Oracle Field Service Cloud
Using Capacity Cloud Service
# Contents

**Preface**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Getting Started</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>About Capacity-Based Quota Management</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>About Capacity Components</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Configuring Capacity</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Setup Oracle Field Service Capacity Cloud Service for the First Time</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>About Work Skills and Work Skill Conditions</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>About Work Skills</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Work Skill Groups</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>About Work Skill Conditions</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>About Capacity Categories</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>About Time Slots</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>About Enabling Quota Management</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Configure Major and Critical Capacity Usage Settings</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Define Units of Measurement for the Quota</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Configure Quota Options</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>About Adjusting Available Capacity</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>Using Capacity based Quota</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Capacity-based Quota Management: Overview</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>View the Quota Matrix</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Change the Quota View</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Book Activities Using Available Capacity</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>View and Change Available Quota</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Manage Quota Limits for Booking Intervals</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Use Planned Capacity for Booking Activities</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>About Quota View Parameters</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Configure Capacity at Various Quota Levels</td>
<td>41</td>
</tr>
</tbody>
</table>
4 Managing Capacity and Quota

- About Capacity and Quota
- Compare Projected Quota to Actual Quota
- Identify the Changed Quota Values
- Close the Quota Manually
- Close the Booking Automatically
- Add Quota

5 Calculating Capacity and Quota

- Calculate Other Activities
- Multi-Day Activities Behavior in Quota Management
- Calculate Quota Using the Historical Data
- About Travel Time Estimation

6 Reporting Capacity and Quota

- About Reporting Capacity and Quota
Preface

This preface introduces information sources that can help you use the application and this guide.

Using Oracle Applications

To find guides for Oracle Applications, go to the Oracle Help Center.

Documentation Accessibility

For information about Oracle’s commitment to accessibility, visit the Oracle Accessibility Program website.
Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

Contacting Oracle

Access to Oracle Support
Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit My Oracle Support or visit Accessible Oracle Support if you are hearing impaired.

Comments and Suggestions
Please give us feedback about Oracle Applications Help and guides. Please take one of the following surveys:

- For web-based user guide, Web-based User Guide Survey
- For tutorial feedback, Tutorial Survey
1 Getting Started

About Capacity-Based Quota Management

OFSC Capacity lets you achieve an optimal resource utilization. Using this feature, you can plan the resource capacity in advance, forecast the resource allocation and identify where the quota is under-utilized or over-utilized.

Capacity Management: Manages the volume of your workforce. Capacity ensures that you have enough qualified resources to implement the expected amount and type of work.

Quota Management: Allocates work across the shifts and time slots for the available field resources.

In OFSC, you can manage quota and capacity in the capacity management matrix. The quota matrix is generated with the real-time data based upon your company's requirements.

You can update quota values to meet your business needs using either time-slot based or time-interval based (availability-based) quota management.

About Capacity Components

Oracle Field Service Capacity Cloud Service uses several core Oracle Field Service Cloud components. These components work together to provide efficient capacity management details.

Following are the important capacity components:

- **Workskills**: A client-specific set of skills assigned to the resources to determine their skill sets and the qualification level within each skill set.
- **Work Skill Conditions**: A set of rules defined to assign required work skills and work skill levels to the activities.
- **Capacity Categories**: A group of activities with similar work skill requirements. These are used for the quota management purpose.
- **Time Slots**: The amount of quota reserved for a capacity category at a specific time of the day. Time slots are associated with the buckets and individual capacity categories that are used to manage the capacity management grid. Time slots are also used to manage the activities.
- **Time Intervals**: Defines the configured time intervals for booking activities. This value is used to show available capacity, max available resources, and the value for Booking Status time intervals.

When all these components are configured correctly, you can define quota for various capacity categories and time slot combinations.
2 Configuring Capacity

Setup Oracle Field Service Capacity Cloud Service for the First Time

First time users need to complete the tasks in the following list, and familiarize yourself with different user interfaces and basic navigation. The structure of this guide speeds up your implementation by providing a direct link to each core setup task.

Use the following procedure to access the setup tasks:

- Create work skills: A work skill is the common language to match activities with the qualified resources. See Create a Work Skill for details.
- Assign work skills and work skill levels to the resources: You must assign the work skills to the resources based upon their skill sets. Use work skill levels to define expertise level of the resource. See the Oracle Field Service Core Manage Cloud Service User Guide for details.
- Create work skill conditions: Work skill conditions are used to automatically assign work skills and work skill levels to the activities. See Create a Work Skill Condition for details.
- Create capacity categories: You can allocate quota to an activity type for a given time slot, using capacity categories. You need to create a capacity category for each activity type that the resource performs. For example, you can create a capacity category for installation, one for un-installing, one for upgrades, and one for Trouble Calls. See Create a Capacity Category for details.
- Create time slots: Control the amount of quota reserved for a certain capacity category at a particular time of the day. Time slots are also used for activity management. See Create a Time Slot for details.
- Define Time Intervals: See Define Time Intervals for Booking Activities.
- Enable Quota Management: You must enable this feature on the buckets to manage the quota. See Enable quota management at the bucket level for details.
- Configure Quota Options: See Configure Quota Options.
- Configure major and critical capacity usage: Manage the color schema settings whenever the used capacity reaches major or critical levels in the quota matrix. See Configure Major and Critical Capacity Usage for details.
- Define the units of measurement for Quota: Choose the units of measurement to display Quota/Used values. See Define Units of Measurement for Quota for details.
- Adjust available capacity: Recalculate the quota defined as a percentage of capacity regularly to manage resource allocation changes, work skills and other variables. See About Adjusting Available Capacity.

About Work Skills and Work Skill Conditions

Work skills and work skill conditions lets OFSC Capacity to identify efficient resources that can perform the activities with the work skills as a common language. You can use this information to associate resources with the activities and assign the user-defined tasks to the appropriate person or group of people quickly and efficiently during the routing process.
About Work Skills

Work skill is the job-specific skills necessary to perform an activity. These act as a defining criteria to match activities with the resources.

The Work Skills feature lets you to capture the task attributes to assign the work. Work skills identifies the following attributes:

- The expertise of a resource
- The expertise required to perform an activity

You must create the work skills and then assign them to the resources and work skill conditions.

Create a Work Skill

OFSC associates resources with the activities through shared work skills.

You must create a work skill first and then assign it to the resources and the work skill conditions.

   The work skill option is enabled.

2. Click Configuration > Work Skills.
   The Work Skills screen displays.

3. Click Add New.
   The Add Work Skill window displays.

4. Configure the following values:
   - **Name**: Type a descriptive name for the work skill. For example, New Install, Video, or Outage. Select at least one language.
   - **Label**: Type a unique code that is a short version of the work skill name.
   - **Important**: Use only alphabetical characters. Do not use numbers.

   - **Sharing of the skill in teamwork**: Select the level of sharing allowed for the teamwork.

   - **Active**: Select the status as Active by selecting this check box. Only the active work skills can be assigned to the resources and activities, or capacity categories. OFSC Routing process uses active work skills to match activities with the resources. Inactive work skills are not considered in any assignment decisions.

5. Click Save.
   The work skill is created.
Delete, Activate, or Deactivate a Work Skill

You cannot delete a work skill that is currently assigned to at least one resource. You can set the active/de-active status at any time.

1. Click Configuration, Work Skills.
   The Work Skills screen appears.
2. Select the check box next to the work skill that you want to delete, activate, or deactivate.
3. Click Delete, Activate, or Deactivate.
4. Click OK.

Example: Assigning Work Skills to the Activities

Activity assignment is the process of selecting a resource and executing the association with an activity.

Assigning activities are based upon:
- Identifying the work skills
- Identifying the work skill conditions
- Mapping/Routing activities with the resources

In the following example, we use a work skill condition with the following requirements to map an incoming activity with the resource.

Work skills requirements:
- A work skill type ‘Install’: The activity must have a skill type ‘Install’ to receive the work skills in this work skill condition.
- A required level ‘50’: The activity must have a minimum work skill level 50 for the work skill.
- A preferable level ‘70’: OFSC prioritizes this activity to be routed early in the routing process so that the more experienced resources are available. Preferable levels are on a scale of 0 to 100.

Work skill conditions:
- A condition that the activity has a work order type ‘Install’: The incoming activity must have a work order type ‘Install’.
- A condition that the activity requires VIP service: The activity must have the “VIP” note in the activity notes sections.

Mapping and Routing process:
1. The customer service representative schedules an installation activity in the activity booking system. The activity booking system assigns a work order type ‘Install’ to the activity. It also adds an activity note ‘VIP’ because this customer is a preferred customer.
2. OFSC receives the activity from the activity booking system.
3. OFSC identifies the work order type and the activity note and then maps the activity with the work skill conditions.
4. OFSC reviews the rest of the work skill conditions for the apt resource assignment. In addition to the VIP requirement, this work skill condition also needs a required level ‘50’ and a preferable level ‘70’.
5. During the routing process, OFSC routes this activity early because the preferable level is high. This ensures finding a highly skilled resource.
6. OFSC looks for the resources that have the work skill condition as ‘VIP’ and retrieves several resources.

7. OFSC checks the list of available VIP-qualified resources that has a minimum work skill level for the install work skill as ‘50’.

8. OFSC finds two available resources with a skill level of at least 50. Raul has a work skill level for Installs as ‘75’ and Serena has a work skill level for installs as ‘55’.

9. OFSC assigns the activity to Raul as his skill level is the closest match to the preferable level. Raul also has the VIP qualification and is available during the service window. He is the best match for this activity.

Modify an Existing Work Skill

Update the work skills of a resource along with the assignment periods and work skill ratios. You can also delete the work skills of a resource.

1. Click **Configuration > Work Skills**
   The **Work Skills** screen displays.

2. Click **Modify** next to the work skill you want to edit.
   The **Edit Work Skill** window displays with all fields pre-populated with existing information.

3. Update the necessary changes.

4. Click **Save**.

Activate, Deactivate, or Delete a Work Skill

You cannot delete a work skill assigned to at least one resource. You can set the active/inactive status at any time.

1. Click **Configuration > Work Skills**
   The **Work Skills** screen displays.

2. Select the check box next to the work skills you wish to delete, activate, or deactivate.

3. Click **Delete**, **Activate**, or **Deactivate**.

4. Click **OK**.

Work Skill Groups

Create a Work Skill Group

You can bundle selected work skills into work skill groups to create greater ease and flexibility in assigning skills to the resources. You can continue to assign individual work skills along with work skill groups, creating a more accurate resource work skill record. Work skill groups must also be defined to be used for capacity categories, if different work skills must consume quota from a single capacity category.

1. Click **Configuration > Work Skills**.

2. Click **Work skill groups**.
   The **Work skill groups** screen appears.

3. Click **Add new**.
The **Add work skill group** window appears.

4. Complete the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter the work skill group name. If you have set multiple languages for the application, input boxes appear for the different languages.</td>
</tr>
<tr>
<td>Label</td>
<td>Enter a unique identifier for this work skill group.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the check box to make this work skill group active.</td>
</tr>
<tr>
<td>Can be assigned to a resource</td>
<td>Select the check box if you want the work skill group to be able to be assigned to a resource record. If a group is assigned to a resource, then that the resource obtains all the work skills defined for the group.</td>
</tr>
<tr>
<td>Can be added to a capacity category</td>
<td>Select the check box if you want the work skill group to be able to be assigned to a capacity category. If a capacity category contains a group of work skills, then an activity is considered a match to the category if it &quot;requires&quot; at least one of work skills from the group.</td>
</tr>
</tbody>
</table>

5. Click **Save**.

The **Work skill groups** screen appears.

6. Click the pencil icon in the **Work Skills** cell to add work skills and their qualification level.

The **Edit work skill** window appears.

7. Click to select the work skill and activate the Qualification Level field.

8. Click **Save** when done.

9. To modify a work skill group, click the **Name** cell.

The **Edit work skill group: [Work skill group name]** window appears, which is similar to the **Add work skill group** window.

Delete a Work Skill Group

You can delete a work skill group which is not in use anymore.

1. Click **Configuration > Work Skills**.
2. Click **Work skill groups**.

The **Work skill groups** screen appears.

3. Select the check box next to the work skill group that you want to delete.
4. Click **Delete**.
5. Click **OK**.

About Work Skill Conditions

To ensure that a resource is able to perform the activities assigned, a correlation is made between incoming activity’s skill requirements and the skill set of the resource. The Work skill functionality is what that correlation is based on. Work skills are set up first, and then are assigned to resource records, with the appropriate levels of qualification set.
Work Skill Conditions defines which work skills are assigned to the activities. Each work skill has at least one condition that refers to a specific field and value in the incoming activity record.

Related Topics

- Create a Work Skill Condition
- Modify a Work Skill Condition
- Delete a Work Skill Condition

Create a Work Skill Condition

OFSC uses the work skill conditions to assign work skills to the activities and then maps these activities with the qualified resources.

1. Click **Configuration > Work Skill** and then click the **Work Skill Conditions** tab.
   
   The **Work skill conditions** screen displays.

2. Click **Add New**.

   The **Add work skill condition** window displays.

3. Enter the appropriate information in the following fields:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work skill name</td>
<td>Select the work skill name that is easy to understand and that differentiates it from other work skills.</td>
</tr>
<tr>
<td>Required Level</td>
<td>Enter the minimum work skill level required. Valid values are 1 – 100. Resources must have the work skill levels equal or greater than the required level to be considered for the activity assignment. OFSC uses this value to eliminate resources that do not have the required work skill level to perform an activity.</td>
</tr>
<tr>
<td>Preferable Level</td>
<td>Enter the routing priority. Valid values are 1 – 100. Activities that have a work skill condition with a higher preferable level are routed first so that a resource with higher work skill level is matched. For best results, assign a higher preferable level to an activity that requires advanced skills or skills that are difficult to find. This strategy ensures that the activity is staffed from a large pool of resources.</td>
</tr>
<tr>
<td>Add New Condition</td>
<td>Click this button to add additional conditions to the work skill.</td>
</tr>
</tbody>
</table>

Once you create a work skill, you must assign it to the resources and work skill conditions.

