

Connect an Ewon to MindSphere®

APPLICATION NOTE

AUG-0082-00 1.0 en-US ENGLISH



Important User Information

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1 Preface

1.1 About This Document

This document explains how to connect an Ewon Flexy to the Siemens MindSphere[®] platform using the Ewon MindSphere[®] connector.

For additional related documentation and file downloads, please visit <u>www.ewon.biz/support</u>.

1.2 Document history

Version	Date	Description
1.0	20190-10-15	First release

1.3 Related Documents

Document	Author	Document ID
eBuddy	HMS	AUG-0063-00

1.4 Trademark Information

Ewon[®] is a registered trademark of HMS Industrial Networks SA. All other trademarks mentioned in this document are the property of their respective holders.

2 Introduction

The Ewon Flexy is the first industrial modular M2M router and data gateway designed for machine builders and system integrators.

The flexibility allows a user to inter-connect remote devices in an environment where communication technologies are constantly changing. It also allows universal communication with the most varied field equipment, regardless of the protocol being used.

In this document, we explain how to configure your Ewon Flexy to collect data from the PLC and send the historical data to MindSphere[®] platform.

MindSphere^{*} is the cloud-based, open IoT — Internet of Things — operating system from Siemens^{*} which connects your products, plants, systems or machines, and enables you to harness the wealth of data generated by the IoT with advanced analytics.

3 Requirements

3.1 Firmware

To connect to MindSphere[®], your Ewon must run at least firmware version 14.0s0.

If you need to update the firmware of your Ewon Flexy, please refer to the eBuddy document from the *Related Documents, p. 3*.

4 MindSphere[®] Setup

In MindSphere^{*}, you need to create an **<Asset>** of type **MindConnect Lib** using a **Shared_Secret** profile.

This is required to allow the link between Ewon tags and MindSphere[®].

4.1 <Asset> Creation

To create an **<Asset>**, proceed as follows:

- 1. Open the Asset Manager in MindSphere®.
- 2. Create an new <Asset>

	Asset Manager	
	hmsnet EQ	hmsnet
Assets	+ Create asset	hmana
\bigtriangledown	Filter Create asset	hmsne
Types		D
ъc	Subtenants	Basic settii
v		— —



- 3. Select the MindConnect Lib option.
- 4. Click on Create.

II Hins	S Asset Manager			powered by MindSphere
	Select type			
2	Filter			
DEC Spects	MindConnectIoT2040 core.mciot2040	core type	MindConnect IoT 2040 Agent asset type	
∝° arings	MindConnectLib core.mclib	core type	MindConnect Lib Agent asset type	
anngs 品	MindConnectNano core.mcnano	core type	MindConnect Nano Agent asset type	
nectivity	OPCUADataModel core.opcuadatamodel	core type	OPC UA Pub Sub Data Model Asset Type	
	OPCUADataType	core type	OPC UA Pub Sub Data Type Asset Type	
₽				Create



5. Provide a name to the **<Asset>**.

The **asset name** should reflect the factory or site where the Ewon is retrieving the data from.

6. **Save** the configuration.

4.2 Variables Creation

In MindSphere[®], you need to create a variable for each Ewon tag you would like to map.

The MindSphere^{*} variable and the Ewon tag must be of same data type as well as the same unit. Otherwise, data mapping is not possible in MindSphere^{*}

Corresponding type values				
Ewon tag type	MindSphere [®] data variable type			
Integer	INT			
Boolean	BOOLEAN			
Floating point	DOUBLE			
DWord	LONG			

4.2.1 <AssetType> Creation

In MindSphere^{*}, you need to create an **<AssetType>** for your machine to add variables inside your **<Asset>**.

The **<AssetType>** can either contain directly the different variables or be based on other aspects.

In our example for this document, we used the following <AssetType> : PackagingMachine.

	ckaging	Machine					
Hery arythma		hmsnet.PackagingMa ID PackagingMachine _{Name}	chine	Demo application Ewon TS Description			
-							
	iables variables entered	yet					
No		yet					
No	variables entered	yet	Aspect		Category		
No	variables entered	yet	Aspect hmsnet.Conveyor		Category Dynamic	Defined	7

Fig. 3 Example of an <AssetType>.

