

# Oracle Critical Patch Update Advisory - October 2021

## Description

A Critical Patch Update is a collection of patches for multiple security vulnerabilities. These patches address vulnerabilities in Oracle code and in third-party components included in Oracle products. These patches are usually cumulative, but each advisory describes only the security patches added since the previous Critical Patch Update Advisory. Thus, prior Critical Patch Update advisories should be reviewed for information regarding earlier published security patches. Refer to [“Critical Patch Updates, Security Alerts and Bulletins”](#) for information about Oracle Security advisories.

**Oracle continues to periodically receive reports of attempts to maliciously exploit vulnerabilities for which Oracle has already released security patches. In some instances, it has been reported that attackers have been successful because targeted customers had failed to apply available Oracle patches. Oracle therefore strongly recommends that customers remain on actively-supported versions and apply Critical Patch Update security patches without delay.**

This Critical Patch Update contains 419 new security patches across the product families listed below. Please note that an MOS note summarizing the content of this Critical Patch Update and other Oracle Software Security Assurance activities is located at [October 2021 Critical Patch Update: Executive Summary and Analysis](#).

## Affected Products and Patch Information

Security vulnerabilities addressed by this Critical Patch Update affect the products listed below. The product area is shown in the Patch Availability Document column.

**Please click on the links in the Patch Availability Document column below to access the documentation for patch availability information and installation instructions.**

| Affected Products and Versions  | Patch Availability Document        |
|---|------------------------------------|
| <a href="#">Enterprise Manager Base Platform, versions 13.4.0.0, 13.5.0.0</a> | <a href="#">Enterprise Manager</a> |
| <a href="#">Enterprise Manager for Oracle Database, version 13.4.0.0</a>      | <a href="#">Enterprise Manager</a> |

| Affected Products and Versions   | Patch Availability Document             |
|--|---|
| Enterprise Manager Ops Center, version 12.4.0.0  | Enterprise Manager                      |
| Essbase Administration Services, versions prior to 11.1.2.4.046, prior to 21.3,                | Database                                |
| Hyperion Financial Management, versions 11.1.2.4, 11.2.6.0                                     | Fusion Middleware                       |
| Hyperion Financial Reporting, versions 11.1.2.4, 11.2.6.0                                      | Fusion Middleware                       |
| Hyperion Infrastructure Technology, version 11.2.6.0   | Fusion Middleware                       |
| Hyperion Planning, versions 11.1.2.4, 11.2.6.0   | Fusion Middleware                       |
| Instantis EnterpriseTrack, versions 17.1, 17.2, 17.3   | Oracle Construction and Engineering Sui |
| JD Edwards EnterpriseOne Orchestrator, versions prior to 9.2.6.0                               | JD Edwards                              |
| JD Edwards EnterpriseOne Tools, versions prior to 9.2.6.0                                      | JD Edwards                              |
| JD Edwards World Security, version A9.4  | JD Edwards                              |
| MySQL Client, versions 8.0.26 and prior  | MySQL                                   |
| MySQL Cluster, versions 7.4.33 and prior, 7.5.23 and prior, 7.6.19 and prior, 8.0.26 and prior | MySQL                                   |
| MySQL Connectors, versions 8.0.26 and prior  | MySQL                                   |
| MySQL Enterprise Monitor, versions 8.0.25 and prior  | MySQL                                   |
| MySQL Server, versions 5.7.35 and prior, 8.0.26 and prior                                      | MySQL                                   |
| MySQL Workbench, versions 8.0.26 and prior   | MySQL                                   |
| Oracle Agile PLM, versions 9.3.3, 9.3.6  | Oracle Supply Chain Products            |
| Oracle Application Express, versions prior to 21.1.0   | Database                                |
| Oracle Application Testing Suite, version 13.3.0.1   | Enterprise Manager                      |
| Oracle Autovue for Agile Product Lifecycle Management, version 21.0.2                          | Oracle Supply Chain Products            |
| Oracle Banking Cash Management, versions 14.2, 14.3, 14.5                                      | Contact Support                         |
| Oracle Banking Corporate Lending Process Management, versions 14.2, 14.3, 14.5                 | Contact Support                         |
| Oracle Banking Credit Facilities Process Management, versions 14.2, 14.3, 14.5                 | Contact Support                         |
| Oracle Banking Enterprise Default Management, versions 2.10.0, 2.12.0                          | Oracle Banking Platform                 |
| Oracle Banking Extensibility Workbench, versions 14.2, 14.3, 14.5                              | Contact Support                         |
| Oracle Banking Platform, versions 2.6.2, 2.7.1, 2.9.0, 2.12.0                                  | Oracle Banking Platform                 |

| Affected Products and Versions   | Patch Availability Document   |
|--|---|
| Oracle Banking Supply Chain Finance, versions 14.2, 14.3, 14.5   | Contact Support   |
| Oracle Banking Trade Finance Process Management, versions 14.2, 14.3, 14.5                             | Contact Support   |
| Oracle Banking Virtual Account Management, versions 14.2, 14.3, 14.5                                   | Contact Support   |
| Oracle Business Activity Monitoring, versions 11.1.1.9.0, 12.2.1.3.0, 12.2.1.4.0                       | Fusion Middleware   |
| Oracle Business Intelligence Enterprise Edition, versions 5.5.0.0.0, 5.9.0.0.0, 12.2.1.3.0, 12.2.1.4.0 | Fusion Middleware   |
| Oracle Commerce Guided Search, version 11.3.2  | Oracle Commerce   |
| Oracle Commerce Merchandising, version 11.3.2  | Oracle Commerce   |
| Oracle Communications Application Session Controller, version 3.9                                      | Oracle Communications Application Session Controller                    |
| Oracle Communications Billing and Revenue Management, versions 7.5.0.0.0, 12.0.0.3.0                   | Oracle Communications Billing and Revenue Management                    |
| Oracle Communications BRM - Elastic Charging Engine, version 12.0.0.3                                  | Oracle Communications BRM - Elastic Charging Engine                     |
| Oracle Communications Calendar Server, version 8.0.0.6.0   | Oracle Communications Calendar Server                                   |
| Oracle Communications Cloud Native Core Network Repository Function, version 1.14.0                    | Oracle Communications Cloud Native Core Network Repository Function     |
| Oracle Communications Cloud Native Core Policy, version 1.11.0   | Oracle Communications Cloud Native Core Policy                          |
| Oracle Communications Control Plane Monitor, versions 3.4, 4.2, 4.3, 4.4                               | Oracle Communications Control Plane Monitor                             |
| Oracle Communications Converged Application Server - Service Controller, version 6.2                   | Oracle Communications Converged Application Server - Service Controller |
| Oracle Communications Design Studio, version 7.4.2   | Oracle Communications Design Studio                                     |
| Oracle Communications Diameter Signaling Router, versions 8.0.0.0-8.5.0.0                              | Oracle Communications Diameter Signaling Router                         |
| Oracle Communications EAGLE  | Oracle Communications EAGLE   |
| Oracle Communications EAGLE FTP Table Base Retrieval, version 4.5                                      | Oracle Communications EAGLE FTP Table Base Retrieval                    |
| Oracle Communications EAGLE LNP Application Processor, versions 46.7, 46.8, 46.9                       | Oracle Communications EAGLE LNP Application Processor                   |
| Oracle Communications Element Manager, versions 8.2.0.0-8.2.4.0  | Oracle Communications Element Manager                                   |

| Affected Products and Versions   | Patch Availability Document                                      |
|--|--|
| Oracle Communications Fraud Monitor, versions 3.4-4.4                                  | Oracle Communications Fraud Monitor                              |
| Oracle Communications Interactive Session Recorder, version 6.4                        | Oracle Communications Interactive Session Recorder               |
| Oracle Communications LSMS, versions 13.1-13.4   | Oracle Communications LSMS                                       |
| Oracle Communications Messaging Server, version 8.1                                    | Oracle Communications Messaging Server                           |
| Oracle Communications MetaSolv Solution, version 6.3.1                                 | Oracle Communications MetaSolv Solution                          |
| Oracle Communications Offline Mediation Controller, version 12.0.0.3.0                 | Oracle Communications Offline Mediation Controller               |
| Oracle Communications Operations Monitor, versions 3.4, 4.2, 4.3, 4.4                  | Oracle Communications Operations Monitor                         |
| Oracle Communications Policy Management, version 12.5.0                                | Oracle Communications Policy Manager                             |
| Oracle Communications Pricing Design Center, version 12.0.0.3.0                        | Oracle Communications Pricing Design Center                      |
| Oracle Communications Services Gatekeeper, version 7.0                                 | Oracle Communications Services Gatekeeper                        |
| Oracle Communications Session Border Controller, versions 8.4, 9.0                     | Oracle Communications Session Border Controller                  |
| Oracle Communications Session Report Manager, versions 8.0.0.0-8.2.5.0                 | Oracle Communications Session Report Manager                     |
| Oracle Communications Session Route Manager, versions 8.0.0.0-8.2.5.0                  | Oracle Communications Session Route Manager                      |
| Oracle Data Integrator, version 12.2.1.4.0   | Fusion Middleware  |
| Oracle Database Server, versions 12.1.0.2, 12.2.0.1, 19c, 21c                          | Database   |
| Oracle Documaker, versions 12.6.0-12.6.4   | Oracle Insurance Applications                                    |
| Oracle E-Business Suite, versions 12.1.1-12.1.3, 12.2.3-12.2.10                        | Oracle E-Business Suite  |
| Oracle Enterprise Communications Broker, versions 3.2, 3.3                             | Oracle Enterprise Communications Broker                          |
| Oracle Enterprise Repository, version 11.1.17.0  | Fusion Middleware  |
| Oracle Enterprise Telephony Fraud Monitor, versions 3.4, 4.2, 4.3, 4.4                 | Oracle Enterprise Telephony Fraud Monitor                        |
| Oracle Ethernet Switch ES2-64, Oracle Ethernet Switch ES2-72, version 2.0.0.14         | Systems  |
| Oracle Financial Services Analytical Applications Infrastructure, versions 8.0.6-8.1.1 | Oracle Financial Services Analytical Applications Infrastructure |
| Oracle Financial Services Enterprise Case Management, versions 8.0.7.2.0, 8.0.8.1.0    | Oracle Financial Services Enterprise Case Management             |

| Affected Products and Versions  | Patch Availability Document   |
|---|---|
| Oracle Financial Services Model Management and Governance, versions 8.0.8.0.0-8.1.0.0.0 | <a href="#">Oracle Financial Services Model Management and Governance</a> |
| Oracle FLEXCUBE Core Banking, versions 11.7, 11.8, 11.9, 11.10                          | Contact Support   |
| Oracle Global Lifecycle Management OPatch   | Global Lifecycle Management   |
| Oracle GoldenGate, versions prior to 19.1.0.0.0.210420                                  | Database  |
| Oracle GoldenGate Application Adapters, version 19.1.0.0.0                              | Fusion Middleware   |
| Oracle GraalVM Enterprise Edition, versions 20.3.3, 21.2.0                              | Java SE   |
| Oracle Graph Server and Client, versions prior to 21.3.0                                | Database  |
| Oracle Health Sciences Central Coding, versions 6.2.0, 6.3.0                            | Health Sciences   |
| Oracle Health Sciences InForm, version 6.3.0  | Health Sciences   |
| Oracle Healthcare Data Repository, versions 7.0.2, 8.1.0                                | Health Sciences   |
| Oracle Healthcare Foundation, versions 7.3, 8.0, 8.1                                    | Health Sciences   |
| Oracle Hospitality Cruise Shipboard Property Management System, version 20.1.0          | Oracle Hospitality Cruise Shipboard Prop Management System                |
| Oracle HTTP Server, versions 11.1.1.9.0, 12.2.1.3.0, 12.2.1.4.0                         | Fusion Middleware   |
| Oracle Insurance Calculation Engine, versions 11.0.0-11.3.1                             | Oracle Insurance Applications   |
| Oracle Insurance Policy Administration, versions 11.0.0-11.3.1                          | Oracle Insurance Applications   |
| Oracle Java SE, versions 7u311, 8u301, 11.0.12, 17                                      | Java SE   |
| Oracle NoSQL Database   | NoSQL Database  |
| Oracle Outside In Technology, version 8.5.5   | Fusion Middleware   |
| Oracle Real User Experience Insight, versions 13.4.1.0, 13.5.1.0                        | Enterprise Manager  |
| Oracle Real-Time Decision Server, versions 3.2.0.0, 11.1.1.9.0                          | Fusion Middleware   |
| Oracle REST Data Services, versions prior to 21.3                                       | Database  |
| Oracle Retail Advanced Inventory Planning, versions 14.1, 15.0, 16.0                    | Retail Applications   |
| Oracle Retail Assortment Planning, version 16.0   | Retail Applications   |
| Oracle Retail Back Office, versions 14.0, 14.1  | Retail Applications   |
| Oracle Retail Bulk Data Integration, versions 16.0.3, 19.0.1                            | Retail Applications   |
| Oracle Retail Central Office, versions 14.0, 14.1                                       | Retail Applications   |

| Affected Products and Versions  | Patch Availability Document   |
|---|-------------------------------|
| Oracle Retail Customer Management and Segmentation Foundation, versions 16.0-19.0                               | Retail Applications           |
| Oracle Retail Extract Transform and Load, version 13.2.8  | Retail Applications           |
| Oracle Retail Financial Integration, versions 14.1.3.2, 15.0.4.0, 16.0.3.0                                      | Retail Applications           |
| Oracle Retail Integration Bus, versions 14.1.3.2, 15.0.4.0, 16.0.3.0, 19.0.1.0                                  | Retail Applications           |
| Oracle Retail Merchandising System, versions 15.0.3, 19.0.1   | Retail Applications           |
| Oracle Retail Point-of-Service, versions 14.0, 14.1   | Retail Applications           |
| Oracle Retail Predictive Application Server, versions 14.1.3, 15.0.3, 16.0.3                                    | Retail Applications           |
| Oracle Retail Returns Management, versions 14.0, 14.1   | Retail Applications           |
| Oracle Retail Service Backbone, versions 14.1.3.2, 15.0.4.0, 16.0.3.0, 19.0.1.0                                 | Retail Applications           |
| Oracle Retail Store Inventory Management, versions 14.1, 15.0, 16.0   | Retail Applications           |
| Oracle Secure Backup, versions prior to 18.1.0.1.0  | Oracle Secure Backup          |
| Oracle Secure Global Desktop, version 5.6   | Virtualization                |
| Oracle Solaris, version 11  | Systems                       |
| Oracle Spatial Studio   | Database                      |
| Oracle SQL Developer  | Database                      |
| Oracle Transportation Management, version 6.4.3   | Oracle Supply Chain Products  |
| Oracle Utilities Framework, versions 4.2.0.2.0, 4.2.0.3.0, 4.3.0.1.0-4.3.0.6.0, 4.4.0.0.0, 4.4.0.2.0, 4.4.0.3.0 | Oracle Utilities Applications |
| Oracle VM VirtualBox, versions prior to 6.1.28  | Virtualization                |
| Oracle WebCenter Portal, versions 12.2.1.3.0, 12.2.1.4.0  | Fusion Middleware             |
| Oracle WebCenter Sites, versions 12.2.1.3.0, 12.2.1.4.0   | Fusion Middleware             |
| Oracle WebLogic Server, versions 10.3.6.0.0, 12.1.3.0.0, 12.2.1.3.0, 12.2.1.4.0, 14.1.1.0.0                     | Fusion Middleware             |
| Oracle ZFS Storage Appliance Kit, version 8.8   | Systems                       |
| PeopleSoft Enterprise CC Common Application Objects, version 9.2  | PeopleSoft                    |
| PeopleSoft Enterprise CS Academic Advisement, version 9.2   | PeopleSoft                    |
| PeopleSoft Enterprise CS Campus Community, versions 9.0, 9.2  | PeopleSoft                    |

| Affected Products and Versions  | Patch Availability Document             |
|---|---|
| PeopleSoft Enterprise CS SA Integration Pack, versions 9.0, 9.2                                 | PeopleSoft                              |
| PeopleSoft Enterprise CS Student Records, version 9.2   | PeopleSoft                              |
| PeopleSoft Enterprise PeopleTools, versions 8.57, 8.58, 8.59                                    | PeopleSoft                              |
| PeopleSoft Enterprise SCM, version 9.2  | PeopleSoft                              |
| Primavera Gateway, versions 17.12.0-17.12.11, 18.8.0-18.8.12, 19.12.0-19.12.11, 20.12.0-20.12.7 | Oracle Construction and Engineering Sui |
| Primavera Unifier, versions 17.7-17.12, 18.8, 19.12, 20.12                                      | Oracle Construction and Engineering Sui |
| Siebel Applications, versions 21.9 and prior  | Siebel                                  |
| Tekelec Platform Distribution, versions 7.4.0-7.7.1   | Tekelec Platform Distribution           |
| Tekelec Virtual Operating Environment, versions 3.4.0-3.7.1                                     | Tekelec Virtual Operating Environment   |

## Note:

- Vulnerabilities affecting either Oracle Database or Oracle Fusion Middleware may affect Oracle Fusion Applications, so Oracle customers should refer to Oracle Fusion Applications Critical Patch Update Knowledge Document, [My Oracle Support Note 1967316.1](#) for information on patches to be applied to Fusion Application environments.
- Vulnerabilities affecting Oracle Solaris may affect Oracle ZFSSA so Oracle customers should refer to the Oracle and Sun Systems Product Suite Critical Patch Update Knowledge Document, [My Oracle Support Note 2160904.1](#) for information on minimum revisions of security patches required to resolve ZFSSA issues published in Critical Patch Updates and Solaris Third Party bulletins.
- Solaris Third Party Bulletins are used to announce security patches for third party software distributed with Oracle Solaris. Solaris 10 customers should refer to the latest patch-sets which contain critical security fixes and detailed in Systems Patch Availability Document. Please see Reference Index of CVE IDs and Solaris Patches ([My Oracle Support Note 1448883.1](#)) for more information.
- Users running Java SE with a browser can download the latest release from <https://java.com>. Users on the Windows and Mac OS X platforms can also use [automatic updates](#) to get the latest release.

