

# **Activity Booking**

for



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### 1 Introduction

### 1.1 Document Overview

This document is intended as a description and user manual of Activity Booking – a new feature of Oracle Field Service Cloud to be used by technicians and other field personnel handling incoming orders from the customer on-site. It is assumed that the reader is familiar with the basics of Oracle Field Service Cloud (former ETAdirect) functionality and operating principles.

### 1.2 Scope of the Document

The document describes the Activity Booking functionality, its configuration, restrictions, and the work flow.

# 1.3 Basic Terms and Concepts

Below is the list of terms and concepts that may be mentioned in the document and will provide a better understanding of the functionality. Please note: The reader, hereinafter, may be addressed as "you".

Term	Description
Technician (Resource)	Person who performs work at the customer's premises (the one who provides the service)
Activity	Entity of the Oracle Field Service Cloud system that represents any time- consuming activity of the resource
User	Person using Oracle Field Service Cloud     Entity used for authentication and authorization, allowing people or external software to access Oracle Field Service Cloud
Resource	Element in the resource tree representing a defined company asset
Bucket	Entity appearing on the resource tree which can contain resources of a defined type and be assigned activities
Capacity Bucket	Bucket used for Quota management
Capacity	Workforce possessing the necessary work skills available at a certain moment of time
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)
ETA	Predicted time at which a resource will arrive at an appointment and start an activity, calculated dynamically from current and historical data
Group	Resource of the resource tree which represents a group of resources and cannot execute activities
Inventory	Equipment that can be installed or deinstalled during an activity
Quota	Number of minutes allocated by the company to perform activities of a



	specific capacity category within specific time period by resources of a specific bucket and date
Work skill	Activity that a resource is qualified to perform (resource property)     Qualification required to perform an activity (activity property)
Work zone	Defined geographical area in which a resource can perform an activity

# 2 Functionality Overview

Timing is a critical success factor in the today's business environment. However, it is not only the timely service delivery that matters, but it is also the timely order placement that makes it.

When a technician performs an activity on the customer's premises, the customer may inquire about the possibility to perform another job for them on a different day. In this case, it's important for the technician to 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 the site. Moreover, in order to book an activity, the technician should also have an ability to check the available capacity for that specific date and time.

In order to meet these compelling goals, 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.

Accessed via the Mobility Application the feature of Activity Booking allows a user to create a new activity in a specified capacity bucket and time slot, that will be then routed on a general basis.

**Note:** In order to be able to book an activity, there should be quota available in the selected capacity bucket on the selected date, time slot for a specific capacity category.

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 accepted only 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.

# 3 Booking Activity

The activity booking process ultimately comprises the three following stages:

- creating a new activity
- scheduling the created activity according to the selected date, time slot and capacity bucket
- capacity information update.

This document explains each of the steps in detail.



### 3.1 Creating New Booked Activity

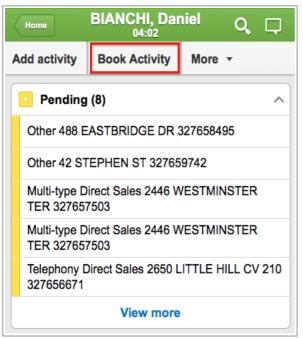
There are two ways to access the booking functionality in Oracle Field Service Cloud, both via the Mobility Application: from the action link on the 'Activity List' or from the 'Activity Details' screen of an existing activity.

**Note:** the 'Book Activity' action link has to be added on to the context layouts of the corresponding screens prior to using the functionality.

### 3.1.1 Creating Booked Activity from the Activity List

There is a specially designated 'Book Activity' action link located on the menu bar of the Mobility Application (Figure 1).

As the Booking feature is available only in the online mode, the action link will be disabled when the mobile device is offline (Figure 2).



