The Voice of the Enterprise: Digital Pulse, Coronavirus Flash survey wave was conducted in March 2020. The survey represents approximately 820 completed interviews and 15 hour-long interviews from pre-qualified IT decision-makers. This survey focuses on the impacts to businesses of the global COVID-19 coronavirus outbreak.

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Research VP and GM, Voice of the Enterprise and Voice of the Service Provider
Voice of the Enterprise: Digital Pulse provides you with actionable data and insight and a broad, integrated view of enterprise IT strategies and initiatives and the underlying business and technology drivers.

Combining 451 Research’s industry-leading analysis with a proprietary global panel of IT decision-makers, Voice of the Enterprise: Digital Pulse tracks the disruption occurring in the market and exposes the major impacts and opportunities for enterprises, IT vendors, suppliers and investors.

This document is the product of a flash survey, an unscheduled, event-driven survey with a fast turnaround to cover a rapidly evolving situation relevant to tech markets. This survey was designed to measure the impact of the COVID-19 coronavirus outbreak on businesses. It was conducted between March 10 and March 19, 2020, and represents approximately 820 completes from pre-qualified IT decision-makers.

Product features

- Approximately 820 web-based surveys conducted with a base of IT end-user decision-makers.
- Sampling that is representative of small, midsize and large enterprises in private and public sectors.
- Data-driven deliverables for fast access and ability to perform segmentation work.
The 451 Take

The outbreak’s impact on business will be major. The COVID-19 coronavirus outbreak has been declared a global pandemic by the World Health Organization and a state of emergency by many governments, so it is not a surprise that it will have a significant impact on the operations of businesses. Enterprises are broadly canceling travel and face-to-face meetings while implementing work-from-home policies and other measures. Most organizations surveyed expect a major disruption to their business within six months.

The impact will be lasting. As enterprises invest in and implement the technology aspects of these policies (including collaboration software, mobile devices and information security tools), many consider it likely these policies will remain in place over the longer term. The widespread formalization of remote working practices is a likely impact.

IT systems will be stressed, but survive. Among the impacts of this blanket expansion of remote working is increased load on IT systems. Many organizations report increased stress on IT systems, but the vast majority say their systems are equipped to handle the strain as organizations put out fires. Over the longer term, an increased demand on cloud-based resources is likely.

The situation is evolving quickly. During the week this survey was in field, the outbreak saw several major global escalations. Opinions evolved in real time and continue to do so. At this point, the extent of the pandemic’s impact on business will be highly dependent on the extent and the effectiveness of the worldwide public health response.
Summary of Findings

**Enterprises expect major business disruption.** More than half (52%) of respondents say a continuation of the current situation would create a major disruption in their business within the next six months. Thirteen percent say they have already experienced one or expect to within the month.

**The impact includes both standard and strategic operations.** More than three-quarters of businesses are implementing policies including travel bans (81%) and expanded work-from-home policies (75%). Significant portions are also delaying or canceling strategic efforts such as hiring (34%) and product/service rollout (22%).

**Companies are spending more on key supporting technologies.** Many businesses expect to spend more on employee communication and collaboration (43%), mobile devices and services (37%), bandwidth and network capacity (32%), and information security (28%) among other things.

**A permanent influence on modes of working is likely.** Significant portions of respondents expect policies implemented in response to the coronavirus outbreak to be permanent. These include work-from-home policies (38%), travel limitations (23%) and reduced event attendance (16%).
Enterprises Expect a Large and Lasting Impact from Coronavirus Outbreak
Q. If the situation surrounding the coronavirus outbreak continues in its current state, how long is your organization equipped to function before a major disruption to its business occurs (e.g., inability to meet debt obligations or deliver agreed-upon services, loss of a major client or contract)?

Base: All respondents (n=556)
Enterprises say they have already halted or delayed major strategic undertakings as a result of the outbreak, with the most significant impacts extending to recruitment and product launches.

**New hiring delayed.** The strategic plan most commonly being put on hold by enterprises is the hiring of new staff (34%). This is broadly the top response across almost all respondent categories. It will likely become clearer over the longer term (including to the organizations themselves) whether these are temporary delays or longer-term hiring freezes.

**Holding off on launching products.** The other most commonly delayed strategic move is new product or service rollout (22%), a decision that aligns with widely seen reductions in customer demand. This saw variation across vertical markets, with service delays being fairly common among government and education organizations (30%) and less so among financial services (12%), for example.

