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DATE(S) ISSUED:

08/11/2020

SUBJECT:

Multiple Vulnerabilities in SAP Products Could Allow for Arbitrary Code Execution

OVERVIEW:

Multiple vulnerabilities have been discovered in SAP products, the most severe of which could allow for arbitrary code execution. SAP is a software company which creates software to manage business operations and customer relations. Successful exploitation of the most severe of these vulnerabilities could allow an unauthenticated, remote attacker to execute code on the affected systems. Depending on the privileges associated with the application, an attacker could then install programs; view, change, or delete data; or create new accounts with full user rights. Applications configured to have fewer restrictions on the system could be less impacted than those who operate with elevated privileges.

THREAT INTELLIGENCE:

There are currently no reports of these vulnerabilities being exploited in the wild.

SYSTEMS AFFECTED:

- SAP NetWeaver AS JAVA (LM Configuration Wizard); Versions - 7.30, 7.31, 7.40, 7.50
- SAP NetWeaver (Knowledge Management); Versions – 7.30, 7.31, 7.40, 7.50
- SAP Business Objects Business Intelligence Platform; Versions - 4.2, 4.3
- SAP Banking Services (Generic Market Data); Versions - 400, 450, 500
- SAP NetWeaver (ABAP Server) and ABAP Platform; Versions - 700, 701, 702, 710, 711, 730, 731, 740, 750, 751, 753, 755
- SAP NetWeaver AS JAVA (ENGINEAPI); Versions - 7.10, 7.10
- SAP NetWeaver AS JAVA (WSRM); Versions - 7.10, 7.11, 7.20, 7.30, 7.31, 7.40, 7.50
- SAP NetWeaver AS JAVA (SERVERCORE); Versions - 7.10, 7.10, 7.11
- SAP NetWeaver AS JAVA (J2EE-FRMW); Versions - J2EE-FRMW 7.10, 7.11
- SAP NetWeaver (Knowledge Management); Versions - 7.30, 7.31, 7.40, 7.50
- SAP Adaptive Server Enterprise; Version - 16.0
- SAP Commerce; Versions - 6.7, 1808, 1811, 1905, 2005
- SAP Data Intelligence; Version – 3
- SAPUI5 (UISAPI5_JAVA); Version - 7.50
- SAPUI5 (SAP_UI); Versions - 750, 751, 752, 753, 754, 755
- SAPUI5 (UI_700); Version – 200

- SAP ERP (HCM Travel Management); Versions - 600, 602, 603, 604, 605, 606, 607, 608
- SAP Business Objects Business Intelligence Platform (Central Management Console); Versions - 4.2, 4.3
- SAP S/4 HANA (Fiori UI for General Ledger Accounting); Versions - 103, 104
- SAP NetWeaver (ABAP Server) and ABAP Platform; Versions - 740, 750, 751, 752, 753, 754, 755
- SAP NetWeaver (ABAP Server) and ABAP Platform; Versions - 702, 730, 731, 740, 750

RISK:

Government:

- Large and medium government entities: **Medium**
- Small government entities: **Medium**

Businesses:

- Large and medium business entities: **Medium**
- Small business entities: **Medium**

Home users: Low

TECHNICAL SUMMARY:

Multiple vulnerabilities have been discovered in SAP products, the most severe of which could allow for arbitrary code execution. Details of the vulnerabilities are as follows:

- Multiple Vulnerabilities in SAP NetWeaver AS JAVA (LM Configuration Wizard) (CVE-2020-6287).
- Cross-Site Scripting (XSS) vulnerability in SAP Netweaver (Knowledge Management)(CVE-2020-6284)
- Missing Authentication check in SAP BusinessObjects Business Intelligence Platform (CVE-2020-6294)
- Missing Authorization check in SAP Banking Services (Generic Market Data) (CVE-2020-6298)
- Code Injection Vulnerability in SAP NetWeaver (ABAP) and ABAP Platform (CVE-2020-6296)
- Missing Authentication check in SAP NetWeaver AS JAVA (CVE-2020-6296)
- Unrestricted File Upload in SAP NetWeaver (Knowledge Management) (CVE-2020-6293)
- Information Disclosure in SAP Adaptive Server Enterprise (CVE-2020-6297)
- Cross-Site Scripting (XSS) vulnerabilities in SAP Commerce (Related CVEs - CVE-2020-9281, CVE-2019-11358)
- Information Disclosure in SAP Data Intelligence (CVE-2020-6297)
- Cross-Site Scripting (XSS) vulnerabilities in modified jQuery bundled with SAPUI5 (Related CVEs - CVE-2020-11022, CVE-2020-11023)
- Missing Authorization check in SAP ERP (HCM Travel Management) (CVE-2020-6301)
- Cross-Site Scripting (XSS) vulnerability in SAP Business Objects Business Intelligence Platform(Central Management Console) (CVE-2020-6300)
- Missing Authorization check in SAP S/4 HANA (Fiori UI for General Ledger Accounting) (CVE-2020-6273)
- Information Disclosure in SAP NetWeaver (ABAP Server) and ABAP Platform (CVE-2020-6299)

- Information Disclosure in SAP NetWeaver (ABAP Server) and ABAP Platform (CVE-2020-6310)

Successful exploitation of the most severe of these vulnerabilities could allow an unauthenticated, remote attacker to execute code on the affected systems. Depending on the privileges associated with the application, an attacker could then install programs; view, change, or delete data; or create new accounts with full user rights. Applications configured to have fewer restrictions on the system could be less impacted than those who operate with elevated privileges.

RECOMMENDATIONS:

The following actions should be taken:

- Apply appropriate updates provided by SAP to vulnerable systems, immediately after appropriate testing.
- Run all software as a non-privileged user (one without administrative privileges) to diminish the effects of a successful attack.
- Remind users not to visit un-trusted websites or follow links provided by unknown or un-trusted sources.
- Inform and educate users regarding the threats posed by hypertext links contained in emails or attachments especially from un-trusted sources.
- Apply the Principle of Least Privilege to all systems and services.

REFERENCES:

SAP:

<https://wiki.scn.sap.com/wiki/pages/viewpage.action?pageId=552603345>

CVE:

<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6287>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6284>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6294>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6298>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6296>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6309>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6293>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6295>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6297>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6301>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6300>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6273>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6299>
<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2020-6310>

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