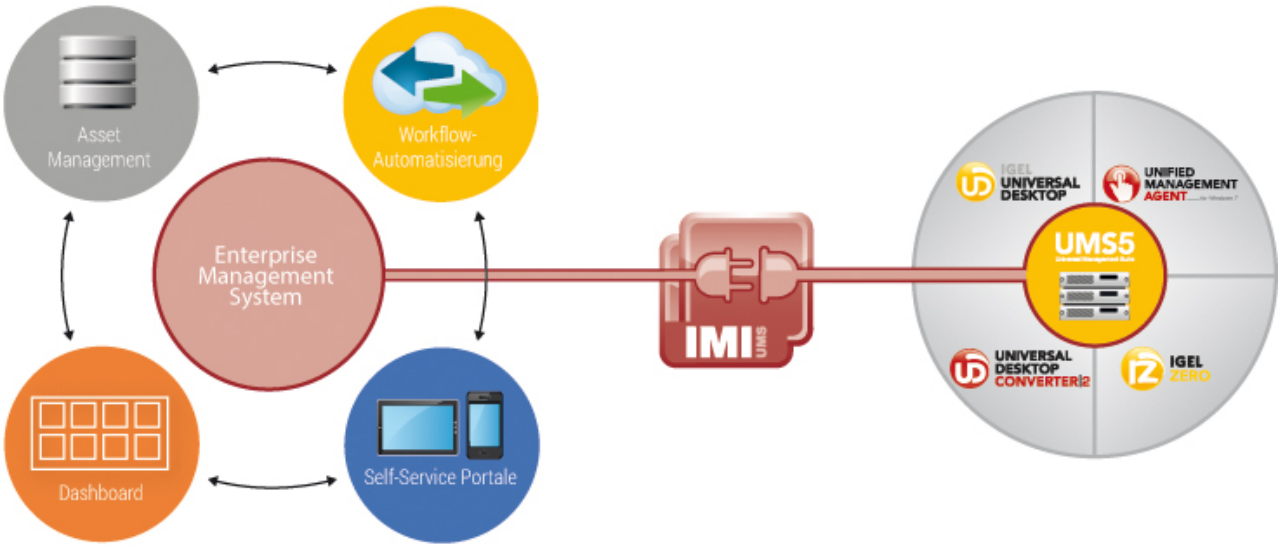
# IGEL Management Interface (IMI)

# IMI Manual

IGEL Management Interface (IMI) enables you to connect UMS to systems management tools. It is a programming interface that can create and delete thin clients, move them between directories, reboot them and much more. Its implementation as a REST API makes IMI agnostic of hardware platforms, operating systems and programming languages, thus ensuring maximum interoperability.




This document serves as an introduction to using IGEL Management Interface (IMI).

Detailed information about the requests can be found in the IMI API V2 Reference(see page 87).

# Licensing

The licensing for IGEL Management Interface (IMI) depends on the UMS version you are using.

When Asset Inventory Tracker (AIT) has been licensed, you can use the resources `assetinfo` and `assethistory`.

## UMS 5.09.100 or Older

For basic functionality, see Licensing IMI.

For Asset Inventory Tracker (AIT), see Licensing AIT.

## UMS 6.01.100 or Newer

IMI is part of the IGEL Workspace Edition (WE); no additional license is necessary. For further information, see Workspace Edition.

For Asset Inventory Tracker (AIT), licenses from the Enterprise Management Pack (EMP) are required. For further information, see Enterprise Management Pack.

# REST Basics

*IGEL Management Interface* uses *REST,* which stands for Representational State Transfer.

*REST* is an architectural style for client-server applications, mainly implemented in the HTTP(S) protocol. Therefore it can be used with all technologies that can send and receive HTTP requests.

*REST* establishes a typical pattern that helps programmers to understand the structure of individual APIs. Its most important concepts are Ressources(see page 6) and HTTP Methods(see page 7).

# Ressources

## URLs Represent Resources

A *REST* API makes resources available at specific URLs. You can find a list of all thin clients in the UMS REST API at:

- `https://[server]:8443/umsapi/v3/thinclients`

In a shorter notation, which assumes the base URL to be known:

- `/v3/thinclients`

In order to address an individual instance of a resource - a thin client,for example - you specify its ID in the URL:

- `/v3/thinclients/8`

## Further Examples of Resources

| URL | Resource |
|---|---|
| `/v3/directories/tcdirectories` | A list of all thin client directories |
| `/v3/directories/tcdirectories/123` | The thin client directory with the ID 123 |
| `/v3/firmwares` | A list of all firmwares in the UMS instance |
| `/v3/firmwares/7` | The firmware with the ID 7 |

Find a list of all available resources in the IMI API Reference(see page 87).

## HTTP Methods

You call HTTP methods for resources in order to manipulate them. The REST architectural style has a conventional meaning for each of the HTTP methods, which are also called verbs. The methods are listed below:

| HTTP Method | |
|---|---|
| `GET` | Read information from a resource. |
| `PUT` | Create a new resource or update an existing resource. |
| `POST` | (Create a new resource *), send a command. |
| `DELETE` | Delete a resource. |

* There is a subtle semantic difference between PUT and POST, which is sometimes a matter of dispute. *IMI* API favors

- PUT for create and update actions and uses
- POST for logins and for sending commands to resources.

# Prerequisites

## IGEL Universal Management Suite (UMS)

UMS 5.02.100

## Networking

In order to use *IGEL Management Interface* you need to be able to reach the API host via the network and connect to its API port, TCP 8443 by default.

The base URL is

- `https://[server]:8443/umsapi/`

The resources for IMI version 2 are available at:

- `https://[server]:8443/umsapi/v2/`

> *IMI* uses HTTPS to ensure the integrity and confidentiality of the network traffic. It is good practice to use a valid server certificate with a verifiable signature. Most clients and libraries can be configured to work with self-signed or invalid certificates, but that should not be done in a production environment.

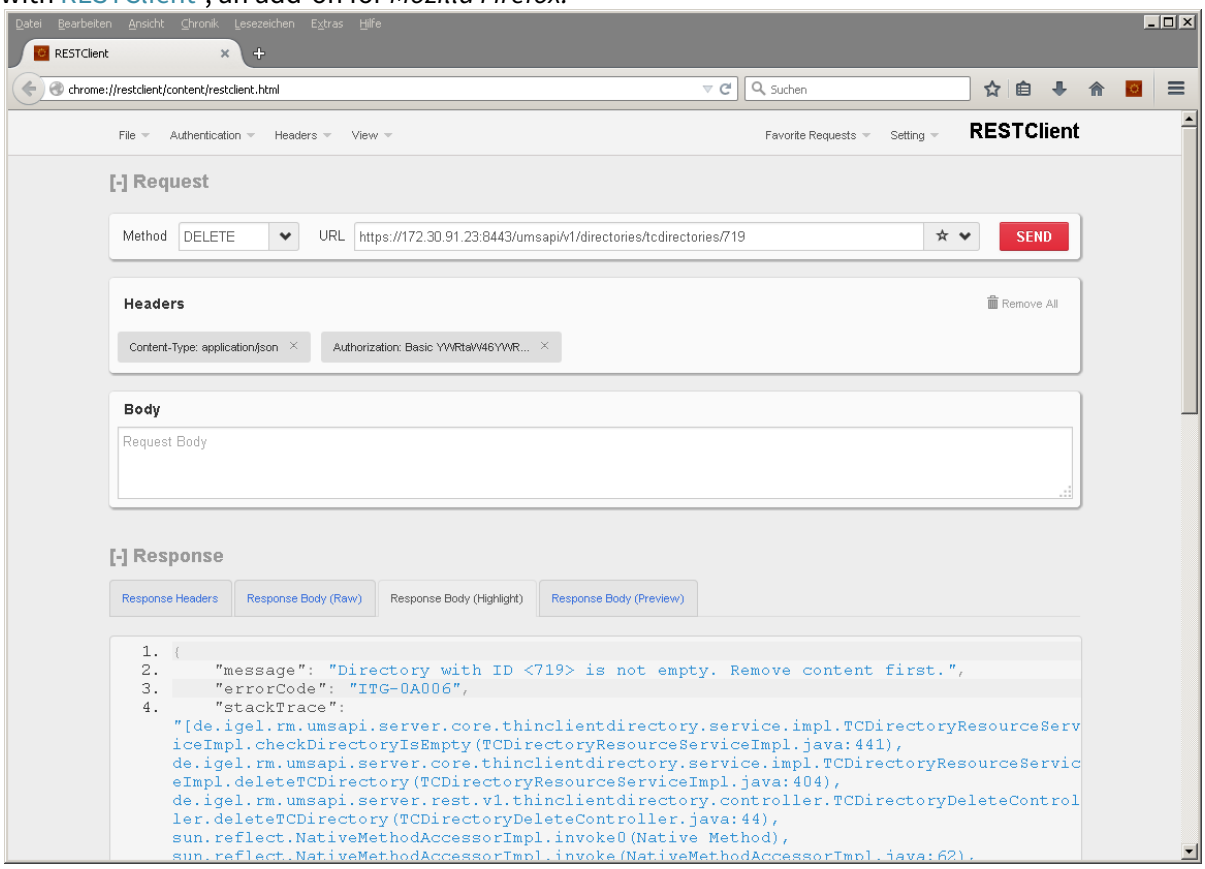
# First Steps

# Client Applications and Libraries

## Clients

The easiest way to try out the *IGEL Management Interface* is either

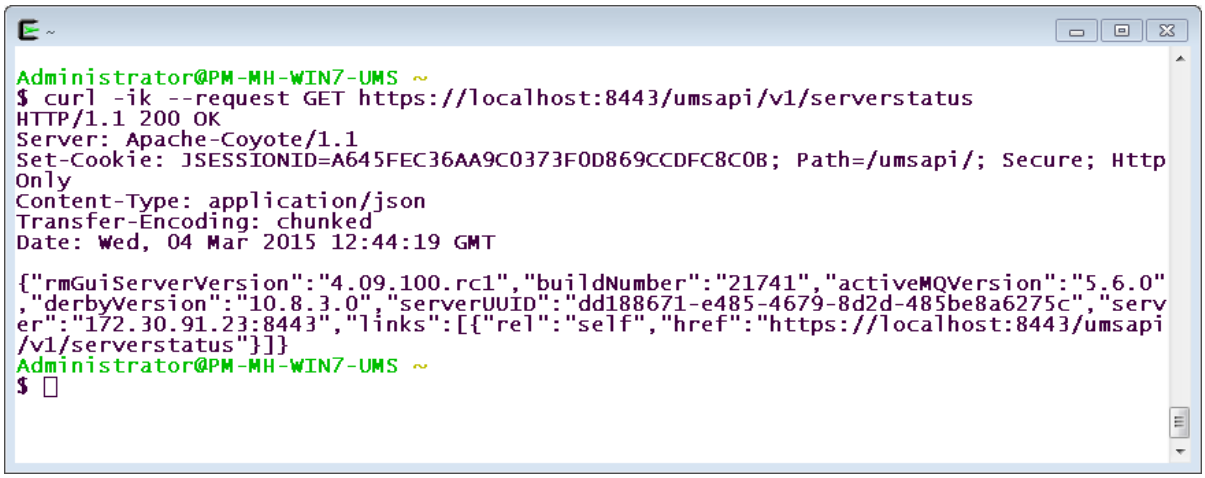
- with RESTClient[1], an add-on for *Mozilla Firefox:*




or

- with cURL[2], a commandline network client:

1 http://restclient.net/
2 http://curl.haxx.se/




This guide uses cURL for examples, as the commandline makes all parameters visible in plain text. This need not stop you from using RESTClient if you are more comfortable with it. You can easily translate the commandline parameters into the fields of the RESTClient *RESTClient* GUI.

## Programming libraries

Most programming languages provide an HTTP and an SSL module, either in their standard library or as an extension, and a JSON library (for the API data format) as well.

## Getting the Server Status

▶ Send the endpoint `/v3/serverstatus` an HTTP GET request to retrieve some information about the server.

With *cURL* the commandline looks like this:

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/serverstatus
```

You will receive a response like the following:

```
200 OK
---
{
 "rmGuiServerVersion": "5.07.100.rc15",
 "buildNumber": "32287",
 "activeMQVersion": "5.6.0",
 "derbyVersion": "10.12.1.1",
 "serverUUID": "9fe719f1-c16e-4744-9ff1-b9c314ae151c",
 "server": "mhuber:8443",
 "links": []
}
```

### Response Headers

The server replied with the status code 200 in the HTTP header, which means that your request was successful.

You can find a list of status codes in the IMI API Reference(see page 87).

### JSON Response Body

Information about the server is given in the response body in the *JavaScript Object Notation (JSON)*format. It is enclosed in curly braces and contains key-value-pairs separated by a colon. The line separator is a comma. Your programming language probably offers a `JSON` module that will help you parse and process information in this format.

## Authentication

You must be authenticated in order to use *IGEL Management Interface,* otherwise the server will return the HTTP status 401 "Unauthorized". Only querying the server status is allowed without authentication.

*IMI* uses *Basic Authentication* (RFC 2617(see page 13)).

### Logging In

▶ Send an HTTP POST request to `/v2/login` to log in. Your HTTP client of choice will offer a way of sending a *Basic Authentication*- header, which is produced from the username/password combination.

This is the commandline for *cURL:*

```
curl \
--request POST \
--user '[Username]:[Passwort]' \
https://[server]:8443/umsapi/v3/login
```

The server replies, sending back a session ID:

```
200 OK
Set-Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC; Path=/umsapi/; Secure;
HttpOnly
---
{"message":"JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC"}
```

### Staying Logged in

▶ You can maintain the session by sending the JSESSIONID in the Cookie header with every subsequent request:

```
Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC
```

Some clients will do this automatically for you, e.g. the RESTClient (see page 10)Firefox add-on(see page 10).

## Listing all Thin Clients

- Send a GET request to `/v3/thinclients` to list all thin clients.
- Don't forget to tell the server your JSESSIONID:

```
curl \
--request GET\
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
https://[server]:8443/umsapi/v3/thinclients
```

### Response

The response contains a large *JSON* document, listing all thin clients and their most important properties. The links make further parts of the API discoverable for a client that spiders the interface.

Look up the format for a thin client resource in the IMI API Reference(see page 87).

The last thin client entry contains `"movedToBin": true`, meaning that the thin client has been deleted and moved to the **Recycling Bin**. Objects in the **Recycling Bin** are listed, but you cannot update them or send them commands.


