

ascom

Gateway User Manual

Version 2.0

18/11/2020

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1. Ascom Gateway App



The present document is only to be shared and provided to professional healthcare personnel or Ascom authorized technicians. The document contains restricted information (for example technical credentials) that are not to be used by patients.

The specific sections that are dedicated to patients, like taking measures from wearable devices, shall be extracted from this document and separately provided to the patients



For general and detailed information about the Product environment, see the specific documents of the Product. The knowledge and understanding of these documents is mandatory for an appropriate and safe use of the Gateway, described in this document.

Ascom Gateway App is a standard android app running on selected android devices with the purpose of collecting data from a set of Bluetooth wearable devices and dispatching data to Digistat Connect.

Ascom Gateway App supports a set of wearable devices (see list below) and new devices are constantly added. Supported parameters are dependent to the amount and type of connected wearables.

Ascom Gateway App is part of the Digistat Docs product in the EU (one of the two products of the Digistat Suite for EU, the other one being Digistat Care) and is part of the Digistat Connect NA product in USA and Canada (one of the two products of the Digistat Suite NA, the other one being Digistat Smart Central US). It extends the functionalities of the connectivity part of the Digistat Suite in order to support wearable devices and new workflows like home surveillance.

Ascom Gateway App is not a medical device itself in EU and it is part of an MDDS in USA and Canada. It is intended to be used only to “move” collected parameters from a location (the wearable device) to the server components without any modification to parameters.

1.1 Installation and configuration

Ascom Gateway shall be installed using a Mobile Device Manager solution (MDM) or manually uploading the apk file on the target device. During first execution user will be prompted to grant some permissions; all permissions shall be granted to permit the application to work correctly. It is possible to install the app using a “provisioning” mode. Using “provisioning” the app will be executed in “kiosk-mode” and the user cannot interact with the OS, but only with the app. For more information about MDM and kiosk mode, read the paragraph 2.3.

During the configuration of the app an administrator password is required. Password is written in an additional document attached to this user manual. Password shall not be shared with patients.

When the application is executed the following view is presented:

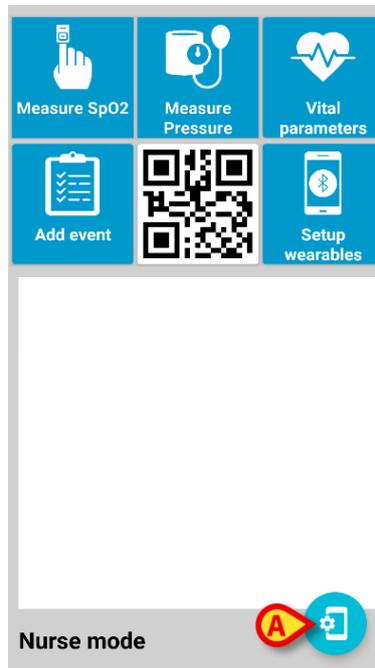


Fig 1 – Main View

- Press the “Settings” button (Fig 1 **A**) to open the settings page (Fig 2) and configure the application.

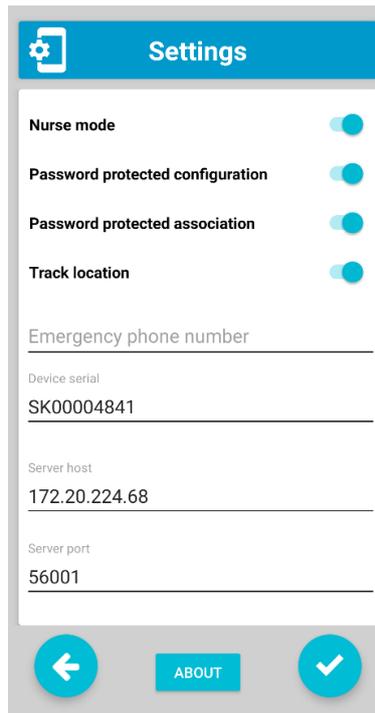


Fig 2

The following settings shall be configured:

- **Nurse Mode:** switch between Nurse mode and Patient mode. In Patient mode, Main View has a limited set of actions.
- **Password protected configuration:** if enabled, a system password is required to open the settings page. This setting should be enable when the device is given to a patient.
- **Password protected association:** if enabled, a system password is required to pair wearables to current gateway app.
- **Track location:** if enabled, tracks user position. Be aware of privacy issue. Be sure that your organization is entitled to collect such a kind of information.
- **Emergency phone number:** in patient mode, patients are able to click a specific button to call the configured phone number (it could be the direct phone number of the ward).
- **Device Serial:** serial number of the device. It is possible to use meaningful names to identify immediately the owner of the device (ex. ICU-123). Be sure to use a unique identifier.



When running on Android 10, a random device serial number is used.

- **Server Host and Port:** hostname (or ip address) and port where the gateway shall be connected. If the gateway is intended to be used on a 4G connection, IT network shall be configured properly in order for the gateway to be able to reach the host where Digistat Connect is installed.

1.2 Main View

Main application view changes according to the configured modality (nurse or patient mode) as displayed in the pictures below:

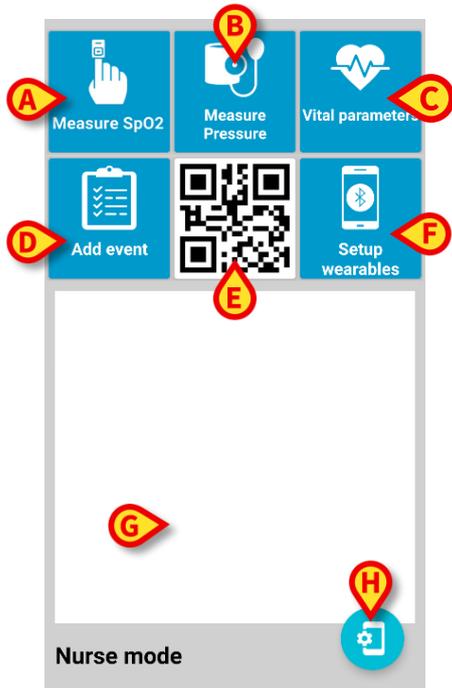


Fig 3

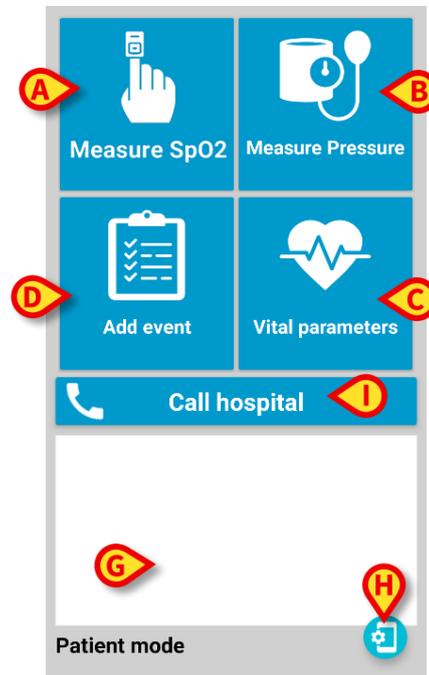


Fig 4

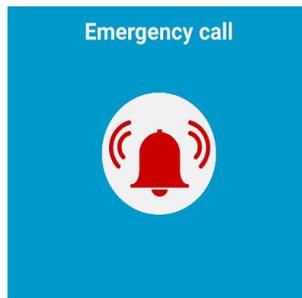
Nurse mode is intended to be used inside the hospital by nurses: there are some additional functionalities as Setup Wearables (to pair Bluetooth wearables with gateway app) and the serial barcode on the front page, to be used during the association between patient and gateway app.