The **<AssetType>** is composed of 2 different **<Aspects>** we created inside MindSphere^{*}: **Conveyor** and **ProductionData**.

Under these **<Aspects>**, we declared the different variables which will be linked to Ewon tags.

Asp	pects					
	Name 🛊	Aspect		Cate	gory	
~	Conveyor_01	hmsnet	t.Conveyor	Dyna	imic	Defined 🧷
	Name 🛊	Data type	Unit	Max. length	Latest value	
	DownTime	INT	S		-	
	ProductionRate	LONG	boxes/min		-	
	Speed	DOUBLE	rotation/sec	-	-	
	Status	BOOLEAN	on/off	-	-	
	Temperature	DOUBLE	°C	-	-	
	UpTime	INT	S	-	-	
~	ProductionData	hmsnet	t.ProductionData	Dyna	mic	Defined 7
	Name 🛊	Data type	Unit	Max. length	Latest value	
	Boxes	LONG	boxes		-	
	OEE	DOUBLE	96			

Fig. 4 Variables examples

4.2.2 <AssetType> and <Asset> Combination

Once the **<AssetType>** for your machine has been created, you can link it to the **MindConnect Lib** asset:

1. Select the MindConnect Lib asset you just created inside the Asset Manager section.

	Asset Manager			powered by MindSphere
(1) Assets	hmsnet	hmsnet > MyAsset MyAsset	C Ec	lit asset 🕀 Add child asset 🤐
Types DCO Aspects	Subtenants SPSParma		Basic settings	
Aspects C Sharings	(core.basicsubtenant) SubTenant SPSParma Asset for hmsnet tenant Assets	*	Postal code Region	City Country
品 onnectivity	Eupen core.mclib	MindConnect Lib	Latitude Europe/Berlin Time zone	Longitude
	EwonFWTestRoot			

2. Click on the Add child asset icon.

Fig. 5 Add a child asset

3. Select the **AssetType** > containing the variables you created earlier when asked to choose the *Asset type*.

4.3 Tenant and IAT for Onboarding

To allow your Ewon to send data to your MindSphere^{*} account, you need need to "onboard" the Ewon first:

1. Select the Asset you created for your Ewon in the Asset Manager.

2. Click on MindConnect Lib.

	Asset Manager			powered by MindSphere [
Assets	< Back MyAsset	Hmsnet > MyAsset	Ø	Edit asset 🕀 Add child asset 🛛 …
ଷ	Create asset Filter	MyAsset		
Types			Basic settings	
ЪС	Assets		_	
Aspects	PackagingMachine	. •	Street	
~	hmsnet.PackagingMachine	*	Postal code	City
Sharings			Region	Country
폾		MindConnect Lib	_	_
nnectivity		0.	Latitude	Longitude
		2 m	Europe/Berlin Time zone	



3. Select the **Shared_Secret** option when asked to choose the *security profile*.

MindConnect Lib creates secure connectivity from an onsite device to MindSphere. Firewall-friendly communication via a MindSphere API and unique onboarding security tokens authenticate MindConnect Lib during onboarding to ensure data is safely transmitted. Please select a decurity profile that fits your needs to continue: SSA_3072 A publiciprivate key pair (3072bit) for enhanced security which requires more computing power on the devices. O FIARED_SECRET A shared key (256bit) for lightweight devices.	Confi	gure MindConnect Lib
RSA_3072 A publiciprivate key pair (3072bit) for enhanced security which requires more computing power on the devices. SHARED_SECRET	Ť	MindConnect Lib creates secure connectivity from an onsite device to MindSphere. Firewall-friendly communication via a MindSphere API and unique onboarding security tokens authenticate MindConnect Lib during onboarding to ensure data is safely transmitted.
A public/private key pair (3072bit) for enhanced security which requires more computing power on the devices. O SHARED_SECRET	Please selec	t a vecurity profile that fits your needs to continue:
Save	A shared k	

Fig. 7 Selection of the security profile

- 4. Click on Save.
- 5. Click on the Generate onboarding key button.

