

### **Release Notes**

### for



### FIELD SERVICE CLOUD

### Version 15.2

Part Number E62406-03

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### 1 Introduction

### 1.1 Document Purpose and Scope

This document describes the new features, changes, and significantly altered functionality introduced in Oracle Field Service Cloud, version 15.2.0. It also provides a brief overview of minor changes and issues. For a detailed description of the features and changes introduced in this document, please refer to the corresponding separate documents.

### 1.2 Glossary

The glossary below contains the basic OFSC terms used in this document.

Term	Description	
Activity	Any time-consuming work performed by a resource	
API	Application Programming Interface – a particular set of rules and specifications	
	that software programs follow to communicate and interact with each other	
	Entity appearing on the resource tree which can contain resources of a defined	
Bucket	type and be assigned activities	
Capacity	Workforce possessing the necessary work skills available at a certain moment of	
	time	
Capacity bucket	Bucket used for Quota management	
Capacity category	Predefined set of work skills, work skill groups and time slots within which they are	
	considered by the Capacity API	
Context	OFSC or API screen showing all available properties and action links	
Daily Extract	Functionality used to extract data from OFSC for further analysis and reporting	
	(previously referred to as DWH)	
Delivery window	Statistically calculated time period in which a resource is expected to start an	
	activity	
Dynamic Routing	Routing option allowing to assign only a predefined number of activities to	
	resources and/or assign activities only for a predefined period of time	
ETA	Estimated time of arrival. Predicted time at which a resource will arrive at an	
	appointment and start an activity, calculated dynamically for current and historical	
	data	
Field	Property present in the system by default	
Forecasting	Oracle Field Service Forecasting Cloud Service. Feature of OFSC allowing to	
	forecast the company workload on the basis of historical data	
Geocoding	Process of finding geographic coordinates from street addresses or postal codes	
Group	Feature on the resource tree identifying a particular type of resource	
GUI	Graphical User Interface, allows to use software by manipulating images rather	
	than by issuing text commands	
Historical data	Data of the past periods available in the database or from other sources	
Inventory	Equipment that can be installed or deinstalled during an activity	
Linked activities	Two separate activities related so that the completion or start of one is dependent	
	on the completion or start of the other	
Manage	Oracle Field Service Core Manage Cloud Service (former Manage Application).	



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	Serves as the command center for field operations and the central hub for viewing		
	real-time information about resources and their activities across the entire field		
	organization		
Mass activity	Activity involving 2 or more resources		
Message	Communications within software (which may or may not be readable by humans),		
(Notification)	as well as person-to-person communications delivered via computer software		
Mobility	Oracle Field Service Mobility Cloud Service (former Mobility Application). A web-		
	based application for mobile resources to execute and manage work-related		
	activities and ongoing communications		
Not scheduled	Activity not assigned to a specific date		
Not ordered	Activity with an unspecified order of execution in a route, so that it can be		
	executed at any time during the working day. Not-ordered activities do not have		
	defined ETAs or delivery windows		
Ordered	Activity with a defined place in a route, which must be performed at a specified		
	time of day. The order of activities can be changed: ordered activities can be		
	changed to not-ordered activities and vice-versa		
Penalty	Relative scale representing the expected increase of total cost which a particular		
	factor brings into routing result		
Planning	Company's estimation of the workforce or workload required at a certain moment		
Preassigned	Activity which was assigned to a specific resource before the routing run		
activity	Activity which was assigned to a specific resource before the routing run		
Property	Field and field value, assigned to an entity in QESC (to user, resource, activity or		
	inventory) There are fields and custom properties		
Quota	Amount of work that can be accented for the bucket		
Repeating activity	Activity recurring with a predefined frequency in a predefined period		
Resource	Element in the resource tree representing a defined company asset		
Resource Trop	Hierarchy of company recourses, showing "parent-child" relationships		
Resource free	List of activities assigned to a resource for a specific date, or a list of pop		
Roule	esheduled activities assigned to a resource		
Deutine	Scheduled activities assigned to a resource		
Routing	Process of assigning activities to resources (usually automated)		
Service Window	Time frame expected by the customer for an activity as scheduled by the company		
SLA window	Interval of time (that may involve a range of dates) within which certain work has		
	to be performed according to the Service Level Agreement		
Teamwork	Feature that allows resources to assist each other in an activity or on an on-going		
	basis		
Time Slot	1) Fixed service window, defined with a name and label, specifying when certain		
	types of activities can be performed		
	2) Service Window (if the activity type does not support time slots)		
User	1) Person using OFSC		
	2) Entity used for authentication and authorization, allowing people or external		
	software to access OFSC		
Work Skill	1) Activity that a resource is qualified to perform (resource property)		



	2) Qualification required to perform an activity (activity property)		
Work Zone	Defined geographical area in which a resource can perform an activity		
Forecasting	Oracle Field Service Forecasting Cloud Service. New feature of OFSC allowing to		
	forecast the company workload on the basis of historical data		
Capacity	Oracle Field Service Capacity Cloud Service. A process of managing a workforce to		
Management	ensure that a company has enough people with the specific skills to do a certain		
	amount of work		

### 2 Oracle Field Service Cloud 15.2.0

### 2.1 Overview

Activity Booking Multi-Day View Routing Visualization Visual Form Editor Ability to Restart the System Without Down Time has been Implemented OpenID Connect Authentication Implemented Outbound Configuration Implemented ETAdirect Renamed to Oracle Field Service Cloud

### 2.2 New Features

### 2.2.1 Activity Booking

Oracle Field Service Cloud has introduced a new feature called Activity Booking.

