Software Notes SHW

Subtitle

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Title

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Cross Reference	Filename	Description
[1]		

Document contains		
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	Usability Specs	
	Techical Specs	
	Test Procedures	
	Technical Documentation	
v	User Documentation	

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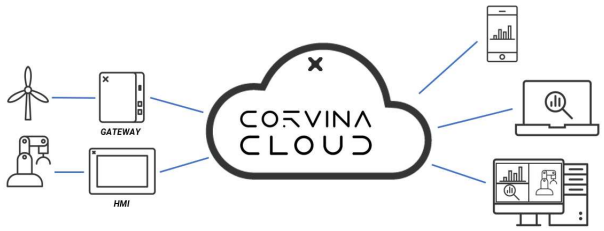
1 Overview

This document describes the configuration of Corvina Cloud, a PaaS solution that allows to collect Data from remote devices connected to a centralized server through gateways. Corvina Cloud is an OPEN IoT platform that connects any products, plants, systems, and machines, allowing the data generated by the Internet of Things (IoT) to be archived and processed simply and intuitively with advanced analysis.

2 System Architecture

The System Architecture is composed by Exor devices (HMI and Gateways) that exchange data with the Corvina Cloud. On the Corvina Cloud it is possible to define data sample policy, manage Users, Group and Role and manage the Organizations.



2.1 Corvina Cloud Components

Devices

A device is any equipment connected to Corvina Cloud and can be either an HMI or a Gateway.

The Devices are connected to the Field devices (PLC, Drive, actuator) using one or multiple protocols available or directly as I/O using the plugin modules.

Data Models

A Data Model is a profile of Tags and properties of Tags that can be define in Corvina Cloud and Applied on one or multiple devices. The Data Model properties allow to define the association between the Corvina Cloud Tags and the device's Tags, the send policies to update the tag's value in the Cloud, the History policies (On/Off) and the Read/Write properties of the Tags.

Users

A user is anyone who can in some way access and interact with Corvina Cloud. A user can be member of a user group. In a group, the user can play two roles, either be a member of or an administrator of the group.

Access policies

The Corvina Cloud implements policy to restrict the functions available from the User on Corvina Cloud. This policy ensures that the Action available from the Users are limited based on the activity that User has to do with Devices, Data Models and Data. It is possible to granularly define the available Action of each of Group (Add Device, Delete Device, Modify Data Model, Define Dashboard, Delete Dashboard, ….)

Finally, note that this policy can be disabled, granting concurrent access to all the infrastructure to everyone.

Organizations

An organization, also called Domain, is a collection of users and devices, possibly arranged in groups. Every node in one organization is completely separated from, and invisible to, other organizations.

Therefore, no user or device can belong to two or more domains.

Organizations can be arranged in a hierarchy, with one root organization and one or more children (sub-organization) or descendants.

The main advantages of Corvina Cloud organization are described by these use cases:

The creation and management of multiple small companies on a same Corvina Cloud installation.

Break up a large enterprise into smaller departments, that shall remain separate and host all of them on a single Corvina Cloud installation.

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Moreover, it would dramatically reduce the chance to put a device or a user in the wrong group or granting the user access policies to the wrong device.

A sample organization hierarchy

While the design of an hierarchy of organizations is left to the manager of Corvina Cloud, as it can depend on different requirements, the following example presents some guidelines.

Suppose there is a large multinational corporation, called example.com with branches in different countries. Every country has a main office, which coordinates factories, laboratories, other offices, logistic points, and other facilities, located in various cities within the country.

This structure can be easily reflected into Corvina Cloud, in which every facility is created as a node in the hierarchy.

The root organization -the company itself- will be called example.com.

Country branch offices are created as direct children of the root organization and named uk.example.com, it.example.com, de.example.com.

Any facility will be named after the name of the city or town in which it is located, and made a direct children of the country branch office. So, there will be organizations called london.uk.example.com, leicester.uk.example.com, milano.it.example.com, and so on.

In the case that in each location are present more facilities (like e.g., a factory and a logistic point) that require a separate node, an additional level can be added to the hierarchy and made sub-organization of the city office: factory.london.uk.example.com, shipment.london.uk.example.com.

The use of names to identify the various branches helps in keeping the structure of the corporation clearer to the Corvina Cloud's manager.

3 Getting Started

The below chapters give the basic information to start working with Corvina Cloud environment.

3.1 Connecting to Corvina Cloud

To get access to Corvina Cloud you need to use the Corvina Cloud Web Portal using any Html 5 Browser.

Corvina Cloud App create a VPN network that give the possibility to use the remote devices through IP address as if they were connected to the local network. Moreover, local applications (e.g. JMobile Studio or JMobile Client) can be used.

Corvina Cloud Web Portal required only an internet browser and not need any additional applications to be executed.

Both applications have the possibility to configure the entire environment (Organizations, Users, Devices and Applications) and monitor the endpoints through the Dashboard page.

3.2 JMobile Configuration

To Enable the Connection of the Device to Corvina Cloud and to define the Tags and Alarms that needs to be passed to Corvina Cloud you need to use Exor JMobile Software. Please refer to the JMobile Configuration Manual to configure those parts.

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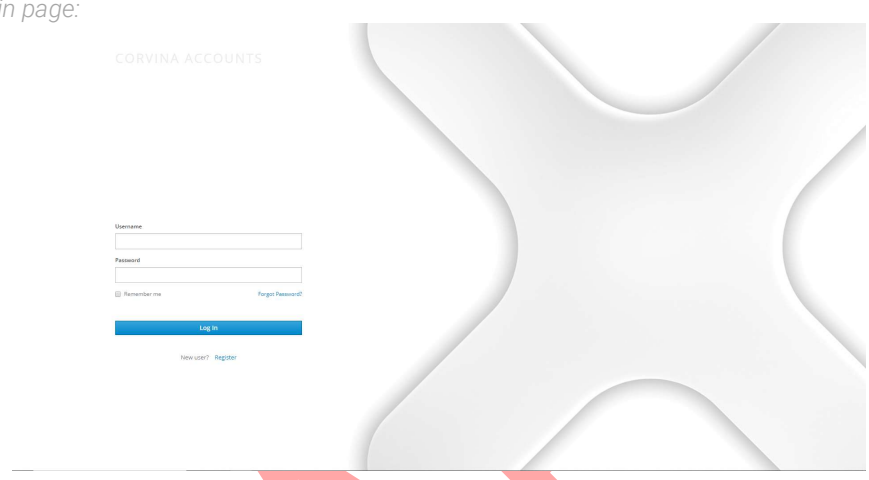
4 Operate on Corvina Cloud

The below chapters give the information about how to work in Corvina Cloud environment and how the various menus are located. Each function will be described later in the document.

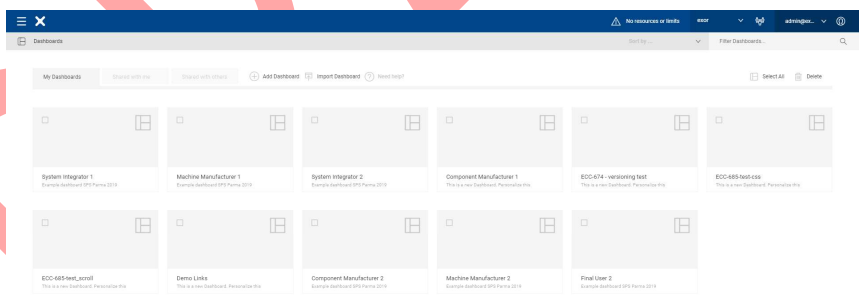
4.1 Login Page

After correctly digit the Address of your Corvina Cloud instance in an Html 5 Browser you will reach the Corvina Cloud login page:



*Insert the provided **"Username"** and **"Password"** in the relative field and press **"Log In", you'll be redirect to the main page of Corvina Cloud.***

4.2 Main Page



The Main page of Corvina Cloud is displaying the list of the Dashboard defined in your organization (if it is the first time you are enter it will be blank).

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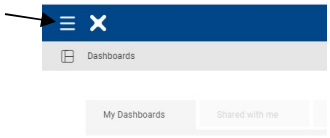
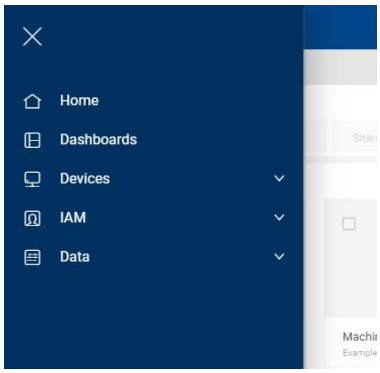
4.3 Main Menu

To access to the Main Menu, from the main page click with the mouse on the menu icon located in the top left corner of the User Interface:



The main menu will be displayed:



From this menu it is possible access to the following sections:

- *Dashboard*: It is the section to manage Dashboard.
- *Devices*: It is the section to manage the Devices.
- *IAM*: It is the Section to define Users, Groups, Roles and Organizations.
- *Data*: It is the Section to operate on Data Models.

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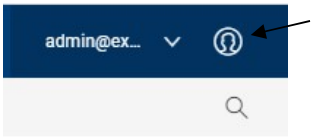
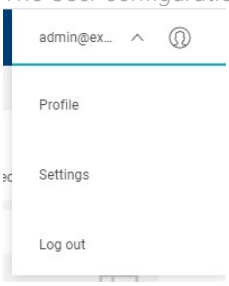
4.4 User Configuration Menu

To access to the User Configuration Menu, from the main page click with the mouse on the user icon located in the top right corner of the User Interface:



The User configuration menu will be displayed:

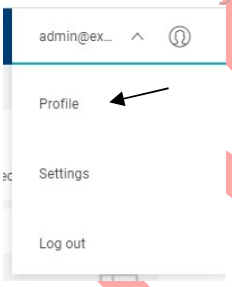


From this menu it is possible access to the following sections:

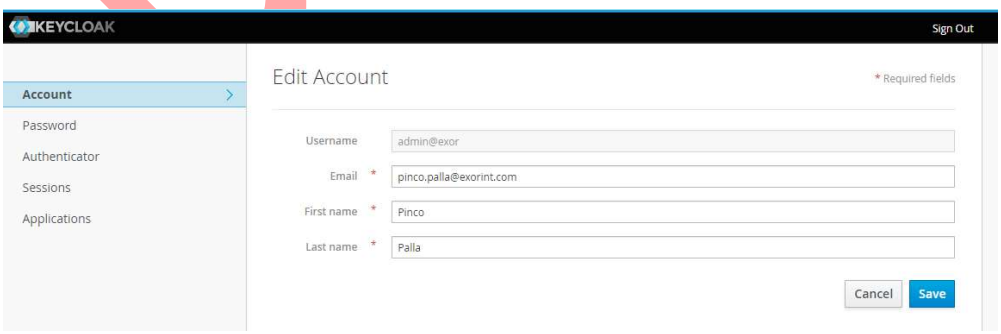
- *Profile*: It is the section to set the User parameter, change the password, ….
- *Settings*: It is the section to set the Theme of the User Interface.
- *Logout*: Disconnect the User from the Active session.

4.4.1 Profile

From the User Configuration Menù selecting Profile



the user will be redirect to the User Configuration section:



From here it is possible to set:

- *Account:* It is the section to define Email for the notifications and password reset, First Name, Last Name.
- *Password:* It is the section to change the password.

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- *Authenticator:* *It is the section that allow to define the multi-factor authentication or to set the one-time code for the login.*
- *Sessions:* *It is the session that display and manage the active session of the User.*

4.4.2 Settings

Allow the configuration of the Theme related to the Organization??
Please see later in the document….

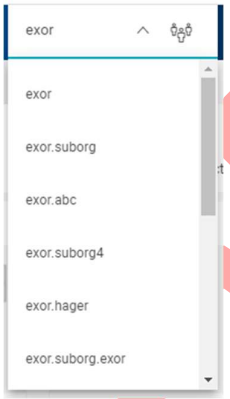
4.4.3 Logout

Disconnect the User from the current session.

4.5 Organization / Sub-Organization Selection

To access to the Organization/Sub-Organization Selection, from the main page click with the mouse on the Organization icon

The list of the Sub-Organization available according to the Roles of the User will be displayed:



Selecting one organization the visualization of the Main Page will be updated according.

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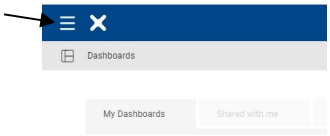
5 Device Activation

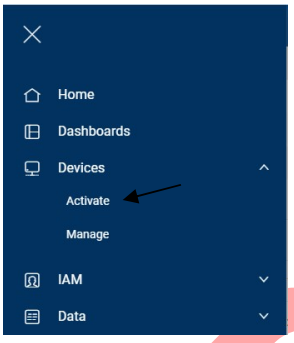
Device Activation is the process to connect an Exor Device to Corvina Cloud.
This process is a Wizard that allow you to Connect a Device to Corvina Cloud, Define the Data Model based on the Device or select from the existing ones and start the data collection.