	SHARED_SECRET Security profile	®	Not onboarded Boarding status	Offline (since: 9/26/19, 2:57 PM) Online status
Back to configuration				
Edit boarding configuration				
oarding configuration				
order to use Mind Connect Lib, you have to insert the generated onboarding key into your system.				
Toortent; [Toortent; [Toer: whate\Courteducteducteducteducteducteducteducteduc	Generate Generate Copy to cl			-
/, "clientid": "ae22e1610a39415aa64febd548eefc37", "tenant": "hmsnet"				
"Avairation": "2010-10-02712-57-46-0007"	÷			

Fig. 8 Generation of the onboarding key

6. Copy the IAT — Initial Access Token — and the tenant of the onboarding key.

You will need these elements later in the Ewon configuration.

In case, you need to review the onboarding configuration, you can always display the configuration frame by clicking on the configuration icon, in the top right corner.

Asset Manager			powered by MindSphere
MindConnect Lib # Plugin test3 MindConnectLib			Close 🛞
	SHARED_SECRET Security profile	Onboarding Boarding status	Online status
< Back to configuration			

Fig. 9 Link to the onboarding configuration panel

5 Ewon Setup

5.1 Ewon IP Address

For the Ewon LAN interface, you must set an IP address compatible with the IP address of the Siemens[®] PLC you want to connect to.

To change the IP address of your Ewon, please refer to the eBuddy document from the *Related Documents, p. 3*.

5.2 Quick Launch Wizard

To successfully connect to MindSphere[®] platform, you all need to set up the system and Internet connection of your Ewon:

- 1. Open your Internet browser.
- 2. Connect to the web interface of your Ewon by browsing to its LAN IP address.

The default username and password are **adm**.

3. Launch the Quick Launch Wizard.

You can also launch each wizard separately by clicking on the **<Wizards>** button in the top right corner.

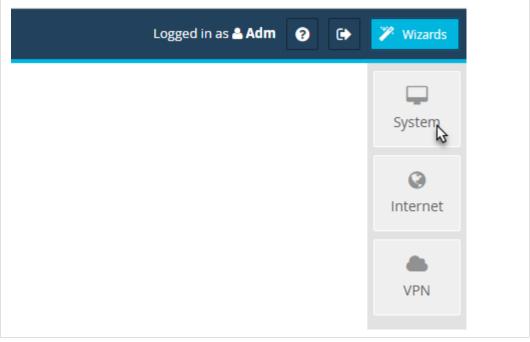


Fig. 10 Ewon wizards

5.2.1 System Wizard

To configure the system of your Ewon, proceed as follows:

1. Define the <name> of your Ewon.

For example: this name could be the place or factory where the Ewon is located.

2. Change the <username> and <password>. This is a mandatory modification.

3. Configure the <date and time>.

We recommend to select **update clock via NTP** as it is important to maintain an accurate date and time for synchronization purpose with MindSphere[®].

4. Keep the standard LAN/WAN ports attribution.

5.2.2 Internet Connection Wizard

The wizard following the system wizard helps you configure the Internet connection of your Ewon.

It is important that you first plug an Ethernet cable — granting an Internet access — into the WAN port of your Ewon. On the Ewon Flexy 205, the WAN port is indicated by the orange LED near the port.



Fig. 11 Plug the WAN Ethernet cable

To configure the Internet connection of your Ewon, proceed as follows:

- 1. Select the WAN interface that will be used by your Ewon to get access to Internet.
- 2. Provide the settings of the selected WAN interface.

A standard configuration would be using the **Ethernet Internet connection** and the **DHCP** IP attribution.

Alternatively, you can also use a Wi-Fi or a cellular connection.

5.2.3 Talk2M (VPN) Wizard

This wizard allows the configuration of the remote access to the Ewon and the devices plugged in the Ewon.

If you do not need the remote access to your devices, you can skip this wizard.

The Talk2M connection is not required for the MindSphere[®] platform. The Talk2M connection can also be configured later on.

However, if you do not launch the Talk2M wizard, then please refer to the *Firewall Settings*, *p.* 25 section.

To link your Ewon to your Talk2M account, proceed as follows:

1. Select which registration method you want to use:

- Register with Ewon Name

An Ewon Flexy can be automatically registered on a Talk2M account without prior configuration by using this option.

However, it is recommended to create the Ewon entry in eCatcher before selecting this method of registration.

To use this method, the **<username>** indicated in the below option field must have administrator rights in eCatcher!

