How smart apps are transforming payment terminals

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SmartPOS terminals deliver far greater value than traditional payment terminals and can be used in more types of environments. The two main reasons why this statement is true are the additional capabilities delivered by the Android operating system, and the range of software apps that are now available worldwide. PAX Technology continues to lead the way on app deployment, with over 11,000 apps - created by more than 3500 software developers in over 100 countries - running on more than 10 million SmartPOS devices. These apps are managed through MAXSTORE, the payment industry's leading app store & mobile device management platform. In this blog we explore the main types of apps being deployed, discuss the current adoption status, and provide examples of innovative apps and environments.
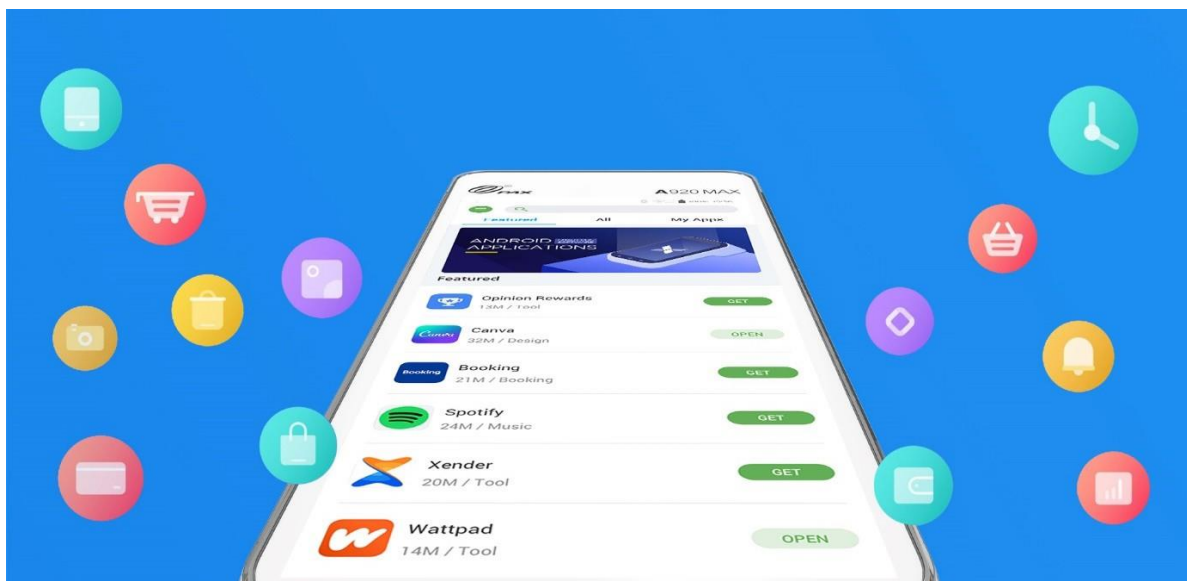
What type of apps are being deployed?
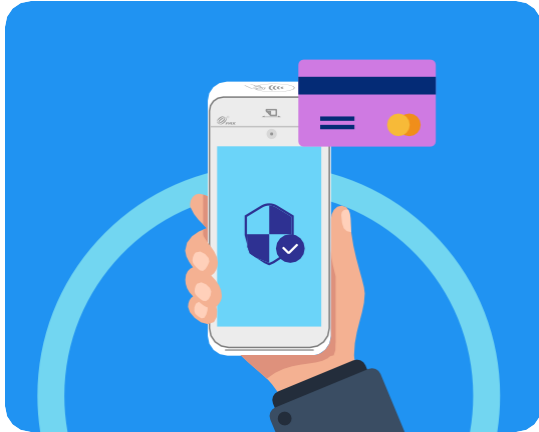
Every PAX SmartPOS device runs a certified payment app to handle payment acceptance. This is supplemented by a wide range of Value Added Services (VAS) apps developed by Independent Software Vendors (ISVs). These apps allow a single device to fulfill multiple purposes and deliver incremental benefits. Popular VAS app categories include:

