

EVlink

OCPP guide

DOCAXXX-XX



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All relevant state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When equipment is used for applications with technical safety requirements, follow the relevant instructions.

Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operation.

Failure to follow this instruction can result in injury or equipment damage.

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1 ABOUT THIS MANUAL



1.1 Aim of this document

The purpose of this document is to guide you with the OCPP compatibility and configuration of our products:

- an EVlink Parking EVF1, EVW1, EVF2 or EVW2 charging station;
- an EVlink City EVC charging station;
- an EVlink Smart Wallbox EVB charging station.

This document is intended for:

- Supervision operators.

1.2 History

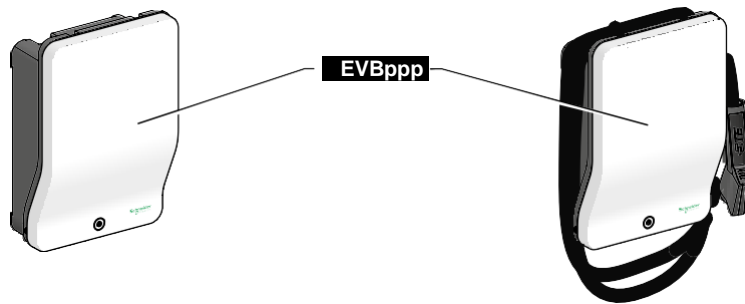
Version	Comment	Autor	Date
1.0	Creation	Gaël Crampe	13/12/2018
1.1	Add CONFIGURATION OF THE CHARGING STATION chapter	Gaël Crampe	15/11/2019
1.2	Modification of the chapter communication configuration	Gaël Crampe	26/11/2019

1.3 Related document(s)

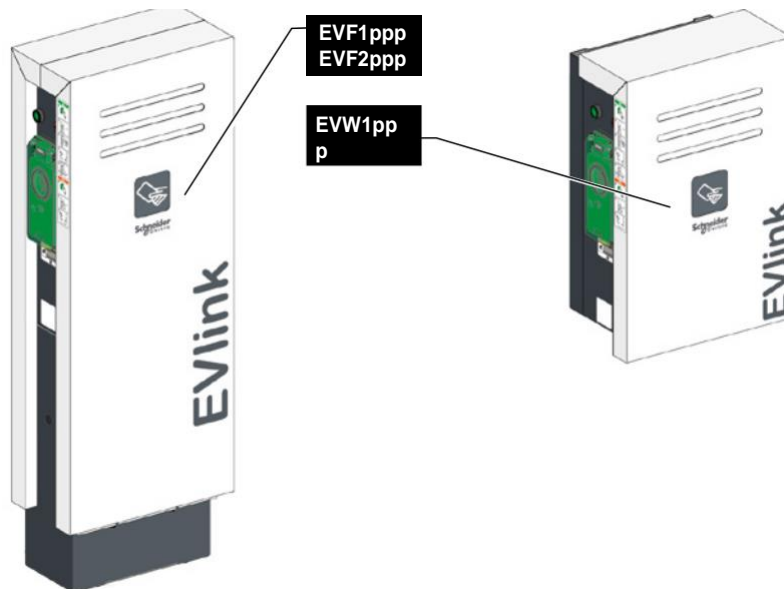
Version	Document title	Autor	Date	Link
1.6	Open Charge Point Protocol 1.6	Open Charge Alliance	10/8/2015	https://www.openchargealliance.org/
	DOCA0060	EVlink		https://www.se.com/ww/en/download/document/DOCA0060EN-06/

2 PRODUCT FAMILY

2.1 EVlink Smart Wallbox



2.2 EVlink Parking



2.3 EVlink City



3 MESSAGE

3.1 Messages supported by EVlink charging stations

Note: WSS and HTTPS is supported.

STANDARD		STATUS
Protocol	1.5 SOAP	Supported
	1.5 JSON	Supported
	1.6 SOAP	Not supported
	1.6 JSON	Supported
	2.0 JSON	Not supported

Type	Message	Way	RELEASE SOFT				Comment
			R4 2.7.4.18	R5 v3.1.1-33	R6 v3.2.0-12	R7 v3.3.0.7	
General	BootNotification	UP	X	X	X	X	
	StatusNotification	UP	X	X	X	X	
	Heartbeat	UP	X	X	X	X	
Charging	Authorize	UP	X	X	X	X	
	StartTransaction	UP	X	X	X	X	
	MeterValues	UP	X	X	X	X	
	StopTransaction	UP	X	X	X	X	
Remote Charging	RemoteStartTransaction	DOWN	X	X	X	X	
	RemoteStopTransaction	DOWN	X	X	X	X	
Reservation	ReserveNow	DOWN	X	X	X	X	
	CancelReservation	DOWN	X	X	X	X	
Configuration	ChangeConfiguration	DOWN	X	X	X	X	
	GetConfiguration	DOWN	X	X	X	X	
	UpdateFirmware	DOWN	X	X	X	X	
Firmware	FirmwareStatusNotification	UP	X	X	X	X	
	GetDiagnostics	DOWN	X	X	X	X	
	DiagnosticsStatusNotification	UP	X	X	X	X	
Maintenance	ChangeAvailability	DOWN	X	X	X	X	
	ClearCache	DOWN	X	X	X	X	
	Reset	DOWN	X	X	X	X	
	UnlockConnector	DOWN	X	X	X	X	
Local list	SendLocalList	DOWN					Not supported
	GetLocalListVersion	DOWN					Not supported
Smart charging	SetChargingProfile (OCPP 1.6)	DOWN			X	X	
	GetCompositeSchedule (OCPP 1.6)	DOWN			X	X	
	ClearChargingProfile (OCPP 1.6)	DOWN			X	X	
Other	DataTransfer	UP/DOWN			X	X	Specific EV detection (Only on CITY product)
	TriggerMessage (OCPP 1.6)	DOWN			X	X	StatusNotification, HeartBeat, MeterValues(only during a load)

UP	Operations Initiated by Charge Point
DOWN	Operations Initiated by Central System

4 SMART CHARGING

4.1 Condition of use of the smart charging

RESTRICTIONS		
Configuration	OCPP 1.6 with Websockets	(OCPP1.6S not supported)
	Limits in amperes (no W)	
Message	SetChargingProfile	Supported with restrictions (see table below)
	ClearChargingProfile	Supported
	GetCompositeSchedule	Supported with restrictions (connectorId > 0)
	RemoteStartTransaction+chargingProfile(Charging Profile,ChargingSchedule, ChargingSchedulePeriod)	Supported with restrictions (see table below)

SETCARGINGPROFILE			
Theme	Parameters	Comment	Status
ChargingProfile	chargingProfileId		OK
	transactionId		OK
	stackLevel		OK
	chargingProfilePurpose	(TxDefaultProfile / TxProfile / ChargePointMaxProfile)	OK
	chargingProfileKind		OK
	recurrencyKind		OK
	validFrom/validTo		OK
ChargingSchedule	duration		OK
	startSchedule		OK
	chargingRateUnit	Only A (W not supported)	OK
	chargingSchedulePeriod		OK
	minChargingRate	Not supported	NOK
ChargingSchedulePeriod	startPeriod		OK
	limit		OK
	numberPhases	Not supported	NOK

COMMENT
Note about "Not supported": depending on our final implementation, messages containing these values may be rejected.

