In 2020, the global pandemic caused massive shifts across every industry. When people could no longer safely meet or do business face-to-face, demand for digital experiences surged. Technology leaders were faced with an urgent need to accelerate digital transformation efforts, rethink prior plans, and create a whole new set of priorities.

To better understand how CIOs adapted, VMware commissioned research from MIT and Forrester Consulting. Months into the pandemic, MIT conducted interviews and sent surveys to hundreds of executives around the globe, capturing the myriad ways leaders are responding to this unique moment in time. The Forrester study was a follow-up to that research project, allowing them to go back to executives, ask the same questions, and measure how their answers changed.

Both studies found that the pandemic affected every aspect of business, from market pressures to competitive landscapes to employee and customer demands. As a result, technology decisions are now essential to business success—and leaders can’t afford to stand still or operate the same way they did before.

Key research findings
• **Innovation is more essential than ever.** As the models of engagement between customers and employees have changed, technology leaders need to find innovative ways to meet the needs of remote workers and cultivate customer relationships.

• **Budgets have been squeezed—requiring creative solutions.** With more being asked of technology teams, budgets quickly become stretched. IT leaders can’t only depend on additional budget to meet expansive new requirements; they also need to look for ways to save.

• **Infrastructure automation and consolidation provide a path for savings and innovation.** The high cost and inflexibility of legacy technology infrastructure was laid bare in the shift to digital-first. By consolidating and automating traditional systems, IT can both save on costs and move to approaches that are more flexible and efficient.
How CIOs are Freeing Up Budgets to Fund Innovation in a Post-Pandemic World

“Reducing infrastructure and IT operations costs can’t wait, and automation is the only way forward. To reduce costs but keep infrastructure always on and always up to date, executives must automate every IT operations procedure, as fast as possible.”

—FORRESTER CONSULTING²

INNOVATION PRIORITIES

Where is innovation needed most?

Amid a chorus of new concerns and demands coming from every area of the business, technology leaders must decide what to move to the front of the line. Research shows clear trends that illuminate where leaders are focusing their efforts.

Executives are making innovation a priority in three key areas:²

<table>
<thead>
<tr>
<th>61%</th>
<th>56%</th>
<th>45%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting employees working remotely</td>
<td>Overcoming revenue losses</td>
<td>Meeting new digital demands</td>
</tr>
</tbody>
</table>

Yet this focus comes alongside growing concerns about cost pressures.²

<table>
<thead>
<tr>
<th>Before the pandemic:</th>
<th>Now:</th>
</tr>
</thead>
<tbody>
<tr>
<td>48% said reducing costs is a top priority</td>
<td>72% said reducing costs is a top priority</td>
</tr>
</tbody>
</table>

In addition,

55% expect their IT budgets to be reduced in the next 12 months²

Cost reductions make it imperative to modernize infrastructure and operations.

Legacy infrastructure comes with a notoriously high price tag. It not only requires large CapEx and OpEx costs, but also creates a model that is inflexible, slow, and complex. To support distributed work and create digital-first customer experiences, IT must move to flexible, automated technology environments. Funding digital innovation isn’t an exploratory exercise—rather, its goal is to create a powerful foundation that will support the business today and tomorrow.

OPPORTUNITIES & CHALLENGES

Leaders are investing in business resilience and long-term success

The three areas identified as innovation priorities are all connected to modernizing IT infrastructure and leveraging automation to grow IT efficiency.

1. Supporting distributed work

After the pandemic began, companies with a solid remote work infrastructure were able to adapt faster to changing conditions. To cultivate high-performing teams that deliver on business goals, IT must develop long-term strategies that enable flexibility, security, and connectivity for all workers, wherever they are.

Where technology leaders are investing in distributed work capabilities:

57%—Securing endpoint risks and expanding threat management
56%—Formalizing or expanding work-from-home policies
45%—Automating manual workflows

“The shift to remote working has been a dramatic one, and enterprises that have the most flexible and employee-friendly technology platforms are best positioned for success.”

—MIT TECHNOLOGY REVIEW INSIGHTS¹
2. Overcoming revenue losses
For many companies, the pandemic led to unexpected dips in revenue. Looking forward, leaders must take a savvy approach that directs innovation to areas that will recoup revenue. One way to achieve this is by utilizing existing talent more effectively. Reskilling employees and leveraging automation enables people to focus on work that delivers real value to the business.

