



The Printer Working Group

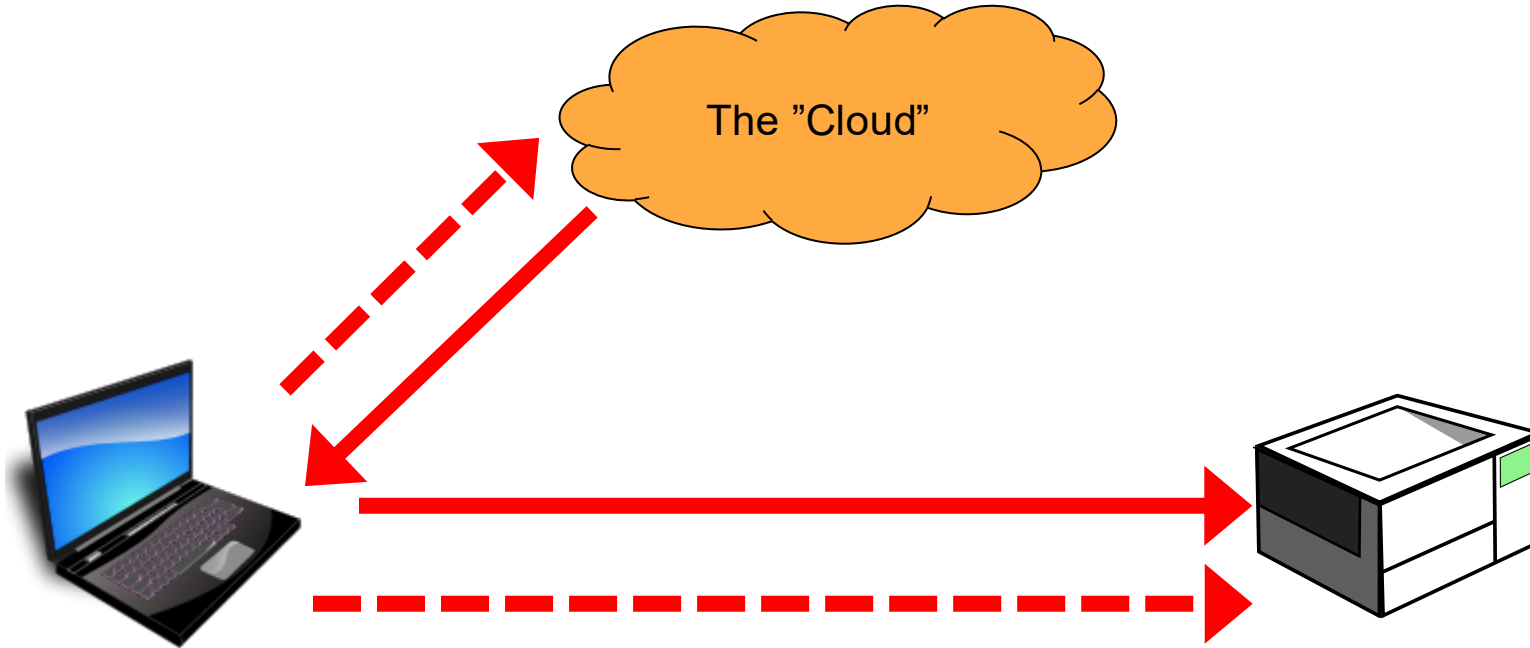
IPP Firmware Update Extensions: Registration Options

