

# Plato Infrastructure Services Installation Guide

Release 14.3.0.0.0

Part No. F18790-01

May 2019



Plato Infrastructure Services Installation Guide  
Oracle Banking Trade Finance Process Management  
Oracle Financial Services Software Limited

Oracle Park  
Off Western Express Highway  
Goregaon (East)  
Mumbai, Maharashtra 400 063  
India

Worldwide Inquiries:

Phone: +91 22 6718 3000

Fax: +91 22 6718 3001

[www.oracle.com/financialservices/](http://www.oracle.com/financialservices/)

Copyright © 2018-5/30/19, Oracle and/or its affiliates. All rights reserved.

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

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 failsafe, 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.

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.

This software or hardware and documentation may provide access to or information on 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. 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.

# Table of Contents

- 1. PREFACE ..... 1-1**
  - 1.1 INTRODUCTION ..... 1-1
  - 1.2 AUDIENCE ..... 1-1
  - 1.3 DOCUMENTATION ACCESSIBILITY ..... 1-1
  - 1.4 ORGANIZATION ..... 1-1
  - 1.5 RELATED DOCUMENTS ..... 1-1
  
- 2. SECURITY CONFIGURATION AND TOOLS INSTALLATION ..... 2-2**
  - 2.1 PRE-REQUISITE ..... 2-2
    - 2.1.1 *Plato Security JWT* ..... 2-2
    - 2.1.2 *Plato Security Configuration* ..... 2-2
    - 2.1.3 *User Store* ..... 2-3
  
- 3. ZIPKIN SERVER SETUP ..... 3-1**
  - 3.1 INTRODUCTION ..... 3-1
    - 3.1.1 *Download the Artifact* ..... 3-1
    - 3.1.2 *Accessing the Zipkin Server* ..... 3-1
  
- 4. LOGGING AREA ..... 4-1**
  - 4.1 INTRODUCTION ..... 4-1
    - 4.1.1 *Logging Area:-* ..... 4-1

---

# 1. Preface

## 1.1 Introduction

This guide would help you to install the Plato infrastructure services on designated environment. It is assumed that all the prior setup is already done related with WebLogic 12c installation, WebLogic managed server creation and Oracle DB installation. It is recommended to use dedicated managed server for each of the Plato infrastructure services.

## 1.2 Audience

This document is intended for WebLogic admin or ops-web team who are responsible for installing the OFSS banking products.

## 1.3 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

## 1.4 Organization

This installation user guide would allow you to configure the security configuration and tools installation

## 1.5 Related Documents

- Day 0 Setup Guide
- LDAP Setup Guide
- Oracle Banking Installer Product\_14.3.0.0.0\_Installation\_Guide
- Oracle Banking Trade Finance Process Management Annexure
- Oracle Banking Trade Finance Process Pre-Installation Guide
- Oracle\_Banking\_Trade\_Finance\_Process\_Management\_User\_Interface\_14.3.0.0.0\_Installation\_Guide
- Process Flow Services Installation Guide
- SSL Setup Guide

## 2. Security Configuration and Tools Installation

### 2.1 Pre-requisite

Before you proceed with below, please make sure LDAP server details is provided to you- Like LDAP\_URL, USER\_STORE, LDAP\_SERVER\_CREDENTIAL\_SALT, LDAP\_SERVER\_USER, LDAP\_SERVER\_BASE, LDAP\_SERVER\_CREDENTIAL, LDAP\_USER\_SEARCH\_BASE, LDAP\_USER\_PREFIX, CORS\_ALLOWED\_ORGINS, LDAP\_SERVER\_CREDENTIAL\_SALT etc.

#### 2.1.1 Plato Security JWT

Plato security module enables securing API micro services with JWT (JSON Web Tokens). JSON Web Tokens are an open, industry standard RFC 7519 method for representing claims securely between two parties. JSON Web Token (JWT) is a compact, URL-safe means of representing claims to be transferred between two parties. The claims in a JWT are encoded as a JSON object that is used as the payload of a JSON Web Signature (JWS) structure or as the plaintext of a JSON Web Encryption (JWE) structure, enabling the claims to be digitally signed.

#### 2.1.2 Plato Security Configuration

Plato recommend to create new schema for security to keep the security related database objects at one place. If the environment is configured for multi-tenant, we require a security schema per tenant.