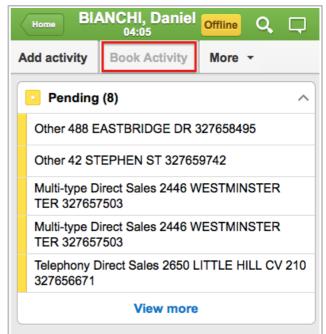


Figure 1: 'Book Activity' action link (online mode)

Figure 2: 'Book Activity' action link disabled offline

Tapping on the 'Book Activity' link in the online mode will open the 'Book Activity' screen (Figure 3) with a blank booking activity form.





Figure 3: 'Book activity' screen

In order for a new activity to be created, fill in the information about the activity and the customer, and click 'Next' to proceed with <u>scheduling</u> the activity.

- 'Dismiss' button will take you back to the 'Activity List' and the changes won't apply

- 'Activities' button in the top left corner of the form will also return you to the 'Activity List'.

All mandatory fields contained in the form (those marked with an asterisk) must be filled out for the activity to be created and booked. If at least one of those fields is left empty, the 'Validation failed, please review your form' error message will be shown (Figure 4).

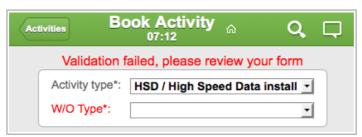
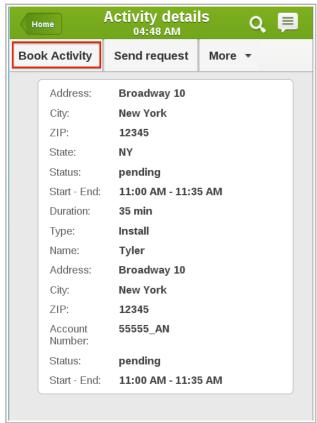


Figure 4: 'Validation failed, please review your form' error message

### 3.1.2 Creating Booked Activity with Predefined Activity Information

The 'Book Activity' link can also be accessed from the 'Activity Details' screen of an existing activity (Figure 5). In this case, fields of the original activity are used to fill the corresponding fields of the booking activity form. So, the 'Book activity' screen will show the form with activity information predefined (Figure 6).





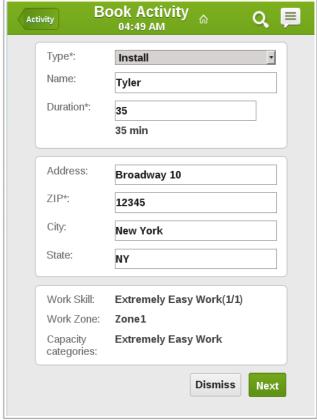


Figure 5: 'Book Activity' link in 'Activity Details' screen

Figure 6: 'Book Activity' form with predefined information

The predefined information in the 'Book Activity' form can be edited, if necessary.

Once all the particulars on the new activity are complete, proceed with <u>scheduling</u> that activity by tapping 'Next' in the bottom right of the screen.

- 'Next' button submits the form and forwards the user to the time slot selection

- 'Activity' button in the top left corner of the form will take you back to 'Activity Details'

Dismiss – 'Dismiss' button will take you back to 'Activity Details' and the changes won't apply.

# 3.2 Scheduling Booked Activity

When information on the new activity has been submitted, the user is forwarded to the 'Time Slot' screen, that will display capacity available for booking (Figure 7).

### Note:

- While the capacity information is being loaded, it might take some time for the 'Time Slot' screen to appear. In this case, the loading indicator will be displayed.
- If the data entered at the previous step (creating booked activity) is insufficient, capacity will not be calculated with a corresponding error message shown. For a detailed list of error messages, please, refer to the <u>'Error Messages'</u> section.



