2020 Flexera™

CIO PRIORITIES REPORT

CIO perspectives on the impact of digital transformation, the shifting technology landscape and IT’s changing role in the business
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# Table of Contents

**Executive summary** 1
  - The highlights 2

**Methodology** 3

**Respondent demographics** 4

**Digital transformation impacts**
  - Customer experience is the top factor driving digitalization 8
  - IT maturity can enable or impede digitalization 9
  - Technology adoption supports digital efforts 10
  - Shift to cloud affects security priorities 11

**CIO priorities**
  - IT decision making hampered by poor data 18
  - Agile processes help IT keep up 19
  - CIO concerns about vendor lock-in extend to cloud 20
  - CIOs must also consider social responsibility 21
  - Innovation processes starting to take hold 22

**Staffing changes to support digital transformation** 23
  - CIOs are investing in the IT workforce 24
  - Increasing investments in employee training 25
  - CIOs fill resource gaps with external partner resources 26
  - CIOs seek to shore up cloud and security expertise 27

**IT strategic alignment becomes more critical** 12
  - IT leaders must balance running the business with growth and innovation 12
  - Digital transformation requires IT to partner with business 13
  - Business-led IT increases the pressure for a strong relationship 14
  - Strategic IT roadmaps are changing rapidly as companies seek to transform 15
  - Business outcomes metrics are used to justify investments 16

**CIOs face challenges in the shift to digital**
  - IT leaders must balance running the business with growth and innovation 12
  - Digital transformation requires IT to partner with business 13
# Table of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1.</td>
<td>Respondents by company size</td>
<td>4</td>
</tr>
<tr>
<td>Figure 2.</td>
<td>Respondents by region</td>
<td>4</td>
</tr>
<tr>
<td>Figure 3.</td>
<td>Respondents by industry</td>
<td>5</td>
</tr>
<tr>
<td>Figure 4.</td>
<td>Respondents by department</td>
<td>5</td>
</tr>
<tr>
<td>Figure 5.</td>
<td>Respondents by role</td>
<td>6</td>
</tr>
<tr>
<td>Figure 6.</td>
<td>Acceleration of the pace of digital transformation</td>
<td>7</td>
</tr>
<tr>
<td>Figure 7.</td>
<td>Acceleration of the pace of digital transformation by region</td>
<td>7</td>
</tr>
<tr>
<td>Figure 8.</td>
<td>Factors that drive digital transformation efforts</td>
<td>8</td>
</tr>
<tr>
<td>Figure 9.</td>
<td>Ranking of factors driving digital transformation</td>
<td>9</td>
</tr>
<tr>
<td>Figure 10.</td>
<td>IT maturity in factors driving digital transformation</td>
<td>9</td>
</tr>
<tr>
<td>Figure 11.</td>
<td>Planned use of technology in 2020</td>
<td>10</td>
</tr>
<tr>
<td>Figure 12.</td>
<td>CIO priorities for cybersecurity</td>
<td>11</td>
</tr>
<tr>
<td>Figure 13.</td>
<td>Investments to run the business versus growth and innovation</td>
<td>12</td>
</tr>
<tr>
<td>Figure 14.</td>
<td>Role of IT in business strategy</td>
<td>13</td>
</tr>
<tr>
<td>Figure 15.</td>
<td>Adoption of business-led IT</td>
<td>14</td>
</tr>
<tr>
<td>Figure 16.</td>
<td>Frequency of updates to the IT strategic roadmap</td>
<td>15</td>
</tr>
<tr>
<td>Figure 17.</td>
<td>Frequency of updates to IT strategic roadmap by region</td>
<td>16</td>
</tr>
<tr>
<td>Figure 18.</td>
<td>IT value creation metrics</td>
<td>16</td>
</tr>
<tr>
<td>Figure 19.</td>
<td>Challenges in IT decision making</td>
<td>18</td>
</tr>
<tr>
<td>Figure 20.</td>
<td>Maturity level of agile processes</td>
<td>19</td>
</tr>
<tr>
<td>Figure 21.</td>
<td>Vendor lock-in concerns</td>
<td>20</td>
</tr>
<tr>
<td>Figure 22.</td>
<td>IT investments in social responsibility</td>
<td>21</td>
</tr>
<tr>
<td>Figure 23.</td>
<td>Use of innovation processes</td>
<td>22</td>
</tr>
<tr>
<td>Figure 24.</td>
<td>Breakdown of enterprise IT workforce</td>
<td>23</td>
</tr>
<tr>
<td>Figure 25.</td>
<td>Planned changes in investments in IT staffing in 2020</td>
<td>24</td>
</tr>
<tr>
<td>Figure 26.</td>
<td>Planned changes in investments in training IT employees in 2020</td>
<td>25</td>
</tr>
<tr>
<td>Figure 27.</td>
<td>Planned changes in use of external partners by geography in 2020</td>
<td>26</td>
</tr>
<tr>
<td>Figure 28.</td>
<td>Areas where IT will use external resources</td>
<td>27</td>
</tr>
</tbody>
</table>
Executive summary