42% have implemented a hiring freeze since the pandemic
67% canceled projects that do not have any immediate benefit to their business

3. Meeting new digital demands
The urgent need for digital-first experiences has caused executives to abandon projects that do not directly improve customer and employee experiences, and prioritize cloud migration and application modernization. Organizations that build digital experiences that are rewarding and easy to use will gain a significant advantage.

When executives were asked how they plan to help the business become more resilient:

57% prioritized infrastructure efficiency as key to success

The same executives shared more detail on the infrastructure efficiency initiatives they plan to accelerate next:

40% Automation
37% Adopting a multi-cloud strategy

BUDGETS & PRIORITIES
Navigating the big budget shakeup
A closer look at the data reveals that executives are finding it harder to secure budgets and gain consensus with other leaders and stakeholders. Because technology decisions now impact every part of the business, executives will need to be able to clearly communicate what is driving their strategy and how it connects with larger goals and initiatives.

When asked, “Due to the impact of COVID-19 pandemic, are the following business challenges more, less, or equally challenging as you improve software applications compared to times before the pandemic?” executives identified the following as most challenging:

- Securing funding: 60%
- Aligning strategy across multiple departments and teams: 56%
- Securing buy-in across business leadership: 50%
- Lack of DevOps culture and process: 48%
Budgets are shifting in line with new priorities

Research shows that executives believe modernizing infrastructure and applications is key to success in a digital-first world.

When asked, “How much do you agree with the following statements about how the COVID-19 pandemic has impacted your project portfolio?” executives said:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are prioritizing cloud migration projects</td>
<td>41%</td>
<td>34%</td>
</tr>
<tr>
<td>We are prioritizing application modernization projects</td>
<td>41%</td>
<td>29%</td>
</tr>
<tr>
<td>We are cancelling projects with no immediate benefit</td>
<td>41%</td>
<td>26%</td>
</tr>
<tr>
<td>We are prioritizing projects with direct impact on end-customer experience</td>
<td>39%</td>
<td>20%</td>
</tr>
<tr>
<td>We are investing in training for our IT and development teams</td>
<td>33%</td>
<td>23%</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS

Charting a path to a more flexible, agile future

As the economy recovers from the pandemic, one thing is clear: The future is increasingly uncertain, and building a technology infrastructure that provides the ability to adapt fast and grow resilience is imperative. As you look balance these priorities with innovation, the following recommendations can help guide your path.

Support distributed work for the long term

Build a digital infrastructure that supports flexibility. Long after the pandemic is over, distributed work will continue to play a key role in the enterprise, allowing companies to draw from a wider talent pool and maintain productivity amid disruptions.

• Lay the foundation with technology infrastructure that seamlessly supports distributed work, such as digital workspace platforms that help workers stay productive and efficient.

• Look for solutions that enable real-time information sharing and end-user choice.

• Prioritize security that doesn’t depend on a corporate network, extending from endpoint to cloud to edge.

Overcome revenue losses by reducing CapEx and OpEx

Start re-training and reskilling initiatives right away. As you deploy solutions that free up IT time, train existing workers on how to use the cloud, how to measure the impact of apps on customer experience, and more.

• Invest in expert-led training programs that provide certification. Include these in annual employee professional development goals.

• Take advantage of free and low-cost training, and encourage employees to learn on their own with myriad opportunities and resources.

Sweat your current investments. Ask hardware and cloud providers for purchase and service models that provide flexibility and choice.

• Look for ways to avoid CapEx and free up funds to invest in growth areas for the business with pay-as-you-go and subscription models.
Meet new digital demands with a laser focus on customer experience

Take the time to understand how your applications are performing relative to business goals—and develop a DevOps culture that enables faster delivery of software improvements and new applications.

- Measure the impact of every app on customer experience for clarity on which projects to pause or stop, and which ones to accelerate.
- Embrace DevOps automations and practices. Modernizing application and development initiatives leads to greater agility. By streamlining dev environments and automating software development, testing, and deployment, you can meet new requirements faster.

CONCLUSION

Plan now to allocate budget toward building a future advantage

The global pandemic was an important test that revealed strengths and weaknesses in how organizations adapt to change. Now is the time to take that knowledge and build future-ready strategies that make you more prepared to meet whatever comes next. Where you allocate budget today can help your organization become more agile, customer-focused, and innovative tomorrow.

Discover more cutting-edge research and insights

Read the Forrester Consulting and MIT research studies and find more executive perspectives on our blog, CIO Exchange.

2. A commissioned study conducted by Forrester Consulting on behalf of VMware, “To Recover From The Pandemic, Automate Operations To Free Budget For Innovation”, September 2020