5.1 Online process

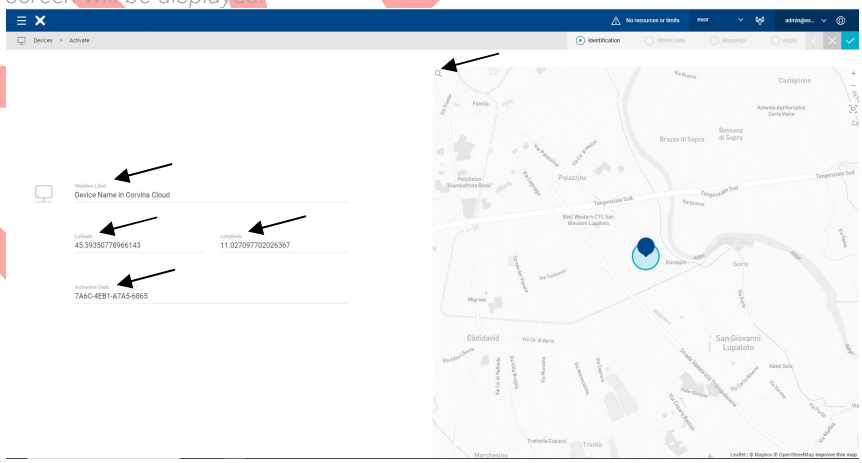
From the main page click with the mouse on the menu icon located in the top left corner of the User Interface:



*The main menu will be displayed, select **"Devices"** and from the submenu select **"Activate"***



The following screen will be displayed:



Insert the requested field:

- ***Machine Label**: It is the name that will be used for the device inside Corvina Cloud.*
- ***Latitude and Longitude**: It is the position of the Device. You can navigate on the map or use the **"Search"** field to specify a location.*
- ***Activation Code**: It is the Activation Code for the device that needs to match the Activation Code specified inside the Device with JMobile.*

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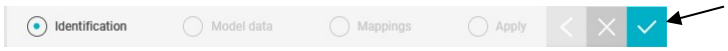
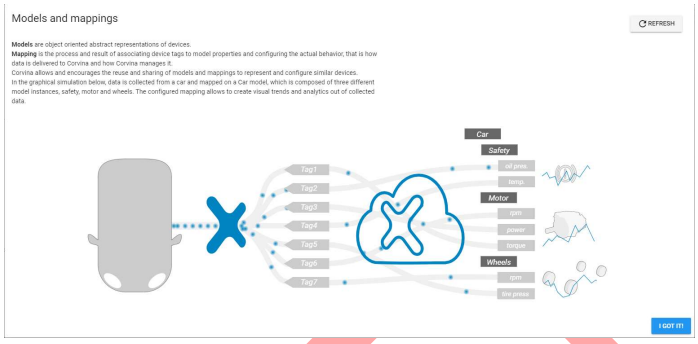
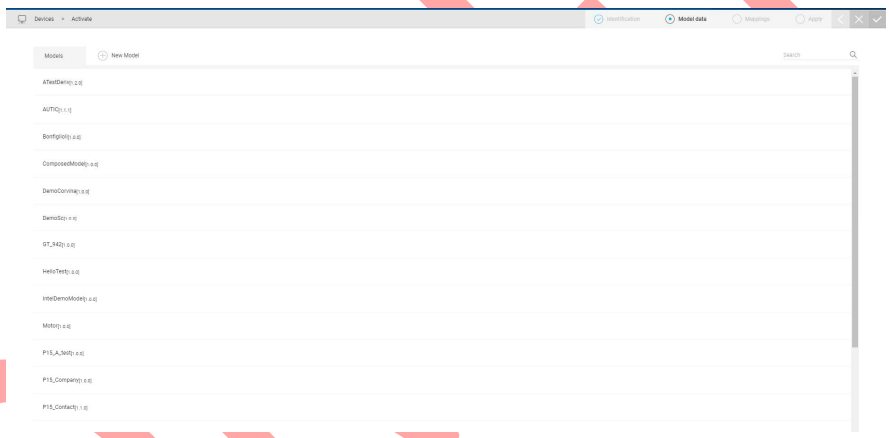
After insert the required information, click on the green button under the main menu to progress with the process (The bar display where you are in the Activation Device process).



After applied, the Device and Corvina will start to Authenticate themselves.
If Corvina will be able to detect the Device, the following screen appear:



*Click on **"I GOT IT"** button, the Model definition screen will be visualized.*



Description of Model and use:

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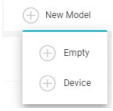
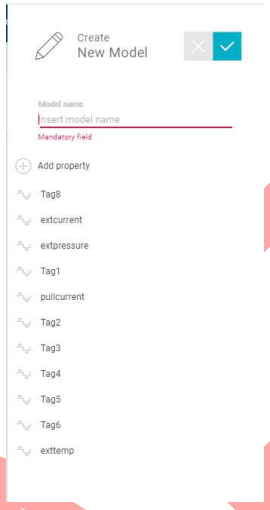
exorint.com

5.2 Automatic generation of the Model

*To automatically generate the Model from the device, click on **"NewModel"***

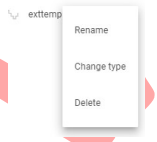


*And Select **"Device"***

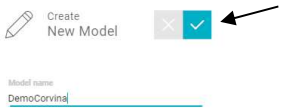


On the right part of the User Interface the "Create New Model" panel will be visualized displaying the list of the Tags defined in JMobile to be passed to Corvina.

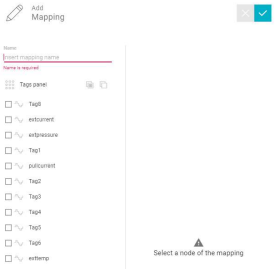
*Insert a Name for the Model in the field **"Model Name"**.*
*Add additional Tag or field in the model using the **"+"** icon or Edit the Tags clicking on it and selecting the action:*



Once completed click on the click on the green button of the menu



The Activation process will pass to the next step and display the Mapping screen:



*Insert a Name for the Mapping in the field **"Name"**.*

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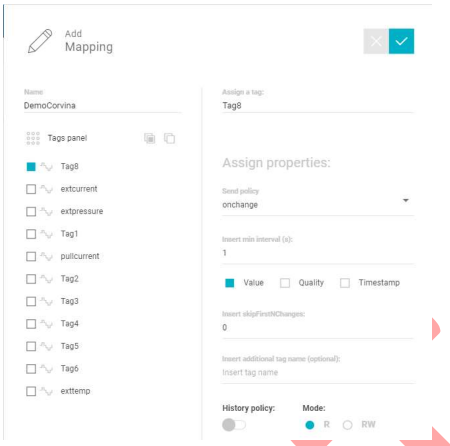
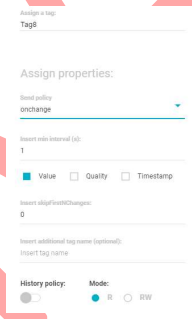
Selecting one of the Tags (in case of multiple selection the changes will be applied to all the selected tags), it will be possible to configure the parameter of that Tags:



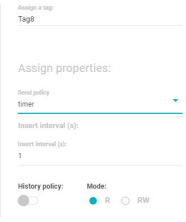
Send Policy OnChange:
With this Send Policy, the device will send an update value for that tag every time that the tag vale will change.
Available option for this Send Policy:

- ***Insert min. interval (s):*** *this option indicates the minimum interval between the change of value messages.*
- ***Value / Quality / Timestamp:*** *This parameter indicates which attributes change of the tag will generate the value update in the Cloud.*
- ***Insert Skip First N Changes:*** *This parameter indicates how many changes of value the cloud will discard.*
- ***Insert Additional Tag Name (optional):*** *This option allows to use an additional tag as Trigger for send the values from the Device to the Cloud*
- ***History Policy:*** *This parameter indicates if the Tag values will be stored in the historical database or not.*
- ***Mode:*** *This parameter indicates if the value will be only Read or Read and Write*



Send Policy Timer:
With this Send Policy, the device will send an update value for that tag every time that the tag vale will change.
Available option for this Send Policy:

- ***Interval:*** *This parameter indicates the time in seconds between the value update.*
- ***History Policy:*** *This parameter indicates if the Tag values will be stored in the historical database or not.*
- ***Mode:*** *This parameter indicates if the value will be only Read or Read and Write*



Once completed the configuration of this parameters click on the Apply button

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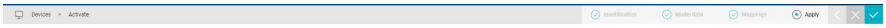
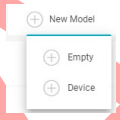
A resume of the Device configuration will be displayed:



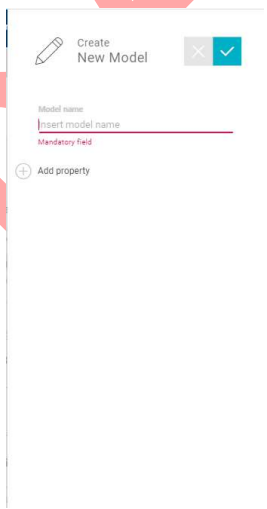
Click on the Apply button to confirm the Configuration.

5.3 Manual generation of the Model

*To manually generate the Model from the device, click on **"NewModel"***

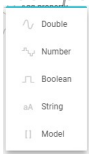


*And Select **"Empty"**, the "Create New Model" bar appear.*



Insert a name for the model and clicking on "

" compose your model:



Supported fields are:

- *Double: A Numeric Double value*
- *Number: A Numeric Integer value*
- *Boolean: A Boolean value*

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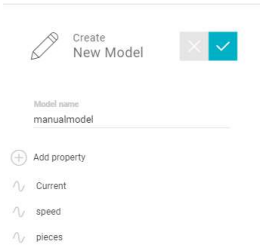
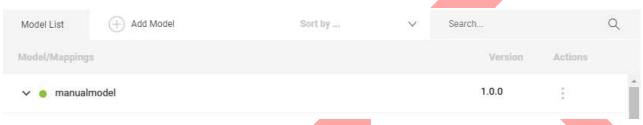
- *String: A String*
- *Model: An Existing DataModel*

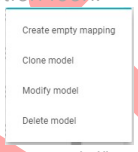


Once completed chick on the Apply Button:

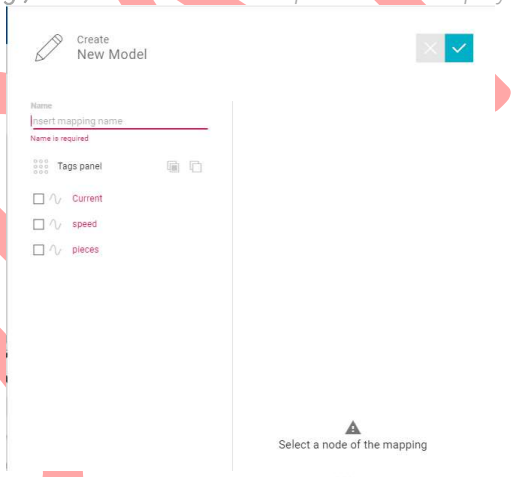
The model will be displayed in the list of the Models:



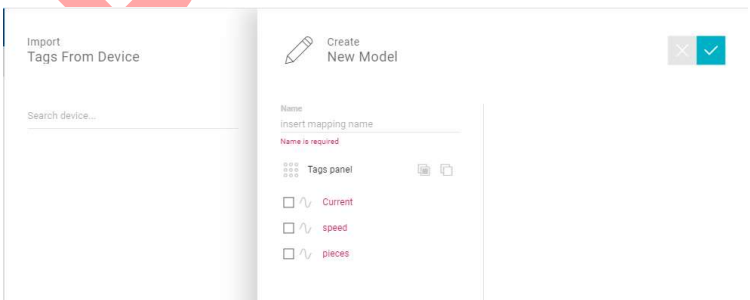
To associate the Tag to this model, click on the Action Icon: " " "



*And select **"Create empty mapping"**, the "Create New Model" panel will be displayed.*



*Insert a name for the Model and click on the Tags panel icon " Tags panel " to display the **Import tag from Device** panel.*



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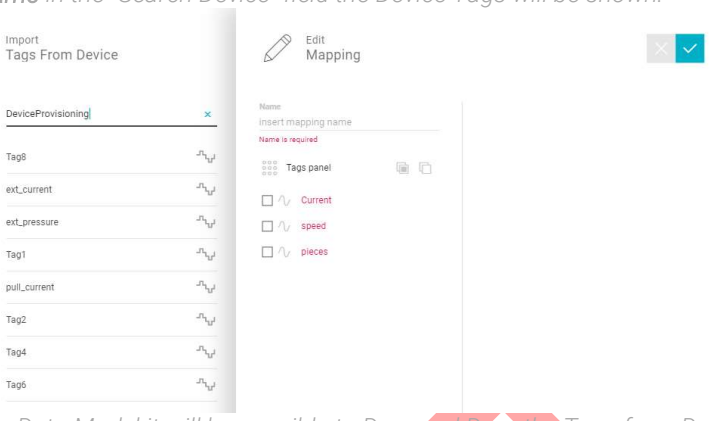
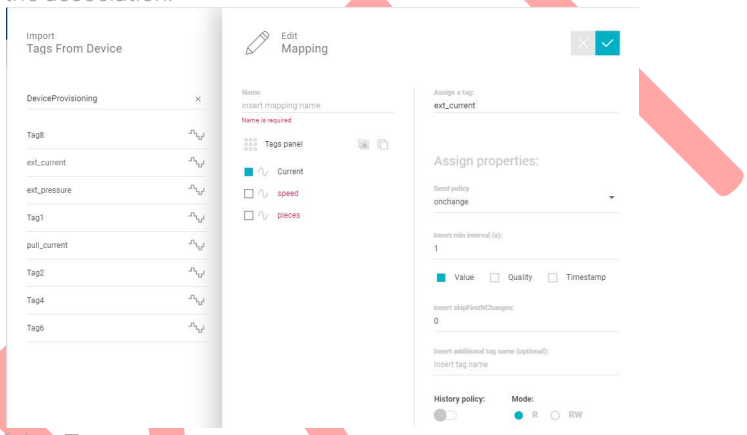
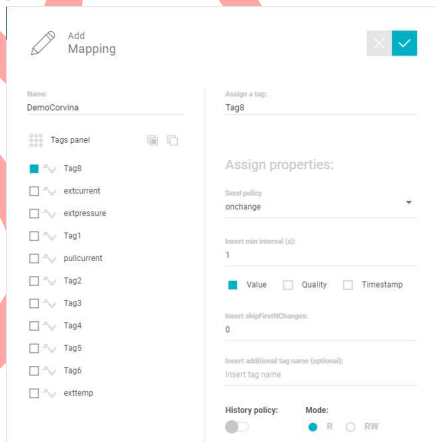
*Specifing the **Device Name** in the "Search Device" field the Device Tags will be shown:*



Selecting one Tag of the Data Model it will be possible to Drag and Drop the Tags from Device to the related Tag in the Data Model creating the association:



Configure the parameter of that Tags:



Send Policy OnChange:

With this Send Policy, the device will send an update value for that tag every time that the tag vale will change. Available option for this Send Policy:

- *Insert min. interval (s): this option indicates the minimum interval between the change of value messages.*
- *Value / Quality / Timestamp: This parameter indicates which attributes change of the tag will generate the value update in the Cloud.*
- *Insert Skip First N Changes: This parameter indicates how many changes of value the cloud will discard.*
- *Insert Additional Tag Name (optional): his option allows to use an additional tag as Trigger for send the values from the Device to the Cloud*
- *History Policy: This parameter indicates if the Tag values will be stored in the historical database or not.*
- *Mode: This parameter indicates if the value will be only Read or Read and Write*

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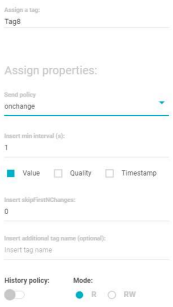
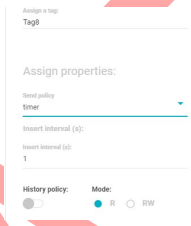


Send Policy Timer:
With this Send Policy, the device will send an update value for that tag every time that the tag vale will change.
Available option for this Send Policy:

- ***Interval:*** *This parameter indicates the time in seconds between the value update.*
- ***History Policy:*** *This parameter indicates if the Tag values will be stored in the historical database or not.*
- ***Mode:*** *This parameter indicates if the value will be only Read or Read and Write*



Once completed the configuration of this parameters click on the Apply button

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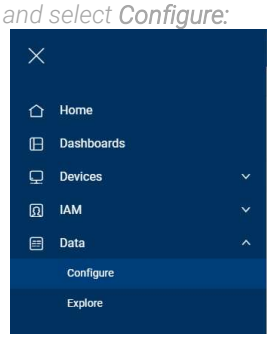
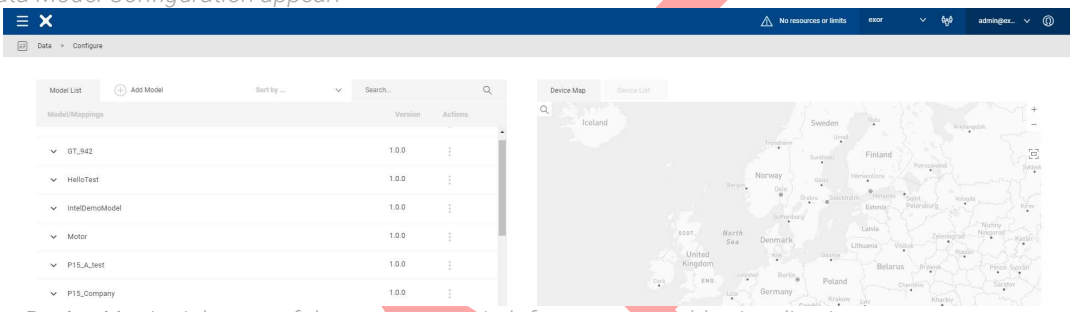
5.4 Assign a Model to a Device

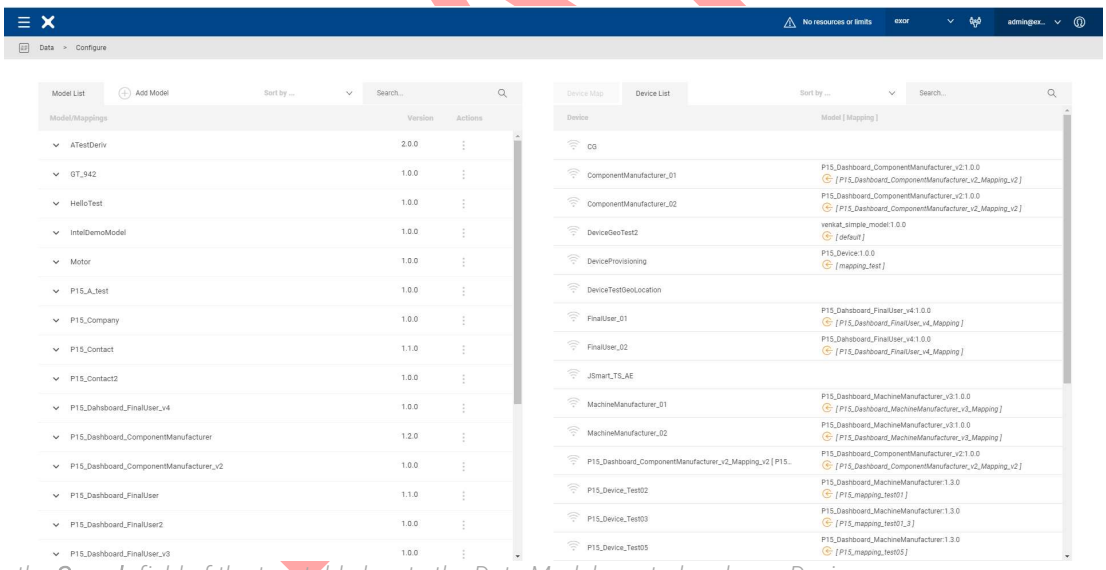
After the Manual Creation of the Model, you need to Associate that Model to the Device.
To do this, from the ***Main Menu*** *select* ***Data*** *and select* ***Configure:***



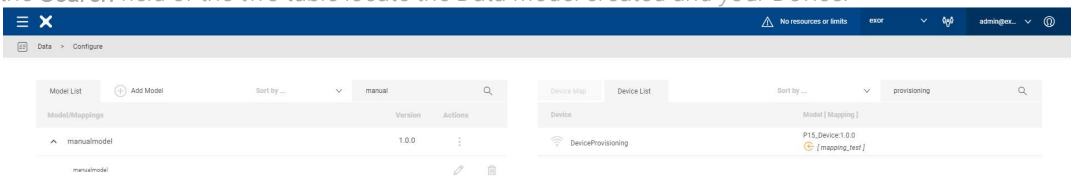
The Data Model Configuration appear:



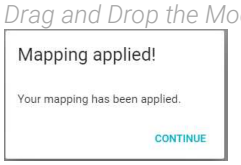
Click on ***Device List*** *in right part of the screen to switch from map to table visualization:*



Using the ***Search*** *field of the two table locate the Data Model created and your Device:*



Drag and Drop the Model to the Device will apply the association:



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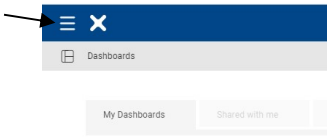
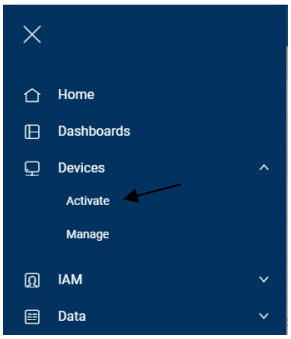
5.5 Assign a model to a Device during Device Provisioning

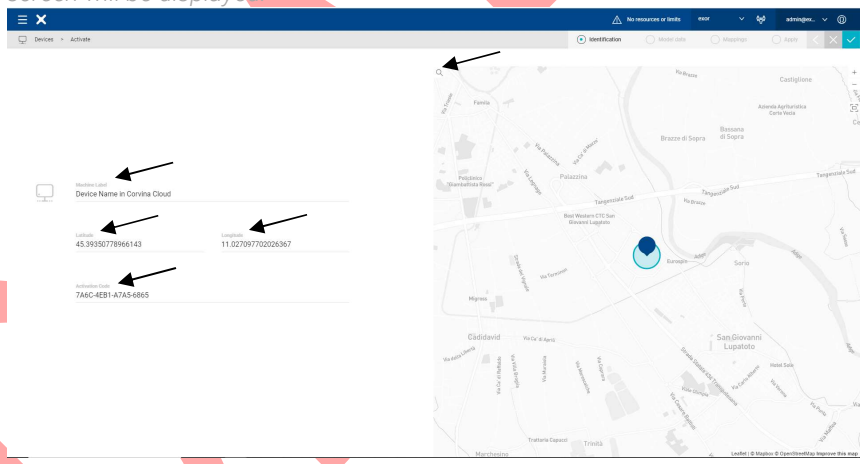
From the main page click with the mouse on the menu icon located in the top left corner of the User Interface:



*The main menu will be displayed, select **"Devices"** and from the submenu select **"Activate"***



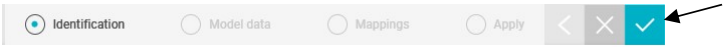
The following screen will be displayed:



Insert the requested field:

- ***Machine Label**: It is the name that will be used for the device inside Corvina Cloud.*
- ***Latitude and Longitude**: It is the position of the Device. You can navigate on the map or use the **"Search"** field to specify a location.*
- ***Activation Code**: It is the Activation Code for the device that needs to match the Activation Code specified inside the Device with JMobile.*

After insert the required information, click on the green button under the main menu to progress with the process (The bar display where you are in the Activation Device process).



After applied, the Device and Corvina will start to Authenticate themselves.
If Corvina will be able to detect the Device, the following screen appear:

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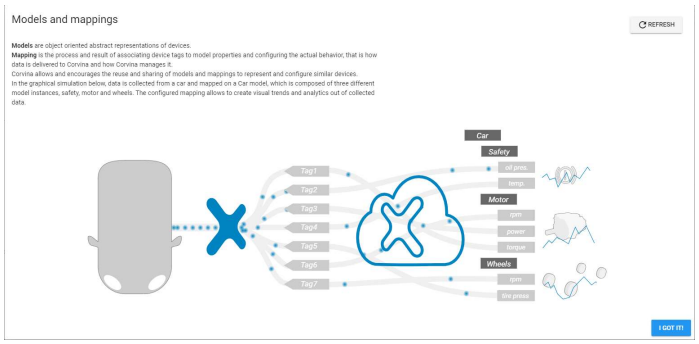
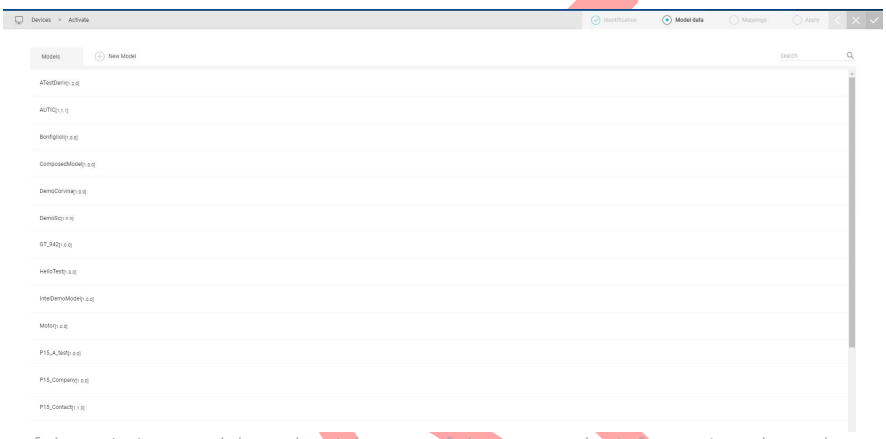
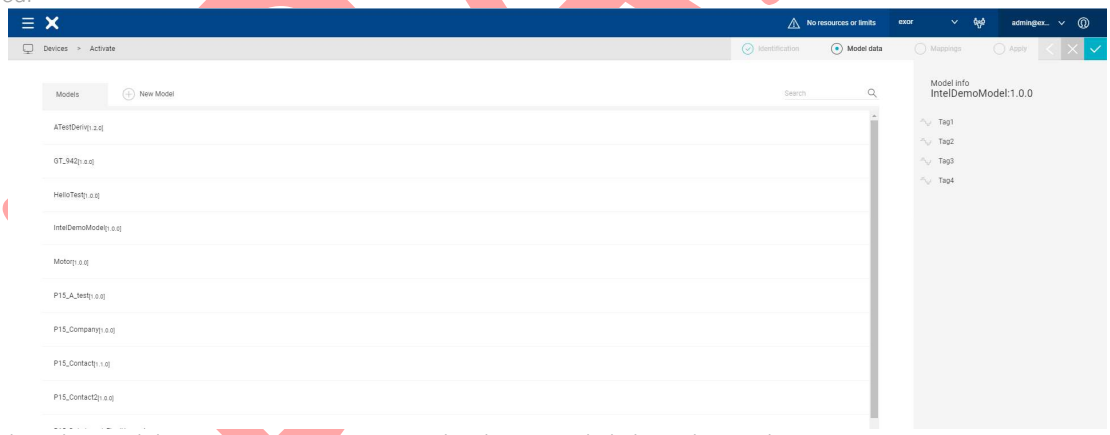


*Click on **"I GOT IT"** button, the Model definition screen will be visualized.*

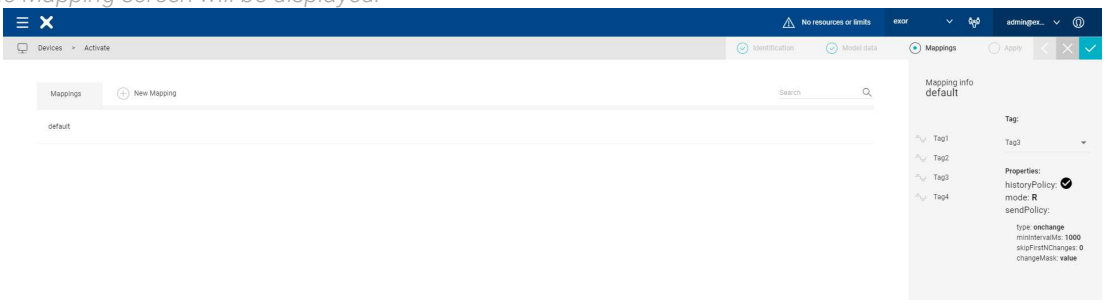


Selecting one of the existing model, on the right part of the screen the information about the model will be displayed.



Select the Model you want to associate to the device and click on the Apply Button:

The Mapping screen will be displayed:



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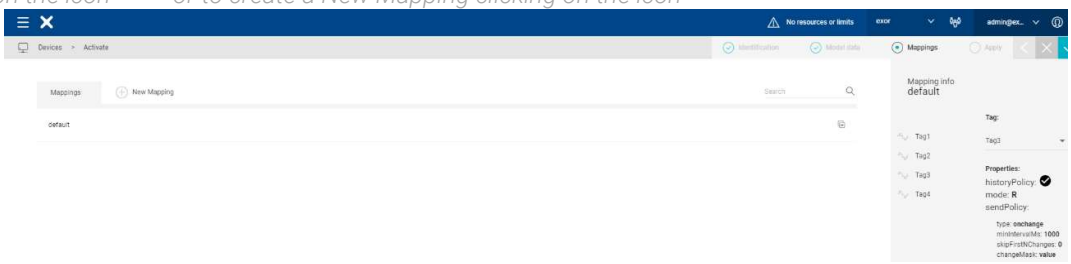
From here it is possible to check the configuration of the Mapping related to that model, to clone the mapping clicking on the icon *or to create a New Mapping clicking on the icon* New Mapping



If you want to use the existing one as it is simply click on Apply button.
A resume of the Device configuration will be displayed:

Click on the Apply button to confirm the Configuration.

