Future of Virtualization: The Force (Finally) Awakens

EXECUTIVE SUMMARY

The Future of Virtualization Indexes – part of Light Reading's Virtuapedia initiative – track communications service provider (CSP) progress in deploying virtualization. The indexes are based on direct input from more than three dozen CSPs worldwide, and are intended to provide CSPs with a set of clear benchmarks that can be used to measure their virtualization progress against that reported by a select group of the world's leading network operators.

The indexes are organized in three functional groupings: Planning, Deployment, and Spending. Each index grouping provides CSPs with a single, integrated view of where the world's leading CSPs are in the virtualization process, and the progress they are making – or not making – in moving to the virtualization model. The indexes will be updated twice a year, providing an industry-wide composite scorecard for tracking the transition to virtualized networks and services.

Future of Virtualization: The Force (Finally) Awakens provides the findings of Heavy Reading's fourth survey on the Future of Virtualization Indexes, based on data gathered in April 2017.

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Participation in this survey was by invitation only, with participants targeted for their knowledge and influence regarding their company's virtualization programs. Forty different CSPs are represented in this report, including Tier 1 providers from all major regions (Asia/Pacific, CALA, EMEA and North America). Participating CSPs include a mix of wireline, mobile and cable providers, with the majority operating converged networks (wireline and wireless) with national footprints. The majority of CSPs were Tier 1 operators, with the remainder being Tier 2 and Tier 3.

The key findings of this report are as follows:

Planning Index

- The percentage of CSPs that have identified all of the functions they plan to virtualize by 2020 grew from 11% in November 2016 to 15% in April 2017.
- Timetables for identifying all of the functions to be virtualized by 2020 continue to slip. A year ago, 27% expected to have this done in 2016, but only 11% actually did.
Network functions remain the top virtualization priority. "OSS/BSS functions" replaces "NFV/cloud services" as the second-highest priority. "Application enablement functions" is now tied with "enterprise and customer premises functions" in fourth place.

Two thirds of CSPs have identified all or most of their high-priority functions, and 19% have a complete timetable in place for testing and deploying them.

Confidence in meeting timetables have improved since last year. The percentage saying they are "extremely confident" grew from 13% in November 2016 to 15% in April 2017. Also, the percentage saying they are "not confident at all" dropped from 10% in November to only 2% in April.

Notable progress has been achieved on development work on high-priority functions. In April 2017, more than half, 55%, had begun work on 25% or more of their high-priority functions, compared with 39% in November 2016. Also, no one said they hadn't started working on any of their high-priority functions.

**Deployment Index**

- CSPs are making progress on deploying their high-priority functions into production. The percentage of CSPs with at least 25% of these functions in production grew from 13% in November 2016 to 21% in April 2017. Also, the percentage saying they have not deployed any of these functions dropped from 23% in November to 17% in April.
- A majority of CSPs, 60%, expect that it will be 2019 or later before they will have all of their high-priority functions in production. By the end of this year, 43% expect they will have 20% of these functions in production, and 40% say they will have 50% of these functions in production by the end of next year.
- The timelines for getting all identified functions into production are slipping. In November 2016, 45% said their entire virtualization project would be complete by 2020. In April 2017, that percentage slipped to 38%. Now, 30% expect it will be 2023 or later before completion, up from 25% who said the same in November.

**Spending Index**

- Virtualization represents an increasing portion of capex budgets. In April 2017, 58% of respondents said that virtualization was 10% or more of their capex budget, up from 41% in November 2016. Also, 38% said that their capex budgets in 2017 would be significantly higher (more than 10%) than in 2016. Notably, none said their spending on virtualization will decrease in 2017.
- Most CSPs (64%) continue to believe that their capex will not level off or begin to decline until 2020 or later – a somewhat larger portion than in previous surveys.
- CSPs are a bit more optimistic on the impact of virtualization on opex, with 25% saying in April 2017 they expected to see reductions in the next two years, up from 14% who said the same in November 2016. Most continue to expect to see some opex relief from virtualization in three to five years, while a few respondents said that virtualization would have no impact on opex.
- The percentage of CSPs expecting that virtualization will lower their opex by 10% by 2019 or sooner declined from 70% in November 2016 to 51% in April 2017. Still, no one believes it will take more than 10 years to see these savings.

**Future of Virtualization: The Force (Finally) Awakens** is published in PDF format.