Your Journey to AI PCs

HP Guide to AI Transformation

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HP Copilot+ PC Journey at HP

HP is embarking on a transformative journey to become a frontrunner in leveraging AI technology, empowering our workforce to minimize time spent on routine tasks and maximize engagement with customers and product development. This includes a combination of new AI enabled applications and the use of Copilot+ PCs[3].

Copilot+PC

Copilot+ PC is defined as a Windows PC that, features powerful silicon capable of over 40 trillion operations per second, all-day battery life, and ability to execute advanced AI models[3].

The fastest way to Copilot+ PC requires readiness in Windows 11 and Modern Windows Management.

Being an early adopter of Modern Windows Management, HP IT was able to complete the evaluation of Copilot+ PC[3] identifying configuration changes, new applications and optimizing employee experiences all in less than 30 days.

Also, during the same period of time, knowledge articles and support processes were updated to streamline experiences for our employees.

Modern Windows Managment:
Cloud Native Management using Microsoft Autopilot, Entra and Intune.

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Anticipated Benefits

The introduction of Copilot+ PC is enabling HP to create AI-driven solutions for specific use cases and employee personas, such as automated market analysis, personalized recommendations, and automated task bots. By executing AI applications locally, we **improve security** by ensuring data and the application remains near the source— eliminating lag and the risks associated with transferring to a cloud service. For instance, this local approach supports simple yet effective features like applying virtual backgrounds directly before video conferences to ensure smooth collaboration, without compromising security. Local execution also extends to other AI-enabled applications that HP is developing for employees to enhance their productivity in performing personal and professional tasks. This approach mitigates the risk of data breaches and unauthorized access, a critical consideration for businesses overseeing confidential information.

The **new memory architecture** of Copilot+ PC (integrating CPU, GPU, and NPU share a unified system) has notably boosted performance and battery life. This architecture facilitates faster data access and processing, leading to a marked increase in **user productivity**. During our evaluation, Copilot+ PC units equipped with 16GB of memory seamlessly operated under our standard device policies and security controls, alongside typical employee applications, without any observed lags or slowdowns. This contrasts with previous concerns about the performance on notebooks with only 16GB of memory, prompting a shift to 32GB as our standard configuration.

Additionally, Copilot+ PC's energy-efficient design results in an **improved battery life**, allowing devices to last longer on a single charge— a vital feature for mobile professionals who are frequently on the move. Previously, employees using traditional notebooks often needed to connect to power after only 2 to 3 hours of work. With Copilot+ PC, our workforce experiences less downtime and more consistent productivity throughout the workday.

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Our approach to testing

Change in the digital workplace is constantly accelerating. At the launch of HP Inc, IT leaders decided to adopt the use of Windows Modern Management (e.g., Microsoft Endpoint Management and Microsoft Entra). This, along with established principles, have enabled HP to simplify our approach to maintain, support, secure and advance our end user computing environment.

Our guiding principles through change include:

- Ensuring suppliers support any third-party security products.
- Ordering devices with the "HP Corporate Ready Image" which includes Windows, Microsoft Office, and necessary drivers.

When evaluating the Copilot+ PC, we added two additional principles:

- Ensuring the vendor supports their peripheral drivers.
- Ensuring core applications (those we distribute to all employees) have native architecture support.

With these principles in place, we configured our Intune Management settings to quickly deploy our Digital Workplace AI platform, which includes Copilot+ PC, controls, and AI-enabled Applications.

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Modern Management Setup

HP was an early adopter of Modern Management and already updated our endpoints to Windows 11[2], which simplified and accelerated our evaluation of Copilot+ PC. By creating new configurations in our Intune Console, HP was able to complete the evaluation and introduce the new Copilot+ PC to our pilot employees in less than 30 days.

Copilot+ PC autopilot profile

The best starting point is to create a new profile for evaluating Copilot+ PCs. This simplifies the targeting process and enables IT to make any configuration adjustments without applying them to other devices in the fleet.

