

THE BENEFITS OF INTEGRATING MANAGED DEVICE SERVICES:

How These Solutions Improve Resiliency, Reduce Costs, and Create Better Experiences





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In This White Paper

Hybrid work requires today's IT teams to rapidly support challenging complexities in technological deployments. With employees working both in the office and remotely, IT has stepped in to enable employee experience and collaboration in a way never before seen in modern business.

In this new environment, many business leaders are adopting device as a service or Managed Device Services as a critical approach to deploying and optimizing IT resources. Managed Device Services can be classified by nine critical capabilities, from program management and staging to PC optimization and asset management.

To help leaders understand how organizations deploy these capabilities to support better business outcomes, HP Inc. commissioned IDC to conduct a *PC Life-Cycle Optimization Survey* with more than 1,600 global IT decision makers.

Included in this research is a look at four maturity levels of PC life-cycle services, from ad hoc (low-level device delivery capabilities) to advanced (very mature device service capabilities). Findings show that organizations that scored *Advanced* saw the best business outcomes through their use of Managed Device Services.

This White Paper showcases the best practices of these advanced companies and illuminates four key benefits of adopting Managed Device Services:

- An optimized employee experience, improving productivity and overall satisfaction
- A more efficient and resilient IT operation, reducing operating costs and saving IT staff time
- > An improved PC sustainability strategy, easing the burden of compliance
- A focus on better business outcomes, including reducing the cost of business losses due to device-related challenges



Critical Capabilities of Managed Device Services



Situation Overview

Organizations face multiple challenges as they focus on the realities of the hybrid workplace. IDC's *Future of Enterprise Resiliency & Spending Survey*, Wave 8, from September 2023, found that staffing and labor shortages prevent effective use of technology and that 30% of global organizations will struggle with these issues.

The management of geographically dispersed teams and the global talent crunch have forced C-suite leaders to closely monitor the employee experience, with a dedicated focus on hiring and retention. To create a better work environment, the study found that leaders' top priorities included effective IT support, security, and building a culture of trust to create better workplace solutions. There is broad recognition that one of the keys to a successful employee outcome is a best-in-class device experience.

Device management is a key area of focus for businesses supporting hybrid staff. Hybrid work environments often require a comprehensive strategy to address device logistics issues, including how to manage devices with fewer system touches, identifying ways to manage supply chain challenges, reducing shipping costs, and improving support and other services realities. Organizations are looking for trusted partners that act as an extension of their staff that can deliver a true life-cycle approach, providing ongoing device management efficiently and economically, from deployment to operations to disposal across client devices.

About the PC Life-Cycle Optimization Survey

The global *PC Life-Cycle Optimization Survey* analyzes Managed Device Services experiences for 1,601 IT decision makers across North America, EMEA, and APAC, and approximately 1,000 of the respondents represented organizations with over 1,000 employees. Respondents were knowledgeable of the client device life-cycle process and spanned 10 key verticals, including finance, healthcare, manufacturing, and retail.

Key Benefits of Adopting Managed Device Services

In 2017, IDC conducted a similar custom research study for HP Inc. Since that time, there have been many changes in the industry, including technology buyers' attitudes regarding the critical nature of PC operations as well as the growing importance of employee productivity and sustainability to key business outcomes.

Since then, more organizations used third-party services for their Managed Device Services offerings to alleviate the pressure of offsite deployments and to implement efficient and cost-effective device life-cycle management. With 30% more PCs being deployed using Managed Device Services today, these organizations have benefited from improvements in PC deployment and ongoing operations as well as in providing better employee and sustainability outcomes.

Key Benefits



Improved employee experience and productivity.

Adopters of Managed Device Services seek to improve employee experience and productivity by quickly providing the right device with the right applications needed to accomplish specific work tasks effectively. In the recent survey, 42% of respondents reported improving employee productivity by an average of 24% with Managed Device Services. Furthermore, by improving logistics with fewer touch points and accelerating time to delivery, organizations saw a 44% reduction in deployment issues such as lost data or incorrect settings in new PC deployments.



More efficient and resilient IT operations.