Modify a Work Skill Condition

Update the work skill conditions as and when you want.

1. Click **Configuration > Work Skill** and then click the **Work Skill Conditions** tab.
   
   The **Work skill conditions** screen displays.

2. Click **Modify**.

   The **Edit work skill condition** window opens.
3. Edit the work skill condition.

**Important:** Once you create, modify, or delete a work skill condition, OFSC recalculates the activities automatically. Recalculation is done asynchronously and when the recalculation is in progress, the system displays a message as Applying changes.

4. Click **Save**.

The work skill condition is updated with the changes.

## Delete a Work Skill Condition

When you no longer need a work skill condition, delete it.

1. Click **Configuration > Work Skill** and then click the **Work Skill Conditions** tab.

   The **Work skill conditions** screen appears.

2. Select the work skill check box and click **Delete**.

   A **Confirm** message appears asking if you wish to proceed.

3. Click **OK**.

   A message appears that the work skill condition is deleted.

## About Capacity Categories

A Capacity Category is a predefined set of work skills and/or work skill groups and time slots visible to a user who is booking the activities for the customers.

Based on the number of minutes available (Capacity = Initial Quota allocation minus used minutes), the user decides if enough time is available within a time slot to realistically promise a specific service window to the customer. This information is sent to the CSR via Capacity API. Capacity Categories are visible only if you are using the Oracle Field Service Cloud Capacity Cloud Service module.

**Note:** The **Used Minutes** value is calculated based on the exact time (in minutes) from start to end of a working day.

You must enable the Capacity Categories visibility profile permission for each user to access the Capacity Categories window:

- **Read-Only:** Select this option to display capacity categories in a view only mode.
- **Read/Write:** Select this option to let the user manage Capacity Categories in Oracle Field Service Cloud.

If the permissions are not configured for a user type, the activity types will not be visible to the users. Oracle Field Service Cloud maps the work skills to assign incoming activities to the resources. In general, many companies define quota for a work skill group rather than for an individual work skill. For example, separate skills are required for installation, un-installing and maintenance of modems, but from a scheduling perspective, quota is defined for all the modem-related works group.

A capacity category can also consist of a single work skill and the minimum required level of the skill level. For example, a category can be created for all the customer-oriented work and a separate group for VIP customers or for highly difficult
Create a Capacity Category

Create a capacity category to configure work skills, work skill groups and time slots.

1. Click **Configuration > Capacity Categories**.
   The **Capacity categories** screen appears.

2. Click **Add New**.
   The **Add Capacity category** window appears.

3. Enter the appropriate information in the following fields:
   The following table describes the fields available on the **Add Capacity category** screen.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter the name of the capacity category. The name is displayed in the list and in the quota matrix. If the application is configured for multiple languages, input boxes will appear for each language.</td>
</tr>
<tr>
<td>Label</td>
<td>Specify a label. It is used in the context of APIs and it must conform to a standard naming convention.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the <strong>Active</strong> check box to mark this capacity category as active. Only active capacity categories are used in the quota matrix.</td>
</tr>
</tbody>
</table>

4. Click **Save**.
   Once you create the capacity category, you must add work skills, work skill groups and time slots to the category.

Modify a Capacity Category

Edit an existing capacity category as and when you need.

1. Click **Configuration > Capacity Categories**.
   The **Capacity categories** screen appears.

2. Select the check box next to the capacity category that you want to change.

3. Click the pencil icon in the **Name** column.
   The **Edit Capacity Categories** window appears.

4. Change the fields that you wish to edit.

5. Click **Save**.

Delete a Capacity Category

Delete a capacity category when you no longer need it.

1. Click **Configuration > Capacity Categories**.

   The two categories would contain the same work skills but the minimal qualification level in the VIP group is higher. Because of the categories and the multi-skill functionality, the same activity can match several rows in the Quota table and can be added to the Used capacity several times. The duration of this activity will be taken into account for all the capacity categories it matches.
The Capacity categories screen appears.

2. Select the check boxes next to the capacity categories that you want to delete.
3. Click Delete.
4. Click OK.

The selected capacity categories are deleted.

Add Work Skills and Work Skill Groups to a Capacity Category

Once you create the capacity category, assign the work skills and work skill groups to it.

1. Click Configuration > Capacity Categories.
   The Capacity categories page opens.
2. Click the pencil icon to open the Edit work skills dialog box.
3. Select the work skills and work skill groups that you want to include in the category.
   The work skill groups will have square brackets [ ] around the names.
4. Optionally, type the work skill levels in the right-hand side field.
   Work skill levels assigned are used to limit the capacity categories to the activities that require a certain work skill level. For example, you might create two capacity categories for installations, one for simple installation and one for complex installation. Both the capacity categories require the installation work skill, but the work skill level for the installation work skill will be lower for simple installation than it would be for the complex installation.
5. Click Save.

Note: When you create multiple capacity categories that share some of the same work skills, then Oracle Field Service Cloud treats all of those work skills as one. When an activity is assigned to the work skills, Oracle Field Service Cloud consumes the minutes used from all the capacity categories sharing that work skill.

Define Capacity Categories for a Resource

Define capacity categories for a resource to calculate the maximum available capacity at a capacity category level.

Resources are assigned with certain work skills at a respective level. Capacity categories include the work skills or work skill groups to which the minimum required level is defined. A resource is then matched with a capacity category if their work skills are equal or greater than those defined for the capacity category. If a capacity category is assigned with the work skill groups, a resource with at least one of the work skills matching with the group is allotted.

When no work skills are assigned, a capacity category includes all the activities with no specific work skills. Such activities can be assigned to any resource having any work skills, therefore, to all resources in the system. Resources with no work skills defined (effectively, having all work skills at the highest level) is matched with all the capacity categories in the system.

Resource work skills can be viewed in the Resource Info screen or resource hint.
Capacity categories of a resource is recalculated automatically when the:

- Application server starts
- Resource cache reloads
- Resource work skill is modified

### About Time Slots

A **time slot** is a fixed time interval specified in the activity management to perform activities.

Time slot of an activity type denotes its starting time. Time slots assigned to a bucket in the capacity management defines the time frame to assign quota and calculate capacity.

Time slots are found under **Configuration** in the **Resources, Activities and Inventories** section in the **Configuration** menu.

**Related Topics**

- Create a Time Slot
- Modify a Time Slot
- Activate or Deactivate Time Slots

### Create a Time Slot

Time slot is a fixed time interval with start and end time of an activity.

1. Click **Configuration > Time Slots**
   
   The **Time slots** page opens.
2. Click **Add New**.  
The **Add time slot** window opens

3. Complete each field as needed using the following list:
   - **Name**: Using start time – end time format (for example 8-10), name the time slot.
   - **Time slot label**: Enter the specific label name for the time slot.
   - **Status**: Select **Active** or **Inactive** status from the drop-down. OFSC assigns activities, and capacity management to active time slots only. A check mark indicates that the time slot is active.
   - **All-day time slot**: Check the box if you want the time slot to last for the entire day.
   - **Time from**: Enter the time to indicate when the time slot begins.
   - **Time to**: Enter the time when the time slot ends.
   - **Capacity Categories**: Use the check boxes to add activity types and work skill types.

4. Click **Add**.

**Modify a Time Slot**

You can add or remove the activities and work skill types from a time slot.

1. Click **Configuration > Time Slots**  
The **Time slots** page opens.

2. Click **Modify** in the row of the time slot that you want to modify.  
The **Edit time slot** screen displays.

3. Change the values and then click **Update**.

**Activate or Deactivate Time Slots**

Activate a **time slot** to make it available for use in other areas of the system. You can also deactivate a time slot to hide it from all other areas in the system.

1. Click **Configuration > Time Slots**  
The **Time slots** page opens.

2. Check the box next to the time slot or that you want to activate.

3. Click either **Activate** or **Deactivate**.  
The selected action is performed.

**Define Time Intervals for Booking Activities**

The **Time Intervals** field in the **Business Rules, Quota Management** section lets you configure time intervals for booking activities. For example, instead of having a fixed timeslot from 8.00 am to 10 am, you can define a timeslot from 8.15 am to 10.30 am.
Time intervals let you overcome the following problems related to activity timeslots:

- **Overlapping timeslots**: Effectively manage quota relative to the available capacity when there are overlapping timeslots. For example, consider the timeslots, 8 to 5 PM and 8 to 12 AM for the capacity category, Install and assume that there are many bookings in the respective timeslots. This caused addition of excessive quota relative to the available capacity.
- **Available quota relative to the activity duration**: Quota is unused because the available quota is not enough to book an activity. For example, the activity duration is 45 minutes and there is 30 minutes left in the 8-10 time-slot.
- **Manage quota and capacity for SLA and time-slot based activities**: For example, you can schedule an Install activity for a day on a time-slot basis. However, a Troubleshooting activity is a SLA-based activity and can span across multiple days.

The time interval set consists of time intervals delimited with a comma (","). Time intervals within the time interval set cannot have a common time period but can have a “point-in-time” time interval (that is, exactly at hh (hours) mm (minutes)).

By default, the following time intervals are set:

- **Before 08 am** represents the period of time from start of the day (12 am) till 08 am.
- **08 am** represents point in time (that is, exactly at 08 am).
- **08 am-12 pm** represents the period of time from 08 am till 12 pm.
- **12 pm-6pm** represents the period of time from 12 pm till 6pm.
- **After 06 pm** represents the period of time from 06 pm till the end of the day.

**Note**: The field defaults to All Day if no value is entered in the Business Rules, Quota Management section. Also, you can define intervals for overnight settings (represents the time interval from midnight or ending after midnight). For example, the time interval, 06 pm – 1 am +1 represents the time after 6 pm in the evening till 1 am in the morning of the next day.

To define a time interval:

1. **Add a company time interval:**
   a. Select Configuration, Business Rules.
   b. Scroll down to the Quota management section.
   c. Click the Edit icon.
   d. Click the Plus icon in the Time Intervals window.
   e. Select Hours and Minutes from the From and To drop-down lists in the Add New Time Interval window.
   f. Click Add.
   The selected time intervals display in the Time Intervals section.
   g. Click Save.
   The time intervals display in the Configuration, Available Capacity, and Booking Status pages.

2. **Modify a bucket level time interval to configure time intervals at the bucket level:**
   a. Select Quota,Configuration from the View drop-down list.
   The Quota Settings section displays.
   b. Select the bucket that you want to modify.
   c. Repeat steps c to f from Step 1 to define time intervals.
   d. Click Save.
Add Time Slots to a Capacity Category

Once you create a capacity category, define the time slots in which it needs to be used.

1. Click **Configuration > Capacity Categories**.  
   The **Capacity Categories** page opens.

2. Hover over the **Time Slot** column of the capacity category.
   The Pencil icon appears.

3. Click the Pencil icon to open the **Edit time slot** screen.

4. Select the time slots that you want to assign it to this capacity category.

5. Click **Save**.

About Enabling Quota Management

You must enable quota management in every bucket in Oracle Field Service Cloud to calculate the capacity.

Enabling quota lets you to manually or automatically adjust quota for a current day, a future date or a range of days, based on the available time and resources in a bucket.

If a bucket is not enabled for quota management, the bucket items are not included in the quota matrix.

> **Note:** Forecasted data is available only for the quota enabled bucket. If the user clicks a group/parent resource, the following message is shown: Select a Quota Management enabled Bucket. By default, the first available bucket in the tree is loaded.

Tracking only a selected group of available and active work skills and work skill groups does not affect the ability to book all the activity types.

Enable Quota Management at a Bucket Level

Quota management can only be enabled at a bucket level.

> **Note:** Forecasted data is available only for the quota enabled bucket. If the user clicks a group/parent resource, the following message is shown: Select a Quota Management enabled Bucket. By default, the first available bucket in the tree is loaded.

You can manage quota for a:

- **Region:** Create a group for all the resources of a specific region and then create a bucket inside that group to use it for the quota management.
- **Workforce:** Create a single bucket for the entire workforce and then divide the workforce into various groups within the bucket.

The bucket structure looks like this:
Quota of a group or a bucket with the “child” capacity areas display the sum of quota of all the child buckets. You cannot edit quota at the aggregate level.

To enable quota management at a bucket level:

1. Select **Quota**.
2. Select a capacity area.
3. Select **Resource Info**.

   The **Resource Info** page for the selected area displays.

4. Select the **Use as Capacity Area** check box.

   > **Note:** It is recommended to select this check box for the bucket or Group resource types and not for resources.

   The quota Management feature is enabled for this bucket. You can now add the management information to your quota matrix.

5. Under **Quota Management** section, configure the following features:
   - **Time Slots:** Click the Pencil icon and add time slots to this bucket.

   > **Note:** If you have configured time-interval (availability) based booking, then you do not need to add time-slots.

   - **Capacity Categories:** Click the Pencil icon to define the capacity category types.

6. Click **OK**.
Configure Major and Critical Capacity Usage Settings

When the used capacity reaches major or critical usage levels, it displays in a different color code on the quota matrix. Using this feature, you can change the major and critical capacity settings.

1. Navigate to Configuration > Display.
2. Go to Quota Settings section.

3. Enter the Major Capacity Usage and Critical Capacity Usage values.
4. Select the Enable Plan column that shows data set in Forecasting check box if you wish to display plan column with the quota set up in the forecasting.

The default color settings:

- If the used capacity is less than the major capacity usage, capacity is shown in green color.
- If the used capacity is more than the major capacity usage but less than the critical capacity usage, capacity is shown in brown color.
- If the used capacity is more than the critical capacity usage but less than the Quota value, capacity is shown in orange color.
- If the used capacity is more than the Quota value, capacity is shown in red color.

Define Units of Measurement for the Quota

You can choose the units of measurement to display the quota and capacity values.

The three possible options are:

- Hours
• Man-days
• Minutes

Internally, all the values are calculated in minutes only, and are converted to the selected unit and the corresponding value is displayed in the Quota View.

