

Free Software in Telecom

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As much as some people might think it's just a question of bolting some new radios to towers and calling it a day, the truth is that 5G requires an entirely new approach to designing and building networks.

- [Why the mobile edge needs open source to overcome its pitfalls \(Reader Forum\)](#) [7]

Edge computing dominated MWC 2019 along with 5G and all the robots at the show. In fact, according to some analysts, edge computing could be worth almost \$7 billion within the next

three years. Much of the new architecture's advantages stem from the capacity offered by 5G to deploy scalable, typically cloud-based, compute platforms at the edge of the network. However, a growing number of operators are coming across a challenge when they look to scale services to the edge ? portability is a headache.

- [Q&A: T-Systems' Clauberg says industry needs more collaboration \[8\]](#)

At last week's Open Networking Summit in San Jose, California, Axel Clauberg spoke about the need for collaboration between the open source groups and SDOs ahead of a Friday morning panel that was comprised of many of the leaders of those organizations.

At the start of this year, Clauberg slid over from his role as Deutsche Telekom's vice president, aggregation, transport, IP (TI-ATI) and infrastructure cloud architecture, to Deutsche Telekom's enterprise division, T-Systems. At T-Systems, Clauberg holds the title of vice president, strategic portfolio management and CTO of telecommunications services.

Clauberg serves as the chairman of the Telecom Infra Project (TIP) and he also worked at Cisco for 13 years. All in all, Clauberg has seen the industry from various points of view over the years, which validates his call for more industry collaboration.

- [10 operators, including AT&T and Verizon, align around creating task force for NFVi \[9\]](#)

There are numerous attempts afoot to wrestle NFV into a more manageable and workable approach to virtualization.

Last week at the Open Networking Summit, some of the carrier members of a new effort around simplifying network functions virtualization infrastructure (NFVi) presented their approach on a panel.

The group, which is called Common NFVi Telco Task Force, is comprised of AT&T, Bell Canada, China Mobile, Deutsche Telekom, Jio, Orange, SK Telecom, Telstra, Verizon and Vodafone.

Currently, there are too many types of NFVi floating around, which means virtual network functions (VNFs) vendors need to create multiple versions of their VNFs to work with the different flavors of NFVi. The Common NFVi Telco Task Force is taking aim at reducing the number of NFVi implementations down to three or four versions, according to AT&T's Amy Wheelus, vice president of network cloud.

- [Ericsson and AT&T give network slicing an open source boost \[10\]](#)

The Linux Foundation's annual Open Networking Summit (ONS) has become of rising interest to the mobile and telco community as the open source organization has become increasingly focused on telecoms networks. There will be coverage of the highlights in next week's edition of Wireless Watch, but one development caught our eye even before the event started on Wednesday. This was a demonstration of network slicing, harnessing the capabilities of the open source ONAP (Open Network Automation Protocol) software, which handles the management and orchestration (MANO) of all the components in a virtualized network.

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[Telcos need to take ownership of open source or risk losing a golden opportunity](#) [11]

Of the 14 keynote sessions at last week's Open Networking Summit (ONS) North America in San Jose, only two featured communications service providers. AT&T CTO Andre Fuetsch spoke about open source's role in 5G, and China Mobile Chief Scientist Junlan Feng spoke about open source for network-based AI. This is no means a criticism of organisers The Linux Foundation and its LF Networking group, but it is a reflection of how the broader telco community has yet to fully accept the strategic importance of open source. Yes, many CSPs are involved in various open source projects, and some are heavily invested and supportive, but as yet there has been a reluctance to step up and take more control over the direction and scope of these projects. Whether it is fear or ignorance that is holding them back, CSPs must do more. After all, the majority of these projects are specifically aimed at, or relevant for, telecoms networks ? ONAP, OPNFV, Akraino, Open Daylight, etc ? with many others about to become essential, such as Kubernetes and the work of the CNCF. And there are many other open source foundations and groups focused on telecoms to consider.

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[Telco white-box switches receive a boost as ONF takes on P4](#) [12]

AT&T, which has been leading the use of white box switch and routers and seeding much of the source code to the open source community, developed its own home-rolled dNOS network operating system, which has now become the DANOS project within The Linux Foundation. But there is a second option available, which has been developed by the P4.org group. The eponymously named P4 programming language describes how switches, routers and NICs process packets across white box hardware.

[Server OSS](#)

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[3] <https://rethinkresearch.biz/articles/ons-2019-the-balance-is-shifting-from-telco-thinking-to-open-source/>

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