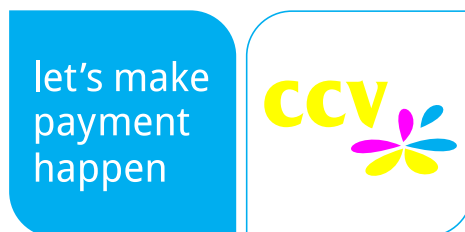
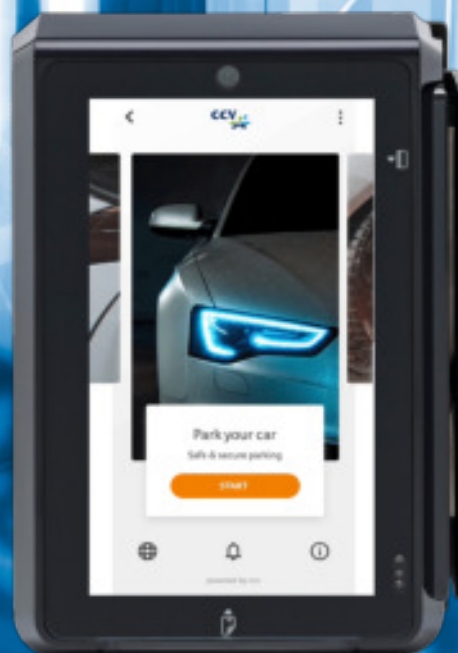
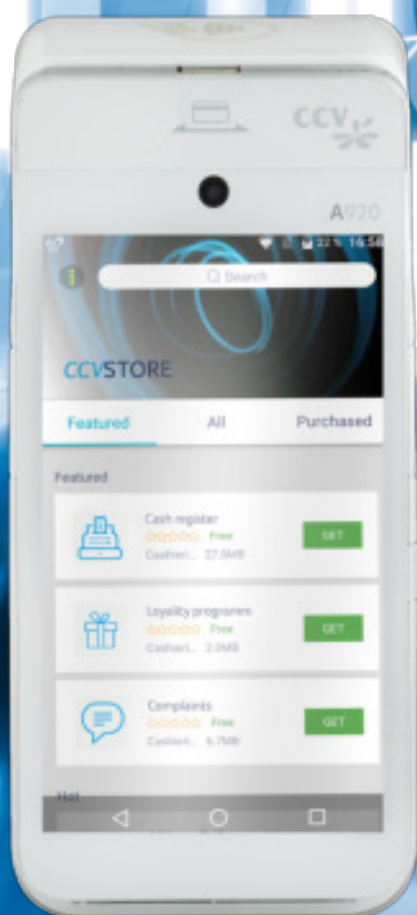


CCVSTORE

Home of your Apps



www.ccv.eu



1. Digitalisation at the point of sale:

Fusing online and offline channels

82 percent of consumers rely on multiple channels when shopping. They combine digital means of shopping with physical ones so that they can benefit from short-term availability online, compare prices and enjoy an authentic shopping experience in store. This behaviour is particularly pronounced in millennials – the generation that was born in the period from the early 1980s to the late 1990s. Almost half of them will consult a price comparison website before deciding on a purchase, often while in the supermarket. Meanwhile, 54 percent of users expect even over-the-counter retailers to offer a mobile shopping app. They use their smartphones in the shops so that they can view their shopping lists in store (27 percent) or pay on the go. They actively seek out free WiFi in the supermarket for this purpose (17 percent).

This change in customer behaviour requires an appropriate on-site reaction from retailers. In principle, the message of digitalisation has already hit home for them: 82 percent of retailers in Germany indicate that they are very or rather open-minded. However, there is still a yawning chasm between open-mindedness and implementation. Only about one in ten companies are considered to be networked. From fusing the channels at the point of sale to digitalising over-the-counter retail, many different aspects are affected in store.

a. Apps as new in-store channels

The aim of digitalisation in retail is to improve the shopping experience of customers and provide them with additional services. That's because many experts see personal consultation and the physical in-store experience as strengths of over-the-counter retail. If this can be developed with the help of digital solutions, it is easier for retailers to win over customers.

