



HP Inc.
1501 Page Mill Road
Palo Alto, CA 94304

HP.com

Security Advisory

HP Enterprise Printing Communication: Meltdown & Spectre CPU Vulnerabilities

Jan 17th, 2018

On January 3rd, 2018 Google's Project Zero and academic institutions announced vulnerabilities in common CPU platforms. The vulnerabilities impact Intel x86 processors and certain AMD and ARM processors.

The Spectre and Meltdown vulnerabilities affect microprocessors utilizing speculative execution and indirect branch prediction. It may allow unauthorized disclosure of information to an attacker with local user access via a side-channel analysis.

These vulnerabilities could allow a malicious process to read memory of other software processes. This would require installation of malicious code to perform a successful exploit.

The following security features mitigate loading untrusted or tampered code on HP devices:

- Digital signing of printer firmware and firmware updates
- Digital signing of printer solutions code
- HP SureStart and Secure Boot / ROM based code validation
- Whitelisting and Code Integrity Validation
- Runtime Intrusion Detection
- Run-time Code Integrity that ensures Executable Memory is Write-Protected

For additional information on these security features see the [References](#) section

The following HP print devices use x86 and ARM processors that are susceptible to these vulnerabilities. One or more of the above security features mitigate loading untrusted or tampered code on these devices.

- HP LaserJet Enterprise printers and multifunction printers
- HP LaserJet Enterprise pre-FutureSmart printers and multifunction printers
- HP LaserJet Pro printers and multifunction printers
- HP PageWide Enterprise printers and multifunction printers

- HP PageWide Pro printers and multifunction printers
- HP LaserJet Managed multifunction printers
- HP PageWide Managed printers and multifunction printers
- HP Digital Senders and Document Capture Workstations
- HP OfficeJet Pro printers
- HP Designjet Series printers
- HP PageWide XL Series printers
- HP HD / SD Pro Scanners
- HP Latex printers

For a complete device listing see [Appendix A](#).

HP Software Solutions

HP Software Solutions rely on their host servers and are not directly impacted by the CPU vulnerabilities. Patches or remediation recommendations should be followed from Microsoft® and other operating systems providers.

Recommended Actions

HP will evaluate implementation of code fixes from CPU and operating system vendors as they become available for HP printing device architectures.

The following actions further protect against installation of malicious code.

Note: Not all setting available on all devices

- Configure local administrator password (EWS)
- Disable Printer Updates
- Disable PJI Disk Access and Postscript Disk Access
- Disable NFS
- Disable FTP

Stay Informed

Subscribe to HP real-time security information: All HP products use a common centralized Security Bulletin process managed by HP's Product Security Response Team (PSRT). Subscribe to HP Security Bulletins by following these steps:

1. Go to <http://www.hp.com/go/support>.
2. Click **Get software and drivers**.
3. Find your product.

4. Scroll to the bottom of the page and under **Other support resources**, click **Sign up for driver, support & security alerts**.
5. Follow the onscreen prompts to sign up for alerts.

References

- Spectre Vulnerability - [CVE-2017-5753; CVE-2017-5715](#)
- Meltdown Vulnerability - [CVE-2017-5754](#)
- <https://spectreattack.com/>
- [HPI PC Security Bulletin](#)
- [HP SureStart, Whitelisting and Intrusion Detection security features](#)
- [HP LaserJet Pro - Embedded security features](#)

Appendix A

| HP LaserJet Enterprise printers and multifunction printers HP PageWide Enterprise printers and multifunction printers HP Digital Senders and Document Capture Workstations | |
|---|--|
| HP Color LaserJet CM4540 MFP | HP LaserJet Enterprise M527 |
| HP Color LaserJet CP5525 | HP LaserJet Enterprise M604 |
| HP Color LaserJet Enterprise Flow MFP M681 | HP LaserJet Enterprise M605 |
| HP Color LaserJet Enterprise Flow MFP M682 | HP LaserJet Enterprise M606 |
| HP Color LaserJet Enterprise M552 | HP LaserJet Enterprise M607 |
| HP Color LaserJet Enterprise M553 | HP LaserJet Enterprise M608 |
| HP Color LaserJet Enterprise M651 | HP LaserJet Enterprise M609 |
| HP Color LaserJet Enterprise M652 | HP LaserJet Enterprise M806 |
| HP Color LaserJet Enterprise M653 | HP LaserJet Enterprise MFP M630 |
| HP Color LaserJet Enterprise M750 | HP LaserJet Enterprise MFP M631 |
| HP Color LaserJet Enterprise MFP M577 | HP LaserJet Enterprise MFP M632 |
| HP Color LaserJet Enterprise MFP M681 | HP LaserJet Enterprise MFP M633 |
| HP Color LaserJet Enterprise MFP M682 | HP LaserJet Enterprise MFP M725 |
| HP Color LaserJet M680 | HP Digital Sender Flow 8500 fn2 Doc Capture WS |
| HP LaserJet Enterprise 500 color MFP M575 | HP OfficeJet Enterprise Color Flow MFP X585 |
| HP LaserJet Enterprise 500 MFP M525 | HP OfficeJet Enterprise Color MFP X585 |
| HP LaserJet Enterprise 600 M601 | HP OfficeJet Enterprise Color X555 |
| HP LaserJet Enterprise 600 M602 | HP PageWide Enterprise Color 765 |
| HP LaserJet Enterprise 600 M603 | HP PageWide Enterprise Color MFP 586 |
| HP LaserJet Enterprise 700 color MFP M775 series | HP PageWide Enterprise Color MPF 780 |
| HP LaserJet Enterprise 700 M712 | HP PageWide Enterprise Color MPF 785 |
| HP LaserJet Enterprise 800 color M855 | HP PageWide Enterprise Color X556 |
| HP LaserJet Enterprise 800 color MFP M880 | HP LaserJet Enterprise Flow MFP M633 |
| HP LaserJet Enterprise Color 500 M551 Series | HP LaserJet Enterprise M4555 MFP |

