NUKI

BRIDGE API

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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 or can be retrieved from the bridge discovery URL.
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/

Bridge discovery & API activation

Calling the URL https://factory.nuki.io/discover/bridges returns a JSON array with all bridges which have been connected to the Nuki Servers through the same IP address than the one calling the URL within the last 30 days. The array contains the local IP address, port, the ID of each bridge and the date of the last change of the entry in the JSON array.

Example

```
{
 "bridges": [
  {
   "bridgeId":2117604523,"ip":"192.168.1.50","port":8080,"dateUpdated":"2017-06-14
   T06:53:44Z"
  }
 ],
 "errorCode":0
}
```

Once a bridge has been discovered on the LAN the API can be activated and the API token retrieved by calling the /auth command. The user has to confirm this request by pressing the button on the bridge. For more details see the description of the /auth command.

If discovery is disabled via /configAuth or through the Nuki App, the IP is 0.0.0.0 and the port 0. In this case the /auth command fails with HTTP error 403.

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

/auth

URL	http://192.168.1.50:8080/auth	
Usage	Enables the api (if not yet enabled) and returns the api token. If no api token has yet been set, a new (random) one is generated. When issuing this API-call the bridge turns on its LED for 30 seconds. The button of the bridge has to be pressed within this timeframe. Otherwise the bridge returns a negative success and no token.	
Response	JSON list containing the success of the authorization	
	token	The api token
	success	Flag indicating the success of the authorization
Errors	**HTTP 403**	Returned if the authentication is disabled
Example-Call	http://192.168.1.50:8080/auth	

Example-Response	{
	"token": “token123”,
	"success": true
	}	

/configAuth

URL	http://192.168.1.50:8080/configAuth	
Usage	Enables or disables the authorization via /auth and the publication of the local IP and port to the discovery URL (https://sse0.nuki.io/discover/bridges).	
URL-Parameters	**enable**	Flag (0 or 1) indicating whether or not the authorization should be enabled
	token	The api token configured via the Nuki app when enabling the API
Response	JSON list containing the success of the operation	
	success	Flag indicating the success of the authorization
Errors	**HTTP 400**	Returned if the given value for **enable** is invalid (neither 0 nor 1)
	HTTP 401	Returned if the given **token** is invalid

Example-Call	http://192.168.1.50:8080/configAuth?enable=0&token=123456

Example-Response	{
	 "success": true
	}

/list

<table>
<tr><td>**URL**</td><td colspan="4">http://192.168.1.50:8080/list</td></tr>
<tr><td>**Usage**</td><td colspan="4">Returns a list of all paired Smart Locks</td></tr>
<tr><td>**URL-Parameters**</td><td>**token**</td><td colspan="3">The api token configured via the Nuki app when enabling the API</td></tr>
<tr><td rowspan="8">**Response**</td><td colspan="4">JSON array. One item of the following per Smart Lock</td></tr>
<tr><td colspan="2">**nukiId**</td><td colspan="2">ID of the Smart Lock</td></tr>
<tr><td colspan="2">**name**</td><td colspan="2">Name of the Smart Lock</td></tr>
<tr><td colspan="2" rowspan="5">**lastKnownState**</td><td colspan="2">JSON list containing the last known lock state of the Smart Lock</td></tr>
<tr><td>**state**</td><td>ID of the lock state
(see Lock states)</td></tr>
<tr><td>**stateName**</td><td>Name of the lock state
(see Lock states)</td></tr>
<tr><td>**batteryCritical**</td><td>Flag indicating if the batteries of the Smart Lock are at critical level</td></tr>
<tr><td>**timestamp**</td><td>Timestamp of the retrieval of this lock state</td></tr>
<tr><td>**Errors**</td><td>**HTTP 401**</td><td colspan="3">Returned if the given **token** is invalid</td></tr>
<tr><td>**Example-Call**</td><td colspan="4">http://192.168.1.50:8080/list?token=123456</td></tr>
<tr><td>**Example-Response**</td><td colspan="4">[{
 "nukiId": 1,
 "name": "Home",
 "lastKnownState": {
  "state": 1,
  "stateName": "locked",
  "batteryCritical": false,
  "timestamp": "2016-10-03T06:49:00+00:00"
 }
},{</td></tr>
</table>