Q. Which, if any, of the following strategic plans has your organization delayed, reduced or halted as a result of the situation surrounding the coronavirus outbreak? Please select all that apply.

Base: All respondents (n=640)
A Permanent Impact on Modes of Working Is Likely

Enterprise response to the coronavirus outbreak in the form of new policies is broad and, in the case of some policies, nearly universal. For some of these new policies, significant portions of organizations responding to the survey suggest they are likely to remain long-term or permanently.

A widespread policy response. Close to three-quarters of organizations surveyed have either already implemented or plan to implement policies such as limitations or bans on in-person meetings, both internal (66%) and external (74%), along with delaying and canceling events (75%), expanding work from home policies (75%), not attending events they have previously attended (79%) and enacting travel bans (81%).

Most of these policies are being even more widely implemented in EMEA, where, for instance, 86% of organizations surveyed have already implemented travel bans, compared to 71% in North America.

Sticking with what works. Significant proportions of enterprises expect some of these new policies to become more permanent organizational policies – especially expanded remote-working policies (38%), limits on employee travel (22%), and not attending events they previously might have (16%).

<table>
<thead>
<tr>
<th>ORGANIZATIONAL POLICY RESPONSE TO THE OUTBREAK</th>
</tr>
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<tbody>
<tr>
<td>Travel limitations/bans</td>
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<tr>
<td>Not attending events we have attended in the past</td>
</tr>
<tr>
<td>Expanded/universal work from home policies</td>
</tr>
<tr>
<td>Delaying/canceling company events</td>
</tr>
<tr>
<td>External in-person meeting limitations</td>
</tr>
<tr>
<td>Internal in-person meeting limitations</td>
</tr>
<tr>
<td>Office closures (temporary or permanent)</td>
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<tr>
<td>Expanded employee leave rules</td>
</tr>
<tr>
<td>Workforce reductions or work furloughs</td>
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<tr>
<td>Diversifying supply chain or suppliers</td>
</tr>
</tbody>
</table>

Q. Has your organization put any of the following new policies or changes into place as a result of the circumstances surrounding the coronavirus outbreak? Please select all that apply.

Q. Do you expect your organization to put any of the following new policies or changes into place as a result of the circumstances surrounding the coronavirus outbreak? Please select all that apply.

Q. Do you expect any of these new policies or changes to remain in place long-term and/or become permanent? Please select all that apply.

Base: All respondents
As enterprises more formally institute remote working policies and setups, they expect to spend more on the technologies to support these systems in the future, including communications tools, bandwidth and information security resources. The anticipation of these increased investments is much stronger among larger organizations.

**Acquiring the right tools for remote work.** The technologies topping the list for expected spending increases include employee communication and collaboration tools (43%), mobile devices and services (37%), bandwidth and network capacity (32%) and information security (28%). All of these relate directly to the remote working use case, which is clearly an immediate and growing IT priority.

**Larger enterprises have a large task ahead.** With greater workforces come more complex communication and collaboration challenges – a gap reflected in the significantly greater extent to which large organizations (more than $1bn in revenue) expect spending increases compared to smaller ones (less than $1bn in revenue). The larger firms much more commonly expect increased spending on communication and collaboration (63% vs 34%), mobile devices (53% vs 31%), bandwidth (55% vs 22%) and information security (46% vs 21%).

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**New Technology Investment Needed To Support New Working Conditions**

<table>
<thead>
<tr>
<th>Technology Product/Service</th>
<th>&lt;$1bn revenue (n=397)</th>
<th>$1bn+ revenue (n=158)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee communication/collaboration technologies</td>
<td>31%</td>
<td>43%</td>
</tr>
<tr>
<td>Mobile devices/services (e.g., phones, tablets, laptops, connectivity)</td>
<td>31%</td>
<td>37%</td>
</tr>
<tr>
<td>Bandwidth/network capacity</td>
<td>22%</td>
<td>32%</td>
</tr>
<tr>
<td>Information security software/tools (e.g., VPN)</td>
<td>21%</td>
<td>28%</td>
</tr>
<tr>
<td>External/hosted/cloud IT infrastructure</td>
<td>16%</td>
<td>22%</td>
</tr>
<tr>
<td>Internal IT infrastructure</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>Third-party services (e.g., installation, managed services, etc.)</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>None</td>
<td>11%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Q. Which, if any, of the following technology products or services do you expect your organization to spend more on as a result of the circumstances surrounding the coronavirus outbreak? Please select all that apply.