As the pursuit of digital transformation intensifies, the role of the chief information officer (CIO) is evolving. Digital technology has become integral to business strategy and is shaping CIO priorities. Consequently, it’s imperative that IT is involved early on in business-strategy planning, not simply as an implementer of technology but as an equal partner in the business. The role of equal partner brings with it new challenges for IT and, in turn, the CIO.

This Flexera 2020 CIO Priorities Report explores the thinking of 302 CIOs and senior IT executives around the world regarding a variety of pressing issues such as how to address the challenges digital transformation presents and the impact of that transformation on IT people, processes and technology.

While this survey asked technology-specific questions, it also covered broader topics that are indicators of IT leaders’ ability to develop a clear strategic vision, execute on that vision and measure the results.
The highlights

This first annual Flexera 2020 CIO Priorities Report explores the issues that are top of mind for CIOs and other senior IT executives. The report delves into their perspectives on the impact of digitalization, the role of IT in technology decisions, challenges in the digital journey and how CIOs are adjusting staffing. Following are some of the responses that we find especially interesting:

Digital transformation impacts CIO priorities

- 91 percent expect the pace of digital transformation to increase in 2020
- Customer experience is the top driver of digital transformation efforts with 69 percent rating it very important, but only 36 percent consider themselves very mature in this area
- CIOs are planning for heavy adoption of cloud (public, private and multi-cloud) and artificial intelligence (AI) in 2020
- This shift to cloud is driving 83 percent of organizations to increase investments in cloud security in 2020, with 47 percent planning for significant increases

IT strategic alignment becomes more critical

- Supporting the shift to digital and cloud, 36 percent of the IT budget is now allocated to growth and innovation
- IT organizations struggle to be equal partners in their relationship with business functions, acting in this strategic capacity only 24 percent of the time
- The need for IT to act as an equal partner is critical since 65 percent of organizations have a heavy or moderate focus on business-led IT
- Constant change is the norm, with 41 percent of respondents updating their strategic IT roadmaps at least monthly
- Driving business value is important for CIOs, with return on investment (ROI), customer satisfaction and cost savings delivered topping the list of metrics used

CIOS face challenges in the shift to digital

- As the pace of change increases, 89 percent cite the lack of quality data as an obstacle to good decision making
- Only one-quarter report they have very mature agile processes in place, which is a foundation of faster delivery
- 36 percent of CIOs are very concerned about lock-in with public cloud, leading to multi-cloud strategies
- With the serious business risks that security breaches pose, 84 percent plan to increase investments in data protection and privacy
- 35 percent of respondents are making heavy use of customer feedback in the innovation process

Staffing changes to support digital transformation

- 54 percent of IT workers are full-time office staff as organizations now use a mix of approaches to fill vacancies
- 84 percent expect to increase investments to upskill existing employees, enabling them to increase their value
- CIOs are looking to supplement skills gaps in cloud, cybersecurity and AI
- Organizations expect to fill skills gaps by increasing the use of external partners, prioritizing resources located in North America, India and Western Europe
Methodology

The Flexera 2020 CIO Priorities Report survey leveraged a large panel network comprising 302 global respondents across industries and context areas. The panel is composed of vetted respondents with detailed profiles and is rigorously maintained. The vast majority of respondents included C-suite executives from organizations with at least 2,000 employees.
Respondent demographics

The survey design accepts responses only from people in organizations with at least 2,000 employees. As Figure 1 shows, more than two-thirds of respondents work in organizations with 5,000 or more employees.

Figure 1. Respondents by company size

The survey targeted organizations in the Americas, Europe and Asia Pacific regions. As Figure 2 shows, 43 percent are based in the Americas, 37 percent are spread across Europe and 20 percent are based in Asia Pacific. The locations cited in the survey are headquarters locations.

