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**AVANAN**

**MSP SMARTAPI**

API Reference Guide



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# Overview

This document describes the API available for Managed Service Providers (MSP) and Managed Security Service Providers (MSSP) to manage their child MSP and customer accounts. These API commands follow the same authentication methods, request headers, and response structure described in the Avanan API Reference Guide. All the responses are JSON objects that contain a response envelope and response data.

# MSP Types

The Avanan MSP SmartAPI recognizes three different MSP types:

- **Standalone MSP** - MSP that manages its customers and is not managed by a parent MSP.
- **Parent MSP** - MSP/MSSP that manages both direct customers and/or other MSPs (Child MSP).
- **Child MSP** - MSP that is managed by another parent MSP.

Permissions for different types of MSP:

MSP Type	Manage end-customer tenants	Manage Child MSP*	Retrieve Usage/Billing Information
Parent MSP	Yes	Yes	Yes
Child MSP	Yes	N/A	No
Standalone MSP	Yes	N/A	Yes


\* Managing a child MSP includes:

- Create, edit, and delete a child MSP, its users, and permissions.
- Get the details of the related child MSP for all the customer tenants.
- Get information about the child MSP.

# URLs and URL Base

You must direct all API calls to the Avanan API to these URI bases according to the region.

Region	URI Base
USA	smart-api-production-1-us.avanan.net
Europe	smart-api-production-1-eu.avanan.net
Canada	smart-api-production-1-ca.avanan.net
Australia	smart-api-production-5-ap.avanan.net

 **Note** - To comply with regional data protection laws, all regions operate independently. You cannot access data from one region by calling the other region endpoint. The app clients (**client\_id** and **client\_secret** pairs) are also region specific.

# API Authentication and Authorization

To use the MSP Smart APIs, you need an MSP API key. To get the MSP API key, contact [Avanan Support](#).

# Managing Child MSPs

## List all associated MSP partners

### URI - GET

To use this endpoint, send a GET request to retrieve all MSP: `/msp/msp-partners`

### Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) with request string parameters.

### Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

### Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
```

```
-H "x-av-date: 2016-08-29T09:12:33.001Z" \
-H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
https://smart-api-production-1-us.avanan.net/v1.0/msp/msp-tenants
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** object that holds an MSP array. In each MSP structure, you can find the ID and name of the MSP.

## Response Structure

A valid response obtained from the service (JSON format):

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": [
    {
      "id": 0,
      "name": "string"
    }
  ]
}
```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)



Parameter	Type	Description	
responseCode	Integer	0 = Success Other values = Failure	
responseText	String	The text value of the response	
additionalText	String	Additional information	
recordsNumber	Integer	Number of records in the response	
totalRecordsNumber	Integer	Total number of records	
scrollId	String	A unique ID used to scroll through data	
responseData	Object	Array of tenants	
responseData/ MSPList	id	Integer	Unique ID of the MSP
	name	String	Name of the MSP

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 0,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": "34234345454353343"
  },
  "responseData": {
    [
      {
        "Id": 15,
        "name": "ABC MSP"
      }
    ]
  }
}
```

# Creating a new MSP partner

## URI - POST

To use this endpoint, send a POST request to create a new MSP Partner: `/msp/msp-partner`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) with a request body in JSON format.

**Note** - The request body must include the name of the MSP.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request Body

All applicable request parameters are posted on the request body JSON:

```
{
  "requestData": {
    "name": "string"
  }
}
```

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
name	String	Yes		Name of the new MSP

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X POST -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/msp-partners
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** object that holds the details of the newly created MSP.

## Response Structure

A valid response from the service in JSON:

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": {
    "id": 0,
    "name": "string"
  }
}
```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	Array of tenants
id	Integer	Unique ID of the MSP
name	String	Name of the MSP

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 0,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": ""
  },
  "responseData": {
    "id": 16,
    "name": "Acme MSP"
  }
}
```

```
}
```

# Deleting a Child MSP

## URI - DELETE

To use this endpoint, send a DELETE request to delete an MSP: `/msp/msp-partners/{msp_id}`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and the `msp_id` as a path parameter.

**Note** - All the tenants associated with the given MSP gets deleted.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtrtr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
msp_id	Integer	Yes		MSP ID to delete.

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X DELETE -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/msp-
  partners/{msp_id}
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and does not return a **responseData** object.

