Cybersecurity at a Crossroads:
The Insight 2021 Report
Introduction: IT complexity and COVID-19 intensify cybersecurity challenges ................................................................. 2
An already challenging IT environment became even more so when the pandemic hit, requiring IT leaders to react with shifting priorities.

Part 1: IT leaders react as 2020 raises security stakes and budgets ...................................................................................... 3
Reckoning with the new challenges of scaling distributed IT environments and securing work-from-home environments, IT leaders expand their cybersecurity focus and budgets.

Part 2: Despite increased efforts, security confidence is low .................................................................................................... 4
Although most organizations accelerated a host of security initiatives, including integrating security businesswide, the vast majority do not feel confident in their security postures.

Part 3: Many critical security projects take a back seat ......................................................................................................... 7
Why the dramatic lack of confidence? Fast-fix projects can only do so much; many IT leaders are contending with a lack of resources to implement holistic, long-range security efforts.

Part 4: Comprehensive cybersecurity requires robust resources ................................................................................................ 9
Following 2020, future initiatives will focus on taking what was started over the finish line: IT leaders plan to hire skilled staff, increase budgets, and source third-party support to achieve a stronger security stance moving forward.

Part 5: Cybersecurity modernization is a top priority moving forward .................................................................................... 11
Bolstering security postures is a complex and continual effort. Implementing and maintaining effective enterprisewide security against an evolving threatscape continues to be a critical focus.
Cybersecurity is in the spotlight now more than ever. Staying ahead of an evolving threatscape is a never-ending challenge requiring a proactive approach. But when unexpected circumstances endanger business operations, shifting to a reactive strategy can become necessary.

Entering 2020, organizations were in the midst of addressing growing security challenges associated with distributed IT environments spanning cloud, edge, and on-premises infrastructures. Data is everywhere, moving between and stored in multiple locations, making it more complex to assess and address. Legacy security and data protection technologies may not support new cloud environments. Compliance regulations make platform choices more complicated. And governance and processes for evolving IT environments need to be modernized. On top of these challenges, skilled security personnel have been in short supply, and cybersecurity attacks have been on the rise.

These challenges intensified with the new demands and security risks introduced by the sudden expansion of remote work brought on by the pandemic. Priorities had to shift in 2020 as employers enabled new work-from-home environments and plugged the gaps left from rapid implementation.

To help us understand how IT leaders are adapting strategies, priorities, and initiatives to address the rapid evolution of the cybersecurity landscape, we commissioned IDG to survey more than 200 executives (CIOs, CTOs, CSOs, IT directors) working at organizations with an average of 21,300 employees in December 2020.

This survey was designed to measure confidence levels in current enterprise security postures and identify roadblocks to improved cybersecurity, as well as identify emerging security modernization priorities and gaps to be addressed moving forward. These findings are clearly framed within the defining challenges of 2020: scaling distributed IT environments and transitioning to work-from-home models during the pandemic.

As a result, 91% of organizations plan to increase their cybersecurity budgets again in 2021.

One of our most significant findings is that nearly 80% of IT leaders surveyed expressed a lack of confidence in their company’s IT security posture and saw room for improvement — despite a significant increase in IT security investments (96% boosted IT security spending in 2020).

Continue reading to learn key factors behind these trends and how we expect to see cybersecurity initiatives change moving forward.

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PART 1

IT leaders react as 2020 raises security stakes and budgets

Against the background of preexisting challenges like scaling distributed IT environments and securing organizations against a new surge of sophisticated cyberattacks (e.g., ransomware, phishing, etc.), when the pandemic hit, organizations were left scrambling to meet the new challenge of enabling remote work environments, which introduced a host of new security concerns across networks, endpoints, the cloud, and the edge. As a result, we’ve seen a clear increase in awareness of enterprise security postures and cybersecurity risks leading to increased spending in both 2020 and 2021.

Of the organizations surveyed, each indicated an increased focus on enterprise security posture at the executive level. This overwhelming response is tied to the clear spike in challenges led by the distributed IT landscape and transition to remote work.

