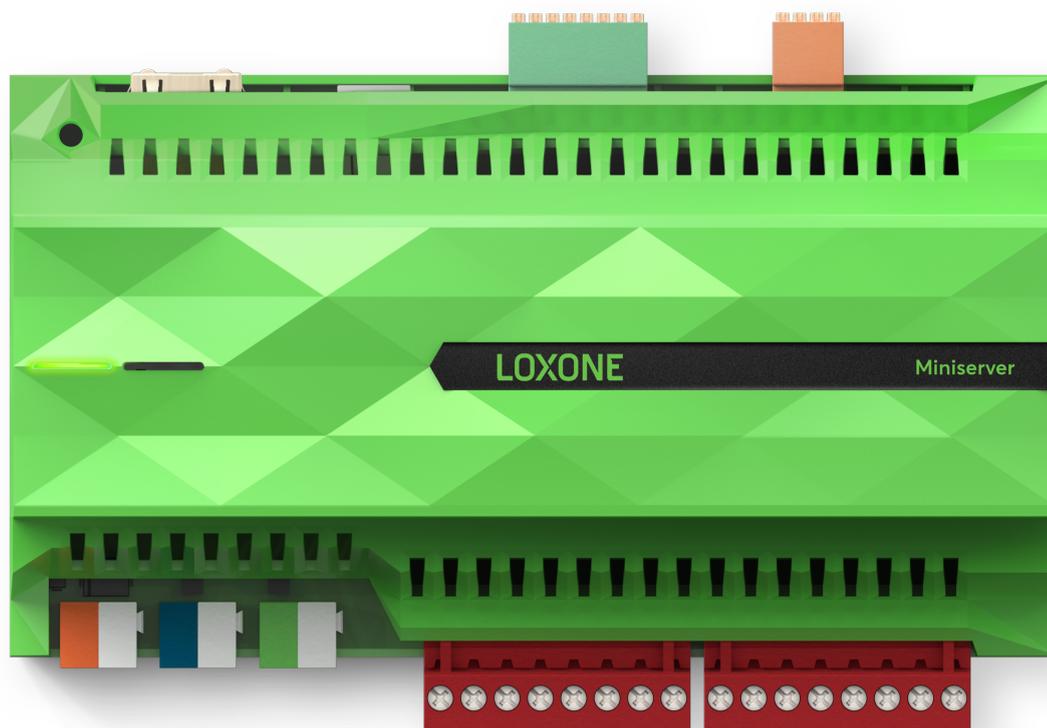


Usermanagement

13.0

2022.07.20



This Document describes all webservice for creating new plus altering and deleting existing users.

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Commands

- In front of each command there is written “/jdev/sps/”.
- It describes the path to the available commands.
- Commands need to be performed by a user with a right to modify other users.

Get all available users

getuserlist2

- gets a list of all configured users

Response

```
{
  "name": "Administrator",
  "uuid": "089396d4-0207-0119-1900000000000000",
  "isAdmin": true,
  "userState": 0
},
{
  "name": "Feuerwehr",
  "uuid": "0a5fa72f-018b-0050-1900000000000000",
  "isAdmin": false,
  "userState": 0
},
{
  "name": "admin",
  "uuid": "0ee1424f-006b-57d5-ffffeee000880187",
  "isAdmin": true,
  "userState": 0
}
```

Get all details for a user

getuser/{uuidUser}

This webservice returns a json with the full user-configuration.

Response

```
{
  "name": "admin",
  "userid": "1234 24 12 83",
  "uuid": "12eebb90-00a1-3073-ffff88c561c84c44",
  "isAdmin": true,
  "masterAdmin": true,
  "changePassword": true,
  "userstate": 2,
  "validUntil": {SECONDS_SINCE_2009},
  "validFrom": {SECONDS_SINCE_2009},
  "userRights": 2047,
  "scorePWD": 2,
  "scoreVisuPWD": -2,
  "usergroups": [
    {
      "name": "Administratoren",
      "uuid": "12eebb90-00a1-3076-ffff88c561c84c44"
    },
    {
      "name": "Alle",
      "uuid": "12eebb90-00a1-307c-ffff88c561c84c44"
    }
  ],
  "nfcTags": [
    {
      "name": "NFC-Tag",
      "id": "12 34 56 78 90 98 76 54"
    }
  ],
  "keycodes": [
    {
      "code": "6C3A7D85A4B196E37C5DADFDE7E0586ED4D7137C"
    }
  ],
  "trustMember": serialNumber
}
```

