



Industry Leaders Collaborate on Common SDN Business API Standards for Orchestrated Services

AT&T, Orange, Colt, MEF and TM Forum Pave the Way Toward Worldwide Ecosystem of Connected Service Provider Networks

BARCELONA, Feb. 28, 2017 – [AT&T*](#), [Orange](#), and [Colt Technology Services](#) are working with [MEF](#) and [TM Forum](#) to release the first set of standard application programming interfaces (APIs) for orchestrated Carrier Ethernet services later this year. This initiative uses MEF's LSO (Lifecycle Service Orchestration) framework and TM Forum's Open API framework.

AT&T, [Orange](#), and Colt have been working to accelerate adoption of SDN across the industry. AT&T has been collaborating with the enterprise arm of Orange, [Orange Business Services](#), on standardized APIs that will enable SDN architectures from different network service providers to interoperate with each other. AT&T and [Colt](#) held the first successful SDN interoperability trial proving that SDN architectures from different network service providers can interoperate with each other across continents.

After a successful proof of concept, the companies are leading the charge, along with MEF and TM Forum, to accelerate efforts to develop a set of standardized APIs for industry-wide use.

Service providers will be able to use standardized APIs to work with each other's SDN architectures in near-real time. The projected release of the first round of APIs is at the end of 2017. This is a key step toward enabling orchestrated on-demand services over more automated and interconnected networks.

Traditionally, each service provider uses different systems and interfaces to manage different aspects of its networks. This creates friction and inefficiency when providing an end-to-end service. Our world is becoming increasingly connected. A "smart" network is critical to deliver services to customers across many networks.

"The more companies that are using a standard, the more powerful and beneficial it becomes for everybody," says Roger Entner, founder of [Recon Analytics Inc.](#) "As momentum builds, more and more operators, vendors and other partners will find it advantageous to join in or they will be faced with the danger of falling behind their competitors."

"Our research shows that the number one issue impeding the delivery of on-demand services is the need for a standardized approach to orchestrating services across multiple

provider networks,” said Rosemary Cochran, Principal, [Vertical Systems Group](#). “This initiative led by industry leaders to collaboratively standardize on APIs for Ethernet services is an essential step toward tackling this challenge.”

The API standardization effort for orchestrated connectivity services is being conducted within MEF in partnership with TM Forum, and is open to both MEF and TM Forum members. This project revolves around the LSO Sonata reference point that deals with the management, operational, and business interactions between service providers. The API standardization project will build upon TM Forum Open API standards work involving nine of the world’s largest service providers.

There are plans to standardize 8 API definitions. This builds on the industry-agreed Open APIs developed by TM Forum members. The first 3 APIs below will be defined in the first round of the project this year.

1. Address validation
2. Service availability
3. Ordering
4. Quoting
5. Billing
6. Assurance
7. Testing
8. Change management

These APIs will help reduce the burden of fragmented networks, giving businesses the power to provision scalable, flexible network services on-demand through software platforms like ECOMP. ECOMP is now being open-sourced through the Linux Foundation and will be used as a reference implementation for LSO APIs. These connected networks will save costs and be more agile, helping businesses streamline their operations.

A federation of like-minded, involved companies will come together using these common APIs to help the industry usher in the next era of SDN-based Ethernet globally. Companies interested in joining this initiative can visit the [MEF website](#) for more information and learn more about TM Forum’s Open API framework [here](#).

Follow all AT&T news at MWC at: att.com/mwc, or on Twitter [@ATTbusiness](#) and [@ATTshape](#).

*AT&T products and services are provided or offered by subsidiaries and affiliates of AT&T Inc. under the AT&T brand and not by AT&T Inc.

About Colt

Colt provides high bandwidth services for enterprises and wholesale customers in Europe, Asia and North America’s largest business hubs. Colt enables the digital transformation of businesses through its intelligent, purpose-built, cloud-integrated network, known as the Colt IQ Network. It connects over 700

data centres around the globe, with over 24,500 on-net buildings and growing. Colt is also recognised as an innovator and pioneer in software defined networks (SDN) and network function virtualisation (NFV).

Colt has built its reputation on putting its customers first, with a focus on delivering true local presence and agility for enterprises that are global yet need local attention. Customers include data intensive organisations spanning over 200 connected cities in nearly 30 countries. Colt counts 19 of the top 25 global telecoms companies and 18 out of the top 25 global media companies (Forbes 2000 list, 2016) amongst its customers. In addition, Colt works with over 50 exchange venues and 13 European central banks. Colt is privately owned, making it one of the most financially sound companies in its industry and able to provide the best customer experience at a competitive price. For more information, please visit www.colt.net.

About Orange Business Services

Orange Business Services, the B2B branch of the Orange Group, and its 21,000 employees, is focused on supporting the digital transformation of multinational enterprises and French SMEs across five continents. Orange Business Services is not only an infrastructure operator, but also a technology integrator and a value-added service provider. It offers companies digital solutions that help foster collaboration within their teams (collaborative workspaces and mobile workspaces), better serve their customers (enriched customer relations and business innovation), and support their projects (enriched connectivity, flexible IT and cyberdefense). The integrated technologies that Orange Business Services offer range from Software Defined Networks (SDN/NFV), Big Data and IoT, to cloud computing, unified communications and collaboration, as well as cybersecurity. Orange Business Services customers include over 3,000 renowned multinational corporations at an international level and over two million professionals, companies and local communities in France.

Learn more at www.orange-business.com or follow us on [LinkedIn](#), [Twitter](#) and our [blogs](#).

Orange is one of the world's leading telecommunications operators with annual sales of 40,9 billion euros in 2016 and has 263 million customers in 29 countries at 31 December 2016. Orange is listed on Euronext Paris (symbol ORA) and on the New York Stock Exchange (symbol ORAN).

About AT&T

AT&T Inc. ([NYSE:T](#)) helps millions around the globe connect with leading entertainment, business, mobile and high speed internet services. We offer the nation's best data network* and the best global coverage of any U.S. wireless provider.** We're one of the world's largest providers of pay TV. We have TV customers in the U.S. and 11 Latin American countries. Nearly 3.5 million companies, from small to large businesses around the globe, turn to AT&T for our highly secure smart solutions.

Additional information about AT&T products and services is available [at about.att.com](http://at.about.att.com). Follow our news on Twitter at @ATT, on Facebook at facebook.com/att and YouTube at youtube.com/att.

© 2017 AT&T Intellectual Property. All rights reserved. AT&T, the Globe logo and other marks are trademarks and service marks of AT&T Intellectual Property and/or AT&T affiliated companies. All other marks contained herein are the property of their respective owners.

* Claim based on the Nielsen Certified Data Network Score. Score includes data reported by wireless consumers in the Nielsen Mobile Insights survey, network measurements from Nielsen Mobile Performance and Nielsen Drive Test Benchmarks for Q3+Q4 2016 across 121 markets.

** Global coverage claim based on offering discounted voice and data roaming; LTE roaming; and voice roaming in more countries than any other U.S. based carrier. International service required. Coverage not available in all areas. Coverage may vary per country and be limited/restricted in some countries.

For more information, contact:

Erin McGrath
AT&T Corporate Communications
Phone: 214-862-0651
Email: em3380@att.com

Elizabeth Mayeri
Orange Business Services
Phone: 212-251-2086
Email: elizabeth.mayeri@orange.com

Ginnia Cheng
Colt Media Relations
Phone: 44 20 7947 1271
Email: Ginnia.cheng@colt.net