

**NUKI**

# **BRIDGE API**

**v1.5**

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# Introduction

The REST API on the Nuki Bridge offers simple endpoints to list all available Nuki Smart Locks, retrieve their current lock state and perform lock operations.

When using the Nuki Software Bridge, all configuration is done inside the Nuki Bridge App instead of the Nuki App.

## Calling URL

This is the address used to call the available services of the internal webserver.

The IP address is shown in the bridge settings within the Nuki App.

The server is listening for incoming requests either on default port 8080 or the configured one if it has been modified within the Nuki App.

## Example

The following base url will be used in upcoming examples:

<http://192.168.1.50:8080/>

## Lock states

Possible lock states (used in [Endpoints](#) below):

| ID  | Name                   |
|-----|------------------------|
| 0   | uncalibrated           |
| 1   | locked                 |
| 2   | unlocking              |
| 3   | unlocked               |
| 4   | locking                |
| 5   | unlatched              |
| 6   | unlocked (lock 'n' go) |
| 7   | unlatching             |
| 254 | motor blocked          |
| 255 | undefined              |

## Lock actions

Possible lock actions (used in [Endpoints](#) below):

| ID | Name                     |
|----|--------------------------|
| 1  | unlock                   |
| 2  | lock                     |
| 3  | unlatch                  |
| 4  | lock 'n' go              |
| 5  | lock 'n' go with unlatch |

## Endpoints

/list

|                       |   |  |  |
|-----------------------|---|--|--|
| <b>URL</b>            | <a href="http://192.168.1.50:8080/list">http://192.168.1.50:8080/list</a>                           |  |  |
| <b>Usage</b>          | Returns a list of all paired Smart Locks  |  |  |
| <b>URL-Parameters</b> | <b>token</b>  | The api token configured via the Nuki app when enabling the API  |  |
| <b>Response</b>       | JSON array. One item of the following per Smart Lock  |  |  |
|                       | <b>nukiId</b>   | ID of the Smart Lock   |  |
|                       | <b>name</b>   | Name of the Smart Lock   |  |
|                       | <b>lastKnownState</b>   | JSON list containing the last known lock state of the Smart Lock |  |
|                       |   | <b>state</b>   | ID of the lock state (see <a href="#">Lock states</a> )                  |
|                       |   | <b>stateName</b>   | Name of the lock state (see <a href="#">Lock states</a> )                |
|                       |   | <b>batteryCritical</b>   | Flag indicating if the batteries of the Smart Lock are at critical level |
| <b>timestamp</b>      |   | Timestamp of the retrieval of this lock state                    |  |
| <b>Errors</b>         | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                    |  |
| <b>Example-Call</b>   | <a href="http://192.168.1.50:8080/list?token=123456">http://192.168.1.50:8080/list?token=123456</a> |  |  |

|                         |  |
|-------------------------|--|
| <b>Example-Response</b> | <pre>[{   "nukiId": 1,   "name": "Home",   "lastKnownState": {     "state": 1,     "stateName": "locked",     "batteryCritical": false,     "timestamp": "2016-10-03T06:49:00+00:00"   } }, {   "nukiId": 2,   "name": "Grandma",   "lastKnownState": {     "state": 3,     "stateName": "unlocked",     "batteryCritical": false,     "timestamp": "2016-10-03T06:49:00+00:00"   } }]</pre> |
|-------------------------|--|

## /lockState

|                       |   |  |
|-----------------------|---|--|
| <b>URL</b>            | <a href="http://192.168.1.50:8080/lockState">http://192.168.1.50:8080/lockState</a>   |  |
| <b>Usage</b>          | Retrieves and returns the current lock state of a given Smart Lock  |  |
| <b>URL-Parameters</b> | <b>nukiId</b>   | The ID of the Smart Lock from which the lock state should be retrieved   |
|                       | <b>token</b>  | The api token configured via the Nuki app when enabling the API          |
| <b>Response</b>       | JSON list containing the retrieved lock state   |  |
|                       | <b>state</b>  | ID of the lock state (see <a href="#">Lock states</a> )                  |
|                       | <b>stateName</b>  | Name of the lock state (see <a href="#">Lock states</a> )                |
|                       | <b>batteryCritical</b>  | Flag indicating if the batteries of the Smart Lock are at critical level |
|                       | <b>success</b>  | Flag indicating if the lock state retrieval has been successful          |
| <b>Errors</b>         | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                            |
|                       | <b>HTTP 404</b>   | Returned if the given Smart Lock is unknown                              |
|                       | <b>HTTP 503</b>   | Returned if the given Smart Lock is offline                              |
| <b>Example-Call</b>   | <a href="http://192.168.1.50:8080/lockState?nukiId=1&amp;token=123456">http://192.168.1.50:8080/lockState?nukiId=1&amp;token=123456</a> |  |

|                         |   |
|-------------------------|---|
| <b>Example-Response</b> | <pre>{   "state": 1,   "stateName": "locked",   "batteryCritical": false,   "success": true }</pre> |
|-------------------------|---|

