VOSS Insights Dashboard API Guide

Jan 14, 2022

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1. Introduction

1.1. Overview

The API is broken up into the resources below. Each resource represents an object in the system. A resource will have associated data and a set of methods in which the user may operate on it. The following URIs currently do not require authentication.

Resource	Description
`/assets`	This resource will return data associated with all the assets discovered by the system. The Analytix will automatically discover assets if the asset is configured to send logs.
`/dashboards`	This resource can be used to create, update, and delete new dashboards.
`/datasource`	This resource can be used to create, update, and delete datasources.
`/system`	This resource will return data about the system in general.

2. Resources

2.1. assets

The assets resource supports the following operations.

Method	URL	Description
GET	`/assets`	Get a list of all assets.
GET	`/assets/{asset_id}`	Get a single asset by asset id.
POST	`/assets`	Add a new asset.
POST	`/assets`	Add multiple new assets.
PUT	`/assets`	Updates a single asset.
PUT	`/assets`	Updates multiple assets.
DELETE	`/assets`	Deletes a single asset.
DELETE	`/assets`	Deletes multiple assets.

2.1.1. GET

```
/assets
/assets/{asset_id}
```

- Parameters

  `asset_id` - Optional input parameter specifying the specific desired asset.

  Example:

  ```
  /assets/656
  ```

- Response Codes

HTTP Status Code	Reason
200	Success.

- Example Response

```
curl-kX GET https://10.13.37.12/api/assets/169

{

"assets": [

{

"asset_id":"169",

"asset_name":"10.13.37.1",

"ipaddress":"10.13.37.1",

"hostname":"10.13.37.1",

"customer":"",

"last_method":"snmp_trap",

"last_byte_time":"1510782169"

}

]

}
```

2.1.2. POST, PUT, DELETE Requests and Responses

Assets can be created, updated, and deleted using POST, PUT, and DELETE respectively. The same request parameter is required for all three requests. This section will describe the desired request parameter and resulting response output.

- Request Parameters

  The `AssetInput` object describes the JSON object that can be used to modify a single Asset.

  The `AssetInputArray` object describes the JSON object that can be used to modify multiple Assets.

  Note: The names `AssetInput` and `AssetInputArray` will be referenced both in this documentation as well as the online interactive documentation that ships with the product.

- `AssetInput`

  The following is an example of the required parameter for creating or modifying single Asset.

  Note: The property `asset_id` is a required parameter for PUT (updates) and DELETE. It is optional and ignored for POST requests. The `asset_id` will be given as part of the response for a successful POST (insert) of an asset.

  The API does not support the use of `ipaddress` as the property for updates and deletes. The property `ipaddress` is ambiguous because our system allows duplicate IP addresses to be inserted into the system. This gets even more complicated when we include the `customer` property in the

discussion. In order to prevent updates and deletes to assets with duplicate IP addresses, this is a strict requirement for our API.

```
{
  "ipaddress":"(string) Ip address of asset.",
  "asset_id":"(long): Optional parameter on POST. Required parameter for PUT and␣
↪DELETE.",
  "hostname":"(string, optional): Hostname of the asset.",
  "did":"(string, optional): EM7 specific. Represents EM7 device id.","mac_address
↪":"(string, optional): Mac address of the asset.",
  "address":"(string, optional): Physical address of the asset.",
  "model":"(string, optional): Model of device.",
  "version":"(string, optional): Version of device.",
  "manufacturer":"(string, optional): Manufacturer of device.",
  "timezone":"(string, optional): Timezone of device location.",
  "description":"(string, optional): Description of device".,
  "asset_name":"(string, optional): Name or alias of device.",
  "customer":"(string, optional): Customer name of device.",
  "site":"(string, optional): Site location name where device resides."
}
```

- `AssetInputArray`

  The following is an example of the required POST parameter for adding multiple Assets.

Note: The property `asset_id` is a required parameter for PUT (updates) and DELETE. It is optional and ignored for POST requests. The `asset_id` will be given as part of the response for a successful POST (insert) of an asset.

```
[
  {
    "ipaddress":"(string) Ip address of asset.",
    "asset_id":"(long): Optional parameter on POST. Required parameter for PUT␣
↪and DELETE.",
    "hostname":"(string, optional): Hostname of the asset.",
    "did":"(string, optional): EM7 specific. Represents EM7 device id.",
    "mac_address":"(string, optional): Mac address of the asset.",
    "address":"(string, optional): Physical address of the asset.",
    "model":"(string, optional): Model of device.",
    "version":"(string, optional): Version of device.",
    "manufacturer":"(string, optional): Manufacturer of device.",
    "timezone":"(string, optional): Timezone of device location.",
    "description":"(string, optional): Description of device".,
    "asset_name":"(string, optional): Name or alias of device.",
    "customer":"(string, optional): Customer name of device.",
    "site":"(string, optional): Site location name where device resides."
  },
  {
    "ipaddress":"(string) Ip address of asset.",
    "asset_id":"(long): Optional parameter on POST. Required parameter for PUT␣
↪and DELETE.",
    "hostname":"(string, optional): Hostname of the asset.",
    "did":"(string, optional): EM7 specific. Represents EM7 device id.",
    "mac_address":"(string, optional): Mac address of the asset.",
    "address":"(string, optional): Physical address of the asset.",
    "model":"(string, optional): Model of device.",
```