| HP LaserJet Enterprise printers and multifunction printers HP PageWide Enterprise printers and multifunction printers HP Digital Senders and Document Capture Workstations | |
|---|--|
| HP LaserJet Enterprise color flow MFP M575 | HP LaserJet Enterprise M506 |
| HP LaserJet Enterprise flow M830z MFP | HP Scanjet Enterprise 7000n |
| HP LaserJet Enterprise flow MFP M525 | HP Scanjet Enterprise 8500 Doc Capture WS |
| HP LaserJet Enterprise Flow MFP M630 | HP ScanJet Enterprise Flow N9120 Doc Scanner |
| HP LaserJet Enterprise Flow MFP M631 | HP LaserJet Enterprise Flow MFP M632 |

| HP LaserJet Enterprise pre-FutureSmart printers and multifunction printers | |
|---|-------------------------------------|
| HP Color LaserJet Enterprise CP4025 | HP Color LaserJet Enterprise CP4525 |
| HP Color LaserJet Enterprise CP4520 | |

| HP LaserJet Managed multifunction printers | |
|---|---|
| HP PageWide Managed Color Flow MFP 586 | HP PageWide Managed Color Flow MFP E58650 |
| HP PageWide Managed Color MFP E58650 | HP PageWide Managed Color Flow MFP E77660 |
| HP PageWide Managed Color MFP E77650 | HP PageWide Managed Color Flow MFP E77650 |
| HP PageWide Managed Color E75160 | HP PageWide Managed Color E55650 |
| HP LaserJet Managed MFP E62555 | HP LaserJet Managed MFP E62565 |
| HP Color LaserJet Managed E65050 | HP LaserJet Managed E60055 |
| HP Color LaserJet Managed E65060 | HP LaserJet Managed E60065 |
| HP Color LaserJet Managed Flow MFP E67550 | HP LaserJet Managed E60075 |
| HP Color LaserJet Managed Flow MFP E67560 | HP LaserJet Managed Flow MFP E62555 |
| HP Color LaserJet Managed MFP E67550 | HP LaserJet Managed Flow MFP E62565 |
| HP Color LaserJet Managed MFP E67560 | HP LaserJet Managed Flow MFP E62575 |
| HP LaserJet Managed MFP E72525 | HP Color LaserJet Managed MFP E77822 |
| HP LaserJet Managed Flow MFP E72525 | HP Color LaserJet Managed Flow MFP E77822 |
| HP LaserJet Managed MFP E72530 | HP Color LaserJet Managed MFP E77825 |
| HP LaserJet Managed Flow MFP E72530 | HP Color LaserJet Managed Flow MFP E77825 |
| HP LaserJet Managed MFP E72535 | HP Color LaserJet Managed MFP E77830 |
| HP LaserJet Managed Flow MFP E72535 | HP Color LaserJet Managed Flow MFP E77830 |
| HP LaserJet Managed MFP E82540 | HP Color LaserJet Managed MFP E87640 |
| HP LaserJet Managed Flow MFP E82540 | HP Color LaserJet Managed Flow MFP E87640 |
| HP LaserJet Managed MFP E82550 | HP Color LaserJet Managed MFP E87650 |
| HP LaserJet Managed Flow MFP E82550 | HP Color LaserJet Managed Flow MFP E87650 |
| HP LaserJet Managed MFP E82560 | HP Color LaserJet Managed MFP E87660 |
| HP LaserJet Managed Flow MFP E82560 | HP Color LaserJet Managed Flow MFP E87660 |

