Oracle Hospitality Integration Platform

Request Room Key From An External System

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Oracle Hospitality Integration Platform Request Room Key From An External System,

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Preface

OPERA Cloud provides an API operation **POST RoomKeysExternal** that manages requests for guest room keys from external systems.

Purpose

This implementation guide explains the workflows for the typical handling of guest room keys requested by external systems connected with OHIP.

Audience

This guide is intended for customers and partners who develop applications with the Oracle Hospitality Integration Platform.

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at https://docs.oracle.com/en/industries/hospitality/.

Revision History

Date	Description of Change
August 2025	Initial publication

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Business Context

OPERA Cloud provides an API operation POST RoomKeysExternal that manages requests for guest room keys from external systems.

This operation allows external systems, such as but not limited to Check-In Terminals or applications supporting mobile room keys, to send a request to create room keys or mobile room keys through the API to OHIP, which forwards it to OPERA Cloud. From there, the request is transmitted to a connected Door Lock System using the OPERA Outbound Systems Door Lock API (postRoomKeysOutbound).

The **postRoomKeysExternal** API operation supports all possible room key requests to be executed by the connected Door Lock system (DLS). Different types of key actions (such as New Key, Duplicate Key, and Delete Key requests) and Modify and Room move requests (for online key systems) are available for requesting physical room keys as well as mobile/digital keys or Pin codes.

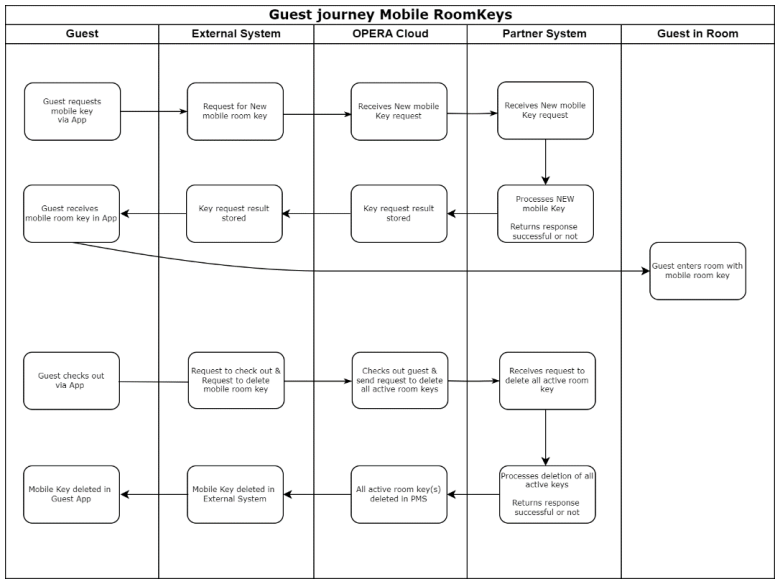
This implementation guide provides guidance and explains the workflows for the typical handling of guest room keys requested by external systems connected with OHIP.

This guide covers the following use cases for mobile room key requests and also use cases for plastic key or Pin code requests from an external system.

Table 1-1 Business Use Cases

	Use Case	Description
1	Request from an external system to create/activate a Mobile Key for an existing guest room reservation.	An external system sends a request for a mobile key to OHIP/OPERA Cloud PMS at the time of reservation check-in or at any time prior to or after guest check-in. This can be a request for the first mobile room key to become active.
2	Request from an external system to delete/remove active room key(s).	An external system sends a request to delete all active room keys or Pin Codes for a reservation at the time of a check-out of the hotel guest through the external system or at any time during the guest stay (initiated by the user of the external system). A request to delete specific room keys is not available.
3	Request from an external system to encode a physical room key (plastic key or wristband) or create a Pin Code for an existing guest room reservation.	An external system sends a request for creating/activating a physical room key (for example, a plastic card or wristband) or a Pin Code to OHIP/OPERA Cloud PMS at the time of reservation check-in or at any time prior or after guest check-in.
4	Request from an external system to encode additional physical room key(s) (plastic key or wristband) or create a Pin Code for an existing guest room reservation.	An external system sends a request for creating/activating an additional physical room key (for example, a plastic card or wristband) or another Pin Code to OHIP/OPERA Cloud PMS at the time of reservation check-in or at any time prior or after guest check-in.

Table 1-2 Workflow Diagram: Guest Journey Mobile Room Key



Journey: Guest arrival

Hotel guest receives notification from Hotel that his reservation is ready for Check-In and that guest can request his mobile key now.

Guest requests the mobile key via external system (e.g. Hotel Mobile App or Website). The external system sends the request to OHIP using the postRoomKeysExternal API operation.

OHIP passes the request to OPERA Cloud. OPERA Cloud then sends out a request for a mobile key to the connected Door Lock system using the Outbound API postRoomKeysOutbound.

The Door Lock system processes the request and sends back related response (request successful or not) to OPERA Cloud including the necessary mobile key data.

OPERA Cloud passes back the mobile key request response data to OHIP which sends it back to the external System.

In case of successful response from the Door Lock system the external system sends the mobile key information to the guest facing app or website.

With check in of the reservation in OPERA Cloud the guest is now able to use the mobile key to open the guest room.

Journey: Guest departure

Check-Out via Guest app:

When the hotel guest checks out from the hotel via his app, the external system has the option to send out a check out request and a Remove Room Key request to OPERA Cloud. The external system sends the request to

Table 1-2 (Cont.) Workflow Diagram: Guest Journey Mobile Room Key

	OHIP using the postRoomKeysExternal API operation. OHIP passes the request to OPERA Cloud. OPERA Cloud then sends a Remove Key request to the connected Door Lock System using the Outbound API postRoomKeysOutbound. The Door Lock system will delete all active room keys for this room/reservation and responds back to OPERA Cloud. OPERA Cloud passes the response back to the external system which will then remove the mobile key from the guest app. Guest is no longer able to open his guest room. Check-Out at Hotel Front desk: When the guest checks out at the Hotel Front desk OPERA Cloud will send a Remove Key request to the connected Door Lock System. The Door Lock system will delete all active room keys for this room/reservation and responds back to OPERA Cloud. In this scenario OPERA Cloud will not send a remove key request to the external system by default. The external system needs to handle the removal of the mobile key based on the received mobile key validity or subscribe to receive Check-Out Business Event via OHIP.

2

Prerequisites

The following prerequisites are required to complete the steps in this guide.

Required Tools

The below software tools are needed to complete the steps outlined in this guide.

Tool	Description	Links
Github	A Github repository containing both Oracle Hospitality REST API specifications and accompanying Postman Collections.	Documentation Tool
Postman Collections	In the postman-collections folder in Github, you can download and use the Postman Collections associated to the use cases explained in this guide.	Documentation Tool

Environment

The following environments and modules must be available to perform the Business Use Cases with the OPERA Cloud APIs.

OPERA Cloud Platform Module	Description	Minimum Version
OPERA Cloud PMS	The customer must have a subscription to OPERA Cloud Foundation.	24.2.0.0
Oracle Hospitality Integration Platform (OHIP)	For customers, OHIP is included in the subscription to OPERA Cloud Foundation. Partners need a subscription to Oracle Hospitality Integration Cloud Service.	The latest released version. OHIP is a single version product.
Door Lock System Connected to OPERA Cloud PMS	The customer must have a Door Lock System that supports the OPERA Outbound API post roomKeysOutbound operation.	A compatible version supporting the latest OPERA Cloud post RoomKeysOutbound API.

3 Connection

The external system connects to Oracle Hospitality Integration Platform (OHIP). This is an external system that can request room keys, Pin codes, or mobile keys from a connected Door Lock System at OPERA Cloud.

OHIP passes the requests to the connected OPERA Cloud which then passes the request to the connected Door Lock System.

OPERA Cloud will not execute the room key / Pin code / Mobile key activation nor will it directly connect to a on-premise Room Key Encoder.

