Cumulocity

Tenantadmin Guide

Cumulocity: Tenantadmin Guide

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Chapter 1. Introduction

Cumulocity is a Machine to Machine (M2M) application platform deployed on Cloud infrastructure.

This document describes, how to use the Tenantadmin Graphical User Interface (GUI). Tenantadmin GUI is for the enterprise to manage its own users, usergroups and devices. Also events, alarms and audit records are visible on the GUI.

This document is targeted for Cumulocity's enterprise users.

Tenant (enterprise) management GUI is a web-based application and it is accessible via the link https://<cumulocity URL>/ ui/tenantadmin/index.html or https://<cumulocity URL> for a shortcut.

Chapter 2. Login

First you need to login to Cumulocity. The login screen asks for Tenant, Username and Password. Tenant is the enterprise ID that was assigned to your company. Username and Password are needed to login to the system. Enter the needed information and click the 'Login'-button.

Figure 2.1. Login Screen

Cumuloc © Nokia Siemens Networ	ity Nokia Siemens Networks
Tenant:	*
Username:	*
Password:	*
Log	n © 2012 - All rights reserved

Your system administrator should provide you with the Username and Password.

Chapter 3. General GUI Principles

3.1. Mandatory Fields

On every form, where some input is needed, if you do not enter some mandatory value (indicated by the asterisk '*' at end of the field's label), the field will be highlighted by red outline. Moving the mouse pointer to such field gives a '! This field is required'-tooltip to explain what is needed. Similarly, if the format (e.g. for an Id) is not valid or password confirmation does not match, there is red outline and you get explanation what is wrong by moving the mouse pointer to such field.

3.2. Working with Grids

You can filter information on the grids by entering the filter criteria on the 'Filter by <xyz>'-textbox and pressing the Enter key. Only the information on the grid is filtered and the filter matches at the beginning of the string. Filters are not case sensitive. E.g. 'abb' matches for 'abb', 'Abba', and 'abbot', but not for 'cabbage'. If there are multiple pages of data, the data not yet loaded on to the grid is not searched for (it is a filter, not a search functionality). If you have entered a filtering criteria, you can clear it by clicking the 'Remove filter'-button.

You can sort the rows on the grid by clicking on the header of a column. First click sorts in Ascending order, second click sorts in Descending order. Sorting is indicated by a small triangle on the header.

On some grids, you can select multiple rows by clicking on the checkboxes on the leftmost column. To select (or deselect) all rows, you can click the checkbox on the header.

If there are multiple pages of data, you can jump to first, previous, next or last page by clicking the arrows on the bottom of the grid. You can also jump to specific page by entering the number of the page to the input box on the bottom and pressing the Enter key. You can reload the current page by clicking the circular arrows button (rightmost button) on the bottom of the grid.

Figure 3.1. Toolbar on the Grid

||4 4 | Page 1 of 1 | ▶ ▶| | 🥏

3.3. Links on Footer

On the bottom of the screen, there are links to Cumulocity's web page, Legal information, Privacy policy, and Terms of use. You can also click the 'Contact us'-link to send an email to the Cumulocity support team.

Figure 3.2. Links on Footer

About Cumulocity | Legal | Privacy policy | Terms of use | Contact us Nokia Siemens Networks - - O 2012- All rights reserved

Chapter 4. Main Menu

Based on your user credentials (the groups you belong to), different main items are accessible for you on the main menu.

Figure 4.1. Main Menu

Cumulocity		Welcome, Johr			Logout
• Overview • My applications	🚳 My devices	🔿 Events	Reports	£ [∼] Users	

On the top, you see your name and it is actually a link to a popup menu to change your own information, password, and preferences. There is also a logout option on that menu and on the top right on the screen. The Bell icon (close to the Logout link) can be used to see latest alarms.

Figure 4.2. Bell Icon

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Clicking the Bell icon will show a menu with 5 most recent active alarms. You can click on an alarm and you will be shown the alarm grid with that alarm highlighted. If there are no active alarms, the menu has just 'No alarms..."-text.