Patient mode is intended to be used by patients, outside the hospital environment. Patients have not the capability to pair/unpair wearables but they have a Call Hospital button to make phone calls to a configured phone number (no different phone numbers can be called).

- List of Actions (refer to Fig 3 and Fig 4):
 - A.** Start the process to **measure SpO2** (if wearable is paired to current phone). The button is disabled (grey color) if there is not a device paired able to measure the SpO2. If a wearable is able to retrieve continuously the SpO2, this button is grey as there is not need for manual intervention.
 - B.** Start the process to **measure Pressure** (if wearable is paired to current phone). The button is disabled (grey color) if there is not a device paired able to measure pressure.
 - C.** **Verify** the collection of data from paired wearables
 - D.** **Add an event or manual parameters.** The label on this button can be “Add event” or “Manual Input”. If “Manual input” it is possible to add manually events or vitals parameters.
 - E.** **Barcode** containing the gateway serial number
 - F.** **Pair/unpair wearables**

- G. List of active **notifications** (battery low, disconnected from server, etc..)
- H. **Open settings page**
- I. **Call the configured phone number.** The “Call Hospital” button is displayed in patient mode; in this way the patients can call (only) the configured emergency telephone number.

When receiving a phone call, if the incoming phone number corresponds to the configured emergency telephone number a red bell will be displayed instead of a generic avatar:



Such a feature will function as expected only if the Digistat dialer app is set as the default phone app of the device.

1.3 Pair / Unpair Wearables

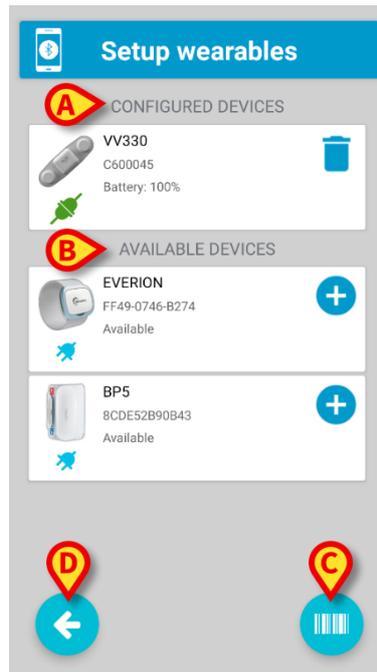


Fig 5

This Setup Wearable view permits to pair or unpair wearables to the gateway. Referring to Fig 5, there are two sections:

- A. CONFIGURED DEVICES:** list of all paired devices. If a green plug icon is displayed the wearable is currently connected, otherwise the icon is grey with a disconnected plug.
 - The **Trash** icon permits to unpair the wearable, once unpaired the wearable will be displayed in the AVAILABLE DEVICES section.

- B. AVAILABLE DEVICES:** list of all available devices. This list includes only devices that are turned on. If a wearable is not appearing, verify that wearable is turned on.
 - To pair a device click on the **Plus** icon.



It can be difficult to distinguish between two devices of the same type. Use the barcode feature (see below) or be sure to pair the right device, comparing the serial number displayed in the list with the serial number printed on the wearable. If the serial displayed on the app is not printed on the wearable itself, it is necessary to turn on wearables one by one.

It is possible to pair a device using the barcode functionality.

- Press the **Scan** button (Fig 5 **C**) to scan the barcode printed on the wearable device; the device will be paired automatically. In this case, it is not necessary for the device to be turned on.
Barcodes printed on wearables need to be in a specific format and must be generated with a dedicated tool present in Digistat Configurator: “Ascom Wearable Barcode

Generator”. With the Barcode Generator it is possible to generate barcodes for every supported wearable with the purpose to print a label that could be attached to the wearable itself. This procedure will accelerate a lot the pairing process and avoid the risk to associate the wrong devices.



Please note on Myco 3, being the device provided with a physical button, the button **C** of Fig 5 is not shown.

- Press the button **D** of Fig 5 to return to the main view.

At the end of the pairing the Setup screen will be like the one below:

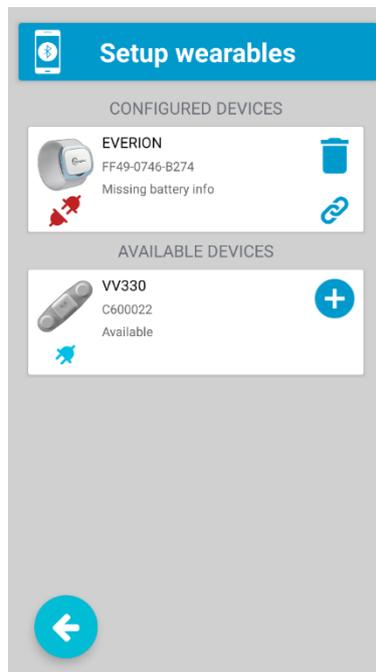


Fig 6

The link icon  (if present) represents the pairing status of the wearable device.



If the smartphone cannot connect properly to the wearable and the link icon is visible, then it might have been paired to another smartphone without proper unpairing. To allow connection from another smartphone please refer to the wearable device manual. The forced disassociation from a smartphone, before pairing it to another smartphone, is necessary only for a specific set of wearables (ex. Everion).

A configured device, capable to perform continuous data acquisition, if not connected to the smartphone, will be shown in the message area of Gateway application as follows (both Nurse and Patient mode):



EVERION: Device missing

SN:FF49-0746-B274



This message will appear in the following cases:

- Wearable is turned off
- Battery of the wearable is finished and the wearable is turned off
- Wearable is not close to the smartphone and the wearable is not able to communicate properly with the smartphone. This is common when the patient moves at home.



Gateway app forbids to associate two devices of the same type (i.e. two SpO2 measurement devices, two Pressure measurement devices, etc.) at the same time. To associate a new device of the same type first remove the old one.

1.4 Check collection of vital parameters

Once wearables have been associated, it is possible to verify, in any moment, the proper collection of vital parameters clicking on the Vital Parameters button on the main view (in Nurse and Patient mode, shown in Fig 7 and Fig 8 respectively).