It was designed to facilitate in-place activity booking by providing the tools for scheduling and automatic assignment of activities, based on capacity calculations. This way, in case a customer inquires about performing another job for them on a different day, the technician will be able to collect the information about the new job, create a new activity in Oracle Field Service Cloud and schedule it for some particular date and time slot, all, right away on-site.

Accessed via Oracle Field Service Mobility Cloud Service, Activity Booking allows a user to create a new activity in a specified capacity bucket and time slot, that will then be routed on a general basis.

As soon as the activity is booked, the capacity required for its performance is subtracted from the 'available capacity' and added to the 'used capacity'. The used capacity is compared to the quota values to make sure that orders for new activities are only accepted when the capacity is still available.

**Note:** As having capacity information up-to-date is crucial for the functionality, Activity Booking is available only in the online mode.

The process of booking an activity comprises the following three stages:

- Creating a new activity
- Scheduling the created activity according to the selected date, time slot and capacity bucket
- Capacity information update.



For more detailed information on these steps, as well as the feature in general, please refer to the Activity Booking feature manual.

### 2.2.2 Multi-Day View

Oracle Field Service Cloud has introduced a new feature which allows viewing activities over several days on the same screen. This new feature allows getting a broader picture of the resource's workload, and managing activities and resources on multiple days.

The Activities Time View, which displays the activities assigned to resources in the Resource Tree on each day, now has an option that allows viewing the activities on several days. When this option is selected, the Time View splits into several columns each representing one day.

For a more detailed overview of multi-day view functionality, and it's advantages, please refer to the Multi-Day View feature manual.

### 2.2.3 Routing Visualization

Routing is a powerful functionality used to automatically assign activities to resources according to their availability, location, work skills and work performance costs. Routing is aimed at creating the most optimal routes in terms of reducing resource's overtime and travel, effective use of the available inventory, and even prioritizing certain activities.

Routing operates according to Routing Plans which determine the schedule, activity assignment conditions, resource selection criteria and the costs of activity assignment or non-assignment in terms of resources' overtime, travel, and activities priority. Routing Plans are then run automatically or manually and can be manually interrupted. Results of completed Routing Plans are recorded in the 'Routing execution log' showing the number of activities assigned during the Routing run, the number of resources to which activities were assigned, the number of activities not assigned in the Routing run and the reasons for the non-assignment.

Now, in addition to the existing 'Routing' screen in the Oracle Field Service Cloud GUI where Routing Plans can be managed and monitored, a new 'Smart Routing' screen which gives a more graphic, and transparent display of what is actually happening in the Routing module has been introduced. Looking at the 'Smart Routing' screen, the user can see the summary of the Routing Plans assigned to the selected bucket, the autorouting efficiency ratio, the resource utilization ratio, and the actual savings achieved as the result of Routing. The information included in the 'Routing execution log' is also presented on the 'Smart Routing' screen.

Main goals behind the Routing Visualization are:

- Demonstrating the Routing working process
- Providing the cost-effective results of each Routing run
- Creating, formalizing, and unifying an intuitive navigation between Routing visualization artifacts (form, reports, GUI dialog, etc.)
- Providing easy and intuitive access to all existing Routing runs

For a more detailed description of the logic behind Routing Visualization please refer to the Routing Visualization feature manual.

#### 2.2.4 Visual Form Editor

Oracle Field Service Cloud is a complex system consisting of multiple modules executing various functionality. Different functions are performed on many screens in two applications – Oracle Field Service Core Manage Cloud Service (the application providing the interface for dispatchers and other



back-office personnel engaged in mobile workforce management) and Oracle Field Service Mobility Cloud Service (the application for field employees actually performing the customer-facing jobs). The system can be configured taking into account each user's functions and duties. The user is offered a customized application with the access levels and functions relevant to their job. On one hand, this enhances the system security, as users can operate only within the permitted area. On the other hand, the user works in a transparent, clear and understandable environment, and is not distracted by unnecessary settings. In Oracle Field Service Cloud, such flexibility is implemented through the context layout editing functionality, which allows customizing various screens used in Oracle Field Service Cloud and setting their access levels for different user types. This functionality has now received a totally new transparent and intuitive interface where the context layouts can be easily created. The user creating Oracle Field Service Cloud screens is now able to design the layout by dragging and dropping various elements and immediately seeing the expected result. The new functionality allows creating Oracle Field Service Mobility Cloud Service contexts of the 'form' type.

Each screen, form and dialog window in Oracle Field Service Cloud is based on a context layout, which is actually a set of items (fields, text labels and action links) used, and the elements defining their arrangement (tabs and sections). The context layout also includes the visibility conditions of each item, that is, the conditions in which it is visible or hidden, as well as the user's access to each item – mandatory, ReadWrite or ReadOnly.

The previous versions of ETAdirect offered reliable and comprehensive context layout editing which allowed the following actions:

- Adding, updating or removing context layout items
- Items arrangement in the screen or window
- Adding or removing column and line markers
- Adding and removing text labels of items together with their custom translations into other languages
- Management of user access and visibilities
- Adding and removing action links and buttons

The Visual Form Editor supports all of the above functionality in respect of creating or editing Oracle Field Service Mobility Cloud Service context layouts of the 'form' type, but in an easy-to-use intuitive manner.