## Risk Matrix Content

Risk matrices list only security vulnerabilities that are newly addressed by the patches associated with this advisory. Risk matrices for previous security patches can be found in [previous Critical Patch Update advisories and Alerts](#). An English text version of the risk matrices provided in this document is [here](#).

Several vulnerabilities addressed in this Critical Patch Update affect multiple products. Each vulnerability is identified by a [CVE#](#) which is its unique identifier. A vulnerability that affects multiple products will appear with the same CVE# in all risk matrices. A CVE# shown in *italics* indicates that this vulnerability impacts a different product, but also has impact on the product where the italicized CVE# is listed.

Security vulnerabilities are scored using CVSS version 3.1 (see [Oracle CVSS Scoring](#) for an explanation of how Oracle applies CVSS version 3.1).

Oracle conducts an analysis of each security vulnerability addressed by a Critical Patch Update. Oracle does not disclose detailed information about this security analysis to customers, but the resulting Risk Matrix and associated documentation provide information about the type of vulnerability, the conditions required to exploit it, and the potential impact of a successful exploit. Oracle provides this information, in part, so that customers may conduct their own risk analysis based on the particulars of their product usage. For more information, see [Oracle vulnerability disclosure policies](#).

Oracle lists updates that address vulnerabilities in third-party components that are not exploitable in the context of their inclusion in their respective Oracle product beneath the product's risk matrix.

The protocol in the risk matrix implies that all of its secure variants (if applicable) are affected as well. For example, if HTTP is listed as an affected protocol, it implies that HTTPS (if applicable) is also affected. The secure variant of a protocol is listed in the risk matrix only if it is the *only* variant affected, e.g. HTTPS will typically be listed for vulnerabilities in SSL and TLS.

## Workarounds

**Due to the threat posed by a successful attack, Oracle strongly recommends that customers apply Critical Patch Update security patches as soon as possible.** Until you apply the Critical Patch Update patches, it may be possible to reduce the risk of successful attack by blocking network protocols required by an attack. For attacks that require certain privileges or access to certain packages, removing the privileges or the ability to access the packages from users that do not need the privileges may help reduce the risk of successful attack. Both approaches may break application functionality, so Oracle strongly recommends that customers test changes on non-production systems. Neither approach should be considered a long-term solution as neither corrects the underlying problem.

## Skipped Critical Patch Updates

Oracle strongly recommends that customers apply security patches as soon as possible. For customers that have skipped one or more Critical Patch Updates and are concerned about

products that do not have security patches announced in this Critical Patch Update, please review [previous Critical Patch Update advisories](#) to determine appropriate actions.

## Critical Patch Update Supported Products and Versions

Patches released through the Critical Patch Update program are provided only for product versions that are covered under the Premier Support or Extended Support phases of the [Lifetime Support Policy](#). Oracle recommends that customers plan product upgrades to ensure that patches released through the Critical Patch Update program are available for the versions they are currently running.

Product releases that are not under Premier Support or Extended Support are not tested for the presence of vulnerabilities addressed by this Critical Patch Update. However, it is likely that earlier versions of affected releases are also affected by these vulnerabilities. As a result, Oracle recommends that customers upgrade to supported versions.

Database, Fusion Middleware, and Oracle Enterprise Manager products are patched in accordance with the Software Error Correction Support Policy explained in [My Oracle Support Note 209768.1](#). Please review the [Technical Support Policies](#) for further guidelines regarding support policies and phases of support.

## Credit Statement

The following people or organizations reported security vulnerabilities addressed by this Critical Patch Update to Oracle:

- Oxfone: CVE-2021-35572, CVE-2021-35573, CVE-2021-35574, CVE-2021-35656, CVE-2021-35657, CVE-2021-35658, CVE-2021-35661, CVE-2021-35662
- Andrej Simko of Accenture: CVE-2021-35580, CVE-2021-35581, CVE-2021-35582
- Anonymous researcher working with Trend Micro's Zero Day Initiative: CVE-2021-35590, CVE-2021-35592, CVE-2021-35593, CVE-2021-35594, CVE-2021-35598, CVE-2021-35621
- Artem Smotrakov: CVE-2021-35603
- Asaf Greenholts of Bank Hapoalim: CVE-2021-35550
- Aveek Biswas of Salesforce.com: CVE-2021-27290, CVE-2021-32804
- Black Lantern Security LLC: CVE-2021-35665
- Chuck Hunley of sas.com: CVE-2021-35567
- DoHyun Lee (l33d0hyun) of VirtualBoBs: CVE-2021-35540
- Eddie Zhu of Beijing DBSEC Technology Co., Ltd: CVE-2021-2332
- Emad Al-Mousa: CVE-2021-35576

- Girlelecta: CVE-2021-35659, CVE-2021-35660
- Guillaume Jacques of synacktiv: CVE-2021-35651, CVE-2021-35652, CVE-2021-35653, CVE-2021-35654, CVE-2021-35655
- Hongkun Chen of Alibaba: CVE-2021-2471
- Jie Liang of WingTecher Lab of Tsinghua University: CVE-2021-35641, CVE-2021-35642, CVE-2021-35643, CVE-2021-35644, CVE-2021-35645
- Jingzhou Fu of WingTecher Lab of Tsinghua University: CVE-2021-35641, CVE-2021-35642, CVE-2021-35643, CVE-2021-35644, CVE-2021-35645
- John Simpson of Trend Micro Security Research working with the Zero Day Initiative: CVE-2021-35611
- Kosong: CVE-2021-2461
- Lai Han of NSFocus Security Team: CVE-2021-35620
- Liboheng of Tophant Starlight laboratory: CVE-2021-35617
- Markus Loewe: CVE-2021-35561
- Matthias Kaiser of Apple Information Security: CVE-2021-2137
- Ofir Hamam: CVE-2021-2476, CVE-2021-35616
- Paul Barbé of synacktiv: CVE-2021-35651, CVE-2021-35652, CVE-2021-35653, CVE-2021-35654, CVE-2021-35655
- Qiguang Zhu: CVE-2021-35551
- Qiu hao Li: CVE-2021-2475
- Ryan Emmons: CVE-2021-35538
- Sven Woynoski of it.sec GmbH: CVE-2021-2414, CVE-2021-2416
- Théo Louis-Tisserand of synacktiv: CVE-2021-35651, CVE-2021-35652, CVE-2021-35653, CVE-2021-35654, CVE-2021-35655
- Tristen Hayfield of Cisco: CVE-2021-35565
- Victor Rodriguez: CVE-2021-35595
- Xu Yuanzhen of Alibaba Cloud Security Team: CVE-2021-2471
- Yaoguang Chen of Ant Security Light-Year Lab: CVE-2021-35557, CVE-2021-35558, CVE-2021-35634, CVE-2021-35641, CVE-2021-35642, CVE-2021-35643, CVE-2021-35644, CVE-2021-35645
- Yi Ren of Alibaba: CVE-2021-35542
- Zhiyong Wu of WingTecher Lab of Tsinghua University: CVE-2021-35641, CVE-2021-35642, CVE-2021-35643, CVE-2021-35644, CVE-2021-35645

## Security-In-Depth Contributors

Oracle acknowledges people who have contributed to our Security-In-Depth program (see [FAQ](#)). People are acknowledged for Security-In-Depth contributions if they provide information, observations or suggestions pertaining to security vulnerability issues that result in significant modification of Oracle code or documentation in future releases, but are not of such a critical nature that they are distributed in Critical Patch Updates.

In this Critical Patch Update, Oracle recognizes the following for contributions to Oracle's Security-In-Depth program:

- Alexander Kornbrust of Red Database Security [2 reports]
- Andrej Simko of Accenture
- Emad Al-Mousa
- Fabian Meumertzheim of Code Intelligence
- Hinemos Development Team, NTT DATA INTELLILINK Corporation working with Red Hat
- Juho Nurminen of Mattermost
- Masafumi Miura of Red Hat
- Paul Fiterau Brostean of Uppsala University [3 reports]
- Yoshikazu Nojima of Red Hat

## On-Line Presence Security Contributors

Oracle acknowledges people who have contributed to our On-Line Presence Security program (see [FAQ](#)). People are acknowledged for contributions relating to Oracle's on-line presence if they provide information, observations or suggestions pertaining to security-related issues that result in significant modification to Oracle's on-line external-facing systems.

For this quarter, Oracle recognizes the following for contributions to Oracle's On-Line Presence Security program:

- Adarsh VS Mannarakkal
- Ali Alzahrani
- Anil Bhatt
- Aravindha Hariharan
- Black Lantern Security LLC [8 reports]
- Brahim Ait Boufakri
- Dara Greaney
- Gaurang Maheta of gaurang maheta

- Gil Hoffer
- H01 from FPT Software Cybersecurity Assurance Service
- Jebarson Immanuel
- Khalid matar Alharthi
- Lidor Ben Shitrit from Orca Security
- Mahad Ali
- Maxime Bonillo
- Nic Palmer (Optimus Crime)
- Omri Litvak
- Osama Mohammed
- PhishLabs Security Operations
- Priyanshu Kumawat
- PwnWiki Administrator of PwnWiki
- Sergiy Kornienko
- Seth Duda of SquareWorks Consulting
- Shuvam Adhikari
- Vaishnav Pardhi
- Vismit Sudhir Rakhecha (Druk) [2 reports]

## Critical Patch Update Schedule

Critical Patch Updates are released on the Tuesday closest to the 17th day of January, April, July and October. The next four dates are:

- 18 January 2022
- 19 April 2022
- 19 July 2022
- 18 October 2022

## References

- [Oracle Critical Patch Updates, Security Alerts and Bulletins](#)
- [Critical Patch Update - October 2021 Documentation Map](#)
- [Oracle Critical Patch Updates and Security Alerts - Frequently Asked Questions](#)
- [Risk Matrix Definitions](#)

- [Use of Common Vulnerability Scoring System \(CVSS\) by Oracle](#)
- [English text version of the risk matrices](#)
- [CVRF XML version of the risk matrices](#)
- [Map of CVE to Advisory/Alert](#)
- [Oracle Lifetime support Policy](#)
- [JEP 290 Reference Blocklist Filter](#)

## Modification History

| Date                | Note   |
|---------------------|--|
| 2022-<br>January-18 | Rev 3. Updated the essbase affected versions   |
| 2021-<br>October-28 | Rev 2. Changed the product of CVE-2018-20843 from Oracle WebLogic Server Proxy Plu In to Oracle HTTP Server and added 5.9.0.0.0 to affected versions of Oracle Business Intelligence Enterprise Edition. |
| 2021-<br>October-19 | Rev 1. Initial Release.  |

## Oracle Database Products Risk Matrices

This Critical Patch Update contains 18 new security patches for Oracle Database Products divided as follows:

- 9 new security patches for Oracle Database Products
- 5 new security patches for Oracle Essbase
- No new security patches for Oracle Global Lifecycle Management, but third party patches are provided
- 1 new security patch for Oracle GoldenGate
- 1 new security patch for Oracle Graph Server and Client
- No new security patches for Oracle NoSQL Database, but third party patches are provided
- 1 new security patch for Oracle REST Data Services
- 1 new security patch for Oracle Secure Backup
- No new security patches for Oracle Spatial Studio, but third party patches are provided
- No new security patches for Oracle SQL Developer, but third party patches are provided

## Oracle Database Server Risk Matrix

This Critical Patch Update contains 9 new security patches plus additional third party patches noted below for Oracle Database Products. 2 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. None of these patches are applicable to client-only installations, i.e., installations that do not have the Oracle Database Server installed. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Component  | Package and/or Privilege Required | Protocol    | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK |               |                |             |
|-----------------------|--|-----------------------------------|-------------|-------------------------------|-----------------------|---------------|----------------|-------------|
|                       |  |                                   |             |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-35599</b> | Zero Downtime DB Migration to Cloud                | Local Logon                       | Local Logon | No                            | 8.2                   | Local         | Low            | High        |
| <b>CVE-2021-25122</b> | Oracle Database Enterprise Edition (Apache Tomcat) | None                              | HTTP        | Yes                           | 7.5                   | Network       | Low            | None        |
| <b>CVE-2021-35619</b> | Java VM  | Create Procedure                  | Oracle Net  | No                            | 7.1                   | Network       | High           | Low         |
| <b>CVE-2021-2332</b>  | Oracle LogMiner                                    | DBA                               | Oracle Net  | No                            | 6.7                   | Network       | Low            | High        |
| <b>CVE-2021-35551</b> | RDBMS Security                                     | DBA                               | Oracle Net  | No                            | 5.5                   | Network       | Low            | High        |
| <b>CVE-2021-35557</b> | Core RDBMS   | Create Table                      | Oracle Net  | No                            | 4.3                   | Network       | Low            | Low         |
| <b>CVE-2021-35558</b> | Core RDBMS   | Create Table                      | Oracle Net  | No                            | 4.3                   | Network       | Low            | Low         |
| <b>CVE-2021-26272</b> | Oracle Application Express (CKEditor)              | None                              | HTTP        | Yes                           | 4.3                   | Network       | Low            | None        |
| <b>CVE-2021-35576</b> | Oracle Database Enterprise Edition                 | Local Logon                       | Oracle Net  | No                            | 2.7                   | Network       | Low            | High        |

| CVE# | Component     | Package and/or Privilege Required | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK |               |                |             |
|------|---------------|-----------------------------------|----------|-------------------------------|-----------------------|---------------|----------------|-------------|
|      |               |                                   |          |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd |
|      | Unified Audit |                                   |          |                               |                       |               |                |             |

### Additional CVEs addressed are:

- The patch for CVE-2021-25122 also addresses CVE-2020-9484 and CVE-2021-25329.
- The patch for CVE-2021-26272 also addresses CVE-2021-26271.

### Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Autonomous Health Framework (Apache Commons IO): CVE-2021-29425.
- GraalVM Multilingual Engine: CVE-2021-29921, CVE-2020-28928, CVE-2021-2341, CVE-2021-2369, CVE-2021-2388 and CVE-2021-2432.
- Oracle Spatial and Graph - GeoRaster (OpenJPEG): CVE-2020-27824.

## Oracle Essbase Risk Matrix

This Critical Patch Update contains 5 new security patches for Oracle Essbase. 3 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                         | Component   | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |           |
|-----------------------|---------------------------------|-------------|----------|-------------------------------|------------------|---------------|----------------|-----------|
|                       |                                 |             |          |                               | Base Score       | Attack Vector | Attack Complex | Pri Req'd |
| <b>CVE-2021-35652</b> | Essbase Administration Services | EAS Console | HTTP     | Yes                           | 10.0             | Network       | Low            | No        |
| <b>CVE-2021-35651</b> | Essbase Administration Services | EAS Console | HTTP     | No                            | 8.5              | Network       | Low            | Lo        |
| <b>CVE-2021-35653</b> | Essbase Administration          | EAS Console | HTTP     | No                            | 7.7              | Network       | Low            | Lo        |

| CVE#                  | Product                         | Component   | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |         |
|-----------------------|---------------------------------|-------------|----------|-------------------------------|------------------|---------------|----------------|---------|
|                       |                                 |             |          |                               | Base Score       | Attack Vector | Attack Complex | Pri Rec |
|                       | Services                        |             |          |                               |                  |               |                |         |
| <b>CVE-2021-35654</b> | Essbase Administration Services | EAS Console | HTTP     | Yes                           | 7.5              | Network       | Low            | No      |
| <b>CVE-2021-35655</b> | Essbase Administration Services | EAS Console | HTTP     | Yes                           | 5.3              | Network       | Low            | No      |

## Oracle Global Lifecycle Management Risk Matrix

This Critical Patch Update contains no new security patches but does include third party patches noted below for Oracle Global Lifecycle Management. Please refer to previous Critical Patch Update Advisories if the last Critical Patch Update was not applied for Oracle Global Lifecycle Management. The English text form of this Risk Matrix can be found [here](#).

| CVE# | Product | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (see <a href="#">Risk Mat</a> ) |               |                |             |               |       |
|------|---------|-----------|----------|-------------------------------|---|---------------|----------------|-------------|---------------|-------|
|      |         |           |          |                               | Base Score  | Attack Vector | Attack Complex | Privs Req'd | User Interact | Scope |

There are no exploitable vulnerabilities for these product  
Third party patches for non-exploitable CVEs are noted bel

**Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:**

- Oracle Global Lifecycle Management OPatch
  - Patch Installer (Apache Commons Compress): CVE-2021-36090, CVE-2021-35515, CVE-2021-35516 and CVE-2021-35517.
  - Patch Installer (jackson-databind): CVE-2020-25649.

