



Enterprises Are Taking a New Look at Chromebooks

White Paper | Parallels Desktop for Chrome OS

Why Your Business Should Take Notice

Having already posted substantial gains in previous years, Chromebooks unsurprisingly took an even greater leap last year amidst the COVID-19 pandemic. In fact, Chromebooks recognized a [122% shipment growth](#) year-over-year in Q3 of 2020 and led the pack for personal computing devices by a wide margin. Certain key factors fueled this growth.

In this white paper we'll dive into:

- Chromebooks' growing popularity and wild acceleration in 2020
- The limitations holding this device back from business and enterprise adoption
- How to overcome that limitation with Parallels® Desktop for Chrome OS

Chromebooks' Growing Popularity and Notable Acceleration in 2020

When Chromebooks began penetrating the market from [2011 to 2016](#), they quickly gained traction in the education sector. Their affordability and extraordinary battery life aligned perfectly with students' needs. Fast forward half a decade, and those same characteristics remain. But Chromebooks have gained further improvements that are now making them appealing to other industries as well.

In recent years, leading hardware manufacturers began adding enterprise-grade Chromebooks to their product lines. These sleek, high-octane devices offer flexibility, security, robust OS and a clean UI, along with hefty memory, storage, and computing power that businesses require. And while their price point is higher than the low-end Chromebooks purchased in bulk by schools, Chrome Enterprise devices remain an affordable alternative to many comparably equipped PCs and laptops—especially when viewed through the lens of TCO.

These developments have brought the dream of a single fleet of Chromebooks that can manage all aspects of enterprise operations tantalizingly within the reach of CIOs and CTOs looking to simplify and streamline their teams' operations.

From an IT administration standpoint, managing an entire fleet of Chromebooks is painless. First, Chromebooks update automatically with minimal to zero human intervention. Bug fixes, security patches or new software features, whether for the operating system, browser or the device itself, are applied regularly.

Secondly, IT administrators can manage all Chrome devices from one place—the Google Admin console. From this console, administrators can manage applications, enforce policies, provide access to corporate VPNs and Wi-Fi networks, force-install Chrome apps and extensions, manage guest sessions, apply kiosk policies and perform several other administrative functions.

Last but not least, Chromebooks already have multi-layered security baked into their DNA. The auto-updates ensure known vulnerabilities can be eliminated long before an exploit occurs. Even if a threat is detected, the Chromebooks' sandboxing feature, which forces each web page and application to run in a restricted environment, can contain that threat and prevent it from affecting other areas in the device.

Should the threat somehow break out of the sandbox, it still won't be able to linger long. Each time a Chromebook starts up, it performs what is known as a 'Verified Boot', which is essentially a self-check that, upon detecting something suspicious, will automatically switch the device to Recovery Mode. This mode enables the user or IT admin to perform a simple recovery process that will bring the device back to a state that's as good as new.

These are just some of the many management and security functions in Chromebooks that make life easy for IT administrators.

The features and functionality that make Chromebooks such an attractive option became exponentially more valuable in 2020. This was an unprecedented year in which students and employees had to work remotely to minimize the risk of infection due to COVID-19. Suddenly, devices that could enable secure, connected, uninterrupted work from anywhere, became absolute necessities.

Per a recent [Gartner survey](#), 82% of company leaders intend to permit employees to continue to work remotely some of the time post pandemic, which will only heighten the demand for these types of devices.

The Limitation of Chromebooks for Businesses

From a management, security and economic standpoint, Chromebooks are very appealing. However, most businesses are still hesitant to replace their current laptops with one. A big reason is because Chromebooks can't run full-featured Windows applications. That includes not only Microsoft Office applications like Word, Excel and PowerPoint, but also Windows-based accounting software, medical software, line-of-business (LOB) applications and others.

Although you can use online versions of Word, Excel and PowerPoint, these versions lack some key features, which hampers productivity. For example,

- You can't add trend lines to charts in Excel
- You can't add a table of contents in Word
- You can't add custom fonts or headers/footers in PowerPoint

Worse, you would have to jump through hoops to work on documents you originally created online as soon as you lose Internet connectivity. These inadequacies prove to be a big stumbling block for Chromebooks outside the education sector. After all, Windows does still reign supreme among desktop operating systems, having grabbed a commanding [76.56% global market share in 2020](#).