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Firmware Update

Model 1: Client Directed



Firmware Update

Model 1: Client Directed

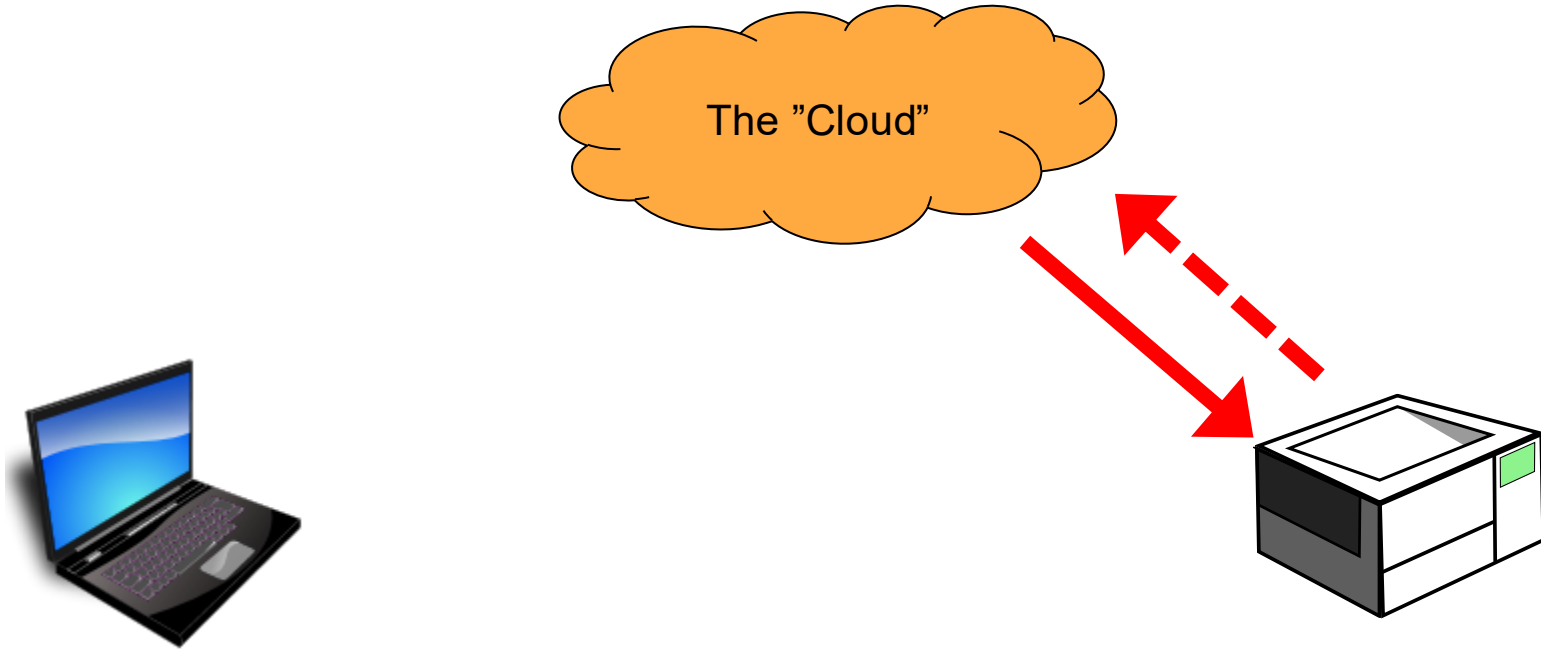


- Use Case
 - Client checks firmware version in device and available version(s) in Cloud
 - Client downloads firmware package from cloud and delivers to device
- IPP
 - Ability to query printer firmware state (5100.13)
 - Ability to deliver firmware update package(s) to printer (5100.22)

No IPP Changes Needed

Firmware Update

Model 2: Autonomous Device



Firmware Update

Model 2: Autonomous Device

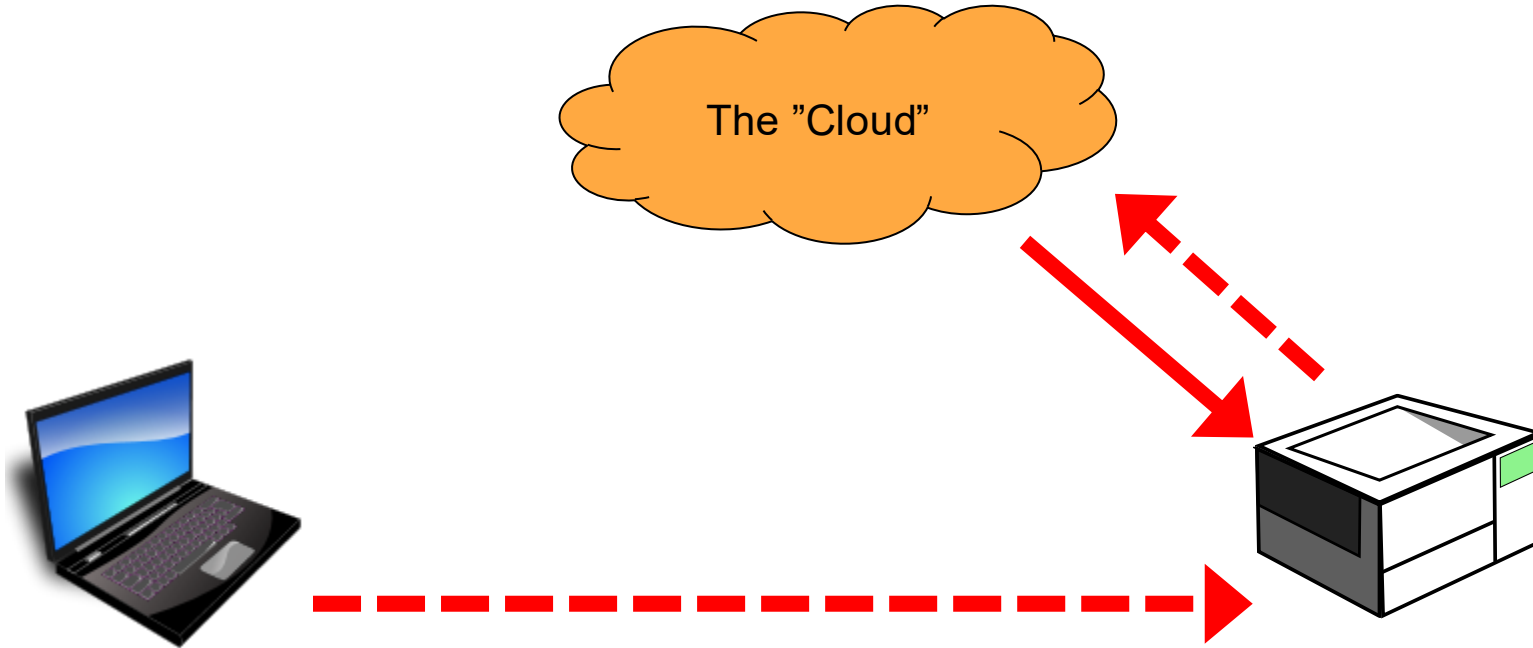


- Use Case
 - Device checks for available firmware updates in Cloud
 - Client downloads firmware package from cloud updates itself (perhaps with no user intervention)
- IPP
 - None (firmware update process is outside of IPP visibility)