## /lockAction

|                         |   |   |
|-------------------------|---|---|
| <b>URL</b>              | <a href="http://192.168.1.50:8080/lockAction">http://192.168.1.50:8080/lockAction</a>   |   |
| <b>Usage</b>            | Performs a lock operation on the given Smart Lock   |   |
| <b>URL-Parameters</b>   | <b>nukiId</b>   | The ID of the Smart Lock which should execute the lock action   |
|                         | <b>action</b>   | The desired lock action (see <a href="#">Lock actions</a> )   |
|                         | <b>noWait</b>   | Flag (0 or 1) indicating whether or not to wait for the lock action to complete and return its result<br><i>optional; defaults to 0</i> |
|                         | <b>token</b>  | The api token configured via the Nuki app when enabling the API   |
| <b>Response</b>         | JSON list containing the result of the lock action  |   |
|                         | <b>batteryCritical</b>  | Flag indicating if the batteries of the Smart Lock are at critical level  |
|                         | <b>success</b>  | Flag indicating if the lock action has been executed successful   |
| <b>Errors</b>           | <b>HTTP 400</b>   | Returned if the given <b>action</b> is invalid  |
|                         | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid   |
|                         | <b>HTTP 404</b>   | Returned if the given Smart Lock is unknown   |
|                         | <b>HTTP 503</b>   | Returned if the given Smart Lock is offline   |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/lockAction?nukiId=1&amp;action=1&amp;token=123456">http://192.168.1.50:8080/lockAction?nukiId=1&amp;action=1&amp;token=123456</a> |   |
| <b>Example-Response</b> | <pre>{   "success": true,   "batteryCritical": false }</pre>  |   |

## /unpair

not available on software bridge

|                         |   |   |
|-------------------------|---|---|
| <b>URL</b>              | <a href="http://192.168.1.50:8080/unpair">http://192.168.1.50:8080/unpair</a>   |   |
| <b>Usage</b>            | Removes the pairing with a given Smart Lock   |   |
| <b>URL-Parameters</b>   | <b>nukiId</b>   | The ID of the Smart Lock which should be unpaired               |
|                         | <b>token</b>  | The api token configured via the Nuki app when enabling the API |
| <b>Response</b>         | JSON list containing the result of the operation  |   |
|                         | <b>success</b>  | Flag indicating if the lock action has been executed successful |
| <b>Errors</b>           | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                   |
|                         | <b>HTTP 404</b>   | Returned if the given Smart Lock is unknown                     |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/unpair?nukiId=1&amp;token=123456">http://192.168.1.50:8080/unpair?nukiId=1&amp;token=123456</a> |   |
| <b>Example-Response</b> | { "success": true }   |   |

## /info

|                        |   |   |  |
|------------------------|---|---|--|
| <b>URL</b>             | <a href="http://192.168.1.50:8080/info">http://192.168.1.50:8080/info</a>         |   |  |
| <b>Usage</b>           | Returns all Smart Locks in range and some device information of the bridge itself |   |  |
| <b>URL-Parameters</b>  | <b>token</b>  | The api token configured via the Nuki app when enabling the API   |  |
| <b>Response</b>        | JSON list with the result   |   |  |
|                        | <b>bridgeType</b>   | <ul style="list-style-type: none"><li>• 1 =&gt; Hardware bridge</li><li>• 2 =&gt; Software bridge</li></ul> |  |
|                        | <b>ids</b>  | JSON list containing the ids of the bridge  |  |
|                        |   | <b>hardwareId</b>   | Hardware ID<br><i>hardware bridge only</i> |
|                        |   | <b>serverId</b>   | Server ID                                  |
|                        | <b>versions</b>   | JSON list containing the versions of bridge   |  |
| <b>firmwareVersion</b> |   | Version of the bridges firmware<br><i>hardware bridge only</i>  |  |