Get all configurable user-groups

getgrouplist

Lists all available user-groups and additional information

Response

```
[
  {
    "name": "Administratoren",
    "description": "Administratoren",
    "uuid": "12eebb90-00a1-3076-ffff88c561c84c44",
    "type": 1,
    "userRights": 4294967295
  },
  {
    "name": "Benutzer",
    "description": "Benutzer",
    "uuid": "12eebb90-00a1-307a-ffff88c561c84c44",
    "type": 0,
    "userRights": 1
  },
  {
    "name": "Alle",
    "description": "Alle",
    "uuid": "12eebb90-00a1-307c-ffff88c561c84c44",
    "type": 2,
    "userRights": 0
  },
  {
    "name": "Niemand",
    "description": "Niemand",
    "uuid": "12eebb90-00a2-3080-ffff88c561c84c44",
    "type": 3,
    "userRights": 0
  }
]
```

Create or Edit existing user

addredituser/{json}

- {json}:
 - User configuration with all settings to be created / changed
 - see [getuser-cmd](#) for details on JSON structure

- json-content:
 - uuid: [optional]
 - if null, a new user will be created.
 - if provided and uuid is found, an existing user is adapted.
 - if not found, it will return with code 500, user not found.
 - usergroups
 - When during editing a user and no groups-array is set, the group-assignment will remain unchanged.
 - All other json attributes are optional.
- Return-Value:
 - UUID of created or adapted user
 - errortext if failed

Example - Add a new user

Request

```
jdev/sps/addoredituser/{"name":"A","userid":"1234","changePassword":true,"userState":4,"validUntil":371738510,"validFrom":371736410}
```

Please note, that here no UUID is specified - that is why a new user is created.

Response

```
{
  "name": "A",
  "uuid": "16282419-0233-2026-ffffeee000240011",
  "userid": "1234",
  "isAdmin": false,
  "changePassword": true,
  "masterAdmin": false,
  "userRights": 32,
  "scorePWD": -1,
  "scoreVisuPWD": -1,
  "userState": 4,
  "validUntil": 371738510,
  "validFrom": 371736410,
  "usergroups": [],
  "nfcTags": [],
  "keycodes": []
}
```

Example - Existing User → groups and NFC-tags are adapted

```
{
  "name": "ExistingUser",
  "uuid": "133cb125-0052-f7e9-ffff88c561c84c44",
}
```

```
  "usergroups": [
    "12eebb90-00a1-3076-ffff88c561c84c44",
    "12eebb90-00a1-307a-ffff88c561c84c44"
  ],
  "nfcTags": [
    "12334566",
    "123123123"
  ]
}
```

Create User

createuser/{username}

- creates an user with a given username
- result will contain the uuid of the new user

Delete User

deleteuser/{uuidUser}

- deletes an user with a given [uuid](#)
- All active websockets used by this user will be closed.
- When trying to delete the last admin, the Miniserver will respond with 403

Assign user to group

assignusertogroup/{uuidUser}/{uuidGroup}

- adds an existing user to a usergroup
- more information: [Get all configurable user-groups](#)

Remove user from group

removeuserfromgroup/{uuidUser}/{uuidGroup}

- removes an user from a usergroup

Update user password

updateuserpwh/{uuidUser}/{value}

- adapts a password for an existing user
- {value}: [hashed](#) password-value
- optional: append password-scoring for strength of new password
 - {value} = {hash}|{score}
- return Value 504 if user is from a trust member and member cant be reached

Update user Visu-password

updateuservisupwdh/{uuidUser}/{value}

- adapts a visu-password for an existing user
- {value}: [hashed](#) visu-password
- optional: append password-scoring for strength of new password
 - {value} = {hash}|{score}
- return Value 504 if user is from a trust member and member cant be reached

Update user keycodes

updateuseraccesscode/{uuidUser}/{newAccessCode}

- sets a new keycode for a user.
- to remove a keycode, simply pass in an empty string.
- {newAccessCode} → numeric code (0-9), will be hashed once stored on the Miniserver, do not hash on client. This is required to ensure no duplicate codes are in use.

