A Safe and Stateless Platform -

Introduction to
Google Chrome OS
Security model
Google Chrome OS

- Speed
- Simplicity
- Security

Diagram of a laptop with the Chrome OS logo.
Speed

Current Operating Systems

FIRMWARE/BIOS

STANDARD KERNEL

SERVICES

START-UP APPS

BROWSER

Chrome OS

CUSTOM Firmware

OPTIMIZED KERNEL

Chrome
Security - Verified boot

FIRMWARE

X

Y

Z

(SIGNATURE)

(SIGNATURE)

(SIGNATURE)

SUCCESS
Security - Reboot to recover

Reboot to get back to clean image.
Security for the internet age

Current Operating Systems
- Apps have the same privileges and power as you

Chrome OS
- All apps are web apps
- The OS does not trust any app
Security down the stack

- Small list of known programs
  - Signed and verified before each use

- Run in secured sandboxes
  - Chroot, Namespaces
  - Toolchain, Stack protection

- File system is locked down
  - Read-only root file system
  - User data encryption
  - User data synced to the cloud

- Automatic updates for the entire OS
Chrome OS is open source

- Open development
- Community contributions