

**Oracle Banking Extensibility Workbench**  
**Release Notes**  
**Release 14.4.0.0.0**  
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Oracle Banking Extensibility Workbench  
Release Notes  
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### 1.1 Background

Oracle Financial Services Software Limited has developed Oracle Banking Extensibility Workbench also known as OBX is a toolkit which allows banks and partners to create extensions for Oracle's latest product based on Oracle Banking Microservices Architecture.

Oracle Banking Extensibility Workbench is a complete solution for extension generation as it not only generates the services and UI artifacts but it also generates the relevant SQL scripts which helps easy integration of these artifacts with the main application.

### 1.2 Purpose

The purpose of this Release Note is to propagate the enhancements of Oracle Banking Extensibility Workbench 14.4.0.0.0.

### 1.3 Abbreviations

Abbreviations	Description
<b>UI</b>	User Interface
<b>OBX</b>	Oracle Banking Extensibility Workbench
<b>OBMA</b>	Oracle Banking Microservices Architecture
<b>XDL</b>	OBX Domain Language
<b>SMS</b>	Security Management System
<b>CMC</b>	Common Core
<b>RBAC</b>	Role Based Access Control

### 1.4 Release Highlights

OBX 14.4.0.0.0 offers a comprehensive standalone solution for creating extensions for OBMA-based products. Following are the major features added to the OBX product in the 14.4.0.0.0 release:

- Simple Sub Domain Service with Web Component (Virtual Page)
- Maintenance Sub Domain Service with Web Component (Maintenance Details and Summary Screens)

- Resource Segment Service of Master and Child type with Web Component (Data Segments)
- Generation of Publisher and Subscriber Event Service
- Validation Service for handling custom validation on top of kernel or base service
- Simple standalone web component
- Virtual Page web component comprising of several standalone components
- Dashboard widgets web component
- Modify the base component with features like Addition of New fields, hiding fields, defaulting values of fields, making field mandatory

#### 1.4.1 Simple Sub Domain Service with Virtual Page

- Creation of new Sub Domain Service with new UI Component in an existing application is primary extensibility case
- A UI component generally used as a Virtual Page which gets integrated with Sub Domain service
- This new component can be created using any of the existing component from the base product using component server
- Creating the sub domain service uses XDL file as a input and generates both the artifacts service and web component
- Virtual Page can reuse components from base/kernel application

#### 1.4.2 Maintenance Sub Domain Service with Web Component

- Maintenance Service special kind of service used to create detail and summary screen with Audit trails
- UI components for maintenance are generally loaded within the Wizard of Application Shell
- Adding a maintenance extension into an existing base application requires configuration to be done in SMS.
- This SMS configuration involves, left navigation menu configuration, linking it with services activities for services support and also linking it with new or existing roles which are mapped to users who logins into the application
- OBX will be hosting these extended web components separately and base application will be capable of picking up those components from the deployed location and rendering them with rest of the components/application

### 1.4.3 Resource Segment Service of Master and Child type with Web Component

- A Data Segment Web Component is a special type of web component, which is loaded inside the Wizard Component.
- It can be imagined as a component which comes in sequence during form filling in an application or for process driven screens and is loaded one after the completion of prior as a train component.
- In an application these data-segment components are part of stages which are linked with a lifecycle code of a business process and gets attached to a particular business product.
- Also, maintenance designed resource segment orchestrator approach uses these data segments and converts them into flow. Using OBX we can then add data segment created outside to capture additional details and put them or plug it into existing flow.
- OBX helps you in adding any custom data-segment component which is not a part of existing flow/application and clients want it to be a part of their specific requirement.
- Again, this extended data-segment component needs few configurations that has to be done in a Transaction-Controller Services and few Configuration need on SMS and CMC.
- Once these configurations are made properly, we can inject our extended data segment inside the flow of existing base application structure.

### 1.4.4 Publisher and Subscriber Event Service

- OBX generates a simple publisher and subscriber kafka based event services
- Publisher creates a message using Avro into message schema
- A Subscriber use the same Avro Schema being used by publisher, and register to topic to which he receives messages once published

### 1.4.5 Batch Service

- OBX generates a simple OBMA based batch service
- It generates a simple reader, writer and processor java files
- One needs to write methods for reader, writer and processor. The generated code has two types of batch templates
  - Simple job creation
  - OBMA batch type

#### 1.4.6 Validation Service for handling custom validation

- Validation services generated by OBX helps to write custom validations on top of base/kernel service
- Importantly it never modifies the payload but it only provides a way to write validation on fields which can be extracted from the payload
- Validation service is always called before a controller method is called in base application, which is the reason we can perform the validation prior to actual request is sent to base application
- All the necessary headers are passed from base application to validation automatically which determines that validation has to be done on which service

#### 1.4.7 Standalone web component

- OBX helps you in generating a simple UI web component also called as standalone component.
- These components are the building blocks of application, as they are always reusable in nature and not loaded directly but are loaded from other web components
- These type components are generally designed for specific use case which is used across application in many places like Amount, Currency, Date etc.
- Base application provides many such components. If base application component is not addressing the requirement, OBX helps you in generating the same

#### 1.4.8 Virtual Page web component

- A Virtual page is combination of many standalone components and serves a specific business use case
- These are generally accessible from menu and has SMS and RBAC integration
- You can write business logic in these components, on top of what is generated using XDL input
- Virtual pages always take XDL as input and generates a code providing all options of performing all the CRUD operations
- Styling applied to Virtual Pages are inherited from base application so it helps integration in seamless manner with application shell
- Integration with main application is done through configurations keeping extensions in isolation

#### 1.4.9 Dashboard widgets

- This feature helps you in generating the Widget type of web components which gets integrated with the User Dashboard in main application

- All the major scripts needed to be executed to add this widget in application shell is generated out of the box from OBX
- We only need to assign the widget to users to whom we want this widget to be visible
- Internationalizations and localization are also taken care from OBX as it generated the bundles for translation within the component

#### 1.4.10 Modify the base component

- These are common use cases which come in picture when we talk about extensibility
- Following are the modifications currently supported:
  - Addition of Fields
  - Removing of Existing Fields
  - Defaulting Values on Screen
  - Disable Fields
  - Making Fields Mandatory
- In case of Modification developers need to know the name of base web component for which he is trying to achieve to the modification
- This can be fetched using the component server and browser developer tool



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## 2 Components of the Software

### 2.1 Documents accompanying the software

The various documents accompanying the software are as follows:

- Release Notes
- Installer Kit
- User Guide

### 2.2 Software Components

Software Components of OBX 14.3 that form part of this release are as follows:

- OBX.zip

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## 3 Annexure – A: Environment Details

### 3.1 Tech Stack – Oracle

Component	Operating System	Software	Version Number
Oracle Banking Extensibility Workbench		Java HotSpot (TM) JDK (with WebLogic Application Server)	JDK 8 Update 231 Or Later
		Mozilla Firefox	Mozilla Firefox Release (68.*)
		Google Chrome	Google Chrome Release (79.*)
		Microsoft Edge	44.*
	Windows 10		64-bit: Pro, Enterprise, or Education (Build 15063 or later)

[Note: Browser support is no longer based on Operating Systems but strictly tied to the browser themselves, no matter on which Operating Systems they are installed. Current release is certified on client workstations with Windows 7, 8, and 10]

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## 4. Annexure – B: Third Party Software Details

For information on the third-party software, refer Oracle Banking Extensibility Workbench 14.4.0.0.0 License Guide in the OHC Documentation Library