With the help of apps, retailers can achieve a lot quickly and easily. As the programs are usually characterised by intuitive operation and simple installation, they can be used to easily digitalise many processes. From inventory management and shift planning through to internal

communication, apps can optimise many processes in a branch. This in turn directly affects sales and revenue: every minute that the business owner or an employee does not spend on administration or planning can be dedicated to customers or maintaining the store. In principle, it is always beneficial to be able to access all functions and services from a single device – that way, everyone can use their time more effectively. This is already widely known in the catering sector, where waiters can use a handheld device to access table reservations, take orders and transmit them to the till.

There are also many apps which improve communications between retailers and customers in store. There is, for example, the option to ask for a review from a shopper in store – whether that's to evaluate an individual product or the shopping experience as a whole. To do this, you need nothing more than the relevant app on a terminal at the till or at the exit. Depending on the till system being used, this survey can even be conducted in the till area right after payment has been made. This way, the retailer gets valuable information and the customer feels valued.

A few things are changing on the shelves too: a customer can, simply by pushing a button, call for a member of staff to advise them or assist them in some other way. But instead of a bell being rung, the relevant service personnel receive a message on their personal device. If they confirm this, all the others know that the customer is being looked after. This increases the quality of service and reduces waiting time by visibly accepting and processing all requests for all employees.

b. How the smartphone is changing the point of sale

Of course, customers also use many apps on their smartphones while shopping. Customers' mobile phones are changing the point of sale, particularly through integrating added-value services. Naturally, top-priority here are customer programmes, loyalty programmes and VIP pro-

¹ Wirecard, "International Holiday Shopping Report 2018", December 2018.

² Roland Berger, "Millennials sind wichtige Zielgruppe für Lebensmitteleinzelhandel" ("Millennials are an important target group for food retail"), September 2018.

³ Scandit, "2018 Retail Consumer Survey", April 2018.

⁴ Roland Berger, "Millennials sind wichtige Zielgruppe für Lebensmitteleinzelhandel", September 2018.

⁵ Bitkom, Digital Office Index 2018, June 2018.

⁶ Zebra Technologies, Intelligent Enterprise Index, November 2018.

grammes. In Germany, 37 percent of consumers are members of at least one such customer loyalty programme; half of them use it for each purchase. If the programme has an app, this is also used. Payback, the largest customer loyalty programme in Germany, has more than 30 million active members. 7 million of them use the Payback app.

In addition, self-scanning solutions are enjoying increasing popularity. 60 percent of consumers indicate that they are aware that they can scan the barcodes on items in store using mobile devices. 30 percent of consumers would be happy using a mobile scanning app to self-checkout, 26 percent to search for items and 25 percent to look at customer reviews for specific products.

Mobile payment is also of interest to users: eight percent of iPhone users already use Apple Pay, 88 percent have heard of the service. Among Android users, 80 percent know the name Google Pay, twelve percent have tried out the service. You need a credit card for both solutions. Alternatively, Google Pay users can link their Payback account. For the user, it makes no difference whether they're shopping in a browser, in an app or in a shop. The European solution for mobile payment, "Bluecode", is going a similar route. It links directly to the user's current account. As only about a third of Germans have a credit card, this solution is beneficial

in Germany. However, Bluecode cannot be used for online trading (yet). Unlike Apple Pay and Google Pay, Bluecode doesn't rely on NFC to pay in stores and at self-service machines; instead it uses a barcode which is generated and displayed on the phone screen and then scanned at the till. At machines, it uses Bluetooth to communicate with the applicable systems. The Chinese providers Alipay and WeChat Pay go one step further. They are far more than mere mobile payment apps. They are platforms which combine all sorts of features – from online shopping and ordering food and taxis through to chatting with friends. According to its own information, Alipay has 520 million users worldwide, WeChat Pay has more than 600 million active users. At the same time, more and more Chinese tourists are discovering Germany as a holiday destination and use their time there for some intensive shopping. Many retailers see being able to offer potential customers the same payment experience they have at home as a competitive advantage – the POS terminals used should be prepared for these payment methods.