- Selling & Transaction Processing
- Customer Engagement, Retention & Rewards
- Ticketing & Validation
- Access Control & Monitoring
- Healthcare Services
- Booking & Scheduling
- Device Management, Logistical Services, and Analytics
- Additional Payment Methods

# Selling and transaction processing apps

By far the most widely deployed VAS apps are those that perform a cash register / EPOS / transaction processing function. These enable a SmartPOS device to process a sale transaction as well as accepting payment - eliminating hardware duplication, simplifying business operations and improving the user experience. This category is now in the 'Early Majority Adoption' phase,

particularly in Europe, and mainly for use by Small and Medium sized Enterprises
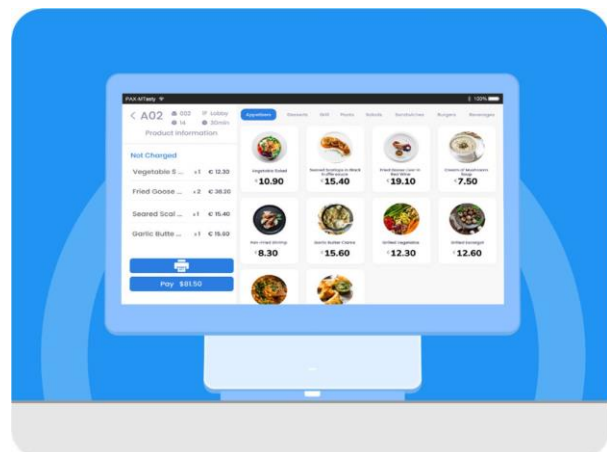
(SMEs). Hundreds of register type apps are available, catering for the needs of the general retail and hospitality sectors, as well as for vertical market niches. [EPOS adoption by SMEs](#) continues to increase as more ISVs release Android versions of their software products and seek out lower-cost hardware platforms.

Popular general retail apps include: [Register](#), [Force7Web,](#) and [Vital POS](#). Widely deployed hospitality sector apps include [Tabit](#), [Digifood](#), [Touché](#), [SecureTablePay](#) and [Storyous](#). Each app offers a comprehensive, yet slightly different, feature set often including support for price lookup, dynamic product menus, inventory management, integrated payments, bar code scanning, table and user management, gratuities, gift cards, and reporting. These apps maximise use of the bigger full colour touch-screen displays, larger memory and device portability. Sometimes ISVs offer a subset of their software functionality providing a 'Lite' product version at a lower price point.

Customer engagement, retention and rewards apps
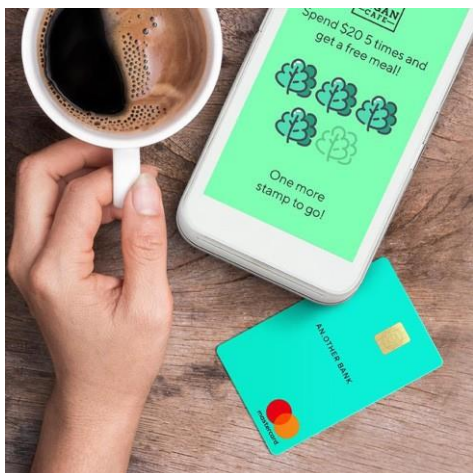
The second most mature VAS app category covers customer engagement, retention and reward apps. This is because merchants understand that the cost of acquiring a new customer is so much higher than retaining an existing customer. Plus, increasing customer retention rates boosts profits significantly.

Examples of best-of-breed apps within this category include: [Payment Loyalty](#) where loyal customers are rewarded without adding friction. Targeted offers and gamification are also used to engage customers. [Izicap](#) have developed a suite of capabilities enabling acquirers to sell loyalty programs to SME merchants to help them compete against enterprise retailers. Other loyalty apps include [LoyalZoo](#) who have created a loyalty solution for the mobile age, [Oiyaa](#) who have designed a circular loyalty programme that connects local people with local businesses and [Littlebill](#) who are setting out to revolutionize in-store customer relations including the provision of digital receipts.

