

IGEL Management Interface (IMI)

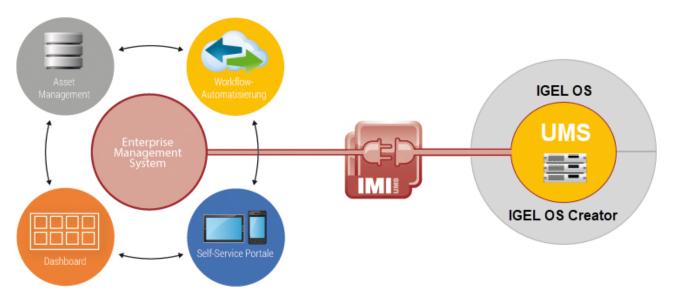


- IMI Manual(see page 3)
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IMI Manual

IGEL Management Interface (IMI) enables you to connect UMS to systems management tools. It is a programming interface that can create and delete endpoint devices, 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 V3 Reference(see page 87).

- Licensing(see page 4)
- REST Basics(see page 5)
- Prerequisites(see page 8)
- First Steps(see page 9)
- Creating, Updating and Deleting Resources(see page 23)
- Further Operations(see page 30)



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 5.07.100 or higher

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 3 are available at:

https://[server]:8443/umsapi/v3/



IMI uses HTTPS to ensure the integrity and confidentiality of network traffic. It is good practice to use a valid server certificate with a verifiable signature. For more information, see Using Your Own Certificates for Communication over the Web Port (Default: 8443)).



First Steps

- Client Applications and Libraries(see page 10)
- Getting the Server Status(see page 12)
- Authentication(see page 13)
- Listing all Thin Clients(see page 14)
- Getting Information on a Thin Client(see page 16)
- Getting All Details about a Thin Client(see page 18)
- Getting Thin Client Status(see page 21)

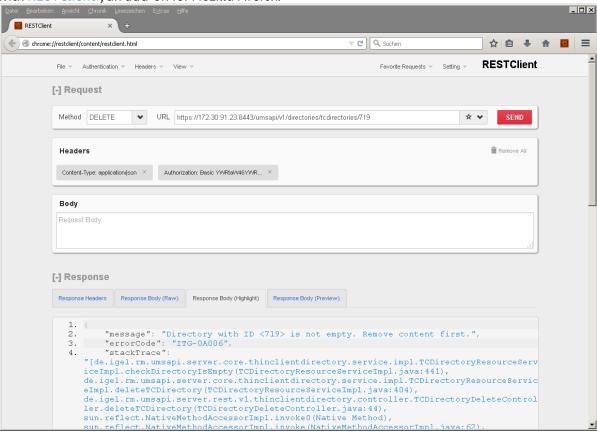


Client Applications and Libraries

Clients

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

• with RESTClient¹, an add-on for Mozilla Firefox:



or

• with cURL², a commandline network client:

¹ http://restclient.net/

² http://curl.haxx.se/



```
Administrator@PM-MH-WIN7-UMS ~
$ curl -ik --request GET https://localhost:8443/umsapi/v1/serverstatus
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Set-Cookie: JSESSIONID=A645FEC36AA9C0373F0D869CCDFC8C0B; Path=/umsapi/; Secure; Http
Only
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 04 Mar 2015 12:44:19 GMT

{"rmGuiServerversion":"4.09.100.rc1", "buildNumber":"21741", "activeMQVersion":"5.6.0"
, "derbyVersion":"10.8.3.0", "serverUUID":"dd188671-e485-4679-8d2d-485be8a6275c", "server":"172.30.91.23:8443", "links":[{"rel":"self", "href":"https://localhost:8443/umsapi/v1/serverstatus"}]}
Administrator@PM-MH-WIN7-UMS ~
$ 
\[ \]
```

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 RUI.

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 $\sqrt{v2/\log in}$ 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.

```
Γ
{
 "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"
}
1
},
{
 "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(see page 24)
- Creating a Thin Client Directory(see page 27)
- Updating a Thin Client Directory(see page 28)
- Deleting a Thin Client Directory(see page 29)



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.

```
▼ ■ Thin Clients (2)
■ A Directory (0)
■ Another Directory (1)
■ A Subdirectory (0)
■ IGEL-00E0C53C3881
■ IGEL-008064AD82FB
```

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 .



```
"href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/15592"
},
{
"rel": "Parent",
"href": "root"
}
1
},
{
 "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"
}
1
},
{
 "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(see page 31)
- Sending a Command to Thin Clients(see page 32)
- Debugging Requests(see page 34)



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

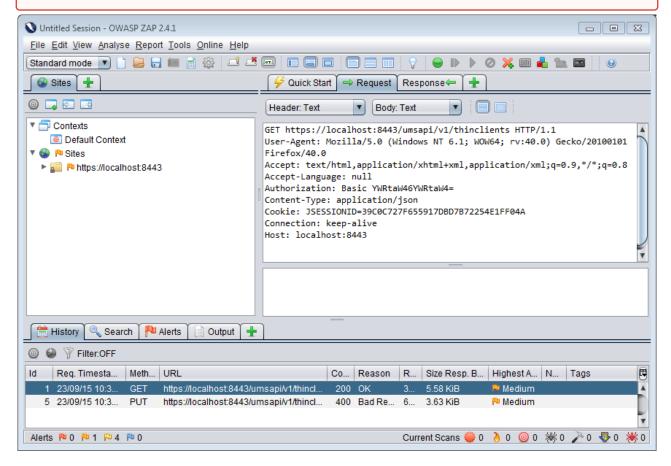
- the HTTP status in the response headers
- the messages and error codes in the response bodies.

HTTP-Proxy

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

An Open Source program for this task is OWASP ZAP³.

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



 $^{{\}tt 3~https://www.owasp.org/index.php/OWASP_Zed_Attack_Proxy_Project}\\$



Powershell

- Introduction(see page 36)
- Command Reference(see page 40)



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 underlyingREST API.



(i) Microsoft .NET version 4.5 or greater is required for IMI Cmdlets 1.04.100 for TLSv1.2

- Installation(see page 37)
- Loading the IMI Cmdlets Snap-in(see page 38)
- Authentication(see page 39)



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
- (i) 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 server4.
- 2. Launch the installer.
 - (i) 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

-ForcelMIVersion

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 \$1:

```
$l = Get-IgelRMServerLogin `
-Servername localhost `
-Username SPIELWIESE `
-IgnoreUntrustedCertificates $true `
-ForceIMIVersion v2
```

Supply the credentials to subsequent commands using

```
-Credentials $1
```



Command Reference

- Thin Client(see page 41)
- Profile(see page 49)
- Master Profile(see page 56)
- Thin Client Directory(see page 63)
- Profile Directory(see page 71)
- Master Profile Directory(see page 77)
- Firmware(see page 83)
- Server Status(see page 85)



Thin Client

- Get-IgelTCInformation(see page 42)
- Start-IgelTCs(see page 44)
- Stop-IgelTC(see page 45)
- Restart-IgelTCs(see page 46)
- Move-IgelTCs(see page 47)
- Update-IgelTCSettings(see page 48)



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.

-tclD

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 $1
```

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 $1 -tcIDs 27
```

```
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 $1 -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

-tclDs

Numeric IDs of the thin clients to reboot

Example Command Line

```
Restart-IgelTCs -Credentials $1 -tcIDs 2010,1435
```

```
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

-tclDs

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
```

```
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

-tclD

Numeric ID of the thin client

Example Command Line

```
Update-IgelTCSettings -Credentials $1 -tcID 2010
```

Example Output

execID : ID-mhuber-50400-1460561405782-16-0

id : 2010

mac: 000BCA050027

exectime : 1460708102541

message : OK
state : SUCCESS



Profile

- Get-IgelTCProfile(see page 50)
- Rename-IgelTCProfile(see page 51)
- Get-IgelProfileAssignments(see page 52)
- Set-IgelProfileAssignment(see page 53)
- Remove-IgelProfileAssignment(see page 54)
- Remove-IgelTCProfile(see page 55)



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 $1 -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
```

```
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
```

```
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
```

```
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 $1 -ProfileID 3150
```

Example Output

```
message
```

Deleted profile with id 3150



Master Profile

- Get-IgelTCMasterprofile(see page 57)
- Rename-IgelTCMasterprofile(see page 58)
- Get-IgelMasterprofileAssignments(see page 59)
- Set-IgelProfileAssignment(see page 60)
- Remove-IgelProfileAssignment(see page 61)
- Remove-IgelMasterprofile(see page 62)



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 $1 -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
```

```
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
```

```
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
```

```
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 \$1 -MasterprofileID 3152

Example Output

message

Deleted profile with id 3152



Thin Client Directory

- Get-IgelTCDirectories(see page 64)
- Rename-IgelTCDirectory(see page 66)
- Set-IgelTCDirectory(see page 67)
- Move-IgelTCDirectory(see page 68)
- Set-IgelProfileAssignment(see page 69)
- Remove-IgelTCDirectory(see page 70)



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 $1 -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"
```

```
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
```

```
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
```

```
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
```

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



Remove-IgelTCDirectory

Summary

Deletes a thin client directory.



(i) 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 \$1 -directoryID 3202

Example Output

message

Deletion successful.



Profile Directory

- Get-IgelProfileDirectory(see page 72)
- Rename-IgelTCProfileDirectory(see page 73)
- Move-IgelTCProfileDirectory(see page 74)
- Set-IgelProfileDirectory(see page 75)
- Remove-IgelProfileDirectory(see page 76)



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 $1 -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"
```

```
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
```

```
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
```

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



Remove-IgelProfileDirectory

Summary

Deletes a profile directory.



(i) 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 \$1 -ProfileDirectoryID 4024

Example Output

message _____

Deletion successful.



Master Profile Directory

- Get-IgelMasterprofileDirectory(see page 78)
- Rename-IgelTCMasterprofileDirectory(see page 79)
- Move-IgelMasterprofileDirectory(see page 80)
- Set-IgelMasterprofileDirectory(see page 81)
- Remove-IgelMasterprofileDirectory(see page 82)



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 \$1 -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"
```

```
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
```

```
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 \$1 -directoryName "Brand New Directory"

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



Remove-IgelMasterprofileDirectory

Summary

Deletes a master profile directory.



(i) 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 \$1 -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 $1 -firmwareID 3
```

```
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 V3 Reference

- What's New in IMI V3?(see page 88)
- Prerequisites(see page 89)
- Client Applications and Libraries(see page 90)
- Authentication(see page 92)
- Basic Data Types(see page 95)
- Resources(see page 108)
- Error Codes(see page 279)



What's New in IMI V3?

- Asset Inventory Tracker (AIT) Resources:
 - GET /v3/assetinfo(see page 110)
 - GET /v3/assethistory(see page 120)
- A command for resetting thin clients to factory defaults: POST /v3/thinclients/?command=tcreset2facdefs(see page 179)



Prerequisites

- IGEL OS version 10.03.100 or newer
- UMS version 5.07.100 or newer
- 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 API is versioned, so e.g. the resources for version 3 are available at

https://[server]:8443/umsapi/v3/

(i) If you are using the .NET framework for your client application, make sure to deploy version 4.5 or newer, as this includes the TLSv1.2 support required by IMI.

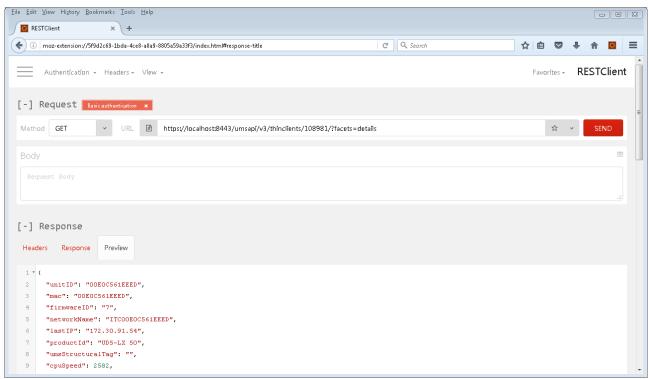


Client Applications and Libraries

Clients

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

• with RESTClient⁵, an add-on for Mozilla Firefox:



or

• with cURL⁶, a commandline network client:

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



```
Administrator@PM-MH-WIN7-UMS ~
$ curl -ik --request GET https://localhost:8443/umsapi/v1/serverstatus
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Set-Cookie: JSESSIONID-A645FEC36AA9C0373F0D869CCDFC8C0B; Path=/umsapi/; Secure; Http
Only
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 04 Mar 2015 12:44:19 GMT