# 2.2.5 Ability to Restart the System Without Down Time has been Implemented

As of version 15.2.0 of Oracle Field Service Cloud it is now possible to restart the system without down time, this functionality is intended to perform the following:

- Avoid cases when the system is completely inaccessible
- Temporarily switch the system into read-only mode when the primary server is either temporarily unavailable or being restarted
- Switch the system into read-only mode when it is being upgraded to a newer version
- Improve performance and reliability of the system
- Process all activities for the past days by a separate server. It allows reducing the load of the primary one and thus improve its performance

### 2.2.6 OpenID Connect Authentication Implemented

As of version 15.2.0, Oracle Field Service Cloud supports authentication via OpenID Connect using Google



accounts.

A user with a Google account can create their Client ID for authentication in Oracle Field Service Cloud. The parameters of the Client ID received from Google can then be used in creating the Login Policy for OpenID Connect authentication. For these purposes, the 'Authenticate using' field now has the 'OpenID Connect' option. When this option is selected, the 'Login Policy' window changes to contain the fields where the Google Client ID parameters can be entered.

Add Policy	×
Login Policy Options	
* Label Altering the label will invalidate all external links to Oracle Field Service Cloud.	
* Policy Name	
* Language	English ÷
Authenticate using Making this change may lead to inability to use the system for every user of this Login Policy. Consult your Administrator before proceeding.	OpenID Connect +
<ul> <li>Max sessions</li> <li>Decreasing this value will invalidate extra sessions.</li> </ul>	0
OpenId Connect identity provider login URL	
OpenID Connect logout URL	
OpenID Connect attribute containing username	
OpenID Connect client ID	
OpenID Connect client Secret	
Allow access only for certain IP-adresses	
Cancel	Add
Eigure 1:	OpenID Connect settings

#### 2.2.7 Outbound Configuration Implemented

As of version 15.2 of Oracle Field Service Cloud, the possibility of configuring the Outbound Interface via the Oracle Field Service Core Manage Cloud Service is available. Now each client can configure its messaging agent according to their unique needs. The new functionality allows configuring the endpoints for External System messaging methods through the GUI. The Outbound Interface configuration functionality is implemented as a new screen initially placed under the 'Company Settings'.



### 2.3 Changes

### 2.3.1 ETAdirect Renamed to Oracle Field Service Cloud

As of version 15.2.0, ETAdirect becomes Oracle Field Service Cloud. As a result of the change, the ETAdirect logo changes as well (Figure 2,3). These changes will apply in all relevant documentation.



Figure 2: ETAdirect logo (old)







### 3 Oracle Field Service Cloud 15.2.1

### 3.1 Overview

All profiles can no longer be unassigned simultaneously User list sorting improved 'Last Login' filter processes dates correctly Relogin dialog works properly with user's password saved in browser User password can be set to '0' Resource Tree displays correct icons in Single-Day and Multi-Day mode Past activities shown properly Activities can be dragged and dropped to non-scheduled pool in Multi-Day view On-call time shown correctly on Multi-Day view Resource Tree displays correct icons after SmartCollaboration actions No extra scroll bars appear in Visual Form Editor Action can only be added once in Visual Form Editor Internet Explorer 8 – Activity List displayed properly Signature field has correct size and is resized properly Safari, Chrome – scrolling improved Activity status restored after synchronization action with error Route deactivation synchronization conflict autoresolved correctly Forecasting screen displays error message when import is performed in Read-Only mode Error message displayed for Scenario Step saving in Read-Only mode Error message displayed for Message Scenario saving in Read-Only mode 'Add/Edit...' form hidden in Read-Only mode Behavior of actions in Read-Only mode improved Smart Routing hints disappear in Read-Only mode Routing report no longer opens in Read-Only mode Error message shown after Routing run rollback in Read-Only mode Error message shown after Routing plan start through Smart Routing widget Error message shown when Routing plans list is requested in Read-Only mode Inbound API - 'update activity' command no longer erases 'time of booking' value



### 3.2 User Management

### 3.2.1 All Profiles Can No Longer be Unassigned Simultaneously

Previously, an administrator could unassign all profiles from a user and save the changes successfully. However, a user must always have at least one profile assigned to them.

As of version 15.2.1, user configuration is properly validated, and if no user profiles are assigned to a user, the system responds with the 'Profiles is empty' error message (Figure 4).

User		×
Self assignment	0	
Providers * All children of selected resources are visible	Sunrise Enterprise	Add new Delete
* Profiles	Available Profiles       Technician     Selected Profiles       Technician     >>       soap     CSR       Manager     Admin       Admin     <<	les
Managed profiles	Routing Manager Dispatcher Technician soap CSR Manager Admin File upload	
API profile	÷	
Close	'Profiles' is empty	ок

Figure 4: Error message issued when no profiles are assigned to user

### 3.2.2 User List Sorting Improved

In the previous versions the length of the user list sorting key was set to 16 characters. Sometimes,

when user properties had many characters with the first 16 or more characters identical, user list sorting did not work. This issue existed for sorting in different columns of the users grid.

As of version 15.2.1, the sorting key has been increased to 64 characters which ensures correct sorting in the grid columns.