More and more frequently, consumers are going through shops with their smartphones in their hands and are even "online" at the till. Retailers need to adapt to this behaviour and also have a presence on their devices or at least incorporate this into their customer journey.



⁷ GfK, Study for Mastercard, October 2018.

⁸ Payback, Facts and data, February 2019.

⁹ Scandit, "2018 Retail Consumer Survey", April 2018.

¹⁰ Skopos, "Mobile Payment Study", February 2019.

¹¹ Statista, Credit card statistics, January 2019.

2. Meeting the challenges: with the CCVSTORE

Retailers need new hardware in their stores in order to implement these new possibilities and requirements. The top priority is for the new till system to be capable of actually being compatible with apps. This is not only necessary to be able to use the retailer apps for organisation or customer communication. Applications from third-party providers, loyalty programmes or point-of-sale apps, for example, can be easily integrated and networked with existing systems using an Android-capable device. In May 2019, the Android operating system achieved a market share of 75.3%, making it the clear global leader in the mobile operating system market, way ahead of Apple's iOS with a market share of 22.7%. The advantage of Android-based terminals is based on full app availability for every conceivable area of business. Android apps can be installed on the CCV terminals immediately after a successful security test and any possible amendments.

To make this possible, CCV started the CCVStore – a special app market place for use on payment devices. Applications can be installed on the new devices, such as the CCV Mobile A920 and the CCV IM30, via the largely established Android operating system. The CCV devices can be customised (just like your own mobile phone) via the CCVStore for each retailer according to their needs: many things are possible, from merchandise management system solutions and point-of-sale and customer review apps through to in-house developments.



The CCV Mobile A920

Furnished with a touchscreen, a signature pad, a printer, a card reader and a very long-lasting battery, the CCV Mobile A920 is a valuable mobile point-of-sale solution. It can be used to process contactless payments from every provider as it has a chip and mag-

netic strip reader, as well as front-facing and back-facing cameras which can be used for QR code-based payment methods, for example. Also included are all the common communication options, from WiFi and Bluetooth through to 4G. The camera can also be used for processes aside from making payments, e.g. for documenting damage to packaging or for complaint reports. Many of the benefits of digitalisation can be put in place right by the point of sale using just one device.



CCV IM30

The CCV IM30

Fully customizable, CCV IM30 helps to create a seamless purchase experience. This brand-new unattended terminal runs on a self-contained, secure version of Android, with countless possibilities for customization and use of applications.

Intuitive: Helps to secure operability and to establish trust with consumers.

Secure: Features high-end security which complies with industry standards.

Intelligent: Offers numerous possibilities to communicate and advertise to customers.

a. Benefits for resellers

i. Simpler provision of additional services

Retailer can download apps for a wide variety of functions directly onto their CCV devices via the CCVStore. However, the applications may be developed and supplied by independent app providers, resellers and financial service providers, and not necessarily by CCV itself. In this way, it is easier for resellers and service providers to make their services available to retailers directly. Every retailer or terminal operator can decide for themselves which applications they want to use on their device and install them themselves – just as they are used to doing with their smartphone and the app store.

CCV takes care of security: every app uploaded to the store goes through a strict test before it can then be installed in the CCVStore. Conversely, an app which has not been signed by CCV cannot be loaded onto the terminal. This prevents harmful applications ending up in the store, which is hosted by CCV in a PCI-certified data centre in Germany.

ii. Terminal management and maintenance

The CCVStore offers significant benefits when it comes to terminal management and maintenance by the reseller. Information on each individual terminal can be accessed via terminal management in the CCVStore: among other things, this includes information on the model and its technical data, as well as any indications of current battery faults or problems with peripherals (e.g. the printer). Furthermore, resellers can use a monitoring system to see a breakdown of how the device is currently performing, which apps are installed on it, which firmware version it has and whether an update is required. The terminal log can also be downloaded via the store, which makes remote diagnosis of any problems significantly easier. Updates for apps and the operating system can be loaded on to the device via the CCVStore, thus reducing maintenance costs – a process which has been made entirely normal in day-to-day life by our smartphones. The terminal's payment engine can also be updated using this convenient method.

b. Benefits for app developers

i. New distribution channels

The CCVStore also has a few interesting benefits for app developers. Offering the target group – the retailers – their own apps directly is difficult for a variety of reasons. For one thing, there's the sheer number of applications inhabiting the popular app stores. There are 2.5 million applications in the Google Play store alone. Even if most of them are games and thus irrelevant for retailers, the competition is great, and it is difficult to get your app to the top of the search results. Furthermore, developers often lack access to their potential customers, the retailers.

