How to Prepare for Copilot in Windows

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Copilot in Windows, a generative AI enhancement in Windows 11, can change how employees interact with their PC. Despite its current immaturity and signs of a rushed release, it adds useful capabilities to Copilot and will ease IT leaders into using AI as part of their daily routine.

Overview

Impacts

- Microsoft has consolidated its chat-based GenAI functionality under its Copilot brand, renaming the former Bing Chat Enterprise to Copilot and making it available across all platforms as a web service and bundling it into Windows.

- Copilot in Windows (CiW) provides a chat-based UI for Windows based on Copilot (the former Bing Chat Enterprise). It can be used for searching, getting help and interacting with the OS, and is the most visible example of AI in Windows. CiW capabilities and global scope are limited in its early release, but it will evolve quickly and become an important new interface for Windows.

- Many enterprises are rightly concerned about the security and privacy challenges of using GenAI. However, CiW, when used with an M365 account, does not use chat data to train models or store the data.

Recommendations

IT leaders responsible for managing Windows 11 deployments should:

- Prepare for the arrival of CiW as part of the Windows 11 23H2 feature release by beginning pilot testing and setting policies to block broad deployment until the IT security organization has approved Copilot for use.

- Treat CiW as an alternative way to access Copilot, enabling it for Windows 11 users. This will prepare employees for future Windows updates, which will rely more heavily on CiW.

Introduction

On 26 September, Microsoft released an update for Windows 11 that included a preview of Windows Copilot, "Copilot in Windows" (CiW), as it is formally named. While related to the broader Microsoft Copilot offerings released for M365 in November 2023, it is a separate and more narrowly targeted offering specifically designed to support an individual using a Windows PC. At present, it works both for consumers using a Microsoft Account or business users logged in with an Entra ID/Azure AD account. CiW is powered by what was formerly called Bing Chat (or Bing Chat Enterprise in the business setting), but recently branded Copilot, Microsoft's cloud-based chat UX. For now, Microsoft is prioritizing additional functionality for consumers over enterprise customers, and there will be discrepancies in feature parity between the two options until CiW is generally available.

The first iteration of CiW is immature, with limited integration to the OS. However, even in this state, the possibilities for how it could evolve and become a powerful addition to the user experience are obvious and exciting. CiW provides a GenAI-based conversational method for searching, getting help and interacting with the OS.

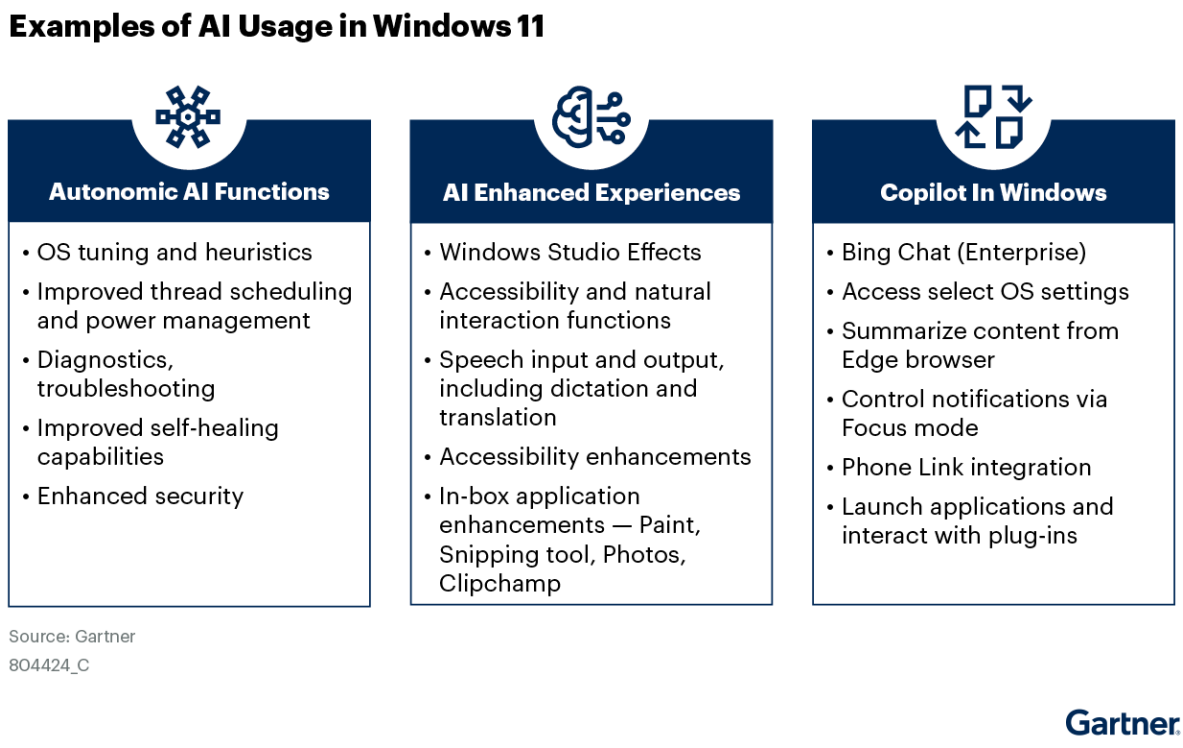
While CiW is the newest and most visible implementation of AI within Windows, it is not the only one or even the most mature (see Note 1). In addition to CiW, Windows 11 also currently leverages AI for:

- Autonomic operations — Leveraging AI to improve the underlying operation and reliability of Windows.