No IPP Changes Needed

Firmware Update

Model 3: Triggered Autonomous Device



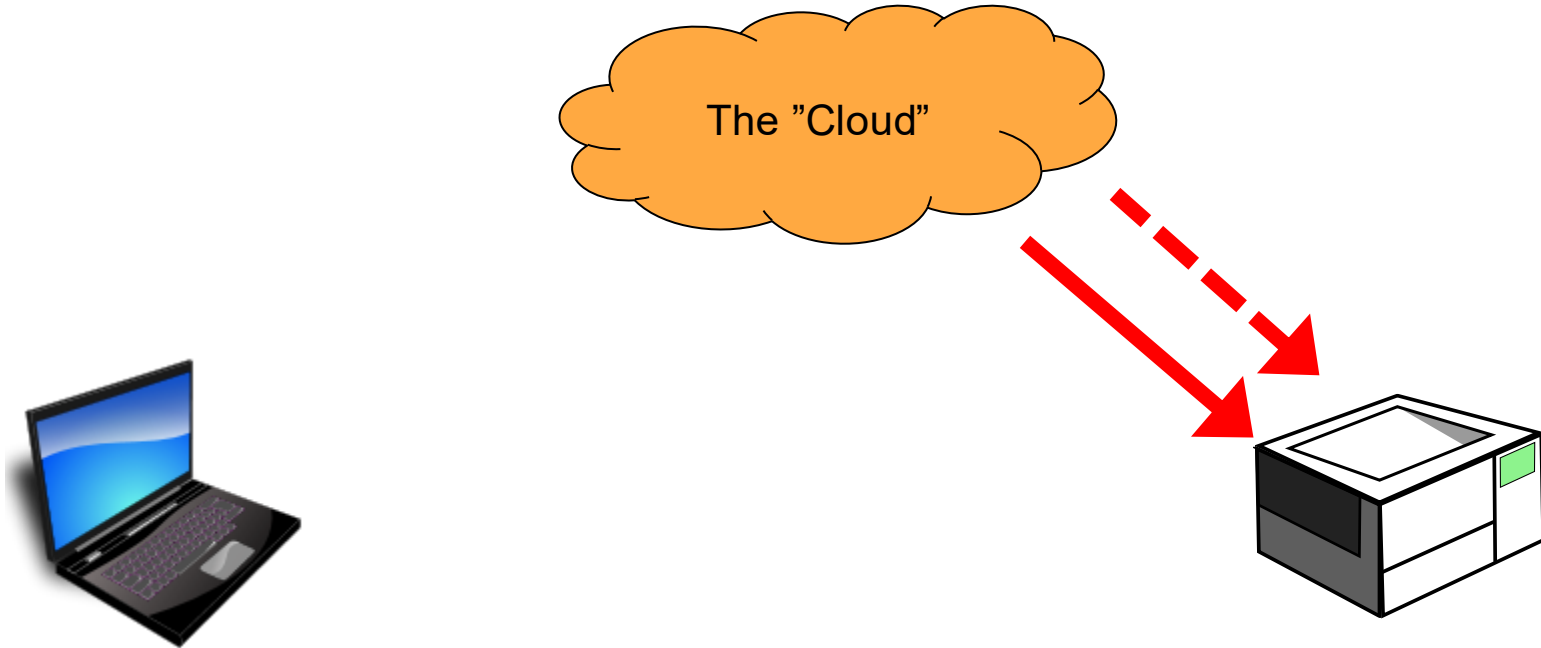
Firmware Update

Model 3: Triggered Autonomous Device



- Use Case
 - Device checks for available firmware updates in Cloud
 - Client downloads firmware package from cloud updates itself (perhaps with no user intervention)
- IPP
 - Ability to query printer firmware state (5100.13)
 - Ability to request printer to check for firmware updates (NEW)
 - Ability to trigger device to perform a firmware self-update (NEW)

Firmware Update Model 4: Cloud Directed



Firmware Update

Model 4: Cloud Directed



- Use Case
 - Cloud based client has available firmware updates and checks device for old versions
 - Cloud based client pushes firmware package to device or triggers device to update itself
- IPP
 - Cloud-hosted version of Model 1
 - Ability to query printer firmware state (5100.13)
 - Ability to deliver firmware update package(s) to printer (5100.22)
 - Cloud-hosted version of Model 3
 - Ability to query printer firmware state (5100.13)
 - Ability to request printer to check for firmware updates (NEW)
 - Ability to trigger device to perform a firmware self-update (NEW)
 - Extend access via Infrastructure Printer / Proxy (5100.18) (NEW)