|                         |   |   |  |
|-------------------------|---|---|--|
|                         |   | <b>wifiFirmwareVersion</b>  | Version of the WiFi modules firmware<br><i>hardware bridge only</i>                        |
|                         |   | <b>appVersion</b>   | Version of the bridge app<br><i>software bridge only</i>                                   |
|                         | <b>uptime</b>   | Uptime of the bridge in seconds   |  |
|                         | <b>currentTime</b>  | Current timestamp   |  |
|                         | <b>serverConnected</b>  | Flag indicating whether or not the bridge is connected to the Nuki server |  |
|                         | <b>scanResults</b>  | JSON Array. One item of the following per Smart Lock                      |  |
|                         |   | <b>nukiId</b>   | Smart Lock ID  |
|                         |   | <b>name</b>   | BLE-Name of the Smart Lock   |
|                         |   | <b>rsi</b>  | RSSI value   |
|                         |   | <b>paired</b>   | Flag indicating whether or not a pairing with this Smart Lock has already been established |
| <b>Errors</b>           | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                             |  |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/info?token=123456">http://192.168.1.50:8080/info?token=123456</a>   |   |  |
| <b>Example-Response</b> | <pre>{   "bridgeType": 1,   "ids": {"hardwareId": 12345678, "serverId": 12345678},   "versions": {     "firmwareVersion": "0.1.0", "wifiFirmwareVersion": "0.2.0"   },   "uptime": 120,   "currentTime": "2016-04-01T12:10:11Z",   "serverConnected": true,   "scanResults": [     {       "nukiId": 10,       "name": "Nuki_00000010",       "rsi": -87,       "paired": true     },     {       "nukiId": 11,       "name": "Nuki_00000011", </pre> |   |  |



|  |   |
|--|---|
|  | <pre> “rssi”: -93, “paired”: false } ] } </pre> |
|--|---|

## /callback

The following endpoints provides methods to register up to 3 http (no https) url callbacks, which will be triggered once the lock state of one of the known Smart Locks changes.

The new lock state will be sent to the callback url by executing a POST request and posting a JSON list in the following format:

```
{“nukiId”: 11, “state”: 1, “stateName”: “locked”, “batteryCritical”: false}
```

## /callback/add

|                         |   |  |
|-------------------------|---|--|
| <b>URL</b>              | <a href="http://192.168.1.50:8080/callback/add">http://192.168.1.50:8080/callback/add</a>   |  |
| <b>Usage</b>            | Registers a new callback url  |  |
| <b>URL-Parameters</b>   | <b>url</b>  | The callback url to be added (no https, url encoded, max. 254 chars) |
|                         | <b>token</b>  | The api token configured via the Nuki app when enabling the API      |
| <b>Response</b>         | JSON list containing the result   |  |
|                         | <b>success</b>  | Flag indicating if the url has been added successfully               |
|                         | <b>message</b>  | Contains the reason for the failure if <b>success</b> is false       |
| <b>Errors</b>           | <b>HTTP 400</b>   | Returned if the given <b>url</b> is invalid or too long              |
|                         | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                        |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/callback/add?url=http%3A%2F%2F192.168.0.20%3A8000%2Fnuki&amp;token=123456">http://192.168.1.50:8080/callback/add?url=http%3A%2F%2F192.168.0.20%3A8000%2Fnuki&amp;token=123456</a> |  |
| <b>Example-Response</b> | {"success": true}   |  |

## /callback/list

|              |   |
|--------------|---|
| <b>URL</b>   | <a href="http://192.168.1.50:8080/callback/list">http://192.168.1.50:8080/callback/list</a> |
| <b>Usage</b> | Returns all registered url callbacks  |

|                         |  |   |                     |
|-------------------------|--|---|---------------------|
| <b>URL-Parameters</b>   | <b>token</b>   | The api token configured via the Nuki app when enabling the API |                     |
| <b>Response</b>         | JSON list with the result  |   |                     |
|                         | <b>callbacks</b>   | JSON array. One item of the following per callback              |                     |
|                         |  | <b>id</b>   | ID of the callback  |
|                         |  | <b>url</b>  | URL of the callback |
| <b>Errors</b>           | <b>HTTP 401</b>  | Returned if the given <b>token</b> is invalid                   |                     |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/callback/list?token=123456">http://192.168.1.50:8080/callback/list?token=123456</a>  |   |                     |
| <b>Example-Response</b> | <pre>{   "callbacks": [     {       "id": 0,       "url": "http://192.168.0.20:8000/nuki"     },{       "id": 1,       "url": "http://192.168.0.21/test"     }   ] }</pre> |   |                     |

### /callback/remove

|                         |   |   |
|-------------------------|---|---|
| <b>URL</b>              | <a href="http://192.168.1.50:8080/callback/remove">http://192.168.1.50:8080/callback/remove</a>   |   |
| <b>Usage</b>            | Removes a previously added callback   |   |
| <b>URL-Parameters</b>   | <b>id</b>   | The id of the callback to be removed                            |
|                         | <b>token</b>  | The api token configured via the Nuki app when enabling the API |
| <b>Response</b>         | JSON list containing the result   |   |
|                         | <b>success</b>  | Flag indicating if the url has been added successfully          |
|                         | <b>message</b>  | Contains the reason for the failure if <b>success</b> is false  |
| <b>Errors</b>           | <b>HTTP 400</b>   | Returned if the given <b>url</b> is invalid or too long         |
|                         | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                   |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/callback/remove?id=0&amp;token=123456">http://192.168.1.50:8080/callback/remove?id=0&amp;token=123456</a> |   |
| <b>Example-Response</b> | {"success": true}   |   |

## Maintenance endpoints

The following endpoints are available for maintenance purposes of the hardware bridge. Therefore they are not available on the software bridge.