```
[
 {
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "id": "27",
 "name": "Front Desk",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/27"
 },
 {
```

```
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/21"
 }
 ]
 },
 {
 "unitID": "DC9C5207694E",
 "mac": "DC9C5207694E",
 "firmwareID": "13",
 "lastIP": "172.30.91.24",
 "id": "6888",
 "name": "UD3 M340C_Board",
 "parentID": "15592",
 "movedToBin": false,
 "objectType": "tc",
 "links": [...]
 },
 {
 "unitID": "00E0C5080834",
 "mac": "00E0C5080834",
 "firmwareID": "2",
 "lastIP": "172.30.91.132",
 "id": "6899",
 "name": "UD10",
 "parentID": "15592",
 "movedToBin": true,
 "objectType": "tc",
 "links": [...]
 }
]
```

## Getting Information on a Thin Client

▶ Send a GET request to `/v3/thinclients/[id]` to get information about a thin client:

```
curl \
--request GET\
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
https://[server]:8443/umsapi/v3/thinclients/27
```

The thin client ID is passed to the API as a *Path Variable* in the URL.

The response contains the most important properties of the thin client with the ID 27:

### Response


```
{
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "id": "27",
 "name": "Front Desk",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/27"
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/21"
```

```
  }
  ]
}
```

## Getting All Details about a Thin Client

▶ Use the `details` facet in order to get all details about a thin client:

```
curl \
--request GET\
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
https://[server]:8443/umsapi/v3/thinclients/27?facets=details
```

The response contains alle the properties of the thin client with the ID 27:

### Response


```
{
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "networkName": "D.Weinert",
 "site": "1. Stock",
 "department": "Product Management",
 "lastIP": "172.30.91.43",
 "costCenter": "",
 "comment": "",
 "assetID": "",
 "inserviceDate": "01.06.215",
 "serialNumber": "",
 "productId": "UD6-LX 51cps",
 "umsStructuralTag": "",
 "cpuSpeed": 2416,
 "cpuType": "Intel(R) Celeron(R) CPU J1900 @ 1.99GHz",
 "deviceType": "IGEL H830C",
 "deviceSerialNumber": "14D3D3C03B14470B9EM",
 "osType": "IGEL Linux V5 (Kernel Version 3.13.11-ckt20)",
 "flashSize": 1883,
 "memorySize": 1853,
 "networkSpeed": 1000,
```

```
"graphicsChipset0": "INTEL HD Graphics (Baytrail)",
"graphicsChipset1": "",
"monitorVendor1": "Samsung Electric Company",
"monitorModel1": "S24C650",
"monitorSerialnumber1": "H4MG404381",
"monitorSize1": 24,
"monitorNativeResolution1": "1920 x 1200",
"monitor1YearOfManufacture": "2015",
"monitor1WeekOfManufacture": "17",
"monitorVendor2": "Samsung Electric Company",
"monitorModel2": "S24C650",
"monitorSerialnumber2": "H4MG404389",
"monitorSize2": 24,
"monitorNativeResolution2": "1920 x 1200",
"monitor2YearOfManufacture": "2015",
"monitor2WeekOfManufacture": "17",
"biosVendor": "INSYDE Corp.",
"biosVersion": "H830C V:3.5.13-11282014",
"biosDate": "11/28/2014",
"totalUsagetime": "5798368000",
"totalUptime": "18513000",
"lastBoottime": "2015-09-29 08:30",
"id": "27",
"name": "Front Desk",
"parentID": "-1",
"movedToBin": false,
"objectType": "tc",
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v3/thinclients/27"
},
{
"rel": "Parent",
```


```
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/21"
 }
 ]
}
```

## Getting Thin Client Status

▶ Use the `online` facet in order to get the online status of a thin client with a specific ID:

```
curl \
--request GET\
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
https://[server]:8443/umsapi/v3/thinclients/27?facets=online
```

The response contains, among others, the `online` property, which can have the values `true` and `false`:

### Response


```
{
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "online": false,
 "id": "27",
 "name": "Front Desk",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/27"
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/21"
```

```
  }
  ]
}
```

## Creating, Updating and Deleting Resources

The thin client directories in UMS are a good resource for trying out the creation, update and deletion API calls.

## Listing all Thin Client Directories

▶ List all thin client directories:

```
curl \
--request GET\
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
https://[server]:8443/umsapi/v3/directories/tcdirectories/
```

### Response

The response contains a list of thin client directories in *JSON* format. The ID of the root thin client directory is always -1. Find a detailed description of the **Thin Client Directory** resource in the IMI API Reference(see page 87).

▶ Compare the *JSON* response to the thin client directory tree you see in your *UMS console*.


IMI provides a flat view of these directories, subdirectories can only be recognized via their `parentID`. In order to better see the nesting, use the `children` facet `.`

```
[
 {
 "id": "15592",
 "name": "Pool",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tcdirectory",
 "links": [
 {
 "rel": "self",
```

```
"href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/15592"
},
{
"rel": "Parent",
"href": "root"
}
]
},
{
"id": "76863",
"name": "New Subdirectory",
"parentID": "76462",
"movedToBin": false,
"objectType": "tcdirectory",
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/76863"
},
{
"rel": "Parent",
"href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/76462"
}
]
},
{
"id": "76462",
"name": "New Directory",
"parentID": "-1",
"movedToBin": false,
"objectType": "tcdirectory",
"links": [
{
"rel": "self",
```


```
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/76462"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 }
]
```

## Creating a Thin Client Directory

▶ Send an HTTP PUT request to the resource `/v3/directories/tcdirectories` to create a new thin client directory.

This request must contain *JSON* data in its body specifying a name for the new directory. The `parentID` is optional and defaults to the root thin client directory:

```
{
 "name":"My Directory",
 "parentID":"-1"
}
```

*cURL* accepts *JSON* data as the `--data` parameter. This request also specifies `Content-type` header to tell *IMI* that the data has the type `application/json`.

▶ Use it whenever you send *JSON* data:

```
curl \
--request PUT \
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
--header "Content-type: application/json" \
--data '{"name":"My Directory", "parentID":"-1"}' \
https://[server]:8443/umsapi/v3/directories/tcdirectories
```

### Response

*IMI* replies with a success message and data about the newly created directory:

```
{
 "message": "Directory successfully inserted.",
 "id": "77118",
 "name": "My Directory",
 "parentID": "-1"
}
```

## Updating a Thin Client Directory

▶ Send an HTTP PUT request to `/v3/directories/tcdirectories/[id]` to update the properties of a thin client directory. The directory ID is passed as a variable in the URL, a new directory name as *JSON* data in the request body. Do not forget the `Content-type` header.

```
curl \
--request PUT \
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
--header "Content-type: application/json" \
--data '{"name":"My Wonderful Directory"}' \
https://[server]:8443/umsapi/v3/directories/tcdirectories/77118
```

### Response

▶ *IMI* replies with a success message:

```
200 OK
---
{
 "message": "Updated directory successfully."
}
```

## Deleting a Thin Client Directory

▶ Send an HTTP DELETE request to `/v3/directories/tcdirectories/[id]` to delete a thin client directory. The ID of the directory is passed as a path variable in the URL.

```
curl \
--request DELETE \
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
https://[server]:8443/umsapi/v3/directories/tcdirectories/77118
```

### Response

▶ *IMI* replies with a brief success message:

Code Example:

```
<code> 200 OK</code>
```

Code Example:

```
<code>---</code>
```

Code Example:

```
<code> {"message":"Deletion successful."} </code>
```

A thin client directory has to be empty to be removed. If you try to delete a non-empty directory, *IMI* will respond with an error message:

```
400 Bad Request
---
{
 "message": "Directory with ID <77118> is not empty. Remove content first.",
 "errorCode": "ITG-0A006",
 "time": "2016-04-06T13:29:59.362",
 "stackTrace": "[de.igel.rm.umsapi.server.services.thinclientdirectory.
[...]
}
```

Learn more about error codes and messages in the IMI API Reference(see page 87).

## Further Operations

## Moving a Thin Client Directory

▶ In order to move thin clients or directories send a PUT request to the target directory and append `?operation=move`. The request body must contain a list of API Objects in *JSON* format, representing the thin clients and directories to be moved. An API Object has an ID and a type.

```
curl \
--request PUT \
--header 'Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
--header "Content-type: application/json" \
--data '[ { "id":"77123", "type":"tcdirectory"},\
 { "id":"1234", "type":"tcdirectory" } ]' \
https://[server]:8443/umsapi/v3/directories/tcdirectories/15592?operation=move
```

### Response

The following response contains an error message for one directory and a success message for the other:

```
200 OK
---
[
 {
 "id": "1234",
 "results": "does_not_exist"
 },
 {
 "id": "77123",
 "results": "successful"
 }
]
```

## Sending a Command to Thin Clients

▶ Send a POST request to `/v3/thinclients?command=[command]` to send a command to one or more thin clients. A command can be one of the following:

- `reboot`
- `shutdown`
- `wakeup`
- `settings2tc`
- `tcreset2facdefs`

The request body contains a list of API Objects representing the thin clients addressed.

To send the `reboot` command to two thin clients, send the following request to *IMI*:

```
curl \
--request POST \
JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC' \
--header "Content-type: application/json" \
--data '[{"id":"27", "type":"tc"},{"id":"72014", "type":"tc"}]' \
https://[server]:8443/umsapi/v3/thinclients?command=reboot
```

### Request

*IMI* replies with a *JSON* document containing a result for each thin client addressed:

```
{
 "CommandExecList": [
 {
 "execID": "ID-PM-MH-WIN7-UMS-54530-1456839861871-5-0",
 "id": "72014",
 "mac": "00E0C561EEED",
 "exectime": "1456845240566",
 "message": "OK",
 "state": "SUCCESS"
 },
 {
 "execID": "ID-PM-MH-WIN7-UMS-54530-1456839861871-5-0",
 "id": "27",
 "mac": "00E0C54DCB8E",
```


```
 "exectime": "1456845240560",
 "message": "OK",
 "state": "SUCCESS"
 }
 ]
}
```

# Debugging Requests

## Error Codes

To debug errors when communicating with IMI, observe

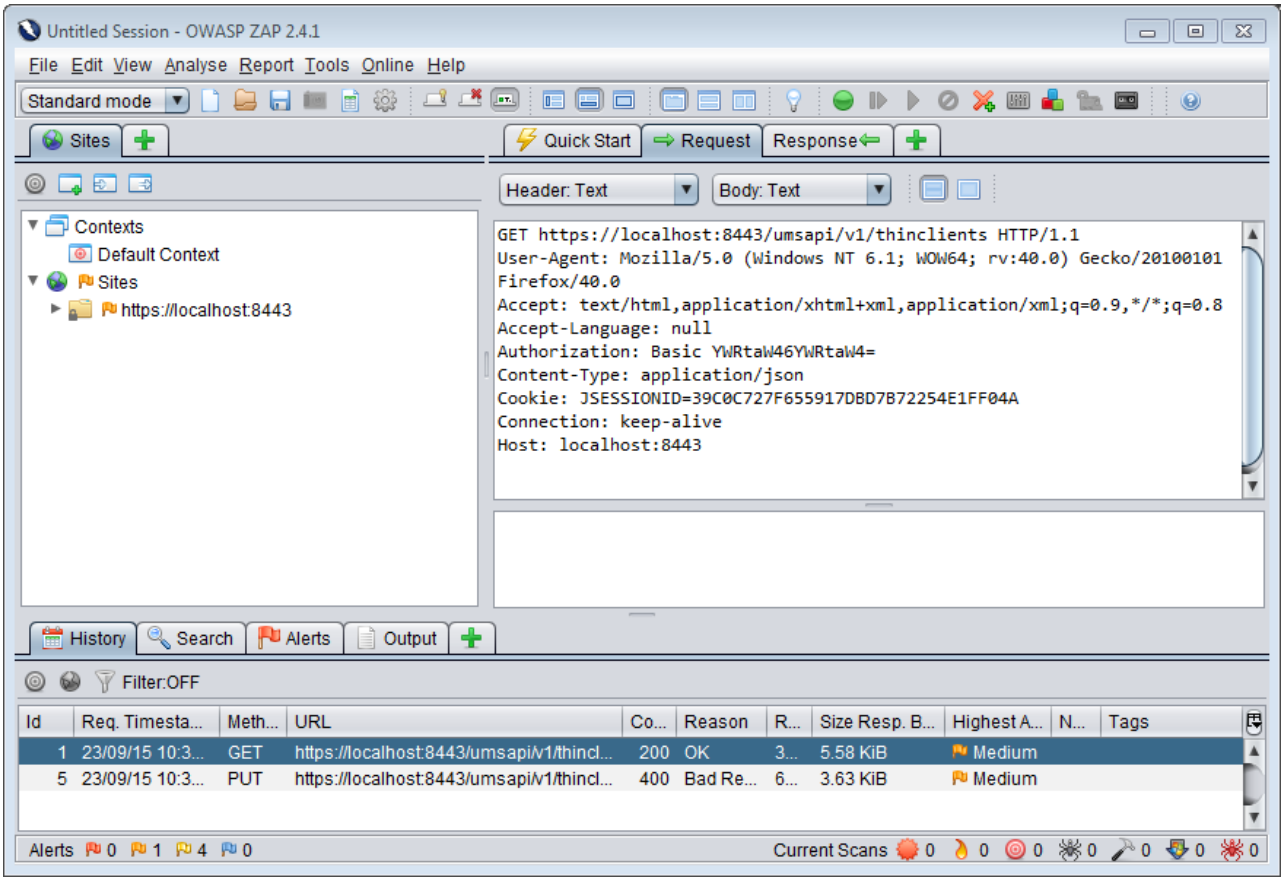
- the HTTP status in the response headers
- the messages and error codes in the response bodies.

## HTTP-Proxy

You may use an HTTP proxy in order to see what requests your scripts or programs produce. A proxy acts as a man-in-the-middle between client and IMI, letting you view and optionally edit requests.

An Open Source program for this task is OWASP ZAP[3].

> Use a proxy only for debugging your own HTTP requests. Viewing other users' network traffic is usually illegal.




3 https://www.owasp.org/index.php/OWASP_Zed_Attack_Proxy_Project

# Powershell

# Introduction

*IMI Cmdlets* is a collection of *Windows PowerShell* commandlets for use with the *IGEL Management Interface (IMI)*. The commandlets are installed as binary `*.dll` files and can be used in *PowerShell* scripts. They simplify frequent actions such as rebooting a thin client or assigning a profile via *IMI*, hiding the implementation details of the underlying REST API.

> Microsoft .NET version 4.5 or greater is required for IMI Cmdlets 1.04.100 for TLSv1.2

---

# Installation

## Prerequisites

- One of the following *Microsoft* operating systems:
  - *Windows 7*
  - *Windows Server 2008* or *2008 R2*
  - *Windows 8* or higher
  - *Windows Server 2012 or 2012 R2*
- *Windows Management Framework 4* (which already includes *PowerShell 4)*
- *Microsoft .Net Framework 4* or newer

> IGEL Management Interface (IMI) PowerShell Cmdlets 1.03.100 or lower do not support UMS 5.08.100 or higher.
> UMS 5.08.100 or higher uses TLS 1.2, which is supported as of PowerShell Cmdlets 1.04.100 only.

## Installing

1. Download the *IMI* Commandlets Installer from the download server[4].
2. Launch the installer.

   > You need administration privileges in order to install IMI Commandlets.

3. Close all other applications and confirm that you have done so.
4. Review and accept the **License Agreement**.
5. Select the destination location for the installation or leave the default.
6. Optional: Select a Start Menu folder for the program shortcuts.
7. Read the summary and start the installation process.
   The installer will install the IMI Commandlets and some sample scripts. The following shortcuts will be placed on the desktop:
   - **Starter-Interface**: A simple interactive terminal interface to *IMI*, suitable for new users
   - **IGEL-Shell**: A *Windows* PowerShell session with *IMI* Commandlets already loaded

   Additionally, the *IMI* Commandlets Readme file is displayed.

4 https://www.igel.com/software-downloads/

## Loading the IMI Cmdlets Snap-in

Before you can use IMI Cmdlets, you need to add the snap-in to your PowerShell session:

```
Add-PSSnapin *igel*
```

View all loaded IGEL Cmdlets:

```
Get-PSSnapin *igel*
```

## Authentication

IMI uses HTTP Basic Authentication with a username-password combination. IMI Cmdlets wrap authentication in the **Get-IgelRMServerLogin** cmdlet.

**Get-IgelRMServerLogin** logs in to IMI.

### Parameters

- **-Servername**
  Hostname of the of the UMS server with IMI
- **-Username**
  UMS user name
- **-ForceIMIVersion**
  Use a specific IMI version, `v1` or `v2.`
- **-IgnoreUntrustedCertificates**
  If this is set to `$true` the Cmdlets will ignore errors in TLS/SSL certificate validation.

The password is entered interactively.

### Example Command Line

Log in and save the credentials for the session in `$l`:

```
$l = Get-IgelRMServerLogin `

-Servername localhost `

-Username SPIELWIESE `

-IgnoreUntrustedCertificates $true `

-ForceIMIVersion v2
```

Supply the credentials to subsequent commands using
`-Credentials $l`

# Command Reference

## Thin Client

## Get-IgelTCInformation

Summary

Gets information on thin clients.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login.
- -**tcID**
  Numeric ID of the thin client. If omitted, information is retrieved on all thin clients, including those in the Recycling Bin.
- **-Details**
  Level of detail in the output, one of:
  - **full** Gets all data available from IMI, including the online status.
  - **inventory** Gets all data available from IMI, apart from the online status.
  - **online** Gets data in a short format, including the online status.

  If this parameter is omitted, only a short information format with the most important thin client properties is returned.

Example Command Line

```
Get-IgelTCInformation -Credentials $l
```

Example Output

```
mac : 000BCA050027
firmwareID : 45
lastIP : 172.30.91.237
id : 48335
name : UD2-D220
parentID : 76863
movedToBin : True
objectType : tc
```

```
mac : 005056934FDB
firmwareID : 28
lastIP : 172.30.91.9
id : 48366
name : westestx86
```