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6 Multitenants

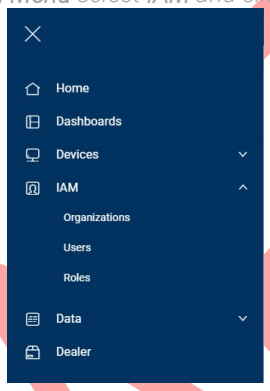
Corvina Cloud is Multitenant and allow the possibility to create Organization and Suborganizations.
Suborganizations can be used to organize the device in multilevel structure.
Example of suborganizations usage can be:

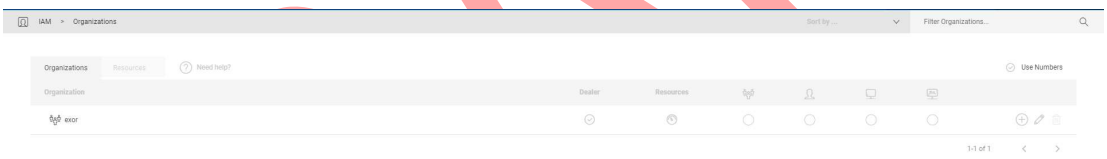
Reseller
System Integrator
Customer

Each level can be set to hide its data to the top organization.

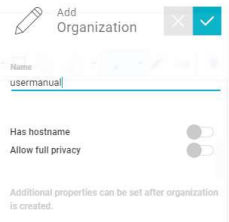
6.1 Creation of a SubOrganization

*To create a SubOrganization, From the **Main Menu** select **IAM** and click on **Organizations***





From the Organizations main screen, click on "⊕" the right panel for the creation of the Sub-Organization will be displayed:



*Insert a **Name** to identify the Organization and set the related parameter:*

- ***Has hostname:** If enabled will allow the sub organization to define the Host Name suffix of the original Host Name (i.e https://app.corvina.cloud → https://test.app.corvina.cloud)*
- ***Allow full privacy:** If enabled this parameter will hide the data of the sub organization to the top organization.*

As written, not all the parameters related to the Organization can be set during the creation.

After creating the Organization, click on the "✎" to complete the configuration of the Organization:

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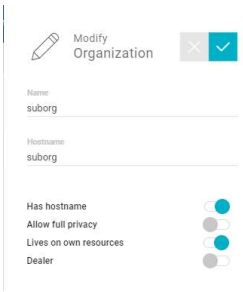

- *Hostname: Insert in Hostname the name you want to use for connecting to the Organization. The Hostname will be added as suffix of the original Internet Address of Corvina (i.e. https://app.corvina.cloud → https://Hostname.app.corvina.cloud)*
- *Allow full privacy: This parameter, if enabled will hide the data of the SubOrganization to the Top-Organization.*
- *Lives on own resource: This parameter define if the Organization will get the resources of the license from the Top Organization or if it will have its own resources*
- *Dealer: This parameter defines if the Organization that you are creating will have the possibility to act as a Dealer, assigning resources to its sub-Organization.*

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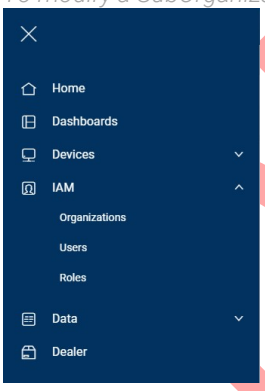
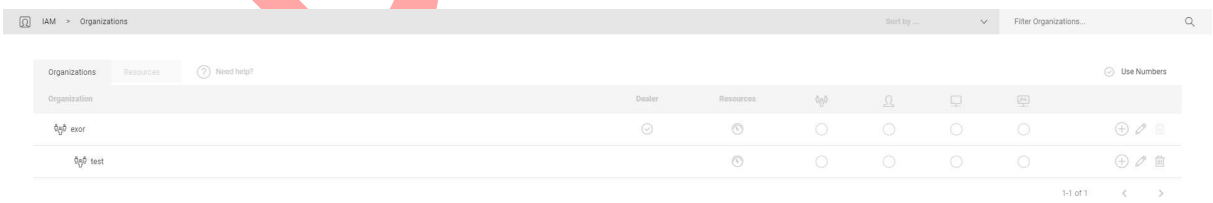
6.2 Modify a SubOrganization

To modify a SubOrganization, From the Main Menu select IAM and click on Organizations





From the Organizations main screen, click the icon " " to display on the right part of the screen the panel for Modify the Sub-Organization:

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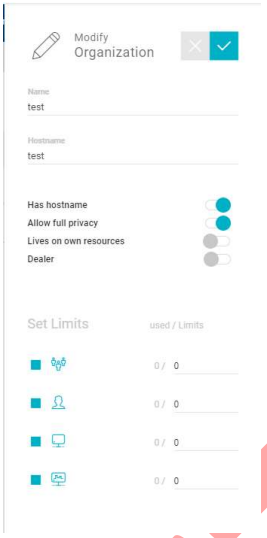


From this panel it will be possible to modify the following parameters:

- ***Hostname:*** *This parameter is set during the creation of the SubOrganization and cannot be modified.*
- ***Has Hostname:*** *It is possible to enable or disable the Hostname associated to the SubOrganization*
- ***Allow Full Privacy:*** *This parameter avoid that the Top Organization will have access to the data stored in the SubOrganization.*
- ***Lives on own Resource:*** *This parameter allow to define if the SubOrganization will use the license of the Top Organization or will have its private resource (please refer to the license chapter of this document)*
- ***Dealer:*** *This parameter allows the SubOrganization to become a dealer and resell its license to other SubOrganization. To be a Dealer the SubOrganization must have Lives on own Resource enabled (please refer to the license chapter of this document).*
- ***Set Limits:*** *This allow to define the Resource assigned to the SubOrganization from the Top Organization (please refer to the license chapter of this document).*

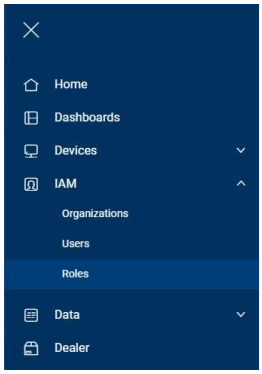
7 Roles Management

Roles Define what a User can do and what cannot do.
Corvina Cloud use 2 different type of Roles to define the User privilege:

- ***Application Role:*** *define the Action available for the Application (Dashboard, User, device,…)*
- ***Data Role:*** *Define the Action available for the Models*

Application Role and Data Role will be assigned to the User during the creation.

Roles can be accessed from the Main Menu, under IAM:



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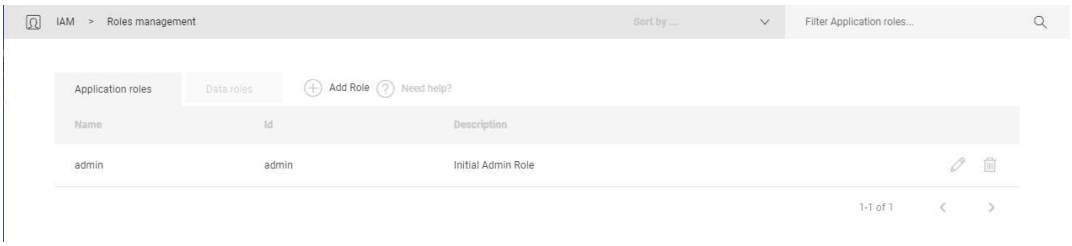

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7.1 Create an Application Role

From the Roles Management page, select the Application Roles Tab Application roles *and click on "Add Role"* Add Role *the Add Role panel will be shown on the right part of the screen:*

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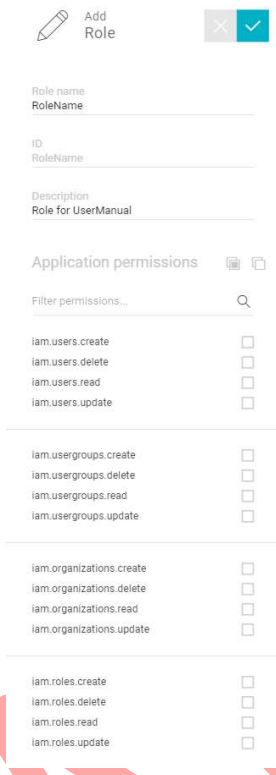

*Insert a **Role name** and a **Description** then select the Action that you want to allow to this Role.*
Permission are divided in section:

- *Users*
- *UserGroups*
- *Organizations*
- *Roles*
- *Dashboards*
- *Devices*
- *DeviceGroups*
- *Notifications*
- *Alarms*

After select the Action that you want to permit for this Application Role click on Apply in the Top Right Corner

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7.2 Create a Data Role

From the Roles Management page, select the Data Roles Tab Data roles *and click on "Add Role"*
Add Role *the Add Role panel will be shown on the right part of the screen:*

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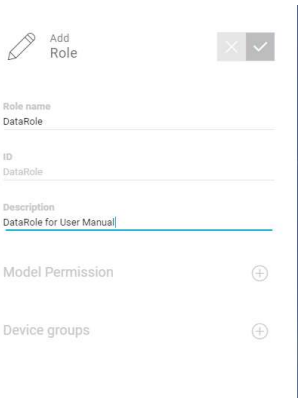
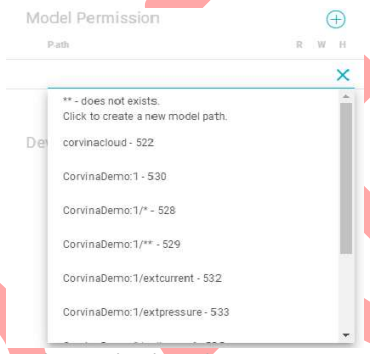


*Insert a **Role name** and a **Description** then select the Action that you want to allow to this Role:*

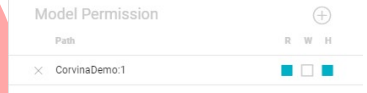
- ***Model Permission:** Define Permission available for the Defined Data Model*
- ***Device Groups:** Define the Group of Device affected by the Rule*

To define the Model Permission, click on the ⊕, the Model Permission configuration will be shown.



Select the Data Model from the drop-down list and select the permission that you want to apply on this model:

- ***R (Read):** This permission will give the User with this Data Role to read the information related to this Data Model*
- ***W (Write):** This permission will give the User with this Data Role to write the information related to this Data Model*
- ***H (History):** This permission will give the User with this Data Role to modify the parameter related to History of this Data Model.*



You can define more than one Data Model in each Data Role clicking on ⊕

*As well as the Model Permission it is possible to Apply the Data Role on one or more **Device Group***
To Enable one or more Data Group for the Permission

To define the Device Groups, click on the ⊕, the configuration will be shown.

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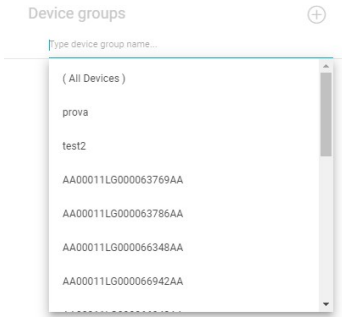
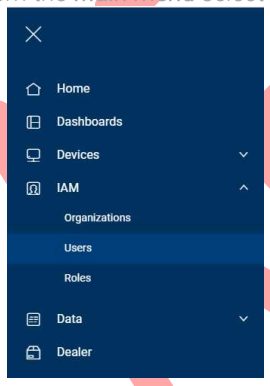


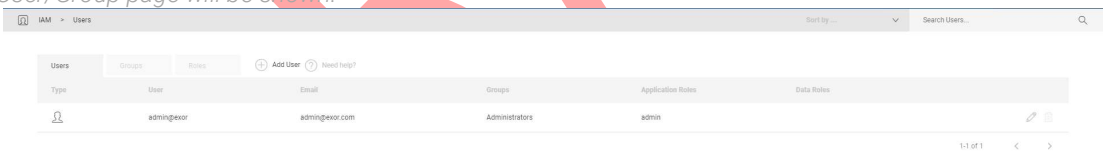
Select one or more Device Group (or All Device) then click on Apply in the Top Right Corner

8 User/Group

User and Groups allows to define the access to the Corvina Cloud.
User Role and Group Roles are added, this means that if the User does not have an Application or a Data Roles that is present in the Group, this will be added to the User Roles.
*To access to the User & Group Definition, from the **Main menu** select **IAM** and click on **Users**.*



The User/Group page will be shown:



8.1 Add a Group

*To add a **Group**, from the User/Group page click on Group Tab* Groups *and click on "* Add Group *" the **Add Group** definition tab will be shown on the right side of the screen:*

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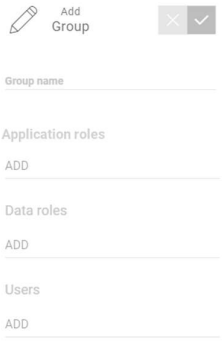
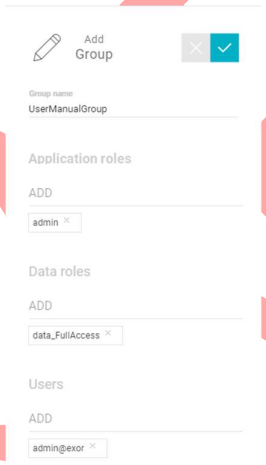


*Insert a **name** for the Group, then, clicking on ADD, set the **Application roles,** the **Data roles** you want to Apply on this Group(please refer to the Chapter Roles for description about how to create Roles), and in the **Users** section insert the existing users you want to insert in this Group.*
User can also be added to the Groups during the User creation process (see later in this chapter)



After completing the Group Configuration click on Apply button

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8.2 Add a User

*CC2 is a **multi-tenant** environment so users are unique inside a whole CC2 instance. Users are created once, and they can operate on multiple organizations.*

*A user is always **created** inside one organization: this operation creates the user inside CC2 and automatically invites him inside that organization.*

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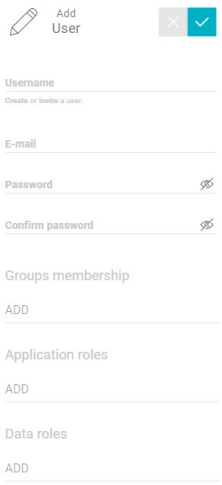
*That user can then be **invited** into other organizations via his username.*
*If a user **belongs** to multiple organization at login, he will be asked which organization to log into.*
***Deleting** a user is the inverse operation of invitation: once deleted from that organization he cannot log into that organization anymore. A deleted user still exists inside the CC2 instance and he can still log into the other organizations he belongs to.*
When a user does not belong to any organization, he still exists in CC2 but if he tries to login, he will be noticed that he cannot operate on anything. He may then decide to remove his account permanently from CC2. (Feature not yet implemented)

Type1 users exists independently of the organization which created them. Type2 users depends on the organization that created them: once that organization is deleted, they are deleted from CC2 also.

