurcation of telco’s enterprise business model

Taking this trend forward we believe two business models will emerge for telecom operators:

1. Utility telcos

Bandwidth utility players are typically alternative players with limited legacy that fully leverage technology to deliver the most cost efficient service to their clients regardless of the reason for which the client requires bandwidth. They typically run highly efficient networks (e.g., flat IP) and structure the cost model to their advantage. For instance, Free in France backhauls the cellular traffic on LLU (Local Loop Unbundling) using VDSL and ADSL. The utility operator typically runs a very lean cost structure, and relies heavily on cost effective channels (e.g., online) and support (e.g., self-care, community based). They also aim at keeping complexity as low as possible to increase the benefits of scale.

2. Smart telcos

The smart telco builds on the utility model. Its success relies on the ability to achieve also the same level of economics as the utility operator. However, the smart telco is cognisant of the different bandwidth requirements of clients. Consequently, the smart telco develops product and mediation capabilities to enable/mediate services over the network infrastructure. The smart telco is open and orchestrates an ecosystem of service providers that can leverage the reach, the analytics and the infrastructure capability of the operator (for a fee). While the smart telco has a direct and efficient route to market, it also leverages the ecosystem of partners as a channel.

While a number of telcos are aiming for the smart utility model, we see a great risk in achieving it without recognising the need to achieve utility level cost-structure/efficiencies. Only the operator building on a very efficient platform will be able to truly become a smart telco.
Digital service specialists

Focus is placed on delivering services without owning or being tied to any supporting network infrastructure. They rely on a direct relationship with the client, bypassing the operator. Because of the lack of control over the supporting infrastructure, they typically offer best effort services adapting the quality of the service to the available bandwidth (for example, adaptive bit rate). Already players such as Ring Central are making significant in-roads with this model.

III. Emergent business model requirements

In order to successfully be a utility telco and eventually graduate to being a smart telco, operators will have to transform their business model in a coherent way across all five business model dimensions. In doing so, they should take inspiration from digital service providers who, being digital natives, offer guidance on thriving in the new paradigm.

1. Asset ownership

Telecom operators need to create far more transparency in their internal asset allocation and reflect this reality into their pricing. They need to understand the true asset costs of the bandwidth and optimise and factor it into their pricing accordingly. On the flipside, given the low asset intensity of the service layer in the new paradigm, the services should not receive asset cost allocation in a way that makes them uncompetitive against the OTT/asset light players. Re-thinking the asset model is therefore core to ensuring the competitiveness and the sustainability of the business model.
2. Channel
Telcos have developed channels that support the complexity of their current portfolio and are geared to monetise services and bandwidth concurrently. This model is challenged on two fronts – a. At the service layer, by alternative channels with lower complexity and with no expectation of making a margin on underlying bandwidth connectivity and b. On the bandwidth connectivity layer, by a utility player with low complexity/high volume.

Given that the operator of the future will be more open, orchestrating an ecosystem of partners, operators will need to understand the distribution cost and effectiveness in order to be able to remunerate a more open and alternative channel strategy.

3. Customer experience/delivery model
Customer experience is poised for disruption. On one hand the digital era is enabling completely new/more satisfying customer experience, giving back control to the customer, and raising the expectation of instant gratification/on demand bandwidth. On the other hand, the internet has also introduced the concept of “good enough” to the telecommunication world.

The operator will need to rethink the overall customer experience, making sure they achieve the minimum requirements and only differentiate on what the customer values and is willing to pay for. For instance the SLA will need to be simplified to only address a limited set of performance levels that reflect client expectations.

4. Organisation and capabilities
Moving from the current model to any of the three models described above will require different skillsets and/or right-sizing of the organisation to become lean and agile. The journey will depend heavily on the target models that the operator wants to achieve. For instance, transforming to a utility bandwidth provider will mean dramatically reducing the complexity and realising savings by right-sizing the organisation. On the other hand, moving to the digital service provider model will require a very different skillset and mind-set that the operators are lacking. Also, IT architecture and capabilities will play a key role.

5. Partnership ecosystem
The typical operator approach to any problem has been to buy expensive equipment/solutions from vendors to “own” the platform delivering the product. This asset-intensive approach is no longer sustainable in a highly competitive environment. The operator will need to learn to manage an ecosystem of partners to complement their offering and deliver an improved customer experience.