Another problem is device management. If a retailer provides their employees with smartphones or tablets – which is something of a rare occurrence anyway – they are usually managed centrally. This means that the user, who actually knows which features the device needs to have, can't install the applications themselves and instead has to ask the IT department to do it for them. The IT department must then select an app from the range on offer, determine whether or not it is safe and then install it. This

process can take up a lot of time – anyone working in an office with high safety requirements know about this with their computer. CCV terminals are also available for much longer – with regard to service, replacement parts and maintainability – than smartphones and tablets geared towards retail business.

The CCVStore is a direct channel into retail here. It only contains apps which are relevant for retailers, significantly reducing the competition for attention. And as the store is only accessible to players in the industry, it is a direct distribution channel itself. Resellers have the option to install relevant apps on selected terminals via the so-called push service. CCV also takes care of security meaning that device management shouldn't be an obstacle.

ii. Android-based

In terms of technology, the CCVStore uses the closed and secure Android-based operating system PayDroid. Only the actual payment app has access to the card reader or any key areas, thereby ensuring the requirements of the German Banking Industry Committee (DK) and the international standard PCI-PTS are met. The CCVStore does not have access to any sensitive card data, and Google doesn't have access to the data either – about the payment process or about other applications installed on the device. The check carried out in advance by CCV for all the apps in the store provides additional security. This means no harmful applications can get to the terminals. CCV is also providing a free software development kit (SDK) so that existing apps can also be easily adapted for PayDroid.