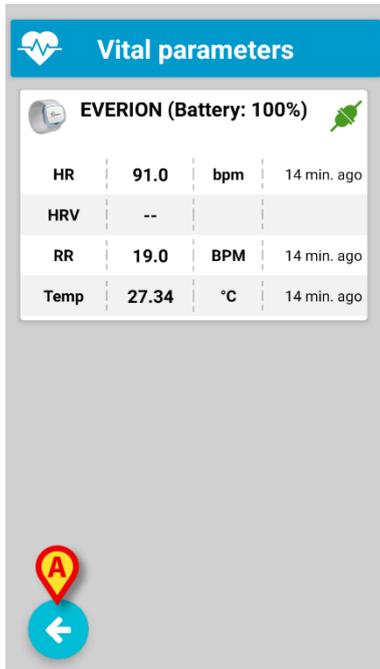


Fig 7

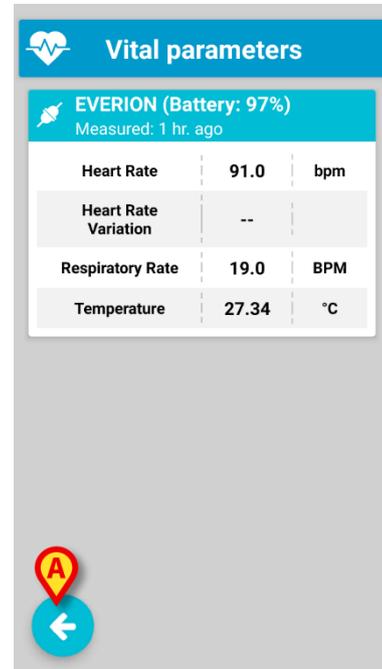


Fig 8

This view displays wearables associated to current gateway device and, for each of them, the list of collected vital parameters is presented. Every parameter has the following columns:

- Name: name of the collected parameter (ex. HR, SpO2, etc.);
- Value: value of the last measurement;
- Unit of measure: unit of measure of Name;
- Refresh time (ex. 1 min ago): when the latest measurement has been collected.

If the value of the parameter is “—“ it means that the parameter has never been collected since the smartphone is turned on.

Patient view differs slightly from Nurse view in order to have a simpler visualization for the patient.

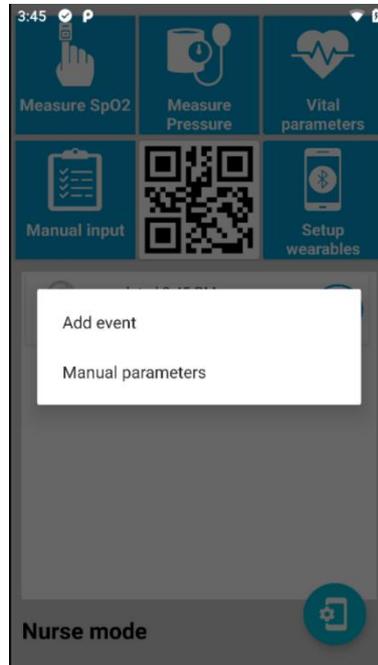
- Press the button **A** to return to the main view.



When in nurse mode if a device supports ECG data a button will appear that will open the ECG near-realtime view.

1.5 Add events or vital parameters

It is possible, for nurse or patient, to add, manually, events or vitals parameters. When user press on the button **Manual Input**, user is requested to select between “Event” or “Vital parameters”:



In case system administrator configured the system to block insertion of manual vital parameters, user is automatically redirected to the “Add event” section.

An **Event** is “something” that worth to be recorded, that could help to interpret the history of collected parameters. Some example: sleep start, sleep end, start walking, eating, etc. An event can be a free text (entered using the android screen keyboard) or a choice from a pre-configured list (pre-configured list can be configured by system administrator).

- To create a manual event press the **Manual Input** button in the main view. If “Add Event” is selected, the following view is displayed:

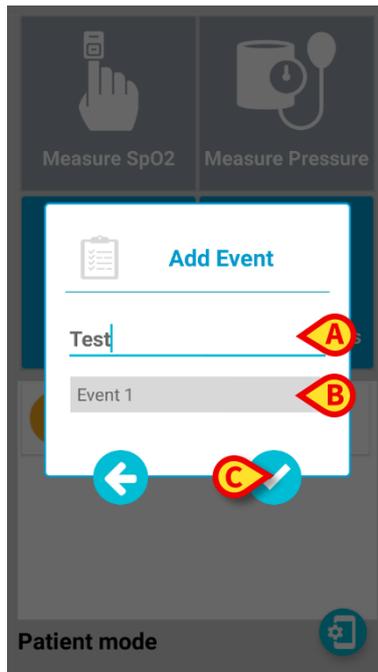


Fig 9

It is possible to enter a free text (Fig 9 **A**), or it is possible to choose an item from a list (Fig 9 **B**). Press the **Confirm** button (Fig 9 **C**) to confirm the choice and save the event, or press the **Left Arrow** button to abort the procedure.



Read the paragraph 3.4 to configure the list of events to select and choose from.

- To create a manual parameter press the **Manual Input** button in the main view. If “Manual parameters” is selected, the following view is displayed:

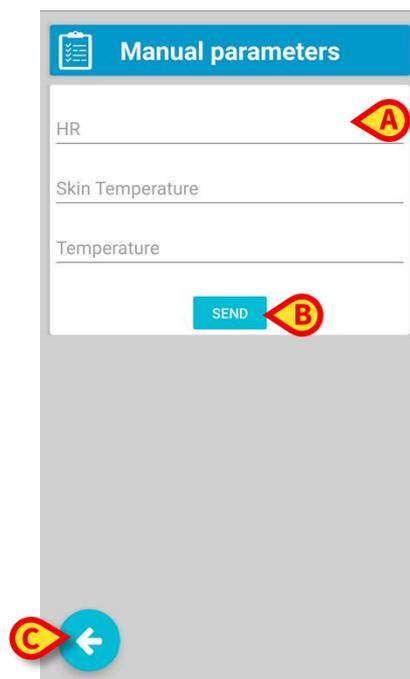


Fig 10

The list of parameters changes according to the configuration. User needs to enter values in all fields (Fig 10 **A**). To enter a value, user needs to press on a label and standard android keyboard is displayed. When all values have been entered, user shall press the **Send** button (Fig 10 **B**) to confirm data. If action is completed successfully, a feedback is provided. Pressing the **Back** button (Fig 10 **C**) the operation is aborted without sending any data.

1.6 Measure SpO2 and Pressure

The processes to measure SpO2 and Pressure are very similar.

- Press the button **Measure SpO2** or **Measure Pressure** in the main view to start the measurement process.

The measurement process is a two steps process.

- In the first step the user is requested to prepare the device (Fig 11 and Fig 13);
- In the second step the user needs to press the “Play” button  to start the measurement (Fig 12 and Fig 14).

For the SpO2 the process is very short and takes only few seconds, for the pressure the process takes 30-40 seconds.

Once the measurement is completed, a message notifies the successful measurement.

- Press the **Close** button to return to the main view.