Application testing

Given the many new features of Copilot+ PC, we decided to evaluate applications one at a time. This required excluding the Copilot+ PC device group from receiving all "core mandated" applications. The first Copilot+ PC uses a Qualcomm Snapdragon X Elite processor[1]. IT professionals will recall prior attempts with Windows on ARM. The HP IT staff also recalled those attempts. The recent work by Microsoft and Qualcomm has addressed the application compatibility challenge, resulting in successful operation of our additional managed applications, provided they do not depend on calls to the kernel or include a special driver, worked well.

Security

HP IT works with providers of security technologies used in our environment to ensure support from Independent Software Vendors (ISV) for the latest Windows Operating System[2], and any new features introduced with the latest generation of PCs. It's important to note that the first generation of Copilot+ PC may not have all the security features available in other commercial products. With each release of the Windows Operating system[2], HP IT evaluates new security controls. For the deployment of Windows 11[2], our device and security configurations were previously updated, so we only needed to focus on the new Copilot+ features. Notably, Microsoft plans to integrate Windows Hello with Copilot+ PC and AI applications.

Peripherals

When evaluating any new device, operating system, or applications, it is essential to assess peripherals. This includes common items such as cameras, audio devices, docking stations, monitors, and printers. By following our principle of "make sure Copilot+ PC peripheral drivers are supported by the vendor," we found that Copilot+ PCs functioned correctly in our environment.

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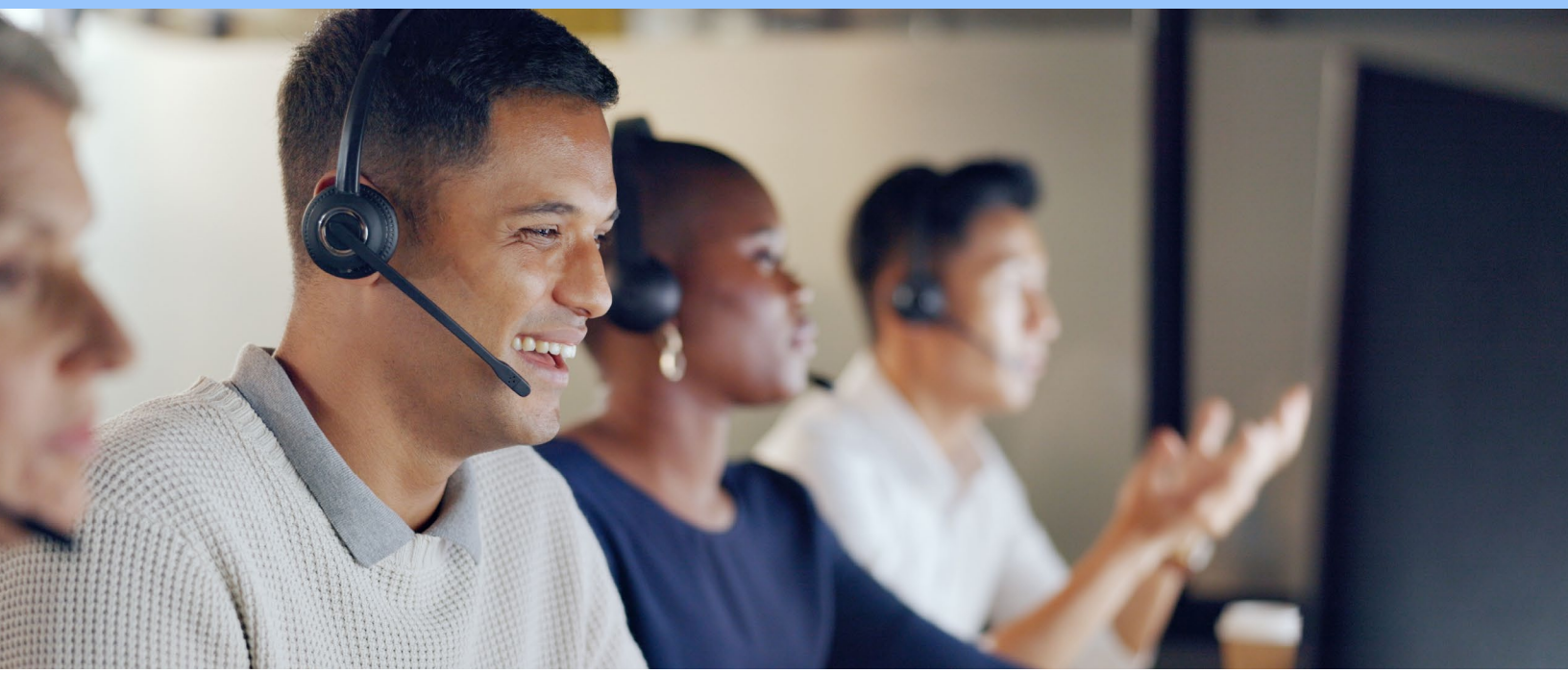
Enabling the IT support desk