### 3.3 Oracle Field Service Core Manage Cloud Service

#### 3.3.1 'Last Login' Filter Processes Dates Correctly

If the date in the 'Last login' filter was set to a future date for one of the resources, and another resource was selected in the Resource Tree, the date changed to one day before. This occurred immediately after the date change (00:00). The reason was that the date calculation also took into account the time zone of the resource. Such behavior could cause incorrect filtering of the users list.



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In version 15.2.1 the date calculation has been changed. Now the date selected in the 'Last login' filter does not depend on the resource time zone and remains the same for any resource. This way the 'Last login' filter works correctly.

### 3.3.2 Relogin Dialog Works Properly with User's Password Saved in Browser

If the user saved their password in the browser during login to OFSC and their session expired according to the login policy settings, the relogin dialog contained the already filled-in password, but the 'OK' button was disabled. The user could log in only after re-entering the password.

Your session expired. Plea	se relogin.
Password -	
Logout	ØK.

This issue has been resolved in version 15.2.1. Now the 'OK' button in the relogin dialog window is always active.

### 3.3.3 User Password Can be Set to '0'

If a user's password was changed to '0', the new password was not accepted. The 'Change password' window was rejected with the following error message: 'New password is empty! And 1 more'.

Change password - basic policy			
New password is empty! And 1 more			
User:	ro_dispatcher		
New Password:	•		
Confirm password:	•		
Cancel	ОК		

Figure 6: 'Change password' error message

The necessary changes have been made, and now any password matching the criteria set in the login policy is accepted by the system.

### 3.4 Activity Views

### 3.4.1 Resource Tree Displays Correct Icons in Single-Day and Multi-Day Mode

If the Activities View was set to the Multi-Day mode and the bottom panel was then opened, both Resource Trees and Activity Views were identical. The Resource Tree icons in both panels were full-route icons (solid yellow). However, when one of the panels was switched to the Single-Day mode, the Resource Tree icons remained those of the Multi-Day mode, while in the Single-Day mode the icons should reflect the actual resource load and any warnings.

This issue has been resolved in version 15.2.1. The Resource Tree icons now correspond to the Activities



Figure 5: Disabled 'OK' button

View mode selected for the current panel.

### 3.4.2 Past Activities Shown Properly

If the user selected the List View on the 'Activities' screen and then set a date earlier than the day before yesterday, no activities were displayed. The screen showed the following message instead: 'Required data is temporarily unavailable. Please, try again later'.

This issue has been fixed. Now the user is able to see past activities in the List View.

### 3.4.3 Activities Can Be Dragged and Dropped to Non-Scheduled Pool in Multi-Day View

Previously, the user was unable to drag and drop an activity to the non-scheduled pool in the Multi-Day view. For that they had to switch the screen to the Single-Day view. Otherwise, the activity was not moved.

Now the functionality has been improved. Activities can be moved to the non-scheduled pool by dragging and dropping.

### 3.4.4 On-Call Time Shown Correctly on Multi-Day View

If the Multi-Day view was selected, on-call time was shown incorrectly in the resources' routes. If the resource's calendar contained regular working time at the beginning of the working day and on-call time in the end, the on-call time was always shown in the beginning. However, the Single-Day view showed on-call time correctly.

After the necessary changes, the Multi-Day view shows on-call time according to the resources' calendars.

### 3.5 Resource Management

### 3.5.1 Resource Tree Displays Correct Icons after SmartCollaboration Actions

If an activity was shared via a SmartCollaboration chat, the Resource Tree icons changed to the Multi-Day view icons (solid yellow) when the screen displayed the Single-Day view. The icons returned to their normal form after any other action.

This issue has been resolved. The Resource Tree icons correspond to the selected Activities View mode and do not depend on SmartCollaboration actions.

### 3.6 Displays

### 3.6.1 No Extra Scroll Bars Appear in Visual Form Editor

If a lot of actions have been added to the 'Actions' line in the Visual Form Editor and they no longer fit the screen, one extra vertical scroll bar appeared at the right edge of the screen. In version 15.2.1 no extra scroll bars appear anymore.

### 3.6.2 Action Can Only be Added Once in Visual Form Editor

By design, an action can be added once to the 'Actions' line and once to a section of the same context layout. However, the same action could be added several times to the 'Actions' line and/or to a section (Figure 7).



Add activity	Add activity	Add activity	Add activity	Add activity	Add activity
[ Section name i	s empty]				
Add activity?					
Duration:					
Туре:					
Position in route	e:	•			
Add activity					
Add activity					
Add activity					
			-,		
[ Section name i	is empty ]		1		
Add activity					
Add activity					

Figure 7: Action added several times

Now the system checks if an action has already been added. An action can be added only once to the 'Actions' line and/or to a section.

### 3.7 Oracle Field Service Mobility Cloud Service

### 3.7.1 Internet Explorer 8 – Activity List Displayed Properly

If a user with several resources opened the OFSMCS from Internet Explorer 8, no activity list was displayed for any resource selected from the list. Clicking a resource name from the list of available resources produced no result.

The compatibility with Internet Explorer 8 has been improved, and now the activity list is properly displayed to the user.

### 3.7.2 Signature Field Has Correct Size and Is Resized Properly

In the previous versions, the signature field in the OFSMCS forms was too small and had incorrect proportions – its height was greater than its width. At the same time, the signature field was not resized automatically with the screen size change.