Base: All respondents
The new realities of remote working are already driving both increased strain on IT resources as well as increased spending on IT assets and resources at enterprises, a trend that is likely to continue. However, a strong majority of organizations believe their IT systems are equipped to handle the additional demand created by new working policies and practices.

**Most enterprises expect increased strain on resources.** Among enterprises surveyed, 41% are already experiencing increased strain on internal IT resources, and another 14% expect to begin experiencing it within the next three months, with another 3% beyond three months. Additionally, 34% of enterprises say they are spending more on IT resources and assets (51% of companies with more than $1bn in revenue).

**IT systems are up to the task.** Despite the growing demand, most enterprises believe their systems are prepared, with 91% of respondents indicating their IT systems are either somewhat or totally equipped to handle the requirements of new policies resulting from the outbreak.

**Demand on IT Resources Will Increase, but Not Insurmountably**

**EXPECTED INCREASES TO IT STRAIN AND IT SPEND; IT PREPAREDNESS**

Most expecting increased strain on internal IT resources

![Chart showing the percentage of enterprises experiencing increased strain on internal IT resources. 41% are currently experiencing it, 14% expect to begin within 3 months, 3% within more than 3 months, and 43% do not expect to experience it.

More spending on IT resources and assets overall

![Chart showing the percentage of enterprises spending more, less, or no change on IT resources and assets. 3% are spending less, 63% have no change, and 34% are spending more.]

Enterprises feel equipped to handle additional IT requirements

![Chart showing the percentage of enterprises equipped to handle additional IT requirements. 2% are not at all equipped, 7% are not very well equipped, 52% are somewhat equipped, and 39% are totally equipped.

Q. Please indicate whether your organization is currently experiencing or expects to experience each of the following as a result of the coronavirus outbreak. - Increased strain on internal IT resources (n=742)

Q. For each of the following expense categories, please indicate whether your organization is spending more or less money as a result of the coronavirus outbreak. - IT resources/assets (n=642)

Q. How equipped are your organization’s IT systems to handle the requirements of any new policies resulting from the circumstances surrounding the coronavirus outbreak? (n=752)

Base: All respondents
Enterprises Are Reacting to Rapidly Changing Circumstances

Q. Please indicate whether your organization is currently experiencing or expects to experience each of the following as a result of the coronavirus outbreak.

Q. For each of the following expense categories, please indicate whether your organization is spending more or less money as a result of the coronavirus outbreak.

Base: All respondents
Enterprises Are Reacting to Rapidly Changing Circumstances

Appreciating the rapidly evolving context in which this survey was conducted is key to understanding (and extrapolating from) the results. The situation surrounding the COVID-19 outbreak escalated globally while this survey was in field, and we saw responses shift significantly between the earliest group to complete it (March 10-11) and the last (March 18-19). We expect these trends to continue beyond the timing of the survey, and attitudes expressed by respondents may have already changed.

Tracking the impact. Between the earliest group of respondents and the latest, the portion experiencing increased strain on IT roughly doubled (24% to 43%), as did the groups seeing lost customer demand (22% to 40%), reduction in employee productivity (17% to 44%), and reduced access to services (19% to 42%). We also saw a slightly smaller increase in the portion experiencing reduced supply of parts and materials (26% to 32%).

Spending impact realized quickly. Time also had a big effect on those spending more on IT resources (20% to 40%) and information security (8% to 23%), as well as those spending less on labor (overtime, contractors) (6% to 30%) and on logistics and shipping (2% to 20%).
Enterprises Expect Lasting Change

“[With coronavirus] travel is the biggest challenge and it’s putting a lot of weight on our remote infrastructure and more and more people working from home. More users calling in to the service desk, [saying] ‘my VPN is not working.’ The problem is everybody’s working at home, all the weight [on the infrastructure]... Home internet is almost a critical thing. That’s impacted us a bit. Not dramatically but enough to where now I gotta have third parties involved, spending more time telling people to go to Starbucks, but don’t go to Starbucks [because you don’t want to be on the public internet].”

-IT ENGINEERING MANAGER/STAFF
2,000-4,999 employees
$1bn-$2.49bn revenue, Business services

“Let’s call it, 1,200 people that are working from home, and you’re spending like $1,200 on a laptop, you’re at $1.5m right there. You can’t buy that and just keep paying for empty offices, electric, heating, cooling, parking. And [maybe] you’re in a town where real estate is very expensive anyway. So, I could see very easily that kind of flowing throughout the community, and a lot of people saying, ‘Hey, we went home for the coronavirus. We stayed and we’re more productive.’”