IT teams that adopt Managed Device Services can leverage trusted partners with domain expertise to reduce the technical talent and skills gap many enterprises are experiencing. Respondents reported saving 2.15 hours in IT staff time per PC on activities associated with servicing PC assets, such as planning and design, imaging, deployment, and support. Additionally, Managed Device Services improves operational efficiencies by simplifying vendor management, since the offer is typically managed by one vendor with dedicated customer success teams who help organizations drive desired outcomes.



A more sustainable PC strategy.

Sustainability initiatives are of increasingly strategic importance to organizations worldwide, with 38% of organizations selecting sustainability as one of the top 5 business outcomes improved by adopting Managed Device Services. This focus on sustainability often places IT-specific programs in the spotlight.

IT asset disposition (ITAD) is one such program. Respondents reported asset recovery and disposal as a significant burden, with security risks and financial penalties for noncompliance. Adopting third-party services for ITAD with robust security and compliance protocols reduced this burden by 58%. Adopting Managed Device Services can also help ensure IT assets are refurbished or reused, enhancing their circularity and improving an organization's sustainability metrics.

With Managed Device Services, organizations can also achieve lower carbon emissions by reducing the shipping and logistics needed to get a PC into a user's hands. Instead of shipping the device multiple times to get to the end user, the device ships directly from the factory pre-imaged — reducing transportation costs and emissions.

A key strategy IDC sees companies utilizing is the purchasing of refurbished assets to help in the circular economy. Another sustainable tactic would be to reuse devices within the same organization; service providers will clean, refurbish, and image systems to the new user's specs, which may include upgrading memory or storage if needed.



Lower operational costs and less downtime.

Managed Device Services can enable continuous innovation for device users, as Managed Device Services providers continually upgrade service levels that reduce downtime. As a result, the use of Managed Device Services has led to huge improvements in PC deployment and ongoing management operations. According to this study, Managed Device Services can reduce PC deployment time by 22% and can reduce the annual effort and cost of PC management by 14%. Survey respondents also reported reducing the cost of business losses due to device-related challenges by 20%.



Advanced Companies' Investments in PC Services Correlate to Improved Outcomes

Based on their processes, program culture, and use of advanced technology, companies in the survey were sorted into maturity groups based on IDC's proven methodology: *Ad Hoc, Basic, Standardized*, and *Advanced. Advanced* companies achieved the greatest level of automation and performance for each of the nine primary PC life-cycle services whereas *Ad Hoc* organizations exhibited a low level of device delivery capabilities (see **Table 1**, next page).

These rankings were then correlated to improvements in business outcomes. The *Advanced* group recognized 1.5–2.3 times the improvement for the highest-priority ranked business outcomes when compared with the average for all other groups (see **Figure 1**, page 10).



TABLE 1 Advanced Companies Implemented Programs Across All Key Life-Cycle Services

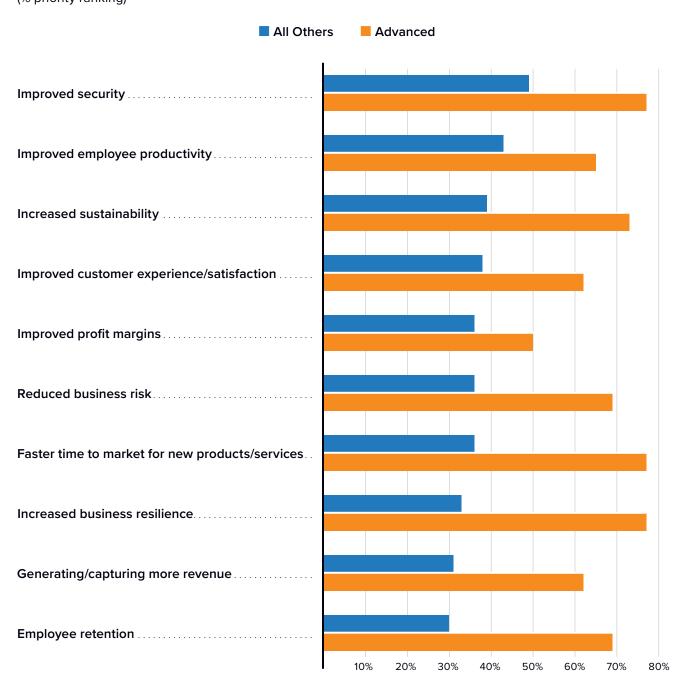
List of PC Programs — Description of Most Advanced Level	% of Maturity Group at the Most Advanced Level			
	Ad Hoc	Basic	Standardized	Advanced
% of total organizations	20%	42%	36%	2%
Staging and logistics — PCs shipped directly from OEM to remote users with automated distributed imaging capability	1%	11%	48%	88%
Imaging — Extend onsite PC management to factory for imaging, domain join, and security updates	2%	15%	50%	96%
Asset deployment — A central deployment system, managing assets, users, schedules, technicians, and issues	3%	14%	46%	92%
Updates of applications during PC deployment — 90% of apps and updates automated and successful	4%	18%	55%	100%
User data migration — Most user data lives in secure cloud and available to user on any device	1%	14%	56%	100%
Asset management (inventory) — All assets tagged and labeled and tracked in an asset-tracking program and location always known	4%	14%	56%	100%
PC optimization — Integrated and proactive protection of devices, data, and identity	6%	9%	40%	100%
Disposal of asset — Advanced notification of asset retirement, etc. Secure disposal	3%	14%	41%	88%
Program management — Automated monitoring and reporting with proactive issue resolution	1%	7%	28%	96%