In version 15.2.1 the size of the signature field has been fixed at 450 x 300 px (width x height). This way, the field has correct proportions. When the screen size changes, the signature field is resized accordingly.

### 3.7.3 Safari, Chrome – Scrolling Improved

On some mobile devices vertical scrolling worked incorrectly – it was not smooth, did not continue when the user removed their finger from the screen and, generally, did not work like native scroll should work. Vertical scrolling has been improved. Now, when OFCS is running on a mobile device in the Safari or Chrome browser, scrolling works like native scrolling.



### 3.8 **OFSMCS Offline**

### 3.8.1 Activity Status Restored after Synchronization Action with Error

When an activity status was changed but an error occurred during the operation, OFSMCS did not restore the actual status of the activity. For example, if the activity status was changed from 'pending' to 'cancelled' but a mandatory field was not filled-in on the 'Cancel activity' screen, the activity status was still changed to 'Cancelled' in OFSMCS after synchronization. This resulted in the activity appearing in the wrong list ('Cancelled' instead of 'Pending').

The issue has been resolved in version 15.2.1. The activity remains in its actual state after synchronization.

### 3.8.2 Route Deactivation Synchronization Conflict Autoresolved Correctly

If the same route was completed both in OFSCMCS and OFSMCS in the offline mode, but the completion time of the last activity in OFSCMCS was later than the route deactivation time in OFSMCS, the route was not actually deactivated in OFSMCS. The conflict was not autoresolved.

Now the conflict is autoresolved correctly. In the situation described above the route is deactivated in OFSMCS with the deactivation time set to the last activity completion time + 1 minute.

### 3.9 Read-Only Mode

### **3.9.1 Forecasting Screen Displays Error Message when Import is Performed in Read-Only Mode**

If the user attempts to import data on the Forecasting screen when the system is in Read-Only mode, the system responds with the following error message: 'This operation is temporarily unavailable. The system is currently running in the read-only mode.'

This way, the user is correctly informed about the operation error.

#### 3.9.2 Error Message Displayed for Scenario Step Saving in Read-Only Mode

If the user tried to save a Message Scenario Step when the system was in the Read-Only mode, no notifications were displayed. An empty window was shown instead.

The issue has been fixed in version 15.2.1. Now on attempt to save a Message Scenario Step in the Read-Only mode, the 'Temporarily unavailable' error message is displayed.

# 3.9.3 Error Message Displayed for Message Scenario Saving in Read-Only Mode

If the user tried to add or modify a Message Scenario when the system was in the Read-Only mode, no notifications were displayed. An empty window was shown instead.

The issue has been fixed in version 15.2.1. Now on attempt to save a Message Scenario in the Read-Only mode, the 'Temporarily unavailable' error message is displayed.

#### 3.9.4 'Add/Edit...' Form Hidden in Read-Only Mode

When the system is in the Read-Only mode, no new items can be added, neither can any items be edited. When the user clicks 'Add new', the 'Add/Edit...' form is not displayed. The error message is shown instead. This change has been made for the following screens which have the possibility of adding new items:

- Routing profile
- Action links
- Capacity categories



- Daily Extract Configuration
- Inventory types
- Links templates
- Non working reasons
- Shifts
- Travel areas
- Work skill conditions
- Work skill groups
- Surveys
- Themes
- Work Skills
- Work schedules

### 3.9.5 Behavior of Actions in Read-Only Mode Improved

Previously, an action ('Add new', 'Modify', 'Delete', etc.) performed on one of the screens of OFSC produced an empty window. No notification about the system running in the Read-Only mode was displayed. The following screens were affected:

- Filters
- Filter Conditions
- Holidays
- Login Policies
- Resource Types
- Time Slots
- Work Zone Dictionary
- Schedule report

As of version 15.2.1, the system behavior in the Read-Only mode has become more consistent. When an action opening a new window ('Add new' or 'Modify') is performed, the following error message is displayed: 'The operation is temporarily unavailable. The system is currently running in the read-only mode'. For actions requiring no new windows ('Delete', Deactivate', etc.), an empty page with the 'Temporarily unavailable' error message is displayed.

### 3.9.6 Smart Routing Hints Disappear in Read-Only Mode

When the system was switched to the Read-Only mode, the hints of the widgets on the Smart Routing screen remained visible. The screen displayed both the hints and the error message 'The operation is temporarily unavailable. The system is currently running in the read-only mode'.

The issue has been fixed. The hints of the Smart Routing widgets close when the system switches to the Read-Only mode.

### 3.9.7 Routing Report No Longer Opens in Read-Only Mode

When the system was running in the Read-Only mode, the Routing report could still be opened. However, it was always empty even when some Routing runs have been performed. No error message was displayed, either.

Now the Routing report is not displayed in the Read-Only mode. Instead, the screen shows the following



error message: 'Required data is temporarily unavailable. Please, try again later.'

### 3.9.8 Error Message Shown after Routing Run Rollback in Read-Only Mode

If the system was switched to the Read-Only mode after a Routing plan run in the Smart Routing screen, and the user clicked 'Rollback', no error messages were displayed. The Routing run was not actually rolled back, though.

As of version 15.2.1, if the user clicks 'Rollback' in the Read-Only mode, the following error message is shown: 'This operation is temporarily unavailable. The system is currently running in the read-only mode.'

