

Oracle Financial Services Cash Flow Engine

Security Guide

Release 8.1.x

Apr 2021

ORACLE
Financial Services

OFS Cash Flow Engine Security Guide

Copyright © 2021 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

For information on third party licenses, click [here](#).

Document Control

Version Number	Revision Date	Change Log
1.0	June-2020	This document captures the necessary security-related configurations for OFS Cash Flow Engine.

Table of Contents

- 1 Preface..... 5**
 - 1.1 Intended Audience..... 5
 - 1.1.1 Prerequisites..... 5
 - 1.2 Related Information Sources..... 5
- 2 Install the OFS Cash Flow Engine Application Pack..... 6**
- 3 Set Secure Configurations 7**
- 4 Secure Header Configuration 8**
- 5 Web Application Server Security Configurations..... 9**
- 6 Additional Security Configurations.....10**

1 Preface

Oracle Financial Services Cash Flow Engine Application pack (developed on Oracle Financial Services Analytical Applications Infrastructure) provides for configuration of security parameters and this guide provides information about the configurations required and how to set it. You can find the latest copy of this document in the [OHC Documentation Library](#) which includes all the recent additions or revisions (if any) done to date.

Topics:

- [Intended Audience](#)
- [Prerequisites](#)
- [Related Information Sources](#)

1.1 Intended Audience

This guide is intended for System Administrators (SA) who are instrumental in installing and performing secure configurations for Cash Flow Engine. It is assumed that the SAs are technically sound and proficient in UNIX, Database Administration, and Web Application Administration to install and configure OFSAAI in the released environment.

1.1.1 Prerequisites

This document assumes that you have experience installing Enterprise components and basic knowledge about the following:

- Oracle Financial Services Cash Flow Engine Application Pack components
- Oracle Financial Services Analytical Applications Infrastructure components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web server or web application server

1.2 Related Information Sources

The related documents are as follows:

- [Oracle Financial Services Cash Flow Engine Application Pack Installation and Configuration Guide, Release 8.1.0.0.0](#)
- [Oracle Financial Services Cash Flow Engine User Guide, Release 8.1.0.0.0](#)
- [OFSAAI Security Guide](#)
- [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide](#)

2 **Install the OFS Cash Flow Engine Application Pack**

For detailed installation steps, see the [OFS Cash Flow Engine Application Pack Installation Guide Release 8.1.0.0.0](#).

3 Set Secure Configurations

You must configure a set of security parameters to have a secure environment for the OFSAA installation. The OFS CFE application pack components are developed on the OFS Analytical Applications Infrastructure (OFSAAI) and use the OFSAAI secure configurations. The required configurations supported by OFS CFE, is as follows.

- **CSRF Enabled:** This option results in setting the CSRF tokens in requests. OFSAAI System Configuration UI provides the option to enable or disable CSRF. For more information on enabling CSRF, see the *Update General Details* section in the [OFSAAI User Guide](#).
- **Oracle Data Redaction:** This is an Oracle Database Advanced Security option to enable data protection. It is used to mask (redact) sensitive data shown to the user in real-time. To enable this option during installation, see the *Enabling Data Redaction* section in the [OFS AAI Installation and Configuration Guide](#). To enable post-installation, see the *Data Redaction* section in the [OFSAAI Administration and Configuration Guide](#).
- **Key Management:** The OFSAA configuration schema (CONFIG) is the repository to store passwords for users and application database schemas centrally. These values are AES-256 -bit encrypted using an encryption key uniquely generated for each OFSAA instance during the installation process. The OFSAA platform provides a utility (`EncryptC.sh`) to rotate or generate a new encryption key if required.

The *Key Management* section in the [OFSAAI Administration and Configuration Guide](#) explains how to generate and store this key in a Java Key Store.

NOTE Integration with any other Key Management solution is out of the scope of this release.

- **File Encryption:** OFSAA supports file encryption using AES 256-bit format. For more information, see the *File Encryption* section in the [OFSAAI Administration and Configuration Guide](#).

4 Secure Header Configuration

Secure header configurations protect you from website attacks such as XSS.

OFS AAI 8.1.0.0 (platform) is packaged with the OFS CFE 8.1.0.0 installer. OFS CFE inherits the following security configurations for the web servers from the platform, to protect from website attacks such as XSS.

- Configure for X-Frame-Options
- Set Content Security Policy
- Configure Referer Header Validation

See the *Secure Header Configurations* chapter in the [OFSAAI Security Guide 8.1.x](#) for more information.

5 Web Application Server Security Configurations

OFS AAI 8.1.0.0.0 (platform) is packaged with the OFS CFE 8.1.0.0.0 installer. OFS CFE inherits the following security configurations for the web servers, from the platform.

The OFSAAI framework defines the following:

- Enable HTTPS Configuration for OFSAA
- Configure Security for Tomcat
- Configure Security for WebSphere
- Configure Security for WebLogic

Depending on your configured web application server, see the sections in the *Web Application Server Security Configurations* chapter in the [OFSAAI Security Guide 8.1.x](#) for more information.

6 Additional Security Configurations

OFS AAI 8.1.0.0.0 (platform) is packaged with the OFS CFE 8.1.0.0.0 installer. OFS CFE inherits the following additional configurations defined in the platform, for providing security to the applications:

- Configure to Restrict Access to Default Web Server Pages
- Configure to Restrict Display of the Web Server Details
- Configure to Restrict File Uploads
- Configure to restrict HTTP methods other than GET/POST
- Configure to enable unlimited cryptographic policy for Java

See the *Additional Security Configurations* section in the [OFSAAI Security Guide 8.1.x](#) for more information.

OFSAA Support

Raise a Service Request (SR) in [My Oracle Support \(MOS\)](#) for queries related to the OFSAA applications.

Send Us Your Comments

Oracle welcomes your comments and suggestions on the quality and usefulness of this publication. Your input is an important part of the information used for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most about this manual?

If you find any errors or have any other suggestions for improvement, indicate the title and part number of the documentation along with the chapter/section/page number (if available) and contact the Oracle Support.

Before sending us your comments, you might like to ensure that you have the latest version of the document wherein any of your concerns have already been addressed. You can access My Oracle Support site that has all the revised/recently released documents.