5 CONNECTION TO THE WEBSERVER

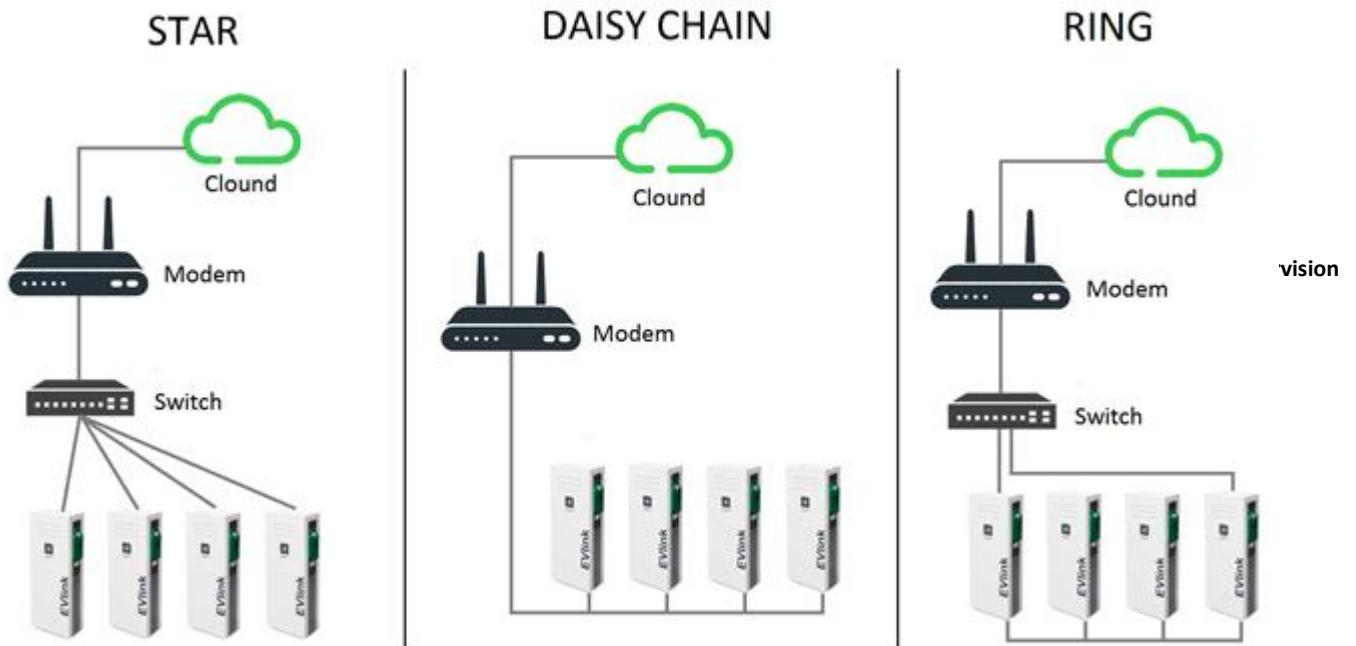
5.1 Architecture design

Connectivity to the supervision can be done directly through LAN network – in that case ensure ports opening to authorize upstream and downstream communication.

In most cases, we recommend using a 3G/4G modem with port forwarding and DHCP capabilities.

Connection between the modem and the charging station is done through Ethernet wiring.

Several architectures are possible to connect several charging stations to the modem.



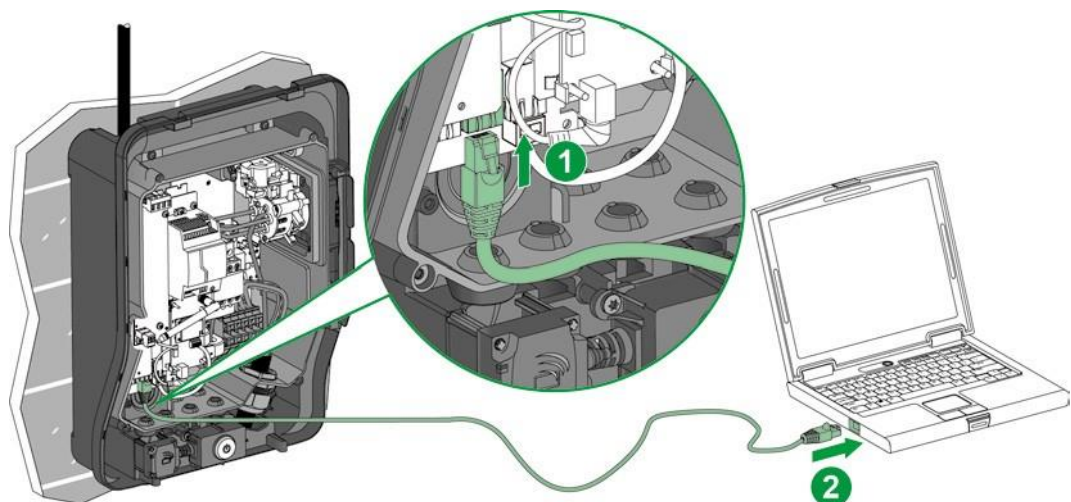
Secure but expensive (cable length) switch

Less secure but less expensive

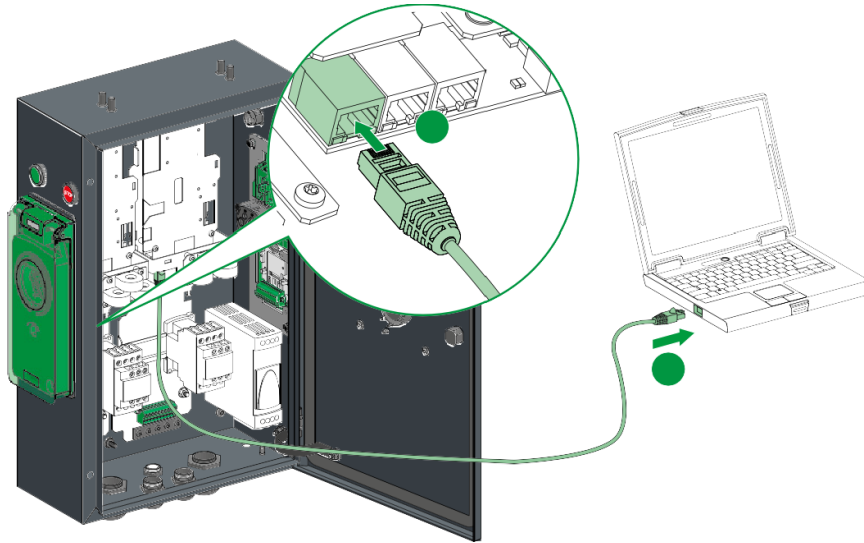
Requires a specific

5.2 Connection to the charging station

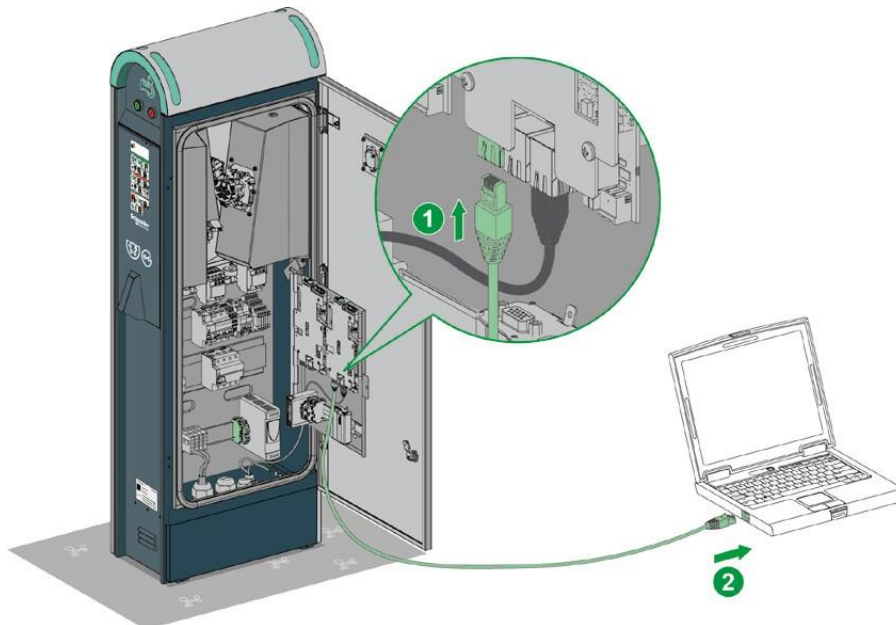
5.2.1 EVlink Smart Wallbox



5.2.2 EVlink Parking



5.2.3 EVlink City



5.3 IP Address (Public – Private)

A private IP address is an IP address that's reserved for internal use behind a router or other Network Address Translation (NAT) device, apart from the public. Private IP addresses are in contrast to public IP addresses, which are public and cannot be used within a home or business network.

