Heavy Reading Data Center Transformation Study

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CSP info (1)

Source: Heavy Reading Service Provider Survey, November 2017, n=119
CSP info (2)

Source: Heavy Reading Service Provider Survey, November 2017, n=119
NFV and Public Cloud Strategies

Source: Heavy Reading Service Provider Survey, November 2017, n=118
Cloud Service Deployment Timetable

Source: Heavy Reading Service Provider Survey, November 2017, n=112-116
Plan for Common Infrastructure

- We haven’t decided on this yet: 14%
- All types of workloads will run on a single common infrastructure: 29%
- Each type of workload will run on a separate infrastructure: 33%
- Internal IT will run on one infrastructure, and VNFs and cloud will run on a separate infrastructure: 24%

Source: Heavy Reading Service Provider Survey, November 2017, n=119
Plan for Converged Organizations

- We will have a single organization to manage internal IT, NFV/telco and public cloud: 33%
- We have not decided how we will organize our data center infrastructure teams: 14%
- We will have separate organizations to manage internal IT, NFV/telco and public cloud infrastructure: 53%

Source: Heavy Reading Service Provider Survey, November 2017, n=118
Plan for Common Orchestration

- We haven't decided on this yet 19%
- We will use one orchestration tool for internal IT workloads, and a separate one for VNFs and enterprise cloud workloads 14%
- We will use separate orchestration tools for each type of workload 44%
- We will use a single common orchestration tool for all types of workloads 23%

Source: Heavy Reading Service Provider Survey, November 2017, n=118
## Cloud Infrastructure Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>NFVI/Telco Cloud</th>
<th>Public Cloud</th>
<th>Internal IT/OSS/BSS Cloud</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elasticity</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>High Performance</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Security</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Manageability</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Scalability</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Portability</td>
<td>7</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Resilience</td>
<td>3</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Migration &amp; Co-existence</td>
<td>4</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>7</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

*Source: Heavy Reading Service Provider Survey, November 2017, n=84-114*
How to Begin Transition to Cloud

- Automate virtual and physical network functions: 29%
- Build the cloud infrastructure first, then onboard applications: 36%
- Not sure how this transition will begin: 13%
- No plans to transition to the cloud: 2%
- Other: 1%
- Move a single service to the cloud to test systems and management processes: 19%

Source: Heavy Reading Service Provider Survey, November 2017, n=119
Plan for OpenStack

- We plan to run a single instance of OpenStack to manage all workloads regardless of their location (9%)
- We do not plan to deploy OpenStack at all (9%)
- We plan to run decentralized OpenStack services with distributed compute and storage (25%)
- We plan to run OpenStack services in a centralized location with compute and storage distributed (47%)
- We plan to run a full OpenStack deployment in each POP (10%)

Source: Heavy Reading Service Provider Survey, November 2017, n=117
Telco Cloud/NFVI Hardware Preference

- We prefer disaggregated solutions so we can choose the hardware and cloud stack separately: 28%
- We prefer pre-integrated solutions because we do not want to do the integration ourselves: 10%
- We prefer modular solutions so we can scale compute, network and storage separately: 62%

Source: Heavy Reading Service Provider Survey, November 2017, n=116
Importance of HCI

Source: Heavy Reading Service Provider Survey, November 2017, n=117
Importance of Containers

Source: Heavy Reading Service Provider Survey, November 2017, n=119

- They are already Important: 30%
- By the end of next year: 17%
- In the next 2-5 years: 41%
- Not sure when they will be important: 12%
Current Location of Resources/Services

Source: Heavy Reading Service Provider Survey, November 2017, n=110-117
Future Location of Resources/Services

Source: Heavy Reading Service Provider Survey, November 2017, n=112-116
Benefts of Edge Deployments

Source: Heavy Reading Service Provider Survey, November 2017, n=119
Barriers to Edge Deployments

- High cost
- Unclear ROI
- Technology concerns
- Internal/organizational concerns
- Facility concerns
- Too complicated
- Regulatory concerns
- Other

Source: Heavy Reading Service Provider Survey, November 2017, n=118
Using Data from New Infrastructure

- To help us develop more customized solutions: 65%
- To provide more proactive customer care: 64%
- To evaluate new verticals/customer types: 57%
- To evaluate new geographies: 29%
- We currently have no plans to use this data: 15%

Source: Heavy Reading Service Provider Survey, November 2017, n=115