{"rmGuiServerVersion": "4.09.100.rc1", "buildNumber": "21741", "activeMQVersion": "5.6.0"
, "derbyVersion": "10.8.3.0", "serverUUID": "dd188671-e485-4679-8d2d-485be8a6275c", "server": "172.30.91.23:8443", "links": [{"rel": "self", "href": "https://localhost:8443/umsapi/v1/serverstatus"}]}
Administrator@PM-MH-WIN7-UMS ~
$ []
```

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 /v3/login(see page 93)

[•] POST /v3/logout(see page 94)



POST /v3/login

Summary

Authenticates the client in regard to the IMI server.

Resource URL

/v3/login

Example Request

```
curl \
--request POST \
--user 'admin:W00t' \
https://[server]:8443/umsapi/v3/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"}
```



A 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 /v3/logout

Summary

Logs the client out from the *IMI* session.

Resource URL

/v3/logout

Example Request

```
curl \
--request POST \
--header 'Cookie: JSESSIONID=11048CDA77DE2B45BE1562C8EED67858' \
https://[server]:8443/umsapi/v3/logout
```

Example Response

```
200 OK
---
{"message":"Logout successful"}
```



Basic Data Types

- ApiObject(see page 96)
- AssetInfoResource(see page 97)
- AssetDetailResource(see page 99)
- AssetCategory(see page 100)
- AssetHistoryResource(see page 101)
- TCResourceV3(see page 102)
- Assignment(see page 105)
- DirectoryResource(see page 107)



ApiObject

Summary

This object is the most basic representation of thin clients, profiles, and directories. It is used in Assignments(see page 105).

Properties

Name	Туре	Mandatory	Description
id	String	yes	The object's ID in the UMS database
type	String	yes	One of: • tc • tcdirectory • profile • profiledirectory • masterprofile • masterprofiledirectory

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



AssetInfoResource

Summary

This object describes an asset. It references the thin client, it is connected to, one or more categories the asset belongs to, and one or more details about the asset.

Properties

Name	Туре	Description
tcld	Integer	Internal ID of the thin client the asset is connected to. The value -1 indicates that the asset is currently not connected to a thin client.
assetId	Integer	Internal asset ID
uniqueld	String	(not used)
connector	String	(not used)
assetName	String	Name
assetVendor	String	Vendor
deviceId	String	USB device ID
categoryList	Array of AssetCategory(see page 100)	Categories the asset belongs to
detailList	Array of AssetDetailResource(see page 99)	Asset details

```
{
"tcId": 47922,
"assetId": 49070,
"assetName": "M105 Optical Mouse",
"assetVendor": "Logitech, Inc.",
"deviceId": "c077",
"categoryList": {
```



```
"categoryList": [...]
},
"detailList": {
  "detailList": [...]
}
```



AssetDetailResource

Summary

This object describes one detail of the asset.

Properties

Name	Туре	Description
attrld	Integer	Attribute ID
detailKey	String	Key for the detail
detailValue	String	Value (and unit)
detailType	String	Data type of the detail

```
{
  "attrId": 49067,
  "detailKey": "maxPower",
  "detailValue": "100mA",
  "detailType": "string"
}
```



As set Category

Summary

This object describes one category the asset belongs to.

Properties

Name	Туре	Description
categoryId	Integer	Internal ID
categoryName	String	Category name

```
{
"categoryId": 49068,
"categoryName": "Keyboard"
}
```



AssetHistoryResource

Summary

This object describes an item (event) in the asset history.

Properties

Name	Туре	Description
historyId	Integer	ID of the history item
unitId	String	UnitID of the thin client
assetId	Integer	Asset ID
eventTimeStamp	Timestamp	Unix timestamp of the event
event		one of: • add • remove • add_on_boot • remove_on_boot

```
{
  "historyId": 26,
  "unitId": "000BCA050027",
  "assetId": 49070,
  "eventTimeStamp": 1500372856000,
  "event": {
  "identifier": "remove"
  }
}
```



TCResourceV3

Summary

This object describes an endpoint device with its properties.

Properties

Name	Туре	Description
id	String	Object ID in the UMS database
unitID	String	Unique unit ID
name	String	Network name
parentID	String	Name of parent directory
movedToBin	Boolean	True if in Recycling Bin
objectType		tc
links	Array	Links that make IMI discoverable for an HTTP spider
mac	String (12)	MAC address
firmwareID	String	Firmware ID
lastIP	String	Last known IP
batteryLevel	Integer	Level of the battery (if any)

With facets=details

Name	Туре	Description
networkName	String	
site	String	Site
department	String	Department
costCenter	String	Cost center
comment	String	Comment
assetID	String	Asset ID of the thin client
inserviceDate	String	Placed in service on



Name	Туре	Description
serialNumber	String	Serial Number
productId	String	Product ID
umsStructuralTag	String	Structure Tag
cpuSpeed	Integer	CPU speed (MHz)
сриТуре	String	CPU type
deviceType	String	Device type
deviceSerialNumber	String	Device serial number
оѕТуре	String	Operating system type
flashSize	Integer	Flash size (MB)
memorySize	Integer	Flash size (MB)
networkSpeed	Integer	Network speed
duplexMode	String	Duplex mode
graphicsChipset0	String	First Graphics chipset
graphicsMemorySize0	Integer	First Graphics memory (MB)
graphicsChipset1	String	Second Graphics chipset
graphicsMemorySize1	Integer	Second Graphics memory (MB)
monitorVendor1	String	First Monitor vendor
monitorModel1	String	First Monitor model
monitorSerialnumber1	String	First Monitor serial number
monitorSize1	Number	First Monitor size
monitorNativeResolution1	String	First Monitor native resolution
monitor1YearOfManufacture	String	First Monitor year of manufacture
monitor1WeekOfManufacture	String	First Monitor week of manufacture
monitorVendor2	String	Second Monitor vendor
monitorModel2	String	Second Monitor model
monitorSerialnumber2	String	Second Monitor serial number
monitorSize2	Number	Second Monitor size
monitorNativeResolution2	String	Second Monitor native resolution



Name	Туре	Description
monitor2YearOfManufacture	String	Second Monitor year of manufacture
monitor2WeekOfManufacture	String	Second Monitor week of manufacture
biosVendor	String	BIOS vendor
biosVersion	String	BIOS version
biosDate	String	BIOS date
totalUsagetime	String	Total usage time
totalUptime	String	Total uptime
lastBoottime	String	Last boot time
lastContact	String	Date and time of the last contact between UMS and endpoint device (UMS 6.07 or higher)
configChanges		PENDING
		APPLIED
		(UMS 6.07 or higher)

With facets=online

online	Boolean	Online status
--------	---------	---------------

With facets=shadow

shadowSecret	String	Certificate and password for Secure
		VNC

With facets=networkadapters

Name	Туре	Description
type	String	Type of the network adapter
mac	String	MAC address of the network adapter
name		Name of the corresponding network interface
state	String	State of the network adapter



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 order in which profiles are applied
links	Array	no	Links that make IMI discoverable for an HTTP spider



```
},
{
    "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"
}
]
}
]
```



DirectoryResource

Properties

Name	Туре	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:tcdirectoryprofiledirectorymasterprofiledirectory
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



Resources

- Asset Information(see page 109)
- Thin Client(see page 127)
- Profile(see page 180)
- Master Profile(see page 199)
- Thin Client Directory(see page 218)
- Profile Directory(see page 240)
- Master Profile Directory(see page 257)
- Firmware Information(see page 273)
- Server Information(see page 277)



Asset Information

- GET /v3/assetinfo(see page 110)
- GET /v3/assetinfo/assets/{assetId}(see page 114)
- GET /v3/assetinfo/thinclients/{tcld}(see page 117)
- GET /v3/assethistory(see page 120)
- GET /v3/assethistory/assets/{assetId}(see page 123)
- GET /v3/assethistory/thinclients/{unitId}(see page 125)



GET /v3/assetinfo

Summary

Gets information on all assets known to the UMS instance.

```
Resource URL
```

```
/v3/assetinfo

Example Request

curl \
```

https://[server]:8443/umsapi/v3/assetinfo

Response Type

--request GET \

Returns an array of AssetInfoResource(see page 97).

```
{
 "assetinfos": [
 "tcId": 47922,
 "assetId": 49067,
 "assetName": "Elite Keyboard",
 "assetVendor": "Hewlett-Packard",
 "deviceId": "034a",
 "categoryList": {
 "categoryList": [
 "categoryId": 49068,
 "categoryName": "Keyboard"
 },
 {
 "categoryId": 49069,
 "categoryName": "Human Interface Device"
}
```



```
]
},
 "detailList": {
 "detailList": [
 "attrId": 49067,
 "detailKey": "maxPower",
 "detailValue": "100mA",
 "detailType": "string"
 },
 {
 "attrId": 49067,
 "detailKey": "speed",
 "detailValue": "1.5",
 "detailType": "string"
 },
 {
 "attrId": 49067,
 "detailKey": "custom_productName",
 "detailValue": "HP_Elite_USB_Keyboard",
 "detailType": "string"
 },
 "attrId": 49067,
 "detailKey": "custom_vendorName",
 "detailValue": "Chicony",
 "detailType": "string"
 },
 {
 "attrId": 49067,
 "detailKey": "revision",
 "detailValue": "0121",
 "detailType": "string"
}
```



```
1
}
},
 "tcId": 47922,
 "assetId": 49070,
 "assetName": "M105 Optical Mouse",
 "assetVendor": "Logitech, Inc.",
 "deviceId": "c077",
 "categoryList": {
 "categoryList": [
 {
 "categoryId": 49071,
 "categoryName": "Mouse"
 }
1
 },
 "detailList": {
 "detailList": [
 "attrId": 49070,
 "detailKey": "maxPower",
 "detailValue": "100mA",
 "detailType": "string"
 },
{
 "attrId": 49070,
 "detailKey": "speed",
 "detailValue": "1.5",
 "detailType": "string"
 },
{
 "attrId": 49070,
 "detailKey": "custom_productName",
```



```
"detailValue": "USB_Optical_Mouse",
 "detailType": "string"
},
{
 "attrId": 49070,
 "detailKey": "custom_vendorName",
 "detailValue": "Logitech",
 "detailType": "string"
 },
 {
 "attrId": 49070,
 "detailKey": "revision",
 "detailValue": "7200",
 "detailType": "string"
}
1
}
}
],
"links": []
}
```



GET /v3/assetinfo/assets/{assetId}

Summary

Gets information on a specific asset.

Resource URL

```
/v3/assetinfo/assets/{assetId}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/assetinfo/assets/49070
```

Request Path Variables

Name	Туре	Mandatory	Description
assetId	String	yes	asset ID

Response Type

Returns an array of AssetInfoResource (see page 97).

```
{
  "assetinfos": [
  {
  "tcId": 47922,
  "assetId": 49070,
  "assetName": "M105 Optical Mouse",
  "assetVendor": "Logitech, Inc.",
  "deviceId": "c077",
  "categoryList": {
  "categoryList": [
  {
  "categoryId": 49071,
  "categoryName": "Mouse"
  }
}
```



```
1
},
 "detailList": {
 "detailList": [
 "attrId": 49070,
 "detailKey": "maxPower",
 "detailValue": "100mA",
 "detailType": "string"
 },
 {
 "attrId": 49070,
 "detailKey": "speed",
 "detailValue": "1.5",
 "detailType": "string"
 },
 {
 "attrId": 49070,
 "detailKey": "custom_productName",
 "detailValue": "USB_Optical_Mouse",
 "detailType": "string"
 },
 "attrId": 49070,
 "detailKey": "custom_vendorName",
 "detailValue": "Logitech",
 "detailType": "string"
 },
 {
 "attrId": 49070,
 "detailKey": "revision",
 "detailValue": "7200",
 "detailType": "string"
}
```



```
]
}
],
"links": []
}
```



GET /v3/assetinfo/thinclients/{tcld}

Summary

Gets asset information on a specific thin client.

Resource URL

```
/v3/assetinfo/thinclients/{tcId}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/assetinfo/thinclients/47922
```

Request Path Variables

Name	Туре	Mandatory	Description
tcId	String	yes	thin client ID

Response Type

Returns an array of AssetInfoResource (see page 97).

```
"assetinfos": [
{
  "tcId": 47922,
  "assetId": 49072,
  "assetName": "Bluetooth Dongle (HCI mode)",
  "assetVendor": "Cambridge Silicon Radio, Ltd",
  "deviceId": "0001",
  "categoryList": {
  "categoryList": [
  {
  "categoryId": 49073,
  "categoryName": "Bluetooth"
  }
```



```
]
},
"detailList": {
"detailList": [...]
 }
},
 "tcId": 47922,
 "assetId": 49070,
 "assetName": "M105 Optical Mouse",
 "assetVendor": "Logitech, Inc.",
 "deviceId": "c077",
 "categoryList": {
 "categoryList": [
 "categoryId": 49071,
 "categoryName": "Mouse"
}
1
},
 "detailList": {
 "detailList": [...]
 }
},
 {
 "tcId": 47922,
 "assetId": 49067,
 "assetName": "Elite Keyboard",
 "assetVendor": "Hewlett-Packard",
 "deviceId": "034a",
 "categoryList": {
 "categoryList": [
 "categoryId": 49068,
```



```
"categoryName": "Keyboard"
},
{
  "categoryId": 49069,
  "categoryName": "Human Interface Device"
}
]
},
  "detailList": {
  "detailList": [...]
}
}
],
  "links": []
}
```



GET /v3/assethistory

Summary

Gets the complete asset history of the UMS instance.

