

Hobby API – Technical documentation

Scope

The hobby API allows control of the Niko Home Control platform by external systems, connected on the same local network.

The hobby API is intended for personal use only and cannot be used in commercial applications.

It offers following functionality:

- Access to the Niko Home Control Locations list
- Access to the Niko Home Control devices list
- Control of the Niko Home Control devices
- Status updates of the Niko Home Control devices
- Notification message updates from the Niko Home Control installation

This document details the API technical information and is intended for developers.

Document History

Version	Date	Description
1.0	19/03/2019	Initial Version
1.1	23/09/2019	Support for Wireless Smart Hub Starting from release 2.6.x: Additional property for All Of Action Free Start Stop Action House Mode Action Mood Action

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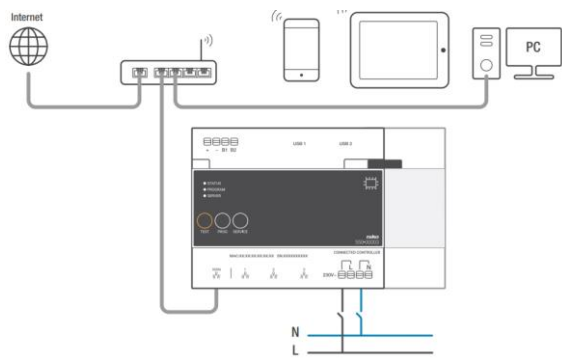
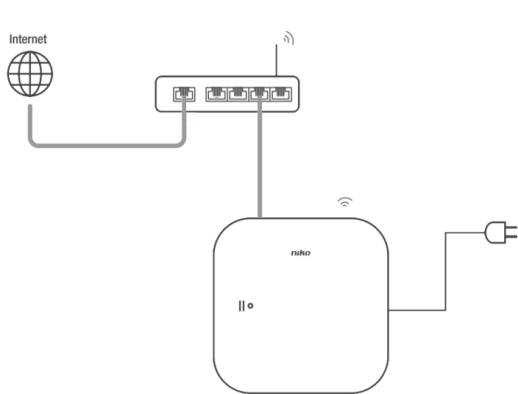
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System setup

The Hobby API will give access to the available Niko Home Control players and actions, as configured during the commissioning phase of the Niko Home Control installation. Data content on API could change due to configuration updates or new functionality that becomes available with future product evolutions (e.g. new functionality in future releases; new or removed items due to configuration changes).

Within the Niko Home Control configuration tool the terminology players and actions is used; on API level, those players and actions are identified as “devices”.

Niko Home Control on bus wiring	Niko Home control for traditional wiring
 <p>The Hobby API is always accessible via the WAN port of the Connected Controller. The WAN port requires a DHCP server for the IP network setup.</p> <p>The Hobby API is accessible on the LAN port 3, when this port is configured to connect to a centralized network. The LAN port 3 requires in this case a DHCP server for the IP network setup.</p> <p>The Connected Controller requires internet connectivity for correct operation.</p>	 <p>The Hobby API is accessible via the WAN port of the Wireless smart hub. The WAN port requires a DHCP server for the IP network setup.</p> <p>The Hobby API is accessible via the WiFi connection of the Wireless smart hub. When the Wireless smart hub is connected to a WiFi access point, it requires also a DHCP server for the WiFi IP network setup</p> <p>The Wireless smart hub Controller requires internet connectivity for correct operation.</p>

General API information

Discovery process

The connected controller is discoverable via DNS-SD on the WAN port.

The published hostname has following format: FP<MAC-Address of the connected controller>

Example hostname

FP00112A21870A

Event driven API

The interface is an event driven solution in both directions, as a consequence continues polling requests are not needed.

States and status information updates can be captured by listening to the respective event topics.

All commands/methods are fire-and-forget: there is no response message, unless explicitly mentioned.

MQTT communication protocol

The API communication uses MQTT as transport with JSON payloads.

The Niko Connected controller contains an MQTT broker, using IP port 8884.

The MQTT communication encrypted via SSL/TLS (TLSv1.2)

The CA certificate file will be delivered by Niko.

MQTT Topic

The MQTT Topics are “logical channels” where API messages are exchanged and do have following format:

<connector>/<api-service>/<message class>/<message-type>

Field	Values	Description
connector	hobby	Isolated and secure communication channel for a specific user or device profile
api-service	control system notification	Control service: to connect and control the Niko Home Control platform System service: system related information Notification service: notification message related information
message-class	devices locations	Application domain: defines the context of the message
message-type	cmd evt rsp err	cmd: Command messages evt: Event messages rsp: Response message as reaction upon a command, having an explicit reply.

Field	Values	Description
		err: error message Note that the intended use of these channels is the following: The external application is allowed to publish on cmd topics and subscribe on evt/rsp and err ones.

MQTT object format

Cmd/evt/and rsp messages share a common structure, where the field “Params” is optional

```
MQTT method: publish
TOPIC:    <connector>/<api-service>/<message class>/<message-type>
DATA:
{
    "Method" : <functionality>
    "Params": <message payload>
}
```

Err (error) messages do have following structure

```
MQTT method: subscribe
TOPIC:    <connector>/<api-service>/<message class>/<message-type>
DATA:
{
    "Method": "<command>",
    "ErrCode": "<error-tag>",
    "ErrorMessage": "<descriptive-message>"
}
```

API Authentication

The API is protected with authentication and authorization.

It requires a JWT token to communicate with the connected controller.

The JWT token and username is provided by Niko.

This JWT token is unique per connected controller and be generated via the <https://mynikohomecontrol.niko.eu/> website

The validity of the token is limited in time and needs to be updated periodically (yearly) via the <https://mynikohomecontrol.niko.eu/> website

It is the user’s responsibility to keep the confidentiality of the token.

Authentication is handled on MQTT level:

MQTT username: hobby

MQTT password: JWT token, as generated on the website for your connected controller



The connected controller needs to be online when the token is used for the first time on that connected controller.

Device model description

The devices within the Niko Home Control Platform are modelled according follow conventions.

Players and actions (terminology as used in Niko Home Control configuration tooling) are collectively mapped to devices on the API.