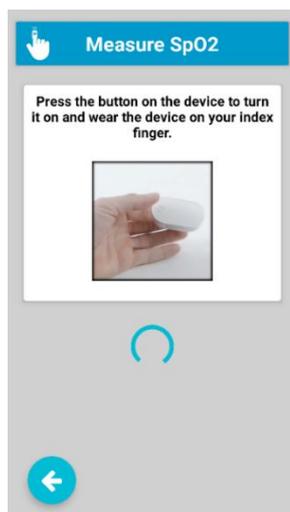


Fig 11



Fig 12

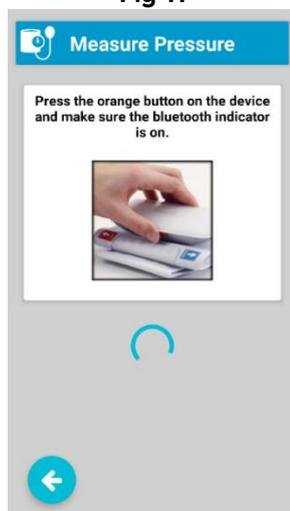


Fig 13

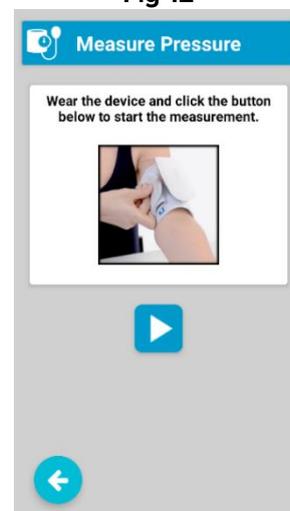


Fig 14

1.7 Notification Area

In the main view there is a dedicated area where information messages and warnings are displayed. Intended use of notifications and warnings is to notify the user of a possible issue that could interfere during the collection of vital parameters.

The following information and warnings can be displayed:

- **Bluetooth unavailable:** Bluetooth antenna is not working properly. It is not possible to connect to wearable devices.
 - *RESOLUTION: check the device Bluetooth setting, Bluetooth must be enabled on the device.*
- **Bootstrap not completed:** gateway is not able to complete the startup procedure
 - *RESOLUTION: verify driver configuration and network status on both client and server sides.*
- **Device Status:** contains the status of the paired wearables. There is one message per wearable. The status message can have the following values: connecting, connected, disconnected, battery low. If connected, the battery status is displayed.
- **Dialer Not Set:** there is not a dialer configured. It is not possible to make phone calls.
 - *RESOLUTION: click on the notification and assign to application the requested permissions;*
- **Gateway Low Battery:** smartphone battery is low.
 - *RESOLUTION: connect the smartphone to the charger;*
- **Missing Permission:** gateway app has not all necessary permissions.
 - *RESOLUTION: click on the notification and assign to application the requested permissions;*
- **Network quality low:** there are some network delays.
 - *RESOLUTION: check the Wi-Fi or 4G signal; try to move the smartphone in a position with a better network coverage;*
- **Network unavailable:** no connection to the network (4G or Wi-Fi).
 - *RESOLUTION: check if Wi-Fi or 4G antennas are active and network signal is present, verify that server IP address/hostname and port are correct.*

2. Annex A – Technical Information

2.1 Administrative Credentials



In case a password is required you need to enter one of the following system passwords: 20044 or 091091. The first one is valid for all Digistat Mobile modules, the second one is specific for the Digistat Gateway application. Password shall be not shared with patients. It shall be used for configuration purposes by trained clinicians only.

2.2 Supported Devices

Ascom Gateway App supports the following devices and parameters:

- **Everion Biovotion** (MD version): HR, SpO2, Skin Temp, RR, Battery Level;
- **iHealth PO3** (Pulse Oximeter): spot SpO2, Battery Level;
- **iHealth BP5 and BP5s** (Blood Pressure): spot Blood Pressure Systolic and Diastolic, Battery Level;
- **iHealth BT550BT** (Blood Pressure): spot Blood Pressure Systolic and Diastolic, Battery Level;
- **Gemini BP** (Blood Pressure): spot Blood Pressure Systolic and Diastolic, HR and Battery Level;
- **VivaLNK ECG Monitor Patch**: HR, RRI, ECG (as near real time waveform), Battery Level;
- **VivaLNK Fever Scout Patch**: continuous Axillary Temp, Battery Level;
- **Oxitone Oxitone 1000M**: continuous SpO2 and HR;
- **GIMA TempSitter**: continuous Axillary Temp, Battery Level.

2.3 Compatibility with certified MDMs

Digistat Gateway is compatible with Android Enterprise™ certified MDMs (Mobile Device Manager) and supports the following operations:

- Restrictions setting;
- Feedback;
- Lock task mode.

The suggested use mode is COSU (Corporate Owned, Single Use).



*Sharing between personal and work profiles is **NOT** supported and might result in incorrect behavior of the app.*



Digistat Gateway installation and updates can be managed from a certified MDM without the need to support any Android Enterprise™ features.

2.3.1 Restrictions and “Managed Mode”

Digistat Gateway exposes the following restrictions:

Restriction	Format	Note
<i>EmergencyNumber</i>	<i>String</i>	<i>The emergency number</i>
<i>Host</i>	<i>String</i>	<i>The gateway driver hostname/IP address</i>
<i>Port</i>	<i>Integer</i>	<i>The port number the gateway driver is listening to</i>
<i>TrackLocation</i>	<i>Boolean</i>	<i>Set true to enable GNSS location tracking</i>

As soon as the MDM sets a restriction, the application goes into “managed mode”:

- When in managed mode, user won’t be able to change any of the restrictions: they will be greyed out in the settings view;
- In addition, user won’t be able to modify the serial number.

In order to switch back to non-managed mode, the MDM shall set empty restrictions PLUS the MDM shall set an empty bundle. In other words: there must be no key/value pair associated with the app. When disabling managed mode, the current configuration is not affected (i.e. the gateway driver host and port won’t change). If needed user will be able to enter the settings view and modify whatever is required.

The application applies restrictions as soon as it is notified by the system. Only modified restrictions will affect the behavior of the app, this includes host and port. In this case, the current connection will be closed and a new one established towards the host/port values that have been set.

2.3.2 Feedback

Digistat Gateway also supports sending feedback back to the EMM (Enterprise Mobility Management). If your certified EMM solution supports it, you will receive proper feedback messages about which restrictions have been updated.

2.3.3 Lock task mode

Digistat Gateway fully supports lock task mode when in managed mode. In order to be able to run the app in this mode, the EMM/MDM must be able to grant access to lock task mode to the Digistat Gateway app (package com.ums.app.digistatgateway). This will result in the app being permanently in foreground, the removal of any data from the notification area, the impossibility to exit the application.

Digistat Gateway must be restarted to enter lock task mode. To get out from this mode user must enter the settings view, where a new button will be present to explicitly exit from lock task mode.