*To add a **User**, from the User/Group page click on Group Tab*

and click on "

*" the **Add User** definition tab will be shown on the right side of the screen:*



*Insert a **username** for the User, Username in CC2 can be of 2 types:*

1. ***Type1 email-address**: you can create a username with a full email address.*
2. ***Type2 name@cc2-hostname**: you can create this kind of usernames only if your organization has a **hostname**. These are useful to better manage roles inside your CC2 organization and do not require a unique email address.*

*Please note that both kind of usernames have an **email address associated**. For Type1 users it coincides with the username, for Type2 users it does not.*
The email address is required for some user management operations like password recovery and Notification.
*If your organization has a hostname you can **create** Type1 or Type2 users. If your organization does not have a hostname you can only create Type1 users (with email address).*
When you create a user, you need to specify an email address (in case of Type1 user it will coincide with the username) and a password. User will have the chance to change the password at first login anyway.

Please note that username and email address cannot be changed after the user is created.

*Insert an **E-mail** for the user, please note, this will be used for the password reset and for the Notification configured for the user.*
*Specify a **Password** for the user and Confirm it. Please note that his is the initial password for the User, the first time that the user will login into Corvina, it will be requested to change this password.*
*Clicking on "**ADD** specify the Group where you want to include this User ",and set the **Application roles** and the **Data roles** you want to Apply on this User (please refer to the Chapter Roles for description about how to create Roles).*

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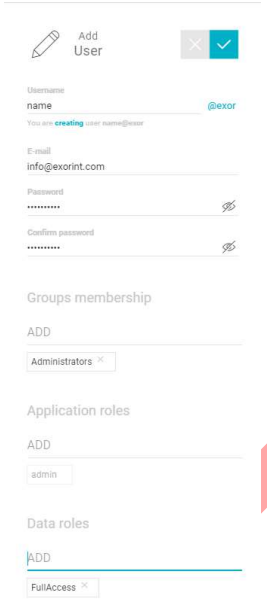


After completing the User Configuration click on Apply button

8.3 Invite a user

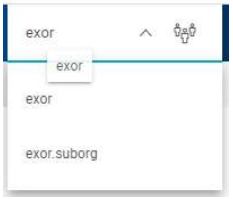
*Once a user is created, he can be **invited** into multiple organization. To invite an existing user enter his username: the system will check its existence and the form will update accordingly.*

8.4 Create a User or a Group in a Sub-Organization

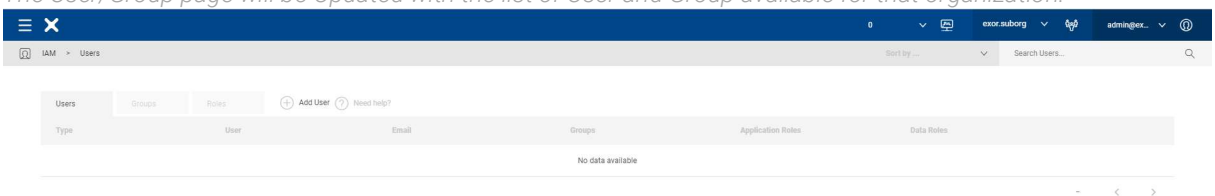
Users and Groups can be created in different Organizations.
When a new Organization is created, an Admin for that organization must be created to give to the Customer the possibility to Access and to Manage the Organization.

To Create a Group or a User in a Sub-Organization, from the Application Bar

, click on the *to view the list of the SubOrganization available and select the one where you want to create User or Group (i.e. exor.suborg):*



The User/Group page will be Updated with the list of User and Group available for that organization:



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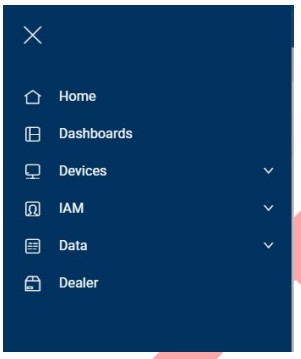
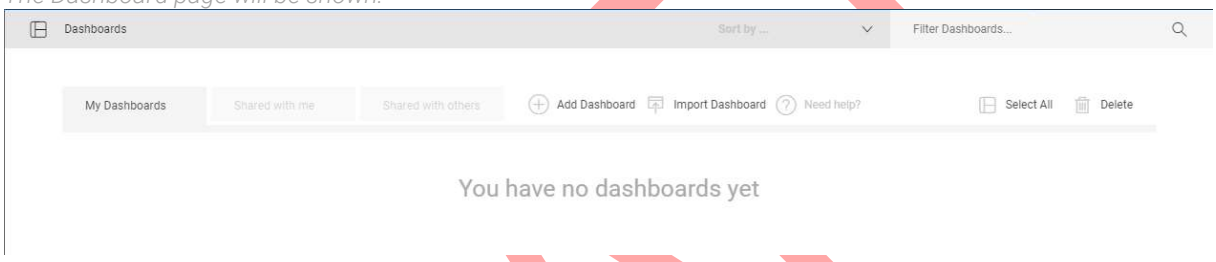
9 Dashboard Creator

Dashboard Creator is the tool to compose your cockpit with KPI and Layout of your Application.
*To access to your Dashboard, from the **Main Menu** select **Dashboard***



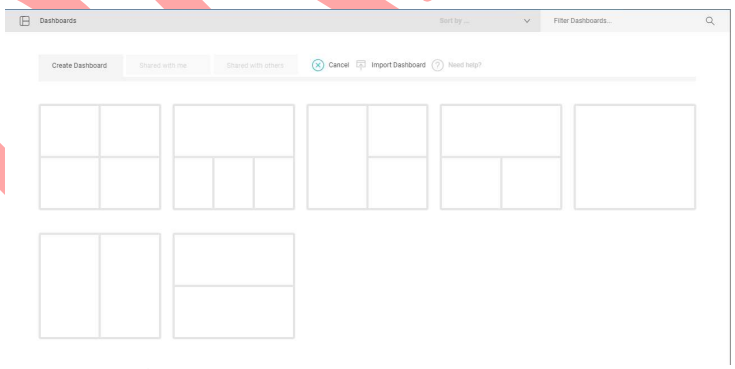
The Dashboard page will be shown:



Create the User.

9.1 Create a Dashboard

*To Create a Dashboard from the Dashboard page, click on **Add Dashboard***



Select a layout for your Dashboard from the pre-existing one or select the empty one to configure it later.
The Dashboard Configurator for the Layout chosen will be displayed.

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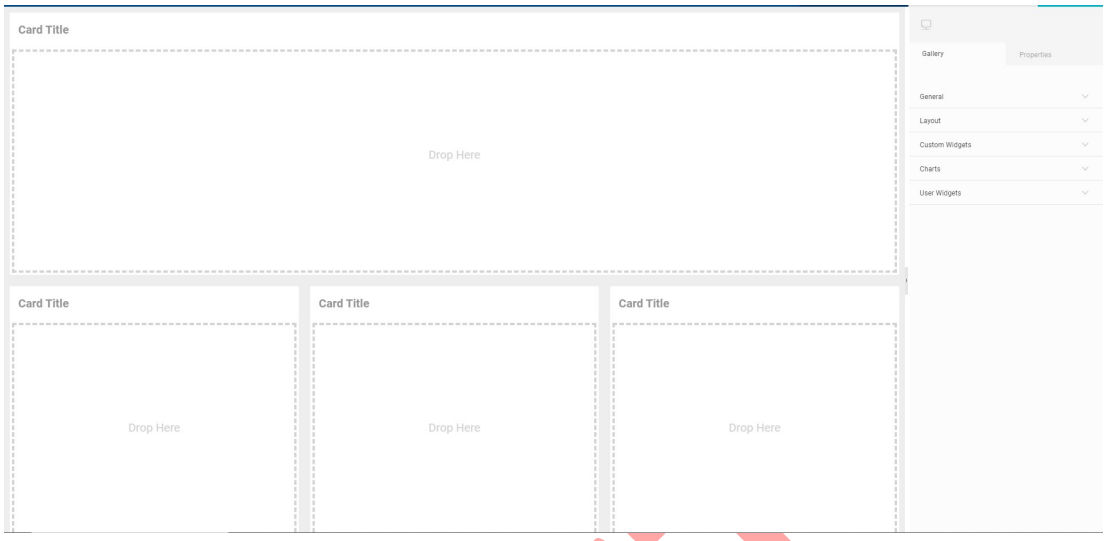


Select the Widget you want to import in the Dashboard from the Widget Gallery on the Right part of the Screen:

9.2 Widget Gallery

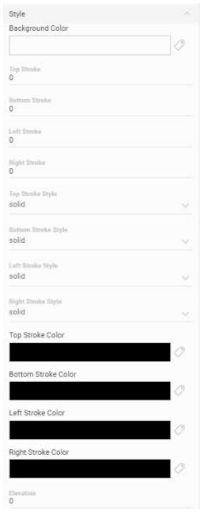
Widget Gallery is a collection of Widget that can be used to compose the Dashboard.
The Widget Gallery is organized in different Section:

- *General*
- *Layout*
- *Custom Widgets*
- *Charts*
- *User Widgets*

9.2.1 Common Property of Widgets

All the Widget, has some set of Common Properties:

- ***Style:*** *Allow to define the look and feel of the widget.*
  From here it is possible to set:
  - ***Background Colour:*** *It is the background colour of the widget*
  - ***Top Stroke:*** *Define the dimension of Top Border of the Widget*
  - ***Bottom Stroke:*** *Define the dimension of Bottom Border of the Widget*
  - ***Left Stroke:*** *Define the dimension of Left Border of the Widget*
  - ***Right Stroke:*** *Define the dimension of Right Border of the Widget*
  - ***Top Stroke Style:*** *Define the style of the Border (solid, dashed, dotted…)*
  - ***Bottom Stroke Style:*** *Define the style of the Border (solid, dashed, dotted…)*
  - ***Left Stroke Style:*** *Define the style of the Border (solid, dashed, dotted…)*
  - ***Right Stroke Style:*** *Define the style of the Border (solid, dashed, dotted…)*
  - ***Top Stroke Colour:*** *Define the colour of the Border*
  - ***Bottom Stroke Colour:*** *Define the colour of the Border*
  - ***Left Stroke Colour:*** *Define the colour of the Border*
  - ***Right Stroke Colour:*** *Define the colour of the Border*
  - ***Elevation:*** *Define the shadow of the Widget that will result elevated from the surface of the Dashboard.*



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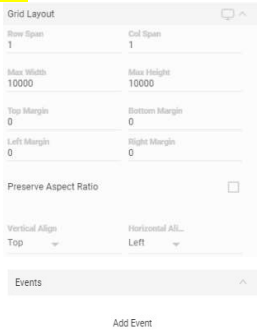
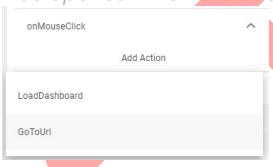
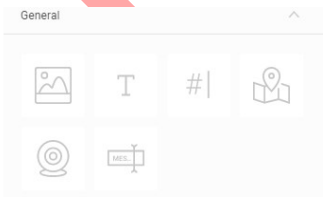
- *Grid Layout: Define the look and feel of the Grid where the widget has been placed.*



- *Events: Allow to associate an event to the widget. The Event available is "On Mouse Click" that allows to:*
  - *Load a Dashboard: define a Dashboard to load when the user clicks on the widget. Whit this Action it is possible to generate a Navigation between the Dashboards.*
  - *Go to URL: Define a link that will be opened when the user click on the widget*



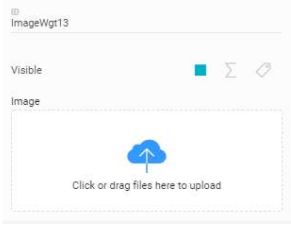
9.2.2 General Widget



9.2.2.1 Image Widget: Insert an image in the Dashboard

This Widget allows you to add an image in your dashboard.
This Widget has the following parameters (excluded the common one):

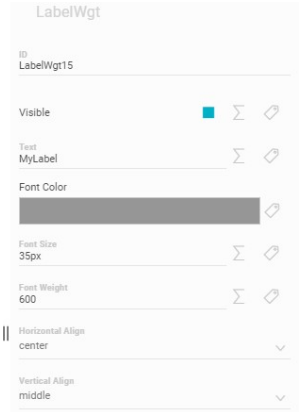
- *Visible: Allows to define if the image is visible or not. This parameter can also be attached to a Boolean Tag (True visible, False not visible).*
- *Image: Allows to upload the image that you want to place in the Dashboard, uploading from your PC.*



9.2.2.2 Text Widget

This Widget allows you to add a Label in your dashboard.
This widget can be used to add a label in a Card or as overlay on the synoptic widget to compose the Digital Twin of your HMI/Gateway visualization...
This Widget has the following parameters (excluded the common one):

- *Visible: Allows to define if the image is visible or not. This parameter can also be attached to a Boolean Tag (True visible, False not visible).*
- *Text: Is the Label text, it can be defined manually or associated to a Tag value.*
- *Font Colour: Colour of the Font*
- *Font Size: Dimension of the Font*
- *Font Weight: Define the dimension of the Font (600= Bold)*
- *Horizontal Aligns: Define the Horizontal position of the text*
- *Vertical Aligns: Define the vertical position of the text*



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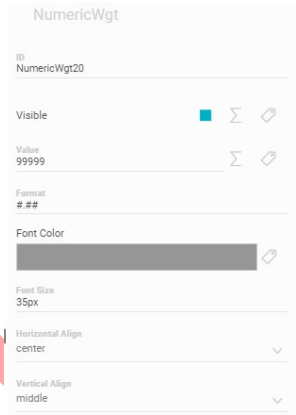
9.2.2.3 Value Widget:

This Widget allows you to add a Numeric field in your dashboard.
This widget can be used to add a value in a Card or as overlay on the synoptic widget to compose the Digital Twin of your HMI/Gateway visualization...
This Widget has the following parameters (excluded the common one):

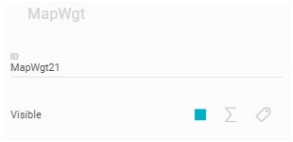
- ***Visible:*** *Allows to define if the image is visible or not. This parameter can also be attached to a Boolean Tag (True visible, False not visible).*
- ***Value:*** *Is the Value text, it can be defined manually or associated to a Tag value.*
- ***Font Colour:*** *Colour of the Font*
- ***Font Size:*** *Dimension of the Font*
- ***Font Weight:*** *Define the dimension of the Font (600= Bold)*
- ***Horizontal Aligns:*** *Define the Horizontal position of the text*
- ***Vertical Aligns:*** *Define the vertical position of the text*