### /log

|                         |   |   |
|-------------------------|---|---|
| <b>URL</b>              | <a href="http://192.168.1.50:8080/log">http://192.168.1.50:8080/log</a>   |   |
| <b>Usage</b>            | Retrieves the log of the Bridge   |   |
| <b>URL-Parameters</b>   | <b>offset</b>   | Offset position where to start retrieving log entries<br><i>optional; defaults to 0</i> |
|                         | <b>count</b>  | How many log entries to retrieve<br><i>optional; defaults to 100</i>                    |
|                         | <b>token</b>  | The api token configured via the Nuki app when enabling the API                         |
| <b>Response</b>         | JSON array. One item of the following per log entry   |   |
|                         | <b>timestamp</b>  | Timestamp of the log entry  |
|                         | <b>type</b>   | Type of the log entry   |
|                         | <i>some more optional parameters</i>  |   |
| <b>Errors</b>           | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid   |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/log?token=123456">http://192.168.1.50:8080/log?token=123456</a>   |   |
| <b>Example-Response</b> | [<br>{"timestamp": "2016-10-06T16:46:05+00:00", "type": "..."},<br>{"timestamp": "2016-10-06T16:46:05+00:00", "type": "..."},<br>...<br>] |   |

### /clearlog

|                       |   |   |
|-----------------------|---|---|
| <b>URL</b>            | <a href="http://192.168.1.50:8080/clearlog">http://192.168.1.50:8080/clearlog</a> |   |
| <b>Usage</b>          | Clears the log of the Bridge  |   |
| <b>URL-Parameters</b> | <b>token</b>  | The api token configured via the Nuki app when enabling the API |
| <b>Response</b>       | No response   |   |

|                         |   |   |
|-------------------------|---|---|
| <b>Errors</b>           | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/clearlog?token=123456">http://192.168.1.50:8080/clearlog?token=123456</a> |   |
| <b>Example-Response</b> | None  |   |

## /fwupdate

|                         |   |   |
|-------------------------|---|---|
| <b>URL</b>              | <a href="http://192.168.1.50:8080/fwupdate">http://192.168.1.50:8080/fwupdate</a>                           |   |
| <b>Usage</b>            | Immediately checks for a new firmware update and installs it  |   |
| <b>URL-Parameters</b>   | <b>token</b>  | The api token configured via the Nuki app when enabling the API |
| <b>Response</b>         | No response   |   |
| <b>Errors</b>           | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                   |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/fwupdate?token=123456">http://192.168.1.50:8080/fwupdate?token=123456</a> |   |
| <b>Example-Response</b> | None  |   |

## /reboot

|                         |   |   |
|-------------------------|---|---|
| <b>URL</b>              | <a href="http://192.168.1.50:8080/reboot">http://192.168.1.50:8080/reboot</a>                           |   |
| <b>Usage</b>            | Reboots the bridge  |   |
| <b>URL-Parameters</b>   | <b>token</b>  | The api token configured via the Nuki app when enabling the API |
| <b>Response</b>         | No response   |   |
| <b>Errors</b>           | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid                   |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/reboot?token=123456">http://192.168.1.50:8080/reboot?token=123456</a> |   |
| <b>Example-Response</b> | None  |   |

## /factoryReset

|                       |   |   |
|-----------------------|---|---|
| <b>URL</b>            | <a href="http://192.168.1.50:8080/factoryReset">http://192.168.1.50:8080/factoryReset</a> |   |
| <b>Usage</b>          | Performs a factory reset  |   |
| <b>URL-Parameters</b> | <b>token</b>  | The api token configured via the Nuki app when enabling the API |

|                         |   |   |
|-------------------------|---|---|
| <b>Response</b>         | No response   |   |
| <b>Errors</b>           | <b>HTTP 401</b>   | Returned if the given <b>token</b> is invalid |
| <b>Example-Call</b>     | <a href="http://192.168.1.50:8080/factoryReset?token=123456">http://192.168.1.50:8080/factoryReset?token=123456</a> |   |
| <b>Example-Response</b> | None  |   |