The Internet Assigned Numbers Authority (IANA) reserves the following IP address blocks:

Class	Private IP
A (0.0.0.0 - 126.255.255.255)	10.0.0.0 – 10.255.255.255
B (128.0.0.0 - 191.255.255.255)	172.16.0.0 – 172.31.255.255
C (192.0.0.0 - 223.255.255.255)	192.168.0.0 – 192.168.255.255

5.4 Computer configuration

Step	Action
1	Check that your PC is connected by Ethernet cable to the charging station and that the latter is powered up.
2	Open the network properties menu on your PC.
3	Click "Connect to local network".
4	Click "Properties".
5	Open the properties of the Internet version 4 protocol (TCP/IP v4).
6	<p>Case 1 Network without DHCP: Set the static IP address properties as follows (note the settings before modifying so as to be able to return afterwards to the initial configuration):</p> <ul style="list-style-type: none"> ▪ IP address: 192.168.0.x (where x is a number between 241 and 249) ▪ Subnet mask: 255.255.255.0 ▪ No default gateway ▪ No DNS server ▪ No proxy <p>Case 2 Network with DHCP: Select "Obtain an IP Address Automatically" the DHCP server will assign IP address automatically to your computer</p>

5.5 Commissioning of the webserver

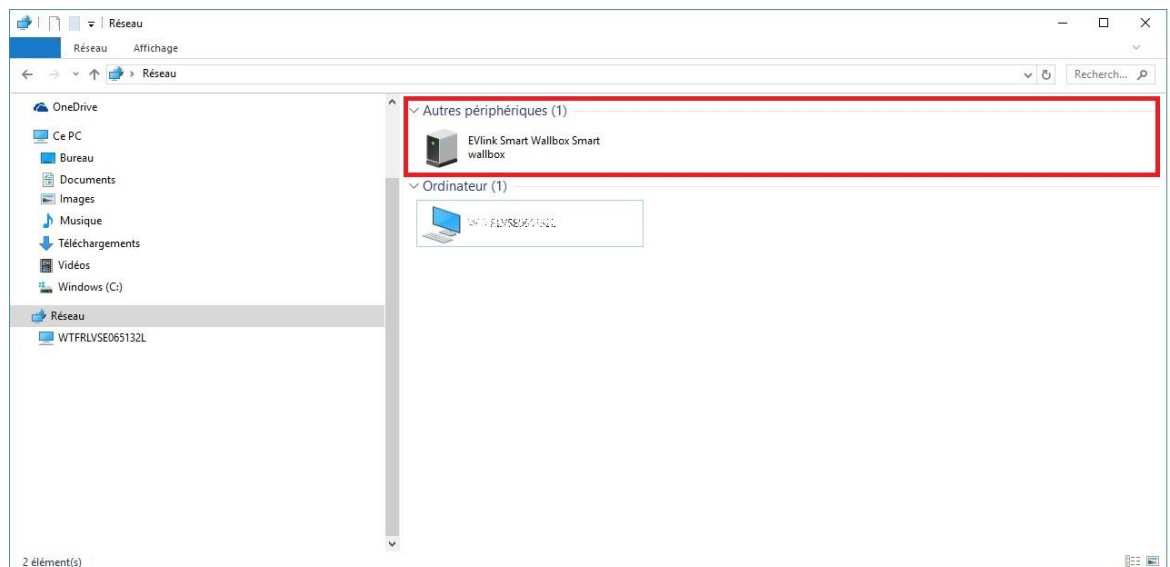
Case 1 - Network without DHCP:

Open your Internet browser and enter `http://192.168.0.102` in the URL address bar.
If the IP of the charging station has changed meanwhile, configure your network settings accordingly
and enter the new address in your browser.

Case 2 - Network with DHCP:

- 1/ Press "Windows key + E"
- 2/ Select Network and refresh

The charging station will appear and double click on it to open the webserver



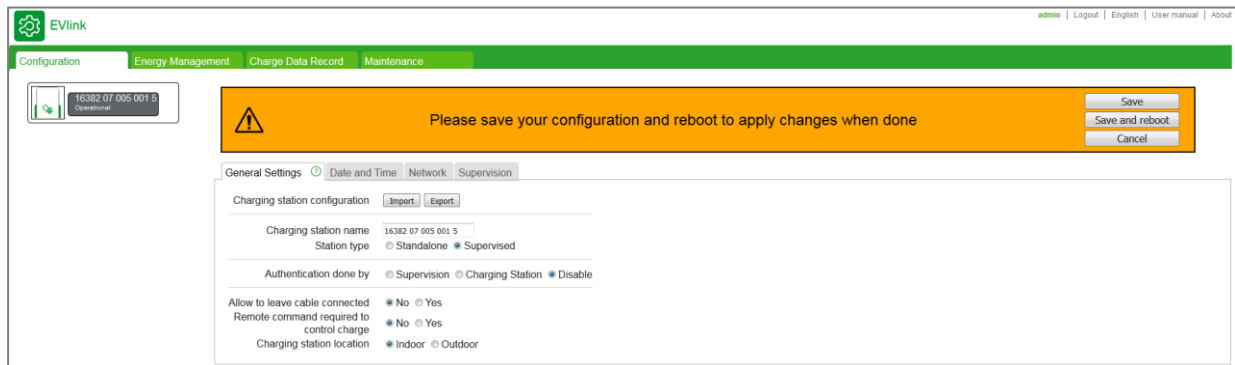
Select the language and enter your credentials, by default the login details are:

- User: admin
- Password: ADMIN

Note: For security reasons, the password must be change during the first connection

5.5.1 Activation of Supervision mode

To initiate the supervision mode, go to **General Settings** tab, switch the parameter Station Type on **Supervised**, then save and reboot.



5.5.2 Identification of OCPP protocol

The supervision provides the following information:

- Supervision URL (Address used to connect the charging station to supervision)
- Charging station ID (Identity of the charging station used by the supervision)

Note: To identify which OCPP protocol (SOAP or JSON Websocket) you are using, you must check

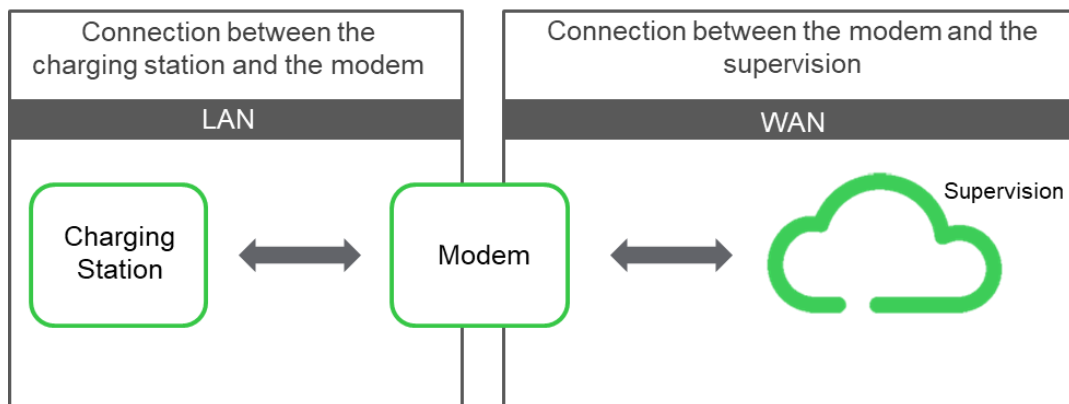
the first letters of the URL.

http://www.mysupervision.com/ocpp ➡ http=SOAP

ws://www.mysupervision.com/ocpp ➡ ws=JSON

6 COMMUNICATION CONFIGURATION

6.1 Network environment



6.2 Step 1: Connection between the modem and the WAN

6.2.1 Modem configuration

Multitech EVP2MM, default IP: 192.168.0.254

Document → QGH5298301-00

(<https://www.se.com/ww/en/download/document/QGH5298301-00/>)