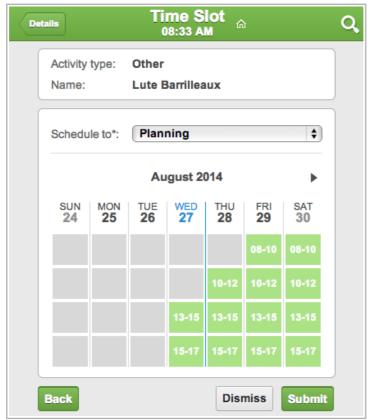


Figure 7: The 'Time slot' screen

The 'Time Slot' screen contains the activity information (there maybe several activity fields, depending on the context layout configuration), and the time slot selection widget, that allows to choose date, time slot, and a capacity bucket (if applicable) for the activity to be booked.

By design, activity fields and properties in the 'Time Slot' screen are always displayed in 'ReadOnly' mode, thus are not editable.

If there is more than one capacity bucket available for booking according to the provided activity details, the list of the capacity buckets will be shown as the drop-down list (Figure 8). In this case, capacity information (available time slots) will vary depending on the capacity bucket selected.



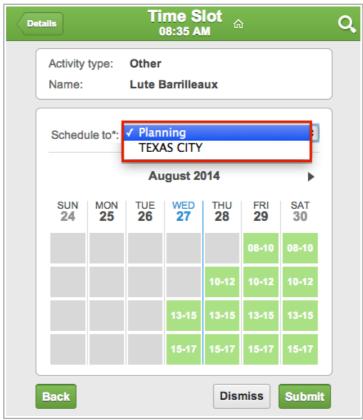


Figure 8: Choosing capacity bucket from the drop-down list

Time slot selection widget is designed as a weekly calendar, where the time slots available for booking are displayed in green, the rest – in grey.

The current date is highlighted in blue on the calendar grid.

The arrows will allow to navigate between the weeks. The arrows, however, will be shown only for those directions, for which there are time slots available. In other words, in case there are no more vacant time slots beyond the time frame currently displayed, navigation arrow(s) will be hidden.

### Note: The capacity information can be obtained for maximum 45 future days from the current day.

Dismiss' button will take you back to the 'Activity List' or 'Activity Details' (whichever is applicable), the changes don't apply

- 'Back' button will return you to 'Activity Details', with no changes applied

- 'Submit' will submit the form

- 'Details' button will take you to 'Activity Details'.

In order to schedule the activity, take the following steps:

- 1. Select a capacity bucket (if there is more than one capacity bucket available)
- 2. Select a suitable time slot for activity booking by tapping on a corresponding green block. Once



the time slot is selected, it will become highlighted (Figure 9).

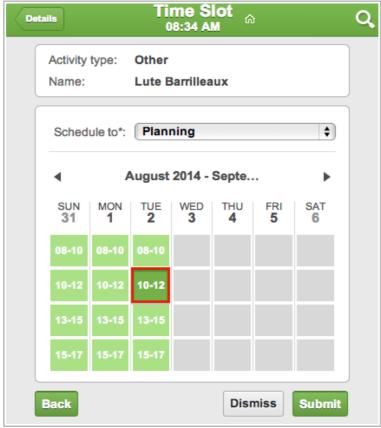


Figure 9: Selecting time slot for activity booking

In order to change the selection, just tap on another time slot of your choice.

Note: The design doesn't allow more than one time slot to be selected for booking an activity.

- 3. Once the time slot is selected, tap Submit for the activity to be scheduled.
- 4. The 'Activity has been booked' notification will appear to confirm that the activity has been successfully booked (Figure 10).



Figure 10: 'Activity has been booked' notification

In case you didn't select any time slot, the activity will not be booked with the corresponding 'Validation failed, please review your form. Time slot is not selected' error message shown (Figure 11).





Figure 11: Validation error in 'Time Slot' screen

# 3.3 Capacity Information Updates

As soon as an activity is booked, the capacity required for its performance is subtracted from the available capacity and added to the used capacity. The record of these capacity changes can be viewed in the 'Quota' screen of the Manage Application.

In order to check the value of the 'Used capacity', go to the 'Quota' screen, choose the capacity bucket and the date, which the activity has been booked for. The changes to the 'used capacity' will be recorded in the corresponding section for the booked time slot, and for the skill category according to the work order type of the booked activity (Figure 12, 13).