Assign NFC tag to user

For assigning an NFC tag to a user, the tag must be read first using an NFC Code touch (see “Structure File” documentation, section “NFC Code Touch”). Once the NFC Tag ID is known it can be paired with the user.

addusernfc/{uuidUser}/{nfcTagId}/{name}

Remove NFC tag from user

The linking of an NFC tag and the user can be removed at any time.

removeusernfc/{uuidUser}/{nfcTagId}

Get all permissions for a control

This webservice returns a List of all Users and Groups which are directly assigned to a control with a given uuid

getcontrolpermissions/{uuid}

Required Rights

There are 4 levels of rights which allow different levels of editing. These levels are best described via User-Roles:

- Guest
 - is just a normal user
 - is not allowed to edit anything
- User
 - has enabled “Change own password”-checkbox
 - may edit own password or visu-password
- Usermanager
 - is Member of a group with group-right “Usermanagement”
 - “Change own password” is automatically enabled and may not be changed
 - may fully edit own user
 - may fully edit non-Admin-users
 - is not allowed to view or edit admin-users
 - is not allowed to add **any** user to an admin-group
- Administrator
 - is Member of group “All Access” or a group with group-right “Loxone Config”
 - may fully edit own user
 - may fully edit all other users
 - is allowed to add or remove any user to/from an admin-group

	1 Administrator	2 Usermanager	3 User	4 Guest
change own password	X	X	X	
change own access-code	X	X	X	
edit own nfc tag	X	X		
change Code / Tag / Pass of an administrator	X			
change Code / Tag / Pass of non-admin	X	X		
add or remove user from/to admin-groups	X			
add or remove user from/to common groups	X	X		

Detailed info on attributes

userstate

Indicates whether or not a user is active and may log in or get access (depending on the rights granted in config permission management).

- 0 = enabled, without time limitations
- 1 = disabled
- 2 = enabled until, disabled after that point in time
- 3 = enabled from, disabled before that point in time
- 4 = timespan, only enabled in between those points in time

type

- 0 = Normal
- 1 = Admin (deprecated)
- 2 = All
- 3 = None
- 4 = AllAccess → New “Admin Group”

userrights

- 0x00000000 = None
- 0x00000001 = Web
- 0x00000004 = Loxone config
- 0x00000008 = FTP
- 0x00000010 = Telnet
- 0x00000020 = Operatingmodes
- 0x00000040 = Autopilot
- 0x00000080 = Expert mode Light
- 0x00000100 = Usermanagement
- 0xFFFFFFFF = All rights (admin)

validUntil

- Only available/required if with [userstate](#) 2 and 4
- provided as seconds since 1.1.2009 00:00:00

validFrom

- Only available/required if with [userstate](#) 3 and 4
- provided as seconds since 1.1.2009 00:00:00

changePassword

Specifies whether or not a user is allowed to change its passwords from within the apps

name

When it comes to users, this is the username that is used to login via our app.

userid

May be empty, this is the id that will be returned by the NFC permission block when granting access. E.g.

uuid

Generated by the Miniserver, unique identifier.

isAdmin

- This flag is set if the user has administrative rights on the Miniserver.
- There must be at least one user who has isAdmin set, in order to still have config access.
- Any modification that would violate this rule will result in error 403 “delete of last admin not allowed”

masterAdmin (deprecated)

In config versions prior to 11.0, there used to be one main admin, which could not be removed.

usergroups

getUser/{uuidUser}

An array containing an object for each group the user is part of. Each group object contains both the name and the UUID of the group.

getgrouplist

With this request, additional infos on the group are available, such as the [userRights](#) and the [type](#).

nfcTags

- An array with an entry for each NFC tag associated with this user.
- Each tag is represented by a name and the NFC tag id

keycodes

- Even though this is an array, currently there is only one keycode for each user.
- The only attribute of each keycode object is the code itself.
- The code is a hashed representation of the keycode stored.

scorePWD

Provides/sets info on how strong a password is.

- -2 = not specified
- -1 = empty password
- 0 = low strength
- 1 = good,
- 2 = very good,
- 3 = most powerful

scoreVisuPWD

Same like [scorePWD](#) but for visualization passwords. (additional password that has to be entered, even though the connection itself is already authenticated - e.g. for disarming a burglar alarm).

hashing

Passwords are never transmitted, not even encrypted - they are hashed on the client and only the hash is being transmitted to the Miniserver.

