O-RAN Alliance Conducts First Global Plugfest to Foster Adoption of Open and Interoperable 5G Radio Access Networks

- 35 companies and operator-members jointly demonstrated 10 scenarios to verify and validate recently published O-RAN specifications in Asia, Europe and North America
- The Radio Access Network vendors' adoption of open standards and interoperability is expected to become an integral part of emerging 5G networks
- An O-RAN Industry Briefing is scheduled for Mobile World Congress Barcelona 2020, where members will exchange views on the important steps towards realizing O-RAN compliant commercial solutions

Bonn/Germany, December 19, 2019 – The O-RAN Alliance successfully conducted its first worldwide plugfest and proof of concept to demonstrate the functionality as well as the multi-vendor interoperability of network equipment that complies with the recently published O1, A1, and Open Fronthaul interface specifications.

"O-RAN's first global plugfest showcases the power of the community to document and develop truly open interface specifications with the potential to accelerate new 5G advanced services that will be multi-operator, multi-vendor, and create opportunities for the entire ecosystem," said Andre Fuetsch, Chairman of the O-RAN Alliance and Chief Technology Officer of AT&T. "These live demonstrations represent yet another step toward the realization of O-RAN compliant 5G RAN solutions that should soon become part of the product offerings of both mainstream and niche vendors."

ASIA

Hosted by China Mobile, the plugfest Asian Session was held in the China Mobile International Information Port, an Open Test and Integration Center, with physical attendance well over 200 attendees from over 70 companies, plus on-line attendance of over 70 participants. Representatives from global operators including British Telecom, China Telecom, China Unicom, NTT DOCOMO, Orange, Reliance Jio, Telecom Italia Mobile and an operator from North America have actively participated in this event. The plugfest tested and integrated multi-vendor solutions that comply with the O-RAN Open Fronthaul interface and exercised decoupling different hardware technologies from the RAN software:

1. Cloud-based small cell running on virtualization technology was demonstrated by CertusNet, Lenovo, ChengDu NTS and Inventec. It features a VM-based O-CU and containerized O-DU cohosted on the same x86 processor plus accelerator platform.
2. Multi-vendor interoperability with 5G commercial products was demonstrated by NTT DOCOMO with Fujitsu and NEC.
3. A low power configuration of cloud base station running on Yocto OS and container technology was demonstrated by Altran, ArrayComm, WindRiver, Baicells and CIG. It features the open architecture baseband signal processing based on ARM processor plus accelerator computing platform.

4. Soft base station with O-RAN compliant open fronthaul interface, but without virtualization, was demonstrated by Radisys, Foxconn (Taiwan), QCT and Intel. It leverages open source software including the O-RAN Open Source Community's OFH Lib, and BBDev based Accelerator Abstraction Layer SDK API.
5. The interworking of the O-RAN open fronthaul interface was demonstrated on technology provided by FHK (Shenzen) and Viavi, which performs comprehensive tests based on the test specification by O-RAN with O-RU and UE emulator in a multiple-UE test environment.

The plugfest held in the NTT DOCOMO R&D Center presented multi-vendor interoperability between CU/O-DU and O-RU using the O-RAN Open Fronthaul interface and multi-vendor interoperability between eNB and gNB using the O-RAN X2 interface. The functionality has been successfully demonstrated by NTT DOCOMO, Fujitsu, NEC, and Nokia. NTT DOCOMO has already started 5G pre-commercial service with the presented products. An Open Test and Integration Center is planned to be established in Japan.

NORTH AMERICA

The plugfest and proof-of-concept conducted within an Open Test and Integration Center candidate in North America, 5G COSMOS, which consists of vendor and university labs in the NYC metro area, was hosted by AT&T and focused primarily on the validation of the O1 and A1 interfaces:

1. Physical Network Function (PNF) Plug and Play, a 3GPP-aligned O1 use case that provides a means for service providers to collaborate with equipment vendors to have PNFs discovered by Service Management Orchestration (SMO) via a PNF registration handler, was demonstrated by Nokia, CommScope and Ericsson. Remote SMO functions were also demonstrated with connections to labs in France and Germany.
2. Bulk Performance Management Data Collection was demonstrated by Ericsson and Nokia.
3. O1 interface functionality for Configuration, Performance, and Fault Management of multi-vendor equipment via a vendor-agnostic SMO was demonstrated by Altiostar, CommScope, and Samsung.
4. A1 interface functionality to optimize PCI/RSI for a large-scale RAN simulator using a closed loop automation framework was demonstrated by IBM, Tech Mahindra, Wipro and highstreet technologies.
5. Convergence of the Open Fronthaul Management Plane specification with O1 interface was demonstrated by Samsung.

"The O-RAN Alliance has been continuously expanding its influence in the industry since its inception. It is really amazing to see such a symbolic milestone achieved just 10 months since its release of the first specification in MWC Barcelona this year," said Zhengmao Li, EVP of China Mobile. "The successful holding of the plugfest event globally with deep contribution from over 30 partners represents a consolidated step towards a full disaggregated O-RAN compliant 5G network."

Dr. Hiroshi Nakamura, EVP and CTO, NTT DOCOMO commented, "We believe wide adoption of O-RAN compliant products will enable more agile, flexible and cost-effective network

construction, and welcome the testing and integration efforts of O-RAN standards that are being carried out across the globe. NTT DOCOMO will continue to lead O-RAN Alliance activities and expand its 5G network, and will accelerate the co-creation of 5G services and markets with vertical industry partners."

O-RAN Industry Briefing at MWC 2020

For a comprehensive update on O-RAN activities, including significant developments in Europe, the O-RAN community will come together for the O-RAN Industry Briefing event at MWC Barcelona 2020. Representatives from O-RAN operator and vendor member organizations will discuss and share views on the important steps towards realizing O-RAN compliant commercial solutions. O-RAN Alliance is looking forward to meeting you on Feb 25, 2020, 9:30-10:30 am at the Deutsche Telekom Booth, Hall 3, Booth 3M31.

About O-RAN Alliance

O-RAN Alliance is a world-wide community of more than 130 mobile operators, vendors, and research & academic institutions operating in the Radio Access Network (RAN) industry. As the RAN is an essential part of any mobile network, O-RAN Alliance's mission is to re-shape the industry towards more intelligent, open, virtualized and fully interoperable mobile networks. The new O-RAN standards will enable a more competitive and vibrant RAN supplier ecosystem with faster innovation to improve user experience. O-RAN-compliant mobile networks will at the same time improve the efficiency of RAN deployments as well as operations by the mobile operators. To achieve this, O-RAN Alliance publishes new RAN specifications, releases open software for the RAN, and supports its members in integration and testing of their implementations.
For more information please visit www.o-ran.org .

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