**Note** - A successful response has the status code 204.

## Response Structure

A valid response from the service in JSON:

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "string",
    "additionalText": "string",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": "string"
  }
}
```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)

Parameter	Type	Description
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 0,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": "34234345454353343"
  },
}
```



# Managing MSP Users

## List all the users

### URI - GET

To use this endpoint, send a GET request to retrieve all users: `/msp/users`

### Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request).

### Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

### Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
scrollId	String	No		ID used to scroll through large sets of results.

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#)

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/users
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** object that holds an array of users. Each user object must have the userID, email, name, and permissions for the user.

## Response Structure

A valid response obtained from the service (JSON format):

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": [
    {
      "id": 0,
      "email": "string",
      "firstName": "string",
      "lastName": "string",
      "role": "string",
      "samlLogin": true,
      "directLogin": true,
      "viewPrivateData": true,
      "sendAlerts": true,
      "receiveWeeklyReports": true
    }
  ]
}
```

}

## Response Parameters

The response parameters:

Parameter	Type	Description	
responseEnvelope	Object	A container of metadata properties	
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)	
responseCode	Integer	0 = Success Other values = Failure	
responseText	String	The text value of the response	
additionalText	String	Additional information	
recordsNumber	Integer	Number of records in the response	
totalRecordsNumber	Integer	Total number of records	
scrollId	String	A unique ID used to scroll through data	
responseData	Object	Array of users	
responseData/ UserList	id	Integer	Unique ID of the user
	email	String	User email
	firstName	String	User first name
	lastName	String	User last name
	role	String	Role of the user, one of admin, operations, user, and read-only
	samlLogin	Boolean	SAML login enabled for the user

Parameter	Type	Description
	Boolean	Password login enabled for the user
directLogin	Boolean	Allow the user to view private data on the customer portal
viewPrivateData	Boolean	Send alerts from customer tenants to this admin
sendAlerts	Boolean	Send weekly reports from customer tenants to this admin
receiveWeeklyReports	Boolean	

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 200,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": ""
  },
  "responseData": {
    [
      {
        "id": 1,
        "email": "johndoe@abccompany.com",
        "firstName": "John",
        "lastName": "Doe",
        "role": "admin",
        "samlLogin": true,
        "directLogin": true,
        "viewPrivateData": true,
        "sendAlerts": true,
        "receiveWeeklyReports": true
      }
    ]
  }
}
```

# Creating a new MSP user

## URI - POST

To use this endpoint, send a POST request with JSON body: `/msp/users`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and a JSON body with the user information.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request Body

All applicable request parameters are posted on the request body JSON:

```
{
  "requestData": {
    "firstName": "string",
    "lastName": "string",
    "email": "string",
    "role": "string",
    "directLogin": true,
    "samlLogin": true,
    "viewPrivateData": true,
  }
}
```

```

    "receiveWeeklyReports": true,
    "sendAlerts": true,
  }
}

```

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
firstName	String	Yes		User first name
lastName	String	Yes		User last name
email	String	Yes		User email address
role	String	Yes		User role, one of admin, operations, user, and read-only
directLogin	Boolean	Yes		Allow user to log in the MSP portal with a password
samlLogin	Boolean	Yes		Allow user to log in the MSP portal with SAML
viewPrivateData	Boolean	Yes		Allow user to view private data on the customer portals
receiveWeeklyReports	Boolean	Yes		Send the weekly reports to the user from the customer portals
sendAlerts	Boolean	Yes		Send alerts to the user from the customer portals

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```

curl -X POST -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  -d "{
    \"requestData\": {
      \"firstName\": \"John\",
      \"lastName\": \"Doe\",
      \"email\": \"johndoe@abccompany.com\",
      \"role\": \"admin\",
      \"directLogin\": \"true\",
      \"samlLogin\": \"true\",
      \"viewPrivateData\": \"true\",
      \"receiveWeeklyReports\": \"true\",
      \"sendAlerts\": \"true\",
    }
  }" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/users

```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** structure that shows the newly created user information.

## Response Structure

```

{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": {
    "id": 0,
    "email": "string",
    "firstName": "string",
    "lastName": "string",
    "role": "string",
    "samlLogin": true,
    "directLogin": true,
  }
}

```