Device descriptor

The device descriptor fields are mandatory for all devices and are describing the device

Device descriptor	Description
Uuid	Unique Identifier within the Niko Home Control Platform, used for addressing the device in e.g. the location list and control device commands
Type	Device application type
Technology	Defines the manufacturer of the device
Model	Defines the hardware model
Identifier	Niko Home Control configuration identifier
Name	Human readable, display name of the device, can be updated by the user installer
Traits	List of device specific context features
Parameters	List of device configuration options
Properties	List of run-time functions

Device Traits

Device traits are device specific details (which are fixed) providing more context about the device.

See Annex A device objects for the available traits (as they are specific per device class)

Some examples:

Trait example	Description
MacAddress	The Niko Home Control bus mac address of this device
Channel	The channel on the physical module this device is connected to.

Device parameters

Device parameters are typically fields when are filled in during configuration and commissioning of the installation. The values of those fields do not change during normal operational use of the installation. See Annex A device objects for the available parameters (as they are specific per device class).

Note that there are devices having the same device class and using different content.

Some examples:

Parameter example	Description
LocationName	Name of the Location
Location	UUID of the assigned location
LocationIcon	Reference to the location icon

Device properties

Device properties can be considered as run-time functionality of a device. The values of those properties are changing regularly during normal operation use of the system.

A property has following format and property definitions.

Property	Description
Name	Name of the property Text field
Type	Indicates the type of variable. Text field with following options: Range (Minimum value, Maximum value, Stepsize) Boolean (True, False) Text (text field) Choice (List of discrete values)
Status	Indicates whether the property has status information and is capable to report it Boolean field
Control	Indicates whether the property can be controlled via the control command Boolean field
Schedule	Indicates whether the property can be used in a weekly schedule program Boolean field Remark: schedules cannot be accessed or configured via the hobby API
Logging	Indicates whether the property reports measurement information (15 minute granularity) Boolean field Remark: this measurement data is not accessible via the hobby API

See Annex A device objects for the available properties (as they are specific per device type).

Note that there are devices having the same device class and using different content.

Some examples:

Property example	Type	Status	Control	Schedule	Logging
Program	Choice(Home, Away, Vacation, Day, Night, ...)	true	true	false	false
AmbientTemperature	Range(-50,100,1)	true	false	false	false

API functions (methods)

Device management

List all devices

Command

Requests the list of all devices within the Niko Home Control installation

MQTT Topic format

hobby/control/devices/cmd

Application Data

Method: devices.list

Parameters : Not applicable

Response

Returns the list of all available devices in the installation.

MQTT Topic format

hobby/control/devices/rsp

Application Data

Method: devices.list

Parameters: list of all available devices (See Annex A device objects for all possibilities)

Error

Published by the Niko Home Control platform whenever an error occurs in the given device command, replaces the application response.

MQTT Topic format

hobby/control/devices/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrorMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method “unknown” not supported
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrorMessage: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrorMessage: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrorMessage: No device found with uuid = 'unknown')
ACCESS_VIOLATION	Unknown device (ErrorMessage: "Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Example

Command

MQTT method: publish

TOPIC: hobby/control/devices/cmd

DATA:

```
{
  "Method": "devices.list"
}
```

Reponse

MQTT method: subscribe

TOPIC: hobby/control/devices/rsp

DATA:

```
{
  "Method": "devices.list",
  "Params": [{
    "Devices": [{
      "Properties": [{
        "Brightness": "100"
      }, {
        "Status": "Off"
      }, {
        "Aligned": "True"
      }
    ],
    "Name": "Dimmable lamp",
    "Technology": "nikohomecontrol",
    "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450",
```

```

"Identifier": "a4fafca1-bde4-4ad7-94f9-292c60c26bf7",
"PropertyDefinitions": [{
  "Brightness": {
    "Description": "Range(0.00,100.00,1.00)",
    "HasStatus": "true",
    "CanControl": "true"
  }
}, {
  "Status": {
    "Description": "Choice(On,Off)",
    "HasStatus": "true",
    "CanControl": "true"
  }
}, {
  "Aligned": {
    "Description": "Boolean",
    "HasStatus": "true",
    "CanControl": "false"
  }
}],
"Online": "True",
"Model": "dimmer",
"Traits": [],
"Type": "action",
"Parameters": [{
  "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
}, {
  "LocationName": "Demo"
}, {
  "LocationIcon": "general"
}]
}]
}

```

Error

MQTT method: subscribe

TOPIC: hobby/control/devices/err

DATA:

```

{
  "ErrorMessage": "Method 'unknown' not supported for topic 'hobby/control/devices/cmd'",
  "ErrCode": "UNKNOWN_METHOD",
  "Method": "unknown"
}

```

Device added event

Published by the Niko Home Control platform when a new device is added in the installation.

MQTT Topic format

hobby/control/devices/evt

Application Data

Method: devices.added

Parameters

Parameter	Description
Devices	The list of new devices
	See Device model description for details Additional model changes could be reported later on in the process via the Device Parameter Changed event or via Device Property Definition changed event

Example

MQTT method: subscribe

TOPIC: hobby/control/devices/evt

DATA:

```
{
  "Method": "devices.added",
  "Params": [{
    "Devices": [{
      "Name": "Single dimming control with LEDs",
      "Technology": "nikohomecontrol",
      "Uuid": "b6a06a67-ce6f-42e2-933b-c67227996f46",
      "Identifier": "071da53c-03ed-46b7-9036-082d8c1f47e2",
      "Model": "dimcontrollerfeedback",
      "Traits": [{
        "MacAddress": "002807d4"
      }],
      "Type": "panel",
      "Parameters": [{
        "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
      }, {
        "LocationName": "Demo"
      }, {
        "LocationIcon": "general"
      }]
    }, {
      "Name": "All-off",
      "Technology": "nikohomecontrol",
      "Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4",
      "Identifier": "fc7993cd-2711-41c1-aebc-4fcac32b8fa3",
      "Model": "alloff",
      "Traits": [],
      "Type": "action",
      "Parameters": [{
```

```

        "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
      }, {
        "LocationName": "Demo"
      }, {
        "LocationIcon": "general"
      }
    ]
  }
}

```

Device removed event

Published by the Niko Home Control platform when an existing device is removed from the installation.