Figure 2. Respondents by region
Figure 3 summarizes participation by industry. Nine industries have three percent or higher participation, with financial services, tech hosting/telecom and industrial products having double-digit representation. The other category represents a variety of industries, each representing less than three percent of respondents.

![Respondents by Industry](image)

**Figure 3. Respondents by industry**

A preponderance of the respondents work in the broader IT organization, as Figure 4 indicates. Ten percent identify as infrastructure and operations and an additional ten percent identify as IT finance. Six percent identify as being in a security role. In some organizations, IT finance could be based in IT but may have dotted-line reporting to the chief financial officer (CFO).

![Respondents by Department](image)

**Figure 4. Respondents by department**
Figure 5 illustrates the breakdown of respondents by position within the company. Forty-six percent are CIOs, 25 percent are vice presidents or presidents within IT and the remaining 29 percent are other C-level executives.

Figure 5. Respondents by role
Digital transformation impacts CIO priorities

The decision to embrace all things digital has significant impact on all functions within an organization, and most particularly on the CIO. This shift is further accelerating the pace at which CIOs must make daily decisions and take action to modernize their already-complex technology landscape. As a result, CIOs are suffering from decision fatigue, with days in the office seeming to pass by faster and faster. And the challenges of continuous change are not going away. As Figure 6 shows, 91 percent of respondents expect the pace of change in digital transformation to accelerate over the next year, with 52 percent saying it will increase significantly.

![Figure 6. Acceleration of the pace of digital transformation](chart)

Figure 6. Acceleration of the pace of digital transformation

However, as Figure 7 shows, the expected change varies by region. In the Americas, only 41 percent expect the pace of change to increase significantly, while in Europe and Asia Pacific, 62 percent and 57 percent say it will increase significantly. These variations are expected since each region is at a different stage in the adoption cycle for digital technologies.

![Figure 7. Acceleration of the pace of digital transformation by region](chart)

Figure 7. Acceleration of the pace of digital transformation by region
Customer experience is the top factor driving digitalization

Digital business innovations—both big and small—are happening across many areas of the business simultaneously. Many have the potential to significantly enhance the customer experience and customer perceptions of the quality of the organization’s product and services.

In the Flexera 2020 Digital Transformation Planning Report, we highlighted that improving the customer experience is a major driver behind digital business efforts. Similarly, the Flexera 2020 CIO Priorities Report bears this out. As Figure 8 shows, 69 percent of respondents cite customer experience as a very important factor in scaling their digital transformation efforts and another 24 percent say it’s somewhat important.

Rounding out the top four priorities are improving existing products/services, new products/services and growing new markets. These three can also impact a drive to improve customer experience, as any missteps in delivering the right mix of products, moving into new markets and timing it perfectly can hurt customer perceptions.

Given that the top four priorities are all customer-centric, it’s interesting to note that the next three priorities are often enablers. Using technology and re-skilling the workforce are critical to digital success. Just as important is maintaining a focus on IT efficiency and cost effectiveness, which keeps the CFO happy while ensuring funding is available for critical initiatives.

Figure 8. Factors that drive digital transformation efforts

<table>
<thead>
<tr>
<th>Priorities in Digital Transformation Efforts</th>
<th>Very Important</th>
<th>Somewhat Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer experience</td>
<td>69%</td>
<td>24%</td>
</tr>
<tr>
<td>Improving existing products/services</td>
<td>57%</td>
<td>39%</td>
</tr>
<tr>
<td>New products/services</td>
<td>53%</td>
<td>41%</td>
</tr>
<tr>
<td>Growing new markets</td>
<td>53%</td>
<td>33%</td>
</tr>
<tr>
<td>Technology</td>
<td>52%</td>
<td>43%</td>
</tr>
<tr>
<td>Increasing efficiency/cost savings</td>
<td>52%</td>
<td>42%</td>
</tr>
<tr>
<td>Workforce re-skilling</td>
<td>40%</td>
<td>48%</td>
</tr>
<tr>
<td>Partners</td>
<td>31%</td>
<td>52%</td>
</tr>
</tbody>
</table>

N=302

Source: Flexera 2020 CIO Priorities Report Survey
To provide a deeper understanding of the top factors driving transformational efforts, respondents were asked to rank the factors according to their first, second and third priority. In Figure 9, customer experience tops the list, with 26 percent naming it as their number one factor, 21 percent citing it as their second factor and 18 percent indicating it as the third factor.