On the menu bar you can have Overview, My applications, My devices, Events, Reports, and Users.

Chapter 5. User Settings

Clicking on your name on the top of the screen, you can change your data, setup alarm preferences, setup time and date format, and logout.

Figure 5.1. User Settings Drop Down Menu



5.1. User Settings

Figure 5.2. User Settings Menu

You cannot change your Username, but you can change your Name, Email, Phone, and Password. To change your Password, you need to provide your Current Password and New Password and Confirm new password. Obviously New Password and Confirm new password must match. Click the 'Save'-button to save your changes on the server (or 'Cancel' to close the form without saving).

If the current password is not correct, you will get an 'Authentication Error'-message with code 401.

5.2. Alarm refresh settings

Under the Preferences menu item, you can set the Alarm refresh interval in minutes.

Figure 5.3. Alarm Preferences

Edit Preferences		
Preferences	Alarms Preferences:	4
Date and Time	Alarms refresh interval (minutes): 3	
Cancel		Save

When the Alarm screen (under Events) is open, the grid will be refreshed automatically every X minutes from the server. Set the interval to 0 to disable the automatic refresh.

5.3. Date and Time format settings

Under the Date and Time menu item, you can specify the format for Date and Time fields.

Figure 5.4. Date and Time format

Edit Preferences		
Preferences	Define time format:	
Date and Time	y-m-d h:m Y	Ĵ
	y-m-d h:m	
	y-m-d h:m:s	
Cancel	day, month d, y h:m:s AM/PM	Save
	y-m-d h:m:s +GMT	

5.4. Logout

After clicking the Logout menu item (or Logout link), you are asked for confirmation for the logout. If you answer 'Yes', the system will log you out from the GUI and you will return to the Login screen.

Figure 5.5. Logout Confirmation



Chapter 6. Overview

At the moment the Overview screen gives a short summary of each main menu item.

Figure 6.1. Overview

Welcome to Cumulocity enterprise administration

My applications - see applications that your enterprise is subscribed to

My devices - manage your devices and device hierarchy

Events - see events, alarms and audit records

Reports - basic information about the system

Users - manage users and user groups

You can change your details and password via the Welcome menu on the top.

Chapter 7. My Applications

Under My applications you can see all applications that have been assigned to your enterprise.

Figure 7.1. My Applications

My Applications

Filter By Name	
ld	Name
3	energyapp
29	telma
30	VendMe
🛯 🔄 Page	1 of 1 ▶ ▶ 2

Chapter 8. Device Management

8.1. Overview

In the grid on the left, you can see the Id, name, and type of your devices.

On the main area of the screen you can see (and edit) details of one device.

Figure 8.1. Devices

	Name	Туре	Add property Add external id	Child Assets
02	MPS Agent	MPS Agent		MPS Emulator (Bridge
)3	MPS Emulator (Bri	MPS Bridge	id:	MIS Emalator (bridge
)4	Meter 01	MPS Meter	103	
)5	Meter 02	MPS Meter	lastUpdated:	
			2012-05-21T21:23:27.559+02:00	
			name:	
			MPS Emulator (Bridge)	
			type:	
			MPS Bridge	Child Devices
			deviceUrl:	
			×	 MPS Emulator (Bridge
			com_cumulocity_agents_mps_model_MpsBridge: deviceUrl: http://127.0.0.1:8091	 ▶ Meter 01 ▶ Meter 02

You can add a new device by clicking the 'Add Managed Object'-button.

You can delete a device by clicking it on the grid, which shows its details on the right and activates the 'Actions'-menu, and then selecting 'Remove' from the 'Actions'-menu. You are asked for a confirmation for the deletion. If you answer 'Yes' the device will be deleted and you cannot recover it. You can select multiple rows from the grid by keeping the SHIFT key down while clicking on the rows.

8.2. Device Details

On the right hand side of the screen, you can see the details of the device that you have clicked on the grid or you can enter details for the new device (if you clicked the 'Add Managed Object'-button).