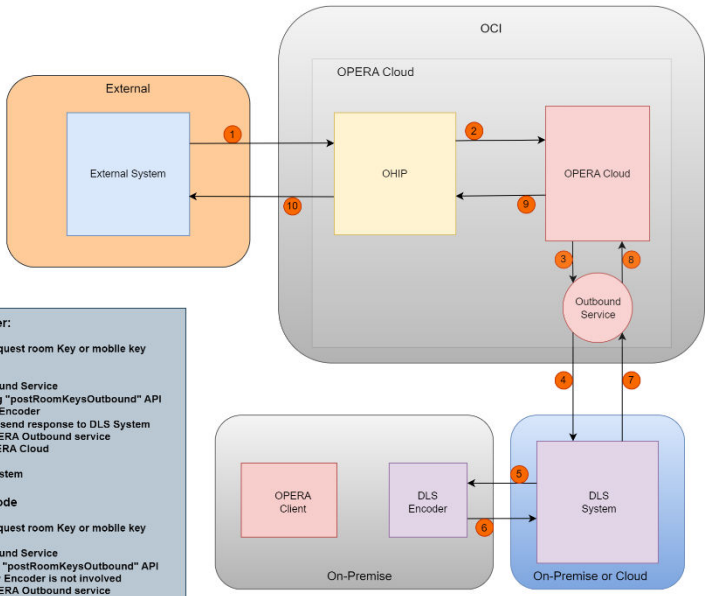
The Connection of the Door Lock System with OPERA Cloud for handling guest room key requests from the PMS will not directly work through OHIP, but it is done by a direct connection to the Door Lock system.

For the proper connection configuration, the door lock system partner must provide the following to the customer:

- API Base URL path to connect with the external Door Lock system. For example: https://doorlockhost.com/v1.
- Authentication type for secure connection (sent with every API request).
- Optional access areas that can be set in OPERA Cloud per Key.
- The ID of the Key Encoder devices - OPERA Cloud sends this ID with a request to create a room key.

General Workflow for the external room key request with OHIP and OPERA Cloud Outbound service for DLS API:

Room Keys External + RoomKeys Outbound workflow



If key request requires local Key encoder:

1 = Request from external System to OHIP request room Key or mobile key using "postRoomKeysExternal" API
2 = OHIP passing request to OPERA Cloud
3 = OPERA passing request to OPERA Outbound Service
4 = Request (3) passing to DLS System using "postRoomKeysOutbound" API
5 = DLS System passing request to DLS Key Encoder
6 = DLS Key Encoder processes request and send response to DLS System
7 = DLS System sends "201" response to OPERA Outbound service
8 = Outbound service sends response to OPERA Cloud
9 = OPERA Cloud sends response to OHIP.
10 = OHIP sends response back to external System

If key request is for mobile key or Pin code

1 = Request from external System to OHIP request room Key or mobile key
2 = OHIP passing request to OPERA Cloud
3 = OPERA passing request to OPERA Outbound Service
4 = Request (3) passing to DLS System using "postRoomKeysOutbound" API DLS System processes request - DLS Key Encoder is not involved
7 = DLS System sends "201" response to OPERA Outbound service
8 = Outbound service sends response to OPERA Cloud
9 = OPERA Cloud sends response to OHIP.
10 = OHIP sends response back to external System

4 Configurations

Before calling Property APIs, you must complete the following tasks:

- Accessing the Oracle Hospitality Integration Platform Developer Portal
- Creating an Integration User
- Registering an Application

To connect with the Door Lock System, the below configurations must be completed in the OPERA Cloud UI:

- In OPERA Cloud, configure an Outbound system interface for Outbound Type "GUESTKEY_GENERIC" per OPERA Cloud Property. See Configuring Outbound Systems to learn more.
- In OPERA Cloud, configure the required outbound domain/host entry to allow an HTTPS connection from OPERA Cloud to the partner system. See Configuring Outbound Domain Allow Listings to learn more.
- In OPERA Cloud, configure a Property Interface for IFC TYPE DLS linked to the Outbound Door Lock Interface per OPERA Cloud Property. See Configuring Property Interface to learn more.
- In the OPERA Cloud Property Interface, the supported room key action types must be configured (that is, New key, Duplicate key, One-shot key, Read key, and Delete key) to display them in the OPERA Cloud "Create Key" screen. See Configuring Property Interface Rights to learn more.
- In OPERA Cloud, configure the Door Lock system as either an ONLINE KEY System or OFFLINE System, or configure it as a system providing PIN Codes instead of "hard keys." The related PMS Functionality will then be enabled. See Configuring Property Interface General Information to learn more.
- In OPERA Cloud, configure additional optional access area codes (KeyOptions) that can be chosen by the user upon create Key request. See Preference Groups to learn more.

Mandatory Data the Door Lock System Must Retrieve to Properly Handle Room Keys

To properly perform the roomKeysExternal operation in OHIP, the external system must know the unique HotelId of the customer's OPERA Cloud property.

- **HotelId** - The Property Code that identifies the specific hotel. This code is part of the URL path and is sent with every API message.
- **PMS RoomId** - The configured room numbers of the hotel. The roomId identifies the door lock for which the room key is requested.

How to Retrieve the HotelId and Configured Room Numbers

- The customer can hand out the hotelIds and configured room numbers to be used with the DLS integration.
- The customer can alternatively retrieve the hotelIds and also the configured room numbers through OHIP operations.

Retrieve a List of all HotelIds for a Chain

Use the OperationId **getResortChains** (Postman Example).

Use this API to retrieve HotelId information for a selected Chain.

At least ONE HotelId (the Hotel's OPERA Cloud Property Code) must be obtained directly from the customer as this must be used with the API call.

Sample: **getResortChains**

GET ***HostName*** /lov/v1/listOfValues/ResortChains

Table 4-1 getResortChains

Response

Table 4-1 (Cont.) getResortChains

```
{
    "listOfValues": {
        "items": [
            {
                "flexfields": [
                    {
                        "parameterName": "ChainCode",
                        "parameterValue": "OHIPSB"
                    },
                    {
                        "parameterName": "ChainName",
                        "parameterValue": "OHIPSB"
                    },
                    {
                        "parameterName": "ChainDesc",
                        "parameterValue": "OHIPSB"
                    }
                ],
                "code": "SAND01",
                "name": "OHIP Sandbox 1",
                "description": "OHIP Sandbox 1",
                "active": true
            },
            {
                "flexfields": [
                    {
                        "parameterName": "ChainCode",
                        "parameterValue": "OHIPSB"
                    },
                    {
                        "parameterName": "ChainName",
                        "parameterValue": "OHIPSB"
                    },
                    {
                        "parameterName": "ChainDesc",
                        "parameterValue": "OHIPSB"
                    }
                ],
                "code": "SAND02",
                "name": "OHIP Sandbox 2",
                "description": "OHIP Sandbox 2",
                "active": true
            },
            {
                "flexfields": [
                    {
                        "parameterName": "ChainCode",
                        "parameterValue": "OHIPSB"
                    },
                    {
```

Table 4-1 (Cont.) getResortChains


```
                        "parameterName": "ChainName",
                        "parameterValue": "OHIPSB"
                    },
                    {
                        "parameterName": "ChainDesc",
                        "parameterValue": "OHIPSB"
                    }
                ],
                "code": "SAND03",
                "name": "OHIP Sandbox 3",
                "description": "OHIP Sandbox 3",
                "active": true
            }
        ],
        "lovName": "ResortChains",
        "itemCount": 3
    }
}
```


Retrieve a simple list of room numbers for the resort (HotelId)

Retrieve the configured room numbers of a specific property that you need to send in the postRoomKeysExternal requests.

Use the OperationId **getResortRoomNumbers** (Postman Example)

Use this API to fetch room numbers and simple information for a selected HotelId. The response includes a list of all configured rooms at a property.

> **Note**
>
> Room numbers can have leading zeroes (for example, "010", "0101", "0002"). As there is no translation of room numbers, the external system (and the Door Lock System) should support room numbers with leading zeroes.