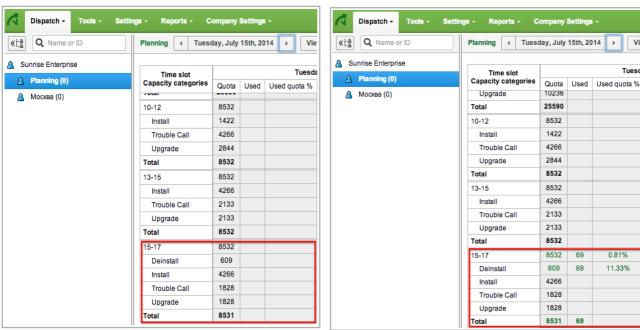


Figure 12: 'Quota' screen before booking an activity

Figure 13: 'Quota' screen after booking activity



# 4 Configuration

This section describes the most important parts of the system configuration to support the Activity Booking functionality.

Particularly, proper configuration of the booking context is critical to provide the most accurate and precise capacity calculation.

There are the two specially designated contexts in Oracle Field Service Cloud, namely:

- · Book new activity
- · Schedule booked activity

The following are the detailed instructions on how to configure them.

# 4.1 'Book new activity' Context

The 'Book new activity' context can be found in the list of Oracle Field Service Cloud contexts in Company Settings -> Displays-> Layouts.

Once the context is found, click 'Structure' to proceed with the set-up (Figure 14).

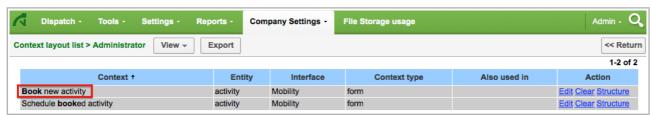


Figure 14: 'Book new activity' context

Clicking on 'Structure', you will be redirected to the 'Book new activity' layout structure table where the context can be compiled.

'Activity type' is one of the most critical fields on the 'Book new activity' context, because its settings affect quota and capacity management.

Therefore, the 'Activity Type' field (field label – 'aworktype') is always present on the context with the 'Mandatory' visibility. This field can't be deleted, neither its visibility can be modified (Figure 15).



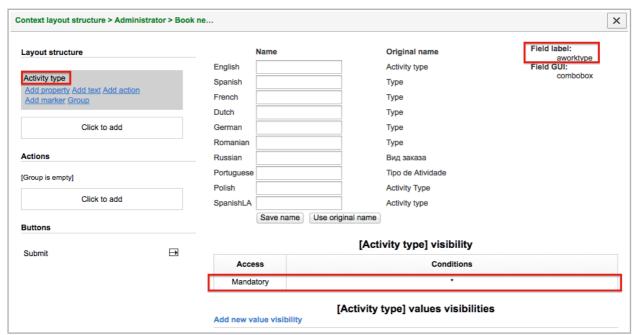


Figure 15: 'Book new activity' context layout structure

It is also necessary to determine what activity types will be used for booking according to given business objectives, and add them as new value visibilities to the '[Activity type] values visibilities' table (Figure 16).

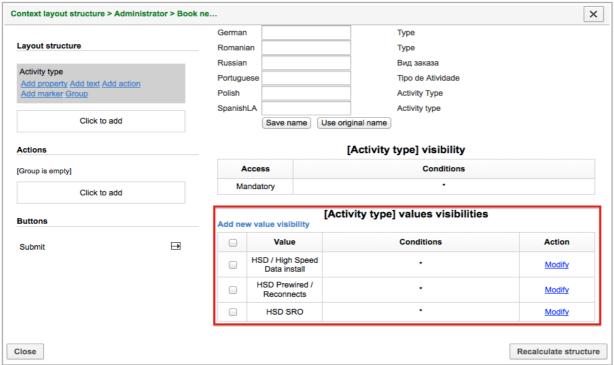


Figure 16: Adding value visibilities to Activity type

This way, only those activity types added to the list of value visibilities, will be made available for selection in the 'Book Activity' screen (Figure 17).



