Abstract:
2017 Public Cloud Computing Trends

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Introduction

In order to assess IT spending priorities over the next 12-18 months, ESG recently surveyed 641 IT professionals representing midmarket (100 to 999 employees) and enterprise-class (1,000 employees or more) organizations in North America and Western Europe. All respondents were personally responsible for or familiar with their organizations’ 2016 IT spending as well as their 2017 IT budget and spending plans at either an entire-organization level or at a business-unit/division/branch level. A subset of ESG’s questions in this survey focused on respondents’ usage of and plans for public cloud computing services.

Specifically, the survey asked the following questions with respect to public cloud computing services:

- How widespread is the adoption of public cloud computing across the three service models, software-as-a-service (i.e., SaaS), infrastructure-as-a-service (i.e., IaaS), and platform-as-a-service (i.e., PaaS)?
- How will 2017 spending for public cloud computing services change relative to 2016 levels?
- How does the usage of cloud computing services vary by industry?
- When it comes to new application deployments, are organizations more likely to take a cloud-first approach? How does this vary based on the age of an organization (i.e., the length of time it has been in operation)?
- What is the relationship between an organization’s overall purchasing pattern for IT products and services and its usage of and strategy for public cloud services, as well as its 2017 spending intentions for those services?
- What are the usage trends and plans for software-as-a-service (SaaS)?
- What percentage of organizations’ current applications is delivered via the SaaS model? How has this changed over the last five years (2013-2017)?
- What types of applications are being delivered via the SaaS model?
- What are the usage trends and plans for infrastructure-as-a-service (IaaS)?
- What are the most common cloud infrastructure service use cases for current IaaS users?
- Among current IaaS users, how pervasive are multi-cloud service provider strategies?
- What are the usage trends and plans for platform-as-a-service (PaaS)? How does the usage of PaaS vary based on the number of business applications an organization has deployed?
- What is the relationship between PaaS and the extent of an organization’s usage of a continuous delivery approach to application development?

Survey participants represented a wide range of industries including manufacturing, financial services, communications and media, retail, government, and business services. For more details, please see the Research Methodology and Respondent Demographics sections of this report.
Research Methodology

To gather data for this report, ESG conducted a comprehensive online survey of IT professionals from private- and public-sector organizations in North America (United States and Canada) and Western Europe (United Kingdom, France, and Germany) between November 28, 2016 and January 3, 2017. To qualify for this survey, respondents were required to be IT managers personally responsible for or familiar with their organizations’ overall 2017 IT budget and spending plans, either at an entire organization level or at a business unit/division/branch level. Respondents who were only responsible for IT spending at a departmental or workgroup level were disqualified. All respondents were provided an incentive to complete the survey in the form of cash awards and/or cash equivalents.

After filtering out unqualified respondents, removing duplicate responses, and screening the remaining completed responses (on a number of criteria) for data integrity, we were left with a final total sample of 641 IT managers.

Please see the Respondent Demographics section of this report for more information on these respondents.

Note: Totals in figures and tables throughout this report may not add up to 100% due to rounding.
Respondent Demographics

The data presented in this report is based on a survey of 641 qualified respondents. Figure 1 through Figure 10 detail the demographics of the respondent base, including individual respondents’ current job responsibilities, as well as respondent organizations’ total number of employees, primary industry, annual revenue, and IT budget.

Respondents by Job Responsibility

Respondents’ current job responsibility is shown in Figure 1.

Figure 1. Survey Respondents, by Job Responsibility

Which of the following best describes your current responsibility within your organization? (Percent of respondents, N=641)

- Senior IT management (e.g., CIO, VP of IT, Director of IT, etc.), 72%
- IT management, 27%
- IT staff, 1%

Source: Enterprise Strategy Group, 2017

Respondents by Number of Employees

The number of employees in respondents’ organizations is shown in Figure 2.

Figure 2. Survey Respondents, by Number of Employees

How many total employees does your organization have worldwide? (Percent of respondents, N=641)

- 20,000 or more, 14%
- 10,000 to 19,999, 7%
- 5,000 to 9,999, 8%
- 2,500 to 4,999, 16%
- 1,000 to 2,499, 20%
- 500 to 999, 17%
- 250 to 499, 9%
- 100 to 249, 8%

Source: Enterprise Strategy Group, 2017
Respondents by Industry

Respondents were asked to identify their organization’s primary industry. In total, ESG received completed, qualified responses from individuals in 19 distinct vertical industries, plus an “Other” category. Respondents were then grouped into the broader categories shown in Figure 3.

Figure 3. Survey Respondents, by Industry

What is your organization’s primary industry? (Percent of respondents, N=641)

Transportation & Logistics, 3%
Government (Federal), 4%
Business Services (accounting, consulting, legal, etc.), 5%
Retail/Wholesale, 7%
Education (K-12/Primary/Secondary & College/University), 7%
Communications & Media, 7%
Government (State & Local), 7%
Manufacturing, 19%
Health Care, 12%
Financial (banking, securities, insurance), 25%
Other, 5%

Source: Enterprise Strategy Group, 2017

Respondents by Annual Revenue

Respondent organizations’ annual revenue is shown in Figure 4.

