Cloud IT Infrastructure Revenues Continue to Expand Despite Slow Down in Spending in 2019, According to IDC

FRAMINGHAM, Mass., June 20, 2019 – According to the International Data Corporation (IDC) Worldwide Quarterly Cloud IT Infrastructure Tracker, vendor revenue from sales of IT infrastructure products (server, enterprise storage, and Ethernet switch) for cloud environments, including public and private cloud, grew 11.4% year over year in the first quarter of 2019 (1Q19), reaching $14.5 billion. IDC also lowered its forecast for total spending on cloud IT infrastructure in 2019 to $66.9 billion – down 4.5% from last quarter's forecast – with slower year-over-year growth of 1.6%.

Vendor revenue from hardware infrastructure sales to public cloud environments in 1Q19 was down 13.4% compared to the previous quarter (4Q18) but increased 8.9% year over year to $9.8 billion. This segment of the market continues to be highly impacted by demand from a handful of hyperscale service providers, whose spending on IT infrastructure tends to have visible up and down swings. After a strong performance in 2018, IDC expects the public cloud IT infrastructure segment to cool down in 2019 with vendor revenue dropping to $44.5 billion, a 2.2% decrease from 2018. Although it will continue to account for the majority of spending on cloud IT environments, its share will decrease from 69.1% in 2018 to 66.5% in 2019. In contrast, spending on private cloud IT infrastructure has showed more stable growth since IDC started tracking sales of IT infrastructure products in various deployment environments. In the first quarter of 2019, vendor revenues from private cloud environments increased 16.9% year over year reaching $4.7 billion. IDC expects spending in this segment to grow 10.1% year over year in 2019.

Overall, the IT infrastructure industry is at a crossroads in terms of product sales to cloud vs. traditional IT environments. In 3Q18, vendor revenues from cloud IT environments climbed over the 50% mark for the first time but has since fallen below this important threshold. In 1Q19, cloud IT environments accounted for 48.8% of vendor revenues. For the full year 2019, spending on cloud IT infrastructure will remain just below the 50% mark at 49.4%. Over the long-term, however, IDC expects that spending on cloud IT infrastructure will grow steadily and will sustainably exceed the level of spending on traditional IT infrastructure in 2020 and beyond.

Spending on the three technology segments in cloud IT environments is forecast to deliver growth for Ethernet switches and storage platforms while compute platforms are expected to decline in 2019. Ethernet switches will be the fastest growing at 20.9%, while spending on
storage platforms will grow slightly at 1.9%. Meanwhile, compute platforms will decline by 2.8% in 2019 but will remain the largest category of spending on cloud IT infrastructure at $34.2 billion.

Sales of IT infrastructure products into traditional (non-cloud) IT environments remained flat compared to 1Q18. For the full year 2019, worldwide spending on traditional non-cloud IT infrastructure is expected to decline by 3.5%, as the technology refresh cycle that drove market growth in 2018 is winding down. By 2023, IDC expects that traditional non-cloud IT infrastructure will only represent 42.4% of total worldwide IT infrastructure spending (down from 51.9% in 2018). This share loss and the growing share of cloud environments in overall spending on IT infrastructure is common across all regions.

"As the overall IT infrastructure goes through a period of slowdown after an outstanding 2018, the important trends might look somewhat distorted in the short term," said Natalya Yezhkova, research vice president, Infrastructure Systems, Platforms and Technologies at IDC. "IDC's long-term expectations strongly back continuous growth of cloud IT infrastructure environments. With vendors and service providers finding new ways of delivering cloud services, including from IT infrastructure deployed at customer premises, end users have fewer obstacles and pain points in adopting cloud/services-based IT."

