



# DEVELOP, CUSTOMIZE AND INTEGRATE PAYMENT SOLUTIONS MORE EASILY

MIURA'S PAYMENT ARCHITECTURE FOR DEVELOPERS AND INTEGRATORS



# A **POWERFUL** ARCHITECTURE FOR ALL MIURA PAYMENT DEVICES

Miura Systems is a pioneer in EMV payment and mobile acceptance solutions, and we develop payment solutions based on one platform, for every environment. This means our solutions scale across all industries, use cases, and geographies.

As a partner, this makes it especially easy for you to integrate, certify, and securely manage your personalized customer payment experiences.

With millions of devices deployed in over 30 countries, we bring flexibility and mobility to a wide range of retail environments. A vital element of that flexibility is the ability to rapidly integrate, customize, and deploy solutions seamlessly across the full range of secure Miura technology – including our world-renowned M010 and M020 series devices and peripherals.

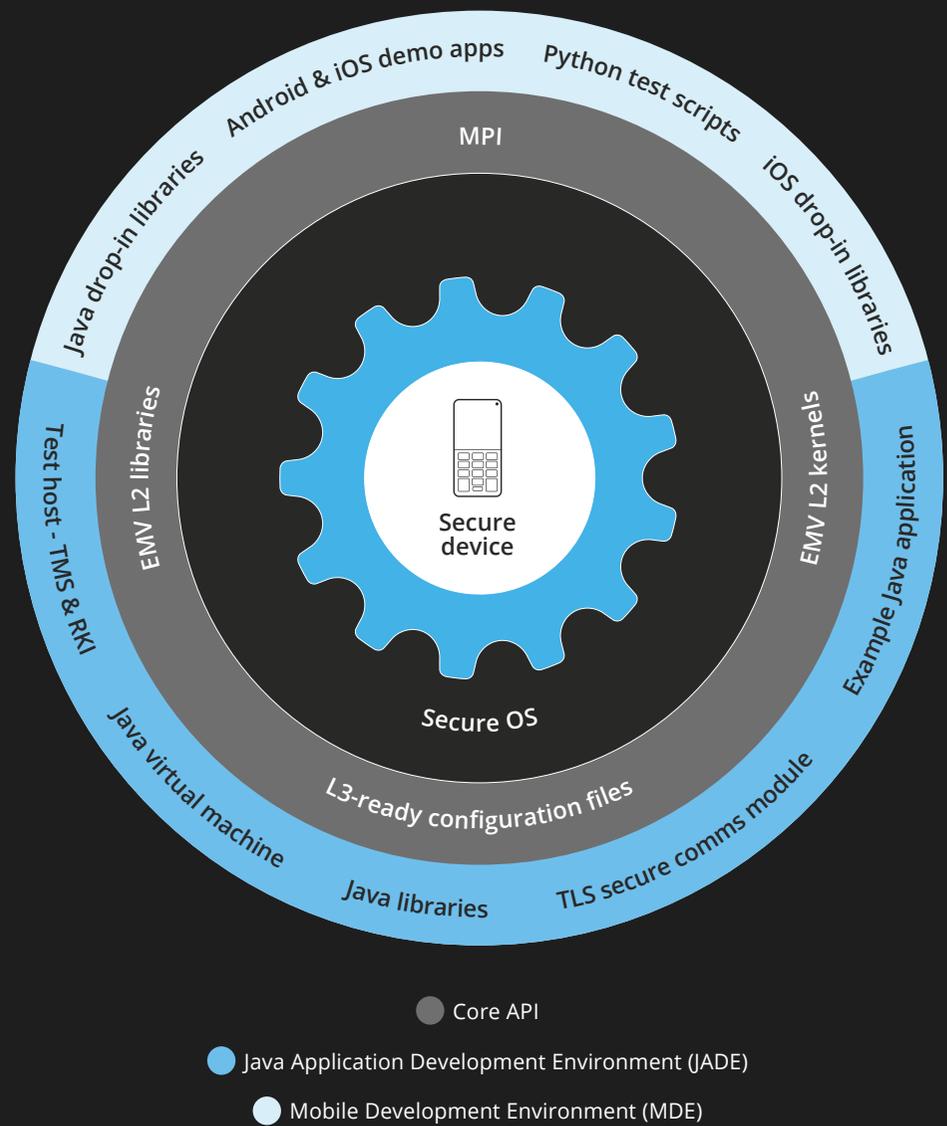
## **OUR ARCHITECTURE AND APIS GIVE YOU CONTROL WITHOUT COMPROMISE**

As well as class-leading payment capability, you need the ability to flex your payment solution to meet current and future demands without having to compromise security or control.