Apps within this category track customer activity, deliver rewards and monitor customer satisfaction levels. [Yavin](#) have made it easy for customers to post reviews on TripAdvisor or Google. A further interesting case study is [iCoupons](#) who are

managing the distribution of digital compensation vouchers for use at retail outlets within airport terminals.

Ticketing and validation apps

A VAS app category that is currently in the 'Early Adopter Phase' but with high growth potential is that of digital ticket acceptance and validation.

COVID-19 massively accelerated the digitisation of tickets, thanks to the health, operational, environmental and security benefits. This created the need to be able to validate digital tickets at entertainment venues, outlets and across the transit sector. Specialist apps have been developed utilizing PAX SmartPOS features like the camera, bar code/QR code reading and fast wireless communications.

Weezevent are an example of an ISV who have developed a comprehensive digital ticketing app for managing events, concerts, festivals, workshops and meetings. In addition to cashless payments acceptance this app manages ticket validation, access control, marketing and CRM capabilities. Another case study is Ticketer who offer bus, coach and train operators a range of services from onboard PAX SmartPOS devices. This app utilizes two-way electronic messaging between drivers and control centres and also geolocation fencing to avoid road hazards, like low bridges, when following route diversions. Omnevo have developed apps for use onboard trains and planes. A further case study comes from Cubic, a leading transportation solutions provider, who provide apps for fare collection and revenue management purposes. All these apps

allow a single mobile PAX SmartPOS device to validate ticket status, initiate a penalty fare and process ticket sales.

Access control and monitoring apps

ISVs are busy developing innovative apps to control access to products and services. The list of use cases is diverse and growing, including for bicycle rental, scooters, paddle boards, car washes, laundromats, ski slopes, meeting rooms, hotel self-check-in and EV charging points. A leader in this category is Vourity who offer "all in one point of service and payment terminals" for both unattended and attended sales environment.

Other innovative apps include the management of bread subsidy programmes in certain developing countries, or the monitoring of levels in ice vending machines based on following realtime climatic conditions.

Healthcare services apps

Saficard are a healthcare solution provider who have recognised the many advantages of PAX SmartPOS devices. Their vit@plus app allows healthcare professionals throughout France to process and update the national Carte Vitale without needing to use a computer. The system handles the transmission and billing of pharmacy prescriptions as well as taxi fare billing when patients are being discharged from hospital.

The US market has long experience of payment terminals being used in the healthcare sector to validate medical insurance cover, to digitize transaction, as well as for processing payments. Globally, there will be far greater use of SmartPOS technology within the healthcare sector in future.

Booking and scheduling apps

PAX SmartPOS devices are increasingly being used to manage customer bookings, table reservations, take-away deliveries, plus for employee scheduling and timesheet purposes. These VAS are delivered by ISVs, like Tabit, as part of a suite of software solutions.