# 3.9.9 Error Message Shown after Routing Plan Start through Smart Routing Widget

If a Routing plan was started through the Smart Routing widget (the 'puzzle' icon) on the 'Activities' screen while the system was in the Read-Only mode, the activities were not routed but no error messages were shown, either.

Now the user trying to start a Routing plan in the Read-Only mode gets the following error message: 'This operation is temporarily unavailable. The system is currently running in the read-only mode.'

## 3.9.10 Error Message Shown When Routing Plans List is Requested in Read-Only Mode

If the user tried to open the list of Routing plans clicking the 'puzzle' icon on the 'Activities' screen while the system was in the Read-Only Mode, the list opened containing the 'Waiting...' message. The list was not opened, but no error messages were displayed, either.

This issue has been resolved. If the user clicks the 'puzzle' icon in the Read-Only mode, no 'Waiting...' message is shown. The following error message is displayed: 'This operation is temporarily unavailable. The system is currently running in the read-only mode.'

### 3.10 Public API

### 3.10.1 Inbound API – 'update\_activity' Command No Longer Erases 'time\_of\_booking' Value

If the Inbound API request had the 'properties\_mode' set to 'replace', the 'update\_activity' command' erased the value of the 'time\_of\_booking' field. The same result was obtained when the 'properties\_mode' was not defined at all, as 'replace' is the default value.

As of version 15.2.1 the 'update\_activity' command does not erase the value of the 'time\_of\_booking' field.



### 4 Oracle Field Service Cloud 15.2.2

### 4.1 Overview

Correct hint shown for Clone icon New inventory items added correctly Quota calculated correctly with 'Max Available' equal to zero Correct error messages shown on resource preferences change Activities View corresponds to resource selected in Resource Tree Placeholders text improved SLA-based adjustment of cost parameters performed both for scheduled and non-scheduled activities Rejected Reoptimization runs now explained in detail 'Forecasting' screen permissions changed 'Forecasting' screen displayed properly after 'DashBoard' screen has been opened Special characters processed correctly in export Forecast line shown properly Forecasting data shown correctly with 'Chart Detalization' set to 'Month' 'Available Resources' shown correctly GPS coordinates added to activities correctly GPS tracks recorded properly GPS coordinates for deleted activities recorded correctly 'Cancel' button works only for current window Image file properties processed correctly Days with on-call shifts shown as links in calendar Inventories sorted in correct order iPhone/Safari - uploaded images scaled correctly History API - token can be found by past date History API – correct error message returned for missing authentication parameters Outbound Configuration fields validated correctly Inactive work zones processed correctly Message sending interval calculated correctly

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### 4.2 Manage

### 4.2.1 Correct Hint Shown for Clone Icon

When a user hovered over the 'Clone' icon in the Activities screen for the first time in the session, there was the 'Close' hint shown instead of the correct 'Clone' hint (Figure 8).

As of version 15.2.2 the correct hint is displayed (Figure 9).



### 4.2.2 New Inventory Items Added Correctly

In some cases, the user was not able to add a new inventory item in the Inventories screen. At an attempt to submit the 'Add inventory' form, the 'Entity not found' error message appeared. Such behavior was observed when there were visibility conditions set for the fields of the 'Identify inventory by' context layout for the History display profile.

This issue has been fixed. New inventory can now be added successfully if there are visibility conditions set for the 'Identify inventory by' context layout fields for the History display profile.

### 4.3 Quota Management

### 4.3.1 Quota Calculated Correctly with 'Max Available' Equal to Zero

When quota is defined as percentage of the available capacity, quota is not calculated if no values have been entered for the 'Max available' and 'Other activities' fields. However, this could lead to the 'Quota' value not being adjusted when 'Max available' gets 'zero' value. The value remained as it was before the change.

The issue has been resolved. Quota is now recalculated for all time slots and capacity categories configured for the capacity bucket. When the 'Max available' field becomes equal to zero, quota is recalculated correctly.

### 4.4 Activity Details

#### 4.4.1 Correct Error Messages Shown on Resource Preferences Change

Previously, if an activity had been assigned to a resource and a different resource was then set as required in the 'Resource Preferences', the system responded with the 'Unknown error occurred' message. The message was unclear as it gave no explanation of the error. The same message was displayed when the current resource was set as forbidden.

In version 15.2.2 two new error messages have been implemented to be used in the situations described above. When another resource is added as required, the following error message is displayed: 'Cannot change preferences: assigned provider would be not in required list'. When the current resource is set as forbidden, the following error message is shown: 'Cannot change preferences: assigned provider would be in forbidden list'. These messages clearly explain why the resource preferences cannot be changed.



### 4.5 Activity Views

### 4.5.1 Activities View Corresponds to Resource Selected in Resource Tree

If a user selected a resource on the 'Activities' screen, then switched to the 'Resource Info' screen to view the details of the selected resource and afterwards selected a different resource, the 'Activities' screen continued to show data of the first resource when the user returned to it.

This issue has been fixed. The Resource Tree is synchronized between screens and always shows the last selected resource.