By default the device has just id, last updated timestamp, name, and type. The id is automatically generated by the system and you cannot change it. Similarly last updated is always updated by the system, when the device's details are saved. You can enter whatever you want for the name and type (even duplicate entries are possible), but obviously you should use a descriptive name so that you can identity your devices and the type should match what the agents or applications expect to see.

You can add any number of properties (attributes) to the device. Click first the 'Add property...'-button. On the form that opens, you can enter the Name for the new property. Again you can use whatever name you prefer, but the agents and applications might expect to see well-named properties. The Type can be either Simple or Complex. Simple types are just attributes with a single value. Complex types can contain other properties (but do not have a value as such).

Complex types are also referred as Fragments. If you already have a complex type property on the device, you can also choose Parent for the new property and the property will be added as a property for that level (earlier added complex property) or leave the Parent as empty for the main level. Please note that on one 'level' (either main level or complex property level) of the device, you can have only one property of each name (name must be unique on each level).

If you are creating multiple similar devices, you can first create one and then just change the details that differ (e.g. name and IP address property) and click the 'Save as a copy'-button. You can also add more properties before creating a copy. Please note that the copy does not include the External IDs or Child Assets/Devices.

Note also that you cannot remove a property. You can set its value to an empty value by clicking the 'X' next to the value (and clicking 'Save'). You cannot remove complex properties. You cannot rename properties, but you can create a new property with the new name. You cannot convert simple properties to complex or complex to simple. If you need to do such changes, as a workaround, you have to create a new device with correct details and delete the old one.

8.3. External IDs

External IDs provide mapping from real life identifiers to Cumulocity's devices. Agents use them to find out, which device in Cumulocity represents a device that the agent manages. External ID could be e.g. vehicle's license plate number or vending machine's identifier.

To add an External ID to the device, click first the 'Add external id...'-button. On the form that opens, you can enter the Type and the actual External ID. You can use whatever type you prefer, but the agents and applications might expect to see well-named External IDs. External ID must obviously match to the identifier that the agent uses for the device. Type + External ID -combination must be unique. Once you click the 'Add'-button, the External ID is created immediately on the server, so you don't have to click the 'Save'-button on the device's details screen.

One device can have multiple External IDs. Device's External IDs are listed on the details of the device inside the 'External IDs'-box. If the device doesn't have yet any External IDs, the box is not present on the screen. You can delete an External ID by clicking the 'Remove'-button on the right to the External ID. You are asked for a confirmation for the deletion. If you answer 'Yes' the External ID will be deleted and you cannot recover it, but you can always create the External ID again.

Figure 8.2. External IDs

External IDs	
License Plate: ABC-742	Remove
Fleet Number: 102030	Remove

You cannot change the value of an External ID or its type, but you can delete the existing External ID and create a new one with correct details.

8.4. Child Assets and Devices

On the very right you have two tree views, one for Child Assets and another for Child Devices. Both of them show the current device as a root object.

You can drag and drop a device from the grid on the left to a tree view to add it as a Child Asset/Device of the current device. You can also drag and drop a device on the grid to be a Child Asset of another device on the grid.

When there are multiple levels of children on a tree view, you can open and close branches by clicking on the triangular arrows in the front of the branches. If you want to delete a Child Asset/Device association, right click it and select 'Remove child' from the menu that appears. This does not delete the actual device, it just removes it from the list of children.

Chapter 9. Events

Events screen has two tabs. The first tab has one grid for alarms and another grid for events. The second tab contains audit records.

You can create new alarms or events by clicking the 'Add a new alarm record...'- or 'Add a new event record...'-buttons. Enter the details on the form that opens. If you don't remember source device's id, you can click the 'Choose source...'-button and select the device from the list (double click the device or click the device and click the 'Choose'-button).

You can view details of Alarms, Events, or Audit records by double clicking the row on the grid or clicking the Eye icon on the 'Detail'-column.

