The Future of Virtualization Index Report

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 three times per year, providing an industry-wide composite scorecard for tracking the transition to virtualized networks and services.

The Future of Virtualization Index Report provides the findings of Heavy Reading's inaugural survey on the Future of Virtualization Indexes, based on data gathered in November 2015.

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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. Nearly 40 different CSPs are represented in the December 2015 Future of Virtualization Index, including Tier 1 CSPs from all major regions (Asia, 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. 80 percent 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

- 94 percent of CSPs have started to identify the functions they plan to virtualize by 2020, and about half of them have identified most or all of those functions.
About 40 percent of CSPs think they will have all functions identified by the end of 2016, and another 25 percent think that will be complete by the end of 2017. However, 15 percent are not sure when this will occur.

For high-priority areas – those that CSPs expect to virtualize by the end of 2017 – less than 15 percent of CSPs have identified all the functions they will virtualize and have a complete timetable in place for testing and deploying those high-priority areas. This suggests that most CSPs really aren’t that far along in their virtualization initiatives.

Nearly 70 percent of CSPs say they are "extremely" or "mostly" confident that they will have their high-priority virtualization areas up and running by the end of 2017.

The three most important virtualization areas for CSPs are virtual network functions (75 percent of CSPs put VNFs on their 2017 priority list), NFV/cloud services (63.5 percent), and networking functions and solutions (61.5 percent).

**Deployment Index**

- Less than 10 percent of CSPs report that they have started development work on most or all of the high-priority functions they expect to virtualize by the end of 2017; however, more than 95 percent of CSPs say they have at least started this process.
- More than 80 percent of CSPs now have some of their high-priority virtualized functions in live production networks, but the majority of CSPs have less than 10 percent of those functions live at this point.
- More than half of CSPs expect to have at least 20 percent of their high-priority functions live by the end of 2016, and at least 50 percent of those functions live by the end of 2017. Only about 20 percent now expect to have all of those high-priority functions virtualized by that time. This strongly suggests that the migration to virtualization will take longer than CSPs anticipate.
- Only about 30 percent of CSPs expect to complete their entire virtualization transformation by the end of 2020. Nearly 40 percent think that work will be finished in 2023 or later.

**Spending Index**

- Half of the CSPs represented in the index expect virtualization to account for 10 percent or more of their capex budgets in 2016. Nearly 80 percent say spending on virtualization will increase in 2016 compared with this year, and 77 percent also expect that spending to increase in 2017, as well.
- Nearly 80 percent of CSPs say that capex spending on virtualization won't begin to level off until 2019 at the earliest, and nearly 45 percent don't expect any leveling off until 2021 or later.
- Very few CSPs – less than 12 percent – expect virtualization to result in lower operating expenses in the next two years. Most expect to see some opex relief from virtualization in three to five years' time.
- Almost all CSPs do expect virtualization to result in opex reductions of at least 10 percent, with the majority expecting to reach that target in 2019 or later.

The Future of Virtualization Index Report is published in PDF format.