

User Provisioning with 8x8 SCIM API

Introduction

The objective of this document is to provide an overview of 8x8's SCIM API for user provisioning, built using **System for Cross domain Identity Management (SCIM) 2.0** industry standards.

About SCIM 2.0

SCIM is designed to simplify user identity management in cloud-based applications, retaining secure authentication, authorization and privacy. 8x8's SCIM API leverages these foundational SCIM capabilities and is geared towards facilitating rapid user onboarding using a common user schema and extensibility, thereby reducing the cost and complexity of deployments. SCIM API allows companies to manage people and groups they belong to. [SCIM is an open standard](#).

Obtaining a new 8x8 demo account

Please reach out to your 8x8 deployment contact for obtaining a new demo account. Along with the new demo account, the following information will also be shared for your access to 8x8's SCIM API:

- Customer ID
 - Access Token
-

Using 8x8 SCIM API

The following CRUD operations are supported with 8x8 SCIM APIs:

- Create Users
- Get Users
- Get User By User ID
- Update Users
- Deactivate Users
- Activate Users



User Attributes

Attributes are the details associated with a user's account. These are the attributes that someone would typically set for a user in a SCIM client or Active Directory. These could either be base (standard) attributes or custom attributes.

Profile Field	SCIM Attribute	Attribute Type	Data Type	Required
User Name	userName	Singular	Alphanumeric String or Email	True
First Name	givenName	Singular	Alphanumeric String	True
Last Name	familyName	Singular	Alphanumeric String	True
Email Address	value	Singular	Email	True
Email Type	type	Singular	String	False
Primary/Secondary Email Address	primary	Singular	Boolean	False
Status	active	Singular	Boolean	False
Unique Key for SCIM Client/Server Handshake	externalId	Singular	Integer	True (auto-generated by SCIM Client)

Create User

Creates a user. Must include userName, givenName, familyName and at least one email address in order to create a user.

Operation: POST

URI: <https://platform.8x8.com/udi/customers/{{CUSTOMER ID}}/scim/v2/Users>

Header:



https://support.8x8.com/us/Cloud_Phone_Service/Voice/Voice_Administration_Configuration_Manager/Virtual_Office_Settings/Ic

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Authorization: Bearer <Access Token>

Content-Type: application/json

Payload:

```
{
  "userName": "jdoe",
  "name": {
    "familyName": "Doe",
    "givenName": "John"
  },
  "active": true,
  "locale": "en-US",
  "emails": [
    {
      "value": "john@abc.com",
      "type": "work",
      "primary": true
    }
  ],
  "externalId": "1234"
}
```

Get All Users

Gets a list of all users in the company. For pagination, specify numbers for startIndex and count.

Operation: GET


URI:

 <https://platform.8x8.com/udi/customers/{CUSTOMER ID}}/scim/v2/Users?startIndex=<X>&count=<Y>>



https://support.8x8.com/us/Cloud_Phone_Service/Voice/Voice_Administration_Configuration_Manager/Virtual_Office_Settings/lc

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Header:

Authorization: Bearer <Access Token>

Content-Type: application/json

Get User By User ID

Gets a single user identified by User ID.

Operation: GET

URI:

■ https://platform.8x8.com/udi/customers/{{CUSTOMER ID}}/scim/v2/Users/{{USER_ID}}

Header:

Authorization: Bearer <Access Token>

Content-Type: application/json

Update User

Updating a user results in the specified user profile property changes.

Operation: PATCH

URI:

■ https://platform.8x8.com/udi/customers/{{CUSTOMER ID}}/scim/v2/Users/{{USER_ID}}

Header:

Authorization: Bearer <Access Token>

Content-Type: application/json

Body:

```
{  
  "schemas": [  
    "urn:ietf:params:scim:api:messages:2.0:PatchOp"  
  ],  
}
```



```
"Operations": [  
  
  {  
  
    "op": "replace",  
  
    "value": {  
  
      "email": "johndoe@abc.com" }  
  
    }  
  
  ]  
  
}
```



Note: Updates to userName are not allowed.

Deactivate User

Deactivation sets a user's status from active to inactive. Deactivating a user results in the following end user experience for 8x8 services:

- Login to 8x8 softphone (VOD/VOM) is **not** allowed
- From hardware device endpoints:
 - Inbound calls are allowed
 - Outbound PSTN calling is **not** allowed
 - Extension to extension calling is allowed
 - Only emergency calling is allowed

Updating a user results in the specified user profile property changes.

Operation: PATCH

URI:

■ https://platform.8x8.com/udi/customers/{{CUSTOMER ID}}/scim/v2/Users/{{USER_ID}}

Header:

Authorization: Bearer <Access Token>

Content-Type: application/json



Body:

```
{
  "schemas": [
    "urn:ietf:params:scim:api:messages:2.0:PatchOp"
  ],
  "Operations": [
    {
      "op": "replace",
      "value": {
        "active": false
      }
    }
  ]
}
```

Activate User

By default all users are active upon creation. However, activating a user profile that has been deactivated, restores 8x8 services as follows:

1. Login to 8x8 softphone (VOD/VOM) is allowed.
2. Inbound, outbound, extension to extension, and emergency calling are allowed.

Operation: PATCH

URI:

■ https://platform.8x8.com/udi/customers/{{CUSTOMER ID}}/scim/v2/Users/{{USER_ID}}

Header:

Authorization: Bearer <Access Token>


Content-Type: application/json

Body:



https://support.8x8.com/us/Cloud_Phone_Service/Voice/Voice_Administration_Configuration_Manager/Virtual_Office_Settings/lc

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```
{
  "schemas": [
    "urn:ietf:params:scim:api:messages:2.0:PatchOp"
  ],
  "Operations": [
    {
      "op": "replace",
      "value": {
        "active": true
      }
    }
  ]
}
```

Limitations

Known limitations of the SCIM API are:

- SCIM API primarily facilitates automatic user provisioning from SCIM clients into the 8x8 user directory. Automatic Service Provisioning is not in the scope of this API.
- /Group endpoints are not supported today (group provisioning). This is on the roadmap. However, members of groups are provisioned as individual users without retaining the group association in 8x8 user directory.

Roadmap

We are continually evolving the SCIM API with new and advanced capabilities. Following are features planned on the roadmap.

Feature	Description
Automatic Service Provisioning	Capability in the SCIM API to accept telephony input (extension, phone number, device model) and auto-provision 8x8 services at the same time as user provisioning



Feature	Description
User Schema Enhancements	Supporting additional user attributes with the SCIM API
Automatic Site Allocation	Capability in the SCIM API to accept site input and automatically assign sites to users, based on service locations of the users
Group Push	Capability in the SCIM API to accept group (OU or teams) input, and sync groups with membership

Additional Information

For more instructions, see the [8x8 Integration with Okta help guide](#).