As a best practice, the HP IT support services staff always participates in new product introductions for internal users. Initially, the HP IT Support Staff expressed concerns that the Copilot+ PC may require significant updates to knowledge bases and support processes. However, during the evaluation period, it was found that the new operating system and new hardware supporting the Copilot+ PC only required minor revisions.

Knowledge base

The HP IT Support team maintains a knowledge base of articles that help employees find solutions to common issues and guides Support Staff on how to address complex issues.

Diagnosing AI applications

Copilot+ PC introduces a new type of AI-enabled applications. These new applications can be significantly larger, well into the gigabytes, compared to their non-AI enabled counterparts. To reduce the possibility of requiring an employee to reinstall AI-application to remediate a problem, the HP IT Support team is working with developers on approaches to diagnose and resolve issues with AI-enabled applications, including the ability to reset models.

New PC features

As with any new PC introduction, the knowledge base includes descriptions of basic features, such as the location of the power button, along with optional features like a stylus, touch capabilities, or unique port features. For the Copilot+ PC, we included details about AI features integrated with camera, audio, as well as the Copilot Key.

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Support processes

Bare metal recovery

One critical task for the support desk is performing bare metal recovery of devices. The AI enabled version of the Windows 11 Operating System on Copilot+ PC requires a recovery image over twice the size of the HP "Corporate Ready Image"— nearly 15GB compared to 7GB for traditional notebooks.

When including Copilot+ PC in your bare metal recovery process, remember to:

- Be aware of the processor architecture! The first Copilot+ PC uses Snapdragon X Elite processors[1] which uses a different Windows binary.
- Ensure appropriate drivers are included in your recovery image.
- Note that native support for bare metal recovery over the network may not be available, depending on architecture and OEM features.

My AI-application is hallucinating

While planning support for the Copilot+ PC, the staff identified a need for a new process to address "hallucinating" AI applications. Hallucination occurs when AI-enabled applications generate factually inaccurate or illogical answers due to data and architecture constraints.

As AI-enabled applications are just emerging, the process captures employee's observation and routes them to an emergency response team within our Digital Transformation Office.

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Choosing your ambassadors

The introduction of Copilot+ PC includes new experiences for employees. Identifying champions or ambassadors to the community is crucial to assist in accelerating this transformation.

Selecting ambassadors: the criteria

Choosing the right ambassadors for our Test and Learn Program was a crucial step in ensuring its success. We sought cross-function individuals who embodied specific traits and belonged to employee groups that would benefit the most from this initiative. The following criteria guided our selection process:

1. **Eager to learn:** Ambassadors needed to display curiosity and willingness to explore innovative technologies and tools. Their enthusiasm contributed to the success of the program.
2. **Diligence:** Individuals who can observe and provide meticulous feedback help refine processes that create exceptional experiences.
3. **Initiative-takers:** Employees who take initiative and actively engage with the program provide valuable insights and drive continuous improvement.
4. **Willingness to provide constructive feedback:** Honesty and constructive feedback are essential. The ambassadors' willingness to share their opinions and suggestions helped enhance our offerings.

Targeted employee groups

To focus our Test and Learn Program, we carefully identified two specific employee groups who would benefit the most from the Copilot+ PC evaluation.

Modern Leaders:

These hands-on senior professionals manage multiple responsibilities while constantly on the move. With the autonomy to select their work devices, they are inherently tech-savvy and style-conscious, embodying leadership in the digital era.

Road Warriors:

These mobile professionals interact heavily with clients and manage their own schedules. Spending a significant amount of time with customers and traveling, they continually work between the office, customer sites and home.

