Will Telecoms Get More Than the Connection Share of 5G + IoT?

A second wave of enterprise transformation is gathering pace and 5G will accelerate it. But will Telecoms get more than the connection share of the IoT pie?

The second wave is what we've come to know as the Internet of Things and it's barely started to roll. Between 2017 and 2025, the GSMA predicts that IoT connections will quadruple, to around 25bn, and this is among the more conservative estimates. Even just in terms of raw connectivity, this is significant over a period when the number of new mobile subscribers will be less than a tenth of that figure and growth as a percentage will approach zero.

But, IoT is about much more than connection or the digitization of existing functions and processes (which is one way of thinking about the first wave of digital transformation). IoT technology is opening entirely new ways of doing business for many enterprises and allowing others to radically optimize their existing models, realizing sustainable efficiencies, savings and competitive advantages.

The Pressure on Enterprise

IoT is good news for enterprises that are facing pressure from all directions, for example:

- Shareholders — Lower costs and increase profitability

- Regulators — Minimize waste and reduce environmental damage

- Market — Provide customers with ever-richer and more engaging experiences
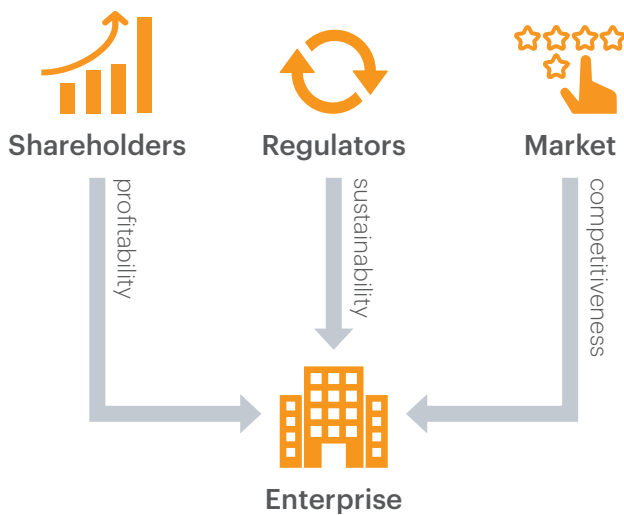
For many, IoT signals a direction forward and a way of achieving their strategic objectives. If wholesalers, for example, have visibility of the real-time stock status of their customers, they can minimize costs, road damage and harmful emissions of uneconomic truck rolls. Customers will no longer have to store and possibly waste surplus stock. Farmers can continuously assess the status of their land and no longer have to over-water or over-fertilize their crops, saving costs and helping to reduce commodity prices — good news all around.

IoT opens up significant new revenue possibilities too — not just new revenue streams, but wholly different approaches to monetizing an existing proposition. Sensors built into household appliances, for instance, connected to processors back at base mean that customers can be offered a responsive long-term service linked to their actual consumption that knows when maintenance or an upgrade is required.

This is a very different, much more persistent business model than the traditional method of dropping a box from a truck and bidding the customer farewell. It's a relationship-based approach which, if service and usage data is rigorously collected, studied and acted on, will afford businesses valuable insight into customer behavior and many new opportunities to upsell, cross-sell and cultivate loyalty.

The Pressure on Telco

Telcos are under a different kind of pressure. As the rollout of 5G gathers momentum, they need to secure meaningful returns on what will be a considerable technology investment. Enterprise initiatives based on IoT have emerged as perhaps the clearest opportunities to do so.

For many operators, the rollout of 5G networks is a given. It will help them maintain share value and competitive positioning in their markets, and in the long term seems likely to prove an efficient platform for convergent service delivery. But, it needs to be more than a better way of delivering the same old stuff, and use cases that promise significant incremental revenue have remained stubbornly thin.

Therefore, it is unsurprising that IoT has been seized upon by the industry. IoT is a category of technological innovation that will greatly benefit from 5G and, in particular, from the dedicated and context-specific performance made possible by network slicing. It's emerging both as a much-needed justification, a driver of 5G and central to the next wave of industrial and commercial transformation, from product-led to service-led business models.

Powerful, responsive and applicable across a wide range of intelligent initiatives, 5G and IoT collectively open an opportunity for Telco to be a key enabler of new industrial and commercial internet applications.

IoT Demands

IoT also demands new kinds of controls, however. Enterprise can't just leave connected devices on the customer premises and walk away, and nor does it want to. Service revenue will depend on being constantly engaged with, and responsive to, remote devices. Monetization, in terms of charging and long-term customer value, will depend on how well and how quickly the enterprise responds to the information it collects.

Monetizing and managing such a complex, dynamic and heterogeneous environment is likely to be outside the comfort zone of most IT enterprises. Telcos, however, are accustomed to monitoring a wide range of network activity and responding with, for example, a charge, a customer notification or an alarm.

Telcos are comfortable dealing with very high volumes of data from multiple sources and providing instantaneous responses. IoT appears to offer them space to build on their baseline enterprise connectivity proposition and add considerable value through core capabilities such as real-time mediation, policy control, charging, analytics, notifications and reporting.

New Opportunities in Tomorrow's Enterprise

Moving to the top of the value chain into vertical-specific applications management on behalf of enterprises will probably remain exceptional for most Telcos, but opportunities are emerging for them to mine a profitable seam of services value through what we might call "rich connectivity."

Their ability to do this may be obstructed by the limitations of traditional OSS and BSS, however. An effective monitoring platform for devices (things) and their activities will need to combine:

- An ability to monitor information being collected and created by a wide range of remote devices, often in real-time where applications are business or life-critical

- An ability to analyze that information, apply complex algorithms and calculations, and take appropriate first-response actions, such as creating directions back to the device, or alarms or notifications to the customer

- Awareness of the distribution, location and status of specific devices to monitor their requirement for power or maintenance

Above all, the management platform will need to be intelligent. IoT is all about efficiency, optimizing activity and taking costly human intervention out of the operational model. For example, the constant interaction between remote smart devices and servers has the potential to take much of the load from employees who would previously have needed to travel perhaps hundreds of unnecessary miles to replenish stock.

This degree of automation will only be feasible, however, if backed up by a sophisticated management platform that will allow automated control and configuration of IoT deployments and which will provide transparent visibility of activity and usage. Ideally, it will also be open enough to expose network, charging and other functions, allowing enterprises to self-configure and self-manage their deployment.

Finally, what we might call "rich connectivity" as a proposition would not just be a variant on existing consumer and enterprise offerings, in business or technical terms. It would almost certainly be a separate business unit within the Telco with a separate management platform, whether run on-premise or more likely from a public or private cloud environment.

Stepping up to the Enterprise Plate

Telcos undoubtedly have a vital role to play in the internet of things, and their core capabilities should open up more than connectivity revenues as a reward.

Device connectivity is an essential element of the IoT framework, particularly where any form of mobility is concerned, and the capability of 5G to slice the network based on performance and latency attributes will greatly enhance the value that Telcos can offer enterprises. But connectivity will commoditize fast and is unlikely to provide a substantial return on the investment needed to build out 5G.

As enterprises move into their second phase of digital transformation, Telcos need to step up their proposition and leverage their ability to apply intelligence to high-volume real-time data. Moving up the value chain from simple connectivity to a richer suite of capabilities incorporating dynamically configurable pricing, device management, real-time insights and analytics will help them secure the bigger prizes.