



# Precision Queue API

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## Precision Queue API

Precision queues help direct incoming callers to appropriate agents, as they match specific agent attributes with caller requirements. If a precision queue requires an agent who lives in Boston and who speaks fluent Spanish, then an agent with the attributes **Boston = True** and **Spanish = True** is a good match.

Use the Precision Queue API to list the precision queues currently defined in the database, define new precision queues, and view, edit, and delete existing precision queues.

### URL

`https://<server>/unifiedconfig/config/precisionqueue`

### Operations

- **create**: Creates one precision queue.
- **delete**: Marks one precision queue for deletion, but does not permanently delete it. Deleting a precision queue that is referenced dynamically in a script is allowed. No new calls are queued against it, but the precision queue remains operational until calls are no longer in the queue.
- **get**: Returns one precision queue, using the URL  
`https://<server>/unifiedconfig/config/precisionqueue/<id>`.

- **Query parameters:**

- **agentcount**: Use this query parameter to have the agent count parameter included in the response; for example, `agentcount=true`.
- **attributes**: Use this query parameter to have the attribute parameter included in the response; for example, `attributes=true`.
- **skillgroups**: Use this query parameter to augment the returned precision queue attributes with an id listing of all skillgroups that are associated with the precision queue; for example, `skillgroups=true`.

- **list**: Retrieves a list of precision queues. Query parameters described above for the get operation are also allowed for list.
- **update**: Updates one precision queue.

## Parameters

### Precision queue parameters:

- **refURL**: The refURL of the precision queue. See [Shared Parameters](#).
- **name**: The name of the precision queue. See [Shared Parameters](#).
- **changeStamp**: See [Shared Parameters](#).
- **description**: See [Shared Parameters](#).
- **mediaRoutingDomain**: A reference to the media routing domain ([Media Routing Domain API](#)) including the name and refURL. See [References](#).
  - Defaults to Cisco\_Voice MRD if this parameter is not provided.
  - This reference cannot be updated.
- **bucketInterval**: A reference to a bucket interval ([Bucket Interval API](#)), including the refURL and name. See [References](#).
- **agentCount**: Returns agent count for the precision queue. Returned only when using the agentcount query parameter.
- **agentOrdering**: Determines the order in which agents receive calls from this queue.
  - 1: LAA (Agent availability time)
  - 2: Most skilled agent
  - 3: Least skilled agent
- **callOrdering**: Determines the order of calls in this precision queue.
  - 1: Top priority in queue. This is the default value.
- **id**: The database id of the precision queue. Read-only field. Used in scripting.
- **attributes**: A collection of attribute names (attribute1, attribute2, and so on) indicating all attributes used in this precision queue. Returned only when the query parameter attributes=true.
- **serviceLevelThreshold**: Maximum time in seconds that a caller should wait before being connected with an agent.
- **serviceLevelType**: This value indicates how the system calculates the service level.
  - 1: Ignore abandoned calls.
  - 2: Abandoned call has negative impact.
  - 3: Abandoned call has positive impact.

- **skillgroups:** A collection of skill groups associated with this precision queue, including the id of each skill group. Returned only when the query parameter `skillgroups=true`.
- **steps:** Required. A collection of steps for this precision queue. You can have 1-10 steps. Returned only for get operation. See the Step parameters below.

**Step parameters:**

- **waitTime:** Time in seconds to wait before proceeding to the next step.
- **considerIf:** A Consider If expression which must be met to execute a particular step. Items used in the expression are case sensitive. You cannot add an expression to the last step.
- **terms:** Required. A collection of terms for this step. Each step can have 1-10 terms. See the Term parameters below.

**Term parameters:**

- **attribute:** A reference to the attribute ([Attribute API](#)), including the refURL, name, description, and dataType. Multiple unique attributes can be used across all terms in a precision queue.
- **parenCount:** Denotes a parenthesis before or after this term. A value of 1 means a parenthesis before the current term, and a value of -1 means a parenthesis after the current term. The sum of all parenCount for all terms in a step must be equal to zero, meaning that all parenthesis in the expression are matched. For example, a step to check for agents that have (sales > 7 or expertSales = true) and english = true requires 3 terms with the parenCount set to 1 on the first term, -1 on the second term, and 0 on the last term.
- **termRelation:** Indicates the relationship of this term to the preceding term, using the following values:
  - 0: None. Valid only on the first term in a step.
  - 1: AND
  - 2: OR
- **attributeRelation:** Indicates what kind of comparison is done on the attribute, using the following values:
  - 1: Equal
  - 2: Not equal
  - 3: Less than
  - 4: Less than or equal
  - 5: Greater than
  - 6: Greater than or equal
- **value1:** The value that the attribute is tested against. For boolean attributes, this value must be true/false. For proficiency attributes, this value must be 1-10.

**Search and Sort Values**

The following table shows the parameters that are searched and the parameters that are sortable.

Search parameters	Sort parameters
<ul style="list-style-type: none"> <li>• name</li> <li>• description</li> </ul>	<ul style="list-style-type: none"> <li>• name (default)</li> <li>• description</li> </ul>

See [Search](#) and [Sort](#).

### Example Get Response

```
<precisionQueue>
  <refURL>/unifiedconfig/config/precisionqueue/5002</refURL>
  <changeStamp>4</changeStamp>
  <agentOrdering>1</agentOrdering>
  <callOrdering>1</callOrdering>
  <bucketInterval>
    <refURL>/unifiedconfig/config/bucketinterval/1</refURL>
    <name>Default_Bucket_Intervals</name>
  </bucketInterval>
  <mediaRoutingDomain>
    <name>Cisco_Voice</name>
    <refURL>/unifiedconfig/config/mediaroutingdomain/1</refURL>
  </mediaRoutingDomain>
  <description>This is a practice precision queue</description>
  <name>Practice_Queue</name>
  <serviceLevelThreshold>3</serviceLevelThreshold>
  <serviceLevelType>1</serviceLevelType>
  <steps>
    <step>
      <terms>
        <term>
          <attribute>
            <refURL>/unifiedconfig/config/attribute/5698</refURL>
            <name>test</name>
            <dataType>4</dataType>
          </attribute>
          <attributeRelation>5</attributeRelation>
          <parenCount>0</parenCount>
          <termRelation>0</termRelation>
          <value1>2</value1>
        </term>
      </terms>
      <waitTime>0</waitTime>
    </step>
  </steps>
</precisionQueue>
```