## Oracle GoldenGate Risk Matrix

This Critical Patch Update contains 1 new security patch plus additional third party patches noted below for Oracle GoldenGate. This vulnerability is remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                 | Product           | Component                     | Protocol   | Remote Exploit without Auth.? | CVSS VERSION 3.1 RIS |               |                |             |
|----------------------|-------------------|-------------------------------|------------|-------------------------------|----------------------|---------------|----------------|-------------|
|                      |                   |                               |            |                               | Base Score           | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2019-3740</b> | Oracle GoldenGate | Install (Dell BSAFE Crypto-J) | Oracle Net | Yes                           | 6.5                  | Network       | Low            | None        |

#### Additional CVEs addressed are:

- The patch for CVE-2019-3740 also addresses CVE-2019-3738 and CVE-2019-3739.

Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Oracle GoldenGate
  - General (Apache Batik): CVE-2020-11987 and CVE-2019-17566.
  - Install (jQuery): CVE-2020-11023, CVE-2019-11358 and CVE-2020-11022.
  - Internal Framework (Google Guava): CVE-2018-10237 and CVE-2020-8908.

## Oracle Graph Server and Client Risk Matrix

This Critical Patch Update contains 1 new security patch plus additional third party patches noted below for Oracle Graph Server and Client. This vulnerability is remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product             | Component                         | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RI |               |                |             |
|-----------------------|---------------------|-----------------------------------|----------|-------------------------------|---------------------|---------------|----------------|-------------|
|                       |                     |                                   |          |                               | Base Score          | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-25122</b> | Oracle Graph Server | Packaging/install (Apache Tomcat) | HTTP     | Yes                           | 7.5                 | Network       | Low            | None        |

| CVE# | Product    | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK |               |                |             |
|------|------------|-----------|----------|-------------------------------|-----------------------|---------------|----------------|-------------|
|      |            |           |          |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd |
|      | and Client |           |          |                               |                       |               |                |             |

### Additional CVEs addressed are:

- The patch for CVE-2021-25122 also addresses CVE-2021-25329.

### Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Oracle Graph Server and Client
  - Packaging/Install (Guava): CVE-2020-8908.
  - Packaging/Install (Lodash): CVE-2021-23337 and CVE-2020-28500.
  - Packaging/Install (jackson-databind): CVE-2020-25649.

## Oracle NoSQL Database Risk Matrix

This Critical Patch Update contains no new security patches but does include third party patches noted below for Oracle NoSQL Database. Please refer to previous Critical Patch Update Advisories if the last Critical Patch Update was not applied for Oracle NoSQL Database. The English text form of this Risk Matrix can be found [here](#).

| CVE#  | Product | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (see <a href="#">Risk Matrix</a> ) |               |                |             |               |       |
|---|---------|-----------|----------|-------------------------------|--|---------------|----------------|-------------|---------------|-------|
|   |         |           |          |                               | Base Score   | Attack Vector | Attack Complex | Privs Req'd | User Interact | Scope |
| <p>There are no exploitable vulnerabilities for these product<br/>Third party patches for non-exploitable CVEs are noted below.</p> |         |           |          |                               |  |               |                |             |               |       |

### Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Oracle NoSQL Database
  - Administration (Go): CVE-2021-34558.
  - Administration (Netty): CVE-2021-21409.

## Oracle REST Data Services Risk Matrix

This Critical Patch Update contains 1 new security patch plus additional third party patches noted below for Oracle REST Data Services. This vulnerability is remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                   | Component               | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (sc) |               |                |             |        |
|-----------------------|---------------------------|-------------------------|----------|-------------------------------|----------------------------|---------------|----------------|-------------|--------|
|                       |                           |                         |          |                               | Base Score                 | Attack Vector | Attack Complex | Privs Req'd | U: Int |
| <b>CVE-2021-28165</b> | Oracle REST Data Services | General (Eclipse Jetty) | HTTP     | Yes                           | 7.5                        | Network       | Low            | None        | N      |

### Additional CVEs addressed are:

- The patch for CVE-2021-28165 also addresses CVE-2021-28169 and CVE-2021-34428.

Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Oracle REST Data Services
  - Infrastructure (Apache Batik): CVE-2020-11988, CVE-2019-17566 and CVE-2020-11987.

## Oracle Secure Backup Risk Matrix

This Critical Patch Update contains 1 new security patch plus additional third party patches noted below for Oracle Secure Backup. This vulnerability is remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                 | Product       | Component     | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (sc) |               |                |             |        |
|----------------------|---------------|---------------|----------|-------------------------------|----------------------------|---------------|----------------|-------------|--------|
|                      |               |               |          |                               | Base Score                 | Attack Vector | Attack Complex | Privs Req'd | U: Int |
| <b>CVE-2021-3450</b> | Oracle Secure | Oracle Secure | TLS      | Yes                           | 7.4                        | Network       | High           | None        | Nc     |

| CVE# | Product | Component        | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (see <a href="#">Risk Matrix</a> ) |               |                |             |               |
|------|---------|------------------|----------|-------------------------------|--|---------------|----------------|-------------|---------------|
|      |         |                  |          |                               | Base Score   | Attack Vector | Attack Complex | Privs Req'd | User Interact |
|      | Backup  | Backup (OpenSSL) |          |                               |  |               |                |             |               |

### Additional CVEs addressed are:

- The patch for CVE-2021-3450 also addresses CVE-2021-3449.

### Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Oracle Secure Backup
  - Generic (PHP): CVE-2021-21702, CVE-2020-7065 and CVE-2020-7071.

## Oracle Spatial Studio Risk Matrix

This Critical Patch Update contains no new security patches but does include third party patches noted below for Oracle Spatial Studio. Please refer to previous Critical Patch Update Advisories if the last Critical Patch Update was not applied for Oracle Spatial Studio. The English text form of this Risk Matrix can be found [here](#).

| CVE#  | Product | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (see <a href="#">Risk Matrix</a> ) |               |                |             |               |
|---|---------|-----------|----------|-------------------------------|--|---------------|----------------|-------------|---------------|
|   |         |           |          |                               | Base Score   | Attack Vector | Attack Complex | Privs Req'd | User Interact |
| There are no exploitable vulnerabilities for these product<br>Third party patches for non-exploitable CVEs are noted below. |         |           |          |                               |  |               |                |             |               |

### Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Oracle Spatial Studio
  - Install (Apache Commons IO): CVE-2021-29425.
  - Install (Apache Commons BeanUtils): CVE-2019-10086.

## Oracle SQL Developer Risk Matrix

This Critical Patch Update contains no new security patches but does include third party patches noted below for Oracle SQL Developer. Please refer to previous Critical Patch Update Advisories if the last Critical Patch Update was not applied for Oracle SQL Developer. The English text form of this Risk Matrix can be found [here](#).

| CVE#   | Product | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (see <a href="#">Risk Matrix</a> ) |               |                |             |               |       |
|--|---------|-----------|----------|-------------------------------|--|---------------|----------------|-------------|---------------|-------|
|  |         |           |          |                               | Base Score   | Attack Vector | Attack Complex | Privs Req'd | User Interact | Scope |
| There are no exploitable vulnerabilities for these product<br>Third party patches for non-exploitable CVEs are noted below |         |           |          |                               |  |               |                |             |               |       |

Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- SQL Developer Data Modeler
  - Infrastructure (Apache PDFBox): CVE-2021-27807.

## Oracle Commerce Risk Matrix

This Critical Patch Update contains 2 new security patches for Oracle Commerce. Neither of these vulnerabilities may be remotely exploitable without authentication, i.e., neither may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                       | Component                             | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK (see <a href="#">Risk Matrix</a> ) |               |                |             |
|-----------------------|-------------------------------|---------------------------------------|----------|-------------------------------|--|---------------|----------------|-------------|
|                       |                               |                                       |          |                               | Base Score   | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-37695</b> | Oracle Commerce Guided Search | Content Acquisition System (CKEditor) | HTTP     | No                            | 5.4  | Network       | Low            | Low         |
| <b>CVE-2021-37695</b> | Oracle Commerce Merchandising | Merchandising (CKEditor)              | HTTP     | No                            | 5.4  | Network       | Low            | Low         |

**Additional CVEs addressed are:**

- The patch for CVE-2021-37695 also addresses CVE-2021-32808 and CVE-2021-32809.

## Oracle Communications Applications Risk Matrix

This Critical Patch Update contains 19 new security patches for Oracle Communications Applications. 14 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product   | Component                               | Protocol   | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |
|-----------------------|---|---|------------|-------------------------------|------------------|---------------|-------------------|
|                       |   |   |            |                               | Base Score       | Attack Vector | Attack Complexity |
| <b>CVE-2021-3177</b>  | Oracle Communications Pricing Design Center         | Pricing (Python)                        | HTTP       | Yes                           | 9.8              | Network       | Low               |
| <b>CVE-2021-2351</b>  | Oracle Communications MetaSolv Solution             | Reports (JDBC)                          | Oracle Net | Yes                           | 8.3              | Network       | High              |
| <b>CVE-2021-22118</b> | Oracle Communications BRM - Elastic Charging Engine | Controller (Spring Framework)           | None       | No                            | 7.8              | Local         | Low               |
| <b>CVE-2021-36090</b> | Oracle Communications Messaging Server              | Message Store (Apache Commons Compress) | HTTP       | Yes                           | 7.5              | Network       | Low               |
| <b>CVE-2021-30468</b> | Oracle Communications Messaging Server              | Security (Apache CXF)                   | HTTP       | Yes                           | 7.5              | Network       | Low               |
| <b>CVE-2020-25648</b> | Oracle Communications Offline Mediation Controller  | Storage & Reporting (NSS)               | HTTPS      | Yes                           | 7.5              | Network       | Low               |
| <b>CVE-2019-10086</b> | Oracle Communications                               | Billing Care (Apache                    | HTTP       | Yes                           | 7.3              | Network       | Low               |

| CVE#                  | Product   | Component                          | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |
|-----------------------|---|------------------------------------|----------|-------------------------------|------------------|---------------|-------------------|
|                       |   |                                    |          |                               | Base Score       | Attack Vector | Attack Complexity |
|                       | Billing and Revenue Management                      | Commons BeanUtils)                 |          |                               |                  |               |                   |
| <b>CVE-2021-23337</b> | Oracle Communications Design Studio                 | PSR Designer (Lodash)              | HTTP     | No                            | 7.2              | Network       | Low               |
| <b>CVE-2020-6950</b>  | Oracle Communications Pricing Design Center         | Services Manager (Eclipse Mojarra) | HTTP     | Yes                           | 6.5              | Network       | Low               |
| <b>CVE-2021-21409</b> | Oracle Communications BRM - Elastic Charging Engine | OUI Installer (Netty)              | HTTP     | Yes                           | 5.9              | Network       | High              |
| <b>CVE-2021-21409</b> | Oracle Communications Design Studio                 | PSR Designer (Netty)               | HTTP     | Yes                           | 5.9              | Network       | High              |
| <b>CVE-2021-21409</b> | Oracle Communications Messaging Server              | Multiplexor (Netty)                | HTTP     | Yes                           | 5.9              | Network       | High              |
| <b>CVE-2020-17521</b> | Oracle Communications BRM - Elastic Charging Engine | Orchestration (Apache Groovy)      | None     | No                            | 5.5              | Local         | Low               |
| <b>CVE-2021-31812</b> | Oracle Communications Messaging Server              | Monitoring (Apache PDFBox)         | None     | No                            | 5.5              | Local         | Low               |
| <b>CVE-2021-28657</b> | Oracle Communications Messaging Server              | Monitoring (Apache Tika)           | None     | No                            | 5.5              | Local         | Low               |
| <b>CVE-2021-29425</b> | Oracle Communications Calendar Server               | Administration (Apache Commons IO) | HTTP     | Yes                           | 5.3              | Network       | Low               |
| <b>CVE-2021-29425</b> | Oracle Communications Messaging Server              | Message Store (Apache Commons IO)  | HTTP     | Yes                           | 5.3              | Network       | Low               |

| CVE#                  | Product                                     | Component                   | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |
|-----------------------|---|-----------------------------|----------|-------------------------------|------------------|---------------|-------------------|
|                       |   |                             |          |                               | Base Score       | Attack Vector | Attack Complexity |
| <b>CVE-2021-29425</b> | Oracle Communications MetaSolv Solution     | Reports (Apache Commons IO) | HTTP     | Yes                           | 5.3              | Network       | Low               |
| <b>CVE-2021-33037</b> | Oracle Communications Pricing Design Center | Pricing (Apache Tomcat)     | HTTP     | Yes                           | 5.3              | Network       | Low               |

### Additional CVEs addressed are:

- The patch for CVE-2021-21409 also addresses CVE-2021-21290.
- The patch for CVE-2021-23337 also addresses CVE-2020-28500.
- The patch for CVE-2021-30468 also addresses CVE-2021-21290.
- The patch for CVE-2021-3177 also addresses CVE-2021-23336.
- The patch for CVE-2021-31812 also addresses CVE-2021-27807 and CVE-2021-27906.
- The patch for CVE-2021-33037 also addresses CVE-2021-30369 and CVE-2021-30640.
- The patch for CVE-2021-36090 also addresses CVE-2021-35515, CVE-2021-35516 and CVE-2021-35517.

## Oracle Communications Risk Matrix

This Critical Patch Update contains 71 new security patches plus additional third party patches noted below for Oracle Communications. 56 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                                 | Component        | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |
|-----------------------|---|------------------|----------|-------------------------------|------------------|---------------|-------------------|
|                       |   |                  |          |                               | Base Score       | Attack Vector | Attack Complexity |
| <b>CVE-2021-21345</b> | Oracle Communications Policy Management | Policy (XStream) | HTTP     | No                            | 9.9              | Network       | Low               |

| CVE#                  | Product   | Component                          | Protocol | Remote Exploit without Auth.? | CVSS VERS  |               |               |
|-----------------------|---|------------------------------------|----------|-------------------------------|------------|---------------|---------------|
|                       |   |                                    |          |                               | Base Score | Attack Vector | Attack Comple |
| <b>CVE-2021-21783</b> | Oracle Communications Diameter Signaling Router       | Platform (gSOAP)                   | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2017-9841</b>  | Oracle Communications Diameter Signaling Router       | Signaling (PHP)                    | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2021-21783</b> | Oracle Communications EAGLE LNP Application Processor | Patches (gSOAP)                    | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2020-11998</b> | Oracle Communications Element Manager                 | Work orders (Apache ActiveMQ)      | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2021-21783</b> | Oracle Communications LSMS                            | Platform (gSOAP)                   | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2020-17530</b> | Oracle Communications Policy Management               | Enterprise Policy (Apache Struts2) | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2020-11998</b> | Oracle Communications Session Report Manager          | Reports (Apache ActiveMQ)          | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2020-11998</b> | Oracle Communications Session Route Manager           | Route Manager (Apache ActiveMQ)    | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2021-21783</b> | Tekelec Virtual Operating Environment                 | Syscheck (gSOAP)                   | HTTP     | Yes                           | 9.8        | Network       | Low           |
| <b>CVE-2021-23017</b> | Oracle Communications Control Plane Monitor           | Infrastructure (nginx)             | HTTP     | Yes                           | 9.4        | Network       | Low           |

| CVE#                  | Product  | Component                        | Protocol   | Remote Exploit without Auth.? | CVSS VERS  |               |                   |
|-----------------------|--|----------------------------------|------------|-------------------------------|------------|---------------|-------------------|
|                       |  |                                  |            |                               | Base Score | Attack Vector | Attack Complexity |
| <b>CVE-2021-23017</b> | Oracle Communications Fraud Monitor                  | Infrastructure (nginx)           | HTTP       | Yes                           | 9.4        | Network       | Low               |
| <b>CVE-2021-23017</b> | Oracle Communications Operations Monitor             | Developer Infrastructure (nginx) | HTTP       | Yes                           | 9.4        | Network       | Low               |
| <b>CVE-2021-23017</b> | Oracle Enterprise Telephony Fraud Monitor            | Policies (nginx)                 | HTTP       | Yes                           | 9.4        | Network       | Low               |
| <b>CVE-2021-22112</b> | Oracle Communications Element Manager                | Work Orders (Spring Security)    | HTTP       | No                            | 8.8        | Network       | Low               |
| <b>CVE-2020-10878</b> | Oracle Communications Diameter Signaling Router      | Platform (Perl)                  | HTTP       | Yes                           | 8.6        | Network       | Low               |
| <b>CVE-2020-10878</b> | Oracle Communications LSMS                           | Platform (Perl)                  | HTTP       | Yes                           | 8.6        | Network       | Low               |
| <b>CVE-2020-10878</b> | Tekelec Platform Distribution                        | Platform (Perl)                  | HTTP       | Yes                           | 8.6        | Network       | Low               |
| <b>CVE-2021-2351</b>  | Oracle Communications Application Session Controller | Signaling (JDBC)                 | Oracle Net | Yes                           | 8.3        | Network       | High              |
| <b>CVE-2021-2461</b>  | Oracle Communications Interactive Session Recorder   | Provision API                    | HTTP       | Yes                           | 8.3        | Network       | Low               |
| <b>CVE-2021-2351</b>  | Oracle Communications Session Report Manager         | Reports (JDBC)                   | Oracle Net | Yes                           | 8.3        | Network       | High              |
| <b>CVE-2021-2351</b>  | Oracle Communications                                | Route Manager (JDBC)             | Oracle Net | Yes                           | 8.3        | Network       | High              |