```
parentID : -1
movedToBin : False
objectType : tc

mac : 00E0C561EEED
firmwareID : 43
lastIP : 172.30.91.30
id : 72014
name : IGEL-8KJ2GQPL3N
parentID : 76863
movedToBin : False
objectType : tc
```

## Start-IgelTCs

Summary

Wakes up thin clients.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**tcID / -tcIDs**
  Numeric IDs of the thin clients to wake up

Example Command Line

```
Start-IgelTCs -Credentials $l -tcIDs 27
```

Example Output

```
execID exectime message state
------ -------- ------- -----
ID-PM-MH-WIN7-UMS-49242-14... 1460647127627 OK SUCCESS
```

## Stop-IgelTC

Summary

Shuts down thin clients.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**tcID / -tcIDs**
  Numeric IDs of the thin clients to shut down

Example Command Line

```
Stop-IgelTCs -Credentials $l -tcID 2010
```

Example Output

```
execID exectime message state
------ -------- ------- -----
ID-mhuber-50400-14605614057... 1460706641670 OK SUCCESS
```

## Restart-IgelTCs

Summary

Reboots thin clients.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**tcIDs**
  Numeric IDs of the thin clients to reboot

Example Command Line

```
Restart-IgelTCs -Credentials $l -tcIDs 2010,1435
```

Example Output

```
execID exectime message state
------ -------- ------- -----
ID-mhuber-50400-14605614057... 1460991770313 OK SUCCESS
ID-mhuber-50400-14605614057... 1460991770313 OK SUCCESS
```

## Move-IgelTCs

Summary

Moves a thin client to a thin client directory.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**tcIDs**
  Numeric ID of the thin client
- **-DirectoryID**
  Numeric ID of the target thin client directory

Example Command Line

```
Move-IgelTCs `
-Credentials $l `
-TCIDs 2010 `
-DirectoryID 3147
```

Example Output

```
id results
-- -------
2010 successful
```

## Update-IgelTCSettings

Summary

Sends settings from UMS to the thin client.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**tcID**
  Numeric ID of the thin client

Example Command Line

```
Update-IgelTCSettings -Credentials $l -tcID 2010
```

Example Output

```
execID : ID-mhuber-50400-1460561405782-16-0
id : 2010
mac : 000BCA050027
exectime : 1460708102541
message : OK
state : SUCCESS
```

## Profile

## Get-IgelTCProfile

Summary

Gets information about profiles.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile. If this is omitted, information is retrieved for all profiles

Example Command Line

```
Get-IgelTCProfile -Credentials $l -ProfileID 3150
```

Example Output

```
firmwareID : 3
isMasterProfile : False
overridesSessions : False
id : 3150
name : My Profile
parentID : -2
movedToBin : False
objectType : profile
```

## Rename-IgelTCProfile

Summary

Renames a profile.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile
- **-newProfileName**
  New profile name as string

Example Command Line

```
Rename-IgelTCProfile `
-Credentials $l `
-ProfileID 3150 `
-newProfileName "Updated Profile"
```

Example Output

```
message
-------
Update successful
```

## Get-IgelProfileAssignments

Summary

Gets profile assignments.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile
- **-ObjectType**
  Get assigments to a specific object type, one of:
  - **tc** thin client
  - **directory** thin client directory

Example Command Line

```
Get-IgelProfileAssignments `
-Credentials $l `
-ProfileID 3150 `
-ObjectType tc
```

Example Output

```
type id assignmentPosition
---- -- ------------------
tc 2010 0
```

## Set-IgelProfileAssignment

Summary

Creates a profile or master profile assignment.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile or master profile
- **-ProfileType**
  Profile type, one of:
  - **profile** profile
  - **masterprofile** master profile
- -**TargetID**
  Numeric ID of the target object which the profile or master profile will be assigned to
- **-TargetType**
  Assignments to a specific object type, one of:
  - **tc** thin client
  - **tcdirectory** thin client directory

Example Command Line

```
Set-IgelProfileAssignment `
-Credentials $l `
-ProfileID 3150 `
-ProfileType profile `
-TargetID 2010 `
-TargetType tc
```

Example Output

```
message
-------
1 asssignments successfully assigned
```

## Remove-IgelProfileAssignment

Summary

Deletes a profile or master profile assignment.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile or master profile
- **-ProfileType**
  Profile type, one of:
  - **profile** profile
  - **masterprofile** master profile
- -**TargetID**
  Numeric ID of the target object which the profile or master profile is assigned to
- **-TargetType**
  Assignments to a specific object type, one of:
  - **tc** thin client
  - **tcdirectory** thin client directory

Example Command Line

```
Remove-IgelProfileAssignment `
-Credentials $l `
-ProfileID 3151 `
-ProfileType profile `
-TargetType tcdirectory `
-TargetID 3201
```

Example Output

```
message
-------
deleted profile assignment
```

## Remove-IgelTCProfile

Summary

Deletes a profile.

> This does not move the profile to the Recycling Bin, but simply deletes it.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile

Example Command Line

```
Remove-IgelProfile -Credentials $l -ProfileID 3150
```

Example Output

```
message
-------
Deleted profile with id 3150
```

## Master Profile

## Get-IgelTCMasterprofile

Summary

Gets information about master profiles.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**MasterprofileID**
  Numeric ID of the master profile. If this is omitted, information is retrieved for all master profiles

Example Command Line

```
Get-IgelTCMasterprofile -Credentials $l -MasterprofileID 3152
```

Example Output

```
firmwareID : 3
isMasterProfile : True
overridesSessions : False
id : 3152
name : My Master Profile
parentID : -14
movedToBin : False
objectType : masterprofile
```

## Rename-IgelTCMasterprofile

Summary

Renames a master profile.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**MasterprofileID**
  Numeric ID of the master profile
- **-newMasterProfileName**
  New master profile name as string

Example Command Line

```
Rename-IgelTCMasterprofile `
-Credentials $l `
-MasterprofileID 3152 `
-newMasterProfileName "Renamed Master Profile"
```

Example Output

```
message
-------
Update successful
```

## Get-IgelMasterprofileAssignments

Summary

Gets master profile assignments.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**MasterprofileID**
  Numeric ID of the master profile
- **-ObjectType**
  Get assigments to a specific object type, one of:
  - **tc** thin client
  - **tcdirectory** thin client directory

Example Command Line

```
Get-IgelMasterprofileAssignments `
-Credentials $l `
-MasterprofileID 3152 `
-ObjectType tc
```

Example Output

```
type id assignmentPosition
---- -- ------------------
tc 2010 0
```

## Set-IgelProfileAssignment

Summary

Creates a profile or master profile assignment.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile or master profile
- **-ProfileType**
  Profile type, one of:
  - **profile** profile
  - **masterprofile** master profile
- -**TargetID**
  Numeric ID of the target object which the profile or master profile will be assigned to
- **-TargetType**
  Assignments to a specific object type, one of:
  - **tc** thin client
  - **tcdirectory** thin client directory

Example Command Line

```
Set-IgelProfileAssignment `
-Credentials $l `
-ProfileID 3150 `
-ProfileType profile `
-TargetID 2010 `
-TargetType tc
```

Example Output

```
message
-------
1 asssignments successfully assigned
```

## Remove-IgelProfileAssignment

Summary

Deletes a profile or master profile assignment.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile or master profile
- **-ProfileType**
  Profile type, one of:
  - **profile** profile
  - **masterprofile** master profile
- -**TargetID**
  Numeric ID of the target object which the profile or master profile is assigned to
- **-TargetType**
  Assignments to a specific object type, one of:
  - **tc** thin client
  - **tcdirectory** thin client directory

Example Command Line

```
Remove-IgelProfileAssignment `
-Credentials $l `
-ProfileID 3151 `
-ProfileType profile `
-TargetType tcdirectory `
-TargetID 3201
```

Example Output

```
message
-------
deleted profile assignment
```

## Remove-IgelMasterprofile

Summary

Deletes a master profile.

> This does not move the master profile to the Recycling Bin, but simply deletes it.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**MasterprofileID**
  Numeric ID of the master profile

Example Command Line

```
Remove-IgelMasterprofile -Credentials $l -MasterprofileID 3152
```

Example Output

```
message
-------
Deleted profile with id 3152
```

## Thin Client Directory

## Get-IgelTCDirectories

Summary

Gets information on thin client directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**DirectoryID**
  Numeric ID of the thin client directory. If omitted, information is retrieved on all thin client directories, including those in the Recycling Bin
- **-details**
  Amount of detail in the output:
  - **$true** The IDs of `DirectoryChildren` will be shown, which can be thin clients or thin client directories.

Example Command Line

```
Get-IgelTCDirectories -Credentials $l -details $true
```

Example Output

```
id : 3201
name : B Directory
parentID : -1
movedToBin : False
objectType : tcdirectory
DirectoryChildren : {3202, 1435}

id : 3202
name : Subdirectory
parentID : 3201
movedToBin : False
objectType : tcdirectory
DirectoryChildren : {}

id : 3147
name : A Directory
```

```
parentID : -1
movedToBin : False
objectType : tcdirectory
DirectoryChildren : {2010}
```

## Rename-IgelTCDirectory

Summary

Renames a thin client directory.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**directoryID**
  Numeric ID of the thin client directory
- **-newDirectoryName**
  New thin client directory name as string

Example Command Line

```
Rename-IgelTCDirectory `
-Credentials $l `
-directoryID 3206 `
-newDirectoryName "Renamed TC Directory"
```

Example Output

```
message
-------
Updated directory successfully.
```

## Set-IgelTCDirectory

Summary

Creates a new thin client directory.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryName**
  Name for the thin client directory
- -**directoryPosition**
  Parent directory for the new thin client directory. If omitted, it defaults to `-1`, which is the UMS directory **Thin Clients**.

Example Command Line

```
Set-IgelTCDirectory `
-Credentials $l `
-directoryName "Brand New Directory" `
-directoryPosition 3201
```

Example Output

```
message id name parentID
------- -- ---- --------
Directory successfully inse... 3206 Brand New Directory 3201
```

## Move-IgelTCDirectory

Summary

Moves one or more thin client directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryIDs**
  Numerical IDs of the thin client directories to be moved
- -**targetDirectory**
  The target directory to move the thin client directories into

Example Command Line

```
Move-IgelTCDirectory `
-Credentials $l `
-directoryIDs 3206 `
-targetDirectory
```

Example Output

```
id results
-- -------
3206 successful
```

## Set-IgelProfileAssignment

Summary

Creates a profile or master profile assignment.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**ProfileID**
  Numeric ID of the profile or master profile
- **-ProfileType**
  Profile type, one of:
  - **profile** profile
  - **masterprofile** master profile
- -**TargetID**
  Numeric ID of the target object which the profile or master profile will be assigned to
- **-TargetType**
  Assignments to a specific object type, one of:
  - **tc** thin client
  - **tcdirectory** thin client directory

Example Command Line

```
Set-IgelProfileAssignment `
-Credentials $l `
-ProfileID 3150 `
-ProfileType profile `
-TargetID 2010 `
-TargetType tc
```

Example Output

```
message
-------
1 asssignments successfully assigned
```

## Remove-IgelTCDirectory

Summary

Deletes a thin client directory.

> You can only delete empty thin client directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryID**
  Numerical ID of the thin client directory to be deleted

Example Command Line

```
Remove-IgelTCDirectory -Credentials $l -directoryID 3202
```

Example Output

```
message
-------
Deletion successful.
```

## Profile Directory

## Get-IgelProfileDirectory

Summary

Gets information on profile directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**DirectoryID**
  Numeric ID of the profile directory. If omitted, information is retrieved on all profile directories, including those in the Recycling Bin.

Example Command Line

```
Get-IgelProfileDirectory -Credentials $l -ProfileDirectoryID 3221
```

Example Output

```
id : 3221
name : Profiles 2
parentID : -2
movedToBin : False
objectType : profiledirectory
```

## Rename-IgelTCProfileDirectory

Summary

Renames a profile directory.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**directoryID**
  Numeric ID of the profile directory
- **-newDirectoryName**
  New profile directory name as string

Example Command Line

```
Rename-IGELTCProfileDirectory `
-Credentials $l `
-directoryID 3220 `
-newDirectoryName "My Renamed Directory"
```

Example Output

```
message
-------
Updated directory successfully.
```

## Move-IgelTCProfileDirectory

Summary

Moves one or more profile directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryIDs**
  Numerical IDs of the profile directories to be moved
- -**targetDirectory**
  The target directory to move the profiles directories into

Example Command Line

```
Move-IgelProfileDirectory `
-Credentials $l `
-directoryIDs 4024 `
-targetDirectory 3220
```

Example Output

```
id results
-- -------
4024 successful
```

## Set-IgelProfileDirectory

Summary

Creates a new profile directory.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryName**
  Name for the profile directory
- -**directoryPosition**
  Parent directory for the new profile directory. If omitted, it defaults to `-2`, which is the UMS directory **Profiles**.

Example Command Line

```
Set-IgelProfileDirectory `
-Credentials $l `
-directoryName "A New Directory" `
-directoryPosition -2
```

Example Output

```
message id name parentID
------- -- ---- --------
Directory successfully inse... 4030 A New Directory -2
```

## Remove-IgelProfileDirectory

Summary

Deletes a profile directory.

> You can only delete empty thin client directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryID**
  Numerical ID of the profile directory to be deleted

Example Command Line

```
Remove-IgelProfileDirectory -Credentials $l -ProfileDirectoryID 4024
```

Example Output

```
message
-------
Deletion successful.
```

## Master Profile Directory

## Get-IgelMasterprofileDirectory

Summary

Gets information on master profile directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**DirectoryID**
  Numeric ID of the master profile directory. If omitted, information is retrieved on all master profile directories, including those in the Recycling Bin

Example Command Line

```
Get-IgelMasterprofileDirectory -Credentials $l -MasterprofileDirectoryID 4034
```

Example Output

```
id : 4034
name : New Master Profiles
parentID : -14
movedToBin : False
objectType : masterprofiledirectory
```

## Rename-IgelTCMasterprofileDirectory

Summary

Renames a master profile directory.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**directoryID**
  Numeric ID of the master profile directory
- **-newDirectoryName**
  New master profile directory name as string

Example Command Line

```
Rename-IGELTCMasterProfileDirectory `
-Credentials $l `
-directoryID 4038 `
-newDirectoryName "Renamed Master Profiles"
```

Example Output

```
message
-------
Updated directory successfully.
```

## Move-IgelMasterprofileDirectory

Summary

Moves one or more master profile directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryIDs**
  Numerical IDs of the master profile directories to be moved
- -**targetDirectory**
  The target directory to move the master profiles directories into

Example Command Line

```
Move-IgelMasterprofileDirectory `
-Credentials $l `
-directoryIDs 4033 `
-targetDirectory 4034
```

Example Output

```
id results
-- -------
4033 successful
```

## Set-IgelMasterprofileDirectory

Summary

Creates a new master profile directory.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryName**
  Name for the master profile directory
- -**directoryPosition**
  Parent directory for the new master profile directory. If omitted, it defaults to `-14`, which is the UMS directory **Master Profiles.**

Example Command Line

```
Set-IgelMasterprofileDirectory -Credentials $l -directoryName "Brand New Directory"
```

Example Output

```
message id name parentID
------- -- ---- --------
Directory successfully inse... 4038 Brand New Directory -14
```

## Remove-IgelMasterprofileDirectory

Summary

Deletes a master profile directory.

> You can only delete empty directories.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- **-directoryID**
  Numerical ID of the master profile directory to be deleted

Example Command Line

```
Remove-IgelMasterprofileDirectory -Credentials $l -MasterprofileDirectoryID 403 3
```

Example Output

```
message
-------
Deletion successful.
```

## Firmware

- Get-IgelFirmware(see page 84)

## Get-IgelFirmware

Summary

Gets information on the firmwares registered with UMS.

Parameters

- -**Credentials**
  Credential data, usually passed via a variable which it has been saved to at login
- -**firmwareID**
  Numeric ID of the firmware. If omitted, information is retrieved on all firmwares.

Example Command Line

```
Get-IgelFirmware -Credentials $l -firmwareID 3
```

Example Output

```
id product version firmwareType
-- ------- ------- ------------
3 IGEL Universal Desktop LX 5.09.100.01 LX
```

## Server Status

- Get-IgelRMServerStatus(see page 86)

## Get-IgelRMServerStatus

Summary

Gets information on the UMS Server and IMI. No authentication is necessary for this.

Parameters

- **-Servername**
  Hostname of the UMS server with IMI
- **-IgnoreUntrustedCertificates**
  If this is set to `$true` the Cmdlets will ignore errors in TLS/SSL certificate validation.

Example Command Line