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```
    "version":"(string, optional): Version of device.",
    "manufacturer":"(string, optional): Manufacturer of device.",
    "timezone":"(string, optional): Timezone of device location.",
    "description":"(string, optional): Description of device".,
    "asset_name":"(string, optional): Name or alias of device.",
    "customer":"(string, optional): Customer name of device.",
    "site":"(string, optional): Site location name where device resides."
  }
]
```

- Response Output
- Response Code

Note: Delete will only return a response code. `200`

- Response Body

  Below is an example of successful Insert or Update. Result may contain one or many assets.

  The `asset_id` must be saved by the application in order to make any subsequent Updates or Delete requests.

  `AssetResult`

```
{
  "assets":
  [
   {
     "asset_id":"656",
     "asset_name":"",
     "ipaddress":"192.168.1.1",
     "hostname":"test hostname",
     "customer":"Customer1",
     "last_method":"",
     "last_byte_time":"0"
   }
  ]
}
```

- Other Possible Responses

Response Code	Reason	Remedy
200	Success.	
400	Exception: UPDATE error: `asset_id` property required.	Include `asset_id` in request body
400	Exception: UPDATE error: Received null asset input.	See `AssetInput`
400	Exception: DELETE: error: `asset_id` property required.	Include `asset_id` in request body
400	Exception: DELETE error: Received null asset input.	See `AssetInput`

2.1.3. POST

/assets

- Example Curl Request

  Command:

```
curl-k -w'\nRESP_CODE: %{response_code}\n'
    -X POST https://10.13.37.12/api/assets
    -d'{"did": "1234",
        "hostname":"test hostname",
        "ipaddress":"192.168.100.1",
        "alias":"alias natted ip address",
        "model":"test model",
        "version":"test version",
        "manufacturer":"test vendor",
        "timezone":"test timezone",
        "description":"test description",
        "address":"test physical address",
        "customer":"Test Customer1",
        "site":"Test Site1"}'
```

  Output:

```
{"assets": [
  {"asset_id":"657",
   "asset_name":"",
   "ipaddress":"192.168.100.1",
   "hostname":"test hostname",
   "customer":"Test Customer1",
   "last_method":"",
   "last_byte_time":"0"}
  ]}
```

  RESP_CODE: 200

2.1.4. PUT

/assets

- Example Curl Request

  Note: asset_id was included.

  Command:

```
curl -k -w'\nRESP_CODE: %{response_code}\n'
     -X PUT https://10.13.37.12/api/assets
     - d'{"asset_id":"657",
          "did": "1234",
          "hostname":"test hostname2",
          "ipaddress":"192.168.100.1",
          "alias":"alias natted ip address",
          "model":"test model",
```

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```
          "version":"test version",
          "manufacturer":"test vendor",
          "timezone":"test timezone",
          "description":"test description",
          "address":"test physical address",
          "customer":"Test Customer1",
          "site":"Test Site1"}'
```

Output:

```
{"assets":
  [{"asset_id":"657",
    "asset_name":"",
    "ipaddress":"192.168.100.1",
    "hostname":"test hostname2",
    "customer":"Test Customer1",
    "last_method":"",
    "last_byte_time":"0"}]}
```

RESP_CODE: 200

2.1.5. /assets - DELETE

/assets

Command:

```
curl-k -w'\nRESP_CODE: %{response_code}\n'
    -X DELETE https://10.13.37.12/api/assets
    - d'{"asset_id":"657",
         "did":"1234",
         "hostname":"test hostname2",
         "ipaddress":"192.168.100.1",
         "alias":"alias natted ip address",
         "model":"test model",
         "version":"test version",
         "manufacturer":"test vendor",
         "timezone":"test timezone",
         "description":"test description",
         "address":"test physical address",
         "customer":"Test Customer1",
         "site":"Test Site1"}'
```

Output:

RESP_CODE: 200

2.2. dashboards

The dashboards resource supporst the following operations.

Method	URL	Description
POST	/dashboards/data/user	Retrieves dashboard data for a specific user.
POST	/dashboards/user	Get a list of all available dashboards for a specific user.
PUT	/dashboards/user	Create or Update a dashboard for a specific user.
DELETE	/dashboards/user	Deletes a dashboard from a specific user.
POST	/dashboards/resources/fields	Get a list of all available resources and their respective fields.

