

Centrally Managed Direct IP Printing for Chrome OS

How PrinterLogic's Chrome OS Client Extension provides secure, reliable and scalable print management, even in mixed-OS environments

PrinterLogic



Introduction

PrinterLogic SaaS is a true software-as-a-service print management platform that helps customers eliminate print servers and centrally manage direct IP printing. It is a highly available, serverless solution that's printer-agnostic and allows IT administrators to deploy printers to users of every mainstream endpoint operating system.

PrinterLogic's Chrome OS Client Extension is the first serverless solution that enables IT teams to centrally manage printing for Chromebooks alongside other operating systems. Whether an organization is migrating from Google Cloud Print, or just beginning to adopt Chromebooks as part of the endpoint mix, the solution is simple to deploy and administer. Instead of sending print jobs to the cloud for rendering, PrinterLogic keeps them on the local network by processing print jobs on user endpoints and sending the jobs directly to network printers.

This paper explains how the PrinterLogic Chrome OS Client Extension solves Chromebook printing challenges in the enterprise and provides a high-level overview of how the extension works.

Chrome OS Printing Challenges

Chromebooks are well established in the U.S. K-12 education space, with an estimated 60 percent market share in 2018. Adoption of Chrome OS devices in the enterprise is well positioned for growth because they are attractive as secure, cost effective endpoints, and are well-suited for mobile users.

Many organizations that are evaluating Chromebooks have a mix of Windows, MacOS, and Linux endpoints. Some printing solutions targeting mixed OS environments treat Chromebooks as mobile devices and so offer a limited feature set. Those organizations that are serious about deploying Chromebooks need a solution that will treat them as an equal peer to the mainstream operating systems and not just another mobile device. Otherwise, they require separate management platforms to support Chromebook rollouts—which adds extra time, workload, and cost to these projects.

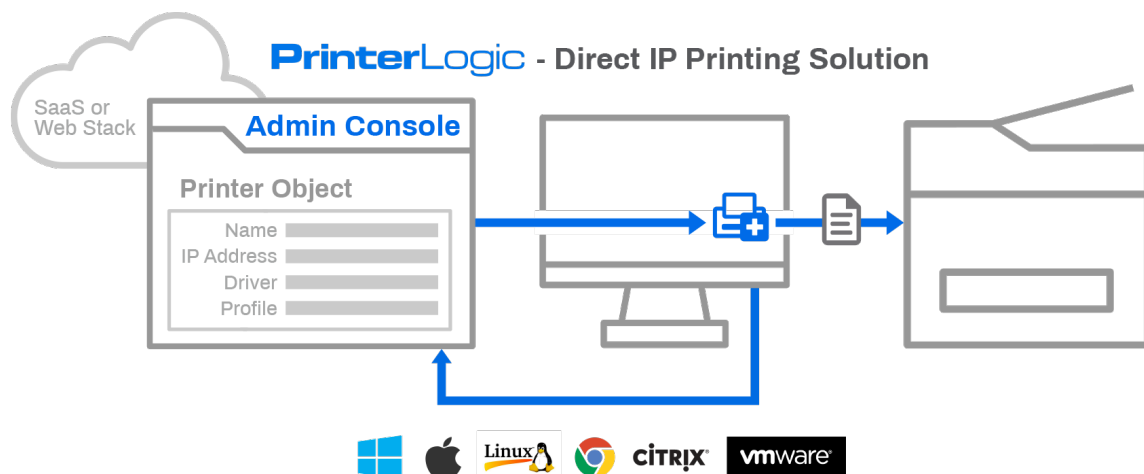
With Google's announcement of Google Cloud Print deprecation, customers are forced to reconsider how to architect printing for Chromebook users. While cloud printing helps eliminate servers, many enterprises have the following concerns about rendering print jobs in the cloud:

- **Security of corporate information.** Many customers cannot accept a print architecture that sends print jobs outside the corporate network.
- **Performance and reliability.** Cloud-based print servers can go offline, stopping all printing activity until the outage is resolved.
- **Speed of printing.** Print jobs rendered in the cloud can be large files that move slowly across the WAN, causing a slow or delayed printing experience for users.
- **Manageability and Scalability.** Unmanaged CUPS printing is possible, but becomes difficult to control as the organization grows.

The Solution - PrinterLogic's Chrome OS Client Extension

PrinterLogic SaaS is the first serverless printing infrastructure to help IT teams centrally manage Chrome OS users alongside users of Windows, MacOS, and Linux. With the Chrome OS Client Extension, customers can extend the full feature set of PrinterLogic's direct IP printing platform to Chromebook users. This allows IT teams to empower all end users with advanced features like secure-release printing, VDI printing, advanced reporting, and self-service printer installation. No print servers required.

Figure 1: PrinterLogic's Centrally Managed Direct IP Printing Platform



PrinterLogic SaaS provides centrally managed direct IP printing for Windows, MacOS, Linux, and Chrome OS. All endpoints are managed from a single console.