Sample: **getResortRoomNumbers**

GET *HostName* /lov/v1/listOfValues/hotels/*HotelId*/resortRoomNumbers

Table 4-2 getResortRoomNumbers

Response

Table 4-2 (Cont.) getResortRoomNumbers


```
{
    "listOfValues": {
        "items": [
            {
                "flexfields": [
                    {
                        "parameterName": "Label",
                        "parameterValue": "JSUI"
                    },
                    {
                        "parameterName": "ShortDescription",
                        "parameterValue": "Junior Suite"
                    }
                ],
                "code": "1000",
                "name": "2 Double Beds and 1 Simple Bed",
                "description": "2 Double Beds and 1 Simple Bed",
                "active": true
            },
            {
                "flexfields": [
                    {
                        "parameterName": "Label",
                        "parameterValue": "JSUI"
                    },
                    {
                        "parameterName": "ShortDescription",
                        "parameterValue": "Junior Suite"
                    }
                ],
                "code": "1001",
                "name": "2 Double Beds and 1 Simple Bed",
                "description": "2 Double Beds and 1 Simple Bed",
                "active": true
            },
            {
                "flexfields": [
                    {
                        "parameterName": "Label",
                        "parameterValue": "JSUI"
                    },
                    {
                        "parameterName": "ShortDescription",
                        "parameterValue": "Junior Suite"
                    }
                ],
                "code": "1002",
                "name": "2 Double Beds and 1 Simple Bed",
                "description": "2 Double Beds and 1 Simple Bed",
```

Table 4-2 (Cont.) getResortRoomNumbers

```
            "active": true
        },
```

Retrieve a detailed list of physical and/or pseudo rooms for a property

Pseudo Rooms can be defined as Conference rooms in OPERA Cloud. Related door lock IDs are defined in the Door Lock System and can be linked to the Pseudo Rooms in OPERA Cloud Configuration.

> **Note**
>
> Room numbers can have leading zeroes (for example, "010", "0101", "0002"). As there is no translation of room numbers, the external system (and the Door Lock System) should support room numbers with leading zeroes.

Use the OperationId **getRooms** (Postman Example).

Use this API to fetch detailed information of rooms that exist for a specified property. The response includes a list of all existing physical and or pseudo rooms at that property.

Sample: **getRooms**

GET HostName /rm/config/v1/hotels/ ***hotelId*** /rooms?
limit=&offset=&physical=&pseudo=&roomClassCodes=&roomTypeCode=

The below table lists useful query parameters for the operation.

Table 4-3 Query Parameters

Parameter	Type	Description
• **hotelId**	String	The unique ID of hotel.
• **limit**	Number (max 20)	Indicates the maximum number of records a web service should return.
• **offset**	Number	Index or initial index of the set (page) being requested. If the index goes out of the bounds of the total set count, then no data is returned.
• **physical**	Boolean (true/false)	Is it a physical room type.
• **pseudo**	Is it a pseudo room type.	Boolean (true/false)
• **roomClassCodes**	Array	
• **roomTypeCodes**	Array	
• **room**	String	The room to be searched.

Table 4-4 API Message Sample: Response Listing All Rooms

Response Listing All Rooms

Table 4-4 (Cont.) API Message Sample: Response Listing All Rooms


```
{
    "rooms": [
        {
            "room": [

                {
                    "roomType": {
                        "pseudo": false,
                        "suite": false,
                        "roomClass": "STD",
                        "houseKeeping": true,
                        "minimumOccupancy": 1,
                        "maximumOccupancy": 1,
                        "accessible": false,
                        "roomType": "ECO",
                        "meetingRoom": false
                    },
                    "roomFeatures": [
                        {
                            "code": "QBED",
                            "description": "Queen Bed",
                            "orderSequence": 1
                        },
                        {
                            "code": "NEAR",
                            "description": "Near elevator",
                            "orderSequence": 11
                        },
                        {
                            "code": "PET",
                            "description": "Pet room",
                            "orderSequence": 15
                        }
                    ],
                    "roomDescription": "Economy Room",
                    "description": {
                        "defaultText": "Economy Room",
                        "translatedTexts": []
                    },
                    "accessible": true,
                    "roomId": "101",
                    "meetingRoom": true,
                    "roomComponents": [],
                    "connectingRooms": [
                        {
                            "roomType": {
                                "roomType": "ECO"
                            },
                            "description": {
                                "defaultText": "Economy Room"
```

Table 4-4 (Cont.) API Message Sample: Response Listing All Rooms


```
                        },
                        "roomId": "102"
                    }
                ],
                "rateAmount": {},
                "maximumOccupancy": 1,
                "sellSequence": 1,
                "ownerRoom": false,
                "keyOptions": [],
                "turndownService": false,
                "roomSection": {}
            },
            {
                "roomType": {
                    "pseudo": false,
                    "suite": false,
                    "roomClass": "STD",
                    "houseKeeping": true,
                    "minimumOccupancy": 1,
                    "maximumOccupancy": 1,
                    "accessible": false,
                    "roomType": "ECO",
                    "meetingRoom": false
                },
                "roomDescription": "Economy Room",
                "description": {
                    "defaultText": "Economy Room",
                    "translatedTexts": []
                },
                "accessible": true,
                "roomId": "102",
                "meetingRoom": false,
                "roomComponents": [],
                "connectingRooms": [
                    {
                        "roomType": {
                            "roomType": "ECO"
                        },
                        "description": {
                            "defaultText": "Economy Room"
                        },
                        "roomId": "101"
                    }
                ],
                "rateAmount": {},
                "maximumOccupancy": 1,
                "sellSequence": 1,
                "ownerRoom": false,
                "keyOptions": [],
                "turndownService": false,
                "roomSection": {}
```

Table 4-4 (Cont.) API Message Sample: Response Listing All Rooms


```
            },

            {
                "roomType": {
                    "pseudo": true,
                    "suite": false,
                    "roomClass": "ALL",
                    "houseKeeping": false,
                    "maximumOccupancy": 1,
                    "accessible": false,
                    "roomType": "PM",
                    "meetingRoom": false
                },
                "roomDescription": "Posting Master",
                "description": {
                    "defaultText": "PM IFC other 15",
                    "translatedTexts": []
                },
                "accessible": false,
                "roomId": "9015",
                "meetingRoom": false,
                "roomComponents": [],
                "rateAmount": {},
                "maximumOccupancy": 1,
                "ownerRoom": false,
                "keyOptions": [],
                "turndownService": false,
                "roomSection": {}
            },
            {
                "roomType": {
                    "pseudo": true,
                    "suite": false,
                    "roomClass": "PSE",
                    "houseKeeping": false,
                    "accessible": false,
                    "roomType": "DPDP",
                    "meetingRoom": false
                },
                "roomDescription": "DP",
                "description": {
                    "defaultText": "DP",
                    "translatedTexts": []
                },
                "accessible": false,
                "roomId": "9200",
                "meetingRoom": false,
                "roomComponents": [],
                "rateAmount": {},
                "ownerRoom": false,
                "keyOptions": [],
```

Table 4-4 (Cont.) API Message Sample: Response Listing All Rooms


```
                "turndownService": false,
                "roomSection": {}
            },
            {
                "roomType": {
                    "pseudo": true,
                    "suite": false,
                    "roomClass": "ALL",
                    "houseKeeping": false,
                    "building": "1",
                    "maximumOccupancy": 300,
                    "accessible": false,
                    "roomType": "BALLROOM",
                    "meetingRoom": true
                },
                "roomDescription": "Grand Ballroom",
                "description": {
                    "defaultText": "West Sunset Room 1",
                    "translatedTexts": []
                },
                "building": "1",
                "accessible": true,
                "roomId": "BALLROOM",
                "meetingRoom": true,
                "roomComponents": [],
                "rateAmount": {},
                "ownerRoom": false,
                "keyOptions": [],
                "turndownService": false,
                "roomSection": {}
            }
        ],
        "hotelId": "SAND01"
    }
```


Table 4-5 API Message Sample: Example Guest Room

Example Guest Room

Table 4-5 (Cont.) API Message Sample: Example Guest Room


```
{
                    "roomType": {
                        "pseudo": false,
                        "suite": false,
                        "roomClass": "STD",
                        "houseKeeping": true,
                        "minimumOccupancy": 1,
                        "maximumOccupancy": 1,
                        "accessible": false,
                        "roomType": "ECO",
                        "meetingRoom": false
                    },
                    "roomFeatures": [
                        {
                            "code": "QBED",
                            "description": "Queen Bed",
                            "orderSequence": 1
                        },
                        {
                            "code": "NEAR",
                            "description": "Near elevator",
                            "orderSequence": 11
                        },
                        {
                            "code": "PET",
                            "description": "Pet room",
                            "orderSequence": 15
                        }
                    ],
                    "roomDescription": "Economy Room",
                    "description": {
                        "defaultText": "Economy Room",
                        "translatedTexts": []
                    },
                    "accessible": true,
                    "roomId": "101",
                    "meetingRoom": true,
                    "roomComponents": [],
                    "connectingRooms": [
                        {
                            "roomType": {
                                "roomType": "ECO"
                            },
                            "description": {
                                "defaultText": "Economy Room"
                            },
                            "roomId": "102"
                        }
                    ],
                    "rateAmount": {},
```

