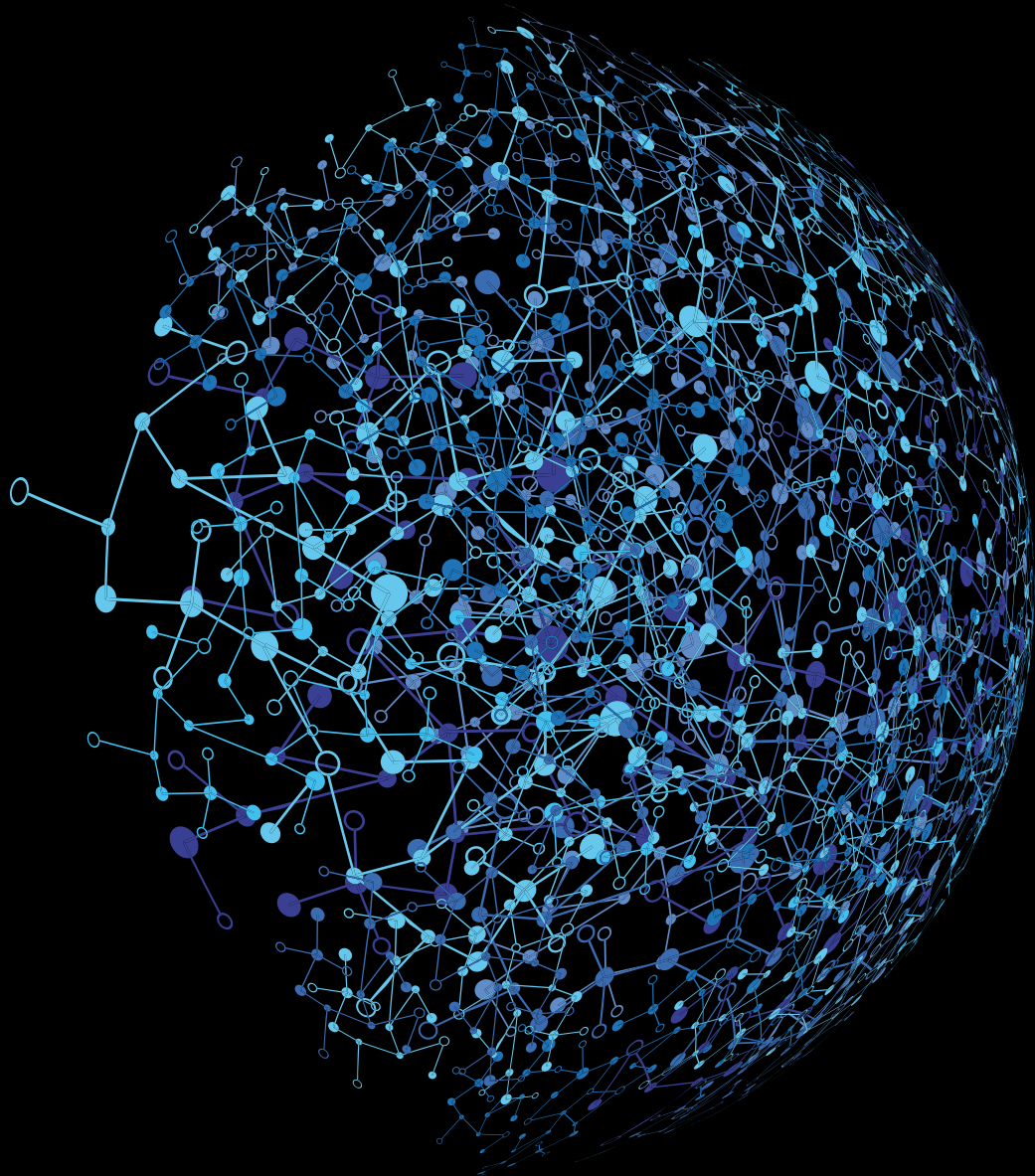
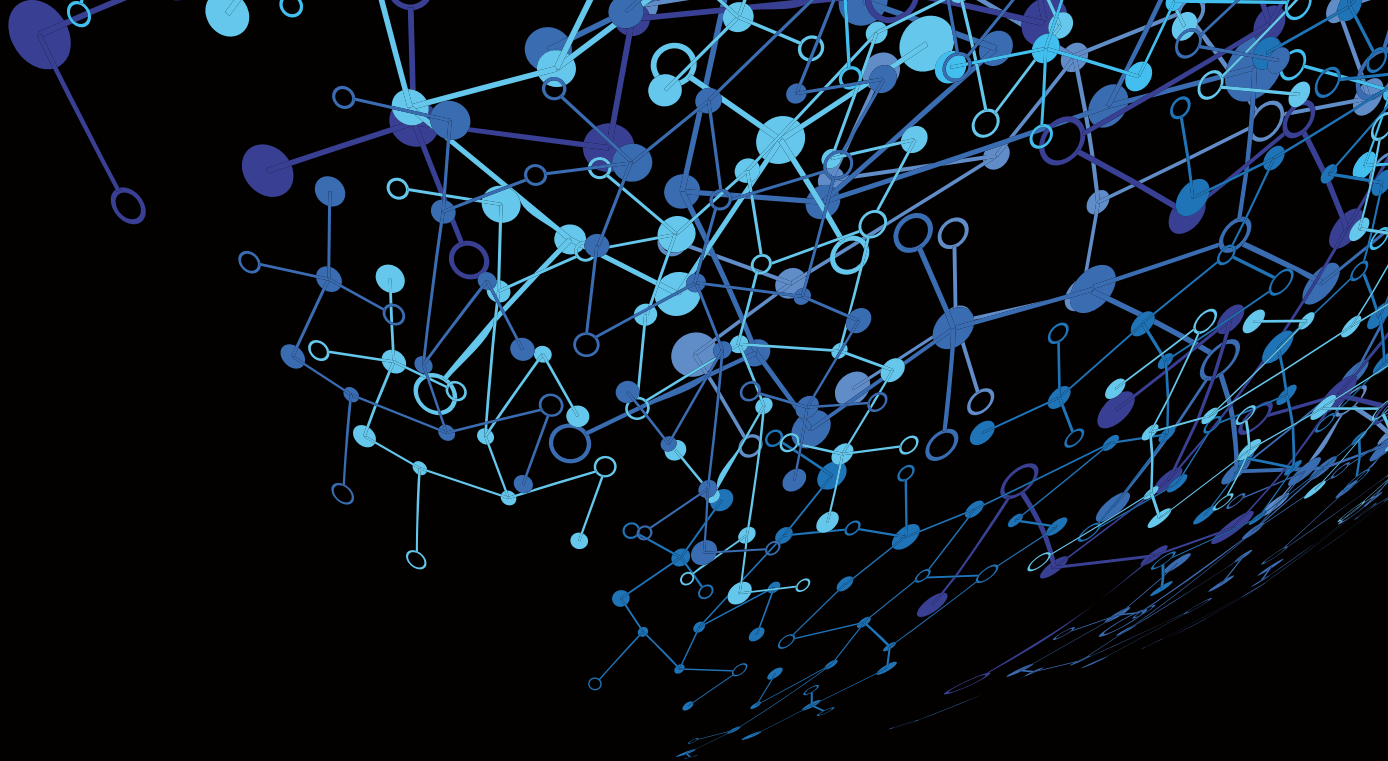