| CVE#                  | Product   | Component                                  | Protocol | Remote Exploit without Auth.? | CVSS VERS  |               |               |
|-----------------------|---|--|----------|-------------------------------|------------|---------------|---------------|
|                       |   |  |          |                               | Base Score | Attack Vector | Attack Comple |
|                       | Session Route Manager                                 |  |          |                               |            |               |               |
| <b>CVE-2020-10543</b> | Oracle Communications EAGLE LNP Application Processor | Realtime db (Perl)                         | HTTP     | Yes                           | 8.2        | Network       | Low           |
| <b>CVE-2020-24750</b> | Oracle Communications Element Manager                 | Security (jackson-databind)                | HTTP     | Yes                           | 8.1        | Network       | High          |
| <b>CVE-2020-24750</b> | Oracle Communications Policy Management               | Policy (jackson-databind)                  | HTTP     | Yes                           | 8.1        | Network       | High          |
| <b>CVE-2020-24750</b> | Oracle Communications Session Report Manager          | Reports (jackson-databind)                 | HTTP     | Yes                           | 8.1        | Network       | High          |
| <b>CVE-2020-28052</b> | Oracle Communications Session Report Manager          | Reports (Bouncy Castle Java Library)       | HTTPS    | Yes                           | 8.1        | Network       | High          |
| <b>CVE-2020-24750</b> | Oracle Communications Session Route Manager           | Reports (jackson-databind)                 | HTTP     | Yes                           | 8.1        | Network       | High          |
| <b>CVE-2020-28052</b> | Oracle Communications Session Route Manager           | Route Manager (Bouncy Castle Java Library) | HTTPS    | Yes                           | 8.1        | Network       | High          |
| <b>CVE-2021-22118</b> | Oracle Communications Element Manager                 | Work Orders (Spring Framework)             | None     | No                            | 7.8        | Local         | Low           |
| <b>CVE-2021-22118</b> | Oracle Communications Interactive Session Recorder    | Monitor (Spring Framework)                 | None     | No                            | 7.8        | Local         | Low           |

| CVE#                  | Product   | Component                                  | Protocol | Remote Exploit without Auth.? | CVSS VERS  |               |               |
|-----------------------|---|--|----------|-------------------------------|------------|---------------|---------------|
|                       |   |  |          |                               | Base Score | Attack Vector | Attack Comple |
| <b>CVE-2021-22118</b> | Oracle Communications Session Report Manager                        | Reports (Spring Framework)                 | None     | No                            | 7.8        | Local         | Low           |
| <b>CVE-2021-22118</b> | Oracle Communications Session Route Manager                         | Route Manager (Spring Framework)           | None     | No                            | 7.8        | Local         | Low           |
| <b>CVE-2020-29661</b> | Tekelec Platform Distribution                                       | Storage Management (Kernel)                | None     | No                            | 7.8        | Local         | Low           |
| <b>CVE-2021-3156</b>  | Tekelec Platform Distribution                                       | Storage Management (Sudo)                  | None     | No                            | 7.8        | Local         | Low           |
| <b>CVE-2021-33560</b> | Oracle Communications Cloud Native Core Network Repository Function | Measurements (libgcrypt)                   | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2020-11994</b> | Oracle Communications Diameter Signaling Router                     | IDIH - Visualization (Apache Camel)        | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2020-25649</b> | Oracle Communications Diameter Signaling Router                     | IDIH - Visualization (jackson-databind)    | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-36090</b> | Oracle Communications Element Manager                               | Fault Management (Apache Commons Compress) | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-30468</b> | Oracle Communications Element Manager                               | Work Orders (Apache CXF)                   | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-28165</b> | Oracle Communications   | Work Orders (Eclipse Jetty)                | HTTP     | Yes                           | 7.5        | Network       | Low           |

| CVE#                  | Product                                      | Component                         | Protocol | Remote Exploit without Auth.? | CVSS VERS  |               |               |
|-----------------------|--|-----------------------------------|----------|-------------------------------|------------|---------------|---------------|
|                       |  |                                   |          |                               | Base Score | Attack Vector | Attack Comple |
|                       | Element Manager                              |                                   |          |                               |            |               |               |
| <b>CVE-2018-20034</b> | Oracle Communications LSMS                   | NPA Agent (Flexnet)               | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2020-5258</b>  | Oracle Communications Policy Management      | Policy (dojo)                     | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2020-5398</b>  | Oracle Communications Policy Management      | VNF Manager (Spring Framework)    | HTTP     | Yes                           | 7.5        | Network       | High          |
| <b>CVE-2021-28165</b> | Oracle Communications Services Gatekeeper    | Messaging Service (Eclipse Jetty) | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2020-7226</b>  | Oracle Communications Services Gatekeeper    | Payment (Cryptacular)             | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-22696</b> | Oracle Communications Session Report Manager | Reports (Apache CXF)              | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-36090</b> | Oracle Communications Session Report Manager | Reports (Apache Commons Compress) | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-28165</b> | Oracle Communications Session Report Manager | Reports (Eclipse Jetty)           | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-22696</b> | Oracle Communications Session Route Manager  | Route Manager (Apache CXF)        | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-36090</b> | Oracle Communications                        | Route Manager (Apache             | HTTP     | Yes                           | 7.5        | Network       | Low           |

| CVE#                  | Product   | Component                         | Protocol | Remote Exploit without Auth.? | CVSS VERS  |               |               |
|-----------------------|---|-----------------------------------|----------|-------------------------------|------------|---------------|---------------|
|                       |   |                                   |          |                               | Base Score | Attack Vector | Attack Comple |
|                       | Session Route Manager                           | Commons Compress)                 |          |                               |            |               |               |
| <b>CVE-2021-28165</b> | Oracle Communications Session Route Manager     | Route Manager (Eclipse Jetty)     | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2021-25215</b> | Tekelec Platform Distribution                   | Storage Management (BIND)         | HTTP     | Yes                           | 7.5        | Network       | Low           |
| <b>CVE-2019-10086</b> | Oracle Communications Policy Management         | Policy (Apache Commons BeanUtils) | HTTP     | Yes                           | 7.3        | Network       | Low           |
| <b>CVE-2021-23337</b> | Oracle Communications Cloud Native Core Policy  | Signaling (Lodash)                | HTTP     | No                            | 7.2        | Network       | Low           |
| <b>CVE-2021-23337</b> | Oracle Communications Session Border Controller | Routing (Lodash)                  | HTTP     | No                            | 7.2        | Network       | Low           |
| <b>CVE-2021-23337</b> | Oracle Enterprise Communications Broker         | Routing (Lodash)                  | HTTP     | No                            | 7.2        | Network       | Low           |
| <b>CVE-2021-2414</b>  | Oracle Communications Session Border Controller | Routing                           | HTTP     | No                            | 6.8        | Network       | Low           |
| <b>CVE-2020-8622</b>  | Oracle Communications Diameter Signaling Router | Provisioning (BIND)               | HTTP     | No                            | 6.5        | Network       | Low           |
| <b>CVE-2021-30640</b> | Tekelec Platform Distribution                   | Console (Apache Tomcat)           | HTTP     | Yes                           | 6.5        | Network       | High          |
| <b>CVE-2021-27906</b> | Oracle Communications Session Report Manager    | Reports (Apache PDFBox)           | None     | No                            | 5.5        | Local         | Low           |

| CVE#                  | Product   | Component                         | Protocol | Remote Exploit without Auth.? | CVSS VERS  |               |               |
|-----------------------|---|-----------------------------------|----------|-------------------------------|------------|---------------|---------------|
|                       |   |                                   |          |                               | Base Score | Attack Vector | Attack Comple |
| <b>CVE-2021-29425</b> | Oracle Communications Application Session Controller                    | Signaling (Apache Commons IO)     | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-29425</b> | Oracle Communications Converged Application Server - Service Controller | Charging (Apache Commons IO)      | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-33037</b> | Oracle Communications Diameter Signaling Router                         | Platform (Apache Tomcat)          | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-33037</b> | Oracle Communications Policy Management                                 | MediationServer (Apache Tomcat)   | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-29425</b> | Oracle Communications Session Report Manager                            | Reports (Apache Commons IO)       | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-33037</b> | Oracle Communications Session Report Manager                            | Reports (Apache Tomcat)           | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-29425</b> | Oracle Communications Session Route Manager                             | Route Manager (Apache Commons IO) | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-33037</b> | Oracle Communications Session Route Manager                             | Route Manager (Apache Tomcat)     | HTTP     | Yes                           | 5.3        | Network       | Low           |
| <b>CVE-2021-2416</b>  | Oracle Communications Session Border Controller                         | Routing                           | HTTP     | No                            | 4.9        | Network       | Low           |

| CVE#                 | Product  | Component              | Protocol | Remote Exploit without Auth.? | CVSS VERS  |               |                   |
|----------------------|--|------------------------|----------|-------------------------------|------------|---------------|-------------------|
|                      |  |                        |          |                               | Base Score | Attack Vector | Attack Complexity |
| <b>CVE-2020-9488</b> | Oracle Communications EAGLE FTP Table Base Retrieval | Logging (Apache Log4j) | HTTP     | Yes                           | 3.7        | Network       | High              |

### Additional CVEs addressed are:

- The patch for CVE-2017-9841 also addresses CVE-2020-7069 and CVE-2021-21702.
- The patch for CVE-2018-20034 also addresses CVE-2018-20031, CVE-2018-20032 and CVE-2018-20033.
- The patch for CVE-2020-10543 also addresses CVE-2020-10878.
- The patch for CVE-2020-10878 also addresses CVE-2020-10543 and CVE-2020-12723.
- The patch for CVE-2020-11998 also addresses CVE-2020-13947 and CVE-2021-26117.
- The patch for CVE-2020-17530 also addresses CVE-2019-0230 and CVE-2019-0233.
- The patch for CVE-2020-24750 also addresses CVE-2020-24616, CVE-2020-25649 and CVE-2020-36189.
- The patch for CVE-2020-25649 also addresses CVE-2020-14195, CVE-2020-35490, CVE-2020-35491, CVE-2020-35728, CVE-2020-36179, CVE-2020-36180, CVE-2020-36181, CVE-2020-36182, CVE-2020-36183, CVE-2020-36184, CVE-2020-36185, CVE-2020-36186, CVE-2020-36187, CVE-2020-36188 and CVE-2020-36189.
- The patch for CVE-2020-29661 also addresses CVE-2021-20265, CVE-2021-27364 and CVE-2021-27365.
- The patch for CVE-2020-5398 also addresses CVE-2020-5397.
- The patch for CVE-2020-9488 also addresses CVE-2017-5645.
- The patch for CVE-2021-21345 also addresses CVE-2020-26217, CVE-2021-21341, CVE-2021-21342, CVE-2021-21343, CVE-2021-21344, CVE-2021-21346, CVE-2021-21347, CVE-2021-21348, CVE-2021-21349, CVE-2021-21350, CVE-2021-21351 and CVE-2021-29505.
- The patch for CVE-2021-23337 also addresses CVE-2020-28500 and CVE-2020-8203.
- The patch for CVE-2021-27906 also addresses CVE-2021-27807.
- The patch for CVE-2021-28165 also addresses CVE-2020-27218, CVE-2021-28163 and CVE-2021-28164.
- The patch for CVE-2021-30468 also addresses CVE-2021-22696.
- The patch for CVE-2021-30640 also addresses CVE-2016-0762, CVE-2016-5018, CVE-2016-6794, CVE-2016-6796, CVE-2016-6797 and CVE-2021-33037.

- The patch for CVE-2021-36090 also addresses CVE-2021-35515, CVE-2021-35516 and CVE-2021-35517.

Additional patches are included in this Critical Patch Update for the following non-exploitable CVEs in this Oracle product family:

- Oracle Communications EAGLE
  - Health Check (Perl): CVE-2020-10878, CVE-2020-10543 and CVE-2020-12723.

## Oracle Construction and Engineering Risk Matrix

This Critical Patch Update contains 12 new security patches for Oracle Construction and Engineering. 7 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                   | Component                       | Protocol   | Remote Exploit without Auth.? | CVSS VERSION |               |                | F |
|-----------------------|---------------------------|---------------------------------|------------|-------------------------------|--------------|---------------|----------------|---|
|                       |                           |                                 |            |                               | Base Score   | Attack Vector | Attack Complex |   |
| <b>CVE-2021-26691</b> | Instantis EnterpriseTrack | Core (Apache HTTP Server)       | HTTP       | Yes                           | 9.8          | Network       | Low            | ↑ |
| <b>CVE-2021-2351</b>  | Instantis EnterpriseTrack | Core (JDBC)                     | Oracle Net | Yes                           | 8.3          | Network       | High           | ↑ |
| <b>CVE-2021-2351</b>  | Primavera Gateway         | Admin (JDBC)                    | Oracle Net | Yes                           | 8.3          | Network       | High           | ↑ |
| <b>CVE-2021-36090</b> | Primavera Gateway         | Admin (Apache Commons Compress) | HTTP       | Yes                           | 7.5          | Network       | Low            | ↑ |

| CVE#                  | Product                   | Component                                 | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                | P |
|-----------------------|---------------------------|---|----------|-------------------------------|--------------|---------------|----------------|---|
|                       |                           |   |          |                               | Base Score   | Attack Vector | Attack Complex |   |
| <b>CVE-2021-36090</b> | Primavera Unifier         | File Management (Apache Commons Compress) | HTTP     | Yes                           | 7.5          | Network       | Low            | ↑ |
| <b>CVE-2021-23337</b> | Primavera Gateway         | Admin (Lodash)                            | HTTP     | No                            | 7.2          | Network       | Low            | I |
| <b>CVE-2021-23337</b> | Primavera Unifier         | Platform, UI (Lodash)                     | HTTP     | No                            | 7.2          | Network       | Low            | I |
| <b>CVE-2021-36374</b> | Primavera Gateway         | Admin (Apache Ant)                        | None     | No                            | 5.5          | Local         | Low            | ↑ |
| <b>CVE-2021-28657</b> | Primavera Unifier         | Platform (Apache Tika)                    | None     | No                            | 5.5          | Local         | Low            | ↑ |
| <b>CVE-2021-36374</b> | Primavera Unifier         | System Configuration (Apache Ant)         | None     | No                            | 5.5          | Local         | Low            | ↑ |
| <b>CVE-2021-33037</b> | Instantis EnterpriseTrack | Core (Apache Tomcat)                      | HTTP     | Yes                           | 5.3          | Network       | Low            | ↑ |
| <b>CVE-2021-29425</b> | Primavera Gateway         | Admin (Apache Commons IO)                 | HTTP     | Yes                           | 5.3          | Network       | Low            | ↑ |

**Additional CVEs addressed are:**

- The patch for CVE-2021-23337 also addresses CVE-2020-28500 and CVE-2020-8203.
- The patch for CVE-2021-26691 also addresses CVE-2019-17567, CVE-2020-13950, CVE-2020-35452, CVE-2021-26690, CVE-2021-30641 and CVE-2021-31618.
- The patch for CVE-2021-36090 also addresses CVE-2021-35515, CVE-2021-35516 and CVE-2021-35517.
- The patch for CVE-2021-36374 also addresses CVE-2021-36373.

## Oracle E-Business Suite Risk Matrix

This Critical Patch Update contains 18 new security patches for Oracle E-Business Suite. 4 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

Oracle E-Business Suite products include Oracle Database and Oracle Fusion Middleware components that are affected by the vulnerabilities listed in the Oracle Database and Oracle Fusion Middleware sections. The exposure of Oracle E-Business Suite products is dependent on the Oracle Database and Oracle Fusion Middleware versions being used. Oracle Database and Oracle Fusion Middleware security updates are not listed in the Oracle E-Business Suite risk matrix. However, since vulnerabilities affecting Oracle Database and Oracle Fusion Middleware versions may affect Oracle E-Business Suite products, Oracle recommends that customers apply the October 2021 Critical Patch Update to the Oracle Database and Oracle Fusion Middleware components of Oracle E-Business Suite. For information on what patches need to be applied to your environments, refer to Oracle E-Business Suite Release 12 Critical Patch Update Knowledge Document (October 2021), [My Oracle Support Note 2484000.1](#).

| CVE#                  | Product                     | Component            | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                | P |
|-----------------------|-----------------------------|----------------------|----------|-------------------------------|--------------|---------------|----------------|---|
|                       |                             |                      |          |                               | Base Score   | Attack Vector | Attack Complex |   |
| <b>CVE-2021-35566</b> | Oracle Applications Manager | Diagnostics          | HTTP     | No                            | 8.1          | Network       | Low            |   |
| <b>CVE-2021-2483</b>  | Oracle Content Manager      | Content Item Manager | HTTP     | No                            | 8.1          | Network       | Low            |   |
| <b>CVE-2021-35536</b> | Oracle Deal Management      | Miscellaneous        | HTTP     | No                            | 8.1          | Network       | Low            |   |

| CVE#                  | Product                        | Component                               | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                | RF |
|-----------------------|--------------------------------|---|----------|-------------------------------|--------------|---------------|----------------|----|
|                       |                                |   |          |                               | Base Score   | Attack Vector | Attack Complex |    |
| <b>CVE-2021-35585</b> | Oracle Incentive Compensation  | User Interface                          | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-35570</b> | Oracle Mobile Field Service    | Admin UI                                | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-2484</b>  | Oracle Operations Intelligence | BIS Operations Intelligence             | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-2482</b>  | Oracle Payables                | Invoice Approvals                       | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-35563</b> | Oracle Shipping Execution      | Workflow Events                         | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-2485</b>  | Oracle Trade Management        | Quotes                                  | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-35562</b> | Oracle Universal Work Queue    | Work Provider Site Level Administration | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-2474</b>  | Oracle Web Analytics           | Admin                                   | HTTP     | No                            | 8.1          | Network       | Low            |    |
| <b>CVE-2021-35582</b> | Oracle Applications Manager    | View Reports                            | HTTP     | No                            | 6.5          | Network       | Low            |    |
| <b>CVE-2021-35580</b> | Oracle Applications Manager    | View Reports                            | HTTP     | Yes                           | 6.1          | Network       | Low            | M  |
| <b>CVE-2021-2477</b>  | Oracle Applications Framework  | Session Management                      | HTTP     | Yes                           | 5.3          | Network       | Low            | M  |
| <b>CVE-2021-35554</b> | Oracle Trade Management        | Quotes                                  | HTTP     | Yes                           | 5.3          | Network       | Low            | M  |
| <b>CVE-2021-35569</b> | Oracle Applications Manager    | Diagnostics                             | HTTP     | No                            | 4.9          | Network       | Low            | I  |
| <b>CVE-2021-35581</b> | Oracle Applications            | View Reports                            | HTTP     | Yes                           | 4.7          | Network       | Low            | M  |

| CVE#                  | Product              | Component        | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                | R |
|-----------------------|----------------------|------------------|----------|-------------------------------|--------------|---------------|----------------|---|
|                       |                      |                  |          |                               | Base Score   | Attack Vector | Attack Complex |   |
|                       | Manager              |                  |          |                               |              |               |                |   |
| <b>CVE-2021-35611</b> | Oracle Sales Offline | Offline Template | HTTP     | No                            | 4.3          | Network       | Low            |   |

## Oracle Enterprise Manager Risk Matrix

This Critical Patch Update contains 8 new security patches for Oracle Enterprise Manager. 5 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. None of these patches are applicable to client-only installations, i.e., installations that do not have Oracle Enterprise Manager installed. The English text form of this Risk Matrix can be found [here](#).