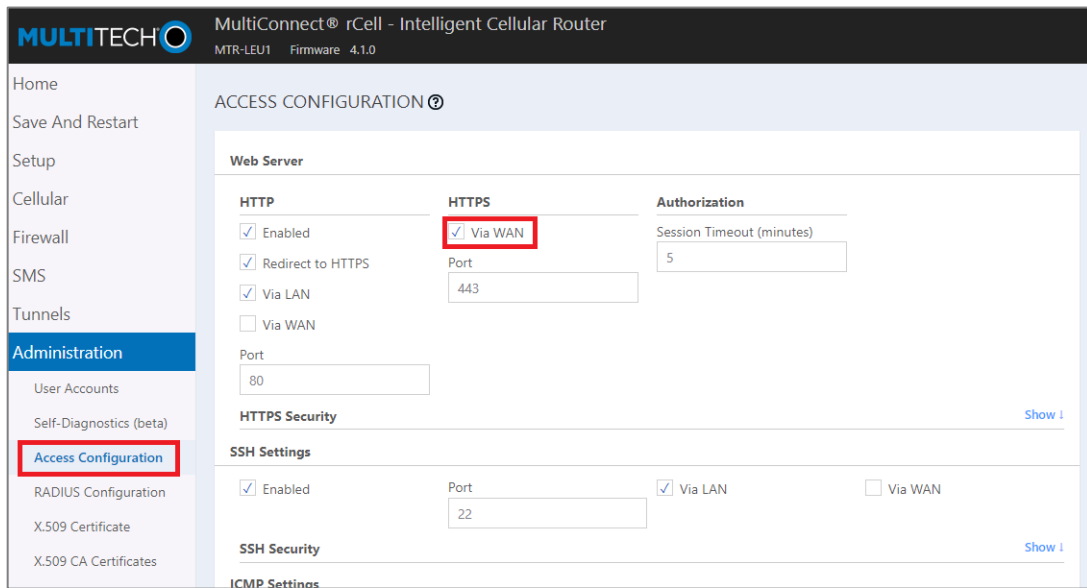
6.2.1.1 Sim card configuration

1. Please follow the instruction of the chapter 5
2. When the configuration is done, after the reboot, please check the state and the IPV4 Address of the Cellular and the IP Address of the modem (see picture below)

The screenshot shows the web interface of a Multitech MultiConnect rCell router. The page title is 'MultiConnect® rCell - Intelligent Cellular Router' with model 'MTR-LEU1' and firmware '4.1.0'. The left sidebar contains navigation options: Home, Save And Restart, Setup, Cellular, Firewall, SMS, Tunnels, Administration, Status & Logs, Commands, and Help. The main content area is titled 'DEVICE INFORMATION' and is divided into three sections: Router, LAN, and Cellular. The Router section lists: Model Number (MTR-LEU1), Serial Number (19691907), IMEI (359852054384319), Firmware (4.1.0), Current Time (09/01/2019 08:56:21), Up Time (5:17:06), and WAN Transport (Cellular). The LAN section lists: MAC Address (00:08:00:8C:23:78), IP Address (192.168.0.254), Netmask (255.255.255.0), Gateway (-), DNS (10.4.0.240, 10.4.0.230), DHCP State (Enabled), and Lease Range (192.168.0.100 - 192.168.0.110). The Cellular section lists: State (PPP Link is up), Mode (PPP), Signal (indicated by a green bar chart), Connected (5:15:29), IPv4 Address (10.94.197.21), Roaming (Yes), Phone Number (+4549461317), and Tower (0118700). Red boxes highlight the IP Address in the LAN section and the State and IPv4 Address in the Cellular section. The bottom of the page indicates 'Last updated: 15:11:06'.

6.2.1.2 Access configuration

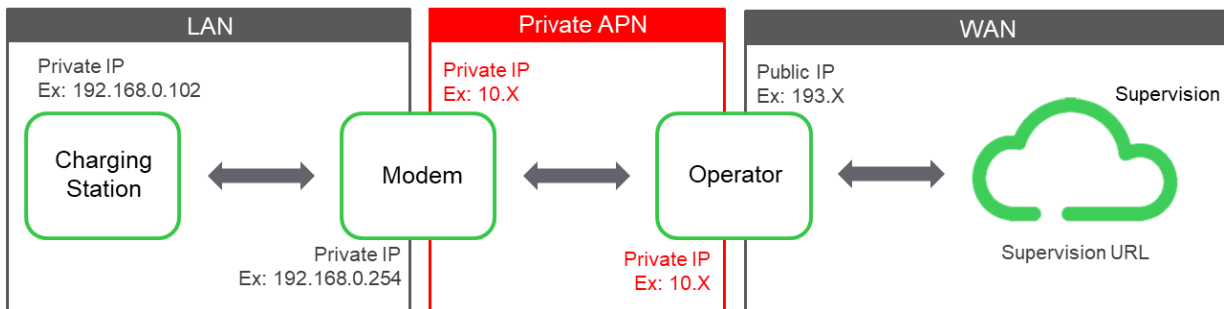
In the "Access configuration tab" please check the option "Via WAN" (see picture below) to allow all connection from the WAN.



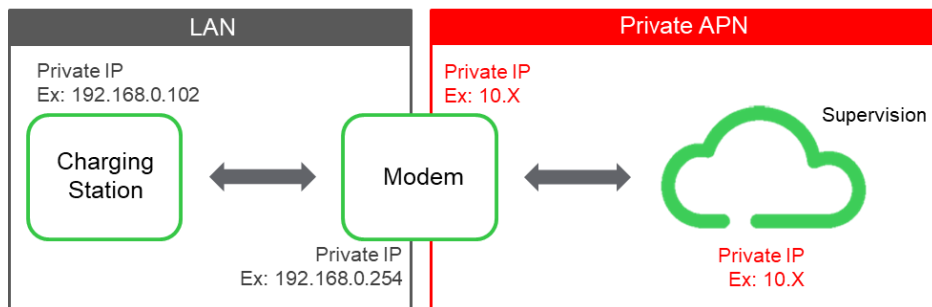
6.2.2 How to check the connection

Type of sim card:

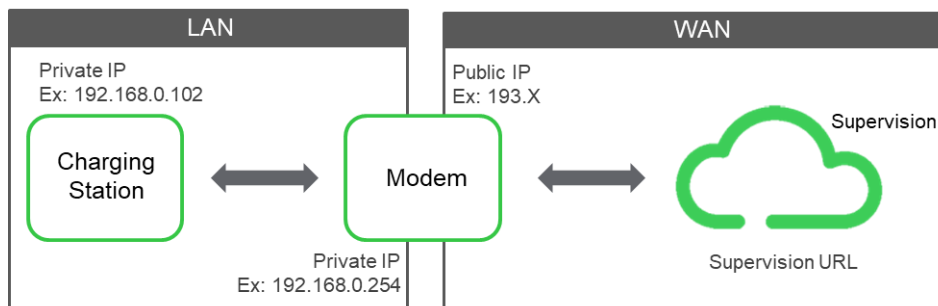
1. Sim card with an access to the web through a private APN



