October 2020

Cybersecurity in the Remote Work Era:

A Global Risk Report

Sponsored by Keeper Security, Inc.
Independently conducted by Ponemon Institute LLC

Cybersecurity in the Remote Work Era: A Global Risk Report

Ponemon Institute, October 2020

Part 1. Executive summary

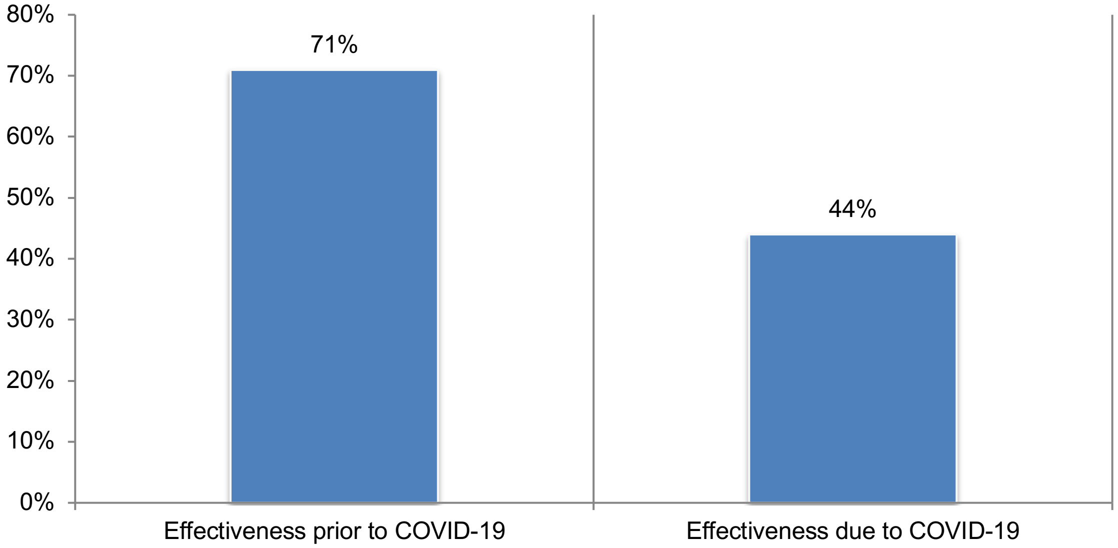
COVID-19 has dramatically changed the workplace and has created new cybersecurity risks and exacerbated existing risks. The purpose of this research, sponsored by Keeper Security, is to understand the new challenges organizations face in preventing, detecting and containing cybersecurity attacks in what is often referred to as "the new normal".

Ponemon Institute surveyed 2,215 IT and IT security personnel in the United States, United Kingdom, DACH, Benelux, Scandinavia and ANZ (Australia and New Zealand). All respondents in this research are in organizations that have furloughed or directed their employees to telework because of COVID-19. According to the findings, before COVID-19 an average of 22 percent of these organizations' employees worked remotely and due to COVID-19 an average of 58 percent of employees now work remotely. An average of 33 percent of employees were furloughed.

The remote work force has significantly reduced the effectiveness of organizations' security posture. Respondents were asked to rate the effectiveness of their organizations' IT security posture prior to and during the pandemic on a scale from 1 = not effective to 10 = highly effective. The very and highly effective responses are shown in Figure 1 and reveal a significant decline from 71 percent of respondents who believed their organizations were effective at mitigating risks, vulnerabilities and attacks across the enterprise prior to COVID-19 to only 44 percent of respondents during COVID-19.

Figure 1. Effectiveness of organizations' IT security posture prior to COVID-19 and due to COVID-19

1 = not effective to 10 = highly effective, 7+ responses presented



Following are reasons why the remote workforce has reduced the effectiveness of organizations' cybersecurity posture.

- **In the new era of a remote workforce, organizations worry most about the lack of physical security in the remote worker's work space.** Almost half (47 percent) of respondents say it is the inability to control risks created by the lack of physical security in remote workers' homes and other locations that is a significant concern for their organizations.

- **Organizations are very concerned remote workers are putting them at risk for a data breach and/or security exploit.** Seventy-one percent of respondents are very concerned that remote workers are putting the organization at risk for a data breach and 57 percent of respondents say they are prime targets for those wishing to exploit vulnerabilities.

- **Understandably organizations were caught off-guard by the sudden lockdown due to COVID-19. As a result, they were not prepared for the affect it would have on their ability to respond to a cyberattack.** According to 56 percent of respondents, the time to respond to a cyberattack has significantly increased (21 percent) or increased (35 percent). Forty-two percent of respondents say their organizations have no understanding how to protect against cyberattacks due to remote working. Customer records and financial information are most vulnerable.

- **Remote working has increased access to business-critical applications.** Most likely out of necessity, 59 percent of respondents say access to business-critical applications has significantly increased (26 percent) or increased (33 percent). On average, organizations have 51 business-critical applications and an average of 56 percent of these are accessed from mobile devices such as smart phones and tablets.

- **Not all organizations are requiring remote workers to use authentication methods. If they do, few are requiring multi-factor authentication.** Almost one-third (31 percent) of respondents say their organizations **do not** require their remote workers to use authentication methods. Of the 69 percent of organizations that do require authentication, only 35 percent of respondents say multi-factor authentication is required.

- **BYOD has decreased organizations' security posture.** Sixty-seven percent of respondents say remote workers' use of their own mobile devices such as tablets and smart phones to access business-critical applications and IT infrastructure has decreased their organizations' security posture. Further, smart phones, laptops and mobile devices are the most vulnerable endpoints or entry points to organizations' networks and enterprise systems.

- **Since COVID-19 many organizations have had exploits and malware that evaded their intrusion detection systems and anti-virus solutions.** Fifty-one percent of respondents say exploits and malware have evaded their organizations' intrusion detection systems and almost half (49 percent) of respondents say they have evaded their organizations' anti-virus solutions.

- **Credential theft and phishing/social engineering are the most frequent types of cyberattacks since COVID-19**. Sixty percent of respondents say their organizations experienced a cyberattack. The most frequent attacks involved credential theft (56 percent of respondents) and phishing/social engineering (48 percent of respondents).

- **IT security budgets and in-house expertise need to increase.** Only 45 percent of respondents say their organizations' IT security budget is adequate for managing and mitigating cybersecurity risks caused by remote workers and only 39 percent of respondents say their organization has the expertise to manage and mitigate cybersecurity risks caused by remote working.

- **Security risks due to remote working require a new effort to educate employees about their responsibility to follow remote working policies.** Fifty percent of respondents say their organizations have a policy on the security requirements for remote workers. Only 43 percent of respondents say their organizations currently have programs that inform and educate remote workers about the risks created by remote working.

- **Despite the increase in security risks as a result of remote working, less than half (47 percent) of respondents say their organizations are monitoring the network 24/7.** More than half (53 percent) of respondents say their organizations are instituting the necessary security protocols to keep the network safe and 50 percent of respondents say their organizations are encrypting sensitive data stored on devices. However, less than half of respondents are monitoring the network and protecting company-owned devices with up-to-date anti-virus, device encryption and firewalls.

Part 2. Key findings

In this report, we refer to teleworkers as remote workers. In the context of this research, **teleworking** enables employees and other users to work from locations other than the organization's facilities. Teleworkers use various devices such as desktop and laptop computers, smartphones and tablets to read and send email, access websites, review and edit documents and perform many other tasks. These devices may be controlled by the organization, by third parties or by the users themselves (BYOD). Most teleworkers use remote access, which is the ability for an organizations' users to access its non-public computing resources from external locations other than the organization's facilities.

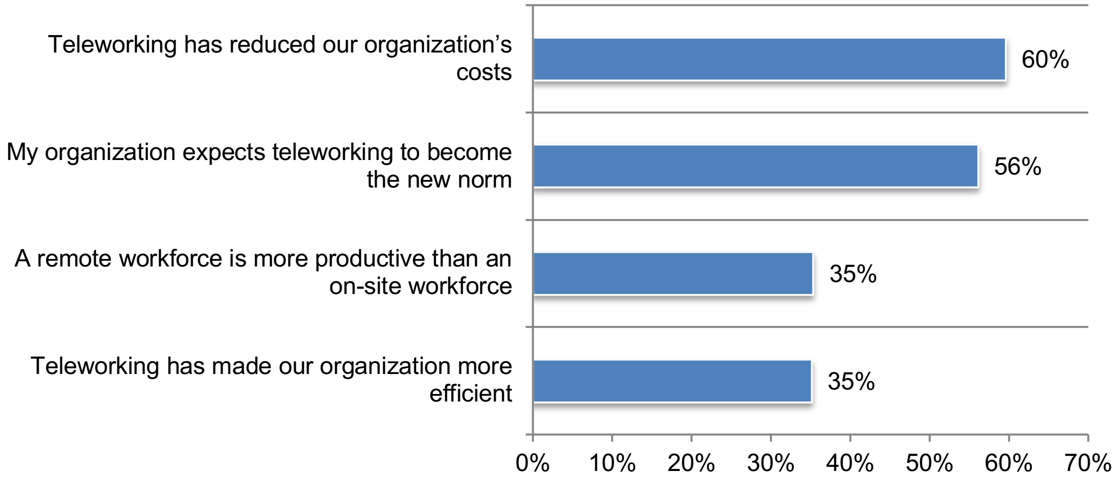
In this section, we present an analysis of the research results. The complete audited findings are presented in the Appendix of this report. The report is organized according to the following topics.

- Security posture & COVID-19
- Cybersecurity risks during COVID-19
- Data breach risks created by COVID-19
- The steps organizations are taking and should take to manage cybersecurity risks
- Conclusion and recommendations

Security posture & COVID-19

While remote working has reduced organizations' costs, it has not made remote workers more productive and efficient. According to Figure 2, 60 percent of respondents say remote working has reduced costs, but the tradeoff is less productivity and efficiency. Fifty-six percent of respondents say their organizations expect remote working to become the new norm making it critical to assess the security risks created by a remote workforce. However, according to the research 45 percent of respondents say their organizations have not assessed remote working risks.

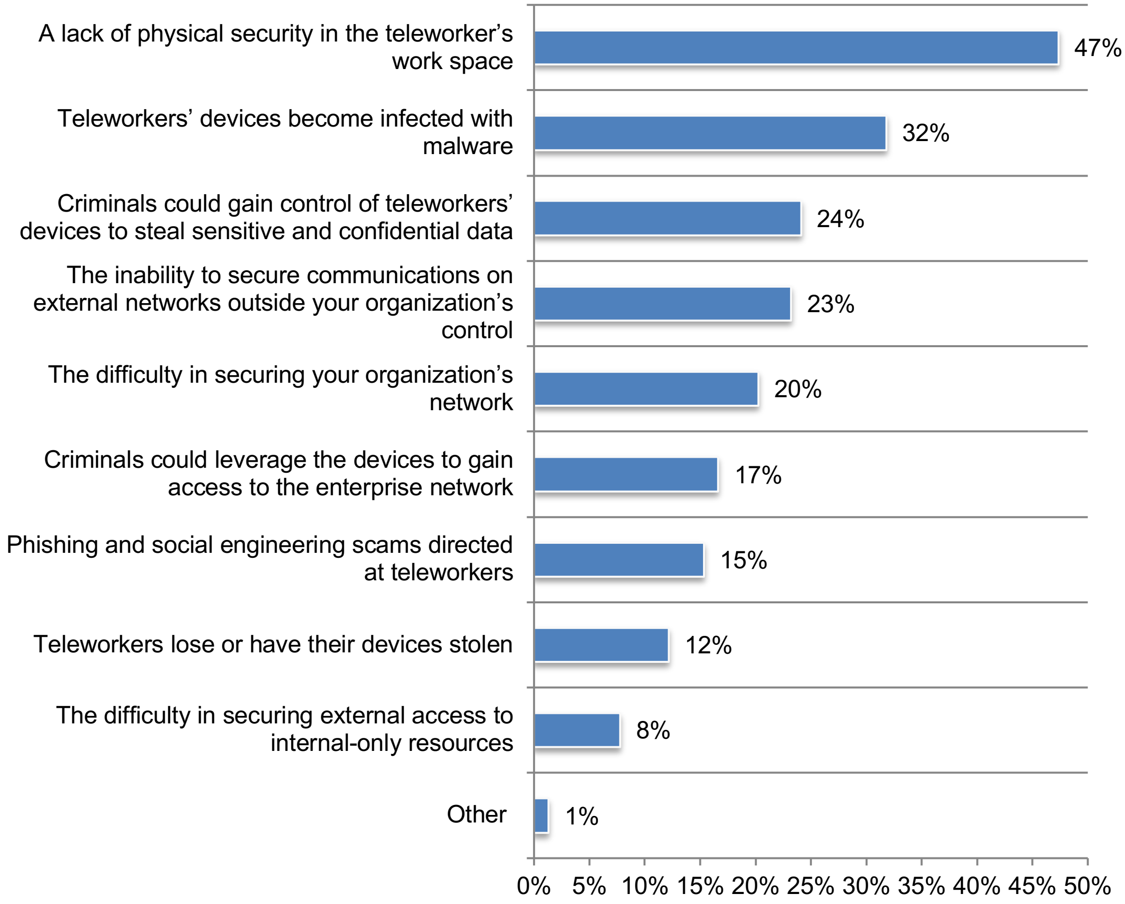
Figure 2. Perceptions about the impact of teleworking on organizations
Strongly agree and Agree responses combined



In the new era of remote working, organizations are most concerned about the lack of physical security in the remote worker's work space. An average of 58 percent of organizations' workforce telework.

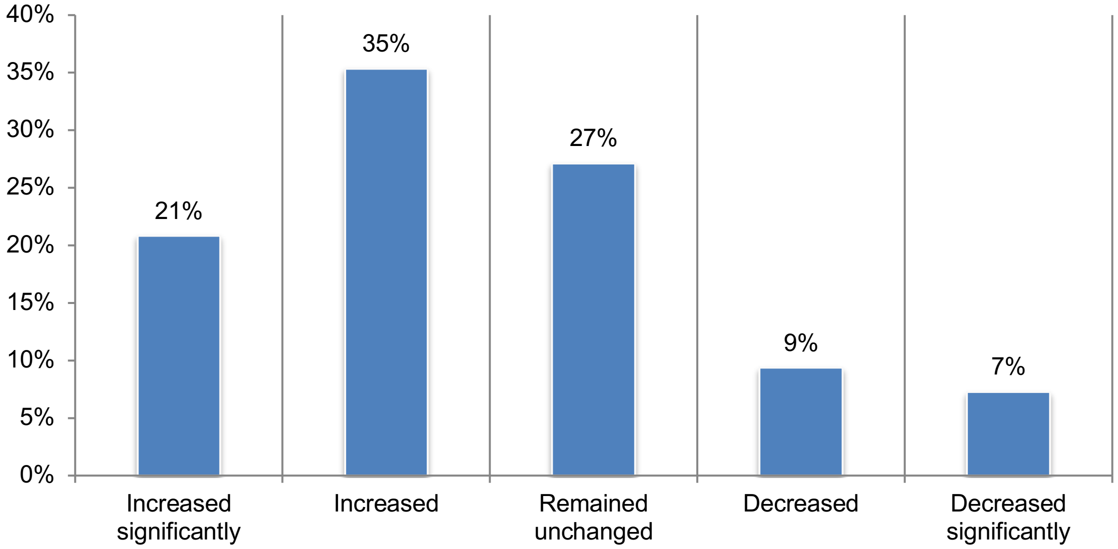
Figure 3 presents the security risks organizations are most concerned about with having half of their workforce working remotely. Almost half (47 percent) of respondents say it is the inability to control risks created by the lack of physical security in remote workers' homes and other locations is a worry for their organizations. This is followed by concerns that remote workers' devices will become infected with malware, according to 32 percent of respondents.

Figure 3. Security risks organizations are most concerned about
More than one response permitted



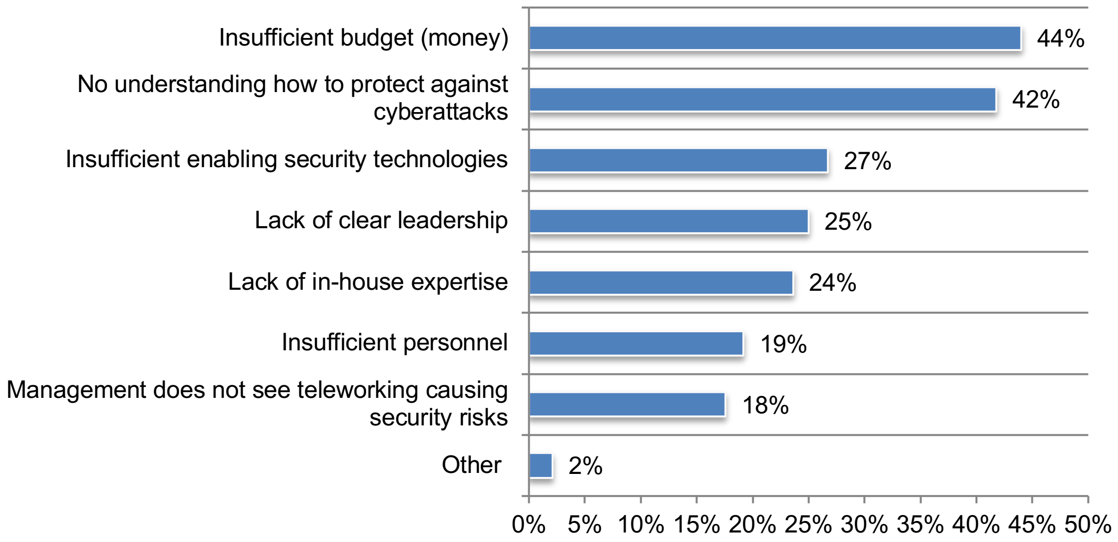
The time to respond to a cyberattack has increased since COVID-19. According to Figure 4, since COVID-19 56 percent of respondents say the time has significantly increased (21 percent) or increased (35 percent) to respond to a cyberattack. Only 27 percent of respondents say the time remains unchanged.

