SIEMENS

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CREDIT CARD PAYMENT

SICHARGE

SICHARGE D

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Credit Card Payment for SICHARGE D

Commissioning Manual

01/2024
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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠ **DANGER**
indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ **WARNING**
indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ **CAUTION**
indicates that minor personal injury can result if proper precautions are not taken.

NOTICE
indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

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Note the following:

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Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Introduction

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The SICHARGE D offers multiple Credit Card Terminals with several Payment Providers, either contactless or with PIN-Pad, to enable ad-hoc charging. Ad-hoc is a fast, secure and convenient payment method for the end user.

The following table shows the supported Payment Terminals:

	CCV contactless	Worldline Valina
Installation Method	Behind glass	Cutout through glass
Technical Details	Contactless	Color touch screen, NFC-reader, Chip card reader, Magnetic stripe reader
Payment Service Provider	CCV KNB, Payone, VR	Worldline, Payone, Six Payment
Payment Options	Credit Card, mobile pay (Apple Pay, Google Pay)	Credit Card, mobile pay (Apple Pay, Google Pay)
Integration Method	Direct integration (communication via charger)	Direct integration (communication via charger)
E-receipt server for ERK	Provided by CCV white labeled for CPO	Integration via OCPP ongoing

OCPP extension for the payment terminal 2

2.1 Basics

OCPP 1.6 does not offer the functionality to configure and transmit currency or cost information. However, SICHARGE D has implemented OCPP 1.6 that supports California Pricing model v1.0 to enable the following functionalities.

Taking into account the OCPP California Pricing Requirements v1.0 (https://www.openchargealliance.org/uploads/files/OCPP-California-Pricing-Requirements.pdf), you see quickly that the running and final costs of a charging operation must generally be calculated on the side of the OCPP-Backend. The charging station does not have a tariff engine and therefore cannot calculate costs on its own.

When talking about cost and tariff information, it is necessary to distinguish between information for display (e.g. display of price and tariff information to the customer) and information needed for processing (e.g. currency code and cost information as input to a payment terminal).

Following the OCPP California Pricing Requirements v1.0, an enhancement for tariff display has been added. More information is described below.

2.2 Specific requirements regarding payment terminals

In order to charge the customer's credit card for a specific amount, a currency code in ISO 4217 format (e.g. 978 for €) must be specified when configuring the payment terminal, and the amount must be sent to the payment terminal as a smaller unit of this currency (e.g., cents for $ or €, 2500 for 25 €). ISO standard 4217 helps to convert an amount such as $3.31 to the smaller unit, as it also specifies the relationship between the smaller unit and the currency itself (i.e. whether it is divisible by 100 or 1000).

Clear price and currency information is always needed as input values for the payment terminal interface. It is therefore important that the CSMS provides this information.

2.3 Implementation details

2.3.1 Providing currency information

A new variable PaymentCurrency has been defined, as a String three characters long, e.g. "EUR".

This is configured via the ChangeConfiguration.req Message by the OCPP-Backend:
`ChangeConfiguration.req("PaymentCurrency", "EUR")`

2.3.2 Providing the tariff information

- The suggestions made in the OCPP California Pricing Requirements Paper cannot be adopted 1:1, since they do not contain information about unique, machine-readable costs.
- Parsing this information from the Description field ("$2.81 @ $0.12/kWh, $0.50 @ $1/h, TOTAL KWH: 23.4 TIME: 03.50 COST: $3.31") would be extremely error-prone.
- The information of the Description field is at most suitable for displaying tariff information.
- Therefore, several user-defined messages were introduced in order to convey the tariff information generated by the Backend to the charging station.
- If a CPO is unwilling or unable to provide information on customer-specific tariffs, it is possible to display only a default tariff, which can contain generic text or pricing information of a general nature only. Please note that the following texts, languages and prices are examples and should be modified according to your needs when implementing them in your OCPP backend.
- At least English must be configured as the language for all tariff information.

```
TRANSMIT TARIFF INFORMATION (CSMS -> CP)
----------------------------------------
GENERAL TEXT
DataTransfer.req("TariffInformation", "SetDefaultPrice",
"{\"de\":\"Tarif-Informationen befinden sich auf der rechten
Gehäuseseite.\",\"fr\":\"Les informations sur les tarifs sont
situées sur le côté droit du boîtier.\",\"en\":\"Please see tariff
information located on the right side of the housing.\"}")
OR DETAILED TARIFF INFORMATION LIKE
DataTransfer.req("TariffInformation", "SetDefaultPrice",
"{\"de\":\"39ct pro kWh, 0,80€ pro Minute nach
Ladeende.\",\"fr\":\"39ct par kWh, 0,80€ par minute après la fin de
la charge.\",\"en\":\"39ct per kWh, 0.80€ per idle minute.\"}")
DELETE STANDARD TARIFF
DataTransfer.req("TariffInformation", "SetDefaultPrice")
```

- If a CPO wants to display customer-specific prices for identified customers on the HMI (e.g. authorization via RFID cards or apps), another user-defined message is available.

```
DataTransfer.req("TariffInformation", "SetUserPrice",
"{\"idTag\":\"12345678\",\"price\":{\"de\":\"0,39€/kWh, 0,80€/min
Blockiergebühr\",\"fr\":\"0,39€/kWh, 0,80€/min Blogace Tarif
\",\"en\":\"€0.39/kWh, €0.80/min idle fee\"}}")
COUNTRY SPECIFIC REMARKS
Germany: According to the german calibration law, the description is
required in a specific format and shorter according to the following
example:
"{\"idTag\":\"12345678\",\"price\":{\"de\":\"0,39€/kWh
\",\"fr\":\"0,39€/kWh\",\"en\":\"€0.39/kWh \"}}")
The SICHARGE D ERK  is only able to provide data for an energy-based
one-tariff billing.
```

- The CPO must specify if and what tariff information the charging station displays:

```
ChangeConfiguration.req("DisplayTariffInformation",
"<tariffInfoType>")
Possible values for <tariffInfoType>:
 - "default"
 - "user"
 - "none"
```

- **"none"** causes the charging station to display no tariff information and to start the charging process directly after successful authorization.
- **"default"** causes the charging station to display the tariff information specified in the SetDefaultPrice DataTransfer message and to ignore all SetUserPrice messages that the CSMS sends.
- **"user"** causes the charging station to display the customer-specific tariff information specified in the SetUserPrice DataTransfer message, and ignore all SetDefaultPrice messages that the CSMS sends.
- "default" or "user" causes the charging station to allow the customer to cancel or start the charging process within 20 seconds. In the event of inactivity, charging starts after 30 seconds.

2.3.3 Providing cost information

- To display and process current and final costs, the CSMS provides two separate, user-defined messages for the CP information. Please note that the following texts, languages and prices are examples and should be modified according to your needs when implementing them in your OCPP backend.

```
SUBMIT RUNNING COSTS (CSMS -> CP)
-------------------------------------
DataTransfer.req("AdhocPayment", "RunningCost",
"{\"txId\":98765,\"cost\":913,\"description\":{\"de\":\"0,39€/kWh,
kWh: 23,4, Dauer: 03:20, Kosten: 9,13€\",\"fr\":\"0,39€/kWh kWh:
23,4 Délai: 03:20 Frais: 9,13€\",\"en\":\"€0.39/kWh kWh: 23.4
Duration: 03:20 Cost: €9.13\"}}")
SUBMIT FINAL COSTS (CSMS -> CP)
---------------------------------------
DataTransfer.req("AdhocPayment", "FinalCost",
"{\"txId\":98765,\"cost\":913,\"description\":{\"de\":\"0,39€/kWh,
kWh: 23,4, Dauer: 03:20, Kosten: 9,13€\",\"fr\":\"0,39€/kWh kWh:
23,4 Délai: 03:20 Frais: 9,13€\",\"en\":\"€0.39/kWh kWh: 23.4
Duration: 03:20 Cost: €9.13\"}}")
```

- The description fields are used for display purposes and are formatted as i18n-stringified JSON.
- The cost fields contain machine-readable information formatted as Integer in the smallest unit of currency (e.g. cents) and can be used for payment interactions, such as specifying a billable amount for a payment terminal.
- It must be ensured that the tariff and cost information is only transmitted when the concordance to the underlying contract of the EV-driver can be guaranteed; or the contract is concluded on site in case of ad-hoc payment.

