# Quick Start Guide for Identix IoT gateways

For HW version 4.0.1 including mPad+, rPad+, EZ230 and EZ270 devices

Version 1.1

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### Introduction

The IoT gateways from Identix are based on the CONNECTIX OS which is an embedded operating system that manages data capture and transfer from RAIN RFID tags and Bluetooth Beacons to business applications and cloud platforms.

Connectix offers a unified software interface, including programming APIs, for all devices, except for specific features of each hardware model.

#### Initial setup

#### Connect the gateway to a power supply

Identix mPad+, rPad+, EZ230 and EZ270 are powered though a standard "USB Type A" power brick.

All models can also communicate via USB to a Host computer running Window, Linux, or any other OS. The Host USB port can be used not only for data communications but also as the power source for the gateways.

It is important to make sure the USB power supply (either an external power brick or the Host computer USB port) has enough capacity to drive the gateway.

Model	Max Consumption
mPad+, rPad+, EZ230	1A (5 watts)
rPad+MX and EZ270	2A (10 watts)

Power Consumption table for Identix gateways

### Warning!

The Identix gateways are designed according to USB 2.0 standards using +5V DC power. The maximum input voltage on the USB port for the gateway is +6.5VDC. Exceeding this limit will permanently damage the device.

Some USB phone chargers implement "fast adaptative charging methods" such as such as "Samsung Adaptive Fast Charging" and "Samsung Super-Fast Charging 1.0 and 2.0" which supply voltages up to 11V to the USB port. Connecting de gateway on these kinds of chargers will permanently damage them!

#### Access the embedded WiFi hotspot

When the gateway is powered up, a WiFi hotpot is created. The Wi-Fi network name (SSID) contains the gateway model followed by the last three octets of the gateway WLAN MAC address. In the example below the gateway name is "EZ270 51:2B:50".



#### Log into the administration console

Once connected to the gateway Wi-Fi hotspot, open a browser on the default IP address (192.168.4.1) to access the administration interface

Using a browser, connect to <u>http://192.168.4.1</u> to access the administration console

After the login screen is shown, use the default username and password for accessing the administration console

Default username: identix Default password: identix

<b>()</b> Identix	× +		- 🗆 ×
← → ♂ ଢ	👽 🎽 192.168.10.100/login.html	⊘ ☆	II\ ⊡ Θ ≡
	CONNECTIX GATEWAY		
	Please Log In		
	Login: identix		
	Password:		
	Log In		
	System Name:EZ270   51:2B:50 © Identix Technologies International Inc.		

After successfully logging into the system, you will be able to check / modify the gateway configuration parameters though the administration console

### Network Configuration

The gateways connect to a WiFi network as a WLAN station (client) and may send collected data to business applications and cloud services using different protocols such as MQTT, HTTP, sockets etc.

Optionally the RAIN RFID reader present in the gateway can communicate to a host computer via the USB port.

Use the next sections to configure the WLAN station parameters

- WLAN client connection this is the WLAN network the gateway will connect to
- Roaming behavior these parameters allow you to configure WLAN roaming and its behavior
- IP address allows to switch between dynamic (DHCP) and fixed IP address

Network – WLAN

Please enter the SSID the gateway will be connected to. You may optionally operate the RFID reader via USB only. In this case you may leave the SSID field empty, not connecting to any WiFi network.

CONNE	ECTÍX GA	TEWAY E	Z270   51:	2B:50		identix					
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System					
General	WLAN client confi	guration									
> WLAN	SSID:	MSNET									
IP	Authentication WAP/WPA2-PSK		~	Password •••••		Show					
	Network connection and roaming										
	Minimum signal sti network (dB) -70	rength (RSSI) for co 5	nnection to WLAN	Signal strength threshold (RSSI) for disconnection (dB) -80							
	Signal strength thr -70	reshold (RSSI) to init	tiate roaming (dB)	Signal strength three	shold (RSSI) for roar	ming (dB) 6					
	Roaming recurren	ce (seconds) 15		Enable Roaming							
						Apply					

#### Network - IP

#### Choose DHCP or enter the static IP address information

CONNE	ECTIX GA	identix				
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System
	IP address config	uration				
General WLAN	<ul> <li>DHCP (automa</li> </ul>		nanual)			
> IP	Ip address:	192.168.10.10	0			
	NetMask:	255.255.255.0	)			
	Default gateway:	192.168.10.1				
	Primary DNS:	200.204.0.10				
	Backup DNS:	200.204.0.138				
						Apply

### Main Dashboard

The system dashboard shows a lot of useful information, including a summary of network connection, firmware version, main components health and current system status.

Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB	Port	System
General	System information	n					
e RAIN	Gateway mod	iel Se	erial number	Firmware vers	sion	RAIN RF	ID region
inventory Live Beacons	EZ270	17	944848444240	4.0.10			Part 15.247 28 Mhz)
	Network status						
	WLAN		IP address	Netmask		Gateway	
	Connected to: MS CC:2D:E0:3F:21		92.168.10.100	255.255.255.0		192.168.10.1	
	System status						
	System date and	l time Sy	stem UP time	RFID SIP temper	ature	USB Voltage	
	26/04/2021 20:2	0:43	33s 69 °C warni		g!	USB volta	ge = 4.9 V
	RFID inv	entory	BLE s	canning		Data outp	ut

### Live Information

Through these two panels it is possible to see the RAIN RFID inventory data and BLE beacons scanning in real time. These interfaces are implemented over web sockets, and you must hit the "Connect" buttons to see the data in real time.

#### Live RAIN - RFID inventory in real-time

Dashboard	rd Network BLE Beacons RAIN RF			Data O	utput	USB Port		System			
	RAIN tags invent	0.07									
eneral	-	•									
Live RAIN Inventory	Iventory is current	dy: running							_		
ve Beacons	Connect Disco	Connect         Disconnect         Websocket Client is currently: Connected         Inventory         Start         Stop         Clear									
	Unique tags Total reads Elapsed time Read rate (rea						ad/s) Peak rate (read/s				
	14		11s 90				91				
		EPC			RSSI	RSSI max	RSSI min	Ant			
	E2801190A50200	6016C32F68		53	-4930	-3880	-5340	1			
	E2801190A50200	E2801190A502006016C32F61 E2801190A502006016C3136F			-4930	-3800	-5780	1			
	E2801190A50200				-5180	-4080	-5880	1	1		
	E2801190A502006016C32F65			7	-6000	-4860	-6060	1			
	E2801190A50200	E2801190A502006016C32F66			-4490	-3660	-6130	1			
	E2801190A50200	6016C32F63		66	-3800	-3660	-4930	1			

#### Live Beacons – BLE beacons scanning in real-time

CONNE	ECTÍX GAT	EWAY EZ	2270   !	51:28	3:50				ic		ti>
Dashboard	Network	k BLE Beacons RAIN RFID Data Output					US	B Port		System	
General Live RAIN Inventory	Live beacon scanning Scanning is currently Connect Disconn	running	lient is currer	itly: Con	nected			Sca	anning S	tart St	top
> Live Beacons	Unique frames	Total rea	Total reads Elapsed time			Read rate (frames/s)			Peak rate (frames/s)		
	8	13		6s			3		:	3	
	MAC	Туре	RSSI	RSSI Max	RSSI Min	Rd	Bat %	Bat mV	Temp °C	Hum %	^
	AC:23:3F:25:2B:	F4 MINEWIN	FO -91	-83	-91	2	24	792	-	-	
	AC:23:3F:A2:15:0	C MINEWIN	FO -67	-67	-68	3	100	3300	-	-	
	AC:23:3F:A2:15:	07 MINEWIN	FO -70	-70	-70	1	100	3300	-	-	
	AC:23:3F:A2:15:	12 MINEWIN	FO -76	-70	-76	2	100	3300	-	-	
	AC:23:3F:A2:15:	12 EDDYSTO	NE84	-84	-86	2	96	3138	23	-	Ī
	8E:CC:8C:08:19:	EB MINEWIN	FO -79	-79	-79	1	100	3300	-	-	Ļ

#### Network Status - network connection status

CONNE	NECTIX GATEWAY EZ270   51:28:50 idention											
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System						
> General	Network Status											
WLAN	w	LAN	IP ad	IP address		way						
IP	Connected to: MSNET CC:2D:E0:3F:21:5A		192.168	.10.100	192.168.10.1							
	Primary DNS		Backu	p DNS	Netmask							
	200.2	04.0.10	200.20	4.0.138	255.255	.255.0						

This section displays a summary about the gateway WLAN configuration and connection status

### BLE Beacons Gateway configuration

Though the following screens is possible to configure the BLE Beacons gateway functionality.