Figure 4. Since COVID-19 how has the time to respond to a cyberattack changed?



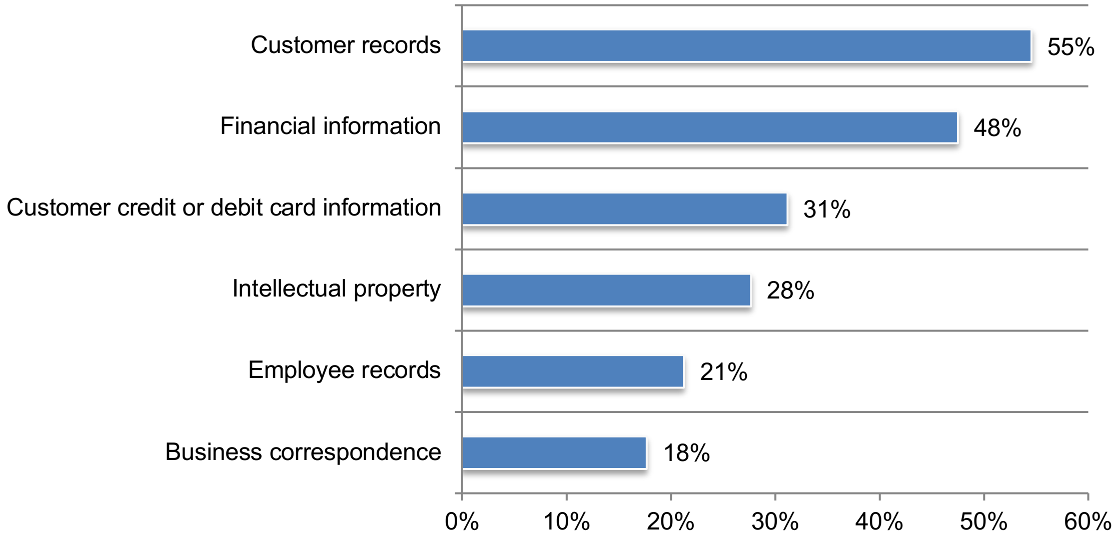
Understandably organizations were caught off-guard by the sudden lockdown due to COVID-19. As a result, remote working increases the uncertainty about how to protect against cyberattacks. According to Figure 5, 42 percent of respondents say it is the uncertainty on how to get a handle on reducing the risk of cyberattacks is a challenge. An insufficient budget is always an issue with organizations trying to make the necessary investments in technology and staffing to improve their security posture. However, in the era of a remote workforce insufficient budget is the number one challenge organizations face (44 percent of respondents).

Figure 5. What challenges keep your organization's IT security posture from being fully effective due to teleworking?
Two responses permitted



Customer records are considered most vulnerable in the era of remote working. As shown in Figure 6, 55 percent of respondents say customer records are at risk because of remote working followed by financial information (48 percent of respondents).

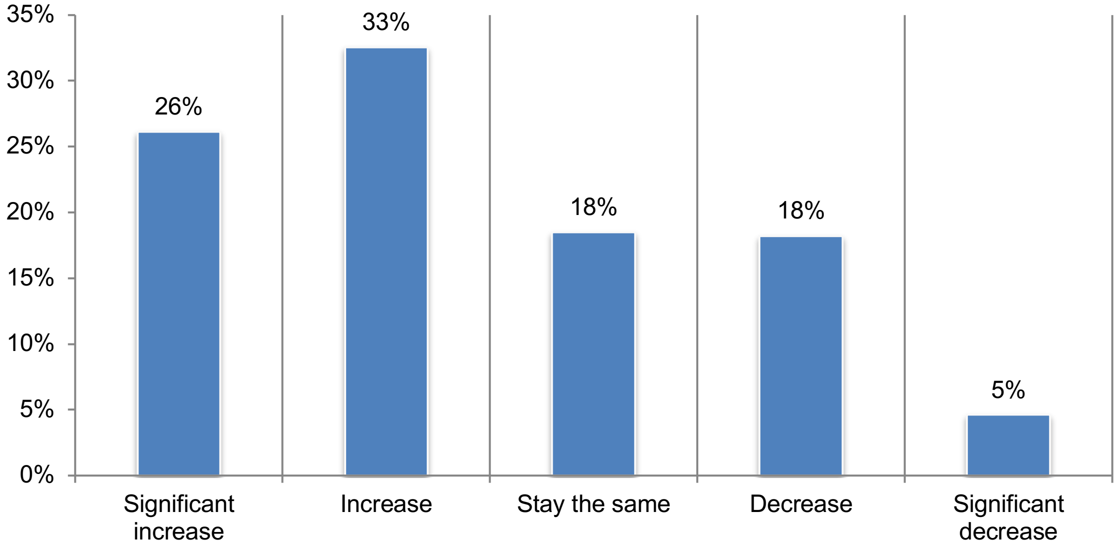
Figure 6. What types of information are you most concerned about protecting from cyberattacks in a teleworking environment?
Two responses permitted



Remote working has increased access to business-critical applications. A business-critical application is an application that is critical or important to keeping the business running. These applications can range from small tools to specialized tools such as lines of business systems. If interrupted, it would result in serious financial and legal loss; customer dissatisfaction and/or loss in productivity.

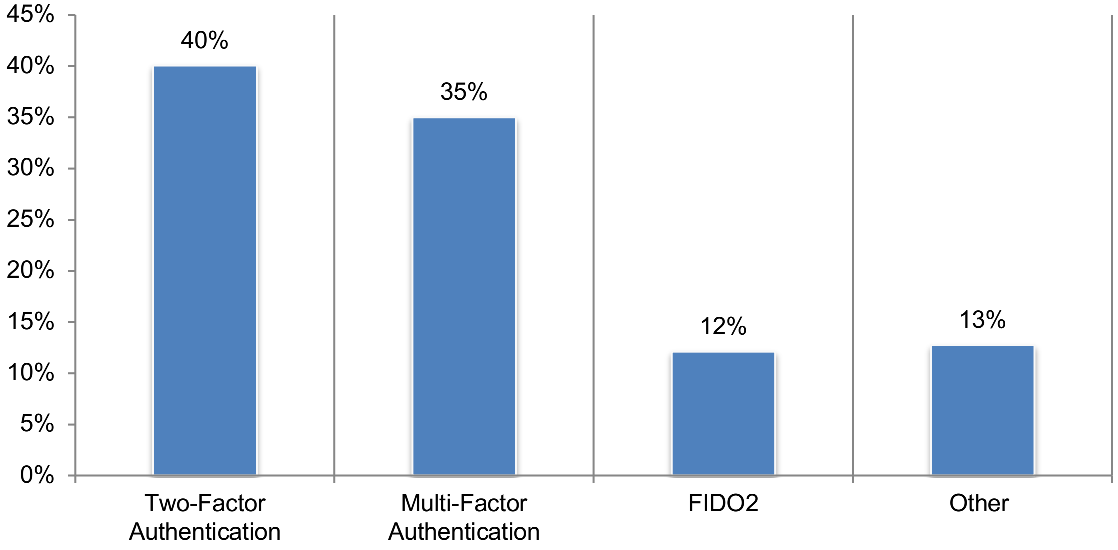
As shown in Figure 7, 59 percent of respondents say access to business-critical applications has significantly increased (26 percent) or increased (33 percent). On average, organizations have 51 business-critical applications and on average 56 percent of these are accessed from mobile devices such as smart phones and tablets.

Figure 7. Has the percentage of your organization's business-critical applications accessed from mobile devices increased due to teleworking?



Not all organizations are requiring remote workers to use authentication methods. Almost one-third (31 percent) of respondents say their organizations **do not** require their teleworkers to use authentication methods. According to Figure 8, of the 69 percent of respondents who say authentication methods are required, 40 percent of respondents say two-factor authentication is required. Only 35 percent of respondents say multi-factor authentication is required, which would improve the security of remote access.

Figure 8. What authentication methods does your organization require?



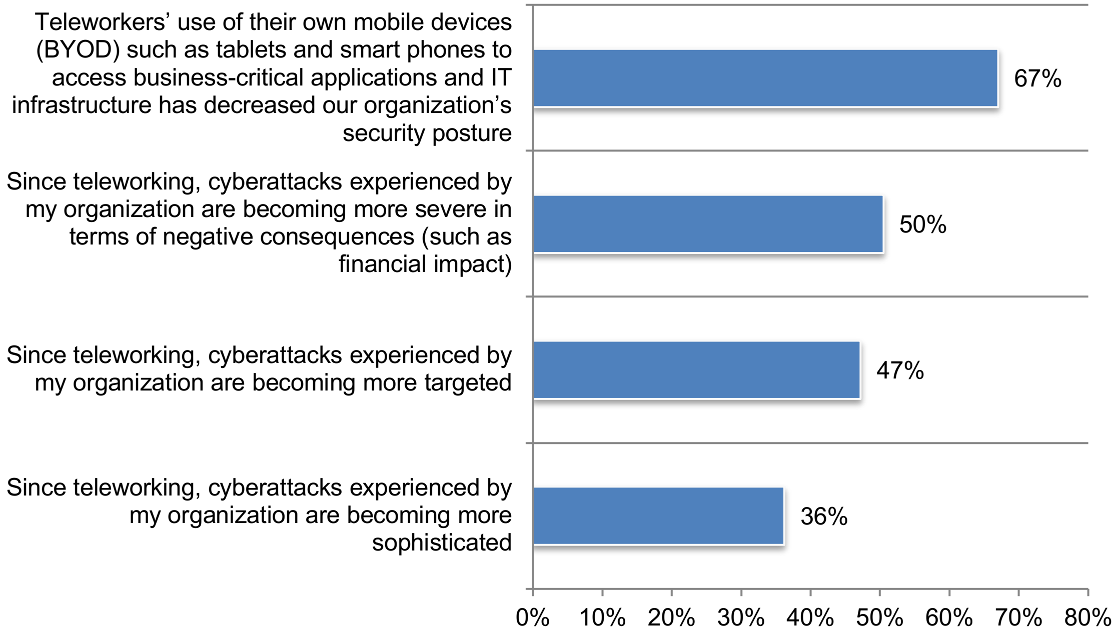
Cybersecurity risks during COVID-19

BYOD has decreased organizations' security posture. According to Figure 9, 67 percent of respondents say remote workers' use of their own mobile devices such as tablets and smart phones to access business-critical applications and IT infrastructure has decreased their organization's security posture. As discussed previously, 31 percent of respondents say their organizations do not require remote workers to use authentication methods and only 35 percent of respondents say their organizations require multi-factor authentication.

Cyberattacks during COVID-19 are becoming more severe in terms of negative consequences such as the impact on finances (50 percent of respondents) and almost half (47 percent) of respondents say cyberattacks are becoming more targeted. Thirty-six percent of respondents say they are becoming more sophisticated.

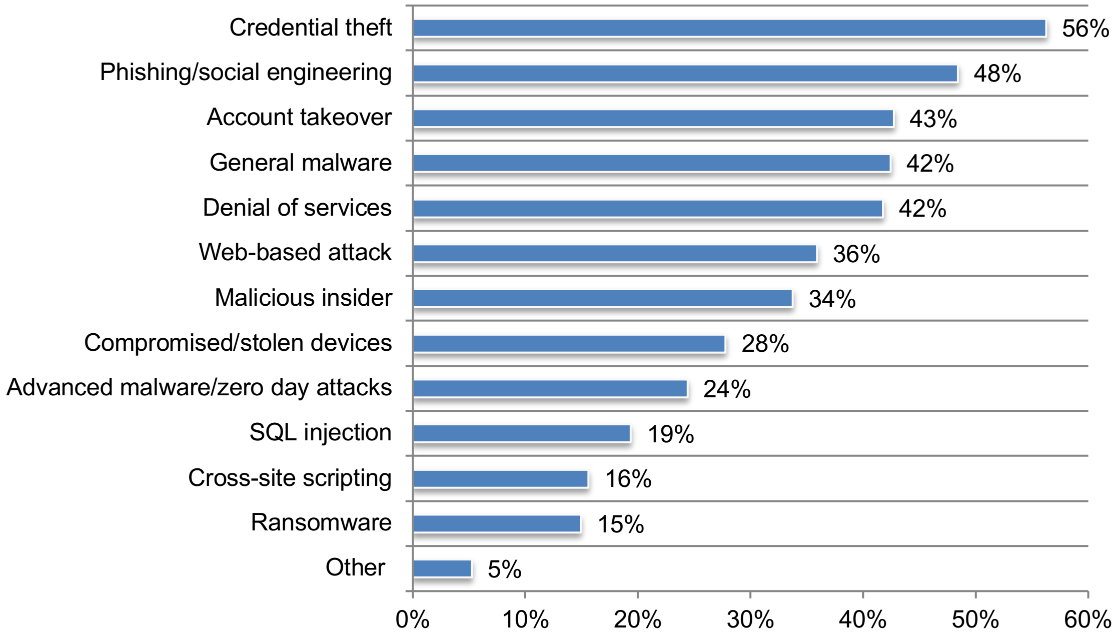
Fifty-eight percent of respondents say their organizations experienced a compromise that damaged IT infrastructure or stole IT assets. The average cost to deal with these compromises over the past 12 months is $2.7 million. Similarly, 58 percent of respondents say their organizations had a disruption to normal operations at an average cost of $2.4 million.

Figure 9. Perceptions about cybersecurity risks during COVID-19
Strongly agree and Agree responses combined



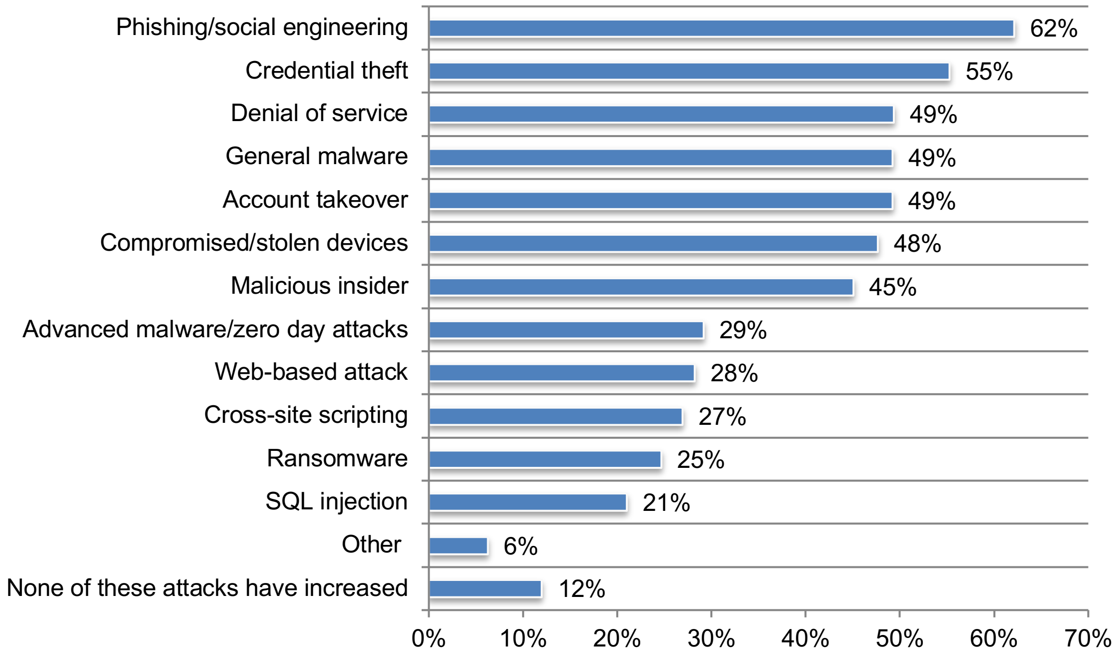
During COVID-19, the types of attacks organizations have experienced most are credential theft and phishing/social engineering. As discussed previously**,** as a result of remote working many organizations have seen a decline in their cybersecurity posture. In fact, 60 percent of respondents say they have experienced a cyberattack. As shown in Figure 10, the most frequent attacks involved credential theft (56 percent of respondents) and phishing/social engineering (48 percent of respondents).

