Security Built-In

In today's world, any website – even well-known, legitimate ones – may be infected with malware. Just by visiting an infected web page, ordinary computers can get infected as well. Malware can exploit flaws in your browser to steal passwords, company data, and financial information. It happens to millions of people without their knowledge.

Chromebooks use the first operating system designed with this ongoing threat in mind. It uses the principle of "defense in depth" to provide multiple layers of protection, so if any one layer is bypassed, others are still in effect. So while it's still important to take precautions to protect your data, Chromebooks let you breathe just a little bit easier.

Automatic Updates

The most effective way to protect against malware is to make sure all software is up to date and has the latest security fixes. This can be difficult to manage on traditional operating systems with many software components from many vendors all with different update mechanisms and user interfaces. Chromebooks manage updates automatically so Chromebooks are always running the latest and most secure version.

Sandboxing

On a Chromebook, each web page and application runs in a restricted environment called a "sandbox". So if the Chromebook is directed to an infected page, it can't affect the other tabs or apps on the computer, or anything else on the machine. The threat is contained.

Verified Boot

Even if malware manages to escape the sandbox, the Chromebook is still protected. Every time the Chromebook starts up, it does a self check called Verified Boot. If it detects that the system has been tampered with, or corrupted in any way, typically it will repair itself without any effort, taking the Chromebook back to an operating system that's as good as new.

Data Encryption

When using web apps on a Chromebook, all important data is stored safely in the cloud. Certain kinds of files, like downloads, cookies, and browser cache files, may still be present on the computer. The Chromebook encrypts all this data using tamper-resistant hardware, making it very difficult for anyone to access those files.

Recovery

If anything goes wrong with your Chromebook, you can simply push a button to enter the hardware-backed recovery mode and restore the operating system to a known good version.

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