That's why Miura's feature-rich payment devices have been built on a powerful and flexible payments platform. This single global architecture supports multiple development environments, allowing our partners to benefit from Miura's expertise and investment in core payment technology.

By providing a single common operating system and seamless APIs across all Miura devices, including access to globally recognized EMV kernels (for contact and contactless transactions), we help to simplify complex payment integrations. And using our platform, you can ensure that developments are PCI-compliant and ready for P2PE certification as part of an end-to-end payment solution.

Miura's payments platform includes all the software modules, libraries, APIs, and development tools you'll ever need for speedy implementation. In this brochure, we'll take you step by step through the suite. As a developer, you can then sign up to explore our powerful payments architecture for yourself on our Development Portal.



# THE CORE API: ONE SOLUTION FOR ALL DEVICES

Miura's Core API includes modules which give you access to all major payment functions. It's the foundation upon which Miura's secure payment architecture is based; an API core which supports our entire range of devices.

As a developer or integrator, you can use your own application framework to securely access core payment functionality, including EMV kernels. The Core API will also provide you with access to sample integrations. By using a single API, our unique approach simplifies and optimizes all of your development activities.

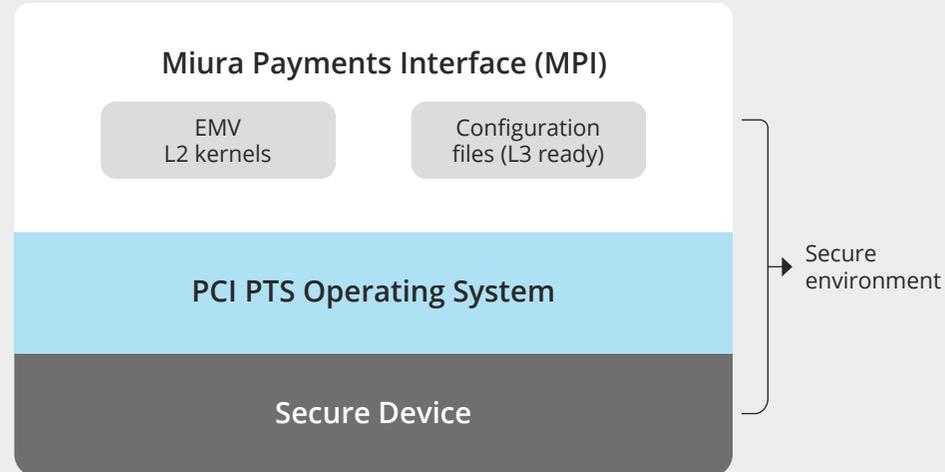
## **Other features of the Core API include:**

- Fully detailed guides and in-code documentation
- Source code for sample implementations included (in Python)
- Integration with all Miura-certified EMV L2 contact and contactless kernels
- A secure PCI PTS and P2PE compliant framework



## THE CORE API

The API is exposed by Miura devices (based on ISO 7816) through the Miura Payments Interface (MPI)



## BENEFITS

### Extensive payment interface

The Core API is designed to give developers maximum control over all aspects of a Miura device, with complete flexibility to customize the secure payment process, which simplifies even the most complex of payment integrations.



### Certified payment kernels

Our secure payment platform incorporates all core scheme certifications such as American Express, Discover, Interac, JCB, MasterCard, UnionPay, and Visa, as well as support for all major mobile wallet and NFC services.



### Key management

Miura has simplified the complexity of key management by facilitating access to remote key management services. This offers you significant cost-of-ownership benefits since you are able to fulfil terminals dynamically in the field.



# EASY INTEGRATIONS WITH OUR MOBILE DEVELOPMENT ENVIRONMENT (MDE)

Miura has many years of mobile integration experience using best practices to ensure effective implementation. We have leveraged this know-how to create our Mobile Development Environment (MDE), which streamlines and accelerates integration times for partners using Miura payment devices.