```
Get-IgelRMServerStatus -Servername 172.30.91.158 -IgnoreUntrustedCertificates $true
```

Example Output

```
buildNumber : 26712
rmGuiServerVersion : 5.02.100.rc8
activeMQVersion : 5.6.0
derbyVersion : 10.12.1.1
serverUUID : a400f9da-333d-49d8-bb8d-2238543a4643
server : mhuber:8443
```

# IMI API V2 Reference

This document describes the resources and methods made available by the *IGEL Management Interface API Version 2* in a reference format.

_____

## What's New in IMI V2?

- Profiles and Master Profiles(see page 104) are available as resources.
- The following Assignments(see page 97) can be made:
  - Profile -> Thin Client(see page 130)
  - Master Profile -> Thin Client(see page 172)
  - Profile -> Thin Client Directory(see page 158)
  - Master Profile -> Thin Client Directory(see page 177)
- Facets expose different views of objects and lists:
  - details(see page 120): Show detailed information
  - online(see page 123): Perform an online check on thin clients
  - command: Execute command (reboot, shutdown, wakeup(see page 138), update settings(see page 140)) on a thin client
  - shadow(see page 115): Get credentials for Secure VNC shadowing
  - children(see page 189): List directory children recursively
- Secure VNC Support(see page 115): IMIv2 can supply the client certificate and one-time-password needed for TLS-encrypted VNC shadowing to third-party software.
- New syntax for moving thin clients and directories(see page 195), profiles and profile directories(see page 216).

# Prerequisites

## IGEL Universal Management Suite (UMS)

UMS 5.02.100

## Networking

In order to use *IGEL Management Interface* you need to be able to reach the API host via the network and connect to its API port, TCP 8443 by default.

The base URL is

- `https://[server]:8443/umsapi/`

The resources for IMI version 2 are available at:

- `https://[server]:8443/umsapi/v2/`

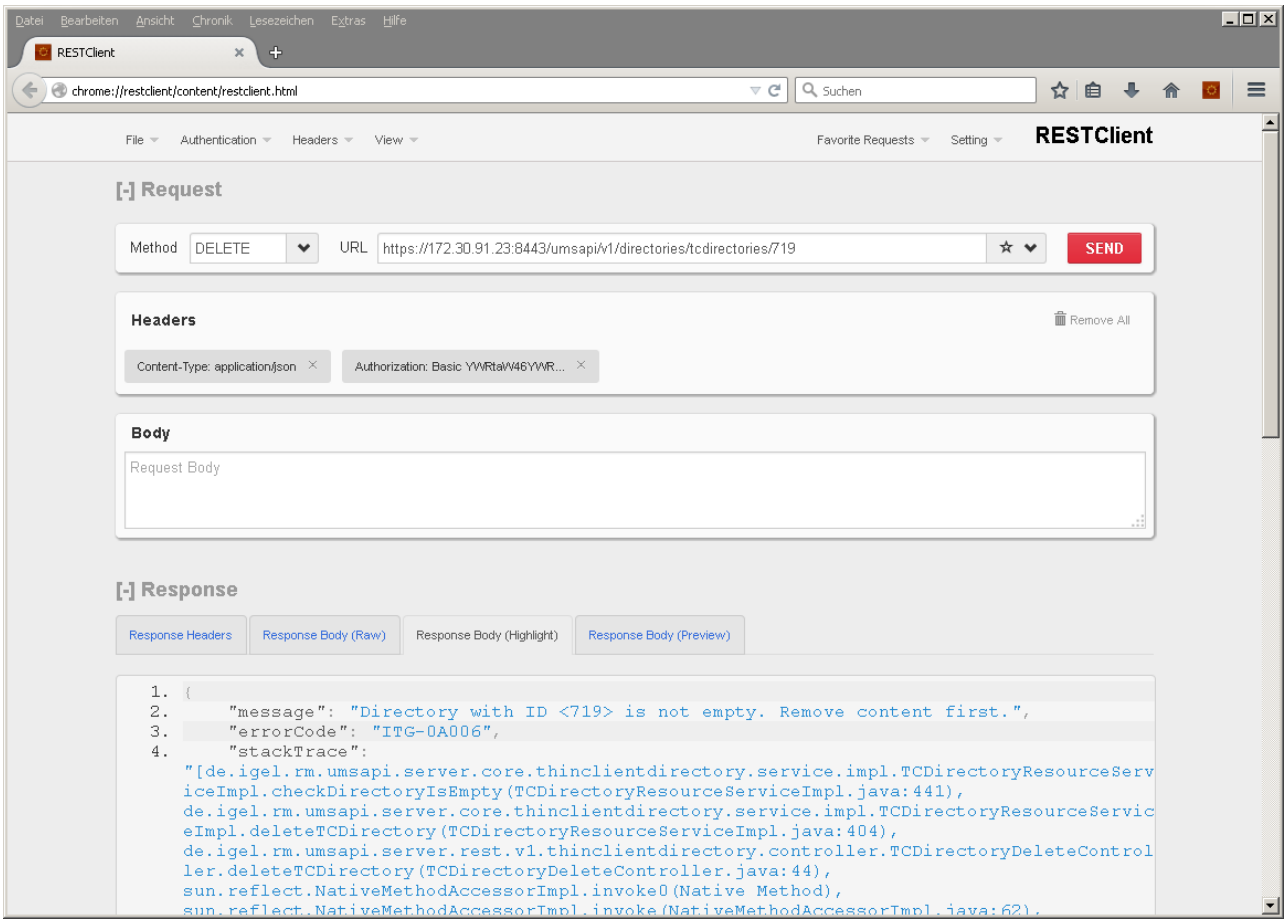
> *IMI* uses HTTPS to ensure the integrity and confidentiality of the network traffic. It is good practice to use a valid server certificate with a verifiable signature. Most clients and libraries can be configured to work with self-signed or invalid certificates, but that should not be done in a production environment.

# Client Applications and Libraries

## Clients

The easiest way to try out the *IGEL Management Interface* is either

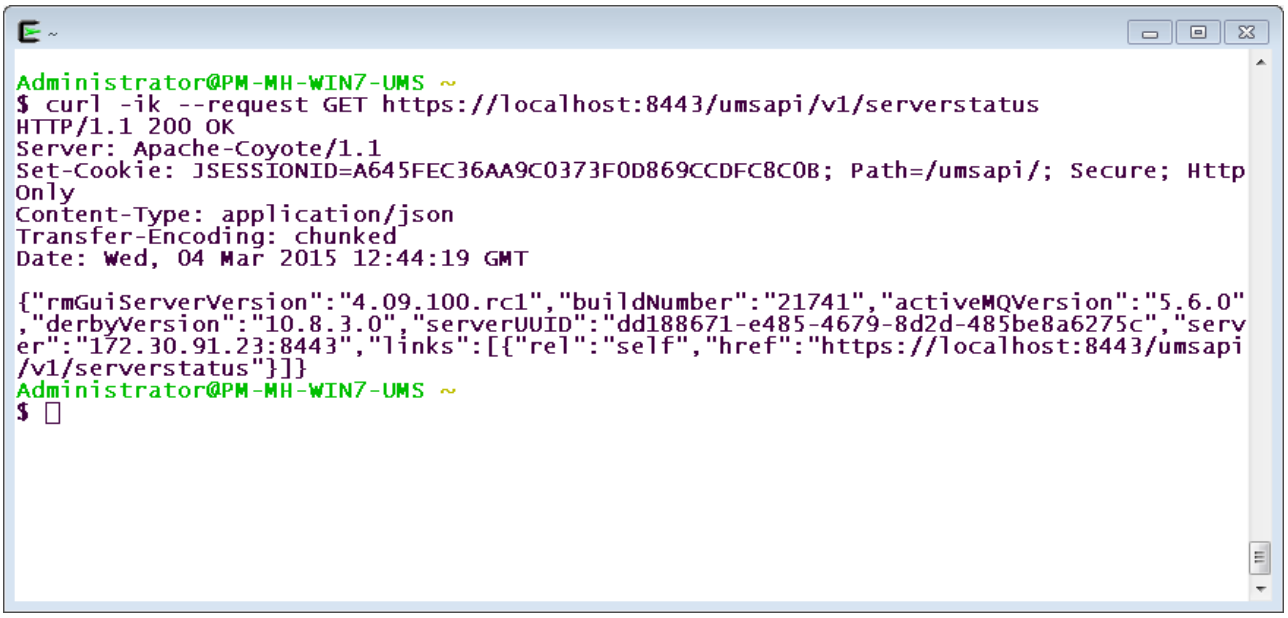
- with RESTClient[5], an add-on for *Mozilla Firefox:*




or

- with cURL[6], a commandline network client:

5 http://restclient.net/
6 http://curl.haxx.se/




Both are licensed as Open Source software and are available free of charge.

This guide uses *cURL* for examples, as the commandline makes all parameters visible in plain text. This need not stop you from using *RESTClient* if you are more comfortable with it. You can easily translate the commandline parameters into the fields of the *RESTClient* GUI.

## Programming

Most programming languages provide an HTTP and an SSL/TLS module, either in their standard library or as an extension, and a *JSON* library (for the API data format) as well.

## Authentication

You must be authenticated in order to use *IGEL Management Interface,* otherwise the server will return the HTTP status 401 "Unauthorized". Only querying the server status is allowed without authentication.

The login mechanism uses HTTP Basic Authentication (RFC 2617).

_____

# POST /v2/login

## Summary

Authenticates the client in regard to the *IMI* server.

## Resource URL

`/v2/login`

## Example Request

```
curl \
--request POST \
--user 'admin:W00t' \
https://[server]:8443/umsapi/v2/login
```

## Response Body

| name | type | description |
|---|---|---|
| `message` | String | String containing the JSESSIONID |

## Example Response

```
200 OK
Set-Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC; Path=/umsapi/; Secure; HttpOnly
---
{"message":"JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC"}
```

⚠ You can maintain the session by sending the JSESSIONID in the Cookie header with every subsequent request. Some clients will do this automatically for you, e.g. the *RESTClient Firefox* add-on.
`Cookie: JSESSIONID=3FB2F3F6A089FE9029DFD6DAFEF146DC`

# POST /v2/logout

## Summary

Logs the client out from the *IMI* session.

## Resource URL

`/v2/logout`

## Example Request

```
curl \
--request POST \
--header 'Cookie: JSESSIONID=11048CDA77DE2B45BE1562C8EED67858' \
https://[server]:8443/umsapi/v2/logout
```

## Example Response

`200 OK`

---

```
{"message":"Logout successful"}
```

## Basic Data Types

# ApiObject

## Summary

This object is the most basic representation of thin clients, profiles and directories. It is used in Assignments(see page 97).

## Properties

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | The object's ID in the UMS database |
| `type` | String | yes | One of:<br>• tc<br>• tcdirectory<br>• profile<br>• profiledirectory<br>• masterprofile<br>• masterprofiledirectory |

## Example

```
{
 "id": "68257",
 "type": "profile"
}
```

# Assignment

## Summary

An Assignment links ApiObjects(see page 96), e.g. profiles to thin clients, or profiles to thin client directories.

## Properties

| Name | Type | Mandatory | Description |
|---|---|---|---|
| assignee | ApiObject(see page 96) | yes | The ApiObject(see page 96) that is assigned |
| receiver | ApiObject(see page 96) | yes | The ApiObject(see page 96) that is assigned to |
| assignmentPosition | Integer | no | Position for the oder in which profiles are applied |
| links | Array | no | Links that make IMI discoverable for an HTTP spider |

## Example


```
[
 {
 "assignee": {
 "id": "68257",
 "type": "profile"
 },
 "receiver": {
 "id": "48335",
 "type": "tc"
 },
 "assignmentPosition": 0,
 "links": [
 {
 "rel": "assigned",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/68257"
```


```
  },
  {
  "rel": "receiver",
  "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/48335"
  },
  {
  "rel": "self",
  "href": "https://172.30.91.227:8443/umsapi/v2/profiles/68257/assignments/
thinclients/48335"
  }
  ]
  }
]
```

# MainDataResource

## Summary

This resource contains the properties common to most UMS objects such as thin clients, directories and profiles. It is their default representation in lists.

## Properties

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | no | Object ID in UMS |
| `name` | String | no | Object name |
| `parentID` | String | no | ID of parent object, usually a directory |
| `movedToBin` | Boolean | no | True if object is in the Recycling Bin |
| `objectType` | | no | One of:<br>• tc<br>• tcdirectory<br>• profile<br>• profiledirectory<br>• masterprofile<br>• masterprofiledirectory |
| `links` | Array | no | Links that make IMI discoverable for an HTTP spider |

# TCResourceV2

## Summary

This resource extends MainDataResource(see page 99) by properties specific to a thin client.

## Properties

| Name | Type | Mandatory | Description |
|---|---|---|---|
| id | String | no | Object ID in the UMS database |
| unitID | String | yes | Unique unit ID |
| name | String | no | Network name |
| parentID | String | no | Name of parent directory |
| movedToBin | Boolean | no | True if in Recycling Bin |
| objectType | | no | `tc` |
| links | Array | no | Links that make IMI discoverable for an HTTP spider |
| mac | String (12) | yes | MAC address |
| firmwareID | String | yes | Firmware ID |
| lastIP | String | no | Last known IP |

## With facets=details

| Name | Type | Mandatory | Description |
|---|---|---|---|
| site | String | no | Site |
| department | String | no | Department |
| costCenter | String | no | Cost center |
| comment | String | no | Comment |
| assetID | String | no | Asset ID |
| inserviceDate | String | no | Placed in service on |
| serialNumber | String | no | Serial Number |
| productId | String | no | Product ID |

| | | | |
|---|---|---|---|
| umsStructuralTag | String | no | Structure Tag |
| cpuSpeed | Integer | no | CPU speed (MHz) |
| cpuType | String | no | CPU type |
| deviceType | String | no | Device type |
| deviceSerialNumber | String | no | Device serial number |
| osType | String | no | Operating system type |
| flashSize | Integer | no | Flash size (MB) |
| memorySize | Integer | no | Memory size (MB) |
| networkSpeed | Integer | no | Network speed |
| duplexMode | String | no | Duplex mode |
| graphicsChipset0 | String | no | First Graphics chipset |
| graphicsMemorySize0 | Integer | no | First Graphics memory (MB) |
| graphicsChipset1 | String | no | Second Graphics chipset |
| graphicsMemorySize1 | Integer | no | Second Graphics memory (MB) |
| monitorVendor1 | String | no | First Monitor vendor |
| monitorModel1 | String | no | First Monitor model |
| monitorSerialnumber1 | String | no | First Monitor serial number |
| monitorSize1 | Number | no | First Monitor size |
| monitorNativeResolution1 | String | no | First Monitor native resolution |
| monitor1YearOfManufacture | String | no | First Monitor year of manufacture |
| monitor1WeekOfManufacture | String | no | First Monitor week of manufacture |
| monitorVendor2 | String | no | Second Monitor vendor |
| monitorModel2 | String | no | Second Monitor model |
| monitorSerialnumber2 | String | no | Second Monitor serial number |
| monitorSize2 | Number | no | Second Monitor size |
| monitorNativeResolution2 | String | no | Second Monitor native resolution |

| | | | |
|---|---|---|---|
| monitor2YearOfManufacture | String | no | Second Monitor year of manufacture |
| monitor2WeekOfManufacture | String | no | Second Monitor week of manufacture |
| biosVendor | String | no | BIOS vendor |
| biosVersion | String | no | BIOS version |
| biosDate | String | no | BIOS date |
| totalUsagetime | String | no | Total usage time |
| totalUptime | String | no | Total uptime |
| lastBoottime | String | no | Last boot time |

With facets=online

| | | | |
|---|---|---|---|
| online | Boolean | no | Online status |

With facets=shadow

| | | | |
|---|---|---|---|
| shadowSecret | String | no | Certificate and password for Secure VNC |

# DirectoryResourceV2

## Summary

This resource extends MainDataResource(see page 99) by properties specific to a directory.

## Properties

| Name | Type | Mandatory | Description |
|---|---|---|---|
| id | String | yes | Object ID in the UMS database |
| name | String | yes | Directory name |
| parentID | String | no | IDos parent directory |
| movedToBin | Boolean | no | True if in Recycling Bin |
| objectType | | no | One of:<br>• tcdirectory<br>• profiledirectory<br>• masterprofiledirectory |
| links | Array | no | Links that make IMI discoverable for an HTTP spider |

## With facets=children

| | | | |
|---|---|---|---|
| DirectoryChildren | Array | | Array of objects (thin clients, directories or profiles) contained in this directory |

# ProfileResource

## Summary

This resource extends MainDataResource(see page 99) by properties specific to a profile.

## Properties

| Name | Type | Mandatory | Description |
|---|---|---|---|
| id | String | yes | Object ID in the UMS database |
| name | String | no | (Master)profile name |
| parentID | String | no | ID of (Master)profile directory |
| movedToBin | Boolean | no | True if in Recycling Bin |
| objectType | | yes | One of:<br>• profile<br>• masterprofile |
| firmwareID | String | yes | Firmware ID |
| isMasterProfile | Boolean | no | True if master profile |
| overridesSessions | Boolean | no | True if profile overrides sessions |
| links | Array | no | Links that make IMI discoverable for an HTTP spider |

## Resources

## Thin Client

## GET /v2/thinclients

### Summary

Gets information on all thin clients registered with the UMS instance.

> ⚠ This method will also list thin clients that are located in the **Recycle Bin** ( `"movedToBin":"true"` ), but you will not be able to call methods on those clients.

### Resource URL

`/v2/thinclients` /

### Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients
```

### Response Type

Returns a list of thin client resources, in the MainDataResource(see page 99) view plus

- `unitID`
- `mac`
- `firmwareID`
- `lastIP`

### Example Response

```
[
 {
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "id": "27",
 "name": "Curry",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": [
```

```
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/latest/thinclients/27"
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/latest/firmwares/21"
 }
 ]
 },
 {
 "unitID": "DC9C5207694E",
 "mac": "DC9C5207694E",
 "firmwareID": "13",
 "lastIP": "172.30.91.24",
 "id": "6888",
 "name": "UD3 M340C_Board",
 "parentID": "15592",
 "movedToBin": false,
 "objectType": "tc",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/latest/thinclients/6888"
 },
 {
 "rel": "Parent",
 "href": "https://172.30.91.227:8443/umsapi/latest/directories/tcdirectories/
15592"
 },
```


```
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/latest/firmwares/13"
 }
 ]
 }
]
```

## GET /v2/thinclients?facets=details

Summary

Gets detailed information on all thin clients.

