

The Total Economic Impact™ Of Microsoft 365 Enterprise E5

Cost Savings And Business Benefits
Enabled By Microsoft 365 E5

December 2020

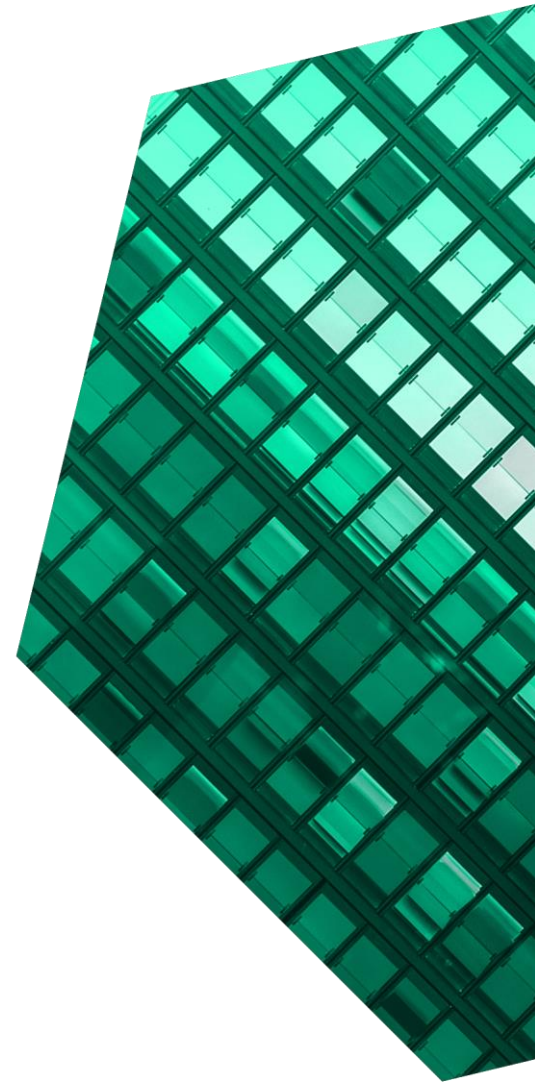
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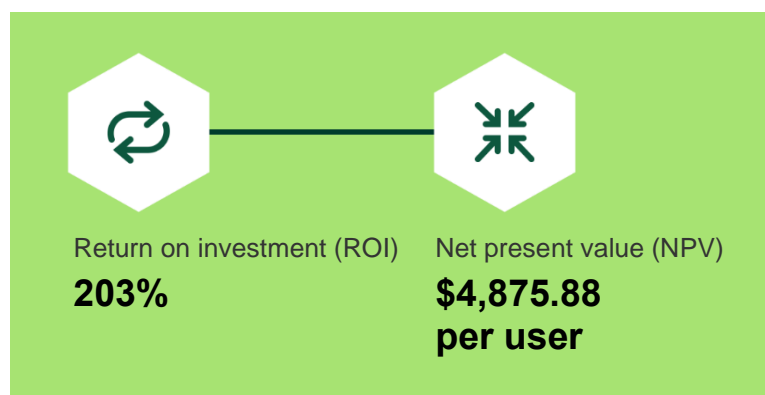
Executive Summary

Organizations need to evolve their digital processes to stay competitive in the age of the customer.¹ And this is no easy task. Organizations need to enable remote work, improve the way their employees communicate and collaborate, and tackle an ever-increasing list of security threats, government mandates, and evolving customer expectations — all while reducing costs. The organizations that do this well will succeed in the face of adversity.

Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying [Microsoft 365 E5](#). The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Microsoft 365 E5 on their organizations.

In particular, this study is focused on the cost savings an organization can achieve with Microsoft 365 E5 by: 1) consolidating its solution stack; 2) optimizing its IT administration team by leveraging Microsoft Endpoint Manager; 3) reducing the risk and severity of a security incident; 4) reducing its own real estate and travel expenses by making meetings remote and allowing more employees to work remotely; and by 5) increasing the productivity of its employees through the enhanced collaboration feature.

When upgrading from Microsoft 365 E3 to Microsoft 365 E5, organizations gain additional telephony, analytics, and security features. Microsoft 365 Enterprise E5 is the most feature-rich version of Microsoft 365, consisting of Office 365, Windows 10, and Enterprise Mobility + Security (EMS). It provides the collaboration, productivity, automation, and security features an enterprise customer may need to support its digital business transformation initiatives under one license, streamlining its deployment and utilization.



To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed 10 customers and surveyed 923 customers with experience using Microsoft 365 E5. For the purposes of this study, Forrester aggregated the experiences of the interviewed and surveyed customers and combined the results into a single [composite organization](#). Prior to moving to Microsoft 365, customers typically had a mix of Microsoft E3 licenses and on-premises and software-as-a-service (SaaS) calling and security solutions. The interviewed customers often had duplicate communications capabilities, with some customers having more than five different chat and conferencing solutions. The lack of standardization led to disjointed processes, inefficient work practices, and fragmented technology experiences that hampered performance and employee productivity. Users found both in-person and remote collaboration to be challenging.

IT teams are in a difficult situation: They're being asked to address an ever-increasing — and varying — set of security threats, but the ways they've traditionally addressed these challenges, i.e., buying more software and allocating more resources, only increase the complexity of their environment and pose their own challenges. According to Forrester Analytics' Business Technographics® Business And Technology Services Survey, 2020, enterprise endpoint security decision-makers cite the complexity of their IT environment as the biggest IT security challenge their organization faces.² The interviewed organizations needed a way to address their security challenges while also decreasing the complexity of their environment.

After the investment in Microsoft 365 E5, the customers were able to significantly simplify their IT environment by consolidating with Microsoft 365. Adopting the Microsoft solutions enabled the interviewees to cancel now-redundant software and retire on-premises hardware, saving them money and freeing up resources. The applications within Microsoft 365 E5 helped the interviewees automate governance, risk, and compliance activities (GRC), helping them improve their security posture and comply with regulatory requirements with fewer resources.

Meanwhile, the additional security and calling features afforded by Microsoft 365 E5 made users more productive by enabling them to work from anywhere.



Monthly user licensing and support savings with consolidation

\$70.20/user

By moving 10,000 users to Microsoft 365 E5 from E3, the composite organization experiences benefits of \$72.7 million over three years versus costs of \$24.0 million, adding up to a net present value (NPV) of \$48.7 million (\$4,872.52 per user) and an ROI of 203%.

Percent of threats automatically eliminated or contained:

97%



KEY FINDINGS

Quantified benefits. By moving 10,000 users to Microsoft 365 E5, the composite organization recognized the following risk-adjusted present value (PV) quantified benefits:

Security and management benefits.

- **Eliminated 50% of security and communication help desk calls and decreased the average resolution time by 15%.** Connecting applications to Azure AD for single sign-on (SSO) and multifactor authentication (MFA) makes it easier for users — especially remote workers — to access the applications they need, reducing the number of submitted application support tickets. Additionally, the composite organization experiences fewer security false positives, saving security teams' time. When security incidents did occur, Microsoft Defender was able to detect and remediate over 90% of security incidents automatically, preventing the spread of a security attack. These reductions save the organization \$163.00 per user over three years.
- **Reduced the resources required for audit and compliance management by 25%, saving \$171.00 per user.** The advanced audit and

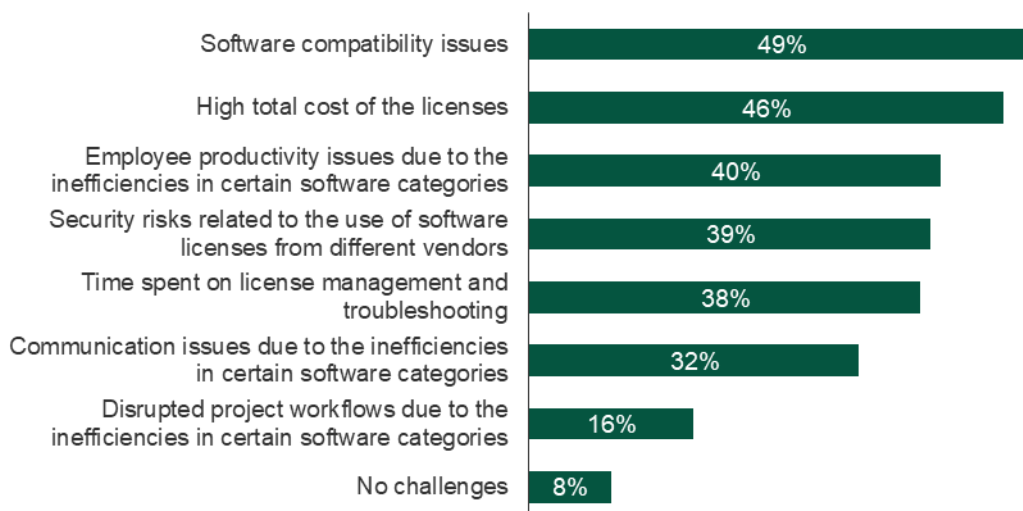
discovery capabilities in Microsoft 365 E5 make it easier for the security and compliance personnel in the composite organization to audit their environment and understand the policies they need to implement to comply with internal and external governance requirements. Additionally, because the composite organization has consolidated under the Microsoft platform, its security team can enforce policies faster and with less effort.

- **Reduced the time spent deploying and managing new software by 24%.** Deploying software, managing updates, troubleshooting, and supporting end users all become much easier with Microsoft Endpoint Manager. Additionally, the modern management capabilities offered by Intune enables the composite organization to reallocate almost seven FTEs to other tasks.
- **Accelerated the process to set up end users on new devices by 75%.** Azure AD app connection, SSO and MFA enablement, and the increased endpoint stability offered by Microsoft consolidation of security and management solutions all point to a reduction in time spent

setting up a user on a new device. Because setups are faster and more efficient, end users need less additional help in the weeks following setup.

- **Increased the efficiency of security teams by 50%.** With the improved threat telemetry, automation, and intelligent remediation capabilities offered by Microsoft 365 E5, IT teams can address threats before they become an issue and they can analyze and remediate threats more quickly than before. Meanwhile, identity access management (IAM) teams find it easier to manage and secure their environment after moving to Azure AD; features such as Conditional Access easily allow IAM teams to provide access to their end users and better secure their environments.
- **Reduced the risk of security breach by 50%.** The interviewees noted that they were detecting more threats with Microsoft's security products. Over 90% of these threats were being automatically detected and remediated before they had the opportunity to cause serious harm. This helps reduce the risk of a security incident and the associated potential harm to an

“Which, if any, of the following challenges related to vendor license management does your organization experience?”



Base: 771 total ITDMs

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

organization's brand and customer engagement. The reduction in risk is valued at \$69.00 per user over three years.

Business benefits.

- **Decreased licensing spend by an average of \$70.20 per user per month.** The robust security, analytics, and communications solutions offered by Microsoft 365 E5 enabled the composite organization to retire now-redundant, third-party solutions and hardware related to: endpoint and cloud security and management; IAM infrastructure; SSO solutions; on-premises private branch exchange (PBX) systems, or a business telephone system; and analytics software. Organizations can further reduce their spending on telephony by using Teams to conduct calls. In total, the composite organization saves \$1,990 per user over three years.
- **Reduced travel and expense costs by 32% by Year 3, saving \$1,388 per user.** The interviewees reported that they could shift onsite meetings to Teams without affecting quality. By conducting these meetings remotely, the interviewed organizations saved substantial amounts of money on airfare, meals, insurance, and other costs.
- **Increased the percent of remote workers by 20%, reducing real estate costs.** The interviewees reported that their organizations would increase their remote workforce after the stay-at-home orders are lifted in their regions. The interviewed organizations realized that the security and collaborative features provided by Microsoft 365 E5 made remote workers just as productive as office workers. In response, the interviewees expanded their remote work programs, improving employee retention and satisfaction while also enabling a long-term reduction in their real estate footprint.
- **End users save over 50 hours per year due to the productivity improvements offered by Microsoft 365 E5.** The enhanced communication and collaboration features provided by Teams,

“Since moving to Microsoft 365, have you created bots or automated workflows for any of the following business processes?”