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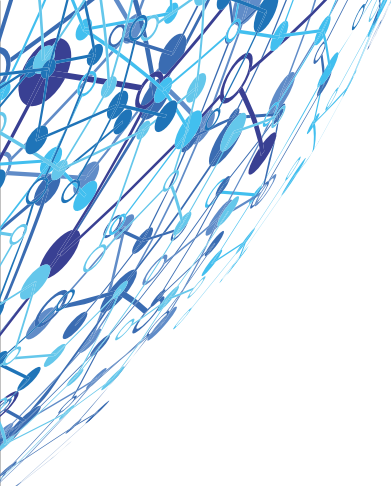
COVID-19

People, technology, and the path to
organizational resilience



Contents

Introduction	1
Immediate response: Plan, people, and practice considerations for technology leaders	3
Plans: Developing a response strategy	4
People: Ensuring health, well-being, and productivity	6
Practices: Preserving continuity of business operations	8
The long-term impact: Becoming a resilient leader while reimagining the future of work	10



On March 11, 2020, the World Health Organization (WHO) officially declared COVID-19 a pandemic. As the world continues to grapple with the uncertainty surrounding the spreading of COVID-19 and its growing impact on stock markets, supply chains, and other pillars of the global economy, it's important to remember that this event is first and foremost about people—their families, their well-being, and the organizations and institutions that they rely on and trust in times of need. From hospitals to banks to stores and transportation, it's critical for these organizations and businesses to be strong and resilient so they can serve the people who depend on them for products, services, and livelihoods. Yet, according to a recent Forrester survey, only 43 percent of the US respondents believe that their organization has a plan to deal with a crisis such as the COVID-19 pandemic.ⁱ