For optimal performance, if you do not plan to use the gateway for beacons scanning, we recommend leaving the option "Enable Bluetooth radio support" disabled.

#### **BLE Beacons Scanning**

CONN	ECTÍX GA		Z270   51:2	2B:50		Help   Logout					
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System					
> Scanning	BLE beacons scar	nning configuratio	n	E	Enable Blueto	oth radio support					
Filtering	Start Stop S	canning is currently:	running								
	On system startup	On system startup: 🔘 Start beacons scanning 🖲 Manual start									
	BLE Frame types & scanning speed										
	Scan speed: F	ast 🗸									
	☐ Generic BLE 🗸 iBeacon 🗸 AltBEacon										
	🗹 Eddystone URL 🗹 Eddystone TLM 🗹 Eddystone UID										
	🗹 Identix Beacon 🛛 Identix Accelerometer 🖓 Identix Temperature & Humidity Sensor										
						Apply					

Attention! BLE beacons scanning is disabled by default since it may impact RFID reading performance under high RFID read rate conditions.

#### **BLE Beacons Filtering**

Through this section, two kinds of filters can be enabled to reduce the volume of captured data.

- RSSI filter use it to filter BLE beacons by signal intensity. This may be useful to capture data for BLE beacons which are within a certain distance range from the gateway
- MAC Address filter use it to filter BLE beacons by MAC address

CONNE	ECT	K GATEV		2270   51:	2B:50		Help   Logout
Dashboard	Net	work BLE	Beacons	RAIN RFID	Data Output	USB Port	System
Scanning Filtering	BLE bea	cons filtering co	nfiguration			_	
> Filtering	Er	nable RSSI filter			RSSI Filter -60		
	Er	nable MAC regex fil	ter				
		supported operators		examples		Add	Delete
	^	start anchor	30:35	contains 30:35			
	\$	end anchor	^AB:CD\$	exactly AB:CD			
	1.1	matches any character	^30:35	start with 30:35			
	[AB]	matches any character in list	CD:EF\$	ends with CD:EF			
	I	logical OR	^.03:05	begins with *03:05			
			^3 ^E	begins with 3 OR E			
							Apply

### RAIN RFID reader configuration

Use this section to configure the RAIN RFID reader operating parameters

#### Inventory

Through the following screen, the following parameters may be configured

- Inventory configuration
  - Defines how inventory will be executed after system startup
- Inventory Duty Cycle
  - Inventory can be configured to run continuously, or a cycled inventory may be defined

Attention! By default, to reduce power consumption, the gateway is configured by default to execute inventory in duty cycle mode. To maximize RFID reading performance, change the Duty Cycle parameter to "Continuous Inventory"

- Data Output
  - $\circ$   $\,$  Allow selection of which information will be captured during RFID inventory  $\,$
- Smart buffering

These settings allow the configuration of the gateway internal buffer which accumulates reads and reports data based on the selected criteria

CONNE	ECTIX GATEWAY mPad+ MX   08:96:34		Help   Logout
Dashboard	Network BLE Beacons RAIN RFID Data Output	USB Port	System
Inventory	Inventory configuration		
Antenna & Power	Start Stop Inventory is currently: running		
Mode & Session	On system startup:      Automatic inventory start      Manual start		
Filtering			
Fransform Data	Duty Cycle		
ED and Duzzer	Continuous     Cycled     Inventory duration (ms) 150	Idle time (ms) 100	
Write Tag	· ·	•	
	Data output		
	🗌 FastId 🛛 RSSI 🗌 Phase 🗌 Channel 🗹 Antenna	🗌 Reader ID	🗌 Timestamp
	JSON syntax Identix 🗸		
	Smart Buffering		
		e departure event w he read zone	hen the tag
	Barcode Reader Emulation mode		
	RFID tag is reported once when it is first seen. No further reports are genera reading zone during the configured time interval.	ated while the tag in	inside the
	O Presence Detection mode		
	Tag is reported only once when it is first seen. Consecutive single reports ar period, while it is still inside the reading zone.	e generated during t	he configured
			Apply

#### Antenna & Power

Use these settings to enable/disable antennas and configure transmit power on each antenna port.