Most regions grew their cloud IT Infrastructure revenues in 1Q19. Middle East & Africa was fastest growing at 35.3% year over year, followed by Western Europe at 25.4% year-over-year growth. Other growing regions 1Q19 included Central & Eastern Europe (18.3%), Canada and Japan (both at 14.6%), the United States (10.7%), and China (5.4%). Cloud IT Infrastructure revenues were down slightly year over year in Asia/Pacific (excluding Japan) (APeJ) by 1.2% and in Latin America by 0.2%.
<table>
<thead>
<tr>
<th>Company</th>
<th>1Q19 Revenue (US $M)</th>
<th>1Q19 Market Share</th>
<th>1Q18 Revenue (US $M)</th>
<th>1Q18 Market Share</th>
<th>1Q19/1Q18 Revenue Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dell Technologies</td>
<td>$2,584</td>
<td>17.8%</td>
<td>$2,147</td>
<td>16.5%</td>
<td>20.4%</td>
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<tr>
<td>2. HPE/New H3C Group**</td>
<td>$1,747</td>
<td>12.0%</td>
<td>$1,444</td>
<td>11.1%</td>
<td>21.0%</td>
</tr>
<tr>
<td>3. Cisco</td>
<td>$1,040</td>
<td>7.2%</td>
<td>$928</td>
<td>7.1%</td>
<td>12.0%</td>
</tr>
<tr>
<td>4. Lenovo*</td>
<td>$674</td>
<td>4.6%</td>
<td>$456</td>
<td>3.5%</td>
<td>47.7%</td>
</tr>
<tr>
<td>4. Inspur/Inspur Power Systems***</td>
<td>$641</td>
<td>4.4%</td>
<td>$552</td>
<td>4.2%</td>
<td>16.2%</td>
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<tr>
<td>ODM Direct</td>
<td>$4,460</td>
<td>30.7%</td>
<td>$4,512</td>
<td>34.6%</td>
<td>-1.1%</td>
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<tr>
<td>Others</td>
<td>$3,378</td>
<td>23.3%</td>
<td>$2,996</td>
<td>23.0%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Total</td>
<td>$14,524</td>
<td>100.0%</td>
<td>$13,034</td>
<td>100.0%</td>
<td>11.4%</td>
</tr>
</tbody>
</table>

IDC's Quarterly Cloud IT Infrastructure Tracker, Q1 2019

Notes:

* IDC declares a statistical tie in the worldwide cloud IT infrastructure market when there is a difference of one percent or less in the vendor revenue shares among two or more vendors.

** Due to the existing joint venture between HPE and the New H3C Group, IDC reports external market share on a global level for HPE as "HPE/New H3C Group" starting from Q2 2016 and going forward.

*** Due to the existing joint venture between IBM and Inspur, IDC will be reporting external market share on a global level for Inspur and Inspur Power Systems as "Inspur/Inspur Power Systems" starting from 3Q 2018.

Figure 1
Long term, IDC expects spending on cloud IT infrastructure to grow at a five-year compound annual growth rate (CAGR) of 7.5%, reaching $94.5 billion in 2023 and accounting for 57.6% of total IT infrastructure spend. Public cloud infrastructure will account for 66.2% of this amount, growing at an 6.6% CAGR. Spending on private cloud infrastructure will grow at a CAGR of 9.4%.

Figure 2
IDC's **Worldwide Quarterly Cloud IT Infrastructure Tracker** is designed to provide clients with a better understanding of what portion of the server, disk storage systems, and networking hardware markets are being deployed in cloud environments. This tracker breaks out each vendors’ revenue by the hardware technology market into public and private cloud environments for historical data and provides a five-year forecast by the technology market.

**Taxonomy Notes**

IDC defines cloud services more formally through a checklist of key attributes that an offering must manifest to end users of the service. Public cloud services are shared among unrelated enterprises and consumers; open to a largely unrestricted universe of potential users; and designed for a market, not a single enterprise. The public cloud market includes variety of services designed to extend or, in some cases, replace IT infrastructure deployed in corporate datacenters. It also includes content services delivered by a group of suppliers IDC calls Value Added Content Providers (VACP). Private cloud services are shared within a single enterprise or an extended enterprise with restrictions on access and level of resource dedication and defined/controlled by the enterprise (and beyond the control available in public cloud offerings); can be onsite or offsite; and can be managed by a third-party or in-house staff. In private cloud that is managed by in-house staff, "vendors (cloud service providers)" are equivalent to the IT departments/shared service departments within enterprises/groups. In this utilization model,
where standardized services are jointly used within the enterprise/group, business departments, offices, and employees are the "service users."

IDC defines Compute Platforms as compute intensive servers. Storage Platforms includes storage intensive servers as well as external storage and storage expansion (JBOD) systems. Storage intensive servers are defined based on high storage media density. Servers with low storage density are defined as compute intensive systems. Storage Platforms does not include internal storage media from compute intensive servers. There is no overlap in revenue between Compute Platforms and Storage Platforms, in contrast with IDC’s Server Tracker and Enterprise Storage Systems Tracker, which include overlaps in portions of revenue associated with server-based storage.

For more information about IDC's Quarterly Cloud IT Infrastructure Tracker, please contact Zsofia Madi-Szabo at zmadiszabo@idc.com.

**About IDC Trackers**

**IDC Tracker** products provide accurate and timely market size, vendor share, and forecasts for hundreds of technology markets from more than 100 countries around the globe. Using proprietary tools and research processes, IDC's Trackers are updated on a semiannual, quarterly, and monthly basis. Tracker results are delivered to clients in user-friendly excel deliverables and on-line query tools.

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