



BACK TO SERVICE ROBOTS(Sandbox) (<https://developers.otis.com/products/integrated-dispatch-for-service-robots-sandbox>)

# Socket.IO Communication

## Otis Integrated Dispatch™ for Service Robots (Sandbox)

The Otis Integrated Dispatch™ API enables a service robot to interface with a designated Otis elevator. Build bidirectional, real-time communication via web socket.

### SERVER

### OPERATIONS

Pub /api/oid/v1

Sub /api/oid/v1



## MESSAGES

sendCarCall

sendDestinationRequest

sendHallCall

## Pub /api/oid/v1

This is a **Socket.IO** service that provides real-time two-way communication. To connect to this service, you must specify the following parameters:

- **path** - The path, when connecting must be set to **/api/oid/v1**. This is a custom path that is being used by the API for elevator dispatching.
- **transports** - Both 'polling' and 'websocket' transports should be specified for the connection to the API.
- **query** - The **query** option must be set with the following key-value pair information:
  - **groupIds** - This is a comma separated list of the numeric ids of the elevator group(s) that you would like to connect to. Otis will provide you with the group ids that will be available for you to connect to.
- **extraHeaders** - There are two required custom headers that must be specified when connecting to the API:
  - **Authorization** - This value must be the authorization token that is obtained from the client credentials OAuth 2.0 flow described above.
  - **InstallationId** - This value is the id of the installation that you will be connecting to. This value will be provided to you by Otis.

**This section describes all of the events that you can send to the API in order to remotely control the elevator.**

### #1 Send Car Call Event sendCarCall

This is the event to send when you want to send a machine to a specific floor. It is the programmatic equivalent of pressing the button of a floor once you have entered an elevator. Once this event is sent to the API, the API will respond back with a **carCall** event that will notify you of the state of your car call. If a **sendCarCall** event is sent and the API responds back with a **carCall** event where the *carCallState* is *carCallAccepted*, then the API will broadcast to you the following events for the particular machine for which the **sendCarCall** event was sent:



- carCall

- carPosition
- direction
- doorStatus
- loadChange

Once the API has responded with a **carCall** event where the *carCallState* is *carCallServed*, and the door has done a full door cycle (you will receive doorStatus events where the *state* is *OPENING*, *OPENED*, *CLOSING*, and *CLOSED*, in that order), the above events will stop being sent to you for that particular machine (unless you have another sendCarCall, sendHallCall, or sendDestinationRequest in progress for the same machine).

Payload >

Object

Example ✓

```
{
  "groupId": 1,
  "deck": "BOTTOM",
  "side": "FRONT",
  "floor": 15,
  "machineId": 2,
  "type": "STANDARD"
}
```

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## #2 Send Destination Request Event

sendDestinationRequest

This is the event to send when you want to call a machine to a floor and supply it with the desired destination (called destination dispatch). Once this event is sent to the API, the API will respond back with a **destinationRequest** event that will notify you of the assigned car. The API will broadcast to you the following events for the particular machine for which the **sendDestinationRequest** event was sent:

- carCall
- carPosition
- direction
- doorStatus
- loadChange



Once a full door cycle has occurred (you will receive **doorStatus** events where the *state* is *OPENING*, *OPENED*, *CLOSING*, and *CLOSED*, in that order), the above events will stop being sent to you for that particular machine (unless you have another **sendCarCall**, **sendHallCall**, or **sendDestinationRequest** in progress for the same machine).

**Note:** Only certain elevator groups have this functionality available. Please contact Otis to determine if this is available for the group(s) to which you would like to connect.

Payload > Object

Example >

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### #3 Send Hall Call Event sendHallCall

This is the event to send when you want to call a machine to a specific floor. It is the programmatic equivalent of pressing the "up" or "down" button while waiting in the hall for an elevator to arrive. Once this event is sent to the API, the API will respond back with a **hallCall** event that will notify you of the state of your hall call. If a **sendHallCall** event is sent and the API responds back with a **hallCall** event where the *hallCallState* is *hallCallAccepted*, then the API will broadcast to you the following events for the assigned machine for which the **sendHallCall** event was sent:

- carCall
- carPosition
- direction
- doorStatus
- loadChange

Once the API has responded with a hallCall event where the *hallCallState* is *hallCallServed*, and the door has done a full door cycle (you will receive **doorStatus** events where the *state* is *OPENING*, *OPENED*, *CLOSING*, and *CLOSED*, in that order), the above events will stop being sent to you for that particular machine (unless you have another **sendCarCall**, **sendHallCall**, or **sendDestinationRequest** in progress for the same machine).

Payload > Object

Example >



If you have any questions drop an email [developers@otis.com](mailto:developers@otis.com)  
(mailto:developers@otis.com)

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