



WHITE PAPER

Bring Android appiness to your POS

Expand you business Horizons
with Android Ingenico Solutions



ingenico

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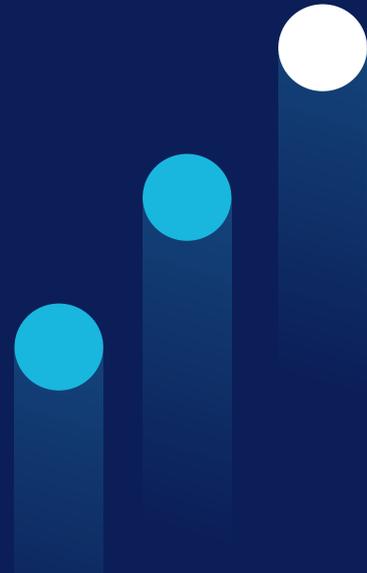
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Executive Summary

Since its launch in 2008, Android has become a hugely successful mobile operating system used in billions of smartphones. Now Android is making rapid inroads into the world of commerce, helping the entire payments ecosystem (from banks, acquirers and fintechs to merchants) embrace digital payments, quickly integrate value-added business solutions and enrich the experience of their customers.

Powering a wide variety of payment methods and business services, the application of Android technology is transforming commerce in three main areas:

- Complementing payment with value-added business applications
- Accelerating the acceptance of alternative payment methods such as QR codes
- Powering innovative payment devices that are connected to the cloud, creating new possibilities for device management, maintenance and pricing

Android devices give payment players the opportunity to differentiate their services, grow their customer bases and generate extra income from their payment terminals. In the specific case of merchants, they unlock endless possibilities to adapt to changing customer habits and integrate payment with value-added solutions.



Ingenico, is one of the world's leading suppliers of Android-based payment terminals. We provide an extensive, secure and reliable portfolio of Android terminals in the market, accelerating the global adoption of digital commerce.

Around the world, payment terminals solutions from Ingenico are helping our payment partners empower merchants with all the innovations of Android business applications. These apps are transforming the function of the payment device, enabling new capabilities, adding new value and creating new revenue streams.

We believe that Android is ushering in a new era of secure and enriched payment terminals. This white paper anticipates the evolving needs and expected benefits as this technology transforms the ever-changing payment landscape.

We hope this white paper will illuminate the road ahead through our insights, analysis and case studies that will enable you to see

Dive into the business application economy

With millions of developers now familiar with its operating system, development tools and application programming interfaces (APIs), Android is the ideal platform for delivering the new world of digital commerce, supporting new shopping behaviours and integrating all means of payment with innovative business solutions.

Thanks to its flexibility and ease of programming, Android technology turns payment devices into enablers of new business opportunities and additional income, providing the same software environment for consumer and merchant apps. Merchants, store staff and consumers are comfortable with the user experience and the devices are simple to implement and run.

The range of potential applications is vast, creating the opportunity to integrate management systems with advanced and alternative payment methods, from accepting Visa and Alipay to introducing Buy Now, Pay Later solutions.

Whatever the sector, Android terminals empower merchants to manage their day-to-day business, delight their customers with innovative applications and advance confidently into the new world of commerce.

An unmatched ecosystem enabling business innovation

Ingenico is leading the way with an extensive set of APIs (application programming interfaces) that make it easy for Android developers to implement any business application and integrate it with the payment world.

The Ingenico developer portal, professional service, SDK (software development kit) and software suite enable best-in-class integration and fast-to-market payment and business applications. The intuitive APIs of Ingenico terminals make it quicker than ever to create rich user experiences that combine payment and business applications.

Payment providers can create their own application stores on Ingenico terminals and customise user interfaces to accelerate deployment of the apps that they want to offer to merchants. Payment providers also benefit from our payment expertise to eliminate payment complexity and cover all acceptance methods and use cases.

These innovations help merchants get more out of their payment terminals, and give payment partners the ability to develop new service bundles and generate additional income.