2.2.1. Creating a dashboard

TBD

2.3. system

The system resource supports the following operations.

Method	URL	Description
GET	/system/stats	Get system stats.

- Example Output

  Command:

```
curl-k -w'\nRESP_CODE: %{response_code}\n'
    -X GET https://10.13.37.12/api/system/stats
```

  Output:


```
{
  "data": {
    "Cpu - Idle": "74.48979591836735",
    "Cpu - Irq": "0",
    "Cpu - Nice": "0",
    "Cpu - Sys": "9.183673469387756",
    "Cpu - Total": "25.510204081632654",
    "Cpu - User": "16.3265306122449",
    "Load Percentage": "129.4189453125",
    "Load over Last 1 Minute": "2.58837890625",
    "Load over Last 5 Minute": "2.01416015625",
    "Load over Last 15 Minute": "1.71923828125",
    "Memory Free": 7368441856,
    "Memory Used": 9436925952,
    "Memory Total": 16805367808,
```


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```
    "Memory Used Percent": "56.15423631196968",
    "Memory Free Percent": "43.84576368803032",
    "Number of Cores": 2,
    "Disk Used Percent": "17",
    "Disk Free Percent": "83",
    "Disk Total": 523089912,
    "Disk Used": 85928968,
    "Disk Free": 437160944,
    "customer": "VAADEMODASH",
    "hostname": "VAADEMODASH",
    "version": "sp62",
    "services": {
      "postgres": "running",
      "ndx_server": "running",
      "reporter": "running",
      "apache2": "running",
      "sshd": "running",
      "slapd": "running",
      "runit": "running"
    }
  }
}
```


RESP_CODE: 200

3. Resources v2

3.1. Overview

The following URIs will require authentication. The system currently implements a token based authentication system. Every resource under thev2route requires a token property to be set in the http header. A token can be requested from the `/v2/login` URI.

Resource	Description
`/v2/login`	Use this resource to request a token.
`/v2/lxt_updates`	Use this resouces to manage software updates for the product.
`/v2/users`	Use this resource to GET, POST, PUT, DELETE users.

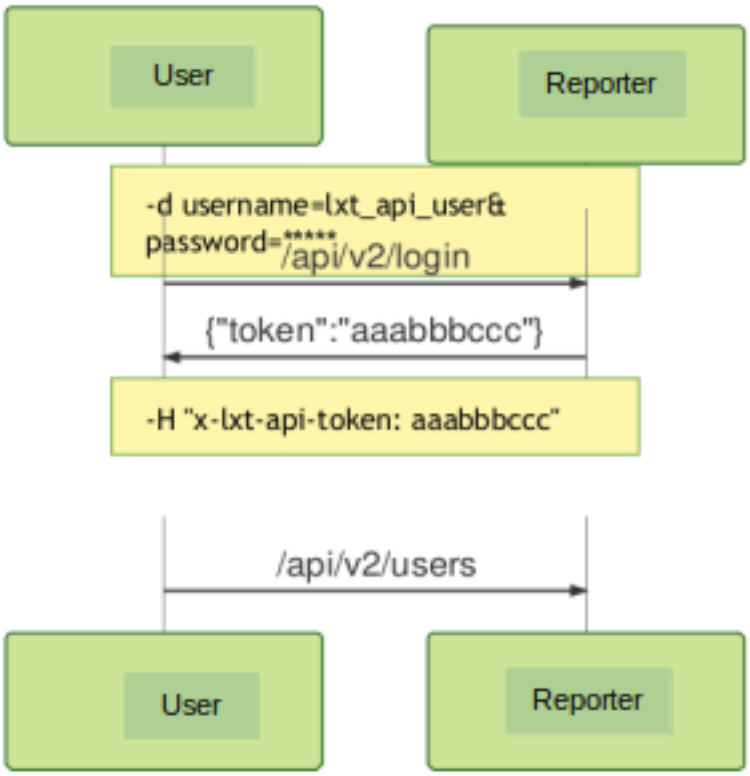
3.2. `/v2/login`

The `login` route is required before access to any route under `v2` is requested. The system will respond with a token that needs to be included in the header of all subsequent API requests.

The following methods are supported for the `login` route.

Method	**URI**	**Description**
POST	`/v2/login`	Retrieves dashboard data for a specific user.

3.2.1. High Level login API Flow



3.2.2. POST

`/v2/login`

- Required Parameters

  The login request requires a `username` and `password` parameter to be sent as part of the POST request.

  Note: The `username` and `password` should be sent as a multipart form parameter. The username should be a userid that already exists in the system. A user can be added through our User Interface or via the API.

  By default, the system contains a user named `lxt_api_user`. This `userid` can be used for first time API users. The `lxt_api_userpassword` is set at install time by your system administrator.

- Example Curl Request

  Command:

```
curl-k -w'\nRESP_CODE: %{response_code}\n'
    -X POST https://<IP or FQDN>/api/v2/login
    -d"username=lxt_api_user&password=password1"
```

Output:

```
{"token":"eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]"}
```

RESP_CODE: 200

3.3. /v2/lxt_updates

Method	URL	Description
GET	/v2/lxt_updates	Retrieves current list of all update requests.
GET	/v2/lxt_updates/{id}	Retrieves information about a specific update request.
POST	/v2/lxt_updates	Adds a new update request.
PUT	/v2/lxt_updates	Modifies an existing update request.
PUT	/v2/lxt_updates/{id}	Modifies an existing update request.
DELETE	/v2/lxt_updates	Deletes an existing update request.
DELETE	/v2/lxt_updates/{id}	Deletes an existing update request.

3.3.1. Header (required)

x-lxt-api-token: "token from login"

3.3.2. GET

/v2/lxt_updates

- Example 1: Get All Updates

  Command:

```
  curl -s
       -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
       --insecure
       -w "RESP_CODE: %{response_code}"
       -X GET https://<IP or FQDN>/api/v2/lxt_updates

Output (formatted):

::

   {
    "status":200,
    "message":"Success",
    "data":[
            {"id":"12"},
            {"id":"13"}
           ]
   }
```

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```
RESP_CODE: ``200``
```

- Example 2: Get Updates with specified id

  Command:

```
curl -s
-H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
--insecure
-w "RESP_CODE: %{response_code}"
-X GET https://<IP or FQDN>/api/v2/lxt_updates/12
```

  Output (formatted):

```
  {
   "status":200,
   "message":"Success",
   "data":[
     {
     "id":"12",
     "status":{"comment":"Error encountered. Please reference the install log."},
     "log":"This file does not look like a service pack.\n"
     }
   ]
  }

RESP_CODE: ``200``
```

3.3.3. POST

Use POST to add a new update request.

`/v2/users`

- Input defines

  The following definitions may be used when creating a new request. The new software should be copied into the drop account, or else provide a URL for fetching.

```
id=12 (optional)
delay=60 (optional)
url=http://www.layerxtech.com/downloads/arbitratorhawaii/updates (optional)
```

- Example 1: Add new update request

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -X POST https://<IP or FQDN>/api/v2/lxt_updates
```

  or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1Ni[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d 'id=12'
     -d 'delay=60'
     -d 'url=http://www.layerxtech.com/downloads/arbitratorhawaii/updates'
     -X POST https://<IP  or FQDN>/api/v2/lxt_updates
```

Output (formatted):

```
{
 "status":200,
 "message":"Success",
 "data":[{"id":"12"}]
}
```

RESP_CODE: 200

3.3.4. PUT

Use PUT to modify an existing update request. An error will be returned if the update request does not exist in the system.

/v2/lxt_updates

- Input defines

  The following definitions may be used when creating a new request.

```
id=12 (optional)
delay=60 (optional)
url=http://www.layerxtech.com/downloads/arbitratorhawaii/updates (optional)
```

- Example 1: Update existing update request

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d'id=12&delay=0'
     -X PUT https://<IP or  FQDN>/api/v2/lxt_updates
```

  or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d 'delay=0'
     -X PUT https://<IP or FQDN>/api/v2/users/12
```

  Output (formatted):

```
{
 "status":201,
 "message":"Success",
 "data":{ "id":"12" }
 }
```

RESP_CODE: 200

3.3.5. DELETE

/v2/lxt_updates

/v2/lxt_updates/{id}

- Example 1: Delete existing update request

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d"id=12"
     -X DELETE https://<IP or FQDN>/api/v2/lxt_udpates
```

  or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -X DELETE https://<IP or FQDN>/api/v2/lxt_updates/12
```

  Output (formatted):

```
  {
  "status":201,
  "message":"Success",
  "data":[]
  }

RESP_CODE: ``200``
```

- Example 2: Delete existing update request again

  Command:

```
curl -s
     -H x-lxt-apitoken:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d"id=12"
     -X DELETE https://<IP or FQDN>/api/v2/lxt_updates
```

  or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -X DELETE https://<IP or FQDN>/api/v2/lxt_updates/12
```

Output (formatted):

```
{
  "status":404,
  "message":"Could not find existing entry for {id}",
  "data":[]
}
```

RESP_CODE: 404

3.4. /v2/users

Method	URL	Description
GET	/v2/users	Retrieves current list of all users.
POST	/v2/users	Adds a new user.
PUT	/v2/users	Modifies an existing user.
PUT	/v2/users/deactivate	Deactivate an existing user.
PUT	/v2/users/reactivate	Reactivate an existing user.
DELETE	/v2/users	Deletes an existing user.

3.4.1. Header (required)

x-lxt-api-token: “token from login”

3.4.2. GET

/v2/users

- Example 1: Get All Users

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -X GET https://<IP or FQDN>/api/v2/users
```