⚠ WARNING

interrupted connection to the CSMS

If during an ongoing charging process the connection to the CSMS is interrupted, the reserved maximum amount (PaymentTXMaxAmount) may be exceeded during this time, if no stop signal comes. The charging session will not be stopped by a connection lost in order to satisfy the needs of the EV driver.

2.3.4 Authorization by payment card (e.g., VISA, Mastercard, etc.)

- The CSMS is not involved in this process in any important way. However, the CSMS authorization is independent and takes place after the payment card authorization.
- From the point of view of the CSMS, it is a local authorization made by the charging station. The authorization involves the charging station, payment terminal (within the charging station), and a payment host (a third party specified in the CPO payment contracts and configured in the payment terminal).
- After the charging station asks the customer to present a payment card (e.g. a VISA card), the payment terminal tries to reserve a part of the credit or debit card balance for the cost of the services not yet provided, e.g. €50.
- The amount can be configured via the **PaymentTXMaxAmount** variable.

```
ChangeConfiguration.req("PaymentTXMaxAmount", "<integer>")
```

- This is the maximum amount of money that can be reserved on the credit card for a charging operation. It must be represented as an integer in the smallest unit of a currency, e.g. cents.
- You can find the currently valid limits within Europe here (https://www.epsm.eu/pdf/20200511-EPSM-Overview-No-CVM-Contactless-v16.pdf).
- The payment terminal sends a pre-authorization request with this amount to a payment host, which responds with positive or negative feedback.
- In the case of positive feedback, the reserved credit on the customer card can now be used for charging. In the case of negative feedback, the customer must try another card or authorization method, as it is not possible to reserve the required amount on the payment card.
- After the payment terminal receives positive feedback from the payment service provider, the authorization is successful.
- The card identifier is stored (a very long, unique hash that identifies the payment card - too long for one OCPP 1.6 idTag) locally in the respective charging session.
- To start the charging process, an Authorize.req runs against the CSMS with a user-defined ID tag consisting of an (up to) 5-character PaymentCardIdTagPrefix + up to 15-character payment identifier
- The PaymentCardIdTagPrefix of charger and OCPP backend must be identical. The charger's default value is "**EMVS***". If the OCPP backend is using a different prefix, it must re-define the prefix using the **ChangeConfiguration.req** message via OCPP

```
ChangeConfiguration.req("PaymentCardIdTagPrefix", "<string>")
```

- When OCPP backend does not have the same value as a PaymentCardIdTagPrefix the credit card will be declined.
- The CSMS must recognize the configured prefix and respond with a Authorize.conf positive message.
- Since the idTag field of an OCPP 1.6 Authorize.req message is limited to 20 characters and the payment identifier is an string of up to 15 characters, the PaymentCardIdTagPrefix has a maximum length of 5 characters.

- To finish a charging process later, the customer needs to present again the payment card that was used to start the process.
- The card is scanned and the payment terminal creates the card identifier (no interaction with the payment host required), if it matches the one of the current charging session, the customer can end the session.

2.3.5 System Sequence Diagram of the Payment Terminal as an Overview

You find the System Sequence Diagrams of the Payment Terminal in the Appendix (Page 28).

Commissioning of the Credit Card Terminal 3

3.1 General Specifications

3.1.1 Requirements for CPO

Please ensure that the following requirements are met before an onsite activity for credit card activation is scheduled.

- The charger has a built-in Credit Card Terminal.
- The selected OCPP backend is configured with SICHARGE D.
- The Selected OCPP backend supports California Pricing Model according to the OCPP extensions for the payment terminal (Page 5); this meaning that the price structure and engine is part of the selected OCPP backend, not the SICHARGE D.
- The contract with selected PSP (Payment Service Provider) is in place and TID is available.
- Payment IPs are whitelisted on the CPO SIM Card according to the Payment routes for CCV OPM CORE (Page 25).

3.1.2 Requirements for terminals

- Physically installed credit card terminal
- Static IP address of the Creditcard terminal to 10.20.17.50
- Working mobile connection via router 2 (XF 4)

3.1.3 Preparation with companion tool

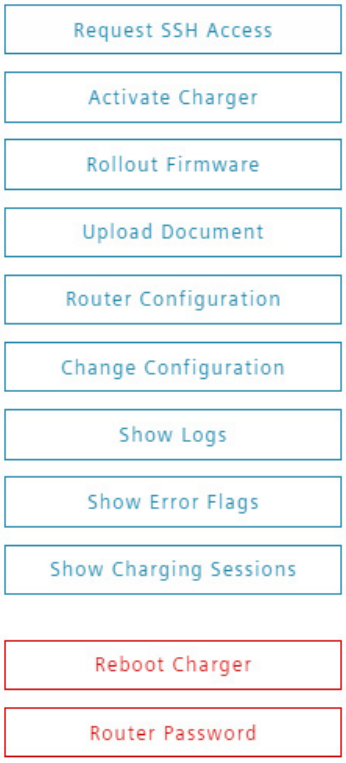
Only for CCV terminals it is possible to automatically configure/set the terminal ID/PU and IP address.

Other payment terminals e. g. Worldline Valina, Castle need to be configured manually with the terminal display.

3.1.4 Preparation with SCB

Open the SCB Productive system and open the relevant charger. Then open the “change configuration” and configure the following points:

1. General changes:
   – Payment terminal type has to be selected with the relevant terminal.
2. Outlet Configuration for relevant outlets:
   – Authorization required is checked.
   – Authorization method “creditcard” is at least selected.
3. Configure the router to enable connection:



   – Select the menu "Router Configuration"
   – Select the IP 10.20.17.2
   – Open the Whitelist tab.
   – Add the payment host IPs in the comma-separated list.
   – Confirm by clicking the SET button.

   The router now reboots and is ready for use again after a short time. The terminal can now connect to the Internet via Router 2 (XF4). Via the CCV Receipt URL, a QR code is displayed on the help screen at the charging station, which the customer can then scan before being redirected to a website. It is then possible to download the e-receipt from this website.

3.2 General Receipt Service

According to country specific law the possibility of providing a receipt to the EV-driver might be necessary. In the area of e-Mobility the responsibility of providing such a receipt belongs to the EMSP. The SICHARGE D offers different interfaces for generating a receipt in a digital manner (e-receipt: electronic receipt).

Country specific remarks:

Germany: According to the german calibration law, in addition to the regular payment receipt the signed datasets and the public keys generated by the meters must be provided to the EV-driver in an automated manner. A common solution for this is to forward the relevant data to a download platform and provide the access data to the EV-driver e.g. via bank statement. You can find more information in the SICHARGE D ERK Operating Manual (https://support.industry.siemens.com/cs/ww/de/view/109809262/en).

3.2.1 Terminal integrated

Some payment terminals offer an integrated solution to make the e-receipts available through a download platform. This option needs to be activated via the terminal or the corresponding terminal management system.

Note

Currently only the CCV terminal offers this solution.

3.2.2 OCPP-Backend integrated

A terminal unspecific solution can be realized through the OCPP-Backend. In this case specific (customized) OCPP-Messages are used to forward all relevant data to the OCPP-Backend. The OCPP-Backend then must implement the interface to a download platform and process the data accordingly.

Note

For data security reasons it is recommended to use a secured connection for the OCPP-Backend integrated e-receipt solution (OCPP 1.6-J).

Note

Currently this functionality only works in conjunction with Castles Neftis and Worldline Valina terminals.

The receipt transfer can be enabled by setting the OCPP Configuration key **SendCardTxReport** to true. By default this configuration key is set to false.

If enabled a DataTransfer will be done after a charging session is finished and the payment is finalized.

Default DataTransfer

```
DataTransfer.req("CardTxReport",
"","{\"data\":{\"approvalCode\":\"1233424\",\"cardAlias\":\"1234*****
**1234\",\"cardCircuit\":\"VISA\",\"cardPan\":\"1234\",\"costId\":\"
123342434\",\"customerReceipt\":\"Customer Receipt from
terminal\",\"merchantReceipt\":\"Merchant receipt from
terminal\",\"transactionTime\":\" 2023-06-03T19:27:26.220Z
\",\"cost\":1435,\"transactionId\":\"34214314\",\"terminalId\":\"526
345236\"}}")
```

The **DataTransfer** field **vendorId** of the default implementation is **CardTxReport** and the field **messageId** is omitted.