```
Resource URL
/v3/assethistory
Example Request
curl \
--request GET \
https://[server]:8443/umsapi/v3/assethistory
Response Type
Returns an array of AssetHistoryResource(see page 101).
Example Response
{
 "assethistories": [
 {
 "historyId": 2,
 "unitId": "000BCA050027",
 "assetId": 49067,
 "eventTimeStamp": 1500012051000,
 "event": {
 "identifier": "add_on_boot"
 }
 },
 {
 "historyId": 3,
 "unitId": "000BCA050027",
 "assetId": 49070,
 "eventTimeStamp": 1500012051000,
 "event": {
```

"identifier": "add_on_boot"



```
}
},
 "historyId": 4,
 "unitId": "000BCA050027",
 "assetId": 49072,
 "eventTimeStamp": 1500012123000,
 "event": {
 "identifier": "add"
 }
},
 "historyId": 5,
 "unitId": "000BCA050027",
 "assetId": 49072,
 "eventTimeStamp": 1500012735000,
 "event": {
 "identifier": "remove"
 }
},
{
 "historyId": 6,
 "unitId": "000BCA050027",
 "assetId": 49083,
 "eventTimeStamp": 1500012774000,
 "event": {
 "identifier": "add"
 }
 },
 {
 "historyId": 7,
 "unitId": "000BCA050027",
 "assetId": 49072,
 "eventTimeStamp": 1500274346000,
```



```
"event": {
  "identifier": "add"
  }
  }
  ],
  "links": []
}
```



GET /v3/assethistory/assets/{assetId}

Summary

Gets the asset history for a specific asset.

Resource URL

```
/v3/assethistory/assets/{assetId}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/assethistory/assets/49070
```

Request Path Variables

Name	Туре	Mandatory	Description
assetId	String	yes	asset ID

Response Type

Returns an array of AssetHistoryResource (see page 101).

```
{
   "assethistories": [
   {
    "historyId": 3,
    "unitId": "000BCA050027",
   "assetId": 49070,
   "eventTimeStamp": 1500012051000,
   "event": {
    "identifier": "add_on_boot"
   }
   },
   {
    "historyId": 26,
   "unitId": "000BCA050027",
```



```
"assetId": 49070,
 "eventTimeStamp": 1500372856000,
 "event": {
 "identifier": "remove"
 }
},
{
 "historyId": 29,
 "unitId": "000BCA050027",
 "assetId": 49070,
 "eventTimeStamp": 1500380032000,
 "event": {
 "identifier": "add"
}
}
],
"links": []
}
```



GET /v3/assethistory/thinclients/{unitId}

Summary

Gets the asset history for a specific thin client.

Resource URL

```
/v3/assethistory/thinclients/{unitId}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/assethistory/thinclients/000BCA050027
```

Request Path Variables

Name	Туре	Mandatory	Description
unitId	String	yes	unit ID of the endpoint device

Response Type

Returns an array of AssetHistoryResource (see page 101).

```
{
   "assethistories": [
   {
    "historyId": 2,
    "unitId": "000BCA050027",
   "assetId": 49067,
   "eventTimeStamp": 1500012051000,
   "event": {
    "identifier": "add_on_boot"
   }
   },
   {
    "historyId": 3,
   "unitId": "000BCA050027",
}
```



```
"assetId": 49070,
 "eventTimeStamp": 1500012051000,
 "event": {
 "identifier": "add_on_boot"
 }
},
 "historyId": 4,
 "unitId": "000BCA050027",
 "assetId": 49072,
 "eventTimeStamp": 1500012123000,
 "event": {
 "identifier": "add"
 }
},
{
 "historyId": 5,
 "unitId": "000BCA050027",
 "assetId": 49072,
 "eventTimeStamp": 1500012735000,
 "event": {
"identifier": "remove"
}
}
],
"links": []
}
```



Thin Client

- GET /v3/thinclients(see page 128)
- GET /v3/thinclients?facets=details(see page 130)
- GET /v3/thinclients?facets=online(see page 134)
- GET /v3/thinclients?facets=shadow(see page 136)
- GET /v3/thinclients?facets=networkadapters(see page 139)
- GET /v3/thinclients?facets=deviceattributes(see page 140)
- GET /v3/thinclients/{tcld}(see page 142)
- GET /v3/thinclients/{tcId}?facets=details(see page 143)
- GET /v3/thinclients/{tcId}?facets=online(see page 145)
- GET /v3/thinclients/{tcld}?facets=shadow(see page 147)
- GET /v3/thinclients/{tcld}?facets=networkadapters(see page 149)
- GET /v3/thinclients/{tcld}?facets=deviceattributes(see page 150)
- GET /v3/thinclients/{tcld}/assignments/profiles(see page 152)
- GET /v3/thinclientview/{viewId}(see page 155)
- GET /v3/thinclientview/{viewId}?facets=details(see page 157)
- GET /v3/thinclientview/{viewId}?facets=online(see page 161)
- GET /v3/thinclientview/{viewId}?facets=shadow(see page 163)
- GET /v3/thinclientview/{viewId}?facets=networkadapters(see page 166)
- PUT /v3/thinclients/{tcld}/assignments/profiles(see page 167)
- PUT /v3/thinclients(see page 168)
- PUT /v3/thinclients/{tcld}(see page 170)
- DELETE /v3/thinclients/{tcld}(see page 172)
- DELETE /v3/thinclients/{tcld}/deletetcoffline(see page 174)
- POST /v3/thinclients/?command={reboot|shutdown|wakeup}(see page 175)
- POST /v3/thinclients?command=settings2tc(see page 177)
- POST /v3/thinclients/?command=tcreset2facdefs(see page 179)



GET /v3/thinclients

Summary

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

(i) 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

```
/v3/thinclients
```

Example Request

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

Response Type

Returns an Array of TCResourceV3(see page 102).

```
Γ
{
 "unitID": "00E0C514325B",
 "mac": "00E0C514325B",
 "firmwareID": "6",
 "lastIP": "172.30.92.26",
 "batteryLevel": 0,
 "id": "95",
 "name": "ITC00E0C514325B",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": []
 },
{
```



```
"unitID": "000BCA050027",

"mac": "000BCA050027",

"firmwareID": "6",

"lastIP": "172.30.91.87",

"batteryLevel": 0,

"id": "47922",

"name": "ITC000BCA050027",

"parentID": "-1",

"movedToBin": false,

"objectType": "tc",

"links": []
}
```



GET /v3/thinclients?facets=details

Summary

Gets detailed information on all thin clients.



(i) 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

```
/v3/thinclients?facets=details
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients?facets=details
```

Response Type

Returns an Array of TCResourceV3(see page 102) with full details.

```
Γ
{
 "unitID": "00E0C514325B",
 "mac": "00E0C514325B",
 "firmwareID": "6",
 "networkName": "ITC00E0C514325B",
 "lastIP": "172.30.92.26",
 "productId": "UD3-LX 50cps",
 "umsStructuralTag": "",
 "cpuSpeed": 1200,
 "cpuType": "AMD GX-412HC SOC with Radeon(TM) R3E Graphics",
 "deviceType": "IGEL M340C",
 "deviceSerialNumber": "14D3E3C02B16160323M",
 "osType": "IGEL Linux 10 (Kernel Version 4.10.17)",
 "flashSize": 1875,
```



```
"memorySize": 1705,
"networkSpeed": 1000,
"graphicsChipset0": "ATI MULLINS",
"graphicsChipset1": "",
"monitorVendor1": "Samsung Electric Company",
"monitorModel1": "SyncMaster",
"monitorSerialnumber1": "HMJBC00558",
"monitorSize1": 24,
"monitorNativeResolution1": "1920 x 1200",
"monitor1YearOfManufacture": "2011",
"monitor1WeekOfManufacture": "51",
"monitorVendor2": "",
"monitorModel2": "",
"monitorSerialnumber2": "",
"monitorSize2": 0,
"monitorNativeResolution2": "",
"monitor2YearOfManufacture": "",
"monitor2WeekOfManufacture": "",
"biosVendor": "Insyde Corp.",
"biosVersion": "M340C V:3.3.13-12162015",
"biosDate": "12/16/2015",
"totalUsagetime": "20",
"totalUptime": "1500380741",
"lastBoottime": "2017-07-18 14:25",
"batteryLevel": -1,
"id": "95",
"name": "ITC00E0C514325B",
"parentID": "-1",
"movedToBin": false,
"objectType": "tc",
"links": []
},
"unitID": "000BCA050027",
```



```
"mac": "000BCA050027",
"firmwareID": "6",
"networkName": "ITC000BCA050027",
"lastIP": "172.30.91.87",
"productId": "UD2-LX 40acps",
"umsStructuralTag": "",
"cpuSpeed": 1466,
"cpuType": "Intel(R) Atom(TM) CPU E3815 @ 1.46GHz",
"deviceType": "IGEL D220",
"deviceSerialNumber": "1502GVAAA2965",
"osType": "IGEL Linux 10 (Kernel Version 4.10.17)",
"flashSize": 1875,
"memorySize": 1894,
"networkSpeed": 1000,
"graphicsChipset0": "INTEL HD Graphics (Baytrail)",
"graphicsChipset1": "",
"monitorVendor1": "Samsung Electric Company",
"monitorModel1": "SyncMaster",
"monitorSerialnumber1": "HMJBC00558",
"monitorSize1": 24,
"monitorNativeResolution1": "1920 x 1200",
"monitor1YearOfManufacture": "2011",
"monitor1WeekOfManufacture": "51",
"monitorVendor2": "",
"monitorModel2": "",
"monitorSerialnumber2": "",
"monitorSize2": 0,
"monitorNativeResolution2": "",
"monitor2YearOfManufacture": "",
"monitor2WeekOfManufacture": "",
"biosVendor": "INSYDE Corp.",
"biosVersion": "D220-002",
"biosDate": "02/01/2016",
"totalUsagetime": "1739549000",
```



```
"totalUptime": "8856000",

"lastBoottime": "2017-07-18 11:55",

"batteryLevel": -1,

"id": "47922",

"name": "ITC000BCA050027",

"parentID": "-1",

"movedToBin": false,

"objectType": "tc",

"links": []
}
```



GET /v3/thinclients?facets=online

Summary

Gets the online status for all thin clients.

- (i) 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.
- (i) 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

```
/v3/thinclients?facets=online
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients?facets=online
```

Response Type

Returns an Array of TCResourceV3(see page 102) with their online status.