Base: 771 total ITDMs

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

coupled with the reduced support needs users experienced after moving to Microsoft 365 E5, help users be more productive than before. Moreover, many organizations used the forecasting and analysis features available through Power BI to improve utilization rates, further improving productivity. These time savings are valued at \$13.2 million over three years.

Unquantified benefits. Benefits that are not quantified for this study include:

- **Transition from capex to opex.** Because Microsoft E5 is a pure SaaS offering, organizations can quickly expand or contract their environment without needing to purchase additional hardware or dedicate resources to implement changes. Recurring monthly charges also offer a cash-flow benefit over upfront licensing.
- **Reduce the likelihood of regulatory fines.** The security features in E5 help organizations adhere to a wide range of regulatory requirements, reducing the number of non-compliance penalties an organization could incur.
- **Increase internal developer efficiency gains.** Enterprise developers no longer need to expend time and energy on authentication because the Microsoft Authentication Library (MSAL) makes it easy for developers to add identity capabilities to their applications, and Microsoft Graph API offers a single endpoint for developers to access Azure AD APIs.

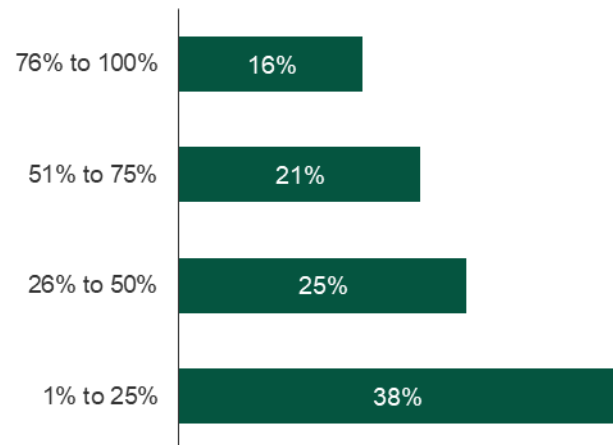
Costs. Risk-adjusted PV costs include:

- **Initial implementation and planning costs of \$1.2 million.** The composite organization dedicates internal resources to the deployment of Microsoft 365 E5 and the retirement of its legacy solutions. The composite organization also engages with a Microsoft partner to: create an

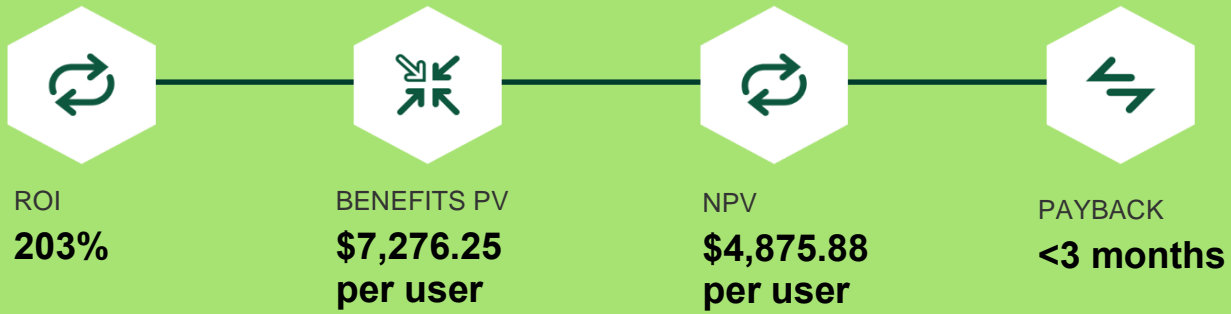
adoption roadmap; assist in deploying the various workloads in E5; and conduct adoption and change management workshops.

- **Microsoft licensing costs of \$18 million.** The composite organization pays \$57.00 per license per month for its 10,000 Microsoft 365 E5 users.
- **Ongoing management costs of \$5.7 million.** The composite organization dedicates internal resources to manage its Microsoft 365 E5 applications.
- **Additional bandwidth investment of \$410K.** The composite organization invests in additional bandwidth to accommodate Teams voice and conferencing solutions, cloud storage, and document sharing.

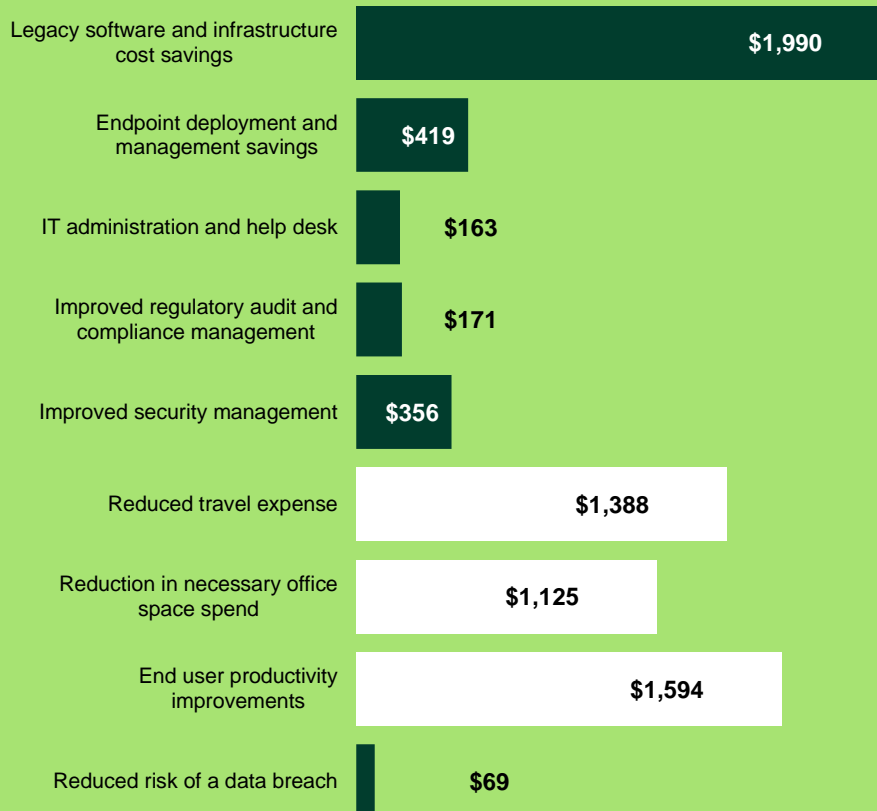
“About how much was your organization able to reduce total software license spend by consolidating licenses?”



Base: 569 total ITDMs who were able to reduce spend by consolidating licenses
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020



Benefits Per User (Three-Year)



IT benefits: \$3,168.15 per user

Business benefits: \$4,104.73 per user

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews and survey, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in the Microsoft 365 E5.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that the Microsoft 365 E5 can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Microsoft and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in the Microsoft 365 E5.

Microsoft reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

Microsoft provided the customer names for the interviews but did not participate in the interviews. Forrester fielded the double-blind survey using a third-party survey partner.



DUE DILIGENCE

Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to the Microsoft 365 E5.



CUSTOMER INTERVIEWS AND SURVEY

Interviewed 10 decision-makers and surveyed 923 decision-makers at organizations using the Microsoft 365 E5 to obtain data with respect to costs, benefits, and risks.



COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed and surveyed organizations.



FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews and survey using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.



CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

The Microsoft 365 E5 Customer Journey

■ Drivers leading to the Microsoft 365 E5 investment

KEY CHALLENGES

Forrester interviewed 10 organizations and surveyed 923 organizations with experience using Microsoft 365 E5. For more details on the organizations that participated in this study, see [Appendix B](#).

The organizations struggled with common challenges, including:

- **IT teams struggled to manage both security and communication costs.** According to Forrester Analytics' Global Business Technographics Technology data, 60% of enterprise security decision-makers reported that the percentage of their IT budget dedicated to security increased. Additionally, Forrester found that enterprise spending on security increased from 21% in 2019 to 34% in 2020. For many of the interviewees, this kind of continued growth was untenable. The interviewees knew they needed a way to reduce costs while improving their security posture.

The interviewed organizations faced similar issues when it came to communication costs. Interviewees explained that their organizations dedicated substantial resources to manage their PBX systems and spent huge sums of money on calling plans.

- **Existing communications solutions failed to meet their needs.** The interviewees believed that they could reduce communication costs by switching to a SaaS solution for many of their communication needs. All of the interviewees reported that their organizations already had several communication solutions, but none reduced costs. No one solution met all of the needs of any one interviewee. Governing and securing existing solutions was difficult, i.e., it was an issue that was amplified by the number of solutions organizations had. Users struggled to

use all of the different solutions available to them, all while support costs increased and adoption decreased.

- **End users struggled to work remotely.** End users had limited access to important business applications and files when working remotely; additionally, they experienced limited bandwidth due to their VPN solutions. IT teams also struggled to manage the devices of remote workers. These issues led to remote workers being less productive and submitting more support tickets than their office counterparts.

“We liked Teams and wanted to provide users as much videoconferencing and audio capabilities as possible. Power BI and the identity access management tools provided analytics and expanded security capabilities we wanted.”

Head of architecture, media

SECURITY CHALLENGES

In addition to the licensing and infrastructure costs noted above, security teams faced a range of challenges that stretched their teams thin and left their environments vulnerable to attack:

- **Shadow IT posed a security threat and increased costs.** Departments addressed their particular needs by buying additional software, which often circumvented IT review and procurement cycles. These investments increased IT costs for the interviewed organizations and opened them up to security

risks. The interviewees believed that providing better solutions would reduce the shadow IT in their organizations and the associated costs and risks.

- **Proactive remediation and threat reduction was difficult with prior solutions.** Existing security solutions lacked the telemetry capabilities modern security professionals needed to effectively address security vulnerabilities. Prior solutions lacked the ability to provide telemetry on a threat's effect on data, a user's exact activity on the network, or effective timeline for effective remediation. Additionally, because the interviewees used security solutions from numerous vendors, consolidating telemetry information for triage and analytical work was difficult and time-consuming.
- **IAM teams struggled to manage their environment while empowering end users.** The legacy infrastructure at the interviewees' organizations, coupled with multiple, disjointed IAM solutions, made it difficult for IAM teams to

meet security requirements and the needs of their users. Legacy infrastructure was difficult to maintain and prone to downtime, leaving little time to address growing security expectations. Meanwhile, users — especially remote workers — struggled to remember all of the access methods and passwords for the various applications they needed.