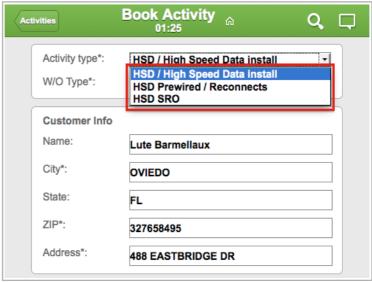


Figure 17: Drop-down list of activity types available for booking

Note: By design, the 'Book new activity' context may not contain either of the following:

- file fields and properties
- tabs
- 'Time Slot' field.

Hence, the possibility to add those elements to the context is not available.

# **4.1.1** Activity Type Constraints

The Activity Booking functionality applies a number of constraints related to certain activity type features.

Some of the features would determine whether at all an activity can be booked, while others would affect configuration of different properties on the context.

The list of activity type features can be found in 'Company Settings' ->'Activity Types' ->'Modify activity type'.

**Note:** The activity type constraints and conditions to be described in this section should be equally applied to all the activity types set available for booking, as shown above.

# 4.1.1.1 'Support of Time Slots'

'Support of time slots' feature must be enabled for an activity to be considered for booking. Therefore, make sure that this feature has been enabled for each activity type to be used in the booking process.

In order to do that go to 'Company Settings' ->'Activity Types' ->'Modify activity type' and check the corresponding checkbox in the 'Features' list (Figure 18).



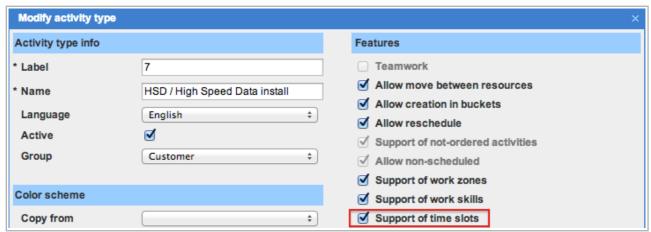


Figure 18: 'Modify activity type' popup

### 4.1.1.2 'Calculate travel'

If the 'Calculate travel' feature is enabled for the activities to be booked (Figure 19), then the capacity calculation will additionally consider all fields and properties in the 'Activity travel stats fields', added to the 'Selected' group ('Company Settings' ->'Statistics Parameters') (Figure 20).

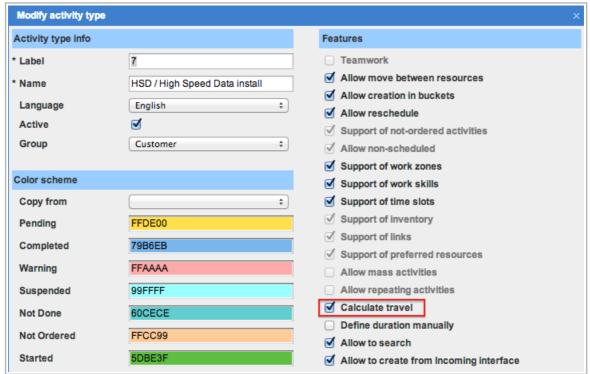


Figure 19: 'Calculate travel' check-box in the 'Modify activity type' popup





Figure 20: Selected 'Activity travel stats fields' in Statistics Parameters

Therefore, all of those 'Selected' fields and properties have to be added onto the 'Book new activity' context with the 'Mandatory' visibility.

### 4.1.1.3 'Define duration manually'

If the 'Define duration manually' feature is enabled for the activities to be used in booking (Figure 21), then the 'Duration' field has to be added onto the 'Book new activity' context with the 'Mandatory' visibility (Figure 22).

