

MEF introduces “Third Network” vision

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MEF defining Lifecycle Service Orchestration with APIs for existing network, NFV and SDN implementations enabling Agile, Assured and Orchestrated Network as a Service



Andrew McFadzen, MEF Chairman and Head of Global Marketing, Network Services at Orange Business Services, at NetEvents EMEA Press Summit, Algarve, Portugal

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MEF announces a new Third Network vision that delivers Internet-like agility and ubiquity with CE 2.0-like performance and security. The Third Network vision is based upon Network as a Service (NaaS) principles, builds upon the MEF’s extensive body of CE 2.0 work and provides a beacon for new MEF work already underway and planned. Third Network initiatives include Service Orchestration functions, APIs, a protocol independent NaaS Information Model and Service Definitions, all of which are supporting agile, assured and orchestrated Network as a Service between physical and virtual service endpoints.

“We are embarking on the next stage of a remarkable journey,” said

Bob Metcalfe, Inventor of Ethernet, Advisory Director of the MEF, and Professor of Innovation at the University of Texas. “MEF is announcing a new network paradigm, a Third Network vision for Agile, Assured, and Orchestrated Network as a Service that is available worldwide.”

To summarize the challenges, businesses today are served by two types of modern data networks:

- - Private and Virtual Private Networks based on CE 2.0, using transport technologies such as Ethernet, MPLS and OTN, delivering services with assured performance and security, but taking days if not months to initiate across network operator domains.

- - The Internet, delivering on-demand, ubiquitous services but leaving users to deal with security and performance issues.

“We believe that the world needs a new network that builds upon the strengths of both the Internet and CE 2.0 and enhances them with intra and inter-operator lifecycle Service Orchestration,” says Nan Chen, President of the MEF. “Combining the availability and agility of the Internet with the assurance in performance and security of CE 2.0 will allow us to create a network so flexible and robust that the network itself can be delivered as a customized virtual service – opening up unlimited possibilities for new business models and market growth.”

The Third Network – to be developed in strong collaboration with other SDOs in the SDN/NFV area – will deliver Agile, Assured and Orchestrated Network as a Service worldwide, where:

- - Agile means delivery of new, dynamic, on-demand services
- - Assured means delivery of performance and security assurances
- - Orchestrated means automating service lifecycle management within and across network operator domains.

The new Third Network is more than just a vision, according to Metcalfe, and work is already underway to develop standardized APIs to provide the abstraction of the different technology layers. “In cloud services, specific hardware and technology layers are abstracted from software applications, so each layer can innovate without impacting these applications. In telecom operations, different systems are often in functional silos.” Metcalfe added, “Three major co-operative industry initiatives – NFV, SDN and MEF NaaS with Lifecycle Service Orchestration – are coming together to develop more responsive and adaptable solutions.”

NFV uses general purpose VMs for network functions, instead of proprietary implementations, while SDN is moving network control functions into central controllers. “But neither directly addresses the network connectivity services that business or individuals actually purchase,” said Andrew McFadzen, MEF Chairman and Head of Global Marketing, Network Services at Orange Business Services. “This is where the MEF provides a vital part of dynamic delivery and management of the new Third Network via NaaS with Lifecycle Service Orchestration.”

Third Network Use Cases:

For Individuals:

As a service, networking can offer ‘Personal Connectivity’ – a new source of revenue for the provider. If your passion is gaming, you need high bandwidth and low latency; if your work depends on downloading large files, your needs are different. So you sign up for a personal service tailored to your needs, and that service will be available to you anywhere you connect.

For Enterprises:

CE 2.0 has already extended business class networking across the globe, but it still takes months in some cases to enable assured connectivity when multiple providers are involved. The Third Network will deliver dynamic business class network services on demand, across multi-carrier networks, initiated by end-users, cloud applications or service providers directly.

For Service Providers:

“CE 2.0 has provided a flexible and scalable services framework within which Comcast is rapidly expanding our Ethernet business,” said Robert Rockell, Vice President, Engineering, Comcast. “MEF’s new vision builds on CE 2.0 by leveraging the benefits of both network and service orchestration to deliver new value to end-users, in particular, improved service agility and end-to-end assurance.”

“A third choice delivering the assurance of private networks with the breadth of the Internet is a compelling proposition,” said Michael Strople, President of Canada’s Allstream. “With the global nature of networking today, the orchestration of on-demand service capabilities that can deliver services across multiple providers represents a major step forward for our industry.”

“Standardized MEF NaaS APIs will play a critical role in giving network operators the agility needed to deliver dynamic, on-demand services across multi-vendor, multi-technology networks,” said James Feger, Vice President, Network Strategy and Development at CenturyLink. “We envision these APIs will remove significant operational burdens and enable us to rapidly deliver new and innovative services across multi-operator networks.”