Business apps in action

Based on our extensive experience in the Android market to-date, our partners are already providing merchants with innovative offerings that complement payments and add value to a merchant's business in areas such as coupon acceptance, Click & Collect, ticketing, staff management and many more.

For specific verticals such as transit, food & beverage or hospitality, a wide range of back- and front-office services can be tailored for each industry. Use cases include vehicle tracking and route planning for transport, inventory management for retailers, and applications for restaurants and hotels that combine loyalty programmes with payment.





Driving the food delivery revolution

Tech company Gojek is Indonesia's largest ride-hailing and food delivery business, supported by 700,000+ moto drivers, 150,000+ car drivers and 200,000 merchants.

The power of Android is accelerating the growth both of Gojek and of its vast network of business partners. Gojek is using the Ingenico Android platform to operate its GoFood delivery service. Participating merchants customise their menu with branding, photographs and prices. They receive real-time notifications when orders are received on the GoFood service.

Thanks to an embedded printer, no additional devices are needed to print receipts. Using its camera, the terminal also accepts QR payments, which are increasingly popular in fast-growing Asian markets such as Indonesia.



New horizons for Italian retailers

Money.net, the Italian Payment Institute, is using Ingenico Android terminals to accept digital payments and provide value-added services to its customers.

Initial applications offered by Money.net to its merchant customers on Ingenico smart terminals include loyalty programmes, eWallets, top-ups, gift cards and bill payments. By offering innovative, value-added Android applications through the Cloud to its customer base, Money.net will boost business activity and enrich the shopping experience for both the merchant and the end-user.

An estimated 3,000 APOS A8 terminals from Ingenico will be operational in retailers by the end of 2021, providing new business opportunities for merchants and a state-of-the-art user experience for their customers.



The changing face of café culture

Android applications are changing the way that hotels, restaurants and cafés process customer orders and take payments. Our partner Touché has developed an application that takes a customer's order directly through the Ingenico Android terminal and sends it straight to the kitchen. When the time comes to pay, guests can split the bill directly on our Ingenico payment device.

Waiters can process any kind of payment, apply loyalty entitlements and send the customer an electronic receipt. There is no need for multiple devices, simplifying the waiter's job and improving the guest experience.



Tax-free refunds, simplified

While international travellers have the right to reclaim tax on goods bought overseas, the form-filling required is a disincentive to most tourists. We have partnered with Innova TaxFree to release an application that can process a tax-free transaction for travellers in just a few seconds.

The camera embedded in the Ingenico Android terminal captures the passport number in the machine readable zone (MRZ) of the document, eliminating the need for travellers to complete endless forms to claim their refund. This innovation means that merchants can offer tax-free refunds, bring additional customers into the store, improve the user experience and reduce transaction times.



Banking for the unbanked

Bank Central Asia (BCA), one of the largest acquirers in Indonesia, is using Android to accelerate branchless banking and develop the country's financial services market.

Laku, BCA's branchless banking service, is driving financial inclusion across the vast Indonesian archipelago and especially in rural areas. The Android-based service based on the Ingenico platform, which is operated by a branchless network of agents, allows Indonesians to open accounts, check their balance and transactions, and to deposit and withdraw cash, often for the first time in their lives.



Check-in 2.0

Even in today's digital world, checking in to a hotel can be a time consuming and frustrating process, often characterised by long lines and multiple document checks.

The new generation of Android payment terminals and biometrics make it possible to automate the entire procedure. In China, our Ingenico terminals are enabling customers to identify themselves using NFC and complete the check-in via facial recognition.



Festival payments made easy

POScontrole, a retail-focused software house which works with acquirers and retail customers in Brazil, relies on our Ingenico Android expertise to enable ticketing and menu ordering at large music festivals in the country.