Note: IDC's PC Services Maturity Model is based on the PC Life-Cycle Optimization Survey, 2022. Source: IDC, 2022



FIGURE 1 Advanced Organizations Experience Better Business Outcomes

What have been the benefits to your business from implementing desktop deployment and management services? How have you impacted business outcomes? (% priority ranking)



Notes: Leaders are Advanced (Level 4) organizations in IDC's PC Services Maturity Model. IDC's PC Services Maturity Model is based on the *PC Life-Cycle Optimization Survey*, 2022. Source: IDC, 2022

For an accessible version of the data in this figure, see $\underline{\textbf{Figure 1 Supplemental Data}} \ \text{in Appendix 2}.$



Advanced organizations deliver a better employee experience by reducing the time that an employee does not have access to devices, applications, and PC resources.

Employees at Advanced organizations experienced improvements in the following areas:



less user downtime, which keeps users productive



less time impacted by security incidents due to properly patched systems



less time involved with help desk requests as a result of fewer service requests made to IT due to better deployment and migration procedures



less time for deployment through better procedures getting devices in users' hands faster

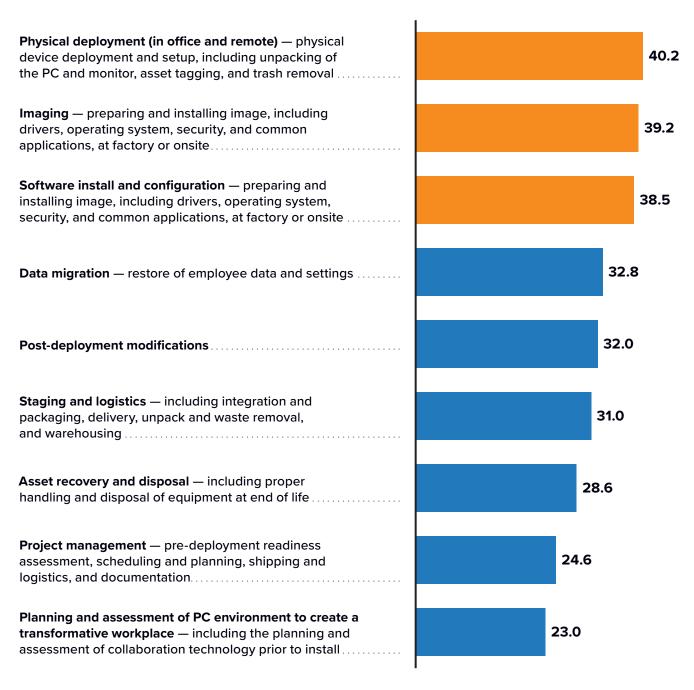
Managed Device Services Helps Reduce IT-Specific Costs

The *PC Life-Cycle Optimization Survey* demonstrates that when deploying new PCs, the tasks of physical deployment, imaging, and software install and configuration are most time consuming for IT staff (see **Figure 2**, next page).

