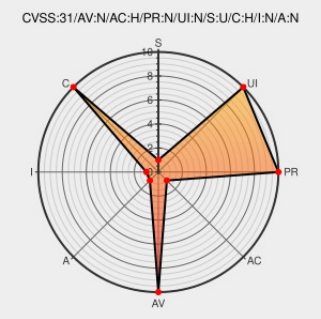
CVE-2021-38153

Published on: 09/22/2021 12:00:00 AM UTC

Last Modified on: 10/05/2022 06:23:00 PM UTC

CVE-2021-38153

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



Certain versions of Kafka from Apache contain the following vulnerability:

Some components in Apache Kafka use `Arrays.equals` to validate a password or key, which is vulnerable to timing attacks that make brute force attacks for such credentials more likely to be successful. Users should upgrade to 2.8.1 or higher, or 3.0.0 or higher where this vulnerability has been fixed. The affected versions include Apache Kafka 2.0.0, 2.0.1, 2.1.0, 2.1.1, 2.2.0, 2.2.1, 2.2.2, 2.3.0, 2.3.1, 2.4.0, 2.4.1, 2.5.0, 2.5.1, 2.6.0, 2.6.1, 2.6.2, 2.7.0, 2.7.1, and 2.8.0.

CVE-2021-38153 has been assigned by security@apache.org to track the vulnerability - currently rated as MEDIUM severity.

CVSS3 Score: 5.9 - MEDIUM

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

CVSS2 Score: 4.3 - MEDIUM

Access Vector	Access Complexity	Authentication
NETWORK	MEDIUM	NONE
Confidentiality Impact	**Integrity Impact**	**Availability Impact**
PARTIAL	NONE	NONE

CVE References

Description	Tags	Link
Repy Mail		MLIST [kafka-users] 20211012 [VOTE] 2.7.2 RC0

Pony Mail!	lists.apache.org text/html	MLIST [kafka-users] 20211012 [VOTE] 2.7.2 RC0
Pony Mail!	lists.apache.org text/html	MLIST [kafka-dev] 20211007 Re: CVE Back Port?
Pony Mail!	lists.apache.org text/html	MLIST [kafka-users] 20211012 [VOTE] 2.6.3 RC0
Oracle Critical Patch Update Advisory - April 2022	www.oracle.com text/html	MISC www.oracle.com/security-alerts/cpuapr2022.html
Pony Mail!	lists.apache.org text/html	MLIST [kafka-dev] 20211012 [VOTE] 2.6.3 RC0
Oracle Critical Patch Update Advisory - January 2022	www.oracle.com text/html	MISC www.oracle.com/security-alerts/cpujan2022.html
Pony Mail!	lists.apache.org text/html	MLIST [kafka-dev] 20211026 Re: [kafka-clients] [VOTE] 2.7.2 RC0
Apache Kafka	kafka.apache.org text/html	MISC kafka.apache.org/cve-list
Pony Mail!	lists.apache.org text/html	MLIST [kafka-dev] 20211012 [VOTE] 2.7.2 RC0
Pony Mail!	lists.apache.org text/html	MLIST [kafka-users] 20211026 Re: [kafka-clients] [VOTE] 2.7.2 RC0
Oracle Critical Patch Update Advisory - July 2022	www.oracle.com text/html	MISC www.oracle.com/security-alerts/cpujul2022.html

Related QID Numbers

375930 Apache Kafka Timing Attack Vulnerability

983504 Java (maven) Security Update for org.apache.kafka:kafka (GHSA-3j6g-hxx5-3q26)

Exploit/POC from Github

This repository contains a collection of data files on known Common Vulnerabilities and Exposures (CVEs). Each file i…

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Application	Apache	Kafka	All	All	All	All
Application	Apache	Kafka	2.8.0	-	All	All
Application	Oracle	Communications Brm - Elastic Charging Engine	All	All	All	All
Application	Oracle	Communications Brm - Elastic Charging Engine	12.0.0.5.0	All	All	All
Application	Oracle	Communications Cloud Native Core Policy	1.15.0	All	All	All

Application	Oracle	Financial Services Analytical Applications Infrastructure	All	All	All	All
Application	Oracle	Financial Services Analytical Applications Infrastructure	All	All	All	All
Application	Oracle	Financial Services Behavior Detection Platform	8.1.1.0	All	All	All
Application	Oracle	Financial Services Behavior Detection Platform	8.1.1.1	All	All	All
Application	Oracle	Financial Services Behavior Detection Platform	8.1.2.0	All	All	All
Application	Oracle	Financial Services Behavior Detection Platform	All	All	All	All
Application	Oracle	Financial Services Enterprise Case Management	8.0.7.1	All	All	All
Application	Oracle	Financial Services Enterprise Case Management	8.0.7.2	All	All	All
Application	Oracle	Financial Services Enterprise Case Management	8.0.8.0	All	All	All
Application	Oracle	Financial Services Enterprise Case Management	8.0.8.1	All	All	All
Application	Oracle	Financial Services Enterprise Case Management	8.1.1.0	All	All	All
Application	Oracle	Financial Services Enterprise Case Management	8.1.1.1	All	All	All
Application	Oracle	Primavera Unifier	18.8	All	All	All
Application	Oracle	Primavera Unifier	19.12	All	All	All
Application	Oracle	Primavera Unifier	20.12	All	All	All
Application	Oracle	Primavera Unifier	21.12	All	All	All
Application	Quarkus	Quarkus	All	All	All	All

cpe:2.3:a:apache:kafka:*:*:*:*:*:*:*:*:

cpe:2.3:a:apache:kafka:2.8.0:-:*:*:*:*:*:*:

cpe:2.3:a:oracle:communications_brm_-_elastic_charging_engine:*:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:communications_brm_-_elastic_charging_engine:12.0.0.5.0:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:communications_cloud_native_core_policy:1.15.0:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_analytical_applications_infrastructure:*:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_analytical_applications_infrastructure:*:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_behavior_detection_platform:8.1.1.0:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_behavior_detection_platform:8.1.1.1:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_behavior_detection_platform:8.1.2.0:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_behavior_detection_platform:*:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_enterprise_case_management:8.0.7.1:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_enterprise_case_management:8.0.7.2:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_enterprise_case_management:8.0.8.0:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_enterprise_case_management:8.0.8.1:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_enterprise_case_management:8.1.1.0:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:financial_services_enterprise_case_management:8.1.1.1:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:primavera_unifier:18.8:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:primavera_unifier:19.12:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:primavera_unifier:20.12:*:*:*:*:*:*:*:

cpe:2.3:a:oracle:primavera_unifier:21.12:*:*:*:*:*:*:*:

cpe:2.3:a:quarkus:quarkus:*:*:*:*:*:*:*:*:

Discovery Credit

Apache Kafka would like to thank J. Santilli for reporting this issue.

Social Mentions

Source	Title	Posted (UTC)
@oss_security	CVE-2021-38153: Timing Attack Vulnerability for Apache Kafka Connect and Clients: Posted by Randall Hauch on Sep 21… twitter.com/i/web/status/1…	2021-09-21 18:40:32
@CVEreport	CVE-2021-38153 : Some components in #Apache Kafka use `Arrays.equals` to validate a password or key, which is vulne… twitter.com/i/web/status/1…	2021-09-22 09:09:59
@threatmeter	CVE-2021-38153 Some components in Apache Kafka use `Arrays.equals` to validate a password or key, which is vulnerab… twitter.com/i/web/status/1…	2021-09-23 07:09:50

← Previous ID

Next ID→