As you chose to go further with this option, 4 fields appear:

- <Talk2M Account Name>
- <Ewon Name>
- <Talk2M Username>
- <Talk2M User Password>

Register with Ewon Name

If the Talk2M account is a Pro account and if the Ewon hasn't been created in eCatcher prior to the registration, make sure the auto-registration feature has been enabled in eCatcher otherwise the device will not be registered.

Register with Activation Key

The second method to register anEwon is with the activation key.

This key can be found in **Properties ►Talk2M Connectivity** of the Ewon created in eCatcher. It is represented under the form: d3b3caad74bd7c9d1c7e6f5900z0zzzz.

Once the option has been clicked in the wizard procedure, a single field appears:

Activation Key

The <Global Registration Key> can be used during the registration instead of the activation key. The GRK can be found in Account ► Show advanced settings ► Ewon auto-registration of the Talk2M account in eCatcher. It appears under the form: Z00-D08E2B9981396AA380A0631ZZ0ZZ0000.

Proxy Configuration

As the registration process is over, the next page will ask if the Internet connection is established through an HTTP proxy server. Check the box if it is the case.

It is also the occasion to display the *Advanced parameters* section. During the VPN connection test (that is performed on the next page), an error might occur if the UDP port isn't accessible. In this case, the advanced parameter allows to force the connection to be established in TCP.

Testing the VPN Connection

The last page of the Talk2M wizard is the VPN connection test based on the given configuration. If the test is successful, the device should be online in eCatcher.

5.3 Collect Data from the Field Equipment

Once you have configured the different wizards, you can create the tags for the data you want to poll from the PLC and send to MindSphere[®].

With its embedded IO servers, the Ewon allows to poll data from the most common PLC brands. In our demonstration, we will show how to create a Modbus tag. If you need help to poll data from other PLC brands, please refer to our website: www.ewon.biz/support.

(1) The data exchange between your Ewon and MindSphere^{*} is based on historical data. You need to enable the historical logging for the tags you want to transfer to MindSphere^{*} inside your Ewon.

To create a Modbus tag, proceed as follows:

- 1. Go to the **Tags** > **Values** section from the left-side menu of the Ewon web interface.
- 2. Activate the **<Setup>** mode.
- 3. Click on Add.

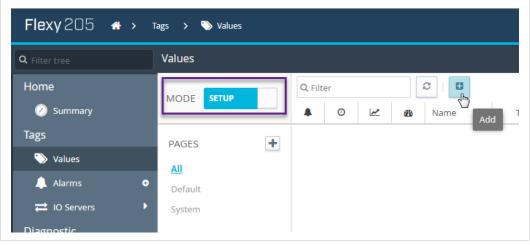


Fig. 12 Add a tag

- 4. Specify the different tag settings:
 - a name,
 - the IO server: Modbus,
 - a topic (e.g.: A),
 - a Modbus address,
 - a tag type,
 - the unit,
 - the historical logging enabled.

reate a new Tag Identification								
Tag Name:	Value1		Page:	De	fault		•	
Tag Description:								
I/O Server Setup —								
Server Name:	MODBUS	-	Торі	c Nai	me:	A	•	
	40001 Enter ValueName. Th For a PLC tag, the Re an indication that see value modifier	gister	r address rang	e ma	y be	optiona	lly pre	
Type:	Integer	•	C F	orce	Read	l Only		
_	e = IO Server Value *	1		+	0			
Alarm Setup			•					arm Enabled
Historical Logging						Histor	ical Log	ging Enabled
Logging Deadband:	5	(put	a negative valu	ue to	disab	ole dead	lband	logging)
	60		nds (set to 0, i	t will	enab	le Deac	lband l	logging
Logging Interval:	60	only)						

Fig. 13 Modbus tag configuration

To avoid massive data sent to MindSphere^{*}, it is important to set accurate values for the <Logging deadband> and the <Logging Interval>. For example: configured as showed in the

above picture, the value is stored every 60 seconds but also every time the value changes more than 5 units.

Specify the correct **<Type>** and **<Unit>** for each Ewon tag. Those settings need to match the **<Data Type>** and **<Unit>** settings of the variables created inside MindSphere^{*}. Refer to *Corresponding type values, p. 7*

6 Connect your Ewon to MindSphere[®]

To send data to MindSphere[®], we need to onboard the Ewon to MindSphere[®].

