

SECURITY ADVISORY – Processor based “Speculative Execution” Vulnerabilities AKA “Spectre” and “Meltdown” – Version 1.9

Security Advisory Relating to the “Speculative Execution” Vulnerabilities with some microprocessors

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This information applies to Polycom products and the “Spectre” and “Meltdown” vulnerabilities. Polycom is continuing to investigate the impact to our product line to determine which products may be affected by these vulnerabilities and will release patches or confirmation of non-vulnerability on a product-by-product basis.

Any information in this Advisory is subject to change as our investigation progresses.

Please Note: This is a living document, and Polycom will update this advisory regularly as the investigation progresses and new information becomes available. The newest version of this document will always reside at the following URL:

http://support.polycom.com/PolycomService/support/us/support/documentation/security_center.html

Vulnerability Summary

Speculative Execution Vulnerabilities, aka “Spectre” and “Meltdown”

On January 3, 2018 researchers disclosed information on three vulnerabilities identified in some microprocessors that could allow an attacker to exploit processor speculation or take advantage of cache timing side-channels. Under specific circumstances, these vulnerabilities could potentially allow unprivileged local attacker to read privileged data contained in secure areas of system memory belonging to other processes or system kernel.

There were three original variants of the issue:

- Variant 1: CVE-2017-5753 - speculative execution bounds-check bypass
- Variant 2: CVE-2017-5715 - speculative execution branch target injection
- Variant 3: CVE-2017-5754 - speculative execution permission faults handling

On May 2st, 2018, two new variants of the Spectre and Meltdown vulnerabilities were published. Similar to the original three, the new variants are:

- Variant 3a: CVE-2018-3640 – speculative execution rogue system register read
- Variant 4: CVE-2018-3639 – speculative execution store bypass

Impact and Risk

Polycom is investigating and will continue to investigate all products and product lines to determine if any allow exploitation of unprivileged reading of secure data in memory. Polycom uses a wide variety of microprocessors across our products and does not typically disclose the specific CPUs used in a specific product.

Mitigations

Many modern CPUs use speculative execution and are potentially susceptible to these types of attacks. However, it is important to note an attacker must be able to execute malicious code on a vulnerable device to exploit one of these vulnerabilities and gain access to restricted memory.

The impact of these vulnerabilities is greatest on multi-user systems – shared hosting, cloud services, virtual machines, etc. – where unprivileged access to the system resources is generally available.

Polycom products are designed and deployed in a manner that largely mitigate such classes of vulnerability, are not multi-user systems, and do not typically allow access to the operating system for normal operation nor do they allow the installation of custom code and the ability to load or execute code is limited to privilege users and firmware signature validation blocks the installation of firmware not signed by Polycom.

Some Polycom infrastructure products do by default provide unprivileged OS-level service accounts for configuration and maintenance. On these systems, we recommend: changing default passwords, restricting account access to trusted administrators and disabling shell access.

Customer Mitigations:

- Limit access to critical infrastructure equipment to only trusted administrators from trusted administrative networks or hosts.
- Ensure that all default passwords have been changed.

Polycom will be developing software fixes for supported products found to be vulnerable to prevent these types of attacks. This advisory will be updated as patches are made available.

Product Mitigation Notes

Vulnerable CPU's vs. Vulnerable Appliances

From our investigation, Polycom has determined that while many of our products use CPUs that are technically vulnerable to the Spectre and Meltdown, none are susceptible due to the way their software is written and the way the appliance is used. In order for Spectre or Meltdown to be effective exploits, the appliance would need to have malicious code installed onto it or be used to browse to a website that pushes malicious code via a web browser. Polycom appliances do not allow for applications to be installed onto them so this vector can't be exploited. For the few products that do contain a web browser, the required software libraries are not present that would allow for malicious code to be pushed onto them and executed. There have been no reports of Polycom appliance in the field exploited by Spectre or Meltdown.

Virtual Editions

Polycom’s virtual editions of our appliances are not vulnerable to Spectre or Meltdown. The vectors needed for the vulnerability to work on these products are not present. Spectre and Meltdown require malicious software to be installed on the product which our appliances do not allow, or the product needs to browse to a website that is pushing malicious code and our appliances do not have browsers or the software libraries needed to install the malicious software. Based on this, Polycom does not believe that our appliances are vulnerable to either Spectre or Meltdown. Polycom will be performing additional updates to our appliances and virtual editions in the coming months to help prevent this type of exploit in the future.

Please Note - it is possible that the virtual host machine (e.g. VMWare or Hyper-V) is vulnerable and needs patches that are available from the vendor.

Group Series Family (Group Series, Centro, Medialign)

The Polycom Group Series does not perform any actions that would make it vulnerable to Spectre or Meltdown. It does not allow for software applications to be installed on it nor does it allow for any web browsing. File uploads to the appliance are limited to digitally signed software images from Polycom and JPEG images.

VVX and Trio Families of Phones

The Polycom VVX and Trio families of phones are not susceptible to Spectre or Meltdown. They do not allow software to be installed on them which would prohibit malicious code from being loaded and they are lacking the software libraries needed for malicious software to be pushed from the web. None of the vectors needed for Spectre or Meltdown are present in any of these phones.

