

In Search of the Killer Application for NB-IoT

Avoiding the Telco trap with the Internet of Things

The glory days are over

The first mobile networks were built with voice calling as primary use-case and the only application on the network. And the unrivalled growth of mobile phone users allowed MNOs to upgrade their networks without the need to know exactly which services and applications will be run on top of it.

Billions were invested into spectrum licenses and network infrastructure – at a time when no one knew specifically what these high-tech networks will be used for. Often, the networks were built before compatible devices were even available on the market.

3G networks were rolled-out in the early 2000s before the 2G capacities were even fully utilized. But it wasn't until the advent of the iPhone in 2007 when smartphones and mobile internet became a mass market phenomenon – and the first iPhone wasn't even 3G enabled.

Like every soaring market, this situation was not destined to last forever. As saturation is reached and competition heats up, potential return on investments into network features need to be carefully considered.

IoT - hype or hope?

"50 billion connected devices by 2020" was the bold projection for the internet of things or machine to machine communication, as it was called at the time in 2010. The thought of everything being connected to the internet, making every science fiction fan's dream come true, was just too intriguing for MNOs not to jump on the bandwagon and to develop services for this market. IoT has become the silver lining on any MNOs horizon, a new untapped market that could bring back the glory days.

After the initial rush reality has kicked in and the industry has learned two things:

First: The expectations were overly optimistic. Current

estimates are much more conservative at around 20-25 billion connected devices by 2025. Nevertheless, IoT poses a real opportunity and is among the fastest growing fields of business within the industry.

Secondly: just offering horizontal communication services on top of the existing networks is not enough to drive the adoption of IoT. Operators will have to invest in specialized IoT network features and to offer end-to-end solutions to their customers.

Where is the killer application for NB-IoT?

Low-power-wide-area-networks (LPWAN) are designed to deliver the infrastructure needed to enable a wider adoption of IoT with better coverage, longer battery lifetimes and low-cost modules. While Sigfox and LORA have won the race for time-to-market, NB-IoT is expected to be the widely adopted industry standard for MNOs.

But while the technological advantages are clear, the quest for the killer application for NB-IoT remains. Voice, text and data were universally applied across all customer segments and industries, but IoT applications vary widely depending on the customers' needs.

Proactively engaging in IoT requires operators to change the traditional, horizontal mass-market approach and to put themselves into their customers' shoes. As they undergo the digital transformation, customers require specific solutions to the specific challenges of their industry.

There is no such thing as a killer application for the IoT, nor is there a one-size-fits-all solution to enable the use of IoT. To have a significant role in IoT, operators need to understand that IoT is not a single opportunity but a highly fragmented market of many vertical and even niche applications. Addressing an ecosystem of technology partners and vertical industry specialists will be the key to successfully deliver IoT solutions to customers.