When man-days is selected as the unit of measurement, the **Number of hours per man day is** field appears where the correlation between man-days and hours can be defined. This parameter is used to convert man-hours into minutes.

To define units of measurement for quota and capacity values:

1. Go to **Configuration > Business Rules**
2. Go to the **Quota management** section.
3. Select the **Quota and available capacity are defined in** option from the drop-down list. There are three possible options – hours, man-days and minutes.
4. Enter the values for the **Max available and Other activities parameters are automatically recalculated every in minutes** and select the **Corresponding quota values are automatically adjusted starting from** option from the drop-down list.
5. Click **Save**.

## Configure Quota Options

The Configuration page lets you configure the quota management settings.

Select the **Time slot based quota** check box to view the Time slot based quota settings section and configure the required settings.

1. Select **Quota**.
2. Select a capacity area from the left-hand pane.
3. Click the **Configuration** icon.

The Configuration page for the selected bucket displays.

The following configuration parameters display on the Configuration page:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity management</td>
<td></td>
</tr>
<tr>
<td>Capacity category</td>
<td>Defines a list of capacity categories that you want to use for the capacity area (that is, capacity area).</td>
</tr>
</tbody>
</table>

**Note:** The list is automatically synchronized between the connected capacity category and capacity area using the Resource Info page.

<table>
<thead>
<tr>
<th>Unit of working time plans</th>
<th>Select one of the following options to define the column in which you want to display the planned values in the Available Capacity screen:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- hours</td>
</tr>
<tr>
<td></td>
<td>- The planned amount of working time is displayed in hours in the Capacity column.</td>
</tr>
</tbody>
</table>

**ORACLE**
Note: The Hours, Minutes, or Man-days option displays based on the option selected from the Measurement units for Quota and Available Capacity drop-down list in the Business Rules page.

- resources
  - The planned amount of resources are displayed in the Resources column.

Bookings

**Available Time Slots**
- Defines the time-slots where quota is managed.

  Note: The list is automatically synchronized between the connected capacity area and capacity area using the Resource Info page.

- Allow to close booking on work zone level
  - Defines whether booking can be closed on a particular work zone level.

- Manage quota as
  - Booking Interval based
    - Defines a list of time intervals to be used to manage booking.

  Note: The default values are automatically synchronized with the Business Rules time intervals. You can adjust the values for the individual bucket.

Note: During upgrade, if you select available capacity based quota management, then the application migrates to Booking Intervals based quota with either quota in absolute time units or quota in percent of available capacity (depends on the quota by day settings).

To change the number of hours per day (used to recalculate working time plans or number of resources) to Max Available (hours/minutes) or vice versa, navigate to Business Rules page, select “man-days” in the Measurement units for Quota and Available Capacity field and change the value of number of hours per man-day.

**Quota by Day section**
- The following options are displayed when you select the Booking Interval based option:

  - Enter quota as % of capacity available by calendar for next days and switch to the plans
    - Select the Enter quota as % of capacity available by calendar and enter the number of days in the next days and switch to the plans field to use the available capacity for a specified number of days and switch to planned capacity after the specified days.

  - Quota is entered as % of capacity available by calendar
    - Select this option to use available capacity for booking.

  - Quota is entered as % of working time plans
    - Select this option to use planned capacity for booking.

  - Quota is entered in minutes
    - Select this option to enter quota values in minutes.

  - Reduce quota by volume of activities not assigned to any capacity category
    - Select this option to reduce quota by volume of activities not assigned to any capacity category.

**Quota by Capacity Category section**

- Quota is entered as % of maximum capacity available in this category
  - If this option is enabled, the quota is defined as % of capacity available by calendar in this capacity category.

- Quota is entered in minutes
  - If this option is enabled, the quota is defined as a number of minutes available for a day.
<table>
<thead>
<tr>
<th>Time slot based</th>
<th>This enables or disables the time-slot based quota functionality for a given capacity area.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Note:</strong> This option is enabled for all the capacity areas or areas that were configured prior to 17.2.</td>
</tr>
<tr>
<td>Quota management</td>
<td></td>
</tr>
<tr>
<td>Quota definition level</td>
<td>Defines how quota is managed.</td>
</tr>
<tr>
<td>Quota by day</td>
<td>Defines how quota is entered by day.</td>
</tr>
<tr>
<td>o Quota is entered in minutes</td>
<td></td>
</tr>
<tr>
<td>o Quota is entered as % of capacity available by calendar including other activities</td>
<td></td>
</tr>
<tr>
<td>o Quota is entered as % of capacity available by calendar including other activities</td>
<td></td>
</tr>
<tr>
<td>Quota by capacity category</td>
<td>Defines how quota is entered by capacity category.</td>
</tr>
<tr>
<td>o Quota is entered in minutes</td>
<td></td>
</tr>
<tr>
<td>o Quota is entered as % of maximum capacity available in this category</td>
<td></td>
</tr>
<tr>
<td>o Quota is entered as % of quota defined on parent level</td>
<td></td>
</tr>
<tr>
<td>Quota by day</td>
<td>Quota is entered in minutes If this option is enabled, the quota is defined as a number of minutes available for this day.</td>
</tr>
<tr>
<td>Quota is entered as % of capacity available by calendar</td>
<td>If this option is enabled, the quota is defined as % of daily capacity available by calendar.</td>
</tr>
<tr>
<td>Quota is entered as % of capacity available by calendar excluding other activities</td>
<td>If this option is enabled, the quota is defined as % of daily capacity available by calendar excluding &quot;Other activities&quot;.</td>
</tr>
<tr>
<td><strong>Note:</strong> The system always calculates &quot;Other activities&quot;. There is no a configuration that allows to disable this calculation. But these values are subtracted from the calendar capacity only when this option is enabled.</td>
<td></td>
</tr>
<tr>
<td>Quota by time slot</td>
<td>This functionality is only available for time slot based quota.</td>
</tr>
<tr>
<td>Quota is entered in minutes</td>
<td>If this option is enabled, the quota is defined as a number of minutes available for this time slot.</td>
</tr>
<tr>
<td>Quota is entered as % of capacity available by calendar</td>
<td>If this option is enabled, the quota is defined as % of time slot capacity calculated by calendar.</td>
</tr>
<tr>
<td>Quota is entered as % of capacity available by calendar excluding other activities</td>
<td>If this option is enabled, the quota is defined as % of time slot capacity calculated by calendar excluding &quot;Other activities&quot;.</td>
</tr>
<tr>
<td><strong>Note:</strong> The system always calculates &quot;Other activities&quot;. There is no a configuration that allows to disable this calculation. But these values are subtracted from the calendar capacity only when this option is enabled.</td>
<td></td>
</tr>
<tr>
<td>Quota is entered as % of quota defined on parent level</td>
<td>If this option is enabled, the quota is defined as % of quota defined on the day level.</td>
</tr>
<tr>
<td>Automatically adjust &quot;% Quota&quot; values to keep their total equal to 100%</td>
<td>This parameter defines if the total sum of the &quot;% Quota&quot; values should always be equal to 100%. It is only visible when the quota is entered as % of quota defined on the parent level. This functionality is only available for the time slot based quota.</td>
</tr>
</tbody>
</table>
### Quota by capacity category

<table>
<thead>
<tr>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quota is entered in minutes</td>
<td>If this option is enabled, the quota is defined as a number of minutes available in this category for this day.</td>
</tr>
<tr>
<td>Quota is entered as % of the maximum capacity available in this category</td>
<td>If this option is enabled, the quota is defined as % of capacity available by calendar in this capacity category.</td>
</tr>
<tr>
<td>Quota is entered as % of quota defined on parent level</td>
<td>If this option is enabled, the quota is defined as % of quota defined on the day (time slot) level.</td>
</tr>
<tr>
<td>Automatically adjust % Quota values to keep their total equal to 100%</td>
<td>This parameter defines if the total sum of the ‘% Quota’ values should always be equal to 100%. It is only visible when the quota is entered as % of quota defined on the parent level. This functionality is only available for the time-slot based quota.</td>
</tr>
<tr>
<td>Estimate quota based on historical data</td>
<td>This parameter defines if the system should estimate the ‘% Quota’ values based on the historical data. It is only visible when the quota is entered as % of quota defined on the parent level. This functionality is only available for the time slot based quota.</td>
</tr>
<tr>
<td>Historical values to be used (Quota % or Used capacity %)</td>
<td>This parameter defines if the ‘Quota %’ or ‘Used capacity %’ values should be processed for the “estimate quota” functionality. It is only visible if the Estimate quota based on historical data option is selected. This functionality is only available for the time slot based quota.</td>
</tr>
<tr>
<td>Process historical data (same weekdays) for period of (one week, one month, two months)</td>
<td>This parameter defines a length of the historical period to be analyzed. It is only visible if the Estimate quota based on historical data option is selected. This functionality is only available for the time slot based quota.</td>
</tr>
</tbody>
</table>

#### Related Topics

**About Adjusting Available Capacity**

Quota defined as a percentage of capacity must be recalculated regularly to manage the changes in the resource allocation, work skills and other variables.

To perform the adjustment, system estimates the capacity available by calendar, processes the already booked activities, and recalculates the Quota in minutes using the defined percentage value. Quota recalculation is a complex operation therefore, it should be performed only once in a predefined time interval. The interval can be defined as the **Available capacity is automatically recalculated every __ minutes** parameter under **Configuration > Business Rules**. The recalculation interval in minutes can be defined in the range of 1 to 1,440. By default, it is set to 10 minutes.

The quota and capacity are recalculated for a predefined future period. The period is defined as a number of days or calendar weeks. The maximum value is 99 days or 15 calendar weeks. The recalculation start day can be selected to current day, tomorrow, and day after tomorrow.

The calendar week option is processed according to the **Week starts on** parameter. If the recalculation period is set to 1 calendar week, the recalculation will be performed for all remaining days of the current week (unless the start day is the week start day) plus all the days of the following week. On the contrary, if the recalculation period is set to 7 days, the recalculation will be performed for exactly 7 days.
Quota recalculation is necessary when the:

- New technicians are created
- Technicians are moved in between the capacity areas (sub-buckets can also be moved)
- Technicians are activated/deactivated
- Resource tree is reorganized (directly in the database) during a product upgrade or when a implementation package is installed
- Technician’s work skills changes
- Content of an already used work skill group changes
- Set of work skills within a capacity category changes
3 Using Capacity based Quota

Capacity-based Quota Management: Overview

Capacity Management ensures that a company has sufficient resources in the field to match with the anticipated volume and level of work. Quota Management allocates assignments based on the available work skills and time slots. Capacity-based Quota Management is a flexible tool to manage quota and respond to the changes in the available capacity.

OFSC automatically updates quota based on the resource changes as they affect quota at a day, time slot and/or capacity category level. OFSC Capacity defines quota as a percentage of capacity. This means that your quota updates automatically when the workforce changes. When the capacity is updated automatically, the time slots and capacity categories are added without user data entry, thus diminishing human errors such as over or under estimation of the available capacity.

Capacity-based Quota Management:

- Updates quota automatically whenever the workforce capacity changes.
- Manages the quota based on your choice such as at a day, time slot or capacity category level.
- Guides the users to a menu of configuration choices to meet their company's needs.

View the Quota Matrix

Based on the resource changes, OFSC updates the quota periodically. Quota and capacity are displayed side by side in the Quota Management matrix.

The system updates quota automatically based on the resource changes as they affect quota at the Day, Time Slot and/or Capacity Category levels.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Quota icon.

The Quota UI opens. The Quota screen includes the Resource Tree and the Quota matrix.

Change the Quota View

You can change the quota views to provide different representations of data.
You can choose the display that is most helpful for your daily work.

1. Select **Quota**.
2. Select a capacity area from the left-hand pane.
3. Click **Quota** icon.
   
   The **Quota** screen displays.

4. Click the **View** button.
5. Select the view from the following options:
   - Quota
   - Time-Slot Based
     - Quota by day
     - Quota by Time slot
     - Quota by capacity categories

6. Click **Apply**.

   
   **Note:** Time slot-based quota views are only available if the time slot-based quota is enabled for the bucket.

### Book Activities Using Available Capacity

The **Available Capacity** page lets you view the available capacity for a specific day, week, or month or for a specific number of days. Also, you can view the available capacity of a resource for different time intervals. Based on the available capacity of resources, you can adjust the booking of activities.

To book activities using available capacity:

1. Select **Quota**.
2. Select a capacity area from the left-hand pane.
3. Click the **Available Capacity** icon.

The **Available Capacity** page displays.
The following information displays on the Available Capacity screen:

- **Resources**
  A value in the Resources column represents the number of available resources in a specific capacity category and working within a defined time interval against the count of maximum resources (having the same capacity category and working calendars). The value is calculated based on working calendars of a resource and availability. A resource is counted even if there is a one-minute intersection. The resource columns are only displayed when you configure a zero-length time interval (for example, 08am-08am). The system shows the number of available resources in the Resources column along with the available capacity in the Available Capacity column.

- **Available Capacity**
  The Available Capacity column shows the capacity that is currently available against max available capacity. Available Capacity = Max available capacity - Used capacity. The Available Capacity is calculated on the "hour" level based on working calendars.

  **Note:** The "Used capacity" takes into account all existing activities even if a capacity category is not configured on the screen.

- **Time Intervals**
  Both the Resources and Available capacity values are shown using sets of configured time intervals. These time intervals are defined on the capacity area level.

  **Visual queues are added to the screen to indicate capacity usage. The number highlighted in green indicates the available capacity or resources and the number highlighted in black indicates the maximum capacity or resources at a particular time.**

  **Note:** The color of the number changes based on the available capacity and resources. For example, if only 70% capacity is available then the color changes to Orange. However, if only 10 resources are left then the color changes to Red.

Consider the capacity category, Install in the Available Capacity image. The following information displays:

- 0/0 in Before 08 column: Indicates that no technicians are working.
- 87/87 in Resources at 08 column: Indicates that 87 out of 92 resources as shown in the Planning row are available at 08:00 and no one is occupied with work.
- 348/348 in Available capacity, h: Indicates maximum available capacity of 348 hours wherein 348 hours of capacity are available.

