New NFV Study by ACG Research Shows Economic Advantages of Open Architectures, Software Integration in SP Deployments

Comparison of alternatives in Tier-1 shows agile design with 5 year TCO of 53% & 3x faster activation of new services than more tightly bundled alternative

GILBERT, ARIZONA, USA, February 22, 2017 /EINPresswire.com/ -- ACG Research recently completed a total cost of ownership (TCO) study, underwritten by Big Switch Networks, Dell EMC, F5, and Red Hat, examining a prominent Tier 1 operator's approach to a broad network functions virtualization (NFV) transition. The operator is using an open, modular, best-of-breed design that extensively utilizes open APIs and software-driven processes at many layers of operation. Compared to a tightly bundled approach, the results show:

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>
> *Paul Parker-Johnson*

- Cumulative TCO of the open architecture platform over five years estimated to be 53% lower
- The open architecture platform is 3x faster, on average, in deploying new service offerings

ACG analyzed the relative efficiencies of the operator's chosen design and a more tightly bundled, integrated stack solution it was considering as its alternative. The analysis focuses on TCO, including capital and operating expenses, as well as agility in deploying new service offerings.

The operator is viewing its NFV infrastructure (NFVI) as the foundation for delivering services in a more agile model, which will ultimately focus on continuous innovation and delivery. The operator selected innovative, forward-looking designs in the compute, storage, networking, security, and service automation portions of its NFVI from Big Switch Networks, Dell EMC, F5 Networks and Red Hat for its solution.

With the realities of cloud-native, software-driven solutions emerging rapidly, operators of all types have embraced that direction and are charting their own course to realizing it. Most have identified a transition to running a range of network functions as software modules in virtual computing environments under the umbrella of NFV as a key element in their plans.

Although the advantages of NFV over legacy, purpose-built platforms have been well described, there is relatively little evidence about the advantages of different approaches to delivering an NFV deployment. Approaches vary from solutions designed for a specific use case, to solutions emphasizing a whole stack approach from a single solution supplier, to a more modular, open design an operator can tune in support of the applications and use cases it is pursuing. As NFV solutions are becoming increasingly ready for larger scale deployments, the time is ripe for analysis of the alternatives.

“Two aspects of the open architecture solution underpin its advantages,” says Paul Parker-Johnson, principal analyst at ACG and the author of the study. “First, is the operator’s focus on preserving the ability to innovate within each domain of its NFVI, so advances can be made in storage or compute or networking without unnecessarily disrupting other domains. The second is extensive software integration and workflow automation between elements of its NFVI, and between its NFVI and higher layers such as service orchestration and management of VNFs. Pervasive automation in their solution dramatically simplifies deployment, operation, expansion and the introduction of new service offerings.”

The fact that the operator intends its NFV platform to be the foundation of a multi-tenant approach to support many businesses and services places greater emphasis on these results. The efficiencies achievable in its approach can benefit each of its lines of business and their applications substantially over time.

Although many aspects of the operator’s deployment are in line with the vision for agile operations and NFV that have driven developments toward the goal over the past several years, it is the size of the advantages it can yield by pursuing this design, coupled with its efficiencies, that makes its achievements most noteworthy.

Comments from each of the suppliers whose offerings comprise the solution highlight the role their innovations play in realizing the operator’s goals.

Big Switch Networks: “More innovation in networking has occurred in the last three years, than the prior 20. As open networking technology has matured, we’ve watched customers go from proof of concept to large-scale deployments that enable business competitiveness via next-gen data center solutions,” said Douglas Murray, CEO, Big Switch Networks. “The new study from ACG Research is concrete evidence that this architectural approach enables significant CAPEX and OPEX benefits. We look forward to continued progress alongside our partners, Dell EMC, F5 Networks and Red Hat, as we deliver innovative solutions to customers around the world.”

Dell EMC: “This ACG study shows tangible results. NFV and the benefits of open architectures are no longer something theoretical,” said Tom Burns, senior vice president, Networking, Service Provider Solutions & Enterprise Infrastructure, Dell EMC. “At Dell EMC, we’re passionate about helping customers move beyond proof of concept into real-world applications with measurable returns.”

F5 Networks: “We are focused on helping service providers to capitalize on the 5G and IoT opportunities in building secure and agile networks that offer connectivity, security, and an optimal customer experience,” said Mallik Tatipamula, VP of Service Provider, F5 Networks. “The TCO savings and performance improvements with integrated security and visibility realized in this broad scale NFV deployment are a key indicator of the benefits that await operators as they accelerate their transitions to virtualized infrastructure.”

Red Hat: “ACG’s study highlights that the benefits of modern, automated, and software-defined networks based on open source solutions, such as Red Hat OpenStack Platform and Red Hat Ceph Storage, are not theoretical, but a reality,” said Chris Wright, vice president and chief technologist, Red Hat. “The approach taken in this particular NFV deployment and the collaboration among Red Hat, Big Switch, Dell EMC and F5 to create an agile NFV infrastructure has the potential to become a blueprint for other communications service providers (CSPs) seeking to increase their organization's’ innovation with an open and highly-scalable infrastructure.”

A copy of ACG Research’s report "Creating Agility and Efficiency at Scale: The Economic Advantages

of Open Architecture Platforms in NFV Deployments" can be obtained from ACG Research: http://acgcc.com/creating-agility-efficiency-at-scale-the-economic-advantages-of-open-architecture-platforms-in-nfv-deployments/

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