9.2.2.4 Map Widget

This Widget allows you to add a Map in your dashboard to display the Devices and its status (Online/Offline/Normal/Alarm)
This Widget has the following parameters (excluded the common one):

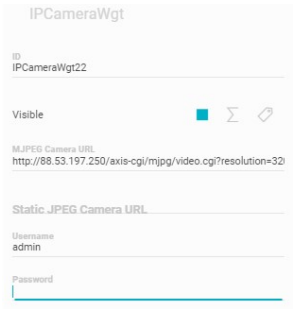
- ***Visible:*** *Allows to define if the image is visible or not. This parameter can also be attached to a Boolean Tag (True visible, False not visible).*



9.2.2.5 IP Camera Widget

This Widget allows you to display streaming from an IP Camera in your dashboard
This Widget has the following parameters (excluded the common one):

- ***Visible:*** *Allows to define if the image is visible or not. This parameter can also be attached to a Boolean Tag (True visible, False not visible).*
- ***MPEG Camera URL:*** *Define the URL of the Web Camera for the MPEG Streaming*
- ***Static JPEG Camera URL:*** *Define the URL of the Web Camera for the JPEG Streaming*
- ***Username:*** *Define the username used by Corvina to connect to the IP Camera*
- ***Password:*** *Define the password used by Corvina to connect to the IP Camera*



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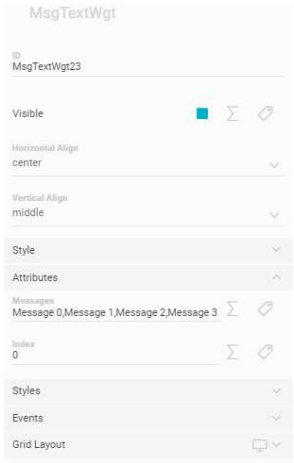
9.2.2.6 Message Widget (Multistate)

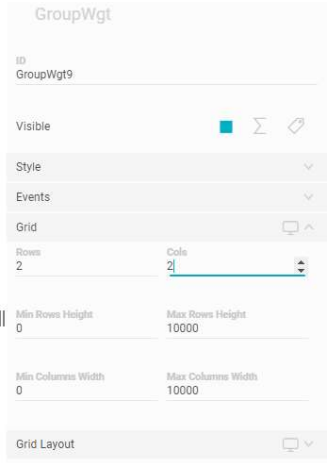


This Widget allows you to add a Message field in your dashboard.
This widget can be used to add a value in a Card or as overlay on the synoptic widget to compose the Digital Twin of your HMI/Gateway visualization...
This Widget has the following parameters (excluded the common one):

- ***Visible:*** *Allows to define if the image is visible or not. This parameter can also be attached to a Boolean Tag (True visible, False not visible).*
- ***Horizontal Aligns:*** *Define the Horizontal position of the text*
- ***Vertical Aligns:*** *Define the vertical position of the text*
- ***Messages:*** *Define the Label that will be displayed in the Dashboard. Here you can specify the Label that will be shown in relation the the value of the associated Tag (On/OFF, 1st speed/2nd speed/3rd speed,...).*
- ***Index:*** *Define the Index of the Tag associated to the Messages*

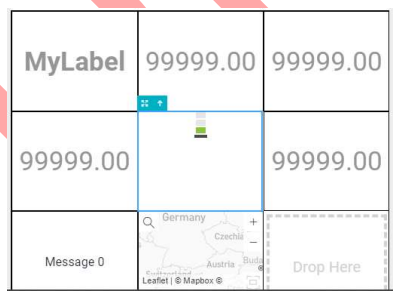
9.2.3 Layout Widget

9.2.3.1 Group Widget



This Widget allows you to add a Group field in your dashboard.
This widget can be used to add several values or several widgets in a Card.
This Widget has the following parameters (excluded the common one):

- ***Visible:*** *Allows to define if the image is visible or not. This parameter can also be attached to a Boolean Tag (True visible, False not visible).*
- ***Grid:*** *Allows to define how to compose the Group widget. Modifying Rows and Cols (columns) you can create a matrix of spaces where inside can be placed values or other widgets.*



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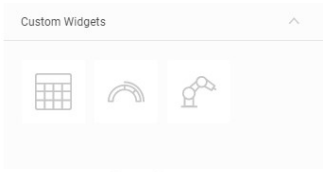
9.2.3.2 Synoptic Widget

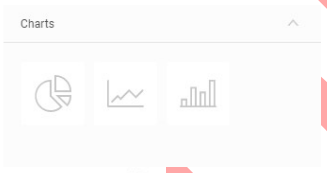
9.2.3.3 Card Title Widget

9.2.4 Custom Widget



- Table Widget
- Gauge Widget
- Robot Widget

9.2.5 Charts Widget



- PieChart Widget
- Trend Widget
- BarChart Widget

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9.3 Compose the Dashboard

To compose the Dashboard, from the Dashboard Creator Page, select the widget you want to add and simply Drag and Drop in the Dashboard section where you want to place it:

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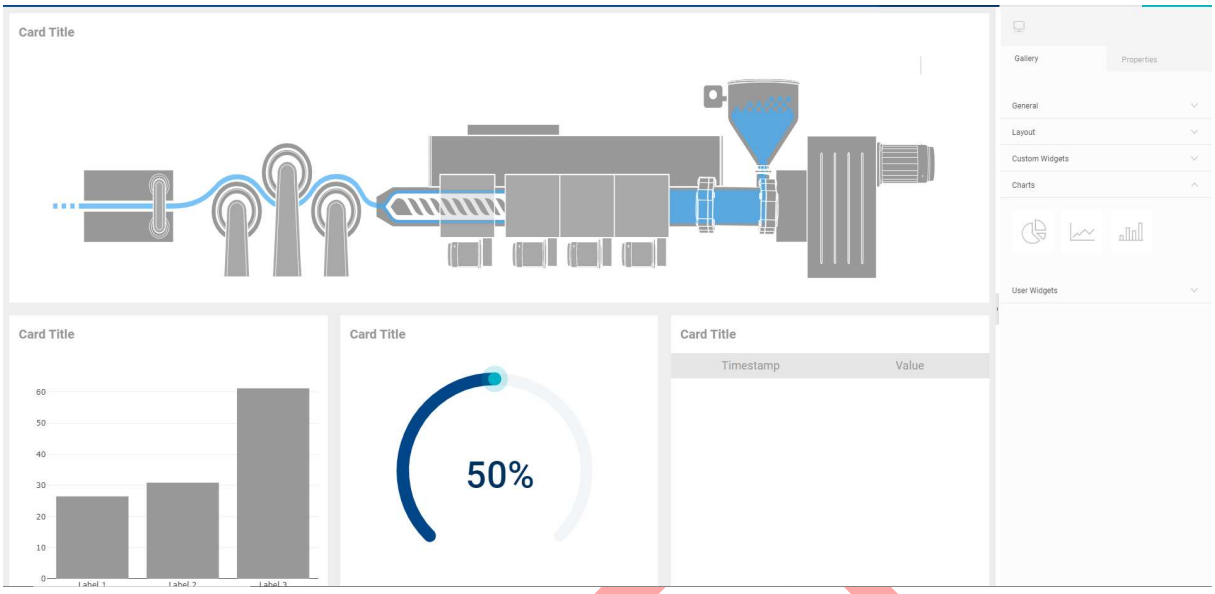
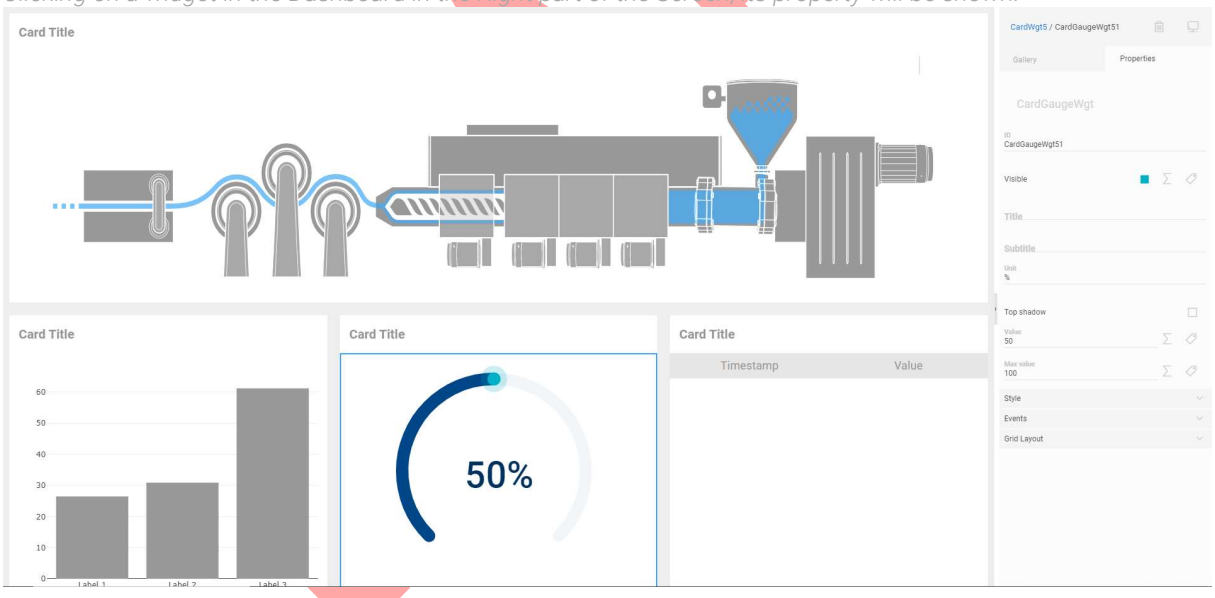


9.3.1 Connect the Widget to the Device

Each Widget, once that is placed in the Dashboard can be configured with his property.
Clicking on a widget in the Dashboard in the Right part of the Screen, its property will be shown:



The property displayed for the Widget depends on the type of widget choose and its functionality.

To connect a widget to a Device, click on the Widget, and in the Right Panel click on near the property ***Value****.*
The Device Slot Configuration menu will be shown:

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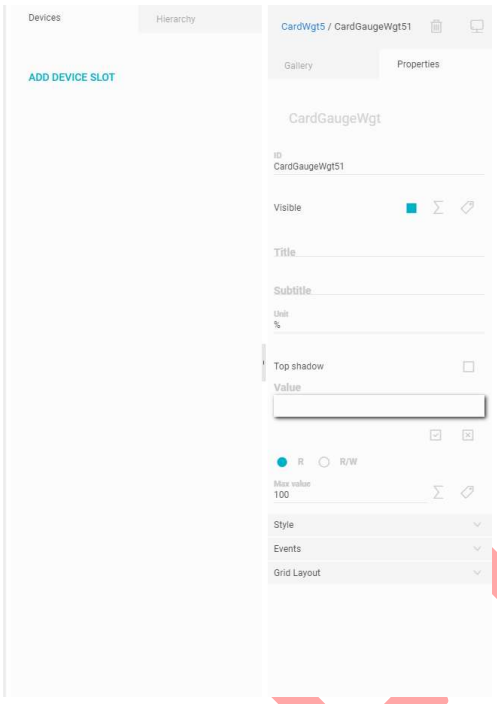
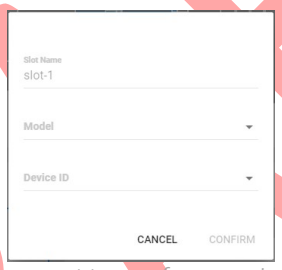
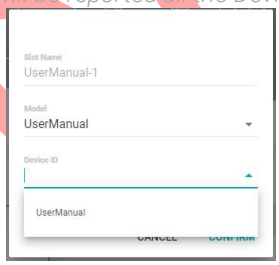


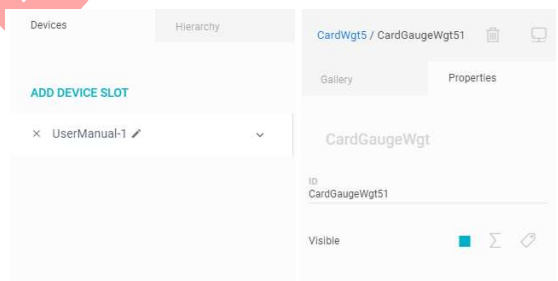
*Click on **Add Device Slot***



*Insert a Slot Name, then select the **Model** you want to use for mapping Data into the Dashboard, After select the Model, in the **Device ID** drop down menu it will be reported all the Devices that are using that Data Model:*



*Select the Device you want to map and click on **CONFIRM**, under the Device Slot it will appear the chosen Device.*



Clicking on the ˅ icon, it will appear the list of the available Tags:

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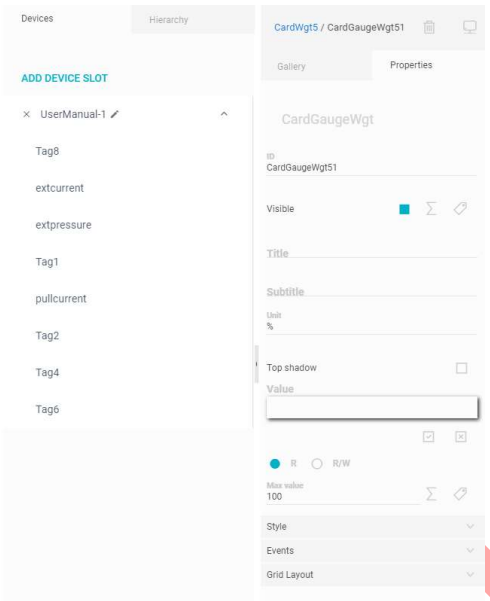
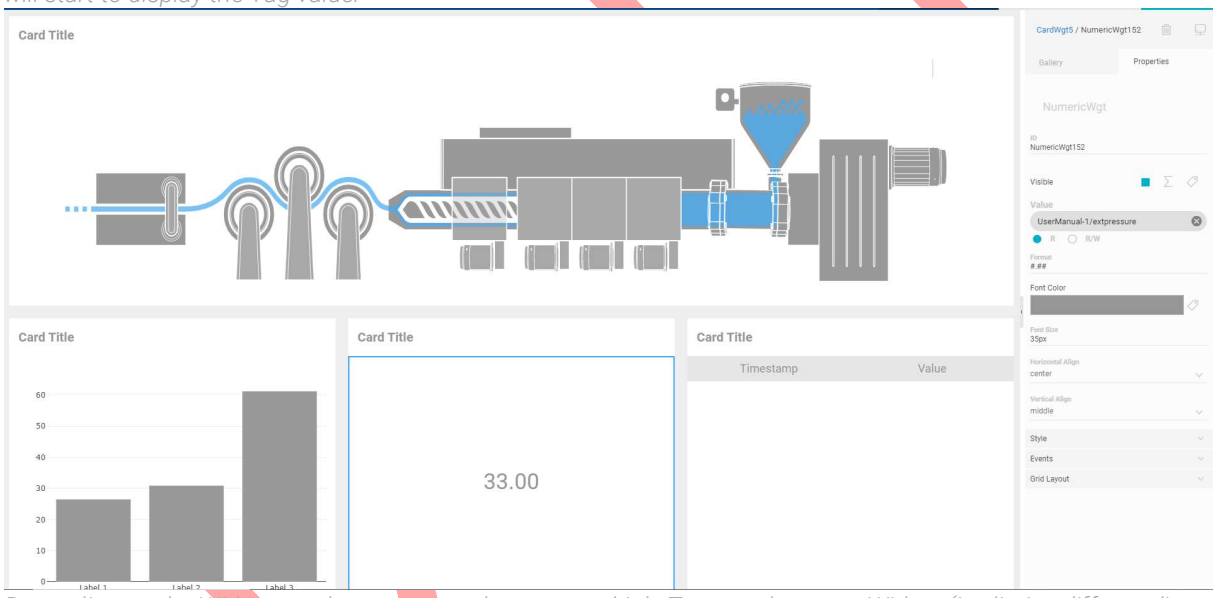


Drag and Drop the Tag name into the value Field will associate this Parameter to the chosen Tag and the Widget will start to display the Tag value:



Depending on the Widget used you may need to map multiple Tags on the same Widget (i.e. limits, different line of a trend, bar of bargraph,...).