```
"objectType": "tc",
 "links": []
},
 {
 "unitID": "000BCA050027",
 "mac": "000BCA050027",
 "firmwareID": "6",
 "lastIP": "172.30.91.87",
 "online": true,
 "batteryLevel": 0,
 "id": "47922",
 "name": "ITC000BCA050027",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
"links": []
}
]
```



GET /v3/thinclients?facets=shadow

Summary

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



(i) 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 document "Using Secure VNC via IGEL Management Interface $(IMI)^{"7}$.

Resource URL

```
/v3/thinclients?facets=shadow
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients?facets=shadow
```

Response Type

Returns an Array of TCResourceV3(see page 102) with the shadowSecret object, consisting of the certificate and password fields.

Example Response

```
Γ
{
 "unitID": "00E0C514325B",
 "mac": "00E0C514325B",
 "firmwareID": "6",
 "lastIP": "000.00.00.00",
 "batteryLevel": 0,
 "shadowSecret": {
 "certificate": "----BEGIN CERTIFICATE----
```

MIIE1jCCAr6gAwIBAgIEBCOa4zANBgkqhkiG9w0BAQ0FADAtMQswCQYDVQQGEwJE RTEPMA0GA1UEBxMGQnJlbWVuMQ0wCwYDVQQKEwRJR0VMMB4XDTE0MDEwMTAwMDAw

⁷ http://edocs.igel.com/10204968.htm



MVoXDTM3MDEwMTAwMDAwMVowLTELMAkGA1UEBhMCREUxDzANBgNVBAcTBkJyZW1l bjENMAsGA1UEChMESUdFTDCCAiIwDQYJKoZIhvcNAQEBBQADggIPADCCAgoCggIB AJw6kiftBFhAnFXGfzMnuhiSYm9QrGFGvryvNpPzEK8f8Svcp62R+jv3bhtlFJcW QGf4xn4xRoQUzj48m5Y1Sg12oY/YBNt5xLxKLTeq0HGurpYVan40zoT0FRG+ygpX WUh0MvPfFYscokWo/7Id5EycfBefVwvx6Z09z0b112J8qgmo5/aenWJph70dJbKW sH2ojXzjU6tkrMVv80V+68TNOc5I8V2wIzlgeqNnpKCZLkSbRjzhd6FMoY0RdqqC MLuMAluDoKuj5Z29tGNX1YYnIt7w+DmB18g8hYWbLztLhMqX6pNBfEgi3VLqjUOS iIFmfzGT9ZpuCNMfvpXzCWKhwc8WPWzlPNFF9cMI+rYyPWGOmhSuhIJsHvRbddfm 6nte8Wt7cc2Q0Ha89b1Mwmy4/LKT810RyOGe8t66eDrxkGv2dlmimUJ2Tn6E92b9 WyStLC+FDqEecPC46P8UCEf4c9Ed+MiwRQzwIFBlqAMqljtG1StmwEoYJ8WLazl5 wG9QpSOzy/4JKTqjm5pLfUYA2xIfnP1h/9ESD7AYU47PNZF/KRh20VCMBHeV79V7 en/w0NJPeacK9ug2XNFWHSARS2Bgb3KAXdtoicBIcjZAtNpm1W5NOaZ70l4zngV0 V45XOgWxin+7oYXoLaMfi7pm0EnZnmBNWmPSBdjRIQChAgMA/zkwDQYJKoZIhvcN AQENBQADggIBAJmNVT+x4iprrlBdqChLCK1dhiozzbYBkRQGE8HXryIzCPY+tOzO NOZr1xAIL8Iczy1DVZRHsAw5CNSWnSnfKHdd/tDV9aCpITfWUq0b22hrG9wK9P5X jZhBusc9BBX1oNL/CiD+HschhsOqpdl4MMWpH6aSdoK+qxTW8+8300CiLHHzQuB8 UkP/XSjr/70CmOuqd71QrfdbrqTzdRmzhKg6SnwUR9j3nToymOiwaZM8ucR/gbN3 9mzORiqiGydvyjJ/LJgpV5viERLCK1iUua2SJ4+5NRByS//JfDt90U8YoGXAohMj wz55Arc8CJvd2M0W0v0OeyIMj7EJzhTDcxS5mmLrl6BrsFC37qgFiSsjffoOXnsZ MkMC/edUyGSqpJ4N5/huyYkoP/C7OSQTXgsDE8gN4kESIWkzHLJCnP/A2A4jaHlm G8onZtR92xLSEksggyAAp19Rx9510Rqo27+qooJTQ0D/Ovjyf9i+dn9x3cczpmDs fN9ucu5Bd9TCNlP84pIw7rEyhA+otly47dgC6uL7digv0lfUtwenOgnNWyON9Y20 1SLiF5lyFpEmxq9m/bo6Vci2EWgf4D6Ib+R6ZpRUFvBZUHp6rfXl9Qi1bD5qM4It Javl7XGk7CyGyF0/SCv3Sx0KP1d54poRY/iXeJ5LES0LpAurXS8/yX4i

```
----END CERTIFICATE----",

"password": "xxx"
},

"id": "95",

"name": "ITC00E0C514325B",

"parentID": "-1",

"movedToBin": false,

"objectType": "tc",

"links": []
},
```



```
{
 "unitID": "000BCA050027",
 "mac": "000BCA050027",
 "firmwareID": "6",
 "lastIP": "000.00.00.00",
 "batteryLevel": 0,
 "shadowSecret": {
 "certificate": "----BEGIN CERTIFICATE----
MIIE2jCCAsKgAwIBAgIIVK2HBBbVnSwwDQYJKoZIhvcNAQENBQAwLTELMAkGA1U
[...]
v7vvw==
----END CERTIFICATE----",
 "password": "xxx"
 },
 "id": "47922",
 "name": "ITC000BCA050027",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": []
}
1
```



GET /v3/thinclients?facets=networkadapters

Summary

Gets detailed information on all available network adapters for all endpoint devices. This information is provided for devices as of IGEL OS 11.07.100.

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

Resource URL

```
/v3/thinclients?facets=networkadapters
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients?facets=networkadapters
```

Response Type

Returns an Array of TCResourceV3(see page 102) with full details.

```
[{"unitID": "85641000E583142622", "mac": "00E0C520986A", "firmwareID": "325", "lastIP
":"000.00.00.000", "networkAdapters": [], "deviceAttributes":
[],"id":"36115","name":"TD-
RD01", "parentID": "36150", "movedToBin": false, "objectType": "tc", "links": []},
{"unitID":"00E0C520986A","mac":"00E0C520986A","firmwareID":"1129","lastIP":"000.
00.00.000", "networkAdapters":
[{"type":"lan","mac":"00E0C520986A","name":"enp1s0","state":"up"}],"deviceAttrib
utes":[],"id":"97856","name":"TD-
RD03","parentID":"36150","movedToBin":false,"objectType":"tc","links":[]}]
```



GET /v3/thinclients?facets=deviceattributes

Summary

Gets the available device attributes. This request is available as of IGEL OS 11.07.100.

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

Resource URL

/v3/thinclients?facets=deviceattributes

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients?facets=deviceattributes
```

Response Type

Returns an Array of TCResourceV3(see page 102) with full details.

```
{
        "unitID": "005056930CAD",
        "mac": "005056930CAD",
        "firmwareID": "19",
        "lastIP": "192.168.30.106",
        "deviceAttributes": [
            {
                "name": "Division",
                "identifier": "division",
                "value": "First division",
                "type": "range",
                "allowedValues": [
                    "First division",
                    "Second division",
                    "Third division"
                ]
            },
                "name": "Country",
```



```
"identifier": "country",
                "value": "DE",
                "type": "range",
                "allowedValues": [
                    "DE",
                    "GB",
                    "US"
                ]
            },
                "name": "Location",
                "identifier": "location",
                "value": "Augsburg",
                "type": "range",
                "allowedValues": [
                    "Augsburg",
                    "Karlsruhe",
                    "San Francisco"
                ]
            }
        "id": "455",
        "name": "ITC005056930CAD",
        "parentID": "-1",
        "movedToBin": false,
        "objectType": "tc",
        "links": []
    },
        "unitID": "85641000D308482019",
        "mac": "001558CDD1C0",
        "firmwareID": "2",
        "lastIP": "192.168.2.127",
        "deviceAttributes": [],
        "id": "3610",
        "name": "ITC001558CDD1C0",
        "parentID": "-1",
        "movedToBin": false,
        "objectType": "tc",
        "links": []
    }
]
```



GET /v3/thinclients/{tcId}

Summary

Gets information on the specified thin client.

Resource URL

```
/v3/thinclients/{tcId}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients/95
```

Request Path Variables

Name	Туре	Mandatory	Description
tcId	String	yes	thin client ID

Response Type

Returns a TCResourceV3(see page 102).

```
"unitID": "00E0C514325B",
    "mac": "00E0C514325B",
    "firmwareID": "6",
    "lastIP": "172.30.92.26",
    "batteryLevel": 0,
    "id": "95",
    "name": "ITC00E0C514325B",
    "parentID": "-1",
    "movedToBin": false,
    "objectType": "tc",
    "links": []
}
```



GET /v3/thinclients/{tcId}?facets=details

Summary

Gets detailed information on the specified thin client.

Resource URL

```
/v3/thinclients/{tcId}?facets=details
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients/95?facets=details
```

Request Path Variables

Name	Туре	Mandatory	Description
tcId	String	yes	thin client ID

Response Type

Returns a TCResourceV3(see page 102) with full details.

```
"unitID": "00E0C514325B",
"mac": "00E0C514325B",
"firmwareID": "6",
"networkName": "ITC00E0C514325B",
"lastIP": "172.30.92.26",
"productId": "UD3-LX 50cps",
"umsStructuralTag": "",
"cpuSpeed": 1200,
"cpuType": "AMD GX-412HC SOC with Radeon(TM) R3E Graphics",
"deviceType": "IGEL M340C",
"deviceSerialNumber": "14D3E3C02B16160323M",
"osType": "IGEL Linux 10 (Kernel Version 4.10.17)",
"flashSize": 1875,
```



```
"memorySize": 1705,
 "networkSpeed": 1000,
 "graphicsChipset0": "ATI MULLINS",
 "graphicsChipset1": "",
 "monitorVendor1": "Samsung Electric Company",
 "monitorModel1": "SyncMaster",
 "monitorSerialnumber1": "HMJBC00558",
 "monitorSize1": 24,
 "monitorNativeResolution1": "1920 x 1200",
 "monitor1YearOfManufacture": "2011",
 "monitor1WeekOfManufacture": "51",
 "monitorVendor2": "",
 "monitorModel2": "",
 "monitorSerialnumber2": "",
 "monitorSize2": 0,
 "monitorNativeResolution2": "",
 "monitor2YearOfManufacture": "",
 "monitor2WeekOfManufacture": "",
 "biosVendor": "Insyde Corp.",
 "biosVersion": "M340C V:3.3.13-12162015",
 "biosDate": "12/16/2015",
 "totalUsagetime": "20",
 "totalUptime": "1500380741",
 "lastBoottime": "2017-07-18 14:25",
 "batteryLevel": -1,
 "id": "95",
 "name": "ITC00E0C514325B",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": []
}
```



GET /v3/thinclients/{tcId}?facets=online

Summary

Gets information on the specified thin client with its online status.



(i) 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

```
/v3/thinclients/{tcId}?facets=online
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients/95?facets=online
```

Request Path Variables

Name	Туре	Mandatory	Description
tcId	String	yes	thin client ID

Response Type

Returns a TCResourceV3(see page 102) with its online status.

```
"unitID": "00E0C514325B",
"mac": "00E0C514325B",
"firmwareID": "6",
"lastIP": "172.30.92.26",
"online": false,
"batteryLevel": 0,
"id": "95",
"name": "ITC00E0C514325B",
"parentID": "-1",
"movedToBin": false,
```



```
"objectType": "tc",
"links": []
}
```



GET /v3/thinclients/{tcId}?facets=shadow

Summary

Gets shadowing information on the specified thin client.

Learn more about shadowing from the How-To document "Using Secure VNC via IGEL Management Interface (IMI)" (see page 284).

Resource URL

```
/v3/thinclients/{tcId}?facets=shadow
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients/95?facets=shadow
```

Request Path Variables

Name	Туре	Mandatory	Description
tcId	String	yes	thin client ID

Response Type

Returns a TCResourceV3(see page 102) with the shadowSecret object, consisting of the certificate and password fields.

Example Response

```
"unitID": "00E0C514325B",

"mac": "00E0C514325B",

"firmwareID": "6",

"lastIP": "172.30.92.26",

"batteryLevel": 0,

"shadowSecret": {
  "certificate": "----BEGIN CERTIFICATE-----
MIIE1jCCAr6gAwIBAgIEBCOa4zANBgkqhkiG9w0BAQ0FADAtMQswCQYDVQQGEwJE
```

MITETJCCAr6gAWIBAGIEBCOa4ZANBGKQNKTG9W0BAQ0FADATMQSWCQYDVQQGEWJE RTEPMA0GA1UEBxMGQnJlbWVuMQ0wCwYDVQQKEwRJR0VMMB4XDTE0MDEwMTAwMDAw MVoXDTM3MDEwMTAwMDAwMVowLTELMAkGA1UEBhMCREUxDzANBgNVBAcTBkJyZW1l bjENMAsGA1UEChMESUdFTDCCAiIwDQYJKoZIhvcNAQEBBQADggIPADCCAgoCggIB