The following table shows the data transferred with the **default** implementation:

Value	Description
approvalCode	Unique approval/authorization code of this transaction
cardAlias	Masked credit card number with last four digits clear
cardCircuit	Card type (VISA, Mastercard, ...)
cardPan	Last four digits of credit card
costId	Unique transaction identifier consisting of approvalCode and last two credit card number digits
customerReceipt	Customer receipt generated by Credit Card Terminal
merchantReceipt	Merchant receipt generated by Credit Card Terminal
transactionTime	Time of transaction completion (successful partial reversal)
transactionId	OCPP Id connected to this transaction
terminalId	Terminal Id of used Credit Card Terminal
cost	Total cost in minor currency unit (e.g., cents / ct) as integer number

3.2.3 Charger integrated

Another solution which is independent of the payment terminal is a customized integration of an interface between the charger and a receipt service.

Note

This solution is currently under development and will be available soon.

3.3 CCV OPM Core Terminal

3.3.1 Specific Requirements

- Companion Tool
  - Please use the latest version of the Companion
  - Make sure the USB-driver for the CCV terminal is installed. If not, please follow the instructions of the Companion's manual for installing the USB- driver
- Ethernet cable
- Mini USB cable

In case of retrofitting, you can find the installation instructions in the document with the order number 8EM5907-0AA00-4AA1.

You also need the following information for installation in the SCB. You typically receive this from the operator of the charging station:

- Terminal ID
- Payment Host Processing Unit (PU)
- Payment Host IPs
- CCV Receipt URL

3.3.2 Activation of the CCV OPM Core Terminal

Preparation of charger using the Companion Tool (download via SCB)

Power must be supplied to the terminal for configuration. To do this, proceed as follows:

1. Unlock the charging station and take into consideration the 5 safety rules for electrotechnical work.
2. Open the front door.
3. Connect your notebook to a free Ethernet port at -XF1 or -XF2 in the charging station (make sure your notebook is in the charger's IP range (10.20.17.190 ... 255) and the device's default IP range (192.168.1.190 ... 255)).
4. Connect your notebook to the terminal via mini-USB. There should be a feedback from your notebook detecting a new device.
5. Close the device door as much as possible.
6. Switch on the power supply to the charging station.
7. Wait until terminal is ready and an acoustic signal is emitted.
8. Open the Companion Tool, select CCV OPM-C60.

9. Follow the Companion Tool step-by-step instructions, enter the Terminal ID and Payment Host PU.

   Make the following entries and settings:

   – Set the provided Terminal ID (TID).

     TID is provided by the CPO based on their contract with payment provider.

   – Set the Processing Unit (PU). This depends on the payment provider according to the Payment routes for CCV OPM CORE (Page 25).

     Note

     Only insert the digit, it is not necessary to insert "PU", but only the "number", for example "1" or "8".

   – Gateway is automatically set to: 10.20.17.2 (using Router 2, OCPP router -XF4).

     Important: Ensure that the credit card terminal can access the payment provider's host via Router 2 by adding IPs and ports according to the Payment routes for CCV OPM CORE (Page 25) in Router 2's whitelist, see Preparation in SCB.

   – Please make sure that the CCV system has enough time to make the connection (min. 5 minutes).

10. Disconnect the connections between the notebook and charging stations.

11. Close the device door completely.

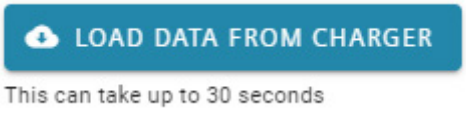
Note

Payment traffic is CPO's responsibility and must be handled via router2. As Siemens cannot open ports and IP addresses for Vodafone M2M SIM Cards, this needs to be done by CPO. NOC of Siemens' Vodafone M2M SIM will block payment host IPs and ports

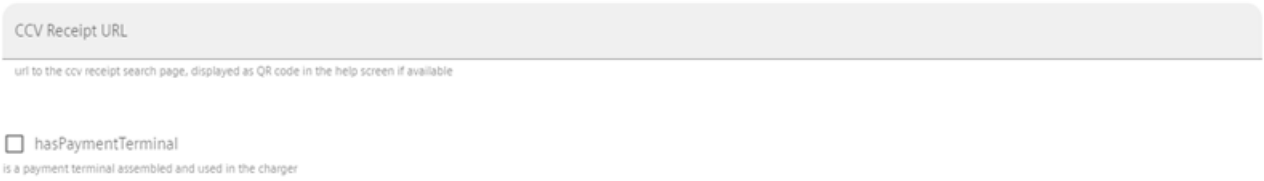
Preparation of Siemens Configuration Backend

Ensure that the charging station has a connection to the SCB. Call up the charging station in the SCB. Proceed as follows:

1. Click Change Configuration.
2. Click LOAD DATA FROM CHARGER.



3. Check the box for hasPaymentTerminal in the General Changes section.
4. Optional: add the CCV Receipt URL and save your entry.



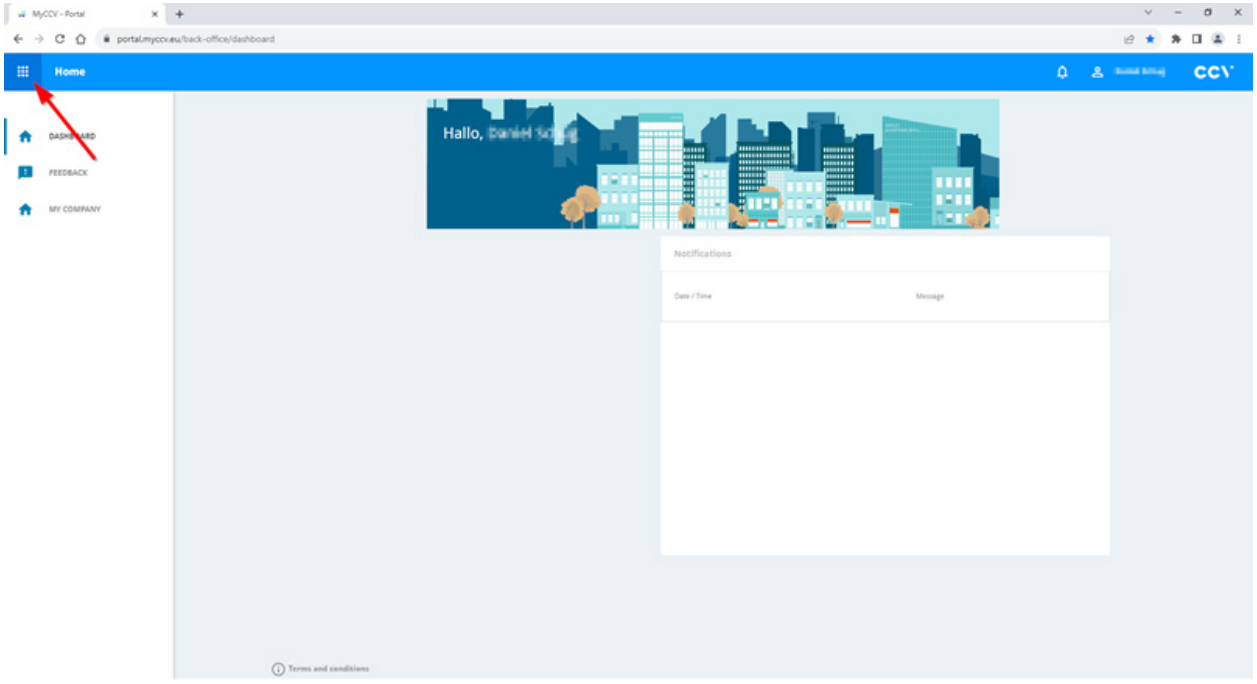
5. Select credit card as the authentication method in the Outlet Configuration section.