2. Sim card with a private APN but **NO** access to the web

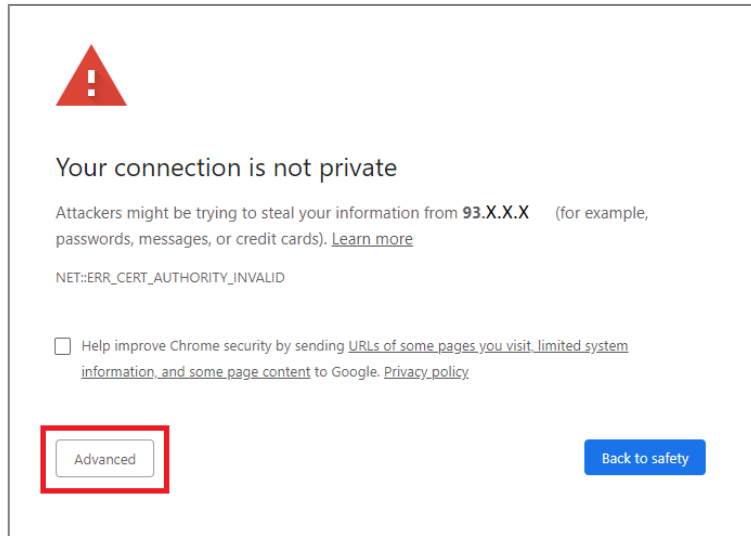


3. Sim card without a private APN but an access to the web

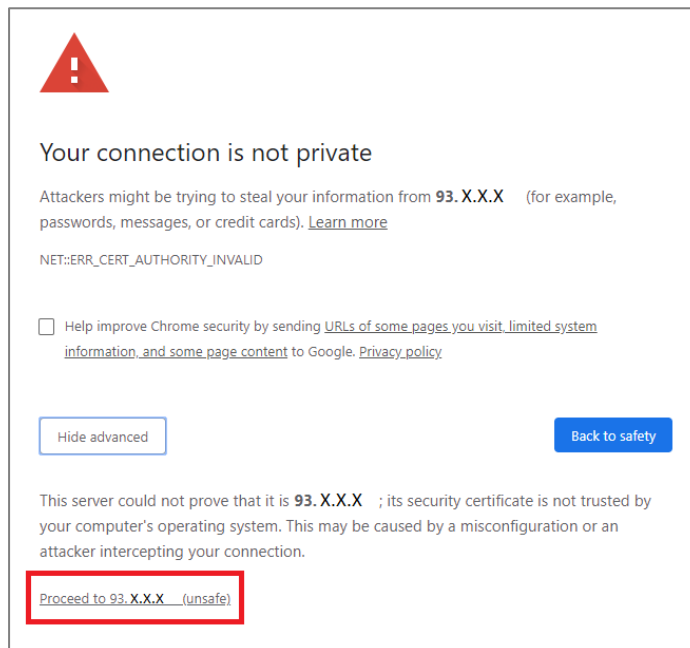


The verification can be done through the web browser (**Google Chrome**) of your smartphone or your laptop **but only on the Sim card type 1&3.**

1. Please check the type of sim card before the test.
2. On the web browser toolbar please insert:
https://PUBLIC-IP-FROM-THE-SIMCARD
3. Click on Advanced button (picture below)



4. Click on the link "Proceed to ..." (see picture below)



when the login page appears (see picture below), it means the connection is well set and the sim card work.



6.3 Step 2: Connection between the charging station and the modem

6.3.1 Configuration of the authentication

6.3.1.1 Settings

- charging station, Default IP: 192.168.0.102
- Release soft R7 (3300-XX)

6.3.1.2 Configuration Tab

1. Station type: Select Supervised
2. Authentication done by: select Supervision
3. Authentication Strategy when communication lost: select Reject all badges (Example)
4. Follow the instruction

EVlink Configuration

Smartwallbox 1 Operational

General Settings | Date and Time | Network | Wi-Fi | Supervision

Charging station configuration Import Export

Charging station name Smartwallbox 1

Station type Standalone Supervised

Authentication done by Supervision Charging Station Disable

Authentication strategy when communication lost Reject all badges Allow all badges

Authentication timeout 10 sec

Front panel push button activated No Yes

Key Lock No

Charging station location Indoor Outdoor

6.3.2 Configuration of the default gateway

6.3.2.1 Network tab settings

Default gateway: insert the IP of your modem and follow the instruction (see picture below).

EVlink Configuration

Smartwallbox 1 Operational

General Settings | Date and Time | Network | Wi-Fi | Supervision

WARNING : Before making any change in this sub-tab, it is strongly recommended that you carefully read the IP address management paragraph in the user manual.

Automatically obtain IP address on off

Charging station				
MAC Address	00:80:F4:42:53:98			
IP Address	192	168	0	102
Sub Network Mask	255	255	255	0
Default Gateway	192	168	0	254
Preferred DNS System	8	8	8	8
Other DNS system	0	0	0	0

+ Advanced settings

6.3.2.2 How check the connection between the modem and the charging station

Maintenance tab, please check if the Modem communication event is ok (see picture below). If it not the case checks the address IP of your device.

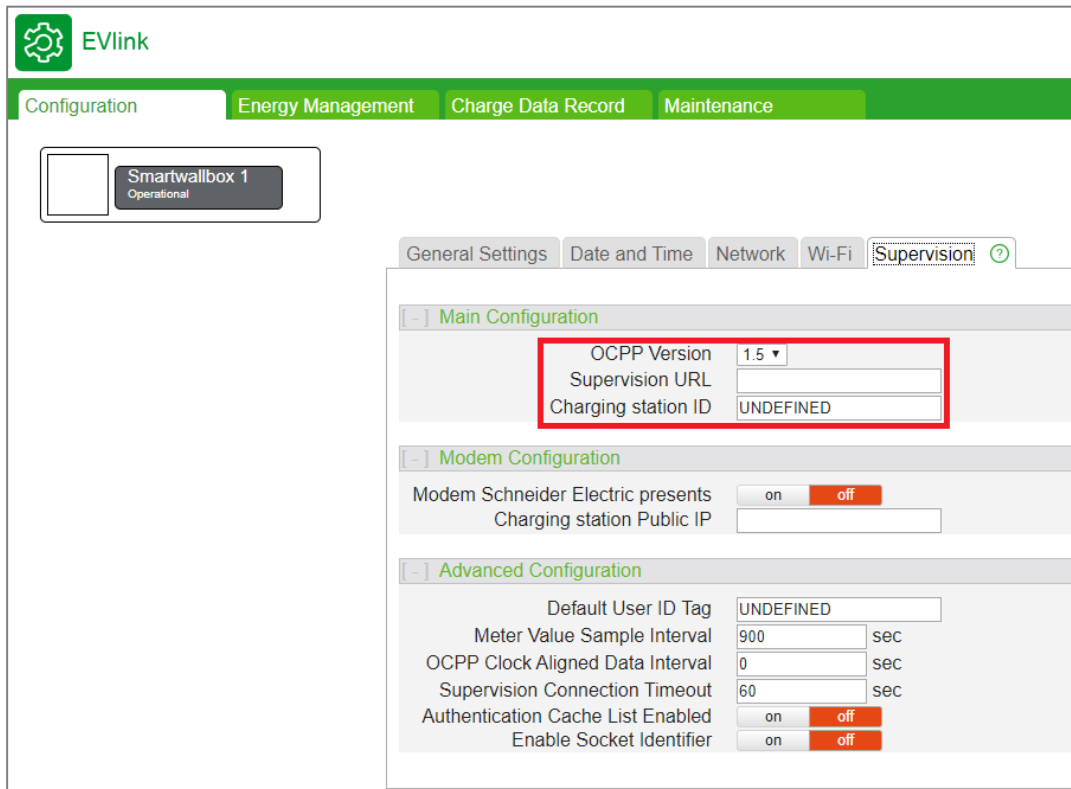
The screenshot shows the EVlink web interface. The 'Maintenance' tab is selected. A 'Parking 1 Operational' status indicator is visible. Below it, there are buttons for 'Status', 'Report', 'Control', 'Passwords', and 'Firmware update'. An 'Export' button is also present. The main content is a table with the following data:

bit description	Plug #112	Plug #113
Evt #1 - Rfid Reader	OK	OK
Evt #3 - Internal Communication	OK	OK
Evt #4 - Outlet Lock	OK	OK
Evt #5 - Contactor State	OK	OK
Evt #6 - Surge Arrestor	OK	OK
Evt #7 - Anti-intrusion	OK	OK
Evt #8 - Hardware Configuration	OK	OK
Evt #9 - Software Configuration	OK	OK
Evt #10 - Flap Sensor	OK	OK
Evt #11 - Upstream Protection Devices	OK	OK
Evt #12 - Power Meter Communication	OK	OK
Evt #13 - Remote Authentication Communication	OK	OK
Evt #14 - [Un]Plug Process	OK	OK
Evt #15 - Load tri-phases compliancy	OK	OK
Evt #16 - Plc Communication	OK	OK
Evt #17 - Control Pilot (CP) Signal conformity	OK	OK
Evt #18 - Plug Presence (PP) conformity	OK	OK
Evt #19 - Charge Alarm EV Disconnected	OK	OK
Evt #20 - Charge Alarm ShortCut	OK	OK
Evt #21 - Charge Alarm OverLoad	OK	OK
Evt #22 - Charge Alarm Ventilation Not Allowed	OK	OK
Evt #24 - Modem Communication	OK	OK
Evt #29 - Remote EM Communication	OK	OK
Evt #30 - Supervision Communication	OK	OK
Evt #31 - NTP Server Communication	OK	OK