CONNECTIX GATEWAY mPad+ MX   08:96:34 identix									
Dashboard	N	etwork	BLE	Beacons	RAIN RFID		Data Output	USB Port	System
Inventory Antenna & Power	Anten	na and pov	ver settii	ngs					
Mode & Session	Port	Enable	Ant	tenna TX Po	ower cdBm			Status	
						-			WD (4 00)
Filtering	1	$\sim$	1100	•			Connected: Ok -	Good matching (VS	WR (1.33)
Filtering Transform Data			1100	•		-	Connected: Ok -	Good matching (VS	Apply
Transform			1100	•		•	Connected: Ok -	Good matching (VS	

#### Reader Mode & Session

Use this section configure the RAIN RFID "search mode", "session" and "RF profile".

CONNECTIX GATEWAY mPad+ MX   08:96:34 identix								
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	ι	JSB Por	t	System
Inventory	RFID mode and s	sessions						
Antenna & Power	Search Mod	e Session	RF	Profie		Po	opulatio	on Estimate
> Mode & Session	Dual Target	✓ 0 ✓	Auto Dense Reader M	1ode	$\sim$	4		
Filtering								Apply
Transform Data								
LED and buzzer								
Write Tag								

#### Search Mode

Dual target reads 'A' tags one at a time and moves them into the 'B' state. Reads 'B' tags one at a time and moves them into the 'A' state.

Single Target reads 'A' tags one at a time and moves them into the 'B' state. Those tags will remain in the 'B' state depending on the persistence of the session used, before reverting to the 'A' state. Single Target B>A is the same operation but with inverted flag states.

TagFocus (also described as Single Target with Suppression): this search mode is the same as Single Target, except provides the advantage of Sessions 2 and 3, in that the tag will remain quiet while in the read field once inventoried.

#### Session

When the reader inventories a tag, the session flag state is changed from 'A' to 'B' - how long the tag stays in the 'B' state before reverting to the 'A' state is called "persistence". It is important to realize that exact persistence times (denoted by their session flags as S0, S1, S2, and S3) cannot be set by the user; they can only be approximated according to the Search Mode and Session.

#### Filtering

RAIN RFID tags can be filtered at the gateway using three different criteria

- RSSI filter to filter tags by backscattered signal intensity
- EPC filter you may use regular expressions that are applied for filtering EPC data
- GEN2 filter this is a low-level filter that operates at the GEN2 protocol level

CONNECTIX GATEWAY mPad+ MX   08:96:34 identix								
Dashboard	Network	BLE Beacons	RAIN RFID		Data Output US	3 Port	System	
Inventory Antenna & Power	RFID tags filtering	-		Er	nable EPC filter (REGEX sy	ntax)		
Mode &	threshold:				supported operators		examples	
Session	Memory Bank			^	start anchor	3035	contains 3035	
> Filtering	MEM_BANK_EPC		$\sim$	\$	end anchor	^ABCD\$	exactly ABCD	
Transform	Target TARGET_SL_FLA	c	~		matches any character	^3035	start with 3035	
Data	Action	6	× 1	[AB]	matches any character in lis	CDEF\$	ends with CDEF	
LED and	ACTION_NSLINV	S_NOTHING	$\sim$	Ι	logical OR	^.035	begins with *035	
buzzer	HEX mask		0			^3 ^E	begins with 3 OR E	
Write Tag							Add Delete	
							Apply	

#### Data Transformation

This section allows the following operations to be executed after the RAIN RFID EPC data is captured

- Decode GS1 tag EPC memory data this option enables the automatic decoding of Tag EPC binary data into standard human readable barcode formatting as defined by the GS1 EPC Tag Data Standard. The following formats are automatically decoded when this setting is enabled:
  - Serialized Global Trade Item Number (SGTIN-96, SGTIN-198)

- Serial Shipping Container Code (SSCC-96)
- Global Location Number (GLN-96, GLN-195)
- o Global Returnable Asset Identifier (GRAI-96, GRAI-170)
- Global Individual Asset Identifier (GIAI-96, GIAI-202)
- Global Service Relation Number (GSRN96, GSRNP-96)
- Global Document Type Identifier (GDTI-96, GDTI-113, GDTI-174)
- Component / Part Identifier (CPI-96, CPI-VAR)
- Serialized Global Coupon Number (SGCN-96)
- o General Identifier (GID-96)
- US Department of Defense Identifier (US-DOD-96)
- EPC Truncate allows ECP data to be truncated from a given position
- EPC Additional Info allows EPC data to be appended / prepended by given strings