AJw6kiftBFhAnFXGfzMnuhiSYm9QrGFGvryvNpPzEK8f8Svcp62R+jv3bhtlFJcW QGf4xn4xRoQUzj48m5Y1Sg12oY/YBNt5xLxKLTeq0HGurpYVan40zoT0FRG+ygpX WUh0MvPfFYscokWo/7Id5EycfBefVwvx6Z09z0b112J8qgmo5/aenWJph70dJbKW sH2ojXzjU6tkrMVv80V+68TNOc5I8V2wIzlgeqNnpKCZLkSbRjzhd6FMoY0RdqqC MLuMAluDoKuj5Z29tGNX1YYnIt7w+DmB18g8hYWbLztLhMqX6pNBfEgi3VLqjUOS iIFmfzGT9ZpuCNMfvpXzCWKhwc8WPWzlPNFF9cMI+rYyPWGOmhSuhIJsHvRbddfm 6nte8Wt7cc2Q0Ha89b1Mwmy4/LKT810RyOGe8t66eDrxkGv2dlmimUJ2Tn6E92b9 WyStLC+FDgEecPC46P8UCEf4c9Ed+MiwRQzwIFBlgAMgljtG1StmwEoYJ8WLazl5 wG9QpS0zy/4JKTqjm5pLfUYA2xIfnP1h/9ESD7AYU47PNZF/KRh20VCMBHeV79V7 en/w0NJPeacK9ug2XNFWHSARS2Bgb3KAXdtoicBIcjZAtNpm1W5NOaZ70l4zngV0 V45XOgWxin+7oYXoLaMfi7pmOEnZnmBNWmPSBdjRIQChAgMA/zkwDQYJKoZIhvcN AQENBQADggIBAJmNVT+x4iprrlBdqChLCK1dhiozzbYBkRQGE8HXryIzCPY+tOzO NOZr1xAIL8Iczy1DVZRHsAw5CNSWnSnfKHdd/tDV9aCpITfWUq0b22hrG9wK9P5X jZhBusc9BBX1oNL/CiD+HschhsOqpdl4MMWpH6aSdoK+qxTW8+8300CiLHHzQuB8 UkP/XSjr/70CmOuqd71QrfdbrqTzdRmzhKg6SnwUR9j3nToymOiwaZM8ucR/gbN3 9mzORiqiGydvyjJ/LJgpV5viERLCK1iUua2SJ4+5NRByS//JfDt90U8YoGXAohMj wz55Arc8CJvd2M0W0v0OeyIMj7EJzhTDcxS5mmLrl6BrsFC37qgFiSsjffoOXnsZ MkMC/edUyGSqpJ4N5/huyYkoP/C7OSQTXgsDE8gN4kESIWkzHLJCnP/A2A4jaHlm G8onZtR92xLSEksggyAAp19Rx9510Rqo27+qooJTQ0D/Ovjyf9i+dn9x3cczpmDs fN9ucu5Bd9TCNlP84pIw7rEyhA+otly47dgC6uL7digv0lfUtwen0gnNWy0N9Y20 1SLiF5lyFpEmxq9m/bo6Vci2EWgf4D6Ib+R6ZpRUFvBZUHp6rfXl9Qi1bD5qM4It Javl7XGk7CyGyF0/SCv3Sx0KP1d54poRY/iXeJ5LES0LpAurXS8/yX4i

```
"----END CERTIFICATE----
",
    "password": "6ce714ad-6629-4296-a676-1c0ca5f4689c"
    },
    "id": "95",
    "name": "ITC00E0C514325B",
    "parentID": "-1",
    "movedToBin": false,
    "objectType": "tc",
    "links": []
}
```



GET /v3/thinclients/{tcId}?facets=networkadapters

Summary

Gets detailed information on all available network adapters for the specified endpoint device. This information is provided for devices as of IGEL OS 11.07.100.

Resource URL

```
/v3/thinclients/{tcId}?facets=networkadapters
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients/95?facets=networkadapters
```

Request Path Variables

Name	Туре	Mandatory	Description
tcId	String	yes	ID of the endpoint device

Response Type

Returns a TCResourceV3(see page 102) with full details.

```
{"unitID":"00E0C520986A","mac":"00E0C520986A","firmwareID":"1129","lastIP":"000
.00.00.000","networkAdapters":
[{"tvpe":"lan","mac":"00E0C520986A","name":"enp1s0","state":"up"}],"deviceAttrib
utes":[],"id":"97856","name":"TD-
RD03","parentID":"36150","movedToBin":false,"objectType":"tc","links":[]}
```



GET /v3/thinclients/{tcld}?facets=deviceattributes

Summary

Gets the available device attributes for the specified endpoint device. This request is available as of IGEL OS 11.07.100.

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

Resource URL

```
/v3/thinclients/{tcId}?facets=deviceattributes
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients/455?facets=deviceattributes
```

Response Type

Returns an Array of TCResourceV3(see page 102) with full details.

```
{
    "unitID": "005056930CAD",
    "mac": "005056930CAD",
    "firmwareID": "19",
    "lastIP": "192.168.30.106",
    "deviceAttributes": [
        {
            "name": "Country",
            "identifier": "country",
            "value": "DE",
            "type": "range",
            "allowedValues": [
                "DE",
                "GB",
                "US"
            ]
        },
            "name": "Location",
```



```
"identifier": "location",
            "value": "Augsburg",
            "type": "range",
            "allowedValues": [
                "Augsburg",
                "Karlsruhe",
                "San Francisco"
            ]
       }
    ],
   "id": "455",
    "name": "ITC005056930CAD",
    "parentID": "-1",
    "movedToBin": false,
    "objectType": "tc",
    "links": []
}
```



GET /v3/thinclients/{tcId}/assignments/profiles

Summary

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

Resource URL

```
/v3/thinclients/{tcId}/assignments/profiles
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients/48335/assignments/profiles
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	thin client ID

Response Type

Returns a list of Profile and Master Profile Assignments (see page 105).



```
"href": "https://172.30.91.227:8443/umsapi/v3/profiles/68257"
},
{
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/48335"
},
{
"rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/68257/assignments/
thinclients/48335"
}
1
},
{
 "assignee": {
 "id": "72063",
 "type": "masterprofile"
 },
 "receiver": {
 "id": "48335",
 "type": "tc"
 },
 "assignmentPosition": 1,
 "links": [
 {
 "rel": "assigned",
 "href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72063"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/48335"
 },
 {
 "rel": "self",
```



"href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72063/assignments/thinclients/48335"

}

]

}

]



GET /v3/thinclientview/{viewId}

(i) This IMI resource is available with UMS 6.10.110 or higher.

Summary

Gets information on all endpoint devices in the view with the id {viewId}.

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

Resource URL

```
/v3/thinclientview/{viewId}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclientview/{viewId}
```

Response Type

Returns an Array of TCResourceV3(see page 102).



```
"links": []
},
{
 "unitID": "000BCA050027",
 "mac": "000BCA050027",
 "firmwareID": "6",
 "lastIP": "172.30.91.87",
 "batteryLevel": 0,
 "id": "47922",
 "name": "ITC000BCA050027",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": []
}
]
```



GET /v3/thinclientview/{viewId}?facets=details

(i) This IMI resource is available with UMS 6.10.110 or higher.

Summary

Gets detailed information on all endpoint devices in the view with the id {viewId}.

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

Resource URL

```
/v3/thinclientview/{viewId}?facets=details
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclientview/{viewId}?facets=details
```

Response Type

Returns an Array of TCResourceV3(see page 102) with full details.

```
[
{
  "unitID": "00E0C514325B",
  "mac": "00E0C514325B",
  "firmwareID": "6",
  "networkName": "ITC00E0C514325B",
  "lastIP": "172.30.92.26",
  "productId": "UD3-LX 50cps",
  "umsStructuralTag": "",
  "cpuSpeed": 1200,
  "cpuType": "AMD GX-412HC SOC with Radeon(TM) R3E Graphics",
  "deviceType": "IGEL M340C",
  "deviceSerialNumber": "14D3E3C02B16160323M",
```



```
"osType": "IGEL Linux 10 (Kernel Version 4.10.17)",
 "flashSize": 1875,
 "memorySize": 1705,
 "networkSpeed": 1000,
 "graphicsChipset0": "ATI MULLINS",
 "graphicsChipset1": "",
 "monitorVendor1": "Samsung Electric Company",
 "monitorModel1": "SyncMaster",
 "monitorSerialnumber1": "HMJBC00558",
 "monitorSize1": 24,
 "monitorNativeResolution1": "1920 x 1200",
 "monitor1YearOfManufacture": "2011",
 "monitor1WeekOfManufacture": "51",
 "monitorVendor2": "",
 "monitorModel2": "",
 "monitorSerialnumber2": "",
 "monitorSize2": 0,
 "monitorNativeResolution2": "",
 "monitor2YearOfManufacture": "",
 "monitor2WeekOfManufacture": "",
 "biosVendor": "Insyde Corp.",
 "biosVersion": "M340C V:3.3.13-12162015",
 "biosDate": "12/16/2015",
 "totalUsagetime": "20",
 "totalUptime": "1500380741",
 "lastBoottime": "2017-07-18 14:25",
 "batteryLevel": -1,
 "id": "95",
 "name": "ITC00E0C514325B",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": []
},
```



```
{
 "unitID": "000BCA050027",
 "mac": "000BCA050027",
 "firmwareID": "6",
 "networkName": "ITC000BCA050027",
 "lastIP": "172.30.91.87",
 "productId": "UD2-LX 40acps",
 "umsStructuralTag": "",
 "cpuSpeed": 1466,
 "cpuType": "Intel(R) Atom(TM) CPU E3815 @ 1.46GHz",
 "deviceType": "IGEL D220",
 "deviceSerialNumber": "1502GVAAA2965",
 "osType": "IGEL Linux 10 (Kernel Version 4.10.17)",
 "flashSize": 1875,
 "memorySize": 1894,
 "networkSpeed": 1000,
 "graphicsChipset0": "INTEL HD Graphics (Baytrail)",
 "graphicsChipset1": "",
 "monitorVendor1": "Samsung Electric Company",
 "monitorModel1": "SyncMaster",
 "monitorSerialnumber1": "HMJBC00558",
 "monitorSize1": 24,
 "monitorNativeResolution1": "1920 x 1200",
 "monitor1YearOfManufacture": "2011",
 "monitor1WeekOfManufacture": "51",
 "monitorVendor2": "",
 "monitorModel2": "",
 "monitorSerialnumber2": "",
 "monitorSize2": 0,
 "monitorNativeResolution2": "",
 "monitor2YearOfManufacture": "",
 "monitor2WeekOfManufacture": "",
 "biosVendor": "INSYDE Corp.",
 "biosVersion": "D220-002",
```



```
"biosDate": "02/01/2016",
  "totalUsagetime": "1739549000",
  "totalUptime": "8856000",
  "lastBoottime": "2017-07-18 11:55",
  "batteryLevel": -1,
  "id": "47922",
  "name": "ITC000BCA050027",
  "parentID": "-1",
  "movedToBin": false,
  "objectType": "tc",
  "links": []
  }
]
```



GET /v3/thinclientview/{viewId}?facets=online

i This IMI resource is available with UMS 6.10.110 or higher.

Summary

Gets the online status for all endpoint devices in the view with the id {viewId}.

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

```
/v3/thinclientview/{viewId}?facets=online
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients?facets=online
```

Response Type

Returns an Array of TCResourceV3(see page 102) with their online status.



```
"parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
 "links": []
 },
 {
 "unitID": "000BCA050027",
 "mac": "000BCA050027",
 "firmwareID": "6",
 "lastIP": "172.30.91.87",
 "online": true,
 "batteryLevel": 0,
 "id": "47922",
 "name": "ITC000BCA050027",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
"links": []
}
]
```



GET /v3/thinclientview/{viewId}?facets=shadow

i This IMI resource is available with UMS 6.10.110 or higher.

Summary

Gets the certificate and password for Secure VNC for all endpoint devices in the view with the id {viewId}.

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

Learn more about shadowing from the How-To document "Using Secure VNC via IGEL Management Interface (IMI)"⁸.

Resource URL