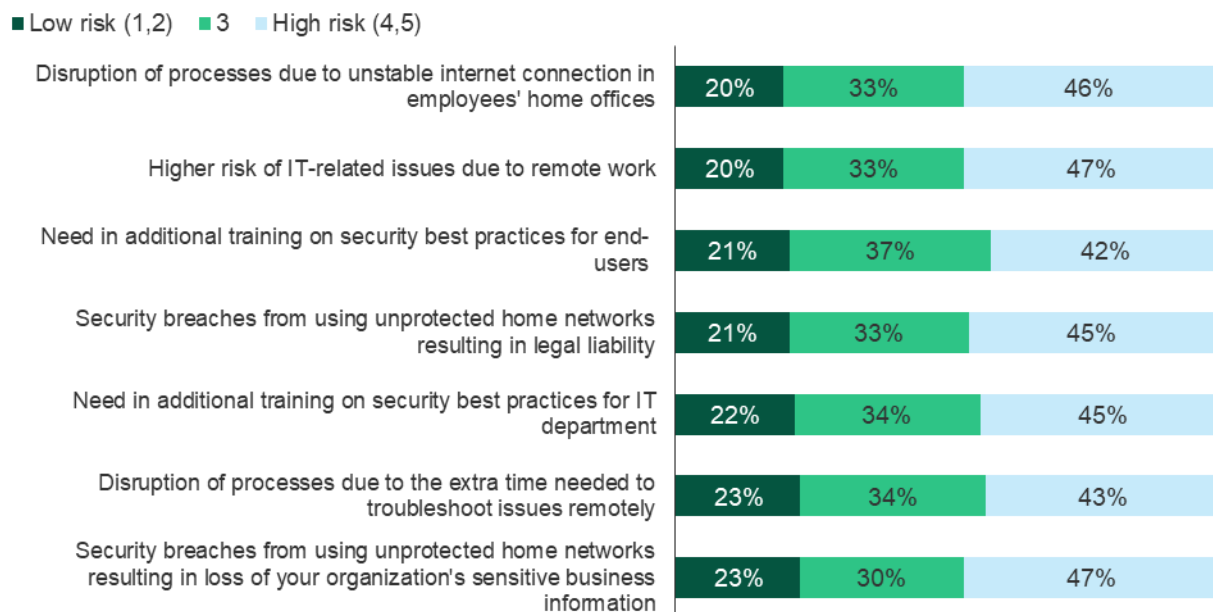
- **Struggled to comply with regulatory requirements.** The complexity of their IT environment made it difficult for the interviewees to audit their environment or effectively implement governance policies. The interviewees wanted to find a way to make it easier to comply with these requirements.

SOLUTION REQUIREMENTS AND INVESTMENT OBJECTIVES

The interviewed organizations wanted to:

- Simplify their IT environment by moving workloads to the cloud and consolidating and

“Based on your organization's current software and security protocols, how do you evaluate the risks associated with partial transitioning of employees to remote work?”



Base: 771 total ITDMs

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

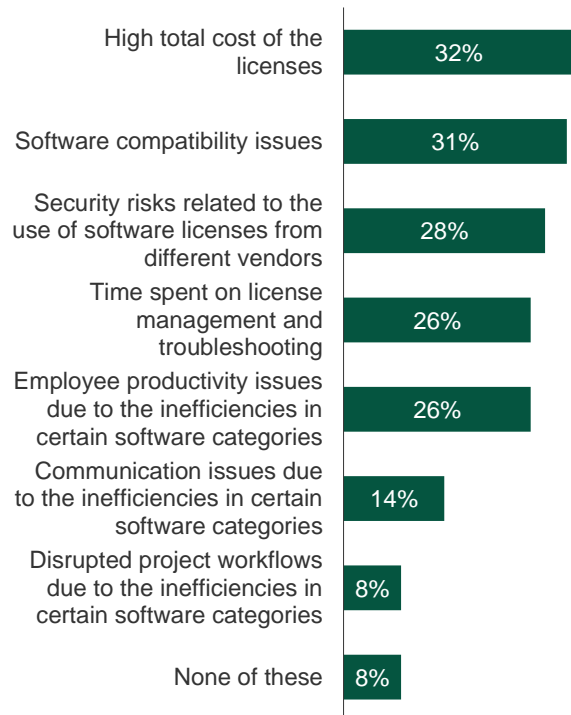
standardizing security and communications software.

- Reduce IT spending, especially around security and communications.
- Automate security tasks and simplify management to alleviate the pressure placed on their security teams.
- Enable IT to spend less time maintaining their environment and more time innovating.
- Provide employees with robust collaboration tools to enhance remote work.
- Strengthen their security posture and reduce the risk of a breach or a regulatory penalty.
- Create a fully functioning digital workplace, reducing travel and office expenses.
- Leverage analytic tools to make better business decisions.

“Basically, we were looking for solutions for some areas of security, especially identity and access management, data protection, and information protection. For all of these we wanted a best-of-breed solution, and we found migrating to E5 would solve all of these problems without adding much of the cost and especially without adding much of the support and administration cost. So, we are using Windows Hello. We are using Credential Guard. We are using Direct Access. We use Active Directory from Azure. All these features provided by E5. We have Microsoft Defender as well for antivirus. All these things reduce complexity and cost as well, while improving security.”

Chief data officer, restaurant

“Which of these challenges are fueled by your organization's expected partial transition to remote work (post-COVID-19)?”



Base: 703 total IT decision-makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

COMPOSITE ORGANIZATION

Based on the interviews and survey, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the 10 companies that Forrester interviewed and the 923 companies that Forrester surveyed, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The composite organization is based in the United States and has global operations. It has 10,000 users with Microsoft 365 E5 licenses.

Prior to moving to Microsoft 365, customers typically had M365 E3 licenses, and a combination of on-premises and SaaS calling and security solutions. The composite organization also used a number of third-party chat, video, and conferencing systems as well as threat-hunting and remediation tools.

Deployment characteristics. The composite organization has adopted most of the products under Microsoft 365 E5. It leverages all of the security, identity and access management, analytics, and communication features available through Microsoft 365 E5.

Key assumptions

- 10,000 E5 users
- \$120K average IT support salary
- \$125K average IT security salary
- \$65K average knowledge worker salary
- 2% annual inflation in salaries
- 6 help desk calls per user annually
- \$25 million annual travel and expense budget
- \$780 average monthly lease expense per employee

Analysis Of Benefits

■ Quantified benefit data as applied to the composite

Total Benefits						
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Vendor License Cost Consolidation						
Atr	Legacy software and infrastructure cost savings	\$8,002,800	\$8,002,800	\$8,002,800	\$24,008,400	\$19,901,779
IT Admin And Deployment Savings						
Btr	Endpoint deployment and management time savings	\$1,653,204	\$1,688,341	\$1,723,478	\$5,065,023	\$4,193,110
Ctr	IT administration and help desk	\$655,500	\$655,500	\$655,500	\$1,966,500	\$1,630,131
Reduce Total Cost Of Risk						
Dtr	Improved regulatory audit and compliance management	\$675,000	\$688,500	\$702,270	\$2,065,770	\$1,710,270
Etr	Improved security management and operations	\$1,406,250	\$1,434,375	\$1,463,063	\$4,303,688	\$3,563,063
Ft	Reduced risk of a data breach	\$279,424	\$279,424	\$279,424	\$838,272	\$694,886
Physical And T&E Cost Displacement						
Gtr	Reduced travel expense	\$3,800,000	\$5,700,000	\$7,600,000	\$17,100,000	\$13,875,282
Ht	Reduction in necessary office space spend	\$0	\$0	\$14,976,000	\$14,976,000	\$11,251,690
Save On Automation And Process Improvement						
Itr	End user productivity improvements	\$6,297,560	\$6,418,280	\$6,539,000	\$19,254,840	\$15,942,266
	Total benefits (risk-adjusted)	\$22,752,591	\$24,852,888	\$41,933,192	\$89,538,671	\$72,728,777

LEGACY SOFTWARE AND INFRASTRUCTURE COST SAVINGS

Evidence and data. Microsoft 365 E5 provides enterprises with a full suite of productivity, communication, and security tools. When upgrading from Microsoft 365 E3 to Microsoft 365 E5, organizations gain additional telephony, analytics, and security features. Having these capabilities under one vendor, with one license, makes it easier for organizations to manage their IT environment.

Organizations are also able to discontinue redundant third-party security, communication, and collaboration software and hardware. This includes everything from antivirus and malware subscriptions to PBX and exchange servers.

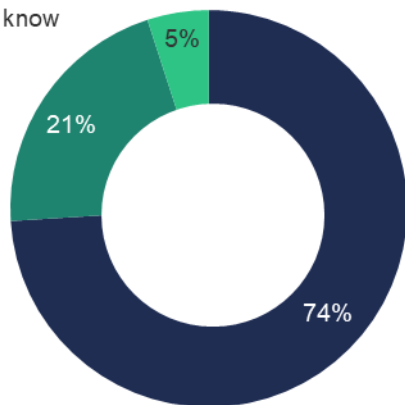
Modeling and assumptions. Factors impacting savings for the composite organization include:

- The composite organization paid for multiple, redundant enterprise chat and web conferencing

solutions. By canceling these licenses and standardizing under Teams, the composite organization saved \$18.00 per user per month.

“Was your organization able to reduce total software license spend by consolidating licenses since switching to Microsoft 365?”

- Yes, we were able to decrease total software license spend
- No, it increased
- Don't know



Base: 771 total ITDMs

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

- The average per-user monthly telephony license savings is \$12.00. By evangelizing the usage of Teams and its voice over internet protocol (VoIP) features, the composite organization found that it could reduce its telephony costs.
- The average monthly user savings for security tools is \$30.00. The composite organization replaced its existing antivirus, mobile device management (MDM), and threat detection solutions with those offered through Microsoft 365 E5.
- The average per user monthly analytics savings is \$2.70. While Power BI is provided to all users with a Microsoft 365 E5 license, it is assumed

that only 10% of users had a paid analytics license before upgrading.

- The composite organization eliminates \$8.00 per user in on-premises hardware and software costs. This was due to migrating security and communication applications from on-premises to the cloud. The \$8.00 includes spending on hardware replacements, server software, FTE time dedicated to managing on-premises hardware, and energy costs.

“On-premises exchange licensing is certainly becoming very uncompetitive when compared to its Office 365 counterpart.”

CTO, government agency

Risks. Forrester recognizes that legacy software and infrastructure cost savings may vary from organization to organization. Specific considerations include:

- The cost associated with existing security and communication solutions. This may be impacted by organization size and the ability to negotiate discounts.
- The adoption rate of Microsoft 365 E5 solutions. Organizations will recognize the most value if they maximize their usage of Microsoft 365 E5 workloads and retire redundant solutions.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$19.9 million.

Legacy Software And Infrastructure Cost Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Users		10,000	10,000	10,000
A2	Per user monthly collaboration license cost		\$17.50	\$17.50	\$17.50
A3	Per user monthly telephony license cost		\$12	\$12	\$12
A4	Per user monthly security tools license cost		\$30	\$30	\$30
A5	Per user monthly analytics license cost	\$27 license* 10% of user base	\$2.70	\$2.70	\$2.70
A6	Per user monthly on-premises costs (hardware and software)		\$8	\$8	\$8
A7	Total legacy software and infrastructure cost savings	(A2+A3+A4+A5+A6)	\$70.20	\$70.20	\$70.20
At	Legacy software and infrastructure cost savings	A1*A7*12	\$8,424,000.00	\$8,424,000.00	\$8,424,000.00
	Risk adjustment	↓5%			
Atr	Legacy software and infrastructure cost savings (risk-adjusted)		\$8,002,800	\$8,002,800	\$8,002,800
Three-year total: \$24,008,400			Three-year present value: \$19,901,779		

ENDPOINT DEPLOYMENT AND MANAGEMENT TIME SAVINGS

Evidence and data. Microsoft 365 E5 includes Microsoft Endpoint Manager, which is a unified endpoint management tool for organizations to deploy, manage, and secure all of their employees' corporate and personal devices. Endpoint Manager includes both Microsoft Intune and Configuration Manager. With Microsoft Intune, interviewees easily deploy and manage new software, security updates, and OSes to managed devices. And with Windows Autopilot, organizations can procure, preconfigure, and ship Windows devices from their original equipment manufacturer or reseller partner directly to the end user in a state that is both enterprise-ready and fully secure.