Table 4-5 (Cont.) API Message Sample: Example Guest Room

```
                "maximumOccupancy": 1,
                "sellSequence": 1,
                "ownerRoom": false,
                "keyOptions": [],
                "turndownService": false,
                "roomSection": {}
            },
```

Table 4-6 API Message Sample: Example Post Master (Room Type PM)

Example Post Master (Room Type PM)

Table 4-6 (Cont.) API Message Sample: Example Post Master (Room Type PM)


```
{
                    "roomType": {
                        "pseudo": true,
                        "suite": false,
                        "roomClass": "ALL",
                        "houseKeeping": false,
                        "maximumOccupancy": 1,
                        "accessible": false,
                        "roomType": "PM",
                        "meetingRoom": false
                    },
                    "roomDescription": "Posting Master",
                    "description": {
                        "defaultText": "PM IFC other 15",
                        "translatedTexts": []
                    },
                    "accessible": false,
                    "roomId": "9015",
                    "meetingRoom": false,
                    "roomComponents": [],
                    "rateAmount": {},
                    "maximumOccupancy": 1,
                    "ownerRoom": false,
                    "keyOptions": [],
                    "turndownService": false,
                    "roomSection": {}
                },
                {
                    "roomType": {
                        "pseudo": true,
                        "suite": false,
                        "roomClass": "PSE",
                        "houseKeeping": false,
                        "accessible": false,
                        "roomType": "DPDP",
                        "meetingRoom": false
                    },
                    "roomDescription": "DP",
                    "description": {
                        "defaultText": "DP",
                        "translatedTexts": []
                    },
                    "accessible": false,
                    "roomId": "9200",
                    "meetingRoom": false,
                    "roomComponents": [],
                    "rateAmount": {},
                    "ownerRoom": false,
                    "keyOptions": [],
                    "turndownService": false,
```

Table 4-6 (Cont.) API Message Sample: Example Post Master (Room Type PM)

```
                "roomSection": {}
            },
```

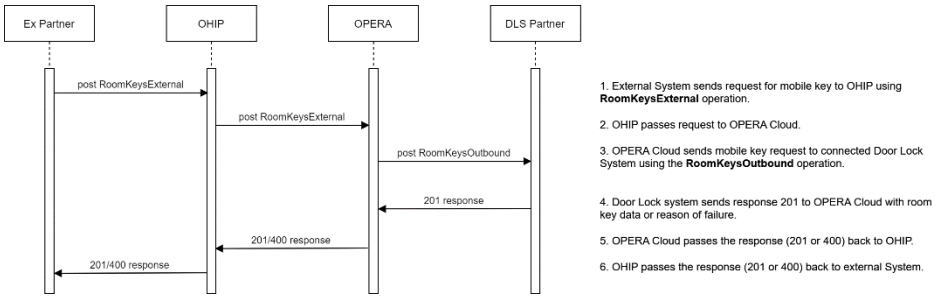
> **Note**
>
> - There must be one postRoomKeysExternal call sent per key.
> - If multiple keys are requested, the first key must be requested as keyType: "New."
> - All the following keys must be requested as keyType "Duplicate" AFTER receiving the response for the first requested key.
> - The "numberOfKeys" value is always "1" and must not be changed.

5

Workflows

Workflow: Request from External System to Create Mobile Key

Sequence Diagram



Description of Steps

	Description	Sample Call

1	An External system (for example, a Kiosk check-in terminal) sends a request for a "MobileKey" to OHIP using the POST roomKeysExternal operation.	MobileRoomKeyRequest
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		{
		"keyType": "New",
		"encoderTerminal": "",
		"encoderId": "",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:16:10.295Z",
		"roomId": "101",
		"oldRoomId": "",
		"noOfKeys": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"guestShareFlag": "N",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator"
		}
		]
		}

2	OHIP sends the request over to OPERA Cloud.	

3	OPERA Cloud sends out the request to the connected Door Lock System using the POST roomKeysOutbound operation.	Mobile Key Outbound Request
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		{
		"keyType": "New",
		"encoderTerminal": "TERM1",
		"encoderId": "",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:16:10.295Z",
		"roomId": "101",
		"oldRoomId": "",
		"noOfKeys": 1,
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"guestShareFlag": "false",
		"OldGuestShareFlag": "",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator"
		}
		]
		}

4	The door lock system responds to OPERA Cloud within 20 seconds with a "201" status message containing the mobile key data or (in case of unsuccessful request) with a "201" response containing information on why the request could not be processed.	Mobile Key Outbound Response
		Response on POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		{
		"roomId": "101",
		"responseCode": "OK",
		"encoderTerminal": "",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"keyCreationTime": "2024-02-26T16:16:16.138Z",
		"noOfKeys": "1",
		"encoderId": "",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"responseText": "Mobile Key successfully created",
		"additionalRooms": [
		"",
		""
		],
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "MAIN",
		"keyOptionDescription": "MainEntrance",
		"isEnabled": "true",
		"default": "true"
		}
		],
		"userId": "ExternalUser",
		"digitalKeyData":
		"67456944572945153 5dgrth345342535ttrhtzjtz7684ugweg5

		544345756756zrgewrgq43t5z5z",
		"keyImage": "",
		"cardSerialNumber": ""
		}
		
		Mobile Key Outbound Response
		
		{
		"roomId": "101",
		"responseCode": "UR",
		"encoderTerminal": "TERM1",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-09-30T10:16:10.000Z",
		"keyValidityEnd": "2024-09-30T18:00:00.000Z",
		"keyCreationTime": "2024-09-30T11:21:15.290Z",
		"encoderId": "1",
		"responseText": "Room not found.",
		"additionalRooms": [],
		"userId": "External"
		}

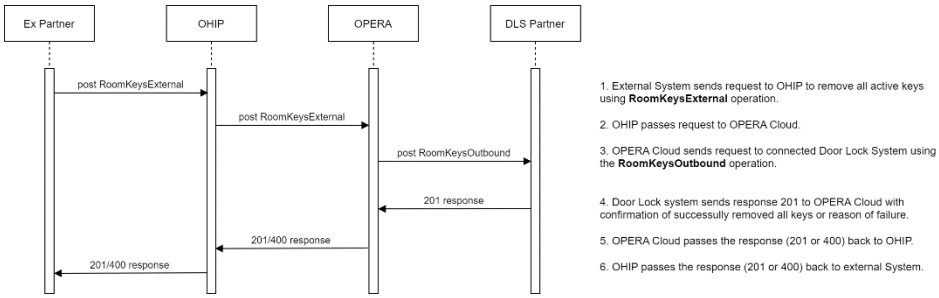
5	OPERA Cloud sends the response back to OHIP.	

6	OHIP sends back the 201 response to the external system that requested the mobile key containing the mobile key data.
	The external system should display the related "responseText" value so the user who requested the key will be aware that the request was successful.
	In case of an unsuccessful request to create/activate a room key OHIP will respond to the external system with a "400" message containing the response information text from the Door Lock system.
	The external system should display the related "responseText" value so the user who requested the key will be aware of why a request was not successful.
		Mobile Key Response External
		Response on POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		{
		"roomId": "101",
		"responseCode": "OK",
		"encoderTerminal": "",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"keyCreationTime": "2024-02-26T16:16:16.138Z",
		"noOfKeys": "1",
		"encoderId": "",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"responseText": "Mobile Key successfully created",
		"additionalRooms": [
		"",
		""
		],
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "MAIN",
		"keyOptionDescription": "MainEntrance",
		"isEnabled": "true",
		"default": "true"
		}
		],
		"userId": "ExternalUser",
		"digitalKeyData":
		"67456944572945153 5dgrth345342535ttrhtzjtz7684ugweg5

		544345756756zrgewrgq43t5z5z",
		"keyImage": "",
		"cardSerialNumber": ""
		}
		
		Unsuccessful Response External System (referring to above "Unsuccesful response Outbound")
		
		{
		"type": "Bad Request",
		"title": "Unable to generate a room key for reservation. Key encoder status: Room not found.",
		"status": "NotProcessed",
		"detail": "Unable to generate a room key for reservation. Key encoder status: Room not found.",
		"o:errorCode": "OPERAWS-FOF00200",
		"language": "en"
		}