- Enhanced applications experiences — Adding functionality to applications and the overall Windows experience (i.e., snipping tool, Paint).

Although these are technically separate unrelated offerings as Microsoft rapidly ramps up its marketing and messaging around AI, it often conflates these with the Copilot branding. This will settle out through 2024 as Copilot takes the forefront, and the other uses of AI just fade into the background (see Figure 1).

Figure 1: Examples of AI Usage in Windows 11



Impacts and Recommendations

What is Copilot in Windows?

CiW is a Windows 11 feature that is currently available in preview, but will become more broadly available with the release of Windows 11 2023 (23H2) in November. Microsoft recently announced that it will also be available for Windows 10 with minor reductions in functionality. Initially, CIW is only being offered in North America, the U.K., and a few countries in South America and Asia. These limitations are mostly due to local privacy regulations or language localization challenges and should be resolved over time. Enterprise admins can either block or restrict access to CiW based on policy settings, but have no granular control of specific CiW features. Unlike M365 Copilot, it does not require any additional licensing or cost.

CiW is part of Microsoft's overall "surround" strategy for AI. AI will pervade every aspect of the Microsoft experience, from PC to cloud to applications. For Microsoft, the challenge will be handling the potential confusion that exists between CiW and the licensed M365 Copilot. The complementary nature of the two offerings, and even Microsoft's own promotional materials, tend to overlap the functionality. For many employees, the functionality provided by CiW will be suitably impressive when working with local applications and data. Already, CiW can summarize a large document or email thread or generate a short paragraph response to a query, albeit not leveraging M365 graph data, but just the local applications. Plug-ins to extend the capabilities to interact with PDF files and images are currently available for consumers. Enterprise customers should get this capability in the next few months. CiW is a personal tool to aid a user with the potential complexities of working with applications and Windows. On the other hand, M365 Copilot — with access to the Microsoft Graph and the full range of M365 applications — provides a more complete and managed group productivity capability, targeted at more substantial capabilities. For some smaller organizations or those looking to just experiment with GenAI, CiW might act as a lightweight, cost-effective entry to learn how Copilot might help employees.

The initial release of CiW is limited to basic functionality and is mostly a placeholder for Microsoft and third parties (via plug-ins) to expand upon. Currently, it is tightly coupled with browser-based Copilot, but runs in a fixed sidebar on the Windows 11 desktop, enlightened with some additional hooks to the OS.

At present, Microsoft is making no attempt to personify CiW like other personal assistants such as Siri, Alexa or even Cortana. Rather than a proactive assistant, it is an enhancement to the Windows user experience, enabling a new way to interact with the OS and navigate through its complexity. Along with providing GenAI-enhanced search via Bing, CiW will eventually be able to perform multi-step tasks spanning multiple dialogs via prompts. This will provide orchestration of simple, multi-app activities by leveraging plug-ins. Examples include pasting and manipulating images from the Edge browser to create a social media post, checking texts on a connected smartphone via the Phone Link app or starting an application based on a prompt. CiW is not positioned as an advanced IT automation tool for complex business functions, but rather a way for an individual to simplify and automate everyday interactions with the local PC.

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While this positioning is likely to evolve, this conservative stance more realistically aligns with the real-world use cases and current needs of consumers and employees. It will serve as an entry point for employees not yet ready to become citizen programmers but who are looking to do more complex tasks that require multiple steps. It will also expose some of Windows' more arcane but useful features, and assist employees with customizing their Windows experience through settings.

During the launch event, Microsoft demonstrated several interesting features that hint at potential future business uses, including building an Instagram post with Microsoft Designer and Adobe Express. However, many of those features are not yet in the product and delivery dates and are unclear. In its current form, it provides some useful if limited functionality, such as:

- Copilot (formerly Bing Chat or Bing Chat Enterprise) features
- Access and change select OS settings
- Access and summarize content in an Edge browser window without cutting and pasting the content
- Control focus sessions and application notification settings
- Provide basic interaction with installed apps, such as starting an application based on a requested activity

Near-term Microsoft plans to add:

- Image manipulation and orchestration with more third-party tools via plug-ins
- Integration with a user's connected smartphone via Phone Link
- Basic integration with texting, messaging and mail functions via the locally installed applications
- More advanced clipboard integration

Recommendations:

- *Begin experimenting with CiW to understand current capabilities and monitor how these will change.*

- *Expect and plan for frequent and potentially significant changes functionality and operations over the next 12-8 months.*

Short-Term Issues With the Initial Release

The initial implementation was the most expedient and pragmatic option for getting some visible AI capability into the OS and aligning with the rest of the M365 product family. However, it creates some challenges for users. The current sidebar panel model feels awkward and consumes valuable screen real estate. The panel can't operate in a hidden mode or be repositioned. It also can't be resized, which makes it hard to read larger responses as the narrow column format causes many responses to run off the screen. CiW doesn't follow Windows conventions for window management or snapping. All of these issues are expected to be improved over the coming months.