- Interviewees reduced the resources required to manage and support new software.

- Connecting applications with Azure AD, enabling SSO and MFA, and migrating to SharePoint, enabled end users to get up and running on a new device much faster than they could before, which reduced the frequency of additional support tickets. Meanwhile, Conditional Access and the configuration capabilities within Microsoft Endpoint Manager reduced the extra configuration work IT administrators had to perform to address department- or user-specific needs.
- Interviewees recognized time savings regardless of device, noting the ease of managing a myriad of mobile devices, PCs, and Macs. For the most part that is now completely automated.

Modeling and assumptions. Factors impacting savings for the composite organization include:

- In an average year, with their legacy solutions, organizations would spend 0.55 hours per user, per year, managing new software. For every new piece of software deployed, admins would spend an average of:
 - 0.68 hours on user support.
 - 0.32 hours on troubleshooting during software updates.
 - 0.32 hours per user on general IT.
 - In total, IT would spend 1.87 hours per user per year in new software deployment.
- Administrators use Microsoft Endpoint Manager to manage the configuration and deployment of software and updates to end users. These tools save administrators 24% of their time managing new software.
- One-third of employees require a new endpoint configuration annually, which averages 1 hour of required labor. With Microsoft 365 E5, this time is reduced by 75%.

- For both IT and end users, the average required time to set up a new laptop took 6 hours prior to deploying Microsoft 365 E5. With Microsoft 365 E5, this time is reduced by 90%.
- The composite organization pays its IT resources \$120,000 annually, with 2% annual increases due to inflation.
- The average end user salary is \$65,000 annually, with 2% inflation.

Risks. Forrester recognizes that IT software deployment savings may vary from organization to organization. Specific considerations include:

- Benchmark effort required for management and deployment.
- IT salaries.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of \$4.1. million.

Endpoint Deployment And Management Time Savings					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Hours dedicated to new software deployment and management	Survey results	18,700	18,700	18,700
B2	Reduction due to efficiency gains provided by M365	Interviews and survey data	24%	24%	24%
B3	Hours reallocated from software management	B1*B2	4,488	4,488	4,488
B4	Hours spent configuring new endpoints	Rounded: A1/3 *1 hour	3,333	3,333	3,333
B5	Reduced endpoint configuration due to M365	B4*75%	2,500	2,500	2,500
B6	Hours required to set up a user on a new laptop before M365		6	6	6
B7	IT end user setup time savings	B4*B6*75%	14,999	14,999	14,999
B8	End user setup time savings	B4*B6*75%	14,999	14,999	14,999
B9	IT hourly salary	Forrester assumption	\$58	\$59	\$60
B10	End user salary	Forrester assumption	\$31	\$32	\$33
B11	Total IT time savings	(B3+B5+B7)*B9	\$1,275,246	\$1,297,233	\$1,319,220
B12	End user savings	B8*B10	\$464,969	\$479,968	\$494,967
Bt	Endpoint deployment and management time savings	B11+B12	\$1,740,215	\$1,777,201	\$1,814,187
	Risk adjustment	↓5%			
Btr	Endpoint deployment and management time savings (risk-adjusted)		\$1,653,204	\$1,688,341	\$1,723,478
Three-year total: \$5,065,023			Three-year present value: \$4,193,110		

IT ADMINISTRATION AND HELP DESK

Evidence and data. Interviewees highlighted that a major benefit of upgrading to Microsoft 365 E5 was a reduction in help desk calls and shortened ticket resolution times. With Microsoft 365 E5, organizations can provide self-service and automated solutions to common issues.

- Survey respondents highlighted automation capabilities as the primary tool in reducing tickets, followed by remote support. The senior VP of technology and digital at the restaurant

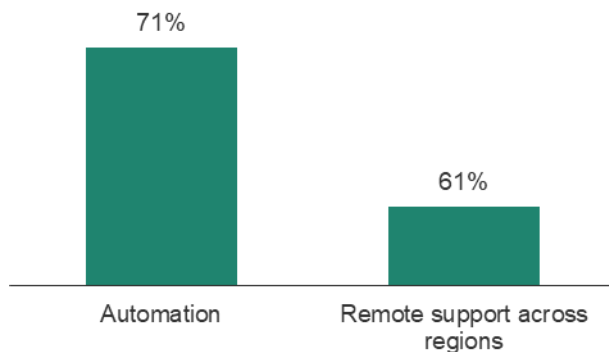
chain explained that, “Microsoft 365 E5 reduces the number of tickets you receive.”

- Remote workers benefited significantly from the new management methods, experiencing fewer performance issues and connectivity issues than before. One interviewee explained: “[We] probably spent 25% more time supporting remote workers than the office workers. Now that we have a standard suite of tools that can be controlled and managed across endpoints and

geographies, we've seen a reduction in the support needs of our remote workers."

- Another interviewee noted that they experienced a 40% decrease in the number of support tickets submitted by remote workers.
- Interviewees also noted that the number of security-related support tickets decreased. Users experienced fewer technical issues related to their security solutions than before, including fewer false positives. When security incidents did occur, the security capabilities delivered through Microsoft 365 E5 were able to automatically detect and remediate most incidents and prevent them from spreading across the organization.
- The management features within Intune allow IT teams to resolve help desk tickets faster than before, especially for remote workers.

"What do you attribute to the change in ticket resolution?"



Base: 729 total IT decision-makers
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

- The same interviewee went on to explain that, "We've reduced the time it takes to audit our IT infrastructure by 50%."

Modeling and assumptions. For composite financial analysis, Forrester made the following assumptions:

- Each user makes an average of six help desk calls a year, 50% of which are fixed through self-service and automated tools.
- Non-self-service issues are less time-consuming with the expanded security tools provided by Microsoft Endpoint Manager and E5. This allows the help desk to resolve tickets 15% faster.
- Forrester assumes that the average support ticket takes 30 minutes (between the IT and end user) to resolve. The average hourly labor costs for an IT admin and end user is \$44.47 per hour, which Forrester rounded down to \$40.00 for the sake of simplicity. Therefore, a support ticket costs an organization \$20.00 in internal labor costs.
- IT administrators and end users recapture the time previously lost while resolving a ticket. This benefit table calculates the value of that time.

Risks. IT administration and help desk savings may vary and specific considerations include:

- Preexistence of self-service tools.
- Benchmark IT productivity.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of \$1.6 million.

IT Administration And Help Desk

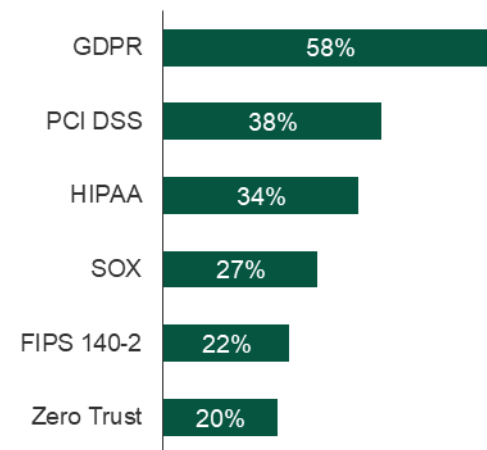
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Annual help desk calls	A1*6	60,000	60,000	60,000
C2	Percent of calls eliminated due to E5 tools and automations		50%	50%	50%
C3	Annual tickets deflected due to E5	C1*C2	30,000	30,000	30,000
C4	Reduction in ticket resolution time for remaining tickets		15%	15%	15%
C5	Internal labor cost per call		\$20	\$20	\$20
Ct	IT administration and help desk	$(C3*C5)+(C1*(1-C2)*C4*C5)$	\$690,000	\$690,000	\$690,000
	Risk adjustment	↓5%			
Ctr	IT administration and help desk (risk-adjusted)		\$655,500	\$655,500	\$655,500
Three-year total: \$1,966,500			Three-year present value: \$1,630,131		

IMPROVED REGULATORY AUDIT AND COMPLIANCE MANAGEMENT

Evidence and data. Now more than ever, organizations are governed by strict data privacy regulations. Interviewees and surveyed organizations from various industries face stiff penalties when violating either government or industry mandates.

- Interviewees highlighted the Microsoft 365 E5 compliance and data retention tools as a key differentiator when enforcing and auditing compliance rules. The ability to retain and easily recall necessary documentation greatly improved accuracy and reduced time when conducting audits. The chief technology officer (CTO) for the government agency elaborated on the difficulty of maintaining GDPR (General Data Protection Regulation) compliance with legacy systems: “Knowing every time someone uses my name and email ... the cost involved in driving that information from a traditional IT environment is massive, it’s huge and very, very costly, and very, very time-consuming.”

“Which of the following certifications/ compliance mandates is required of your organization?”



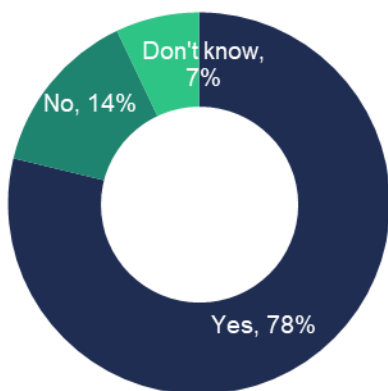
Base: 771 total ITDMs
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

- The director at the manufacturing firm explained that: “Microsoft Secure Score³ reduced the time it took us to be compliant with the California Consumer Privacy Act [CCPA] and GDPR. And Azure AD and [Microsoft 365] E5 really enhance

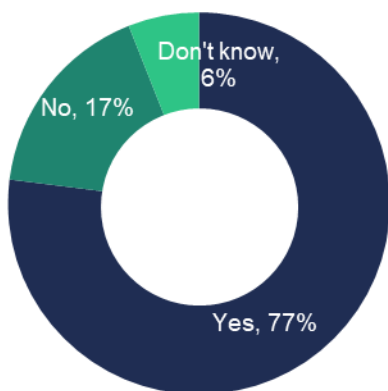
our security capabilities. They've helped reduce the cost to perform our twice-yearly security audits by hundreds of thousands of dollars in internal labor and consulting costs."

- The director at the manufacturing firm stressed the value of security for their organization: "We wanted to secure our proprietary information since that's our competitive advantage in the marketplace. The security and compliance features [within Microsoft 365 E5] really appealed to us."
- The energy company's head of collaboration technologies explained the savings of keeping

"Have you improved the accuracy of your security audits since moving to Microsoft 365?"



"Have you improved the speed of your security audits since moving to Microsoft 365?"



Base: 771 total ITDMs
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

compliance with Microsoft 365 E5: "We've been able to sunset some legacy data repositories because we can now store them on [SharePoint]."

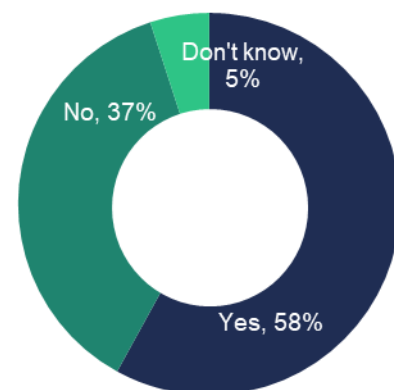
- The digital workplace VP at the financial services firm explained, "[E5] makes it really easy for us to see how we comply with various government regulations and what we need to address."
- Additionally, by being able to quickly provide accurate documentation on advanced retention and discovery tools, surveyed organizations were able to reduce their billable third-party compliance review spend.