If an Install activity is booked at 8.00 am, then a technician consumes capacity from the Available Capacity column.

**View Activities and Resources Used for Available Capacity Calculations**

You can download a list of resources and activities from the Available Capacity screen to analyze the resources and activities that are used to calculate available capacity per capacity area, per category, and per day.
Important information related to the feature:

- Capacity is recalculated regularly and you can change the recalculation period under the Quota Management setting in the Configuration, Business Rules page. During the recalculation, changes in activity distribution between resources might lead to changes in visible activity distribution between categories.
- The Capacity categories field is populated only when the list is downloaded from Capacity Area or Group level.
- Both resources and activities may be counted in more than one capacity category, if one of the following conditions occur:
  - Workskills of activities and/or resources corresponds to more than one capacity category.
  - When an activity is assigned to a resource whose workskills match to more than one capacity category.
- The amount of rows that can be downloaded is limited to 10,000 rows and the data over this limit is truncated.

To view activities and resources used for available capacity calculations:

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Available Capacity icon.
   The Available Capacity page displays.

4. Click on the used capacity number in the All Day column for the required capacity category and click Download activities list.

   Note: Lists downloaded from aggregated screens might have many rows and might take longer time to download.

5. Save the file, open it with a text editor or a table processor, and review the following fields in the downloaded file:

   Note: To configure the download file format, you can select the required option from the Default Export Format drop-down list in the My Display page. Also, to configure the date or time format, select the required options from the Time Format and Date Format drop-down lists in the My Display page.

   - Activity ID
   - Activity type label
○ Activity type name
○ Activity status
○ Activity number
○ Activity identifier
○ ETA
○ Activity duration
○ Travel duration
○ Service window start
○ Service window end
○ SLA window start
○ SLA window end
○ Time of assignment
○ Access Hours
○ Time zone
○ Capacity categories
○ Capacity Area

: The original capacity area of the activity. Empty value means that the capacity area of an activity and the capacity area to which the activity belongs are same.
○ Assigned to

: The resource or capacity area of the activity.

**Note:** To identify temporary resources, you can download the activity list and search for non-empty values in the Capacity Area column. If a value displays in the Capacity Area column, it indicates that the activity belongs to another capacity area but consumes capacity from the capacity area that it belongs. The displayed value of the capacity area indicates that the temporary available resource is assigned to the capacity area.

6. Click on the resources number in the All Day column for the required capacity category and click **Download resources list**.

7. Save the file, open it with a text editor or a table processor, and review the following fields in the downloaded file:

○ External ID
○ Resource name
○ Working time
○ Duration of working time
○ Org unit
○ Organization
○ Capacity categories
○ Capacity Area

: The original capacity area of the resource. Empty value means that the capacity area of an resource and the capacity area to which the resource belongs are same.
Workzones

Workzones: The inherited or directly assigned workzones of a resource.

**Note:** Capacity Area and Assigned to fields are not populated for mass repeating activities (such as Lunch, Meetings). To identify temporary resources, you can download the resources list and search for non-empty values in the Capacity Area column. If a value displays in the Capacity Area column, it indicates that the resource belongs to another capacity area and is the temporary available resource assigned to the capacity area.

---

Manage Working Time Plans in Available Capacity Screen

You can use the Planned Capacity editor in Available Capacity screen to view and manage working time plans of resources for capacity areas and organization units on a day level.

The editor displays either on the Resources or Capacity column based on the option selected from the Unit of working time plans drop-down list. See **Configure Quota Options** for more details.

As a quota or capacity manager, you can perform the following actions:

- Enter the capacity plan either on resource basis (in resource units) or on capacity basis (in man-hours, days, minutes) to cater to the business needs.
- View previously entered plans for capacity area.

**Note:** The users who have access to the Available Capacity screen can view and edit the working time plans.

To add, edit, or view working time plans:

1. Select **Quota**.
2. Select a capacity area from the left-hand pane.
3. Select the Available Capacity icon.
   The Available Capacity screen displays.
4. Click on the value that is displayed on the Capacity or the Resources column for the capacity area.
   The Planned Capacity editor displays an empty field for the capacity area and for each organization unit within the capacity area.
Also, the following columns are displayed for both Capacity and Resources column:

- **Available**: Represents the available capacity for the capacity area and its organization units.
- **Planned**: Represents the working time plans that is defined for the capacity area and its organization units. You can enter or edit the values (must be whole numbers within the range of 0 to 65535) and the difference between planned and available capacity is recalculated automatically. When you click Save planned values, only the value of the Variance column for the capacity area is displayed on the Capacity or Resources column.
- **Variance**: Represents the difference between the values of the Available and Planned columns.

For example, assume that the available capacity for a capacity area in the Available column is set as 853 hours. You estimate 850 hours for the capacity area and enter the planned value as 850 in the Planned column. Since the available capacity for the capacity area is more than the planned value, the Variance column displays +3 in orange color which means there is enough capacity available. If the planned value is entered as 856 hours, then the Variance column displays –3 in orange color which means there is not enough capacity available. If the values in the planned and available capacity are the same, then 0 is displayed in the Variance column.

Also, the above logic applies for all the organization units within the capacity area. If the planned and the available capacity are the same, then a green check mark is displayed on the Capacity column.

Similarly, assume that the available capacity for a capacity area in the Resources column is set as 97. You estimate 96 resources for the capacity area and enter the planned value as 96 in the Planned column. Since the available resources for the capacity area is more than the planned value, the Variance column displays +1 in orange color which means there are enough resources for the capacity area. If a negative value displays in the Variance column then it means that there are not enough resources for the capacity area.

Also, the above logic applies for all the organization units within the capacity area. If the planned and the available capacity are the same, then a green check mark is displayed in the Resources column.
Note: The organization units within the capacity area are displayed as a plain list rather than a tree structure. Also, if you have opted for temporary assigned resources using the Use resources outside the capacity area check box, then the number of resources that are temporarily assigned to a capacity area is displayed on the editor. See Using Temporary Assigned Resources in Quota and Capacity Calculations for more details.

5. Select a previous date to view the previously entered plans for the capacity area.

Note: The planned capacity editor has the same functionality if you select multiple days. Also, you can view the planned values in mobility. See the About Resource Calendars section in Using Mobility Cloud Service Guide for more details.

Example 1:
The difference between the planned values for the capacity area and its organization units are displayed on the bottom of the editor. For example, consider the following scenario:

• The available capacity for the capacity area is 853 hours and you enter a value as 852 hours. The Variance column displays +1.
• The available capacity for the organizations units, for example, Organization A and Organization B is 351 and 279 hours respectively and you enter values of 350 and 278 hours respectively. The Variance column displays +1 for both the organization units.

However, a message “The difference between plans for capacity area and its Organization Units is -1” displays on the editor which means that there is not enough planned capacity for the organization units.

Example 2:
The difference between the planned values for the capacity area and its organization units are displayed on the bottom of the editor. For example, consider the following scenario:

• The available capacity for the capacity area is 97 resources and you enter a value as 96. The Variance column displays +1.
• The available capacity for the organizations units, for example, Organization A and Organization B is 75 and 65 resources respectively and you enter values of 74 and 64 respectively. The Variance column displays +1 for both the organization units.

However, a message “The difference between plans for capacity area and its Organization Units is -1” displays on the editor which means that there are not enough planned resources for the organization units.

Using Temporary Assigned Resources in Quota and Capacity Calculations

You can use temporary assigned resources (that is, resources belonging to another capacity area but having compatible work zones) and use their available capacity to book activities for a particular capacity area. When you select the Use resources outside the capacity area check box from the Business Rules, Quota Management section, then the resources may contribute capacity to another capacity area, provided the capacity area workzones are compatible with the workzones of resources.
When resources contribute capacity to multiple capacity areas, then the arithmetical sum of available capacities for the capacity areas that are under the same capacity group may exceed the available capacity of the capacity group due to double counted hours. However, the hours of the used activities are accordingly calculated for all the compatible areas.

The additional capacity of the resources is added to available capacity values on the Available Capacity screen and to the Max Available value on the Quota screen for multiple capacity areas.

Also, if the quota is configured as a percentage of Max Available value, then the additional capacity is added to the quota calculations on the Booking screen and the booking APIs (GET AvailableBookingOptions and get_capacity operations) use the quota to determine the activity booking preferences.

Review the following points:

- To use temporary resources in quota calculations, you must assign the work zone(s) directly to the resources because inherited work zones of the resources is not used in calculations.
- Capacity areas with both inherited and directly assigned workzones are matched with resources that have workzones that are compatible and are directly assigned to resources.
- When a resource has a temporary work zone assigned, all other work zones (directly assigned or inherited workzones) are ignored during the defined start and end date of the temporary work zone.
- Whether the temporary resources are used or not used, the resources that are not placed under the capacity area (either directly or indirectly) are not included in the quota calculations. For example, assume that a technician, Tech 1 is assigned to workzone A and B and belongs to the Area A (which has workzone A assigned to it). Assume that a technician, Tech 2 is assigned to workzone B and belongs to Area B (which has workzone B assigned to it). In this scenario, the availability of Tech 1 is counted in quota calculations for Area A and Area B.
- Temporary available resources are added to quota and capacity calculations for both time slot and time interval (available capacity based) quotas to support related routing capabilities. See the Assigning Activities to Temporary Resources section in the Using Routing Cloud Service Guide for more details.

When you select the Use resources outside the capacity area check box, any configuration changes or changes to directly assigned work zones of resources are applied as per the recalculation period in Business Rules, Quota management section. It might take more time if you want to apply the configuration changes to the capacity area where a temporary resource is assigned. To identify temporary resources, see *View Activities and Resources Used for Available Capacity Calculations* for more details.

**View and Change Available Quota**

The Quota page lets you view and manage quota for a specific day, week, or month or for a specific number of days and capacity categories.

You can change quota values in the Quota%, Min Quota, Daily Quota %, Quota and Stop Booking at columns for the present and future dates. Based on the edited values, the values in the Quota column is recalculated. Also, when you click the Quota History button after you edit the quota values for capacity categories and click Save, the edited quota values display in the Quota History window.

For example, if you enter 80% in the %Quota day column for the category, Deinstall and select a date, then you can only use 38352 mins for performing Deinstall activities on the selected date. However, if you enter 95% in the Stop Booking at column and select a date, then you can only book Deinstall activities that consume 45543 mins on the selected date.

To view and change available quota:

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Select the Quota icon.

The Quota page displays.

Select a category from the Category drop-down list to view the quota information for the selected category. Also, you can select the required columns that you want to display on the Quota page.

The following columns display on the Quota page:

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Available</td>
<td>The maximum capacity that is available according to working calendars of resources working in the capacity area. This column is available regardless of the configured capacity area.</td>
</tr>
<tr>
<td>Planned Max Available</td>
<td>The maximum planned capacity according to the values entered as working time plans in the capacity area. Displayed only if the quota is entered in percent of planned capacity.</td>
</tr>
<tr>
<td>Other Activities</td>
<td>This is the capacity consumed by activities that do not match any capacity category configured for the capacity area. This column is available regardless of the configured capacity area and calculated on the &quot;day&quot; level.</td>
</tr>
</tbody>
</table>
| Quota           | If the column is read-only, then based on the configuration of the capacity area, the Quota value is calculated as: 

\[
\text{Quota} = \text{MAX} (\text{<% Quota>} \times \text{<Base>}, \text{<Min Quota>})
\]

Where depending on the capacity category and the configuration of the capacity area, the <Base> value is a <Quota> value from the day level or is the <Max available> value for the same category or is calculated as <Max Available> - <Other Activities>. |

- If Man-days is selected as a measurement unit for Quota from the Business Rules page, then quota is calculated as follows:

\[
\text{Quota} = \left(\frac{\text{hours of max available}}{\text{Number of hours per man-day}}\right)
\]

- You can also enter a value in the Quota column to determine the quota for a specific capacity category.

- When the % Quota value is empty in the Quota by category screen and if the time slot based quota is enabled, then the Quota value is presented as a sum of quota values for each capacity category.
Using Capacity based Quota

| %Quota | This is the % of Quota. Depending on the configuration of the capacity area, it can be read-write or read-only. |
| Day level | If it is read-only, it is calculated as: \( \frac{\text{Quota}}{\text{Max available} - \text{Other activities}} \) |
|          | **Note:** Note that there is an option to not subtract the <Other activities> value. |
| Category level | If it is read-only, it is calculated as: \( \frac{\text{Quota (category)}}{\text{Max available (category)}} \) |

| Category / % Quota (day) | Depending on configuration of the capacity area, it can be read-write or read-only. If it is read-only, it is calculated as: \( \frac{\text{Quota (category)}}{\text{Quota (day)}} \). |
| Min Quota | This value is to be used when the quota is defined as a percent. When a calculated quota value is below the minimum, the system uses this minimum value instead of the calculated one. Calculated as: \( \text{Quota} = \max(\% \text{ Quota} \times \text{Base}, \text{Min Quota}) \). |

| Used Quota | Quota used by activities that match capacity categories configured for the capacity area. |
| Used Quota % | Calculated as: \( \frac{\text{Used quota}}{\text{Quota}} \). |
| % to Stop Booking at | This is only available on the category level. It is used to stop booking of activities in a given category when \( \% \text{ to stop booking} \) on the day level exceeds the \( \% \text{ to stop booking value} \). It allows implementing a reservation of remaining quota in other categories. |

| Booked Activities | Indicates the number of booked activities. |

Manage Quota Limits for Booking Intervals

You can manually enter quota values on booking interval levels using the quota editor in the Quota page and control booking on a required booking interval level.

- Select the Manage quota on booking interval level check box from the Configuration page.
- Use planned capacity from day 0 or from some other day of the calendar.

Recommendations:

- Use available capacity based quota, if the calendars are accurate up to 3+ months period.
- Do not limit quota on booking intervals level, until it is ultimately necessary because you need to manage quota manually through user interface or API for all booking intervals.