Oracle Enterprise Manager products include Oracle Database and Oracle Fusion Middleware components that are affected by the vulnerabilities listed in the Oracle Database and Oracle Fusion Middleware sections. The exposure of Oracle Enterprise Manager products is dependent on the Oracle Database and Oracle Fusion Middleware versions being used. Oracle Database and Oracle Fusion Middleware security updates are not listed in the Oracle Enterprise Manager risk matrix. However, since vulnerabilities affecting Oracle Database and Oracle Fusion Middleware versions may affect Oracle Enterprise Manager products, Oracle recommends that customers apply the October 2021 Critical Patch Update to the Oracle Database and Oracle Fusion Middleware components of Enterprise Manager. For information on what patches need to be applied to your environments, refer to Critical Patch Update October 2021 Patch Availability Document for Oracle Products, [My Oracle Support Note 2796575.1](#).

| CVE#                  | Product                       | Component                       | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|-------------------------------|---------------------------------|----------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |                               |                                 |          |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-26691</b> | Enterprise Manager Ops Center | Networking (Apache HTTP Server) | HTTP     | Yes                           | 9.8                | Network       | Low            | None        |

| CVE#                  | Product                                | Component                                    | Protocol   | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|--|--|------------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |  |  |            |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-2137</b>  | Enterprise Manager Base Platform       | Policy Framework                             | HTTP       | No                            | 8.8                | Network       | Low            | Low         |
| <b>CVE-2021-29505</b> | Enterprise Manager Ops Center          | Guest Management (XStream)                   | HTTP       | No                            | 8.8                | Network       | Low            | Low         |
| <b>CVE-2021-3518</b>  | Enterprise Manager Ops Center          | Guest Management (libxml2)                   | HTTP       | Yes                           | 8.8                | Network       | Low            | None        |
| <b>CVE-2021-3518</b>  | Oracle Real User Experience Insight    | End User Experience Management (libxml2)     | HTTP       | Yes                           | 8.8                | Network       | Low            | None        |
| <b>CVE-2021-2351</b>  | Oracle Real User Experience Insight    | End User Experience Management (JDBC)        | Oracle Net | Yes                           | 8.3                | Network       | High           | None        |
| <b>CVE-2020-25649</b> | Oracle Application Testing Suite       | Load Testing for Web Apps (jackson-databind) | HTTP       | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-20227</b> | Enterprise Manager for Oracle Database | Provisioning (SQLite)                        | None       | No                            | 5.5                | Local         | Low            | Low         |

#### Additional CVEs addressed are:

- The patch for CVE-2020-25649 also addresses CVE-2020-24616, CVE-2020-24750, CVE-2020-35490, CVE-2020-35491, CVE-2020-35728, CVE-2020-36179, CVE-2020-36180, CVE-2020-36181, CVE-2020-36182, CVE-2020-36183, CVE-2020-36184, CVE-2020-36185, CVE-2020-36186, CVE-2020-36187, CVE-2020-36188 and CVE-2020-36189.
- The patch for CVE-2021-26691 also addresses CVE-2019-17567, CVE-2020-13950, CVE-2020-35452, CVE-2021-26690, CVE-2021-30641 and CVE-2021-31618.
- The patch for CVE-2021-3518 also addresses CVE-2019-20388, CVE-2020-24977, CVE-2020-7595, CVE-2021-3517 and CVE-2021-3537.

## Oracle Financial Services Applications Risk Matrix

This Critical Patch Update contains 44 new security patches for Oracle Financial Services Applications. 26 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product   | Component                                | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |       |
|-----------------------|---|--|----------|-------------------------------|------------------|---------------|----------------|-------|
|                       |   |  |          |                               | Base Score       | Attack Vector | Attack Complex | Pr Re |
| <b>CVE-2021-21345</b> | Oracle Banking Virtual Account Management           | Common Core (XStream)                    | HTTP     | No                            | 9.9              | Network       | Low            | Lc    |
| <b>CVE-2020-5413</b>  | Oracle Banking Corporate Lending Process Management | Loans (Spring Integration)               | HTTP     | Yes                           | 9.8              | Network       | Low            | Nc    |
| <b>CVE-2020-5413</b>  | Oracle Banking Credit Facilities Process Management | Credit Appraisal (Spring Integration)    | HTTP     | Yes                           | 9.8              | Network       | Low            | Nc    |
| <b>CVE-2020-5413</b>  | Oracle Banking Supply Chain Finance                 | Account-Maintenance (Spring Integration) | HTTP     | Yes                           | 9.8              | Network       | Low            | Nc    |
| <b>CVE-2020-5413</b>  | Oracle Banking Virtual Account Management           | Common Core (Spring Integration)         | HTTP     | Yes                           | 9.8              | Network       | Low            | Nc    |
| <b>CVE-2020-10683</b> | Oracle FLEXCUBE Core Banking                        | Bills And Collections (dom4j)            | HTTP     | Yes                           | 9.8              | Network       | Low            | Nc    |
| <b>CVE-2021-29505</b> | Oracle Banking                                      | Accessibility (XStream)                  | HTTP     | No                            | 8.8              | Network       | Low            | Lc    |

| CVE#                  | Product   | Component                          | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |       |
|-----------------------|---|------------------------------------|----------|-------------------------------|------------------|---------------|----------------|-------|
|                       |   |                                    |          |                               | Base Score       | Attack Vector | Attack Complex | Pr Re |
|                       | Cash Management                                     |                                    |          |                               |                  |               |                |       |
| <b>CVE-2021-29505</b> | Oracle Banking Corporate Lending Process Management | Lending (XStream)                  | HTTP     | No                            | 8.8              | Network       | Low            | Lc    |
| <b>CVE-2021-29505</b> | Oracle Banking Credit Facilities Process Management | Credit Appraisal (XStream)         | HTTP     | No                            | 8.8              | Network       | Low            | Lc    |
| <b>CVE-2020-15824</b> | Oracle Banking Extensibility Workbench              | Web UI (Kotlin)                    | HTTP     | No                            | 8.8              | Network       | Low            | Lc    |
| <b>CVE-2021-29505</b> | Oracle Banking Supply Chain Finance                 | Account-Maintenance (XStream)      | HTTP     | No                            | 8.8              | Network       | Low            | Lc    |
| <b>CVE-2021-29505</b> | Oracle Banking Trade Finance Process Management     | Dashboard (XStream)                | HTTP     | No                            | 8.8              | Network       | Low            | Lc    |
| <b>CVE-2020-24750</b> | Oracle Banking Corporate Lending Process Management | Lending (jackson-databind)         | HTTP     | Yes                           | 8.1              | Network       | High           | Nc    |
| <b>CVE-2020-28052</b> | Oracle Banking Corporate Lending Process Management | Loans (Bouncy Castle Java Library) | HTTPS    | Yes                           | 8.1              | Network       | High           | Nc    |

| CVE#                  | Product   | Component                                     | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |       |
|-----------------------|---|---|----------|-------------------------------|------------------|---------------|----------------|-------|
|                       |   |   |          |                               | Base Score       | Attack Vector | Attack Complex | Pr Re |
| <b>CVE-2020-24750</b> | Oracle Banking Credit Facilities Process Management | Credit Appraisal (jackson-databind)           | HTTP     | Yes                           | 8.1              | Network       | High           | Nc    |
| <b>CVE-2020-28052</b> | Oracle Banking Credit Facilities Process Management | Credit Appraisal (Bouncy Castle Java Library) | HTTPS    | Yes                           | 8.1              | Network       | High           | Nc    |
| <b>CVE-2020-28052</b> | Oracle Banking Extensibility Workbench              | Web UI (Bouncy Castle Java Library)           | HTTPS    | Yes                           | 8.1              | Network       | High           | Nc    |
| <b>CVE-2020-24750</b> | Oracle Banking Supply Chain Finance                 | Invoice (jackson-databind)                    | HTTP     | Yes                           | 8.1              | Network       | High           | Nc    |
| <b>CVE-2020-28052</b> | Oracle Banking Supply Chain Finance                 | Security (Bouncy Castle Java Library)         | HTTPS    | Yes                           | 8.1              | Network       | High           | Nc    |
| <b>CVE-2020-28052</b> | Oracle Banking Virtual Account Management           | Common Core (Bouncy Castle Java Library)      | HTTPS    | Yes                           | 8.1              | Network       | High           | Nc    |
| <b>CVE-2020-25649</b> | Oracle Banking Extensibility Workbench              | Web UI (jackson-databind)                     | HTTP     | Yes                           | 7.5              | Network       | Low            | Nc    |
| <b>CVE-2021-36090</b> | Oracle Banking Platform                             | Product Accounting (Apache Commons Compress)  | HTTP     | Yes                           | 7.5              | Network       | Low            | Nc    |
| <b>CVE-2020-25649</b> | Oracle Banking Virtual                              | Account (jackson-databind)                    | HTTP     | Yes                           | 7.5              | Network       | Low            | Nc    |

| CVE#                  | Product  | Component                                 | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |                  |                |       |
|-----------------------|--|---|----------|-------------------------------|------------------|------------------|----------------|-------|
|                       |  |   |          |                               | Base Score       | Attack Vector    | Attack Complex | Pr Re |
|                       | Account Management   |   |          |                               |                  |                  |                |       |
| <b>CVE-2021-36090</b> | Oracle Financial Services Analytical Applications Infrastructure | Rate Management (Apache Commons Compress) | HTTP     | Yes                           | 7.5              | Network          | Low            | Nc    |
| <b>CVE-2021-36090</b> | Oracle Financial Services Enterprise Case Management             | Web UI (Apache Commons Compress)          | HTTP     | Yes                           | 7.5              | Network          | Low            | Nc    |
| <b>CVE-2019-0227</b>  | Oracle FLEXCUBE Core Banking                                     | Bills And Collections (Apache Axis)       | HTTP     | Yes                           | 7.5              | Adjacent Network | High           | Nc    |
| <b>CVE-2020-8203</b>  | Oracle Banking Virtual Account Management                        | Account (Lodash)                          | HTTP     | Yes                           | 7.4              | Network          | High           | Nc    |
| <b>CVE-2021-23337</b> | Oracle Banking Corporate Lending Process Management              | Lending (Lodash)                          | HTTP     | No                            | 7.2              | Network          | Low            | Hi    |
| <b>CVE-2021-23337</b> | Oracle Banking Credit Facilities Process Management              | Collateral Review (Lodash)                | HTTP     | No                            | 7.2              | Network          | Low            | Hi    |
| <b>CVE-2021-23337</b> | Oracle Banking Extensibility Workbench                           | Banking (Lodash)                          | HTTP     | No                            | 7.2              | Network          | Low            | Hi    |
| <b>CVE-2021-23337</b> | Oracle Banking   | Invoice (Lodash)                          | HTTP     | No                            | 7.2              | Network          | Low            | Hi    |

| CVE#                  | Product   | Component                            | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |       |
|-----------------------|---|--------------------------------------|----------|-------------------------------|------------------|---------------|----------------|-------|
|                       |   |                                      |          |                               | Base Score       | Attack Vector | Attack Complex | Pr Re |
|                       | Supply Chain Finance                                      |                                      |          |                               |                  |               |                |       |
| <b>CVE-2021-23337</b> | Oracle Banking Trade Finance Process Management           | Dashboard (Lodash)                   | HTTP     | No                            | 7.2              | Network       | Low            | Hi    |
| <b>CVE-2020-6950</b>  | Oracle Banking Enterprise Default Management              | Collections (Eclipse Mojarra)        | HTTP     | Yes                           | 6.5              | Network       | Low            | Nc    |
| <b>CVE-2020-6950</b>  | Oracle Banking Platform                                   | Investment Account (Eclipse Mojarra) | HTTP     | Yes                           | 6.5              | Network       | Low            | Nc    |
| <b>CVE-2021-26272</b> | Oracle Financial Services Model Management and Governance | Model Governance (CKEditor)          | HTTP     | Yes                           | 6.5              | Network       | Low            | Nc    |
| <b>CVE-2021-21409</b> | Oracle Banking Corporate Lending Process Management       | Lending (Netty)                      | HTTP     | Yes                           | 5.9              | Network       | High           | Nc    |
| <b>CVE-2021-21409</b> | Oracle Banking Credit Facilities Process Management       | Collateral Review (Netty)            | HTTP     | Yes                           | 5.9              | Network       | High           | Nc    |

| CVE#                  | Product  | Component                         | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |       |
|-----------------------|--|-----------------------------------|----------|-------------------------------|------------------|---------------|----------------|-------|
|                       |  |                                   |          |                               | Base Score       | Attack Vector | Attack Complex | Pr Re |
| <b>CVE-2021-21409</b> | Oracle Banking Trade Finance Process Management                  | Dashboard (Netty)                 | HTTP     | Yes                           | 5.9              | Network       | High           | Nc    |
| <b>CVE-2021-31812</b> | Oracle Banking Corporate Lending Process Management              | Lending (Apache PDFBox)           | None     | No                            | 5.5              | Local         | Low            | Nc    |
| <b>CVE-2021-31812</b> | Oracle Banking Credit Facilities Process Management              | Collateral Review (Apache PDFBox) | None     | No                            | 5.5              | Local         | Low            | Nc    |
| <b>CVE-2021-31812</b> | Oracle Banking Supply Chain Finance                              | Security (Apache PDFBox)          | None     | No                            | 5.5              | Local         | Low            | Nc    |
| <b>CVE-2021-27906</b> | Oracle Banking Trade Finance Process Management                  | Dashboard (Apache PDFBox)         | None     | No                            | 5.5              | Local         | Low            | Nc    |
| <b>CVE-2021-27906</b> | Oracle Banking Virtual Account Management                        | Common Core (Apache PDFBox)       | None     | No                            | 5.5              | Local         | Low            | Nc    |
| <b>CVE-2021-36374</b> | Oracle Financial Services Analytical Applications Infrastructure | Publish Catalog (Apache Ant)      | None     | No                            | 5.5              | Local         | Low            | Nc    |

**Additional CVEs addressed are:**

- The patch for CVE-2019-0227 also addresses CVE-2018-8032.
- The patch for CVE-2020-24750 also addresses CVE-2020-24616.
- The patch for CVE-2020-25649 also addresses CVE-2020-35490, CVE-2020-35491, CVE-2020-35728, CVE-2020-36179, CVE-2020-36180, CVE-2020-36181, CVE-2020-36182, CVE-2020-36183, CVE-2020-36184, CVE-2020-36185, CVE-2020-36186, CVE-2020-36187, CVE-2020-36188 and CVE-2020-36189.
- The patch for CVE-2020-28052 also addresses CVE-2020-26217.
- The patch for CVE-2021-21345 also addresses CVE-2021-21341, CVE-2021-21342, CVE-2021-21343, CVE-2021-21344, CVE-2021-21346, CVE-2021-21347, CVE-2021-21348, CVE-2021-21349, CVE-2021-21350 and CVE-2021-21351.
- The patch for CVE-2021-21409 also addresses CVE-2021-21290.
- The patch for CVE-2021-23337 also addresses CVE-2020-28500 and CVE-2020-8203.
- The patch for CVE-2021-26272 also addresses CVE-2021-26271 and CVE-2021-37695.
- The patch for CVE-2021-27906 also addresses CVE-2019-0228 and CVE-2021-27807.
- The patch for CVE-2021-29505 also addresses CVE-2020-26217 and CVE-2021-21345.
- The patch for CVE-2021-31812 also addresses CVE-2021-27906 and CVE-2021-31811.
- The patch for CVE-2021-36090 also addresses CVE-2021-35515, CVE-2021-35516 and CVE-2021-35517.
- The patch for CVE-2021-36374 also addresses CVE-2021-36373.