6. Go to the overview page of the charging station.

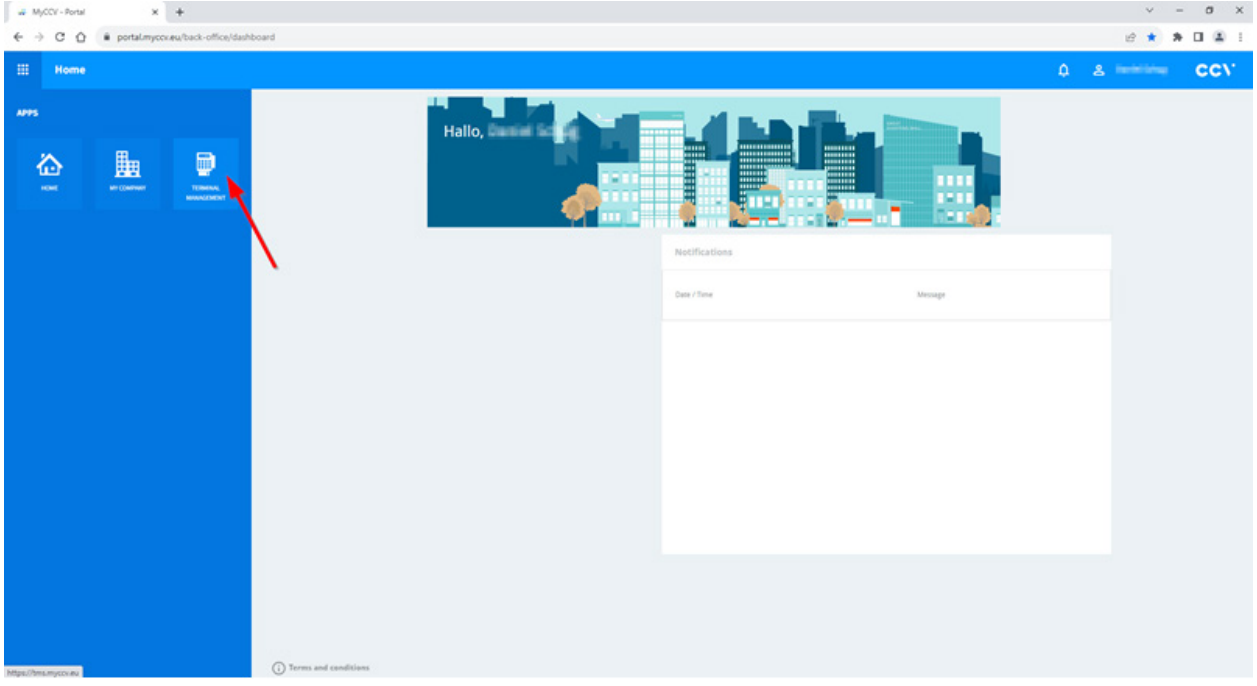
3.3.3 Receipt service

The CCV OPM C60 Terminal offers a terminal integrated receipt solution. Use the following steps on the “MyCCV” portal (portal.myccv.eu (https://portal.myccv.eu/)) to activate the receipt service via the terminal management system.

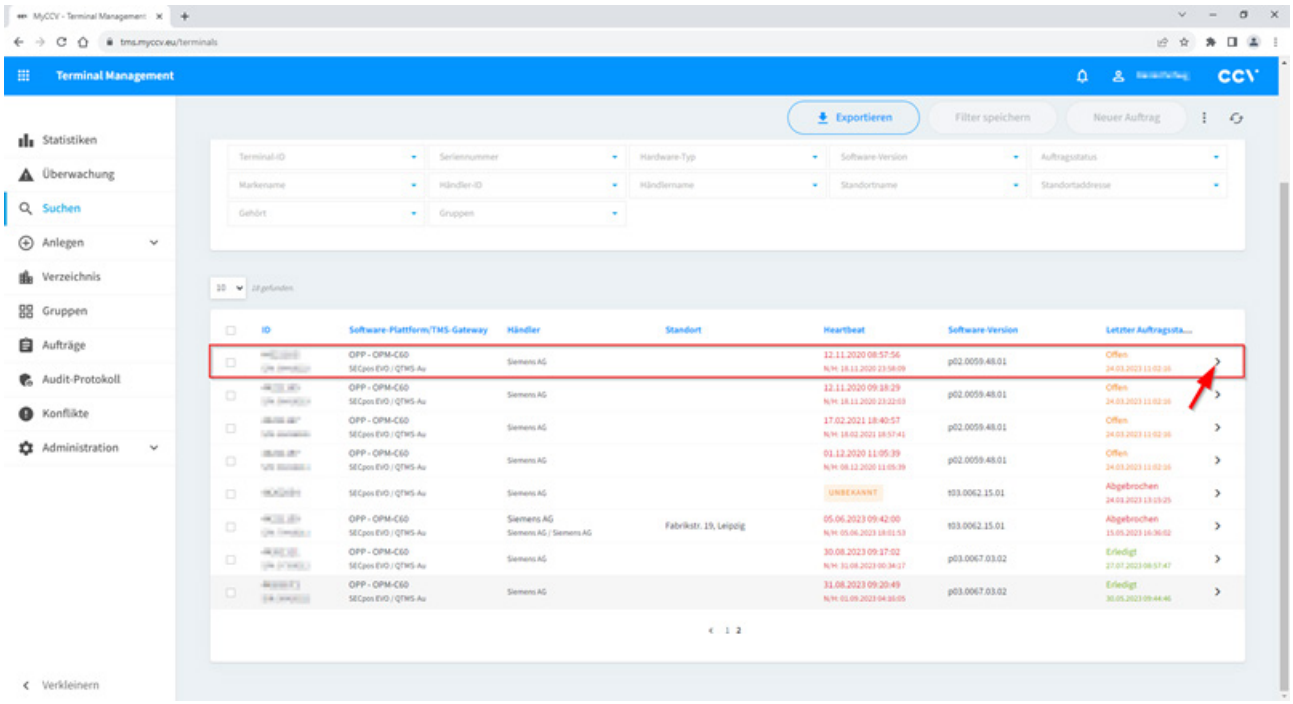
1. Select the candy box icon.



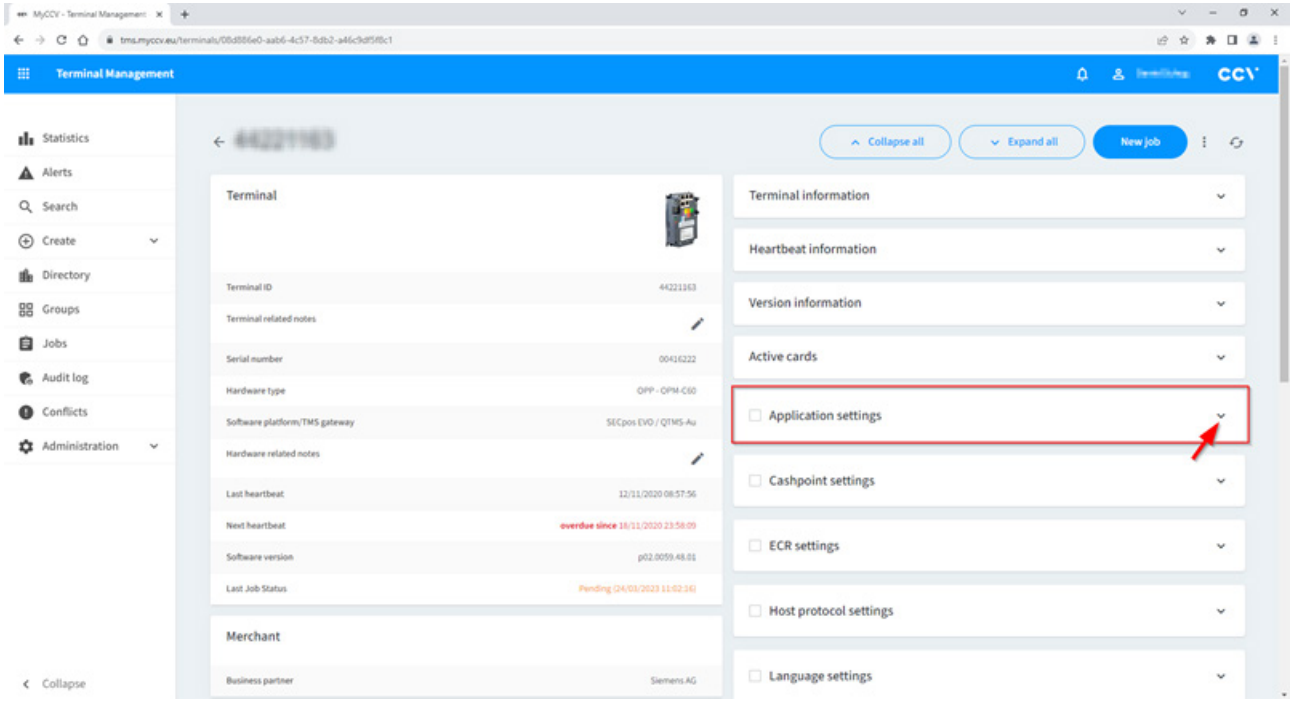
2. Click "Terminal Management".