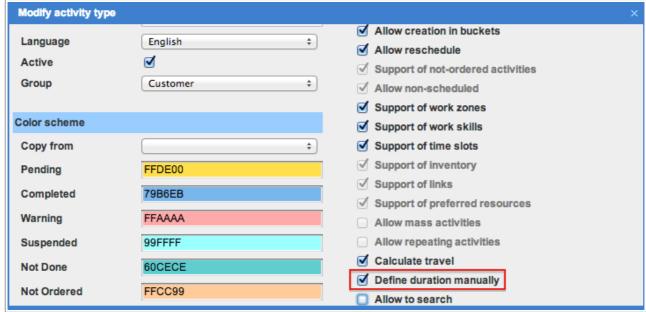


Figure 21: 'Define duration manually' check-box in the 'Modify activity type' popup



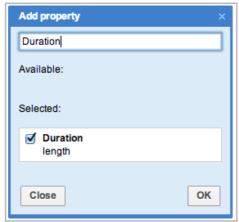


Figure 22: Adding 'Duration' property to context layout

If 'Define duration manually' is disabled, duration from statistics will be used for capacity calculations, instead of the manual input.

In this case, all those fields and properties in the 'Activity duration stats fields', which are added to the 'Selected' group, should be also added onto the 'Book new activity' context with the 'Mandatory' visibility (Figure 23).



Figure 23: Selected 'Activity duration stats fields' in Statistics Parameters

### 4.1.1.4 'Support of work zones'

If the work zones support has been enabled both, at the company level (Figure 24) and the activity level for the corresponding activity types (Figure 25), all fields from the work zone key (Company Settings -> Work Zone Dictionary) will be considered for capacity calculation (Figure 26).



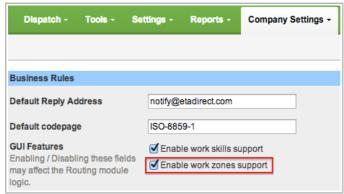


Figure 24: Support of work zones at the company level

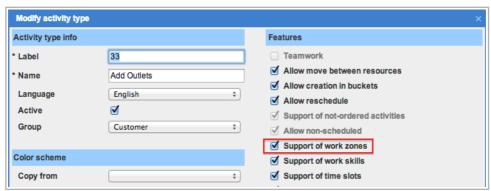


Figure 25: Support of work zones at the activity level



Figure 26: Work Zone Keys list

Therefore, those properties from the work zone key should be added to the 'Book new activity' context (with the 'Mandatory' visibility) as in the example shown below (Figure 27).



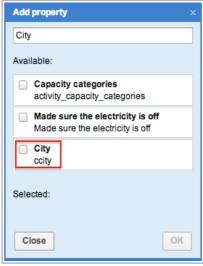
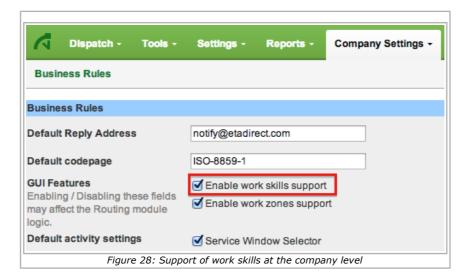


Figure 27: Adding property to context layout

# 4.1.1.5 'Support of work skills'

The work skills support must be enabled for booking activities. Therefore, you have to enable this feature both, at the company level (Figure 28), and the activity level for the corresponding activity types (Figure 29).

Moreover, all properties that define work skill conditions ('Company Settings' -> 'Work skill conditions' -> 'Modify') will be used in the capacity calculations (Figure 30). Therefore, those properties should also be added to the 'Book new activity' context (with the visibility set to 'Mandatory').