```

    "viewPrivateData": true,
    "sendAlerts": true,
    "receiveWeeklyReports": true
  }
}

```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	User Object
id	Integer	Unique ID of the user
email	String	User email
firstName	String	User first name
lastName	String	User last name
role	String	Role of the user. One of admin, operations, user, and read-only.
samlLogin	Boolean	SAML login enabled for the user



Parameter	Type	Description
directLogin	Boolean	Password login enabled for the user
viewPrivateData	Boolean	Allow the user to view private data on the customer portal
sendAlerts	Boolean	Send alerts from customer tenants to this admin
receiveWeeklyReports	Boolean	Send weekly reports from customer tenants to this admin

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 200,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": ""
  },
  "responseData": {
    {
      "id": 1,
      "email": "johndoe@abccompany.com",
      "firstName": "John",
      "lastName": "Doe",
      "role": "admin",
      "samlLogin": true,
      "directLogin": true,
      "privateData": true,
      "sendAlerts": true,
      "receiveWeeklyReports": true
    }
  }
}
```

# Getting the details of an MSP user

## URI - GET

To use this endpoint, send a GET request with a path parameter **user\_id**: `/msp/users/{user_id}`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and a path parameter (**user\_id**) that represents the user you want to describe.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
user_id	String	Yes		Unique user ID

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/users/12
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** structure that shows information related to the requested user.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": {
    "id": 0,
    "email": "string",
    "firstName": "string",
    "lastName": "string",
    "role": "string",
    "samlLogin": true,
    "directLogin": true,
    "viewPrivateData": true,
    "sendAlerts": true,
    "receiveWeeklyReports": true
  }
}
```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	Text value of response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	User Object
id	Integer	Unique ID of the user
email	String	User email
firstName	String	User first name
lastName	String	User last name
role	String	Role of the user. One of admin, operations, user, and read-only
samlLogin	Boolean	SAML login enabled for the user
directLogin	Boolean	Password login enabled for the user
viewPrivateData	Boolean	Allow the user to view private data on the customer portal
sendAlerts	Boolean	Send alerts from customer tenants to this admin
receiveWeeklyReports	Boolean	Send weekly reports from customer tenants to this admin

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 200,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": ""
  },
  "responseData": {
    {
      "id": 1,
      "email": "johndoe@abccompany.com",
      "firstName": "John",
      "lastName": "Doe",
      "role": "admin",
      "samlLogin": true,
      "directLogin": true,
      "privateData": true,
      "sendAlerts": true,
      "receiveWeeklyReports": true
    }
  }
}
```

# Updating an MSP user

## URI - PUT

To use this endpoint, send a PUT request with a path parameter (**user\_id**) and a JSON body:  
/msp/users/{user\_id}

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and a path parameter (**user\_id**).

**Note** - The request must include a JSON body object (**requestData**) with the updated user details.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
user_id	String	Yes		Unique user ID

## Request Body

All applicable request parameters are posted on the request body JSON:

```

{
  "requestData": {
    "firstName": "string",
    "lastName": "string",
    "email": "string",
    "role": "string",
    "directLogin": true,
    "samlLogin": true,
    "viewPrivateData": true,
    "receiveWeeklyReports": true,
    "sendAlerts": true,
  }
}

```

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
firstName	String	Yes		User first name
lastName	String	Yes		User last name
email	String	Yes		User email address
role	String	Yes		User role. One of admin, operations, user, and read-only.
directLogin	Boolean	Yes		Allow user to log in the MSP portal with a password
samlLogin	Boolean	Yes		Allow user to log in the MSP portal with SAML
viewPrivateData	Boolean	Yes		Allow user to view private data on the customer portals
receiveWeeklyReports	Boolean	Yes		Send the weekly reports to the user from the customer portals

Parameter	Type	Required	Format	Description/Sample
sendAlerts	Boolean	Yes		Send the user alerts from the customer portals

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X POST -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  -d "{
    \"requestData\": {
      \"firstName\": \"John\",
      \"lastName\": \"Doe\",
      \"email\": \"johndoe@abccompany.com\",
      \"role\": \"admin\",
      \"directLogin\": \"true\",
      \"samlLogin\": \"true\",
      \"viewPrivateData\": \"true\",
      \"receiveWeeklyReports\": \"true\",
      \"sendAlerts\": \"true\",
    }
  }" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/users/1
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** structure that shows information related to the user, and the updates made.