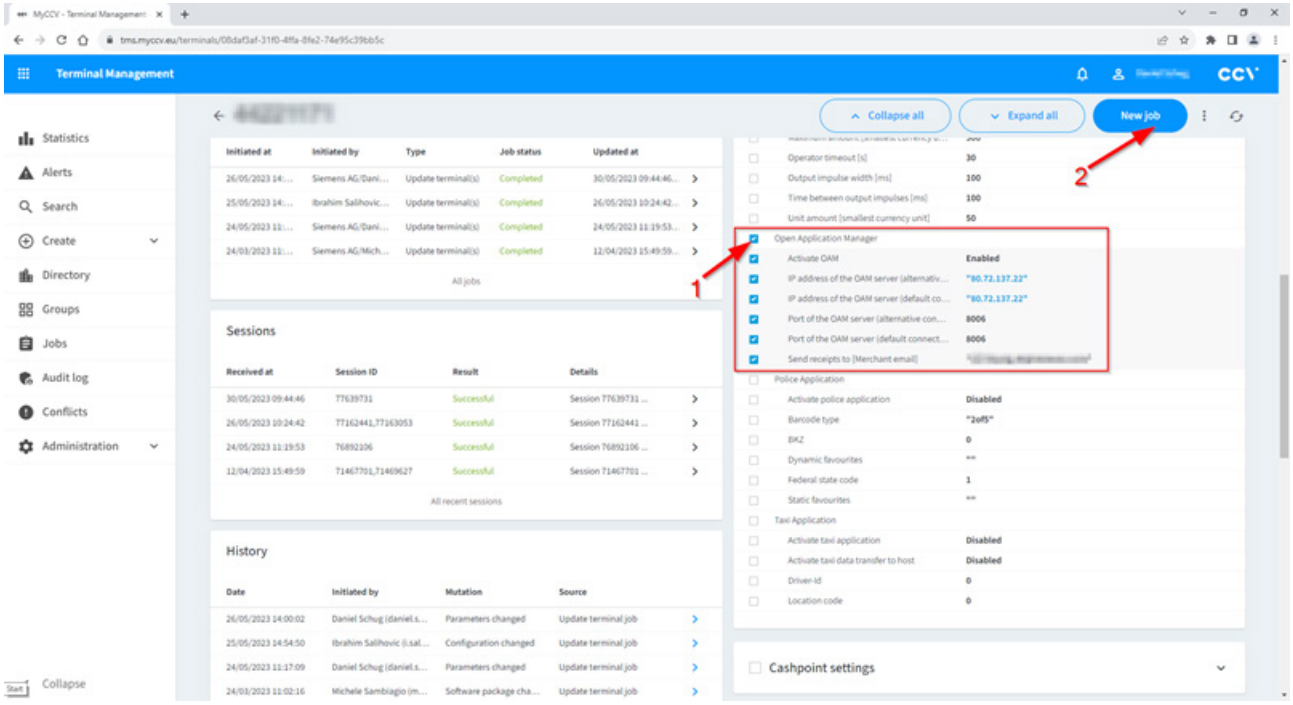
3. Click in the terminal overview on the arrow of the terminal you want to change the configuration.



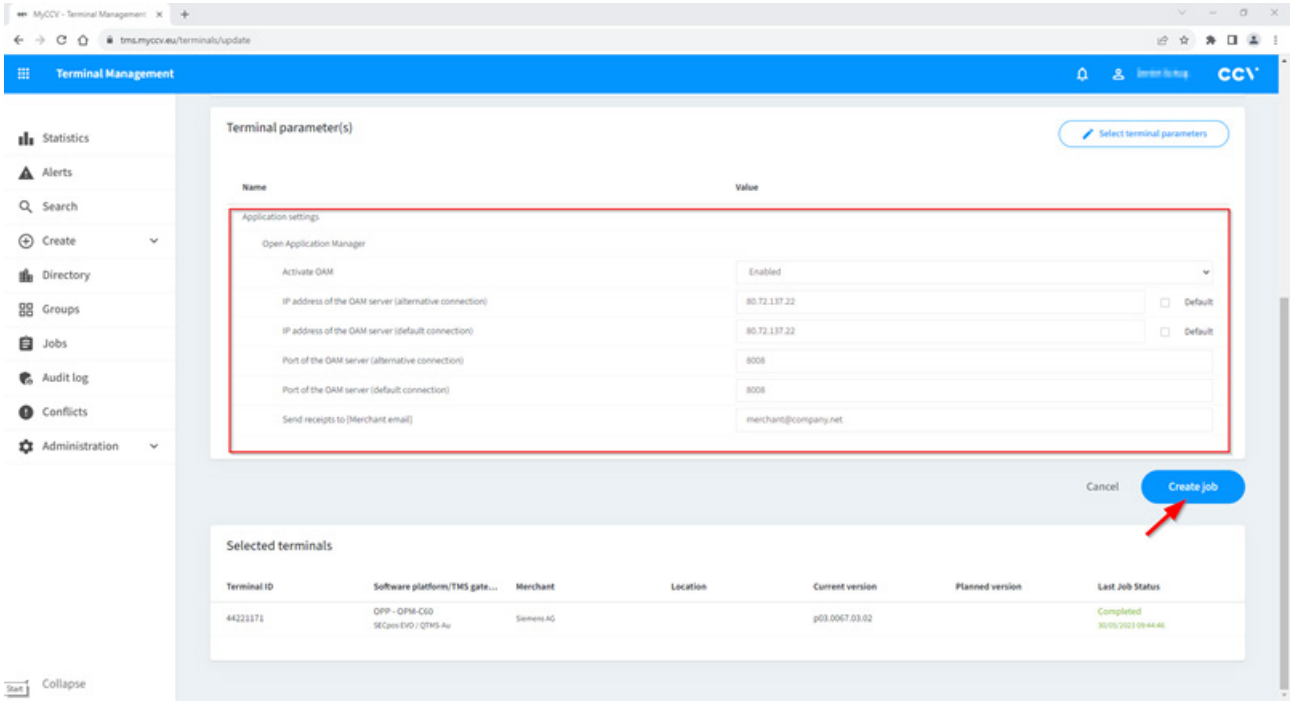
4. In the specific terminal device overview click on the "Application settings" field. This expands the "Application settings" menu.



5. Search in the "Application settings" menu for the "Open Application Manager"
   - Tick the checkbox next to "Open Application Manager"
   - After that, click on "New job"



6. In the card "Terminal parameter(s)" change the following parameters to the settings described below:
   - Activate OAM -> Enabled
   - IP address of the OAM server (alternative connection) -> 80.72.137.22
   - IP address of the OAM server (default connection) -> 80.72.137.22
   - Port of the OAM server (alternative connection) -> 8008
   - Port of the OAM server (default connection) -> 8008
   - Send receipts to [Merchant email] -> specify an email address for incoming receipts i.e.: merchant@company.net