The onboarding process consists in connecting your Ewon to an *Asset* that you have created in MindSphere^{*} beforehand. During the Ewon configuration, you need to specify the **<Tenant>** and the **<IAT (Initial Access Token)>** linked to this *Asset*.

Make sure you have this information ready as explained in *Tenant and IAT for Onboarding, p. 8*.

6.1 Ewon Data Management

To export the data from Ewon to MindSphere[®] we will use the *Data Management* feature of the Ewon Flexy.

For the configuration step, make sure your Ewon the Internet connection configured and active (e.g.: the Ethernet WAN cable is plugged in).

- 1. Go to Setup ► System ► Main ► Net Services ► Data Management in your Ewon web interface.
- 2. Select **MindSphere**[•] from the **<Data Management>** dropdown list.

Data Management			
– Data Management –			Talk2M API
	Historical data	If enabled Historical data are avail	None
	Live data and KPI's	If enabled Live TAG values and KP	Talk2M API
		Reminder: KPI Tags are displayed	° eSync
			MindSphere 🕁

Fig. 14 MindSphere[®] as data management

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- 3. Set the following fields:
 - the <Tenant> (copied from MindSphere^{*}),
 - the **<IAT>** of the *Asset* (copied from MindSphere[®]).
 - the <Upload Interval>.

For example: if you put 5 minutes, the Ewon synchronizes each 5 minutes its data with MindSphere[®].

Home Main © Summary General Tags Isterrification © Values Ianguage A larms Alarms To Servers Image Data Aarms Alarms Data S. Time Initial Access Token Planner Planner O toks Time Planner O togs Net services Status Image V Kods (DE OPCUA Witzards FTP O bask (DE OPCUA Status Image Status Image O NTP Server V Kaskic (DE OPCUA Status Image Status Image O NTP Server V Kaskic (DE Image Status Image Image Main Accessories	A Filter tree		Data Management			
▲ Files Transfer SMTP (malls) Setup O NTP Server ✓ Mizards ▲ FFP ✓ b ASIC IDE III OPCUA ▲ Users 二 SNMP ズ System III Data Management	 Summary Tags Values Alarms IO Servers Diagnostic 	General	Groups of tags to publish for Historical data:	eyfraWQiOijrZXktaWQtMSisi nR5cCi6ikpXVClsimFsZyf6ilj TMJUZin0.eyfpc3MiOjiTQ0ki LCtzdWiloiikMDEIYWFIOWM		
	 Files Transfer Setup Witzards BASIC IDE Users System 	SMTP (mails) O NTP Server FTP OPCUA SNMP Data Management		Enable Alarm	Enabling alarms will also enable th	e upload of data on alarm.

Fig. 15

- 4. Click on Update.
 - → Your Ewon now starts the onboarding process. Once the onboarding process done, the *Data Management* window changes.

Onboarded Agent ID:	: d01eaae9c8e	\$40-010-2-20-\$400-28-8r	1
Onboarded Agent ID:	: d01eaae9c8e	84020102209680008286	1
		040401040200000000000000000000000000000	
	Tenant: MyTe	enant	
\rightarrow	Send All Dat	ta	
			MindSphere
А 🗋 В 🗍 С			roup(s) will be published.
Minutes	5		
Enable Alarm		Enabling alarms will also enable th	e upload of data on alarm.
	Minute	A B C D Minutes	No selection means <u>all tags</u> . Minutes

Fig. 16 Send tags to MindSphere®

- 5. [Optional] You can also click on **Send All Data** to force a synchronization.
- 6. The configuration of your Ewon is now terminated.

To verify that your Ewon Flexy is correctly sending its data to MindSphere^{*}, proceed as follows:

- 1. Open the Asset Manager.
- 2. Select your <Asset>.

3. Click on the **<MindConnect Lib>** button.

	Asset Manager			powered b	y MindSphere [
(1) Assets	< Back MyAsset	Hmsnet > MyAsset		🖉 Edit asset 🕀	Add child asset
ୟ	Create asset Filter	MyAsset			
Types			Basic	settings	
ЪС	Assets		_		
Aspects			Street		_
~	PackagingMachine hmsnet.PackagingMachine			_	
«С	interest actaging watchine	X	Postal co	ode City	
harings			-	-	
_		MindCor	nect Lib Region	Country	
폾				-	
nectivity			Latitude	Longitur	Je
			Europe Europe		
				ne	
			$\mathbf{\nabla}$		



The onboard box should be green. The online box is green when the Ewon has sent its data recently.