The power of employee insights

Employee insights serve as a powerful tool in shaping the future of technology within the HP Inc digital workplace. By actively involving our employees in the decision-making process, we gain a deeper understanding of their requirements, pain points, and preferences. This knowledge enables us to tailor our offerings to meet their specific needs, enhancing their productivity and satisfaction.

By targeting these employee groups, we ensure that our program addresses their unique needs, challenges, and preferences, allowing us to tailor our offerings to suit their work styles and requirements.

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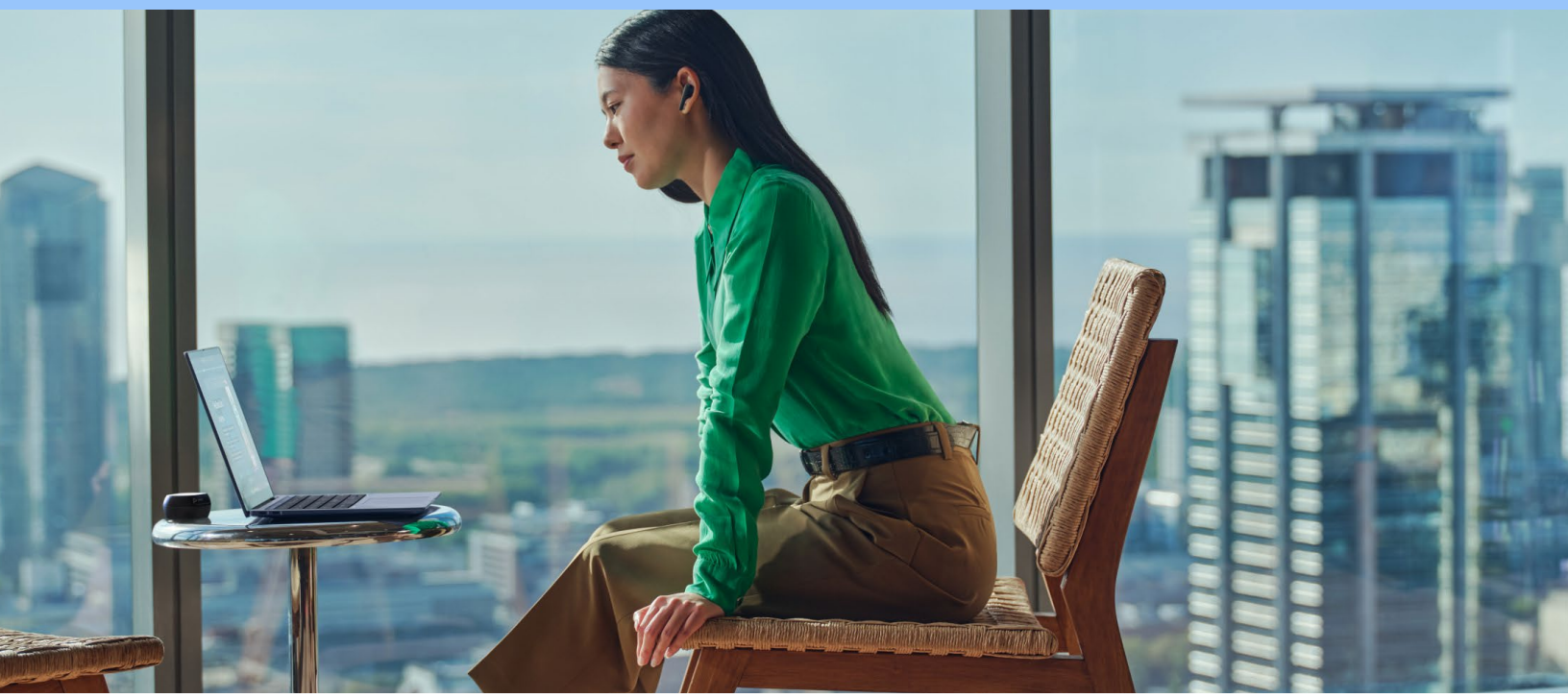
Conclusion



HP believes the transformation to AI enabled workplace has started. As a leader in your organization, you have a unique opportunity to shape the future of work with AI technology. Copilot+ PC is more than just a device; it is a platform that empowers you to harness AI's full potential for your business goals. Whether you want to enhance customer engagement, streamline workflows, or foster innovation, Copilot+ PC can help you achieve your vision.