<table>
<thead>
<tr>
<th>Top Factor</th>
<th>Second Factor</th>
<th>Third Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer experience (26%)</td>
<td>1. Customer experience (21%)</td>
<td>1. Customer experience (18%)</td>
</tr>
<tr>
<td>2. Improving existing products/services (23%)</td>
<td>2. Improving existing products/services (20%)</td>
<td>2. TIE Improving existing products/services and Technology (17%)</td>
</tr>
<tr>
<td>3. New products/services (19%)</td>
<td>3. Increasing efficiency/cost savings (16%)</td>
<td>3. TIE Growing new markets and New products/services (14%)</td>
</tr>
<tr>
<td>4. Technology (13%)</td>
<td>4. Technology (15%)</td>
<td>4. Increasing efficiency/cost savings (13%)</td>
</tr>
<tr>
<td>5. Increasing efficiency/cost savings (9%)</td>
<td>5. New products/services (13%)</td>
<td>5. Workforce re-skilling (6%)</td>
</tr>
</tbody>
</table>

Figure 9. Ranking of factors driving digital transformation

IT maturity can enable or impede digitalization

Successful digital business efforts are easier to achieve when the organization has reached a basic level of maturity in key digital drivers. Figure 10 summarizes how respondents rated their organizations’ level of IT maturity with respect to delivering on the factors in Figure 8. A minority of respondents consider their organizations to be very mature in these factors.

Figure 10. IT maturity in factors driving digital transformation
It’s important to bear in mind that it’s not uncommon for people to overestimate their organization’s maturity level. If you examine whether a company is achieving its anticipated return on investment in technology, you’ll often find the actual maturity level is lower than the self-evaluated one.

With the highest ranking, 41 percent of companies reported they were very mature at improving existing products/services which still leaves more than half of companies with room to improve. In addition, constant innovation is needed to keep up with competitors, and only 34 percent indicated they were very mature in new products/services. Maturity in growing new markets was even lower, with 29 percent reporting very mature, which may stymie efforts to reach new customers.

**Technology adoption supports digital efforts**

The survey questioned respondents on their priorities for adopting the technologies that underpin digital transformation. Figure 11 underscores the importance CIOs and senior executives place on the cloud in achieving digital transformation. Public cloud adoption is the top technology focus in 2020, with 79 percent of organizations planning to have heavy or moderate adoption.

![Figure 11. Planned use of technology in 2020](source: Flexera 2020 CIO Priorities Report Survey)

**Artificial intelligence (AI)/and machine learning (ML)** rank second at 72 percent. AI/ML can assist with filling many of the existing skills gaps and automate processes to improve efficiency and cut costs. Not only do AI and ML enable IT to do more with less, they also enable IT to do things faster.
Further down the list are containers, which help cut costs as the organization moves to the cloud, and robotic process automation (RPA), which increases efficiency and improves employees’ ability to respond quickly and effectively to customers.

Adoption rates for edge computing and IoT are also increasing as organizations launch analytics projects to gain visibility into how products are performing and how customers are using them. It’s interesting to note that both reasons for implementing these technologies are linked to the all-important emphasis on customer experience.

**Shift to cloud affects security priorities**

As organizations ramp up their digital transformation efforts, they’re accelerating the move to the cloud. Protecting data, applications and services in a public cloud requires organizations to move beyond the traditional approaches of the controlled data center environment.

Organizations need to be vigilant to protect against continual threats because breaches can result in embarrassing media headlines, financial penalties, costly lawsuits and, most important, loss of customer confidence. Moreover, organizations must comply not only with the European Union’s General Data Protection Regulation (GDPR), but also prepare for legal mandates that are under consideration around the world. Consequently, CIOs view cybersecurity as an essential element of any digital transformation initiative. **Figure 12** indicates CIO priorities for investing in various aspects of cybersecurity, with the top five being cloud security, threat intelligence, data privacy, vulnerabilities and social engineering.

![Figure 12. CIO priorities for cybersecurity](image-url)
IT strategic alignment becomes more critical

As organizations advance toward digital transformation, IT strategic alignment with the business becomes increasingly important. IT leaders who understand the organization’s strategic goals and align IT with those goals elevate IT from a role of technology implementer to one of equal partner in the business. In this enhanced role, IT is involved early on in strategic business decisions, especially those regarding technology direction.