Figure 10. What best describes the type of attacks experienced by your organization?
More than one response permitted



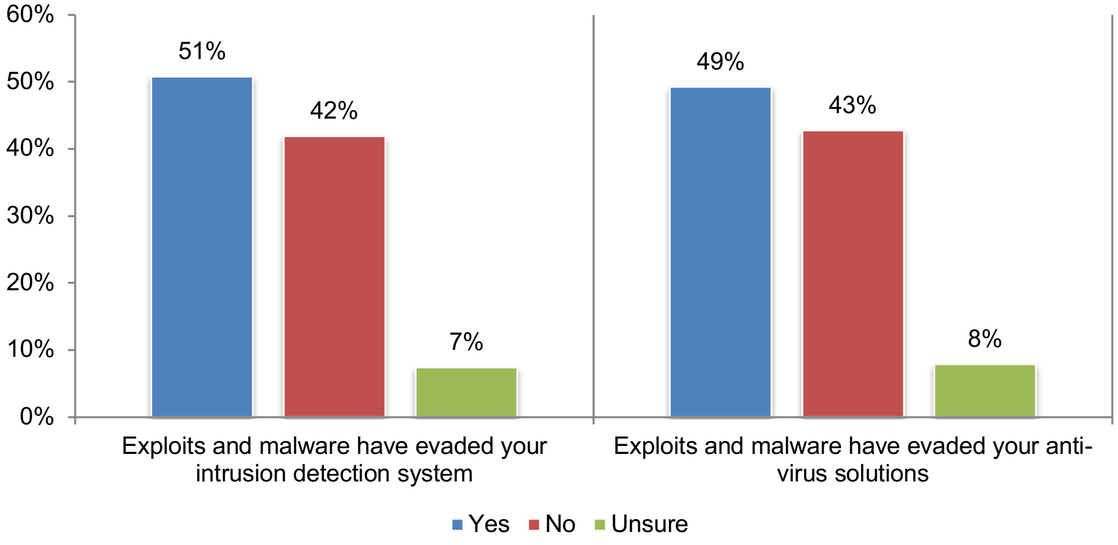
As shown Figure 11, not only are phishing/social engineering and credential theft the most frequent they also have increased since COVID-19.

Figure 11. Since COVID-19 have any of the following attacks increased?
More than one response permitted



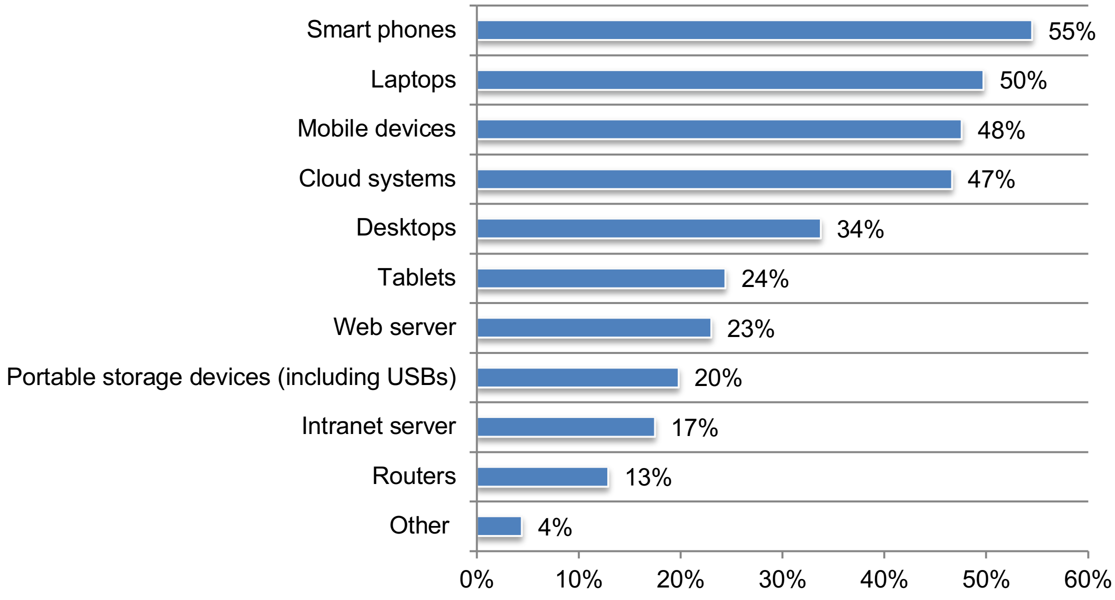
Since COVID-19, many organizations have had exploits and malware evade their intrusion detection system and anti-virus solutions. According to Figure 12, 51 percent of respondents say exploits and malware have evaded their organizations' intrusion detection systems and almost half (49 percent) of respondents say they have evaded their organizations' anti-virus solutions.

Figure 12. Since COVID-19 has your organization experienced situations when exploits and malware have evaded your intrusion detection systems and anti-virus solutions?



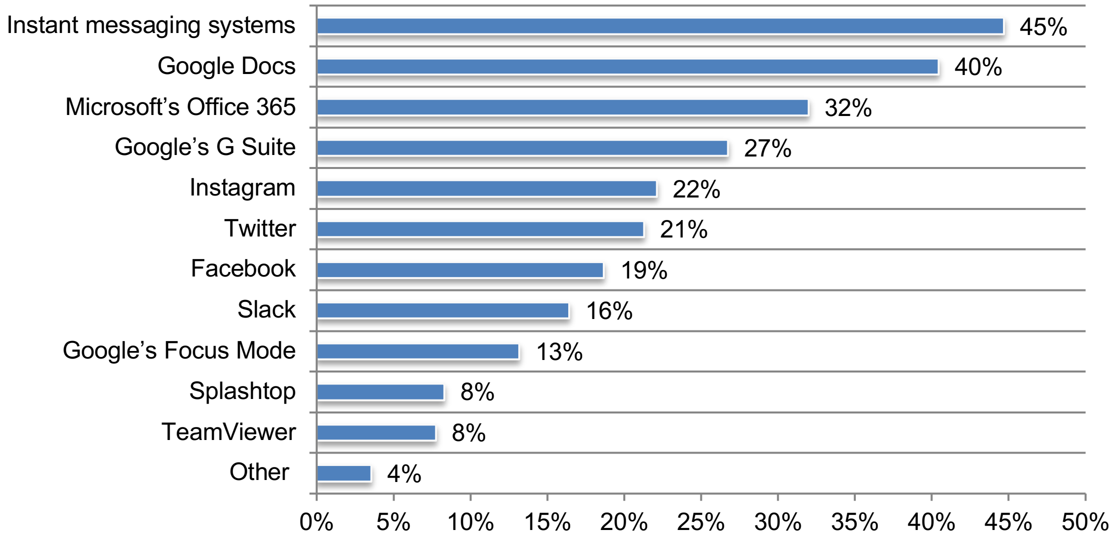
Smart phones, laptops and mobile devices are the most vulnerable endpoints to organizations' networks and enterprise systems. According to Figure 13, to strengthen their security posture organizations should be assessing the risks created by remote workers' smart phones, laptops and mobile devices because these are considered the most vulnerable entry points according to 55 percent, 50 percent and 48 percent of respondents, respectively.

Figure 13. The most vulnerable endpoints or entry points to your organization's networks and enterprise systems
More than one response permitted



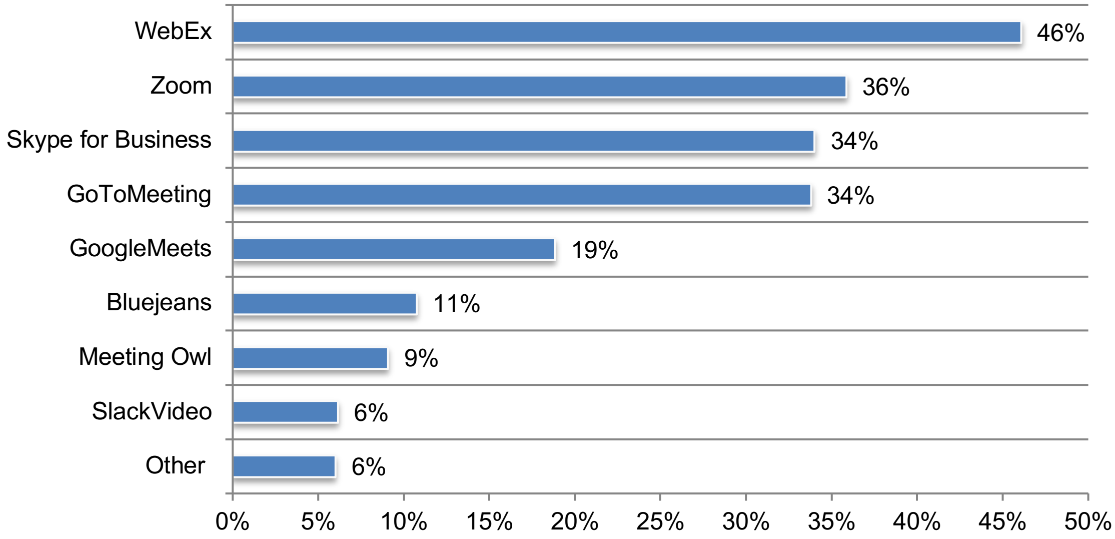
Instant messaging systems and Google Docs are the most popular tools for connectivity and collaboration. Fifty-eight percent of respondents say the use of collaboration tools significantly increased (33 percent) and increased (25 percent). As discussed previously, organizations are struggling to keep remote workers productive. Figure 14 presents a list of commonly used tools to enable connectivity and collaboration for teleworkers. The top two are instant messaging systems and Google Docs.

Figure 14. What tools does your organization use to enable connectivity and collaboration for teleworkers?
More than one response permitted



WebEx is the most commonly used video conferencing tool as shown in Figure 15. Followed by Zoom and Skype for Business.

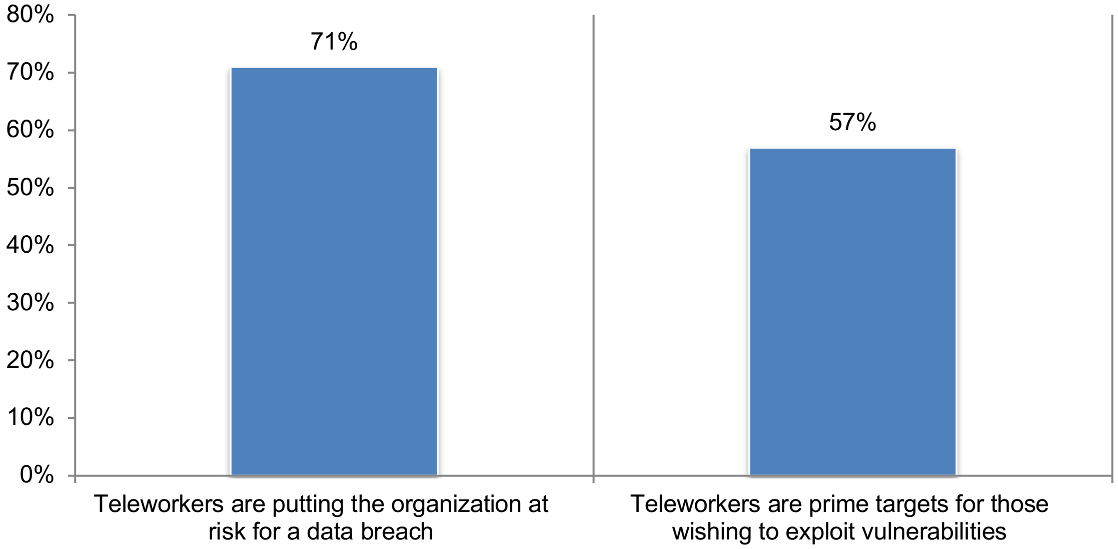
Figure 15. What video conferencing tools does your organization use?
More than one response permitted



There is great concern that remote workers are making their organizations vulnerable for a data breach and/or a security exploit. Less than half (46 percent) of respondents say their organizations are effective (22 percent) or highly effective (24 percent) in reducing cybersecurity risks created by remote working.

When asked to rate their concerns about the risks created by teleworkers on a scale of 1 = no concern to 10 = extremely concerned, 71 percent of respondents say they are very or extremely concerned (7+ responses on the 10-point scale) that teleworkers put the organization at risk for a data breach and 57 percent of respondents are very concerned or extremely concerned that remote workers are prime targets for those wishing to exploit vulnerabilities, as shown in Figure 16.

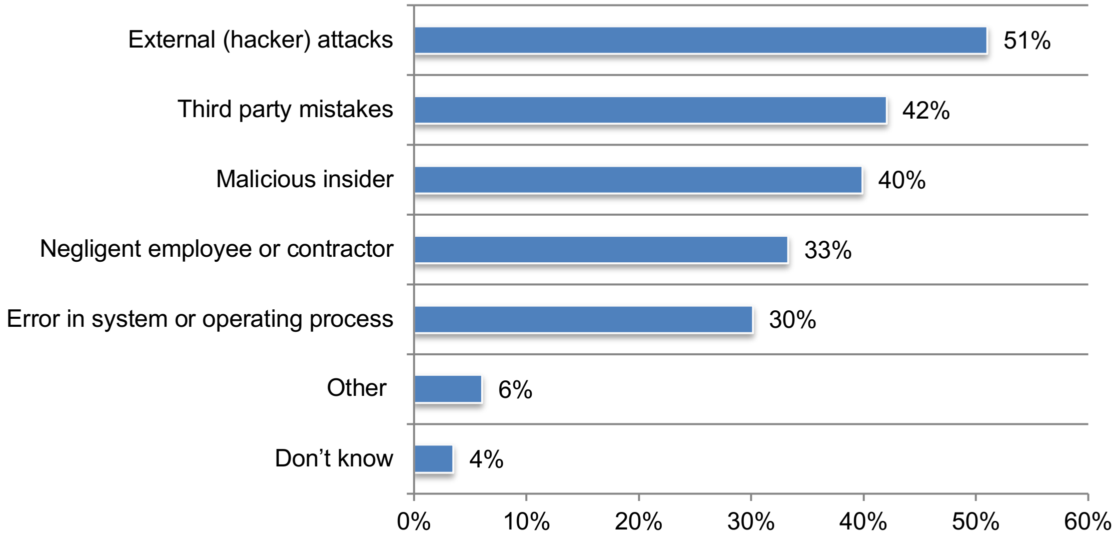
Figure 16. Concerns about teleworkers being prime targets for those wishing to exploit vulnerabilities and putting organizations at risk for a data breach
1 = no concern to 10 = extremely concerned, 7+ responses presented



Data breach risks created by COVID-19

External attacks and third-party mistakes were the root causes of the data breach organizations had in the past year. Forty-four percent of respondents say their organizations had a data breach in the past 12 months (before and during the pandemic). As shown in Figure 17, 51 percent of respondents say external attacks and 42 percent of respondents say third-party mistakes were the root causes of the data breach.

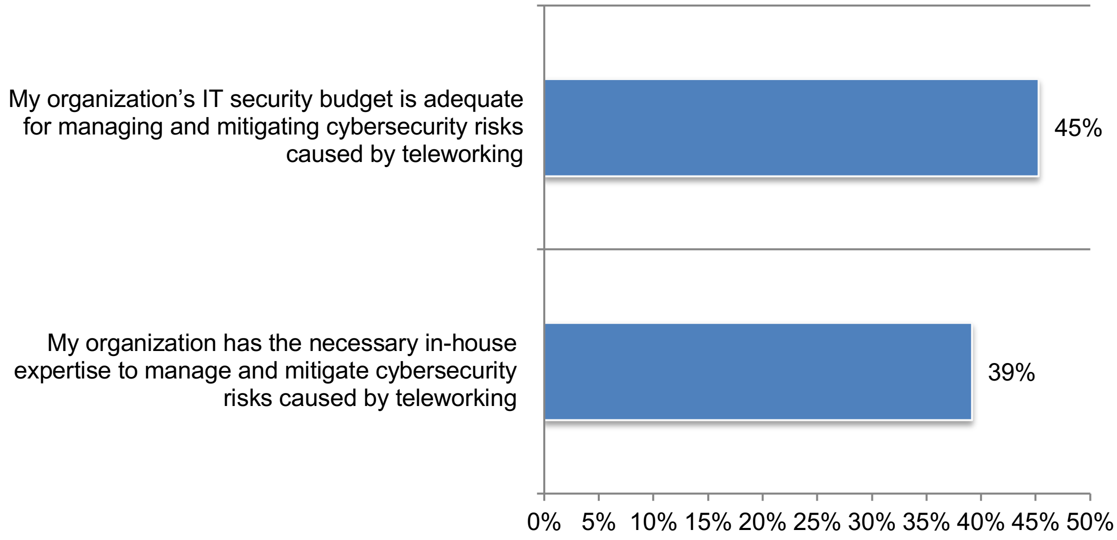
Figure 17. What were the root causes of the data breach experienced by your organization in the past 12 months?
More than one response permitted



Steps organizations are taking and should take to manage cybersecurity risks

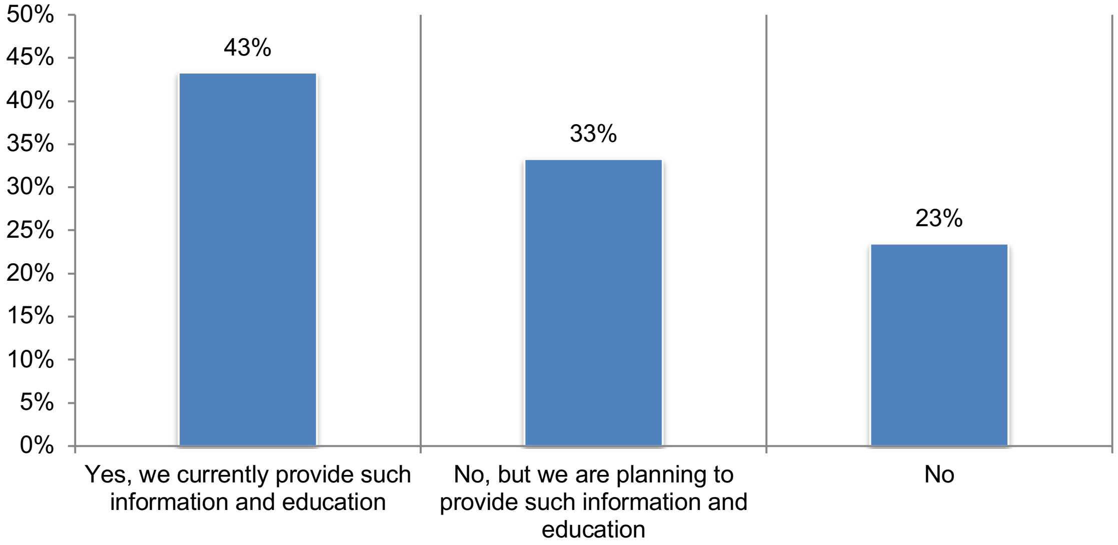
IT security budgets and in-house expertise need to increase. As shown in Figure 18, only 45 percent of respondents say their organizations' IT security budget is adequate for managing and mitigating cybersecurity risks caused by remote working and only 39 percent of respondents say their organization has the expertise to manage and mitigate cybersecurity risks caused by remote working.