```
/v3/thinclientview/{viewId}?facets=shadow
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclientview/{viewId}?facets=shadow
```

Response Type

Returns an Array of TCResourceV3(see page 102) with the shadowSecret object, consisting of the certificate and password fields.

⁸ http://edocs.igel.com/10204968.htm



MIIE1jCCAr6gAwIBAgIEBCOa4zANBgkqhkiG9w0BAQ0FADAtMQswCQYDVQQGEwJE RTEPMA0GA1UEBxMGQnJlbWVuMQ0wCwYDVQQKEwRJR0VMMB4XDTE0MDEwMTAwMDAw MVoXDTM3MDEwMTAwMDAwMVowLTELMAkGA1UEBhMCREUxDzANBgNVBAcTBkJyZW1l bjENMAsGA1UEChMESUdFTDCCAiIwDQYJKoZIhvcNAQEBBQADggIPADCCAgoCggIB AJw6kiftBFhAnFXGfzMnuhiSYm9QrGFGvryvNpPzEK8f8Svcp62R+jv3bhtlFJcW QGf4xn4xRoQUzj48m5Y1Sg12oY/YBNt5xLxKLTeq0HGurpYVan40zoT0FRG+ygpX WUh0MvPfFYscokWo/7Id5EycfBefVwvx6Z09z0b112J8qgmo5/aenWJph70dJbKW sH2ojXzjU6tkrMVv80V+68TNOc5I8V2wIzlgeqNnpKCZLkSbRjzhd6FMoY0RdqqC MLuMAluDoKuj5Z29tGNX1YYnIt7w+DmB18g8hYWbLztLhMqX6pNBfEgi3VLqjUOS iIFmfzGT9ZpuCNMfvpXzCWKhwc8WPWzlPNFF9cMI+rYyPWGOmhSuhIJsHvRbddfm 6nte8Wt7cc2Q0Ha89b1Mwmy4/LKT810RyOGe8t66eDrxkGv2dlmimUJ2Tn6E92b9 WyStLC+FDqEecPC46P8UCEf4c9Ed+MiwRQzwIFBlqAMqljtG1StmwEoYJ8WLazl5 wG9QpSOzy/4JKTqjm5pLfUYA2xIfnP1h/9ESD7AYU47PNZF/KRh20VCMBHeV79V7 en/w0NJPeacK9ug2XNFWHSARS2Bgb3KAXdtoicBIcjZAtNpm1W5NOaZ70l4zngV0 V45XOgWxin+7oYXoLaMfi7pm0EnZnmBNWmPSBdjRIQChAgMA/zkwDQYJKoZIhvcN AQENBQADggIBAJmNVT+x4iprrlBdqChLCK1dhiozzbYBkRQGE8HXryIzCPY+tOzO NOZr1xAIL8Iczy1DVZRHsAw5CNSWnSnfKHdd/tDV9aCpITfWUq0b22hrG9wK9P5X jZhBusc9BBX1oNL/CiD+HschhsOqpdl4MMWpH6aSdoK+qxTW8+8300CiLHHzQuB8 UkP/XSjr/70CmOuqd71QrfdbrqTzdRmzhKg6SnwUR9j3nToymOiwaZM8ucR/gbN3 9mzORiqiGydvyjJ/LJgpV5viERLCK1iUua2SJ4+5NRByS//JfDt90U8YoGXAohMj wz55Arc8CJvd2M0W0v00eyIMj7EJzhTDcxS5mmLrl6BrsFC37qgFiSsjffo0XnsZ MkMC/edUyGSqpJ4N5/huyYkoP/C7OSQTXgsDE8gN4kESIWkzHLJCnP/A2A4jaHlm G8onZtR92xLSEksggyAAp19Rx9510Rqo27+qooJTQ0D/0vjyf9i+dn9x3cczpmDs fN9ucu5Bd9TCNlP84pIw7rEyhA+otly47dgC6uL7digv0lfUtwen0gnNWy0N9Y20 1SLiF5lyFpEmxq9m/bo6Vci2EWgf4D6Ib+R6ZpRUFvBZUHp6rfXl9Qi1bD5qM4It Javl7XGk7CyGyF0/SCv3Sx0KP1d54poRY/iXeJ5LES0LpAurXS8/yX4i

```
----END CERTIFICATE----",
  "password": "xxx"
},
  "id": "95",
  "name": "ITC00E0C514325B",
  "parentID": "-1",
  "movedToBin": false,
  "objectType": "tc",
```



```
"links": []
},
 "unitID": "000BCA050027",
 "mac": "000BCA050027",
 "firmwareID": "6",
 "lastIP": "000.00.00.00",
 "batteryLevel": 0,
 "shadowSecret": {
 "certificate": "----BEGIN CERTIFICATE----
MIIE2jCCAsKgAwIBAgIIVK2HBBbVnSwwDQYJKoZIhvcNAQENBQAwLTELMAkGA1U
[...]
v7vvw==
----END CERTIFICATE----",
 "password": "xxx"
},
 "id": "47922",
 "name": "ITC000BCA050027",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tc",
"links": []
}
1
```



GET /v3/thinclientview/{viewId}?facets=networkadapters

i This IMI resource is available with UMS 6.10.110 or higher.

Summary

Gets detailed information on all available network adapters for all endpoint devices in the view with the id {viewId}. This information is provided for devices as of IGEL OS 11.07.100.

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

Resource URL

/v3/thinclientview/{viewId}?facets=networkadapters

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/thinclients?facets=networkadapters
```

Response Type

Returns an Array of TCResourceV3(see page 102) with full details.

```
[{"unitID":"85641000E583142622","mac":"00E0C520986A","firmwareID":"325","lastIP
":"000.00.00.000","networkAdapters":[],"deviceAttributes":
[],"id":"36115","name":"TD-
RD01","parentID":"36150","movedToBin":false,"objectType":"tc","links":[]},
{"unitID":"00E0C520986A","mac":"00E0C520986A","firmwareID":"1129","lastIP":"000.
00.00.000","networkAdapters":
[{"tvpe":"lan","mac":"00E0C520986A","name":"enp1s0","state":"up"}],"deviceAttrib
utes":[],"id":"97856","name":"TD-
RD03","parentID":"36150","movedToBin":false,"objectType":"tc","links":[]}]
```



PUT /v3/thinclients/{tcId}/assignments/profiles

Summary

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

Resource URL

```
/v3/thinclients/{tcId}/assignments/profiles
```

Example Request

```
curl \
--request PUT \
--data '[{ "assignee": {
    "id": "68257",
    "type": "profile"
    },
    "receiver": {
    "id": "48335",
    "type": "tc"}
    }]' \
```

https://[server]:8443/umsapi/v3/thinclients/48335/assignments/profiles

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	thin client ID

Request Body

A list of Profile and Master Profile Assignments(see page 105).

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



PUT /v3/thinclients

Summary

Creates a new thin client resource.

Resource URL

```
/v3/thinclients
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"mac":"00E0C53C3881", \
"firmwareID":"2"}' \
https://[server]:8443/umsapi/v3/thinclients/
```

Request Body

Name	Туре	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	Туре	Description
message	String	success or error message
id	String	thin client ID
parentID	String	ID of parent directory
name	String	thin client name

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



PUT /v3/thinclients/{tcId}

Summary

Updates properties of the specified thin client

Resource URL

/v3/thinclients/{tcId}

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"reception thin client", \
"site":"main campus"}' \
https://[server]:8443/umsapi/v3/thinclients/123
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	thin client ID

Request Body

Name	Туре	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.

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



DELETE /v3/thinclients/{tcId}

Summary

Deletes a thin client.



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

Resource URL

```
/v1/thinclients/[id]
```

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v3/thinclients/2704
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	thin client ID

Response Type

Returns a message.

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



}



DELETE /v3/thinclients/{tcId}/deletetcoffline

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

```
/v3/thinclients/[id]/deletetcoffline
```

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v3/thinclients/2704/deletetcoffline
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	thin client ID

Response Type

Returns a message.

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



POST /v3/thinclients/?command={reboot|shutdown|wakeup}

Summary

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

Resource URL

```
/v3/thinclients/?command={reboot|shutdown|wakeup}
```

Example Request

```
curl \
--request POST \
--data '[{"id":"27", "type":"tc"},{"id":"72014", "type":"tc"}]'
https://[server]:8443/umsapi/v3/thinclients?command=wakeup
```

Request Body

A list of APIObjects(see page 96).

```
{
 "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 /v3/thinclients?command=settings2tc

Summary

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

Resource URL

```
/v3/thinclients/?command=settings2tc
```

Example Request

```
curl \
--request POST \
--data '[{"id":"27", "type":"tc"},{"id":"72014", "type":"tc"}]'
https://[server]:8443/umsapi/v3/thinclients?command=settings2tc
```

Request Body

A list of APIObjects(see page 96).

```
{
 "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 /v3/thinclients/?command=tcreset2facdefs

Summary

Resets all thin clients listed in the request body to factory defaults.

Resource URL

```
/v3/thinclients/?command=tcreset2facdefs
```

Example Request

```
curl \
--request POST \
--data '[{"id":"71342", "type":"tc"}]'
https://[server]:8443/umsapi/v3/thinclients/?command=tcreset2facdefs
```

Request Body

A list of APIObjects(see page 96).

```
{
  "CommandExecList": [
  {
   "execID": "ID-mhuber-59383-1501855717835-6-0",
   "id": "71342",
   "exectime": "1501855812301",
   "message": "OK",
   "state": "SUCCESS"
  }
  ]
}
```



Profile

- GET /v3/profiles(see page 181)
- GET /v3/profiles/{profileid}(see page 184)
- PUT /v3/profiles/{profileid}(see page 186)
- DELETE /v3/profiles/{profileid}(see page 187)
- GET /v3/profiles/{profileid}/assignments/thinclients(see page 188)
- PUT /v3/profiles/{profileid}/assignments/thinclients/(see page 191)
- DELETE /v3/profiles/{profileid}/assignments/thinclients/{id}(see page 193)
- GET /v3/profiles/{profileid}/assignments/tcdirectories(see page 194)
- PUT /v3/profiles/{profileid}/assignments/tcdirectories(see page 196)
- DELETE /v3/profiles/{profileid}/assignments/tcdirectories/{id}(see page 198)



GET /v3/profiles

Summary

Gets information on all profiles on the UMS instance.

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

```
Resource URL
```

```
/v3/profiles/

Example Request

curl \
--request GET \
```

https://[server]:8443/umsapi/v2/profiles

Response Type

Returns a list of profiles.



```
"href": "https://172.30.91.227:8443/umsapi/v3/profiles/6585"
},
{
"rel": "Parent",
"href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20453"
},
{
"rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/2"
}
1
},
{
 "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/v3/profiles/6592"
 },
 {
 "rel": "Parent",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20453"
},
{
 "rel": "Firmware",
 "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/2"
```



```
}

]

},

[...]
```



GET /v3/profiles/{profileid}

Summary

Gets information on the specified profile.

Resource URL

```
/v3/profiles/{profileid}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/profiles/6585
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	profile ID

Response Type

Returns a profile.

```
{
  "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/v3/profiles/6585"
```



```
},
{
    "rel": "Parent",
    "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20453"
    },
    {
        "rel": "Firmware",
        "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/2"
    }
    ]
}
```



PUT /v3/profiles/{profileid}

Summary

Updates a profile name.

Resource URL

```
/v3/profiles/{profileid}
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Profile Name"}' \
https://[server]:8443/umsapi/v3/profiles/6585
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	profile ID

Request Body

Name	Туре	Mandatory	Description
name	String	no	profile name

Response Type

Returns a success message.

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



DELETE /v3/profiles/{profileid}

Summary

Deletes profile.



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

Resource URL

```
/v3/profiles/{profileid}
```

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v3/profiles/72372
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	profile ID

Response Type

Returns a message.

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



GET /v3/profiles/{profileid}/assignments/thinclients

Summary

Gets the thin clients the profile is assigned.to.

Resource URL

```
/v3/profile/{profileid}/assignments/thinclients
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/profiles/20467/assignments/thinclients
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	profile ID

Response Type

Returns a list of Assignments(see page 105).



```
"href": "https://172.30.91.227:8443/umsapi/v3/profiles/20467"
},
{
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/23028"
},
{
"rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20467/assignments/
thinclients/23028"
}
1
},
{
 "assignee": {
 "id": "20467",
 "type": "profile"
 },
 "receiver": {
 "id": "48335",
 "type": "tc"
 },
 "assignmentPosition": 1,
 "links": [
 {
 "rel": "assigned",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20467"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/48335"
 },
 {
 "rel": "self",
```



"href": "https://172.30.91.227:8443/umsapi/v3/profiles/20467/assignments/thinclients/48335"

}

]

}

IGEL Management Interface (IMI)



PUT /v3/profiles/{profileid}/assignments/thinclients/

Summary

Assigns a profile to one or more thin clients.

Resource URL

```
/v3/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/v3/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 105)

Response Type

Returns a success message.

Example Response

{



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



DELETE /v3/profiles/{profileid}/assignments/thinclients/{id}

Summary

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

Resource URL

```
/v3/profiles/{profileid}/assignments/thinclients/{id}
```

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v3/profiles/68257/assignments/thinclients/48335
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	profile ID
id	String	yes	thin client ID

Response Type

Returns a message.

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



GET /v3/profiles/{profileid}/assignments/tcdirectories

Summary

Gets the thin clients the profile is assigned.to.

Resource URL

```
/v3/profile/{profileid}/assignments/thinclients
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/profiles/35549/assignments/tcdirectories/76462
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	profile ID

Response Type

Returns a list of Assignments(see page 105).



```
"href": "https://172.30.91.227:8443/umsapi/v3/profiles/35549"
},
{
   "rel": "receiver",
   "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/76462"
},
{
   "rel": "self",
   "href": "https://172.30.91.227:8443/umsapi/v3/profiles/35549/assignments/tcdirectories/76462"
}
]
]
]
```



PUT /v3/profiles/{profileid}/assignments/tcdirectories

Summary

Assigns a profile to one or more thin client directories.

Resource URL

```
/v3/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/v3/profiles/35549/assignments/tcdirectories/

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	master profile ID

Request Body

A list of Assignments (see page 105)

Response Type

Returns a success message.

Example Response

{



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



DELETE /v3/profiles/{profileid}/assignments/tcdirectories/{id}

Summary

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

Resource URL

```
/v3/profiles/{profileid}/assignments/tcdirectory/{id}
```

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v3/profiles/35549/assignments/tcdirectories/76462
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	profile ID
id	String	yes	thin client directory ID

Response Type

Returns a message.