## Oracle Fusion Middleware Risk Matrix

This Critical Patch Update contains 38 new security patches for Oracle Fusion Middleware. 30 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

Oracle Fusion Middleware products include Oracle Database components that are affected by the vulnerabilities listed in the Oracle Database section. The exposure of Oracle Fusion Middleware products is dependent on the Oracle Database version being used. Oracle Database security updates are not listed in the Oracle Fusion Middleware risk matrix. However, since vulnerabilities affecting Oracle Database versions may affect Oracle Fusion Middleware products, Oracle recommends that customers apply the Critical Patch Update October 2021 to the Oracle Database components of Oracle Fusion Middleware products. For information on what patches need to be applied to your environments, refer to Critical Patch Update October 2021 Patch Availability Document for Oracle Products, [My Oracle Support Note 2796575.1](#).

| CVE#                  | Product   | Component                                     | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|---|---|----------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |   |   |          |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2019-13990</b> | Oracle WebCenter Sites                          | WebCenter Sites (Terracotta Quartz Scheduler) | HTTP     | Yes                           | 9.8                | Network       | Low            | None        |
| <b>CVE-2018-8088</b>  | Oracle WebLogic Server                          | Web Services (slf4j-ext)                      | HTTP     | Yes                           | 9.8                | Network       | Low            | None        |
| <b>CVE-2021-35617</b> | Oracle WebLogic Server                          | Coherence Container                           | IIOp     | Yes                           | 9.8                | Network       | Low            | None        |
| <b>CVE-2021-29505</b> | Oracle Business Activity Monitoring             | General (XStream)                             | HTTP     | No                            | 8.8                | Network       | Low            | Low         |
| <b>CVE-2021-29505</b> | Oracle WebCenter Portal                         | Discussion Forums (XStream)                   | HTTP     | No                            | 8.8                | Network       | Low            | Low         |
| <b>CVE-2021-29505</b> | Oracle WebCenter Sites                          | WebCenter Sites (XStream)                     | HTTP     | No                            | 8.8                | Network       | Low            | Low         |
| <b>CVE-2021-30468</b> | Oracle Business Intelligence Enterprise Edition | Analytics Server (Apache CXF)                 | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2020-25649</b> | Oracle Data Integrator                          | Install, config, upgrade (jackson-databind)   | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35572</b> | Oracle Outside In Technology                    | Outside In Filters                            | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35573</b> | Oracle Outside In Technology                    | Outside In Filters                            | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35662</b> | Oracle Outside In                               | Outside In Filters                            | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |

| CVE#                  | Product                      | Component                  | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|------------------------------|----------------------------|----------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |                              |                            |          |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
|                       | Technology                   |                            |          |                               |                    |               |                |             |
| <b>CVE-2021-35661</b> | Oracle Outside In Technology | Outside In Filters         | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35574</b> | Oracle Outside In Technology | Outside In Filters         | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35660</b> | Oracle Outside In Technology | Outside In Filters         | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35659</b> | Oracle Outside In Technology | Outside In Filters         | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35658</b> | Oracle Outside In Technology | Outside In Filters         | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35657</b> | Oracle Outside In Technology | Outside In Filters         | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35656</b> | Oracle Outside In Technology | Outside In Filters         | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2020-5258</b>  | Oracle WebCenter Sites       | WebCenter Sites (dojo)     | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2020-7226</b>  | Oracle WebLogic Server       | Core (Cryptacular)         | SAML     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-35620</b> | Oracle WebLogic Server       | Core                       | T3       | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2018-20843</b> | Oracle HTTP Server           | SSL Module (LibExpats)     | HTTP     | Yes                           | 7.5                | Network       | Low            | None        |
| <b>CVE-2021-26272</b> | Oracle WebCenter Sites       | WebCenter Sites (CKEditor) | HTTP     | Yes                           | 6.5                | Network       | Low            | None        |

| CVE#                  | Product   | Component                             | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|---|---------------------------------------|----------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |   |                                       |          |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2020-11022</b> | Oracle WebLogic Server                          | Web Services (jQuery)                 | HTTP     | Yes                           | 6.1                | Network       | Low            | None        |
| <b>CVE-2021-23841</b> | Oracle Business Intelligence Enterprise Edition | Analytics Server (OpenSSL)            | HTTPS    | Yes                           | 5.9                | Network       | High           | None        |
| <b>CVE-2021-35666</b> | Oracle HTTP Server                              | OSSL Module                           | HTTPS    | Yes                           | 5.9                | Network       | High           | None        |
| <b>CVE-2020-1971</b>  | Oracle HTTP Server                              | SSL Module (OpenSSL)                  | HTTPS    | Yes                           | 5.9                | Network       | High           | None        |
| <b>CVE-2018-10237</b> | Oracle WebLogic Server                          | Web Services (Google Guava)           | HTTP     | Yes                           | 5.9                | Network       | High           | None        |
| <b>CVE-2021-36374</b> | Oracle Enterprise Repository                    | Security Subsystem - 12c (Apache Ant) | None     | No                            | 5.5                | Local         | Low            | None        |
| <b>CVE-2021-36374</b> | Oracle Real-Time Decision Server                | Platform Installation (Apache Ant)    | None     | No                            | 5.5                | Local         | Low            | None        |
| <b>CVE-2021-27906</b> | Oracle WebCenter Sites                          | WebCenter Sites (Apache PDFbox)       | None     | No                            | 5.5                | Local         | Low            | None        |
| <b>CVE-2019-12415</b> | Oracle WebCenter Sites                          | WebCenter Sites (Apache POI)          | None     | No                            | 5.5                | Local         | Low            | Low         |
| <b>CVE-2019-12400</b> | Oracle WebLogic Server                          | Web Services (Apache Santuario)       | None     | No                            | 5.5                | Local         | Low            | Low         |

| CVE#                  | Product                                | Component                                | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|--|--|----------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |  |  |          |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
|                       |  | XML Security For Java)                   |          |                               |                    |               |                |             |
| <b>CVE-2021-29425</b> | Oracle GoldenGate Application Adapters | Application Adapters (Apache Commons IO) | HTTP     | Yes                           | 5.3                | Network       | Low            | None        |
| <b>CVE-2021-29425</b> | Oracle Real-Time Decision Server       | Decision Server (Apache Commons IO)      | HTTP     | Yes                           | 5.3                | Network       | Low            | None        |
| <b>CVE-2021-29425</b> | Oracle WebLogic Server                 | Console (Apache Commons IO)              | HTTP     | Yes                           | 5.3                | Network       | Low            | None        |
| <b>CVE-2021-35552</b> | Oracle WebLogic Server                 | Diagnostics                              | HTTP     | Yes                           | 5.3                | Network       | Low            | None        |
| <b>CVE-2021-2480</b>  | Oracle HTTP Server                     | Web Listener                             | HTTP     | Yes                           | 3.7                | Network       | High           | None        |

### Notes:

1. Outside In Technology is a suite of software development kits (SDKs). The protocol and CVSS Base Score depend on the software that uses Outside In Technology. The CVSS score assumes that the software passes data received over a network directly to Outside In Technology, but if data is not received over a network the CVSS score may be lower.

### Additional CVEs addressed are:

- The patch for CVE-2018-20843 also addresses CVE-2019-10082.
- The patch for CVE-2019-13990 also addresses CVE-2019-5427.
- The patch for CVE-2020-11022 also addresses CVE-2019-11358 and CVE-2020-11023.
- The patch for CVE-2021-23841 also addresses CVE-2020-1971, CVE-2021-23839 and CVE-2021-23840.
- The patch for CVE-2021-26272 also addresses CVE-2021-26271.

- The patch for CVE-2021-27906 also addresses CVE-2021-27807.
- The patch for CVE-2021-30468 also addresses CVE-2020-13954 and CVE-2021-22696.
- The patch for CVE-2021-36374 also addresses CVE-2017-5645, CVE-2020-11979 and CVE-2021-36373.

## Oracle Health Sciences Applications Risk Matrix

This Critical Patch Update contains 6 new security patches for Oracle Health Sciences Applications. 3 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                               | Component                            | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RIS |               |                |             |
|-----------------------|---------------------------------------|--------------------------------------|----------|-------------------------------|----------------------|---------------|----------------|-------------|
|                       |                                       |                                      |          |                               | Base Score           | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2019-17195</b> | Oracle Healthcare Data Repository     | Install Utility (Nimbus JOSE+JWT)    | HTTP     | Yes                           | 9.8                  | Network       | Low            | None        |
| <b>CVE-2021-22118</b> | Oracle Healthcare Data Repository     | Service Framework (Spring Framework) | None     | No                            | 7.8                  | Local         | Low            | Low         |
| <b>CVE-2020-11022</b> | Oracle Health Sciences Central Coding | UI (jQuery)                          | HTTP     | Yes                           | 6.1                  | Network       | Low            | None        |
| <b>CVE-2020-11023</b> | Oracle Health Sciences InForm         | UI (jQuery)                          | HTTP     | Yes                           | 6.1                  | Network       | Low            | None        |
| <b>CVE-2020-17521</b> | Oracle Healthcare Data Repository     | Install Utility (Apache Groovy)      | None     | No                            | 5.5                  | Local         | Low            | Low         |
| <b>CVE-2021-28657</b> | Oracle Healthcare Foundation          | Security (Apache Tika)               | None     | No                            | 5.5                  | Local         | Low            | None        |

## Oracle Hospitality Applications Risk Matrix

This Critical Patch Update contains 1 new security patch for Oracle Hospitality Applications. This vulnerability is remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product  | Component              | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|--|------------------------|----------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |  |                        |          |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2020-11022</b> | Oracle Hospitality Cruise Shipboard Property Management System | Next-Gen SPMS (jQuery) | HTTP     | Yes                           | 6.1                | Network       | Low            | None        |

## Oracle Hyperion Risk Matrix

This Critical Patch Update contains 6 new security patches for Oracle Hyperion. 5 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                      | Component                         | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 R |               |                |             |
|-----------------------|------------------------------|-----------------------------------|----------|-------------------------------|--------------------|---------------|----------------|-------------|
|                       |                              |                                   |          |                               | Base Score         | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-35665</b> | Hyperion Financial Reporting | Repository                        | HTTP     | Yes                           | 6.1                | Network       | Low            | No          |
| <b>CVE-2019-11358</b> | Hyperion Planning            | Hyperion Planning (jQuery)        | HTTP     | Yes                           | 6.1                | Network       | Low            | No          |
| <b>CVE-2021-27906</b> | Hyperion Financial Reporting | Server Components (Apache PDFBox) | None     | No                            | 5.5                | Local         | Low            | No          |

| CVE#                  | Product                            | Component                                      | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |        |
|-----------------------|------------------------------------|--|----------|-------------------------------|------------------|---------------|----------------|--------|
|                       |                                    |  |          |                               | Base Score       | Attack Vector | Attack Complex | Pri Re |
| <b>CVE-2021-29425</b> | Hyperion Financial Management      | Security (Apache Commons IO)                   | Multiple | Yes                           | 5.3              | Network       | Low            | No     |
| <b>CVE-2019-7317</b>  | Hyperion Infrastructure Technology | Installation and Configuration (libpng)        | HTTP     | Yes                           | 5.3              | Network       | High           | No     |
| <b>CVE-2020-27218</b> | Hyperion Infrastructure Technology | Installation and Configuration (Eclipse Jetty) | HTTP     | Yes                           | 4.8              | Network       | High           | No     |

#### Additional CVEs addressed are:

- The patch for CVE-2019-7317 also addresses CVE-2018-14550.
- The patch for CVE-2021-27906 also addresses CVE-2021-27807.

## Oracle Insurance Applications Risk Matrix

This Critical Patch Update contains 16 new security patches for Oracle Insurance Applications. 11 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                    | Product          | Component                                       | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                |
|-------------------------|------------------|---|----------|-------------------------------|--------------|---------------|----------------|
|                         |                  |   |          |                               | Base Score   | Attack Vector | Attack Complex |
| <b>CVE-2016-1000031</b> | Oracle Documaker | Development tools (Apache Commons FileUpload)   | HTTP     | Yes                           | 9.8          | Network       | Low            |
| <b>CVE-2019-13990</b>   | Oracle Documaker | Development tools (Terracotta Quartz Scheduler) | HTTP     | Yes                           | 9.8          | Network       | Low            |

| CVE#                  | Product                                | Component                                    | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                |
|-----------------------|--|--|----------|-------------------------------|--------------|---------------|----------------|
|                       |  |  |          |                               | Base Score   | Attack Vector | Attack Complex |
| <b>CVE-2020-10683</b> | Oracle Documaker                       | Development tools (dom4j)                    | HTTP     | Yes                           | 9.8          | Network       | Low            |
| <b>CVE-2019-17195</b> | Oracle Insurance Policy Administration | Architecture (Nimbus JOSE+JWT)               | HTTP     | Yes                           | 9.8          | Network       | Low            |
| <b>CVE-2020-11987</b> | Oracle Insurance Policy Administration | Architecture (Apache Batik)                  | HTTP     | Yes                           | 8.2          | Network       | Low            |
| <b>CVE-2020-36189</b> | Oracle Documaker                       | Development tools (jackson-databind)         | HTTP     | Yes                           | 8.1          | Network       | High           |
| <b>CVE-2021-22118</b> | Oracle Documaker                       | Development tools (Spring Framework)         | None     | No                            | 7.8          | Local         | Low            |
| <b>CVE-2021-22118</b> | Oracle Insurance Policy Administration | Architecture (Spring Framework)              | None     | No                            | 7.8          | Local         | Low            |
| <b>CVE-2020-5258</b>  | Oracle Documaker                       | Development tools (dojo)                     | HTTP     | Yes                           | 7.5          | Network       | Low            |
| <b>CVE-2020-5398</b>  | Oracle Insurance Calculation Engine    | Architecture (Spring Framework)              | HTTP     | Yes                           | 7.5          | Network       | High           |
| <b>CVE-2019-10086</b> | Oracle Documaker                       | Development tools (Apache Commons BeanUtils) | HTTP     | Yes                           | 7.3          | Network       | Low            |
| <b>CVE-2019-10086</b> | Oracle Insurance Policy Administration | Architecture (Apache Commons BeanUtils)      | HTTP     | Yes                           | 7.3          | Network       | Low            |
| <b>CVE-2021-36374</b> | Oracle Insurance Policy Administration | Architecture (Apache Ant)                    | None     | No                            | 5.5          | Local         | Low            |

| CVE#                  | Product                                | Component                             | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                |
|-----------------------|--|---------------------------------------|----------|-------------------------------|--------------|---------------|----------------|
|                       |  |                                       |          |                               | Base Score   | Attack Vector | Attack Complex |
| <b>CVE-2020-17521</b> | Oracle Insurance Policy Administration | Architecture (Apache Groovy)          | None     | No                            | 5.5          | Local         | Low            |
| <b>CVE-2021-37695</b> | Oracle Documaker                       | Development tools (CKEditor)          | HTTP     | No                            | 5.4          | Network       | Low            |
| <b>CVE-2021-29425</b> | Oracle Documaker                       | Development tools (Apache Commons IO) | HTTP     | Yes                           | 5.3          | Network       | Low            |

#### Additional CVEs addressed are:

- The patch for CVE-2019-13990 also addresses CVE-2019-5427.
- The patch for CVE-2020-36189 also addresses CVE-2020-25649, CVE-2020-35490, CVE-2020-35491, CVE-2020-35728, CVE-2020-36179, CVE-2020-36180, CVE-2020-36181, CVE-2020-36182, CVE-2020-36183, CVE-2020-36184, CVE-2020-36185, CVE-2020-36186, CVE-2020-36187 and CVE-2020-36188.
- The patch for CVE-2020-5398 also addresses CVE-2018-11039, CVE-2018-11040, CVE-2018-1257, CVE-2018-1258, CVE-2018-1270, CVE-2018-1271, CVE-2018-1272, CVE-2018-1275, CVE-2018-15756 and CVE-2020-5397.
- The patch for CVE-2021-36374 also addresses CVE-2021-36373.
- The patch for CVE-2021-37695 also addresses CVE-2021-32808 and CVE-2021-32809.