How the Chrome OS Client Extension Works

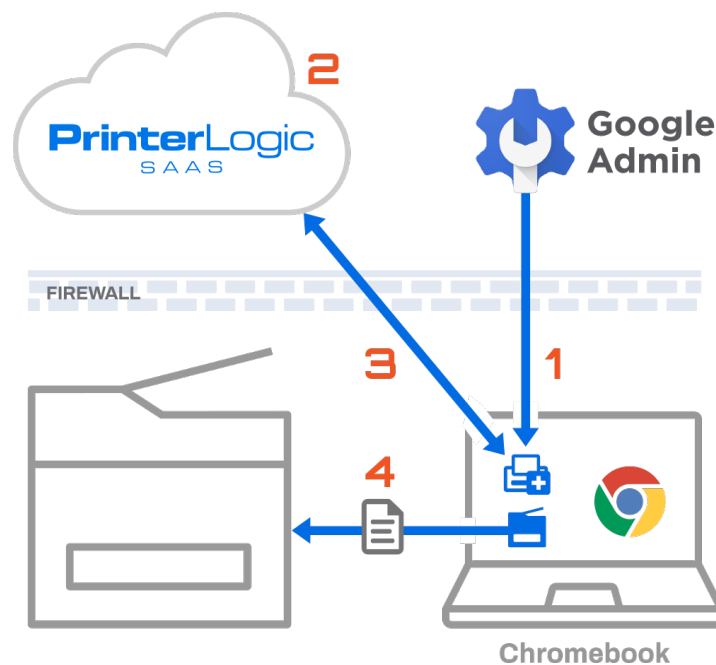
For IT System Administrators

As shown in Figure 2, admins use Google's G-Suite to deploy the PrinterLogic extension to Chromebooks and/or to users. This is the standard way any Chrome OS extension is deployed in an organization. IT can set this up so the PrinterLogic extension is automatically pushed to any new Chromebook that logs in to the network.

Deploying the PrinterLogic extension is the only step that requires the G-Suite admin tool. Once the extension is installed, IT admins deploy and manage printers for Chromebooks from PrinterLogic's cloud-based admin console. The PrinterLogic console handles all PrinterLogic functionality uniformly across all endpoints, whether they are running Windows, MacOS, Linux, or Chrome OS.

IT can auto-assign printers to Chromebook users, and to other OS endpoints, based on IP address range, which is especially helpful for a mobile workforce. PrinterLogic also provides an import tool to detect printers on the organization's network and organize them into folders in the console.

Figure 2: PrinterLogic's Chrome OS Integration Model



1. Deploy Chrome OS Client Extension to Chromebooks or users from G-Suite admin tool
2. Manage printers and deployment settings in the PrinterLogic Admin Console
3. Printer deployments and print job metadata sent via port 443
4. The end user's print job sent directly from the Chrome OS device to printer

For Chromebook Users

Chromebook users initiate a print job as they normally would. In the **Print** window **Destination** pull-down menu, the user can select a printer from among those assigned to them by IT. Or, if the user doesn't see their desired printer in the menu, they can add it from the PrinterLogic Self-Service Printer Installation Portal. This portal makes it easy for end users to find and install nearby printers without having to call the IT support desk.

PrinterLogic leverages driverless printing technology for Chrome OS devices to ensure broad printer compatibility while accessing a printer's advanced features on-the-fly for the best possible output. When the user selects a destination printer, the Chrome OS Client Extension quickly adjusts menu options based on that printer's reported features, such as duplex printing or color printing. The user selects features they want, clicks the Print button and the job is sent directly to the printer over the local network.

It's also important to note that all of PrinterLogic's features work the same for Chrome OS endpoints as for devices running Windows, MacOS, and Linux. Examples include:

- **Secure release printing.** The user prints, but the job is held until the user authenticates at their printer of choice using one of several methods (badge swipe, login, PIN, mobile app).
- **Reporting and SNMP alerts.** Organizations can see who is printing how much to aid with cost reduction; proactive alerts give IT a heads up on printer outages so they can address issues before they affect user productivity.
- **Print server management.** For those organizations that have to keep their print servers, PrinterLogic can import, organize and manage those servers.
- **VDI printing.** PrinterLogic works with Citrix, VMWare and Windows Virtual Desktop, allowing IT teams to leverage existing front-end printing infrastructure, compress print jobs using standard VDI protocols, and auto-deploy printers for session printing.

Conclusion

PrinterLogic's Chrome OS Client Extension offers a simple, secure, scalable printing solution for Chrome OS. As such, it provides a straightforward migration path for organizations migrating from Google Cloud Print.

Existing customers can now extend the functionality and user experience of PrinterLogic's centrally managed direct IP printing platform to Chrome OS users.

Here are some of the advantages of using PrinterLogic to manage an organization's Chromebook printing:

- The security provided when print jobs remain local.
- Centrally managing printing for all endpoints from a single pane of glass.
- The ease of using the native Chrome OS printing workflow.
- Enterprise IT administrators manage Chromebook printing as an equal peer with Windows, MacOS and Linux endpoints, instead of as a mobile operating system.

The PrinterLogic Chrome OS Client Extension makes it easier for organizations to embrace Chromebooks as a secure, cost effective workstation by providing centralized printing management in mixed OS environments, keeping print jobs local, and supporting advanced printing features.

The Chrome OS Client Extension is free of charge with a PrinterLogic SaaS subscription.

For more information see the [Chrome OS Client Extension FAQ](#).

The PrinterLogic Chrome OS Extension is expected to be available mid-2020. For more information, contact PrinterLogic at (435) 216-0095.