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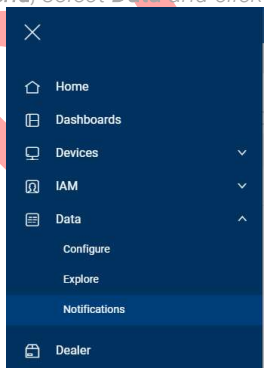
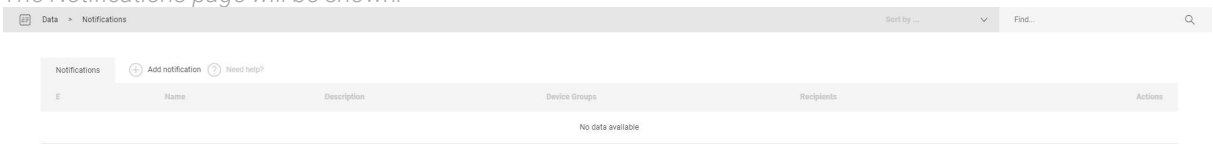
10 Alarm View

11 Notifications

Notification is the tool in Corvina Cloud to be advised about Alarms verified in the IoT Devices connected to Corvina. Only Alarms configured in JMobile to be sent to Corvina will be displayed and it will be possible to associate a Notification.
Notification are based on E-mail messages
To add a Notification rule, from the ***Main Menu****, select* ***Data*** *and click on* ***Notifications***



The Notifications page will be shown:



To create a rule for a Notification, click on Add notification *, the* ***Create Notification*** *panel will be shown on the right side of the screen.*

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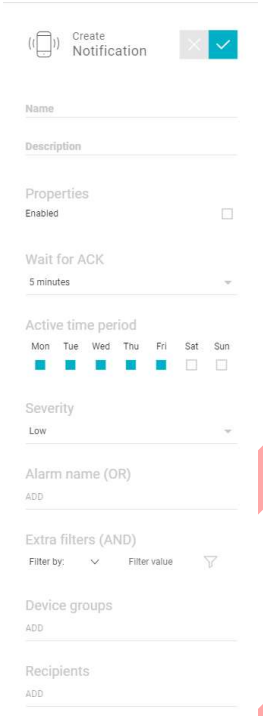

Insert the parameters of the Notification:

- ***Name**: It is a name to identify the Notification rule.*
- ***Description:** It is the description of the Notification rule.*
- ***Enable:** This parameter Enable or Disable the Notification Rule.*
- ***Wait for ACK:** This field specify how long Corvina will wait for an ACK on the Alarm before send the Email as notification (available time: 5,10,30 minutes, 1,6,12 hours, 1 day). After passed the time specified, if the Alarm was not acknowledged, Corvina will send E-mail notification.*
- ***Active Time Period**: This parameter specifies when this rule is Active. Clicking on the day of the week you will enable the Notification on that day(s).*
- ***Severity:** This parameter specifies the Severity of the Notifications. In case of multiple Notifications pending, the priority for send the E-mail will be based on this parameter.*
- ***Alarm name (OR):** This parameter allows you to define for which Alarms coming from the device Corvina must send an E-mail. Here you must specify the Alarm name specified in JMobile project. Specifying multiple Alarm name, this will work in OR condition.*
- ***Extra Filters (AND):** This parameter allows to specify generic filter for the Notification. Using the two filter **Name** and **Value**, it is possible to create one or multiple condition (in AND between them) to analyse the Alarm received by Corvina and send a Notification in case this filter has been verified (i.e. like in the example later: name=Alarm AND value=1).*
- ***Device Groups:** This parameter define on which Device Group(s) Corvina must verify the Rule defined by the Filter condition (Alarm Name and Extra Filters).*
- ***Recipients:** This parameter allows to define who will receive the E-mail Notification.*

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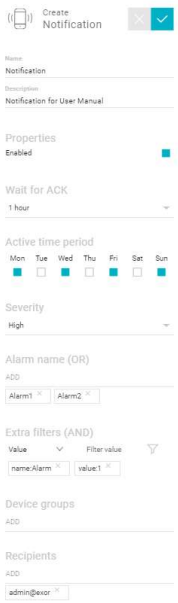

After completing the Notification Configuration click on Apply button

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12 License and Billing Dashboard

This chapter explain Corvina Cloud license and how to work with Billing Dashboard.
Billing Dashboard is the internal tool to check License status and allows to generate licence for your suborganization.
License in Corvina are associated to the Organizations and can be assigned to Sub-Organization.
Typical usage of Corvina is a Top Organization that assign its credits to the various Sub-Organization that can as well assigning credits to their suborganization.

12.1 License concepts

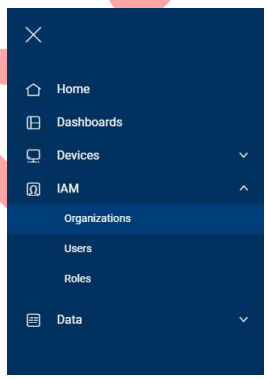
License in Corvina are composed by parameters, identified by different Icons, in detail:

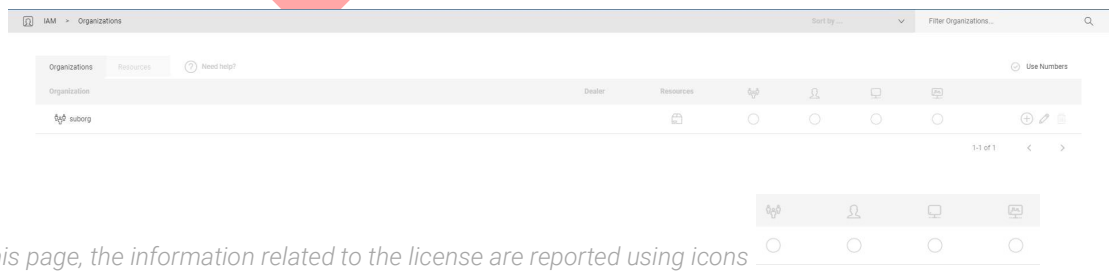
- *Organizations: This parameter of the license define how many Sub-Organizations can be created from your Organization*
- *Users: This parameter of the license define how many Users can be generated on your Organizations (and Sub-Organizations).*
- *Devices: This parameter of the license define how many Devices can be connected to your Organization (and Sub-Organizations).*
- *Events/Dots: This parameter of the license define how many IoT Events can be managed by your Organization (and Sub-Organizations).*

These parameters of the license can be used directly from the Organization and assigned to the Sub-Organizations.

12.2 Check License Status

*To check the status of the license parameters assigned to an Organization, from the **Main Menu** select **Organizations***





In this page, the information related to the license are reported using icons

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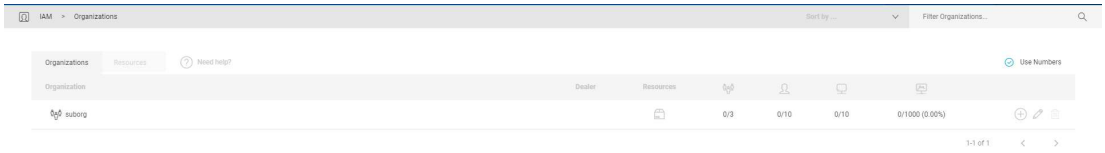
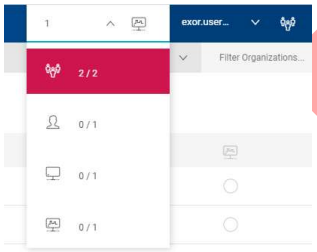
Clicking on **Use Numbers** *it is possible to change the visualization and display the license information in numeric format:*



Whit this visualization it is possible to display used and available resources in the format x/y where x represents the used and the y the available.

During the normal operation (when you are not in Organizations page) it is always possible to check the status of the license from the main menu:



Field marked in Red indicates that the limits for that Resource has been reached.

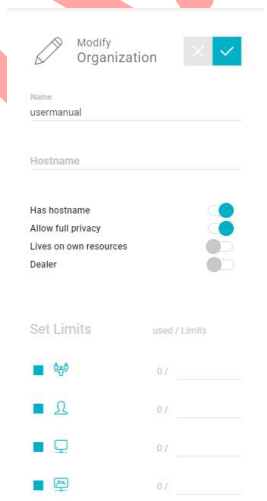
12.3 Add Resource to an Organization

12.3.1 Organization that get Resource from Parent Organization

When an organization created is configured to **get Resource from Parent Organization** , *the Parent Organization must assign those to it.*

From the Organization page, select the Parent Organization in the Application Bar

Click on the **Modify Organization** *icon , the Panel with the Organization Parameters will be displayed in the right part of the screen.*



Modifying the **Set Limits** *parameters, the Parent Organization will assign the resource to the Sub-Organization.*

Click on the Apply Button *to save your change.*

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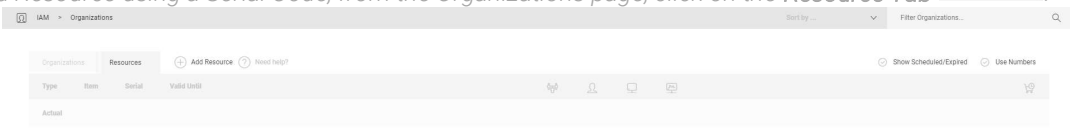
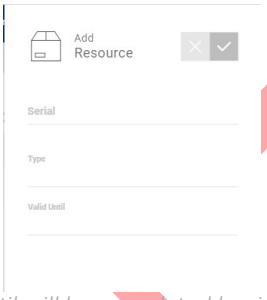
12.3.2 Organization that Lives on own Resource

*When an organization created is configured to **Lives on own Resource** , it needs that resources are Added using a **Serial Code**.*

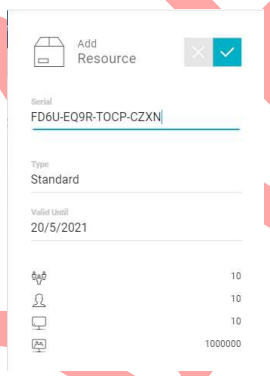
*To Add Resource using a Serial Code, from the Organizations page, click on the **Resource Tab** Resources .*



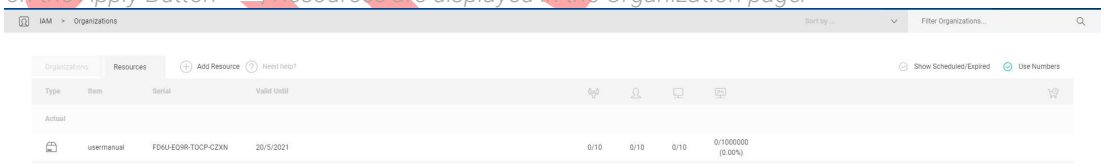
*Click on **Add Resource*** Add Resource



*Insert the **Serial** provided, Type and Valid Until will be completed basing on the Serial:*



Click on the Apply Button , Resources are displayed in the Organization page:



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12.4 Dealer

*Dealer configuration allows the Organization to resell part of their licence. All the Organizations can be set as Dealer from the **Edit Organization** panel.*
The scope of the Dealer functionality is to allow B2B resell of Corvina.
*An example of Dealer functionality usage is a **Distributor** that sell Corvina to a **System Integrator** that Resell Corvina to their **Customer**.*
In this case, the Distributor need to have Resources to cover the needs of their Customer usage.
i.e:

Distributor Resource
- *100 Organizations*
- *100 Users*
- *100 Device*
- *1.000.000 Events*

Distributor Organization can assign part of its resource to System Integrator:

System Integrator Resource
- *10 Organizations*
- *10 Users*
- *10 Devices*
- *100.000 Events*

Distributor Resource
- *90 Organizations*
- *90 Users*
- *90 Devices*
- *900.000 Events*

System Integrator can assign part of its Resource to the Final Customer:

Final Customer Resource
- *1 Organization*
- *1 User*
- *1 Device*
- *10.000 Events*

System Integrator Resource
- *9 Organizations*
- *9 Users*
- *9 Devices*
- *90.000 Events*

Distributor Resource
- *90 Organizations*
- *90 Users*
- *90 Devices*
- *900.000 Events*

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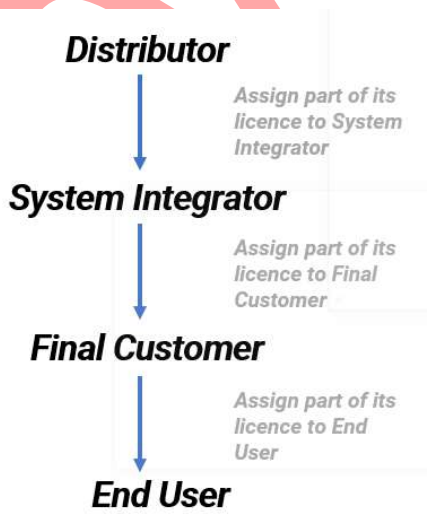

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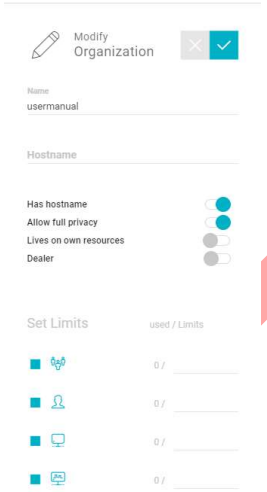
12.4.1 Configure an Organization as Dealer

*To Configure an Organization as Dealer, from the **Organization Page***

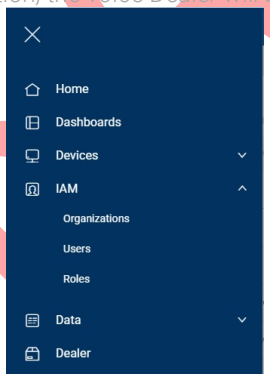
*Click on the **Modify Organization** icon , the Panel with the Organization Parameters will be displayed in the right part of the screen.*

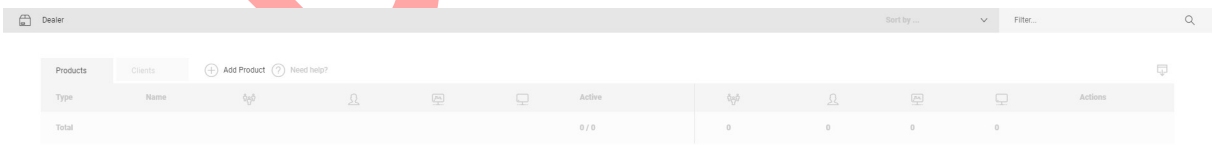


Enable the "Dealer" parameter (Dealer).