MQTT Topic format

hobby/control/devices/evt

Application Data

Method: devices.removed

Parameters

Parameter	Description
Devices	The list of removed devices
Uuid	Unique device identifier

Example

MQTT method: subscribe

TOPIC: hobby/control/devices/evt

DATA:

```

{
  "Method": "devices.removed",
  "Params": [{
    "Devices": [{
      "Uuid": "ab2e315e-a6df-4cc8-9518-5fa2a48226f5"
    }, {
      "Uuid": "ae56f142-03ca-4de6-8547-282489a615ca"
    }
  ]
}

```

Device Display name changed event

Published by the Niko Home Control platform when the display name of a device is changed. The display name is visible on the various user interfaces of the Niko Home Control installation

MQTT Topic format

hobby/control/devices/evt

Application Data

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Data Method: devices.displayname_changed

Parameters

Parameter	Description
Devices	The list of changed devices
Uuid	Unique device identifier
DisplayName	Updated display name

Example

MQTT method: subscribe

TOPIC: hobby/control/devices/evt

DATA:

```
{
  "Method": "devices.displayname_changed",
  "Params": [{
    "Devices": [{
      "DisplayName": "Single push button",
      "Uuid": "ae56f142-03ca-4de6-8547-282489a615ca"
    }]
  }]
}
```

Device Property Definition changed event

Published by the Niko Home Control platform when the definition of one or more device properties changed

MQTT Topic format

hobby/control/devices/evt

Application Data

Data Method: devices.changed

Parameters

Parameter	Description
Devices	The list of given devices
Uuid	The unique identifier of the given device
PropertyDefinitions	List of changed property definitions for the device
Property name : New property definition	New definitions for the given property

Example

MQTT method: subscribe

TOPIC: hobby/control/devices/evt

DATA:

```
{
  "Method": "devices.changed",
  "Params": [{
    "Devices": [{
      "PropertyDefinitions": [{
        "BasicState": {
          "Description": "Choice(On,Off,Triggered)",
          "HasStatus": "true",
          "CanControl": "true"
        }
      }],
      "Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4"
    }, {
      "PropertyDefinitions": [{
        "Status": {
          "Description": "Choice(On,Off)",
          "HasStatus": "true",
          "CanControl": "true"
        }
      }],
      "Uuid": "ab2e315e-a6df-4cc8-9518-5fa2a48226f5"
    }
  ]
}
```

Device Parameter Changed event

Published by the Niko Home Control platform when a parameter of a device is changed

MQTT Topic format

hobby/control/devices/evt

Application Data

Data Method: devices.param_changed

Parameters

Parameter	Description
Devices	The list of given devices
Uuid	The unique identifier of the given device
Parameters	List of changed parameters for the device
Parameter name : New value	New value for the given parameter

Example

MQTT method: subscribe

TOPIC: hobby/control/devices/evt

DATA

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```
{
  "Method": "devices.param_changed",
  "Params": [{
    "Devices": [{
      "Parameters": [{
        "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
      }, {
        "LocationName": "Demo"
      }, {
        "LocationIcon": "general"
      }],
      "Uuid": "ab2e315e-a6df-4cc8-9518-5fa2a48226f5"
    }, {
      "Parameters": [{
        "LongPressTime01": "1000"
      }, {
        "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
      }, {
        "LocationName": "Demo"
      }, {
        "ButtonMode01": "ShortPress"
      }, {
        "LocationIcon": "general"
      }],
      "Uuid": "ae56f142-03ca-4de6-8547-282489a615ca"
    }, {
      "Parameters": [{
        "LocationId": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
      }, {
        "LocationName": "Demo"
      }, {
        "LocationIcon": "general"
      }],
      "Uuid": "d06d3d73-6820-4309-be16-1e201d4aa8b8"
    }
  ]
}]
}
```

Device control

Control device

Command

Controls a set of properties for the given devices.

MQTT Topic format

hobby/control/devices/cmd

Application Data

Data Method: devices.control

Parameters

Parameter	Description
Devices	The list of given devices
Uuid	The unique identifier of the given device
Properties	Property list to be changed for the given device
Property name : New value	New value for the given property

See Device model description for details.

Response

Not applicable.

Device status updates are published via the Devices status changed event

Error

Published by the Niko Home Control platform whenever an error occurs in the given device command, replaces the application response.

MQTT Topic format

hobby/control/devices/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method “unknown” not supported
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrMessage: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrMessage: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrMessage: No device found with uuid = 'unknown')
ACCESS_VIOLATION	Unknown device (ErrMessage": "Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Remarks:

When a device is offline while it is being controlled via the API:

- there will be no error event
- there will be no status update events

When a control command contains multiple actions to be executed and there is an error in one of the properties/values, the valid property commands will be executed and the invalid ones will be filtered out.

Example

Command

MQTT method: publish

TOPIC: hobby/control/devices/cmd

DATA:

```
{
  "Method": "devices.control",
  "Params": [{
    "Devices": [{
      "Properties": [{
        "Brightness": "100"
      }, {
        "Status": "On"
      }],
      "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450"
    }]
  }]
}
```

Error

MQTT method: subscribe

TOPIC: hobby/control/devices/err

DATA:

```
{
  "ErrMsg": "Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450'",
  "ErrCode": "INTERNAL_ERROR",
  "Method": "devices.control"
}
```

Devices status changed event

Published by the Niko Home Control platform when a device property values or device parameter values are changed.

MQTT Topic format

hobby/control/devices/evt

Application Data

Method: devices.status

Parameters

Parameter	Description
Devices	The list of changed devices
Uuid	Unique device identifier
Properties	List of changed properties
Property name : New value	New value for the given property
Online	Online status of the device

Example

MQTT method: subscribe

TOPIC: hobby/control/devices/evt

DATA:

```
{
  "Method": "devices.status",
  "Params": [{
    "Devices": [{
      "Properties": [{
        "BasicState": "Off"
      }],
      "Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4"
    }, {
      "Properties": [{
        "Brightness": "100"
      }],
      "Status": "On"
    }, {
      "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450"
    }
  ]
}]
}
```

Locations

List locations

Command

Requests the list of all locations within the Niko Home Control installation

MQTT Topic format

hobby/control/locations/cmd

Application Data

Method: locations.list

Parameters: Not applicable

Response

Returns the list of all available locations in the installation.

MQTT Topic format

hobby/control/locations/rsp

Application Data

Method: locations.list

Parameters: list of all available locations

Parameter	Description
Uuid	The unique identifier of this location
Name	Displayname, user given name for this location
Index	The index determines in what order the locations should be shown on the user interfaces in the Niko Home Control platform
Icon	Icon is a tag/name used as a reference to display the corresponding icon on the user interfaces in the Niko Home Control platform

Error

Published by the Niko Home Control platform whenever an error occurs for the given location command.

MQTT Topic format

hobby/control/location/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrorMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method “unknown” not supported
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrorMessage: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrorMessage: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrorMessage: No device found with uuid = 'unknown')

Errorcode	Description
ACCESS_VIOLATION	Unknown device (ErrorMessage: "Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Example

Command

MQTT method: publish

TOPIC: hobby/control/locations/cmd

DATA:

```
{
  "Method": "locations.list"
}
```

Response

MQTT method: subscribe

TOPIC: hobby/control/locations/rsp

DATA:

```
{
  "Method": "locations.list",
  "Params": [{
    "Locations": [{
      "Icon": "general",
      "Name": "Home",
      "Index": "1",
      "Uuid": "b4e948b8-6378-498f-961c-b7c285c9f5b8"
    }, {
      "Icon": "general",
      "Name": "Demo",
      "Index": "2",
      "Uuid": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
    }
  ]
}]
}
```

Error

MQTT method: subscribe

TOPIC: hobby/control/location/err

DATA:

```
{
  "ErrorMessage": "Method 'unknown' not supported for topic 'hobby/control/location/cmd'",
  "ErrCode": "UNKNOWN_METHOD",
  "Method": "unknown"
}
```

List devices in locations

Command

Requests the list of all devices for the given locations within the Niko Home Control installation

MQTT Topic format

hobby/control/locations/cmd

Application Data

Method: locations.listitems

Parameters: Not applicable

Parameter	Value
Location	Array of the unique location identifiers (UUID's).

Response

Returns the list of all available devices for the given locations within the Niko Home Control installation.

MQTT Topic format

hobby/control/locations/rsp

Application Data

Method: locations.listitems

Parameters: list of the all available devices per given location

Parameter	Description
Locations	The list of given locations
Uuid	The unique identifier of the given location
Items	List of all devices for the given location
Uuid	The unique identifier of the device
Index	The index determines in what order the devices should be shown on the user interfaces in the Niko Home Control platform for the given location

Error

Published by the Niko Home Control platform whenever an error occurs for the given location command.

MQTT Topic format

hobby/control/location/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrMsg:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method “unknown” not supported
INTERNAL_ERROR	Internal application error Illegal property for a device (ErrMsg: Failed to set property 'Unknown' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal value for device property (ErrMsg: Failed to set property 'Status' to '100' for device '21a967a1-676d-487b-b8d4-9736ef16d450') Illegal device (ErrMsg: No device found with uuid = 'unknown')
ACCESS_VIOLATION	Unknown device (ErrMsg: "Device (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Remark: When an invalid location ID is used, an empty list will be returned

Example

Command

MQTT method: publish

TOPIC: hobby/control/locations/cmd

DATA:

```
{
  "Method": "locations.listitems"
  "Params": [{
    "Locations": [{
      "Uuid": "b4e948b8-6378-498f-961c-b7c285c9f5b8"
    }, {
      "Uuid": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
    }
  ]
}]
}
```

Response

MQTT method: subscribe

TOPIC: hobby/control/locations/rsp

DATA:

```
{
  "Method": "locations.listitems",
  "Params": [{
    "Locations": [{
```

```

        "Items": [],
        "Uuid": "b4e948b8-6378-498f-961c-b7c285c9f5b8"
    }, {
        "Items": [{
            "Index": "0",
            "Uuid": "76924964-ae78-49ed-a011-f2939d0c6ff4"
        }, {
            "Index": "0",
            "Uuid": "21a967a1-676d-487b-b8d4-9736ef16d450"
        }],
        "Uuid": "7f62f934-83d3-4c66-b4bd-df7065cb1c6a"
    }
}

```

Error

MQTT method: subscribe

TOPIC: hobby/control/location/err

DATA:

```

{
    "ErrorMessage": "Method 'unknown' not supported for topic 'hobby/control/location/cmd'",
    "ErrCode": "UNKNOWN_METHOD",
    "Method": "unknown"
}

```

System information

Time information event

Time information published by the Niko Home Control platform every 30 seconds

MQTT Topic format

hobby/system/evt

Application Data

Method: time.published

Parameters

Parameter	Description
Timeinfo	
GMT offset	Unique device identifier
Timezone	Timezone
IsDST	Day light savings
UTCTime	Current date time (UTC)

Example

MQTT method: publish

TOPIC: hobby/system/evt

DATA:

```
{
  "Method": "time.published",
  "Params": [{
    "TimeInfo": [{
      "GMTOffset": "3600",
      "Timezone": "Europe/Brussels",
      "IsDST": "0",
      "UTCTime": "20190206093851"
    }]
  }]
}
```

System information request

Command

Requests the Niko Home Control system information

MQTT Topic format

hobby/system/cmd

Application Data

Method: systeminfo.publish

Parameters : Not applicable

Response

Returns the Niko Home Control system information

MQTT Topic format

hobby/system/rsp

Application Data

Method: systeminfo.published

Parameters

Parameter	Description
SystemInfo	
LastConfig	Date time stamp of last configuration change in Niko Home Control
WaterTariff	Tariff for water (price per m ³)
Currency	Tariff currency (€, \$, £)
Units	Always 0 (Metric system)
Language	User language

Parameter	Description
SWversions	Niko Home Control version and installed SW image of the Connected Controller
ElectricityTariff	Tariff for electricity (price per kWh)
GasTariff	Tariff for gas (price per m ³)

Example

Command

MQTT method: publish

TOPIC: hobby/system/cmd

DATA:

```
{
  "Method": "systeminfo.publish"
}
```

Response

MQTT method: subscribe

TOPIC: hobby/control/time/rsp

DATA:

```
{
  "Method": "systeminfo.publish",
  "Params": [{
    "SystemInfo": {
      "LastConfig": "20190206093827",
      "WaterTariff": "0",
      "Currency": "EUR",
      "Units": "0",
      "Language": "EN",
      "SWversions": [{
        "NhcVersion": "2.5.1.0"
      }], {
        "CocolImage": "2019.1-20190118105507"
      }
    }, {
      "ElectricityTariff": "0",
      "GasTariff": "0"
    }
  ]
}
```

System information event

System information published by the Niko Home Control platform when configuration is updated.

MQTT Topic format

hobby/system/evt

Application Data

Method: systeminfo.published

Parameters

Parameter	Description
SystemInfo	
LastConfig	Date time stamp of last configuration change in Niko Home Control
WaterTariff	Tariff for water (price per m ³)
Currency	Tariff currency (€, \$, £)
Units	Always 0 (Metric system)
Language	User language
SWversions	Niko Home Control version and installed SW image of the Connected Controller
ElectricityTariff	Tariff for electricity (price per kWh)
GasTariff	Tariff for gas (price per m ³)

Example

MQTT method: subscribe

TOPIC: hobby/control/time/evt

DATA:

```
{
  "Method": "systeminfo.published",
  "Params": [{
    "SystemInfo": [{
      "LastConfig": "20190206093827",
      "WaterTariff": "0",
      "Currency": "EUR",
      "Units": "0",
      "Language": "EN",
      "SWversions": [{
        "NhcVersion": "2.5.1.0"
      }, {
        "CocolImage": "2019.1-20190118105507"
      }],
      "ElectricityTariff": "0",
      "GasTariff": "0"
    }]
  }]
}
```

Notifications

List Notifications

Command

Requests the list of all notifications within the Niko Home Control installation

MQTT Topic format

hobby/notification/cmd

Application Data

Method: notifications.list

Parameters: Not applicable

Response

Returns the list of all available notifications in the installation.

Number of notifications is limited to 50. When number of notifications exceeds the limit, older notifications will be removed according (FIFO principle)

MQTT Topic format

hobby/notification/rsp

Application Data

Method: notifications.list

Parameters: list of all available notifications

Parameter	Description
Uuid	The unique identifier of this notification
TimeOccurred	Date time stamp (<YYYYMMDDHHMMSS>;UTC) of the notification occurrence
Type	alarm: alarm notification (as defined via the configuration software) notification: informative notification (as defined via the configuration software)
Status	new: new notification read: notification is read

Error

Published by the Niko Home Control platform whenever an error occurs for the given location command.

MQTT Topic format

hobby/notification/err

Application Data

Method: < originating command>

ErrCode:<error-tag, identifying the global error code>

ErrorMessage:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method “unknown” not supported
INTERNAL_ERROR	Internal application error
ACCESS_VIOLATION	Unknown notification

Errorcode	Description
	(ErrMessage": "Notification (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Example

Command

MQTT method: publish

TOPIC: hobby/notification/cmd

DATA:

```
{
  "Method": "notifications.list"
}
```

Response

MQTT method: subscribe

TOPIC: hobby/notification/rsp

DATA:

```
{
  "Method": "notification.list",
  "Params": [{
    "Notifications": [{
      "Status": "new",
      "Type": "alarm",
      "TimeOccurred": "20190315140930",
      "Uuid": "a5f576c6-7f4a-4541-bc39-28f617cff435",
      "Text": "Dimmer ON"
    },
  ]
}]
}
```

Error

MQTT method: subscribe

TOPIC: hobby/notification/err

DATA:

```
{
    "ErrorMessage": "Method-field not found within json string ({\n\t\"Method\": \"notifications.update\",\n\t\"Params\": {\n\t\t\"Notifications\": [{\n\t\t\t\"Uuid\": \"a5f576c6-7f4a-4541-bc39-28f617cff435\",\n\t\t\t\"Status\": \"read\"\n\t\t}]\n\t})\n)",
    "ErrCode": "INVALID_JSON_STRING",
    "Method": "unknown"
}
```

Update Notification

Command

Updates an existing notification

MQTT Topic format

hobby/notification/cmd

Application Data

Method: notifications.update

Parameters

Parameter	Description
Uuid	The unique identifier of this notification
Status	

Response

Returns the list of updated notifications as a result of the update notification command.

MQTT Topic format

hobby/notification/rsp

Application Data

Method: notifications.list

Parameters: list of updated notifications

Parameter	Description
Uuid	The unique identifier of this notification
TimeOccurred	Date time stamp (<YYYYMMDDHHMMSS>;UTC) of the notification occurrence
Type	Alarm: alarm notification (as defined via the configuration software) Notification: informative notification (as defined via the configuration software)
Status	new: new notification read: notification is read

Error

Published by the Niko Home Control platform whenever an error occurs for the given location command.

MQTT Topic format

hobby/notification/err

Application Data

Method: < originating command>

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ErrCode:<error-tag, identifying the global error code>

ErrMsg:<descriptive message of the error>

Error codes:

Errorcode	Description
INVALID_JSON_STRING	Method is not correctly formatted
UNKNOWN_METHOD	Method “unknown” not supported
INTERNAL_ERROR	Internal application error
ACCESS_VIOLATION	Unknown notification (ErrMsg:"Notification (21a967a1-676d-487b-b8d4-9736ef16d450) is not accessible")
UNKNOWN_ERROR	Generic failure

Example

Command

MQTT method: publish

TOPIC: hobby/notification/cmd

DATA:

```
{
  "Method": "notifications.update"
  "Params": [{
    "Notifications": [{
      "Uuid": "a5f576c6-7f4a-4541-bc39-28f617cff435",
      "Status": "read"
    },]
  }]
}
```

Response

MQTT method: subscribe

TOPIC: hobby/notification/rsp

DATA:

```
{
  "Method": "notifications.update",
  "Params": [{
    "Notifications": [{
      "Status": "read",
      "Type": "alarm",
      "TimeOccurred": "20190315140930",
      "Uuid": "a5f576c6-7f4a-4541-bc39-28f617cff435",
      "Text": "Dimmer ON"
    },]
  }]
}
```

$$\begin{array}{c} \} \\ \} \\ \} \end{array}$$

Error

MQTT method: subscribe

TOPIC: hobby/control/notification/err

DATA:

```
{
    "ErrorMessage": "Method-field not found within json string ({\n\t\"Method\": \"notifications.update\", \n\t\t\"Params\": {\n\t\t\t\"Notifications\": [{\n\t\t\t\t\t\"Uuid\": \"a5f576c6-7f4a-4541-bc39-28f617cff435\", \n\t\t\t\t\t\"Status\": \"read\"\n\t\t\t\t}\n\t\t] \n})",
    "ErrCode": "INVALID_JSON_STRING",
    "Method": "unknown"
}
```

Notification raised event

Published by the Niko Home Control platform when a new notification is generated.

MQTT Topic format

hobby/notification/evt

Application Data

Method: notifications.raised

Parameters: list of all new notifications

Parameter	Description
Uuid	The unique identifier of this notification
TimeOccurred	Date time stamp (<YYYYMMDDHHMMSS>;UTC) of the notification occurrence
Type	Alarm: alarm notification (as defined via the configuration software) Notification: informative notification (as defined via the configuration software)
Status	new: new notification

Example

MQTT method: subscribe

TOPIC: hobby/notification/evt

DATA:

```
{
  "Method": " notifications.raised",
  "Params": [{
    "Notifications": [{
      "Status": "new",
      "Type": "alarm",
      "TimeOccurred": "20190315140930",
      "Uuid": "a5f576c6-7f4a-4541-bc39-28f617cff435",
      "Text": "Dimmer ON"
```