> ⚠ This method will also list thin clients that are located in the **Recycle Bin** ( `"movedToBin":"true"` ), but you will not be able to call methods on those clients.

Resource URL

`/v2/thinclients?facets=details`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients?facets=details
```

Response Type

Returns a list of thin client resources as TCResourceV2(see page 100) with full thin client details

Example Response


```
[
 {
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "networkName": "Curry",
 "site": "1. Stock",
 "department": "Product Management",
 "lastIP": "172.30.91.43",
 "costCenter": "",
 "comment": "",
 "assetID": "",
 "inserviceDate": "01.06.215",
 "serialNumber": "",
 "productId": "UD6-LX 51cps",
```

```
"umsStructuralTag": "",
"cpuSpeed": 2416,
"cpuType": "Intel(R) Celeron(R) CPU J1900 @ 1.99GHz",
"deviceType": "IGEL H830C",
"deviceSerialNumber": "14D3D3C03B14470B9EM",
"osType": "IGEL Linux V5 (Kernel Version 3.13.11-ckt20)",
"flashSize": 1883,
"memorySize": 1853,
"networkSpeed": 1000,
"graphicsChipset0": "INTEL HD Graphics (Baytrail)",
"graphicsChipset1": "",
"monitorVendor1": "Samsung Electric Company",
"monitorModel1": "S24C650",
"monitorSerialnumber1": "H4MG404381",
"monitorSize1": 24,
"monitorNativeResolution1": "1920 x 1200",
"monitor1YearOfManufacture": "2015",
"monitor1WeekOfManufacture": "17",
"monitorVendor2": "Samsung Electric Company",
"monitorModel2": "S24C650",
"monitorSerialnumber2": "H4MG404389",
"monitorSize2": 24,
"monitorNativeResolution2": "1920 x 1200",
"monitor2YearOfManufacture": "2015",
"monitor2WeekOfManufacture": "17",
"biosVendor": "INSYDE Corp.",
"biosVersion": "H830C V:3.5.13-11282014",
"biosDate": "11/28/2014",
"totalUsagetime": "5798368000",
"totalUptime": "18513000",
"lastBoottime": "2015-09-29 08:30",
"id": "27",
"name": "Curry",
"parentID": "-1",
```

```
"movedToBin": false,
"objectType": "tc",
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/latest/thinclients/27"
},
{
"rel": "Parent",
"href": "root"
},
{
"rel": "Firmware",
"href": "https://172.30.91.227:8443/umsapi/latest/firmwares/21"
}
]
},
{
"unitID": "DC9C5207694E",
"mac": "DC9C5207694E",
"firmwareID": "13",
"networkName": "IGEL-DC9C5207694E",
"lastIP": "172.30.91.24",
"productId": "UC1-LX cps",
"cpuSpeed": 1200,
[...]
```

## GET /v2/thinclients?facets=online

Summary

Gets the online status for all thin clients.

> ⚠ This method will also list thin clients that are located in the **Recycle Bin** ( `"movedToBin":"true"` ), but you will not be able to call methods on those clients.

> ⓘ When you send this request, UMS cannot answer it from data in the database alone, but makes a network connection to each thin client, which may take some time.

Resource URL

`/v2/thinclients?facets=online`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients?facets=online
```

Response Type

Returns a list of thin client resources in the MainDataResource(see page 99) view, but with the online status.

Example Response


```
[
 {
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "online": true,
 "id": "27",
 "name": "Curry
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
```

```
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/27"
},
{
"rel": "Parent",
"href": "root"
},
{
"rel": "Firmware",
"href": "https://172.30.91.227:8443/umsapi/v2/firmwares/21"
}
]
},
{
"unitID": "DC9C5207694E",
"mac": "DC9C5207694E",
"firmwareID": "13",
"lastIP": "172.30.91.24",
"online": false,
"id": "6888",
"name": "UD3 M340C_Board",
"parentID": "15592",
```

## GET /v2/thinclients?facets=shadow

### Summary

Gets the certificate and password for Secure VNC for all thin clients.

> This method will also list thin clients that are located in the **Recycle Bin** ( `"movedToBin":"true"` ), but you will not be able to call methods on those clients.

Learn more about shadowing from the How-To Using Secure VNC via IGEL Management Interface (IMI)(see page 245).

### Resource URL

`/v2/thinclients?facets=shadow`

### Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients?facets=shadow
```

### Response Type

Returns a list of thin client resources in the MainDataResource(see page 99) view, but with the shadowSecret object, consisting of the certificate and password fields.

### Example Response

```
[
 {
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "shadowSecret": {
 "certificate": "-----BEGIN CERTIFICATE-----
MIIB0TCCATqgAwIBAgIERmWx9zANBgkqhkiG9w0BAQQFADAtMQswCQYDVQQGEwJE
RTEPMA0GA1UEBxMGQnJlbWVuMQ0wCwYDVQQKEwRJR0VMMB4XDTE0MDEwMTAwMDAw
```

```
MVoXDTM3MDEwMTAwMDAwMVowLTELMAkGA1UEBhMCREUxDzANBgNVBAcTBkJyZW1l
bjENMAsGA1UEChMESUdFTDCBnzANBgkqhkiG9w0BAQEFAAOBjQAwgYkCgYEA4b5q
QhcxhUhWNdapMc9jKlQSCf0hSD4gBfzJncu2KryEHW0fCDXe44bhIYdICQ17/cIr
nE1ld4qylxnRouWUSJZkvC/+1fDqZRehPlpOnC3mjRUFotxSILOuO+0IQ+dluEw/
lIR6kaYQbnk+CnnduG513MskeyQ5LTFs2To8W+kCAwD/OTANBgkqhkiG9w0BAQQF
AAOBgQAlE+79ZLlY7cF/5IfJjihlBbXW2Dx67Qqs2SYwBvi31cr5fNm+qGh+7G4w
ayA0LXq2B4D6NyUsuN0JBxOC8aq8YxYvFQiD7vANVvk9cuXCeSB6d6cXlnS8IRI5
g7nAXacAPzrrORZPmFTW4R2wkJ6athrXCm+5fLyLuByRFhrh4Q==
-----END CERTIFICATE-----\n",
 "password": "371f0282-9f57-4135-b04e-68a84040ce07"
 },
 "id": "27",
 "name": "Curry",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/27"
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/21"
 }
 ]
 },
 {
 "unitID": "DC9C5207694E",
 "mac": "DC9C5207694E",
```

```
 "firmwareID": "13",
 "lastIP": "172.30.91.24",
 "shadowSecret": {
 "certificate": "-----BEGIN CERTIFICATE-----
MIIB0TCCATqgAwIBAgIEPCaQDzANBgkqhkiG9w0BAQQFADAtMQswCQYDVQQGEwJE
RTEPMA0GA1UEBxMGQnJlbWVuMQ0wCwYDVQQKEwRJR0VMMB4XDTEzMTIzMTIzMDAw
MVoXDTM2MTIzMTIzMDAwMVowLTELMAkGA1UEBhMCREUxDzANBgNVBAcTBkJyZW1l
bjENMAsGA1UEChMESUdFTDCBnzANBgkqhkiG9w0BAQEFAAOBjQAwgYkCgYEAwVAy
0cl0/+93LoUrmwzKK5X5HbzkZyGFEBR8KyBFpVPejxPNbTyDDK8PseEi47h4n6ci
PFK4p5CJVna0+WmQkHnc4t0gwXqalYCWsTnfZqBul1LspNkSGzC+1Svvl1gaLv4J
f1ydTwBc6Mtdoz2HYIxi/0o1FC+N/7oXZlSg9k0CAwD/OTANBgkqhkiG9w0BAQQF
AAOBgQBJymTiWFi/MS1UYLXktO+9ZnsLM9XUbJgM0kgm8DVxKhwL9Q9fLICaOBFO
uRlgBNGuFPvH3LO1GAI5AkL2atRhF1Rut4BLr6fRHxJDqkZEONJ1tJYFNBRZfdr6
u1mLGE/x26C2D4jITRgKHy28wEgbUo4kWGjja6wNzDWGXDXG5Q==
-----END CERTIFICATE-----\n",
 "password": "883f7c16-ae68-4a9a-a6aa-f6851326b2d0"
 },
 "id": "6888",
 "name": "UD3 M340C_Board",
 "parentID": "15592",
[...]
```

## GET /v2/thinclients/[id]

Summary

Gets information on the specified thin client.

Resource URL

`/v2/thinclients/[id]`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients/27
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Response Type

Returns a MainDataResource(see page 99) for the thin client plus

- `unitID`
- `mac`
- `firmwareID`
- `lastIP`

Example Response

```
{
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "id": "27",
 "name": "Curry",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
```

```
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/27"
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/21"
 }
 ]
}
```

## GET /v2/thinclients/[id]?facets=details

Summary

Gets detailed information on the specified thin client.

Resource URL

`/v2/thinclients/[id]?facets=details`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients/27?facets=details
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Response Type

Returns the detailed TCResourceV2(see page 100) for the thin client.

Example Response


```
{
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "networkName": "Curry",
 "site": "1. Stock",
 "department": "Product Management",
 "lastIP": "172.30.91.43",
 "costCenter": "",
 "comment": "",
 "assetID": "",
 "inserviceDate": "01.06.215",
 "serialNumber": "",
 "productId": "UD6-LX 51cps",
```

```
"umsStructuralTag": "",
"cpuSpeed": 2416,
"cpuType": "Intel(R) Celeron(R) CPU J1900 @ 1.99GHz",
"deviceType": "IGEL H830C",
"deviceSerialNumber": "14D3D3C03B14470B9EM",
"osType": "IGEL Linux V5 (Kernel Version 3.13.11-ckt20)",
"flashSize": 1883,
"memorySize": 1853,
"networkSpeed": 1000,
"graphicsChipset0": "INTEL HD Graphics (Baytrail)",
"graphicsChipset1": "",
"monitorVendor1": "Samsung Electric Company",
"monitorModel1": "S24C650",
"monitorSerialnumber1": "H4MG404381",
"monitorSize1": 24,
"monitorNativeResolution1": "1920 x 1200",
"monitor1YearOfManufacture": "2015",
"monitor1WeekOfManufacture": "17",
"monitorVendor2": "Samsung Electric Company",
"monitorModel2": "S24C650",
"monitorSerialnumber2": "H4MG404389",
"monitorSize2": 24,
"monitorNativeResolution2": "1920 x 1200",
"monitor2YearOfManufacture": "2015",
"monitor2WeekOfManufacture": "17",
"biosVendor": "INSYDE Corp.",
"biosVersion": "H830C V:3.5.13-11282014",
"biosDate": "11/28/2014",
"totalUsagetime": "5798368000",
"totalUptime": "18513000",
"lastBoottime": "2015-09-29 08:30",
"id": "27",
"name": "Curry",
"parentID": "-1",
```

```
 "movedToBin": false,
 "objectType": "tc",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/27"
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/21"
 }
 ]
}
```

## GET /v2/thinclients/[id]?facets=online

Summary

Gets the online status for the specified thin client.

> When you send this request, UMS cannot answer it from data in the database alone, but makes a network connection to the thin client, which may take some time.

Resource URL

`/v2/thinclients/[id]?facets=online`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients/27?facets=online
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Response Type

Returns the MainDataResource(see page 99) for the thin client, but with the online status.

Example Response

```
{
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "online": false,
 "id": "27",
 "name": "Curry",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
```

```
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/27"
},
{
"rel": "Parent",
"href": "root"
},
{
"rel": "Firmware",
"href": "https://172.30.91.227:8443/umsapi/v2/firmwares/21"
}
]
}
```

## GET /v2/thinclients/[id]?facets=shadow

### Summary

Gets the certificate and password for Secure VNC for the specified thin client.

Learn more about shadowing from the Best Practice document Using Secure VNC via IGEL Management Interface (IMI)(see page 245).

### Resource URL

```
/v2/thinclients/[id]?facets=shadow
```

### Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients/27?facets=shadow
```

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

### Response Type

Returns the MainDataResource(see page 99) for the specified thin client, but with the shadowSecret object, consisting of the certificate and password fields.

### Example Response

```
{
 "unitID": "00E0C54DCB8E",
 "mac": "00E0C54DCB8E",
 "firmwareID": "21",
 "lastIP": "172.30.91.43",
 "shadowSecret": {
 "certificate": "-----BEGIN CERTIFICATE-----
MIIB0TCCATqgAwIBAgIERmWx9zANBgkqhkiG9w0BAQQFADAtMQswCQYDVQQGEwJE
RTEPMA0GA1UEBxMGQnJlbWVuMQ0wCwYDVQQKEwRJR0VMMB4XDTE0MDEwMTAwMDAw
MVoXDTM3MDEwMTAwMDAwMVowLTELMAkGA1UEBhMCREUxDzANBgNVBAcTBkJyZW1l
bjENMAsGA1UEChMESUdFTDCBnzANBgkqhkiG9w0BAQEFAAOBjQAwgYkCgYEA4b5q
QhcxhUhWNdapMc9jKlQSCf0hSD4gBfzJncu2KryEHW0fCDXe44bhIYdICQ17/cIr
nE1ld4qylxnRouWUSJZkvC/+1fDqZRehPlpOnC3mjRUFotxSILOuO+0IQ+dluEw/
```

```
lIR6kaYQbnk+CnnduG513MskeyQ5LTFs2To8W+kCAwD/OTANBgkqhkiG9w0BAQQF
AAOBgQAlE+79ZLlY7cF/5IfJjihlBbXW2Dx67Qqs2SYwBvi31cr5fNm+qGh+7G4w
ayA0LXq2B4D6NyUsuN0JBxOC8aq8YxYvFQiD7vANVvk9cuXCeSB6d6cXlnS8IRI5
g7nAXacAPzrrORZPmFTW4R2wkJ6athrXCm+5fLyLuByRFhrh4Q==
-----END CERTIFICATE-----\n",
 "password": "464abcbd-1399-47d0-b011-eba2e67a72b0"
 },
 "id": "27",
 "name": "Curry",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/27"
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/21"
 }
 ]
}
```

## GET /v2/thinclients/[id]/assignments/profiles

Summary

Gets the profile and master profile assignments for the specified thin cient, in order of their application.

