



LoRa Alliance™ Enables Global IoT Roaming and Device Deployment; Convenes in China for 9th All Members Meeting Hosted by ZTE

Latest LoRaWAN™ protocol specification simplifies device deployment and use across multiple networks for cost-effective worldwide tracking

Suzhou, China – Oct. 17, 2017 – The LoRa Alliance™, the global association of companies backing the open LoRaWAN™ standard for internet of things (IoT) low-power wide-area networks (LPWANs), released its latest technical specifications to kick off the organization's 9th All Members Meeting (AMM) taking place in Suzhou, China and hosted by ZTE. New features in the latest specification releases include roaming and separation of backend nodes, which will enable IoT devices to connect to and move between LPWANs around the world. This supports large-scale deployments and enables new global services such as cargo tracking. Such features are critical in the Alliance's mission to standardize LPWANs globally and drive widespread adoption of the LoRaWAN protocol as the de facto standard for IoT connectivity.

"The importance of China in the global electronics supply chain is a key reason we are bringing the Alliance members together in Suzhou," said Geoff Mulligan, chairman of the LoRa Alliance. "With today's specifications extending the reach of the LoRaWAN protocol, now is an ideal time to engage with our colleagues in China to address their market-specific requirements. Only through the collaboration of all of our global ecosystem in a single standard can we advance members' interests and drive the ongoing adoption of LoRaWAN technology."

"We are excited to welcome the Alliance here to Suzhou and discuss these developments this week," said Liu Jianye, VP of AMM host sponsor ZTE. "The AMM offers a unique opportunity for local vendors to have in-depth, face-to-face engagement with the LoRa Alliance ecosystem. We believe the LoRaWAN protocol is the technology system that is suitable for low-cost IoT applications. Based on the LoRaWAN specification, ZTE CLAA leads the operation of the world's largest application alliance (850+ members, 100+ application types, 40+ commercial applications). With its strategic partners, ZTE CLAA tries to expand the city-level LoRaWAN network operation; with terminal and application partners, ZTE CLAA provides abundant, comprehensive IoT solutions."

"Here at the LoRa Alliance All Members Meeting, we can see how quickly the interest and commitment to the LoRaWAN protocol are growing in China," said Bing Liu, CEO of platinum AMM sponsor ThingPark China. "The Ecosystem Lab and Marketplace we are launching at this AMM will help accelerate the growth of LoRaWAN specifications-based IoT in China by supporting the local ecosystem at every stage from developing and testing their products to distributing solutions to local customers and taking them to market worldwide, and we'd like to



extend an invitation to any company in China that is interested in adopting, developing and marketing LoRaWAN products globally to join our ecosystem.”

The Alliance officially announced the availability of the following specifications today:

- *LoRaWAN 1.1* with support for handover roaming, and Class B and security enhancements
- *LoRaWAN Backend Interfaces 1.0* with support for decomposing the network into interoperable nodes, as required for inter-vendor roaming
- *LoRaWAN 1.1 Regional Parameters rev. A*, which describes region-specific radio parameters for LoRaWAN 1.1 end-devices

The enhancements delivered in these specifications offer important functionality improvements for users in terms of interoperability and network reach. Specifically, support for roaming will allow for large-scale deployments, since vendors will know that their LoRaWAN protocol-based products could potentially operate worldwide. At the same time, the new backend specification provides the protocols that interconnect servers with distinct roles—such as controlling the MAC layer, end-point authentication, or applications—behind the scenes in the core network. Separating these servers allows an open choice of vendors for each element of the value chain, empowering the ecosystem.

“For the IoT to reach its forecast potential, an ability to deploy devices on a massive scale is a key enabler,” said Mulligan. “The enhancements introduced today advance the LoRaWAN protocol, further opening up the ecosystem, enhancing interoperability and expanding the reach of existing LoRaWAN networks.”

The 9th AMM is taking place Oct. 17-20, 2017 in Suzhou, China. In addition to host ZTE, the event is being sponsored by ThingPark China, Semtech, STMicroelectronics, Orbiwise, Kiwi Technology, Lierda, Winext Technology, AcSip, and Siradel, representing the Alliance’s diverse geographic and technical membership. The event will feature an Open House on Thursday, Oct. 19, with a program dedicated to exploring the use of the LoRaWAN protocol in China and understanding the diverse applications and vertical markets experiencing successful adoption. The Open House is open to the public, and interested parties may join us at the Shangri-La Hotel in Suzhou on Thursday, Oct. 19 at 8:00 a.m. and register on-site.

LoRaWAN 1.1 Specification: Key Features

The latest LoRaWAN Specification features the following capabilities:

- Support for handover roaming, which allows transferring control of the end-device from one LoRaWAN network to another. Earlier versions of this specification can already be used for passive roaming, which is transparent to the end-device.
- Bidirectional end-devices with scheduled receive slots (Class B) are part of the specification enhancements and are now officially supported.



- Enhancements for additional security hardening.

In order to support heterogeneous deployments and not force a globally coordinated upgrade, both LoRaWAN 1.1 end-devices and networks will support backward compatibility to interoperate with their LoRaWAN 1.0.x legacy peers.

LoRaWAN Backend Interfaces 1.0 Specification: Key Features

The new LoRaWAN Backend Interfaces 1.0 specification enables the following capabilities:

- Has the ability to break down the network into network server (NS), join server (JS) and application server (AS).
- Enables roaming for both LoRaWAN 1.0.x (passive roaming only) and LoRaWAN 1.1 networks (both passive and handover roaming).
- Identifies the entity that stores end-device credentials (including root keys) as JS. It can be separated from networks and administered by an entity independent of the networks that the end-device may be using. This allows networks to offload the authentication procedure to a dedicated system, which can also be operated by a third party. This third-party JS also enables an end-device to be manufactured without having to be personalized for the networks it may eventually be connecting to.

About LoRa Alliance

The LoRa Alliance is an open, nonprofit association that has grown to more than 500 members since its inception in March 2015, becoming one of the largest and fastest-growing alliances in the technology sector. Its members closely collaborate and share experiences to promote the LoRaWAN protocol as the leading open global standard for secure, carrier-grade IoT LPWAN connectivity. With the technical flexibility to address a broad range of IoT applications, both static and mobile, and a certification program to guarantee interoperability, the LoRaWAN protocol has already been deployed by major mobile network operators globally, with continuing wide expansion in 2017. For information about joining the LoRa Alliance, please visit www.loraalliance.org/join.

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