  Output (formatted):

```
{
  "status":200,
  "message":"Success",
  "data":[
    {
      "email":"tset",
      "id":"IPM0N3CRFDHM4GQK15319464799176RQ299QFIJBA8B",
      "userId":"test",
      "firstName":"Bob",
      "lastName":"Smith",
      "status":"active",
      "customerId":null
    },
    {
      "email":"test",
      "id":"RUKTJDOYFSGJ4JO11532442929347PUPJAMFGP8TYE6",
      "userId":"loc",
      "firstName":"",
      "lastName":"",
      "status":"active",
      "customerId":null
    }
  ]
}
```


RESP_CODE: `200`

- Example 2: Get Users with query parameter `email`

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -X GET https://<IP or FQDN>/api/v2/users?email=tset
```

  Output (formatted):


```
{

  "status":200,
  "message":"Success",
  "data":[{"email":"tset",
           "id":"IPM0N3CRFDHM4GQK15319464799176RQ299QFIJBA8B",
           "userId":"test",
           "firstName":"Bob",
           "lastName":"Smith",
           "status":"active",
           "customerId":null
          }]
}
```


  RESP_CODE: `200`

- Example 3: Get Users with query parameter `userId`

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -X GET https://<IP or FQDN>/api/v2/users?userId=loc
```

Output (formatted):

```
{"status":200,
 "message":"Success",
 "data":[{"email":"test",
          "id":"RUKTJDOYFSGJ4JO11532442929347PUPJAMFGP8TYE6",
          "userId":"loc",
          "firstName":"",
          "lastName":"",
          "status":"active",
          "customerId":null}]
}
```

RESP_CODE: 200

- Example 4: Get Users with an invalid email

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -X GET https://<IP or FQDN>/api/v2/users?email=invalid@email.com
```

Output (formatted):

```
{
 "status":400,
 "message":"User(s) not found.",
 "data":[]
}
```

RESP_CODE: 400

3.4.3. POST

Use POST to add a new user. An error will be returned if this user already exists in the system.

/v2/users

- Example Input JSON

  The following JSON should be used when adding a new user to the system. POST parameters should be in JSON only.

  v2users.add.user1

```
{
 "userId":"testuser1", (required)
 "password":"password1", (optional)
```

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```
 "email":"testuser1@test.com", (required)
 "firstName":"TFirst", (optional)
 "lastName":"TLast", (optional)
 "customerId":"1234", (optional)
 "customerName":"", (optional, recommended if customerId is provided)
 "roles":[ (optional)
          {
           "name":"layerx_role1", (optional)
           "product":"Global SIP"(optional)
          }]
}
```

- customerName

  The API will automatically create a customer for the user if customerName is provided. The customerName will be returned with each subsequent API GET request. The customerName should be unique. New customers can be seen in the user interface under the **Access Controls-> Customer** area. The admin user can then add, modify, or delete resource filters to control what data this user can see.

- customerId

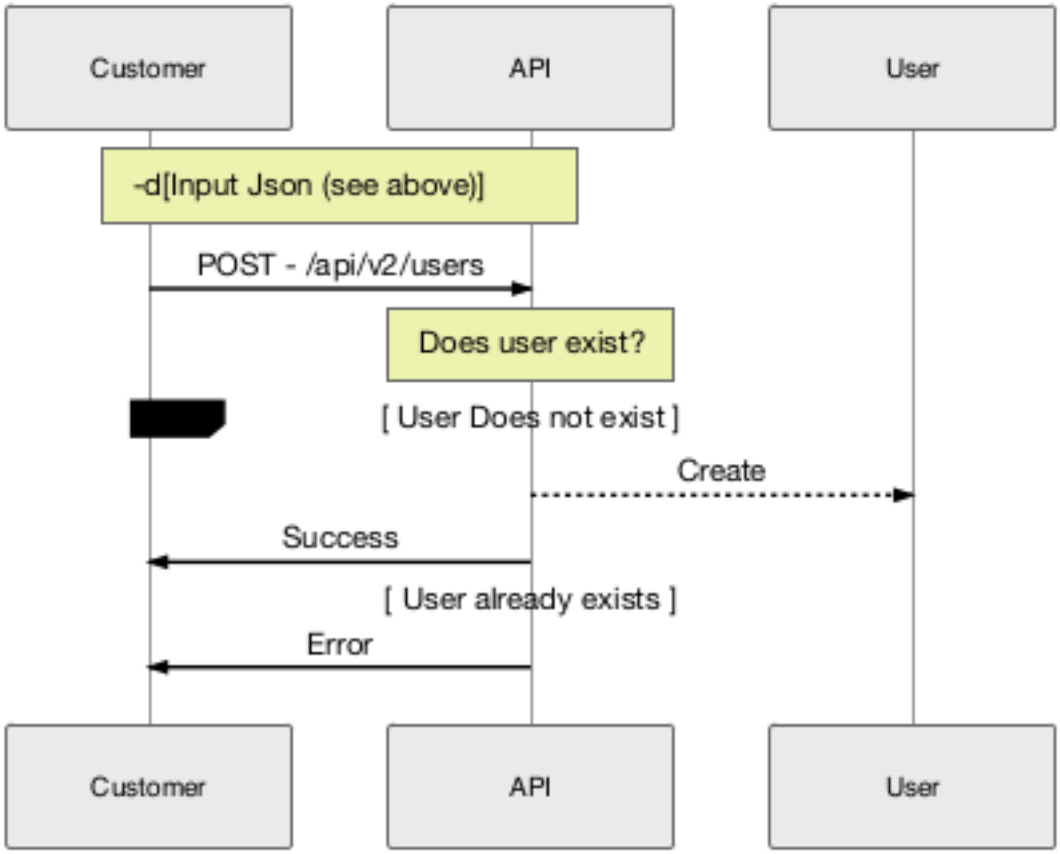
  The API also supports the use of a customerId. The customerId is usually a customer specific unique identifier that has meaning to the end user. If customerId is provided, the API will use the customerId as the determining factor on whether or not to create a new customer. The API will automatically create a new customer for the user if customerId does not already exist in the system.