6.3.3 Configuration of the authentication

6.3.3.1 Supervision tab settings

1. OCPP Version: If SOAP Select 1.5 else 1.6
2. Supervision URL: please insert the URL given by the charge point operator
3. Charging Station ID: If you have a box ID insert it. If you insert UNDEFINED, the charging station will use the mac address of the board as box ID. (see picture below)
4. If the Multitech modem (EVP2MM) is used, please switch the button "Modem Schneider Electric present" at "on".
5. Follow the instruction



The screenshot displays the EVlink web interface. At the top, there is a navigation bar with tabs for Configuration, Energy Management, Charge Data Record, and Maintenance. The Configuration tab is selected. Below the navigation bar, there is a status box for "Smartwallbox 1" which is "Operational". The main content area shows the "Supervision" configuration page. The "Supervision" tab is active, and the "Main Configuration" section is expanded. The "Main Configuration" section contains the following fields:

OCPP Version	1.5
Supervision URL	
Charging station ID	UNDEFINED

The "Modem Configuration" section is also expanded, showing the following fields:

Modem Schneider Electric presents	on
Charging station Public IP	

The "Advanced Configuration" section is expanded, showing the following fields:

Default User ID Tag	UNDEFINED	
Meter Value Sample Interval	900	sec
OCPP Clock Aligned Data Interval	0	sec
Supervision Connection Timeout	60	sec
Authentication Cache List Enabled	on	
Enable Socket Identifier	on	

6.3.3.2 How check the connection between the modem and the charging station

Maintenance tab, please check if the Supervision communication event is ok (see picture below). If it not the case checks the chapter “7.2.4.1 Supervision tab settings”

Note:

1. **When the communication is established make a ChangeConfiguration to change the parameter truncateBootNotificationsSerialNumbers=true by the supervision, it’s possible to change the parameter through the webserver too.**
2. **To avoid any overload data, please uncheck “Via WAN” see chapter “6.2.1.2 Access configuration”**

The screenshot shows the EVlink web interface. At the top, there is a navigation bar with tabs: Configuration, Energy Management, Authentication, Charge Data Record, and Maintenance. The Maintenance tab is active. Below the navigation bar, there is a status indicator for 'Parking 1' which is 'Operational'. A secondary navigation bar contains buttons for Status, Report, Control, Passwords, and Firmware update. Below this, there is an 'Export' button and a table of event logs.

bit description	Plug #112	Plug #113
Evt #1 - Rfid Reader	OK	OK
Evt #3 - Internal Communication	OK	OK
Evt #4 - Outlet Lock	OK	OK
Evt #5 - Contactor State	OK	OK
Evt #6 - Surge Arrestor	OK	OK
Evt #7 - Anti-intrusion	OK	OK
Evt #8 - Hardware Configuration	OK	OK
Evt #9 - Software Configuration	OK	OK
Evt #10 - Flap Sensor	OK	OK
Evt #11 - Upstream Protection Devices	OK	OK
Evt #12 - Power Meter Communication	OK	OK
Evt #13 - Remote Authentication Communication	OK	OK
Evt #14 - [Un]Plug Process	OK	OK
Evt #15 - Load tri-phasis compliancy	OK	OK
Evt #16 - Plc Communication	OK	OK
Evt #17 - Control Pilot (CP) Signal conformity	OK	OK
Evt #18 - Plug Presence (PP) conformity	OK	OK
Evt #19 - Charge Alarm EV Disconnected	OK	OK
Evt #20 - Charge Alarm ShortCut	OK	OK
Evt #21 - Charge Alarm OverLoad	OK	OK
Evt #22 - Charge Alarm Ventilation Not Allowed	OK	OK
Evt #24 - Modem Communication	OK	OK
Evt #29 - Remote EM Communication	OK	OK
Evt #30 - Supervision Communication	OK	OK
Evt #31 - NTP Server Communication	OK	OK

7 VENDOR ERROR CODE

7.1 Error descriptions

ID	Error	Description	Parking	City	Smart Wallbox	Description
1	Rfid Status	Loss of communication with the RFID reader (RFID reader disconnected or faulty)	x	x	x	Check the wiring of the RFID badge reader, the status of the LEDs on it and the software version in the update tab of the Internet server of the charging station.
3	Internal Communication	Impossible to connect the master board	x	x		Check the Ethernet cable between the two boards. Try replacing or changing the connector on the boards. Check the communication by the LEDs on the RJ45 (orange/green/blinking or not). Also check to the right of the 3 RJ45 connectors the status of the board LEDs (green/red/blinking or not). Re-boot the charging station. If there is still the fault on re-booting, perform a back to factory on the left then on the right. See chapter 3.1.
4	Outlet Lock	Non-locked socket fault => discordance between socket/trap lock sensor status	x	x	x	Check the general status of your connector and socket. Check whether the socket locking hatch is damaged or missing. Remove any foreign bodies that may be in the socket or the cable. Try again to insert the connector completely.
5	Contactor State	Contactor status wrong (discordance fault)	x	x	x	Check that the contactor is not stuck and the wiring of auxiliary contacts. If the contactor is stuck, have your vehicle checked at the dealer's; there may be a short-circuit in the on-board charger. Change the contactor.
6	Surge Arrestor	Surge arrestor fault (Faulty cartridge, badly inserted, "Status" connector unplugged or broken wire)	x	x		If you do not have surge arrestors in your configuration, check the shunt. If you have surge arrestors, check the status of the cartridges and that they are well inserted. In all cases, check the connector on the electronic board and on the surge arrestor. The circuit must be completed to allow charging.
7	Anti- intrusion	Anti-intrusion fault on the charging station (Door open or faulty door contact)	x	x		The charging station goes to return to factor settings mode if you attempt troubleshooting using the buttons. The green push-button will blink for 5s. Do not press it. Check the door and the door contact, check the change of red => green status of the indicator lights by pressing the door contact. Check that the bracket is not bent, the status of the cables from the door contact at the bottom of the appliance and that the connectors are well inserted on the electronic board.
8	Software Configuration	Anti-intrusion fault on the charging station (Door open or faulty door contact)		x	x	Go to charging station commissioning tool. Before making any modifications at all to this file, save it. If you have already saved this file, import it. If you have no backup, perform a return to factory settings in the maintenance tab and reboot the station before redo a complete commissioning.
9	Hardware Configuration	Wrong value in EEPROM	x	x	x	Contact Schneider Electric Customer Care Center after first noting the commercial reference and serial number on the product label.
10	Flap Sensor (DI ShutterUnlock)	Trap not locked fault => Discordance in the trap inductive sensor	x	x		Check the general status of the trap. Remove any foreign bodies that may be in the trap closure area. Try again to close your trap by pressing on it firmly. Check the status and position of the inductive sensor.
11	Upstream Protection Devices	Return of the status Input 1 wrong (City: Socket breaker T2/T3 or Diff. sw. or Domestic socket breaker)	x	x	x	Check the status of your protective devices. Breaker, Mnx, differential switch. Check the wiring of the OF and Mnx. Check the connectors of these functions inside the charging station.
12	Power Meter Communication	Loss of communication with the "IEM3xxx" energy meter	x	x	x	Check the wiring of the energy meter and its power supply. Check that the settings are coherent with those in the commissioning guide.
13	Remote	Loss of	x	x	x	Check the status of the LEDs on your external RFID reader and