Figure 18. Perceptions about teleworking risks
Strongly agree and Agree responses combined



Security risks due to remote working require a new effort to educate remote workers about the risks. According to the research, organizations are at greater risk for security exploits and data breaches because of remote working. Moreover, remote working according to many respondents will be the new norm. As a result, it is more important than ever to have training programs that ensure remote workers are taking appropriate steps to avoid putting their organizations at risk. As shown in Figure 19, 43 percent of respondents say organizations currently inform and educate remote workers about the risks created by remote working and 33 percent of respondents say their organizations plan to.

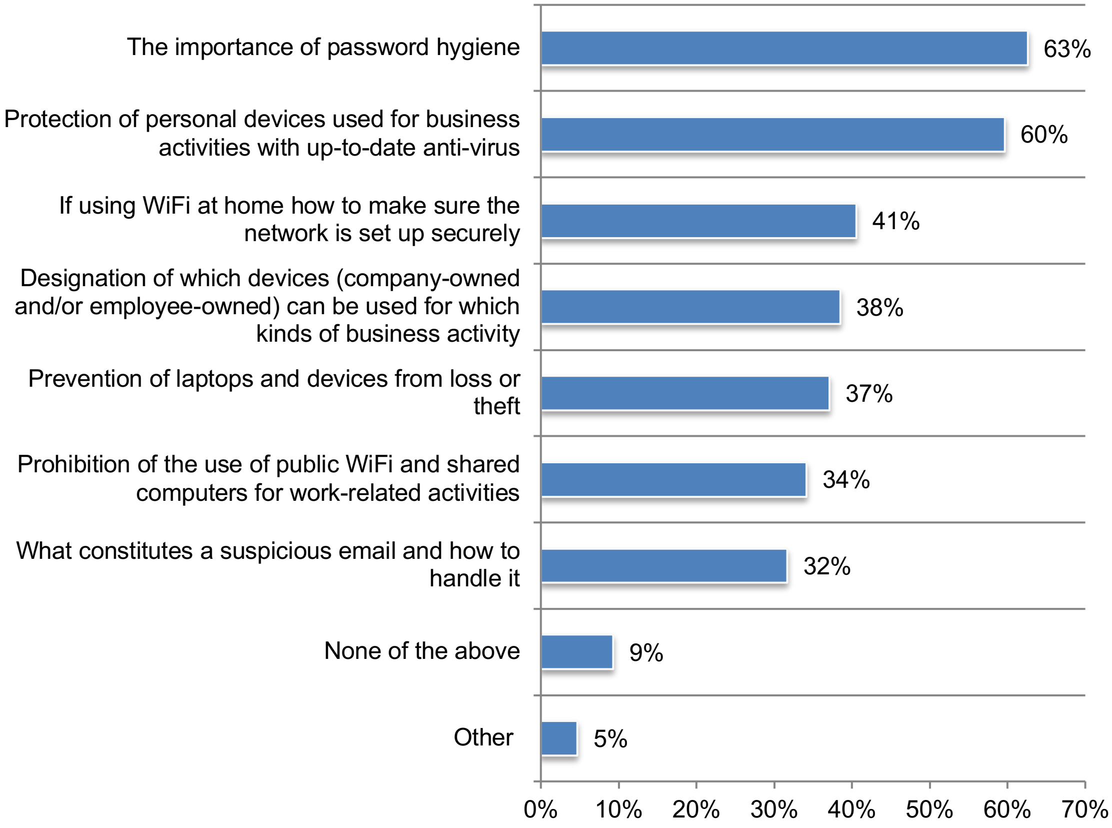
Figure 19. Does your organization inform and educate remote workers about the risks created by teleworking?



Policies for remote working mainly focus on password hygiene and up-to-date anti-virus protection on personal devices. Respondents recognize the security risks created by remote workers. However, 50 percent of respondents say their organizations **do not** have a policy on the security requirements for remote workers. As shown in Figure 20, if they do have a policy it is about the importance of password hygiene (63 percent of respondents) and the protection of personal devices used for business activities with up-to-date anti-virus solutions (60 percent of respondents).

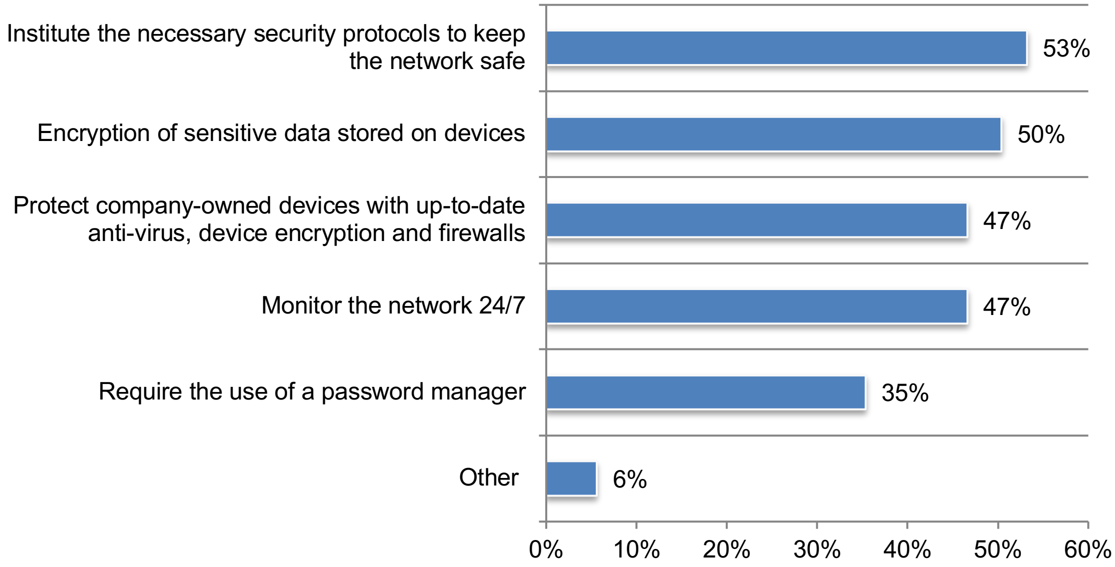
According to the research, 41 percent of respondents say their organizations had an attack involving the compromise of employees' passwords. In the past year, on average each attack cost an organization $267,408.

Figure 20. What does the policy on security requirements for teleworkers cover?
More than one response permitted



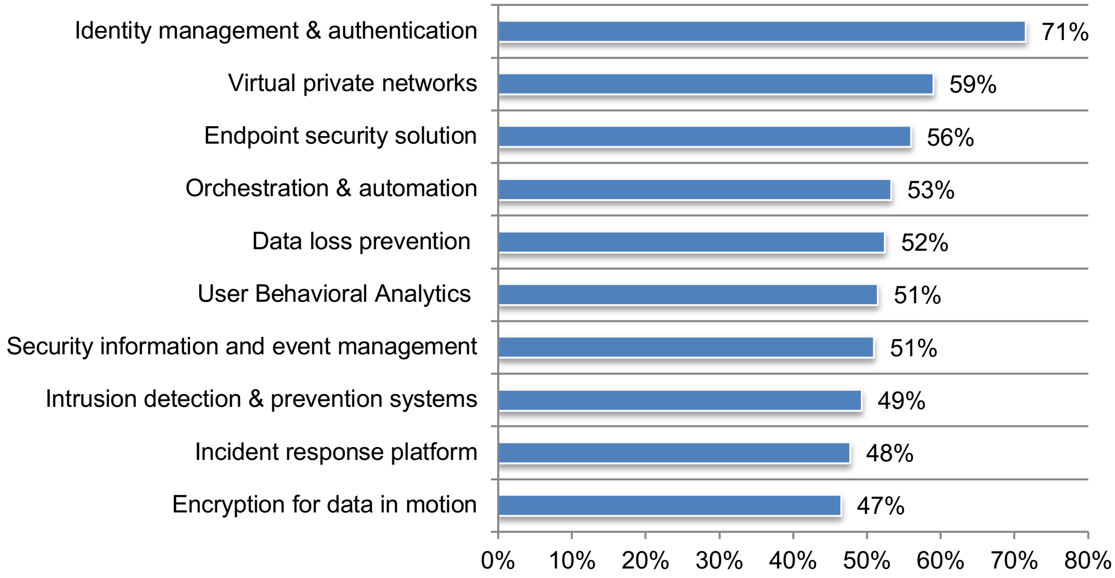
Despite the increase in security risks as a result of remote working, less than half (47 percent) of respondents say their organizations are monitoring the network 24/7. Figure 21 presents the steps organizations are taking to create a secure remote working environment. More than half (53 percent) of respondents say their organizations are instituting the necessary security protocols to keep the network safe and 50 percent of respondents say their organizations are encrypting sensitive data stored on devices. However, less than half of respondents are monitoring the network and protecting company-owned devices with up-to-date anti-virus, device encryption and firewalls.

Figure 21. Steps taken to create a secure teleworking environment
More than one response permitted



Identity management & authentication is the top technology that improves an organization's cybersecurity posture. Figure 22 presents a list of technologies and respondents were asked to identify those that have been most effective in improving their organizations' cybersecurity posture. Seventy-one percent of respondents say it is identity management & authentication. This is followed by virtual private networks (59 percent of respondents) and endpoint security solutions (56 percent of respondents).

Figure 22. Top ten technologies that improve organizations' cybersecurity posture
More than one response permitted

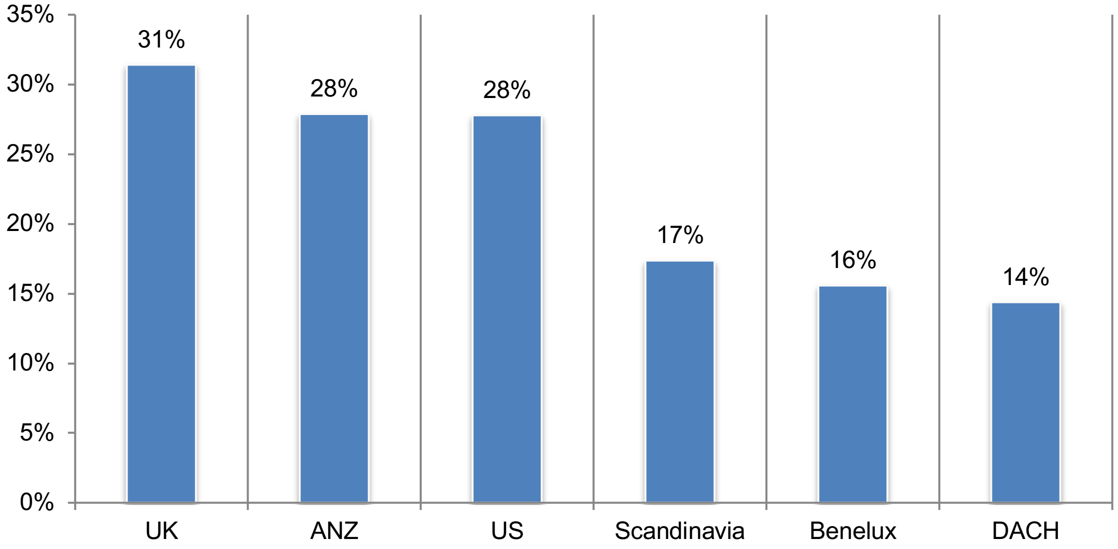


Country and regional differences

Ponemon Institute surveyed a total of 2,215 respondents in the United States, the United Kingdom, DACH, Benelux, Scandinavia and ANZ. In this section, we present the most salient differences among these countries and regions.

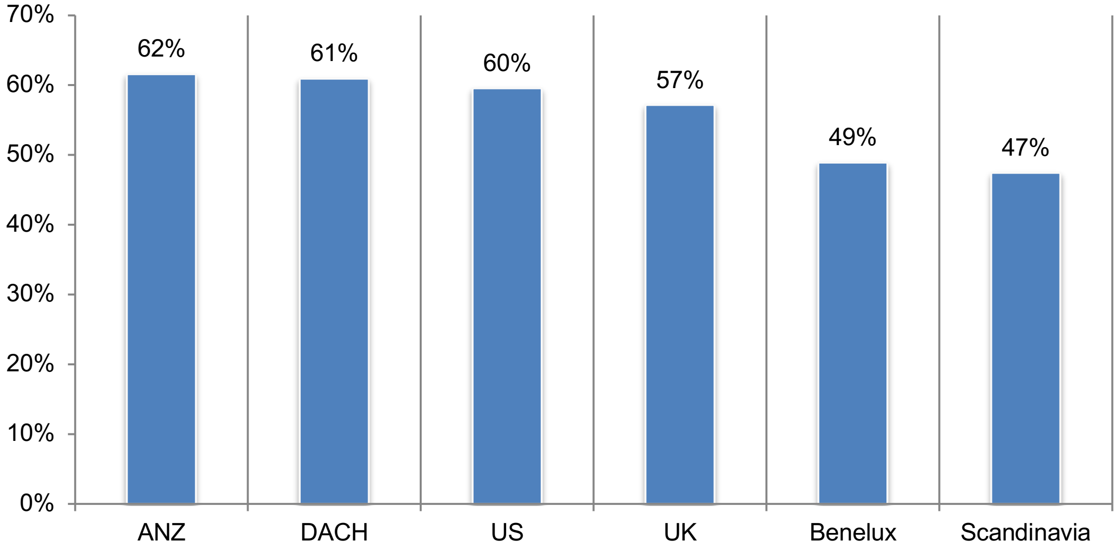
Organizations in the UK have the highest percentage of employees who are privileged users. As shown in Figure 23, an average of 31 percent of employees in the UK have access to their organizations' critical, sensitive and proprietary information.

Figure 23. What percentage of your employees who are teleworking due to COVID-19 have access to their organizations' critical, sensitive and proprietary information?
Extrapolated values presented



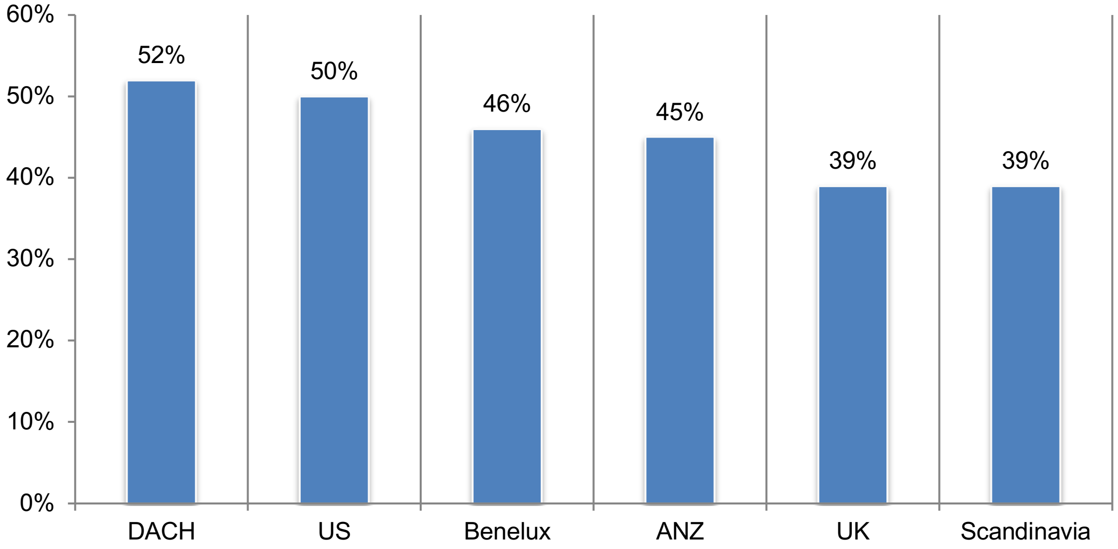
Organizations in ANZ, DACH and the US have the highest percentage of their business-critical applications accessed from mobile devices such as smart phones and tablets. As shown in Figure 24, an average of 62 percent of ANZ's organizations' business critical applications are accessed from smart phones and tablets. An average of 61 percent and 60 percent of business-critical applications are accessed in DACH and US organizations.