  Note: customerName is still an optional field. The system still needs something user friendly to display to the end user in the user interface.

  customerId is usually not very meaningful or useful to the end user. It is recommended that the customerName is also used in conjuntion with customerId to provide a user friendly customer name.

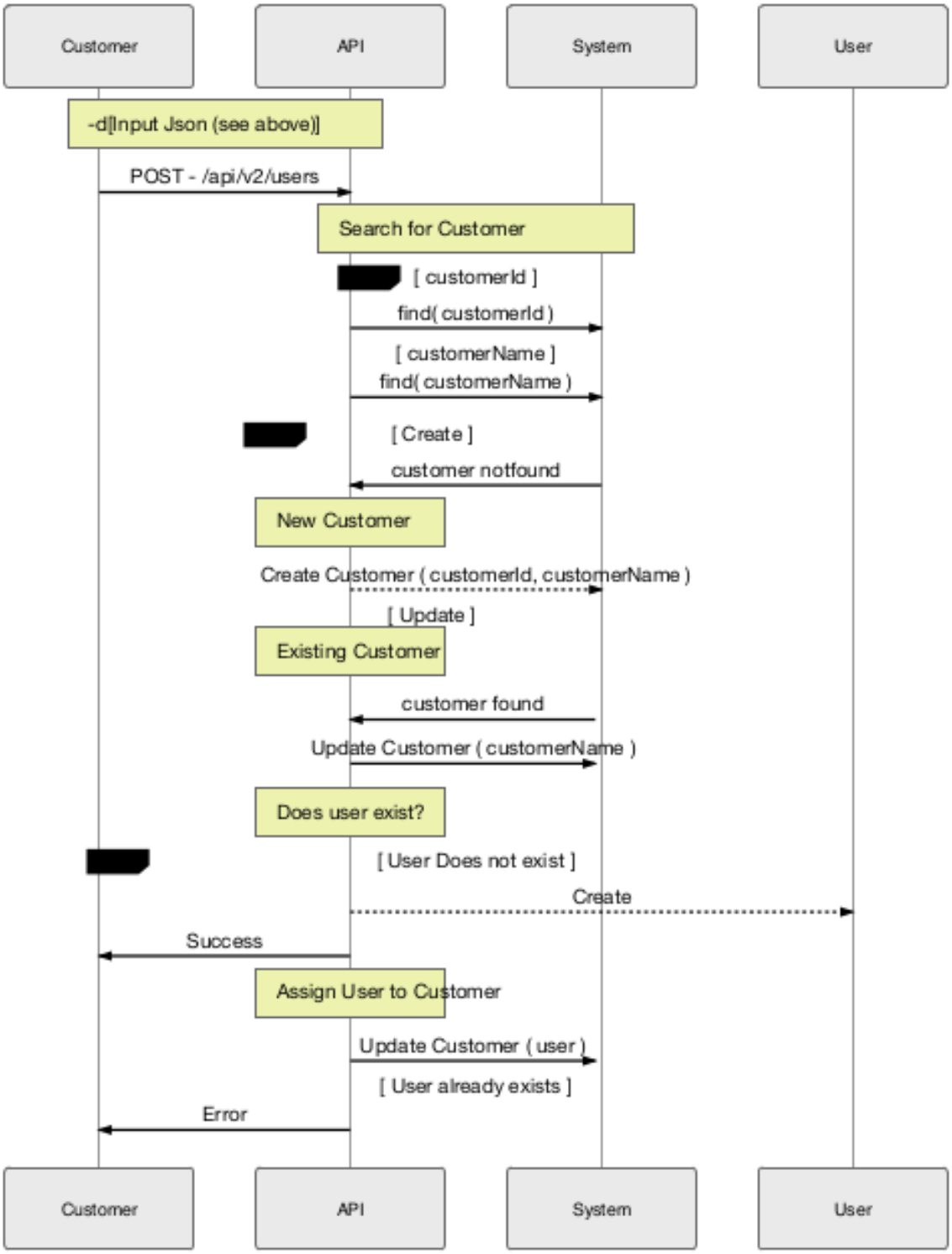
- POST High Level (No customer information)