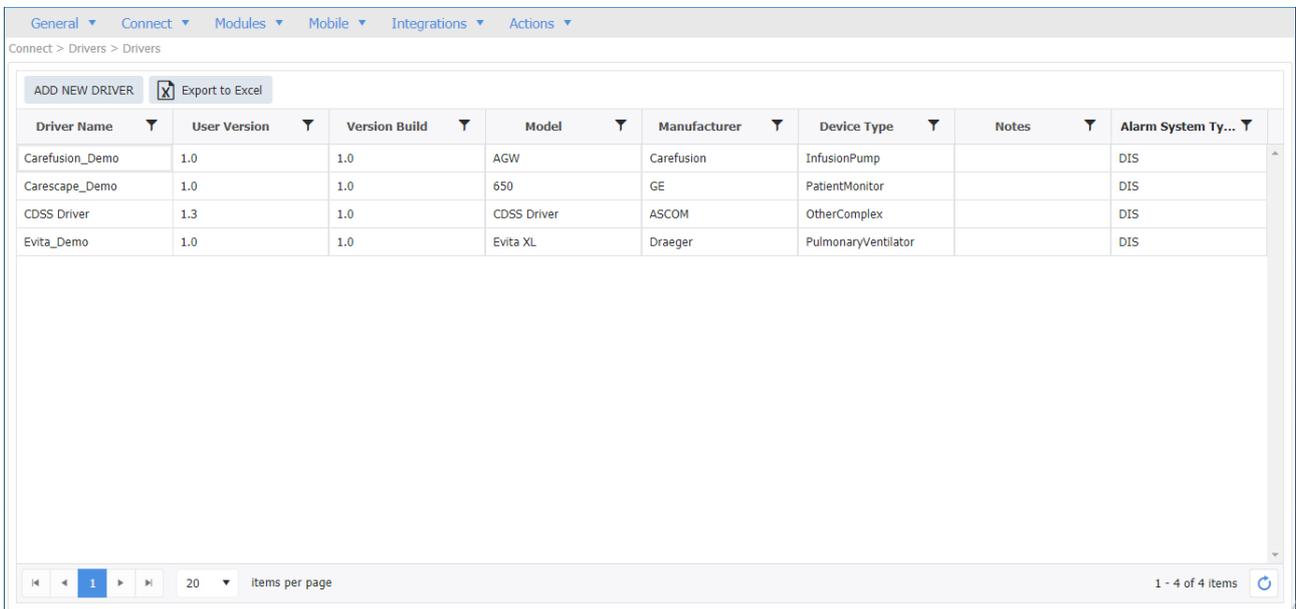
Please note reopening the app will enable again lock task mode unless the app has been forbidden lock task access from your EMM/MDM. As a general rule, the application can enter lock task mode only when it is transitioning to the foreground state (this includes being opened from the recent app list).

3. Annex B – User Workflows

3.1 Configure the Digistat Gateway – Server Side

Applicable scenario: an installation of Digistat Product is already present in the Healthcare Organization, in which the feature “Digistat Gateway” is selected. In the installation folder are present the drivers requested by Digistat Gateway Application. In case the Digistat Gateway installation on mobile devices is managed without using a MDM, in the installation folder of the Digistat workstation is also present the necessary apk file. Read the document INST ENG Digistat Suite Server for more information about Digistat Suite installation.

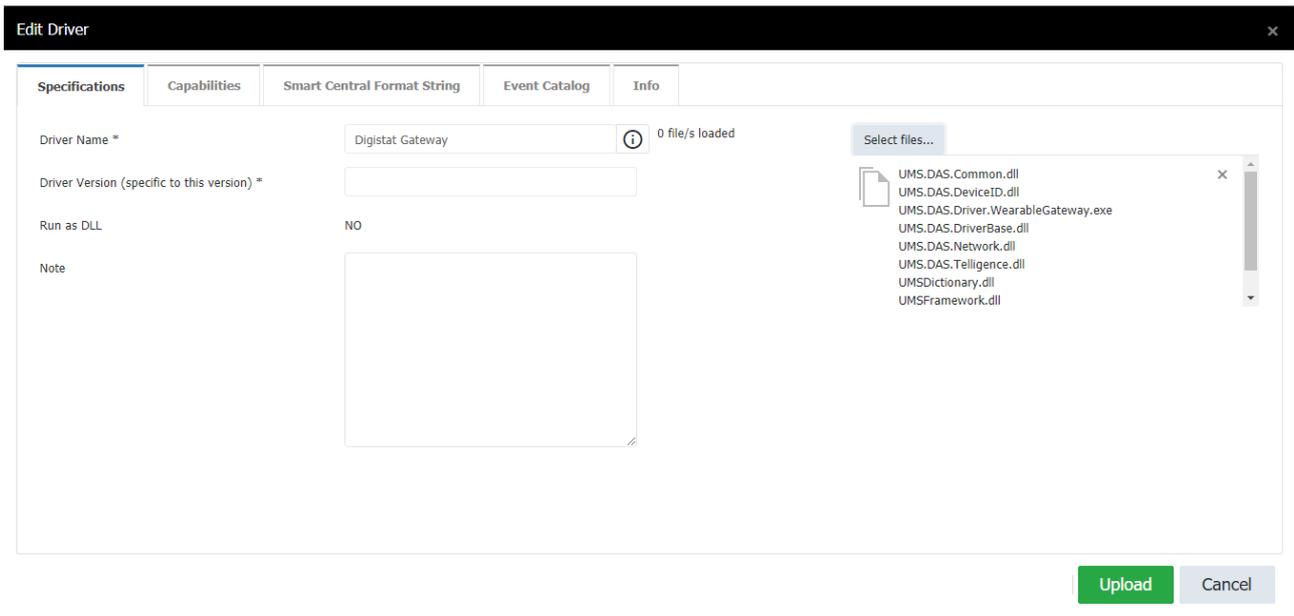
- Go to the Configurator Web page, click on **Drivers** and then on **ADD NEW DRIVER**;



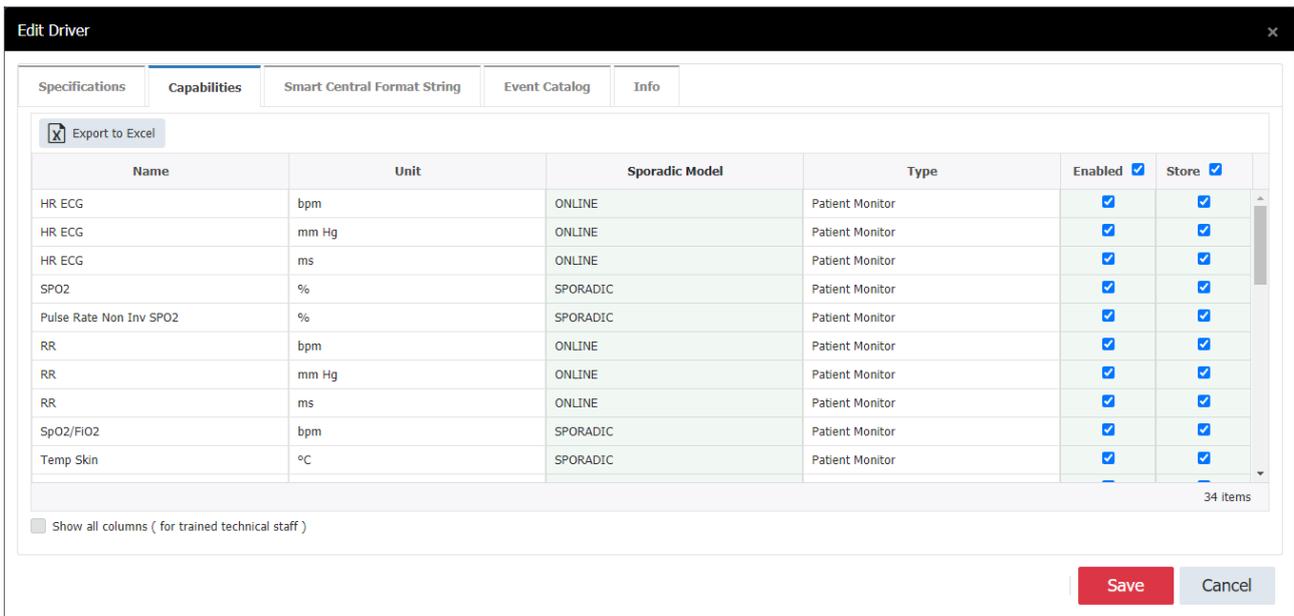
The screenshot shows the 'Drivers' section of the Digistat Gateway Configurator. At the top, there are navigation tabs: General, Connect, Modules, Mobile, Integrations, and Actions. Below the tabs, the breadcrumb path is 'Connect > Drivers > Drivers'. There are two buttons: 'ADD NEW DRIVER' and 'Export to Excel'. A table lists the current drivers with columns for Driver Name, User Version, Version Build, Model, Manufacturer, Device Type, Notes, and Alarm System Type. The table contains four rows of data. At the bottom, there is a pagination control showing '1' of 4 items per page and a refresh button.