Key benefits of Copilot+ PC, such as improved battery life and enhanced performance, are no longer theoretical.

Our testing has validated these benefits, demonstrating the positive impact on our employee's daily work. We have witnessed how AI can automate tasks, optimize processes, and deliver personalized recommendations. This isn't merely an upgrade; it is a shift to a smarter, more efficient way of working.

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Checklist

Are you ready to start deploying Copilot+ PC[3] in your environment? Consider the following checklist:

Have you deployed Windows 11[2]?

- Copilot+ PC[3] operates on the latest Windows 11 release, so if you have not made the transition, now is the ideal time to do so. If you need assistance with your deployment, HP Professional Services is available to support your project.

Are you using Modern Management?

- Using tools like Autopilot, Entra, and Intune will help you accelerate the deployment Copilot+ PC's[3]. Simply procure devices that are ready for deployment in your business environment. When ordering HP devices, check the boxes for "Corporate Ready Image" and "Autopilot registration" to streamline deployment directly from the factory.

Update device configuration and Windows Security settings

- Make sure your device configuration and Windows Security settings are updated to align with Windows 24H2 and Copilot+[3] features, following your organization's policy. To simplify evaluation and deployment, consider creating a Copilot Autopilot profile.

Application compatibility

- One of our guiding principles is to ensure third-party security applications and any applications containing device drivers are supported by the ISV for the targeted Windows Operating System and new Windows PC device.
- The historical challenges with application compatibility of Windows on ARM have been addressed by Microsoft and Qualcomm.
- To optimize employee experiences, select applications and their versions that offer native compatibility with Copilot+ PC[3].

Software distribution

- Ensure your selected software distribution method deploys the optimal version for your specific Copilot+ PC[3] device. For example, deploying applications compiled for ARM will provide a better experience for the Snapdragon Elite X Pro devices.
- To simplify IT tasks associated with software distribution, many independent software vendors package a variety of versions in a single distribution. Microsoft automatically distributes the optimal software version for those applications accessible via Intune Enterprise App Management or the Microsoft Store.

Update support processes and knowledgebase

- Copilot+ PC's[3] introduce exciting new features. Engage your support team to update existing processes or create new ones your organization may require.

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Definitions

Copilot+ PC[3]

A new class of Windows 11 AI PCs. Copilot+ PCs include a neural processing unit (NPU) capable of performing over 40 trillion operations per second (TOPS). With native features to locally execute advanced AI models. Copilot+ PCs enable tasks that go beyond what other PCs can achieve.

Modern Windows Management

Modern management of Windows refers to centrally managing and securing devices using cloud-based tools like Microsoft Intune, Autopilot and Entra. It emphasizes cloud-centric management, automation, and self-service capabilities to streamline device administration and enhance user productivity in modern workplaces. This approach allows organizations to simplify deployment, improve security, provide better end-user experiences, and lower costs for Windows devices.

ARM Processor

Advanced RISC Machine is a family of reduced instruction set computing (RISC) architectures. These processors are known for their energy efficiency, performance, and widespread use in mobile devices, cloud computing, edge computing, and AI applications and most recently the first generation of Copilot+ PC[3].

Windows on ARM

Refers to a version of Microsoft's Windows operating system designed to run on computers with ARM processors such as the Qualcomm Snapdragon X Elite Pro used in the Copilot+ PC[3]. Windows on ARM boast superior battery life, local AI acceleration using integrated Neural Processor. With investments by Microsoft and Qualcomm, extensive support for older Windows Applications.

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Disclaimers

1. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Qualcomm's measuring is not a measurement of clock speed.
2. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
3. Copilot in Windows requires Windows 11. Some features require an NPU. Timing of feature delivery and availability varies by market and device. Requires Microsoft account to log in. Where Copilot is not available, the Copilot key will lead to the Bing search engine. See http://aka.ms/WindowsAIFeatures