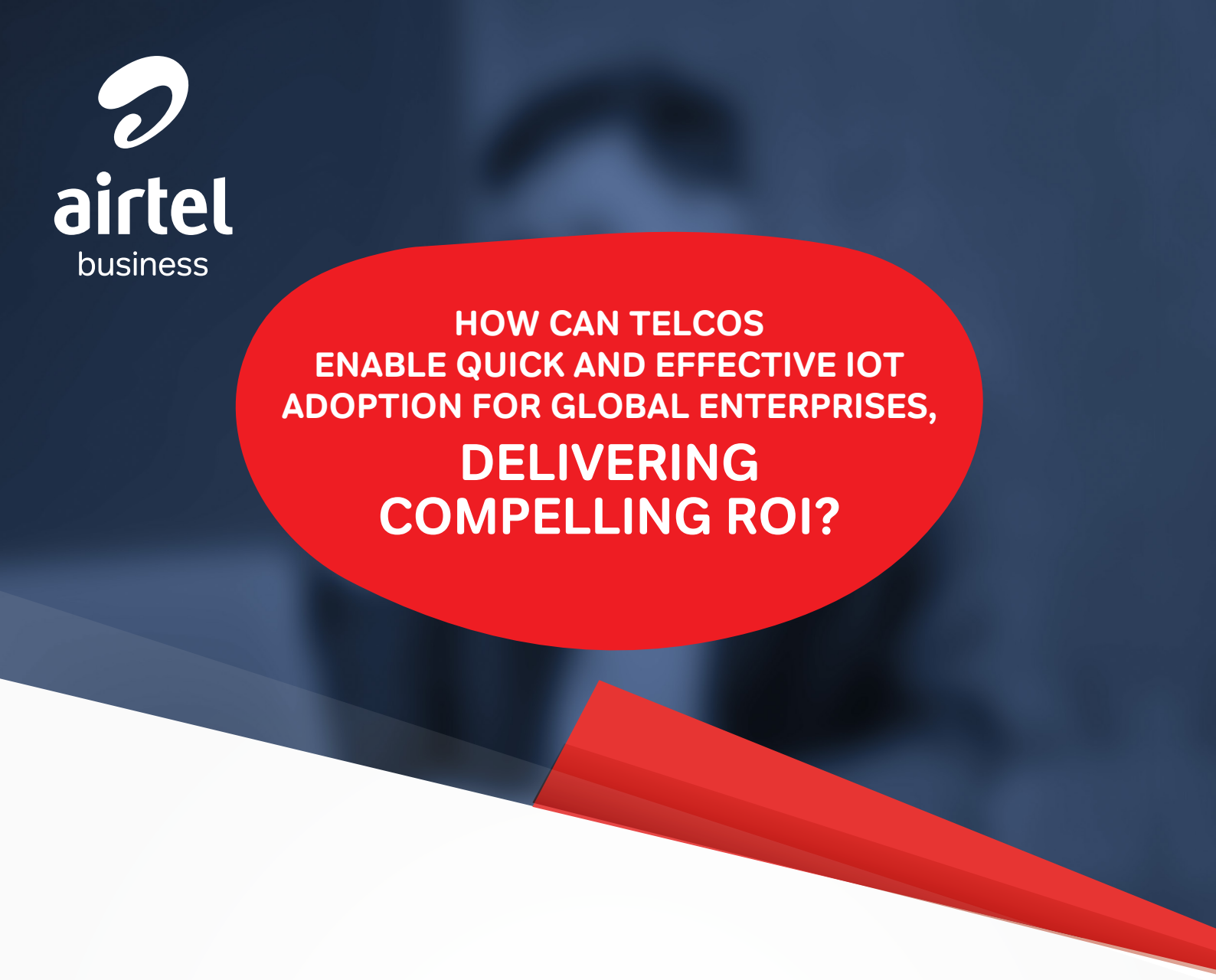

HOW CAN TELCOS ENABLE QUICK AND EFFECTIVE IOT ADOPTION FOR GLOBAL ENTERPRISES, DELIVERING COMPELLING ROI?

An individual today owns an average of three to four connected devices , estimates GWI, an organization that tracks the behavior of digital consumers. On the other hand, a typical urban household has at least seven such devices , ranging from smart TVs, refrigerators, connected cars to smart alarm systems. These devices, which have become an indispensable part of a consumer's life, have translated the concept of the hyper connected world into a living reality.