  The following flow demonstrates the system behavior when customerId and customerName are not provided.



- POST High Level (with customer information)

  The following flow demonstrates the system behavior when `customerId` and `customerName` are provided.



- Example 1: Add new user

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
```

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```
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d@test_data/v2users.add.user1
     -X POST https://<IP or FQDN>/api/v2/users
```

or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d '{"userId":"testuser1",
          "password":"password1",
          "email":"testuser1@test.com",
          "firstName":"TFisrt",
          "lastName":"TLast",
          "roles": [{"name":"layerx_role1",
                     "product":"Global SIP"}]
         }'
     -X POST https://<IP or FQDN>/api/v2/users
```

Output (formatted):

```
{"status":200,
 "message":"Success",
 "data":[{"email":"testuser1@test.com",
          "id":"4e37d6c336d2adbf52bbc5dda8[...]",
          "userId":"testuser1",
          "firstName":"TFirst",
          "lastName":"TLast",
          "status":"active",
          "customerId":null }]
}
```

RESP_CODE: 200

- Example 2: Add an existing user

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d@test_data/v2users.add.user1
     -X POST https://<IP or FQDN>/api/v2/users
```

  Output (formatted):

```
{"status":400,
 "message":"User already exists.",
 "data":[]
}
```

  RESP_CODE: 400

3.4.4. PUT

Use PUT to modify an existing user. An error will be returned if the user does not exist in the system.

```
/v2/users
/v2/users/deactivate
/v2/users/reactivate
```

- Example Input JSON

  The following JSON should be used when modifying a new user to the system. PUT parameters should be in JSON only.

  v2users.modify.user1

```
{"id":"xxxxxxxxxxxxxxxx", (optional)
 "userId":"testuser1", (required)
 "password":"password1", (optional)
 "email":"testuser1@test.com", (required)
 "firstName":"Firstname Changed", (optional)
 "lastName":"Last Name changed", (optional)
 "customerId":"1234", (optional)
 "customerName":"Customer B", (optional, recommended if customerId is provided)
 "roles":[ (optional)
    {"name":"layerx_role1", (optional)
     "product":"Global SIP"(optional)
    }]
}
```

- customerName and customerId

  Please refer to POST section for customerName and customerId parameters.

- Example 1: Update existing user

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d@test_data/v2users.modify.user1
     -X PUT https://<IP or FQDN>/api/v2/users
```

  or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d '{"id":"xxxxxxxxxxxxxxxx",
          "userId":"testuser1",
          "password":"password1",
          "email":"testuser1@Changed",
          "lastName":"Last Name changed",
          "customerId":"1234",
          "roles":[{"name":"layerx_role1",
                    "product":"Global SIP"}]}'
    -X PUT https://<IP or FQDN>/api/v2/users
```

Output (formatted):

```
{"status":201,
 "message":"Success",
 "data":{"email":"testuser1@test.com",
         "id":"4e37d6c336d2adbf52bbc5d[...]",
         "userId":"testuser1",
         "firstName":"Firstname Changed",
         "lastName":"Last Name changed",
         "status":"active",
         "customerId":"1234" }
}
```

RESP_CODE: 200

- Example 2: Deactivate user

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d@test_data/v2users.modify.user1
     -X PUT https://<IP or FQDN>/api/v2/users/deactivate
```

or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d '{"id":"xxxxxxxxxxxxxxxxx",
          "userId":"testuser1",
          "password":"password1",
          "email":"testuser1@Changed",
          "lastName":"Last Name changed",
          "customerId":"1234",
          "roles":[{"name":"layerx_role1",
                    "product":"Global SIP"}]}'
    -X PUT https://<IP or FQDN>/api/v2/users/deactivate
```

Output (formatted):

```
{"status":201,
 "message":"Success",
 "data":{"email":"testuser1@test.com",
         "id":"4e37d6c336d2adbf52bb[...]",
         "userId":"testuser1",
         "firstName":"Firstname Changed",
         "lastName":"Last Name changed",
         "status":"inactive",
         "customerId":"1234"}
}
```