### Response Structure

```
{
  \"responseEnvelope\": {
    \"requestId\": \"string\",
    \"responseCode\": 0,
    \"responseText\": \"\",
  },
}
```



```

    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": {
    "id": 0,
    "email": "string",
    "firstName": "string",
    "lastName": "string",
    "role": "string",
    "samlLogin": true,
    "directLogin": true,
    "viewPrivateData": true,
    "sendAlerts": true,
    "receiveWeeklyReports": true
  }
}

```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	User Object
id	Integer	Unique ID of the user
email	String	User email

Parameter	Type	Description
firstName	String	User first name
lastName	String	User last name
role	String	Role of the user. One of admin, operations, user, and read-only.
samlLogin	Boolean	SAML login enabled for the user
directLogin	Boolean	Password login enabled for the user
viewPrivateData	Boolean	Allow the user to view private data on the customer portal
sendAlerts	Boolean	Send alerts from customer tenants to this admin
receiveWeeklyReports	Boolean	Send weekly reports from customer tenants to this admin

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 200,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": ""
  },
  "responseData": {
    {
      "id": 1,
      "email": "johndoe@abccompany.com",
      "firstName": "John",
      "lastName": "Doe",
      "role": "admin",
      "samlLogin": true,
      "directLogin": true,
      "privateData": true,
      "sendAlerts": true,
    }
  }
}
```

```
    "receiveWeeklyReports": true  
  }  
}
```

# Deleting an MSP user

## URI - DELETE

To use this endpoint, send a DELETE request with a path parameter (**user\_id**): `/msp/users/{user_id}`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and a path parameter (**user\_id**).

**Note** - The **user\_id** must be the user ID of the user to be deleted.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtrtr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
user_id	String	Yes		Unique user ID

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X DELETE -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/users/1
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure. There is no **responseData** object. The successful deletion returns the status code 204.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  }
}
```

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 204,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 0,
    "totalRecordsNumber": 0,
    "scrollId": ""
  }
}
```

# Managing MSP Customers

## List all the customer tenants of an MSP

### URI - GET

To use this endpoint, send a GET request to retrieve all tenants associated with a given MSP:  
/msp/tenants

### Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) with request string parameters.

### Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

### Request Body

All applicable request parameters are posted on the request body JSON:

```
{
  "requestData":
  {
    "scrollId": "string"
  }
}
```

```
}
}
```

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
scrollId	String	No		ID used to scroll large sets of results.

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/tenants
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** object that holds an array of tenants.

You can find tenant details within each tenant. This includes the domain, deployment mode, user counts, and billing package.

## Response Structure

A valid response obtained from the service (JSON format):

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "string",
```

```

    "additionalText": "string",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": "string"
  },
  "responseData": [
    {
      "id": 0,
      "domain": "string",
      "deploymentMode": "string",
      "pocDateStart": "string",
      "pocDateExpiration": "string",
      "users": 0,
      "status": {
        "statusCode": "string",
        "description": "string"
      }
      "package": {
        "id": 0,
        "codeName": "string",
        "displayName": "string"
      },
      "addons": [
        {
          "id": 0,
          "name": "string"
        }
      ],
      "maxLicensedUsers": 0
    }
  ]
}

```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure



Parameter	Type	Description
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	Array of tenants
responseData/ TenantList	Integer	Unique ID of the tenant
domain	String	Avanan customer portal domain
deploymentMode	String	Tenant mode paid or PoC
pocDateStart	String	Start of PoC for a tenant
pocDateExpiration	String	End of PoC for a tenant
users	Integer	Total user count for a tenant
status	Object	Object with tenant status
package	Object	Billing package object
addons	Object	Array of Add-ons
maxLicensedUsers	Integer	Maximum number of users for the portal

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 0,
    "responseText": "Success",
  }
}
```

```
"additionalText": "",
"recordsNumber": 1,
"totalRecordsNumber": 1,
"scrollId": "34234345454353343"
},
"responseData": {
  [
    {
      'id': 3318,
      'domain': 'abctenant.avanan.net',
      'deploymentMode': 'paid',
      'pocDateStart': '2021-10-25',
      'pocDateExpiration': '2021-11-09',
      'users': 25,
      'status': {'statusCode': 'success', 'description':
'Active'}},
      'package': None,
      'addons': [],
      'maxLicensedUsers': None
    }
  ]
}
```

# Creating a customer tenant

## URI - POST

To use this endpoint, send a POST request with JSON body to create a new tenant:  
/msp/tenants

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) with request parameters posted on the request body.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request Body

All applicable request parameters are posted on the request body JSON:

```
{
  "requestData": {
    "adminEmail": "string",
    "tenantName": "string",
    "adminName": "string",
    "phone": "string",
    "companyName": "string",
    "tenantRegion": "us",
  }
}
```

```
}
}
```

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
adminEmail	String	Yes		Tenant administrator email
tenantName	String	Yes		
adminName	String	Yes		Tenant administrator's first and last name
phone	String	Yes	Ten digit phone number	Tenant administrator phone number
companyName	String	Yes		Name of company associated with the tenant
tenantRegion	String	Yes	Country code in lower case	Country code for tenant creation region <ul style="list-style-type: none"> <li>▪ US (USA)</li> <li>▪ EU (Europe)</li> <li>▪ CA (Canada)</li> </ul>

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X POST -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  -d "{
    "requestData": {
      "adminEmail": "johndoe@abccompany.com",
      "tenantName": "abccompany",
      "adminName": "John Doe",
```

```

    "Phone": "9023234576",
    "companyName": "abccompany",
    "tenantRegion": "us"
  }
} " \
https://smart-api-production-1-us.avanan.net/v1.0/msp/tenants

```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The **responseData** object contains the details of the newly created tenant.

### Response Structure

A valid response obtained from the service (JSON format):

```

{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "string",
    "additionalText": "string",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": "string"
  },
  "responseData": {
    {
      "id": 0,
      "domain": "string",
      "deploymentMode": "string",
      "pocDateStart": "string",
      "pocDateExpiration": "string",
      "users": 0,
      "status": {
        "statusCode": "string",
        "description": "string"
      }
    }
    "package": {
      "id": 0,
      "codeName": "string",
      "displayName": "string"
    },
    "addons": [
      {
        "id": 0,
        "name": "string"
      }
    ]
  }
}

```

```

    },
    "maxLicensedUsers": 0
  }
}

```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	Array of tenants
id	Integer	Unique ID of the tenant
domain	String	Avanan customer portal domain
deploymentMode	String	Tenant mode paid or PoC
pocDateStart	String	Start of PoC for the tenant
pocDateExpiration	String	End of PoC for the tenant
users	Integer	Total user count for tenant
status	Object	Object with tenant status
package	Object	Billing package object

Parameter		Type	Description
	addons	Object	Array of add-ons
	maxLicensedUsers	Integer	Maximum number of users for the portal

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 0,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": ""
  },
  "responseData": {
    {
      'id': 3318,
      'domain': 'abctenant.avanan.net',
      'deploymentMode': 'paid',
      'pocDateStart': '2021-10-25',
      'pocDateExpiration': '2021-11-09',
      'users': 25,
      'status': {'statusCode': 'success', 'description': 'Active'},
      'package': None,
      'addons': [],
      'maxLicensedUsers': None}
    }
  }
}
```

# Getting the details of a customer tenant

## URI - GET

To use this endpoint, send a GET request with a path parameter to see the details of a given tenant: `/msp/tenants/{tenant_id}`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and the ID of the tenant to detail as a path parameter.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtrtr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
tenant_id	Integer	Yes		Avanan tenant ID retrieved from the tenant endpoint

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).



```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-jjshduhuh" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2021-02-28T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/tenants/120
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** object that holds the details of the tenant. The tenant details include the license, PoC/paid start dates, user count, and expiration dates.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": {
    "id": 0,
    "domain": "string",
    "deploymentMode": "string",
    "pocDateStart": "string",
    "pocDateExpiration": "string",
    "users": 0,
    "status": {
      "statusCode": "string",
      "description": "string"
    },
    "package": {
      "id": 0,
      "codeName": "string",
      "displayName": "string"
    },
    "addons": [
      {
        "id": 0,
        "name": "string"
      }
    ]
  }
}
```