Resultantly, the idea of an Internet of Things (IoT) where sensor-embedded devices are connected to each other, has started taking shape. As these connected devices proliferate, enormous potential is opening up for global enterprises to offer consumer-focused IoT services. Still in its nascent phase, the IoT ecosystem is expected to mature rapidly in the coming years, as enabling technologies such as 5G foster increased hyper connectivity. Time and skills will become a critical differentiator, especially for organizations that hope to capitalize on the early mover advantage. In order to maximize their business gains from such a competitive position, enterprises will need to partner with service providers that are already experts in their respective domains, rather than build capabilities from ground up. One such vital partnership will be the collaboration with telecom operators.

Telcos around the world continue to maintain a personal relationship with their retail and enterprise consumers, by virtue of their integral role in providing connectivity services. They are also in a unique position of being perceived as trustworthy, since they remain one of the largest custodians of valuable consumer data. Add to this their ownership of critical network infrastructure, and it's not difficult to see why telcos will be one the most important stakeholders in the IoT ecosystem. Wireless carriers will be critical enablers for any enterprise that is looking to create value in IoT and emerge as a winner.

But how can enterprises forge productive alliances with the telecom industry in the context of IoT? Do the latter play a role beyond mere provisioning? How can telcos help enterprises effectively monetize the IoT opportunity?

In order to answer these questions, we need to look at the fundamentals of the IoT architecture. A typical IoT model essentially includes three main layers or components. For any IoT deployment to be successful, these three layers have to be supported and integrated for smooth functioning.

The first layer is the "intelligent devices" that capture usage data and work on the principles of edge computing to gather, process, analyze and communicate relevant information to the users and the cloud. Fitted with sensors and controllers, these devices must be capable of triggering particular actions, based on the programmed parameters. Additionally, they will need to be connected to each other and to the cloud, in order to address consumers' demand for hyper connectivity.

This is where telcos, with their widespread distribution of modems, network hardware, base stations and other IP devices, can emerge as the ideal partners for IoT service providers and application developers, to deploy their services through cloud-enabled devices. The connectivity requirements of such devices, including the provisioning of low-power wide area networks (LPWAN), can also be addressed by telcos. With their expertise in M2M communications and associated protocols including provisioning and registration of IoT devices, wireless carriers can play a vital role in being an embedded solution provider for enterprises.

The next layer will be the underlying infrastructure or the IoT Platform where information aggregated from devices is stored in the cloud and data centers. Apart from the ability to manage the huge volume of data, these data centers will also need to scale on demand, and be able to manage the real-time needs of IoT businesses.

Telecom companies, given their in-depth capabilities in storage, capacity management, and network infrastructure, can help enterprises manage platform requirements accurately. By leveraging their expertise in cloud services, partnerships and data center setups, telcos can fulfill enterprises' growing preferences for multi cloud, hybrid cloud and distributed cloud environments. Telcos, with their connected infrastructures, will also be able to scale rapidly, and manage the bandwidth requirements of IoT data centers.

The third and final layer is the data and application layer where massive amounts of Big Data will have to be processed and analyzed for solving particular business problems. Here, vertical-specific use cases such as connected cars, connected health care, remote asset maintenance and management will drive value by converting data into consumer insights

Telcos, on account of their increasingly sophisticated data analytics capabilities and rich experience in handling large volumes of data, can help enterprises roll out vertical-specific use cases that reflect evolving customer demands. Having invested significantly in IoT and M2M solutions already, it will be but a natural progression for telcos to extend this expertise to their enterprise partners.

Finally, apart from performing these three roles, Telcos can also play the role of an IoT integrator, enabling companies to orchestrate the entire IoT value chain successfully.

Considering the significant potential for the telecom industry to take up such a widespread position in the IoT landscape, they can definitely help enterprises roll out IoT services much more effectively and efficiently. It will, therefore, be in the interest of enterprises to forge deeper alliances with telcos if they wish to propel themselves ahead of competition faster and better. Equally importantly, telecom operators will need to deepen their ongoing alliances worldwide to address the growing demand from their B2B customers for faster, cost-effective rollout of IoT solutions.

---

https://blog.globalwebindex.net/chart-of-the-day/digital-consumers-own-3-64-connected-devices/
https://www.cedmagazine.com/data-focus/2016/08/how-many-active-connected-devices-does-home-north-america-average