Q: Please rate your agreement with the following statements:

- Our board and/or executive team is more focused on our organization’s security posture than in the past.
  - Strongly agree: 68%
  - Agree: 32%

- The distributed IT landscape (cloud, edge, on-premises) has created new security challenges for our organization.
  - Strongly agree: 36%
  - Agree: 50%
  - Disagree: 8%
  - Strongly disagree: 6%

- A transition to remote work has created new security challenges for our organization.
  - Strongly agree: 28%
  - Agree: 53%
  - Disagree: 9%
  - Strongly disagree: 10%

As a result of the increased pressure on IT leaders to fortify security against these evolving threats, 96% increased their cybersecurity budgets in 2020, and 91% plan to do so again in 2021.

Q: How will your cybersecurity budget change in 2021 compared to 2020?

- 2020: 96% Increase, 4% Decrease
- 2021: 91% Increase, 9% Decrease

Source: IDG Research Services, commissioned by Insight.
The number of new or accelerated security initiatives undertaken in 2020 reflects the complexity of the challenges organizations faced in filling security gaps. In 2020, more than two out of three organizations accelerated between 5–6 different cybersecurity initiatives across several defense levels (endpoint security, threat visibility, incident response, identity management, edge protection), while priorities like security operations and staff expansion were lowered. However, despite increased efforts, survey results show security leaders are not feeling more confident about their security stance.

Q: How did the sudden expansion of work-from-home/distributed IT environment that accompanied the pandemic in 2020 impact your cybersecurity modernization priorities?

Source: IDG

<table>
<thead>
<tr>
<th>Category</th>
<th>Decreased</th>
<th>Increased</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat visibility/identification</td>
<td>23%</td>
<td>73%</td>
<td>4%</td>
</tr>
<tr>
<td>Incident response</td>
<td>22%</td>
<td>70%</td>
<td>8%</td>
</tr>
<tr>
<td>Network security</td>
<td>21%</td>
<td>68%</td>
<td>11%</td>
</tr>
<tr>
<td>Endpoint/IoT security</td>
<td>24%</td>
<td>67%</td>
<td>9%</td>
</tr>
<tr>
<td>Application security/DevOps</td>
<td>24%</td>
<td>67%</td>
<td>9%</td>
</tr>
<tr>
<td>Protection against malware</td>
<td>22%</td>
<td>64%</td>
<td>14%</td>
</tr>
<tr>
<td>Identity and access management</td>
<td>28%</td>
<td>55%</td>
<td>17%</td>
</tr>
<tr>
<td>Edge protection</td>
<td>24%</td>
<td>42%</td>
<td>35%</td>
</tr>
<tr>
<td>Security operations</td>
<td>17%</td>
<td>34%</td>
<td>49%</td>
</tr>
<tr>
<td>Security staff expansion</td>
<td>40%</td>
<td>27%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Source: IDG

PART 2
Despite increased efforts, security confidence is low

PART 2: DESPITE INCREASED EFFORTS, SECURITY CONFIDENCE IS LOW

In addition, organizations are indicating a stronger understanding of cybersecurity’s growing threat to company operations. Collaborative integration of security efforts into business continuity, infrastructure, and business operations decisions has long been a pain point for many organizations, with security strategies typically relegated to dedicated security teams and personnel. As the IT environment has grown more complex and dispersed, cross-functional security integration has proven a necessary endeavor, but one that many organizations have found difficult to achieve.

Likely out of necessity arising from the year’s challenges, 2020 saw IT leaders increase their efforts to weave security considerations into operations, infrastructure, DevOps, and business continuity plans to help mitigate risk and improve security postures. This is a very strong move in the right direction, and one that will likely continue to gain momentum.

But although security efforts increased, organizations’ overall confidence in their security posture remains remarkably low. The vast majority (78%) expressed a lack of confidence in their company’s current IT security posture and saw room for improvement. Only 22% felt very confident.

Organizations worked more than ever to integrate cybersecurity across the entire organization.

- 68% integrated incident response into companywide business continuity plan.
- 61% integrated cybersecurity into infrastructure (data protection, storage, etc.) and DevOps decisions.
- 59% integrated cybersecurity into broader business operations decisions.

Three in four respondents (78%) expressed a lack of confidence in their company’s IT security posture and saw room for improvement.

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PART 2: DESPITE INCREASED EFFORTS, SECURITY CONFIDENCE IS LOW

Respondents were asked to identify which areas of their security posture they felt least confident in, with the option to select up to two choices. The results showed that the aspect of security respondents felt the least confident about was their overall strategy and roadmap, followed closely by technology and tools, then internal teams and skill sets.