```
}
    }
  },
}
```

Limitations and restrictions

Latency

The communication flow is based upon asynchronous events and commands, introducing a latency between action and reaction. This table gives an indication of typical latency that can be expected.

Flow	Typical latency
Device control command message to “physical device” action execution	< 200 ms
“physical device” action to device status changed event message	< 200 ms
Location or device list request message and response message	< 200 ms

Annex A device objects

This is the list of all objects, currently available in the Niko Home Control platform.

The hobby API will return only objects, which are available within each specific installation.

This list is not a limited list: new devices, traits, properties and property definitions can be added during the lifecycle of the Niko Home Control Platform.

Device model - NHC Access Control Action

Represents the action for the "external video unit touch buttons" and "external video unit touch buttons with ring and come-in"

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	accesscontrol
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name

LocationIcon	Text	""	Location Icon GUID
Action	Text	""	UUID of the extra action configured for this button E.g. A light or set of lights near the entrance
Ringtone	Choice("dunes","savanna","suburbia","rimbu","metropolis")		Ringtone
DeclineCallAppliedOnAllDevices	Boolean		Decline call applied on all devices
ButtonId	Text	""	ButtonID of the VDS button linked to this guided action Format <mac-address>_[01-04]

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Intermediate, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Only available for ring-and-come-in guided action. BasicState (used to enable / disable ring-and-come-in) Control: use the value "Triggered" Status feedback: returns values "On", "Off"
Doorlock	Choice(Open, Closed)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control doorlock via "Open" in order to open the doorlock. After the timeout (as configured in the guided action), the doorlock will close again and the state will be updated to "Closed".

Device model - NHC All Off Action

Represents the All-off action and All-off with walkway assistance

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	alloff
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>BasicState (used to execute the action)</p> <p>Control: use the value "Triggered"</p> <p>Status feedback: returns values "On", "Off" according the state of all assigned players as configured for that action</p>
AllOffActive	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>AllOffActive (status feedback for the All Off Action)</p> <p>True: only upon activation of the action</p> <p>False: when one of the assigned participants in the action had a state change</p>

Device model - NHC Audio Control Action

Represents the action to control the Audio functions

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	audiocontrol
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
Manufacturer	Choice (Bose, Sonos)		Brand of the connected speakers or groups
Speaker	Text	""	UUID of the speaker to fetch favourites from

Property	Type	Status	Control	Schedule	Logging	Information
Status	Choice (On, Off)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Switch speaker on/off

Playback	Choice (Playing, Paused, Buffering)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control: use the value "Playing" or Paused Status feedback: returns values "Playing", "Paused", "Buffering"
Volume	Range (0, 100, 1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control speaker volume
Muted	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/disable mute
Favourite	Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Select favourite to start playing. List of favourites can be fetched from the FavouriteXX parameters of the device mentioned in the Speaker parameter
Title	Text	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name of the currently playing track, radio station, ...
VolumeAligned	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True when all speakers / groups have the same volume
TitleAligned	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True when all speakers / groups have the title
Connected	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True when all speakers are connected

Device model - NHC Basic Alarm Action

Represents the action for intruder alarm

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	alarms
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Model
BasicState	Choice (On, Intermediate, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BasicState (used to arm/disarm the alarm) Control: use the value "Triggered" Status feedback: returns values "On", "Intermediate", "Off"

Device model - NHC BellButton Action

Represents the action for additional bell buttons for the access control functionality

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	bellbutton
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
Action	Text	""	UUID of the extra action that can be configured for this button E.g. A light or set of lights near the entrance
Ringtone	Choice("dunes","savanna","suburbia","rimbu","metropolis")		Ringtone
DeclineCallAppliedOnAllDevices	Boolean		Decline call applied on all devices

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Intermediate, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control: use the value "Triggered" Status feedback: returns "On" when bell button is pressed returns "Off" when no call active
Doorlock	Choice(Open, Closed)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control doorlock via "Open" in order to open the doorlock. After the timeout (as configured in the guided action), the doorlock will close again and the state will be updated to "Closed".

Device model - NHC Dimmer Action

Represents the action for a dimmer

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	dimmer
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Status	Choice (On, Off)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Turns dimmer On or Off Follows "All On" action
Brightness	Range (0,100, 1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brightness of dimmer in %. Note that 0 means "no visible light", but is not the same as OFF.

Aligned	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True when: all dimmers are on and have the same brightness all dimmers are off, regardless of the brightness
---------	---------	-------------------------------------	--------------------------	--------------------------	--------------------------	--

Device model - NHC Fan Action

Represents the action for a Fan

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	fan
fanIdentifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Loggin g	Information
----------	------	--------	---------	----------	-------------	-------------

FanSpeed	Choice (Low, Medium, High, Boost)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fan speed selection
----------	-----------------------------------	-------------------------------------	-------------------------------------	--------------------------	--------------------------	---------------------

Device model - NHC Free Start Stop Actions

Represents the NHC Free Start stop action

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	generic
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
StartText	Text	"Activated" (translated)	Text shown when the guided action is activated
StopText	Text	"Deactivated" (translated)	Text shown when the guided action is deactivated

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of all assigned players as configured for that action
StartActive	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Status feedback for the Free Start Stop Action True: only upon activation of the action False: when one of the assigned participants in the action had a state change

Device model - NHC Garage Door Action

Represents the action for the garage door control

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	garagedoor
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
-----------	------	---------	-------------

Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Intermediate, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control: use the value "Triggered" Status feedback When "On": gate is opened When "Intermediate" : gate is moving (only when optional moving sensor is available) When "Off": gate closed

Device model - NHC House Mode Action

Represents the action to activate/deactivate NHC house status actions

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	overallcomfort
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control: use the value "Triggered" Status feedback: returns values "On", "Off" according the state of all assigned players as configured for that action
StartActive	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Status feedback for the House Mode Action True: only upon activation of the action False: when one of the assigned participants in the action had a state change

Device model - NHC HVAC Thermostat

Represents the action for an HVAC thermostat

Type	hvac
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	hvacthermostat
Identifier	<NikoConfigGUID>

Traits	Information
MacAddress	The NHC bus mac address of this device.

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Program	Choice(Day, Night, Custom, Prog1, Prog2)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature control program.
AmbientTemperature	Range(0,50,0.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Currently measured temperature
SetpointTemperature	Range(5,30,1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Read-only. Desired setpoint in the current program
OverrideActive	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Marks if the override-time will be used instead of setpoint as defined in program mode
OverrideSetpoint	Range(5,30,1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Current overruled setpoint temperature
OverrideTime	Range(1, 1439, 1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Duration of the override period in minutes (max 23h 59min)
EcoSave	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Puts the thermostat in ecosave mode (energy consumption reduction). This keeps the 'Program' going and influences the setpoint temperature. SetpointTemperature + 3°C when in cooling

						SetpointTemperature - 3°C when in heating
ProtectMode	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System off mode with temperature protection. Heating is activated when temperature is too low Cooling is activated when temperature is too high
OperationMode	Choice(Heating, Cooling)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Indicates wheter the thermostat is in heating or cooling
FanSpeed	Choice(Low, Medium, High)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fan speed selection
ThermostatOn	Choice(On, Off)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Indicates wheter the thermostat is turned on or off
HvacOn	Choice(On, Off)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Indicates that the HVAC indoor unit is online.

Device model - NHC Thermostat

Represents the action for the thermostat

Type	hvac
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	thermostat touchswitch
Identifier	<NikoConfigGUID>

Traits	Information
MacAddress	The NHC bus mac address of this device. Empty for model touchswitch

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Program	Choice(Day, Night, Eco, Off, Prog1, Prog2, Prog3)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature control program.