This section of the Flexera 2020 CIO Priorities Report delves into the role that IT plays in the business—how central IT perceives itself and how the business units perceive central IT.

IT leaders must balance running the business with growth and innovation

IT has two important responsibilities. The first is ensuring that day-to-day business operations continue to run smoothly and reliably. The second is providing support for growth and innovation. Without sufficient focus on the second responsibility, the IT organization can quickly lose relevance, but this is a challenge when IT is not closely aligned with business needs. CIOs must balance their allocation of investments between running and growing the business.

Comparing this allocation to other organizations can help IT leaders benchmark their own level of investment. As Figure 13 shows, central IT departments allocate 64 percent of their budgets to running the current environment and 36 percent to growth and innovation. This ratio, however, can vary based on market dynamics and economic conditions. In addition, projects typically go through a lifecycle, starting in the innovation category and then moving into running-the-business category when they mature. Industry analysts often estimate the costs of running the business can be as much as 70 percent with 30 percent investment in growth. Given the focus on digital business, it’s not surprising that survey respondents have allocated more of the budget toward innovation.

Figure 13. Investments to run the business versus growth and innovation
Digital transformation requires IT to partner with business

Digital transformation often encompasses a shift to faster or continuous delivery of enhancements to a company’s products and services. In order to enable this agility, IT must align itself closely with the business, participating in strategic technology decisions and activities early in the planning process.

One measure of IT alignment is its involvement in the strategic activities of the business. There are four levels of involvement based on the point at which IT is brought into the decision-making process.

- **Equal partners** are actively involved in strategic planning and engage with the business early on when it comes to strategic planning.
- **Stakeholders** aren’t brought in as early as equal partners but are consulted regularly and provide valuable input that influences technology decisions.
- **Validators** act as sounding boards to determine whether the technology decisions the business has made are workable in the current environment. They also provide business partners with information on cost implications.
- **Implementers** are responsible for installing and maintaining technologies or applications that have already been selected by the business. It’s an important role, but not a strategic one. Implementers have no input into decision making and, in many ways, occupy a role similar to outsourcers.

Few IT teams will have the same level of involvement across all projects. The level of involvement will vary depending on how strategic the project is and the relationship IT has with different business units or functions. As **Figure 14** shows, respondents consider themselves equal partners slightly less than one-quarter of the time, while more than half the time they are an implementer or validator.

![IT Involvement with Business Strategy](image)

**Figure 14. Role of IT in business strategy**
For the IT department to shift their role from that of a mere implementer of technology toward equal partnership, IT leaders and staff must develop an understanding of the needs of the business and learn to speak in terms the business understands. They must proactively help business leaders understand how technology can be used to drive business goals and improve outcomes.

**Business-led IT increases the pressure for a strong relationship**

While achieving equal partner status can be challenging, it is becoming a requirement as business units now control a significant portion of the technology budget, with more and more technology decisions being made outside IT. Survey respondents report that 65 percent of organizations have moderate or heavy adoption of business-led IT, as Figure 15 shows.

![Adoption of Business-Led IT](image)

*Figure 15. Adoption of business-led IT*

IT should consider this shift in control as a net positive for the organization. Line-of-business (LOB) managers are close to their customers and markets. Consequently, they’re well positioned to determine what they need to do to create a compelling customer experience. Control of the technology budget gives these managers agility in responding to changing customer expectations and competitive pressures, which can accelerate the decision-making and purchasing process.

When there is a business relationship manager in central IT who acts as a business liaison, this person can listen and learn what these business units need. That knowledge empowers IT staff members to apply their technology insights and expertise to help LOB managers make better-informed technology decisions. In many cases, IT must provide support for new technologies, so it’s important they’re brought into the process early.
Strategic IT roadmaps are changing rapidly as companies seek to transform

Strategic technology roadmaps typically look two or more years into the future. These roadmaps lay out IT’s direction and spell out the initiatives the staff is working on to support business goals. Because of the rapid evolution of business and technology, the roadmap is reviewed periodically and adjustments are made based on changes in the business and the emergence of new technologies.

The portion of the roadmap that deals with running the business usually states objectives that involve stabilizing or upgrading the infrastructure and applications. This part of the roadmap typically doesn’t change dramatically over time unless corporate directives call for major shifts—for example, cloud-first and digitalization mandates.

