MEF provides a progress update on the advancement of the MEF 3.0 Transformational Global Services Framework that empowers users with the cloud-like agility, performance, and security required to thrive in the digital economy. Over the past year, MEF member companies have invested heavily in MEF 3.0 initiatives to define, deliver, and certify on-demand and assured communications services orchestrated across a global federation of automated networks. Going forward, the combination of standardized overlay SD-WAN services and dynamic underlay connectivity services will enable service providers to offer MEF 3.0 hybrid networking solutions with unprecedented user- and application-directed control over network resources and service capabilities.

"We are gathering at MEF19 to celebrate the tremendous progress to enable service providers to transform their businesses, services, and networks, federate to remove friction in inter-provider commerce, and deliver certified solutions that comply with the highest industry standards," said Nan Chen, President, MEF. "In 2020, our focus will be on enabling providers to innovate with highly synergized overlay and underlay network services, accelerate the rollout of MEF 3.0 certified services powered by certified technologies and professionals, and federate with increased implementation of inter-provider LSO APIs worldwide."

The MEF 3.0 service family includes dynamic SD-WAN, Carrier Ethernet, Optical Transport, IP, and security services that will be orchestrated over programmable networks using LSO APIs. MEF has advanced standardization work across each major type of service this year.

   - **MEF 3.0 SD-WAN** . In August, MEF published the industry's first global SD-WAN

standard to help accelerate market growth.   SD-WAN Service
Attributes and Services (MEF 70)
describes requirements for an application-aware, over-the-top WAN connectivity service that
uses policies to determine how application flows are directed over multiple underlay networks.

   - **MEF 3.0 Security** . In January, MEF launched a new Application Security for SD-WAN
project focused on defining policy criteria and actions to protect applications (application flows)
over SD-WAN services.
   - *MEF 3.0 CE* **.** In December, MEF enhanced its family of orchestratable MEF 3.0 CE
services by publishing several standards related to subscriber and operator services:
Subscriber Ethernet Service Attributes (MEF 10.4)
,
Operator Ethernet ServiceDefinitions (MEF 51.1)
, and
Layer 2 Control Protocols (MEF 45.1)
.

   - *MEF 3.0 IP* . In May, MEF published its IP Service Attributes (MEF 61.1) standard that is
foundational for defining subscriber and operator MEF 3.0 IP services that can be orchestrated
across multiple service providers.

   - *MEF 3.0 Optical Transport* . MEF's upcoming standard for operator Optical Transport
Services (MEF 64) is moving through the final phase of membership and Board approval. This
standard defines services that support Ethernet, Fibre Channel, and SONET/SDH subscriber
client protocols at the UNI and support OTN operator interconnect at the ENNI, with rates of
2.5G, 10G, 40G, and 100G.

MEF has made major progress in the development and adoption of standardized LSO APIs for
service orchestration across multiple service providers and over multiple technology domains.
More than 50 global and regional service providers are at various stages of evaluation,
demonstration, implementation, and certification of LSO Sonata APIs to enable frictionless
inter-provider commerce.

   - *Inter-Provider Service Automation – LSO Sonata* . MEF is pleased to announce the
availability of LSO Sonata SDK (Software Development Kit) Release 4 with APIs for
inter-provider serviceability (address validation, site queries, and product offering qualification),
product inventory, quoting, and ordering.

   - *Intra-Provider Service Automation – LSO Presto* . In recent quarters, MEF has
published several LSO Presto standards for orchestration of CE and Optical Transport services
over technology domains within provider networks.

MEF has been also been working with the broader industry community to make dynamic services orchestrated across automated networks a reality.

- **LSO Developer Community .** In August, MEF introduced the LSO Developer Community – composed of software developers and IT staff from MEF member companies – to accelerate production of LSO SDKs that will make it easier for service providers to adopt MEF data models and implement LSO APIs.
- **MEF & ONUG .** In October, MEF and announced they are collaborating to ensure that enterprises are provided with SD-WAN services optimized for digital transformation in the multi-cloud era.

Certification

Throughout 2019, MEF has seen significant growth in the number of companies offering MEF 3.0 certified services and technologies. At the same time, MEF has invested heavily in expanding certification programs for MEF 3.0 services, technologies, and professionals.

- **MEF 3.0 Certified Services & Technologies** . Twenty-five companies have achieved MEF 3.0 certification to date, including 15 service providers based in multiple geographic regions worldwide and 10 industry-leading technology vendors.

- **MEF 3.0 LSO Sonata Certification Program** . In Q4 2019, MEF commenced the pilot MEF 3.0 LSO Sonata certification program for inter-provider service automation, with an initial focus on automating ordering of MEF 3.0 CE Access E-Line services. Thirteen service providers representing every major geographic region of the world are participating in the pilot, with the first certified companies expected to be announced in Q1 2020.

- **MEF 3.0 SD-WAN Services Certification Program** . MEF today formally introduced the MEF 3.0 SD-WAN Services certification program to accelerate implementation of standardized SD-WAN services worldwide. Seven service and technology providers are participating in the pilot phase of the program, with the first certified companies expected to be announced in Q1 2020.
- **MEF SD-WAN Professional Certification Program** . MEF today formally announced the MEF SD-WAN Certified Professional (MEF-SDCP) program. A record number of more than 200 professionals from 80 companies participate in the beta exam phase that recently ended. General availability of the MEF-SDCP exam is scheduled for 15 December, including the availability of associated SD-WAN training by MEF Accredited Training Providers.