To manage quota limits for booking intervals:

1. Select **Quota**.
2. Select a capacity area from the left-hand pane.
3. Select the Quota icon.
4. Click > to access the quota editor on the Quota column.
The editor to manage quota for each booking interval is displayed.

5. Enter the values in absolute time units (minutes/hours/days) as defined in the Business Rules page.

Note: If the Manage quota on booking intervals level check box is selected, then you must either manage all quota on the booking intervals level, that is, you must enter all the quota values for all the capacity categories and all the booking intervals. Any non-entered entry is considered as zero, that is, booking for such a combination of capacity category and booking interval is prohibited. By default, if no values are entered for quota on booking intervals level, all the values are set to 0, which means that the booking is prohibited for the entire area. Also, you can use the Quota API to enter the quota values. Currently, mass populate or autofill for quota values are not supported on the booking intervals level.

6. Click Save and select < to close the editor.

Note: Quota values on the booking intervals level editor is also accessible in Read-Only (RO) mode, if the Manage quota on booking intervals level check box is disabled. In this case, you can review the auto-populated values using the Read-Only editor. Even though the quota values on the booking intervals level editor is displayed in RO mode for all the days, the quota limits are not applied for the days when quota is not entered as percent of planned capacity.

The corresponding SOAP or REST booking functions uses the quota values on the booking intervals level as follows:
- If either the remaining daily level quota or capacity category level quota is less, then the estimated duration of the activity to be booked, the booking for given day/capacity category/capacity area is not possible. Else, all the combinations of time slots and booking intervals are checked.
- If there is a time slot where an activity can be started and the remaining quota for each booking interval (for either automatically calculated or manually defined quota values) is enough to handle the part of the activity, the booking function returns such a time slot as a possible time slot.
Assume that there are two possible time slots: (8-12) and (12-16), and two possible time intervals (8-12) and (12-16) and only one resource is available. For each time interval, the quotas for booking intervals for Install capacity category are entered as 4 hours and 4 hours. If an activity is booked in (8-12) time slot for 3 hours, the remaining quotas are 1 hour and 4 hours respectively. If you try to book an activity for 2 hours, then both (8-12) and (12-16) time slots are returned, since you can start the second activity because there is quota of 1 hour left in the 8-12 time slot. However, you can only book a third activity of the same length in the (12-16) time slot as the (8-12) time slot is exhausted.

Use Planned Capacity for Booking Activities

You can book activities using planned capacity either from Day 1 of the calendar or use the planned or available capacity based booking approach for booking on a short term.

Ensure that you select the Booking Interval based option under the Manage quota as section to use planned capacity for booking.

Recommendations:

- If your calendars are accurate only for few days, use available capacity for this period and then switch to planned capacity.
- For planned capacity, use quota per capacity category to imitate distribution of your work force work skills.
- For planned capacity, close unneeded booking intervals in advance to imitate distribution of your work force schedules. If possible, maintain the total length of open booking intervals close to work day length to avoid unnecessary over or under booking.

**Note:** Quota based on working time plans is only supported, if quota is managed based on booking intervals and is not supported for time slot based quota. Planned capacity is an equivalent of the "working time plans", which you can set on the Available Capacity screen or through the API. Also, working time plans are accessible through the Admin interface.

To use planned capacity for booking activities:

1. Select the Enter quota as a percent of planned capacity option for daily quota configuration.
2. Select the Enter quota as % of capacity available by calendar and enter the number of days in the next days and switch to the plans field to use the available capacity for a specified number of days and switch to planned capacity after the specified days.

   For example, if you enter 0 in the next days and switch to the plans field, then it means that you want to use the available capacity to book activities. If you enter 1, it means that during the first day (that is, today), the available capacity is used and the planned capacity is used from tomorrow. The logic is to use the planned capacity from the day after the specified number of days until the overnight time setting value is met. If the number of available resources is different from the working time plan resources, then the available capacity is used for booking and may lead to over or under booking of activities.

   **Note:** If no working time plans are set, then the available capacity is used as planned capacity. Working time plans can be set in absolute time units (minutes/hours/days) or in number of resources. If resources are used for plans, the value, ‘Number of hours per man-day’ is used to convert the number of resources into hours (and then to minutes, if required).

3. Click Save.
The available capacity is distributed between capacity categories and booking intervals according to real schedules; whereas, the planned capacity is proportionally distributed between available booking intervals and copied for all the capacity categories.

For tomorrow, assume that there are plans for 10 resources. The following list of categories are available: Install, Uninstall, Trouble Calls. The booking intervals defined in the system are: [8-12], [13-17]. In this case, the total amount of planned working time is 80 man-hours (that is, 10 resources * 8 hours working day). The planned working time distributes as follows:

<table>
<thead>
<tr>
<th>Capacity Category</th>
<th>8 - 12</th>
<th>13 - 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Uninstall</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Trouble Call</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

Note that the total working time plans are distributed proportionally on all intervals for which the booking is not closed on the interval level in advance. If the intervals [0-8] and [17-24] are included, then the planned working time distributes as follows:

<table>
<thead>
<tr>
<th>Capacity Category</th>
<th>-8</th>
<th>8 - 12</th>
<th>13 - 17</th>
<th>17 -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install</td>
<td>28</td>
<td>14</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Uninstall</td>
<td>28</td>
<td>14</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Trouble Call</td>
<td>28</td>
<td>14</td>
<td>14</td>
<td>24</td>
</tr>
</tbody>
</table>

Therefore, around two-third of the overall time is reserved for the morning and evening intervals even though there are probably no resources working (assuming that the overnight setting in the business rules page is set to 0). If the overnight settings are set to non-zero value, the -8 interval has a length of 8 hours (that is, starting at beginning of day), but the 17- interval prolongs till overnight end, so the length of the interval is increased with the overnight settings value.

To overcome the issue from last example, you can use the following strategies:

- Delete the non-working intervals from the overall intervals list, if the companies/buckets have stable work hours.
- Close booking on the non-working intervals in advance (over the period defined for quota calculation in the business rules).

**About Quota View Parameters**

The visibility of the quota matrix is based on the settings you choose while configuring the capacity area.

Using View option, select the desired elements to filter the quota grid. The check boxes define which columns to display in the Quota grid. However, the list of the available columns depends on the quota definition and the capacity area settings. The filter contains only the columns relevant to the selected method and configuration.
The Quota grid includes the following parameters:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| Max available   | Denotes the maximum capacity available for a calendar period. It is calculated as the sum of the working time of all the technicians in a selected capacity area for a selected day, time slot and/or capacity category. This value serves as the base value when quota is defined as a percentage of the available capacity. The Max available value is recalculated on a periodical basis according to the settings configured in the Business Rules:  
  \[
  \text{Max available \%} = \frac{\text{Max available (capacity category)}}{\text{Max available (time slot)}}
  \]  
  - Day Quota table: The Max available column is hidden when Estimate maximum capacity for is disabled at the day level in the capacity area configuration.  
  - Time Slot Quota table: The Max available column is hidden when Estimate maximum capacity for is disabled both at the day and time slot level in the capacity area configuration.  
  - Capacity Category Quota table: The Max available column is hidden when Estimate maximum capacity for is disabled both at the time slot and capacity category level in the configuration. |
### Using Capacity based Quota

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Other activities** | Other activities are the repeating, mass, and shift activities, and the activities without instances. You can estimate the capacity allocated to the activities that are not part of the capacity management (such as mass, repeating and shift activities). The Other activities value is recalculated periodically based on the Business Rules settings.  
  - Day Quota table: The Other activities column is only shown when the Estimate capacity used by activities that are not a part of the Quota Management is set in the capacity area configuration.  
  - Time Slot Quota table: The Other activities column is shown when the Estimate capacity used by activities that might affect capacity in this time slot is set at the day and time slot level in the capacity area configuration, otherwise it is hidden. However, if this option is disabled at only the time slot level, then the column is visible but its values are not calculated. |
| **Weight**           | Weight of a selected capacity category is calculated from the historical data. This column is visible when the Estimate quota based on historical data option is enabled at the capacity area level. The weight value is represented as percentage. Depending on the capacity area configuration, the weight is calculated as % Quota or Used quota % from the Max available value on the same weekday(s) in the past for the selected period (one week, one month or two months). Weight is used as a prediction tool to calculate the Estimated quota % value based on the historical data. This column is visible only in the capacity category quota table.  
  \[ \text{Weight} = \frac{\text{Quota}}{\text{Total quota}} \times \frac{\text{Max available}}{\%} \]  
  \[ \text{OR} \]  
  \[ \text{Weight} = \frac{\text{Used}}{\text{Total used}} \times \frac{\text{Max available}}{\%} \] |
| **Estimated Quota %**| It is the percentage of the time slot quota available to book activities in a selected capacity category. This value is calculated as the product of Weight and the Max available value for the selected capacity category and time slot. Estimated quota % is a quota forecast calculated on the basis of historical data (quota used or set for the same weekday(s) in the historical period of one week, one month or two months). The Estimated quota % value is used as a reference to estimate quota for the future periods. This column is only visible in the capacity category quota table. |
| **% Quota**          | Quota at various levels (day, time slot, capacity category) are used to calculate the quota percent for each day.  
  \[ \% \text{ Quota} = \text{Avg. weight} \times \text{Max available} \% \]  
  - Day Quota table: Percentage of the maximum capacity available to book the activities. Enter the % Quota value manually. The % Quota column is visible only when the quota parameter is set as % of capacity available by calendar in the capacity area configuration. % Quota affects the value of the Quota column.  
  - Time Slot Quota table: Percentage of the day or time slot quota available to book the activities in the selected time slot. When quota is entered in minutes, the % Quota value is non-editable and is calculated as a percentage of the total quota allocated to a time slot. The percentage is adjusted in proportion to the quota values, so that the total sum of all time slots is 100%. When quota is entered as % of the maximum time slot capacity, enter the % Quota value. This value affects the Quota value which is calculated as the percentage of the Max available value for the selected time slot. When quota is entered as % of the daily quota, enter the % Quota value. This value affects the Quota value which is calculated as the percentage of the Quota value for the day.  
  - Capacity Category Quota table: Percentage of the time slot or capacity category quota available to book the activities in the selected capacity category. When quota is entered in minutes, the % Quota value is non-editable and is calculated as a percentage of the time slot quota allocated to a capacity category on the basis of the number of minutes entered in the Quota column. The percentage is adjusted in proportion to the quota values, so that the total sum of all the time slots is equal to 100%. When quota is entered as % of the maximum capacity available in this category, enter the % Quota value. This affects the Quota value calculated as the percentage of the Max available value for the selected capacity category and time slot. When quota is entered as % of time slot quota, enter the % Quota value. |
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Min. Quota** | Enter the minimum quota value allowed manually. The Min. quota parameter is used only when the quota is defined as a percentage of capacity necessary when the calculated quota value is less than the duration of a single activity. In this case, the Min. quota value is used instead of the calculated quota value.  
  - Day Quota table: The Min. quota column is visible only when the quota parameter is set as % of capacity available by calendar in the capacity area configuration.  
  - Time Slot Quota table: The Min. quota column is visible only when the quota parameter is set as % of the maximum time slot capacity or as % of the daily quota in the capacity area configuration.  
  - Capacity Category Quota table: The Min. quota column is visible only when the quota parameter is set as % of the maximum capacity available in this category or as % of time slot quota in the capacity area configuration. |
| **Plan**   | Plan denotes the quota value forecasted for future date. The plan values are taken from the Forecasting screen. When the plan is calculated in Forecasting and Show Plan Column is enabled in the Display screen, you can view it in the quota matrix. See the Oracle Field Service Cloud Forecasting user guide for more information about the Plan. This column only appears in the Capacity Category Quota table.  
  - Note: You must enable the Forecasting service to use the Plan functionality. View the About screen to verify whether the service is enabled. |
| **Quota**  | It is the planned usage of capacity allocated across different capacity categories and time slots.  
  - Day Quota table: The quota available for the activity booking on a selected day which can be either entered manually or calculated as percentage of the available capacity. Depending on the Quota is entered parameter setting in the capacity area configuration, the Quota cell can be editable (if the quota is entered in minutes) or non-editable (if the quota is entered as % of capacity available by calendar). Depending on the method of quota definition, the following cases are possible  
  - Quota entered in minutes (manually): Quota cell is editable and Quota is entered in minutes. The Max available and Other activities values does not affect the Quota value directly.  
  - Quota entered as % of capacity available by calendar: In this case, enter the % Quota and the Quota value will be calculated automatically. The Quota cell is non-editable.  
  - Time Slot Quota table: Quota available to book the activities in a selected time slot. Depending on the Quota is entered parameter settings in the capacity area configuration, the Quota cell can be editable (if the quota is entered in minutes) or non-editable (if the quota is entered as % of the maximum time slot capacity, or as % of the daily quota). Depending on the quota definition, the following cases are possible:  
  - Quota entered in minutes (manually): Quota cells are editable and quota is entered in minutes. The Max available and Other activities values do not affect the Quota values directly. The % Quota values are calculated automatically in proportion to the Quota values so the total value equals to 100%.  
  - Quota entered as % of the maximum time slot capacity:  
    - In this case, enter the % Quota, and the Quota value is calculated automatically on the basis of the Max available values of the corresponding time slots. Quota cells are non-editable.  
  - Quota entered as % of the daily quota: |
### Option | Description
--- | ---
When this option is selected, enter the % Quota, and the Quota value is calculated automatically on the basis of the Quota value for the day. Quota cells for the time slots are non-editable.  
- Capacity Category Quota table: The quota for booking of activities having the selected capacity category. Depending on the settings of the Quota is entered parameter in the capacity area configuration, the Quota cell can be editable (when quota is entered in minutes) or non-editable (when quota is entered as % of the maximum capacity available in this category, or as % of the time slot quota). Depending on the methods of quota definition, the following cases are possible:

- **Quota entered in minutes (manually):**
  - Quota cells are editable and Quota is entered in minutes. The Max available values do not affect the Quota values directly. The % Quota values are calculated automatically in proportion to the Quota values so the total equals to 100%.