7. After all parameters are specified click on "Create job"

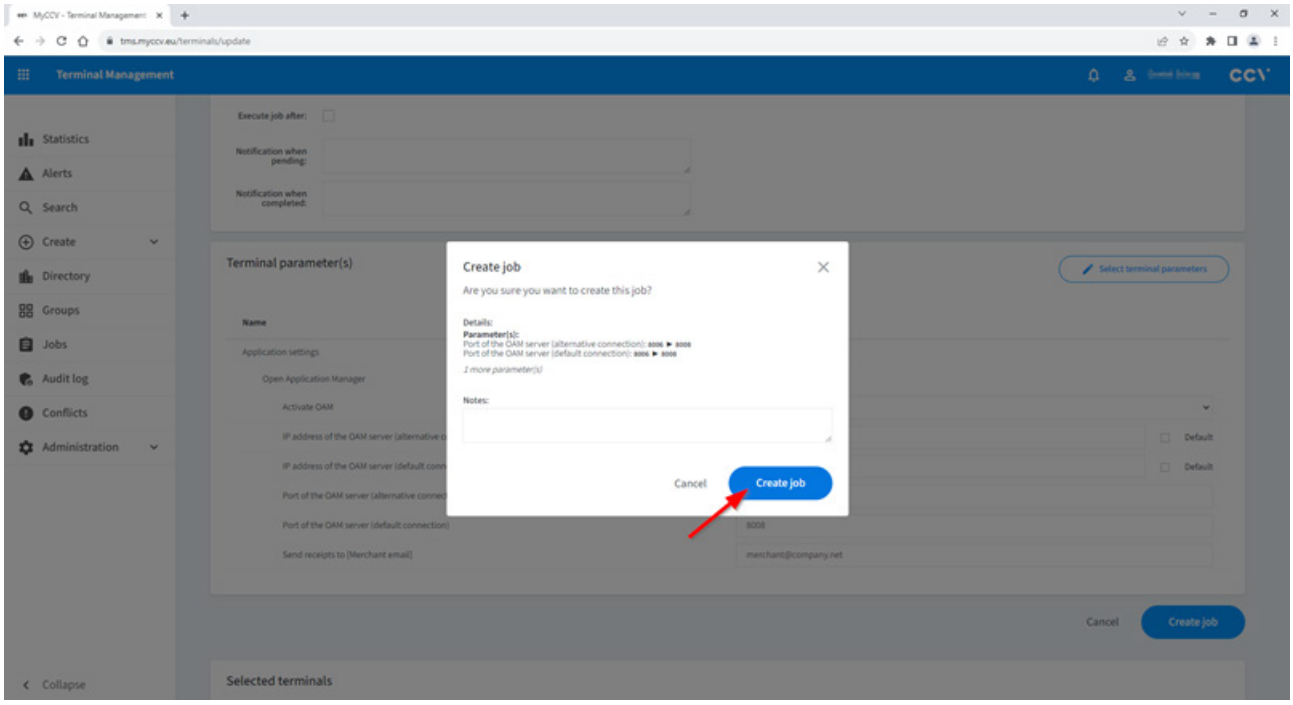


Figure 3-1 7

8. On the next reboot of the terminal, these parameters will be transferred and the OAM (e-Receipt service) will be activated.

3.4 Worldline VALINA

3.4.1 Specific Requirements

You need the following information for the installation:

- Terminal ID (provided by CPO)
- ep2 Merchant-ID (provided by CPO)
- Password
- Payment Host IPs (see Appendix)
- Receipt URL (provided by CPO)

The VALINA has been thoroughly tested and prepared for operation.

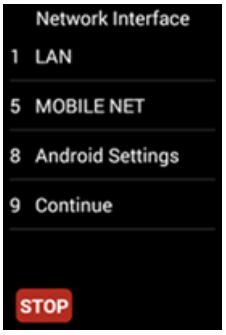
3.4.2 Activation of the Worldline VALINA

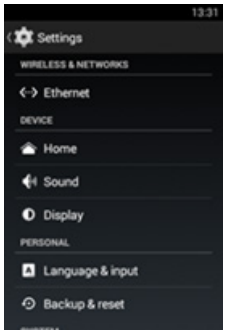
Putting the terminal into operation LAN Static IP

Perform directly on the terminal touch screen all the selections and confirmations described in the following images:

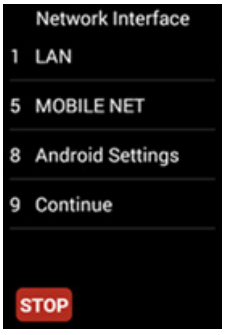
<table>
<tr>
<td>Step 1
 

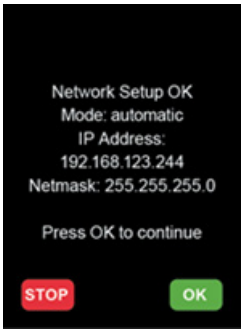
Turn on the Worldline VALINA payment terminal.</td>
<td>Step 2
 

Wait until the payment terminal boots up and displays the following or equivalent screen. Then press the «OK» button to start the configuration.</td>
<td>Step 3
 

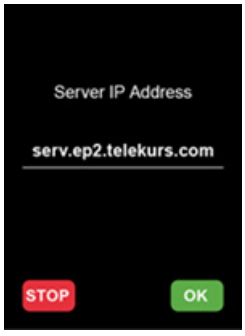
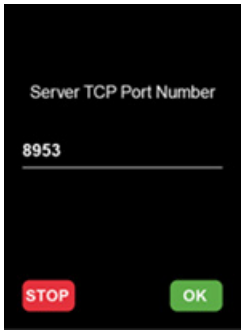
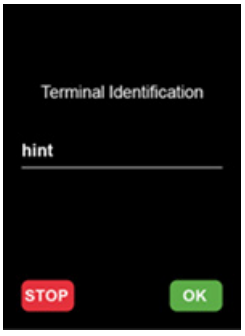
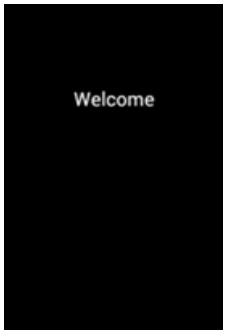
Select «Android Settings».</td>
<td>Step 4
 

Select «Ethernet».</td>
</tr>
<tr>
<td colspan="2">Step 5
 

The Keyboard is displayed and now the static IP address settings can be set up with the following values:
• IP settings: switch from DHCP to static
• IP address: 10.20.17.50
• Subnet mask: 255.255.255.0
• Gateway: 10.20.17.2
After setting up the above values follow the next steps:
1. Confirm the values by pressing OK.
2. Press the < gearwheel symbol to request a network test.
3. Press «OK» to proceed.
4. The network test will now be requested. For this it is necessary that the payment terminal is connected to an already configured customer router (Router 2).</td>
<td>Step 6 (optional)
 

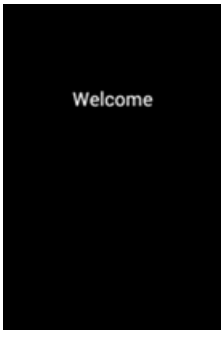
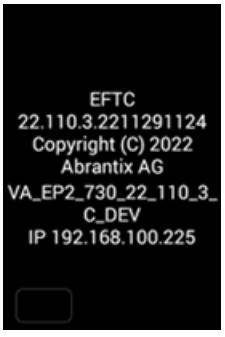
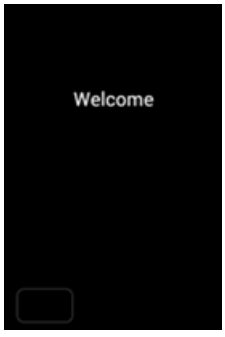
Select «Continue».</td>
<td>Step 7
 

If successfully connected, the static IP address is displayed. Continue with «OK».</td>
</tr>
</table>

Step 8	Step 9	Step 10	Step 11
			
The server IP address is displayed, accept it by pressing «OK» if serv.ep2.telekurs.com is configured, otherwise enter it manually.	The server port will be displayed, accept it by pressing «OK» if 8953 is configured, otherwise enter it manually.	Tap into the empty field (position hint). The keyboard is displayed. Enter the Terminal-ID and confirm with «OK».	The current software will be loaded. Wait for several reboots, the Configuration and the Initialization until «Welcome» is displayed.

Entering the menu on a preconfigured VALINA (Only for a service case)

1. Make sure the VALINA display is on «Welcome».
2. Find on the back of the VALINA the two buttons labeled with «R» and «M».
3. Press the lower button «M» once shortly to enter the menu.
4. If this doesn't work, please follow the instructions below:

Step 1	Step 2	Step 3
		
Make sure the VALINA display is on «Welcome». Unplug the power cable to reboot the VALINA	The first «hidden button» shown on the left bottom during the startup leads into the reset menu, let it pass by.	The second «hidden button» will be shown up to 60 seconds on the Welcome screen. Press the «hidden menu button» once and enter the terminal password.

Functions	Menu	Description
Configuration	5) Setup 1) Configuration	The terminal retrieves the latest configuration parameters.
Initialization	5) Setup 2) Initialization	Individual or all card issuers are restarted.
SW-Update	5) Setup 3) SW Update	The terminal loads the latest version of the software.