Reduction in compliance effort

25%



"Have you reduced third-party spend associated with compliance reviews?"



Base: 771 total ITDMs
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

Modeling and assumptions. In modeling the composite financial model, Forrester assumes:

- The composite organization dedicates 25 FTEs to performing regulatory and compliance audits.
- FTEs performing regulatory and compliance audits come from a mixture of IT, legal, and business, with the average fully burdened salary being \$120,000 with 2% annual inflation.

Risks. Regulatory audit and compliance savings will vary based on industry, geography, and enterprise size.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$1.7 million.

Improved Regulatory Audit And Compliance Management					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
D1	FTEs dedicated to performing regulatory and compliance audits		25	25	25
D2	Average audit and compliance FTE salary		\$120,000	\$122,400	\$124,848
D3	Improved audit and compliance management		25%	25%	25%
Dt	Improved regulatory audit and compliance management	$D1 \times D2 \times D3$	\$750,000	\$765,000	\$780,300
	Risk adjustment	↓ 10%			
Dtr	Improved regulatory audit and compliance management (risk-adjusted)		\$675,000	\$688,500	\$702,270
Three-year total: \$2,065,770			Three-year present value: \$1,710,270		

IMPROVED SECURITY MANAGEMENT AND OPERATIONS

Evidence and data. Microsoft 365 E5 includes an expanded suite of security tools for identity and threat protection (e.g., Microsoft 365 Defender, Microsoft Defender for Endpoint, Microsoft Defender for Office 365, Microsoft Defender for Identity, Microsoft Cloud App Security, and Azure Active Directory) and information protection and compliance (e.g., Microsoft Advanced Compliance and Microsoft Information Protection). Not only do these tools improve the security posture of an organization and reduce the threat of a security incident, but they also reduce the burden of managing multiple tools for security teams.

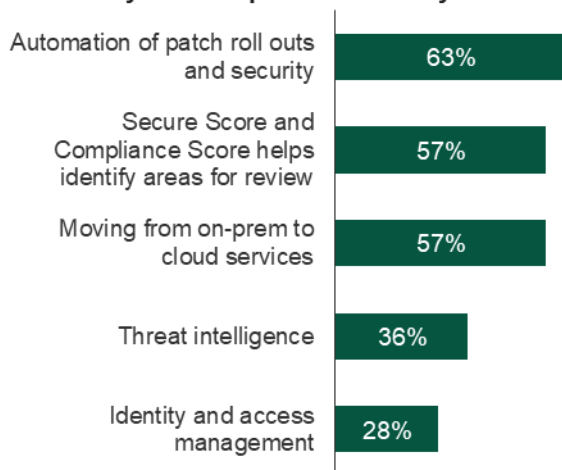
- Having more advanced security tools improved the security posture of organizations and reduced their likelihood of a security incident. The senior VP of IT at the manufacturer elaborated: “The benefit [Microsoft 365 E5 provides] from a security perspective is enhanced visibility — especially when it comes to the end user. Because the user is your biggest security risk, the closer I can get to telemetry off of user behavior, the more secure I feel we are.”
- The Microsoft 365 E5 security tools were a major improvement over the legacy solutions the interviewed organizations previously had. The CTO for the government agency explained: “We

saw an advantage on the security footprint: zero-day attacks, for example, with the features that are available in E5. The features attracted us then and still remain attractive to a large extent.”

- The Microsoft 365 E5 security stack also automatically detects and remediates most security incidents, with several interviewees reporting that north of 90% of security incidents are handled automatically.

The restaurant chain chief data officer (CDO) explained: “Microsoft automatically detects and prevents most incidents. Very, very few incidents are actually successful. And they’re successful only at the first level because of all the protections in place. So, if a user wants to install anything that isn’t approved, it’s blocked. This is the benefit of having an end-to-end security solution.”

“What has contributed to the increase in accuracy and/or speed of security audits?”



Base: 649 IT decision-makers that have seen improved accuracy/speed of audits

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

- By adopting Azure AD as their IAM solution, IT teams reduced: the effort needed to provision/deprovision users; application downtime and associated remediation efforts; the time spent on policy management; and vendor management efforts.

- The CDO of the restaurant chain explained the value Azure AD had on his organization: “Conditional access has been great for our security team. Managing our users is much easier with Azure Active Directory Premium and Power Apps. We’ve been able to automate our provisioning and deprovisioning efforts, reducing the burden on our IT team considerably. [Before,] we had around 25 people working only on access management, [with Azure AD], we only have four or five people doing this work. Everyone else is now focused on other security activities.”
- Additionally, Microsoft Secure Score helps organizations analyze their security posture and make changes based on Microsoft’s recommendations. This helps organizations understand how they compare to their peers, and it reduces the time security professionals need to spend researching and implementing policy changes.
- Integrating Microsoft Cloud App Security across Microsoft-native solutions and third-party applications increases the visibility security teams have across their organization and reduces the effort required to address security or regulatory concerns. Security teams can monitor their cloud applications, identify and protect sensitive data, and change governance policies through a single pane of glass in a fraction of the time it took them to perform these actions before.



Reduction in time managing security environment

50%

Modeling and assumptions. The composite financial model makes the following assumptions:

- The composite organization has a team of 25 FTEs managing security operations.
- The average salary of security team members is \$125,000. Forrester has added a 2% annual inflation rate.
- The efficiency gains achieved through the automatic threat detection and remediation features in E5, coupled with the reduced time required to research and implement security changes, reduces the time security professionals spend managing their environment by 50%.

Risks. Security management savings will vary for each organization. Specific risk considerations include:

- The size of an organization's security team.
- Labor rates.
- An organization's current security posture.
- Existing security automations.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$3.6 million.

Improved Security Management And Operations					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
E1	FTEs dedicated to managing security environment		25	25	25
E2	Average security FTE salary		\$125,000	\$127,500	\$130,050
E3	Reduction in time required to manage security environment due to Microsoft 365 E5		50%	50%	50%
Et	Improved security management	$E1 \times E2 \times E3$	\$1,562,500	\$1,593,750	\$1,625,625
	Risk adjustment	↓ 10%			
Etr	Improved security management (risk-adjusted)		\$1,406,250	\$1,434,375	\$1,463,063
Three-year total: \$4,303,688			Three-year present value: \$3,563,063		

REDUCED RISK OF A DATA BREACH

Evidence and data. Microsoft 365 E5 comes with a robust suite of security solutions to aid organizations in preventing phishing, malware, compromised accounts, and the leak of sensitive data. Prior to investing in Microsoft 365 E5, organizations lacked the visibility to understand their risk postures, and as a result they relied on point solutions for discrete security tasks which proved to be inefficient and expensive. With tools such as Azure Active Directory, Microsoft Defender Advanced Threat Protection

(ATP), Office 365 ATP, Azure ATP, and Microsoft Cloud App Security, organizations have the correct tools — on a single platform — to detect and protect against a breach.

- Organizations used Microsoft 365 E5 security tools to: detect and alert against abnormal user behavior; alert against potentially compromised accounts; monitor native and OAuth apps; and detect and remediate attempted malware attacks in real time. The CDO of a restaurant chain explained: "We realized two major benefits. One

is the ease of identification and increased trust. I have more trust than before because I'm actually capturing more of the incidents. The resolution is much better as well so the breaches are very limited, and it's proven to be working very well."

- The director at the manufacturing firm articulated the risk of a security breach for their organization: "We found that we could lose \$50 million a year if someone stole some of our proprietary information around some of the products we manufacture. We valued the reduced risk of a security breach due to adopting [Microsoft 365] E5 in the tens of millions of dollars a year, which was enough to justify our investment in E5 by itself."
- Organizations highlighted that phishing had been a serious issue for them in the past with prior solutions. Attacks were becoming increasingly sophisticated, and thus they started to require intelligent solutions and automation. Without such tools, the volume of attacks far exceeded what security teams could handle. The director of a manufacturing firm stated: "Phishing has been a big problem, big problem with us. And phishing all the way up to the CEO level, with fake wire transfers — you know the whole story of that, I'm sure. We got hit for fairly big amounts."

The CDO of a restaurant chain elaborated: "Just to give you a sense, I have north of 70,000 phishing attacks a month. That's what Microsoft detects and prevents. And right now, very few are actually successful — very, very few. And they're only successful at the first level because again of all the protective tools, like endpoint protection or if they want to install malware in the computers, it's blocked. In terms of end-to-end attack success, I don't think many threats go and succeed."

- Not only did organizations improve their security posture with Microsoft 365 E5, they also did so with fewer resources than were required with

prior solutions. Organizations took employees off of low-level security tasks, like authentication, and moved them to more critical threat reduction activities. The CDO of a restaurant firm stated: "Conditional access has been great for our security team. Managing our users is much easier with Azure Active Directory Premium and Power Apps. We've been able to automate our provisioning and deprovisioning efforts, reducing the burden on our IT team considerably. [Before], we had around 25 people working only on access management. [With Azure AD], we only have four or five people doing this work now. Everyone else is now focused on other security activities."

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions:

- The average data breach value for an organization of the composite's size (10,000 records) is \$4.72 million.⁴
- The average likelihood of a data breach of 10,000 records or more is 29.6% over two years, or 14.8% per year.⁵
- By deploying Microsoft 365 E5 security tools, the composite organization significantly reduces its risk exposure. Forrester has estimated a 50% reduction based on customer interviews and survey results for organizations using the full stack of Microsoft 365 E5 security offerings.

Risks. Data breach avoidance savings may vary, and specific considerations include:

- The average cost of a data breach for the organization.
- The inherent risk of a data breach.
- The extent to which the composite organization is able to improve security posture and capabilities through investment in Microsoft 365 E5.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of \$694,886.

Reduced Risk Of A Data Breach

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
F1	Average cost of data breach	Ponemon	\$4,720,000	\$4,720,000	\$4,720,000
F2	Average likelihood of data breach	Ponemon	14.8%	14.8%	14.8%
F3	Reduced likelihood of a data breach		50%	50%	50%
Ft	Reduced risk of a data breach	$F1 \times F2 \times F3$	\$349,280	\$349,280	\$349,280
	Risk adjustment	↓20%			
Ftr	Reduced risk of a data breach (risk-adjusted)		\$279,424	\$279,424	\$279,424
Three-year total: \$838,272			Three-year present value: \$694,886		

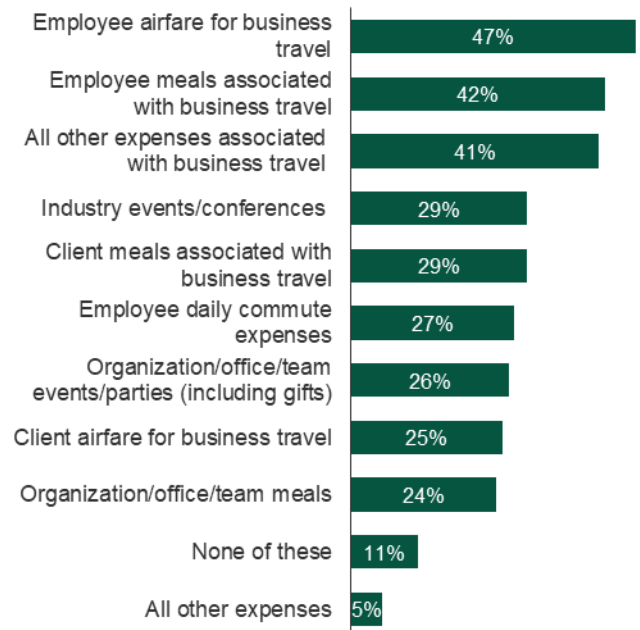
REDUCED TRAVEL EXPENSE

Evidence and data. The COVID-19 pandemic has forced most organizations to cease all business travel. In the short term, this has led to a significant temporary reduction in travel expenses, but organizations have also realized that they can conduct many of their meetings remotely without any loss in productivity.