- **Quota entered as % of the maximum capacity available in this category:**
  - In this case, enter the % Quota, and the Quota value is calculated automatically on the basis of the Max available values of the corresponding capacity categories. Quota cells are non-editable.

- **Quota entered as % of time slot quota:**
  - When this option is selected, enter the % Quota, and the Quota value is calculated automatically on the basis of the Quota value of the time slot. Quota cells are non-editable.

  The Quota total value is the sum of the values shown for different capacity categories for a particular time slot in the Quota column for a capacity area.

  The Quota total value is in Read-Only mode in the Quota column of the Quota by Capacity Category screen, when the value is calculated from the capacity categories for a particular time slot.

  However, when the quota value is calculated from the application (that is when the Time Slot checkbox is selected from the Quota Configuration screen), the value from the capacity categories is not shown and the quota values are editable.

- **Booked activities**
  - Denotes the number of activities already booked in the selected bucket for a selected day, time slot, or combination of time slot and capacity category. This value is recalculated immediately when any activity is added, rescheduled or canceled.

- **Used**
  - Denotes the total duration of the activities already booked in the selected bucket for a selected day, time slot, or combination of time slot and capacity category. This value includes the activity duration and travel time and is recalculated immediately when any new activity is added, rescheduled or canceled.

- **Used Quota %**
  - It is the percentage of the day, time slot, or capacity category quota used by the booked activities (the ratio of Used to Quota). The method of quota definition (manual or as percentage of capacity) has no effect on this value.

- **% to stop booking at**
  - Denotes the percentage of the used day quota where no more activities can be booked for the selected time slot, or the percentage of the used time slot for the selected capacity category. Enter this value, manually. The value of this parameter does not change the Quota status. This parameter is used for the Capacity API – when the set percentage has been reached, the get_capacity function will no longer return quota for the capacity category in the selected time slot.
Configure Capacity at Various Quota Levels

Based on the amount of information displayed for each capacity level, OFSC Capacity displays a separate easy-to-read tables at the day, time slot and capacity category levels.

Select the appropriate level from one of the buttons displayed in the upper right corner of the data matrix.

View quota by day level:

The day quota table gives an overview of capacity for a single day selected in the calendar. This table gives you the information necessary to restrict the used value so that it does not exceed the workforce available for that day.

View quota by time slot level:

The time slot quota table gives an overview of capacity for a day to restrict the capacity for a particular time slot.

View quota by capacity category level:

The capacity category table combines dates and time-slots. A bucket is assigned to the capacity categories for the Quota management purpose. Many customers employ this category to view quota.

Related Topics

- Configure Quota By Day Level
- Configure Quota By Time Slot Level
- Configure Quota By Capacity Category Level

Configure Quota By Day Level

Configure the capacity area to calculate quota at a day level. This option is useful for the business with a fluctuating capacity on a daily basis of the week. For an example, increased number of installations on weekends and Mondays while the trouble calls increase on the rest of the days.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Configuration icon.
4. Select the day check box and in the Quota by Day section, select the preferred unit to manage quota:
   - in minutes: Select this option to manually enter quota as a number of minutes allowed to book the activities.
   - as % of capacity available by calendar: Select this option to enter the total available capacity percentage that can be used to book the activities. When you enter quota as percentage, the quota value is automatically calculated in minutes
   - Reduce quota by volume of activities not assigned to any capacity category:
5. Click Save.

The selected configuration is saved.
Select a Date Range to View Quota

Select the date range in the calendar to display quota. The calendar offers four options to view the quota – Day, Week, Month, and Custom.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Quota icon.
4. Select the calendar at the top of the screen.
5. Choose Day, Week or Month to display and manage Quota for the selected day, week or month, respectively, starting from the date selected in the calendar.

The Custom option allows you to select and view the quota for the individual days in the calendar. For example, if a company needs quota calculation on Mondays and Thursdays or for the first 10 days of a month only, use the Custom calendar option. When you select the Custom option, you can select the required days directly from the calendar.

The Quota screen displays the quota values at the selected level (day, time slot or capacity category).

Configure Quota By Time Slot Level

Configure the capacity area to calculate capacity at a time slot level. Use this option if your business allocates different work types at a different time of the day, such as focusing on customers waiting for service in the morning hours.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Configuration icon.
4. Select the time slot check box and in the Quota by Time Slot section, select the preferred unit to manage quota:
   - **in minutes**: Select this option to manually enter quota in the number of minutes allowed to book the activities.
   - **as % capacity available by calendar**: Select this option to enter quota as a percentage of the maximum capacity at a time slot level. When you enter the value in percentage, quota is automatically calculated in minutes. This option is available only if the maximum capacity is estimated at this level.
   - **as % of quota defined on parent level**: Quota at the time slot level is used to calculate the quota percent for each day. Enter the required percentage, and the quota for each time slot is calculated automatically. This option is visible only when the Day Level Quota check box is selected while configuring the capacity area.
   - Reduce quota by volume of activities not assigned to any capacity category:
Oracle Field Service Cloud
Using Capacity Cloud Service

Chapter 3
Using Capacity based Quota

- Automatically adjust '% Quota' values to keep their total equal to 100%: Select this check box to always make the sum of the % Quota value equal to 100%.

Note: This check box is visible only when the as % of the daily quota option is selected. If you select this option, a change in the % Quota value of a time slot will update the % Quota values in the remaining time slots, so that their sum is always equal to 100%.

5. Click Save.
   The selected configuration is saved.

Configure Quota By Capacity Category Level

A capacity area can be configured at capacity category level. This is the standard capacity configuration employed by most of the customers.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Configuration icon.
4. Select the capacity category check box and in the Quota by Capacity category section, select the preferred unit to manage quota:
   - in minutes: Select this option to manually enter the quota value in the number of minutes allowed to book the activities.
   - as % of the maximum capacity available in this category: You can enter the quota value as a percentage of the maximum capacity at the capacity category level. Enter the required percentage, and the quota value is calculated automatically. Use this option only if you can estimate the maximum capacity allowed at this capacity category level.
   - as % of quota defined on parent level: Quota entered at a capacity category level is used to calculate as a percentage of the quota allowed for the time slots. Enter the required percentage, and the quota value for each time slot is calculated automatically. This option is visible only when the time slot level quota is in use.
5. Estimate the quota based on the historical data: Check this box to estimate quota from the historical data.
   This option is available only when the quota value is defined as % of the time slot quota.
   - Select the Historical values to be used to estimate quota. The available historical values are Quota % and Used Quota %.
   - Choose the length of the historical period to be analyzed. You can setup the period as one week, one month, or two months.
6. Select the Automatically adjust % Quota values to keep their total equal to 100% check box to always make the sum of the % Quota value equal to 100%.
   This check box is visible only when the as % of the time slot quota option is selected. If you select this option, a change in the % Quota value of a time slot will update the % Quota values in the remaining time slots, so that their sum is always equal to 100%.
7. Click Save.
4 Managing Capacity and Quota

About Capacity and Quota

In OFSC, you can manage Quota at a very granular level such as Time Slots and Capacity Categories.

In OFSC, the following formula defines the relationship between capacity and quota:

\[ \text{Capacity} = \text{Quota} - \text{Used} \]

- **Capacity:** Time available in man-minutes based on the availability of the resources in the capacity area. This value is reflected in the Estimation field in the quota matrix.
- **Quota:** Company’s planned usage of capacity allocated across different capacity categories and time slots for the best and most economic scenario.
- **Used:** Time in minutes scheduled for any activity booked for that day.

Compare Projected Quota to Actual Quota

You can review the actual quota used for a day against the projected quota. A color-coded display makes the data easier to interpret.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Quota icon.
   - The Quota page opens.
4. Select the day that you want to investigate.
5. Use the following keys to interpret the colors that you see:
   - Green values: Sufficient quota is available.
   - Brown values: Quota is above the major capacity usage but below the critical capacity usage values.
   - Orange values: Quota is above the critical capacity usage but below the 100% of your projected quota.
   - Red values: The actual quota is above 100% of your projected quota.

\[ \text{Note:} \quad \text{The quota levels for the different color codes are defined on the Display screen under Configuration.} \]

Identify the Changed Quota Values

When you make changes to the quota matrix, OFSC identifies the changes and displays an orange triangle in the upper right corner of each modified field.
You can also view the changes in the Quota History report. See View the Quota Matrix.

1. Click Dispatch and then select Quota from the drop-down menu
   The quota matrix appears.
2. Hover over the triangle in the matrix.
   The original value displays in a small pop-up window.

Close the Quota Manually

When you close quota for a capacity category, you prevent activity booking in that category, even if the capacity is available.

A green checkmark and circle indicates quota is open for all workzones. A green checkmark indicates quota is open for some workzones but not all. A red X indicates quota is closed.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Booking status icon.
   The Booking Status screen displays.
4. Click on the cell of a capacity category for a particular time-slot or time-interval.
   The Quota Status screen appears.

5. To close the quota for all the work zones, click Close All.
6. To close the quota for some of the work zones, select the required work zones.
7. Click OK.
8. In the Quota screen, click Save.
   If you are unable to close quota for a selected work zone, check:
   - If a work zone which was auto-closed at a set time is reopened and then attempted to be closed again.
   - If the work zone has close time earlier than the current time.
Close the Booking Automatically

When you close the booking for a capacity category, you prevent activity booking in that category, even if the capacity is available.

You might use this feature to automatically block the activities in a dangerous area of the town late at nights, or to automatically block the activities during the morning and afternoon hours in an area where there are lot of schools.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Booking status icon.
   The Booking Status screen displays.
4. Click on the cell of a capacity category for a particular time-slot or time-interval.
   The Close Time screen displays.
5. To close the quota simultaneously for all the work zones, select the time in the Close quota automatically field.
6. To close the quota for some of the work zones or to close the quota at different times for different work zones, select the times in the fields next to the desired areas and click OK.
7. Click Save in the Quota screen
   The selected quota will close at the time selected. The cell displays the date and time.

Add Quota

You can adjust the quota values manually as well as automatically.

Adding Quota Manually: You can add quota to the quota matrix by typing it directly into the matrix. OFSC automatically updates the fields or the linked fields that you have updated.

Automatic Quota Adjustments: OFSC automatically updates the fields or the linked fields that you have updated. The way that OFSC calculates the values to update the matrix depends upon the situation. The following scenarios describes the actions when the quota needs to be updated and the result of the each action:

When you update the quota for an Individual capacity category:
- The quota value of the individual capacity category is updated.
- The total quota value of the time slot is updated.

When you update the quota for an entire time slot:
- The total quota value of the time slot is updated.
- The individual capacity categories in the time slot is updated. The new quota is divided among the capacity categories as per the Percent Quota value.

When you add the quota to an empty time slot:
- The total quota value of the time slot is updated.
• The individual capacity categories in the time slot is updated. The quota is divided evenly among the individual capacity categories in the time slot.

When you add the quota to an empty capacity category:

• The individual capacity category quota is updated.
• The total quota value is updated.

Adding Quota Automatically: The Mass populate feature enables you to use the historical data to create a future quota. You can either use the OFSC projected quota value or the actually used quota for this purpose. The date on which the historical data copied is called the source date and the future date that you want to copy the data to is called the target date.

Related Topics

• Add Quota Manually
• About Mass Populate

Add Quota Manually

If the quota is configured to enter as minutes, you can add quota to the quota matrix by typing it directly into the matrix.

You can type the values into any field in the Quota column. These fields contain the quota value for the individual capacity categories and the total quota for the entire time slot. Oracle Field Service Cloud updates all the other fields.

Manage Activity Booking Status

The Booking Status page lets you manage activity booking for a specific category and close quota at a particular time and for a specific work zone.

The time-slot based booking status information displays on the left-hand side of the screen and the time-interval based booking information displays on the right-hand side of the screen.

The below screen displays the time slot-based booking status only if the time-slot based quota is enabled for the bucket.

To view the Booking Status icon:

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Booking status icon.

The Booking Status screen displays.
Note: All capacity categories are always displayed for the Booking time interval based screen.

Related Topics

**View Work Zones in Booking Status Screen**

The Map view displays the work zones defined in the system and their quota status. This feature enhances the usability and visual clarity of the Quota data.

Quota management screen shows the configured work zone shapes.

When user zooms the map, work zone areas are refreshed depending on the zoom value.

Work zones with different status have different colors.

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Click the Booking Status icon.

Note: The map display only if the time slot based quota is enabled and if a single day is selected.

Map displays with various color coded work zones. The color codes are based on the following criteria:

<table>
<thead>
<tr>
<th>Color of the work zone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light grey</td>
<td>Closed with no activities</td>
</tr>
<tr>
<td>Grey</td>
<td>Closed with activities</td>
</tr>
<tr>
<td>Light green</td>
<td>Open with no activities</td>
</tr>
<tr>
<td>Green</td>
<td>Open less than 90%</td>
</tr>
<tr>
<td>Color of the work zone</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Yellow" /></td>
</tr>
<tr>
<td>Yellow</td>
<td>Open more than 90%</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Red" /></td>
</tr>
<tr>
<td>Red</td>
<td>Open with more than 100%</td>
</tr>
</tbody>
</table>

> **Note:** Work zones with undefined or wrong status are not displayed in the map.

4. Click a work zone in the map.
   
   A hint appears with name and ID of the work zone.

### About Mass Populate

The Mass populate feature lets you copy the values of the quota parameters to a future date. For example, you can copy values of the editable Quota% and Min Quota columns from a past or current date to the Quota% and Min Quota columns of a future date in the Quota screen.

Also, you can use the Mass Populate on Booking Status screen for time-slot and availability (time-interval) based quotas to simultaneously change booking statuses for multiple levels (that is, day, time slot or time interval, or capacity category).

> **Note:** The Mass populate feature has replaced the Automatic fill functionality on the Quota screen and the time-slot based Quota screens. The Autofill functionality does not work on the Booking Status screen. Also, during Field Service Cloud installation, a unnamed group is created and the Mass Populate action link is moved under the unnamed group. You can navigate to the User Types screen and add the Mass Populate action link to the group so that it displays under the

ICON

icon for the required user type.