Workflow: Request from External System to Remove a Key

Sequence Diagram



Description of Steps

	Description	Sample Call

1	An External system (for example, a Kiosk check-in terminal) sends a request to OHIP to delete all active keys using the POST roomKeysExternal operation.	Remove Room Key Request External
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		{
		"keyType": "Remove",
		"encoderTerminal": "",
		"encoderId": "",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:20:10.295Z",
		"roomId": "101",
		"oldRoomId": "",
		"noOfKeys": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"guestShareFlag": "N",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator"
		}
		]
		}

2	OHIP sends the request over to OPERA Cloud.	

3	OPERA Cloud sends out the request to the connected Door Lock System using the POST roomKeysOutbound operation.	Remove RoomKey Outbound Request
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		{
		"keyType": "Remove",
		"encoderTerminal": "TERM1",
		"encoderId": "",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:20:10.295Z",
		"roomId": "101",
		"oldRoomId": "",
		"noOfKeys": 1,
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"guestShareFlag": "false",
		"OldGuestShareFlag": "",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator"
		}
		]
		}

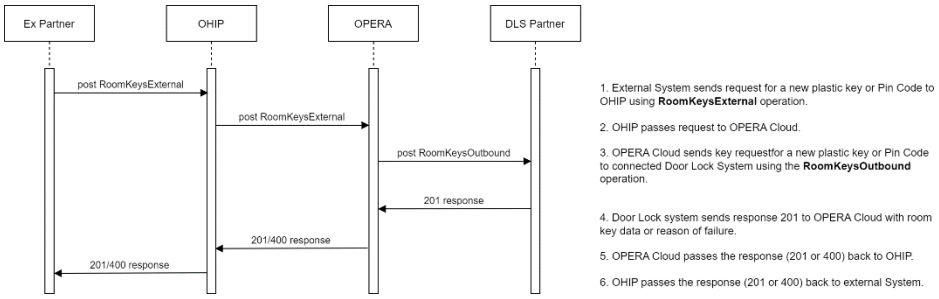
4	The door lock system responds to OPERA Cloud within 20 seconds with a "201" status message indicating if the request has been successful or not.	Remove RoomKey Outbound Response
		Response on POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		{
		"roomId": "101",
		"responseCode": "OK",
		"encoderTerminal": "",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"keyCreationTime": "2024-02-26T16:20:16.138Z",
		"noOfKeys": "1",
		"encoderId": "",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"responseText": "Keys removed/set inactive",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"digitalKeyData": "",
		"keyImage": "",
		"cardSerialNumber": ""
		}
		
		Unsuccessful Response Outbound
		
		{
		"roomId": "101",
		"responseCode": "UR",
		"encoderTerminal": "TERM1",
		"roomKeyType": "MobileKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-09-30T10:16:10.000Z",
		"keyValidityEnd": "2024-09-30T18:00:00.000Z",
		"keyCreationTime": "2024-09-30T11:21:15.290Z",
		"encoderId": "1",
		"responseText": "No active Mobile key found for Room 101.",
		"additionalRooms": [],

		"userId": "External" }
5	OPERA Cloud sends the response back to OHIP.	

6	OHIP sends back the 201 response to the external system that requested the removal of all active keys containing information that the request was successful.
	The external system should display the related "responseText" value, so the user who requested the key will be aware that the request was successful.
	In case of an unsuccessful request to delete/remove room key(s), OHIP will respond to the external system with a "400" message containing the response information text from the Door Lock system.
	The external system should display the related "responseText" value, so the user who requested the key is aware of why a request was not successful.
		Remove Room Key Response External
		Response onPOST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		`{`
		`  "roomId": "101",`
		`  "responseCode": "OK",`
		`  "encoderTerminal": "",`
		`  "roomKeyType": "Mobile Key",`
		`  "keyUserType": "Guest",`
		`  "keyValidityStart": "2024-02-26T11:16:16.000Z",`
		`  "keyValidityEnd": "2024-02-27T12:00:00.000Z",`
		`  "keyCreationTime": "2024-02-26T16:20:16.138Z",`
		`  "noOfKeys": "1",`
		`  "encoderId": "",`
		`  "reservationIdList": [`
		`  {`
		`  "id": "{{ReservationId}}",`
		`  "type": "Reservation"`
		`  },`
		`  {`
		`  "id": "2468024",`
		`  "type": "Confirmation"`
		`  }`
		`  ],`
		`  "responseText": "Keys removed/set inactive",`
		`  "additionalRooms": [`
		`  "",`
		`  ""`
		`  ],`
		`  "userId": "ExternalUser",`
		`  "digitalKeyData": "",`
		`  "keyImage": "",`
		`  "cardSerialNumber": ""`
		`}`
		
		Unsuccessful Response External System (referring to above "Unsuccesful response Outbound")
		
		`{`
		`  "type": "Bad Request",`
		`  "title": "Unable to generate a room key for reservation. Key encoder status: No active Mobile key found for Room 101.",`
		`  "status": "NotProcessed",`
		`  "detail": "Unable to generate a room key for reservation. Key encoder status: No active Mobile key found for Room 101.",`
		`  "o:errorCode": "OPERAWS-FOF00200",`
		`  "language": "en"`
		`}`

Workflow: Request from an External System to Encode a Physical Room Key (Plastic Key or Wristband) or Create a Pin Code for an Existing Reservation

Sequence Diagram



Description of Steps

	Description	Sample Call

1	An External system (for example, a Kiosk check-in terminal) sends a request for a "HardKey" or "PinCode" to OHIP using the POST roomKeysExternal operation.
	Note that there must be one postRoomKeysExternal call sent per key.
	In case multiple keys are requested, the first key must be requested as keyType: "New."
	All the following keys must be requested as keyType: "Duplicate" AFTER receiving a response for the first requested key.
		Plastic Room Key External Request
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		{
		"keyType": "New",
		"encoderTerminal": "Kiosk",
		"encoderId": "1",
		"roomKeyType": "HardKey",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:16:10.295Z",
		"roomId": "101",
		"oldRoomId": "",
		"noOfKeys": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"guestShareFlag": "N",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator"
		}
		]
		}
		
		PinCode External Request
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		{
		"keyType": "New",
		"encoderTerminal": "",
		"encoderId": "",
		"roomKeyType": "PinCode",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:16:10.295Z",

<table>
<tr><td></td><td></td><td><pre>
  "roomId": "101",
  "oldRoomId": "",
  "noOfKeys": "1",
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "guestShareFlag": "N",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "additionalRooms": [
    "",
    ""
  ],
  "userId": "ExternalUser",
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna"
    },
    {
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator"
    }
  ]
}
</pre></td></tr>
<tr><td>2</td><td colspan="2">OHIP sends the request over to OPERA Cloud.</td></tr>
</table>

3	OPERA Cloud sends out the request to the connected Door Lock System using the POST roomKeysOutbound operation.
	The door lock system will pass the request to the key encoder that will then process the room key request.
	For a request to create/ activate a plastic room key, it is necessary to specify both the PMS 'encoderTerminal' and the Key Service system's key encoder (encoderId) in cases where more than one external devices (Kiosks) may be addressing one key coder.
	For a request of a PinCode, instead of a plastic room key, there is no need to define and send an Encoder ID.
	Usually the Door Lock System processes the request for PinCode in its "central" system.
		Plastic Room Key Outbound Request
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		`{`
		`  "keyType": "New",`
		`  "encoderTerminal": "Kiosk",`
		`  "encoderId": "1",`
		`  "roomKeyType": "HardKey",`
		`  "keyUserType": "Guest",`
		`  "keyRequestTime": "2024-02-26T16:16:10.295Z",`
		`  "roomId": "101",`
		`  "oldRoomId": "",`
		`  "noOfKeys": 1,`
		`  "reservationIdList": [`
		`  {`
		`  "id": "{{ReservationId}}",`
		`  "type": "Reservation"`
		`  },`
		`  {`
		`  "id": "2468024",`
		`  "type": "Confirmation"`
		`  }`
		`  ],`
		`  "guestShareFlag": "false",`
		`  "OldGuestShareFlag": "",`
		`  "keyValidityStart": "2024-02-26T11:16:16.000Z",`
		`  "keyValidityEnd": "2024-02-27T12:00:00.000Z",`
		`  "additionalRooms": [`
		`  "",`
		`  ""`
		`  ],`
		`  "userId": "ExternalUser",`
		`  "keyOptions": [`
		`  {`
		`  "keyOptionsCode": "SAU",`
		`  "keyOptionDescription": "Sauna"`
		`  },`
		`  {`
		`  "keyOptionsCode": "ELEV",`
		`  "keyOptionDescription": "Elevator"`
		`  }`
		`  ]`
		`}`
		