On the other hand, the portion of the roadmap that deals with leveraging digital technologies to drive innovation needs to be revisited more frequently. As a result, survey respondents indicate that the strategic roadmap is being reviewed at an accelerating pace. Forty-one percent of respondents report roadmap adjustments occurring at least monthly to keep up with these rapid investment changes.

![Technology Roadmap Update Frequency](image.png)

Figure 16. Frequency of updates to the IT strategic roadmap

The speed of change in the IT roadmap varies greatly by region. Only 22 percent of respondents in the Americas report roadmap adjustments occurring at least monthly, in comparison to 52 percent in Europe and 65 percent in Asia Pacific.
Business outcomes metrics are used to justify investments

CIOs are under pressure to demonstrate to the business and enterprise that technology investments are paying off. Using metrics that resonate with the business is important to ensure IT is aligning with business priorities. Figure 18 shows that return on investment is the most heavily used success metric. ROI remains the most enduring and popular value metric because it aligns financial goals with investments. ROI is closely aligned with cost savings, increased efficiency and value delivered.

Figure 18. IT value creation metrics

Customer satisfaction, ranked second, is also a widely used metric. Customers have many choices today. If they aren’t satisfied with products or services from one company, switching to another is nearly effortless. Ensuring customer satisfaction helps build customer loyalty and long-term relationships. Surveying customers to understand their satisfaction level is critical to building this metric.
Increase in efficiency and operational metrics are important as they provide insight into the organization’s short-term performance, allowing managers to take steps that improve operations in the near term. Organizations are very good at building a long list of operational metrics, but these are often lagging, not leading, indicators. Additionally, these metrics are often IT-specific and not tied to business outcomes.

The net promoter score measures customers’ willingness to recommend a company’s products or services to others and provides additional insight into overall customer satisfaction. Although this metric falls at the bottom of the value-creation metrics, keep in mind that nearly all respondents are in IT and may consider this metric to be less important than people in other functional areas such as marketing and sales do.
CIOs face challenges in the shift to digital

The increasing pace of change in digital transformation combined with a steady flow of new technologies place a tremendous burden on IT leaders as the business ratchets up demands for innovation. CIOs are facing challenges in the maturity of critical processes that support innovation as well as the speed of decision making and delivery.

IT decision making hampered by poor data

The pressure to make decisions, take action and swiftly deliver results continues to intensify as organizations undergo digital transformation and move to the cloud. Yet many factors are converging to hinder the decision-making process. It’s no wonder CIOs complain of decision fatigue.

When asked what factors most impact their ability to make technology decisions, respondents cite **not enough good quality data** as the biggest challenge, as Figure 19 shows. Close behind is the fact that **implementing decisions is slow**. The third factor, **too many decisions**, echoes CIO concerns over the accelerating pace of change digital transformation brings and the need to revisit the strategic roadmap monthly and, in some cases, weekly.

<table>
<thead>
<tr>
<th>Challenges in IT Decision Making</th>
<th>39%</th>
<th>45%</th>
<th>47%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough good quality data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementing decisions is slow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too many decisions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decisions take too long to make</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting business unit buy-in</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Difficult to get consensus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting executive buy-in</td>
<td></td>
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</tbody>
</table>

**Figure 19. Challenges in IT decision making**
Agile processes help IT keep up

Creating a compelling customer experience requires not only rapid releases of new features, but also a steady stream of innovations. Agile processes enable IT to meet this need for speed and to respond in a timely manner to frequent adjustments to the strategic roadmap.

It’s clear that organizations are embracing agile development processes. As Figure 20 shows, one-quarter of survey respondents report having very mature agile processes in place, while almost half are somewhat mature. Taking steps toward mature agile processes can enhance an organization’s ability to deliver new innovations at a pace that meets the needs of the business.

![Agile Process Maturity](image)

**Figure 20. Maturity level of agile processes**
CIO concerns about vendor lock-in extend to cloud

CIOs haven’t forgotten how, in the past, vendor lock-in limited their agility and saddled them with considerable technical debt. In the digital era, agility is crucial, so CIOs are wary of allowing any vendor to impose problematic pricing structures and exploit the lack of a clear exit strategy to turn them into “customers for life.”

