ESG Lab First Look

HP Chromebook 13 G1: A Replacement for PCs?

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According to ESG Research: [1]

70% The percentage of organizations that believe corporate/IT-provided Chromebooks will have an impact on their existing Windows-based endpoint device footprints.

56% The percentage of organizations less than 10 years old that believe corporate/IT-provided Chromebooks will have a *significant* impact on their existing Windows-based endpoint device footprints.

One of the biggest challenges facing modern IT organizations is managing all of the Windows PCs that their users work with every day. They're expensive to purchase, deploy, and maintain, are frequent targets of viruses and malware, and have to be backed up regularly. OS and application updates are time-consuming and intrusive. When a user loses a PC, a new one must be rebuilt with an OS, applications, licenses, and original data—this doesn't even take into account the potential security issues if someone else finds it.

The HP Chromebook 13 G1

HP's Chromebook 13 G1 is a new, notebook-sized computer designed to replace Windows PCs for certain business users. With its brushed aluminum exterior and squared-off black keys, it resembles a traditional notebook PC, and at a glance it might be confused with an Apple MacBook Air. In use, it has a solid, comfortable feel. Our hands-on testing focused on evaluating how quickly we could get to the Internet and access our cloud-based files and applications, since that's how they are stored with a Chromebook. We also looked at the overall performance feel, with an eye toward how ready Chromebooks are to replace Windows PCs in workplace applications.

Chromebooks are designed to store their user data in the Google Cloud. Using Google Apps such as Docs, a user is able to go back to an older version of a file because the Google Cloud supports versioning. In fact, there is no "save" button because everything is saved automatically. Since cloud services store their data centrally, there's virtually no need to back up individual Chromebooks.

Users cannot install third-party applications on Chromebook's ChromeOS; applications must come from the Chrome Web Store. As a result, Chromebooks are safe from viruses. It is possible, however, to install a malicious extension on the Chrome browser, but cleanup is much easier than on a Windows PC. Chromebooks come with Powerwash (relax, no water is involved), a three-minute process that wipes the Chromebook clean and restores it to its factory settings.

If a Chromebook is lost or stolen, the domain administrator can remotely disable it. A disabled Chromebook can display a message that shows how and where to return it, and, once recovered, it can easily be re-enabled. Meanwhile, a user can obtain a replacement, log in, and resume working with minimal interruption since the data is stored in the cloud.

The price of a high-performance Chromebook is comparable to that of a laptop. The biggest difference for business is the reduction of administrative overhead; some administration is required in a Chromebook environment, but far less than for Windows. Configuring a user on a Chromebook does not require imaging or installing Windows or touching Active Directory. There are no OS or app updates, backups, security headaches, or antivirus software to manage. And when a Chromebook is lost or damaged, getting a user back online is as easy as handing the user a replacement. The savings are most evident at scale when dozens or hundreds of endpoints don't need all that recurrent routine management.

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[1] Source: ESG Brief, *Is the Google Chromebook Business-ready?*, March 2016.

ESG Lab Demo Highlights

ESG Lab evaluated a Google-provided high-end Chromebook. We evaluated overall performance and ease of use, particularly that of file and application access in Google Drive. We also looked at how it felt for a typical user to work on a Chromebook rather than a PC.

Hands-on with the Chromebook

- The startup process is remarkable in its ease and simplicity. With no documentation provided, ESG Lab removed the HP Chromebook from the box and lifted its lid, and in about five seconds, we were presented with a welcome screen. We entered our preferred language and keyboard style, and the name of our Wi-Fi network. We signed into the Wi-Fi network, clicked through the obligatory licensing agreement, and logged in. Total elapsed time was under a minute, and there were no complicated questions to answer or decisions to make.

- We logged into a preexisting Google account and were automatically signed into several related Google sites, including Gmail, Calendar, YouTube, and Hangouts. The Chrome browser had all of our bookmarks and extensions immediately available.

- All of our browser applications were also instantly present. We saw the contents of our Google Drive, and had access to Google Docs, Slides, Sheets, and the rest of the apps. We were never presented with a "Please Wait" or an hourglass. The whole process looked and felt entirely fluid and automatic.

- When we signed in as a second user, the process and performance were the same. A single Chromebook can support an unlimited number of users; the limiting factor will most likely be its 32 GB of internal storage.
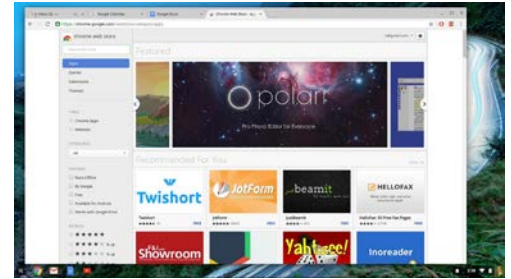
Organizations have avoided Chromebooks in the past because of two key concerns: 1) the inability to install and run Windows applications, and 2) the assumption that Internet connectivity is required for functionality. Neither of those are true anymore. Windows applications can be run via virtual desktop infrastructure clients like Citrix Receiver and VMware Horizon that can deliver fast, secure virtual Windows desktops, although they do require significant centralized administrative effort. Additionally, a wide variety of popular, useful applications can run on Chromebooks not connected to the Internet. Gmail and Google Calendar provide offline modes. Popular third-party applications like Evernote, Pocket, Sketchpad, and Wunderlist can all run offline, and the Chrome Web Store offers hundreds more. Google has announced plans to support Android apps in Chrome OS this fall, which will enable access for more than one million Google Play apps. It's true that Chromebooks run better when there's a network connection, but that's true with any computer nowadays.

First Impressions

ESG Lab took the HP Chromebook 13 G1 for a test drive and found it to be a solid, highly performing machine that can replace Windows PCs in many business environments. It offers performance, security, privacy, and compliance, and does its job with far less administrative overhead and complexity than a PC requires.

We recommend that businesses consider the Chromebook as a possible PC alternative during a hardware refresh and for shared device scenarios because of the reduced management overhead, the ease of deployment, and the overall risk reduction. They can be shared among users, address old concerns about connectivity and Windows apps, and are virus-free and secure even if they get lost. Chromebooks are a safe and smart choice for a variety of organizations.