		PinCode Outbound Request
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		`{`
		`  "keyType": "New",`
		`  "encoderTerminal": "Kiosk",`
		`  "encoderId": "",`
		`  "roomKeyType": "PinCode",`
		`  "keyUserType": "Guest",`

```
  "keyRequestTime": "2024-02-26T16:16:10.295Z",
  "roomId": "101",
  "oldRoomId": "",
  "noOfKeys": 1,
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "guestShareFlag": "false",
  "OldGuestShareFlag": "",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "additionalRooms": [
    "",
    "",
    ""
  ],
  "userId": "ExternalUser",
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna"
    },
    {
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator"
    }
  ]
}
```

4	The door lock system responds to OPERA Cloud within 20 seconds with a "201" status message containing the Room key/ PinCode data, or (in case of an unsuccessful request) with a "201" response containing information on why the request could not be processed.
	If the request is successful, the door lock system sends back as much key data information as possible, such as the activated KeyOptions (access areas), the generation / activation time for the key, and a short response text that the external system displays to the user.
		Plastic Room Key Outbound Response
		Response on POST {{HostName}}/fof/v1/hotels/{{HotelId}}/ roomKeysOutbound
		
		{
		"roomId": "101",
		"responseCode": "OK",
		"encoderTerminal": "Kiosk",
		"roomKeyType": "HardKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"keyCreationTime": "2024-02-26T16:16:16.138Z",
		"noOfKeys": "1",
		"encoderId": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"responseText": "Room Key successfully created",
		
		"keyTrack": [
		{
		"keyTrack2": "98765A43B21C",
		}
		],
		"additionalRooms": [
		"",
		""
		],
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "MAIN",
		"keyOptionDescription": "MainEntrance",
		"isEnabled": "true",
		"default": "true"

```
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```

PinCode Outbound Response

Response onPOST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound

```
{
  "roomId": "101",
  "responseCode": "OK",
  "encoderTerminal": "Kiosk",
  "roomKeyType": "PinCode",
  "keyUserType": "Guest",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "keyCreationTime": "2024-02-26T16:16:16.138Z",
  "noOfKeys": "1",
  "encoderId": "",
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "responseText": "Pin Code for Room 101
successfully created",

  "keyTrack": [
      {
        "keyTrack3": "817263",
      }
  ],
  "additionalRooms": [
    "",
    ""
  ],
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna",
      "isEnabled": "true",
      "default": "false"
    },
    {
```

```
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator",
      "isEnabled": "true",
      "default": "false"
    },
    {
      "keyOptionsCode": "MAIN",
      "keyOptionDescription": "MainEntrance",
      "isEnabled": "true",
      "default": "true"
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```


Unsuccessful Response Outbound


```
{
    "roomId": "101",
    "responseCode": "UR",
    "encoderTerminal": "TERM1",
    "roomKeyType": "HardKey",
    "keyUserType": "Guest",
    "keyValidityStart": "2024-09-30T10:16:10.000Z",
    "keyValidityEnd": "2024-09-30T18:00:00.000Z",
    "keyCreationTime": "2024-09-30T11:21:15.290Z",
    "encoderId": "1",
    "responseText": "Room not found.",
    "additionalRooms": [],
    "userId": "External"
}
```


5	OPERA Cloud sends the response back to OHIP.

6	OHIP sends back the 201 response to the external system that sent the request containing the Room key/ PinCode data.
	The external system should display the related "responseText" value, so the user who requested the key will be aware that the request was successful.
	If receiving a PinCode, the external system also displays the Pin code to the user (for example, the guest). If the Pin code is stored on the external system, consider safe storage as the Pin code should be considered sensitive data.
	In case of an unsuccessful request to create/activate a room key, OHIP will respond to the external system with a "400" message containing the response information text from the Door Lock system.
	The external system should display the related "responseText" value, so the user who requested the key will be aware of why a request was not successful.
		Plastic Room Key External Response
		Response on POST {{HostName}}/fof/v1/hotels/{{HotelId}}/ roomKeysExternal
		
		{
		"roomId": "101",
		"responseCode": "OK",
		"encoderTerminal": "Kiosk",
		"roomKeyType": "HardKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"keyCreationTime": "2024-02-26T16:16:16.138Z",
		"noOfKeys": "1",
		"encoderId": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"responseText": "Room Key successfully created",
		
		"keyTrack": [
		{
		"keyTrack2": "98765A43B21C",
		}
		],
		"additionalRooms": [
		"",
		""
		],
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "MAIN",
		"keyOptionDescription": "MainEntrance",
		"isEnabled": "true",
		"default": "true"

```
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```

PinCode External Response

Response onPOST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal

```
{
  "roomId": "101",
  "responseCode": "OK",
  "encoderTerminal": "Kiosk",
  "roomKeyType": "PinCode",
  "keyUserType": "Guest",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "keyCreationTime": "2024-02-26T16:16:16.138Z",
  "noOfKeys": "1",
  "encoderId": "",
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "responseText": "Pin Code for Room 101
successfully created",

  "keyTrack": [
      {
        "keyTrack3": "817263",
      }
  ],
  "additionalRooms": [
    "",
    ""
  ],
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna",
      "isEnabled": "true",
      "default": "false"
    },
    {
```

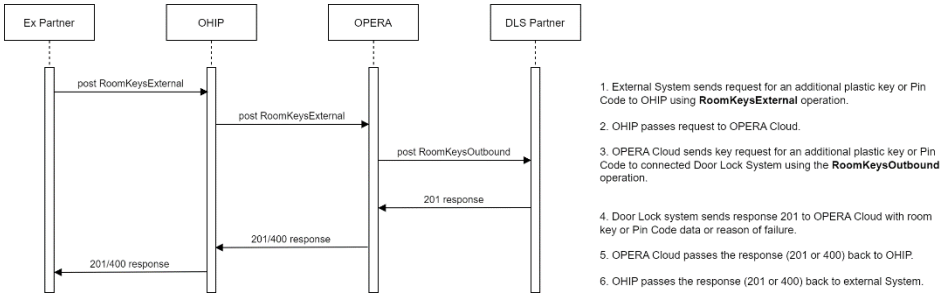
```
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator",
      "isEnabled": "true",
      "default": "false"
    },
    {
      "keyOptionsCode": "MAIN",
      "keyOptionDescription": "MainEntrance",
      "isEnabled": "true",
      "default": "true"
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```


Unsuccessful Response External System (referring to above "Unsuccesful response Outbound")


```
{
    "type": "Bad Request",
    "title": "Unable to generate a room key for
reservation. Key encoder status: Room not found.",
    "status": "NotProcessed",
    "detail": "Unable to generate a room key for
reservation. Key encoder status: Room not found.",
    "o:errorCode": "OPERAWS-FOF00200",
    "language": "en"
}
```


Workflow: Request from an External System to Encode Additional Physical Room Key(s) (Plastic Key or Wristband) or Create a Pin Code for an Existing Reservation

Sequence Diagram



Description of Steps

	Description	Sample Call

1	An External system (for example, a Kiosk check-in terminal) sends a request for a "HardKey" or "PinCode" to OHIP using the POST roomKeysExternal operation.	Plastic Room Key External Request Additional Key
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		{
		"keyType": "Duplicate",
		"encoderTerminal": "Kiosk",
		"encoderId": "1",
		"roomKeyType": "HardKey",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:16:10.295Z",
		"roomId": "101",
		"oldRoomId": "",
		"noOfKeys": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"guestShareFlag": "N",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator"
		}
		]
		}
		
		PinCode External Request Additional Pin Code
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal
		
		{
		"keyType": "Duplicate",
		"encoderTerminal": "",
		"encoderId": "",
		"roomKeyType": "PinCode",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:16:10.295Z",

<table>
<tr><td></td><td></td><td><pre>
  "roomId": "101",
  "oldRoomId": "",
  "noOfKeys": "1",
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "guestShareFlag": "N",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "additionalRooms": [
    "",
    ""
  ],
  "userId": "ExternalUser",
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna"
    },
    {
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator"
    }
  ]
}
</pre></td></tr>
<tr><td>2</td><td colspan="2">OHIP sends the request over to OPERA Cloud.</td></tr>
</table>