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



Master Profile

- GET /v3/masterprofiles(see page 200)
- GET /v3/masterprofiles/{profileid}(see page 203)
- PUT /v3/masterprofile/{profileid}(see page 205)
- DELETE /v3/masterprofiles/{profileid}(see page 206)
- GET /v3/masterprofiles/{profileid}/assignments/thinclients(see page 207)
- PUT /v3/masterprofiles/{profileid}/assignments/thinclients/(see page 210)
- DELETE /v3/masterprofiles/{profileid}/assignments/thinclients/{id}(see page 212)
- GET /v3/masterprofiles/{profileid}/assignments/tcdirectories(see page 213)
- PUT /v3/masterprofiles/{profileid}/assignments/tcdirectories/(see page 215)
- DELETE /v3/masterprofiles/ {profileid}/assignments/tcdirectories/{id}(see page 217)



GET /v3/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
```

```
/v3/masterprofiles/
Example Request
curl \
   --request GET \
https://[server]:8443/umsapi/v3/masterprofiles
```

Response Type

Returns a list of profiles.



```
},
{
"rel": "Parent",
"href": "root"
 },
{
 "rel": "Firmware",
"href": "https://172.30.91.227:8443/umsapi/v3/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/v3/masterprofiles/72055"
 },
{
 "rel": "Parent",
 "href": "root"
 },
 "rel": "Firmware",
"href": "https://172.30.91.227:8443/umsapi/v3/firmwares/23"
}
]
```



}



GET /v3/masterprofiles/{profileid}

Summary

Gets information on the specified master profile.

Resource URL

```
/v3/masterprofiles/{profileid}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/profiles/72054
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	master profile ID

Response Type

Returns a master profile.

```
{
  "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/v3/masterprofiles/72054"
```



```
},
{
"rel": "Parent",
"href": "root"
},
{
   "rel": "Firmware",
   "href": "https://172.30.91.227:8443/umsapi/v3/firmwares/32"
}
]
}
```



PUT /v3/masterprofile/{profileid}

Summary

Updates a master profile name.

Resource URL

```
/v3/masterprofiles/{profileid}
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Master Profile Name"}' \
https://[server]:8443/umsapi/v3/masterprofiles/6585
```

Request Path Variables

Name	Туре	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.

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



DELETE /v3/masterprofiles/{profileid}

Summary

Deletes a master profile.



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

Resource URL

```
/v3/masterprofiles/{profileid}
```

Example Request

```
curl \
--request DELETE \
https://[server]:8443/umsapi/v3/masterprofiles/72303
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	master profile ID

Response Type

Returns a message.

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



GET /v3/masterprofiles/{profileid}/assignments/thinclients

Summary

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

Resource URL

```
/v3/masterprofiles/[profileid]/assignments/thinclients
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/masterprofiles/72308/assignments/thinclients
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	profile ID

Response Type

Returns a list of Assignments(see page 105).



```
"href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72308"
},
{
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/48335"
},
{
"rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72308/
assignments/thinclients/48335"
}
1
},
{
 "assignee": {
 "id": "72308",
 "type": "masterprofile"
 },
 "receiver": {
 "id": "72014",
 "type": "tc"
 },
 "assignmentPosition": 1,
 "links": [
 {
 "rel": "assigned",
 "href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72308"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/72014"
 },
 {
 "rel": "self",
```



"href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72308/assignments/thinclients/72014"

}

]

}

]



PUT /v3/masterprofiles/{profileid}/assignments/thinclients/

Summary

Assigns a master profile to one or more thin clients.

Resource URL

```
/v3/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/v3/masterprofiles/72066/assignments/thinclients/

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	master profile ID

Request Body

A list of Assignments (see page 105)

Response Type

Returns a success message.

Example Response

```
{
```

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



}



DELETE /v3/masterprofiles/{profileid}/assignments/thinclients/{id}

Summary

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

Resource URL

```
/v3/masterprofiles/[profileid]/assignments/thinclients/[id]
```

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v3/masterprofiles/68257/assignments/thinclients/
48335
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	master profile ID
id	String	yes	thin client ID

Response Type

Returns a message.

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



GET /v3/masterprofiles/{profileid}/assignments/tcdirectories

Summary

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

Resource URL

```
/v3/masterprofiles/{profileid}/assignments/tcdirectories
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/masterprofiles/72098/assignments/tcdirectories
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	Master profile ID

Response Type

Returns a list of Assignments(see page 105).



```
"href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72098"
},
{
    "rel": "receiver",
    "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/76462"
},
{
    "rel": "self",
    "href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72098/assignments/tcdirectories/76462"
}
]
]
]
```



PUT /v3/masterprofiles/{profileid}/assignments/tcdirectories/

Summary

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

Resource URL

```
/v3/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/v3/masterprofiles/72066/assignments/thinclients/

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	master profile ID

Request Body

A list of Assignments (see page 105)

Response Type

Returns a success message.

Example Response

{



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



DELETE /v3/masterprofiles/ {profileid}/assignments/tcdirectories/{id}

Summary

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

Resource URL

```
/v3/masterprofiles/{profileid}/assignments/tcdirectory/{id}
```

Example Request

76462

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v3/masterprofiles/72098/assignments/tcdirectories/
```

Request Path Variables

Name	Туре	Mandatory	Description
profileid	String	yes	master profile ID
id	String	yes	thin client directory ID

Response Type

Returns a message.

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



Thin Client Directory

- GET /v3/directories/tcdirectories(see page 219)
- GET /v3/directories/tcdirectories?facets=children(see page 221)
- GET /v3/directories/tcdirectories/{id}(see page 225)
- GET /v3/directories/tcdirectories/{id}?facets=children(see page 227)
- PUT /v3/directories/tcdirectories/(see page 231)
- PUT /v3/directories/tcdirectories/{id}(see page 232)
- PUT /v3/directories/tcdirectories/{id}?operation=move(see page 233)
- DELETE /v3/directories/tcdirectories/{id}(see page 235)
- GET /v3/directories/tcdirectories/{id}/assignments/profiles(see page 236)
- PUT /v3/directories/tcdirectories/[id]/assignments/profiles(see page 239)



GET /v3/directories/tcdirectories

Summary

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

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

Resource URL

/v3/director ies/tcdirectories

Example Request

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

Response Type

Returns a list of Directories (see page 107).

```
[
{
 "id": "50705",
 "name": "New",
 "parentID": "-1",
 "movedToBin": false,
 "objectType": "tcdirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/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/v3/directories/tcdirectories/15592"
 },
{
 "rel": "Parent",
"href": "root"
}
]
}
]
```



GET /v3/directories/tcdirectories?facets=children

Summary

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

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

Resource URL

/v3/director ies/tcdirectories?facets=children

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/tcdirectories/facets=children
```

Response Type

Returns a list of Directories(see page 107), with their DirectoryChildren fields containing other objects.



```
1
},
 "DirectoryChildren": [
 "objectType": "tc",
 "id": "7117",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/7117"
 }
},
 "objectType": "tc",
 "id": "6888",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/6888"
 }
},
{
 "objectType": "tc",
 "id": "23028",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/23028"
 }
 }
 ],
 "id": "72327",
 "name": "Sub",
 "parentID": "15592",
 "movedToBin": false,
 "objectType": "tcdirectory",
```



```
"links": [
{
"rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/72327"
},
{
 "rel": "Parent",
"href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/15592"
}
1
},
{
"DirectoryChildren": [
 "objectType": "tcdirectory",
 "id": "72327",
 "link": {
 "rel": "tcdirectory",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/72327"
}
},
{
 "objectType": "tc",
 "id": "7121",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/7121"
}
},
 {
 "objectType": "tc",
 "id": "6907",
 "link": {
 "rel": "tc",
```



```
"href": "https://172.30.91.227:8443/umsapi/v3/thinclients/6907"
}
},
{
[...]
```



GET /v3/directories/tcdirectories/{id}

Summary

Gets information on a specific Thin Client Directory.

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

Resource URL

```
/v3/directories/tcdirectories/{id}
```

```
Example Request
```

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/tcdirectories/15592
```

Response Type

Returns a Directory(see page 107).

```
{
    "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"
    }
}
```



}



GET /v3/directories/tcdirectories/{id}?facets=children

Summary

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

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

Resource URL

```
/v3/directories/tcdirectories/{id}?facets=children
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/tcdirectories/15592?facets=children
```

Response Type

Returns a Directory(see page 107), with its DirectoryChildren field containing other objects.

```
{
    "DirectoryChildren": [
    {
        "objectType": "tcdirectory",
        "id": "72327",
        "link": {
            "rel": "tcdirectory",
            "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/72327"
        }
    },
    {
        "objectType": "tc",
        "id": "7121",
        "link": {
        "rel": "tc",
        "el": "tc",
        "
```



```
"href": "https://172.30.91.227:8443/umsapi/v3/thinclients/7121"
}
},
{
 "objectType": "tc",
 "id": "6907",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/6907"
 }
},
{
 "objectType": "tc",
 "id": "11219",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/11219"
 }
},
 {
 "objectType": "tc",
 "id": "15223",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/15223"
},
 "objectType": "tc",
 "id": "15553",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/15553"
}
```



```
},
{
 "objectType": "tc",
 "id": "7113",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/7113"
 }
},
 {
 "objectType": "tc",
 "id": "6899",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/6899"
}
},
 "objectType": "tc",
 "id": "6912",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/6912"
 }
},
{
 "objectType": "tc",
 "id": "26836",
 "link": {
 "rel": "tc",
 "href": "https://172.30.91.227:8443/umsapi/v3/thinclients/26836"
}
}
],
```



```
"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"
}
]
}
```



PUT /v3/directories/tcdirectories/

Summary

Creates a Thin Client Directory.

Resource URL

```
/v3/directories/tcdirectories/
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"Test"}' \
https://[server]:8443/umsapi/v3/directories/tcdirectories/
```

Request Body

Name	Туре	Mandatory	Description
name	String	no	directory name

Response Type

Returns a success message.

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



PUT /v3/directories/tcdirectories/{id}

Summary

Updates a Thin Client Directory name.

Resource URL

```
/v3/directories/tcdirectories/[id]
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Directory Name"}' \
https://[server]:8443/umsapi/v3/directories/tcdirectories/72340
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	directory ID

Request Body

Name	Туре	Mandatory	Description
name	String	no	directory name

Response Type

Returns a success message.

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



PUT /v3/directories/tcdirectories/{id}?operation=move

Summary

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

Resource URL

```
/v3/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/v3/directories/tcdirectories/72340?operation=move
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	Thin Client Directory ID

Request Body

A list of ApiObjects(see page 96)

Response Type

Returns a success message.



}



DELETE /v3/directories/tcdirectories/{id}

Summary

Deletes a Thin Client Directory.

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

Resource URL

```
/v3/directories/tcdirectories/{id}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/tcdirectories/72327
```

Response Type

Returns a success message.

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



GET /v3/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

```
/v3/directories/tcdirectories/{id}/assignments/profiles
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/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 105).



```
"rel": "assigned",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/35549"
},
{
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/76462"
 },
{
"rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/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/v3/masterprofiles/72098"
 },
 {
 "rel": "receiver",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/tcdirectories/76462"
},
{
```



```
"rel": "self",
    "href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72098/
assignments/tcdirectories/76462"
    }
]
}
```



PUT /v3/directories/tcdirectories/[id]/assignments/profiles

Summary

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

Resource URL

```
/v3/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/v3/directories/tcdirectories/76462/assignments/profiles

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	Thin Client Directory ID

Request Body

A list of Profile and Master Profile Assignments(see page 105).

