



Impressive Industry-First Results at EANTC's Multi-Vendor MPLS SDN Interoperability Test

Berlin, September 28, 2021. EANTC AG, the European Advanced Networking Test Center, published the results of the latest large-scale MPLS SDN interoperability test with more than 100 multi-vendor test pairs, covering more than 40 test areas. Detailed descriptions of each test and their results are summed up in our [white paper](#). The results will also be presented live by Carsten Rossenhövel, Managing Director of EANTC, at Upperside Conferences' virtual [MPLS SD & AI Net World Congress](#) from September 28-30.

Ten vendors teamed up to validate the interoperability and integration of state-of-art network technologies. Arista Networks, Calnex Solutions, Ciena, Cisco, Huawei Technologies, Juniper Networks, Microchip, Nokia, Ribbon Communications, and Spirent Communications jointly executed extensive tests during two-week testing at EANTC's lab in Berlin, Germany. We published [videos](#) covering the full range of test areas presented by participating vendors with multi-vendor live demonstrations.

EANTC designed the interoperability test cases to probe the maturity of transport network solutions to support 5G networks, data center networking evolution, and multi-vendor domain orchestration. Specifically, as an industry-first, we achieved multi-vendor interoperability for advanced 5G slicing with Flex Algo with five vendors. 5G Standalone transport with differentiated slice transport requirements becomes more realistic with this achievement. One of the most sophisticated and time-consuming tests in this event related to the provisioning of SR policies with colored flows—another building block towards slicing in transport networks. As part of the industry move to more automated provisioning, we tested on-demand dynamic tunnel creation by SDN controllers by PCE protocol with excellent results. Participating EVPN implementations showed robust interoperability across all combinations. We tested EVPN over MPLS and VXLAN transport successfully again, focusing on multicast over EVPNs and seamless integration with legacy VPLS services. Clock synchronization support is another strong pillar of 5G transport requirements. For the first time in the industry, interoperability of "Class D" Boundary Clocks has been evaluated successfully, including a chain of such clocks, adhering to the highest precisions defined by the ITU today (260ns Level 6A). To speed up the initial synchronization, Synchronous Ethernet (SyncE) got enhanced recently. We have tested the interoperability of the new standard with very positive results for the first time as well. Finally, we have validated PTP synchronization over FlexE interfaces, which may play an important role in 5G fronthaul environments in the future.

"Two primary use cases dominated again: 5G x-haul transport and data center interconnection used in enterprises and cloud deployments. We have been covering these use cases for multiple years now, each time extending the test coverage. This year, we noticed more realistic and sophisticated configurations and more complete coverage of implementations, increasing the likelihood of interoperability in complex deployments." said Carsten. "The EANTC team highly appreciates the outstanding commitment of all participating vendors to standards-based solutions and independent, transparent interoperability verification."

About EANTC

EANTC (European Advanced Networking Test Center) is internationally recognized as one of the world's leading independent test centers for telecommunication technologies. Based in Berlin, Germany, the company offers vendor-neutral consultancy and realistic, reproducible high-quality testing services. Customers include leading network equipment manufacturers, tier-1 service providers, large enterprises, and governments worldwide. EANTC's proof of concept, acceptance tests, and network audits cover established and next-generation fixed and mobile network technologies.

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