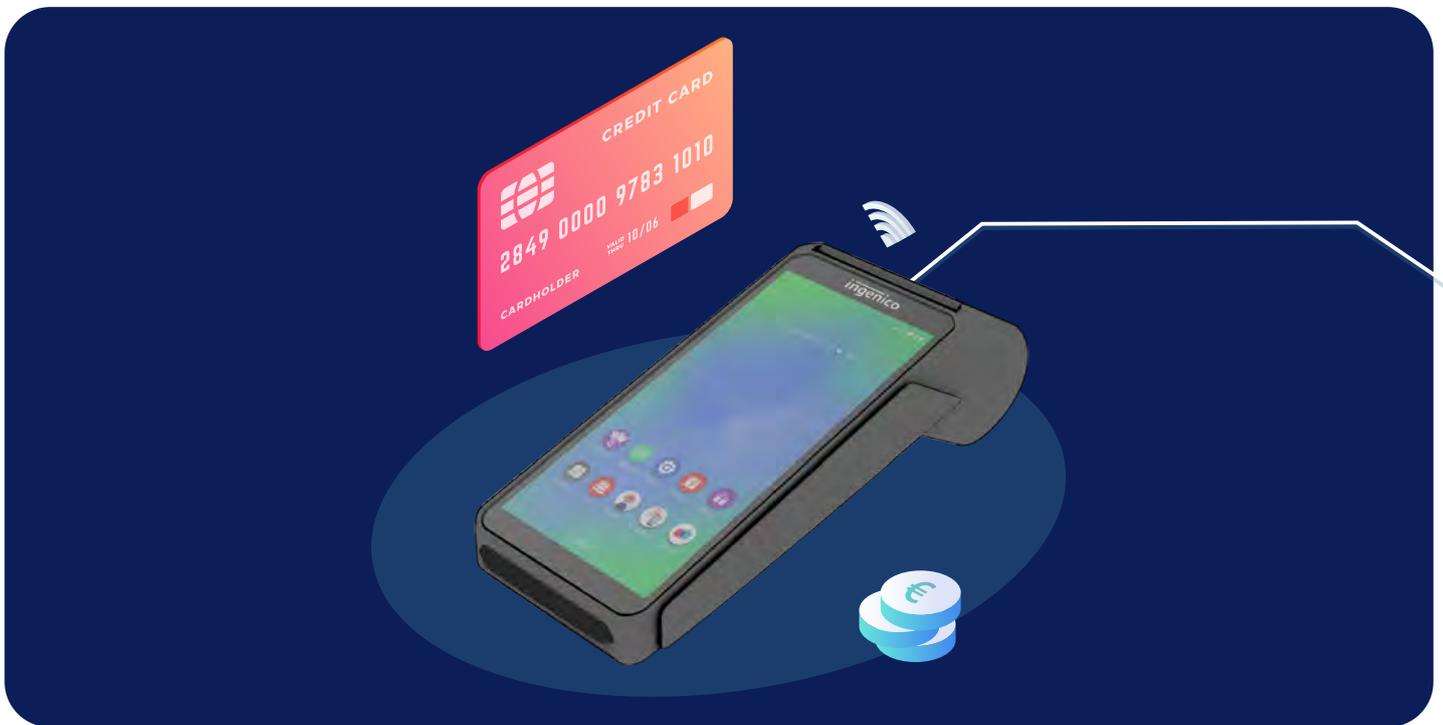
The company has integrated its Electronic Cash Register (ECR) software with the Ingenico Android platform to enable the sale and control of tickets at festivals in major Brazilian cities. Hungry festival goers can use the technology to order and pay from online menus and print QR codes to collect beverages and quench their thirst.



Vehicles of change

Powered by Android, biometrics and facial recognition are delivering new possibilities in the busy world of vehicle maintenance. In China, terminals from Ingenico are being used to run application that will identify vehicles using Optical Character Recognition of their licence plate number when they arrive at a garage or workshop.

For their part, drivers are enrolled using their identity card. On their next visit, facial recognition technologies can be deployed to identify drivers and call up their records, minimising administration and improving the customer experience.



Ingenico android terminals: from point of sale to pretty much everything else

Ingenico is the largest producer of payment terminals in the world. With more than 40 years' experience in the market, our reputation for reliability and performance is unmatched.