Virtual desktop infrastructure (VDI) solutions are a popular way to bridge this gap, as they support a wide range of devices including low-end Chromebooks, and come with additional audit, reporting and management capabilities. However, these solutions can be costly to implement, require infrastructure, and are vulnerable to internet bandwidth limitations, leading to slow response times and performance disruptions. The latter is particularly problematic when the [popularity of remote work](#) is very likely to continue.

How You Can Overcome This Limitation with Parallels Desktop for Chrome OS

For more than a decade now, Mac users have been able to run Windows and Windows applications seamlessly on their Mac devices using a virtualization software known as Parallels® Desktop for Mac. Although there are other virtualization solutions for running Windows on macOS, Parallels Desktop 16 is the best virtualization option according to longtime Apple magazine (now in online form), [Macworld](#). Last year, Parallels released a similar solution for Chromebooks.

Parallels is a global leader in cross-platform solutions. In addition to Parallels Desktop (and its different variants), Parallels also develops Parallels® Remote Application Server (RAS), a VDI solution that enables organizations to host virtualized desktops and applications in a central location like a datacenter or cloud infrastructure and deliver them remotely to endpoint devices.

It also develops Parallels® Mac Management for Microsoft System Center Configuration Manager (SCCM), the powerful SCCM plug-in that enables IT administrators to easily manage Mac computers alongside Windows PCs from the same familiar interface of SCCM.

All in all, Parallels has 21 years of engineering experience and an impeccable track record of producing highly successful cross-platform solutions. This proved to be more than enough to forge a long-standing partnership with Google. Parallels has worked with Google in developing some of its cross-platform solutions. Their latest collaboration yielded what is now the world's first software to run Windows directly on Chromebooks—Parallels® Desktop for Chrome OS.

Currently designed for Chrome Enterprise devices, Parallels Desktop for Chrome OS enables organizations to run full-featured Windows applications, including MS Office applications and just about any current and legacy Windows-based application out there. More importantly, it does this without requiring an Internet connection. Users get the same full set of features whether online or offline.

Seamless switching from Windows to Chrome OS

Switching from Chrome OS to Windows is quick and easy. If you're a Mac user and familiar with Boot Camp, Parallels Desktop doesn't work that way. That was too time-consuming. There's no need to reboot to shift from Chrome OS to Windows and vice versa.

Once you're logged in to your device and have launched Parallels Desktop, you can work in your Windows environment in either full-screen mode (where it takes up the entire screen) or window mode (where it appears in a Window in your Chrome OS environment). When in window mode, any time you want to work in Chrome OS, just drag your mouse pointer outside the Windows window and click in any element in Chrome OS.

Easy access to Windows files, folders and clipboard contents from Chrome OS and vice versa

You can easily share (or un-share) folders in Chrome OS so that files in that Chrome OS folder can be accessible from Windows. Once a folder is shared, you can also save to that folder from any Windows application so that that saved file can likewise be accessible from Chrome OS. You can even share folders from Google Drive.

The clipboard is shared between Chrome OS and Windows as well. That means, you can copy and paste text and graphics from/to the two environments and use them in applications, regardless of which environment those applications are running on.

Effortless printing

If you have printers already connected to your Chromebook, you can use those printers from within your Windows applications. You can also use printers that are only available in Windows.

Centralized management

IT administrators can perform several key Parallels Desktop-related tasks on the Google Admin console. These tasks include activating/deactivating Parallels Desktop for selected users, deploying a corporate Windows image to selected users, specifying disk space required for the Windows VM, and so on.

The combination of Parallels Desktop for Chrome OS and high-end Chrome Enterprise devices opens the doors to a whole new range of possibilities. This now makes it possible for organizations to run Windows-based line-of-business applications, in-house developed applications, and ArcGIS-powered applications, to mention a few—a feat that was virtually impossible in regular Chromebooks, leading technology news and analysis website ZDNet to name the solution [one of the top three tech innovations of 2020](#).

As of this writing, Parallels Desktop for Chrome OS is supported by the following devices (with more coming soon):

Acer	Chromebook Spin 713 (CP713-2W)
Acer	Chromebook Spin 13
ASUS	Chromebook Flip C436FA
Dell	Latitude 5300 2-in-1 Chromebook
Dell	Latitude 5400 Chromebook
Dell	Latitude 7410 Chromebook
Google	Pixelbook
Google	Pixelbook Go
HP	Pro c640 Chromebook
HP	Pro c645 Chromebook
HP	Elite c1030 Chromebook
HP	Chromebox G3 Enterprise
Lenovo	Yoga C630 Chromebook
Lenovo	Yoga C13 Chromebook