FIGURE 2

Staff Time Spent on Tasks When Deploying New PCs

Thinking about deployments of "new" PCs in terms of using internal resources, how much time in minutes is spent on the following activities/tasks per new PC deployed? (minutes of staff time spent per PC)



n = 1,601; Source: IDC's PC Life-Cycle Optimization Survey, April 2022



Using Managed Device Services for any or all device life-cycle management tasks can enable IT staff to focus on other business initiatives (refer back to **Figure 2**). In this research study, IDC quantified the value that organizations achieved by adopting Managed Device Services and moving to become a more "mature" IT organization.

Specifically, *Advanced* organizations that adopted Managed Device Services reported reductions in the following IT-specific costs:



65% lower cost of deployment of new devices and applications



2+ hours saved in IT staff time per PC on different life-cycle activities associated with PC assets, including imaging, physical deployment, ongoing management, support, and optimization



30% reduction in the number of hours expended per PC by operations and procurement in their current PC purchases



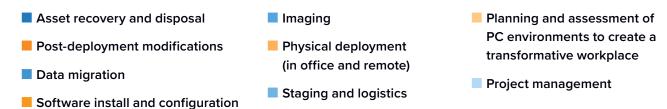
32% reduced effort and cost associated with annual management of PCs as a result of the combination of better practices and more third-party services

Figure 3 (next page) shows how *Advanced* organizations save more time on IT staff deployment costs.

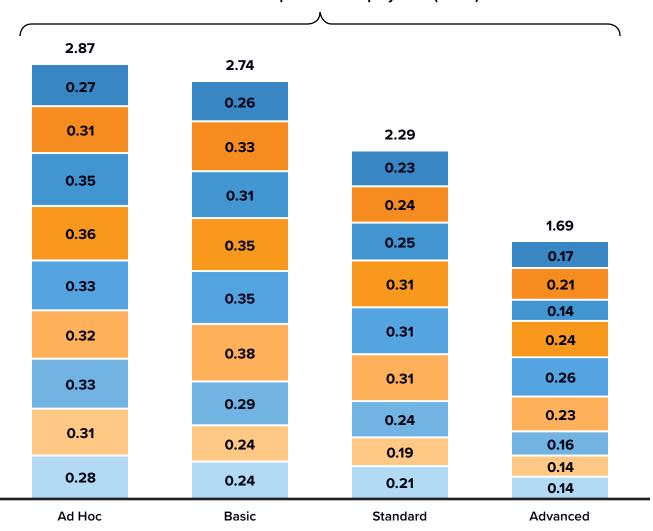
FIGURE 3

Advanced Organizations Save 11%-31% on IT Staff Deployment Costs

Thinking about deployments of "new" PCs in terms of using internal resources, how much time in hours is spent on the following activities/tasks per new PC deployed? (hours)



Total IT staff time per PC for deployment (hours)



Note: IDC's PC Services Maturity Model is based on the *PC Life-Cycle Optimization Survey*, 2022. Source: IDC, 2022 For an accessible version of the data in this figure, see Figure 3 Supplemental Data in Appendix 2.



Advanced Organizations Use More Managed Device Services and PC Management Solutions

To achieve the levels of automation and superior results illustrated in **Figures 2** (page 12) and **3** (page 14), *Advanced* organizations have four characteristics in common in their device services approaches:

- Advanced IT organizations are using 20%–40% more services associated with Managed Device Services than non-Advanced organizations. In particular, five times as many Advanced IT organizations are using services to deliver device deployment and ongoing support activities compared with non-Advanced organizations. This includes life-cycle management activities ranging from deployment project management, planning, and logistics to device configuration and physical deployment to ongoing monitoring, support, and system maintenance.
- Advanced IT organizations make use of multiple PC management software products, with 58% of Advanced IT organizations using all 24 PC management solutions listed in the survey.
- Advanced IT organizations estimate that when adopting and using Managed Device Services, they have reduced the number of PCs they are personally managing with in-house capabilities by 50%. This compares with 37% for all other organizations.
- Advanced IT organizations and their Managed Device Services providers rely on automation, device analytics, and artificial intelligence for more efficient life-cycle management, such as using analytics to determine the correct device for each user by examining usage patterns or rapidly deploying new systems with automated imaging.