CONNECTIX GATEWAY mPad + MX   08:96:34 identix								
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System		
Inventory Antenna & Power Mode & Session Filtering > Transform Data LED and buzzer Write Tag	formatting as def Enable	PC memory data es the automatic derined by the GS1 EPC • Serialized C • Global Loca • Global Actu • Global Peru • Global Doca • Component • Serialized C • General Idd	C Tag Data Standard. Slobal Trade Item Nu bing Container Code tion Number (GLN-90 rnable Asset Identifie ridual Asset Identifie rice Relation Number	5, GLN-195) er (GRAI-96, GRAI-17 (GIAI-96, GIAI-202) (GSRN96, GSRNP-96 · (GDTI-96, GDTI-113 I-96, CPI-VAR) er (SGCN-96)	s will be decoded: TIN-198) 70) )	barcode		
	EPC Truncate							
	Enable       Start     Lenght       0     ↓       16     ↓							
	EPC Additional Int	fo						
	Data Prefix			Data Suffix				
						Apply		

#### LED and Buzzer

Use this option to configure the LED and buzzer behavior during inventory

CONNECTIX GATEWAY mPad + MX   08:96:34 identix							
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System	
Inventory	LED and Buzzer						
Antenna & Power	🗹 Enable LED b	Network     BLE Beacons     RAIN RFID     Data Output     USB Port     System					
Mode & Session						Apply	
Filtering							
Transform Data							
> LED and buzzer							

### RAIN RFID Write Tag

Write Tag

#### Allows writing of RFID tag EPC data

CONNE	CTIX GA	TEWAY III	Pad+ MX	08:96:34		Help   Logout
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System
Inventory Antenna & Power	Write TAG Tag writing will s	top running inver	ntory. Make sure to	) restart inventory	after writing tag	if necessary
Mode & Session Filtering	New EPC:				0	÷ bits
Transform Data	Quantity of tags to	be encoded with au	tomatic increment on	the EPC value:	1	÷
LED and buzzer						
> Write Tag						With SPC
						Write EPC

### Data Output configuration

This section allows you to define how the collected data is made available for applications and services. JSON-formatted data is sent to different channels, including MQTT brokers, HTTP servers and cloud services.

#### Data Output

CONNE	ECTÍX GATEWAY	EZ270   51:2B:50		identix
Dashboard	Network BLE Beaco	ns RAIN RFID Data Ou	tput USB Port	System
> General	Configured data outputs			
MQTT	Service	Port   URL	Enabled	Connected
Socket	Internal socket server	14150	yes	•
Web Post	MQTT broker	1883   ittsh.synergy.com.br	no	
	Internal websocket server	8080	yes	
	HTTP(s) post	https://ittsh.synergy.com.br/api/inve	ntories no	
	Heartbeat			
	Period (s) 5			
	Enable on MQTT	Enable on socket 🛛 Enable o	n HTTP post	
				Apply

#### MQTT

Use this section to configure output via MQTT(s)

CONNE	CONNECTIX GATEWAY EZ270   51:2B:50 identix								
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System			
General > MQTT Socket Web Post	MQTT broker settin Enable SSL/TLS MQTT broker serve Service port: Client ID: Username: Password: RAIN RFID inventor BLE Beacons topic: Heartbeat's topic: Info's topic: Command's topic:	Generic ittsh.synergy.o 188: SMCrR:Minipa SMCrR:Minipa Try SMCrR/Minipa	d4 d4 d4/inventory d4/ble d4/heartbeat d4/info			Enable			

#### Sockets

Use this section to enable a local socket server

CONNECTIX GATEWAY EZ270   51:2B:50 ident						
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System
General MQTT > Socket Web Post	Socket server set	-	<b>+</b>			Apply

#### HTTP POST

Use this section to configure output via HTTP(s)

CONNECTIX GATEWAY mPad+MX   08:96:34 id							
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System	
General MQTT Socket > Web Post	Web post settings Server Adress: Username: Password: Timeout (ms):		.synergy.com.br/api, bad4	'inventories		Apply	

#### **USB** Port

#### USB Port configuration

This section allows you the configure how the USB port will behave. By default, the gateway is configured in USB Mirror mode, which essentially mirrors data set over the network interfaces in JSA format.