### 4.6 Company Settings

### 4.6.1 Placeholders Text Improved

In version 15.2.2 the following placeholders have been changed to ensure consistent terminology of Oracle Field Service Cloud:

	Before the change	After the change
3305	Bad time format	Wrong time format
3306	Bad date format	Wrong date format
3563	Bad number of activities per page	Wrong number of activities per page
3564	Bad number of inventory per page	Wrong number of inventory per page
3565	Bad number of providers per page	Wrong number of resources per page

### 4.7 Routing Interface

### **4.7.1 SLA-Based Adjustment of Cost Parameters Performed Both for Scheduled and Non-Scheduled Activities**

Before a non-scheduled activity is sent to Routing, the system adjusts the non-assignment cost and overdue cost parameters on the basis of the time remaining till its SLA end. However, in the previous versions these parameters were not adjusted for preassigned and scheduled activities in the bucket, which led to inconsistent results when Reoptimization was used – an activity assigned in one Routing run could be unassigned in the next one.

This issue has been resolved by introducing the same adjustment rules both for scheduled and non-scheduled activities. Now scheduled and non-scheduled activities are routed in the same way.

### 4.8 Routing GUI

### 4.8.1 Rejected Reoptimization Run Results Now Explained in Detail

Reoptimization results are only applied when they are compliant with the acceptance criteria, namely, 'Assign high priority activities', and 'Reduce overdue'. When the reoptimization results do not comply with these criteria, they are rejected. However, in such cases the Routing execution log only showed the Routing run result as 'succeeded (completed with reoptimization)' and 'Assigned 0 of XXX' in the 'Activities' column which was hardly informative and sometimes misleading.

As of version 15.2.2 the results of such Routing runs the Routing execution log shows 'succeeded, completed with reoptimization; result is not accepted' as the Routing run result. The 'Activities' column shows 'Assigned 0 of XXX' with the breakdown of not assigned activities by rejection reasons (no matching resources, not accepted according to reoptimization criteria, etc.).

### 4.9 Forecasting

### 4.9.1 'Forecasting' Screen Permissions Changed

In the previous versions the access to the 'Forecasting' screen was controlled by two permission levels -



'Show' and 'Hidden', showing and hiding the entire 'Forecasting' screen, respectively. However, the screen contains the 'Set plan' and 'Import data' actions which require an option of setting the ReadWrite or ReadOnly mode.

The system of permissions for the 'Forecasting' screen has been changed from two levels to three levels. Now it is possible to choose between 'ReadWrite', 'ReadOnly' and 'Hidden'. When the permission is set to 'ReadWrite', all screen functions, including the 'Set plan' and 'Import data' actions, are available to the user. With the 'ReadOnly' permission the actions are hidden. The 'Hidden' permission blocks access to the 'Forecasting' screen at all.

# 4.9.2 'Forecasting' Screen Displayed Properly after 'DashBoard' Screen Has Been Opened

If the user had opened the 'DashBoard' screen before opening 'Forecasting', the screen showed the 'Loading' message indefinitely.

In version 15.2.2 this issue has been fixed. The 'Forecasting' screen is loaded properly regardless of the previous screens opened by the user.

### 4.9.3 Special Characters Processed Correctly in Export

The export functionality in Forecasting has been improved so that it processes special characters correctly. However, it is still recommended to avoid special characters, so that the csv file generated as the result of Forecasting data export contains correct data.

### 4.9.4 Forecast Line Shown Properly

Sometimes the Forecast line was not shown on the Forecasting chart, even when the screen was set to show the Forecast line.

As of version 15.2.2 the Forecast line is shown properly.

## 4.9.5 Forecasting Data Shown Correctly with 'Chart Detalization' Set to 'Month'

When the 'Chart detalization' was set to 'Month' on the 'Forecasting' screen, the chart showed incomplete data. Also, when the interval selected in the calendar did not start on the 1<sup>st</sup> of the month, the first and last months were not included. For example, if the interval was set from April 17 till July 17, the chart only showed data for May and June.

This issue has been fixed. The chart displays data according to the selection in the calendar, even when parts of months are selected.

#### 4.9.6 'Available Resources' Shown Correctly

If the 'Forecasting' screen was set to 'Chart View', the 'Available resources' value was shown as '0', both for future and past dates.

As of version 15.2.2 the 'Available resources' value is shown correctly. The resources figures are obtained according to the time slots and capacity categories selected in the filters and displayed on the chart.

**Note**: the 'Available Resources' are calculated only when the 'Estimate maximum capacity for' setting has been checked for the corresponding Quota level (Day, Time Slot or Capacity Category) for the selected bucket.

### 4.10 Daily Extract

### 4.10.1 GPS Coordinates Added to Activities Correctly

When being recorded to the Daily Extract files, some GPS coordinates of a resource track were related to



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the previous activity, while in fact they belonged to the following activity in the route. This issue has been resolved in version 15.2.2. The GPS coordinates are now correctly added to corresponding activities of a resource.

### 4.10.2 GPS Tracks Recorded Properly

Some GPS positions of a resource route in SmartLocation were not presented in the corresponding Daily Extract files. Because the Daily Extract provided the predefined zoom of 10 km, all GPS positions within such interval were hidden, with only extreme positions reflected in the file.

The necessary changes have been made. As of version 15.2.2 the GPS tracks are presented in the Daily Extract files according to the zoom set for the company.

### 4.10.3 GPS Coordinates for Deleted Activities Recorded Correctly

If an activity was canceled, the coordinates which belonged to that activity were recorded with the 'queue\_id'=0, making it impossible to locate the resource associated with that activity. This issue has been fixed. Now coordinates of the canceled activities are stored with the correct 'queue id'.

