The importance of interoperability in unlocking value from the IoT

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According to the GSMA, the global Internet of Things (IoT) market is expected to be worth more than $1 trillion in revenue by 2025 as the number of IoT connections across the world surpasses 25 billion. If they don't already, businesses across all industries will have a strategy in place for using IoT technology as a means of unlocking innovation and new revenue streams, and operators will play a key role.

Despite being the most fundamental of an operator's offerings, connectivity, however, is only expected to represent around five percent of the overall IoT market. The more significant opportunity is instead likely to be in the provision of applications, platforms and services, such as data analytics, management and service assurance. This proportion is supported by the findings of a recent study by Ericsson, in which 80 percent of the multinational telecoms businesses surveyed confirmed that they saw potential value in IoT beyond just providing connectivity, by becoming IoT service enablers or service creators.

Indeed, our own research recently revealed how CIOs and CTOs within the telecoms industry plan to capitalize on this new revenue stream: 28 percent of respondents, for example, plan to provide platforms for third-party services, while just over a quarter (26 percent) indicated that they plan to develop their own applications and IoT services. Additionally, a similar number (24 percent) noted that they intend to monetize connectivity.

The possibilities for operators to develop and maintain a central role in IoT are clearly significant yet capitalizing on them will require a shift in mindset. Sylwia Kechiche, Principal Analyst, IoT, GSMA Intelligence notes, "The IoT revenue opportunity is shifting away from simply connecting devices to addressing specific sectors with tailored solutions, and successful ecosystem players will need to adapt their business models in line with these market trends."

This mentality, then, plays into the digital transformation programs currently being undertaken by operators that, as is common with businesses everywhere, are looking to improve the efficiency of their business operations and the customer experience they offer. As the IoT continues to grow and its ecosystem expands and diversifies, delivering services to new and existing customers will increasingly rely on an operator's capacity for interoperability—ensuring its services and applications can be leveraged across multi-vendor and multi-carrier connections. Interoperability

should, therefore, form an important part of any operator's digital transformation initiative.

Monetization models

Operators have always focused on how they can best generate revenue from the services they offer their customers. The advent of the IoT, in which telecoms networks will become increasingly vital—particularly once the ultra-low latency, high data capacity, and edge computing capabilities of 5G are finally implemented—will offer a greater opportunity for operators to broaden this focus.

According to a report from the Wireless Broadband Alliance, IoT monetization will come in at least four different forms, each of which will directly benefit operators, and each of which would be impossible to fully achieve without interoperability.

The addition of network connectivity to a new or existing product, for example, may be primarily concerned with hardware, but this connectivity will need to be coupled with a typically cloud-based tool for its basic management. A service-based model involves the transformation of traditional product offerings into recurrent service offerings, while an ecosystem-based model sees the focus shift from an end-to-end product or service offering to the delivery of a shared platform which enables an operator's partners to monetize their own unique capabilities. The final model is based on data insights, in which operators generate revenue by monetizing aggregated and anonymized data generated by the wealth of connections across the IoT and, if required, providing analysis of that data.

Breaking up silos

Data, as we know, is "the new oil." One of the most valuable tools for any business, data's value will only increase following the connection of millions—and even billions—of devices, and access to the intelligence and insight that can be derived from the data they generate.

High among the benefits that interoperability offers operators is the ability for them to understand and analyze the vast amount of customer and transactional data they collect and, by quickly and easily sharing it with their customers and partners, monetize it.

By performing real-time analytics on the subscriber data they hold, operators are able to improve their own operational efficiency. Data analytics allow operators to create new business opportunities too, by personalizing and more accurately targeting their service or product offering based on greater insights into consumer behavior. Of course, the opportunity to make these analytics available to their commercial partners is also important.

Much of the data generated by the IoT, however, is currently retained in different vertical silos. The value of the data collected is limited when it is siloed for use only by certain applications and developers. After all, the true value of the IoT lies in unfettered access to rich data sets from multiple sources, organizations and verticals, regardless of the format in which that data is held—and for what purpose.

While it makes some commercial sense for individual operators to lock customers into their own unique set of standards, they are missing the wider opportunity identified earlier, in which that data and the insight that it offers can be shared with customers and partners—for a price. Using a cloud-based platform, for example, will provide them with the flexibility and scalability they need to do just that.

What's more, the telecoms ecosystem must work together to define a set of standards that will enable this universal access to data, no matter which device it originated from, or how or where it has been held.

Transforming telecoms

The Internet of Things is probably the most significant technological development in many years and is set to radically transform the way in which businesses everywhere operate. The telecoms industry plays an essential role in this transformation, providing the connectivity that underpins the entire IoT infrastructure.

So far, however, this role has not fully translated into a competitive advantage for network operators themselves. With traditional revenue streams being eroded by OTT players and largely operating on outdated legacy business models, operators have seen their profits dwindle. Now, though, the IoT offers them the opportunity to reclaim some of this lost ground. Whether they look to maximize the potential of new partnerships and business models or build upon existing relationships, operators themselves must undergo a transformation of their own if they are to unlock the full value of the IoT.

No longer must they be solely focused on monetizing the connectivity and additional services they offer their customers. Now they must consider the bigger picture. The billions of connected devices that make up the IoT will create a whole new ecosystem, one that contains multiple vendors, multiple operators, and multiple formats and systems. These too, must be connected if the IoT is to succeed.

By eliminating data silos and enabling interoperability across the entire ecosystem, operators will establish themselves as key players in this success, delivering additional ongoing services to new and existing customers and partners and enjoying the associated revenue that the IoT can offer.