Figure 24. What percentage of your organization's business-critical applications are accessed from mobile devices such as smart phones and tablets?
Extrapolated values presented



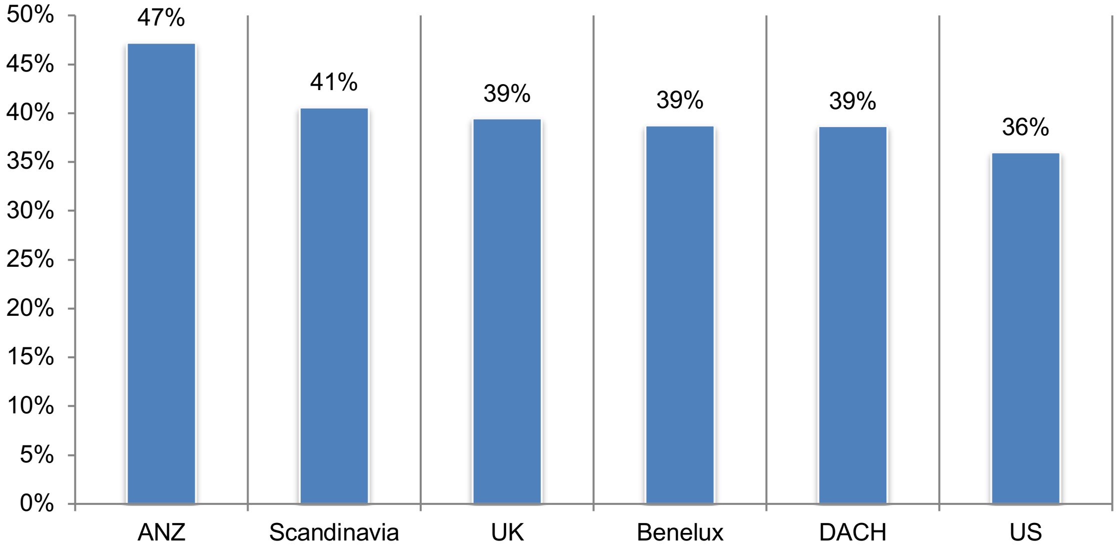
DACH and US organizations were more likely to have an attack that specifically leveraged COVID-19 as a threat vector. According to Figure 25, 52 percent of respondents in DACH organizations and 50 percent of respondents in the US say their organizations experienced an attack that specifically leveraged COVID-19 as a threat vector.

Figure 25. Has your organization experienced an attack that specifically leveraged COVID-19 as a threat vector?
Yes responses presented



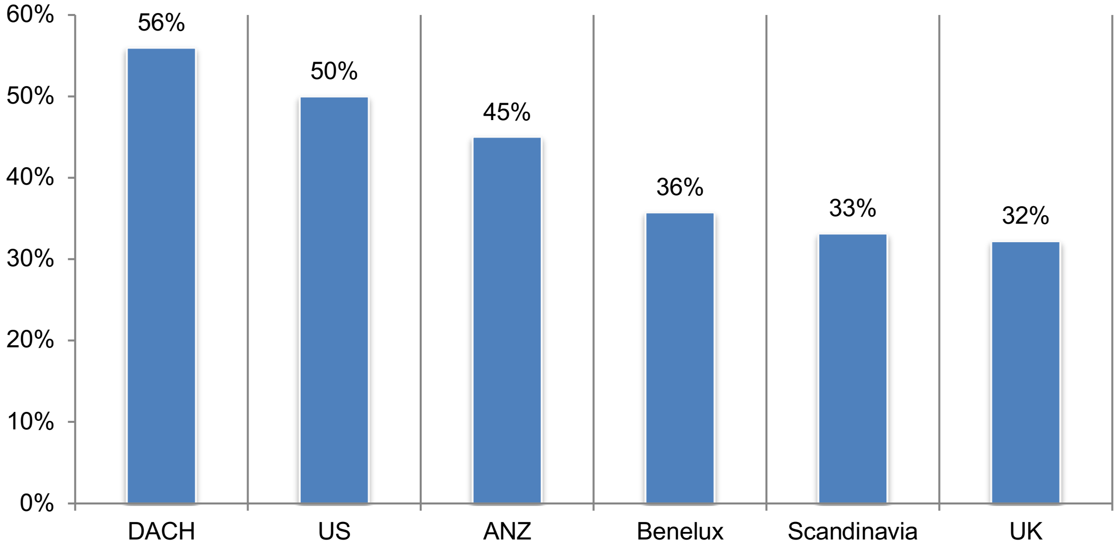
ANZ organizations are more likely to have the necessary in-house expertise to manage and mitigate cybersecurity risks caused by remote working. The majority of organizations do not have the necessary in-house expertise to deal with remote working cybersecurity risks. However, more respondents (47 percent) in ANZ than the other countries and regions say their organizations have the necessary in-house expertise.

Figure 26. My organization has the necessary in-house expertise to manage and mitigate cybersecurity risks caused by teleworking
Strongly agree and Agree responses combined



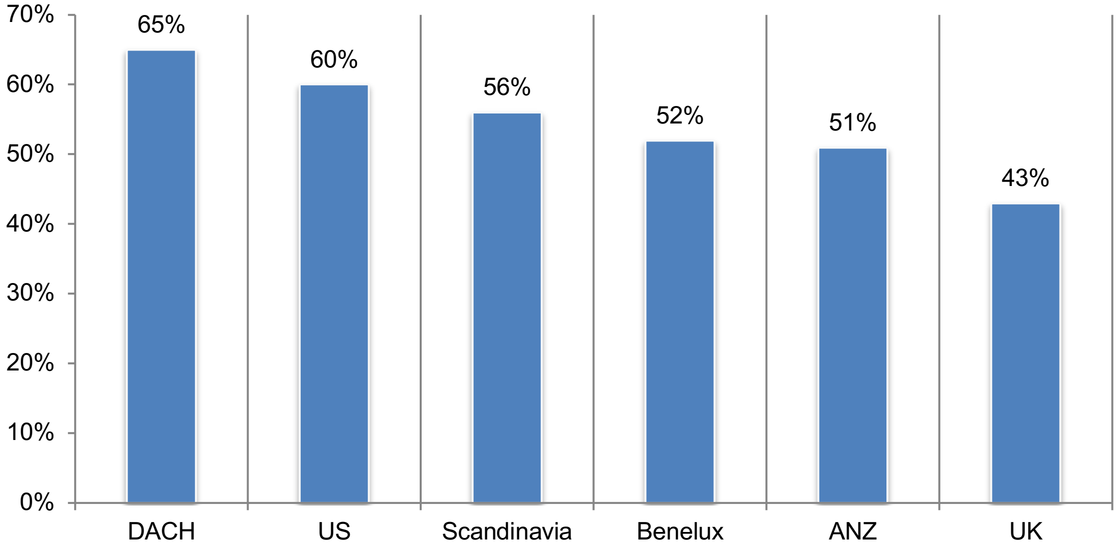
More remote working educational programs are conducted in DACH and US organizations. As shown in Figure 27, 56 percent of respondents in DACH and 50 percent in the US say their organization currently inform and educate remote workers about the risks created by remote working. Fewer organizations in Scandinavia and the UK have such programs.

Figure 27. Does your organization currently inform and educate remote workers about the risks created by teleworking?
Yes responses presented



More organizations in DACH and the US have assessed the risk of remote working. According to Figure 28, 65 percent of respondents in DACH and 60 percent of respondents in the US say their organizations have assessed the risk of remote working.

Figure 28. Has your organization assessed the risk of teleworking?
Yes responses presented



Conclusion and recommendations

Having a remote workforce has taken a toll on organizations' cybersecurity posture. Many organizations have experienced attacks that have specifically leveraged COVI-19 as a threat vector. Because remote working seems to be here to stay, organizations need to assess the security risks, educate remote workers about these risks and create a remote workers security policy.

Following are some recommendations to improve the security in the remote worker era.

- Require all remote workers to use authentication methods, preferably multi-factor authentication.
- Make sure remote workers who are using their own devices (BYOD) have enabled basic security features such as the PIN, fingerprint or facial ID feature.
- Ensure remote workers who have remote access to sensitive and confidential is based on their role and responsibility.
- Secure all types of remote worker devices--including desktop and laptop computers, smartphones, and tablets--against common threats.
- Require remote workers to keep computers and mobile devices patched and updated.
- Educate remote workers on how to recognize unusual or suspicious activity on devices being used for remote working and then contact your organization's help desk or security operations center to report the activity.
- To increase remote working security, organizations should require periodic password changes, prohibit employees from reusing the same passwords on internal systems and require minimum password lengths.

Part 3. Methods

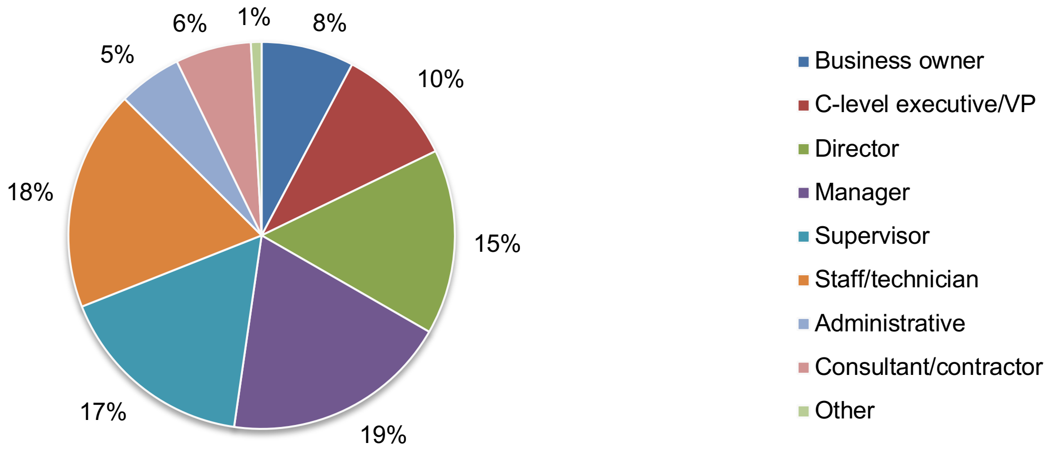
The sampling frame is composed of 62,278 IT and IT security personnel in the United States, United Kingdom, DACH, Benelux, Scandinavia and ANZ (Australia and New Zealand) in organizations with a headcount from less than 250 to 5,000. All respondents in this research are in organizations that have furloughed or directed their employees to telework because of COVID-19.

As shown in Table 2, 2,460 respondents completed the survey. Screening removed 245 surveys. The final sample was 2,215 surveys resulting in a 3.6 percent response rate.

Table 2. Sample response	Freq	Pct%
Total sampling frame	62,278	100.0%
Total returns	2,460	4.0%
Rejected or screened surveys	245	0.4%
Final sample	2,215	3.6%

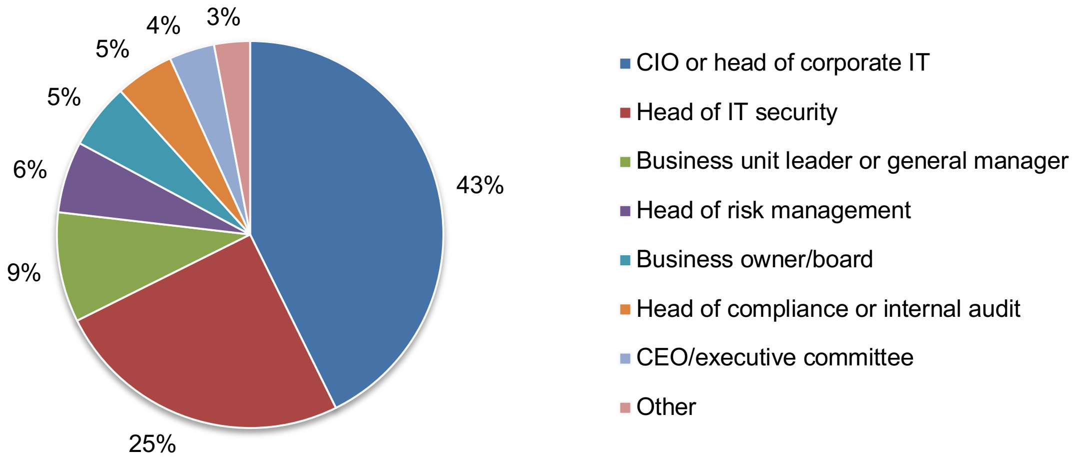
The following pie chart summarizes the position level of qualified respondents. At 19 percent, the largest segment contains those who are managers. More than half (69 percent) of respondents are at or above the supervisory level.

Pie Chart 1. Current position or organizational level



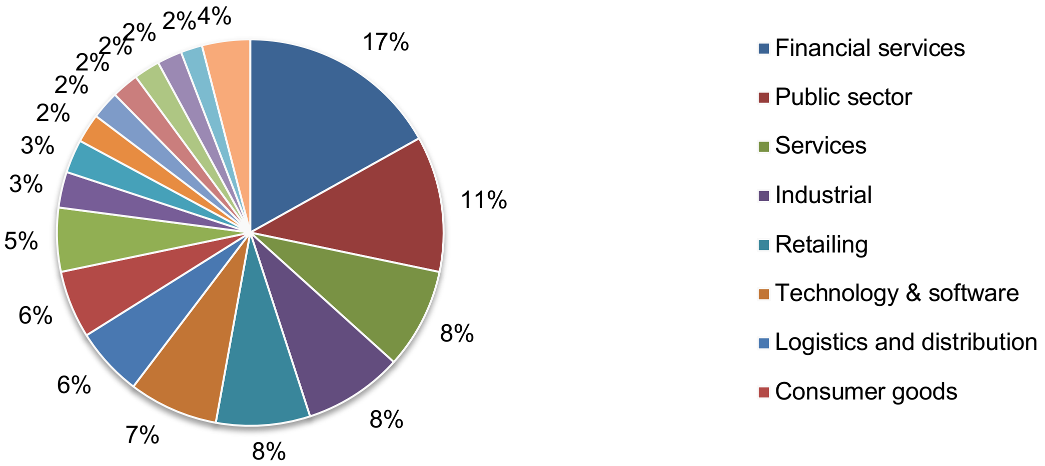
As shown in Pie Chart 2, 43 percent of respondents report to the CIO or head of corporate IT, 25 percent of respondents report to the head of IT security, 9 percent of respondents report to the business unit leader or general manager, and 6 percent of respondents indicated they report to the head of risk management.

Pie Chart 2. Direct reporting channel



Pie Chart 3 shows the percentage distribution of respondents' companies across 8 industries. Financial services represent the largest industry sector (at 17 percent of respondents), which includes banking, insurance, brokerage, investment management and payment processing. This is followed by public sector (11 percent of respondents), services (8 percent of respondents), industrial sector (8 percent of respondents) and retailing (8 percent of respondents).

Pie Chart 3. Primary industry focus of respondents' companies



Part 4. Caveats to this study

There are inherent limitations to survey research that need to be carefully considered before drawing inferences from findings. The following items are specific limitations that are germane to most Web-based surveys.

- Non-response bias: The current findings are based on a sample of survey returns. We sent surveys to a representative sample of individuals, resulting in a large number of usable returned responses. Despite non-response tests, it is always possible that individuals who did not participate are substantially different in terms of underlying beliefs from those who completed the instrument.

- Sampling-frame bias: The accuracy is based on contact information and the degree to which the list is representative of individuals who are IT or IT security professionals who were furloughed or directed their employees to telework because of COVID-19. Because we used a Web-based collection method, it is possible that non-Web responses by mailed survey or telephone call would result in a different pattern of findings.

- Self-reported results: The quality of survey research is based on the integrity of confidential responses received from subjects. While certain checks and balances can be incorporated into the survey process, the possibility remains that a subject did not provide accurate responses.

Appendix: Detailed Survey Results

The following tables provide the frequency or percentage frequency of responses to all survey questions contained in this study. All survey responses were captured in August 2020.