Other Polycom Appliances

Polycom is performing a close review of all our supported products to determine if there is any risk and will continue to update them as needed. Many of our infrastructure products using Intel processors have received updates even though the appliance itself isn’t vulnerable.

Products

Product	Is Product Vulnerable
Group Series	Not Vulnerable
Centro	Not Vulnerable
Medialign	Not Vulnerable
Debut	Not Vulnerable
HDX	Not Vulnerable
Pano	Not Vulnerable

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RealPresence Desktop and Mobile (RPD / RPM)	Not Vulnerable
VVX 501/601	Not Vulnerable
All other VVX	Not Vulnerable
Trio (8800, 8500)	Not Vulnerable
Trio Visual+	Not Vulnerable
CX Phones (CX5100, CX5500)	Not Vulnerable
SoundPoint	Not Vulnerable
SoundPoint IP	Not Vulnerable
SoundStation	Not Vulnerable
SoundStation IP	Not Vulnerable
SoundStructure	Not Vulnerable
RealPresence Resource Manager	Not Vulnerable
RealPresence Collaboration Server / RMX	Not Vulnerable
RealPresence Access Director	Not Vulnerable
RealPresence MediaSuite	Not Vulnerable
RealPresence WebSuite	Not Vulnerable
Content Connect	Not Vulnerable
VBP	Not Vulnerable
RealAccess Cloud Service	Not Vulnerable
Polycom Cloud Service	Not Vulnerable
RP Touch	Not Vulnerable
Polycom Touch Control	Not Vulnerable
ISDN Gateway	Not Vulnerable
DMA	Not Vulnerable
RealConnect for O365	Not Vulnerable
VoxBox	Not Vulnerable
VoiceStation/VTX	Not Vulnerable

SoundStation 2W	Not Vulnerable
VVX D60 DECT	Not Vulnerable
CX 600 and CX 3000	Not Vulnerable
Virtual Editions of Polycom Appliances	Not Vulnerable

CVSS v3 Base Metrics:

To assist our customers in the evaluation of this vulnerability; Polycom leverages the Common Vulnerability Scoring System (CVSS). This system provides an open framework for communicating the characteristics and impacts of information technology vulnerabilities that better enable our customers to make informed decisions and assess the impact on their environment.

Base CVSS v3 Scores:

Speculative Execution Vulnerability: 5.6 Medium (CVSS:3.0/AV:L/AC:H/PR:L/UI:N/S:C/C:H/I:N/A:N)

For more information on CVSS v3 please see: <https://nvd.nist.gov/vuln-metrics/cvss>

Severity: Medium

Rating	Definition
Critical	A vulnerability, which, if exploited would allow malicious code to execute, potentially without a user being aware.
High	A vulnerability, which, if exploited could impact the confidentiality, integrity, or availability of data, or of the integrity or availability of resources.
Medium	A vulnerability that is limited to a significant degree by factors such as default configuration, auditing, or is difficult to exploit.
Low	A vulnerability that has minimal impact to the system and is extremely difficult to exploit.

Contact

Any customer using an affected system who is concerned about this vulnerability within their deployment should contact Polycom Technical Support – either call 1-800-POLYCOM or visit:

http://support.polycom.com/PolycomService/support/us/support/documentation/security_center.html

For the latest information, you may also find value in the security guidance and security news located at:

<http://www.polycom.com/security>

Note

The below applies to all Polycom security publications:

Polycom may at times issue either a **Security Advisory** or a **Security Bulletin** with regards to a particular vulnerability or set of vulnerabilities. If a **Security Advisory** is issued, this means that one more Polycom products are under investigation or verified by Polycom to be affected by one or more vulnerabilities. If a **Security Bulletin** is issued, Polycom is providing its customers with information about one or more vulnerabilities that have not been found by Polycom to directly affect any Polycom products, but that may be mistakenly thought to affect Polycom products. A **Security Advisory** might also be issued when a customer's environment might be affected, when false positives might occur from vulnerability scans, or when any other possible (but not actual) concern might exist regarding Polycom products and the vulnerability.

Revision History

Revision 1.0 – Original publication: January 4th, 2018
Revision 1.1 – Updated Summary, Impact and Risk, Mitigations and Notes details: January 5th, 2018
Revision 1.2 – Updated product list: January 9th, 2018
Revision 1.3 – Updated status on several products and revised CVSS score: January 10th, 2018
Revision 1.4 – Updated product status, updated Vulnerability Summary and Mitigations: January 12th, 2018
Revision 1.5 – Updated product status: January 18th, 2018
Revision 1.6 – Updated product table for Patch release dates and added notes: March 9th, 2018
Revision 1.7 – Updated product table for CX phones – not vulnerable: March 13th, 2018
Revision 1.8 – Updated product table for all products – not vulnerable: March 16th, 2018
Revision 1.9 – Updated advisory to include variants 3a and 4 – not vulnerable: July 12th, 2018

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