-IT ENGINEERING MANAGER/STAFF
1,000-1,999 employees
$100m-$249.99m revenue, Healthcare

“If this is a big impact and it really does hit the US in the markets, and it is really personnel-impacting, I think you’ll see [organizations] invest more into burstable cloud space. Basically, [organizations are] realizing they do need to be more agile.”

-IT/ENGINEERING MANAGER/STAFF
10,000-49,999 employees
$2.50bn-$4.99bn revenue, Consumer/retail products/services
Recommendations

**Service providers must help businesses stay operational.** Technology will play a critical role in the continued operation of many businesses with the demands of drastically changing working conditions. But businesses are currently more focused on adapting to immediate needs, and big-picture strategic moves are likely to be on hold. However, the demand for specific workforce technologies and the resources to operate them effectively is immediate.

**Adapt to major impacts on purchasing and procurement processes.** Although the effects have already been dramatic, early surveying captured attitudes at the early stages of a rapidly escalating situation. Enterprises are just beginning to appreciate the likely impacts on supply chain, access to capital and other influences on their approach to consuming technology.

**Prepare for the new normal.** When enterprise attention returns from the immediate or near-term demands of the COVID-19 outbreak, it is unlikely to be business as usual. Service providers should prepare to operate in a world that may have dramatically different attitudes about remote working, business travel, live conferences and other likely casualties of the outbreak.
Demographics
Approach to new technology

- We are early adopters on the leading edge
- We are pragmatic about new technology, but will act sooner rather than later
- We are conservative about new technology and take a wait and see approach
- We are skeptical and are usually late to the game

<table>
<thead>
<tr>
<th>Approach to new technology</th>
<th>% of respondents (n=735)</th>
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<tbody>
<tr>
<td>% of respondents</td>
<td>53%</td>
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<tr>
<td>10%</td>
<td></td>
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<tr>
<td>7%</td>
<td></td>
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<tr>
<td>29%</td>
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</tbody>
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Digital transformation strategy

- No strategy. We currently have no digital transformation strategy.
- Consideration. We are considering it, but have no formal plans.
- Evaluation. We are planning and researching to develop a digital transformation strategy.
- Execution. We have a formal strategy and are actively digitizing our business processes and/or assets

<table>
<thead>
<tr>
<th>Digital transformation strategy</th>
<th>% of respondents (n=662)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of respondents</td>
<td>49%</td>
</tr>
<tr>
<td>17%</td>
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<td>17%</td>
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<td>17%</td>
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</tbody>
</table>
Age of respondents

- The Greatest Generation (born 1945 or before) 29%
- Baby Boomer (born between 1946 and 1964) 6%
- Generation X (born between 1965 and 1978) 7%
- Millennials (born between 1979 and 1996) 58%

Region

- North America 79%
- Europe, Middle East and Africa 16%
- Asia Pacific 4%
- Latin America (& Caribbean) 1%

% of respondents (n=760)

% of respondents (n=822)
Standardized Job Title

% of respondents (n=822)

- IT/Engineering Managers and Staff: 30%
- Senior Management: 25%
- Mid-level Management: 25%
- Other: 19%

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Methodology

451 Research runs a panel of highly accredited senior IT executives. Members of this proprietary panel, which consists of IT decision-makers, participate in surveys focused on enterprise IT trends.

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About the Author

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Liam Eagle is a Research Vice President and General Manager for the Voice of the Enterprise and Voice of the Service Provider practices at 451 Research. His research focuses on service providers, with an emphasis on managed infrastructure services, and how these providers source, build and deliver cloud and other technologies.

Prior to joining 451 Research, Liam was editor-in-chief at the Web Host Industry Review, where he managed a full-time editorial staff of four, along with dozens of freelancers and other contributors. In several years as co-chair of HostingCon, he developed the educational program for one of the industry’s most highly regarded and well-attended events.

In more than 15 years covering the technology services market, Liam has closely followed many of the trends that have shaped the business, platforms and partner ecosystems involved. He speaks frequently at client and industry events and is frequently quoted in technology and business publications. He holds a Bachelor of Journalism degree from Ryerson University in Toronto.
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