Survey response	Total
Total sampling frame	62,278
Total returns	2,460
Rejected surveys	245
Final sample	2,215
Response rate	3.6%

Part 1. Screening Questions

S1. What range best describes the full-time employee headcount of your organization?	Total
Less than 100	12%
100 to 250	12%
251 to 500	22%
501 to 750	23%
751 to 1,000	14%
1,001 to 2,500	10%
2,501 to 5,000	6%
More than 5,000 [STOP]	0%
Total	100%
Extrapolated value	796

S2. What best describes your role in managing the IT security function or activities within your organization? Check all that apply.	Total
Setting IT security priorities	55%
Managing IT security budgets	41%
Selecting vendors and contractors	63%
Determining IT security strategy	37%
Evaluating program performance	43%
Administrating systems	30%
None of the above [STOP]	0%
Total	270%

S3. How do you rate your level of involvement in the evaluation, selection, and/or implementation of IT security products or services in your organization?	Total
Very high level of involvement	30%
High level of involvement	45%
Moderate level of involvement	19%
Low level of involvement	6%
Not involved [STOP]	0%
Total	100%

S4. What percentage of your organization's employees have been furloughed due to COVID-19?	Total
None [STOP]	0%
< 10%	28%
10% to 25%	20%
26% to 50%	27%
51% to 75%	15%
76% to 100%	10%
Total	100%
Extrapolated value	33%

S5. Before COVID-19, What percentage of your organization's employees were teleworking?	Total
None [STOP]	0%
< 10%	51%
10% to 25%	20%
26% to 50%	14%
51% to 75%	9%
76% to 100%	6%
Total	100%
Extrapolated value	22%

S6. What percentage of your organization's employees are teleworking due to COVID-19?	Total
None [STOP]	0%
< 10%	5%
10% to 25%	12%
26% to 50%	17%
51% to 75%	34%
76% to 100%	31%
Total	100%
Extrapolated value	58%

Part 2: Security posture & COVID-19

Q1. What percentage of your organization's employees who are teleworking due to COVID-19 have access to your organization's critical, sensitive and proprietary information (e.g. privileged users)?	Total
None	0%
< 10%	29%
10% to 25%	33%
26% to 50%	19%
51% to 75%	6%
76% to 100%	5%
Total	100%
Extrapolated value	23%

Q2a. How would you describe your organization’s IT security posture (in terms of its effectiveness at mitigating risks, vulnerabilities and attacks across the enterprise) **prior to COVID-19**?	Total
1 or 2	2%
3 or 4	8%
5 or 6	19%
7 or 8	36%
9 or 10	35%
Total	100%
Extrapolated value	7.34

Q2b. How would you describe your organization’s IT security posture (in terms of its effectiveness at mitigating risks, vulnerabilities and attacks across the enterprise) **due to COVID-19**?	Total
1 or 2	13%
3 or 4	22%
5 or 6	21%
7 or 8	30%
9 or 10	14%
Total	100%
Extrapolated value	5.71

Q3. What challenges keep your organization’s IT security posture from being fully effective due to teleworking? Please select the top **two** challenges.	Total
Insufficient budget (money)	44%
Insufficient personnel	19%
Lack of in-house expertise	24%
Lack of clear leadership	25%
Insufficient enabling security technologies	27%
No understanding how to protect against cyberattacks	42%
Management does not see teleworking causing security risks	18%
Other (please specify)	2%
Total	200%

Q4. What security risks caused by teleworking is your organization most concerned about? Please select the **top two** concerns.	Total
A lack of physical security in the teleworker’s work space	47%
The difficulty in securing your organization’s network	20%
The difficulty in securing external access to internal-only resources	8%
Criminals could gain control of teleworkers’ devices to steal sensitive and confidential data	24%
Criminals could leverage the devices to gain access to the enterprise network	17%
Teleworkers lose or have their devices stolen	12%
The inability to secure communications on external networks outside your organization’s control	23%
Teleworkers’ devices become infected with malware	32%
Phishing and social engineering scams directed at teleworkers	15%
Other (please specify)	1%
Total	200%

Q5. What types of information are you most concerned about protecting from cyberattacks in a teleworking environment? Please select the top **two** choices.	Total
Customer credit or debit card information	31%
Financial information	48%
Intellectual property	28%
Customer records	55%
Employee records	21%
Business correspondence	18%
Other (please specify)	0%
Total	200%

Q6a. What percent of your organization's business-critical applications are accessed from mobile devices such as smart phones, tablets and others?	Total
Zero	6%
Less than 10%	13%
11 to 25%	23%
26 to 50%	33%
51 to 75%	17%
76 to 100%	8%
Total	100%
Extrapolated value	56%

Q6b. Has the percentage of your organization's business-critical applications accessed from mobile devices such as smart phones, tablets and others increased due to teleworking?	Total
Significant increase	26%
Increase	33%
Stay the same	18%
Decrease	18%
Significant decrease	5%
Total	100%

Q7a. Does your organization require teleworkers to use authentication methods?	Total
Yes	69%
No	31%
Total	100%

Q7b. If yes, what authentication method do you require?	Total
Two-Factor Authentication	40%
Multi-Factor Authentication	35%
FIDO2	12%
Other (please specify)	13%
Total	100%

Q8. How many business-critical applications does your organization have?	Total
Less than 10	4%
10 to 25	42%
26 to 50	31%
51 to 100	13%
101 to 250	6%
More than 250	4%
Total	100%
Extrapolated value	50.69

Part 3: Cybersecurity risks during COVID-19

Q9a. Has your organization experienced a cyberattack in the past 12 months?	Total
Yes	60%
No [Please skip to Q10]	31%
Unsure [please skip to Q10]	9%
Total	100%

Q9b. If yes, what best describes the type of attacks experienced by your organization in the past 12 months? Please select all that apply.	Total
Account takeover	43%
Advanced malware / zero day attacks	24%
Compromised / stolen devices	28%
Credential theft	56%
Cross-site scripting	16%
Denial of services	42%
General malware	42%
Malicious insider	34%
Phishing / social engineering	48%
Ransomware	15%
SQL injection	19%
Web-based attack	36%
Other (please specify)	5%
Total	409%

Q10. Since COVID-19, have any of the following attacks **increased**? Please select all that apply.	Total
Account takeover	49%
Advanced malware / zero day attacks	29%
Compromised / stolen devices	48%
Credential theft	55%
Cross-site scripting	27%
Denial of service	49%
General malware	49%
Malicious insider	45%
Phishing / social engineering	62%
Ransomware	25%
SQL injection	21%
Web-based attack	28%
Other (please specify)	6%
None of these attacks have increased	12%
Total	506%

Q11. Has your organization experienced an attack that specifically leveraged COVID-19 as a threat vector?	Total
Yes	46%
No	48%
Unsure	6%
Total	100%

Q12a. Since COVID-19, has your organization experienced situations when exploits and malware have evaded your intrusion detection system?	Total
Yes	51%
No	42%
Unsure	7%
Total	100%

Q12b. Since COVID-19, has your organization experienced situations when exploits and malware have evaded your anti-virus solutions?	Total
Yes	49%
No	43%
Unsure	8%
Total	100%

Q13. Since COVID-19, how has the time to **respond to** a cyberattack changed?	Total
Time has increased significantly	21%
Time has increased	35%
Time has remained unchanged	27%
Time has decreased	9%
Time has decreased significantly	7%
Total	100%

Q14. Please rate the following statements using the agreement scale provided below each item. **Strongly Agree and Agree responses provided**.	Total
Q14a. Since teleworking, cyberattacks experienced by my organization are becoming more **targeted**.	47%
Q14b. Since teleworking, cyberattacks experienced by my organization are becoming more **sophisticated**.	36%
Q14c. Since teleworking, cyberattacks experienced by my organization are becoming more **severe** in terms of negative consequences (such as financial impact).	50%
Q14d. Teleworkers' use of their own mobile devices (BYOD) such as tablets and smart phones to access business-critical applications and IT infrastructure has decreased our organization's security posture.	67%
Q14e. My organization expects teleworking to become the new norm	56%
Q14f. A remote workforce is more productive than an on-site workforce	35%
Q14g. Teleworking has made our organization more efficient.	35%
Q14h. Teleworking has reduced our organization's costs.	60%

Q15. In your opinion, what are the most vulnerable endpoints or entry points to your organization's networks and enterprise systems? Please select all that apply.	Total
Desktops	34%
Laptops	50%
Tablets	24%
Smart phones	55%
Web server	23%
Intranet server	17%
Routers	13%
Portable storage devices (including USBs)	20%
Cloud systems	47%
Mobile devices	48%
Other (please specify)	4%
Total	334%

Q16. Since teleworking how has the use of collaboration tools changed?	Total
Significantly increased	33%
Increased	25%
No change	11%
Decreased	17%
Significantly decreased	8%
Our organization does not use collaboration tools	5%
Total	100%

Q17. What tools does your organization use to enable connectivity and collaboration for teleworkers? Please select all that apply.	Total
Instant messaging systems	45%
Google's G Suite	27%
Google Docs	40%
Microsoft's Office 365	32%
Slack	16%
Facebook	19%
Twitter	21%
Instagram	22%
Google's Focus Mode	13%
TeamViewer	8%
Splashtop	8%
Other (please specify)	4%
Total	255%

Q18. What video conferencing tools does your organization use? Please select all that apply.	Total
Zoom	36%
GoToMeeting	34%
GoogleMeets	19%
Skype for Business	34%
Bluejeans	11%
Meeting Owl	9%
SlackVideo	6%
WebEx	46%
Other (please specify)	6%
Total	201%

Q19a. How concerned is your organization that teleworkers are prime targets for those wishing to exploit vulnerabilities on a scale of 1 = no concern to 10 = extremely concerned?	Total
1 or 2	11%
3 or 4	12%
5 or 6	21%
7 or 8	26%
9 or 10	31%
Total	100%
Extrapolated value	6.57

Q19b. How concerned is your organization that teleworkers are putting it at risk for a data breach on a scale of 1 = no concern to 10 = extremely concerned?	Total
1 or 2	7%
3 or 4	7%
5 or 6	14%
7 or 8	27%
9 or 10	44%
Total	100%
Extrapolated value	7.39

Q19c. How effective is your organization in reducing cybersecurity risks created by teleworking on a scale of 1 = not effective to 10 = highly effective?	Total
1 or 2	14%
3 or 4	16%
5 or 6	25%
7 or 8	22%
9 or 10	24%
Total	100%
Extrapolated value	6.00

Part 4. Data breach experience

Q20a. Has your organization experienced an incident involving the loss or theft of sensitive information about customers, target customers or employees (a.k.a. data breach) in the past 12 months?	Total
Yes	44%
No [Please skip to Q21]	56%
Total	100%

Q20b. If yes, with respect to your organization's largest breach over the past 12 months, how many individual records were lost or stolen?	Total
Less than 100	32%
100 to 500	21%
501 to 1,000	21%
1,001 to 10,000	12%
10,001 to 50,000	9%
50,001 to 100,000	3%
100,001 to 1,000,000	1%
More than 1,000,000	0%
Total	100%
Extrapolated value	7,819

Q20c. If yes, what were the root causes of the data breaches experienced by your organization in the past 12 months? Please select that apply.	Total
Malicious insider	40%
External (hacker) attacks	51%
Negligent employee or contractor	33%
Error in system or operating process	30%
Third party mistakes	42%
Other (please specify)	6%
Don't know	4%
Total	206%

Q21a. Does your organization have an incident response plan for responding to cyberattacks and data breaches?	Total
Yes	70%
No	24%
Unsure	5%
Total	100%

Q21b. If yes, has your organization made any changes due to teleworking?	Total
Yes	59%
No	44%
Unsure	6%
Total	100%

Part 5. What steps is your organization taking to manage cybersecurity risks?

Strongly Agree and Agree responses provided.	Total
Q22a. My organization’s IT security budget is adequate for managing and mitigating cybersecurity risks caused by teleworking.	45%
Q22b. My organization has the necessary in-house expertise to manage and mitigate cybersecurity risks caused by teleworking.	39%

Q23. Has your organization assessed the risk of teleworking?	Total
Yes	55%
No	37%
Unsure	8%
Total	100%

Q24.Does your organization inform and educate remote workers about the risks created by teleworking?	Total
Yes, we currently provide such information and education	43%
No, but we are planning to provide such information and education	33%
No	23%
Total	100%

Q25. Does your organization have a policy on the security requirements for teleworkers?	Total
Yes	50%
No	50%
Total	100%

Q26. If yes, what does the policy cover? Please select all that apply	Total
The importance of password hygiene	63%
Prevention of laptops and devices from loss or theft	37%
Protection of personal devices used for business activities with up-to-date anti-virus	60%
Designation of which devices (company-owned and/or employee-owned) can be used for which kinds of business activity	38%
What constitutes a suspicious email and how to handle it	32%
Prohibition of the use of public WiFi and shared computers for work-related activities	34%
If using WiFi at home how to make sure the network is set up securely	41%
None of the above	9%
Other (please specify)	5%
Total	318%

Q27. What steps does your organization take to create a secure teleworking environment? Please select all that apply.	Total
Protect company-owned devices with up-to-date anti-virus, device encryption and firewalls	47%
Require the use of a password manager	35%
Monitor the network 24/7	47%
Institute the necessary security protocols to keep the network safe	53%
Encryption of sensitive data stored on devices	50%
Other (please specify)	6%
Total	204%

Q28. Which of the following security technologies have been the most effective in helping your organization improve its cybersecurity posture. Please select your top ten (10) choices.	Total
Anti-virus / anti-malware	35%
Artificial intelligence	21%
Big data analytics for cybersecurity	36%
Code review and debugging systems	31%
Data loss prevention (DLP)	52%
Data tokenization technology	28%
DDoS solutions	33%
Encryption for data at rest	36%
Encryption for data in motion	47%
Endpoint security solution	56%
Governance solutions (GRC)	46%
Identity management & authentication	71%
Incident response platform	48%
Intrusion detection & prevention systems	49%
Machine learning	35%
Network traffic surveillance	45%
Next generation firewalls	39%
Orchestration & automation	53%
Security information and event management (SIEM)	51%
User Behavioral Analytics (UBA)	51%
Virtual private networks (VPN)	59%
Web application firewalls (WAF)	38%
Wireless security solutions	31%
Other (please specify)	7%
Total	1000%

Part 6. The cost of compromises

Q29a. Approximately, how much did damage or theft of IT assets and infrastructure cost you organization over the past 12 months?	Total
We had no compromises [Please skip to Q 30a]	42%
Less than $5,000	1%
$5,001 to $10,000	2%
$10,001 to $50,000	1%
$50,001 to $100,000	6%
$100,001 to $250,000	5%
$250,001 to $500,000	6%
$500,001 to $999,999	6%
$1 million to $5 million	5%
$5 million to $10 million	11%
More than $10 million	14%
Cannot determine	0%
Total	100%
Extrapolated value	$2,731,882

Q29b. Approximately, how much did disruption to normal operations cost your organization over the past 12 months?	Total
We had no compromises [Please skip to Q 30a]	42%
Less than $5,000	1%
$5,001 to $10,000	1%
$10,001 to $50,000	2%
$50,001 to $100,000	5%
$100,001 to $250,000	8%
$250,001 to $500,000	6%
$500,001 to $999,999	6%
$1 million to $5 million	4%
$5 million to $10 million	12%
More than $10 million	11%
Cannot determine	0%
Total	100%
Extrapolated value	$2,415,875

Q30a. Have you had an attack involving the compromise of employees' passwords in the past year?	Total
Yes	41%
No	51%
Unsure	8%
Total	100%

Q30b. If yes, on average how much did each attack cost your organization?	Total
Less than $10,000	4%
$10,001 to $50,000	22%
$50,001 to $100,000	18%
$100,001 to $250,000	23%
$250,001 to $500,000	25%
$500,001 to $1,000,000	9%
More than $1,000,000	4%
Cannot determine	0%
Total	100%
Extrapolated value	$266,725

Part 7. Role & Organizational Characteristics

D1. What best describes your position level within the organization?	Total
Business owner	8%
C-level executive/VP	10%
Director	15%
Manager	19%
Supervisor	17%
Staff/technician	18%
Administrative	5%
Consultant/contractor	6%
Other (please specify)	1%
Total	100%

D2. Which of the following executives do you report to in your current role?	Total
Business owner/board	5%
CEO/executive committee	4%
COO or head of operations	1%
CFO, controller or head of finance	1%
CIO or head of corporate IT	43%
Business unit leader or general manager	9%
Head of compliance or internal audit	5%
Head of risk management	6%
Head of IT security	25%
Other (please specify)	1%
Total	100%

D3. What best describes your organization's primary industry classification?	Total
Aerospace & defense	1%
Agriculture & food services	2%
Communications	1%
Construction and real estate	3%
Consumer goods	6%
Consumer products	3%
Education & research	2%
Entertainment, media and publishing	2%
Financial services	17%
Healthcare	5%
Industrial	8%
Logistics and distribution	6%
Manufacturing	2%
Pharmaceuticals	2%
Public sector	11%
Retailing	8%
Services	8%
Technology & software	7%
Transportation	2%
Other	2%
Total	100%

Please contact research@ponemon.org or call us at 800.887.3118 if you have any questions.

Ponemon Institute

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ABOUT KEEPER SECURITY

Keeper Security is transforming the way businesses and individuals protect their passwords and sensitive digital assets to significantly reduce cyber theft. As the leading password manager and digital vault, Keeper helps millions of people and thousands of businesses substantially mitigate the risk of a data breach. Keeper is SOC 2 Certified and utilizes best-in-class encryption to safeguard its customers. Keeper protects industry-leading companies including Chase, Sony, Siemens, Chipotle, Philips and The University of Alabama at Birmingham. Keeper partners with global OEMs and mobile operators to preload Keeper on smartphones and tablets. Learn more at https://keepersecurity.com.