AmbientTemperature	Range(-5,45,0.5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Currently measured temperature
SetpointTemperature	Range(5,30,0.5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Read-only. Desired setpoint in the current program
OverruleActive	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Marks if the overrule-time will be used instead of setpoint as defined in program mode
OverruleSetpoint	Range(5,30,0.5)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Current overruled setpoint temperature
OverruleTime	Range(1, 1439, 1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Duration of the overrule period in minutes (max 23h 59min)
EcoSave	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Puts the thermostat in ecosave mode (energy consumption reduction). This keeps the 'Program' going and influences the setpoint temperature. SetpointTemperature + 3°C when in cooling SetpointTemperature - 3°C when in heating
Demand	Choice(Heating, Cooling, None)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Read-only, indicates whether thermostat is actively requesting heating, cooling or nothing towards the heating unit

Device model - NHC Mood Action

Represents the action for a mood (scene)

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	comfort
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID
MoodIcon	Range(-1, 32, 1)	0	Index of the mood icon. If this mood action is not linked to a moodbutton, the value is -1.

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Off,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control: use the value "Triggered"

	Triggered)					Status feedback: returns values "On", "Off" according the state of all assigned players as configured for that action
MoodActive	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Status feedback for the Mood Action True: only upon activation of the action False: when one of the assigned participants in the action had a state change

Device model - NHC Motor Action

Represents the action for motor controle

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	rolldownshutter sunblind gate venetianblind
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Action	Choice (Open, Close, Stop)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fully open or close the NHC motor or stop a running motor
Position	Range(0,100,1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100% == Open 0% == Closed
Aligned	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True if all motors have the same position
Moving	Boolean	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Any motor running or not

Device model - NHC Panic Mode Action

Represents the action for the Panic Mode

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	alarms
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control: use the value "Triggered" Status feedback: returns values "On", "Off"

Device model - NHC PIR Action

Represents the action for Motion detection enable/disable

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	pir
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Used to enable/disable the motion detection control</p> <p>Control: use the value "Triggered"</p> <p>Status feedback:</p> <p>When "On": motion detection is enabled</p> <p>When "Off": motion detection is disabled</p>

Device model - NHC Presence Simulation Action

Represents the action to enable/disable the presence simulation

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	simulation
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
BasicState	Choice (On, Intermediate, Off, Triggered)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BasicState (used to enable / disable ring-and-come-in) Control: use the value "Triggered" Status feedback: returns values "On", "Intermediate", "Off"

Device model - NHC Relay Action

Represents the action to control a relay or circuit

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	light, socket, switched-fan, switched-generic
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Status	Choice(On, Off)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Turn on/off the relays Status feedback: When "On": all connected outputs are "On" When "Off": at least one output is off

Device model - NHC Reynaers Action

Represents the action for Reynaers motor control

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	reynaers
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Action	Choice (Open, Close, Stop)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Open, close or stop a running Reynaers motor
Status	Choice (Moving, FixedClosed, FixedNotClosed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Status feedback of the Reynaers motor

Device model - NHC Velux Action

Represents the action for a Velux motor control

Type	action
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	velux
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Action	Choice (Open, Close, Stop)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Open, close or stop a running Velux motor

Device model - Sonos Speaker

Represents the Sonos Speaker action (retrieving the favourites list)

Type	audiocontrol
Technology (aka Manufacturer)	sonos
Model (aka HWModel)	generic
Identifier	<NikoConfigGUID>

Traits	Information
HouseholdId	Internal Sonos identifier

Parameter	Type	Default	Information
PlayerId	Text		Device Identifier
GroupId	Text	""	Speaker Group Identifier
GroupName	Text	""	Speaker Group Name
GroupCoordinator	Boolean	true	Indicates whether this devices acts as coordinator for the group
FavouriteXX	Text	""	For XX - 00..69

Device model - Bose Speaker

Represents the Bose Speaker action (retrieving the favourites list)

Type	audiocontrol
Technology (aka Manufacturer)	bose
Model (aka HWModel)	generic
Identifier	<NikoConfigGUID>

Traits	Information

Parameter	Type	Default	Information
DeviceId	Text		Device Identifier
GroupId	Text	" "	Speaker Group Identifier
GroupName	Text	" "	Speaker Group Name
GroupCoordinator	Boolean	true	Indicates whether this devices acts as coordinator for the group
FavouriteXX	Text	" "	For XX - 00..05

Device model – Electricity Metering module (with clamp)

Represents the electricity metering module

Type	centralmeter
Technology (aka Manufacturer)	nikohomecontrol
Model (aka HWModel)	Electricity-clamp
Identifier	<NikoConfigGUID>

Traits	Information
MacAddress	The NHC bus mac address of this device.
Channel	The channel on the physical NHC module this meter is connected to.
MeterType	1-Phase/3-Phase

Parameter	Type	Default	Information
Flow	Choice(Producer,Consumer)	Consumer	
Segment	Choice(Central,Subsegment)	Central	
ClampType	Choice(63A, 120A)	63A	Only for electricity-clamp
ShortName	Text	""	Name on eco display

Property	Type	Status	Control	Schedule	Logging	Information
ElectricalEnergy	Range(-5461, 5461, 0.001)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Internal parameter. Data is not exposed on this API
ElectricalPower	Range(-201326, 201326, 1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unit: W Positive = power consumed, Negative = power produced This property should be used for live energy mode.

ReportInstantUsage	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If true, the ElectricalPower will receive status updates every 2s. When enabled, it will automatically be disabled after 30s.
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Device model - Generic Ventilation Implementation

Represents the generic ventilation action when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected partner device.

Type	fan
Technology (aka Manufacturer)	<technology>
Model (aka HWModel)	<model>
Identifier	<partner identifier>

Traits	Information
PlayerName	Config software name (when coupled)

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
Program	Choice(Home, Away, Vacation, Day, Night, ...)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max 8 choices Available values depend on the connected system
FanSpeed	Choice(Off, Low, Medium, High, Automatic, ...)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max 8 choices Available values depend on the connected system
FanSpeed	Range(0, 100, 1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	unit: %
Boost	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boost mode active
Status	Choice(On, Off)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fan on or off
CO ₂	Range(0,1000000,1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	unit: ppm
Humidity	Range(0,100,1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	unit: %
CouplingStatus	Choice(Ok, NoInternet, NoCredentials, InvalidCredentials, UnknownError)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connectivity status of the system

Device model - Generic Heating/Cooling Implementation

Represents the generic heating/cooling action when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected partner device.

Type	hvac
Technology (aka Manufacturer)	<technology>
Model (aka HWModel)	<model>
Identifier	<partner identifier>

Traits	Information
PlayerName	Config software name (when coupled)

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Information
SetpointTemperature	Range(..., ..., ...)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Units: degrees Celsius
AmbientTemperature	Range(..., ..., ...)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Units: degrees Celsius
OutdoorTemperature	Range(..., ..., ...)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Units: degrees Celsius
Program	Choice(Home, Away, Vacation, Day, Night, ...)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max 8 choices Available values depend on the connected system
OperationMode	Choice(Cool, Heat, Auto)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max 8 choices Available values depend on the connected system
FanSpeed	Choice(Off, Low, Medium, High, Automatic, ...)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max 8 choices Available values depend on the connected system
FanSpeed	Range(0,100,1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unit: %

Status	Choice(On, Off)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System on or off
OverrideActive	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	Override mode active or not
CouplingStatus	Choice(Ok, NoInternet, NoCredentials, InvalidCredentials, UnknownError)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connectivity status of the system

Device model - Generic Warm Water Implementation

Represents the generic warm water action when using a connected system from a Niko partner. The list of available properties depends upon the capabilities of the connected system.

Type	domestichotwaterunit
Technology (aka Manufacturer)	<technology>
Model (aka HWMModel)	<model>
Identifier	<partner identifier>

Traits	Information
PlayerName	Config software name (when coupled)

Parameter	Type	Default	Information
Location	Text	""	Location GUID
LocationName	Text	""	Location Name
LocationIcon	Text	""	Location Icon GUID

Property	Type	Status	Control	Schedule	Logging	Com
DomesticHotWaterTemperature	Range(..., ..., ...)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	unit: degrees Celcius
Program	Choice(Home, Away, Vacation, Day, Night, ...)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	Max 8 choices Available values depend on the connected system
Boost	Boolean	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boost mode activation
CouplingStatus	Choice(Ok, NoInternet, NoCredentials, InvalidCredentials, UnknownError)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connectivity status of the system