1	Asset	Manager					powered by MindSphere
AindCor	nnect Lib 🗚 Plugin	Eupen MindConnectLib					Close
					SHARED_SECRET Security profile	Onboarded Boarding status	Online (since: 9/26/19, 11:39 AM) Online status
	Configuration	Data mappings					
🖉 En	ter edit mode						
Configur	ation ID: d3d7e78d	-33cc-7def-6872-864d1d2148d2	1 Data source		0/1 Dat	a points are linked	
∽ Ew	on	1 Data po	int				
	Data point	Data point ID	Linked	Data type	Unit		
	value1	value1		INT	Pa		

Fig. 18 Online status

6.2 Data Mapping inside MindSphere[®]

To use the data send by your Ewon to MindSphere[®], you need to link the Ewon tags to the MindSphere[®] variables. To do so, proceed as follows:

- 1. Open the Asset Manager in MindSphere[®].
- 2. Select your <Asset>.
- 3. Click on the **<MindConnect Lib>** button.

(1) Assets	< Back MyAsset	hmsnet > MyAsset	D	Edit asset 🕀 Add child asset 🐳
ଷ	Create asset Filter	MyAsset		
Types			Basic settings	
DTO spects	Assets		Street	
~	PackagingMachine hmsnet.PackagingMachine	4	Postal code	City
harings			Region	Country
品		MindConnect Lib	Latitude	Longitude
nectivity			Europe/Berlin	



4. Display the **<Data mappings>** tab.

- 5. Select the **Ewon tag**.
- 6. Click on the Link variable icon.

A popup displays all compatible — and only those — MindSphere $^{\circ}$ variables for this tag.

Compatibility between Ewon tags and MindSphere® tags are based on data type and units.

Ewon L value2 Selected data poin	DOUBLE t Type	℃ Unit		
MyAsset Selected asset			> Change	
 connectivityStatu 	IS		k	
i Data mappings	on static aspect	s are not po	ossible.	
✓ status 0	of 1 compatible		0 of 1 linked	
Name	Туре	Unit		
onlineStatus	BOOLEAN		Not compatible	

Fig. 20 Link variables to tags

Depending on how you structured your asset, you'll probably need to first select the corresponding child asset to find compatible variables.

To do so, proceed as follows:

1. Click on the **Change** button.

2. Select the **child asset**.



Fig. 21 Selection of child asset – 1

	ingMachin asset	,		> Change	^	•
	Conveyor_01	1 of 6 co	mpatible	0 of 6 linked		
	Name	Туре	Unit			Ŀ
	Temperature	DOUBLE	°C	🔵 Link variable		
	DownTime			Not compatible	able	
	ProductionRat	te LONG	boxes/mir	Not compatible		
	Speed	DOUBLE		Not compatible		
		BOOLEAN	on/off	Not compatible		
	UpTime	INT		Not compatible		
•	ProductionDat	a 0 of 2 of	compatible	0 of 2 linked		
	Name	Туре	Unit			
	Boxes	LONG	boxes	Not compatible		
	OEE	DOUBLE		Not compatible		

Fig. 22 Selection of child asset – 2

3. You are now able to select the corresponding variable to map to the Ewon tag.

indConnect Lib # Plug	in MyAsset Mind	ConnectLib							Close
					SHARED_SECRET Security profile	Ø	Onboarded Boarding status	Offline (since: 9/26/19, 12: Online status	:31 PM)
Configuration	Data mappings								
Data mapping (0 depres	cated, 0 invalid)								
Data mapping (0 depres	cated, 0 invalid)					1 of 2	Data points linked		
	cated, O invalid)		Data mapping			1 of 2	Data points linked		
Ewon	zated, 0 invalid)		Data mapping			1 of 2	Data points linked	് ⁹ Link	variable
Ewon Data point value2	cated, 0 invalid)		Data mapping PackagingMachine > Con	iveyor_01 > Temp	perature	1 of 2	! Data points linked	් Link රං Unlink	

Fig. 23 Map MindSphere[®] variables to Ewon tags

Proceed like this for all Ewon tags you want to link to MindSphere[®] variables.