Device management, logistical service and analytics apps

Many software apps have been developed to improve the efficiency of managing estates of payment devices. PAX offerings include the extremely powerful GoInsight service for data analytics, AirViewer for remote device management, CloudMessage for electronic messaging, AppScan to identify security vulnerabilities, and AirLauncher to synchronize data. Payment service providers have also developed apps to automate the supply of logistical services and consumables.
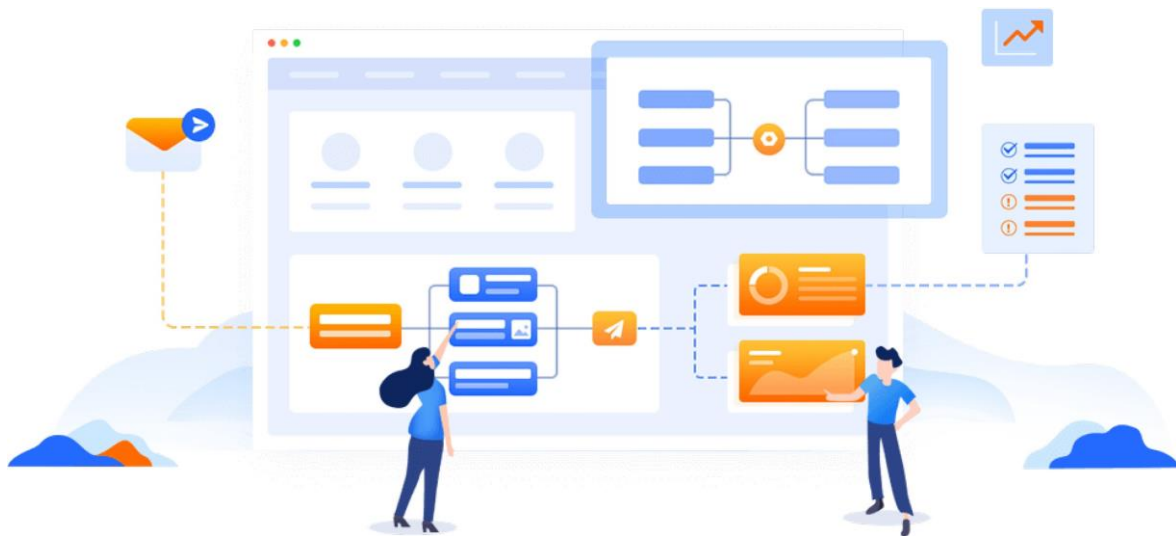
Apps for additional payment methods and capabilities

A wide variety of payment methods including international and domestic cards, digital wallets and alternative payment methods, such as Alipay, are supported either by the PAX payment terminal app or a separate VAS app.
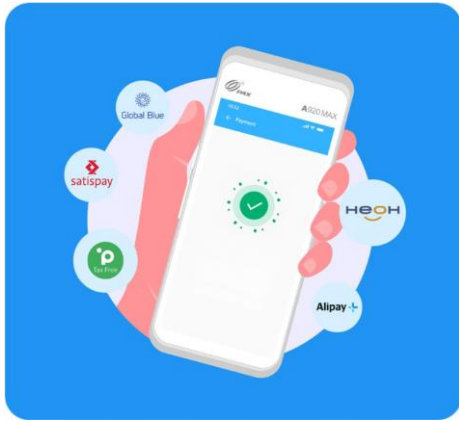
Additionally, PAX SmartPOS terminals are widely used to process VAT refund claims by international shoppers, with apps available from leading tax free operators such as Planet, Global Blue, and Innova Tax Free.

An innovative app developed by Heoh allows customers to make digital donations to charities, including to churches.

SatisPay have created an app that enables money to be sent and received in realtime from brick-and-mortar stores, on the move businesses and from vending machines, using PAX SmartPOS devices.

The PAX Perspective

The benefits of Android powered payment terminals are increasingly understood, but it is the deployment of VAS apps that we believe offers the greatest potential. These work seamlessly with the payment terminal app, delivering many incremental benefits to payment service providers, merchants, and end-customers.

2023 is a tipping point for VAS app adoption, particularly for EPOS/Register apps, thanks to the millions of PAX SmartPOS devices now deployed worldwide, making this more appealing to ISVs. We are also excited about the potential for use of our SmartPOS terminals in new environments such as vending machines, kiosks, the transportation sector, and for EV charging points.
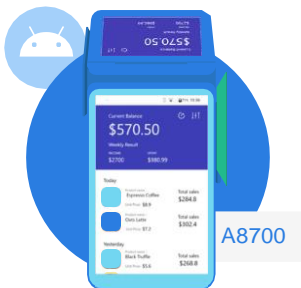
PAX Technology continues to invest in building stylish Android-based devices like the A920MAX, the A8700, and ELYS series, packed full of innovative features; and enhancing the powerful MAXSTORE platform to allow apps to be secured deployed, managed and monetized.

The global PAX community welcomes the opportunity to discuss your VAS app needs and to demonstrate the advanced capabilities available from MAXSTORE. Please do get in touch to schedule a meeting.