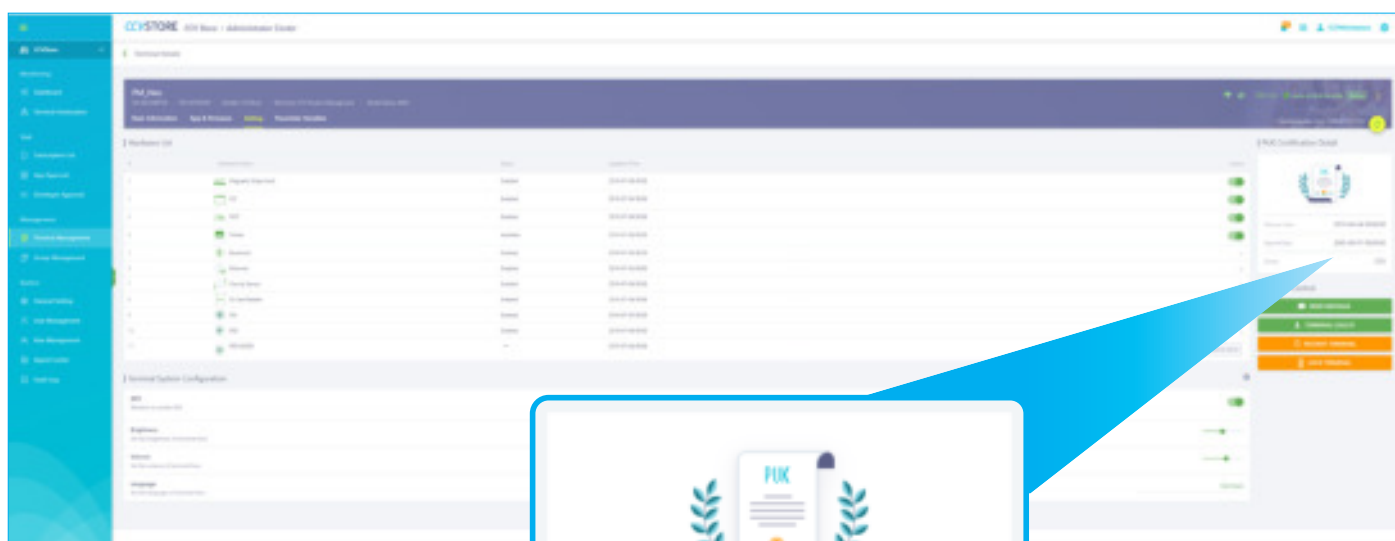
c. Benefits for retailers

In order to adapt to the altered customer behaviour, retailers need to make their campaigns more digital. New hardware is needed in the stores so that new solutions for improving the shopping experience can be implemented successfully. At the same time, however, it is not expedient to acquire new devices for every new solution. Much more important is special hardware which can be easily adapted for additional tasks. Flexible point-of-sale solutions which can be fitted with new abilities quickly and easily via an app are the next logical step in the evolution of point-of-sale terminals. The CCV Mobile A920 is the first representative of this new generation.

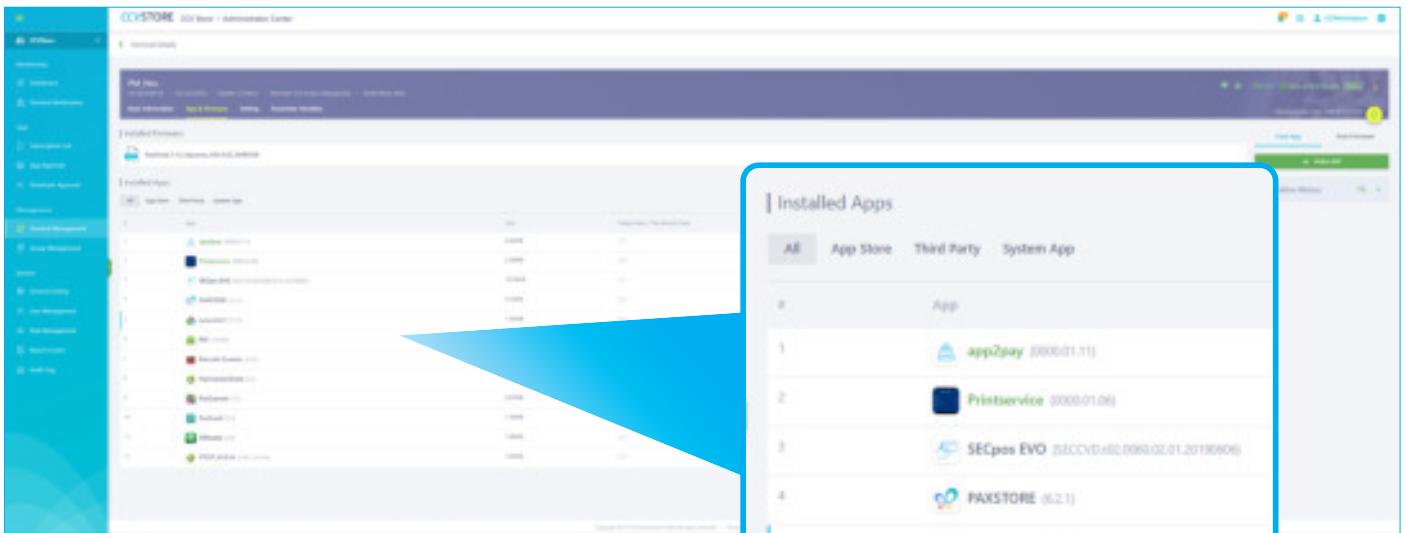
Regardless of whether payment systems, organisational tools or solutions for customer communication are involved – retailers can catch up with the latest develop-

ments in retail with the CCVStore. Thanks to the simple integration of additional features through apps, any task can be digitalised, and new payment methods can be easily integrated. Future challenges can be quickly and easily taken on with the help of the developer community, which constantly provides retailers with new apps. The CCV terminals even work quickly and easily when it comes to servicing. They can be serviced and updated quickly and without much fuss via remote access to the reseller. Repairs are carried out quickly and by qualified engineers at the facility in Au in der Hallertau in Bavaria. By using CCV Android terminals, in both served and unserved areas (vending), and the CCVStore, chains, payment providers, multipliers and app developers can create a perfect foundation for being able to keep up with future changes in retail and the purchasing behaviour of consumers, which is changing massively.

