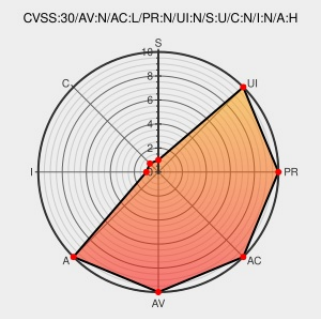
CVE-2016-6581

Published on: 01/10/2017 12:00:00 AM UTC

Last Modified on: 03/23/2021 11:27:12 PM UTC

CVE-2016-6581

Source: Mitre | Source: NIST | CVE.ORG | Print: PDF



Certain versions of Hpack from Python contain the following vulnerability:

A HTTP/2 implementation built using any version of the Python HPACK library between v1.0.0 and v2.2.0 could be targeted for a denial of service attack, specifically a so-called "HPACK Bomb" attack. This attack occurs when an attacker inserts a header field that is exactly the size of the HPACK dynamic header table into the dynamic header table. The attacker can then send a header block that is simply repeated requests to expand that field in the dynamic table. This can lead to a gigantic compression ratio of 4,096 or better, meaning that 16kB of data can decompress to 64MB of data on the target machine.

CVE-2016-6581 has been assigned by cve@mitre.org to track the vulnerability - currently rated as HIGH severity.

CVSS3 Score: 7.5 - HIGH

Attack Vector	Attack Complexity	Privileges Required	User Interaction
NETWORK	LOW	NONE	NONE
Scope	**Confidentiality Impact**	**Integrity Impact**	**Availability Impact**
UNCHANGED	NONE	NONE	HIGH

CVSS2 Score: 7.8 - HIGH

Access Vector	Access Complexity	Authentication
NETWORK	LOW	NONE
Confidentiality Impact	**Integrity Impact**	**Availability Impact**
NONE	NONE	COMPLETE

CVE References

Description	Tags	Link

Maze Found | Read the Docs	Mitigation Vendor Advisory python-hyper.org text/html Inactive Link Not Archived	CONFIRM python-hyper.org/hpack/en/latest/security/CVE-2016-6581.html
Python HPACK CVE-2016-6581 Remote Denial of Service Vulnerability	Third Party Advisory VDB Entry cve.report (archive) text/html	BID 92315

Related QID Numbers

981106 Python (pip) Security Update for hpack (GHSA-ffq8-576r-v26g)

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Application	Python	Hpack	1.0	All	All	All
Application	Python	Hpack	2.0	All	All	All
Application	Python	Hpack	2.0.1	All	All	All
Application	Python	Hpack	2.1.1	All	All	All
Application	Python	Hpack	2.2	All	All	All
Application	Python	Hpack	1.0	All	All	All
Application	Python	Hpack	2.0	All	All	All
Application	Python	Hpack	2.0.1	All	All	All
Application	Python	Hpack	2.1.1	All	All	All
Application	Python	Hpack	2.2	All	All	All
Application	Python	Hyper	0.4	All	All	All
Application	Python	Hyper	0.6	All	All	All
Application	Python	Hyper	0.4	All	All	All
Application	Python	Hyper	0.6	All	All	All

cpe:2.3:a:python:hpack:1.0:*:*:*:*:*:*:*:

cpe:2.3:a:python:hpack:2.0:*:*:*:*:*:*:*:

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cpe:2.3:a:python:hyper:0.4:*:*:*:*:*:*:*:

cpe:2.3:a:python:hyper:0.6:*:*:*:*:*:*:*:

cpe:2.3:a:python:hyper:0.4:*:*:*:*:*:*:*:

cpe:2.3:a:python:hyper:0.6:*:*:*:*:*:*:*:

No vendor comments have been submitted for this CVE

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