RESP_CODE: 200

- Example 2: Reactivate user

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d@test_data/v2users.modify.user1
     -X PUT https://<IP or FQDN>/api/v2/users/reactivate
```

or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d '{"id":"xxxxxxxxxxxxxxxx",
          "userId":"testuser1",
          "password":"password1",
          "email":"testuser1@Changed",
          "lastName":"Last Name changed",
          "customerId":"1234",
          "roles":[{"name":"layerx_role1",
                    "product":"Global SIP"}]}'
    -X PUT https://<IP or FQDN>/api/v2/users/reactivate
```

Output (formatted):

```
{"status":201,
 "message":"Success",
 "data":{"email":"testuser1@test.com",
         "id":"4e37d6c336d2adbf52bbc[...]",
         "userId":"testuser1",
         "firstName":"Firstname Changed",
         "lastName":"Last Name changed",
         "status":"active",
         "customerId":"1234"}
}
```

RESP_CODE: 200

3.4.5. DELETE

Use DELETE to delete a user from the system.

/v2/users

- Example Input JSON

  See POST and PUT section for example JSON. DELETE parameters should be in JSON only.

- Example 1: Delete existing user

  Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d@test_data/v2users.add.user1
     -X DELETE https://<IP or FQDN>/api/v2/users
```

or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d '{"id":"xxxxxxxxxxxxxxxx",
          "userId":"testuser1",
          "password":"password1",
          "email":"testuser1@Changed",
          "lastName":"Last Name changed",
          "customerId":"1234",
          "roles":[{"name":"layerx_role1",
                    "product":"Global SIP"}]}'
     -X DELETE https://<IP or FQDN>/api/v2/users
```

Output (formatted):

```
{"status":201,
 "message":"Success",
 "data":[]
}
```

RESP_CODE: 200

- Example 2: Delete existing user again

Command:

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d@test_data/v2users.add.user1
     -X DELETE https://<IP or FQDN>/api/v2/users
```

or

```
curl -s
     -H x-lxt-api-token:eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9[...]
     --insecure
     -w "RESP_CODE: %{response_code}"
     -d '{"id":"xxxxxxxxxxxxxxxx",
          "userId":"testuser1",
          "password":"password1",
          "email":"testuser1@Changed",
          "lastName":"Last Name changed",
          "customerId":"1234",
          "roles":[{"name":"layerx_role1",
                    "product":"Global SIP"}]}'
     -X DELETE https://<IP or FQDN>/api/v2/users
```

Output (formatted):

```
{"status":404,
 "message":"Invalid user",
 "data":[]
}
```

RESP_CODE: 404

3.5. /v2/system

Method	URL	Description
GET	/v2/system	Retrieves current list of all update requests.
GET	/v2/system/daysRemaining	Retrieves days remaining on license.
GET	/v2/system/license	Retrieves license key.
PUT	/v2/system/productkey/{key}	Updates license key with {key}.

3.5.1. GET

/v2/system/daysRemaining

Output (formatted):

```
{"status": 200,
 "message": "Success",
 "data": {"daysRemaining": "171"}
}
```

/v2/system/license

Output (formatted):

```
{"status": 200,
 "message": "Success",
 "data": {"license": "9H3EJ-aaaaa-7X79K-nnnnn-ccccc"}
}
```

4. Appendix

4.1. References

4.1.1. Complete API Reference

Method	URL	Description
GET	`/alerts`	Get a list of all assets.
GET	`/alerts/{alert_id}`	Get a single asset by asset id.
GET	`/assets`	Get a list of all assets.

Method	URL	Description
GET	`/assets/{asset_id}`	Get a single asset by asset id.
POST	`/assets`	Add a new asset.
POST	`/assets`	Add multiple new assets.
PUT	`/assets`	Updates a single asset.
PUT	`/assets`	Updates multiple assets.
DELETE	`/assets`	Deletes a single asset.
DELETE	`/assets`	Deletes multiple assets.
GET	`/system/stats`	Get system stats.

4.1.2. /v2

Method	URL	Description
POST	`/v2/login`	Get API token
GET	`/v2/lxt_updates`	Get all update requests
POST	`/v2/lxt_updates`	Add update request
PUT	`/v2/lxt_udpates`	Modify update request
DELETE	`/v2/lxt_udpates`	Delete update request
GET	`/v2/users`	Get all users
POST	`/v2/users`	Add user
PUT	`/v2/users`	Modify user
PUT	`/v2/users/deactivate`	Modify user status to deactivated
PUT	`/v2/users/reactivate`	Modify user status to active
DELETE	`/v2/users`	Delete user

4.1.3. Status Codes

All status codes are standard HTTP status codes. The table below are status codes commonly used in the API.

Status Code	Description
200	OK
201	Created
202	Accepted
400	Bad Request by Client
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal LayerX Error
501	Not Implemented
503	Service Unavailable