Click on the Apply Button .

On the main menu of the Selected Organization, the voice Dealer will be visible:





12.4.2 Generate License from the Dealer page

*From the **Main Menu**, select **Dealer***

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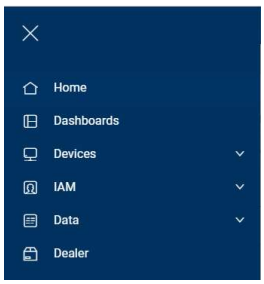
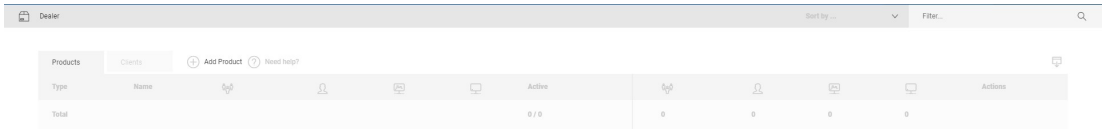
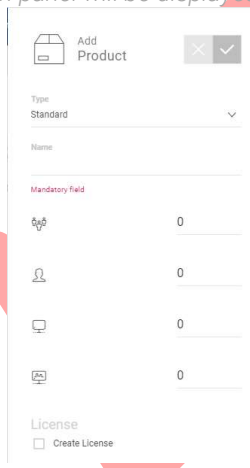




Click on Add Product *, the Add Product definition panel will be displayed on the right part of the User Interface.*



Specify the type of Product you want to create.
As Dealer you can create 2 different Products:

- *Standard: It is a complete licence for a Product, include Organizations, Users, Devices and Events*
- *Plus: It is a licence that add to an existing product only Events.*

Insert a Name for the Product you are creating.
Compose the product specifying the Resource you want to insert in this Product (Organizations, Users, Device, Event). Please note that his licence will be generated from your licence so it will use your Resource to generate the product.

Click on Create license checkbox Create License

In the Client Field select the Organization related to the Customer that you are creating and click on

The licence will be generated and reported in the Dealer page.

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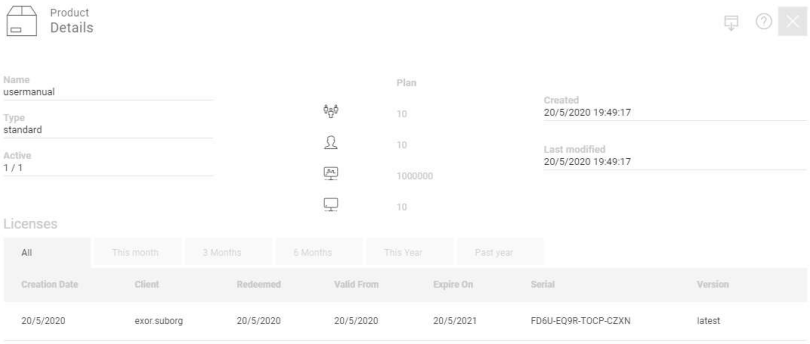
Clicking on the icon " ⋮ " it will be possible to:

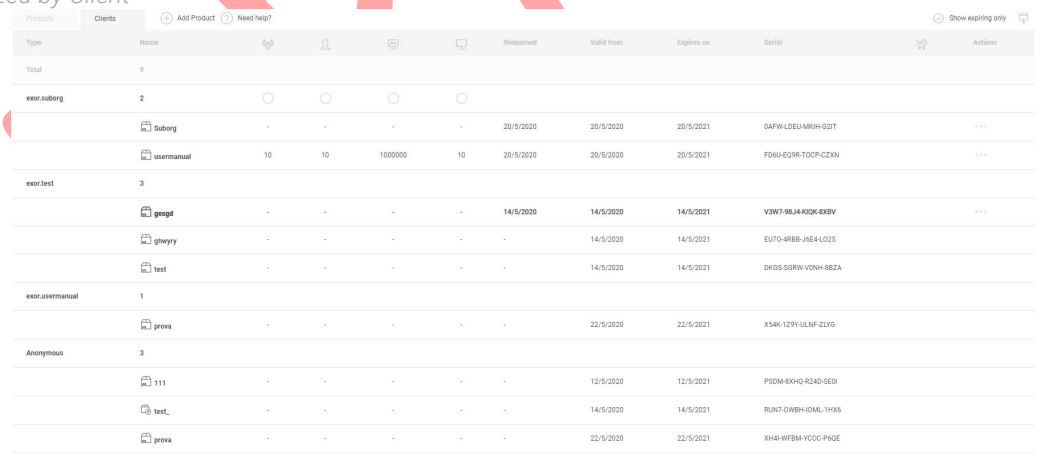
- ***Edit:*** *Open the side panel to let you adjust the license generated, increasing the number of Organizations, Users, Devices or Events available*
- ***Add License:*** *Allow you to Add a licence to an existing product*
- ***Details:*** *Open a panel where you can check all the details related to the Product created:*



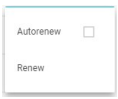
From here it is possible to copy the Serial code that has to be sent to the Organization to Add the Resource or delete the license.

12.4.3 Dealer Client View

*From the Dealer page, clicking on the **Client** tab " Clients ", it is possible to check the generated Products organized by Client*



*From here it is possible to check the status of all the Products (license) generated and clicking on the icon " ⋮ " it will be possible to **Renew** the licence or set as **Autorenew** the license (based on Expiry date)*



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13 Privacy

This privacy policy will explain how our organization uses the personal data we collect from you when you use our website.

Topics:

- *What data do we collect?*
- *How do we collect your data?*
- *How will we use your data?*
- *How do we store your data?*
- *Marketing*
- *What are your data protection rights?*
- *What are cookies?*
- *How do we use cookies?*
- *What types of cookies do we use?*
- *How to manage your cookies*
- *Privacy policies of other websites*
- *Changes to our privacy policy*
- *How to contact us*
- *How to contact the appropriate authorities*

What data do we collect?

Exor International S.p.A. collects the following data:

- *Personal identification information (Name, email address, phone number, etc.)*

How do we collect your data?

You directly provide Exor International S.p.A. most of the data we collect. We collect data and process data when you:

- *Register online or place an order for any of our products or services.*
- *Voluntarily complete a customer survey or provide feedback on any of our message boards or via email.*
- *Use or view our website via your browser's cookies.*
- *When you personally give us your business card during a visit or during an exibition*

How will we use your data?

Exor International S.p.A. collects your data so that we can:

- *Process your order and manage your account.*
- *If you are agree Email you with special offers on other products and services we think you might like.*
- *Allow you to use our Technical Support service.*

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When Exor International S.p.A. processes your order, it may send your data to, and also use the resulting information from, credit reference agencies to prevent fraudulent purchases.

How do we store your data?

Exor International S.p.A. securely stores your data in the cloud and on servers located inside and outside the European Union owned by and/or available to the Controller and/or appointed third parties.

Personal data collected for the purposes indicated in previous paragraph above, will be processed and stored for the duration of any established professional relationship. From the date of termination of this relationship, for whatever reason or cause, the data will be kept for the duration of the prescriptive terms applicable by law. The personal data collected for the purposes indicated above will be processed and stored for the time necessary to fulfil these purposes and in any case until your consent is denied.

What is your data protection rights?

Exor International S.p.A. would like to make sure you are fully aware of all of your data protection rights. Every user is entitled to the following:

The right to access – You have the right to request Exor International S.p.A. for copies of your personal data. We may charge you a small fee for this service.

The right to rectification – You has the right to request that Exor International S.p.A. correct any information you believe is inaccurate. You also have the right to request Exor International S.p.A. to complete the information you believe is incomplete.

The right to erasure – You have the right to request that Exor International S.p.A.erase your personal data.

The right to restrict processing – You have the right to request that Exor International S.p.A. restrict the processing of your personal data.

The right to object to processing – You have the right to object to Exor International S.p.A. processing of your personal data.

The right to data portability – You has the right to request that Exor International S.p.A. transfer the data that we have collected to another organization, or directly to you.

If you make a request, we have one month to respond to you. If you would like to exercise any of these rights, please contact us at our email:

Call us at: +39 045 875 0404

Or write to us: info@exorint.com

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Cookies are text files placed on your computer to collect standard Internet log information and visitor behavior information. When you visit our websites, we may collect information from you automatically through cookies or similar technology

For further information, visit allaboutcookies.org.

How do we use cookies?

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Our Company uses cookies in a range of ways to improve your experience on our website, including:

- *Keeping you signed in*
- *Understanding how you use our website*

What types of cookies do we use?

There are several different types of cookies, however, our website uses:

- *Functionality – Exor International S.p.A. uses these cookies so that we recognize you on our website and remember your previously selected preferences. These could include what language you prefer and location you are in. A mix of first-party and third-party cookies are used.*
- *Advertising – Exor International S.p.A. uses these cookies to collect information about your visit to our website, the content you viewed, the links you followed and information about your browser, device, and your IP address. Our Company sometimes shares some limited aspects of this data with third parties for advertising purposes. We may also share online data collected through cookies with our advertising partners. This means that when you visit another website, you may be shown advertising based on your browsing patterns on our website.*

How to manage cookies

You can set your browser not to accept cookies, and the above website tells you how to remove cookies from your browser. However, in a few cases, some of our website features may not function as a result.

Privacy policies of other websites

The Exor International S.p.A. website and services links to other websites. Our privacy policy applies only to our website, so if you click on a link to another website, you should read their privacy policy.

Changes to our privacy policy

Exor International S.p.A. keeps its privacy policy under regular review and places any updates on this web page. This privacy policy was last updated on 9 January 2019.

How to contact us

If you have any questions about Exor International S.p.A. privacy policy, the data we hold on you, or you would like to exercise one of your data protection rights, please do not hesitate to contact us.

Email us at: info@exorint.com

Call us: +39 045 875 0404

Or write to us at:

Exor International S.p.A.

Via Monte Fiorino, 9

37057 - San Giovanni Lupatoto (VR) - Italy

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14 Terms of Use

15 SLA

Exor International S.p.A. offers a comprehensive range of highly qualified support services that come along with Corvina Cloud solution, being included in the Maintenance subscription.
This document aims to describe the technical support service levels and the processes behind them, as well as address Customers to their reserved support lane.

15.1 Maintenance

The Maintenance contract are provided by the Exor International S.p.A. Technical Support. Below you will find a detailed description of these services:

Maintenance is ideal for Companies with mission-critical networks requiring top-level services support.
For first level support end users shall contact their reference Resellers;
Resellers may escalate his request to Exor Technical Support and will receive technical assistance according to the SLA.
This package includes quick-reaction support service that guarantees the lowest downtime impact on the solution in case of problems as well as support request top escalation in high priority.

15.2 Priority level definitions

Exor International S.p.A. support ticket priority levels are used to assist in the prioritization of handling a support issue. Exor Technical Support will use the guide below to select the appropriate priority level for all submitted support issues. Please note that Exor has the right to modify the priority levels below and upgrade or downgrade the priority level of a support issue at any time.

Priority Level	Application Status	Impact on Operations	Issue Description
Critical	Down	Severe	Exor Corvina service is down or experiencing a consistent, measurable performance impact
Medium	Up	Significant	Exor Corvina service is experiencing intermittent failure or degradation of performance

15.3 Technical Support Time of Response and Resolution

Exor International S.p.A. Technical Support abide by the following service level agreements. Our SLAs provide a basis for timely responses. Please note that our SLAs apply only during the support office hours (8/5 8:00-17:00 CET) in case of Support request external to the support office hours the time for Response and Time for Resolution will start from the initial working hour of the next working day.

Priority Level*	Time of Response**	Time of Resolution
Priority 1: Critical	</= 4 business hour	</= 1 business day
Priority 2: Medium	</= 1 business day	</= 2 business day

** Customer always receives a confirmation email with reference number to validate the receipt of a support ticket.*
*** Maximum time by when the customer may be contacted by e-mail, or phone to gather additional information about the case and analyze the necessary steps to solve the issue*

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15.4 Annual Uptime

Exor International S.p.A. provide for Corvina Cloud an availability of 99% (annual average).
From the availability it is excluded the time needed for the Standard Software Maintenance and Extraordinary Software Maintenance.

15.5 Standard Software Maintenance

Exor International S.p.A. Standard Maintenance include upgrade of the software to increase the functionalities provided by the Software and to increase the Security of the Software.
The Standard Software Maintenance will be agreed and Scheduled with the Customer.

15.6 Extraordinary Software Maintenance

Exor International S.p.A. Extraordinary Software Maintenance include Fix of Bugs that will be identified during the operation of the Solution or resolution for Cybersecurity issue or vulnerabilities.
The Extraordinary Software Maintenance will be agreed and Scheduled with the Customer.

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