Since the novel coronavirus was identified in China in late December 2019, hundreds of thousands of people in more than 100 countries and regions have contracted the disease caused by the virus, COVID-19, leading to several thousand fatalities.ⁱⁱ With an increasing percentage of the positive cases now outside mainland China, as well as the unprecedented spread of the virus in Italy, the spread of COVID-19 to other regions of the world represents a serious threat to the global economy. Already we see it disrupting supply chains, business operations, and markets. The virus's full impact on organizations may not be known for months. However, as COVID-19's ramifications ripple through the global economy and the financial sector, one thing is certain: technology will be among the most powerful weapons in every organization's arsenal for responding effectively and decisively to this challenge.

ⁱ<https://go.forrester.com/blogs/fewer-than-half-have-pandemic-plan/> [i] <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

ⁱⁱ<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

Like other executives, technology leaders have a responsibility to lead their function through this crisis. But beyond that, they also have a critical responsibility to support the entire enterprise, particularly as technology is increasingly woven into the fabric of business. Beyond making sure that core systems are operational throughout this crisis, tech leaders must also seek out and support key areas in the business that are likely to be impacted, such as supply chain and HR. For example, supply chains will likely be hit hard, and technology leaders may be able to support them through operational automation and analytics. With HR, there may be opportunities to support people in the organization by providing the tools and reliable communication channels they need to work remotely.

Technology leaders have an opportunity and an obligation to help lead their organizations through this crisis with their knowledge and the power of technology, and they must prioritize their efforts. The organization's business resiliency depends on its technologies and systems, and tech leaders should assume the role of a crisis leader. It's important to remember crises like this have presented themselves in the past and will again in the future. As such, there is a need to be prepared, rational, and even altruistic in responding. If there is disruption, there will also be recovery, so how technology leaders act in a time of crisis can also inform our long-term impact.ⁱⁱⁱ

Immediate response: Plan, people, and practice considerations for technology leaders

To respond to the immediate challenge ahead, technology leaders need to devise their strategies and execute them across three major dimensions: plans, people, and practices. Each of these dimensions is essential for delivering a thoughtful response, keeping people safe and productive, and creating a resilient organization.



Plans: Developing a response strategy

Technology leaders in organizations are often pulled into responding quickly to tactical, operational, and logistical challenges in crises, such as the COVID-19 pandemic. Although IT organizations may need to respond quickly to some issues, such as by enhancing remote work capabilities and securing critical assets, it is essential that they put organizational strategy and plans in place to ensure organizational resilience. This early focus on planning can ultimately help execute quickly and effectively.

- 1. Review business continuity (BC)/disaster recovery (DR) plans.** BC plans help ensure that people and places are secure and operational, while DR plans focus on data and applications. Assessing risks and their potential impact, developing recovery strategies, and having clear escalation procedures are all part of a BC plan. DR plans, on the other hand, focus on how to get the technology environment back to normalcy. Both these plans require regular testing and continuous updates to ensure they are effective and usable when executed.
- 2. Establish a crisis management office.** This should be a permanent, virtual structure that is activated for events such as the COVID-19 pandemic and other black swan incidents. Having a crisis management office in place can help ensure that there are regular testing and iterative changes in your continuity and recovery plans, rather than updating them as part of a once-in-a-decade exercise. This crisis management office is often part of a broader cross-functional crisis response team, as the IT organization's role is not only to manage the direct risks to IT but to also support the other functions in their response.
- 3. Develop a communications plan.** You should be able to communicate quickly and efficiently (good news and bad)—and assume workers may not have their laptops/office communication channels available. Be inclusive in your communications plans to include technology infrastructure, software, and service providers as well as broader ecosystem vendors and partners. Also, ensure there are communication channels established with customers, business partners, your people, regulators, and other stakeholders.