You can access the **Mass Populate** functionality from the **Quota** and **Booking Status** screens. The Mass populate screen is available for the following screens:

- Availability (time-interval) based Quota screen
**Note:** For availability based quota, you can mass populate all categories simultaneously and if you do not want to change the values in some categories then you need to manually reset their values after mass populate.

- Booking Status screens for time-slot based and availability (time-interval) based quota
- Time-slot based Quota screens (that is Quota by day, Quota by time slot, or Quota by capacity category screens)

For example, the following screen displays in a time-slot based Quota screen:

![Mass Populate Screen](image)

The following fields displays on the Mass Populate screen:

- **Field:** Indicates the editable quota fields and the fields that are locked.
- **Source date:** Indicates the date from which the values are copied.
- **Target dates:** Indicates the future dates to which the values are copied.
- **Operation:** See **Mass Populate Fields**.
- **Source:** Indicates the values that you want to copy. For example, if you want to use the values in the Min Quota column as the quota for the future dates, then you can select the Min Quota option to copy the values from the Min Quota column to the Quota column.
Recurring Autofill Enabled option

The **Recurring Autofill Enabled** option lets you schedule the autofill operations (that is, automatically copy the values of the quota parameters without using the Mass Populate button) to a future or today’s date. For example, you can use the autofill option for the following tasks:

- Copy ‘Min quota’ values from a current day to future days.
- Copy ‘Quota’ values from a current day to future days.
- Copy ‘Daily quota, %’ values from a current day to future days.
- Copy ‘Quota, %’ values from a current day to future days.
- Shift the ‘% to stop booking at’ parameter values by one day forward.

Click a cell from anyone of the following columns in the Availability (time-interval) based Quota and Time-slot based Quota screens to view the **Recurring Autofill Enabled** option:

- Quota, %
- Min quota
- Quota
- Daily quota, %
- % to stop booking at

Mass Populate Fields

The fields available in the **Field** drop-down list depends on the capacity area configuration at a specific quota level. Availability of a particular operation depends on the selected field.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Fields</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy day-to-day</td>
<td>All</td>
<td>Date to be copied</td>
<td>Lets you to copy the values of a given field from one day to another day or for multiple days. You can use a past or a future date as a source date. For example, to perform Trouble Call activities on April 26, 2017, assume that you only have 75 mins in the 10-12 time-slot, 60 mins in the 13-15 time-slot, 50 mins in the 15-17 time-slot. Assume that you are expecting more trouble calls for the next three days in the above mentioned time-slots. Therefore, you want to use the same quota values (that is, 75, 60, 50 mins) in the Quota column in the Quota by Capacity Categories screen for the next three days for the same above mentioned time-slots. Use the Copy day-to-day operation as follows: 1. Select the date in the Quota by Capacity Categories screen to which you want to copy the quota values. For example, select April 27, 2017. 2. Click the icon and select Mass Populate. 3. Click copy day-to-day option.</td>
</tr>
</tbody>
</table>

Note: The date, April 26 displays on the **Source Date** field and the date, April 27 displays on the **Target Dates** field.
<table>
<thead>
<tr>
<th>Operation</th>
<th>Fields</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Click Apply.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Click Save.</td>
<td></td>
<td></td>
<td>The quota values are copied to the specified date in the <strong>Target Dates</strong> field.</td>
</tr>
<tr>
<td>Copy week-to-week</td>
<td>All</td>
<td>Week to be copied</td>
<td>Allows you to copy the values of a given field from one week to another or to the multiple weeks. The values are copied between same days of the week (Monday to Monday, Tuesday to Tuesday, etc.). There is no restriction on the week that can be used as a source of data for this operation. It can be from past or from the future date. The corresponding calendar control allows you to select the week by clicking on any day of this week. The week is represented by its first day.</td>
</tr>
<tr>
<td>Shift forward by one day</td>
<td>All</td>
<td>None</td>
<td>Shifts the value of a given field forward by one day. The corresponding option is available only if a continuous interval of days are selected on the <strong>Quota</strong> view. Please note that there is a common rule that the Mass-populate operation should update all the dates that are currently selected in the <strong>Quota</strong> view. Therefore, when you perform the shift forward operation, the value for the first selected/visible date is updated with a value from the previous day (which is invisible). If the view contains both past and future days, the future date will be the first one to get updated. It is updated with a value from the latest past date.</td>
</tr>
<tr>
<td>Shift backward by one day</td>
<td>All</td>
<td>None</td>
<td>Shifts the values of a given field backward by one day. Please note that it is mainly intended to rollback the results of a previous forward shift. This option is available only if a continuous interval of days are selected on the <strong>Quota</strong> view. Please note that there is a common rule that the Mass-populate operation should update all the dates that are currently selected on the <strong>Quota</strong> view. Therefore, when you perform the shift backward operation, the value of the last selected/visible date is updated with the value from the next day (which is invisible).</td>
</tr>
<tr>
<td>Next day value = previous day value * percent</td>
<td>% to stop booking at</td>
<td>Percent</td>
<td>Available only when a continuous interval of days are selected in the timeslot or time-interval Quota view. In this case, the value of a given field is calculated from the value of the day before and the values of the current is used to derive the values of all the other next days. A value for a next day is calculated as a value for a previous one multiplied by a specified percentage.</td>
</tr>
<tr>
<td>Use estimation</td>
<td>% Quota</td>
<td>None</td>
<td>Copies the values from the <strong>Estimated % quota</strong> field to the <strong>% Quota</strong> field. Available only in the Quota by Capacity Categories screen.</td>
</tr>
<tr>
<td>Estimate future values based on past data (day-to-day)</td>
<td>Quota</td>
<td>• Number of previous days • Field to be used: Quota or Used</td>
<td>Lets you to estimate the values of a given field for one or several future days using the linear extrapolation algorithm. Only available in timeslot or time-interval Quota view.</td>
</tr>
<tr>
<td>Estimate future values based on past data (week-to-week)</td>
<td>Quota</td>
<td>• Number of previous weeks • Field to be used: Quota or Used</td>
<td>Allows you to estimate the values of a given field for one or several future weeks using the linear extrapolation algorithm. A separate extrapolation trend is created for each day of the week (Monday, Tuesday, etc.).</td>
</tr>
<tr>
<td>close work zone values matching the filter criteria</td>
<td>None</td>
<td></td>
<td>Lets you close booking statuses for a particular work zone in the Booking Status screen for time-slot and time-interval (availability) based quotas. You can close bookings for a particular day, for a particular week, for a particular month or you can select a set of dates from the Calendar option.</td>
</tr>
<tr>
<td>Operation</td>
<td>Fields</td>
<td>Parameters</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------</td>
<td>------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>

**Use the Close Work Zone operation as follows:**

1. Select a day, a particular week, a particular month, or a set of dates from the Calendar option.
2. Click the **icon and select Mass Populate.**
3. Click **close work zone** option.

**Note:** The selected dates from the Calendar option displays on the **Target Dates** field.

4. Select a work zone from the drop-down list.
5. Click **Apply.**
6. Click **Save.**

The values matching the filter criteria are updated on the Booking Status screen.

| open work zone    | values matching the filter criteria | None               | Lets you open booking statuses for a particular work zone in the Booking Status screen for time-slot and time-interval (availability) based quotas. You can open bookings for a particular day, for a particular week, for a particular month or you can select a set of dates from the Calendar option. Use the Open Work Zone operation as follows:
1. Select a day, a particular week, a particular month, or a set of dates from the Calendar option.
2. Click the **icon and select Mass Populate.**
3. Click **open work zone** option.

**Note:** The selected dates from the Calendar option displays on the **Target Dates** field.

4. Select a work zone from the drop-down list.
5. Click **Apply.**
6. Click **Save.**

The values matching the filter criteria are updated on the Booking Status screen.

| close all        | values matching the filter criteria | None               | Lets you close all booking statuses in the Booking Status screen for time-slot and time-interval (availability) based quotas. You can close bookings for a particular day, for a particular week, for a particular month or you can select a set of dates from the Calendar option. Use the Close All operation as follows:
1. Select a day, a particular week, a particular month, or a set of dates from the Calendar option.
2. Click the |
<table>
<thead>
<tr>
<th>Operation</th>
<th>Fields</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>open all</td>
<td>values matching the filter criteria</td>
<td>None</td>
<td>Lets you open all booking statuses in the Booking Status screen for time-slot and time-interval (availability) based quotas. You can close bookings for a particular day, for a particular week, for a particular month or you can select a set of dates from the Calendar option. Use the Open All operation as follows:</td>
</tr>
<tr>
<td>1.</td>
<td>Select a day, a particular week, a particular month, or a set of dates from the Calendar option.</td>
<td>icon and select <strong>Mass Populate</strong>.</td>
<td>3.</td>
</tr>
<tr>
<td>2.</td>
<td>Click the</td>
<td></td>
<td>Close All option.</td>
</tr>
<tr>
<td>4.</td>
<td>Click <strong>Apply</strong>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Click <strong>Save</strong>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The values matching the filter criteria are updated on the Booking Status screen.</td>
</tr>
</tbody>
</table>

**Note:** The selected dates from the Calendar option displays on the **Target Dates** field.

**Note:** Please also note that all these operations ignore the locked flags. To apply locked flag, select the **Locked Flag** option in from the **Field** drop-down list. You can use the **Locked Flag** option only in the time-slot based Quota screens.
5 Calculating Capacity and Quota

Calculate Other Activities

Other activities are the repeating, mass, and shift activities, and the activities without instances. Activities with instances are processed similar to the regular booked activities. Activities without instances are processed periodically, by recalculating the Max available and Quota values.

The minutes used to estimate other activities when service SLA window starts/ends with a given hour:

- If an activity has a service/SLA window end value within a given hour, the system tries to use all the remaining minutes from the "window end" till the end of this hour.
- If an activity has a service/SLA window start value within a given hour, the number or minutes that can be used in this hour is calculated so as to not exceed the time remaining from the "window start" till the end of this hour.

The ‘Other activities’ parameter is used in the following calculation:

Maximum capacity - Other activities = Activities that can be booked within this time slot

The calculated value includes the activities that:

- Are not part of the capacity management
- Belongs to the other time slots

The algorithm performs the following actions for the selected capacity time slot and activity:

- It determines the interval of the working hours (including overnight) affected by the capacity time slot. The interval is equal to the value used for calculating the maximum capacity.
- On the other hand, the algorithm calculates the expected used capacity of an activity for a particular hour is assumed to have started within such hour. The result of this step is the expected used capacity calculated on an hourly basis.
- The resulting Other activities value is calculated as the sum of the expected used capacity values for the hours affected by this time slot.
- If working day is started within a given hour, the number minutes that can be used within this hour is calculated to not exceed the time remaining from the "start" value till the end of the given hour.
- If working day is ended within a given hour, the system tries to use all the remaining minutes from the "end" value till the end of the given hour.

Multi-Day Activities Behavior in Quota Management

Multi-day activities are not included in capacity and quota calculation. However, segments of multi-day activities are added to the Other Activities value, therefore, the capacity is still consumed from the overall system. Also, multi-day activities are included in the start-time statistics. You can manually assign multi-day activities only through Core Manage. The following rules apply for Quota Management:

- Multi-day activities are handled as internal activities.
• Multi-day activities cannot be booked with the get_capacity method and the method does not calculate capacity categories for such activities. For more information on the get_capacity function, see the Integrating with Capacity Management API Guide.

• Multi-day activities are not included in the Used Quota values on the Quota view and are added to the Other Activities column on the Quota view.

Calculate Quota Using the Historical Data

Calculate quota on the basis of the historical data to generate weight and the estimated quota %. These values are displayed on the timeslot based Quota view for the present day or for a future date.

Estimation is performed based upon the:

• Capacity category
• Weight coefficients
• Available workforce

Weight coefficient is calculated from the workforce available in the historical data. The weight coefficients from the current available workforce is used to estimate the Quota % values. Application server processes the historical data periodically and checks whether a recalculation is required once every minute. Recalculation of the historical data produces the capacity category weight coefficients.

These coefficients are calculated every day for last eight full weeks and for each valid combination of the capacity area, time slot, and capacity category. For each such combination, the application calculates two coefficients, % Quota and Used quota %. These calculations are performed irrespective of the Historical values to be used and Process historical data (same weekdays) for period of parameters defined for a bucket. The Estimate quota based on historical data and Quota is entered options are not taken into account for the calculation. Such approach allows to OFSC to enable this functionality, change the interval of analysis (one week, one month, two months), or switch between coefficient types (% Quota or Used quota %) for the existing capacity area without having to reprocess the historical data.

Formula for calculating weight:

\[
\text{Weight} = \frac{\text{Quota}}{\text{Total quota}} / \text{Max available %}
\]

\[
\text{OR}
\]

\[
\text{Weight} = \frac{\text{Used}}{\text{Total used}} / \text{Max available %}
\]

where Max available % = Max available (capacity category) / Max available (time slot)

When quota is calculated on the basis of the historical data, it produces two fields, Weight and Estimated quota %. These fields are displayed on the Quota view for the current or a future date. The application server periodically recalculates the Max available values and, as a result, adjusts the Weight coefficients daily. To adjust the coefficients, an aggregate of the weight coefficients for the number of days is defined using the Historical values to be used parameter. A particular day is only included if it belongs to the same week day.

Formula:

\[
\% \text{ Quota} = \text{Avg. weight} \times \text{Max available %}
\]

If the Automatically adjust ‘% Quota' values to keep their total equal to 100% option is enabled, the calculated Quota % values are normalized.
About Travel Time Estimation

A correct estimation of the average travel time is important to prevent the over-booking and under-booking the activities. The travel time estimation is calculated based on the actual activity records (started activities).