Managed Device Services Enables the Inclusion of Sustainability Principles into IT Practices

Growing interest in meeting corporate sustainability goals has reframed how organizations think about IT asset usage, life-cycles, and end-of-life disposal practices. Many believe that a more socially and environmentally responsible organization is key to building trust with customers, partners, and employees.

Data from IDC's Future Enterprise Resiliency & Spending Survey, Wave 4, from May 2023, noted that circularity and life-cycle management were very to extremely important for the organization (69%). In the same study, most organizations engaged with the IT vendor to assist with sustainability goals. Employees want to work for organizations that are investing in our planet's future, and for some employees, this has become an important requirement in selecting a future employer. Given the strong momentum in sustainability awareness and the drive for more action and accountability from investors, employees, and students (future talent), we expect more investment and innovation will be coming in the near term, and adopting a circular economy practice is top of mind for many organizations.

To address these requirements, companies have incorporated circular economy principles into their IT asset life-cycle plans, including client devices, which make up the largest share of assets within an organization. Organizations that have made progress on environmental objectives to include circular economy principles have also made progress on broader business objectives of better asset management strategies and reduced procurement cycles. Adopting a Managed Device Services model significantly reduces many of these end-of-life headaches and helps ensure compliance.

Organizations that adopt Managed Device Services experience improvements in the IT asset recovery and disposal process. Asset decommissioning is built into the solution, and IT staff are no longer responsible for tracking assets and managing recycling efforts. A key element for governance goals will be a well-informed IT life-cycle management strategy that includes a comprehensive decommissioning policy, which reduces security risks and improves sustainability metrics. In addition, most organizations include equipment recycling efforts within their sustainability plans to avoid financial and regulatory penalties. The value of an accurate and extensive trade-in/recycle program is twofold: Trade-in can be used to offset new equipment costs, which can improve the budget metrics of equipment refresh cycles; and recycled devices generate up to 70% less CO² emissions than new devices by eliminating the CO² emissions in manufacturing, transportation, and end of life (IDC's model for CO² reduction for IT equipment).

HP Managed Device Services (Formerly DaaS)

HP Inc. has been providing PCs, printers, peripherals, software, and services to companies for decades and has become a trusted partner and advisor for organizations looking to get the most out of their deskside technology assets. HP Inc. has combined its capabilities to create a Managed Device Services offering that can help provide a single source of truth and streamline PC life-cycle operations by enabling organizations to work with one vendor for all their PC, print, and collaboration needs.

In addition, HP Inc.'s Managed Device Services offering can help customers free up cash flow by providing a way to acquire assets through opex (monthly payments, for example) instead of outlaying a high capital expenditure. Other key benefits include improving the employee experience by removing user/IT friction, minimizing risk (from a security compliance and asset ownership position), and lowering IT costs.

HP Managed Device Services combines all the critical life-cycle services — Define, Design, Deploy, Monitor, Manage, and Support — into a cohesive end-to-end life-cycle management solution.

HP Inc.'s capabilities are broad and include the following:

- Al-driven approach using HP Inc.'s Analytics and Telemetry engine
- ➤ Al-driven predictive analytics across the entire fleet to anticipate and prevent device and application issues
- > Systems optimized on an ongoing basis by managing updates and ensuring governance and compliance
- Ability to determine what devices would be best suited for the employee by grouping employees by persona-based needs
- ➤ HP factory services support hybrid workers, including the use of HP Corporate Ready Image, Windows Autopilot, and factory-direct ship to home (this provides assets to the employee quickly and efficiently)
- Additional customer reach through channel partners for both sales and service delivery where appropriate/necessary (midmarket and SMB organizations rely on these trusted partners to provide services that enable stable and resilient PC operations)
- Managed Device Services provides detailed metrics about power and energy savings and ties these metrics to the organization's sustainability goals



Opportunities and Challenges

As a result of resource constraints, the market demand for offerings like Managed Device Services continues to grow as organizations look for ways to automate and improve operational resiliency and efficiencies. Organizations are adopting these life-cycle services and innovative products to enable their IT staff to focus on managing business outcomes rather than managing client devices.