Compounding this absence of reliable technologies and tools is the finding that 27% lacked confidence in their internal teams and skill sets. Security is a specialized field, and finding skilled personnel to fill needs within the security team can be a difficult challenge. Organizations that struggle to acquire the resources they need can adapt by providing or acquiring cybersecurity training for existing staff and/or leveraging professional service providers to fill the gaps in the meantime.

Q: What aspects of your security posture do you feel the least confident about?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall strategy and roadmap</td>
<td>32%</td>
</tr>
<tr>
<td>Technology and tools</td>
<td>30%</td>
</tr>
<tr>
<td>Internal teams and skill sets</td>
<td>27%</td>
</tr>
<tr>
<td>Executive support and budget for risk mitigation</td>
<td>26%</td>
</tr>
<tr>
<td>Data management strategy</td>
<td>20%</td>
</tr>
<tr>
<td>Ability to keep up with the pace of change</td>
<td>15%</td>
</tr>
<tr>
<td>None</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: IDG9

PART 3

Many critical security projects take a back seat

Rapid cloud adoption and distributed IT environments brought new considerations and challenges to organizations’ cybersecurity efforts. Whereas before, IT leaders may have felt more confident with on-premises security strategies and clearly defined perimeters, the extended perimeters of distributed IT environments and work-from-home scenarios introduced several new layers of complexity.

Adding the necessity to deploy new remote work scenarios quickly and effectively invited a host of unfamiliar risks that had to be mitigated on a dime. As a result, 2020 security modernization priorities shifted, with a major focus on identity and access management to address the new remote work security challenges.

Q: Whether or not your priorities changed, what areas of cybersecurity did your organization work to modernize in 2020?

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity and access management</td>
<td>72%</td>
</tr>
<tr>
<td>Threat visibility/identification</td>
<td>69%</td>
</tr>
<tr>
<td>Edge protection</td>
<td>53%</td>
</tr>
<tr>
<td>Endpoint/IoT security</td>
<td>52%</td>
</tr>
<tr>
<td>Incident response</td>
<td>52%</td>
</tr>
</tbody>
</table>

Most organizations focused efforts on closing immediate gaps using basic technologies that were easy to deploy and largely cloud-based, such as Cloud Access Security Broker (CASB), cloud-based Security Information and Event Management (SIEM), and Security Orchestration Automation and Response (SOAR). Many complex, long-range security projects took a back seat to more urgent block-and-tackle activities such as anti-malware and anti-virus upgrades, Multi-Factor Authentication (MFA), and Firewall as a Services (FWaaS) deployments. As a result, relatively few organizations initiated or executed projects in critical areas such as identity governance, Zero Trust, data analytics, and Secure Access Service Edge (SASE) implementations.

PART 3: MANY CRITICAL SECURITY PROJECTS TAKE A BACK SEAT

To the same end, it wasn’t only long-range projects that took a back seat — foundational activities like data security risk assessments fell behind as well. Risk assessments are a critical component of an organization’s security strategy, and most conduct a risk assessment on a regular basis. However, in 2020, only 57% of businesses conducted a data security risk assessment despite the new threats that arose, suggesting the time and resources that would have otherwise been used for annual risk assessments were engaged in managing the new challenges 2020 introduced.

Q: Does your organization conduct data security risk assessments?

- Yes, on a regular schedule: 82%
- Yes, but only when triggered by a business or outside event: 18%

Q: Did your organization conduct a data security risk assessment in 2020, or are you planning to do so in 2021?

- Yes, in 2020: 57%
- Not in 2020, but planning in 2021: 43%

Source: IDG

Comprehensive cybersecurity requires robust resources

The fact of the matter is that many organizations simply lack the resources necessary to develop, implement, test, and optimize the comprehensive, integrative, long-term approach to cybersecurity that’s required of today’s increasing threatscape.

Despite the increase in security budgets and the large number of security projects undertaken in 2020, only 27% of respondents reported expanding security staff in 2020. In fact, 40% decreased their focus on security staff expansion.¹² This left IT teams overburdened, understaffed, and without many of the specialists needed to execute the wide range of security efforts necessitated by the year’s evolving threats.

And the challenges facing security operations and management corroborate this notion of the overburdened, understaffed team as lack of automation, modern resources, and skilled personnel top the list.

Q: What are your organization’s major security operations and management challenges?