Appendix

A

A.1 Payment routes for CCV OPM CORE

VR Payment

- PU1
- Live Key 1: **195.35.87.72:12509**
- Live Key 2: **194.149.255.187:12509**
- TMS Live Key 1: **194.149.255.184:12517**
- TMS Live Key 2: **195.35.87.75:12517**
- OAM E-Receipt Live Key: **80.72.137.22:8008**

VR PAYONE

- PU1
- Live Key 1: **195.200.194.10:10410**
- Live Key 2: **195.200.194.138:10410**
- TMS Live Key 1: **80.72.137.22:1260**
- TMS Live Key 2: **---**
- OAM E-Receipt Live Key: **80.72.137.22:8008**

CCV KNB PAYONE

- PU8
- Live Key 1: **195.200.194.138:10410**
- Live Key 2: **195.200.194.10:10410**
- TMS Live Key 1: **80.72.137.22:1260**
- TMS Live Key 2: **---**
- OAM E-Receipt Live Key: **80.72.137.22:8008**

A.2 Country Coverage CCV OPM Core Terminal

Payment Service Provider/Country	CCV KNB	PAYONE
Belgium	Ready	Ready
Bulgaria	In Planning	Not supported
Denmark	On request	On request
Germany	Ready	Ready
Estonia	In Planning	Not supported
Finland	On request	On request
France	On request	On request
Greece	In Planning	Not supported
Ireland	In Planning	Not supported
Italy	On request	On request
Croatia	In Planning	Not supported
Latvia	In Planning	Not supported
Lithuania	In Planning	Not supported
Luxembourg	Ready	Ready
Malta	In Planning	Not supported
Netherlands	Ready	Ready
Austria	Ready	Ready
Poland	On request	On request
Portugal	On request	On request
Romania	In Planning	Not supported
Sweden	On request	On request
Slovakia	On request	On request
Slovenia	On request	On request
Spain	On request	On request
Czech Republic	Ready	Ready
Hungary	On request	On request
Cyprus	On request	On request
Switzerland	Ready	Ready
Norway	On request	On request
Additional	Andorra San Marino	Andorra San Marino

A.3 California Pricing Model v1

You can find the California Pricing Model v1 on the Internet (https://www.openchargealliance.org/uploads/files/OCPP-California-Pricing-Requirements.pdf).

A.4 Payment routes for Worldline VALINA

Test System

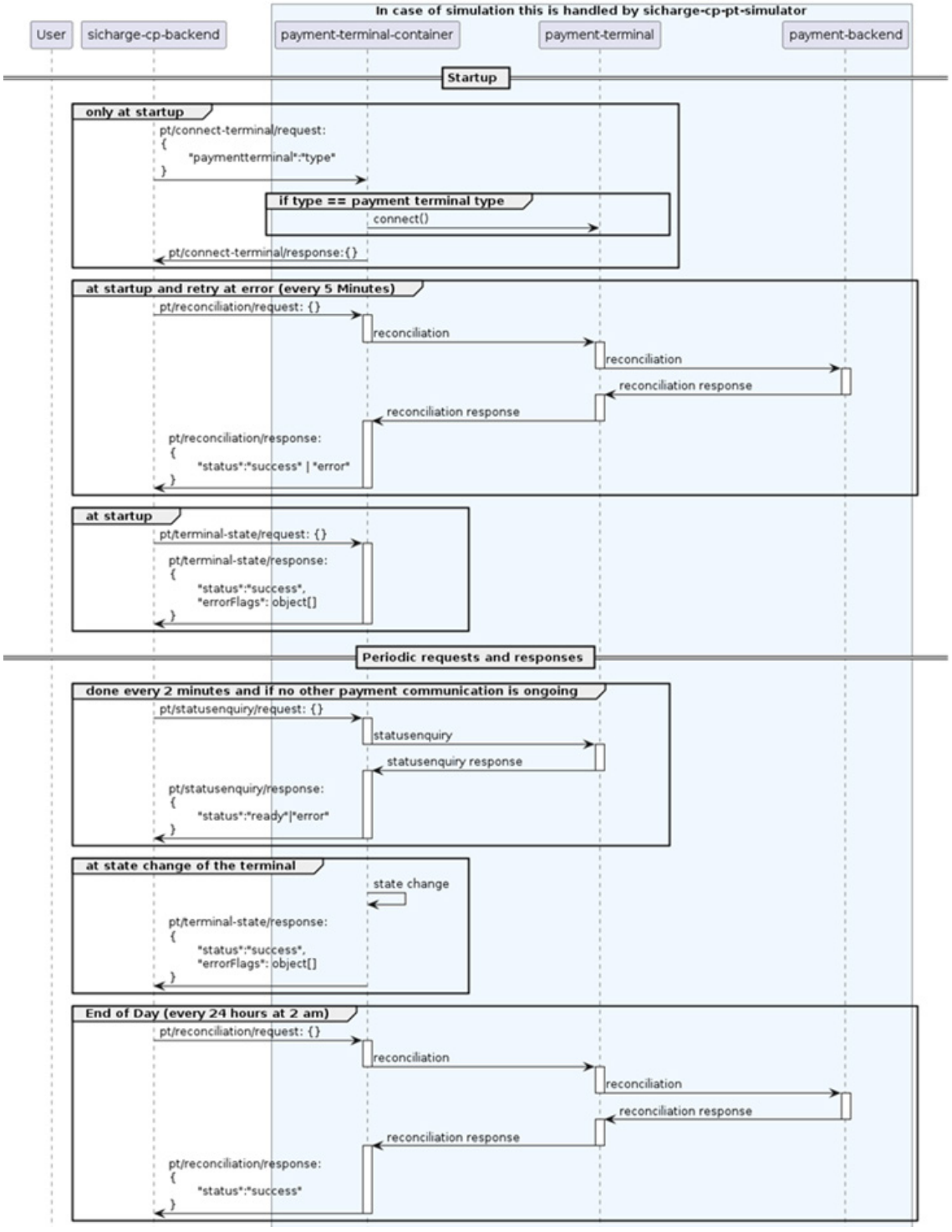
Software download (mandatory)	153.46.253.140:8953 HTTP	tserv.ep2.telekurs.com
GKLP (mandatory)	153.46.254.218:62000 TCP	tgklp.telekurs.com
Configuration (mandatory)	153.46.253.139:8115 TCP	tsiconfig.ep2.telekurs.com
Initialization (mandatory)	153.46.253.133:2262 TCP	tsiinit.ep2.telekurs.com
Authorization (mandatory)	153.46.253.129:2261 TCP	tfe.ep2.telekurs.com
Direct/PMS delivery (mandatory)	153.46.253.135:2264 TCP	tmisubm.ep2.telekurs.com
Coi (mandatory)	153.46.253.134:2253	tcoi.ep2.telekurs.com
Value Master (optional)	153.46.99.2:50005 TCP	
Payone (optional)	195.200.194.8:51006 + 51007 + 51008	
Accarda (optional)	194.209.61.53:42100	
ConCardis (optional)	217.73.32.88:35146	
PostFinance (optional)	138.189.254.102:1637 + 1639 + 1641	
Reka (optional)	185.66.79.195:51006 + 51007 + 51008	
Wir (optional)	62.2.162.113:1701	