Attention! Normally, USB does not require any special driver to function properly. If you face communication issues or the USB port is not recognized in Windows OSs, you may need an updated driver that can be downloaded from the Identix support website: https://idntx.zendesk.com/

*If the USB interface does not work properly, the following article may apply:* 

<u>https://idntx.zendesk.com/hc/en-us/articles/4402568912787-Virtual-COM-port-</u> <u>USB-drivers-to-be-used-when-Windows-installed-drivers-do-not-work-correctly</u>

CONNECTIX GATEWAY mPad+ MX   08:96:34								
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System		
> General	USB port							
Data Formating	RAIN RFID radio behavior:	can also communica	ate via USB port. Ple	ase select the desire	d option to define the	e desired		
	Mirror (default mode) mode - an USB virtual COM port is created. Configurations and commands are done via Web interface. Output data (JSON) can be simultaneously sent to network destinations and the virtual COM port							
O HID (keyboard wedge) mode - an USB virtual keyboard is created. Configurations and commands are done via Web interface. Output data can be simultaneously sent to network destinations and the USB keyboard								
			l port is created. Cor s sent exclusively to		mands are done via t	a simple ASCII		
			al COM port is creat . Output data is sent		nd stop commands a rtual COM port	ire done via a		
	<ul> <li>Transparent mode - an USB virtual COM port is created. Configurations and commands are done via IRI protocol. Output data is sent exclusively to the virtual COM port</li> </ul>							
	O USB port disabled							

#### Mirror Mode (default)

In this scenario, a USB virtual COM port is created. Device configuration and inventory commands are done only via Web interface or REST API. Output data formatting can be configured via the "USB Port / Data Formatting" menu. Output data can be simultaneously sent to network destinations (JSON) and the virtual COM port.

#### HID (keyboard wedge) mode

In this case, a virtual USB keyboard is created. Device configuration and inventory commands are done only via Web interface or REST API. Keyboard emulation data formatting can be configured via the "USB Port / Data Formatting" menu. Output data can be simultaneously sent to network destinations (JSON) and the virtual keyboard. For barcode similar operation it is recommended to check and adjust settings on the following menus: "RAIN RFID / Mode Session", "RAIN RFID / Transform Data" and "Rain RFID / Inventory (Smart Buffering)".

#### RAW mode

In this scenario, a USB virtual COM port is created. A limited set of device configuration and inventory commands are executed through the virtual COM port sing a simple 02-way protocol. Output data formatting can be configured via the "USB Port / Data Formatting" menu. Output data can be simultaneously sent to network destinations (JSON) and the virtual COM port.

#### RAW legacy mode

This mode is like the "RAW mode" operation but uses the RAW mode protocol implemented in the legacy devices only with USB ports. This mode of operation is provided only for backward compatibility and is not recommended for use in new developments.

#### Transparent mode

In this mode, a virtual COM port is created, but the RFID radio is exclusively controlled via the USB port using the Impinj IRI protocol. Configuration of RFID parameters is disabled on the web interface and RFID data output is limited to the USB port. Since the IRI protocol is now obsolete, this mode of operation is provided only for backward compatibility and is not recommended for use in new developments.

#### USB port disabled

In this case, the USB port is completely disabled and used only for DC power supply. All system operation is via Wi-Fi network interface.

#### USB Port Data Formatting

Through this screen it is possible to define the data formatting for the data output via USB (except for Transparent mode of operation)

Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System		
Dashboard	Network	DLE Deacons	KAIN KFID	Data Output	USB Port	System		
General	Data formatting f	for use in HID and	RAW Legacy USB I	nodes				
> Data Formating	Characters sequence to be sent before RFID tags Trailing characters sequence: \r\n							
	Data fields separator characters: ;							
	Select the desire	d fields:	IE 🗸	3) NONE	V 4) NONE	~		
	5) NONE	✓ 6) NOP	VE V	7) NONE	V 8) NONE	$\checkmark$		
	ATTENTION! The chosen fields will be reported only if they are enable at the <u>"Rain RFID/Inventory/Data Output"</u> and <u>"Rain RFID/ Data Transformation/Decode GS1 tag EPC memory data</u> " menu options.							
						Apply		

Attention! It is important to have enabled the appropriate RFID data (except for EPC) to be collected so they can be available for sending over the USB port. For instance, if you want "EPC" and "FastId (TID)" to be present on the output data, then "FastId" must be enable on BOTH screens: as a configured field in the "USB Port / Data Formatting" screen and in the "Rain RFID/Inventory/Data Output" screen.