Resource URL

`/v2/thinclients/[id]/assignments/profiles`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/thinclients/48335/assignments/profiles
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Response Type

Returns a list of Profile and Master Profile Assignments(see page 97).

Example Response


```
[
{
"assignee": {
"id": "68257",
"type": "profile"
},
"receiver": {
"id": "48335",
"type": "tc"
},
"assignmentPosition": 0,
"links": [
{
"rel": "assigned",
```

"href": "https://172.30.91.227:8443/umsapi/v2/profiles/68257"
},
{
"rel": "receiver",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/48335"
},
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/profiles/68257/assignments/thinclients/48335"
}
]
},
{
"assignee": {
"id": "72063",
"type": "masterprofile"
},
"receiver": {
"id": "48335",
"type": "tc"
},
"assignmentPosition": 1,
"links": [
{
"rel": "assigned",
"href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72063"
},
{
"rel": "receiver",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/48335"
},
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72063/assignments/thinclients/48335"

}
]
}
]

## PUT /v2/thinclients/[id]/assignments/profiles

Summary

Creates Profile and Master Profile Assignments for the specified Thin Client.

Resource URL

`/v2/thinclients/[id]/assignments/profiles`

Example Request

```
curl \
--request PUT \
--data '[{ "assignee": {
 "id": "68257",
 "type": "profile"
 },
 "receiver": {
 "id": "48335",
 "type": "tc"}
 }]' \
https://[server]:8443/umsapi/v2/thinclients/48335/assignments/profiles
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Request Body

A list of Profile and Master Profile Assignments(see page 97).

Example Response

```
{
 "message": "1 asssignments successfully assigned to thinclient <48335>"
}
```

## PUT /v2/thinclients

Summary

Creates a new thin client resource.

Resource URL

`/v2/thinclients`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"mac":"00E0C53C3881", \
"firmwareID":"2"}' \
https://[server]:8443/umsapi/v2/thinclients/
```

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `mac` | String (12) | yes | thin client MAC adress |
| `firmwareID` | String | yes | firmware ID |
| `name` | String | no | thin client name |
| `parentID` | String | no | ID of parent directory |
| `site` | String | no | thin client site |
| `department` | String | no | department |
| `costCenter` | String | no | cost center |
| `lastIP` | String | no | last known IP of thin client |
| `comment` | String | no | comment field |
| `assetID` | String | no | asset ID |
| `inserviceDate` | String | no | |
| `serialNumber` | String | no | serial number of thin client |

Response Body

| Name | Type | Description |
|---|---|---|
| `message` | String | success or error message |
| `id` | String | thin client ID |
| `parentID` | String | ID of parent directory |
| `name` | String | thin client name |

Example Response

```
{
 "message": "Thin client successfully inserted.",
 "id": "7735",
 "name": "My Name",
 "parentID": "-1"
}
```

## PUT /v2/thinclients/[id]

Summary

Updates properties of the specified thin client

Resource URL

`/v2/thinclients/[id]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"reception thin client", \
"site":"main campus"}' \
https://[server]:8443/umsapi/v1/thinclients/123
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | no | thin client name |
| `site` | String | no | site of operation |
| `department` | String | no | department |
| `costCenter` | String | no | cost center |
| `lastIP` | String | no | last known IP of thin client |
| `comment` | String | no | comment field |
| `assetID` | String | no | asset ID |
| `inserviceDate` | String | no | |
| `serialNumber` | String | no | serial number of thin client |

Response Type

Returns a success message.

Example Response

```
{
 "message": "Update successful"
}
```

## DELETE /v2/thinclients/[id]

Summary

Deletes a thin client.

> This does not move the thin client into the **Recycle Bin** but simply deletes it.

Resource URL

`/v2/thinclients/[id]`

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v2/thinclients/2704
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Response Type

Returns a message.

Example Response

```
200 OK
---
{
 "CommandExecList": [
 {
 "execID": "ID-PM-MH-WIN7-UMS-63885-1424682219085-5-0",
 "mac": "008064AD82FB",
 "message": "OK",
 "exectime": 1424698605821,
 "state": "SUCCESS"
 }
 ]
```

```
}
```

## DELETE /v1/thinclients/deletetcoffline/[id]

Summary

Deletes a thin client even if it is offline.

> This does not move the thin client into the **Recycle Bin** but simply deletes it.

Resource URL

`/v2/thinclients/[id]/deletetcoffline`

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v2/thinclients/2704/deletetcoffline
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | thin client ID |

Response Type

Returns a message.

Example Response

```
200 OK
---
 {
 "message": "Offline deletion successful"
 }
```

## POST /v2/thinclients?command={reboot|shutdown|wakeup}

### Summary

Sends a command to all thin clients listed in the request body.

### Resource URL

`/v2/thinclients/?command={reboot|shutdown|wakeup}`

### Example Request

```
curl \
--request POST \
--data '[{"id":"27", "type":"tc"},{"id":"72014", "type":"tc"}]'
https://[server]:8443/umsapi/v2/thinclients?command=wakeup
```

### Request Body

A list of APIObjects(see page 96).

### Example Response


```
{
 "CommandExecList": [
 {
 "execID": "ID-PM-MH-WIN7-UMS-54530-1456839861871-5-0",
 "id": "72014",
 "mac": "00E0C561EEED",
 "exectime": "1456845240566",
 "message": "OK",
 "state": "SUCCESS"
 },
 {
 "execID": "ID-PM-MH-WIN7-UMS-54530-1456839861871-5-0",
 "id": "27",
 "mac": "00E0C54DCB8E",
 "exectime": "1456845240560",
 "message": "OK",
 "state": "SUCCESS"
```

```
  }
  ]
}
```

## POST /v2/thinclients?command=settings2tc

### Summary

Sends settings modified in the UMS database to all thin clients listed in the request body immediately.

### Resource URL

`/v2/thinclients/?command=settings2tc`

### Example Request

```
curl \
--request POST \
--data '[{"id":"27", "type":"tc"},{"id":"72014", "type":"tc"}]'
https://[server]:8443/umsapi/v2/thinclients?command=settings2tc
```

### Request Body

A list of APIObjects(see page 96).

### Example Response


```
{
 "CommandExecList": [
 {
 "execID": "ID-PM-MH-WIN7-UMS-54530-1456839861871-5-0",
 "id": "72014",
 "mac": "00E0C561EEED",
 "exectime": "1456845240566",
 "message": "OK",
 "state": "SUCCESS"
 },
 {
 "execID": "ID-PM-MH-WIN7-UMS-54530-1456839861871-5-0",
 "id": "27",
 "mac": "00E0C54DCB8E",
 "exectime": "1456845240560",
 "message": "OK",
 "state": "SUCCESS"
```

```
  }
  ]
}
```

## Profile

## GET /v2/profiles

Summary

Gets information on all profiles on the UMS instance.

> This method will also list profiles that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/profiles` /

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/profiles
```

Response Type

Returns a list of profiles.

Example Response


```
[
 {
 "firmwareID": "2",
 "isMasterProfile": false,
 "overridesSessions": false,
 "id": "6585",
 "name": "Benchmark intern",
 "parentID": "20453",
 "movedToBin": false,
 "objectType": "profile",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/6585"
 },
```

```
 {
 "rel": "Parent",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/20453"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/2"
 }
 ]
 },
 {
 "firmwareID": "2",
 "isMasterProfile": false,
 "overridesSessions": false,
 "id": "6592",
 "name": "Benchmark extern",
 "parentID": "20453",
 "movedToBin": true,
 "objectType": "profile",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/6592"
 },
 {
 "rel": "Parent",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/20453"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/2"
 }
 ]
```

```
  },
  [...]
]
```

## GET /v2/profiles/[profileid]

Summary

Gets information on the specified profile.

Resource URL

`/v2/profiles/[profileid]`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/profiles/6585
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | profile ID |

Response Type

Returns a profile.

Example Response


```
{
 "firmwareID": "2",
 "isMasterProfile": false,
 "overridesSessions": false,
 "id": "6585",
 "name": "Benchmark intern",
 "parentID": "20453",
 "movedToBin": false,
 "objectType": "profile",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/6585"
```

```
  },
  {
  "rel": "Parent",
  "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
20453"
  },
  {
  "rel": "Firmware",
  "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/2"
  }
  ]
}
```

## PUT /v2/profiles/[profileid]

Summary

Updates a profile name.

Resource URL

`/v2/profiles/[profileid]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Profile Name"}' \
https://[server]:8443/umsapi/v2/profiles/6585
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | profile ID |

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | no | profile name |

Response Type

Returns a success message.

Example Response

```
{
"message": "Update successful"
}
```

## DELETE /v2/profiles/[profileid]

Summary

Deletes profile.

> This does not move the master profile into the **Recycle Bin** but simply deletes it.

Resource URL

`/v2/profiles/[profileid]`

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v2/profiles/72372
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | profile ID |

Response Type

Returns a message.

Example Response

```
{
 "message": "Deleted profile with id 72372"
}
```

## GET /v2/profiles/[profileid]/assignments/thinclients

Summary

Gets the thin clients the profile is assigned to.

Resource URL

`/v2/profile/[profileid]/assignments/thinclients`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/profiles/20467/assignments/thinclients
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | profile ID |

Response Type

Returns a list of assignments(see page 97).

Example Response

```
[
 {
 "assignee": {
 "id": "20467",
 "type": "profile"
 },
 "receiver": {
 "id": "23028",
 "type": "tc"
 },
 "assignmentPosition": 0,
 "links": [
 {
 "rel": "assigned",
```

```
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20467"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/23028"
 },
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20467/assignments/
thinclients/23028"
 }
 ]
 },
 {
 "assignee": {
 "id": "20467",
 "type": "profile"
 },
 "receiver": {
 "id": "48335",
 "type": "tc"
 },
 "assignmentPosition": 1,
 "links": [
 {
 "rel": "assigned",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20467"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/48335"
 },
 {
 "rel": "self",
```


```
  "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20467/assignments/
thinclients/48335"
  }
  ]
  }
]
```

## PUT /v2/profiles/[profileid]/assignments/thinclients/

Summary

Assigns a profile to one or more thin clients.

Resource URL

`/v2/profiles/[profileid]/assignments/thinclients/`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data ' [{ "assignee": {
 "id": "20452",
 "type": "profile"
 },
 "receiver": {
 "id": "23028",
 "type": "tc"}
 }]' \
https://[server]:8443/umsapi/v2/profiles/20452/assignments/thinclients/
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |

Request Body

A list of Assignments(see page 97)

Response Type

Returns a success message.

Example Response

```
{
 "message": "1 asssignments successfully assigned to thinclient <23028>"
```

```
}
```

## DELETE /v2/profiles/[profileid]/assignments/thinclients/[id]

Summary

Deletes assignment of the specified profile to the specified thin cient.

Resource URL

`/v2/profiles/[profileid]/assignments/thinclients/[id]`

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v2/profiles/68257/assignments/thinclients/48335
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | profile ID |
| `id` | String | yes | thin client ID |

Response Type

Returns a message.

Example Response

```
200 OK
---
{
 "message": "deleted profile assignment"
}
```

## GET /v2/profiles/[profileid]/assignments/tcdirectories

Summary

Gets the thin clients the profile is assigned to.

Resource URL

`/v2/profile/[profileid]/assignments/thinclients`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/profiles/35549/assignments/tcdirectories/76462
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | profile ID |

Response Type

Returns a list of assignments(see page 97).

Example Response

```
[
 {
 "assignee": {
 "id": "35549",
 "type": "profile"
 },
 "receiver": {
 "id": "76462",
 "type": "tcdirectory"
 },
 "assignmentPosition": 0,
 "links": [
 {
 "rel": "assigned",
```

```
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/35549"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/76462"
 },
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/35549/assignments/
tcdirectories/76462"
 }
 ]
 }
]
```

## PUT /v2/profiles/[profileid]/assignments/tcdirectories

Summary

Assigns a profile to one or more thin client directories.

Resource URL

`/v2/profiles/[profileid]/assignments/tcdirectories/`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data ' [{ "assignee": {
 "id": "35549",
 "type": "profile"
 },
 "receiver": {
 "id": "76462",
 "type": "tcdirectory"}
 }]' \
https://[server]:8443/umsapi/v2/profiles/35549/assignments/tcdirectories/
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |

Request Body

A list of Assignments(see page 97)

Response Type

Returns a success message.

Example Response

```
{
```


```
 "message": "1 asssignments successfully assigned to thinclient directory
<35549>"
}
```

## DELETE /v2/profiles/[profileid]/assignments/tcdirectories/[id]

Summary

Deletes assignment of the specified profile to the specified thin cient directory.

Resource URL

`/v2/profiles/[profileid]/assignments/tcdirectory/[id]`

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v2/profiles/35549/assignments/tcdirectories/76462
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | profile ID |
| `id` | String | yes | thin client directory ID |

Response Type

Returns a message.

Example Response

```
200 OK
---
{
 "message": "deleted profile assignment"
}
```

## Master Profile

## GET /v2/masterprofiles

Summary

Gets information on all master profiles on the UMS instance.

> This method will also list master profiles that are located in the **Recycle Bin** ( `"movedToBin":"true"` ) .

Resource URL

`/v2/masterprofiles` /

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/masterprofiles
```

Response Type

Returns a list of profiles.

Example Response

```
[
 {
 "firmwareID": "32",
 "isMasterProfile": true,
 "overridesSessions": false,
 "id": "72054",
 "name": "Company Master Profile",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofile",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72054"
```

```
},
{
"rel": "Parent",
"href": "root"
},
{
"rel": "Firmware",
"href": "https://172.30.91.227:8443/umsapi/v2/firmwares/32"
}
]
},
{
"firmwareID": "23",
"isMasterProfile": true,
"overridesSessions": false,
"id": "72055",
"name": "Spcieal Master Profile",
"parentID": "-14",
"movedToBin": false,
"objectType": "masterprofile",
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72055"
},
{
"rel": "Parent",
"href": "root"
},
{
"rel": "Firmware",
"href": "https://172.30.91.227:8443/umsapi/v2/firmwares/23"
}
]
```

```
  }
]
```

## GET /v2/masterprofiles/[profileidid]

Summary

Gets information on the specified master profile.

Resource URL

`/v2/masterprofiles/[profileid]`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/profiles/72054
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |

Response Type

Returns a master profile.

Example Response

```
{
 "firmwareID": "32",
 "isMasterProfile": true,
 "overridesSessions": false,
 "id": "72054",
 "name": "Company Master Profile",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofile",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72054"
```

```
 },
 {
 "rel": "Parent",
 "href": "root"
 },
 {
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/32"
 }
 ]
}
```

## PUT /v2/masterprofile/[id]

Summary

Updates a master profile name.

Resource URL

`/v2/masterprofiles/[profileid]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Master Profile Name"}' \
https://[server]:8443/umsapi/v2/masterprofiles/6585
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | no | master profile name |

Response Type

Returns a success message.

Example Response

```
{
"message": "Update successful"
}
```

## DELETE /v2/masterprofiles/[profileid]

Summary

Deletes a master profile.

> This does not move the master profile into the **Recycle Bin** but simply deletes it.

Resource URL

`/v2/masterprofiles/[profileid]`

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v2/masterprofiles/72303
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | master profile ID |

Response Type

Returns a message.

Example Response

```
{
 "message": "Deleted profile with id 72303"
}
```

## GET /v2/masterprofiles/[profileid]/assignments/thinclients

Summary

Gets the thin clients the master profile is assigned.to.

Resource URL

`/v2/masterprofiles/[profileid]/assignments/thinclients`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/masterprofiles/72308/assignments/thinclients
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | profile ID |

Response Type

Returns a list of assignments(see page 97).

Example Response

```
[
 {
 "assignee": {
 "id": "72308",
 "type": "masterprofile"
 },
 "receiver": {
 "id": "48335",
 "type": "tc"
 },
 "assignmentPosition": 0,
 "links": [
 {
 "rel": "assigned",
```

```
 "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72308"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/48335"
 },
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72308/
assignments/thinclients/48335"
 }
 ]
 },
 {
 "assignee": {
 "id": "72308",
 "type": "masterprofile"
 },
 "receiver": {
 "id": "72014",
 "type": "tc"
 },
 "assignmentPosition": 1,
 "links": [
 {
 "rel": "assigned",
 "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72308"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/72014"
 },
 {
 "rel": "self",
```

```
  "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72308/
assignments/thinclients/72014"
  }
  ]
  }
]
```

## PUT /v2/masterprofiles/[profileid]/assignments/thinclients/

Summary

Assigns a master profile to one or more thin clients.