3	OPERA Cloud sends out the request to the connected Door Lock System using the POST roomKeysOutbound operation.
	The Door Lock System will pass the request to the key encoder which then processes the room key request.
	When requesting to create/ activate a plastic room key and more than one external device (kiosk) is addressing a key coder, it is necessary to specify both the PMS 'encoderTerminal' and the Key Service system's key encoder (encoderId).
	For a request of a PinCode instead of a plastic room key, there is no need to define and send an Encoder ID.
	Usually the Door Lock System processes the request for PinCode in its "central" system.
		Plastic Room Key Outbound Request Additional Key
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		{
		"keyType": "Duplicate",
		"encoderTerminal": "Kiosk",
		"encoderId": "1",
		"roomKeyType": "HardKey",
		"keyUserType": "Guest",
		"keyRequestTime": "2024-02-26T16:16:10.295Z",
		"roomId": "101",
		"oldRoomId": "",
		"noOfKeys": 1,
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"guestShareFlag": "false",
		"OldGuestShareFlag": "",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"additionalRooms": [
		"",
		""
		],
		"userId": "ExternalUser",
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator"
		}
		]
		}
		
		PinCode Outbound Request Additional Pin Code
		POST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound
		
		{
		"keyType": "Duplicate",
		"encoderTerminal": "Kiosk",
		"encoderId": "",
		"roomKeyType": "PinCode",
		"keyUserType": "Guest",

```
  "keyRequestTime": "2024-02-26T16:16:10.295Z",
  "roomId": "101",
  "oldRoomId": "",
  "noOfKeys": 1,
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "guestShareFlag": "false",
  "OldGuestShareFlag": "",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "additionalRooms": [
    "",
    "",
    ""
  ],
  "userId": "ExternalUser",
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna"
    },
    {
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator"
    }
  ]
}
```

4	The door lock system responds to OPERA Cloud within 20 seconds with a "201" status message containing the Room key/ PinCode data, or (in case of an unsuccessful request) with a "201" response containing message information on why the request could not be processed.
	If the request is successful, the door lock system sends back as much key data information as possible, such as the activated KeyOptions (access areas), the generation / activation time for the key, and a short response text that the external system displays to the user.
		Plastic Room Key Outbound Response Additional Key
		Response on POST {{HostName}}/fof/v1/hotels/{{HotelId}}/ roomKeysOutbound
		
		{
		"roomId": "101",
		"responseCode": "OK",
		"encoderTerminal": "Kiosk",
		"roomKeyType": "HardKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"keyCreationTime": "2024-02-26T16:16:16.138Z",
		"noOfKeys": "1",
		"encoderId": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"responseText": "Room Key successfully created",
		
		"keyTrack": [
		{
		"keyTrack2": "98765B43B21D",
		}
		],
		"additionalRooms": [
		"",
		""
		],
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "MAIN",
		"keyOptionDescription": "MainEntrance",
		"isEnabled": "true",
		"default": "true"

```
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```

PinCode Outbound Response Additional Pin Code Response onPOST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysOutbound

```
{
  "roomId": "101",
  "responseCode": "OK",
  "encoderTerminal": "Kiosk",
  "roomKeyType": "PinCode",
  "keyUserType": "Guest",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "keyCreationTime": "2024-02-26T16:16:16.138Z",
  "noOfKeys": "1",
  "encoderId": "",
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "responseText": "Pin Code for Room 101
successfully created",

  "keyTrack": [
      {
        "keyTrack3": "918273",
      }
  ],
  "additionalRooms": [
    "",
    ""
  ],
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna",
      "isEnabled": "true",
      "default": "false"
    },
    {
```

```
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator",
      "isEnabled": "true",
      "default": "false"
    },
    {
      "keyOptionsCode": "MAIN",
      "keyOptionDescription": "MainEntrance",
      "isEnabled": "true",
      "default": "true"
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```


Unsuccessful Response Outbound


```
{
    "roomId": "101",
    "responseCode": "UR",
    "encoderTerminal": "TERM1",
    "roomKeyType": "HardKey",
    "keyUserType": "Guest",
    "keyValidityStart": "2024-09-30T10:16:10.000Z",
    "keyValidityEnd": "2024-09-30T18:00:00.000Z",
    "keyCreationTime": "2024-09-30T11:21:15.290Z",
    "encoderId": "1",
    "responseText": "Room not found.",
    "additionalRooms": [],
    "userId": "External"
}
```


5	OPERA Cloud sends the response back to OHIP.

6	OHIP sends back the 201 response to the external system that sent the request containing the Room key/ PinCode data.
	The external system should display the related "responseText" value, so the user who requested the key will be aware that the request was successful.
	If receiving a PinCode, the external system also displays the Pin code to the user (for example, the guest). If the Pin code is stored on the external system, consider safe storage as the Pin code should be considered sensitive data.
	In case of an unsuccessful request to create/activate a room key, OHIP responds to the external system with a "400" message containing the response information text from the Door Lock system.
	The external system should display the related "responseText" value, so the user who requested the key will be aware of why a request was not successful.
		Plastic Room Key External Response Additional Key
		Response on POST {{HostName}}/fof/v1/hotels/{{HotelId}}/ roomKeysExternal
		
		{
		"roomId": "101",
		"responseCode": "OK",
		"encoderTerminal": "Kiosk",
		"roomKeyType": "HardKey",
		"keyUserType": "Guest",
		"keyValidityStart": "2024-02-26T11:16:16.000Z",
		"keyValidityEnd": "2024-02-27T12:00:00.000Z",
		"keyCreationTime": "2024-02-26T16:16:16.138Z",
		"noOfKeys": "1",
		"encoderId": "1",
		"reservationIdList": [
		{
		"id": "{{ReservationId}}",
		"type": "Reservation"
		},
		{
		"id": "2468024",
		"type": "Confirmation"
		}
		],
		"responseText": "Room Key successfully created",
		
		"keyTrack": [
		{
		"keyTrack2": "98765B43B21D",
		}
		],
		"additionalRooms": [
		"",
		""
		],
		"keyOptions": [
		{
		"keyOptionsCode": "SAU",
		"keyOptionDescription": "Sauna",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "ELEV",
		"keyOptionDescription": "Elevator",
		"isEnabled": "true",
		"default": "false"
		},
		{
		"keyOptionsCode": "MAIN",
		"keyOptionDescription": "MainEntrance",
		"isEnabled": "true",
		"default": "true"

```
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```

PinCode External Response Additional Pin Code

Response onPOST {{HostName}}/fof/v1/hotels/{{HotelId}}/roomKeysExternal

```
{
  "roomId": "101",
  "responseCode": "OK",
  "encoderTerminal": "Kiosk",
  "roomKeyType": "PinCode",
  "keyUserType": "Guest",
  "keyValidityStart": "2024-02-26T11:16:16.000Z",
  "keyValidityEnd": "2024-02-27T12:00:00.000Z",
  "keyCreationTime": "2024-02-26T16:16:16.138Z",
  "noOfKeys": "1",
  "encoderId": "",
  "reservationIdList": [
    {
      "id": "{{ReservationId}}",
      "type": "Reservation"
    },
    {
      "id": "2468024",
      "type": "Confirmation"
    }
  ],
  "responseText": "Pin Code for Room 101
successfully created",

  "keyTrack": [
      {
        "keyTrack3": "918273",
      }
  ],
  "additionalRooms": [
    "",
    ""
  ],
  "keyOptions": [
    {
      "keyOptionsCode": "SAU",
      "keyOptionDescription": "Sauna",
      "isEnabled": "true",
      "default": "false"
    },
    {
```

```
      "keyOptionsCode": "ELEV",
      "keyOptionDescription": "Elevator",
      "isEnabled": "true",
      "default": "false"
    },
    {
      "keyOptionsCode": "MAIN",
      "keyOptionDescription": "MainEntrance",
      "isEnabled": "true",
      "default": "true"
    }
  ],
  "userId": "ExternalUser",
  "digitalKeyData": "",
  "keyImage": "",
  "cardSerialNumber": ""
}
```


Unsuccessful Response External System (referring to above "Unsuccesful response Outbound")