- Organizations highlighted a number of expenses that they would permanently decrease in the future, such as airfare and meals for employees and clients. The interviewee for the heavy manufacturing firm explained: We have immediately identified millions of dollars of savings. Our CIO initially forecast \$12 million a year in savings from reduced travel for board members, our C-suite, and officers. I think that was way, way, way too conservative, but we won't know for sure until after the pandemic."
- The head architect for the media firm noted: "Travel is very expensive for us; we spend millions on travel. Our initial estimates are to reduce travel for internal meetings by 30% to

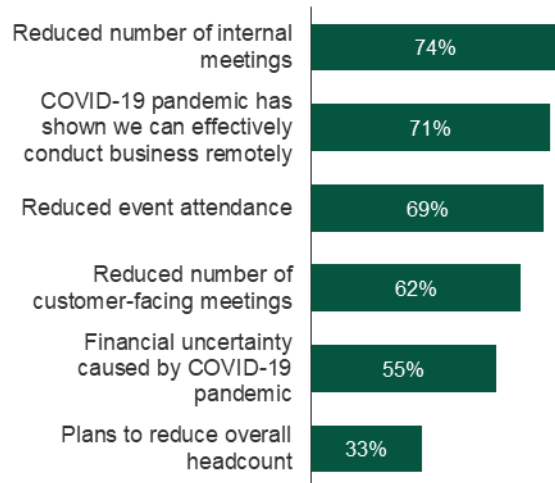
50%, which will result in undeniably large savings for us."

"Which of these expenses do you expect to decrease post-COVID-19?"



Base: 146 total business decision-makers
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

“Thinking about the expenses that you indicated will decrease, please select the reasons why.”



Base: 42 total business decision-makers who expect a decrease in spend

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

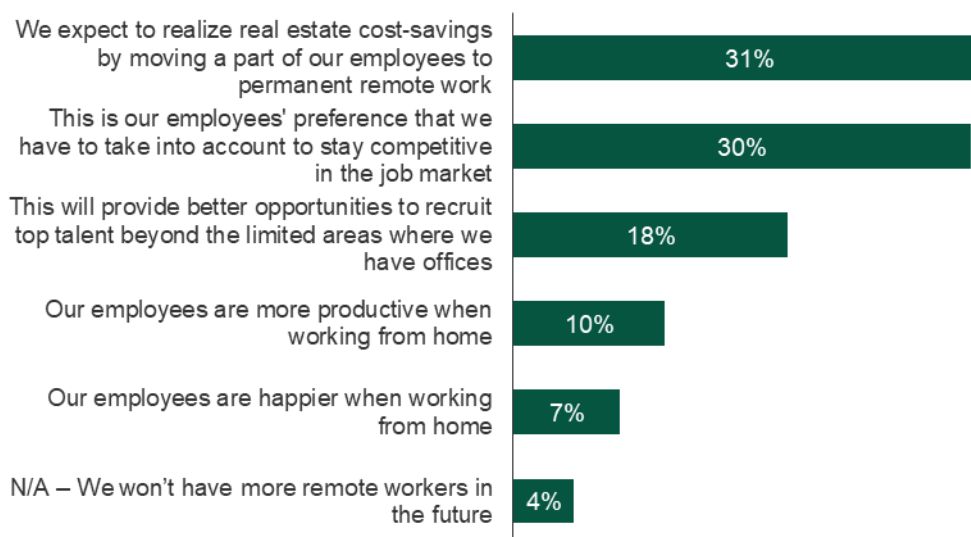
- Even before the COVID-19 pandemic, many organizations were looking to the features with Teams to reduce travel. For example, the CIO of the professional services firm said, “Between

2018 to 2019 [the first year they migrated to E5], we reduced our travel costs by 10%.”

Modeling and assumptions. Forrester modeled the composite organization based on the following assumptions:

- The composite organization has an annual travel expense budget of \$25 million, which represents 10% of its annual budget.
- When organizations are able to resume normal business activities, the composite organization will not resume activities that account for 40% of travel expenses. These savings come from multiple changes, including reduced internal and regional meetings, fewer sales calls, and fewer conferences.
- Not all savings are attributed to Microsoft 365 E5, and as such a 40% attribution factor has been applied in Year 1, increasing to 80% in Year 3. This is to acknowledge that a portion of savings and reduced travel is tied to macro changes, like government-enforced bans on travel in the near term.

“What is the main reason why your organization will have more remote workers in the future?”



Base: 923 total IT decision-makers and business decision-makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

Risks. Travel expense savings will vary based on:

- Location enterprise size.
- Industry and the ability to conduct work remotely.
- Workforce makeup and benchmark travel expenses.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of \$13.9 million.

Reduced Travel Expense

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
G1	Total travel and expense budget		\$25,000,000	\$25,000,000	\$25,000,000
G2	Percent reduction due to increased remote work		40%	40%	40%
G3	Attribution percentage		40%	60%	80%
Gt	Reduced travel expense	$G1 \times G2 \times G3$	\$4,000,000	\$6,000,000	\$8,000,000
	Risk adjustment	↓5%			
Gtr	Reduced travel expense (risk-adjusted)		\$3,800,000	\$5,700,000	\$7,600,000
Three-year total: \$17,100,000			Three-year present value: \$13,875,282		

REDUCTION IN NECESSARY OFFICE SPACE SPEND

Evidence and data. The COVID-19 pandemic has forced many of the interviewed organizations to shift to a 100% remote work model. Many were surprised to see their workers were as, if not more, productive than in the office, leading to companies reassessing their remote work policies and their real estate investments.

Expanding remote work policies come with several benefits, including increasing employee engagement, retention, and broadening the recruitment pool for organizations.

Enabling remote work, as the COVID-19 pandemic has shown, is critical to ensuring business continuity. Organizations with a robust remote work framework will be better situated to address future natural

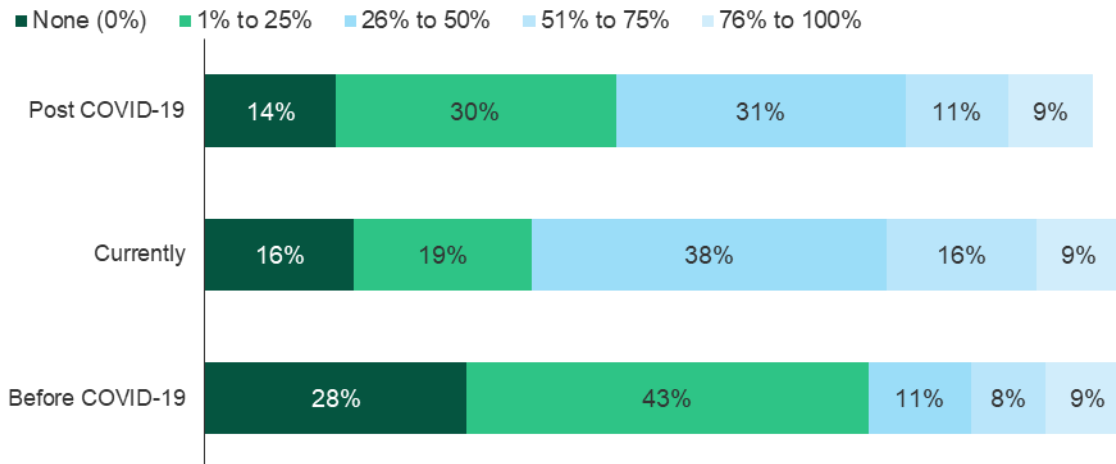
disasters, helping them stay competitive during turbulent times.

“When the COVID-19 pandemic hit, we didn’t have to change anything. Everybody was able to go remote without any changes to our operations or software licenses or anything. They were already set up to be able to work remote. And so switching to working remotely was really almost a non-event.”

CIO, professional services

- Surveyed organizations project having a substantial portion of their workforce remain remote after society begins to return to normal,

“About how much free office space did your organization have before the COVID-19 pandemic and do you currently have in your office buildings where you have a long-term lease?”



Base: 152 total business decision-makers with financial oversight of real estate
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

with the majority of firms having 26% or more of their real estate footprint as free space.

- The director at the manufacturing firm said: “The tools within [Microsoft 365] E5 have shown us that we can work remotely while still being effective during the COVID-19 pandemic. This has led to a major change within my company. For example, we realize we don’t need to invest tens of millions of dollars into building office space to grow our company; it’s expensive,

intrusive, and difficult. Instead, we can add new hires as remote workers.”

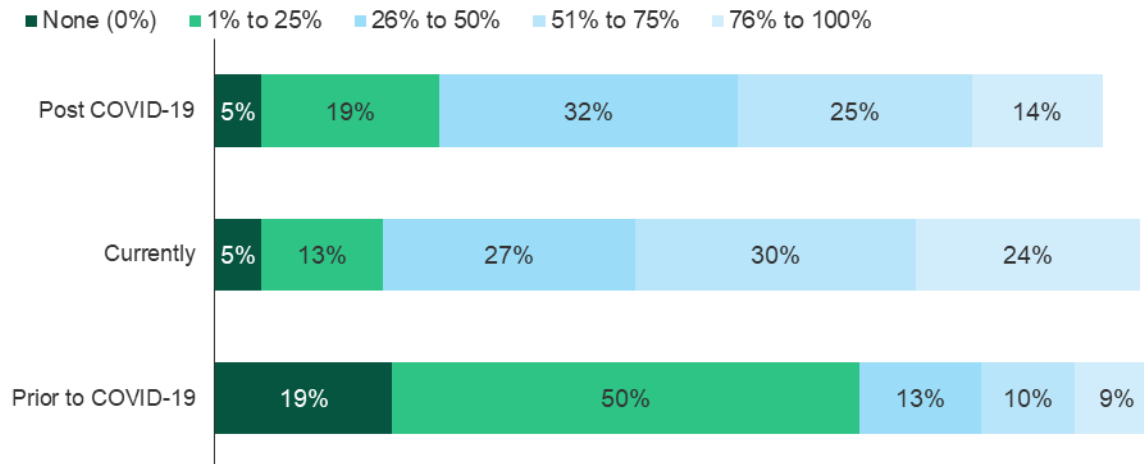
- In the near term, firms will not recognize substantial savings as most organizations have long-term office space leases. However, firms do intend to assess and downsize expenses when possible.
- Before COVID-19, many firms were unwilling to have a large remote workforce. Conventional wisdom had always traditionally said that remote workers are less productive than their in-office counterparts; moreover, customary communication tools made it difficult to remotely collaborate. Security was another concern: IT teams lacked the tools to effectively manage remote workers, leading to increased support costs and decreased productivity for remote workers.
- Organizations using Microsoft 365 E5 have found that none of these issues persist amongst their employees. Remote workers can collaborate effectively with their peers using Teams, SharePoint, and OneDrive. Meanwhile, IT teams are leveraging E5’s endpoint management features, which allow IT teams to effectively

“How do you expect your organization's real estate and office space (including insurance, maintenance, supplies, etc.) costs to change post-COVID-19?”