- 4. Perform scenario planning to understand technology needs.** Think ahead to how a situation could play out and run through multiple possible scenarios. They could include massive disruptions in the workforce, global supply chains, or demand for goods and services. Some of these scenarios may simulate various response timeframes—be prepared for a rapid spread requiring immediate action versus a gradual spread requiring a long-term, global approach. Consider running business stress tests for different epidemic scenarios, which could include a mild, contained outcome, a broader global epidemic, or even a global pandemic, as is the case with COVID-19.
- 5. Define the role and expectations of leadership in planning and communications.** Your team expects accurate, authoritative information and support. They also need transparency—trying to conceal risk can potentially create more risk. The most important players in your communications plan are your leaders, so provide clear guidance to them and set expectations for them. Make sure they are equipped, prepared, and have conversations with your people, partners, and other stakeholders.
- 6. Plan for the recovery rebound.** Leaders should also consider in advance how to restart disrupted business operations, even though pandemic prevention and control measures are still being enacted. Keep in mind that quarantines and travel restrictions, which vary by geography, could make ramping back up to full capacity a longer, more complicated process than you would find in a planned shutdown. For example, restarting operations may require different staffing levels, capacity, or production ramps, which in turn could translate into flexibility, scalability, or security needs for technology.
- 7. Know your organization, roles, and priorities.** Prepare temporary succession plans for key executive and management positions and critical roles in your business. As COVID-19 has spread globally, there is an increased risk that key people will be temporarily unavailable due to quarantine or illness. In the event of illness, the IT organization needs to have clear leadership alternatives to ensure that decisions can continue to be made quickly and confidently in the crisis, and that IT operations are maintained. Also, certain critical functions such as payroll and order management should be identified and prioritized, not just to ensure the systems supporting them continue to do so but also to make sure personnel are able to access them. There should be contingency plans for these operations.



People: Ensuring health, well-being, and productivity

Ensuring the health and safety of your people is the top priority.

Organizations should educate their staff members as well as their key suppliers about the symptoms of the novel coronavirus, COVID-19, as well as ways to prevent infection. Demonstrate a willingness to listen to ensure your teams feel safe speaking up against conducting work that puts their health, or the health of others, at risk.

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- 1. Enforce precautionary measures and revisit sick leave policies.** First, educate your workers on screening, containment, and contamination protocols and ensure that they are properly supported by flexible sick leave policies. While symptoms may not ultimately be related to COVID-19 (i.e., common cold or seasonal flu), companies need to err on the side of caution at this time. Lost productivity from the absence of several people due to sick leave can be significantly less expensive than closing an office site, data centre, or service centre because of sick staff. Not to mention that before a site could be re-opened, it would need to be disinfected.
 - 2. Review/amend policies for remote work, including guidelines on travel.** It is known that travel has been linked to several cases of transmission of COVID-19. Many companies have already implemented policies to restrict non-essential travel to protect their people. Where possible, remote and flexible working arrangements should be considered. Developing appropriate guidelines for travel and remote work is essential for project teams and customer-facing IT professionals.
 - 3. Plan for absenteeism.** Absenteeism will increase as health-screening protocols are enforced, people who have symptoms are quarantined, or those who have been exposed self-isolate at home. Local containment policies may also contribute to absenteeism, labour shortages, and interruptions. Be aware that key technology suppliers, partners, and vendors could also have absenteeism rates that can affect your operations. This may range from quarantines, for those who may have been exposed to COVID-19 but are not yet showing symptoms, to travel restrictions, to school closures, which will affect the parents of young families who don't have alternate care options.

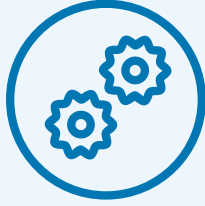


4. Ensure critical resource availability through succession and contingent workforce.

Prepare succession plans for key positions in your organization. As COVID-19 has spread to more than 100 countries (and counting), there is growing risk that key people will be temporarily unavailable due to quarantine or illness. In the event of illness, you will need to have clear alternatives ready to put into play for leadership and other critical roles. There should be short-term and long-term plans for operating the company for at least the next six months. This includes scenario planning, decision rights and accountabilities, and escalation paths for urgent decisions.

5. Establish out-of-band communication channels. Regular communication channels may not be available (e.g., due to a data centre outage) or accessible (e.g., people not having access to their work technology). Research ways to reach out to your people, contractors, customers, and partners through alternative channels and online tools and apps. Also, explore cloud-based providers of communication to reduce reliance on the data centre and email servers of your organization. In some parts of the world, internet connectivity and bandwidth needs to be considered in the overall communication strategy.