Resource URL

`/v2/masterprofiles/[profileid/assignments/thinclients/]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data ' [{ "assignee": {
 "id": "72066",
 "type": "masterprofile"
 },
 "receiver": {
 "id": "48335",
 "type": "tc"}
 }]' \
https://[server]:8443/umsapi/v2/masterprofiles/72066/assignments/thinclients/
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |

Request Body

A list of Assignments(see page 97)

Response Type

Returns a success message.

Example Response

```
{
 "message": "1 asssignments successfully assigned to thinclient <48335>"
```

```
}
```

## DELETE /v2/masterprofiles/[profileid]/assignments/thinclients/[id]

Summary

Deletes assignment of the specified master profile to the specified thin client.

Resource URL

`/v2/masterprofiles/[profileid]/assignments/thinclients/[id]`

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v2/masterprofiles/68257/assignments/thinclients/48335
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |
| `id` | String | yes | thin client ID |

Response Type

Returns a message.

Example Response

```
200 OK
---
{
 "message": "deleted profile assignment"
}
```

## GET /v2/masterprofiles/[profileid]/assignments/tcdirectories

Summary

Gets the thin client directories the master profile is assigned.to.

Resource URL

`/v2/masterprofiles/[profileid]/assignments/tcdirectories`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/masterprofiles/72098/assignments/tcdirectories
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | Master profile ID |

Response Type

Returns a list of assignments(see page 97).

Example Response

```
[
 {
 "assignee": {
 "id": "72098",
 "type": "masterprofile"
 },
 "receiver": {
 "id": "76462",
 "type": "tcdirectory"
 },
 "assignmentPosition": 0,
 "links": [
 {
 "rel": "assigned",
```

```
  "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72098"
  },
  {
  "rel": "receiver",
  "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/76462"
  },
  {
  "rel": "self",
  "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72098/
assignments/tcdirectories/76462"
  }
  ]
  }
]
```

## PUT /v2/masterprofiles/[profileid]/assignments/tcdirectories/

Summary

Assigns a master profile to one or more thin client directory.

Resource URL

`/v2/masterprofiles/[profileid/assignments/tcdirectories/]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data ' [{ "assignee": {
 "id": "72098",
 "type": "masterprofile"
 },
 "receiver": {
 "id": "76462",
 "type": "tcdirectory"}
 }]' \
https://[server]:8443/umsapi/v2/masterprofiles/72066/assignments/thinclients/
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |

Request Body

A list of Assignments(see page 97)

Response Type

Returns a success message.

Example Response

```
{
```


```
 "message": "1 asssignments successfully assigned to thinclient directory
<72098>"
}
```

## DELETE /v2/masterprofiles/[profileid]/assignments/tcdirectories/[id]

Summary

Deletes assignment of the specified master profile to the specified thin client directory.

Resource URL

`/v2/masterprofiles/[profileid]/assignments/tcdirectory/[id]`

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v2/masterprofiles/72098/assignments/tcdirectories/76462
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `profileid` | String | yes | master profile ID |
| `id` | String | yes | thin client directory ID |

Response Type

Returns a message.

Example Response

```
200 OK
---
{
 "message": "deleted profile assignment"
}
```

## Thin Client Directory

## GET /v2/directories/tcdirectories

Summary

Gets information on all Thin Client Directories in a flat format.

> This method will also list directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/director` ies/tcdirectories

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/tcdirectories
```

Response Type

Returns a list of Directories(see page 103).

Example Response


```
[
 {
 "id": "50705",
 "name": "New",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tcdirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/50705"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
```

```
 ]
 },
 {
 "id": "15592",
 "name": "Pool",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tcdirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/15592"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 }
]
```

## GET /v2/directories/tcdirectories?facets=children

Summary

Gets information on all Thin Client Directories, recursively listing their children.

> This method will also list directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/director` ies/tcdirectories?facets=children

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/tcdirectories/facets=children
```

Response Type

Returns a list of Directories(see page 103), with their DirectoryChildren fields containing other objects.

Example Response

```
[
 {
 "id": "50705",
 "name": "New",
 "parentID": "-1",
 "movedToBin": true,
 "objectType": "tcdirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/50705"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
```

```
]
},
{
"DirectoryChildren": [
{
"objectType": "tc",
"id": "7117",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/7117"
}
},
{
"objectType": "tc",
"id": "6888",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/6888"
}
},
{
"objectType": "tc",
"id": "23028",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/23028"
}
}
],
"id": "72327",
"name": "Sub",
"parentID": "15592",
"movedToBin": false,
"objectType": "tcdirectory",
```

```
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/72327"
},
{
"rel": "Parent",
"href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/15592"
}
]
},
{
"DirectoryChildren": [
{
"objectType": "tcdirectory",
"id": "72327",
"link": {
"rel": "tcdirectory",
"href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/72327"
}
},
{
"objectType": "tc",
"id": "7121",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/7121"
}
},
{
"objectType": "tc",
"id": "6907",
"link": {
"rel": "tc",
```


```
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/6907"
 }
 },
 {
[...]
```

## GET /v2/directories/tcdirectories/[id]

Summary

Gets information on a specific Thin Client Directory.

> This method will also list directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/director` ies/tcdirectories

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/tcdirectories/15592
```

Response Type

Returns a Directory(see page 103).

Example Response

```
{
 "id": "15592",
 "name": "Pool",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tcdirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/15592"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
```

```
}
```

## GET /v2/directories/tcdirectories/[id]?facets=children

Summary

Gets information a Thin Client Directory, recursively listing its children.

> This method will also list directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/tcdirectories/[id]?facets=children`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/tcdirectories/15592?facets=children
```

Response Type

Returns a Directory(see page 103), with its DirectoryChildren field containing other objects.

Example Response

```
{
 "DirectoryChildren": [
 {
 "objectType": "tcdirectory",
 "id": "72327",
 "link": {
 "rel": "tcdirectory",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/72327"
 }
 },
 {
 "objectType": "tc",
 "id": "7121",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/7121"
```

```
  }
  },
  {
  "objectType": "tc",
  "id": "6907",
  "link": {
  "rel": "tc",
  "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/6907"
  }
  },
  {
  "objectType": "tc",
  "id": "11219",
  "link": {
  "rel": "tc",
  "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/11219"
  }
  },
  {
  "objectType": "tc",
  "id": "15223",
  "link": {
  "rel": "tc",
  "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/15223"
  }
  },
  {
  "objectType": "tc",
  "id": "15553",
  "link": {
  "rel": "tc",
  "href": "https://172.30.91.227:8443/umsapi/v2/thinclients/15553"
  }
  },
```

```
{
"objectType": "tc",
"id": "7113",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/7113"
}
},
{
"objectType": "tc",
"id": "6899",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/6899"
}
},
{
"objectType": "tc",
"id": "6912",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/6912"
}
},
{
"objectType": "tc",
"id": "26836",
"link": {
"rel": "tc",
"href": "https://172.30.91.227:8443/umsapi/v2/thinclients/26836"
}
}
],
"id": "15592",
```

```
 "name": "Pool",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tcdirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/15592"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
}
```

## PUT /v2/directories/tcdirectories/

Summary

Creates a Thin Client Directory.

Resource URL

`/v2/directories/tcdirectories/`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"Test"}' \
https://[server]:8443/umsapi/v2/directories/tcdirectories/
```

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | no | directory name |

Response Type

Returns a success message.

Example Response

```
{
 "message": "Directory successfully inserted.",
 "id": "72340",
 "name": "Test"
}
```

## PUT /v2/directories/tcdirectories/[id]

Summary

Updates a Thin Client Directory name.

Resource URL

`/v2/directories/tcdirectories/[id]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Directory Name"}' \
https://[server]:8443/umsapi//v2/directories/tcdirectories/72340
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | directory ID |

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | no | directory name |

Response Type

Returns a success message.

Example Response

```
{
 "message": "Updated directory successfully."
}
```

## PUT /v2/directories/tcdirectories/[id]?operation=move

Summary

Moves Thin Clients and Thin Client Directories into the specified Thin Client Directory.

Resource URL

`/v2/directories/tcdirectories/[id]?operation=move`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '[{"id": "76462", "type": "tcdirectory"}, {"id":"7121", "type":"tc"}]' \
https://[server]:8443/umsapi//v2/directories/tcdirectories/72340?operation=move
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | Thin Client Directory ID |

Request Body

A list of ApiObjects(see page 96)

Response Type

Returns a success message.

Example Response

```
[
 {
 "id": "7121",
 "results": "successful"
 },
 {
 "id": "76462",
 "results": "successful"
 }
```

```
]
```

## DELETE /v2/directories/tcdirectories/[id]

Summary

Deletes a Thin Client Directory.

> This deletes only empty directories. The attempt to delete a non-empty directory results in an error.

Resource URL

`/v2/directories/tcdirectories/[id]`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/tcdirectories/72327
```

Response Type

Returns a success message.

Example Response

```
{
 "message": "Deletion successful."
}
```

## GET /v2/directories/tcdirectories/[id]/assignments/profiles

Summary

Gets the profile and master profile assignments for the specified thin client directory, in order of their application.

Resource URL

`/v2/directories/tcdirectories/[id]/assignments/profiles`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/tcdirectories/76462/assignments/profiles
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | Thin Client Directory ID |

Response Type

Returns a list of Profile and Master Profile Assignments(see page 97).

Example Response

```
[
{
"assignee": {
"id": "35549",
"type": "profile"
},
"receiver": {
"id": "76462",
"type": "tcdirectory"
},
"assignmentPosition": 0,
"links": [
{
```

```
"rel": "assigned",
"href": "https://172.30.91.227:8443/umsapi/v2/profiles/35549"
},
{
"rel": "receiver",
"href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/76462"
},
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/profiles/35549/assignments/
tcdirectories/76462"
}
]
},
{
"assignee": {
"id": "72098",
"type": "masterprofile"
},
"receiver": {
"id": "76462",
"type": "tcdirectory"
},
"assignmentPosition": 1,
"links": [
{
"rel": "assigned",
"href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72098"
},
{
"rel": "receiver",
"href": "https://172.30.91.227:8443/umsapi/v2/directories/tcdirectories/76462"
},
{
```


```
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72098/assignments/tcdirectories/76462"
}
]
}
]
```

## PUT /v2/directories/tcdirectories/[id]/assignments/profiles

Summary

Creates profile and master profile assignments for the specified thin client directory.

Resource URL

`/v2/directories/tcdirectories/[id]/assignments/profiles`

Example Request

```
curl \
--request PUT \
--data '[{ "assignee": {
 "id": "35549",
 "type": "profile"
 },
 "receiver": {
 "id": "76462",
 "type": "tcdirectory"}
 }]' \
https://[server]:8443/umsapi/v2/directories/tcdirectories/76462/assignments/profiles
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | Thin Client Directory ID |

Request Body

A list of Profile and Master Profile Assignments(see page 97).

Example Response

{

"message": "1 asssignments successfully assigned to thinclient directory <76462>"

}

## Profile Directory

## GET /v2/directories/profiledirectories

Summary

Gets information on all Profile Directories in a flat format..

> This method will also list profile directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/profiledirectories`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/profiledirectories
```

Response Type

Returns a list of Profile Directories.

Example Response

```
[
 {
 "id": "72064",
 "name": "New Profile Directory",
 "parentID": "-2",
 "movedToBin": true,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
72064"
 },
 {
```

```
 "rel": "Parent",
 "href": "root"
 }
 ]
 },
 {
 "id": "20451",
 "name": "Custom Partitions",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/20451"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 },
 {
 "id": "20707",
 "name": "Standards",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/20707"
 },
```

```
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 },
 {
 "id": "20453",
 "name": "Benchmarks",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
20453"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 }
]
```

## GET /v2/directories/profiledirectories?facets=children

Summary

Gets information on all Profile Directories, recursively listing their children.

> This method will also list profile directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/director` ies/profiledirectories?facets=children

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/profiledirectories/facets=children
```

Response Type

Returns a list of Profile Directories, with their DirectoryChildren fields containing other objects.

Example Response

```
[
 {
 "DirectoryChildren": [
 {
 "objectType": "profile",
 "id": "20467",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20467"
 }
 },
 {
 "objectType": "profile",
 "id": "20452",
```

```
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20452"
 }
 },
 {
 "objectType": "profile",
 "id": "20449",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20449"
 }
 }
 ],
 "id": "20707",
 "name": "Standards",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
20707"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 },
 {
 "DirectoryChildren": [
 {
```

```
 "objectType": "profiledirectory",
 "id": "72068",
 "link": {
 "rel": "profiledirectory",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
72068"
 }
 },
 {
 "objectType": "profile",
 "id": "6592",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/6592"
 }
 },
 {
 "objectType": "profile",
 "id": "6585",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/6585"
 }
 }
 ],
 "id": "20453",
 "name": "Benchmarks",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
20453"
```

```
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 },
 {
 "DirectoryChildren": [],
 "id": "72068",
 "name": "A Subdirectory",
 "parentID": "20453",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
72068"
 },
 {
 "rel": "Parent",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
20453"
 }
 ]
 }
]
```

## GET /v2/directories/profiledirectories[id]

Summary

Gets information on a specific Profile Directory.

> This method will also show directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/profiledirectories`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/profiledirectories/20707
```

Response Type

Returns a Profile Directory.

Example Response

```
{
 "id": "20707",
 "name": "Standards",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
20707"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
```

```
  ]
}
```

## GET /v2/directories/profiledirectories[id]?facets=children

Summary

Gets information on a specific Profile Directory, recursively listing its children.

> This method will also show directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/profiledirectories[id]?facets=children`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/profiledirectories/20707?facets=children
```

Response Type

Returns a Profile Directory, with its DirectoryChildren fields containing other objects

Example Response

```
{
 "DirectoryChildren": [
 {
 "objectType": "profile",
 "id": "20467",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20467"
 }
 },
 {
 "objectType": "profile",
 "id": "20452",
 "link": {
```

```
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20452"
 }
 },
 {
 "objectType": "profile",
 "id": "20449",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v2/profiles/20449"
 }
 }
 ],
 "id": "20707",
 "name": "Standards",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/profiledirectories/
20707"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
}
```

## PUT /v2/directories/profiledirectories/

Summary

Creates a Profile Directory.

Resource URL

`/v2/directories/profiledirectories/`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Profiles"}' \
https://[server]:8443/umsapi/v2/directories/profiledirectories/
```

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | no | directory name |

Response Type

Returns a success message.

Example Response

{
"message": "Directory successfully inserted.",
"id": "72090",
"name": "New Profiles"
}

## PUT /v2/directories/profiledirectories/[id]

Summary

Updates a Profile Directory name.

Resource URL

`/v2/directories/profiledirectories/[id]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Directory Name"}' \
https://[server]:8443/umsapi//v2/directories/profiledirectories/72340
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | directory ID |

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | no | directory name |

Response Type

Returns a success message.

Example Response

```
{
 "message": "Updated directory successfully."
}
```

## PUT /v2/directories/tcdirectories/[id]?operation=move

Summary

Moves Profiles and Profile Directories into the specified Profile Directory.

Resource URL

`/v2/directories/profiledirectories/[id]?operation=move`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '[{"id":"20451", "type":"profiledirectory"},
{"id":"6592", "type":"profile"}]' \
https://[server]:8443/umsapi//v2/directories/profiledirectories/72068?
operation=move
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | directory ID |

Request Body

A list of ApiObjects(see page 96)

Response Type

Returns a success message.

Example Response

```
[
 {
 "id": "20451",
 "results": "successful"
 },
 {
 "id": "6592",
```


```
 "results": "successful"
 }
]
```

## DELETE /v2/directories/profiledirectories/[id]

Summary

Deletes a Profile Directory.

> This deletes only empty directories. The attempt to delete a non-empty directory results in an error.

Resource URL

`/v2/directories/profiledirectories/[id]`

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v2/directories/profiledirectories/72327
```

Response Type

Returns a success message.

Example Response

```
{
 "message": "Deletion successful."
}
```

## Master Profile Directory

## GET /v2/directories/masterprofiledirectories

Summary

Gets information on all Master Profile Directories in a flat format.

> This method will also list master profile directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/masterprofiledirectories`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/masterprofiledirectories
```

Response Type

Returns a list of Master Profile Directories.