Figure 21 shows that public cloud is the top area of concern with respect to lock-in. So it isn’t surprising that CIOs are making multi-cloud a requirement in their digital strategies. And while on-premises software lock-in is in the number two spot, it’s clear CIOs are being cautious to avoid lock-in by SaaS vendors as well. Moreover, as organizations leverage external partners to overcome staffing challenges, CIOs also want to guard against lock-in by the service providers, outsourcers and systems integrators they engage.

Figure 21. Vendor lock-in concerns
CIOs must also consider social responsibility

The increasing prevalence of millennials and members of Gen Z as both customers and employees is causing organizations to rethink how they approach corporate social responsibility. Evolving social norms are compelling organizations to adjust their technology investments to address corporate social responsibility over the next year.

To gauge the impact of social responsibility considerations, the survey asked participants how their technology investments will change due to social responsibility issues. Figure 22 shows their expectations. Data privacy and protection, which become even more critical with digital business, will garner significant increases in investments in 2020.

![2020 IT Investments in Social Responsibility](image)

Figure 22. IT investments in social responsibility

This is also driven by legal mandates requiring organizations to safeguard customer information. Additionally, failure to protect this information can result in costly lawsuits and harm the organization’s reputation.

Environmental issues, including reducing carbon footprint, recycling IT hardware/components and environmental protection supply chain, captured the number two, three and four spots. Worker pay parity and worker protections are in the number five and six spots. These are all areas about which millennials and Gen Z tend to be passionate. And they are quite vocal, making it clear they want to do business with and work for organizations that share their values.

CIOs are paying attention, making sure that as they invest in technologies that drive business success, they’re also working to minimize environmental impact and apply strong ethical standards throughout the supply chain.
Innovation processes starting to take hold

Innovation processes—the steps organizations take to encourage new ideas and develop them into innovative products— are becoming more important to drive transformation and competitive advantage. However, organizations still have work to do. Figure 23 shows that only 35 percent of survey respondents are making heavy use of the customer feedback process. Other innovation processes are just beginning to take hold.

![Innovation Processes](image)

**Figure 23. Use of innovation processes**

Having an innovation process in place to analyze data and understanding how to apply the analysis to products are symbiotic. An innovation lab can assist in testing out ideas from internal resources to develop new solutions to problems that employees think are needed.
Staffing changes to support digital transformation

Technology shifts related to digital transformation are also affecting the makeup of the enterprise IT workforce. **Figure 24** illustrates survey respondents’ current IT workforce breakdown. At 54 percent, *full-time in-office employees* represent just over half of the IT workforce. However, another 14 percent are *full-time remote employees*.

![Breakdown of Enterprise IT Workers](image)

**Figure 24. Breakdown of enterprise IT workforce**

Organizations located in larger cities/geographies such as New York and Silicon Valley are finding it difficult to recruit and hire people with the right skillsets. The high cost of living in these areas requires organizations to offer higher salaries, driving up the cost per employee. And qualified people who live in rural areas and smaller towns are often unwilling to relocate to large cities due to quality-of-life concerns.

By accommodating remote workers, organizations can tap a larger talent pool, hiring people who can’t or don’t want to relocate. At the same time, they can offer salaries that are highly competitive for the remote geography but still lower than salaries for people living in large metropolitan areas.

Nearly a quarter of the workforce encompasses *outsourced* and *contractor/gig workers*. These people typically prefer to be their own bosses and enjoy greater control and flexibility with respect to their work schedules. Organizations that engage them can extend in-house resources for specific projects and for temporary periods of time, so they don’t take on the overhead associated with permanent, full-time workers.
CIOs are investing in the IT workforce

Digital transformation is changing the mix of skillsets organizations need. When labor markets are tight, as they have been over the past year, organizations need to retain quality talent and ensure their people have the right knowledge and expertise. **Figure 25** shows, not surprisingly, that investing in **upskilling** and **re-skilling of existing employees** are the top two priorities to address labor shortages. Existing employees already hold corporate institutional knowledge, so increasing their value through education and training is more advantageous than bringing in new people. Moreover, if it does become necessary to hire and recruit new employees, a reputation for offering skills development and training can give an organization a competitive edge in attracting new talent. This can reduce recruiting timeframes and costs.

**Figure 25. Planned changes in investments in IT staffing in 2020**

Organizations have traditionally used **aptitude and technical tests** in their recruiting and hiring practices to measure differences among candidates with similar resume credentials. The goal is to enable better-informed hiring decisions. However, testing also provides value for current employees by uncovering unknown talents and skills that offer opportunities to move people to other areas of the organization where they can deliver greater value.