Data output						
✓ FastId	🗹 RSSI	Phase	Channel	🗹 Antenna	🗌 Reader ID	Timestamp
Select the desir	red fields:					
1) EPC	~	) TID (FastID)		NONE	✓ 4) NO	NE Y
5) NONE	~	6) NONE	✔ 7)	NONE	✓ 8) NO	NE 🗸

### System Information and Management

#### System Info

This section provides useful system information including the Firmware Version installed on the gateway.

ECTÍX GA	identi					
Network BLE Beacons		RAIN RFID Data Output		USB Port	System	
System information						
Gateway model EZ270		Hardware version 4.1		Serial number 17944848444240		
						WLAN MAC address
10:52:1C:51:2B:50		4.0.10		120		
RFID SIP firmware version		RFID SIP model		RAIN RFID operating region		
1.08.00.240		RS1000		USA - FCC Part 15.247 (902-92 Mhz)		
	Network System informat Gatew E WLAN M 10:52:1 RFID SIP fir	Network     BLE Beacons       System information       Gateway model       EZ270       WLAN MAC address       10:52:1C:51:2B:50       RFID SIP firmware version	Network     BLE Beacons     RAIN RFID       System information     Gateway model     Hardwar       Gateway model     Hardwar       EZ270     4       WLAN MAC address     System firm       10:52:1C:51:2B:50     4.0       RFID SIP firmware version     RFID SI	System information       Hardware version         Gateway model       Hardware version         EZ270       4.1         WLAN MAC address       System firmware version         10:52:1C:51:2B:50       4.0.10         RFID SIP firmware version       RFID SIP model	Network         BLE Beacons         RAIN RFID         Data Output         USB Port           System information         Gateway model         Hardware version         Serial no           Gateway model         Hardware version         Serial no           EZ270         4.1         17944848           WLAN MAC address         System firmware version         RFID SIP ser           10:52:1C:51:2B:50         4.0.10         120           RFID SIP firmware version         RFID SIP model         RAIN RFID ope           1 08:00:240         PS1000         USA - FCC Part 1	

#### System Admin

The following operations can be performed though this section:

- Device firmware updated
- Modify administration password
- Disable the device configuration Access Point. When this option is checked, the internal management hotspot automatically shuts down after the device is powered up
- Export and import the device configuration
- Reset the device to factory defaults

Operating Region     Updates:     Image: Constraint of the selected of the	CONNE	ECTÍX GA	identix				
> Admin       URL for firmware updates:       https://update.synergy.com.br/minipadBin.bin       Update         Operating Region       Update from binary file:       Browse No file selected.       Progress: 0%       Update         Date and Time       Import config data:       Browse No file selected.       Progress: 0%       Import         Ping       Davice Alias:       mPade MX       Administrator       Show	Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System
Export config data Factory reset Restart App	> Admin Operating Region Date and Time	URL for firmware updates: Update from bina file: Import config dat Device Alias:	https://upo ary Browse ta: Browse mPad+ MX	No file selected.	inistrator word:	Progress: 0%	

#### System – RAIN RFID Operating Region

Configure here the region where the gateway is installed.

CONN	ECTIX GA	TEWAY E	Z270   51:2	2B:50		identix
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System
Info Admin > Operating Region Date and Time	RAIN RFID operat		<b>uration</b> t 15.247 (902-928 Ml	hz)		Apply
Ping						

#### System Date Time

Configure here the date and time information

CONN	ECTÍX GA	Help   Logour				
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System
Info	System Date and	l Time				
Admin Operating Region > Date and Time	Enable NTP servers NTP servers pool.ntp.org,ntp-d.nist.gov,time.nist.gov			☐ Auto adjust internal clock during daylight savir └time Timezone (GMT-03:00) Brasilia		
Ping	Date 26 / 04 / 2021		8	Time 20 : 27 : 19		0
						Apply

#### System Ping

Through this screen it is possible to ping a given host directly from the gateway

CONN	ECTIX GA	identix				
Dashboard	Network	BLE Beacons	RAIN RFID	Data Output	USB Port	System
Info Admin Operating Region Date and Time > Ping	Network troubles					
						Clear Apply
						Сісаг Арріу

### Help

This screen forwards you the Identix support website which contains most updated information.

### Contact information

Helpdesk: <u>https://idntx.zendesk.com/hc/en-us</u> support@idntx.com