

#### Delivering on the ONAP Promise: How It Will Transform Service Provider & Enterprise Networks

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The road to virtualization has been a long one in many ways, and the devil is certainly in the details—networking challenges, organizational processes, costs and BSS/OSS integration concerns are many aspects to be considered. One industry buzzword that holds many promises for streamlining and simplifying that journey is ONAP. But will it stand up to the hype?



The open source platform could transform service provider networks, which would have a positive trickle-down effect for enterprises, if its potential unfolds. ONAP is well-positioned to boost support systems and make networks worldwide more agile, efficient and prepared to leverage the latest technologies.

Luckily, the stars have already started to align. You could say that ONAP is having a moment, but we think it will be more than just 20 minutes of fame.

### The ONAP Vision

The whole idea behind the Linux Foundation's Open Network Automation Platform (ONAP) is to speed up, automate and standardize virtualization initiatives. <u>When ONAP announced its inaugural platform release</u>—called Amsterdam—in November 2017, it claimed to be "transforming the service delivery lifecycle for network, cable and cloud providers" with "the first open source project to unite the majority of operators (end users) with the majority of vendors (integrators) in building a real service automation and orchestration platform."

ONAP helps to build virtual network functions (VNFs) and software-defined networks (SDN), from design and orchestration to monitoring and life-cycle management, with a closed-loop automation platform. So many people are working on these software-defined projects to some extent; why not pool resources, talent and ideas to move the industry forward in an orchestrated fashion?

The open source software platform "uses cloud technologies and network virtualization to offer services, achieving both faster development and greater operational automation," according to its <u>developer Wiki</u>. It's providing the software framework to allow service providers to quickly deploy new features and reduce OpEx. And it "creates a level playing field for carriers and equipment providers," the Wiki states.

ONAP is one of many open source initiatives, and it certainly hasn't been without its fair share of controversy and skepticism. But it's constantly gaining recognition and new advocates, and its origin story is rooted in reputable companies and projects. ONAP was born in February 2017 when AT&T's Enhanced Control Orchestration, Management and Policy (ECOMP) merged with the Open Orchestrator Project (OPEN-O).

Of course, it's not the only game in town; ETSI's Open Source MANO (OSM) project has gained significant support, especially from European operators such as Telefonica and BT.

## What Has ONAP Accomplished So Far?

But it seems like there's a new ONAP application, deployment or partnership announced every

week. ONAP is supporting more than 60 percent of the world's mobile subscribers, and its membership base is growing, with 60+ backers, including Cisco, Equinix, Ericsson, IBM, Orange, Red Hat, Vodafone and a few more of the biggest telecom carriers and vendors in the world that we'll get to below. Nearly 460 individuals have added code to the project, this Linux Foundation blog points out.

The platform is already starting to make waves, which is impressive considering it just celebrated its official one-year birthday in March. <u>According to SDxCentral</u>, Bell Canada is using ONAP in production networks, and China Telecom plans to leverage the code for vCPE and VoLTE applications.

At Open Networking Summit in March, a Colt network architect said he anticipates that ONAP will "become as much of an industry standard as OpenStack has become for NFV infrastructure," Light <u>Reading reported</u>. In March, AT&T and the Open Networking Foundation (ONF) announced their partnership to use ONAP to merge ONF's work on multi-gigabit passive optical networks (PON), <u>according to FierceTelecom</u>. On the vendor side, Ciena has integrated ONAP into its Blue Planet platform, <u>FierceTelecom reports</u>.

ONAP's initial release, Amsterdam, has some good functionality, but no one is under the impression that it is completely production-ready by itself, given the nature of early open-source projects. Many of the initial shortcomings are being addressed with the pending Beijing release. And with the right requirements defined and a sharp implementation team, ONAP is useful for a wide range of networks and applications.

# What It Means for Service Providers, Vendors and Enterprises

Overall, ONAP is a platform to help service providers embrace virtualization. It allows them to deploy full service life-cycle orchestration and service APIs for new technologies in a programmatic, standards-based way, leveraging open-source efforts. ONAP's architecture, which is grounded in metadata and policy, is flexible in adapting to the changing capabilities that service providers require. With add-on projects such as Acumos, an AI/ML framework, ONAP holds the promise of realizing the "intelligent network" and closed-loop orchestration the industry has long sought.

As Bill Ren, Vice President of the Network Industry & Ecosystem Development at Huawei, pointed out in this Linux Foundation Q&A blog, "Adopting ONAP as a standard means that operators can focus on service innovation rather than on the software platform itself. And vendors can focus on innovation, as ONAP removes the difficulty of OSS integration and brings an open unified marketplace for all vendors." The ONAP community allows operators and vendors to work together and understand requirements more clearly, while offering the opportunity to test new business models, he said.

Though large enterprises aren't directly involved in ONAP, the platform will ultimately drive improvements and flexibility in their networks, as well. The advances powered by ONAP will allow enterprises to order through their service provider's portal, spin up new features and services faster and at less cost, and interconnect between offices and data centers more efficiently.



#### How to Leverage ONAP

ONAP has incredible potential and we at Datavision consider it the leading open source platform of the future, but it is still very new and many applications based in ONAP remain untested. With all of the competing platforms out there, which should you choose? How should you build it into your existing support systems? Should you wait until ONAP has proven itself past the early release stage?

We think the market has veered toward ONAP and will continue in that direction. ONAP carrier members represent a majority of the mobile subscribers worldwide, and, in a sign that it has some serious technical advantages, the project has even managed to attract Verizon as a supporter.

We advise potential adopters to work with a vendor well-versed in integration and software development in relation to BSS/OSS, and preferably a team that has experience with ONAP or its platform predecessors (ECOMP and OPEN-O). The trick is to somehow extract the benefits of this transformational code while mitigating the risk involved with early adoption. To achieve that goal, expertise and experience are key.

Industry players, regardless of their level of involvement with ONAP, are waiting anxiously for ONAP's Beijing release, scheduled for May 24. We're only on the second letter; what will the platform offer us as we move through the alphabet?