Driver Name	User Version	Version Build	Model	Manufacturer	Device Type	Notes	Alarm System Ty...
Carefusion_Demo	1.0	1.0	AGW	Carefusion	InfusionPump		DIS
Carescape_Demo	1.0	1.0	650	GE	PatientMonitor		DIS
CDSS Driver	1.3	1.0	CDSS Driver	ASCOM	OtherComplex		DIS
Evita_Demo	1.0	1.0	Evita XL	Draeger	PulmonaryVentilator		DIS

- Set the driver name as “Digistat Gateway” and upload the files from the server workstation “C:\Digistat\Server\Drivers\DigistatGateway” folder by clicking on the **Upload** button;



- Click on the “Capabilites” tab and enable all the capabilities of the driver, finally save the information by clicking on the **Save** button.



- Go newly to the Configurator Web page, click on **Device Driver Management** and then on **ADD NEW DEVICE DRIVER**;

General ▾ Connect ▾ Modules ▾ Mobile ▾ Integrations ▾ Actions ▾

Connect > Drivers > Device Driver Management

ADD NEW DEVICE DRIVER Export to Excel

Name	Ver...	Description	Type	Log...	Auto	WD ...	DAS Broker	Address	Bed Link	Ala...
Carefusion_Demo	1.0		Multi Bed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ICU	[HostName]	2,3,4,5,6, ...	DIS
Evita_Demo	1.0		Multi Bed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ICU	[HostName]	2,3,4,5,6, ...	DIS
Carescape_Demo	1.0		Multi Bed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ICU	[HostName]	2,3,4,5,6, ...	DIS
CDSS Driver	1.3		Central	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ICU	http://localhost:8088		DIS

20 items per page 1 - 4 of 4 items

- Select the newly entered Device Driver and set the ICU in the “DAS Broker” field, then click on the **Save** button again.

Edit Device Driver

General Optional Patient Resolve ("Central" only) Communication parameters Bed association Log Config

Select a device driver *

Choose mapping type between data and beds/patients *

DAS Broker

Add a description to identify this instance

Choose alarm system type *

no Beds associated |

The Digistat Gateway application is now configured on the Digistat Product server.

3.2 Configure the Digistat Gateway – Client Side

Applicable scenario: an installation of Digistat Product is already present (or shall be performed) in the Healthcare Organization, in which the feature “Digistat Gateway” is selected. In addition, the Digistat Gateway application is already installed on the mobile device.

- Launch the Digistat Gateway application. The following view is presented:

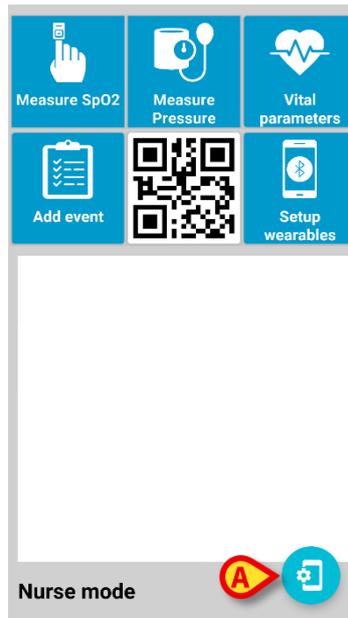


Fig 15 – Main View

- Press the “Settings” button (Fig 1 **A**) to open the settings page (Fig 2) and configure the application.



To access application settings an administrator password is required. Password is written in an additional document attached to this user manual. Password shall not be shared with patients.

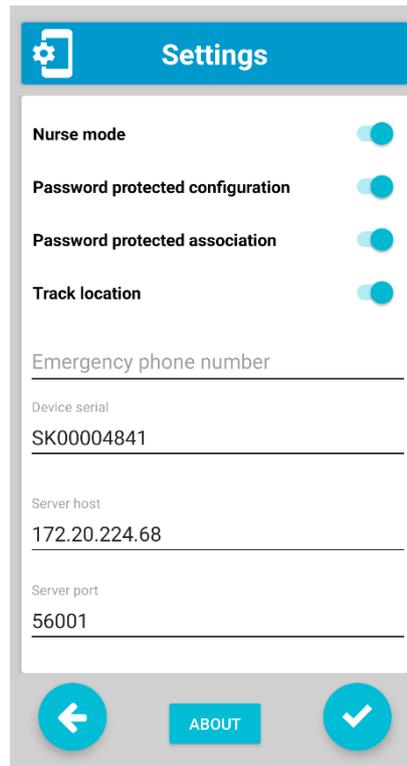


Fig 16

The following settings shall be configured:

- **Server Host and Port:** hostname (or ip address) and port where the gateway shall be connected. If the gateway is intended to be used on a 4G connection, IT network shall be configured properly in order for the gateway to be able to reach the host where Digistat Connect is installed.
- **Nurse Mode:** switch between Nurse mode and Patient mode. In Patient mode, Main View has a limited set of actions.
- **Password protected configuration:** if enabled, a system password is required to open the settings page. This setting should be enable when the device is given to a patient.
- **Password protected association:** if enabled, a system password is required to pair wearables to current gateway app.
- **Track location:** if enabled, tracks user position. Be aware of privacy issue. Be sure that your organization is entitled to collect such a kind of information.
- **Emergency phone number:** in patient mode, patients are able to click a specific button to call the configured phone number (it could be the direct phone number of the ward).
- **Device Serial:** serial number of the device. It is possible to use meaningful names to identify immediately the owner of the device (ex. ICU-123). Be sure to use a unique identifier.



When running on Android 10, a random device serial number is used.

3.3 Associate Wearable devices to Digistat Gateway

Applicable scenario: an installation of Digistat Product is already present in the Healthcare Organization, in which the feature “Digistat Gateway” is selected. In addition, the Digistat Gateway driver was correctly loaded and configured. Finally, the Digistat Gateway application was properly installed on the requested mobile devices.