6. Clearly (and repeatedly) communicate policies, expectations, and procedures. The first step is to review and adjust policies such as leave, travel, meetings, and social media. Just referring to or attaching updated policies will not help. Clearly defining circumstances, scenarios, and terms such as essential/non-essential travel and reinforcing these in subsequent communications is essential. Some people feel that over-communication could be detrimental to morale, but in the event of a crisis, over-communication is better than under-communicating, which can lead to fear and uncertainty.



Practices: Preserving continuity of business operations

After developing a thoughtful strategy and ensuring the health and well-being of their people, leaders have the obligation to preserve the continuity of business operations. Here are some considerations for leaders to establish best practices.

- 1. Rationalize technology projects and portfolios.** With limited resources at your disposal, you want to be crystal clear on your priorities during a crisis. IT organizations often have hundreds of projects in flight at any given time in addition to normal business operations. Having a clear view of the prioritization and planning to stop or continue projects across various scenarios is important. Also, given the resource constraints organizations may experience during this time, you may need to consider diverting people and technical resources to maintain critical business operations. Additionally, a crisis may lead to the need to support new projects or accelerate projects that are important to the business in order to manage risk and/or prepare for the rebound. It is critical for leaders to convey the priorities to their workers, help them manage the demand versus supply for technology work, and make decisions on what can be deferred or deprioritized. In the case of COVID-19 or any other health threat, empower teams to be creative in how they deliver non-essential work in ways that minimize unnecessary risk or exposure.
- 2. Equip your connectivity, security, and infrastructure for new traffic and use patterns.** As you prepare for increased remote work, ensure that the organization has the technology capacity to support that work: bandwidth demands, VPN infrastructure, DevOps, and authentication and access control mechanisms as well as security tools all must be able to support peak traffic demands. Consideration should also be given to provide VPN/remote access to contractors and third parties who are supporting critical services and purchasing additional licences for collaboration tools such as Zoom, Skype, Slack, etc. The sudden increase in online activity can have big implications on system stability, network robustness, and data security, especially in parts of the world where telecom and systems infrastructure is not as well developed. Having guidance for people to preserve bandwidth and resources may also reduce the stress on systems. For example, using Zoom or Skype for 1:1 or small group meetings, using cell phones to free up bandwidth for larger meetings, or avoiding sending massive files in favour of using tools such as SharePoint and Teams could all help.
- 3. Be ready for disruptions in your business and technology ecosystem.** Don't forget that your workforce comprises more than just your employees. It is important to consider the large contingent workforce of contractors, outsourcers, and service providers. Identify all critical technology vendors, partners, and suppliers and ensure they're able to support the spikes and adjustments in demand. Determine the impact if they become unavailable or have capacity constraints. Ask for their disaster recovery, pandemic, and business continuity plans to get assurance of their resilience.

4. **Prepare for life without the data centre.** With the shift to cloud, many organizations are already on their way to ensuring that a major event at their data centres will not disrupt their critical business operations. Plan for the contingency of a data centre shutdown—even if the physical infrastructure is available, the possibility of not having the people to operate the data centre is real. Take stock of critical operations and assess the vulnerability of that infrastructure to constraints in physical hardware or other resources. Ensure there is some type of contingency plan in place to mitigate this risk.

5. **Understand and embed security, compliance, and privacy requirements in your plans.** During a crisis, it is easy to forgo security or privacy controls temporarily. However, if risks and their mitigation tactics have not been considered in advance, it can lead to major security, privacy, or compliance vulnerabilities. Not having a VPN while connecting remotely, or not having proper authentication or access control for critical applications, or not encrypting PII, could lead to security breaches, compliance violations, and loss of intellectual property.

6. **Determine critical business services and adjust service level agreements (SLAs).** The technology function provides many critical services to your workforce, customers, and partners. Each of these stakeholders has expectations about the availability and turnaround times for these services. Prioritizing services and ensuring that SLAs are adjusted and appropriately communicated accordingly will reduce confusion and chaos.

7. **Ensure help-desk prioritization procedures and contingency plans are in place.** The help desk is a critical function that can allow the organization to orchestrate agility, nimbleness, and responsiveness in response to a crisis such as the COVID-19 pandemic. The help desk needs to be prepared to handle increased volume and a clear prioritization, escalation and routing process. Having automation like chatbots and streamlined routing of requests and establishing a command centre for remote workers can greatly impact response effectiveness. Many organizations can leverage the geographic footprint of their help-desk function by developing a global strategy to support impacted areas. For example, as China comes back online, having a help desk there could support other areas, such as Europe, where the virus threat may be more severe at a different time. At the same time, consider options where the help-desk functionality is provided by people working remotely.