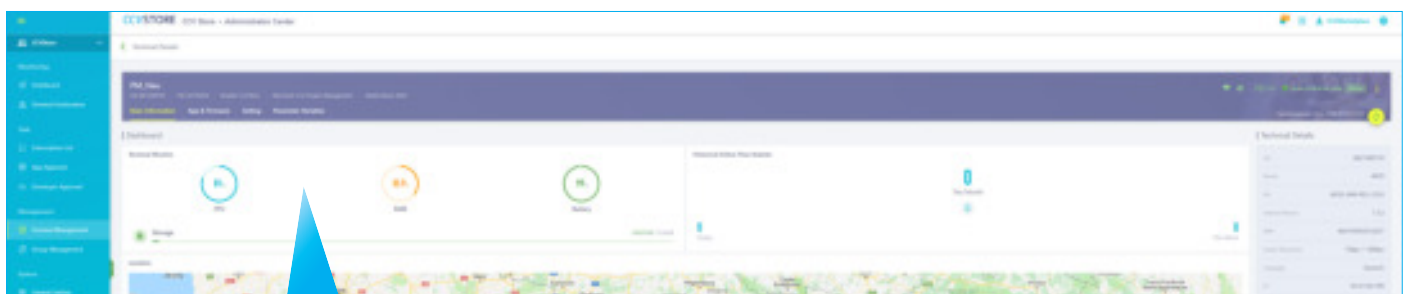
The back office of the CCVSTORE



You can manage your terminals via the “Settings” tab. Regardless of whether that involves sending messages to a terminal, looking at logs for a technical analysis, or restarting or locking a terminal. Ideal for your service and support



You can see all the apps and firmware already installed on your terminal via the “Apps and firmware” tab. Here you can “push” apps and firmware via remote access, uninstall apps already on the device or initiate new updates with a single command.



Terminal Monitor



Storage

You can see the status of your terminal via the “Basic information” tab. You can see the activity on the terminals in “Terminal monitor”. The technical details for the terminal are also visible, including the current network status (WiFi or LAN), battery charge level or whether the terminal is online and active.

CCV,

**your trusted partner
for payment
solutions.**

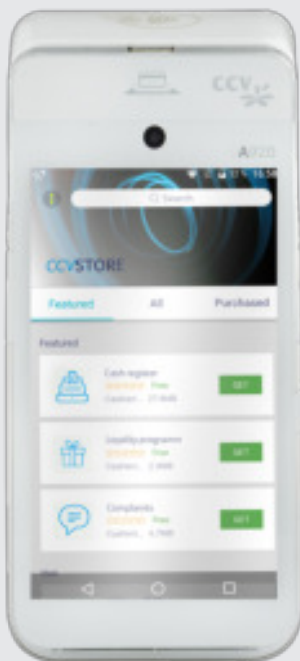
Arnhem office:

Westervoortsedijk 55 | 6827 AT Arnhem, The Netherlands

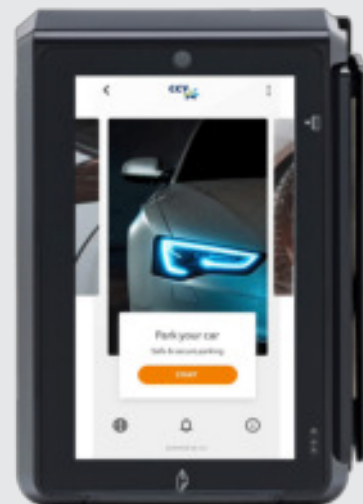
Munich office:

Gewerbering 1 | 84072 Au i.d. Hallertau, Germany

CCV Mobile A920



CCV IM30



Payment & Innovation

- » Expertise & experience
- » High-end customize for large clients
- » 1 bln transactions a year



European +

- » Offices in the Netherlands, Germany, Belgium and Switzerland
- » Sales presence in 15 countries



Family Business

- » Strong company culture
- » Reliable partner



Entrepreneurial

- » C2P - Joint venture with PAX
- » Extensive partner network