All the Plato security configurations are maintained at SECURITY\_CONFIG table

Steps to configure:

1. Open the **INC** mentioned in **From-Path** section
2. **Change the below KEY with provided LDAP details**

LDAP_SERVER_CREDENTIAL_SALT	Enter LDAP server Credential salt e.g. 0.9482628451234567
CORS_ALLOWED_ORGINS	valid host names  (comma delimited)
LDAP_URL	Enter LDAP Server URL Example: ldap://localhost:12345
LDAP_SERVER_USER	Enter LDAP Server USERID Example: uid=admin
LDAP_SERVER_BASE	Enter LDAP server BASE Example: dc=oracle,dc=com
LDAP_SERVER_CREDENTIAL	Enter LDAP server encrypted password using provided jwr algorithm Example: m0o/F3UvIwvBSv5C/TSckA== (use plato encryption utility to generate encrypted password)
LDAP_USER_SEARCH_BASE	Enter LDAP User search Base Example: ou=people
LDAP_USER_PREFIX	Enter LDAP User Prefix Example: uid

3. Compile it into Plato Security Schema.

Service Name	From-Path	Compile To
plato-api-gateway	Plato\plato-api-gateway\Database\DOMAIN\INC	Plato Security Schema

### 2.1.3 User Store

Plato supports following user stores for authentication Users Maintained at table.

1. Plato security can authenticate the users maintained at table (APP\_USER) in the security schema. However we do not recommend to use this option.
2. LDAP user store.
3. Plato security can integrate with LDAP server to authenticate the users.
4. For production deployment, the LDAP server should be an industry standard production grade server.

## 3. Zipkin Server Setup

### 3.1 Introduction

In this section you are going to install recommended Zipkin server for tracing and monitoring the micro services calls

#### 3.1.1 Download the Artifact

Before proceeding with the below steps ensure Plato database setup section completed. Zipkin Server 2.6.0 should be downloaded and store in local file system to execute on host machine.

Zipkin Server 2.6.0 JAR location: <https://zipkin.io/pages/quickstart>

Running the Zipkin Server

Zipkin server could be run by using the following syntax.

```
java -jar <location of zipkin-server-2.6.0-exec.jar> &
```

Here, & is added to execute it in background mode. On Windows, you can ignore it.

Zipkin runs on default port 9411.

#### 3.1.2 Accessing the Zipkin Server

You can access the zipkin server by hitting the following URL

[http://<HOSTNAME\\_OR\\_IP>:<PORT>/zipkin/](http://<HOSTNAME_OR_IP>:<PORT>/zipkin/)

The screenshot shows the Zipkin web interface. At the top, there is a navigation bar with the Zipkin logo and the text "Investigate system behavior". To the right of the logo are links for "Find a trace", "View Saved Trace", and "Dependencies". A "Go to trace" button is located on the far right. Below the navigation bar is a search form with the following fields:

- Service Name:** A dropdown menu with "customer-service" selected.
- Span Name:** A dropdown menu with "all" selected.
- Lookback:** A dropdown menu with "1 hour" selected.
- Annotations Query:** A text input field containing the query "e.g. \"http.path=/foo/bar/ and cluster=foo and cache.miss\"".
- Duration ( $\mu$ s) >=:** An empty text input field.
- Limit:** A text input field with the value "10".
- Sort:** A dropdown menu with "Longest First" selected.

A blue button labeled "Find Traces" is positioned below the "Annotations Query" field. To its right is a help icon (a question mark in a circle). Below the search form is a light blue banner with the text "Please select the criteria for your trace lookup."

---

## 4. Logging Area

### 4.1 Introduction

This part of the document will talk about the logs area where after deployment of Plato Applications in WebLogic server.

#### 4.1.1 Logging Area:-

Plato Application writes logs in the below area of the server-

<WEBLOGIC\_DOMAIN\_CONFIG\_AREA>/ logs/plato-api-gateway.log

Let's assume a domain has been created **platoinfra\_domain** in the following area of the server "/scratch/oracle/middleware/user\_projects/domains/platoinfra\_domain". Logging area for Plato would be **/scratch/oracle/middleware/user\_projects/domains/platoinfra\_domain/logs**.