Figure 9.1. Details (Eye) icon



You can change Alarm's Severity and/or Acknowledgement. On the grid, select the new value from the drop down list and click the Save icon on the rightmost column.

Figure 9.2. Alarm Severities



Figure 9.3. Alarm Statuses

Acknowledgment	
Active	~
Active	
Acknowledged	
Cleared	

Figure 9.4. Save icon



On the detail form, select the new value from the drop down list and click the 'Save'-button.

Chapter 10. Reports

Current implementation of reports is very simplistic. It presents the number of devices, alarms, users, and user groups.

Figure 10.1. Reports overview

Number of devices:	310
Number of alarms:	3
Number of users:	219
Number of user groups:	5
Refresh	

Chapter 11. User Management

User management consists of two parts: Users and User groups.

Figure 11.1. User and User groups Management

User management	Users					
Users	03013					
User groups	Add Actions •	Filter By Name				
	Username	First Name 🔺	Last Name	Email	Associated Groups	Status
	admin					Active
	reader					Active
	Page 1	of 1 ▶ ≫ ♣				

Before you can create new users, you should first create one or more User groups.

11.1. User Groups

To create a User group, simply click the 'User groups'-link on the left and then click the 'Add ...'-button. Give the User group a name that must be unique and select the role(s) that all users belonging to that group should have. Finally click the 'Add'-button.

Figure 11.2. Create new	user gr	oup
-------------------------	---------	-----

lame*:	4
Group1	
Roles	
Alarm admin	
Alarm read	
Application management admin	
Application management read	8
Audit admin	
Audit read	
Device control admin	
Device control read	
Event admin	
Event read	
Identity admin	
Identity read	
Inventory admin	
Inventory read	
Measurement admin	
Measurement read	

You can modify group's name or roles by double clicking the group on the grid or clicking on the checkbox at the beginning of the row and selecting Edit from the 'Actions'-menu.

Figure 11.3. Edit / Remove user group

Add Actions 💦 Filter By Name	
ID Edit	Roles
✓ 1 Remove	Alarm admin

You can delete one or multiple groups by clicking on the checkbox(es) at the beginning of the row(s) and selecting Remove from the 'Actions'-menu. You are asked for confirmation for the deletion. If you answer 'Yes', the group(s) will be deleted and you cannot revert that action. You should not delete groups that have some users unless you are sure that those users do not need to have the roles that they inherit from that group.

11.2. Users

To create a User, simply click the 'Users'-link on the left (if you do not already have the Users grid visible) and then click the 'Add ...'-button. Give the User a Username that must be unique. Enter also other mandatory information: First Name, Last Name and Password. You must also confirm the new password. Select also the group(s) to which the user belongs to. If you want, you can also enter the email and phone details. If you set the Status to be Suspended, the user will exist on the system, but cannot login, before the status is set to Active. Finally click the 'Add'-button.

Add new user		
Jsername*:		
First Name*:		
.ast Name*:		
Email:		
Phone:		
New Password*:		
Confirm new password*:		
Associate to Group(s)*:		
Status*:	Suspended	*
Cancel		Add

Figure 11.4. Add new user

You can modify user's details by double clicking the user on the grid or clicking on the checkbox at the beginning of the row and selecting Edit from the 'Actions'-menu. If you change the password, you must give the new password and confirm it.

You can delete one or multiple users by clicking on the checkbox(es) at the beginning of the row(s) and selecting Remove from the 'Actions'-menu. You are asked for confirmation for the deletion. If you answer 'Yes', the user(s) will be deleted and you cannot revert that action. Please note that instead of deleting users, you could also suspend them by changing the status to 'Suspended'. You can suspend or activate multiple users by clicking on the checkbox(es) at the beginning of the row(s) and selecting Suspend or Activate from the 'Actions'-menu. Whether you should delete or suspend a user depends on your use case.

Useri	Edit	e 🔺	Last Name	Email	Associated Groups	Statu
admi	Activate					Activ
∕ read∈	Suspend					
	Remove					
_						

Figure 11.5. Edit / Activate / Suspend / Remove user