

Building the Telco Edge Will Drive Innovation, Collaboration, and Competition Among Ecosystem Players; IDC

SINGAPORE, July 2nd, 2020 – IDC Asia/Pacific’s latest report titled [The Topology of the Edge: Bridging Enterprise Edge to the Telco Cloud](#), investigates how the evolving telco edge cloud can be bridged to the enterprise edge as Communications Service Providers (CSPs) construct their 5G network infrastructure. The telco edge will develop in parallel with 5G Standalone (SA) deployments starting in 2021 that will utilize 5G connectivity types such as ultra-reliable low-latency (URLLC), massive Machine Type Communications (mMTC), and enhanced mobile broadband (eMBB) services.

IDC views the edge as comprising four broad categories: the enterprise edge, the telco edge, the operational technology (OT) edge, and the IoT edge. The telco edge, by adopting cloud-native technologies, will be able to carry workloads from the enterprise edge, OT edge and IoT edge by spreading and pricing the network infrastructure cost similar to the way that virtualized Infrastructure-as-a-Service (IaaS) is offered by cloud service providers.

Based on IDC’s research, the following are key highlights on telco edge:

- The telco edge is located typically near mobile cell sites and/or regional/local data centers, the latter of which might be much smaller than a typical central data center. In this way, the telco edge is a heterogeneous network of far edge and regional data centers. Open source, cloud-native technologies, and industry standards are key to making the telco edge possible.
- Although the industry led by the European Telecommunications Standards Institute (ETSI) has developed a basic framework for Multi-access Edge Computing (MEC), CSPs will still need to build their own cloud-native server solutions and software stacks that integrate into the 5G infrastructure and support a variety of real-time and non-real-time IoT, OT edge, B2C and B2B2X applications.

- The motivation for the telco edge, also known as MEC, is to bring distributed cloud computing technologies, digital platforms, and business models together in order to construct a multi-tenant distributed edge cloud ecosystem. While the ICT industry had focused on centralization via cloud computing to share infrastructure and reduce costs to the enterprise, the MEC is all about distributed computing at the telco edge in order to enable low-latency and high-bandwidth use cases that otherwise would not be feasible with centralized cloud architecture. Example of use cases ideally suited for MEC are autonomous transportation, V2X, AR/VR, high-performance gaming, and real-time sensory and image processing.
- By distributing the compute and storage resources into the telco edge, the amount of IP traffic flowing back into cloud data centers can be reduced significantly which extends the useful life of the service provider network infrastructure.
- A number of CSPs in Asia/Pacific are actively pursuing the telco cloud/telco edge, including Telstra, VHA, Bharti Airtel, Reliance Jio, Vodafone IDEA, Rakuten, SK Telecom, KT, China Mobile, China Unicom, and China Telecom. China alone has over 100 MEC pilot projects underway.

As 5G SA networks go live and network slicing becomes a reality, the telco edge will become an important new source of revenue for CSPs, web-scale companies, such as Microsoft, Google, AWS, Tencent, Baidu, Alibaba, and their ecosystem partners. In the past few months, a number of strategic collaborative partnerships have been announced in the U.S., Europe, and Asia/Pacific. The business model for MEC is still work in progress, and several different models are being explored including Pay-as-you-go, IaaS, and wholesale models with various performance metrics – peak speeds, Quality of Service, data caps, and etc

“The scaling IoT use cases and adoption of wireless SD-WAN devices, and SDN-enabled transport are key drivers to telco edge infrastructure, going

forward. In large telco edge implementations, there will be many edge applications from different stakeholders, which means the telco edge will need to be managed and operated as a multi-tenant edge-cloud system,” says [Bill Rojas](#), Adjunct Research Director at IDC Asia/Pacific.

IDC has been tracking the development of leading regional and global telecommunications service providers in the market through its core research on 5G, CAPEX market forecasts, IoT Access and Traffic, IoT Spending, Managed SD-Wan, Telecom Services, as well as business sentiment surveys around carrier transformation, next-generation software-defined networks and collaboration.

IDC's Asia/Pacific Communications Service Provider Technology Strategies program offers insights into the technology strategies of telecom, TV, ISP, and OTT providers in the region. This service looks specifically at the innovative ways communications SPs are leveraging the 3rd Platform to create next-generation network products and services. Regardless of the segment, communications SPs are evaluating and adopting new technologies to help them push past their traditional markets and tap into new opportunities. To learn more, contact Hugh

Ujhazy at hujhazy@idc.com or click [HERE](#).

The Topology of the Edge: Bridging Enterprise Edge to the Telco Cloud is one of the reports under IDC Asia Pacific's Telco Edge report series. The other reports are as follows: [Topology of the Edge – Exploring Architecture Alternatives for the MEC, Telco Edge as a Cloud-Native Application Platform and Telco Edge Business Model and Strategies](#). For more information on this report, please contact Bill Rojas at brojas@idc.com. For media inquiries, please contact Theresa Rago at trago@idc.com or Alvin Afuang at aafuang@idc.com.

*Note: Asia/Pacific excluding Japan

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