With nearly seven million Ingenico Android terminals deployed to date, the Ingenico portfolio has a demonstrable track record and some of the lowest failure rates in the market.

Our comprehensive portfolio of Android terminals makes no compromise on security. Our devices are fully compliant with all regulations and standards and support all local and international payment methods, such as QR codes and mobile wallets.

Open, flexible and secure, Ingenico Android payment terminals cover all acceptance methods and use cases, from front-office innovations such as integrating payment with loyalty programmes, ticketing or Click & Collect, to back-office apps such as staff management and reporting.

As we enter the era of Android, the Ingenico portfolio guarantees the highest levels of service, security and reliability, alongside access to the widest selection of trusted payment and business applications.



6.6 million +
Android terminals
deployed by Ingenico

Move beyond payment with Ingenico Android terminals

Today's merchants need more than just reliable and secure payments. They need to offer innovative and convenient business applications to their customers, as quickly and as cost-efficiently as possible.

As outlined before, Android makes it easy for all players in the payments industry to integrate added-value applications with payments and create incredible experiences which meet the expectations of the consumers of today.

Leveraging the power of cloud, our Android terminals cover the needs of all merchants from small stores to the largest retail environments.

Wherever they are deployed, Android terminals from Ingenico are integrating payment and commerce, reinventing shopping and transforming the customer experience forever.

No compromise on security

Ingenico Android terminals comply with the strongest PCI standards, combining the versatility and flexibility of Android with the most rigorous payment security levels.

All Ingenico Android terminals are fully PCI compliant and meet the strictest international payment security levels, including certification for PCI PTS V5 and PCI PTS V6 compliance.

To ensure a safe and trusted ecosystem, we create distinct, segregated environments for the payment and non-payment aspects of the platform. This means that our terminals plug into the power of Android's developer community without compromising compliance with PCI rules.

Enabling the next generation of payment methods

As well as providing a familiar and intuitive user experience, Ingenico Android terminals come with a wide range of functionalities, including embedded cameras and extended NFC and connectivity capabilities.

Our Android terminals are natively ready to accept a wide range of payment methods, from NFC wallets to QR code payments. With our deep understanding of the complex regulations governing payments, we are integrating new payment methods into trusted applications on a new generation of payment terminals.

Our state-of-the-art AXIUM terminals – AXIUM EX6000, AXIUM DX8000 and AXIUM EX8000 – are designed to accept all current payment methods, including QR codes, NFC wallets and barcode scanning, on top of more traditional payments.

Accelerate with AXIUM

In 2021, Ingenico launched its cutting-edge AXIUM platform to accelerate the digitisation of commerce. Based on the Android 10 operating system, AXIUM consists of an unrivalled suite of payment and business services both in-store and on the move.

The AXIUM terminals are the newest members of the Ingenico Android family, joining our popular APOS A8 terminal, the AECR C5 and C9 cash registers, the award-winning YUMI terminal and the specialist VALINA terminal for unattended commerce.

Based on the Android 10 operating system, the long-lasting battery, extended memory, multi-connectivity and compact shape of AXIUM devices which were released in 2021 make them suitable for any mobile business case.

The combination of Android 10 and a high-definition screen creates a user-friendly interface. The extended memory of the terminals and the white-label app store enable merchants to access the most recent business services on their terminals easily and efficiently.

The powerful combination of Android and Cloud

As Android meets the world of cloud computing, new service possibilities are emerging for merchants of all sizes and their payment providers.

On our latest generation of Ingenico terminals, client software can easily connect to cloud applications and services from our partners and from ISVs. That means that innovative applications for digital sales processes such as finding product information and checking out goods are now available to smaller merchants, not just to larger organisations.

The Android operating system is natively designed for cloud-based applications, so it is easy and fast for merchants of all sizes to select and deploy the apps and use cases they want at the point of sale. Small businesses with limited budgets can access cutting-edge services and activate them on-demand.