```

    },
    "maxLicensedUsers": 0
  }
}

```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	Array of tenants
id	Integer	Unique ID of the tenant
domain	String	Avanan customer portal domain
deploymentMode	String	Tenant mode paid or PoC
pocDateStart	String	Start of PoC for the tenant
pocDateExpiration	String	End of PoC for the tenant
users	Integer	Total user count for tenant

Parameter	Type	Description
status	Object	Object with tenant status
package	Object	Billing package object
addons	Object	Array of add-ons
maxLicensedUsers	Integer	Maximum number of users for the portal

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 0,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 1,
    "totalRecordsNumber": 1,
    "scrollId": ""
  },
  "responseData": {
    {
      'id': 3318,
      'domain': 'abctenant.avanan.net',
      'deploymentMode': 'paid',
      'pocDateStart': '2021-10-25',
      'pocDateExpiration': '2021-11-09',
      'users': 25,
      'status': {'statusCode': 'success', 'description': 'Active'},
      'package': None,
      'addons': [],
      'maxLicensedUsers': None
    }
  }
}
```

# Deleting a customer tenant

## URI - DELETE

To use this endpoint, send a DELETE request with a path parameter to delete the tenant and all its data: `/msp/tenants/{tenant_id}`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and the tenant ID as a path parameter.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
tenant_id	Integer	Yes		Avanan tenant ID to specify the tenant to delete.

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-jjshduhuh" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp2" \
  -H "x-av-date: 2021-02-28T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/tenants/120
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure with no **responseData** structure. After you delete the tenant, the request returns the status code 204.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  }
}
```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information

Parameter		Type	Description
	recordsNumber	Integer	Number of records in the response
	totalRecordsNumber	Integer	Total number of records
	scrollId	String	A unique ID used to scroll through data


## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 204,
    "responseText": "Success",
    "additionalText": "",
    "recordsNumber": 0,
    "totalRecordsNumber": 0,
    "scrollId": ""
  },
}
```

# Managing the Security of a Single Customer Tenant

In order to filter through security events/entities, define exceptions and take security-related actions on a single customer tenant, refer to the [Avanan SmartAPI Reference Guide](#) for standard (base) tenants.

 **Note** - You do not need to generate a secret key for every customer. Instead, use the MSP API key you received from the [Avanan Support](#). See "[API Authentication and Authorization](#)" on page 6.

# Useful Resources

- Parent MSP
  - [Parent MSP API \(JSON\)](#)
  - [Parent MSP Swagger \(JSON\)](#)
  - [SmartAPI Client \(PY\)](#)
- Child MSPs
  - [Child MSP API \(JSON\)](#)
  - [SmartAPI Client \(PY\)](#)



# Managing Customer Licenses and Usage

## List all the available licenses

### URI - GET

To use this endpoint, send a GET request to list all the licenses: `/msp/licenses`

### Request

The request must only include HTTP headers (obtained in the authentication/authorization process and used to sign the request).

### Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

### Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X GET -H "Accept: application/json" \
```

```
-H "x-av-req-id: d290f1ee-6c54-4b01-90e6-jjshduhuh" \
-H "x-av-token: tkn8546ffffggd9d8934593" \
-H "x-av-app-id: myapp29" \
-H "x-av-date: 2021-02-28T09:12:33.001Z" \
-H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
https://smart-api-production-1-us.avanan.net/v1.0/msp/licenses
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** object with an array of license objects. The license objects include the ID, code name, and display name of all the available tenant licenses.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": [
    {
      "id": 0,
      "codeName": "string",
      "displayName": "string"
    }
  ]
}
```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)

Parameter	Type	Description
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	An array of License Objects
id	Integer	ID of license choice
codeName	String	Code name for the license
displayName	String	Display name of the license

## Response Sample

A valid response from the service:

```
{
  'responseEnvelope': {
    'requestId': 'e5f28cbe-17cd-41e3-8c5d-10818f1ef2f4',
    'responseCode': 200,
    'responseText': '',
    'additionalText': '',
    'recordsNumber': 3,
    'scrollId': ''
  },
  'responseData': [
    {
      'id': 1,
      'codeName': 'advanced_anti_phishing',
      'displayName': 'Advanced Anti-Phishing'
    },
    {
      'id': 2,
      'codeName': 'complete_malware',
      'displayName': 'Complete Malware'
    },
    {

```

```
    'id': 3,  
    'codeName': 'full_suite_protection',  
    'displayName': 'Full-Suite Protection'  
  }  
]  
}
```

# List available license add-on

## URI - GET

To use this endpoint, send a GET request to list add-on: `/msp/licenses`

## Request

The request must only include HTTP headers (obtained in the authentication/authorization process and used to sign the request).

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-jjshduhuh" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2021-02-28T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-us.avanan.net/v1.0/msp/addons
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure consists of a **responseEnvelope** structure and a **responseData** object with an array of add-on objects. The add-on objects include the ID and name of all the available tenant add-ons.

### Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": [
    {
      "id": 0,
      "name": "string"
    }
  ]
}
```

### Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response

Parameter	Type	Description
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	An array of License Objects
id	Integer	ID of license choice
name	String	Name of the add-on

## Response Sample

A valid response from the service:

```
{
  'responseEnvelope': {
    'requestId': 'da1b074e-8f54-495b-b626-182c883e3817',
    'responseCode': 200,
    'responseText': '',
    'additionalText': '',
    'recordsNumber': 1,
    'scrollId': ''
  },
  'responseData': [
    {
      'id': 1,
      'name': 'IRaaS'
    }
  ]
}
```

# Assigning license to a customer tenant

## URI - POST

To use this endpoint, send a POST request with a path parameter that specifies the tenant to apply for a license and a request body with the license data: `/msp/tenants/{tenant_id}/license`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request) and the ID of the tenant to apply the new license to as a path parameter. The request body must include the required license code name and any optional license specifications.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
tenant_id	Integer	Yes		Avanan tenant ID to specify the tenant to delete.

## Request Body

All applicable request parameters are posted on the request body JSON:



```
{
  "requestData": {
    "tenantId": "string",
    "maxLicensedUsers": 0,
    "licenseCodeName": "string",
    "addonIdList": [0]
  }
}
```

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
licenseCodeName	String	Yes		Code name of the desired license, taken from licenses endpoint response.
addonIdList	List of Integers	No		An array of desired add-on IDs. Add-on IDs are available from the add-ons endpoint.
maxLicensedUsers	Integer	No		Maximum number of users for the tenant.

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X POST -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  -d "{
    "requestData": {
      "licenseCodeName": "complete_malware",
      "maxLicensedUsers": "20"
    }
  }" \
```

```
https://smart-api-production-1-
us.avanan.net/v1.0/msp/tenants/120/license
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure includes a **responseEnvelope** structure and a **responseData** structure that shows the **tenantID** and details of the new license.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": {
    "license": {
      "id": 0,
      "codeName": "string",
      "displayName": "string"
    },
    "tenantId": 0,
    "tenantDomain": "string",
    "addons": [
      {
        "id": 0,
        "name": "string"
      }
    ],
    "maxLicensedUsers": 0
  }
}
```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties

Parameter	Type	Description
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	Portal license details
license	Object	License object that contains the ID, code name, and display name
tenantId	Integer	ID of the Avanan tenant
tenantDomain	String	The top level domain of the Avanan tenant
maxLicensedUsers	Integer	Maximum number users seats for the tenant
addons	Array of Add-on objects	An array of add-on objects with the add-on ID and name

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 200,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 1,
    "scrollId": "string"
  }
}
```

```
},  
"responseData": {  
  "license": {  
    "id": 2,  
    "codeName": "complete_malware",  
    "displayName": "Complete Malware"  
  },  
  "tenantId": 120,  
  "tenantDomain": "abccompany",  
  "addons": [],  
  "maxLicensedUsers": 20  
}
```

# Getting monthly usage details of customers

## URI - GET

To use this endpoint, send a GET request: `/msp/usage`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request). This request must include two query string parameters, the month and the year. The service returns the usage for the given month.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
year	Integer	Yes	querystring	Year of usage
month	Integer	Yes	querystring	Month to retrieve usage

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
scrollId	String	No		ID used to scroll large sets of results.

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#)

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp2" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-
  us.avanan.net/v1.0/msp/usage?year=2021&month=9
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure includes a **responseEnvelope** structure and a **responseData** object with an array of usage for all associated customers in the given month.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": [
    {
      "day": "string",
      "tenantDomain": "string",
      "licenseCodeName": "string",
      "users": 0,
      "dailyPrice": 0,
      "cost": 0
    }
  ]
}
```

```

    ]
  }

```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	Usage List - Array of usage
responseData/UsageList	String	Day of usage in DateTime format
tenantDomain	String	TLD of the Avanan tenant
licenseCodeName	String	Code name of the license for the tenant on the day of usage

Parameter	Type	Description
users	Integer	User count for the usage day
dailyPrice	Float	Price for the day per user
cost	Float	Cost for all users of the tenant per day

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 204,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 1,
    "scrollId": ""
  },
  "responseData": [
    {
      'day': '2021-09-02',
      'tenantDomain': "abccompany",
      'licenseCodeName': 'full_suite_protection',
      'users': 45,
      'dailyPrice': 0.069,
      'cost': 3.11
    }
  ]
}
```