## Oracle Java SE Risk Matrix

This Critical Patch Update contains 15 new security patches for Oracle Java SE. 13 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                                    | Component          | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISKS |               |                |             |
|-----------------------|--|--------------------|----------|-------------------------------|------------------------|---------------|----------------|-------------|
|                       |  |                    |          |                               | Base Score             | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-3517</b>  | Java SE                                    | JavaFX (libxml)    | Multiple | Yes                           | 8.6                    | Network       | Low            | None        |
| <b>CVE-2021-35560</b> | Java SE                                    | Deployment         | Multiple | Yes                           | 7.5                    | Network       | High           | None        |
| <b>CVE-2021-27290</b> | Oracle GraalVM Enterprise Edition          | Node (Node.js)     | Multiple | Yes                           | 7.5                    | Network       | Low            | None        |
| <b>CVE-2021-35567</b> | Java SE, Oracle GraalVM Enterprise Edition | Libraries          | Kerberos | No                            | 6.8                    | Network       | Low            | Low         |
| <b>CVE-2021-35550</b> | Java SE, Oracle GraalVM Enterprise Edition | JSSE               | TLS      | Yes                           | 5.9                    | Network       | High           | None        |
| <b>CVE-2021-3522</b>  | Java SE                                    | JavaFX (GStreamer) | None     | No                            | 5.5                    | Local         | Low            | None        |
| <b>CVE-2021-35586</b> | Java SE, Oracle GraalVM Enterprise Edition | ImageIO            | Multiple | Yes                           | 5.3                    | Network       | Low            | None        |

| CVE#                  | Product                                    | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISI |               |                |             |
|-----------------------|--|-----------|----------|-------------------------------|-----------------------|---------------|----------------|-------------|
|                       |  |           |          |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-35564</b> | Java SE, Oracle GraalVM Enterprise Edition | Keytool   | Multiple | Yes                           | 5.3                   | Network       | Low            | None        |
| <b>CVE-2021-35556</b> | Java SE, Oracle GraalVM Enterprise Edition | Swing     | Multiple | Yes                           | 5.3                   | Network       | Low            | None        |
| <b>CVE-2021-35559</b> | Java SE, Oracle GraalVM Enterprise Edition | Swing     | Multiple | Yes                           | 5.3                   | Network       | Low            | None        |
| <b>CVE-2021-35561</b> | Java SE, Oracle GraalVM Enterprise Edition | Utility   | Multiple | Yes                           | 5.3                   | Network       | Low            | None        |
| <b>CVE-2021-35565</b> | Java SE, Oracle GraalVM                    | JSSE      | TLS      | Yes                           | 5.3                   | Network       | Low            | None        |

| CVE#                  | Product                                    | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISI |               |                |             |
|-----------------------|--|-----------|----------|-------------------------------|-----------------------|---------------|----------------|-------------|
|                       |  |           |          |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd |
|                       | Enterprise Edition                         |           |          |                               |                       |               |                |             |
| <b>CVE-2021-35578</b> | Java SE, Oracle GraalVM Enterprise Edition | JSSE      | TLS      | Yes                           | 5.3                   | Network       | Low            | None        |
| <b>CVE-2021-35603</b> | Java SE, Oracle GraalVM Enterprise Edition | JSSE      | TLS      | Yes                           | 3.7                   | Network       | High           | None        |
| <b>CVE-2021-35588</b> | Java SE, Oracle GraalVM Enterprise Edition | Hotspot   | Multiple | Yes                           | 3.1                   | Network       | High           | None        |

### Notes:

1. This vulnerability applies to Java deployments, typically in clients running sandboxed Java Web Start applications or sandboxed Java applets, that load and run untrusted code (e.g., code that comes from the internet) and rely on the Java sandbox for security. This vulnerability does not apply to Java deployments, typically in servers, that load and run only trusted code (e.g., code installed by an administrator).

2. This vulnerability applies to Java deployments, typically in clients running sandboxed Java Web Start applications or sandboxed Java applets, that load and run untrusted code (e.g., code that comes from the internet) and rely on the Java sandbox for security. This vulnerability can also be exploited by using APIs in the specified Component, e.g., through a web service which supplies data to the APIs.

3. This vulnerability can only be exploited by supplying data to APIs in the specified Component without using Untrusted Java Web Start applications or Untrusted Java applets, such as through a web service.

### Additional CVEs addressed are:

- The patch for CVE-2021-27290 also addresses CVE-2019-16775, CVE-2021-22931, CVE-2021-22939, CVE-2021-22940, CVE-2021-32803, CVE-2021-32804, CVE-2021-37701, CVE-2021-37712, CVE-2021-37713, CVE-2021-39134 and CVE-2021-39135.
- The patch for CVE-2021-3517 also addresses CVE-2021-3537.

## Oracle JD Edwards Risk Matrix

This Critical Patch Update contains 11 new security patches for Oracle JD Edwards. 8 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                        | Component                           | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3 |               |                |    |
|-----------------------|--------------------------------|-------------------------------------|----------|-------------------------------|----------------|---------------|----------------|----|
|                       |                                |                                     |          |                               | Base Score     | Attack Vector | Attack Complex | Pr |
| <b>CVE-2021-22884</b> | JD Edwards EnterpriseOne Tools | E1 Dev Platform Tech (Node.js)      | HTTP     | Yes                           | 7.5            | Network       | High           | N  |
| <b>CVE-2020-25648</b> | JD Edwards EnterpriseOne Tools | Enterprise Infrastructure (NSS)     | TLS      | Yes                           | 7.5            | Network       | Low            | N  |
| <b>CVE-2020-8203</b>  | JD Edwards EnterpriseOne Tools | E1 Dev Platform Tech (Lodash)       | HTTP     | Yes                           | 7.4            | Network       | High           | N  |
| <b>CVE-2021-3450</b>  | JD Edwards EnterpriseOne Tools | Enterprise Infrastructure (OpenSSL) | TLS      | Yes                           | 7.4            | Network       | High           | N  |

| CVE#                  | Product                               | Component                                      | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3 |               |                |    |
|-----------------------|---------------------------------------|--|----------|-------------------------------|----------------|---------------|----------------|----|
|                       |                                       |  |          |                               | Base Score     | Attack Vector | Attack Complex | Pr |
| <b>CVE-2021-3450</b>  | JD Edwards World Security             | World Software Security (OpenSSL)              | TLS      | Yes                           | 7.4            | Network       | High           | N  |
| <b>CVE-2020-27216</b> | JD Edwards EnterpriseOne Tools        | Installation (Eclipse Jetty)                   | None     | No                            | 7.0            | Local         | High           | L  |
| <b>CVE-2021-26272</b> | JD Edwards EnterpriseOne Tools        | Web Runtime (CKEditor)                         | HTTP     | Yes                           | 6.5            | Network       | Low            | N  |
| <b>CVE-2020-17521</b> | JD Edwards EnterpriseOne Orchestrator | E1 IOT Orchestrator (Apache Groovy)            | None     | No                            | 5.5            | Local         | Low            | L  |
| <b>CVE-2021-20227</b> | JD Edwards EnterpriseOne Tools        | Enterprise Infrastructure (SQLite)             | None     | No                            | 5.5            | Local         | Low            | L  |
| <b>CVE-2020-13956</b> | JD Edwards EnterpriseOne Orchestrator | E1 IOT Orchestrator (Apache HttpClient)        | HTTP     | Yes                           | 5.3            | Network       | Low            | N  |
| <b>CVE-2020-13956</b> | JD Edwards EnterpriseOne Tools        | Monitoring and Diagnostics (Apache HttpClient) | HTTP     | Yes                           | 5.3            | Network       | Low            | N  |

### Additional CVEs addressed are:

- The patch for CVE-2021-22884 also addresses CVE-2020-8277, CVE-2021-22883 and CVE-2021-23840.
- The patch for CVE-2021-26272 also addresses CVE-2020-27193, CVE-2021-26271, CVE-2021-32808, CVE-2021-32809 and CVE-2021-37695.
- The patch for CVE-2021-3450 also addresses CVE-2021-23839, CVE-2021-23840, CVE-2021-23841 and CVE-2021-3449.

## Oracle MySQL Risk Matrix

This Critical Patch Update contains 66 new security patches for Oracle MySQL. 10 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                  | Component                              | Protocol        | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |
|-----------------------|--------------------------|--|-----------------|-------------------------------|------------------|---------------|-------------------|
|                       |                          |  |                 |                               | Base Score       | Attack Vector | Attack Complexity |
| <b>CVE-2021-22931</b> | MySQL Cluster            | Cluster: General (Node.js)             | Multiple        | Yes                           | 9.8              | Network       | Low               |
| <b>CVE-2021-3711</b>  | MySQL Server             | Server: Packaging (OpenSSL)            | MySQL Protocol  | Yes                           | 9.8              | Network       | Low               |
| <b>CVE-2021-22112</b> | MySQL Enterprise Monitor | Monitoring: General (Spring Security)  | HTTPS           | No                            | 8.8              | Network       | Low               |
| <b>CVE-2021-3518</b>  | MySQL Workbench          | MySQL Workbench (libxml2)              | MySQL Workbench | Yes                           | 8.8              | Network       | Low               |
| <b>CVE-2021-22118</b> | MySQL Enterprise Monitor | Monitoring: General (Spring Framework) | None            | No                            | 7.8              | Local         | Low               |
| <b>CVE-2021-22926</b> | MySQL Server             | Server: Compiling (cURL)               | Multiple        | Yes                           | 7.5              | Network       | Low               |
| <b>CVE-2021-36222</b> | MySQL Server             | Server: Compiling (Kerberos)           | MySQL Protocol  | Yes                           | 7.5              | Network       | Low               |
| <b>CVE-2021-35583</b> | MySQL Server             | Server: Windows                        | MySQL Protocol  | Yes                           | 7.5              | Network       | Low               |
| <b>CVE-2021-3712</b>  | MySQL Workbench          | MySQL Workbench (OpenSSL)              | MySQL Workbench | Yes                           | 7.4              | Network       | High              |
| <b>CVE-2021-35610</b> | MySQL Server             | Server: Optimizer                      | MySQL Protocol  | No                            | 7.1              | Network       | Low               |
| <b>CVE-2021-3712</b>  | MySQL Enterprise Monitor | Monitoring: General (OpenSSL)          | None            | No                            | 6.7              | Local         | High              |
| <b>CVE-2021-35597</b> | MySQL Client             | C API                                  | MySQL Protocol  | No                            | 6.5              | Network       | Low               |

| CVE#                  | Product       | Component         | Protocol       | Remote Exploit without Auth.? | CVSS VERSION 3.1 |                  |                   |
|-----------------------|---------------|-------------------|----------------|-------------------------------|------------------|------------------|-------------------|
|                       |               |                   |                |                               | Base Score       | Attack Vector    | Attack Complexity |
| <b>CVE-2021-35607</b> | MySQL Server  | Server: DML       | MYSQL Protocol | No                            | 6.5              | Network          | Low               |
| <b>CVE-2021-2481</b>  | MySQL Server  | Server: Optimizer | MySQL Protocol | No                            | 6.5              | Network          | Low               |
| <b>CVE-2021-35590</b> | MySQL Cluster | Cluster: General  | Multiple       | No                            | 6.3              | Adjacent Network | High              |
| <b>CVE-2021-35592</b> | MySQL Cluster | Cluster: General  | Multiple       | No                            | 6.3              | Adjacent Network | High              |
| <b>CVE-2021-35593</b> | MySQL Cluster | Cluster: General  | Multiple       | No                            | 6.3              | Adjacent Network | High              |
| <b>CVE-2021-35594</b> | MySQL Cluster | Cluster: General  | Multiple       | No                            | 6.3              | Adjacent Network | High              |
| <b>CVE-2021-35598</b> | MySQL Cluster | Cluster: General  | Multiple       | No                            | 6.3              | Adjacent Network | High              |
| <b>CVE-2021-35621</b> | MySQL Cluster | Cluster: General  | Multiple       | No                            | 6.3              | Adjacent Network | High              |

| CVE#                  | Product                  | Component                               | Protocol                    | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |
|-----------------------|--------------------------|---|-----------------------------|-------------------------------|------------------|---------------|-------------------|
|                       |                          |   |                             |                               | Base Score       | Attack Vector | Attack Complexity |
| <b>CVE-2021-2471</b>  | MySQL Connectors         | Connector/J                             | MySQL Protocol              | No                            | 5.9              | Network       | High              |
| <b>CVE-2021-35604</b> | MySQL Server             | InnoDB                                  | MySQL Protocol              | No                            | 5.5              | Network       | Low               |
| <b>CVE-2021-35612</b> | MySQL Server             | Server: Optimizer                       | MySQL Protocol              | No                            | 5.5              | Network       | Low               |
| <b>CVE-2021-20227</b> | MySQL Workbench          | MySQL Workbench (SQLite)                | None                        | No                            | 5.5              | Local         | Low               |
| <b>CVE-2021-33037</b> | MySQL Enterprise Monitor | Monitoring: General (Apache Tomcat)     | Apache JServ Protocol (AJP) | Yes                           | 5.3              | Network       | Low               |
| <b>CVE-2021-29425</b> | MySQL Enterprise Monitor | Monitoring: General (Apache Commons IO) | HTTPS                       | Yes                           | 5.3              | Network       | Low               |
| <b>CVE-2021-35608</b> | MySQL Server             | Server: Group Replication Plugin        | MySQL Protocol              | No                            | 5.3              | Network       | High              |
| <b>CVE-2021-35602</b> | MySQL Server             | Server: Options                         | MySQL Protocol              | No                            | 5.0              | Network       | High              |
| <b>CVE-2021-35577</b> | MySQL Server             | Server: Optimizer                       | MySQL Protocol              | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-2478</b>  | MySQL Server             | Server: DML                             | MySQL Protocol              | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-2479</b>  | MySQL Server             | Server: DML                             | MySQL Protocol              | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35537</b> | MySQL Server             | Server: DML                             | MySQL Protocol              | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35591</b> | MySQL Server             | Server: DML                             | MySQL Protocol              | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35596</b> | MySQL Server             | Server: Error Handling                  | MySQL Protocol              | No                            | 4.9              | Network       | Low               |

| CVE#                  | Product      | Component         | Protocol       | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |
|-----------------------|--------------|-------------------|----------------|-------------------------------|------------------|---------------|-------------------|
|                       |              |                   |                |                               | Base Score       | Attack Vector | Attack Complexity |
| <b>CVE-2021-35648</b> | MySQL Server | Server: FTS       | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35631</b> | MySQL Server | Server: GIS       | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35626</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35627</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35628</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35629</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35575</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35634</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35635</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35636</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35638</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35641</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35642</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35643</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35644</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35645</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35646</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |
| <b>CVE-2021-35647</b> | MySQL Server | Server: Optimizer | MySQL Protocol | No                            | 4.9              | Network       | Low               |

| CVE#                  | Product       | Component                      | Protocol       | Remote Exploit without Auth.? | CVSS VERSION 3.1 |                  |                   |
|-----------------------|---------------|--------------------------------|----------------|-------------------------------|------------------|------------------|-------------------|
|                       |               |                                |                |                               | Base Score       | Attack Vector    | Attack Complexity |
| <b>CVE-2021-35630</b> | MySQL Server  | Server: Options                | MySQL Protocol | No                            | 4.9              | Network          | Low               |
| <b>CVE-2021-35637</b> | MySQL Server  | Server: PS                     | MySQL Protocol | No                            | 4.9              | Network          | Low               |
| <b>CVE-2021-35546</b> | MySQL Server  | Server: Replication            | MySQL Protocol | No                            | 4.9              | Network          | Low               |
| <b>CVE-2021-35622</b> | MySQL Server  | Server: Security: Encryption   | MySQL Protocol | No                            | 4.9              | Network          | Low               |
| <b>CVE-2021-35624</b> | MySQL Server  | Server: Security: Privileges   | MySQL Protocol | No                            | 4.9              | Network          | Low               |
| <b>CVE-2021-35639</b> | MySQL Server  | Server: Stored Procedure       | MySQL Protocol | No                            | 4.9              | Network          | Low               |
| <b>CVE-2021-35632</b> | MySQL Server  | Server: Data Dictionary        | None           | No                            | 4.4              | Local            | Low               |
| <b>CVE-2021-35584</b> | MySQL Cluster | Cluster: ndbcluster/plugin DDL | Multiple       | No                            | 4.3              | Network          | Low               |
| <b>CVE-2021-35613</b> | MySQL Cluster | Cluster: General               | Multiple       | Yes                           | 3.7              | Network          | High              |
| <b>CVE-2021-35640</b> | MySQL Server  | Server: DDL                    | MySQL Protocol | No                            | 2.7              | Network          | Low               |
| <b>CVE-2021-35633</b> | MySQL Server  | Server: Logging                | MySQL Protocol | No                            | 2.7              | Network          | Low               |
| <b>CVE-2021-35625</b> | MySQL Server  | Server: Security: Privileges   | MySQL Protocol | No                            | 2.7              | Network          | Low               |
| <b>CVE-2021-35623</b> | MySQL Server  | Server: Security: Roles        | MySQL Protocol | No                            | 2.7              | Network          | Low               |
| <b>CVE-2021-35618</b> | MySQL Cluster | Cluster: General               | Multiple       | No                            | 1.8              | Adjacent Network | High              |

#### Additional CVEs addressed are:

- The patch for CVE-2021-22926 also addresses CVE-2021-22922, CVE-2021-22923, CVE-2021-22924, CVE-2021-22925, CVE-2021-22945, CVE-2021-22946 and CVE-2021-22947.
- The patch for CVE-2021-22931 also addresses CVE-2021-22939 and CVE-2021-22940.

- The patch for CVE-2021-3518 also addresses CVE-2019-20388, CVE-2020-24977, CVE-2020-7595, CVE-2021-3517 and CVE-2021-3537.
- The patch for CVE-2021-3711 also addresses CVE-2021-3712.
- The patch for CVE-2021-3712 also addresses CVE-2021-3711.