6.3 Display Data in MindSphere[®]

Once you have mapped all the variables, you can use the *Fleet Manager* inside MindSphere[®] to display the exported data.

Fleet Manager	powered by MindSphere
PackagingMachine	□ < ±
(I) 16/16 🗉 🗄 🖓 🚺	Aspects × +
Y: Search	Browser (+02:00) √ Image: Sep 26 2019 11:39 am →
/lyTenant> MyAsset > PackagingMachine	Conveyor_01
PackagingMachine hmsnet.PackagingMachine	36Q
	ب ₂₄ ال
	12 11.55 12.00 12.05 12.10 12.15 12.20 12.25 12.30 12.95 12.40 12.45 12.50
	Ce — Temperature
	-₹] III - 2°
	ProductionData +

Fig. 24 MindSphere[®] dashboard

Α

Export Filtered Data to MindSphere[®]

The Data Management feature of the Ewon allows the filtering of data which is sent out.

This filtering allows you to choose only a part of the Ewon tags to be sent toMindSphere^{*}.

To create a filter inside the *Data Management* configuration windows of the Ewon:

- 1. Go to Setup ► System ► Main ► Net Services ► Data Management section from the leftside menu of the Ewon web interface
- 2. Select one or multiple tag groups.

Status		
	Onboarded Agent ID:	1a6e184578624350a6b1fbeaaf66ca7e
C₅		Tenant: hmsnet
	1	Send All Data
Data Management	1	MindSphere
Groups of tags to publish for Historical data:	✓ А В С	D Only the tags within the checked group(s) will be published. No selection means <u>all tags</u> .
Upload interval:	5 Minutes	
	Enable Alarm	Enabling alarms will also enable the upload of data on alarm.

Fig. 25 Tag group selection for data management

- 3. Go to the Tags > Values section from the left-side menu of the Ewon web interface.
- 4. Switch the mode to **<SETUP>**.

5. Select the **corresponding tag group** inside each Ewon tag you would like to export.

Create a new Tag		_		×
Logging Interval:	60	Seconds (set to 0, it will only)	enable Deadba	and logging
Real Time Logging			Real Time	e Logging Enabled
Tag Visibility Global settings				
Published valu REMARK: Published		ue * 1 + 16 bits for ModbusTCP a	0 nd signed 32 bi	ts for SNMP
Modbus TCP		_		Enabled
Register:	1	Use 32-bit format (no	ot available for t	Dooleans)
OID:	1	Value published: .1.3.6.1 (Max value 32767)	1.4.1.8284.2.1.3	.1.11.1.4.OID
Key Performance Ind	licators (KPI)			
Tag groups	Group A	Group B Gro	oup C	Group D
				Add Tag

Fig. 26 Tag group selection for tag

B Firewall Settings

If you did not configure your Ewon to connect to Talk2M, then you need to set manually the security settings of the Ewon.

To activate the WAN / LAN firewall and allow only outbounds on the Ewon, proceed as follows:

- 1. Go to Setup ► Communication ► Networking ► Security section from the left-side menu of the Ewon web interface.
- 2. Set the **<WAN Protection level>** to **Discard all traffic except VPN and initiated traffic**.
- 3. Disable the <WAN IP Forwarding>.

Q Filter tree		Networking security setup
Home Summary Tags Values Alarms Ho Servers Diagnostic	Communication • General	WAN Protection WAN Protection level: O Discard all traffic excepted VPN and initiated traffic (exc Email) Discard all traffic excepted VPN and initiated traffic (exc Email) Allow traffic on WAN connection (no protection) WAN IP Forwarding Allow traffic forwarding to WAN (from VPN or LAN) - Disable to make sure that LAN or VPN requests are never routed to WAN
 Logs Status Files Transfer Setup Wizards BASIC IDE 		VPN Protection Transparent Forwarding Require authentication for Transparent Forwarding
 System Main Communication 	Security Pefault Config	

Fig. 27 Firewall for WAN / LAN control

4. Reboot the Ewon to apply the modifications.