```
{
    "type": "Bad Request",
    "title": "Unable to generate a room key for
reservation. Key encoder status: Room not found.",
    "status": "NotProcessed",
    "detail": "Unable to generate a room key for
reservation. Key encoder status: Room not found.",
    "o:errorCode": "OPERAWS-FOF00200",
    "language": "en"
}
```

6

Limitations and Constraints

The post roomKeysExternal operation can only be used when the connected Door Lock system supports the post roomKeysOutbound API.

Door Lock systems connected with the legacy IFC8 integration cannot receive requests from external systems using the post roomKeysExternal API.

7

Anti-patterns

Review the Best Practices chapter in the OHIP user guide to learn more about functional and technical anti-patterns.

8

Key Terminology

It is recommended that you understand the key terminology for Room Keys and OPERA Cloud before using the API operations.

RoomKeysExternal Room Key Types	Description
"HardKey"	A plastic key card (RFID or Magstripe), a wristband, or other device used to store room key data.
"MobileKey"	A virtual key or mobile key (not a wallet key as this will have a separate type). The Door Lock System sends back a mobile key string.
"PinCode"	A numeric pin code used to open the room door that has a number pad installed.
"KeyPayload"	Request from an external system to retrieve an image of a previously created room key. This is dependant on the door lock system supporting such requests.

Room Keys Request Types "keyType"	Description
New	A request to create a new key for a reservation. It is expected that all previous active keys for the reservation or room become invalid.
Duplicate	A request to create an additional key for a reservation that already has active keys. It is expected that existing active keys for this reservation or room remain active.
Remove	A request to delete active key(s) for a reservation or room. It is expected that with this request all active keys for the reservation or room become inactive or invalid, so they will be unable to open the room after the defined validityEnd time. There is no support for deleting specific room keys.
ModifyStay	(For Online Door Lock Systems) a request to adjust room key data when a guest changes length of stay (validityEnd) without the need for the guest to go to the reception for re-encoding the room key(s). It depends on the connected Door Lock system if this method of updating active room key data is supported. For details, refer to the "Offline" and "Online" Door Lock System section.
RoomMove	(For Online Door Lock Systems) a request to adjust Room key data when the guest performs a room move without the need for the guest to go to the reception for re-encoding the room key(s). It depends on the connected Door Lock system if this method of updating active keys is supported. For details, refer to the "Offline" and "Online" Door Lock System section.

"Offline" and "Online" Door Lock System

Question	Answer
What is the Offline Door Lock System?	OPERA Cloud considers an "Offline Door Lock System" a system where the information necessary to allow access to a door is stored on the room Key (or similar media) that the related door Lock will read.
What is the Online Door Lock System?	OPERA Cloud considers an "Online Door Lock System" a system where the information necessary to allow access to a door is stored in the System's database despite being stored on the room key (or similar media). Such systems typically have the Door Lock being wired with the Door Lock System's database.
Room Move handling with offline Door Lock System	OPERA Cloud handles Room move requests in different ways depending on whether it is connected to an Offline or Online Door Lock System. When connected to an "Offline Door Lock System," OPERA Cloud sends a "Remove" Key request for the old room number to inactivate current active keys and then sends a Request for "New" (and "Duplicate") keys for the new room number. It is required that the Hotel guest must visit the Front Desk to get the new room key(s).
Room Move handling with Online Door Lock System	When connected to an "Online Door Lock System," OPERA Cloud sends requests with different message types in case relevant data of a reservation changes. For example, upon "Room move" of a reservation (guest moves to another room), OPERA Cloud sends a request with keyType "RoomMove" containing information of the old room and the new room number, so the Door Lock System would only need to change the data in its database. Therefore, the guest does not need to have the room key re-encoded at the Front Desk.
Reservation data change with offline Door Lock System	When connected to an "Offline Door Lock System" and the reservation's check out date changes, OPERA Cloud sends a "Remove" Key request for the reservation or room number to inactivate the current active keys and then sends a Request for "New" (and "Duplicate") keys for the reservation or room number with the updated check out date (here the keyValidityEnd). It is then required that the Hotel guest visits the Front Desk to get the new room key(s).
Reservation data change with Online Door Lock System	When connected to an "Online Door Lock System" and the reservation's checkout date or time changes, OPERA Cloud sends a request message with keyType "ModifyStay" containing the updated checkout date (here the keyValidityEnd). The updated information is stored in the Door Lock System's database.

RoomKeysExternal Body Fields	Description

responseCode responseText	Each response message for a corresponding request message must have a "responseCode": value. This code indicates if the request has been successfully processed. Specific codes indicate a reason for why a request has failed. The following "responseCode": values are supported: "**OK**" = Successful - sent when the request for the related action was successful on the Door lock system. "**BY**" = Encoder Busy - sent when the related Key Encoder of the connected Door lock system was unable to process the request. "**UR**" = Unprocessable Request - sent when the Door Lock system is unable to process the request due to incorrect or missing information received in the request. "**RY**" = Retry - sent by the Door lock system for an unsuccessful request. OPERA Cloud treats all response codes other than "OK" as "unsuccessful" and sends related "400" response message back to the external system when receiving these response codes from the connected Door Lock System. The roomKeysExternal response messages (201 / 400) also supports transmitting a response text from the connected Door Lock System. It is recommended to handle this text and display it to the user (if available).

9 FAQ

Q. What is the maximum time for an external system to wait for response on a POSTroomKeysExternal request message?

- It is suggested to set a solid timeout on the external system that sends the request for activating a room key, a mobile key, or a pin code.

  For the connected Door Lock system, the maximum time to respond to a POST roomKeysOutbound request message from OPERA Cloud is 20 seconds. This is related to the maximum allowed call timeout within the OPERA Cloud Outbound service.

  A recommended timeout to wait for the response from OPERA Cloud/OHIP is 30 seconds before cancelling the request internally and displaying an unsuccessful request to the user.

Q. The external system wants to have 3 room keys encoded/activated for the reservation. Will there be one API call sent with numberOfKeys = "3" ?

- The post RoomKeysExternal API call mandates to send out one API request call per room key to encode/activate. The related "numberOfKeys" value must always be "1."

Q. If the encoding/activation of a room key fails on the Door Lock System side, will the response be a common HTTP client error response (4xx)?

- If the Request for a room key is unsuccessful on the Door Lock System side, the related response to the External system is sent as a "400" response message.

  Within the body of this message a responseText is sent describing the reason for failure. The external system should display this response text to the user.

Q. Is it possible to send multiple roomKeysExternal requests with different key EncoderIds to the Door Lock system at the same time?

- Yes, it is expected that simultaneous roomKeysExternal requests with different key EncoderIds can be handled by the external system and by the connected Door Lock System.

Q. Does the Door Lock API include sending Guest or Reservation details, such as Guest Names?

- The Door Lock API roomKeysExternal only includes the necessary information needed to create a room key. It contains the reservationId but no further guest or reservation information/details.

  To retrieve such additional information beside the room key information exchanged with this API, the external system can consume related guest profile or reservation APIs.

Q. What are the keyTrack sub tags used for?

- **keyTrack1**: The keyTrack1 tag can be used for a specific data string to be sent from OPERA Cloud to the connected Door Lock System in case OPERA Cloud and the connected Door Lock System support the requested data. This could be room or guest specific information which the Door Lock System requests.

  Note that OPERA Cloud does not store incoming keyTrack1 data but only passes the data through to external systems.

- **keyTrack2**:

The keyTrack / keyTrack2 tag contains a unique ID that can either be:

- created by OPERA Cloud and sent with the roomKeysOutbound request (as to let the door lock system store it on the key device) OR
- sent by the door lock system in the related response message

It was common that the keyTrack2 was sent by OPERA Cloud in the request so it was written onto the Mag stripe of the door key card. Today it is more common that the Door Lock System sends the UDID of a key in the response message.

In both cases, the keyTrack2 value will be stored in OPERA Cloud and is linked to the reservation so a guest can be identified by reading the door key “track2” value on another system and send an inquiry to the PMS. This is usually used by Restaurant POS Systems.

- **keyTrack3**: The keyTrack3 tag contains the unique pin code provided by the Door Lock System that uses number pads on the guest room lock to enter a pin to open the door. The pin code is stored in OPERA Cloud to enable the user to display and print the pin code and hand it out to the guest.

  To enable Pin code handling in OPERA Cloud, the related configuration parameter must be set in OPERA Cloud Interface configuration.