# Getting daily usage details of customers

## URI - GET

To use this endpoint, send a GET request: `/msp/usage/day`

## Request

The request includes HTTP headers (obtained in the authentication/authorization process and used to sign the request). This request must include three **querystring** parameters (year, month, and day). These parameters correspond to the day to return usage.

## Request Headers

Header	Type	Required	Format	Description/Sample
x-av-req-id	String	Yes	UUID - generated and supplied on the request	d290f1ee-6c54-4b01-90e6-d701748f0851
x-av-token	String	Yes	Token obtained in the authentication sequence	tkn8546ffffggd9d8934593
x-av-app-id	String	Yes	Application ID provided by Avanan	myapp29
x-av-date	String	Yes	Date-time in GMT	'2016-08-29T09:12:33.001Z'
x-av-sig	String	Yes	Calculated signature	tkn8jmveolrrtertr9d8934593

## Request String Parameters

Parameter	Type	Required	Format	Description/Sample
year	Integer	Yes	querystring	Year for usage
month	Integer	Yes	querystring	Month to retrieve usage
day	Integer	Yes	querystring	Day to retrieve usage

## Request Body Parameters

The JSON parameters:

Parameter	Type	Required	Format	Description/Sample
scrollId	String	No		ID used to scroll through large sets of results.

## Request sample (CURL) format

This request sample shows URI base in USA region. For URI base in other regions, see ["URLs and URL Base" on page 5](#).

```
curl -X GET -H "Accept: application/json" \
  -H "x-av-req-id: d290f1ee-6c54-4b01-90e6-d701748f0851" \
  -H "x-av-token: tkn8546ffffggd9d8934593" \
  -H "x-av-app-id: myapp29" \
  -H "x-av-date: 2016-08-29T09:12:33.001Z" \
  -H "x-av-sig: tkn8jmveolrrtertr9d8934593" \
  https://smart-api-production-1-
  us.avanan.net/v1.0/msp/usage?year=2021&month=9&day=2
```

## Response

The response obtained from the service includes an HTTP response code and JSON formatted structure. The structure includes a **responseEnvelope** structure and a **responseData** object with an array of usage for all associated customers in the given day.

## Response Structure

```
{
  "responseEnvelope": {
    "requestId": "string",
    "responseCode": 0,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 0,
    "scrollId": "string"
  },
  "responseData": [
    {
      "day": "string",
      "tenantDomain": "string",
      "licenseCodeName": "string",
      "users": 0,
      "dailyPrice": 0,
      "cost": 0
    }
  ]
}
```

```

    ]
  }

```

## Response Parameters

The response parameters:

Parameter	Type	Description
responseEnvelope	Object	A container of metadata properties
requestId	String	Request ID (from the request header <b>x-av-req-id</b> value)
responseCode	Integer	0 = Success Other values = Failure
responseText	String	The text value of the response
additionalText	String	Additional information
recordsNumber	Integer	Number of records in the response
totalRecordsNumber	Integer	Total number of records
scrollId	String	A unique ID used to scroll through data
responseData	Object	Usage List - Array of usage
responseData/UsageList	String	Day of usage in DateTime format
tenantDomain	String	TLD of the Avanan tenant
licenseCodeName	String	Code name of the license for the tenant on the day of usage

Parameter	Type	Description
users	Integer	User count for the usage day
dailyPrice	Float	Price for the day per user
cost	Float	Cost for all users of the tenant per day

## Response Sample

A valid response from the service:

```
{
  "responseEnvelope": {
    "requestId": "cc7796ac-6235-4a06-b7e9-6abc557976f6",
    "responseCode": 204,
    "responseText": "",
    "additionalText": "",
    "recordsNumber": 1,
    "scrollId": ""
  },
  "responseData": [
    {
      'day': '2021-09-02',
      'tenantDomain': "abccompany",
      'licenseCodeName': 'full_suite_protection',
      'users': 45,
      'dailyPrice': 0.069,
      'cost': 3.11
    }
  ]
}
```

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