**Diversity** remains a common theme in the news. Consequently, organizations are attempting to promote more women and minorities into higher management levels to achieve a more diverse workforce.
Offering workers the flexibility to work remotely appears again as one of the ways the IT workforce will change. Advances in collaboration technology enable companies to allow workers to live where they want without sacrificing quality of work. Offering this flexibility can expand the organization's access to a larger number of skilled and motivated employees.

**Increasing investments in employee training**

Taking positive steps to retain and train existing employees who are loyal and happy can pay off in multiple ways, including minimizing headcount gaps. As Figure 26 shows, 79 percent of respondents plan to increase their investment in training employees over the next year. These investments may take a variety of forms, from college tuition reimbursements and school-loan-payback programs to internal education programs and internships.

![2020 Planned Changes to Training IT Employees](source)

*Figure 26. Planned changes in investments in training IT employees in 2020*

As people gain new skills through training, they often begin to apply different perspectives. This new way of thinking can contribute to increasing the level of innovation in the organization.
CIOs fill resource gaps with external partner resources

Organizations continue to leverage systems integrators, outsourcers, managed service providers and other external partners to fill gaps in the workforce and take advantage of special skills and expertise—for example, big data, AI or DevOps.

The usual sources for outsourced labor pools will likely encounter increased demand for additional headcount to supplement a labor market characterized by low unemployment. As Figure 27 shows, there isn’t a notable difference in headcount reduction by region with most seeing less than a ten percent decrease. North America, Western Europe and India are the geographies in which spending for external partners will increase somewhat and significantly in the next year.

**Expected Change in Use of Partners by Region**

<table>
<thead>
<tr>
<th>Region</th>
<th>Decrease significantly</th>
<th>Decrease somewhat</th>
<th>Increase somewhat</th>
<th>Increase significantly</th>
</tr>
</thead>
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<tr>
<td>North America</td>
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<td>33%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>India</td>
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<td>34%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
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<td></td>
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<tr>
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<tr>
<td>Africa</td>
<td>2% 7%</td>
<td>12%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Flexera 2020 CIO Priorities Report Survey

*Figure 27. Planned changes in use of external partners by geography in 2020*
CIOs seek to shore up cloud and security expertise

The survey also queried participants on how they plan to use external resources to supplement internal resources in each of the technology areas they need to address. As Figure 28 shows, the top three in which external partners will play a role are cloud operations, cybersecurity and cloud migration. All three are rapidly growing areas of specialization that require specific skillsets. Organizations plan on turning to external partners to cost-effectively move the organization to the cloud, run the cloud environments needed for digital transformation, and protect data and apps in the cloud from unauthorized access.

They are also looking to supplement the internal workforce in highly specialized areas such as AI/ML, big data/analytics and blockchain. One approach is to involve partners to handle planning, design and implementation of a project followed by knowledge transfer that enables the internal workforce to take over ongoing management of the technology developed.

Figure 28. Areas where IT will use external resources
Summary

The adage *the customer is king* certainly has relevance with CIOs. Customer experience is top of mind with nearly all survey respondents. It’s the top driver of digital transformation efforts, and cloud technology is the primary vehicle for that transformation.

Rapid change is a major concern for CIOs. More than half of respondents expect the pace of IT change to accelerate compared with the previous year. To keep up, respondents are allocating more than a third of their budget to growth and innovation.

When it comes to strategic alignment with the business, IT has some ground to make up. Less than one-quarter of IT departments consider themselves equal partners with the business.

With respect to people, the vast majority of respondents say they’ll invest in their existing employees through training, upskilling and re-skilling, particularly in the cloud and security. They also plan to tap external resources to supplement their internal workforce.

Technology will keep growing and continue to change rapidly. So IT is bound to play an ever-expanding role in the modern organization. Those senior IT leaders able to participate in strategic technology decisions and activities early in the planning process will find themselves gaining prominence in the C-suite.
About Flexera

Flexera helps business leaders succeed at what once seemed impossible: getting full visibility into, and control of, their company’s technology “black hole.” From on-premises to the cloud, Flexera helps organizations unravel IT complexity and maximize business value from their technology investments.

For more than 30 years, our 1300+ team members worldwide have been passionate about helping our more than 50,000 customers optimize IT to achieve their business outcomes. To learn more, visit flexera.com

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