## Oracle PeopleSoft Risk Matrix

This Critical Patch Update contains 17 new security patches for Oracle PeopleSoft. 8 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product   | Component                               | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |        |
|-----------------------|---|---|----------|-------------------------------|------------------|---------------|----------------|--------|
|                       |   |   |          |                               | Base Score       | Attack Vector | Attack Complex | Pri Re |
| <b>CVE-2021-23926</b> | PeopleSoft Enterprise PeopleTools                   | nVision (XMLBeans)                      | HTTP     | Yes                           | 9.1              | Network       | Low            | No     |
| <b>CVE-2021-35543</b> | PeopleSoft Enterprise CC Common Application Objects | Activity Guide Composer                 | HTTP     | No                            | 8.1              | Network       | Low            | Lc     |
| <b>CVE-2021-36090</b> | PeopleSoft Enterprise PeopleTools                   | Cloud Manager (Apache Commons Compress) | HTTP     | Yes                           | 7.5              | Network       | Low            | No     |
| <b>CVE-2020-1967</b>  | PeopleSoft Enterprise PeopleTools                   | DPK (OpenSSL)                           | TLS      | Yes                           | 7.5              | Network       | Low            | No     |
| <b>CVE-2021-35609</b> | PeopleSoft Enterprise PeopleTools                   | SQR                                     | HTTP     | No                            | 6.5              | Network       | Low            | Lc     |
| <b>CVE-2021-28363</b> | PeopleSoft Enterprise PeopleTools                   | Porting (urllib3)                       | HTTPS    | Yes                           | 6.5              | Network       | Low            | No     |
| <b>CVE-2021-35595</b> | PeopleSoft Enterprise                               | Business Interlink                      | HTTP     | Yes                           | 6.1              | Network       | Low            | No     |

| CVE#                  | Product                                      | Component                                    | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |                  |                |        |
|-----------------------|--|--|----------|-------------------------------|------------------|------------------|----------------|--------|
|                       |  |  |          |                               | Base Score       | Attack Vector    | Attack Complex | Pri Re |
|                       | PeopleTools                                  |  |          |                               |                  |                  |                |        |
| <b>CVE-2021-35568</b> | PeopleSoft Enterprise PeopleTools            | Rich Text Editor                             | HTTP     | Yes                           | 6.1              | Network          | Low            | No     |
| <b>CVE-2021-35606</b> | PeopleSoft Enterprise CS Campus Community    | Notification Framework                       | HTTP     | No                            | 5.7              | Adjacent Network | Low            | Lc     |
| <b>CVE-2021-35601</b> | PeopleSoft Enterprise CS SA Integration Pack | Students Administration                      | HTTP     | No                            | 5.7              | Adjacent Network | Low            | Lc     |
| <b>CVE-2021-27906</b> | PeopleSoft Enterprise PeopleTools            | Elastic Search (Apache PDFBox)               | None     | No                            | 5.5              | Local            | Low            | No     |
| <b>CVE-2019-12415</b> | PeopleSoft Enterprise PeopleTools            | nVision (Apache POI)                         | None     | No                            | 5.5              | Local            | Low            | Lc     |
| <b>CVE-2021-35571</b> | PeopleSoft Enterprise CS Academic Advisement | Advising Notes                               | HTTP     | No                            | 5.4              | Network          | Low            | Lc     |
| <b>CVE-2021-35553</b> | PeopleSoft Enterprise CS Student Records     | Class Search                                 | HTTP     | No                            | 5.4              | Network          | Low            | Lc     |
| <b>CVE-2021-35541</b> | PeopleSoft Enterprise SCM                    | Supplier Portal                              | HTTP     | No                            | 5.4              | Network          | Low            | Lc     |
| <b>CVE-2021-29425</b> | PeopleSoft Enterprise PeopleTools            | Updates Change Assistant (Apache Commons IO) | HTTP     | Yes                           | 5.3              | Network          | Low            | No     |
| <b>CVE-2020-13956</b> | PeopleSoft Enterprise PeopleTools            | Updates Change Assistant                     | HTTP     | Yes                           | 5.3              | Network          | Low            | No     |

| CVE# | Product | Component           | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |        |
|------|---------|---------------------|----------|-------------------------------|------------------|---------------|----------------|--------|
|      |         |                     |          |                               | Base Score       | Attack Vector | Attack Complex | Pri Re |
|      |         | (Apache HttpClient) |          |                               |                  |               |                |        |

### Additional CVEs addressed are:

- The patch for CVE-2021-27906 also addresses CVE-2021-27807.
- The patch for CVE-2021-36090 also addresses CVE-2021-35515, CVE-2021-35516 and CVE-2021-35517.

## Oracle Retail Applications Risk Matrix

This Critical Patch Update contains 26 new security patches for Oracle Retail Applications. 9 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                                     | Component                             | Protocol   | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |        |
|-----------------------|---|---------------------------------------|------------|-------------------------------|------------------|---------------|----------------|--------|
|                       |   |                                       |            |                               | Base Score       | Attack Vector | Attack Complex | Pri Re |
| <b>CVE-2021-2351</b>  | Oracle Retail Store Inventory Management    | SIM Integration (JDBC)                | Oracle Net | Yes                           | 8.3              | Network       | High           | N      |
| <b>CVE-2021-22118</b> | Oracle Retail Assortment Planning           | Plan (Spring Framework)               | None       | No                            | 7.8              | Local         | Low            | L      |
| <b>CVE-2021-22118</b> | Oracle Retail Merchandising System          | Foundation (Spring Framework)         | None       | No                            | 7.8              | Local         | Low            | L      |
| <b>CVE-2021-22118</b> | Oracle Retail Predictive Application Server | RPAS Fusion Client (Spring Framework) | None       | No                            | 7.8              | Local         | Low            | L      |
| <b>CVE-2020-25649</b> | Oracle Retail Customer Management and       | Segment (jackson-databind)            | HTTP       | Yes                           | 7.5              | Network       | Low            | N      |

| CVE#                  | Product                                   | Component                             | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                   |                     |
|-----------------------|---|---------------------------------------|----------|-------------------------------|------------------|---------------|-------------------|---------------------|
|                       |   |                                       |          |                               | Base Score       | Attack Vector | Attack Complexity | Privileges Required |
|                       | Segmentation Foundation                   |                                       |          |                               |                  |               |                   |                     |
| <b>CVE-2020-25649</b> | Oracle Retail Merchandising System        | Foundation (jackson-databind)         | HTTP     | Yes                           | 7.5              | Network       | Low               | N                   |
| <b>CVE-2020-6950</b>  | Oracle Retail Merchandising System        | Foundation (Eclipse Mojarra)          | HTTP     | Yes                           | 6.5              | Network       | Low               | N                   |
| <b>CVE-2020-1945</b>  | Oracle Retail Returns Management          | Return Tickets (Apache Ant)           | None     | No                            | 6.3              | Local         | High              | L                   |
| <b>CVE-2021-35043</b> | Oracle Retail Back Office                 | Employee (AntiSamy)                   | HTTP     | Yes                           | 6.1              | Network       | Low               | N                   |
| <b>CVE-2021-35043</b> | Oracle Retail Central Office              | Transaction Tracker (AntiSamy)        | HTTP     | Yes                           | 6.1              | Network       | Low               | N                   |
| <b>CVE-2021-35043</b> | Oracle Retail Returns Management          | Policy Evaluation (AntiSamy)          | HTTP     | Yes                           | 6.1              | Network       | Low               | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Advanced Inventory Planning | Operations & Maintenance (Apache Ant) | None     | No                            | 5.5              | Local         | Low               | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Back Office                 | Employee (Apache Ant)                 | None     | No                            | 5.5              | Local         | Low               | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Bulk Data Integration       | BDI Job Scheduler (Apache Ant)        | None     | No                            | 5.5              | Local         | Low               | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Central Office              | Transaction Tracker (Apache Ant)      | None     | No                            | 5.5              | Local         | Low               | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Extract Transform and Load  | Mathematical Operators (Apache Ant)   | None     | No                            | 5.5              | Local         | Low               | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Financial Integration       | EBS Integration Bugs (Apache Ant)     | None     | No                            | 5.5              | Local         | Low               | N                   |

| CVE#                  | Product   | Component                     | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 |               |                |                     |
|-----------------------|---|-------------------------------|----------|-------------------------------|------------------|---------------|----------------|---------------------|
|                       |   |                               |          |                               | Base Score       | Attack Vector | Attack Complex | Privileges Required |
| <b>CVE-2021-36374</b> | Oracle Retail Integration Bus                                 | RIB Kernal (Apache Ant)       | None     | No                            | 5.5              | Local         | Low            | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Merchandising System                            | Foundation (Apache Ant)       | None     | No                            | 5.5              | Local         | Low            | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Point-of-Service                                | Pricing (Apache Ant)          | None     | No                            | 5.5              | Local         | Low            | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Predictive Application Server                   | RPAS Server (Apache Ant)      | None     | No                            | 5.5              | Local         | Low            | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Service Backbone                                | RSB Installation (Apache Ant) | None     | No                            | 5.5              | Local         | Low            | N                   |
| <b>CVE-2021-36374</b> | Oracle Retail Store Inventory Management                      | SIM Integration (Apache Ant)  | None     | No                            | 5.5              | Local         | Low            | N                   |
| <b>CVE-2021-29425</b> | Oracle Retail Customer Management and Segmentation Foundation | Segment (Apache Commons IO)   | HTTP     | Yes                           | 5.3              | Network       | Low            | N                   |
| <b>CVE-2020-13956</b> | Oracle Retail Customer Management and Segmentation Foundation | Segment (Apache HTTPClient)   | HTTP     | Yes                           | 5.3              | Network       | Low            | N                   |
| <b>CVE-2020-8908</b>  | Oracle Retail Customer Management and Segmentation Foundation | Segment (Google Guava)        | None     | No                            | 3.3              | Local         | Low            | L                   |

**Additional CVEs addressed are:**

- The patch for CVE-2020-25649 also addresses CVE-2020-35490, CVE-2020-35491, CVE-2020-35728, CVE-2020-36179, CVE-2020-36180, CVE-2020-36181, CVE-2020-36182, CVE-2020-36183, CVE-2020-36184, CVE-2020-36185, CVE-2020-36186, CVE-2020-36187, CVE-2020-36188 and CVE-2020-36189.
- The patch for CVE-2021-36374 also addresses CVE-2020-1945 and CVE-2021-36373.

**Oracle Siebel CRM Risk Matrix**

This Critical Patch Update contains 6 new security patches for Oracle Siebel CRM. 5 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                  | Component                       | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RIS |               |                |             |
|-----------------------|--------------------------|---------------------------------|----------|-------------------------------|----------------------|---------------|----------------|-------------|
|                       |                          |                                 |          |                               | Base Score           | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-28165</b> | Siebel Core - Automation | Test Automation (Eclipse Jetty) | TLS      | Yes                           | 7.5                  | Network       | Low            | None        |
| <b>CVE-2021-25122</b> | Siebel UI Framework      | EAI (Apache Tomcat)             | HTTP     | Yes                           | 7.5                  | Network       | Low            | None        |
| <b>CVE-2016-2183</b>  | Siebel UI Framework      | EAI, SWSE (OpenSSL)             | TLS      | Yes                           | 7.5                  | Network       | Low            | None        |
| <b>CVE-2020-9484</b>  | Siebel Apps - Marketing  | Marketing (Apache Tomcat)       | None     | No                            | 7.0                  | Local         | High           | Low         |
| <b>CVE-2021-26272</b> | Siebel UI Framework      | Open UI (CKEditor)              | HTTP     | Yes                           | 6.5                  | Network       | Low            | None        |
| <b>CVE-2020-9488</b>  | Siebel Apps - Marketing  | Marketing (Apache Log4j)        | HTTP     | Yes                           | 3.7                  | Network       | High           | None        |

**Additional CVEs addressed are:**

- The patch for CVE-2021-26272 also addresses CVE-2021-26271.
- The patch for CVE-2021-28165 also addresses CVE-2021-28163 and CVE-2021-28164.

## Oracle Supply Chain Risk Matrix

This Critical Patch Update contains 5 new security patches for Oracle Supply Chain. 3 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product   | Component                                     | Protocol | Remote Exploit without Auth.? | CVSS VERSION |               |                |
|-----------------------|---|---|----------|-------------------------------|--------------|---------------|----------------|
|                       |   |   |          |                               | Base Score   | Attack Vector | Attack Complex |
| <b>CVE-2021-28165</b> | Oracle Autovue for Agile Product Lifecycle Management | Autovue Viewer Integration (Eclipse Jetty)    | HTTP     | Yes                           | 7.5          | Network       | Low            |
| <b>CVE-2020-25649</b> | Oracle Autovue for Agile Product Lifecycle Management | Autovue Viewer Integration (jackson-databind) | HTTP     | Yes                           | 7.5          | Network       | Low            |
| <b>CVE-2020-17521</b> | Oracle Agile PLM                                      | Security (Apache Groovy)                      | None     | No                            | 5.5          | Local         | Low            |
| <b>CVE-2021-35616</b> | Oracle Transportation Management                      | UI Infrastructure                             | HTTP     | No                            | 5.4          | Network       | Low            |
| <b>CVE-2021-2476</b>  | Oracle Transportation Management                      | Authentication                                | HTTP     | Yes                           | 5.3          | Network       | Low            |

### Additional CVEs addressed are:

- The patch for CVE-2020-25649 also addresses CVE-2020-10672, CVE-2020-10673, CVE-2020-10968, CVE-2020-10969, CVE-2020-11111, CVE-2020-11112, CVE-2020-11113, CVE-2020-14060, CVE-2020-14061, CVE-2020-14062, CVE-2020-14195, CVE-2020-24616, CVE-2020-24750, CVE-2020-35490, CVE-2020-35491, CVE-2020-35728, CVE-2020-36179, CVE-2020-36180, CVE-2020-36181, CVE-2020-36182, CVE-2020-36183, CVE-2020-36184, CVE-2020-36185, CVE-2020-36186, CVE-2020-36187, CVE-2020-36188, CVE-2020-36189, CVE-2020-9546, CVE-2020-9547 and CVE-2020-9548.
- The patch for CVE-2021-28165 also addresses CVE-2021-28163 and CVE-2021-28164.

## Oracle Systems Risk Matrix

This Critical Patch Update contains 5 new security patches for Oracle Systems. 2 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product  | Component              | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK |               |                |             |
|-----------------------|--|------------------------|----------|-------------------------------|-----------------------|---------------|----------------|-------------|
|                       |  |                        |          |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-26691</b> | Oracle ZFS Storage Appliance Kit                             | Operating System Image | Multiple | Yes                           | 9.8                   | Network       | Low            | None        |
| <b>CVE-2021-35539</b> | Oracle Solaris   | Filesystem             | None     | No                            | 6.5                   | Local         | Low            | Low         |
| <b>CVE-2021-35589</b> | Oracle Solaris   | Device drivers         | None     | No                            | 6.0                   | Local         | Low            | High        |
| <b>CVE-2021-35549</b> | Oracle Solaris   | Utility                | None     | No                            | 3.9                   | Local         | Low            | Low         |
| <b>CVE-2020-1968</b>  | Oracle Ethernet Switch ES2-64, Oracle Ethernet Switch ES2-72 | Firmware (OpenSSL)     | HTTPS    | Yes                           | 3.7                   | Network       | High           | None        |

### Additional CVEs addressed are:

- The patch for CVE-2021-26691 also addresses CVE-2019-17567, CVE-2020-13950, CVE-2020-26116, CVE-2020-26137, CVE-2020-35452, CVE-2021-20227, CVE-2021-22207, CVE-2021-22222, CVE-2021-26690, CVE-2021-28957, CVE-2021-29921, CVE-2021-30641, CVE-2021-31618, CVE-2021-33503, CVE-2021-3426, CVE-2021-3520, CVE-2021-36222, CVE-2021-3711 and CVE-2021-3712.

## Oracle Utilities Applications Risk Matrix

This Critical Patch Update contains 1 new security patch for Oracle Utilities Applications. This vulnerability is not remotely exploitable without authentication, i.e., may not be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                    | Component            | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK |               |                |             |        |
|-----------------------|----------------------------|----------------------|----------|-------------------------------|-----------------------|---------------|----------------|-------------|--------|
|                       |                            |                      |          |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd | Impact |
| <b>CVE-2021-36374</b> | Oracle Utilities Framework | General (Apache Ant) | None     | No                            | 5.5                   | Local         | Low            | None        | R      |

Additional CVEs addressed are:

- The patch for CVE-2021-36374 also addresses CVE-2021-36373.

## Oracle Virtualization Risk Matrix

This Critical Patch Update contains 8 new security patches for Oracle Virtualization. 1 of these vulnerabilities may be remotely exploitable without authentication, i.e., may be exploited over a network without requiring user credentials. The English text form of this Risk Matrix can be found [here](#).

| CVE#                  | Product                      | Component | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RISK |               |                |             |        |
|-----------------------|------------------------------|-----------|----------|-------------------------------|-----------------------|---------------|----------------|-------------|--------|
|                       |                              |           |          |                               | Base Score            | Attack Vector | Attack Complex | Privs Req'd | Impact |
| <b>CVE-2021-35538</b> | Oracle VM VirtualBox         | Core      | None     | No                            | 7.8                   | Local         | Low            | Low         |        |
| <b>CVE-2021-35545</b> | Oracle VM VirtualBox         | Core      | None     | No                            | 6.7                   | Local         | Low            | High        |        |
| <b>CVE-2021-35540</b> | Oracle VM VirtualBox         | Core      | None     | No                            | 5.5                   | Local         | Low            | Low         |        |
| <b>CVE-2021-35649</b> | Oracle Secure Global Desktop | Server    | Multiple | No                            | 5.4                   | Network       | Low            | Low         |        |

| CVE#                  | Product                      | Component            | Protocol | Remote Exploit without Auth.? | CVSS VERSION 3.1 RIS |               |                |             |
|-----------------------|------------------------------|----------------------|----------|-------------------------------|----------------------|---------------|----------------|-------------|
|                       |                              |                      |          |                               | Base Score           | Attack Vector | Attack Complex | Privs Req'd |
| <b>CVE-2021-33037</b> | Oracle Secure Global Desktop | Core (Apache Tomcat) | HTTP     | Yes                           | 5.3                  | Network       | Low            | None        |
| <b>CVE-2021-35650</b> | Oracle Secure Global Desktop | Client               | Multiple | No                            | 4.6                  | Network       | Low            | Low         |
| <b>CVE-2021-35542</b> | Oracle VM VirtualBox         | Core                 | None     | No                            | 4.4                  | Local         | Low            | High        |
| <b>CVE-2021-2475</b>  | Oracle VM VirtualBox         | Core                 | None     | No                            | 4.4                  | Local         | Low            | High        |

**Notes:**

1. This vulnerability does not apply to Windows systems.

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