	"nukiId": 2,
	"name": "Grandma",
	"lastKnownState": {
	"state": 3,
	"stateName": "unlocked",
	"batteryCritical": false,
	"timestamp": "2016-10-03T06:49:00+00:00"
	}
	}]

/lockState

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

Example-Response	{
	“state”: 1,
	“stateName”: “locked”,
	“batteryCritical”: false,
	“success”: true
	}	

/lockAction

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

Example-Response	{
	“success”: true,
	“batteryCritical”: false
	}	

/unpair

not available on software bridge

URL	http://192.168.1.50:8080/unpair	
Usage	Removes the pairing with a given Smart Lock	
URL-Parameters	**nukiId**	The ID of the Smart Lock which should be unpaired
	token	The api token configured via the Nuki app when enabling

		the API	
Response	JSON list containing the result of the operation		
	success	Flag indicating if the lock action has been executed successful	
Errors	**HTTP 401**	Returned if the given **token** is invalid	
	HTTP 404	Returned if the given Smart Lock is unknown	
Example-Call	http://192.168.1.50:8080/unpair?nukiId=1&token=123456		
Example-Response	{ “success”: true }		

/info

URL	http://192.168.1.50:8080/info		
Usage	Returns all Smart Locks in range and some device information of the bridge itself		
URL-Parameters	**token**	The api token configured via the Nuki app when enabling the API	
Response	JSON list with the result		
	bridgeType	● 1 => Hardware bridge ● 2 => Software bridge	
	ids	JSON list containing the ids of the bridge	
		hardwareId	Hardware ID *hardware bridge only*
		serverId	Server ID
	versions	JSON list containing the versions of bridge	
		firmwareVersion	Version of the bridges firmware *hardware bridge only*
		wifiFirmwareVersion	Version of the WiFi modules firmware *hardware bridge only*
		appVersion	Version of the bridge app *software bridge only*
	uptime	Uptime of the bridge in seconds	

	currentTime	Current timestamp	
	serverConnected	Flag indicating whether or not the bridge is connected to the Nuki server	
	scanResults	JSON Array. One item of the following per Smart Lock	
		nukiId	Smart Lock ID
		name	BLE-Name of the Smart Lock
		rssi	RSSI value
		paired	Flag indicating whether or not a pairing with this Smart Lock has already been established
Errors	**HTTP 401**	Returned if the given **token** is invalid	
Example-Call	http://192.168.1.50:8080/info?token=123456		

Example-Response	{
	"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”,
	“rssi”: -87,
	“paired”: true
	},{
	“nukiId”: 11,
	“name”: “Nuki_00000011”,
	“rssi”: -93,
	“paired”: false
	}
	]
	}		

/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

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

/callback/list

URL	http://192.168.1.50:8080/callback/list	
Usage	Returns all registered url callbacks	
URL-Parameters	**token**	The api token configured via the Nuki app when enabling the API
Response	JSON list with the result	
	callbacks	JSON array. One item of the following per callback

		id	ID of the callback
		url	URL of the callback
Errors	**HTTP 401**	Returned if the given **token** is invalid	
Example-Call	http://192.168.1.50:8080/callback/list?token=123456		

Example-Response	{
	"callbacks": [
	{
	“id”: 0,
	"url": "http://192.168.0.20:8000/nuki"
	},{
	“id”: 1,
	"url": "http://192.168.0.21/test"
	}
	]
	}		

/callback/remove

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

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

/clearlog

URL	http://192.168.1.50:8080/clearlog	
Usage	Clears the log of the Bridge	
URL-Parameters	**token**	The api token configured via the Nuki app when enabling the API
Response	No response	
Errors	**HTTP 401**	Returned if the given **token** is invalid

Example-Call	http://192.168.1.50:8080/clearlog?token=123456
Example-Response	None

/fwupdate

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

/reboot

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

/factoryReset

URL	http://192.168.1.50:8080/factoryReset	
Usage	Performs a factory reset	
URL-Parameters	**token**	The api token configured via the Nuki app when enabling the API

Response	No response	
Errors	**HTTP 401**	Returned if the given **token** is invalid
Example-Call	http://192.168.1.50:8080/factoryReset?token=123456	
Example-Response	None	