IDC research reveals many new opportunities, including:

Market expansion with trusted partners.

Third-party Managed Device Services providers will expand the market and reach smaller and midsize customers that rely on trusted partners to manage their device portfolio (printers, PCs, and collaboration). These partnerships are also valuable for large enterprises that are dealing with global deployments.

A new kind of device intelligence.

Embedded analytics in offerings such as Proactive Insights and the HP Workforce Experience Platform will drive better employee and IT staff experiences. This intelligence enables optimization of device performance and may extend device life-cycles and enhance employee productivity due to improved maintenance and monitoring.



Better sustainability reporting.

Utilizing detailed metrics from the collected telemetry data will provide organizations with comprehensive reporting about power and energy savings due to the improved efficiencies delivered through Managed Device Services. Organizations can then use this data in their sustainability reporting to demonstrate improved utilization rates, energy efficiencies, use of refurbished equipment, and safe and secure asset decommissioning. IDC expects sustainability reporting to become a top-of-mind requirement for many organizations, as governments are beginning to require this level of detail with ties to tax incentives or financial penalties for noncompliance.

Faster adoption of newer Al-driven devices.

Managed Device Services may lead customers to adopt newer and possibly more expensive technology that increases user productivity faster. Using operating expense budgets and paying for IT assets in a subscription-like way may free up budget to upgrade systems to newer operating systems that are more powerful and are enabled for Al-type workloads, such as the newer versions of Windows, which are Copilot enabled.

There are obstacles to adoption, some of which include resistance to changes in budgeting styles and concerns about costs and value. The shift from a capital expense budget to an operating expense budget is often dismissed because it is not the preferred and standard business practice or it is perceived to add complexity to budgeting cycles. However, planning and procurement timelines typically shorten with the implementation of Managed Device Services because assets can be deployed within weeks instead of months.

One of the common reasons that teams delay Managed Device Services adoption is waiting for existing hardware contracts and software licenses to expire because the allocated budget is being used to support the current portfolio. A solution to this challenge is to offer bridge financing and transition programs for customers and partners to increase Managed Device Services adoption rates.

IDC observes that a renewed focus on alleviating technical debt and offering trade-ins for older equipment can remove budget hurdles and enable customers to transition to Managed Device Services.

Conclusion

As organizations become more advanced in the way they deliver, support, and manage PC assets throughout the life-cycle, their maturity level directly leads to reductions in time, cost, and IT staff effort and results in a better employee experience. Organizations need to assess where they are today in the delivery of services to their users to decide where they need assistance. Planning and assessing the processes that enable the complete workplace life-cycle allows companies to deliver the right experience to their employees efficiently, economically, and sustainably. Implementing Managed Device Services is a proven way to do that.

Appendix 1

Table 2 describes the nine primary PC life-cycle services by the four maturity groups according to IDC's PC Services Maturity Model based on the *PC Life-Cycle Optimization Survey*.

TABLE 2
PC Life-Cycle Services by Maturity Group

	Ad Hoc	Basic	Standardized	Advanced
Management	No centralized deployment, planning, management, or tracking of systems	Deployment status manually tracked through general office software tools (Excel)	PMO that aggregates deployment task status into centralized monitoring tools	Automated deployment monitoring and reporting with proactive issue resolution
Physical/remote deployment	Seven days or longer to get asset fully deployed to user	Five days to get asset fully deployed to worker	PCs shipped directly from OEM to campus locations, three days to deploy	PCs shipped directly from OEM to remote users, one to two days to fully deploy
Imaging	No real imaging process; take OS build that comes with PC, then add applications ad hoc	Image loaded as part of the PC build process done at the facility	A custom image loaded in factory prior to shipment	Extend onsite PC management to factory for custom imaging, domain join, and security updates
Application configuration and installation	<25% of apps and updates automated and successful	50% of apps and updates automated and successful	90% of apps and updates automated and successful	Applications available in self-service store
User data backup and migration	Files stored locally on the user's PC	Files stored locally (user data backup and migration)	Files stored locally (regular snapshots backed up to the network)	User data lives in secure cloud and available to user on any device
Client management and ongoing optimization (remote and on premises)	Systems management <50% successful at maintaining IT standards	Systems management 75% successful at maintaining IT standards	Systems management 90% successful at maintaining IT standards	Integrated and proactive protection of devices, data, and identity
Asset disposal and recovery	No standard of tracking PC assets, most not reclaimed	PC assets tracked and reclaimed but no formal disposal practice (warehoused or put in a closet)	PC assets tracked and reclaimed and given back to vendor or a recycling company	PC assets tracked and environmentally disposed of, reused internally, or sold at a profit