ID	Error	Description	Parking	City	Smart Wallbox	Description
	Authentication Communication	communication with the RFID reader or other (third party)				the connections up to the charging station. Re-boot the 2 systems, the external reader then the station.
14	[Un]Plug Process	Socket or electric vehicle not connected after one minute or for the City = Domestic and T2/T3 connected on the same side	x	x	x	Check the general status of your cable and your station side and car side sockets. Check that your car locks the cable properly. Remove any foreign bodies that may be in the interconnections. Try again to insert the connectors completely
15	Load tri-phase compliancy	Number of charge phases wrong => if single-phase charging station used as three-phase	x	x		You have a 7kW charger (single-phase) and you have connected 3 phases to it. Try disconnecting phases 2 and 3.
16	Plc Communication	Loss of communication with the cluster manager	x	x	x	[OPTION, cluster of charging stations only] Check the Ethernet cable between the charging station and the PLC. Check the status of the PLC in run mode; any errors on the status LEDs. Reset the PLC cabinet and boxes.
17	Control Pilot (CP) Signal conformity	Communication fault with a Mode 3 vehicle ("CP" error: Pilot control)	x	x	x	Try with another cable; if this still does not work, try with another vehicle or simulator.
18	Plug Presence (PP) conformity	Cable status wrong (the value of the coding resistor "PP" is wrong)	x	x	x	Try with another cable; if this still does not work, try with another vehicle or simulator.
19	Charge Alarm EV Disconnected	Charging fault following disconnection of the cable of the electric vehicle	x	x	x	Try with another cable; if this still does not work, try with another vehicle or simulator and do not disconnect the cable while charging. Interrupt charging on the vehicle side by requesting cable disconnection and then on the charging station side.
20	Charge Alarm ShortCut	Charging fault on short-circuit Pilot wire (CP)	x	x	x	Try with another cable; if this still does not work, try with another vehicle or simulator.
21	Charge Alarm Overload	Over-current charging fault	x	x	x	Try with another vehicle.
22	Charge Alarm Ventilation Not Allowed	Battery gas leakage during load. Car asking box ventilation	x	x	x	SW configuration tells that the charging station is indoor, and the vehicle requests ventilation with old batteries car technologies which are not supported
24	Modem Communication	No communication with the modem, RSSI less than 10 (with modem =s= configuration by default)	x	x	x	OPTION Check the Ethernet cable between the chargingstation and the modem. Check the modem power supply. Refer to the modem documentation to analyse the status LEDs. Reset the box and the modem. Change the antenna position, check the RSSI (GPRS signal strength) in the modem Internet server. This must be greater than 10.
25	Energy Reserve	Capacity charge level too low for the functioning of socket locking/unlocking			x	Can happen when the plug is not correctly inserted in the socket and the charging station fails to lock the plug. This event is cleared after few seconds, when the energy reserve is restored
29	Remote EM Communication	Lose communication between Remote EM and chargepoint	x	x	x	Check the status of the local supervision and your communication link (Modbus Ethernet). Reboot the whole system.
30	Supervision communication	Supervision fault = communication problem with "Supervision" (OCPP) or rights	x	x	x	OPTION Check the status of your charging station in the charging station commissioning tool and export the maintenance report. Reset the box and the modem. Change the antenna position, check the RSSI (GPRS signal strength) in the modem commissioning tool. This must be greater than 10. Call the administrator (Supervision) of your charging station to obtain its status. Check the concordance between the charging station and the back-end (box identity charging station registration).

ID	Error	Description	Parking	City	Smart Wallbox	Description
31	NTP Server CommunicationError	Loss of communication with the NTP server	x	x	x	Try changing your NTP server settings in the commissioning tool of the charging station and check the connection (wire and firewall) to your network.

8 PARAMETERS

8.1 Station's parameters accessible by the supervision

Sector/Key	Min	Max	Unit	Parking	City	Smart Wallbox	Description
FUNCTIONAL							
operatingMode	0	5	-	x	x	x	1= no active RFID; 2= active RFID; 5= remote UID, disable rfid polling
allowPluggedCable	False	True	-		x		0: skip unplug procedure after end of charge; 1: unplug procedure required after end of charge
enableEvDetection	False	True	-			x	false=disabled; true=enabled (Option)
loadSheddingSetPoint	0	Imax Card	A	x	x	x	SetPoint to send to EV when FLSI input is ON (0 means suspend charge). See also Mono/Tri-LoadSheddingFloorValue
stationName	-	-	-	x	x	x	Name of the chargepoint
ENERGY							
voltageReference	0	400	V	x	x	x	reference voltage to estimate power and energy if no PM is present
maxIntensityStation	0	Imax Station	A		x	x	Contact Schneider Electric Customer Care Center after first noting the commercial reference and serial number on the product label.
maxIntensitySocket	0	Imax Card	A	x	x	x	maximum intensity available/phase for the socket outlet
HMI CONTROL							
EnableSuspendChargeByButton	False	True	-	x			enable the push button that permits to suspend charge
EVLINK ENERGY							
monophasedLoadSheddingFloorValue	6	20	A	x	x	x	The low threshold current before charge suspend in mono
triphasedLoadSheddingFloorValue	6	20	A	x	x	x	The low threshold current before charge suspend in tri
EMsetting	0	3	-	x	x	x	if Energy Management is used or not (0=core; 1=enable with local EM; 2=enable with remote EM; 3=enable with local and remote EM) (SmartWallbox: EMsetting=2)
ENERGY SHARING							
loadSheddingPriority	0	1	-	x	x	x	suspend charge order if not enough energy available (0=charge duration; 1=Energy delivered)
AUTHENTICATION							
enableUnknown	False	True	-	x	x	x	behaviour if a user is not authorized (not listed on ID base) (false=disable; true=enable) - rename AllowOfflineTxForUnknownId in OCPP change/getConfiguration
authenticationManager	0	3	-	x	x	x	0 = local; 1=SuperMaster; 2=OCPP Supervision
ControlChargeByRemoteCommand	False	True	-	x	x	x	available for OCPP with no authentication: authentication disable or smart keylock
rfidStatusTimeout	0	65535	s	x	x	x	timeout for remote authorization request (default 10s)
OCPP							
ocppVersion	1.5	1.6	-	x	x	x	Version of the OCPP's standard
ocppCentralAddress	-	-	-	x	x	x	Address of the supervision note: On OCPP 1.5 the chargepoint make the difference between SOAP and JSON thanks to this parameter
ocppBoxLocalPort	1	65535	-	x	x	x	Local port of the chargepoint
ocppBoxPublicPort	1	65535	-	x	x	x	Public port of the chargepoint
ocppDefaultBoxAddrPublic	1	65535	-	x	x	x	Parameter use in SOAP for the down communication ex: http://lpSimCard:ChargePointPublicPort
ocppConfModemAddress	-	-	-	x	x	x	Use only with schneider modem, address use to have the modem configuration
ocppConfSimModemAddress	-	-	-	x	x	x	Use only with schneider modem, address use to have the sim card configuration
confModemRetryInterval	15	60	s	x	x	x	refresh rate of data coming from modem (ip, dns, rssi) Note: If the value is out of range (15 to 60) the system put automatically 0 (default 30s)

