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 twice a year, providing an industry-wide composite scorecard for tracking the transition to virtualized networks and services.

The Future of Virtualization Index Report – Spring 2016 provides the findings of Heavy Reading's second survey on the Future of Virtualization Indexes, based on data gathered in May 2016.

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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 vast majority of CSPs (96%) have identified at least some of the functions they plan to virtualize by 2020, and more than half of them have identified most or all of those functions.
- The timetable to identify all functions to virtualize looks to be slipping, with fewer in the May 2016 survey indicating they will do so by the end of 2016 (23%) than in the...
November 2015 survey (38%). Similarly, the percentage indicating they will complete this project in 2017 or 2018 grew from 40% in November 2015 to 53% in May 2016.

- The highest virtualization priority is network functions, cited by 36% of respondents in the May 2016 survey. Customer premises equipment was a distant second, at 19% of respondents. No other area came in at double digits.
- More than half of CSPs have identified all or most of their high-priority functions, but only 13% have a complete timetable in place for testing and deploying them.
- Three quarters of CSPs in May 2016 said they are "extremely" or "mostly" confident that they will have their high-priority virtualization areas up and running by the end of 2017, which is up from 69% in November 2015. However, 29% have none of their high-priority functions in production.

**Deployment Index**

- Nearly all CSPs (96%) have started development work on the high-priority functions they expect to virtualize by the end of 2017, and nearly a quarter (23%) have worked on 50% or more of them.
- The percentage of CSPs with at least some of their high-priority functions in production declined from 85% in November 2015 to 71% in May 2016, which is partly explained by a change in the mix of CSPs. However, there does appear to be some progress being made, with 4% indicating they have 50-75% of their high-priority functions in production.
- CSPs are gaining some clarity on their expected timetable to get all of their high-priority functions into production, with the percentage of "don't knows" declining from 31% in November 2015 to only 18% in May 2016. That said, the timetables are moving out: The percentage estimating completion "by end of 2018" grew from 18% to 27%, and "2019 or later" grew from 31% to 40%.
- The portion of CSPs that expect to complete their entire virtualization transformation by the end of 2020 grew from 31% in November 2015 to 45% in May 2016. Similarly, the number expecting it to take until 2026 or later declined from 18% to 13%.

**Spending Index**

- The majority of CSPs in the May 2016 survey (62%) expect that virtualization will represent 10% or less of their capex budgets in 2016 (up from 49% in the November survey). More than 80% say spending on virtualization will increase in 2016 compared with this 2015, and 76% expect that spending to increase in 2017, as well.
- Nearly two thirds of CSPs expect that capex for virtualization will level off or begin to decline in 2019 or sooner, but 20% don't expect that to happen for at least the next 10 years.
- Very few CSPs (only 11%) 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.
- All CSPs do expect virtualization to result in opex reductions of at least 10%, with the most expecting to reach that target by 2019.

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