| HP LaserJet Pro printers and multifunction printers | |
|---|--|
| HP LaserJet M15 Printer | HP Color LaserJet Pro MFP M277dw |
| HP LaserJet M16 Printer | HP LaserJet Pro M225rdn |
| HP LaserJet MFP M28 Printer | HP LaserJet Pro M226dn |
| HP LaserJet MFP M29 Printer | HP LaserJet Pro M201 |
| HP Color LaserJet Pro M154 | HP LaserJet Pro M202 |
| HP Color LaserJet Pro M254 | HP Color LaserJet Pro MFP M176 |
| HP Color LaserJet Pro MFP M180 | HP Color LaserJet Pro MFP M177 |
| HP Color LaserJet Pro MFP M181 | HP LaserJet Pro MFP M125 |
| HP Color LaserJet Pro MFP M280 | HP LaserJet Pro MFP M126 |
| HP Color LaserJet Pro MFP M281 | HP LaserJet Pro MFP M127 |
| HP LaserJet Pro MFP M26 | HP LaserJet Pro MFP M128 |
| HP LaserJet Pro M12 Printer | HP LaserJet Pro M701 Printer |
| HP LaserJet Pro M102 | HP LaserJet Pro M706 Printer |
| HP LaserJet Pro M104 | HP Color LaserJet Pro MFP M476 |
| HP LaserJet Ultra M106 | HP LaserJet Pro M435 MFP |
| HP LaserJet Pro MFP M130 | HP LaserJet Pro M521 MFP |
| HP LaserJet Pro MFP M132 | HP LaserJet Pro 500 color MFP M570 |
| HP LaserJet Ultra MFP M134 | HP LaserJet Pro 400 M401 |
| HP LaserJet Pro M203dn | HP LaserJet Pro 400 MFP M425 |
| HP LaserJet Ultra M206dn | HP LaserJet Pro 200 color MFP M276 |
| HP LaserJet Pro MFP M227sdn | HP LaserJet Pro 200 color Printer M251 |
| HP LaserJet Ultra MFP M230sdn | HP LaserJet 100 color MFP M175 |
| HP LaserJet Pro M501n | HP LaserJet 300 color M351 |
| HP Color LaserJet Pro M452dn | HP LaserJet 400 color M451 |
| HP Color LaserJet Pro MFP M377dw | LaserJet Pro 300 Color MFP M375 |
| HP Color LaserJet Pro MFP M477fdn | LaserJet Pro 400 Color MFP M475 |
| HP LaserJet Pro M402dn | HP TopShot LaserJet Pro M275 MFP |
| HP LaserJet Pro M403dw | HP LaserJet Pro P1102 |
| HP LaserJet Pro MFP M427dw | HP LaserJet Pro CP1025 |
| HP LaserJet Pro MFP M426fdw | HP LaserJet Professional M1136 MFP |
| HP Color LaserJet Pro M252n | HP LaserJet Pro CM1415 MFP |
| HP Color LaserJet Pro MFP M274n | HP LaserJet Pro CP1525 |

| HP PageWide Pro printers and multifunction printers HP PageWide Managed printers, HP OfficeJet Pro printers | |
|--|--|
| HP PageWide Pro 750 | HP PageWide Pro 552 Printer |
| HP PageWide Managed P75050 | HP PageWide Managed P55250 |
| HP PageWide Pro MFP 772 | HP PageWide Pro 577 MFP |
| HP PageWide Managed MFP P77740 | HP PageWide MFP P57750 |
| HP PageWide Managed MFP P77750 | HP PageWide Pro 577 MFP |
| HP PageWide Managed MFP P77760 | HP OfficeJet Pro 8210 |
| HP PageWide Pro 477 MFP | HP OfficeJet Pro 8740 |
| HP PageWide 377d MFP | HP OfficeJet Pro 8730 |
| HP PageWide Pro 452 Printer | HP OfficeJet Pro 8732M |
| HP PageWide 352d Printer | HP DesignJet T730 |
| HP PageWide Pro 452 Printer | HP Designjet T830 MFP |
| HP OfficeJet Pro 7740 Wide Format All-in-One | HP OfficeJet Pro 7720 Wide Format All-in-One |
| HP OfficeJet Pro 7730 Wide Format All-in-One | |

| HP Designjet Series Printers, PageWide XL Series Printers HP Latex Printers, HP HD / SD Pro Scanners | |
|---|---------------------------------|
| HP Designjet T3500 Printer | HP Latex 560 Printer |
| HP Designjet T1700 Printer | HP Latex 570 Printer |
| HP Designjet T730 Printer | HP Latex 1500 Printer |
| HP Designjet T830 Printer | HP Latex 3100 Printer |
| PageWide XL Series Printers | HP Latex 3500 Printer |
| HP Latex 3200 Printer | HP HD Pro 42 in Scanner Printer |
| HP Latex 3600 Printer | HP SD Pro 42 in Scanner Printer |

Rev.4

© 2018 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.