### 4.11 SmartCollaboration GUI

### 4.11.1 'Cancel' Button Works Only for Current Window

If a user had several chats at the same time in Manage and dropped an activity, resource or inventory in more than one chat, the 'Cancel' button (X) aborting the transfer in one of the chats worked for all of them. Sending was canceled in all chat windows.

The issue has been resolved. Now the 'Cancel' button only cancels sending in the window in which it was clicked. Other windows are not affected.

### 4.12 Mobility

### 4.12.1 Image File Properties Processed Correctly

If a Mobility screen contained both mandatory and non-mandatory image file properties, the user was unable to delete a non-mandatory image. When the form was submitted, it was rejected with an error message. At the same time, when a mandatory image file was added, Mobility only saved its name without the content.

As of version 15.2.2 Mobility handles image file properties correctly – non-mandatory images can be deleted and mandatory images are saved correctly.

### 4.12.2 Days with On-Call Shifts Shown as Links in Calendar

Previously, if a resource had only an on-call shift on a certain day, this day was not clickable in the Calendar. The user was unable to switch the view to such date, even when there were pending activities. Now days with on-call shifts only are shown as actions links, as other available days. A day with the on-call shift can be selected in the calendar, and the view will then change to the selected day.

### 4.13 Mobility Offline

### 4.13.1 Inventories Sorted in Correct Order

If an inventory type was configured with a certain model property and the same property was used as the inventory identifier, the Inventory Grid showed inventory items in incorrect order – they were sorted by their type names rather than identifiers.

Inventory sorting has been improved. Now inventory items are sorted by their identifiers in the list.



### 4.13.2 iPhone/Safari – Uploaded Images Scaled Correctly

When a user attempted to capture an image from the iPhone camera in the Safari browser, such image was not properly scaled and was out of proportion on preview. In some cases the image had a different orientation.

This issue has been fixed in version 15.2.2. The images from iPhone are now captured and cropped correctly.

### 4.14 Public API

### 4.14.1 History API – Token Can be Found by Past Date

As of version 15.2.2, the History API offers the possibility of finding the token by the date and time in the past. This option allows requesting history data for past periods. The request for a token for past date has the following format:

GET /rest/history/v1/route/?since=2015-01-12T09:29:57

where 'since' is the date and time starting from which the nearest token has to be found.

**Note**: the request must contain the authentication parameters usually containing company=<INSTANCE> The response has the following format:

```
{
    "found": true,
    "next_token": "150113-7,0"
}
```

The 'GET' request must not contain the 'token' and 'since' values at the same time. In this case an error response is returned. When the request contains neither the 'token' nor 'since' value, the current token is returned.

### 4.14.2 History API – Correct Error Message Returned for Missing Authentication Parameters

If a History API request was missing authentication data ('request\_auth\_basic' and 'company'), the error response contained 'PHP error' which did not explain the reason of the error. Now the response reads 'Authentication failed' which corresponds to the actual situation.

### 4.15 Data Migration

#### 4.15.1 Outbound Configuration Fields Validated Correctly

If only the 'User' and 'Password' fields were filled on the 'Outbound Configuration' screen and the 'Confirm Password' field was left empty, the system responded with two validation error messages: 'User or Password field is empty' and 'Password and Confirm Password do not match' (Figure 10). However, only the 'Password and Confirm Password do not match' message is applicable in such situation.

*Host / Port	in435.ua3 : 8000	
URL Path		
User	2	User or Password field is empty
Password	•	Password and Confirm Password do not match
Confirm Password		
Connection	Not encrypted	

Figure 10: Two validation error messages



As of version 15.2.2, if the 'Confirm Password' field is empty, only one error message is shown: 'Password and Confirm Password do not match'.

### 4.16 System

### 4.16.1 Inactive Work Zones Processed Correctly

Previously, a work zone key of an active work zone could not be added to an inactive work zone. However, a reversed situation was possible – a work zone key of an inactive work zone could be added to an active work zone. The inactive work zone could then be activated which resulted in two active work zones with the same key.

Work zones management has been improved. The same key can be added to an active and inactive work zone. However, at an attempt to activate the inactive work zone the following error message is displayed: 'Key XXX conflicts with key XXX of workzone YYY' (Figure 11). This means that the work zone key must be changed to a unique string for the work zone to be activated.

Edit work zone			
Edit work zone			
* Work zone name	Test		
* Work zone label	Test		
Status	Active \$		
Delimiter	new line +		
Travel Area	Sunrise Ente ÷		
Work Zone Keys	LONG		
Key LONG conflicts with key LONG of workzone LONGWOOD			
Cancel		Update	

Figure 11: Error message on conflicting work zone keys

### 4.16.2 Message Sending Interval Calculated Correctly

If the route and time of message sending were in different daylight saving time zones, the message sending interval was calculated incorrectly – it was shifted by one hour.

The message sending interval calculation has been improved. Now it is based on the time of the message sending. Therefore, there is no one hour shift any longer.



### 4.16.3 Visibility Settings No Longer Affect System Performance

If the visibility of a field, property or action link on any screen or window was set to depend on an activity string field present in the system by default (customer number, ZIP, address, etc.), the system could become temporarily unavailable when such screen or window was opened.

This issue has been resolved. Visibility settings dependent on activity string fields no longer affect system availability.

