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### SAP Web Dispatcher HTTP Request Smuggling

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SAP Web Dispatcher suffers from an HTTP request smuggling vulnerability.

advisories | CVE-2021-38162

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ld be stored (considered static), but the actual request is modified by the prefix of the attacker to retrieve another resource, which should not be stored in the cache. example, if a user requests an image, the server will probably cache resource is static. However, if this request is prefixed by another request which returns sensible data, such as personal information, then this response in the cache. Therefore, when the approximation of the cache. Therefore, when the approximation is the cache. stored sche. Therefore, when the attacker requests the same image, all the tim's sonal information will be retrieved. Finally, a critical information disclosure could end up in session hijacking and further attacks. This can be performed by combining HTTP Desynchronization with Open Redirect, and use the victim's request as the parameter of the redirect location. This would force the tne nd its original request to the attacker, including critical ## Advisory Information - Public Release Date: 04/05/2022 - Security Advisory ID: ONAPSIS-2022-0001 - Researcher(s): Martin Doyhenard, Yvan Genuer ## Vulnerability Information - Vendor: SAP
- Affected Components:
- KRNL64NUC 7.22, 7.22EXT, 7.49
- KRNL64UC 7.22, 7.22EXT, 7.49, 7.53
- WEBDISP 7.53, 7.77, 7.81
- KENNEL 7.22, 7.49, 7.53, 7.77, 7.81, 7.83

- (Check SAP Note 3080567 for detailed information on affected releases)
- Vulnerability Class: CWE-444 CVSS v3 score: 8:9 AV:N/AC:H/FR:N/UI:N/S:C/C:H/I:H/A:L Risk Level: Nigh Assigned CVE: CVE-201-38162 Vendor patch Information: SAP Security NOTE 3080567

## Affected Components Description

The SAP Web dispatcher works as a frontend server between the Internet and one or more sore systems. Which consists of one or more SAP Netweaver ABAP, SAP

Netweaver JAVA, SAP HANA, as well as third party application servers.

## Vulnerability Details

An HTTP desynchronization vulnerability, TE.CL type is present in SAP Web Dispatcher if the parameter ```wdisp/HTTP/use\_pool\_for\_new\_conn``` is enabled.

Pool connection related SAP Note :

- \* 2007212 Tuning SAP Web Dispatcher and ICM for high load
- \* 953784 SAP Web Dispatcher Connection Pooling

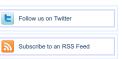
If an attacker sends both HTTP headers "Content-Length" (CL) and "Transfer-Encoding" (TE) in the same HTTP request, the SAP Webdispatcher processes the TE header and treats the message body as using chunked

rocesses the induction of the SAP system ICM service, which processes this request is forwarded on to the SAP system ICM service, which processes only the CL header and determines the body size with it. The rest of the request

are left unprocessed and the ICM will treat it as being the start of the next

This can be leveraged to gain control of requests issued by other users, and even obtain sensitive information by retrieving the victim's requests and responses.

## Solution



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Perl (1,418)	HPUX (878)
PHP (5,093)	iOS (330)
Proof of Concept (2,291)	iPhone (108)
Protocol (3,435)	IRIX (220)
Python (1,467)	Juniper (67)
Remote (30,044)	Linux (44,315)
Root (3,504)	Mac OS X (684)
Ruby (594)	Mandriva (3,105)
Scanner (1,631)	NetBSD (255)
Security Tool (7,777)	OpenBSD (479)
Shell (3,103)	RedHat (12,469)
Shellcode (1,204)	Slackware (941)

Sniffer (886)

Solaris (1,607)

SAP has released SAP Note 3080567 which provides patched versions of the affected components.

The patches can be downloaded from https://launchpad.support.sap.com/#/notes/3080567.

Chapsis strongly recommends SAP customers to download the related security fixes and apply them to the affected components in order to reduce business risks.

## Deport Timeline
- 07/12/2021: Onapsis sends details to SAP - 07/12/2021: SAP provides internal ID - 08/09/2021: Vulnerability in progress - 09/14/2021: AAV released SAP Note fixing the issue.
- 03/04/2022: Advisory Fublished

## References - Onapsis blogpost: https://www.onapsis.com/blog/sap-security-patch-day-september-2021 https://www.onapsis.com/blog/sap-security-patch-day-september-2021 https://www.onapsis.com/blog/sap-security-patch-day-september-2021 https://launchpad.support.sap.com/#/notes/3080567

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Find all reported vulnerabilities at https://github.com/Compais/vulnerability\_advisories

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