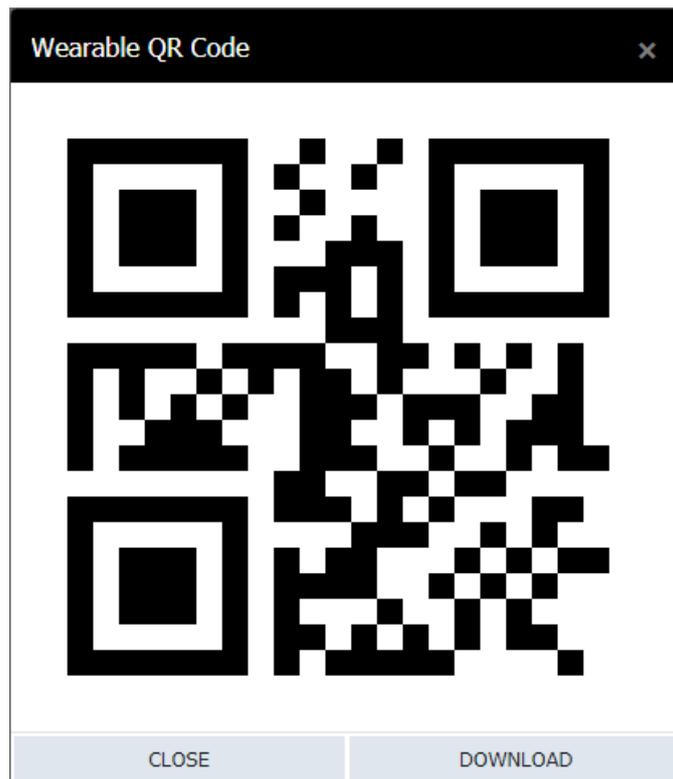
The goal is now to associate wearable devices and the mobile device where Digistat Gateway is installed. This can be done by generating and printing the barcodes for the wearable devices using the dedicated tool provided in Digistat Configurator Web.

- Go to the Configurator Web page, click on **Mobile** and then on **Wearables Config**;

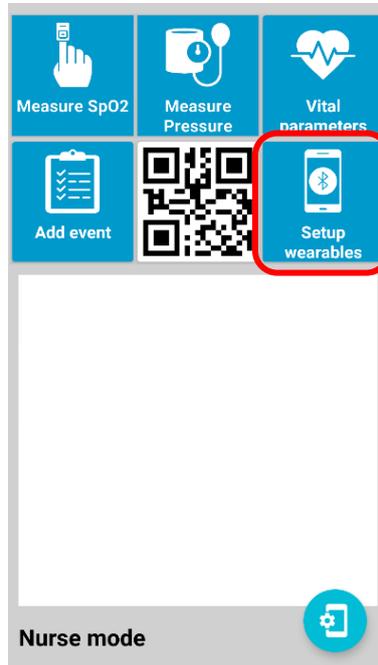


The screenshot shows the 'Mobile > Wearable Config' section of the Digistat Configurator Web. The main heading is 'Generate a QR Code for wearable devices'. Below this, there are two input fields: 'Select a wearable type' with a dropdown menu showing 'Biovotion Everion', and 'Serial' with a text box containing '12'. A blue button labeled 'QR Code' is positioned below the 'Serial' field.

- In the drop-down menu “Select a wearable type” choose the type of wearable to be associated;
- According to the wearable type, the field “Serial” or “MAC Address” or “Wearable version” are displayed: fill it with the serial number or the MAC Address of the wearable to be associated;
- Click on **QR Code** button to generate the code, download and print it.



- Open the Digistat Gateway application in Nurse mode on the mobile device and touch the **Setup Wearable** button;



- Press the **Scan** button to scan the barcode obtained before related to the wearable device to pair. In this way the wearable device will be paired automatically and included in the “Configured Devices” group.

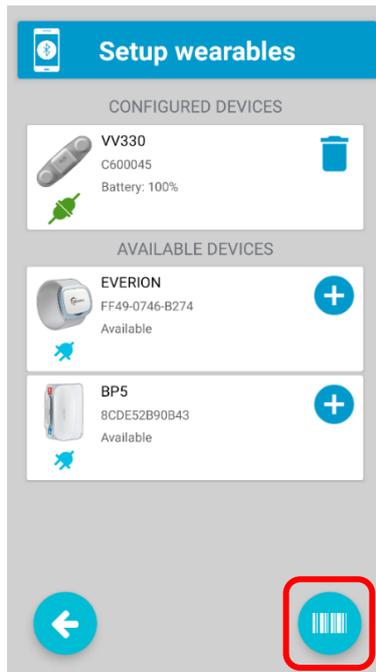


Fig 17



In case of unpairing, the device is moved into the “Available Devices” group.

Once the device is recognized, a message asking for confirmation of the association appears.



The barcode functionality looks slightly different on Samsung or Myco3 devices. In the former, by clicking on the "Setup Wearables" option, a barcode button appears on the bottom right of the screen. Clicking on it, it is possible to activate the camera to start scanning the barcode.

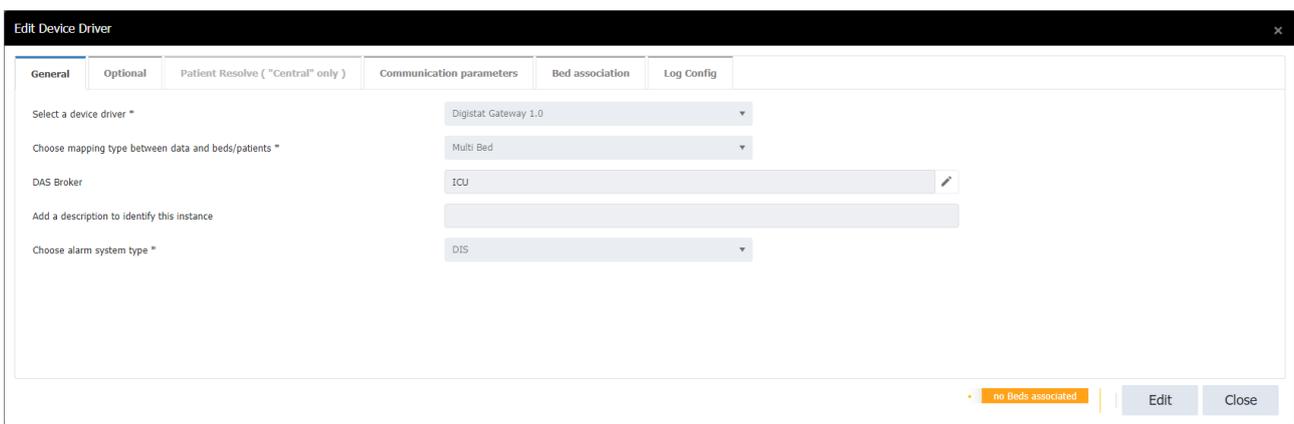
3.4 Customize the Digistat Gateway driver

Applicable scenario: an installation of Digistat Product is present in the Healthcare Organization, in which the feature “Digistat Gateway” is selected. In addition, the Digistat Gateway driver were successfully uploaded.

The list of events to select and choose from can be set modifying the xml of the EventList parameter in the Communication Parameters tab of the Device Driver Edit page.