There are several cases when Capacity/Quota Management uses the travel time estimation for:

- The booking of a new activity (get_capacity function)
- The calculation of “Used” value
- The Calculation of “Other activities” value

The system implements different approach to estimate time for the ordered activities in the technicians’ routes and different in the situations like unknown location where it is necessary to estimate an average travel time value for different kind of activities such as:

- The activities that needs to be booked (get_capacity function)
- The activities in buckets
- The not-scheduled activities
- The not-ordered activities

**Travel Time Estimation** algorithm:

To estimate the travel time accurately, Oracle Field Service Cloud Quota management has introduced the **Travel Time Estimation** algorithm. The algorithm validates the following time intervals:

- last week
- last 4 weeks
- last 12 weeks
- all data

> Note: A week starts on Monday and uses at least one travel value reported for the next week.

As per this algorithm, if the minimal number of travel records and minimal percent of used origin travel keys thresholds are met for a specific travel key, then the system uses such time period to estimate travel time duration in the descending order (last week, last 4 weeks, last 12 weeks and all data). If both the criteria are met for the last week, the last week value is used and if the criteria is met for the last 4 weeks, then the last 4 weeks value is considered and so on.

- The minimal number of travel records value is based on the count of activities for a given key (such as started activities).
- The minimal percent of used origin travel keys value is based on the total number of actual origin locations for a given key. For example, in case of the 4 week time interval, the percent is calculated as:

\[
\text{travel 4 weeks key count/ travel key count } \times 100
\]

- If the total number of recorded travels for a given travel key is below the threshold, the system uses an average calculated based on the travel area level.
• If there are no records available on the travel area level, the system displays a default travel time value defined in the Company settings > Statistics parameters section.

For the following examples, the criteria for the:

• Minimal number of travel records threshold = 50
• Minimal percent of used origin travel keys = 30%

Example 1: Last weeks data

Setup:

<table>
<thead>
<tr>
<th>Element</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Key (to)</td>
<td>12346</td>
</tr>
<tr>
<td>Travel Area</td>
<td>Sunrise North</td>
</tr>
<tr>
<td>Company Default Travel</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Count of travel records (Travel Key)</td>
<td></td>
</tr>
<tr>
<td>• Last week = 250 (40 unique origin travel keys &gt; 30%)</td>
<td></td>
</tr>
<tr>
<td>• Last 4 weeks = 500 (60 unique origin travel keys)</td>
<td></td>
</tr>
<tr>
<td>• Last 12 weeks = 750 (90 unique origin travel keys)</td>
<td></td>
</tr>
<tr>
<td>• All data = 800 (100 unique origin travel keys)</td>
<td></td>
</tr>
</tbody>
</table>

Learned Average Duration (Travel Key)

• Last Week = 20 minutes
• Last 4 weeks = 21 minutes
• Last 12 weeks = 22 minutes
• All data = 22 minutes

Learned Average Duration (Travel Area) 22 minutes

Outcome: The minimal number of travel records threshold and the minimal percent of used origin travel keys threshold is met for the Last Week time interval. Therefore, the estimated duration used for the capacity/quote management when the activity is not yet assigned or ordered is the Last Weeks data, that is equal to 20 minutes.

Example 2: Last 4 Weeks data

Setup:

<table>
<thead>
<tr>
<th>Element</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Key (to)</td>
<td>12347</td>
</tr>
<tr>
<td>Travel Area</td>
<td>Sunrise North</td>
</tr>
<tr>
<td>Company Default Travel</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Count of travel records (Travel Key)</td>
<td></td>
</tr>
<tr>
<td>• Last week = 75 (20 unique origin travel keys)</td>
<td></td>
</tr>
<tr>
<td>• Last 4 weeks = 350 (40 unique origin travel keys &gt; 30%)</td>
<td></td>
</tr>
<tr>
<td>• Last 12 weeks = 500 (70 unique origin travel keys)</td>
<td></td>
</tr>
</tbody>
</table>
### Chapter 5
Calculating Capacity and Quota

<table>
<thead>
<tr>
<th>Element</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element</td>
<td>Value</td>
</tr>
<tr>
<td>All data = 1,000 (100 unique origin travel keys)</td>
<td></td>
</tr>
<tr>
<td>Learned Average Duration (Travel Key)</td>
<td>Last Week = 35 minutes</td>
</tr>
<tr>
<td></td>
<td>Last 4 weeks = 42 minutes</td>
</tr>
<tr>
<td></td>
<td>Last 12 weeks = 38 minutes</td>
</tr>
<tr>
<td></td>
<td>All data = 38 minutes</td>
</tr>
<tr>
<td>Learned Average Duration (Travel Area)</td>
<td>35 minutes</td>
</tr>
</tbody>
</table>

Outcome: The minimal number of travel records threshold is met while the minimal percent of used origin travel keys threshold is not met for the **Last Week** period. Therefore, the estimated duration used for the capacity/quota management when the activity is not yet assigned or ordered is the **Last 4 weeks** data, that is, 42 minutes.

**Example 3: Travel Area data**

Setup:

<table>
<thead>
<tr>
<th>Element</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Key (to)</td>
<td>12347</td>
</tr>
<tr>
<td>Travel Area</td>
<td>Sunrise North</td>
</tr>
<tr>
<td>Company Default Travel</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Count of travel records (Travel Key)</td>
<td>Last week = 10</td>
</tr>
<tr>
<td></td>
<td>Last 4 weeks = 20</td>
</tr>
<tr>
<td></td>
<td>Last 12 weeks = 30</td>
</tr>
<tr>
<td></td>
<td>All data = 45</td>
</tr>
<tr>
<td>Learned Average Duration (Travel Key)</td>
<td>Last Week = 15 minutes</td>
</tr>
<tr>
<td></td>
<td>Last 4 weeks = 14 minutes</td>
</tr>
<tr>
<td></td>
<td>Last 12 weeks = 14 minutes</td>
</tr>
<tr>
<td></td>
<td>All data = 15 minutes</td>
</tr>
<tr>
<td>Learned Average Duration (Travel Area)</td>
<td>22 minutes</td>
</tr>
</tbody>
</table>

Outcome: The minimal number of travel records threshold is not met therefore the estimated duration used for the capacity/quota management when the activity is not yet assigned or ordered is the **Travel Area** data, that is, 22 minutes.

**Example 4: Company Default Travel data**

Setup:

<table>
<thead>
<tr>
<th>Element</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Key (to)</td>
<td>12347</td>
</tr>
<tr>
<td>Element</td>
<td>Value</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Travel Area</td>
<td>Sunset West</td>
</tr>
<tr>
<td>Company Default Travel</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Count of travel records (Travel Key)</td>
<td>• Last week = 1</td>
</tr>
<tr>
<td></td>
<td>• Last 4 weeks = 1</td>
</tr>
<tr>
<td></td>
<td>• Last 12 weeks = 1</td>
</tr>
<tr>
<td></td>
<td>• All data = 1</td>
</tr>
<tr>
<td>Learned Average Duration (Travel Key)</td>
<td>• Last Week = 35 minutes</td>
</tr>
<tr>
<td></td>
<td>• Last 4 weeks = 35 minutes</td>
</tr>
<tr>
<td></td>
<td>• Last 12 weeks = 35 minutes</td>
</tr>
<tr>
<td></td>
<td>• All data = 35 minutes</td>
</tr>
<tr>
<td>Learned Average Duration (Travel Area)</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Outcome: The minimal number of travel records threshold is not met and there is no travel area data for Sunset West. Therefore, the estimated duration used for the capacity/quota management when the activity is not yet assigned or ordered is the **Company Default Travel** configuration value, that is equal to 30 minutes.
6 Reporting Capacity and Quota

About Reporting Capacity and Quota

OFSC lets you to change the documentation of the Quota history and close time history.

The information in these reports can be exported as comma separated values (csv), as an Excel spreadsheet (xlsx), or as XML.

About Viewing Quota History

Quota history stores the data related to the changes you perform on the time slot based Quota screens (for example, Quota by day, Quota by time slot, and Quota by Capacity Categories). You can view quota history with using different filters options. You can also export quota history in the default export file format setup in the My Display settings under your user profile.

Note: During Field Service Cloud installation, a unnamed group is created and the Quota History action link is moved under the unnamed group. You can navigate to the User Types screen and add the Quota History action link to the group so that it displays under the

icon for the required user type.

Quota history includes the following information:

- Date: Date of the action.
- Time Slot: Time slots that are updated. Filter the values in the Time Slot column by selecting or deselecting some or all of the time slots used in the Quota Management.
- Capacity Category: Capacity categories that are updated. Filter the values in the Capacity Category column by selecting or deselecting some or all of the capacity categories used in the Quota Management.
- Work zone: Work zones that are updated.
- Action: Actions performed in the Quota Management screen. Filter the values in the Action column using the following options:
  - Change: Changes made to the values in the Quota, % Quota, Min. quota, and % to stop booking at cells at a Quota level.
  - Close: Quota closed for a day, time slot, capacity category or work zone.
  - Open: The opening Quota for a day, time slot, capacity category or work zone.
  - Remove work zone specific settings: Displays only if the close time is updated and the following conditions are met:
    - Quota for all work zones for a particular capacity category that belongs to a particular time-slot or time-interval is closed using the Close All option. A red cross mark displays on the cell when the quota for all work zones is closed.
- Quota for all work zones is opened using the **Open All** option for the same capacity category for which the quota for all work zones was closed.

- **Action time**: Time of the action performed in the Quota Management screen. The values in the **Action time** column are shown in the time zone of the selected capacity area. Filter the values in the Action time column to display the actions performed within the last 4 hours, last 8 hours, last day or last 2 days. Additionally, it is possible to sort the data in ascending or descending orders.

- **% Quota, Min. quota**: These columns are only shown when the Quota is defined as a percentage of the available capacity according to the configuration of the capacity area. They show the corresponding values.

- **Quota**: Changes made to the to the Quota values.

- **% to stop booking at**: This column is shown only when the **% to stop booking at** option is enabled at the Time Slot or Capacity Category level during the capacity area configuration.

- **User**: User who updated the quota. When a change is performed automatically, the **User** column does not contain any value.

> **Note**: Quota history is not available in the multi-bucket mode.

### View Close Time History

The **Close Time History** report displays the changes performed to the booking status close time values. Using various filters, you can view the close time history and export the Close Time History in the default file export format selected in the **My Display** settings under your user profile.

> **Note**: During Field Service Cloud installation, a unnamed group is created and the Close Time History action link is moved under the unnamed group. You can navigate to the User Types screen and add the Close Time History action link to the group so that it displays under the

![icon]

icon for the required user type.

The **Close Time History** button is available in the Booking Status screen for time-slot and time-interval (availability) based quotas.

To view the changes to the booking status close time values:

1. Select Quota.
2. Select a capacity area from the left-hand pane.
3. Select the Booking Status icon.
4. Edit the booking status values for a capacity category for a particular time slot or time interval.
5. Click the

![icon]

icon and select the **Close Time History** button.
The edited booking status values for a particular time slot or for a particular time interval display in the By time slots and By time intervals tabs respectively on the Close Time History for <bucket_name> screen.

6. Review the following information on the Close Time History for <bucket_name> screen:

   - Date: Displays the date on which you want to close the booking status values.
   - By Time Slots: Displays the time slots for which the booking status values are edited.
   - By Time Intervals: Displays the time intervals for which the booking status values are edited.
   - Capacity Category: Displays the capacity categories for which the booking status values are edited.
   - Work zone: Displays the work zones for which you want to close the booking status.
   - Action: Type of action performed to the close time. Filter the Action column using the Open, Close, Change close time, Remove Work Zone Specific Settings, Change close time for work zone, Close Automatically options.
   - Action time: Time when the action is performed to the close time. The values in the Action time column are shown in the time zone of the selected capacity area. Filter the values in the Action time column to display the actions performed within the last 4 hours, last 8 hours, last day or last 2 days. Additionally, it is possible to sort the data in the ascending or descending order.
   - Close Time: Displays the scheduled closed time. Select one of the options from the Close time filter to view the changes made within the selected filter. Additionally, it is possible to sort data in the ascending or descending order.
   - User: User who updated the booking status values. Additionally, it is possible to sort the data alphabetically in the ascending or descending orders. When a change is performed automatically, the User column does not contain any value.
## Revision History

This document will continue to evolve as existing sections change and new information is added.

<table>
<thead>
<tr>
<th>Date</th>
<th>What’s Changed</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2017</td>
<td>Updated the following topics:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• About Mass Populate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mass populate fields</td>
<td></td>
</tr>
<tr>
<td>May 2017</td>
<td>Updated the following topic:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• View and Change Available Quota</td>
<td></td>
</tr>
<tr>
<td>April 2017</td>
<td>Updated the following topics:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Define Time Intervals for booking activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• View and Change Available Quota</td>
<td></td>
</tr>
<tr>
<td>February 2017</td>
<td>Included the following topics:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Define Time Intervals for booking activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Book Activities using Available Capacity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• View and Change Available Quota</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Manage Activity Booking Status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Configure Quota Options</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Updated the following topics:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Enable quota management at a bucket level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Setup multi-bucket mode</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Configure quota level in the capacity area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Change the quota view</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• About quota view parameters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Configure quota at by day level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Configure quota by time slot level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Configure quota by capacity category level</td>
<td></td>
</tr>
<tr>
<td>January 2017</td>
<td>Minor changes for clarity and consistency</td>
<td></td>
</tr>
<tr>
<td>November 2016</td>
<td>Minor changes for clarity and consistency</td>
<td></td>
</tr>
<tr>
<td>September 2016</td>
<td>Revised information about the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• View quota history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• View close time history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• View work zones in quota</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>What’s Changed</td>
<td>Notes</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>August 2016</td>
<td>• Added information about travel time estimation</td>
<td>• Revised information about calculating other activities to more accurately reflect the Oracle Field Service Quota Cloud Service user interface</td>
</tr>
<tr>
<td>April 2016</td>
<td>Quota Management content is now included in Capacity Management. The following information has been added:</td>
<td>• How Quota is calculated using historic data</td>
</tr>
<tr>
<td></td>
<td>• Multi Bucket Mode</td>
<td>• How other activities are calculated</td>
</tr>
<tr>
<td></td>
<td>Minor changes for clarity and consistency.</td>
<td></td>
</tr>
</tbody>
</table>