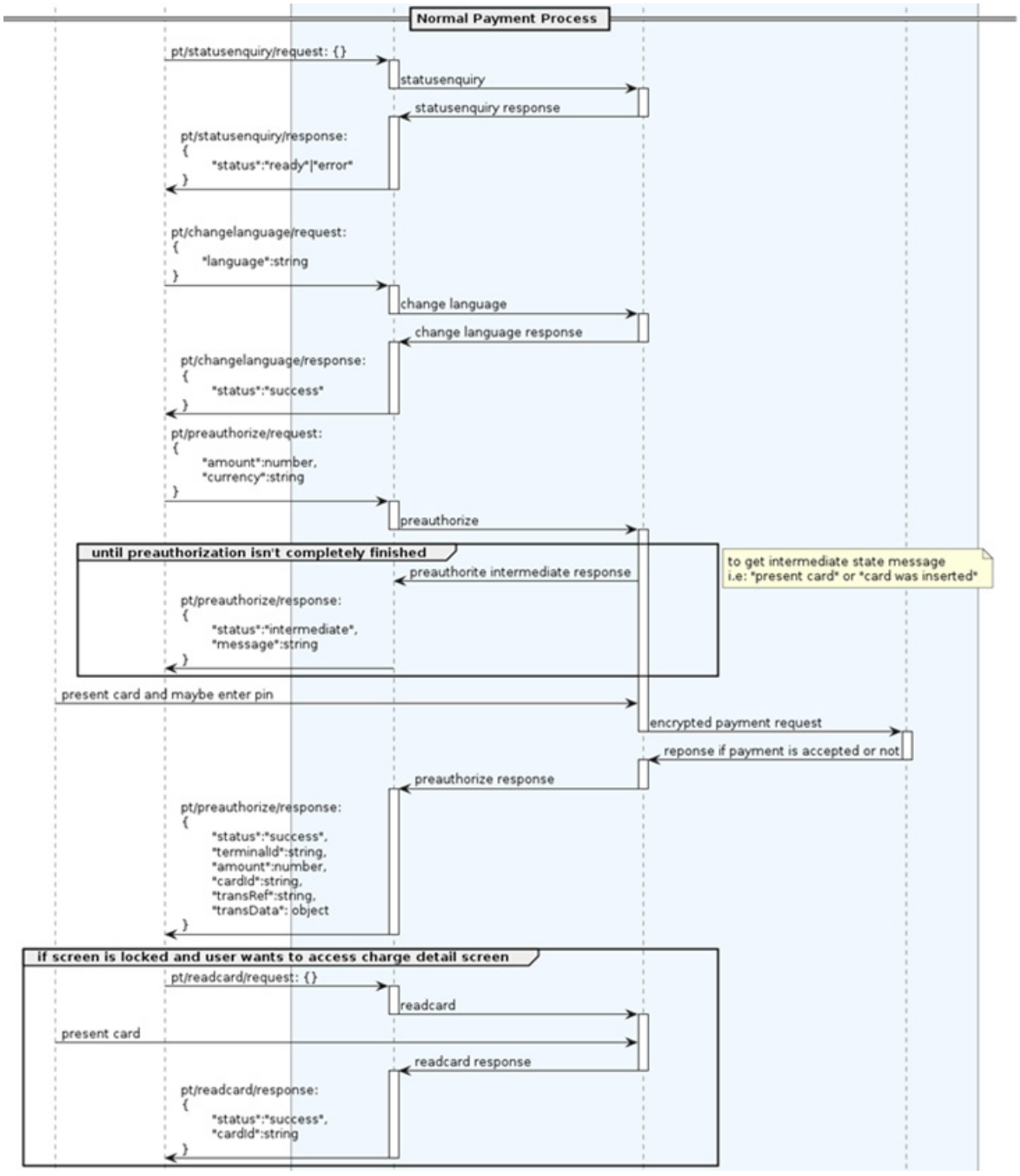
Productive System

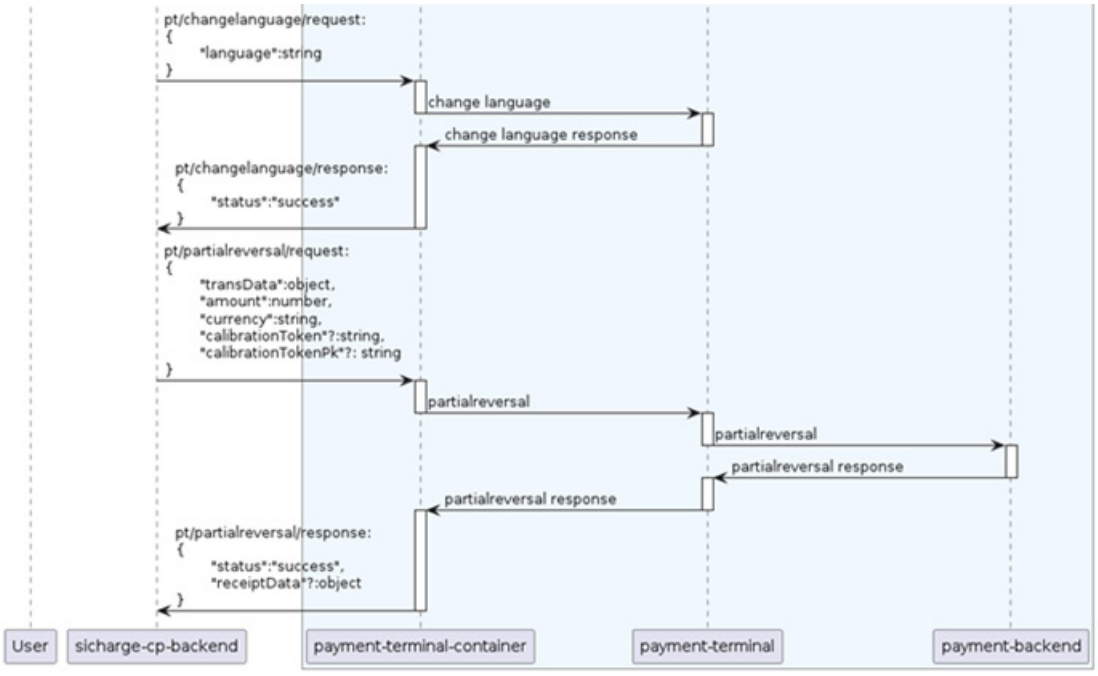
Software download (mandatory)	153.46.253.156:8953 HTTP	serv.ep2.telekurs.com
GKLP (mandatory)	153.46.254.217:62000 TCP	gklp.telekurs.com
Configuration (mandatory)	153.46.253.155:8115 TCP	siconfig.ep2.telekurs.com
Initialization (mandatory)	153.46.253.149:2252 TCP	siinit.ep2.telekurs.com
Authorization (mandatory)	153.46.253.145:2251 TCP	fe.ep2.telekurs.com
Direct/PMS delivery (mandatory)	153.46.253.151:2254 TCP	misubm.ep2.telekurs.com
Tax Free “Planet” (optional)	193.120.149.218:51030 HTTPS	pi.fintrax.com
Tax Free “Global Blue” (optional)	195.177.228.175:51030 HTTPS	abrantix.globalblue.com
Value Master (optional)	53.46.99.1:50005 TCP	
B+S (optional)	193.16.220.15:5045	ep2.ep2-bs.ch:5045
ConCardis (optional)	217.73.32.84:41563	ep2.firstdata.de
Innocard (optional)		acqprim.innocard.ch:6057
		acqprim.innocard.ch:6058
		acqprim.innocard.ch:6060
PostFinance (optional)	138.189.254.100:1637 + 1639 + 1641	ep2.PostFinance.ch
Wir (optional)	91.217.170.53:1603 + 1605 + 1607	ep2cp.wir.ch
Boncard (optional)	195.130.218.230:5045	ep2.boncard.net
Reka (optional)	185.66.79.195:51006 + 51007 + 51008	ep2.reka.ch

A.5 Complete Payment / Authentication Flow using ad-hoc Payments

Direct Payment Terminal Integration e. g CCV




Normal Payment Process
pt/statusenquiry/request: {}
statusenquiry
statusenquiry response
pt/statusenquiry/response:
{
"status":"ready"|"error"
}
pt/changelanguage/request:
{
"language":string
}
change language
change language response
pt/changelanguage/response:
{
"status":"success"
}
pt/preauthorize/request:
{
"amount":number,
"currency":string
}
preauthorize
until preauthorization isn't completely finished
preauthorite intermediate response
to get intermediate state message
i.e: "present card" or "card was inserted"
pt/preauthorize/response:
{
"status":"intermediate",
"message":string
}
present card and maybe enter pin
encrypted payment request
reponse if payment is accepted or not
preauthorize response
pt/preauthorize/response:
{
"status":"success",
"terminalId":string,
"amount":number,
"cardId":string,
"transRef":string,
"transData": object
}
if screen is locked and user wants to access charge detail screen
pt/readcard/request: {}
readcard
present card
readcard response
pt/readcard/response:
{
"status":"success",
"cardId":string
}


pt/changelanguage/request:
{
"language":string
}
change language
change language response
pt/changelanguage/response:
{
"status":"success"
}
pt/partialreversal/request:
{
"transData":object,
"amount":number,
"currency":string,
"calibrationToken*?:string,
"calibrationTokenPk*?: string
}
partialreversal
partialreversal
partialreversal response
partialreversal response
pt/partialreversal/response:
{
"status":"success",
"receiptData*?:object
}
User
sicharge-cp-backend
payment-terminal-container
payment-terminal
payment-backend

More information

https://www.siemens.com/emobility

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