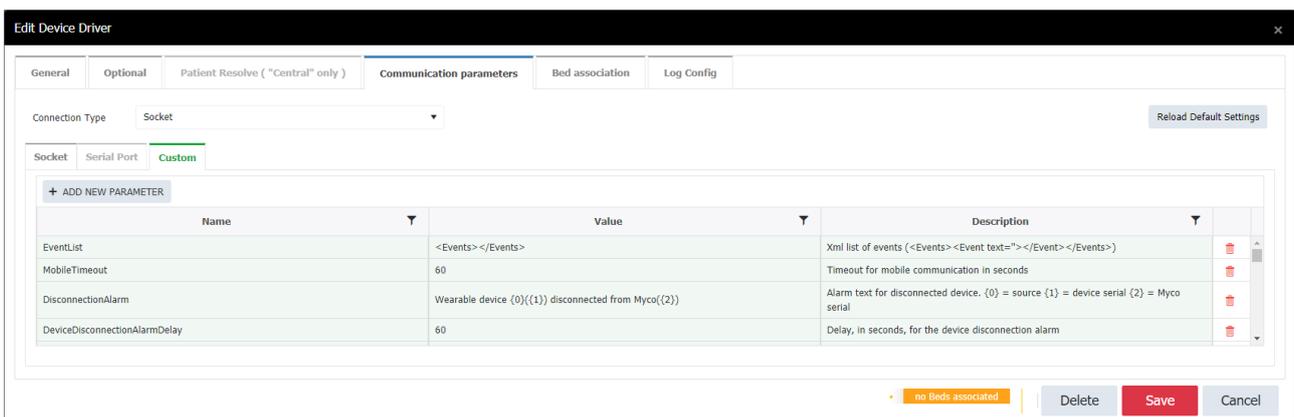
To do this:

- Go to the Configurator Web page, click on **Device Driver Management** and double click the Gateway driver;



The screenshot shows the 'Edit Device Driver' window with the 'General' tab selected. The window has a dark header and a light body. The 'Communication parameters' tab is highlighted in the top navigation bar. The main area contains several form fields: 'Select a device driver *' with a dropdown menu showing 'Digistat Gateway 1.0'; 'Choose mapping type between data and beds/patients *' with a dropdown menu showing 'Multi Bed'; 'DAS Broker' with a text input field containing 'ICU' and a small edit icon; 'Add a description to identify this instance' with a text input field; and 'Choose alarm system type *' with a dropdown menu showing 'DIS'. At the bottom right, there is a status indicator 'no Beds associated' and two buttons: 'Edit' and 'Close'.

- Click on the **Edit** button, on the “Communication parameters” tab and then on the “Custom” tab;



The screenshot shows the 'Edit Device Driver' window with the 'Communication parameters' tab selected. The 'Connection Type' is set to 'Socket'. Below this, there are three tabs: 'Socket', 'Serial Port', and 'Custom', with 'Custom' being the active tab. A table with the following columns: 'Name', 'Value', and 'Description' is displayed. The table contains four rows of parameters. At the bottom right, there is a status indicator 'no Beds associated' and three buttons: 'Delete', 'Save', and 'Cancel'.

Name	Value	Description
EventList	<Events> </Events>	Xml list of events (<Events> <Event text=> </Event> </Events>)
MobileTimeout	60	Timeout for mobile communication in seconds
DisconnectionAlarm	Wearable device {0}({1}) disconnected from Myco({2})	Alarm text for disconnected device. {0} = source {1} = device serial {2} = Myco serial
DeviceDisconnectionAlarmDelay	60	Delay, in seconds, for the device disconnection alarm

- Perform one or more of the customizations described below.



Once a custom parameter is changed, the Digistat Gateway driver is reloaded in order to allow the mobile devices to reload the updated custom parameter.

Configure the Event List / Manual Parameters in the Add Event section

- Modify in the “Event List” and in the “Manual Parameters” fields the XML file to set the list of parameters that will be requested to be manually entered once clicked on the **Manual Parameters** button in the Mobile Application.

The “Event List” parameter shall be customized according to the following scheme:

```
<Events>
<Event text='TEXT'></Event>
</Events>
```

The field TEXT is a free text.

The “Manual Parameters” field shall be customized according to the following scheme:

```
<ManualParameters>
<ManualParameter id='ID' label='LABEL' type='TYPE' ></ManualParameter>
</ManualParameters>
```

The fields ID, LABEL and TYPE can be retrieved from the Standard Parameters tab.

Configure the Data Rate

- Modify in the “DataRate” field the period (in seconds) at which data are transferred to the mobile device. Such a transfer is in addition to the default one (every three seconds).

Schedule messages to be sent to every mobile device

- Modify in the “NotificationsScheduler” field the XML file to schedule a message to be sent to all mobile devices with the Digistat Gateway application at a specific time of the day.

The “NotificationsScheduler” parameter shall be customized according to the following scheme:

```
<Notifications>
<Notification time='TIME'>
<NotificationMessage type='TYPE' text='MESSAGE'></NotificationMessage>
</Notification>
</Notifications>
```

TIME shall be a valid timestamp in the format “hh:mm”. The MESSAGE is the text of the message. TYPE is the type of the notification. Only one notification per type is displayed. Notifications can be linked to a wearable device type and the following values are supported:

P03; BP5; GEMINI; KN-550BT

Configure which parameters should be read from each device type.

- Modify in the “EnabledParams” field the XML file to set the parameters read by the Digistat Gateway application for each device type.

The “EnabledParams” parameter shall be customized according to the following scheme:

```
<Devices>
<Device type="TYPE" params="PARAM"/>
</Devices>
```

TYPE is the type of the wearable device and the following values are allowed:

EVERION; P03; BP5; VV330; VV200; WT1; 1000M; GEMINI; KN-550BT

PARAM is the specific parameter that the wearable device shall acquire (if allowed i.e. no blood pressure is expected from a thermometer):

**SpO2; PRSpO2; HR; RR; SkinTemp; BodyTemp; Systolic; Diastolic; Mean; ECG; RRIArray;
HRV; RRI; Lat; Lon; Radius; Phone**

3.5 Configure the Myco 3 button for barcode scanning

The Myco is equipped with a physical button that starts the scan function, so no barcode icon appears.

The configuration steps are specified below:

- Set package or activity name as:
com.ums.app.digistatgateway/com.ums.app.digistatgateway.*
- Select the following profile (another one is however possible):
Digistat Gateway
- Enable intent output;
- Set intent target as “Broadcast receiver”;
- Set intent action as “gatewayscan”;
- Set string intent extra as “scanstring”;
- Set data intent extra as “scandata”.

3.6 Configure the Myco 3 button for phone call

If properly configured, one of the physical buttons in Myco3 (usually the top button or one of the side ones not used for barcode scan) will send a “user alarm” to the driver, to cover a case of a patient that needs immediate assistance. Such an action will result in an alert displayed on the Smart Central or the Smart Central Mobile. This can be useful since the Healthcare Organization can trigger the alert and call the patient at home, without configure an emergency number on the mobile device.

In the same way, if properly configured, one of the physical buttons in Myco3 (usually the top button or one of the side ones not used for barcode scan) will automatically start a phone call to the emergency number (if previously set).

- The configuration steps are specified below: Set package or activity name as: `com.ums.app.digistatgateway/com.ums.app.digistatgateway.*`
- Select the following profile (another one is however possible):
Digistat Gateway
- Enable intent output;
- Set intent target as “Broadcast receiver”;

Configuration to send an alarm message

- Set intent action as “gatewayalert”.

Configuration to start a phone call to emergency number

- Set intent action as “gatewaycall”.