Sector/Key	Min	Max	Unit	Parking	City	Smart Wallbox	Description
boxIdentity	-	-	-	X	X	X	Identity of the chargepoint provided by the supervision
defaultIdTag	-	-	-	X	X	X	optional idTag used in startTransaction if there is no authentication (no rfid or authentication disabled)
MeterValuesSampledData	-	-	-	X	X	X	<p>OCPP Standard: Sampled measurands to be included in a MeterValues.req Protocol Data Unit, every MeterValueSampleInterval seconds. Where applicable, the Measurand is combined with the optional phase; for instance: Voltage.L1 Default: "Energy.Active.Import.Register"</p> <ul style="list-style-type: none"> - comma separated list of measurands (Energy.Active.Import.Register, Current.Import and Voltage + Current.Offered (ocpp1.6 only)) - Phase can be configured (postfix: L1, L2, L3, L1-N, L2-N, L3-N, L1-L2, L2-L3, L3-L1) but only visible in OCPP-1.6 (in OCPP-1.5 the phase is taken into account but not visible in the MeterValues message). Ex: Voltage.L2-N - list of maximum 500 characters - Full example: MeterValuesSampledData=Energy.Active.Import.Regis ter,Current.Import, Current.Offered,Current.Import.L1,Current.Import.L2,C urrent.Import.L3,Voltage,Voltage.L1,Voltage.L2,Voltag e.L3,Voltage.L1-L2,Voltage.L2-L3,Voltage.L3-L1,Voltage.L1-N,Voltage.L2-N,Voltage.L3-N
meterValueSampleInterval	15	7200	s	X	X	X	OCPP Standard: Interval between sampling of metering (or other) data, intended to be transmitted by "MeterValues" Protocol Data Units. For charging session data (ConnectorId>0), samples are acquired and transmitted periodically at this interval from the start of the charging transaction. A value of "0" (numeric zero), by convention, is to be interpreted to mean that no sampled data should be transmitted.
ocppConnectTimeOut	2	60	s	X	X	X	the station decrees that communication is lost if during this period no message is received by the supervision Note: If the value is out of range (2 to 60) the system put automatically 60 (default 60s)
WebSocketPingInterval	Read Only		-	X	X	X	OCPP Standard: Only relevant for websocket implementations. 0 disables client side websocket Ping/Pong. In this case there is either no ping/pong or the server initiates the ping and client responds with Pong. Positive values are interpreted as number of seconds between pings. Negative values are not allowed. ChangeConfiguration is expected to return a REJECTED result.
MinimumStatusDuration	0	-	s	X	X	X	OCPP Standard: The minimum duration that a Charge Point or Connector status is stable before a StatusNotification.req Protocol Data Unit is sent to the Central System.
TransactionMessageRetryInterval	0	-	s	X	X	X	OCPP Standard: How long the Charge Point should wait before resubmitting a transactionrelated message that the Central System failed to process.
TransactionMessageAttempts	0	-	-	X	X	X	OCPP Standard: How often the Charge Point should try to submit a transaction-related message when the Central System fails to process it.
truncateBootNotificationsSerialNumbers	False	True	-	X	X	X	truncate BootNotification "chargeBoxSerialNumber" and "chargePointSerialNumber" to 25 characters to be fully compliant with OCPP standard (False by default)
cacheListEnabled	False	True	-	X	X	X	OCPP Standard: AuthorizationCacheEnabled, the Charge Point supports an Authorization Cache. If this key reports a value of true, the Authorization Cache is enabled.
compressDiagnostic	False	True	-	X	X	X	When GetDiagnostics is ask by the supervision,sometimes the maintenance report can be to big. So it possible to the compress it thanks to this parameter (True by default)
NumberOfConnectors	Read Only		-	X	X	X	OCPP Standard: The number of physical charging connectors of this Charge Point
HeartBeatInterval	Read Only		-	X	X	X	OCPP Standard: Interval of inactivity (no OCPP exchanges) with central system after which the Charge Point should send a Heartbeat.req Protocol Data Unit
AuthorizeRemoteTxRequests	false (Read Only)		-	X	X	X	OCPP Standard: Whether a remote request to start a transaction in the form of a RemoteStartTransaction.req message should be authorized beforehand like a local action to start a

Sector/Key	Min	Max	Unit	Parking	City	Smart Wallbox	Description
ConnectionTimeOut	30 (Read Only)		-	x	x	x	transaction OCPP Standard: Interval (from successful authorization) until incipient charging session is automatically canceled due to failure of EV user to (correctly) insert the charging cable connector(s) into the appropriate connector(s).
GetConfigurationMaxKeys	200 (Read Only)		-	x	x	x	OCPP Standard: Maximum number of requested configuration keys in a GetConfiguration.req Protocol Data Unit.
ResetRetries	0 (Read Only)		-	x	x	x	OCPP Standard: Number of times to retry an unsuccessful reset of the Charge Point.
ConnectorPhaseRotation	Read Only		-	x	x	x	OCPP Standard: The phase rotation per connector in respect to the connector's energy meter (or if absent, the grid connection). Possible values per connector are: NotApplicable (for Single phase or DC Charge Points) Unknown (not (yet) known) RST (Standard Reference Phasing) RTS (Reversed Reference Phasing) SRT (Reversed 240 degree rotation) STR (Standard 120 degree rotation) TRS (Standard 240 degree rotation) TSR (Reversed 120 degree rotation) R can be identified as phase 1 (L1), S as phase 2 (L2), T as phase 3 (L3). If known, the Charge Point MAY also report the phase rotation between the grid connection and the main energymeter by using index number Zero (0). Values are reported in CSL, formatted: 0.RST, 1.RST, 2.RTS
ConnectorPhaseRotationMaxLength	Read Only		-	x	x	x	OCPP Standard: Maximum number of items in a ConnectorPhaseRotation Configuration Key
StopTransactionOnEVSideDisconnect	True (Read Only)		-	x	x	x	OCPP Standard: When set to true, the Charge Point SHALL administratively stop the transaction when the cable is unplugged from the EV.
StopTransactionOnInvalidId	True (Read Only)		-	x	x	x	OCPP Standard: whether the Charge Point will stop an ongoing transaction when it receives a non-Accepted authorization status in a StartTransaction.conf for this transaction
StopTxnAlignedData	Read Only		-	x	x	x	OCPP Standard: Clock-aligned periodic measurand(s) to be included in the TransactionData element of StopTransaction.req MeterValues.req Protocol Data Unit for every ClockAlignedDataInterval of the charging session
StopTxnAlignedDataMaxLength	0 (Read Only)		-	x	x	x	OCPP Standard: Maximum number of items in a StopTxnAlignedData Configuration Key
StopTxnSampledData	Read Only		-	x	x	x	OCPP Standard: Sampled measurands to be included in the TransactionData element of StopTransaction.req Protocol Data Unit, every MeterValueSampleInterval seconds from thestart of the charging session
StopTxnSampledDataMaxLength	0 (Read Only)		-	x	x	x	OCPP Standard: Maximum number of items in a StopTxnSampledData Configuration Key.
SupportedFeatureProfiles	Core,Firmware Management, Reservation,SmartCharging (Read Only)		-	x	x	x	OCPP Standard: A list of supported Feature Profiles. Possible profile identifiers: Core, FirmwareManagement, LocalAuthListManagement, Reservation, SmartCharging and RemoteTrigger.
SupportedFeatureProfilesMaxLength	4 (Read Only)		-	x	x	x	OCPP Standard: Maximum number of items in a SupportedFeatureProfiles Configuration Key.
ReserveConnectorZeroSupported	Read Only		-	x	x	x	OCPP Standard: If this configuration key is present and set to true: Charge Point support reservations on connector 0.
UnlockConnectorOnEVSideDisconnect	True (Read Only)		-	x	x	x	OCPP Standard: When set to true, the Charge Point SHALL unlock the cable on Charge Point side when the cable is unplugged at the EV.
ChargeProfileMaxStackLevel	999 (Read Only)		-	x	x	x	OCPP Standard: Max StackLevel of a ChargingProfile. The number defined also indicates the max allowed number of installed charging schedules per Charging Profile Purposes.
ChargingScheduleAllowedChargingRateUnit	Current (Read Only)		-	x	x	x	OCPP Standard: A list of supported quantities for use in a ChargingSchedule. Allowed values: 'Current' and 'Power'
ChargingScheduleMaxPeriods	Read Only		-	x	x	x	OCPP Standard: Maximum number of periods that may be defined per ChargingSchedule
ConnectorSwitch3to1PhaseSupported	False (Read Only)		-	x	x	x	OCPP Standard: If defined and true, this Charge Point support switching from 3 to 1 phase during a charging session.

Sector/Key	Min	Max	Unit	Parking	City	Smart Wallbox	Description
MaxChargingProfilesInstalled	99 (Read Only)		-	x	x	x	OCPP Standard: Maximum number of Charging profiles installed at a time



35, rue Joseph Monier
F-92505 Rueil-Malmaison Cedex
Phone: + 33 (0) 1 41 29 70 00
Fax: + 33 (0) 1 41 29 71 00
www.schneider-electric.com

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