Survey response	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Total sampling frame	16,090	10,487	11,452	9,553	8,705	5,991	62,278
Total returns	643	420	458	382	318	239	2,460
Rejected surveys	56	43	41	39	37	29	245
Final sample	587	377	417	343	281	210	2,215
Response rate	3.6%	3.6%	3.6%	3.6%	3.2%	3.5%	3.6%
Sample weights	0.27	0.17	0.19	0.15	0.13	0.09	1.00

Part 1. Screening Questions

S1. What range best describes the full-time employee headcount of your organization?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Less than 100	5%	15%	14%	11%	14%	17%	12%
100 to 250	7%	16%	10%	16%	13%	18%	12%
251 to 500	20%	23%	21%	23%	26%	24%	22%
501 to 750	23%	27%	23%	20%	24%	19%	23%
751 to 1,000	16%	6%	16%	16%	17%	16%	14%
1,001 to 2,500	18%	6%	7%	10%	6%	6%	10%
2,501 to 5,000	11%	7%	9%	3%	0%	0%	6%
More than 5,000 [STOP]	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	99%	100%	100%	100%
Extrapolated value	1,103	717	854	676	539	503	796

S2. What best describes your role in managing the IT security function or activities within your organization? Check all that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Setting IT security priorities	54%	59%	58%	49%	60%	46%	55%
Managing IT security budgets	41%	35%	40%	45%	41%	52%	41%
Selecting vendors and contractors	60%	69%	69%	47%	72%	58%	63%
Determining IT security strategy	37%	36%	38%	46%	31%	35%	37%
Evaluating program performance	45%	39%	39%	43%	51%	45%	43%
Administrating systems	33%	29%	29%	24%	37%	25%	30%
None of the above [STOP]	0%	0%	0%	0%	0%	0%	0%
Total	270%	267%	273%	253%	294%	261%	270%

S3. How do you rate your level of involvement in the evaluation, selection, and/or implementation of IT security products or services in your organization?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Very high level of involvement	28%	30%	35%	33%	30%	25%	30%
High level of involvement	48%	41%	43%	42%	45%	48%	45%
Moderate level of involvement	18%	21%	17%	20%	19%	20%	19%
Low level of involvement	6%	8%	6%	5%	5%	7%	6%
Not involved [STOP]	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%

S4. What percentage of your organization’s employees have been furloughed due to COVID-19?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
None [STOP]	0%	0%	0%	0%	0%	0%	0%
< 10%	15%	17%	35%	41%	51%	20%	28%
10% to 25%	20%	18%	22%	20%	21%	21%	20%
26% to 50%	28%	28%	28%	25%	20%	30%	27%
51% to 75%	18%	22%	11%	12%	8%	14%	15%
76% to 100%	19%	16%	3%	2%	0%	16%	10%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	43%	42%	26%	24%	19%	38%	33%

S5. Before COVID-19, What percentage of your organization’s employees were teleworking?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
None [STOP]	0%	0%	0%	0%	0%	0%	0%
< 10%	48%	54%	51%	63%	49%	42%	51%
10% to 25%	21%	21%	22%	14%	16%	30%	20%
26% to 50%	16%	12%	13%	11%	20%	9%	14%
51% to 75%	6%	8%	11%	12%	8%	10%	9%
76% to 100%	9%	5%	3%	0%	7%	9%	6%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	24%	20%	21%	17%	24%	25%	22%

S6. What percentage of your organization’s employees are teleworking due to COVID-19?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
None [STOP]	0%	0%	0%	0%	0%	0%	0%
< 10%	5%	3%	0%	9%	13%	5%	5%
10% to 25%	12%	13%	10%	12%	12%	11%	12%
26% to 50%	11%	9%	21%	25%	23%	23%	17%
51% to 75%	34%	35%	43%	32%	28%	30%	34%
76% to 100%	38%	40%	26%	22%	24%	31%	31%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	61%	63%	59%	51%	50%	57%	58%

Part 2: Security posture & COVID-19

Q1. What percentage of your organization’s employees who are teleworking due to COVID-19 have access to your organization’s critical, sensitive and proprietary information (e.g. privileged users)?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
None	5%	4%	14%	10%	13%	6%	0%
< 10%	24%	23%	36%	38%	28%	23%	29%
10% to 25%	32%	31%	36%	32%	35%	30%	33%
26% to 50%	23%	20%	10%	19%	21%	22%	19%
51% to 75%	7%	8%	4%	0%	3%	14%	6%
76% to 100%	9%	14%	0%	1%	0%	5%	5%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	28%	31%	14%	16%	17%	28%	23%

Q2a. How would you describe your organization’s IT security posture (in terms of its effectiveness at mitigating risks, vulnerabilities and attacks across the enterprise) **prior to COVID-19**?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
1 or 2	3%	4%	0%	2%	3%	2%	2%
3 or 4	6%	12%	5%	9%	10%	12%	8%
5 or 6	17%	20%	14%	23%	20%	21%	19%
7 or 8	38%	31%	36%	39%	37%	34%	36%
9 or 10	36%	33%	45%	27%	30%	31%	35%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	7.46	7.04	7.92	7.10	7.12	7.11	7.34

Q2b. How would you describe your organization’s IT security posture (in terms of its effectiveness at mitigating risks, vulnerabilities and attacks across the enterprise) **due to COVID-19**?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
1 or 2	14%	12%	9%	13%	18%	11%	13%
3 or 4	18%	25%	18%	24%	23%	33%	22%
5 or 6	19%	25%	18%	19%	25%	20%	21%
7 or 8	36%	22%	40%	30%	19%	28%	30%
9 or 10	13%	16%	15%	14%	15%	9%	14%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	5.82	5.57	6.17	5.66	5.30	5.35	5.71

Q3. What challenges keep your organization’s IT security posture from being fully effective due to teleworking? Please select the top **two** challenges.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Insufficient budget (money)	45%	46%	46%	42%	38%	45%	44%
Insufficient personnel	19%	18%	22%	19%	16%	20%	19%
Lack of in-house expertise	25%	23%	23%	20%	26%	25%	24%
Lack of clear leadership	23%	20%	29%	31%	23%	24%	25%
Insufficient enabling security technologies	27%	28%	22%	26%	31%	28%	27%
No understanding how to protect against cyberattacks	41%	44%	41%	39%	46%	41%	42%
Management does not see teleworking causing security risks	17%	18%	17%	21%	17%	16%	18%
Other (please specify)	3%	4%	0%	2%	3%	0%	2%
Total	200%	200%	200%	200%	200%	200%	200%

Q4. What security risks caused by teleworking is your organization most concerned about? Please select the **top two** concerns.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
A lack of physical security in the teleworker’s work space	45%	48%	47%	44%	54%	50%	47%
The difficulty in securing your organization’s network	20%	17%	21%	23%	20%	21%	20%
The difficulty in securing external access to internal-only resources	8%	6%	8%	7%	9%	10%	8%
Criminals could gain control of teleworkers’ devices to steal sensitive and confidential data	24%	25%	29%	22%	20%	21%	24%
Criminals could leverage the devices to gain access to the enterprise network	17%	20%	13%	18%	16%	15%	17%
Teleworkers lose or have their devices stolen	13%	10%	12%	11%	15%	13%	12%
The inability to secure communications on external networks outside your organization’s control	25%	25%	23%	21%	20%	24%	23%
Teleworkers’ devices become infected with malware	30%	34%	36%	34%	28%	27%	32%
Phishing and social engineering scams directed at teleworkers	17%	16%	10%	19%	14%	15%	15%
Other (please specify)	1%	0%	2%	0%	3%	3%	1%
Total	200%	200%	200%	200%	200%	200%	200%

Q5. What types of information are you most concerned about protecting from cyberattacks in a teleworking environment? Please select the top **two** choices.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Customer credit or debit card information	29%	38%	30%	32%	34%	23%	31%
Financial information	46%	48%	46%	48%	51%	48%	48%
Intellectual property	29%	24%	29%	29%	26%	28%	28%
Customer records	53%	50%	62%	54%	50%	58%	55%
Employee records	23%	19%	21%	23%	20%	21%	21%
Business correspondence	20%	21%	12%	14%	19%	22%	18%
Other (please specify)	0%	1%	0%	0%	0%	0%	0%
Total	200%	200%	200%	200%	200%	200%	200%

Q6a. What percent of your organization’s business-critical applications are accessed from mobile devices such as smart phones, tablets and others?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Zero	3%	7%	4%	9%	9%	5%	6%
Less than 10%	12%	10%	10%	18%	16%	9%	13%
11 to 25%	19%	28%	23%	26%	23%	20%	23%
26 to 50%	30%	34%	37%	25%	33%	46%	33%
51 to 75%	23%	16%	19%	15%	10%	15%	17%
76 to 100%	13%	5%	7%	7%	9%	5%	8%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	60%	57%	61%	49%	47%	62%	56%

Q6b. Has the percentage of your organization’s business-critical applications accessed from mobile devices such as smart phones, tablets and others increased due to teleworking?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Significant increase	25%	26%	29%	22%	29%	27%	26%
Increase	32%	33%	35%	34%	29%	31%	33%
Stay the same	19%	18%	13%	21%	21%	21%	18%
Decrease	20%	18%	20%	19%	15%	13%	18%
Significant decrease	4%	5%	3%	4%	6%	8%	5%
Total	100%	100%	100%	100%	100%	100%	100%

Q7a. Does your organization require teleworkers to use authentication methods?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	79%	61%	78%	67%	49%	64%	69%
No	21%	39%	22%	33%	51%	36%	31%
Total	100%	100%	100%	100%	100%	100%	100%

Q7b. If yes, what authentication method do you require?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Two-Factor Authentication	44%	41%	39%	42%	39%	28%	40%
Multi-Factor Authentication	29%	36%	38%	34%	35%	46%	35%
FIDO2	12%	9%	15%	12%	11%	14%	12%
Other (please specify)	15%	14%	8%	12%	15%	12%	13%
Total	100%	100%	100%	100%	100%	100%	100%

Q8. How many business-critical applications does your organization have?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Less than 10	4%	4%	3%	4%	3%	3%	4%
10 to 25	40%	41%	44%	43%	41%	46%	42%
26 to 50	30%	34%	26%	31%	38%	32%	31%
51 to 100	10%	12%	16%	16%	15%	14%	13%
101 to 250	8%	7%	6%	4%	3%	5%	6%
More than 250	8%	2%	5%	2%	0%	0%	4%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	63.70	47.19	54.95	44.31	38.10	39.38	50.69

Part 3: Cybersecurity risks during COVID-19

Q9a. Has your organization experienced a cyberattack in the past 12 months?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	63%	60%	65%	56%	51%	60%	60%
No [Please skip to Q10]	26%	30%	28%	36%	40%	32%	31%
Unsure [please skip to Q10]	11%	10%	7%	8%	9%	8%	9%
Total	100%	100%	100%	100%	100%	100%	100%

Q9b. If yes, what best describes the type of attacks experienced by your organization in the past 12 months? Please select all that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Account takeover	41%	40%	41%	47%	45%	46%	43%
Advanced malware / zero day attacks	23%	23%	25%	27%	27%	22%	24%
Compromised / stolen devices	27%	32%	27%	31%	27%	21%	28%
Credential theft	55%	51%	56%	64%	56%	59%	56%
Cross-site scripting	18%	14%	15%	14%	16%	16%	16%
Denial of services	44%	44%	35%	41%	46%	40%	42%
General malware	45%	50%	44%	43%	34%	31%	42%
Malicious insider	36%	36%	33%	28%	34%	33%	34%
Phishing / social engineering	50%	47%	48%	43%	53%	50%	48%
Ransomware	17%	14%	16%	16%	12%	11%	15%
SQL injection	18%	19%	21%	21%	18%	20%	19%
Web-based attack	32%	34%	34%	40%	39%	43%	36%
Other (please specify)	6%	4%	7%	4%	5%	3%	5%
Total	412%	409%	402%	417%	411%	396%	409%

Q10. Since COVID-19, have any of the following attacks **increased**? Please select all that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Account takeover	50%	38%	57%	51%	48%	50%	49%
Advanced malware / zero day attacks	30%	25%	36%	23%	34%	24%	29%
Compromised / stolen devices	46%	49%	49%	53%	46%	41%	48%
Credential theft	52%	62%	52%	58%	55%	54%	55%
Cross-site scripting	29%	22%	25%	30%	26%	31%	27%
Denial of service	53%	54%	41%	48%	45%	57%	49%
General malware	48%	50%	54%	42%	52%	51%	49%
Malicious insider	44%	52%	45%	43%	43%	42%	45%
Phishing / social engineering	63%	79%	49%	65%	53%	64%	62%
Ransomware	26%	26%	21%	24%	26%	26%	25%
SQL injection	21%	23%	18%	21%	23%	19%	21%
Web-based attack	30%	29%	31%	26%	22%	27%	28%
Other (please specify)	6%	6%	7%	6%	7%	6%	6%
None of these attacks have increased	11%	14%	13%	12%	10%	13%	12%
Total	509%	529%	497%	502%	490%	505%	506%

Q11. Has your organization experienced an attack that specifically leveraged COVID-19 as a threat vector?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	50%	39%	52%	46%	39%	45%	46%
No	46%	56%	41%	47%	55%	50%	48%
Unsure	4%	5%	7%	7%	6%	5%	6%
Total	100%	100%	100%	100%	100%	100%	100%

Q12a. Since COVID-19, has your organization experienced situations when exploits and malware have evaded your intrusion detection system?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	53%	48%	52%	51%	46%	52%	51%
No	40%	43%	41%	43%	45%	41%	42%
Unsure	7%	9%	7%	6%	9%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%

Q12b. Since COVID-19, has your organization experienced situations when exploits and malware have evaded your anti-virus solutions?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	55%	49%	48%	47%	42%	50%	49%
No	38%	41%	43%	46%	50%	44%	43%
Unsure	7%	10%	9%	7%	8%	6%	8%
Total	100%	100%	100%	100%	100%	100%	100%

Q13. Since COVID-19, how has the time to **respond to** a cyberattack changed?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Time has increased significantly	20%	19%	15%	23%	25%	29%	21%
Time has increased	35%	41%	37%	38%	32%	24%	35%
Time has remained unchanged	26%	21%	31%	29%	28%	30%	27%
Time has decreased	11%	10%	10%	6%	8%	9%	9%
Time has decreased significantly	8%	9%	7%	5%	7%	7%	7%
Total	100%	100%	100%	100%	100%	100%	100%

Q14. Please rate the following statements using the agreement scale provided below each item. **Strongly Agree and Agree responses provided**.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Q14a. Since teleworking, cyberattacks experienced by my organization are becoming more **targeted**.	44%	42%	48%	53%	51%	51%	47%
Q14b. Since teleworking, cyberattacks experienced by my organization are becoming more **sophisticated**.	35%	34%	36%	38%	40%	36%	36%
Q14c. Since teleworking, cyberattacks experienced by my organization are becoming more **severe** in terms of negative consequences (such as financial impact).	56%	49%	50%	51%	45%	46%	50%
Q14d. Teleworkers' use of their own mobile devices (BYOD) such as tablets and smart phones to access business-critical applications and IT infrastructure has decreased our organization's security posture.	67%	66%	65%	71%	65%	70%	67%
Q14e. My organization expects teleworking to become the new norm	52%	63%	56%	63%	53%	49%	56%

Q14f. A remote workforce is more productive than an on-site workforce	36%	36%	34%	33%	37%	36%	35%
Q14g. Teleworking has made our organization more efficient.	37%	35%	35%	34%	35%	31%	35%
Q14h. Teleworking has reduced our organization's costs.	48%	53%	58%	66%	68%	84%	60%

Q15. In your opinion, what are the most vulnerable endpoints or entry points to your organization's networks and enterprise systems? Please select all that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Desktops	34%	29%	33%	38%	38%	31%	34%
Laptops	44%	47%	53%	58%	56%	42%	50%
Tablets	29%	27%	23%	21%	20%	22%	24%
Smart phones	58%	57%	52%	48%	54%	58%	55%
Web server	23%	23%	23%	24%	22%	22%	23%
Intranet server	19%	17%	18%	18%	16%	14%	17%
Routers	12%	13%	12%	14%	14%	15%	13%
Portable storage devices (including USBs)	21%	19%	20%	17%	20%	23%	20%
Cloud systems	44%	48%	48%	45%	50%	47%	47%
Mobile devices	50%	51%	49%	44%	43%	45%	48%
Other (please specify)	5%	5%	4%	4%	4%	5%	4%
Total	339%	335%	335%	329%	337%	323%	334%

Q16. Since teleworking how has the use of collaboration tools changed?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Significantly increased	34%	35%	33%	30%	36%	27%	33%
Increased	26%	25%	24%	27%	21%	25%	25%
No change	12%	12%	9%	12%	13%	10%	11%
Decreased	14%	17%	18%	19%	18%	23%	17%
Significantly decreased	9%	8%	9%	7%	8%	9%	8%
Our organization does not use collaboration tools	5%	4%	6%	5%	4%	5%	5%
Total	100%	100%	100%	100%	100%	100%	100%