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



Profile Directory

- GET /v3/directories/profiledirectories(see page 241)
- GET /v3/directories/profiledirectories?facets=children(see page 244)
- GET /v3/directories/profiledirectories{id}(see page 248)
- GET /v3/directories/profiledirectories[id]?facets=children(see page 250)
- PUT /v3/directories/profiledirectories/(see page 252)
- PUT /v3/directories/profiledirectories/{id}(see page 253)
- PUT /v3/directories/profiledirectories/[id]?operation=move(see page 254)
- DELETE /v3/directories/profiledirectories/{id}(see page 256)



GET /v3/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

/v3/directories/profiledirectories

Example Request

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

Response Type

Returns a list of Profile Directories.

```
[
{
  "id": "72064",
  "name": "New Profile Directory",
  "parentID": "-2",
  "movedToBin": true,
  "objectType": "profiledirectory",
  "links": [
  {
  "rel": "self",
  "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
72064"
  },
  {
```



```
"rel": "Parent",
"href": "root"
}
1
},
{
 "id": "20451",
 "name": "Custom Partitions",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
{
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20451"
},
{
"rel": "Parent",
"href": "root"
}
1
},
{
 "id": "20707",
 "name": "Standards",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
{
"rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/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/v3/directories/profiledirectories/
20453"
},
{
"rel": "Parent",
"href": "root"
}
]
}
]
```



GET /v3/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

/v3/director ies/profiledirectories?facets=children

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/profiledirectories/facets=children
```

Response Type

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

```
[
{
   "DirectoryChildren": [
   {
    "objectType": "profile",
    "id": "20467",
   "link": {
    "rel": "profile",
    "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20467"
   }
   },
   {
    "objectType": "profile",
   "id": "20452",
}
```



```
"link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20452"
 }
},
{
 "objectType": "profile",
 "id": "20449",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20449"
 }
}
 ],
 "id": "20707",
 "name": "Standards",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
{
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20707"
},
{
"rel": "Parent",
 "href": "root"
}
]
},
"DirectoryChildren": [
{
```



```
"objectType": "profiledirectory",
 "id": "72068",
 "link": {
 "rel": "profiledirectory",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
72068"
}
},
{
 "objectType": "profile",
 "id": "6592",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/6592"
 }
 },
 "objectType": "profile",
 "id": "6585",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/6585"
 }
 }
 ],
 "id": "20453",
 "name": "Benchmarks",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/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/v3/directories/profiledirectories/
72068"
},
{
"rel": "Parent",
"href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20453"
}
]
}
]
```



GET /v3/directories/profiledirectories{id}

Summary

Gets information on a specific Profile Directory.

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

Resource URL

/v3/directories/profiledirectories

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/profiledirectories/20707
```

Response Type

Returns a Profile Directory.

```
{
  "id": "20707",
  "name": "Standards",
  "parentID": "-2",
  "movedToBin": false,
  "objectType": "profiledirectory",
  "links": [
  {
    "rel": "self",
    "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20707"
  },
  {
    "rel": "Parent",
    "href": "root"
```



}] }



GET /v3/directories/profiledirectories[id]?facets=children

Summary

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

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

Resource URL

/v3/directories/profiledirectories{id}?facets=children

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/profiledirectories/20707?
facets=children
```

Response Type

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

```
{
   "DirectoryChildren": [
   {
     "objectType": "profile",
     "id": "20467",
     "link": {
     "rel": "profile",
     "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20467"
   }
   },
   {
     "objectType": "profile",
     "id": "20452",
     "link": {
```



```
"rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20452"
}
},
 {
 "objectType": "profile",
 "id": "20449",
 "link": {
 "rel": "profile",
 "href": "https://172.30.91.227:8443/umsapi/v3/profiles/20449"
}
}
],
 "id": "20707",
 "name": "Standards",
 "parentID": "-2",
 "movedToBin": false,
 "objectType": "profiledirectory",
 "links": [
 {
"rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/profiledirectories/
20707"
},
{
 "rel": "Parent",
"href": "root"
}
1
}
```



PUT /v3/directories/profiledirectories/

Summary

Creates a Profile Directory.

Resource URL

```
/v3/directories/profiledirectories/
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Profiles"}' \
https://[server]:8443/umsapi/v3/directories/profiledirectories/
```

Request Body

Name	Туре	Mandatory	Description
name	String	no	directory name

Response Type

Returns a success message.

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



PUT /v3/directories/profiledirectories/{id}

Summary

Updates a Profile Directory name.

Resource URL

```
/v3/directories/profiledirectories/{id}
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Directory Name"}' \
https://[server]:8443/umsapi/v3/directories/profiledirectories/72340
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	directory ID

Request Body

Name	Туре	Mandatory	Description
name	String	no	directory name

Response Type

Returns a success message.

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



PUT /v3/directories/profiledirectories/[id]?operation=move

Summary

Moves Profiles and Profile Directories into the specified Profile Directory.

Resource URL

```
/v3/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/v3/directories/profiledirectories/72068?
operation=move
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	directory ID

Request Body

A list of ApiObjects(see page 96)

Response Type

Returns a success message.



```
"id": "6592",

"results": "successful"
}
```



DELETE /v3/directories/profiledirectories/{id}

Summary

Deletes a Profile Directory.

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

Resource URL

```
/v3/directories/profiledirectories/{id}
```

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v3/directories/profiledirectories/72327
```

Response Type

Returns a success message.

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



Master Profile Directory

- GET /v3/directories/masterprofiledirectories(see page 258)
- GET /v3/directories/masterprofiledirectories?facets=children(see page 261)
- GET /v3/directories/masterprofiledirectories/{id}(see page 264)
- GET /v3/directories/masterprofiledirectories{id}?facets=children(see page 266)
- PUT /v3/directories/masterprofiledirectories/(see page 268)
- PUT /v3/directories/masterprofiledirectories/{id}(see page 269)
- PUT /v3/directories/masterprofiledirectories/{id}?operation=move(see page 270)
- DELETE /v3/directories/masterprofiledirectories{id}(see page 272)



GET /v3/directories/masterprofiledirectories

Summary

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

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

Resource URL

/v3/directories/masterprofiledirectories

Example Request

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

Response Type

Returns a list of Master Profile Directories.

```
[
{
  "id": "72101",
  "name": "Basic",
  "parentID": "-14",
  "movedToBin": false,
  "objectType": "masterprofiledirectory",
  "links": [
  {
    "rel": "self",
    "href": "https://172.30.91.227:8443/umsapi/v3/directories/masterprofiledirectories/72101"
    },
    {
}
```



```
"rel": "Parent",
 "href": "root"
}
1
},
{
 "id": "72100",
 "name": "Important",
 "parentID": "76552",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/
masterprofiledirectories/72100"
},
{
"rel": "Parent",
 "href": "https://172.30.91.227:8443/umsapi/v3/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/v3/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/v3/directories/
masterprofiledirectories/76556"
},
{
 "rel": "Parent",
"href": "root"
}
]
}
1
```



GET /v3/directories/masterprofiledirectories?facets=children

Summary

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

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

Resource URL

/v3/directories/masterprofiledirectories?facets=children

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/masterprofiledirectories/
facets=children
```

Response Type

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



```
"name": "Basic",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/
masterprofiledirectories/72101"
},
{
 "rel": "Parent",
 "href": "root"
 }
1
},
 "DirectoryChildren": [
 "objectType": "masterprofile",
 "id": "72096",
 "link": {
 "rel": "masterprofile",
 "href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72096"
 }
 }
 ],
 "id": "72100",
 "name": "Important",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
{
```



```
"rel": "self",
    "href": "https://172.30.91.227:8443/umsapi/v3/directories/
masterprofiledirectories/72100"
    },
    {
        "rel": "Parent",
        "href": "root"
     }
    ]
}
```



GET /v3/directories/masterprofiledirectories/{id}

Summary

Gets information on a specific Master Profile Directory.

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

Resource URL

```
/v3/directories/masterprofiledirectories/{id}
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/masterprofiledirectories/20707
```

Response Type

Returns a Master Profile Directory.

```
"id": "72101",
  "name": "Basic",
  "parentID": "-14",
  "movedToBin": false,
  "objectType": "masterprofiledirectory",
  "links": [
  {
    "rel": "self",
    "href": "https://172.30.91.227:8443/umsapi/v3/directories/masterprofiledirectories/72101"
    },
    {
        "rel": "Parent",
```



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



GET /v3/directories/masterprofiledirectories{id}?facets=children

Summary

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

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

Resource URL

/v3/directories/masterprofiledirectories{id}?facets=children

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/directories/masterprofiledirectories/72101?
facets=children
```

Response Type

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



```
"id": "72098",
 "link": {
 "rel": "masterprofile",
 "href": "https://172.30.91.227:8443/umsapi/v3/masterprofiles/72098"
 }
}
],
 "id": "72101",
 "name": "Basic",
 "parentID": "-14",
 "movedToBin": false,
 "objectType": "masterprofiledirectory",
 "links": [
 {
 "rel": "self",
 "href": "https://172.30.91.227:8443/umsapi/v3/directories/
masterprofiledirectories/72101"
},
{
 "rel": "Parent",
"href": "root"
}
]
}
```



PUT /v3/directories/masterprofiledirectories/

Summary

Creates a Master Profile Directory.

Resource URL

```
/v3/directories/masterprofiledirectories/
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"Yet Another Directory"}' \
https://[server]:8443/umsapi/v3/directories/masterprofiledirectories/
```

Request Body

Name	Туре	Mandatory	Description
name	String	yes	Master profile directory name

Response Type

Returns a success message.

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



PUT /v3/directories/masterprofiledirectories/{id}

Summary

Renames a Master Profile Directory.

Resource URL

```
/v3/directories/masterprofiledirectories/{id}
```

Example Request

```
curl \
--request PUT \
--header "Content-type: application/json" \
--data '{"name":"New Master Profiles"}' \
https://[server]:8443/umsapi/v3/directories/masterprofiledirectories/76560
```

Request Body

Name	Туре	Mandatory	Description
name	String	yes	Master profile directory name

Response Type

Returns a success message.

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



PUT /v3/directories/masterprofiledirectories/{id}?operation=move

Summary

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

Resource URL

```
/v3/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//v3/directories/masterprofiledirectories/76552?
operation=move
```

Request Path Variables

Name	Туре	Mandatory	Description
id	String	yes	directory ID

Request Body

A list of ApiObjects(see page 96)

Response Type

Returns a success message.



}



DELETE /v3/directories/masterprofiledirectories{id}

Summary

Deletes a Master Profile Directory.

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

Resource URL

```
/v3/directories/masterprofiledirectories/[id]
```

Example Request

```
curl \
--request DELETE\
https://[server]:8443/umsapi/v3/directories/masterprofiledirectories/76559
```

Response Type

Returns a success message.

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



Firmware Information

- GET /v3/firmwares(see page 274)
- GET /v3/firmwares/{fwld}(see page 276)



GET /v3/firmwares

Summary

Gets information on all firmwares known to the UMS.

```
Resource URL
```

```
/v3/firmwares/
```

Example Request

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

Response Type

Returns a list of firmwares.



```
"id": "4",
    "product": "IGEL Universal Desktop LX",
    "version": "10.02.120.01",
    "firmwareType": "LX",
    "links": []
    },
    {
        "id": "6",
        "product": "IGEL Universal Desktop LX",
        "version": "10.03.100.rc2.01",
        "firmwareType": "LX",
        "links": []
    }
    ]
}
```



GET /v3/firmwares/{fwld}

Summary

Gets information on a specific firmware.

Resource URL

```
/v3/firmwares/[fwId]
```

Example Request

```
curl \
--request GET \
https://[server]:8443/umsapi/v3/firmwares/4
```

Request Path Variables

Name	Туре	Mandatory	Description
fwId	String	yes	firmware ID

Response Type

Returns a firmware.

```
"id": "6",
"product": "IGEL Universal Desktop LX",
"version": "10.03.100.rc2.01",
"firmwareType": "LX",
"links": []
}
```



Server Information

• GET /v3/serverstatus(see page 278)



GET /v3/serverstatus

Summary

Gets diagnostic information about the UMS instance.

(i) Server status is the only resource that can be queried without logging in. This makes it useful for debugging the connection to the IMI service.

Resource URL

```
/v3/serverstatus
```

Example Request

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

```
"rmGuiServerVersion": "5.07.100.rc10",
 "buildNumber": "31933",
 "activeMQVersion": "5.6.0",
 "derbyVersion": "10.12.1.1",
 "serverUUID": "9fe719f1-c16e-4744-9ff1-b9c314ae151c",
 "server": "mhuber:8443",
 "links": []
}
```



Error Codes

- HTTP Status Codes(see page 280)
- API Error Messages(see page 281)



HTTP Status Codes

Client-Side Errors

HTTP Status	Title	Description
200	ОК	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.
ITG-0A023	Directory has Default Directory Rule
ITG-0A024	Invalid thin client name
Authentication I	Errors
ITG-0B001	No authentication header found in request.
ITG-0B002	Invalid login credentials.
ITG-0B003	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 284)



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 286).



Thin Client Configuration

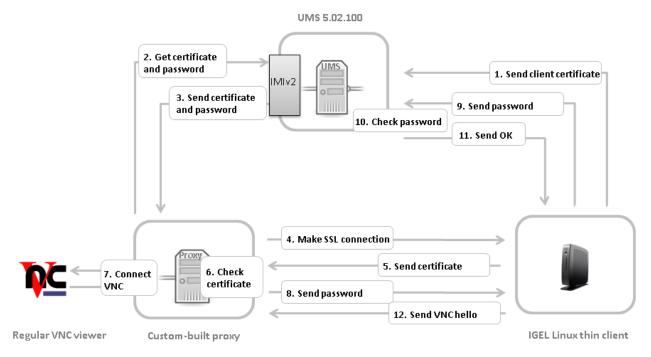
In the thin clients' configuration, either locally, via UMS or in a profile, do the following:

- 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
 - (i) 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.
 - (i) 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.