Example Response

```
[
 {
 "id": "72101",
 "name": "Basic",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/72101"
 },
 {
 "rel": "Parent",
```

```
 "href": "root"
 }
 ]
 },
 {
 "id": "72100",
 "name": "Important",
 "parentID": "76552",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/72100"
 },
 {
 "rel": "Parent",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/76552"
 }
 ]
 },
 {
 "id": "76552",
 "name": "New Directory",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/76552"
 },
```

```
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 },
 {
 "id": "76556",
 "name": "Old Directory",
 "parentID": "-14",
 "movedToBin": true,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/76556"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
 }
]
```

## GET /v2/directories/masterprofiledirectories?facets=children

Summary

Gets information on all Master Profile Directories, recursively listing their children.

> This method will also list master profile directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/masterprofiledirectories?facets=children`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/masterprofiledirectories/
facets=children
```

Response Type

Returns a list of Master Profile Directories,. with their DirectoryChildren fields containing other objects.

Example Response

```
[
 {
 "DirectoryChildren": [
 {
 "objectType": "masterprofile",
 "id": "72098",
 "link": {
 "rel": "masterprofile",
 "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72098"
 }
 }
 ],
 "id": "72101",
```

```
"name": "Basic",
"parentID": "-14",
"movedToBin": false,
"objectType": "masterprofiledirectory",
"links": [
{
"rel": "self",
"href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/72101"
},
{
"rel": "Parent",
"href": "root"
}
]
},
{
"DirectoryChildren": [
{
"objectType": "masterprofile",
"id": "72096",
"link": {
"rel": "masterprofile",
"href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72096"
}
}
],
"id": "72100",
"name": "Important",
"parentID": "-14",
"movedToBin": false,
"objectType": "masterprofiledirectory",
"links": [
{
```

```
  "rel": "self",
  "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/72100"
  },
  {
  "rel": "Parent",
  "href": "root"
  }
  ]
  }
]
```

## GET /v2/directories/masterprofiledirectories[id]

Summary

Gets information on a specific Master Profile Directory.

> This method will also show master profile directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/masterprofiledirectories[id]`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/masterprofiledirectories/20707
```

Response Type

Returns a Master Profile Directory.

Example Response

```
{
 "id": "72101",
 "name": "Basic",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/72101"
 },
 {
 "rel": "Parent",
```


```
  "href": "root"
  }
  ]
}
```

## GET /v2/directories/masterprofiledirectories[id]?facets=children

Summary

Gets information on a specific Master Profile Directory, recursively listing its children.

> This method will also show master profile directories that are located in the **Recycle Bin** ( `"movedToBin":"true"` ).

Resource URL

`/v2/directories/masterprofiledirectories[id]?facets=children`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/directories/masterprofiledirectories/72101?facets=children
```

Response Type

Returns a Master Profile Directory, with its DirectoryChildren fields containing other objects

Example Response

```
{
 "DirectoryChildren": [
 {
 "objectType": "masterprofiledirectory",
 "id": "72112",
 "link": {
 "rel": "masterprofiledirectory",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/masterprofiledirectories/72112"
 }
 },
 {
 "objectType": "masterprofile",
```

```
 "id": "72098",
 "link": {
 "rel": "masterprofile",
 "href": "https://172.30.91.227:8443/umsapi/v2/masterprofiles/72098"
 }
 }
 ],
 "id": "72101",
 "name": "Basic",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/directories/
masterprofiledirectories/72101"
 },
 {
 "rel": "Parent",
 "href": "root"
 }
 ]
}
```

## PUT /v2/directories/masterprofiledirectories/

Summary

Creates a Master Profile Directory.

Resource URL

`/v2/directories/masterprofiledirectories/`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"Yet Another Directory"}' \
https://[server]:8443/umsapi/v2/directories/masterprofiledirectories/
```

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | yes | Master Profile directory name |

Response Type

Returns a success message.

Example Response

{
"message": "Directory successfully inserted.",
"id": "76560",
"name": "Yet Another Directory"
}

## PUT /v2/directories/masterprofiledirectories/[id]

Summary

Renames a Master Profile Directory.

Resource URL

`/v2/directories/masterprofiledirectories/[id]`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Master Profiles"}' \
https://[server]:8443/umsapi/v2/directories/masterprofiledirectories/76560
```

Request Body

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `name` | String | yes | Master directory name |

Response Type

Returns a success message.

Example Response

```
{
 "message": "Updated directory successfully."
}
```

## PUT /v2/directories/tcdirectories/[id]?operation=move

Summary

Moves Master Profiles and Master Profile Directories into the specified Master Profile Directory.

Resource URL

`/v2/directories/masterprofiledirectories/[id]?operation=move`

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '[{"id": "72100", "type": "masterprofiledirectory"}, {"id":"72098", "type":"masterprofile"}]' \
https://[server]:8443/umsapi//v2/directories/masterprofiledirectories/76552?operation=move
```

Request Path Variables

| Name | Type | Mandatory | Description |
|---|---|---|---|
| `id` | String | yes | directory ID |

Request Body

A list of ApiObjects(see page 96)

Response Type

Returns a success message.

Example Response

```
[
 {
 "id": "72098",
 "results": "successful"
 },
 {
 "id": "72100",
 "results": "successful"
```

```
  }
]
```

## DELETE /v2/directories/masterprofiledirectories[id]

Summary

Deletes a Master Profile Directory.

> This deletes only empty directories. The attempt to delete a non-empty directory results in an error.

Resource URL

`/v2/directories/masterprofiledirectories/[id]`

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v2/directories/masterprofiledirectories/76559
```

Response Type

Returns a success message.

Example Response

```
{
 "message": "Deletion successful."
}
```

## Firmware

- GET /v2/firmwares(see page 236)
- GET /v2/firmwares/[id](see page 238)

## GET /v2/firmwares

Summary

Gets information on all Firmwares known to the UMS.

Resource URL

`/v2/firmwares/`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/firmwares/
```

Response Type

Returns a list of Firmwares.

Example Response

```
{
 "FwResource": [
 {
 "id": "2",
 "product": "IGEL Universal Desktop LX",
 "version": "5.06.100.01",
 "firmwareType": "LX",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/2"
 }
 ]
 },
 {
 "id": "4",
 "product": "IGEL Universal Desktop LX",
```

```
 "version": "4.14.120.01",
 "firmwareType": "LX",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/4"
 }
 ]
 }
 ]
}
```

## GET /v2/firmwares/[id]

Summary

Gets information on a specific Firmware.

Resource URL

`/v2/firmwares/[id]`

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v2/firmwares/45
```

Response Type

Returns a Firmware.

Example Response

```
{
 "id": "45",
 "product": "IGEL Universal Desktop LX",
 "version": "5.09.100.01",
 "firmwareType": "LX",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/firmwares/45"
 }
 ]
}
```

# Server Status

## Summary

Gets status information about the UMS server instance.

> Server Status is the only IMI resource that can be queried without logging in.

## Resource URL

`/v2/serverstatus`

## Example Request

```
curl \
--request GET\
https://[server]:8443/umsapi/v2/serverstatus
```

## Example Response

```
{
 "rmGuiServerVersion": "5.02.100.rc4",
 "buildNumber": "26596",
 "activeMQVersion": "5.6.0",
 "derbyVersion": "10.12.1.1",
 "serverUUID": "d5210098-091b-464d-b24d-9f989450931d",
 "server": "PM-MH-WIN7-UMS.IGEL.LOCAL:8443",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v2/serverstatus"
 }
 ]
}
```

# Error Codes

## HTTP Status Codes

### Client-Side Errors

| HTTP Status | Title | Description |
|---|---|---|
| 200 | OK | The request was successful. However, it is a good idea to read the API message. |
| 400 | Bad Request | The request does not match the API, e.g. it uses the wrong HTTP method |
| 401 | Unauthorized | The client has not logged in or has sent the wrong credentials. |
| 404 | Not Found | The endpoint does not exist, it may be misspelled. |
| 415 | Unsupported Media Type | The body content, e.g. JSON, does not match the Content-Type header or is not well-formed. |

### Server-Side Errors

| HTTP Status | Title | Description |
|---|---|---|
| 500 | Internal Server Error | The server has encountered an error, check the server logfiles `catalina.log` and `stderr` |

## API Error Messages

The API server will send a message in the response body, should an error occur:

```
{
  "message": "Request method 'GET' not supported",
  "errorCode": "ITG-0A011",
  "stackTrace": "[org.springframework.web.servlet.mvc.m ...
  [...]
}
```

| Error Code | Message |
|---|---|
| Client Errors | |
| ITG-0A001 | Thin client with ID [id] not found. |
| ITG-0A002 | No target directory with ID [id] found. |
| ITG-0A003 | [command] is an invalid command. |
| ITG-0A004 | Invalid request body |
| ITG-0A005 | "Could not read JSON: [...]" |
| ITG-0A006 | Directory with ID [id] is not empty. Remove content first. |
| ITG-0A007 | No MAC defined. |
| ITG-0A008 | [...] The statement was aborted because it would have caused a duplicate key value [...] |
| ITG-0A009 | No firmware defined. |
| ITG-0A010 | Number format error |
| ITG-0A011 | Request method [method] not supported. |
| ITG-0A012 | IDList is empty. |
| ITG-0A013 | No valid property in body |
| ITG-0A014 | MAC must be 12 characters long. |
| ITG-0A015 | Firmware with ID [id] does not exist. |
| ITG-0A016 | Parent with ID [id] does not exist. |
| ITG-0A017 | Target directory is in Recycling Bin. In order to use it revert it first. |

| | |
|---|---|
| ITG-0A018 | Thin client is in Recycling Bin. In order to use it, revert it first. |
| ITG-0A019 | Invalid assignment receiver |
| ITG-0A020 | No handler is mapped for this request. |
| ITG-0A021 | Invalid ssignment |
| ITG-0A022 | Profile is in Recycling Bin. |
| Authentication Errors | |
| ITG-0B001 | No authentication header found in request. |
| ITG-0B002 | Invalid login credentials. |
| ITG-0B004 | No session ID found. |
| ITG-0B004 | No session found for requested session ID [id]. |
| ITG-0B005 | Access denied. |
| ITG-0B006 | No valid IMI API version. |
| ITG-0B007 | No user found in session with sessionID |
| Licensing Errors | |
| ITG-0C001 | License required |
| ITG-0C002 | Invalid IMI version |
| Server Errors | |
| ITG-FF001 | Internal error |
| ITG-FF002 | Database error |
| ITG-FF003 | Cache error |
| ITG-FF004 | Server not available |
| ITG-FF005 | Object mapping error |
| ITG-FF006 | Invalid object type |

# IMI How-Tos

- Using Secure VNC via IGEL Management Interface (IMI)(see page 245)

# Using Secure VNC via IGEL Management Interface (IMI)

This document describes making SSL/TLS-secured VNC connections to *IGEL* Linux thin clients using the credentials provided by *IGEL Management Interface (IMI)* Version 2 .

## Prerequisites

- *Universal Management Suite (UMS)* 5.02.100
- *IMI* maintenance subscription covering version 2
- *IGEL* LX thin clients with *IGEL* Linux version 5.03.190 or newer

Apart from that, you will have to implement a custom VNC proxy(see page 247).

## Thin Client Configuration

In the thin clients' configuration, either locally, via UMS or in a profile, do the following:

1. Go to **System > Remote Access > Shadow**
2. Enable **Allow Remote Shadowing**
3. Optional: Enable **Prompt User to allow Remote Session**

> In a number of countries, unannounced shadowing is prohibited by law. Do not disable this option if you are in one of these countries!

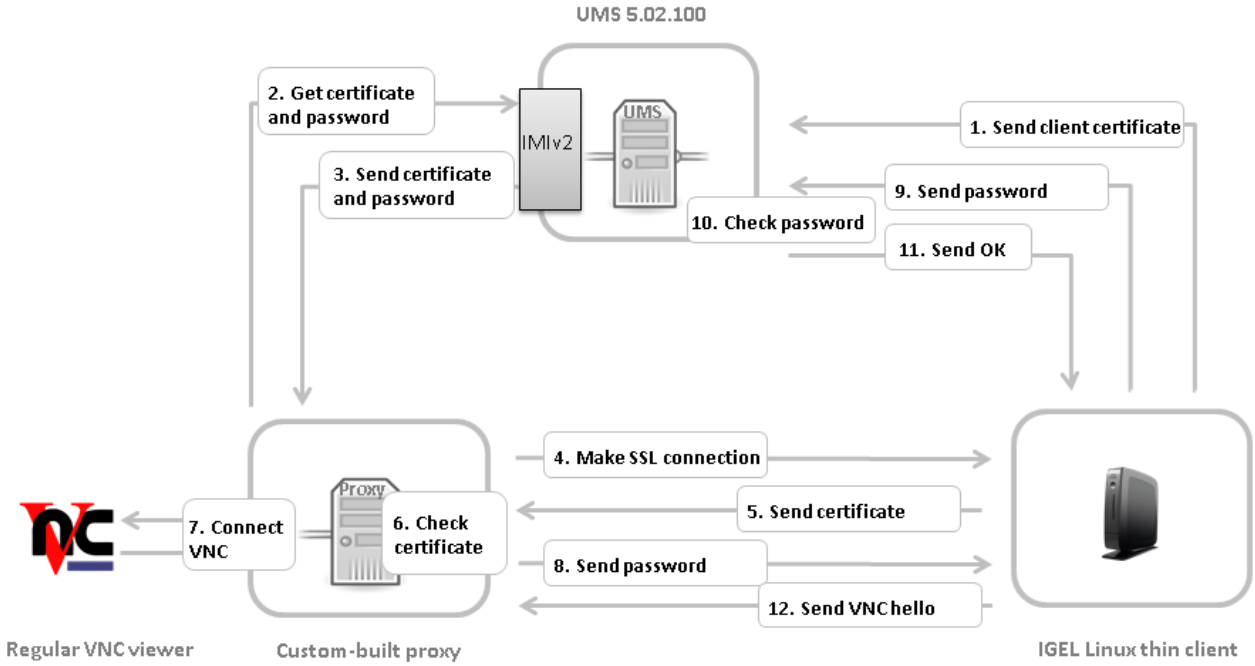
4. Optional: Enable **Allow Input from Remote**
5. Enable **Secure Mode**

> Alternatively, you can globally activate Secure VNC for all thin clients under **UMS Administration > Remote Access > Secure VNC**.

6. Optional:Enable **Allow User to disconnect Remote Shadowing**

## Secure VNC with IMIv2

This section describes the Secure VNC procedure, parts of which your custom VNC proxy has to implement.




1. The thin client sends its certificate to UMS on boot.

   > For a thin client newly registered to the UMS, either
   > - reboot the thin client once or
   > - use UMS Console to send **Settings UMS > TC** and send **Settings TC > UMS** once

2. Via the IMIv2 REST API, the custom proxy asks UMS for the credentials necessary for shadowing the thin client:
   `GET /umsapi/v2/thinclients/[thin client ID]?facets=shadow`
3. The custom proxy receives the credentials:
   - the thin client certificate in Base64 encoding, or an empty string if UMS has not received a certificate
   - a one-time-password in the form of a Java UUID for logging in within the next 5 min.
4. The custom proxy initiates a SSL connection to the thin client's TCP port 5900.
5. The thin client sends its certificate.
6. The custom proxy checks the certificate against the one received from UMS and decides whether to accept it and proceed with the connection.
7. The custom proxy opens a TCP server socket for an external VNC viewer to connect to. The custom proxy must connect the network streams involved as follows:
   - write to the VNC viewer what it reads from the SSL connection with the thin client
   - write to the SSL connection with the thin client what it reads from the VNC viewer

Make the external VNC viewer connect to the custom proxy's server socket.

8. On accepting the connection from the external VNC viewer, the custom proxy writes the String `PROCYCMD PW_[one-time password]` to the SSL connection with the thin client.
9. The thin client sends the password to UMS.
10. UMS checks the password.
11. If the password is correct, UMS tells the thin client to proceed. Otherwise the connection will be closed.
12. The thin client sends a string like `RFB 003.008\n` as a VNC hello which initiates the VNC session with the external VNC viewer.