8. **Be prepared for cash flow constraints, but also be ready to fight for additional investments.** A major implication of the spread of COVID-19 is the cash flow constraints it is putting on businesses. Tourism, hospitality, entertainment, and air transportation have been particularly hard-hit in the short term. However, even businesses that appear to be in good financial shape may not be immune, depending on how the situation progresses. The most common reaction is to put all non-essential projects on hold, leading to significant restart costs later. Having a proactive and precise plan for prioritization and cost savings will allow for thoughtful cuts in discretionary spend. However, the IT organization must also be able to defend investments in critical capabilities such as collaboration tools, remote working, and security to support the responses to risks such as COVID-19, which may not have received proper funding or prioritization in the past.

The long-term impact: Becoming a resilient leader while reimagining the future of work

In crises, resilient leaders are defined first by who they are, and then by the actions they take. With clarity and resolve, the most resilient among them will put the immediate mission first. They will stabilize the situation by taking decisive action, prioritizing speed over elegance. Yet at the same time, they will provide the kind of leadership and vision that the moment demands by creating a narrative of a clear path forward and embracing the long view. Even in moments of disarray, resilient leaders never lose sight of opportunities that lie on the next horizon.

Many technology leaders today are in a unique position to help their organizations reimagine the future of work, of the workforce, and of the workplace powered by technology. We are at an inflection point where technological capabilities are ready to transform every facet of work as we know it. Through automation, robotics, cloud, and cognitive computing, the work done by humans will fundamentally shift. By offering virtualization and enabling the extended enterprise, the workforce will transform. And by enabling collaboration, cloud-based services and remote work, the workplace will alter forever. This requires visionary leadership and execution. And there is an opportunity to accelerate to the future of work due to the crisis that COVID-19 poses.

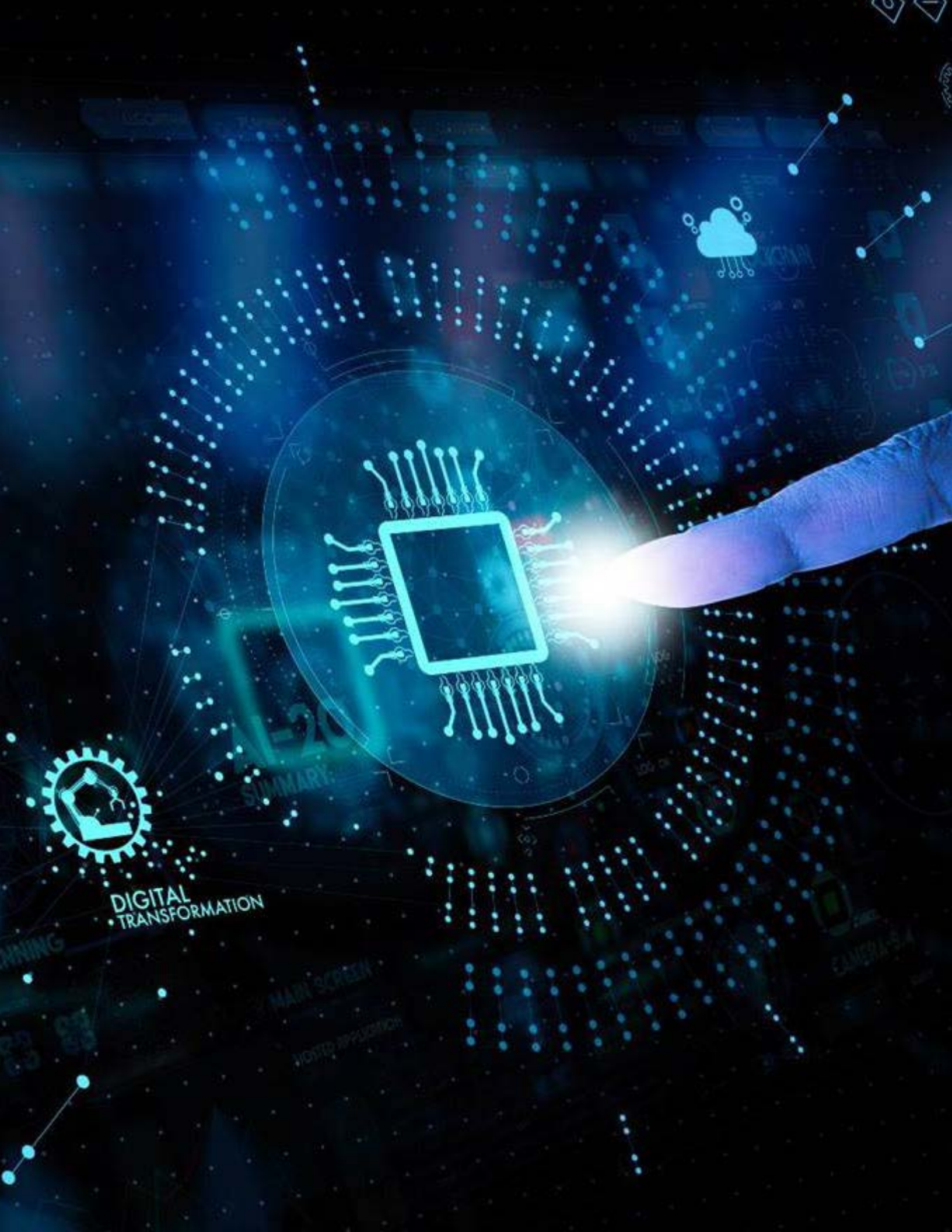
The good news is that many of the major technology shifts proposed are either underway or should be underway for many organizations. As the current crisis unfolds, there is an opportunity to accelerate these efforts. The key is to enable present workarounds and use this as an opportunity to shape the future ways of working, which are more efficient, effective and collaborative, beyond the boundaries of the function and the enterprise. Technology leaders have the opportunity to show visionary leadership and execution across the following dimensions.