Base: 152 total business decision-makers with financial oversight of real estate
Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

“About how many employees at your organization worked remotely before the COVID-19 pandemic, currently work remotely, and will work remotely after the COVID-19 pandemic?”



Base: 923 total IT decision-makers and business decision-makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

support remote workers. And as a result, remote workers require no more support than their in-office counterparts.

- The CIO of the professional services company described some of the potential knock-on effects down the line: “Now, we don’t have to restrict our hiring pool to our city unless it’s a critical, executive, or management type position. We can find the skill sets and talents that we need anywhere they reside. We can also offer our existing employees the flexibility to move.”
- Having E5 deployed, eases the concerns organizations have about the productivity and security of a remote workforce, which ultimately facilitates the change.

Modeling and assumptions. In modeling the composite organization, Forrester makes the following assumptions:

- The average monthly lease expense per customer is \$780.00. This is based on survey responses for US corporate real estate. This expense, and subsequent savings, does not include utilities and employee insurance.

- Prior to COVID-19, 25% of the organization’s workforce was remote. And once society returns to normal, an additional 20% of the workforce will transition out of offices to remote working.
- The composite organization recognizes benefits beginning in Year 3. Prior long-term lease commitments forestall it from reducing spend in Years 1 and 2 regardless of how many employees move remote.

Risks. Real estate savings will vary by:

- Industry, location, and workforce size.
- Benchmark spending per office-based employee.
- Existing remote work programs.
- Preexisting lease commitments.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of \$11.3 million.

Reduction In Necessary Office Space Spend

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
H1	Number of employees	A1			10,000
H2	Average lease expense per employee per month				\$780
H3	Percent of workforce who were remote before moving to E5 (pre-COVID-19)				25%
H4	Percent of workforce will be remote in future				45%
Ht	Reduction in necessary office space spend	$H1 \times H2 \times (H4 - H3) \times 12$			\$18,720,000
	Risk adjustment	↓20%			
Htr	Reduction in necessary office space spend (risk-adjusted)		\$0	\$0	\$14,976,000
Three-year total: \$14,976,000			Three-year present value: \$11,251,690		

END USER PRODUCTIVITY IMPROVEMENTS

Evidence and data. Microsoft 365 E5 includes a wide range of collaboration and communication solutions to improve worker efficiency. Organizations underscored the importance of users being able to communicate and collaborate at anytime from anywhere.

- Organizations highlighted Teams as a key collaboration and productivity enhancer amongst employees. The ability for employees to chat, call, or video conference seamlessly within the same application ensured workers got the information they needed when they needed it. The senior VP of IT for the manufacturing firm elaborated further: “When you realize what they have at their disposal, there’s this lightbulb that goes off and people really understand this collaboration within a team, within a context, and then all of the files and everything related to that conversation are all being captured in one spot. Those are fun moments because typically, they would be running things back and forth with email.”

Improved user efficiency with collaborative document sharing and chat

2%



- Additionally, the integration of Teams with SharePoint, Microsoft 365 applications, and non-Microsoft applications through Azure AD facilitated more collaborative document creation and editing. Interviewees highlighted the time saved in meetings from everyone having the correct files to review. Collaborating in documents via the cloud saved time compared to emailing hard copies; and version control no longer was an issue.
- Interviewees found Power BI provided a power analytics tool that many employees had no access to before adopting Microsoft 365 E5. Organizations used Power BI to uncover insights that ultimately improved products and processes. The director of technology, licensing, and

business development for the software company shared how Power BI led to his employees being more productive, “Because now they’re got a better visual dashboard that provides a 360-degree view of the business: accounting, finance, accounts delinquent, and revenue forecasting.”

The digital workplace VP at the financial services firm said: “The growth in adoption for Power BI is phenomenal. Power BI has been really good for our businesspeople who aren’t technical. We’ve used Power BI to visualize data and make better decisions.”

The same interviewee went on to explain the value of Power Apps: “We’re seeing people creating forms very quickly. People are able to put a form together and send it out to the entire organization, analyze the data with Power BI very quickly. This allows people to be more efficient. We’ve seen security teams, HR, and others use Power Apps to automate tasks and save time.”

Modeling and assumptions. Based on our conversations, Forrester estimates end users in the

composite organization see a productivity improvement of 2% with fully integrated, cloud-based, and chat- and file-sharing solutions. This amounts to a weekly savings of 48 minutes, per worker.

- Seamless SSO saves end users 10 minutes per week.
- Connecting applications to Azure AD for SSO and MFA makes it easier for users — especially remote workers.
- Users experience less application downtime.
- The security products within Microsoft 365 E5 cause fewer OS stability issues and report fewer false positives, reducing the downtime end users experience due to these problems.
- The average knowledge worker using these tools has a fully loaded salary of \$65,000, which grows at 2%.
- A 50% productivity capture rate is included since not all time-savings translate into additional, value-add work.

End User Productivity Improvements					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
I1	End users	A1	10,000	10,000	10,000
I2	Improved efficiency with collaborative document sharing and chat (in weekly minutes)	2% annual efficiency gain	48	48	48
I3	Weekly time savings from Azure AD SSO		10	10	10
I4	Efficiency gain per user (in hours)	$((I2+I3)/60)*52$	50.3	50.3	50.3
I5	Average hourly knowledge worker rate	$(\$65K \text{ with } 2\% \text{ inflation})/2.080$	\$31.30	\$31.90	\$32.50
I6	Productivity recapture		50%	50%	50%
It	End user productivity improvements	$I1*I4*I5*I6$	\$7,871,950	\$8,022,850	\$8,173,750
	Risk adjustment	↓20%			
Itr	End user productivity improvements (risk-adjusted)		\$6,297,560	\$6,418,280	\$6,539,000
Three-year total: \$19,254,840			Three-year present value: \$15,942,266		

Risks. End user productivity improvements may vary, and specific considerations include:

- Number of users and average labor rates.
- Cultural and organizational change management barriers.
- Preexisting solutions and benchmark productivity.

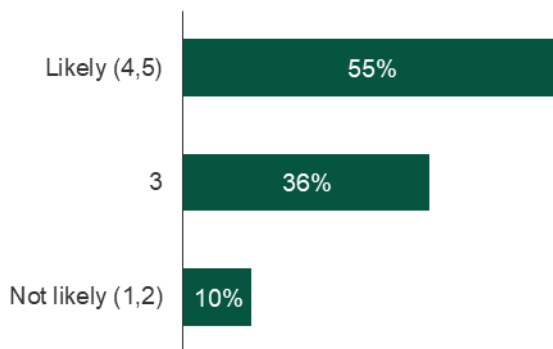
To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of \$15.9 million.

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Transitioning capex to opex.** Microsoft 365 E5 is a pure SaaS offering, affording the flexibility to scale deployment without major investments in support hardware or upfront licensing.

“How likely is your organization to move away from a capital expenditures (capex) to operational expenditures (opex) to avoid upfront hardware costs/improve cash flow management in the next three years?”



Base: 923 IT decision-makers and business decision-makers with oversight

Source: A commissioned study conducted by Forrester Consulting on behalf of Microsoft, December 2020

- **Reduced likelihood of regulatory fines.** Improved data security and compliance tools reduce the risk of major data loss events and any resulting compliance fines and legal costs.

FLEXIBILITY

The value of flexibility is clearly unique to each customer, and the measure of its value varies from organization to organization. There are multiple scenarios in which a customer might choose to implement Microsoft 365 E5 and later realize additional uses and business opportunities. However, none of these flexibility benefits were included in the ROI analyses. Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

- **Increased business agility.** Microsoft 365 E5 makes organizations inherently more flexible and agile. Better collaboration means companies can more quickly adjust to changing business realities. Additionally, the IT organization can better support changing business needs since it is spending less time on maintaining infrastructure. Lastly, Microsoft is regularly rolling out additional features as part of Microsoft 365 E5, and these deliver incremental value.
- **Faster adoption of the newest offerings from Microsoft 365.** Microsoft is continually innovating on existing products and creating new products withing Microsoft 365 E5. By adopting Microsoft 365 E5's solution stack now, organizations will be able to take advantage of new offerings more quickly.

Analysis Of Costs

■ Quantified cost data as applied to the composite

Total Costs							
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Jtr	Initial planning and implementation	\$1,168,750	\$0	\$0	\$0	\$1,168,750	\$1,168,750
Ktr	Microsoft licensing cost	\$0	\$7,244,937	\$7,244,937	\$7,244,937	\$21,734,811	\$18,017,086
Ltr	Ongoing management costs	\$0	\$1,760,000	\$1,773,200	\$1,786,664	\$5,319,864	\$4,407,802
Mtr	Additional bandwidth investment	\$0	\$164,850	\$164,850	\$164,850	\$494,550	\$409,958
	Total costs (risk adjusted)	\$1,168,750	\$9,169,787	\$9,182,987	\$9,196,451	\$28,717,975	\$24,003,596

INITIAL PLANNING AND IMPLEMENTATION

Evidence and data. Organizations deploying Microsoft 365 E5 incurred several months' worth of planning and implementation labor costs. Firms worked with professional services partners to plan and execute their deployments.

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions:

- The composite organization engages with a professional services firm for three months of planning and design.
- The composite organization dedicates five FTEs to implementing Microsoft 365 E5. The team

allocates 50% of their time over six months to this process.

Risks. Initial implementation and planning costs will vary based on the size of deployment and which solution components are deployed. Organizational agility and internal capabilities will also impact the speed of rollout. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$1.2 million

Initial Implementation And Planning

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
J1	FTEs involved in implementation		5			
J2	Average annual salary		\$125,000			
J3	Percent of time dedicated to implementation	6 months	50%			
J4	Professional services		\$750,000			
Jt	Initial planning and implementation	$(J1 \cdot J2 \cdot J3) + J4$	\$1,062,500	\$0	\$0	\$0
	Risk adjustment	↑10%				
Jtr	Initial planning and implementation (risk-adjusted)		\$1,168,750	\$0	\$0	\$0
Three-year total: \$1,168,750			Three-year present value: \$1,168,750			

MICROSOFT LICENSING COST

Evidence and data. Microsoft 365 E5 is available as a monthly as-a-service license. The license is charged monthly per u

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions:

- The composite organization has 30,000 users paying a monthly list price of \$57 per user.

Risks. While Forrester used a standard list price, an upward risk adjustment of 5% has been applied to account for any regional or inflationary impacts, yielding a three-year, risk-adjusted total PV of \$18 million.

Microsoft Licensing Cost

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
K1	Users	Composite		10,000	10,000	10,000
K2	Monthly Microsoft 365 E5 licensing costs			\$57	\$57	\$57
K3	Additional analytics licensing	$\$4,995 \cdot 12$		\$59,940	\$59,940	\$59,940
Kt	Microsoft licensing cost	$K1 \cdot (K2 \cdot 12) + K3$	\$0	\$6,899,940	\$6,899,940	\$6,899,940
	Risk adjustment	↑5%				
Ktr	Microsoft licensing cost (risk-adjusted)		\$0	\$7,244,937	\$7,244,937	\$7,244,937
Three-year total: \$21,734,811			Three-year present value: \$18,017,086			

ONGOING MANAGEMENT COSTS

Evidence and data. The ongoing management of Microsoft 365 E5 is significantly less labor-intensive

than prior legacy solutions, but still requires some administrative support

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions:

- The composite organization retains 5 FTEs supporting Microsoft 365 E5.

