MWC 2023: private networks received more attention than IoT, despite several interesting new IoT ventures

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Activity at Mobile World Congress (MWC) 2023 reflected a recent trend: interest in IoT has declined, while interest in private networks (and private 5G in particular) continues to grow.

HPE's acquisition of Athonet was the most notable private networks-related news, and several new partnerships were announced. IoT was much less visible than in previous editions of MWC, but several announcements were made about emerging areas of IoT: satellite IoT, iSIM and the convergence of LPWA networks. These announcements may not have the marketing appeal of private 5G, but indicate that players in the IoT market have made progress towards resolving a number of issues that have been hindering the IoT market. The narrative around private networks is far more positive than that for IoT, but private network service providers will need to tackle various issues of their own.

The private networks market is becoming increasingly crowded; vendors were keen to articulate competing visions

Several private network service providers launched new private 5G solutions in 2022, including Amazon, Cisco, HPE and Google. Service providers are splitting into different camps, each with their own vision for private networks:

- **network equipment providers** such as Nokia and Ericsson had a first-mover advantage in private networks and focus on providing independent, standalone private network solutions
- **telecoms operators** see an opportunity to provide an extension of public networks
- **Wi-Fi providers** such as HPE and Cisco want to package private networks with Wi-Fi
- **hyperscalers,** such as Amazon and Microsoft, see private networks as an extension of the public cloud.

Each vision was articulated at MWC and new partnerships were announced to help to enable them.

- **HPE acquired Athonet,** a provider of private core networks. HPE did not have much of a presence in private networks but now has the opportunity to combine Wi-Fi (via the HPE owned Aruba) and private LTE/5G into a packaged solution.

- **AWS announced an 'Integrated Private Wireless' programme,** developed in collaboration with five operators: Deutsche Telekom, KDDI, Orange, T-Mobile and Telefónica. The programme combines the private LTE/5G offerings of these operators with AWS services (such as AWS Outposts and AWS Snow Family) and allows enterprises to discover the operators' solutions on AWS Portal.

- **BICS announced a partnership with Microsoft** to enable IoT devices to roam between private and public networks. Roaming capabilities are available for partners that are building solutions with Azure Private MEC.

- **Cisco and NTT Ltd** partnered to develop joint go-to-market propositions for private 5G. Cisco stated that the two firms are already co-operating on several customer deployments.

Competition in the IoT market and the difficulty of making IoT profitable has led IoT players to explore new avenues for growth

The IoT market went through a period of reflection in 2022. Companies such as Ericsson, Google and IBM stepped back from the IoT market, and the narrative around IoT has shifted from 'the next big thing' to one of IoT failing to deliver on past promises. IoT remains a tiny proportion of most operators' telecoms business – typically accounting for 1–2% of an operator's total mobile revenue, far below the 5–10% some (not including Analysys Mason) had been forecasting. Nevertheless, IoT connections and revenue are both still growing steadily – above 10% in most cases – and will continue to do so for most of this decade.

IoT received much less attention at MWC 2023 than in previous years, and the new announcements focused on resolving common issues in IoT and targeting emerging opportunities. Some notable announcements were made in the following areas.

- **eSIM/iSIM.** Eseye announced a new iSIM solution ('integrated eUICC'), developed in partnership with Sequans. The solution embeds Eseye's Anynet connectivity into Sequans' Monarch 2 NB-IoT/LTE-M modules. This solution stands out from previous IoT iSIM deployments because it supports remote SIM provisioning under the GSMA M2M eSIM specification. eSIM did not receive as much attention at MWC as in previous years, but several vendors and MVNOs spoke of the potential for the new GSMA IoT eSIM specification (to be finalised in 2023) to streamline the eSIM provisioning process and remove some of the roadblocks present in the existing M2M specification.

- **LPWAN convergence.** Unabiz, the owner of Sigfox as of 2022, announced a partnership with The Things Industries (TTI), the host of The Things Stack, one of the most deployed LoRaWAN network servers. Unabiz will integrate its middleware platform, UnaConnect, into The Things Stack, enabling the use of hybrid Sigfox–LoRa solutions. Unabiz had previously stated its intention to increase collaboration with other LPWAN technologies under its ownership and had previously revealed an LTE-M solution in partnership with Soracom. Semtech also announced a deal with TTI to develop hybrid LoRa-cellular products after acquiring cellular capabilities via the acquisition of Sierra Wireless.

- **Satellite IoT.** Satellite has been a niche area of IoT, but interest in this area has grown rapidly. Deutsche Telekom announced two satellite IoT propositions in partnership with Intelsat and Skylo, respectively, to enable Deustche Telekom to close gaps in coverage of its cellular network. Deutsche Telekom demonstrated three satellite IoT use cases: connected wind turbines in remote areas, water management and broadband connections in maritime locations. emnify also partnered with Lynk to offer satellite connectivity to emnify's customers that have devices in offshore locations.

Despite the recent pessimism surrounding IoT, the attempts to solve long-standing issues around coverage, interoperability and eSIMs are a step forward for the market. Tackling a variety of problems with IoT does not generate many headlines, but is essential for continued growth. The private networks market is at an earlier stage of maturity than that of IoT, and is subject to similar levels of hype and excitement that followed the IoT market in its early days. Private network players will need to address several issues such as interoperability, security and problems with devices. Work to address these issues is just beginning and will come under a lot of scrutiny in the years to come.