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Tata Communications and HPE Plan for the World's Largest Network Using the LoRa Specification

March 15, 2017

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IDC's Quick Take

Adding Tata Communications global network capabilities on top of a large, relatively inexpensive IoT network build on unlicensed spectrum LoRa to millions of potential IoT customers is a milestone for IoT deployments. By selecting Hewlett Packard Enterprise's (HPE's) Universal IoT Platform to manage their IoT infrastructure as well as provide the corresponding industry-related management services seems like a win-win for Tata and HPE as they learn how to deliver IoT solutions to the masses.

Event Highlights

Last year, Tata Communications announced that it had plans to build out a LoRa network as part of its long-term strategy of creating mobile platforms and ecosystems that enable its customers and partners to connect people and IoT devices seamlessly on a global scale. This year, at Mobile World Congress in Barcelona, Tata announced plans to roll out coverage across tier 1, 2, 3, and 4 cities in India, making IoT solutions over a LoRa network in smart buildings, campus, fleet management, security, healthcare, and utilities — reaching over 400 million people. As a result of this, Tata Communications selected HPE's Universal IoT Platform to manage its IoT infrastructure as well as provide the corresponding industry-related management services.

Connecting IoT devices has never been a difficult process — simply put, the devices have a range of connectivity protocols that customers match up to the needs and feeds of the IoT application. In addition, given years and years of legacy deployments on shop floors, in cars, and in cities, IoT management has been one area where IT vendors can differentiate themselves from their competitors by building a better IoT platform. In this case, HPE's Universal IoT Platform can integrate a variety of connectivity options including cellular, radio, WiFi, Bluetooth and, in this case, a Low-Power WAN (LPWAN) solution using unlicensed spectrum from LoRa gateways.

IDC's Point of View

There has been an intense LPWAN battle going on between licensed spectrum (3GPP: LTE-M, Narrowband [NB] LET-M and NB-IoT) and unlicensed spectrum solutions (predominantly LoRa and Sigfox). In our research, we have published an IoT connectivity forecast. Based on this forecast, we estimate that there will be 30 billion installed connections in 2020 and 80 billion installed connections in 2025. Short-range wireless connections — Bluetooth, NFC, ZigBee, and so forth will dominate IoT connectivity, but LPWAN is the fastest-growing part of the market).

With the typical furor of announcements made during the Mobile World Conference, HPE, Huawei, Tata Communications, Telefónica, Orange, KDDI, Verizon, AT&T, NTT DOCOMO, Telstra, TELUS, and a host of others supporting LTE-M, NB-IoT, LoRa, and Sigfox jostled for attention. Everyone, it seems, had

something important to offer, be it global coverage models or country-level partnerships while others worked at stifling the competition's progress while they either played catch up or tried to sustain a lead.

Up to now, price differentiation between licensed and unlicensed spectrum may have been the number 1 talking point — for example, LoRa and Sigfox have been orders of magnitudes less expensive than NB-IoT. LoRa solutions have also tended to be easier and quicker to deploy than its competitive offerings in NB-IoT (many are still in early test phases). As IoT markets form and grow, it is critical to take a step back and look at the underlying ICT infrastructure capabilities — for example, are there regional energy suppliers that can provide clean, reliable energy to run a resilient infrastructure? IoT deployments will quickly become high-priority applications that need to be on the "Always On" list for business continuity. Second, is there an effective regional broadband strategy that caters for the emerging IoT business models? Without a cost-effective connectivity strategy, IoT solutions will be stifled because customers cannot afford high connectivity charges. However, customers will look past the initial start-up costs of a LoRa-like solution and push for total cost of ownership (TCO) proposals. Finally, given that we see connectivity prices race to zero very quickly, HPE and Tata Communications (as well as their competitors) need to consider that the business opportunity is in the IoT services and not merely in connectivity.

Communications service providers should look at the Tata Communications announcement as one of IoT best practice. Here they selected a technology that can be deployed in a cost-effective manner, and it is here today and ready for deployment (and runs applications within a risk profile that many customers will accept). Second, they partnered with an IT vendor that has a fully functioning IoT management platform. HPE sees this as a great opportunity to capture the high ground on IoT management, while at the same time laying the foundation for its Edgeline IoT gateways for the network edge.

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