 $Note: IDC's\ PC\ Services\ Maturity\ Model\ is\ based\ on\ the\ \textit{PC Life-Cycle Optimization Survey},\ 2022.\ Source:\ IDC,\ 2022.$



Appendix 2: Supplemental Data

This appendix provides an accessible version of the data for the complex figures in this document.

Click "Return to original figure" below each table to get back to the original data figure.

FIGURE 1 SUPPLEMENTAL DATA

Advanced Organizations Experience Better Business Outcomes

	All Others	Advanced
Improved security	49%	77%
Improved employee productivity	43%	65%
Increased sustainability	39%	73%
Improved customer experience/satisfaction	38%	62%
Improved profit margins	36%	50%
Reduced business risk	36%	69%
Faster time to market for new products/services	36%	77%
Increased business resilience	33%	77%
Generating/capturing more revenue	31%	62%
Employee retention	30%	69%

Return to original figure

Notes: Leaders are Advanced (Level 4) organizations in IDC's PC Services Maturity Model. IDC's PC Services Maturity Model is based on the PC Life-Cycle Optimization Survey, 2022. Source: IDC, 2022

Appendix 2: Supplemental Data (continued)

FIGURE 3 SUPPLEMENTAL DATA

Advanced Organizations Save 11%-31% on IT Staff Deployment Costs

	Ad Hoc	Basic	Standard	Advanced
Project management	0.28	0.24	0.21	0.14
Planning and assessment of PC environments to create a transformative workplace	0.31	0.24	0.19	0.14
Staging and logistics	0.33	0.29	0.24	0.16
Physical deployment (in office and remote)	0.32	0.38	0.31	0.23
Imaging	0.33	0.35	0.31	0.26
Software install and configuration	0.36	0.35	0.31	0.24
Data migration	0.35	0.31	0.25	0.14
Post-deployment modifications	0.31	0.33	0.24	0.21
Asset recovery and disposal	0.27	0.26	0.23	0.17
Total	2.87	2.74	2.29	1.69

Return to original figure

Note: IDC's PC Services Maturity Model is based on the PC Life-Cycle Optimization Survey, 2022. Source: IDC, 2022

About the IDC Analysts



Rob Brothers
Program Vice President, Datacenter and Support Services, IDC

Rob is a program vice president for IDC's Datacenter and Support Services program, as well as a regular contributor to the Infrastructure Services and Financial Strategies programs. He focuses on worldwide support and deployment services for hardware and software and provides expert insight and intelligence on how enterprises should be addressing key areas for datacenter transformation and edge deployment and management strategies. IT hardware services covered include IoT devices, converged infrastructures, storage, servers, client devices, networking equipment, and peripherals. Software covered includes software-defined infrastructures, cloud support, operating systems, databases, applications, and system software. He also has expertise in the latest consumption models, which include as-a-service models such as device as a service.

More about Rob Brothers



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Elaina Stergiades is the Research Manager for IDC's Software Support Services program. In this position, she provides insight and analysis of industry trends and market strategies for software vendors supporting applications, development environment and systems software. Elaina is also responsible for research, writing and program development of the software support services market.

More about Elaina Stergiades

Message from the Sponsor



HP Inc. has been providing devices and services to companies for decades and is a trusted partner for organizations looking to get the most out of their IT decisions.

HP Inc. has a comprehensive Managed Services portfolio, making it easy to work with one vendor for services with expertise that span across PCs, Printers and Collaboration devices.

To learn more about HP Managed Device Services, please visit <u>HP.com/go/MDS</u>.

HP.com/go/MDS

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