Q17. What tools does your organization use to enable connectivity and collaboration for teleworkers? Please select all that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Instant messaging systems	34%	38%	42%	52%	62%	59%	45%
Google’s G Suite	29%	31%	29%	26%	21%	20%	27%
Google Docs	43%	44%	44%	37%	35%	33%	40%
Microsoft’s Office 365	41%	33%	30%	27%	25%	27%	32%
Slack	17%	15%	17%	15%	16%	19%	16%
Facebook	19%	19%	19%	21%	15%	17%	19%
Twitter	21%	23%	21%	20%	20%	23%	21%
Instagram	19%	20%	24%	22%	25%	27%	22%
Google’s Focus Mode	11%	14%	15%	12%	14%	15%	13%
TeamViewer	9%	7%	8%	8%	6%	7%	8%
Splashtop	8%	8%	9%	9%	7%	8%	8%
Other (please specify)	3%	3%	3%	5%	5%	3%	4%
Total	254%	254%	261%	253%	251%	258%	255%

Q18. What video conferencing tools does your organization use? Please select all that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Zoom	50%	35%	30%	32%	27%	28%	36%
GoToMeeting	47%	32%	37%	3%	39%	37%	34%
GoogleMeets	18%	18%	19%	18%	20%	21%	19%
Skype for Business	34%	33%	40%	33%	31%	31%	34%
Bluejeans	12%	11%	11%	8%	10%	11%	11%
Meeting Owl	9%	9%	9%	10%	9%	10%	9%
SlackVideo	7%	7%	6%	6%	5%	4%	6%
WebEx	43%	42%	43%	52%	54%	47%	46%
Other (please specify)	5%	6%	7%	6%	7%	7%	6%
Total	225%	193%	201%	169%	202%	197%	201%

Q19a. How concerned is your organization that teleworkers are prime targets for those wishing to exploit vulnerabilities on a scale of 1 = no concern to 10 = extremely concerned?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
1 or 2	8%	11%	7%	15%	16%	15%	11%
3 or 4	9%	15%	8%	12%	13%	15%	12%
5 or 6	16%	22%	21%	25%	21%	23%	21%
7 or 8	30%	32%	23%	23%	20%	23%	26%
9 or 10	37%	20%	41%	25%	28%	24%	31%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	7.08	6.21	7.16	6.12	6.08	6.02	6.57

Q19b. How concerned is your organization that teleworkers are putting it at risk for a data breach on a scale of 1 = no concern to 10 = extremely concerned?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
1 or 2	6%	8%	7%	9%	6%	8%	7%
3 or 4	5%	9%	9%	8%	5%	5%	7%
5 or 6	17%	16%	16%	12%	13%	7%	14%
7 or 8	29%	28%	24%	23%	25%	37%	27%
9 or 10	43%	39%	44%	48%	51%	43%	44%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	7.46	7.12	7.28	7.36	7.70	7.54	7.39

Q19c. How effective is your organization in reducing cybersecurity risks created by teleworking on a scale of 1 = not effective to 10 = highly effective?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
1 or 2	14%	13%	13%	15%	13%	16%	14%
3 or 4	15%	19%	16%	17%	15%	13%	16%
5 or 6	21%	25%	31%	28%	23%	23%	25%
7 or 8	23%	20%	19%	20%	25%	23%	22%
9 or 10	27%	23%	21%	20%	24%	25%	24%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	6.18	5.92	5.88	5.75	6.14	6.06	6.00

Part 4. Data breach experience

Q20a. Has your organization experienced an incident involving the loss or theft of sensitive information about customers, target customers or employees (a.k.a. data breach) in the past 12 months?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	50%	44%	39%	40%	43%	40%	44%
No [Please skip to Q21]	50%	56%	61%	60%	57%	60%	56%
Total	100%	100%	100%	100%	100%	100%	100%

Q20b. If yes, with respect to your organization’s largest breach over the past 12 months, how many individual records were lost or stolen?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Less than 100	28%	28%	30%	38%	40%	39%	32%
100 to 500	21%	32%	24%	19%	14%	13%	21%
501 to 1,000	19%	19%	21%	22%	24%	22%	21%
1,001 to 10,000	13%	11%	9%	11%	13%	16%	12%
10,001 to 50,000	10%	5%	11%	10%	9%	10%	9%
50,001 to 100,000	6%	3%	3%	1%	0%	1%	3%
100,001 to 1,000,000	3%	2%	1%	0%	0%	0%	1%
More than 1,000,000	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	101%	100%
Extrapolated value	12,935	7,598	7,822	4,534	3,647	4,857	7,819

Q20c. If yes, what were the root causes of the data breaches experienced by your organization in the past 12 months? Please select that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Malicious insider	31%	33%	41%	47%	52%	47%	40%
External (hacker) attacks	52%	63%	59%	47%	37%	36%	51%
Negligent employee or contractor	35%	36%	34%	33%	29%	30%	33%
Error in system or operating process	31%	29%	30%	35%	27%	25%	30%
Third party mistakes	42%	36%	42%	50%	40%	41%	42%
Other (please specify)	7%	5%	6%	6%	5%	6%	6%
Don’t know	4%	3%	2%	4%	3%	6%	4%
Total	202%	206%	214%	223%	193%	191%	206%

Q21a. Does your organization have an incident response plan for responding to cyberattacks and data breaches?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	76%	63%	77%	67%	65%	69%	70%
No	20%	32%	20%	26%	26%	26%	24%
Unsure	4%	5%	3%	7%	9%	5%	5%
Total	100%	100%	100%	100%	100%	100%	100%

Q21b. If yes, has your organization made any changes due to teleworking?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	62%	63%	55%	52%	57%	69%	59%
No	30%	32%	38%	42%	39%	26%	44%
Unsure	8%	5%	7%	6%	4%	5%	6%
Total	100%	100%	100%	100%	100%	99%	100%

Part 5. What steps is your organization taking to manage cybersecurity risks?

Strongly Agree and Agree responses provided.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Q22a. My organization’s IT security budget is adequate for managing and mitigating cybersecurity risks caused by teleworking.	40%	43%	46%	48%	54%	45%	45%
Q22b. My organization has the necessary in-house expertise to manage and mitigate cybersecurity risks caused by teleworking.	36%	39%	39%	39%	41%	47%	39%

Q23. Has your organization assessed the risk of teleworking?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	60%	43%	65%	52%	56%	51%	55%
No	31%	48%	28%	40%	37%	43%	37%
Unsure	9%	9%	7%	8%	7%	6%	8%
Total	100%	100%	100%	100%	100%	100%	100%

Q24.Does your organization inform and educate remote workers about the risks created by teleworking?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes, we currently provide such information and education	50%	32%	56%	36%	33%	45%	43%
No, but we are planning to provide such information and education	26%	39%	29%	41%	39%	32%	33%
No	24%	29%	15%	24%	28%	23%	23%
Total	100%	100%	100%	100%	100%	100%	100%

Q25. Does your organization have a policy on the security requirements for teleworkers?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	47%	43%	59%	51%	50%	46%	50%
No	53%	57%	41%	49%	50%	54%	51%
Total	100%	100%	100%	100%	100%	100%	100%

Q26. If yes, what does the policy cover? Please select all that apply	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
The importance of password hygiene	56%	63%	71%	60%	63%	70%	63%
Prevention of laptops and devices from loss or theft	42%	36%	39%	35%	33%	31%	37%
Protection of personal devices used for business activities with up-to-date antivirus	54%	62%	63%	59%	56%	69%	60%
Designation of which devices (company-owned and/or employee-owned) can be used for which kinds of business activity	38%	37%	35%	37%	42%	48%	38%
What constitutes a suspicious email and how to handle it	42%	34%	31%	28%	21%	21%	32%
Prohibition of the use of public WiFi and shared computers for work-related activities	34%	35%	35%	33%	32%	37%	34%
If using WiFi at home how to make sure the network is set up securely	41%	40%	40%	41%	42%	39%	41%
None of the above	11%	10%	10%	8%	8%	8%	9%
Other (please specify)	4%	4%	5%	6%	5%	5%	5%
Total	322%	320%	327%	308%	301%	328%	318%

Q27. What steps does your organization take to create a secure teleworking environment? Please select all that apply.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Protect company-owned devices with up-to-date antivirus, device encryption and firewalls	44%	54%	51%	48%	42%	36%	47%
Require the use of a password manager	37%	34%	37%	35%	34%	31%	35%
Monitor the network 24/7	35%	40%	44%	51%	60%	70%	47%
Institute the necessary security protocols to keep the network safe	49%	52%	50%	55%	66%	53%	53%
Encryption of sensitive data stored on devices	53%	54%	57%	45%	45%	40%	50%
Other (please specify)	5%	5%	6%	7%	6%	6%	6%
Total	223%	259%	257%	299%	246%	222%	250%

Q28. Which of the following security technologies have been the most effective in helping your organization improve its cybersecurity posture. Please select your top ten (10) choices.	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Anti-virus / anti-malware	34%	35%	45%	22%	37%	34%	35%
Artificial intelligence	21%	20%	24%	18%	20%	26%	21%
Big data analytics for cybersecurity	34%	36%	42%	32%	40%	35%	36%
Code review and debugging systems	27%	33%	29%	34%	33%	37%	31%
Data loss prevention (DLP)	53%	53%	55%	56%	48%	45%	52%
Data tokenization technology	25%	24%	29%	37%	24%	29%	28%
DDoS solutions	33%	40%	32%	23%	31%	44%	33%
Encryption for data at rest	39%	38%	34%	33%	31%	38%	36%
Encryption for data in motion	41%	49%	45%	47%	53%	53%	47%
Endpoint security solution	50%	54%	56%	68%	59%	53%	56%
Governance solutions (GRC)	49%	51%	47%	41%	41%	46%	46%
Identity management & authentication	65%	65%	71%	73%	83%	84%	71%
Incident response platform	52%	50%	46%	43%	44%	48%	48%
Intrusion detection & prevention systems	52%	43%	49%	51%	50%	50%	49%
Machine learning	30%	31%	33%	39%	40%	49%	35%
Network traffic surveillance	45%	51%	45%	55%	34%	31%	45%
Next generation firewalls	41%	36%	35%	48%	47%	24%	39%
Orchestration & automation	55%	55%	54%	56%	56%	37%	53%
Security information and event management (SIEM)	59%	54%	46%	47%	42%	51%	51%
User Behavioral Analytics (UBA)	53%	53%	48%	50%	52%	55%	51%
Virtual private networks (VPN)	63%	48%	59%	61%	59%	62%	59%
Web application firewalls (WAF)	43%	40%	36%	33%	40%	32%	38%
Wireless security solutions	32%	33%	33%	28%	26%	29%	31%
Other (please specify)	4%	6%	9%	7%	9%	8%	7%
Total	1000%	1000%	1000%	1000%	1000%	1000%	1000%

Part 6. The cost of compromises

Q29a. Approximately, how much did damage or theft of IT assets and infrastructure cost you organization over the past 12 months?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
We had no compromises [Please skip to Q 30a]	40%	36%	43%	45%	49%	42%	42%
Less than $5,000	0%	2%	1%	2%	1%	2%	1%
$5,001 to $10,000	1%	2%	2%	3%	2%	3%	2%
$10,001 to $50,000	0%	1%	1%	5%	0%	3%	1%
$50,001 to $100,000	1%	12%	4%	8%	7%	11%	6%
$100,001 to $250,000	2%	5%	6%	6%	5%	9%	5%
$250,001 to $500,000	4%	6%	6%	6%	8%	9%	6%
$500,001 to $999,999	5%	8%	7%	6%	5%	8%	6%
$1 million to $5 million	6%	5%	4%	4%	6%	4%	5%
$5 million to $10 million	21%	11%	13%	1%	9%	1%	11%
More than $10 million	20%	12%	13%	14%	8%	8%	14%
Cannot determine	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	4,211,825	2,518,827	2,745,581	1,982,372	1,895,424	1,293,826	2,731,882

Q29b. Approximately, how much did disruption to normal operations cost your organization over the past 12 months?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
We had no compromises [Please skip to Q 30a]	40%	36%	43%	45%	49%	42%	42%
Less than $5,000	0%	3%	2%	1%	0%	2%	1%
$5,001 to $10,000	0%	2%	3%	2%	0%	3%	1%
$10,001 to $50,000	1%	2%	0%	4%	2%	3%	2%
$50,001 to $100,000	2%	6%	5%	9%	6%	8%	5%
$100,001 to $250,000	7%	8%	8%	10%	7%	7%	8%
$250,001 to $500,000	6%	6%	5%	6%	9%	9%	6%
$500,001 to $999,999	5%	9%	7%	5%	4%	8%	6%
$1 million to $5 million	3%	5%	4%	4%	5%	7%	4%
$5 million to $10 million	19%	12%	13%	7%	10%	4%	12%
More than $10 million	17%	10%	10%	7%	8%	5%	11%
Cannot determine	0%	0%	0%	0%	0%	0%	0%
Total	100%	99%	100%	100%	100%	98%	100%
Extrapolated value	3,629,050	2,362,422	2,385,703	1,555,987	1,941,100	1,220,409	2,415,875

Q30a. Have you had an attack involving the compromise of employees’ passwords in the past year?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Yes	42%	43%	36%	37%	42%	48%	41%
No	50%	51%	55%	54%	48%	45%	51%
Unsure	8%	6%	8%	9%	10%	7%	8%
Total	100%	100%	100%	100%	100%	100%	100%

Q30b. If yes, on average how much did each attack cost your organization?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Less than $10,000	3%	5%	3%	5%	6%	7%	4%
$10,001 to $50,000	7%	17%	19%	21%	29%	24%	24%
$50,001 to $100,000	11%	21%	17%	23%	23%	16%	18%
$100,001 to $250,000	20%	28%	22%	29%	20%	19%	23%
$250,001 to $500,000	30%	19%	30%	17%	19%	31%	25%
$500,001 to $1,000,000	18%	8%	6%	5%	3%	3%	9%
More than $1,000,000	11%	2%	4%	0%	0%	0%	4%
Cannot determine	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%
Extrapolated value	425,000	225,350	262,197	175,800	155,000	191,319	267,408

Part 7. Role & Organizational Characteristics

D1. What best describes your position level within the organization?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Business owner	7%	8%	8%	8%	7%	9%	8%
C-level executive/VP	12%	10%	10%	8%	10%	8%	10%
Director	15%	22%	19%	12%	11%	10%	15%
Manager	19%	18%	16%	21%	20%	20%	19%
Supervisor	14%	12%	17%	19%	19%	25%	17%
Staff/technician	20%	17%	16%	20%	21%	15%	18%
Administrative	6%	5%	5%	6%	5%	5%	5%
Consultant/contractor	7%	6%	6%	5%	7%	6%	6%
Other (please specify)	0%	2%	1%	0%	1%	2%	1%
Total	100%	100%	100%	100%	100%	100%	100%

D2. Which of the following commands do you report to in your current role?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Business owner/board	7%	6%	3%	5%	5%	6%	5%
CEO/executive committee	4%	4%	4%	3%	4%	3%	4%
COO or head of operations	1%	2%	2%	0%	2%	1%	1%
CFO, controller or head of finance	0%	1%	1%	2%	1%	0%	1%
CIO or head of corporate IT	38%	45%	48%	40%	43%	44%	43%
Business unit leader or general manager	9%	9%	8%	9%	10%	11%	9%
Head of compliance or internal audit	5%	4%	5%	4%	6%	7%	5%
Head of risk management	6%	7%	6%	7%	4%	5%	6%
Head of IT security	30%	20%	21%	29%	24%	23%	25%
Other (please specify)	0%	1%	2%	1%	2%	0%	1%
Total	100%	100%	100%	100%	100%	100%	100%

D3. What best describes your organization's primary industry classification?	US	UK	DACH	Benelux	Scandinavia	ANZ	Total
Aerospace & defense	1%	1%	0%	1%	0%	2%	1%
Agriculture & food services	2%	2%	1%	2%	3%	3%	2%
Communications	1%	2%	1%	2%	1%	1%	1%
Construction and real estate	3%	3%	4%	1%	3%	3%	3%
Consumer goods	5%	5%	7%	5%	8%	4%	6%
Consumer products	4%	4%	3%	1%	2%	3%	3%
Education & research	2%	1%	3%	2%	3%	2%	2%
Entertainment, media and publishing	3%	3%	1%	3%	2%	2%	2%
Financial services	18%	17%	18%	14%	16%	17%	17%
Healthcare	6%	5%	4%	6%	5%	6%	5%
Industrial	8%	7%	8%	10%	10%	8%	8%
Logistics and distribution	5%	5%	6%	7%	5%	7%	6%
Manufacturing	3%	2%	3%	2%	2%	0%	2%
Pharmaceuticals	2%	2%	1%	2%	3%	1%	2%
Public sector	9%	11%	13%	12%	12%	14%	11%
Retailing	8%	8%	7%	9%	7%	8%	8%
Services	7%	8%	10%	9%	8%	8%	8%
Technology & software	8%	9%	6%	7%	8%	7%	7%
Transportation	2%	2%	3%	3%	2%	2%	2%
Other	3%	3%	3%	3%	0%	3%	2%
Total	100%	100%	100%	100%	100%	100%	100%