With the cloud, merchants can monitor their business and support customers in real-time even when they are not in the store. During the Covid-19 pandemic, the Ingenico cloud-based service helped merchants take online orders directly from their POS system when their physical stores had to close.

Remote estate management

The cloud is revolutionising estate management for payment stakeholders. Using our cloud-based estate management solution and mobile device management capabilities, our partners can organise, manage and monitor their fleets, all from one single platform.

The cloud also makes possible innovations such as on-demand software upgrades, terminal refresh options, security patches and the remote activation of additional payment methods.

Thanks to the cloud, payment partners can increase the monitoring and security capabilities of their terminal fleet across its lifecycle, tracking every device anywhere in the world and making sure that every terminal is exactly where it is supposed to be.

This new approach to service delivery helps acquirers and other estate managers keep up to speed with security requirements, control their costs, monitor their fleet and deploy new services to terminals quickly and easily.

The road to TaaS

The arrival of cloud and Android is enabling a revolutionary new business model for the payment ecosystem: Terminal as a Service (TaaS).

The TaaS model enables Ingenico to provide tailored services to payment partners, including technical support, customer care services, maintenance and software support, alongside traditional hardware services.

Our innovative TaaS solution is designed to give our partners complete peace of mind, with our à la carte services reducing fraud, minimising costs and maximising the uptime of their terminals.

The emergence of TaaS will result in more predictable costs for payment partners and in a scalable set of services. By transitioning to our as-a-service licensing and delivery model for Android terminals, our partners will benefit from all our global expertise in payments, while they focus on delivering value-added services for merchants and growing their business.



“Using our cloud-based estate management solution and mobile device management capabilities, our partners can organise, manage and monitor their fleets, all from one single platform.”

Embrace the Android era of digital commerce

Android is ushering in a new world of payments acceptance, a world in which terminals are integrated in an open ecosystem and delivered as a service. Worldline brand Ingenico is at the forefront of the Android revolution. Backed by the expertise, knowledge and reliability of our global teams, our leadership in Android is creating ever more value for the market and our payments partners.

Ingenico is leveraging the power of Android and creating new possibilities for our customers to empower merchants with secure, flexible and innovative payment solutions. In all sectors, we see Ingenico Android applications helping merchants grow and reinvent their business.

We are investing significantly in Android terminals and in our application development capabilities. Our latest Ingenico Android terminals benefit from the power of remote POS services for estate management and customer care, enabling stakeholders to optimise their field operations and reduce the total cost of ownership.

We are working with our partners to deploy at scale innovative solutions that transform the customer experience and add a new dimension to payment terminals. Our user-friendly and intuitive APIs, combined with a white-label App Store and

Android's global network of developers, reduce time-to-market and make it easy to develop and deploy new use cases.

Supported by our end-to-end expertise in security and estate management, together with our unmatched global footprint, our partners can count on the Ingenico Android Competency Centre, which offers a worldwide network of 350 + Android experts and accelerates time-to-market.

Our mission is to be the most trusted technology partner for Android payment terminals, delivering large volumes of devices and offering innovative outsourced business models and pricing options to our payment stakeholders.

With millions of terminals in the field, market-leading expertise in hardware, software and payment services, and an unrivalled reputation for security and reliability developed over four decades, we have the strongest, richest Android offering in the market.

The world of payment is full of new and exciting opportunities. Do get in touch to explore how we can work together to shape the future of digital commerce!



300 +
payments
methods

1,100 +
certified
payments apps



About Ingenico

Ingenico is the global leader in payments acceptance solutions. As the trusted technology partner for merchants, banks, acquirers, ISVs, payment aggregators and fintech customers our world-class terminals, solutions and services enable the global ecosystem of payments acceptance. With 45 years of experience, innovation is integral to Ingenico's approach and culture, inspiring our large and diverse community of experts who anticipate and help shape the evolution of commerce worldwide. At Ingenico, trust and sustainability are at the heart of everything we do.

For further information
[ingenico.com](https://www.ingenico.com)



The mark of
responsible forestry