Managing an ecosystem of partners is far more difficult than managing vendors. Digital players such as Google and Apple have accumulated vast knowledge and experience at creating vibrant ecosystems. Operators will need to do so too, adopting more open architecture, building control points and creating win-win value propositions.
Exhibit 8: Utility telco vs Smart telco – business model requirements

<table>
<thead>
<tr>
<th>Telcos</th>
<th>Digital service specialists</th>
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<tbody>
<tr>
<td><strong>Utility telco</strong></td>
<td><strong>Smart telco</strong></td>
</tr>
<tr>
<td>High CAPEX intensity</td>
<td>Investment in network / IT</td>
</tr>
<tr>
<td>Consolidation of assets</td>
<td>Enablement platforms</td>
</tr>
<tr>
<td><strong>Very lean, leveraging 3rd parties</strong></td>
<td><strong>Dual channel structure</strong> (both telco led and digital service partner led)</td>
</tr>
<tr>
<td><strong>SLA achievement and management – highly automated</strong></td>
<td><strong>Innovative way to manage SLA leveraging digital platform, self-service, social media</strong></td>
</tr>
<tr>
<td><strong>Lean organization for core business</strong></td>
<td><strong>2 internal structures: 1) lean telco utility and 2) flexible and agile digital units</strong></td>
</tr>
<tr>
<td>Narrow skills &amp; capabilities focused on connectivity</td>
<td><strong>Mediation partnerships</strong></td>
</tr>
<tr>
<td>Distribution focused partnerships (re-selling)</td>
<td><strong>Inorganic growth through strategic investments / JV's</strong></td>
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<td></td>
<td><strong>Mediation partnerships with smart telcos</strong></td>
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<td></td>
<td><strong>Equity investments / JV's with strategic partners</strong></td>
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2. Business model evolution – Conclusion

Telcos need to answer several questions before deciding on a game plan to play in the new enterprise ICT stack. First, a clear understanding of the market dynamics across the different elements of the ICT stack is critical to identify relevant participation areas. Deciding on the exact participation model will depend on the starting point of the operator from both a network and enterprise capabilities perspective. It is required to translate these guidelines into the specific changes needed for the business model elements (channel, partnerships, etc.) and then to execute on the transformation mandate. The journey will of course differ for local, regional and global operators.

Delta Partners have helped clients answer some of the key questions that are detailed below:

- **What/where are the relevant enterprise digital opportunities?**
  - What digital opportunities make sense for the operator?
    - Short term vs. long term?
    - Global vs. regional opportunities?
  - Should the operator focus on enablement and/or play directly in the digital place?
  - What role should the operator play in enabling/ mediating the enterprise OTT?

- **How should the operator participate in the identified opportunity space?**
  - Given the global nature of OTT plays (at least in the longer term), how should the operator consider entering this space? Is organic play even an option?
  - What is the right participation model for the operator?
  - Is there a more financial play, where the operator acts as an enabling investor, taking to-be-global players to the market?
  - How proactive should the operator be in pushing OTT play, balancing legacy revenue streams with new revenue streams? Is it only a “hook” to protect telco revenues or is it a self-sustaining revenue stream?

- **What business model/s best reconciles discrete objectives & the strategic imperative?**
  - What model best allows achievement of discrete objectives (e.g., cost take out) whilst still enabling the overarching mid-to-long term strategy?
  - What does this mean across the various facets (e.g., asset ownership, channel, capabilities)
  - How does such a model reconcile traditional and digital services?
  - What are the implications/ risks for the existing business model?
    - In terms of monetization model (VAS vs. connectivity)?
    - Go-to-Market?
    - Acquisition strategy?
- **How should the operator transition to the new model?**
  - What should be the end-state blueprint?
  - What are the new skills and capabilities required? How can the op- and organization gaps? How much to build vs. acquire?
  - What is a realistic transformation pace?
  - What are the main implementation risks and how should these be l
Based in our Johannesburg office in South Africa, Christophe is a Partner with over 15 years of consulting experience advising clients in Europe, North America and Africa. His expertise covers the telecommunications and high-tech industries with a focus on enterprise ICT and Cloud Computing. Christophe holds an MBA from the Massachusetts Institute of Technology in Cambridge, Massachusetts together with a Master of Aerospace Engineer from Ecole Nationale Supérieure de l'Aéronautique et de l'Espace in France. He is fluent in English and French.

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