Creating a hash for a password

- Use “jdev/sys/getkey2/{username}” to retrieve the {salt} and {hashAlg}
 - salt is user-specific, long-lived
 - hashAlg specifies which hashing algorithm to use (recent versions use SHA256)
 - A “key” property is also provided, but not used here, it is a temporarily valid key to be used for hashing when authenticating.
- Use the {hashAlg} provided and the long lived {salt} to create a **uppercase** {passHash} for the new {password}
 - e.g.: `SHA256({password} + “:” + {salt}).toUpperCase() → {passHash}`

Creating a hash for a visu password

Same as creating a hash for a password, but “dev/sys/getvisusalt/{username}” is to be used instead of “jdev/sys/getkey2/{username}”

trustMember

If a user originates from a Trust Member/Peer this attribute is added containing the serial of the source Miniserver

New with Version 12.1

Trust

Available Peers

`jdev/sps/trustusermanagement/peers`

Response: Native answer json

```
{
  "peers": [
    {
      "serial": "504F94A00074",
      "name": "Loxone Miniserver",
      "intAddr": "192.168.5.199",
      "extAddr": "dns.loxonecloud.com"
    },
    {
      "serial": "504f94a00210",
      "name": "Home",
      "intAddr": "192.168.5.2",
      "extAddr": "home.aiglesberger.com"
    }
  ]
}
```

Discovery

`jdev/sps/trustusermanagement/discover/{peerSerial}`

- `{peerSerial}`:
 - Serial number of the peer you want to search on

Return-Value:

- UUID of created or adapted user
- errortext if failed

Request

`jdev/sps/trustusermanagement/discover/504F94A00210`

Response

```
{
  "serial": "504F94A00210",
  "users": [
    {
      "name": "admin",
      "uuid": "09155ec7-0187-003c-1900000000000000",
      "used": false
    },
    {
      "name": "timo",
      "uuid": "096bfc48-01bb-0001-1900000000000000",
      "used": true
    },
    {
      "name": "Loxone",
      "uuid": "144087d0-0218-217b-ffff504f94a00074",
      "used": false
    },
    {
      "name": "Siri",
      "uuid": "14bc350e-009e-2f3f-ffffeeee000d80cfd",
      "used": false
    },
    {
      "name": "Kerstin",
      "uuid": "15f45069-01db-3b8a-ffff504f94a00210",
      "used": false
    },
    {
      "name": "Test",
      "uuid": "16d29cb0-01e1-54b6-ffffeeee000d80cfd",
      "used": true,
      "locked": true
    }
  ]
}
```

```
locked -> user used in usergroup and can therefore not be removed
```

Create user

`jdev/sps/trustusermanagement/add/{peerSerial}/{userUuid}`

- {peerSerial}
 - Serial number of the peer from which you want to add a user
- {userUuid}
 - Uuid of the user as specified in the discovery answer

Return-Value:

- errortext if failed

Request

```
jdev/sps/trustusermanagement/add/504F94A00210/15f45069-01db-3b8a-ffff504f94a00210
```

Response

```
{}
```

Response - Failed

```
{  
  "error": "add failed"  
}
```

Remove user

`jdev/sps/trustusermanagement/remove/{peerSerial}/{userUuid}`

- {peerSerial}
 - Serial number of the peer from which you want to remove a user
- {userUuid}
 - Uuid of the user as specified in the discovery answer

Return-Value:

- errortext if failed

Request

```
jdev/sps/trustusermanagement/remove/504F94A00210/15f45069-01db-3b8a-ffff504f94a00210
```

Response

```
{}
```

Response - Failed

```
{  
  "error": "unknown user"  
}
```

Edit users

`jdev/sps/trustusermanagement/edit/{json}`

- {json}
 - Json containing list of users that need to be removed/added
 - Array of objects for each peer, array contains an object for each user with the attribute 'use' and the uuid
- Request may be a Post request! json is in post data.

Return-Value:

- errortext if failed

Request

```
jdev/sps/trustusermanagement/edit/{"peerSerial":[{"uuidUser":"...", "used":true}]}
```

Response

```
{}
```

Response - Failed

```
{  
  "error": "invalid command"  
}
```

V13.0

Revision History

V12.1 - Trust

- Add / Remove Trust users
- Login with Host (Miniserver Name or Serialnumber)

V13.0 - 2022.07.20 - Improved hashing doc

- documentation on hashing was confusing, clarified.