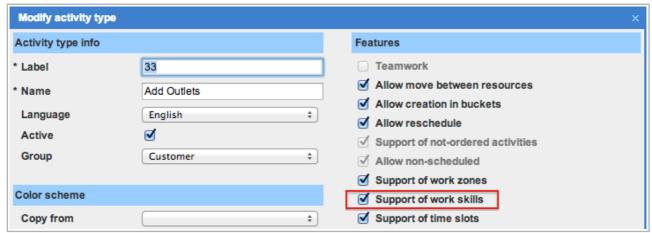


Figure 29: Support of work skills at the activity level

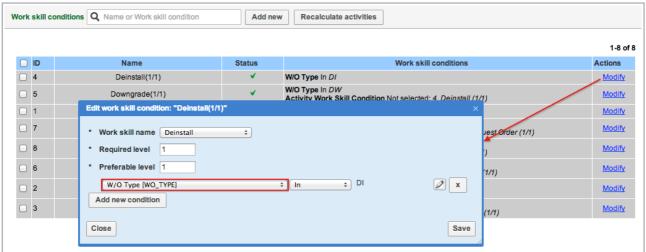


Figure 30: Work skill conditions list

Once the above mentioned configuration requirements have been met, any additional properties can be added to the 'Book new activity' context.

### 4.2 'Schedule booked activity' Context

The 'Schedule booked activity' context defines the layout of the 'Time Slot' screen.

While the time slot selection widget is preconfigured by the system and cannot be changed (Figure 31), all other details of the booked activity can be specified in the 'Schedule booked activity' context.



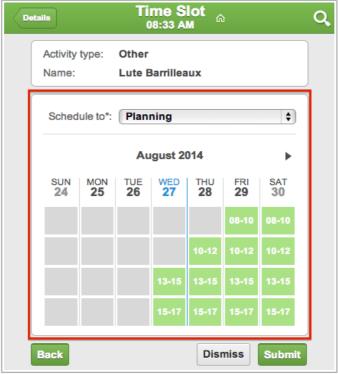


Figure 31: Time slot selection widget in 'Time Slot' screen

This can be achieved by adding any relevant fields and properties to the context.

**Note:** There are two restrictions that apply to the context configuration:

- When adding any activity or property to layout, 'read-only' visibility condition can be applied only
- Creating tabs is not possible on the 'Schedule booked activity' context, this operation is disabled by design

Otherwise, there are no special constraints, as opposed to the 'Book new activity' context.

The 'Schedule booked activity' context can be found in the list of Oracle Field Service Cloud contexts in Company Settings ->Displays->Layouts (Figure 32).



Figure 32: 'Schedule booked activity' context

For the detailed information on configuring context layout refer to section 4.1 'Book new activity' Context.

### 5 Error Messages

This section provides the list of possible errors and the corresponding messages the user may encounter



while booking activities.

# **5.1 Missing Context Error**

If at least one of the two contexts ('Book new activity', 'Schedule booked activity') has not been added to the system prior to using the Activity Booking functionality, the following error message will appear:

Form is misconfigured. Context layout missing

Depending on which context is missing, the error will be shown at an attempt to access the corresponding screen/screens.

#### 5.2 Validation Errors

If any of the mandatory fields is left empty on the booking activity contexts ('Book new activity', 'Schedule booked activity'), the validation error message will be shown on the screen:

Validation failed, please review your form

In case a time slot has not been selected on the 'Time Slot' screen, the activity will not be booked and the corresponding error message will be displayed:

Validation failed, please review your form. Time slot is not selected

# 5.3 Capacity Calculation Errors

Generally, the capacity will not be calculated in three cases:

- data entered at the previous step (creating booked activity) is insufficient
- certain system configuration has not been properly performed
- there is no available capacity, matching the activity parameters.

The following, is the list of possible error messages that may occur at the capacity calculation stage, i.e. after submitting information entered in the booking activity form:

- Work skills support disabled on the company level
- Work skills are not supported by this type of activity
- Capacity category cannot be determined using provided activity fields
- This activity type is inactive
- Work zone cannot be determined by provided activity fields
- Field/property required for work zone 'location' value calculation is missing
- Time slots are not supported by this type of activity
- Field/property required for the duration estimation is missing
- Field/property required for travel estimation is missing



- Found buckets do not have the required quota for booking this activity
- Unable to find appropriate quota bucket for this activity