Figure 4. Survey Respondents, by Annual Revenue

What is your organization’s total annual revenue ($US)? (Percent of respondents, N=641)

Less than $100 million, 18%
$100 million to $499,999 million, 19%
$500 million to $999,999 million, 20%
$1 billion to $4.999 billion, 18%
$5 billion to $9.999 billion, 8%
$10 billion to $19.999 billion, 5%
$20 billion or more, 7%
Not applicable, 4%

Source: Enterprise Strategy Group, 2017
Respondents by Total Number of Business Applications

The total number of business applications respondent organizations use is shown in Figure 5.

**Figure 5. Survey Respondents by Total Number of Business Applications**

> Approximately how many total business applications does your organization use worldwide? Please include both on-premises and cloud-based applications. (Percent of respondents, N=641)

<table>
<thead>
<tr>
<th>Total Business Applications</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100</td>
<td>23%</td>
</tr>
<tr>
<td>100 to 249</td>
<td>23%</td>
</tr>
<tr>
<td>250 to 499</td>
<td>18%</td>
</tr>
<tr>
<td>500 to 999</td>
<td>19%</td>
</tr>
<tr>
<td>1,000 to 2,499</td>
<td>14%</td>
</tr>
<tr>
<td>2,500 or more</td>
<td>1%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group, 2017

Respondents by Total 2017 IT Budget

Respondent organizations’ total expected 2017 IT budget is shown in Figure 6.

**Figure 6. Total 2017 Budget for All IT Products, Staffing, and Services**

> To the best of your knowledge at this time, what is your organization’s total projected 2017 budget for all IT products, staffing, and services ($US)? (Percent of respondents, N=641)

<table>
<thead>
<tr>
<th>Budget Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10 million</td>
<td>39%</td>
</tr>
<tr>
<td>$10 million to $74.999 million</td>
<td>34%</td>
</tr>
<tr>
<td>$75 million or more</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group, 2017
Respondents by Length of Organizations’ Existence

The length of time respondents’ organizations have been in operation is shown in Figure 7.

Figure 7. Survey Respondents, by Length of Organizations’ Existence

For approximately how long has your current employer been in existence? (Percent of respondents, N=641)

- More than 50 years, 26%
- 1 to 5 years, 3%
- 6 to 10 years, 19%
- 11 to 20 years, 27%
- 21 to 50 years, 25%
- More than 50 years, 26%

Source: Enterprise Strategy Group, 2017

Respondents by Region

Figure 8 shows the regional breakdown of the respondent base.

Figure 8. Survey Respondents, by Region

Survey respondents by region. (Percent of respondents, N=641)

- North America, 68%
- Western Europe, 32%

Source: Enterprise Strategy Group, 2017
Respondents by IT Purchase Pattern

Respondents’ views on their organizations’ purchasing patterns for IT products and services is shown in Figure 9.

**Figure 9. Survey Respondents, by IT Purchase Pattern**

<table>
<thead>
<tr>
<th>Consumer Type</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading-edge</td>
<td>we stay on top of the most current technology trends and purchase related products as soon as they are available</td>
<td>32%</td>
</tr>
<tr>
<td>Conservative</td>
<td>we don’t really stay on top of technology trends and tend to make investments only after those technologies have been widely accepted in the market</td>
<td>12%</td>
</tr>
<tr>
<td>Average</td>
<td>we stay on top of technology trends but generally wait to purchase related products until they have proven acceptance in the market</td>
<td>55%</td>
</tr>
<tr>
<td>Don’t know/no opinion</td>
<td></td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group, 2017

Respondents by Adoption of Continuous Delivery Approach to Application Development

The extent to which organizations have adopted a continuous delivery approach is shown in Figure 10.

**Figure 10. Survey Respondents, by Usage of Continuous Delivery Approach to Application Development**

<table>
<thead>
<tr>
<th>Adoption Level</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive</td>
<td>All or most internally developed applications are developed with an agile methodology</td>
<td>18%</td>
</tr>
<tr>
<td>Good</td>
<td>Roughly half of internally developed applications are developed with an agile methodology</td>
<td>46%</td>
</tr>
<tr>
<td>Some</td>
<td>Less than half of internally developed applications are developed with an agile methodology</td>
<td>22%</td>
</tr>
<tr>
<td>Limited</td>
<td>Very few internally developed applications are developed with an agile methodology</td>
<td>8%</td>
</tr>
<tr>
<td>No</td>
<td>No internally developed applications are developed with an agile methodology</td>
<td>4%</td>
</tr>
<tr>
<td>Don’t know</td>
<td></td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Enterprise Strategy Group, 2017
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