Risks. Ongoing management costs will vary based on the number of users, locations, and solution components in use. To account for these risks, Forrester adjusted this cost upward by 10%, yielding

Ongoing Management Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
L1	IT FTEs dedicated to ongoing management			5	5	5
L2	Average IT FTE salary			\$120,000	\$122,400	\$124,848
L3	Ongoing professional services			\$1,000,000	\$1,000,000	\$1,000,000
Lt	Ongoing management costs	L1*L2+L3	\$0	\$1,600,000	\$1,612,000	\$1,624,240
	Risk adjustment	↑10%				
Ltr	Ongoing management costs (risk-adjusted)		\$0	\$1,760,000	\$1,773,200	\$1,786,664
Three-year total: \$5,319,864			Three-year present value: \$4,407,802			

- The composite organization engages with Microsoft partner on a yearly basis to roadmap the deployment adoption of new features within Microsoft 365 E5.

a three-year, risk-adjusted total PV of \$4.4 million.

ADDITIONAL BANDWIDTH INVESTMENT

Modeling and assumptions. The composite organization required additional bandwidth to support additional VoIP, videoconferencing, SharePoint sites, and document storage.

Risks. Additional bandwidth investment may vary based on existing bandwidth and the extent of videoconferencing use. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of \$409K.

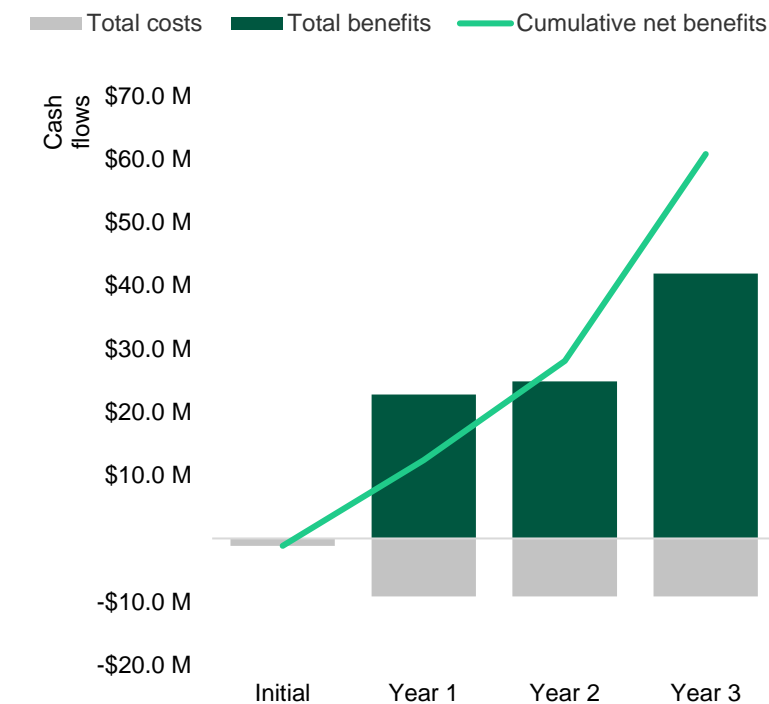
Ongoing Management Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
M1	Additional bandwidth investment			\$157,000	\$157,000	\$157,000
Mt	Additional bandwidth investment	M1	\$0	\$157,000	\$157,000	\$157,000
	Risk adjustment	↑5%				
Mtr	Additional bandwidth investment (risk-adjusted)		\$0	\$164,850	\$164,850	\$164,850
Three-year total: \$494,550			Three-year present value: \$409,985			

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	(\$1,168,750)	(\$9,169,787)	(\$9,182,987)	(\$9,196,451)	(\$28,717,975)	(\$24,003,596)
Total benefits	\$0	\$22,752,591	\$24,852,888	\$41,933,192	\$89,538,671	\$72,728,777
Net benefits	(\$1,168,750)	\$13,582,804	\$15,669,901	\$32,736,741	\$60,820,696	\$48,725,181
ROI						203%
Payback						<3 months

Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

TOTAL ECONOMIC IMPACT APPROACH

Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."



PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.



NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.



RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.



PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendix B: Interview And Survey Demographics

Interviewed Organizations			
Industry	Region	Interviewee	E5 Users
Energy	Global	Head of collaboration cloud technologies	50,000
Media	United States	Head of architecture	20,000
Professional services	United States	CIO	400
Government	Middle East	CTO	2,000
Restaurant	Global	CDO	17,000
Government	United States	Technology infrastructure	750
Clothing	Global	SVP of IT	3,800
Financial services	United States	VP of digital workplace	12,500
Manufacturing	United States	Director	2,750
Media	United States	Director of technology, licensing and business development	500

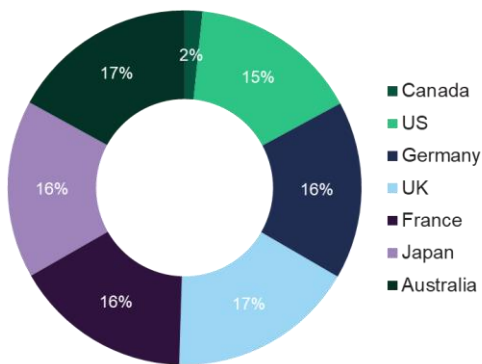
Survey Demographics

Appendix C: Interview And Survey Demographics

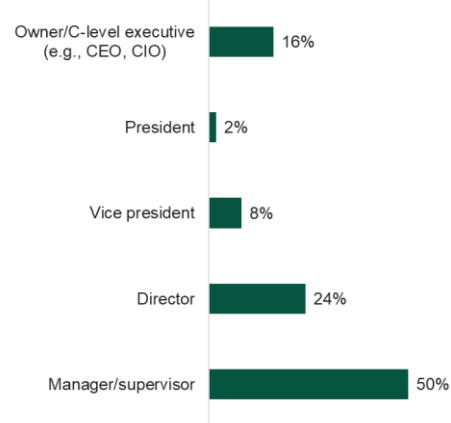
The cost of a data breach. According to the 2020 Ponemon Institute, the average total cost of a security breach can cost:

- \$2.35 million for organizations with less than 500 employees.
- \$2.53 million for organizations with 500 to 1,000 employees.
- \$3.78 million for organizations with 1,001 to 5,000 employees.
- \$4.72 million for organizations with 5,001 to 10,000 employees.
- \$4.61 million for organizations with 10,001 to 25,000 employees.
- \$4.25 million for organizations with more than 25,000 employees.

S1: What geographic region are you located in?

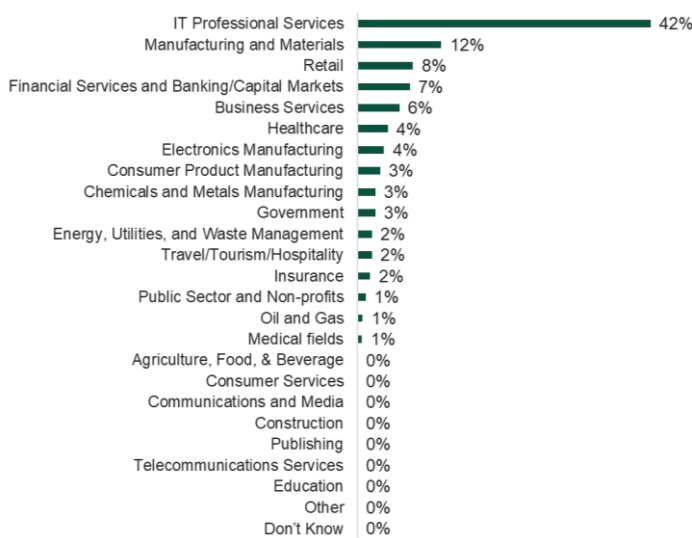


S2: Which of the following best describes your level of seniority?

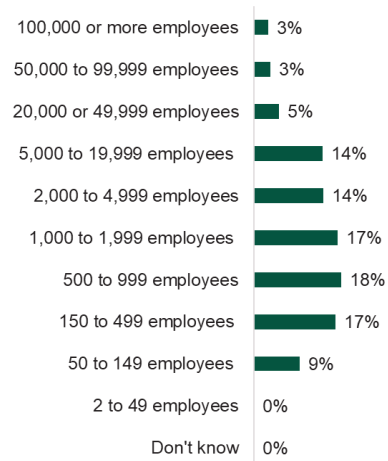


85% of respondents who are not owners/c-level execs work in the IT department of their organization.

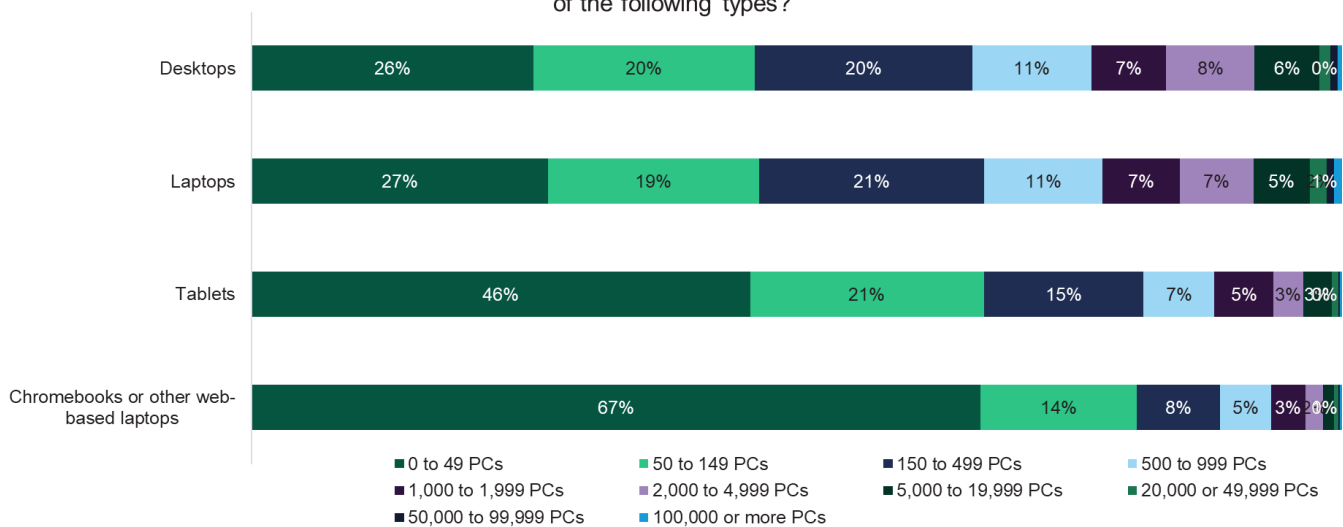
S6: What industry are you in?



S7: Using your best estimate, how many employees work for your firm/organization worldwide?



S8: Thinking about the total number of PCs owned or leased by your firm, how many of them are of the following types?



Base: 923 ITDMs and BDMS
Source: Microsoft/Forrester Total Economic Impact E5 Survey, 2020

Appendix D: Endnotes

¹ A 20-year business cycle in which the most successful enterprises will reinvent themselves to systematically understand and serve increasingly powerful customers.

² Source: Forrester Analytics Business Technographics Business And Technology Services Survey, 2020.

³ Microsoft Secure Score is a measurement of an organization's security posture, with a higher number indicating more improvement actions taken. It can be found at <https://security.microsoft.com/securescore>

⁴ Source: "2020 Cost of a Data Breach Report," Ponemon Institute, 2020 (<https://www.ibm.com/security/data-breach>).

⁵ Source: "2019 Cost of a Data Breach Report," Ponemon Institute, 2019. Forrester has used the 2019 study for the likelihood of a breach, as Ponemon did not publish this statistic in the 2020 version of the study.

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