1. **Being methodical and disciplined in automating manual processes.** Of course, automation of key processes will reduce dependency on humans and improve quality for manual, error-prone processes. The most obvious and biggest opportunity is for CIOs to identify ways to automate technology systems and processes. Almost all traditional IT operations could be candidates for autonomic computing, which really means taking automation to the next level by architecting technology environments that are built upon virtualized assets, containers, and advanced management and monitoring tools that seamlessly move workloads among traditional on-premises stacks, private cloud platforms, and public cloud services. Autonomics also has the potential to re-engineer business process to increase efficiency, quality, speed and reliance on humans. Many have predicted this would be the beginning of the end for human workforce—in fact, this automation will give rise to whole new classes of jobs for humans—“super jobs”—that will allow people to play to their strengths and create significantly more value for their organizations.

2. **Advocating a cloud-first approach and aggressively migrating to cloud services.** There are obvious advantages to cloud-based services and infrastructure, and a pandemic like COVID-19 make them all the more relevant. They provide the convenience of accessing services from anywhere, anytime, from virtually any device. New workflows can be pushed out quickly to enable self-service capabilities and on-the-fly process and configuration changes. Cloud-based service providers also have the elasticity of scaling solutions, such as bandwidth and computing capacity, based on needs—a critical capability especially when the scope and scale of the outbreak is not known. But longer term, cloud-based solutions are critical for organizations to achieve quicker time to market, creating self-service solutions for business and providing sandboxes for experimentation and innovation.

3. **Pushing virtual collaboration as the default.** The last time organizations invested heavily in collaboration tools was about a decade ago in response to the crisis created by the H1N1 influenza pandemic. There was a huge pendulum swing toward working remotely that has reverted. Since then the collaboration tools have improved tremendously, and the bandwidth and hardware are a lot cheaper and of higher quality for video conferencing. Mobile devices are a lot more functional and collaboration platforms are a lot more intuitive. Investigating and investing in these tools will not only be good risk mitigation for the COVID-19 pandemic, but could also allow for easier collaboration, quicker turnaround times and cost savings as a result of less travel.

4. **Envisioning new business opportunities and modes of working.** The COVID-19 pandemic may also help leaders rethink established paradigms around physical presence. Industries like professional services and education may be ripe for this mindset change. Physical presence may not be a requirement to deliver consulting services or to take a course at a university or college. Not only should companies invest in remote work capabilities, but they should also rethink creating new business models utilizing virtual presence.



DIGITAL
TRANSFORMATION

SUMMARY

MAIN SCREEN

WORLD APPROPRIATION

SMARTPHONE

As leaders of a critical business function, it is the IT leader's responsibility to be prepared and vigilant. More importantly, it is an opportunity for IT leaders to lead the way and equip their organizations for the future, however it may unfold.

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