CiW is also hampered by poor responsiveness, which makes it less suited to the personal assistant role when compared with common assistants like Alexa, Siri or even the now gone Cortana. In keeping with Microsoft's positioning, it also lacks full speech support, currently supporting only speech input only when the user clicks a button, which also triggers rudimentary speech output capability. It lacks any sort of hands-free operation mode and can't operate in the background. Nor can it function offline, as it requires a connection to the cloud-based service.

Substantial performance improvements and offline support will require shifting some processing onto the local PC, and that, in turn, requires local enablement via an NPU. We expect such AI PCs to become broadly available in mid-2024 with the release of the Intel Core Ultra processors. Adding a more personable speech-driven experience could also be accomplished by reviving some of the latent Cortana elements, should Microsoft decide to go down that route. A more ambient, speech-based interface would be less intrusive, providing a more natural and comfortable option for many types of engagement — particularly when partnered with a better display window option. However, as noted previously, we don't believe that is Microsoft's near-term plan, as Microsoft sees AI being woven through all activities and acting as a part of the user experience, rather than as a distinct entity.

As with most cloud-based GenAI services, enterprises are rightly concerned about their corporate data leaking into the models via prompts or other forms of model training. Like Copilot when CiW is used with an Entra ID in a corporate setting, chat data is protected. None of the prompts or data is fed back into the model or stored. However, this is still maturing, and CiW carries the same challenges with security certifications and privacy, such as ISO 27001 or Microsoft's EU Data Boundary commitments as Copilot, which has for now limited its global availability. IT leaders will need to understand the risks and protections as they move to implement CiW and any GenAI tools. (see Quick Answer: How to Make Microsoft 365 Copilot Enterprise-Ready From a Security and Risk Perspective)

Recommendations:

- *Prepare for the arrival of CiW as part of the Windows 11 23H2 feature release by beginning pilot testing.*
- *Set policies to block broad deployment until the IT security organization has approved Copilot for use.*

How to Respond to CiW

The current version of CiW is a preview and will see significant change and reworking from both a functional and presentation perspective before reaching general availability and even beyond. As it is, the implementation feels clumsy and redundant with the Edge sidebar or Copilot in a browser, which may confuse employees. However, we expect it to evolve quickly, and it should gain new functionality at several points over the next 12 months. Expect frequent and potentially significant changes in the next couple of years.

As it stands, there is no reason for enterprises that allow access to Copilot/Bing Chat Enterprise to restrict access to CiW.

Recommendations:

- *Pilot CiW with a core group of employees, and then make it available for broad use with basic guidance as an alternative way to access Copilot.*
- *Expect ongoing changes and pilot new features when they are made available as part of the Insider program.*

Note 1: Other examples of AI usage in Windows 11

Autonomic AI functions

AI is being leveraged within the OS to improve the underlying operation and reliability of Windows.

- OS tuning and heuristics
- Improved power management
- Improved thread scheduling
- Performance enhancements
- Diagnostics and troubleshooting
- Enhanced detection of failures and preprocessing of Watson reports
- Improvements to auto-repair troubleshooters
- Optimizing OS operations
- Optimizing boot processes and startup
- Improved scheduling of background activities, like updates
- Security functions While most of the security messaging will fall under the Defender brand, a lot of this will use enablement and instrumentation built into the OS itself and leverage AI to improve its capabilities.

Enhanced AI Experiences

AI is being used in various features and applications within Windows to improve the user experience with specific tasks. Enhancements to image manipulation, videoconferencing image and sound quality, and photo editing are some of the areas being injected with AI, albeit mostly behind the scenes.

- Windows Studio Effects
- Improvements to camera and microphones performance and functionality across the OS

- Accessibility and natural interaction functions
- Handwriting and text recognition
- Speech input and output including global dictation and translation
- Visual enhancements
- Predictive actions including accessibility support for gestures
- In-box application enhancements
- Enhancements to snipping tool to perform text extraction from screen clips
- Paint, Photo, and Clipchamp for photo and video creation and editing to match functionality, which is being added to third-party applications for basic image handling
- Support for client execution of cloud models
- Local execution frameworks
- Stable diffusion models running locally
- Programming models to support AI embedded in applications and shield developers from implementation detail.

Recommended by the Authors

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