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of automation</td>
<td>55%</td>
</tr>
<tr>
<td>Outdated network access control solutions</td>
<td>47%</td>
</tr>
<tr>
<td>Legacy infrastructure/software/tools that do not address today’s threats and cloud environments</td>
<td>45%</td>
</tr>
<tr>
<td>Lack of skilled cybersecurity staff</td>
<td>43%</td>
</tr>
</tbody>
</table>

Organization’s struggle with lack of automation reflects the increasing need to simplify management of the flood of notifications and events generated by today’s increasingly complex security infrastructure. This problem is exacerbated by factors including the disparate toolsets involved, outdated technology lacking the APIs to support automation, and the time and advanced skill sets required to implement such automated processes.

PART 4: COMPREHENSIVE CYBERSECURITY REQUIRES ROBUST RESOURCES

Between the constantly evolving IT landscape, the complexity of distributed IT environments, the growing threatscape, and the difficulty organizations have in attracting and maintaining skilled personnel, it’s clear that comprehensive security is a team effort requiring growing amounts of resources.

Recognizing the gaps in their resource bases, organizations will not only be increasing cybersecurity budgets in 2021, but also looking to outside experts for support in a variety of areas. While the majority of respondents plan to engage third-party support for functions including security roadmap planning, network security, and vulnerability management, many plan to engage outside support for a host of other tasks, as well, from cloud security to day-to-day operations.

The variety of cybersecurity functions in which organizations plan to seek support illustrates the ongoing need for skilled security specialists.

Q: For what cybersecurity functions are you currently engaging or planning to engage a third-party service provider?

<table>
<thead>
<tr>
<th>Cybersecurity Function</th>
<th>% Planning to Engage Third-Party Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall IT security roadmap planning</td>
<td>67%</td>
</tr>
<tr>
<td>Network security</td>
<td>58%</td>
</tr>
<tr>
<td>Vulnerability management (e.g., attack surface reduction, threat hunting, threat intelligence)</td>
<td>48%</td>
</tr>
<tr>
<td>Cloud security</td>
<td>47%</td>
</tr>
<tr>
<td>Endpoint security (EDR)</td>
<td>47%</td>
</tr>
<tr>
<td>Application security</td>
<td>41%</td>
</tr>
<tr>
<td>Identity services</td>
<td>39%</td>
</tr>
<tr>
<td>Intrusion detection and response</td>
<td>36%</td>
</tr>
<tr>
<td>Day-to-day cybersecurity operations</td>
<td>23%</td>
</tr>
</tbody>
</table>

Source: IDG

PART 5

Cybersecurity modernization is a top priority moving forward

The survey shows that organizations made strides to address gaps and integrate cybersecurity into business, operational, and IT infrastructure decisions. But the work never ends. Bolstering security postures is a complex and continual effort. Implementing and maintaining effective enterprisewide security will require increased time, resources, and skilled support as the threatscape continues to evolve.

As cybersecurity budgets rise again in 2021, organizations are already planning next steps:

- 41% plan to begin or resume staff expansion in 2021.
- 42% plan to begin modernizing security operations in 2021.

Based on the challenges and roadblocks highlighted in the 2020 survey, it’s clear that cybersecurity efforts moving forward will need to shift focus to stronger strategic planning, modernization of IT, optimization of security operations, and investments in skilled cybersecurity staff to support comprehensive and long-range security efforts businesswide.

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| Source: IDG | 41% plan to begin or resume staff expansion in 2021. | 42% plan to begin modernizing security operations in 2021. |

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IDG 15

When you’re ready to strengthen your security posture, Insight Cloud + Data Center Transformation (CDCT) can help.

At Insight CDCT, we have helped organizations secure their data and networks for more than 30 years. We assist IT leaders in every aspect of cybersecurity, helping to assess risk, fortify security postures, manage day-to-day security operations, and plan future efforts to ensure their organizations are prepared for future challenges. Mitigating risk and protecting your organization against an increasingly complex threatscape requires a holistic, multifaceted approach to secure every layer of your IT environment. Insight CDCT has the expertise to guide your strategy and roadmap development and the skilled technical resources for identifying and implementing the tools and technologies you need to support a holistic security program.

To learn more about how cybersecurity priorities shifted in 2020 and how organizations plan to alter their approach to security moving forward, read the full survey results at insightCDCT.com/cybersecurity2021.