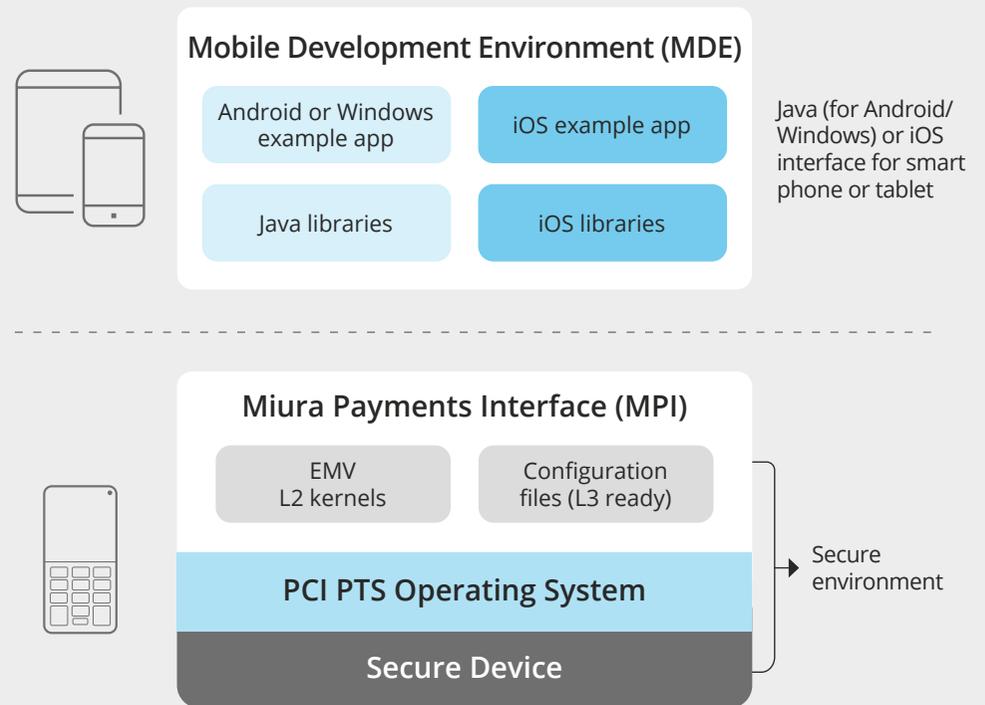
The MDE provides a set of modules and functions that allow smart devices (mobile phones, tablets, etc.) to communicate with Miura's secure payment devices and smart POS hubs. You have full access to MDE documentation, binaries, and source code to allow extensive solution customization. And we have included demo apps for Android and iOS which you can use for guidance in understanding how payment flows can be built.

With MDE, no detailed knowledge of the payment process is required to easily integrate solutions. A complete suite of drop-in libraries makes the process easy, and there is also a full SDK source code for your target mobile platforms.

The MDE is available in Java and iOS and can be used for payment integration of smart devices running Android, iOS, and Windows.

## MIURA MDE

*Reduced complexity: integrate Android, iOS and Windows smart devices using drop-in libraries*



## BENEFITS

### Extensive payment interface

Built on Miura's Core API, MDE provides extensive libraries covering all key functions required for a classic payment solution, including EMV transaction processing, device connectivity, host communication, and key management. Used in conjunction with sample applications, you can quickly understand and utilize these libraries in your own development projects – to simplify the mobile payment integration process.



### Open source

You have the flexibility to use source libraries to develop solutions to meet the specific needs of each payment project. This removes dependencies on Miura resources and allows you to deliver tailored implementations in shorter timelines.



### Open architecture

Easy integration and a true cross-platform solution for Android, iOS or Windows environments. Ideal for omni-channel and cloud-POS, as well as for traditional POS solutions.



### Developer friendly

Delivered through an easy-to-use and extensive array of target platform libraries, MDE empowers developers to build best in class solutions without getting caught up in the complexity of secure payment functions.



# JAVA APPLICATION DEVELOPMENT ENVIRONMENT (JADE) FOR ON-DEVICE CUSTOMIZATION

Miura's Java Application Development Environment (JADE) allows partners to develop stand-alone payment and value-added service applications that run directly on our M020 series devices (M020, M021, M022 and M023).

Using JADE, developers can take advantage of the rich UI and functionality set of the M020 series, and modify applications without compromising their secure payment capability or compliance. Developers have access to an extensive library of source code functionality, to simplify programming and eliminate the need for proprietary platform knowledge. This streamlines and accelerates the development of fully customized payment solutions.

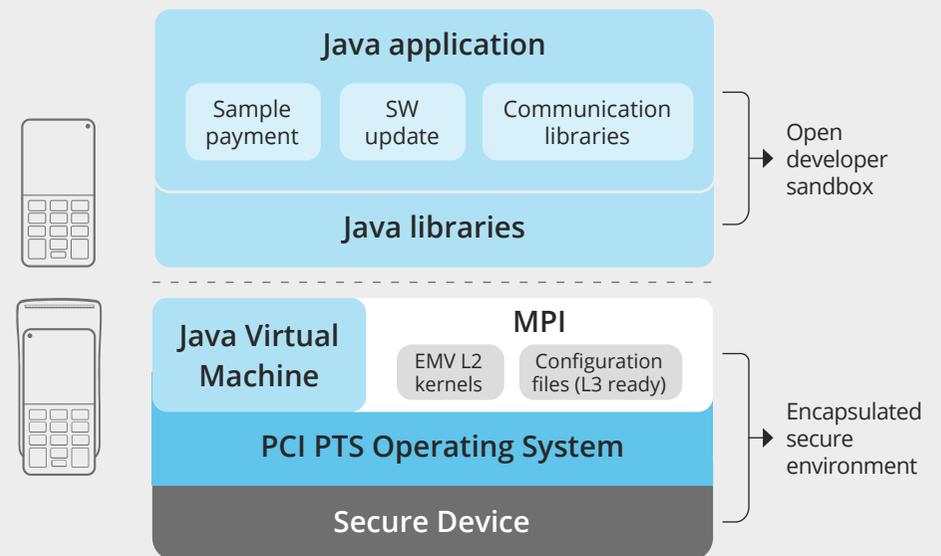
## Other features of JADE include:

- Optimized JVM platform with full source code for the Java SDK framework, including a sample application
- All of the main features of Miura devices, including remote key injection, are demonstrated
- IntelliJ IDEA and Gradle Integrated Development Environments (IDEs) support

- Development and debugging via PC with a simulated M020 terminal environment
- Access to our host system with a JSON/REST interface for test and demo purposes

## MIURA JADE

*Open developer sandbox and libraries*



## BENEFITS

### Extensive payment interface

Using JADE, you can confidently build and personalize stand-alone or semi-integrated payment applications that leverage the vast array of Miura security and payment certifications. And development benefits from a globally proven and certified platform.



### Certified payment kernels

Seamlessly incorporate all core scheme certifications such as American Express, Discover, Interac, JCB, MasterCard, UnionPay, and Visa, as well as support for all major mobile wallet and NFC services.



### Open source

JADE's unique architecture allows partners to control all aspects of the application interface, using full source code for sample applications plus supporting Java SDK libraries to streamline development times.



### Key management and security

You have the flexibility to use source libraries to develop solutions to meet the specific needs of each payment project. This removes dependencies on Miura resources and allows you to deliver tailored implementations in shorter timelines.



### Developer friendly and flexible

Delivered through an easy-to-use and extensive array of target platform libraries, MDE empowers developers to build best in class solutions without getting caught up in the complexity of secure payment functions.

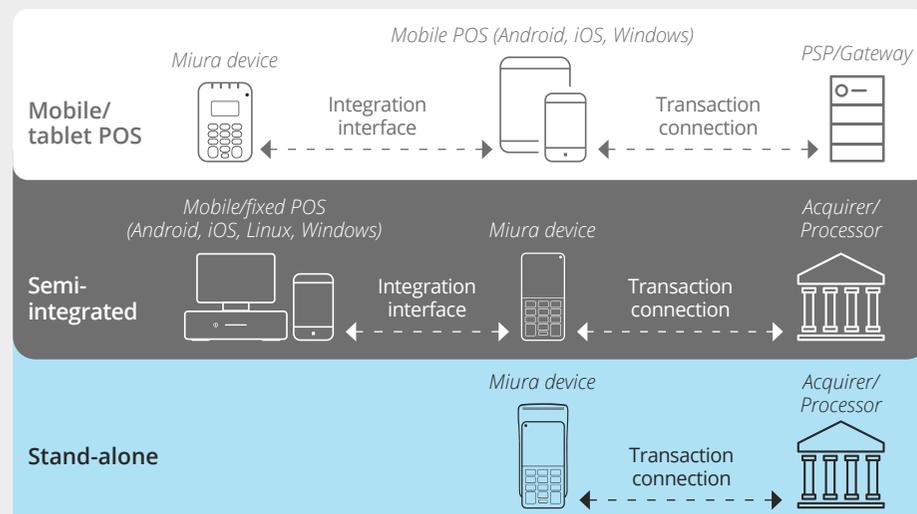


# SEAMLESS INTEGRATION WITH MIURA DEVICES

All of Miura's M010 and M020 series devices run on a single payment platform across all geographies, so you can migrate from one device to another with minimal development effort.

We achieve this through a common architecture, common interfaces and common kernels; and you can use common development tools that you're familiar with. This unique approach enables complete support for developers and ensures the simplest, quickest integration process possible.

## Different integration and connection options with Miura devices



## INTEGRATION OPTIONS

Various payment integration methods can be used with Miura devices. In a *traditional* POS integration model, the payment device is integrated with, and driven by, the tablet or smart device.

For a *semi-integrated* approach, the payment process is controlled by the Miura device, with direct or cloud-based integration with the POS system to initiate the transaction.

Finally, in a *stand-alone* integration, the payment process is controlled by the Miura device, with no POS integration.

## PERSONALIZATION OPTIONS

With Miura, you can customize hardware, software, and accessories using our powerful payments architecture. It could be as simple as adding personalization to reinforce your brand at every customer interaction point. Or you could extend the customer interaction by customizing applications to add value to core payment capabilities. These applications can be rapidly developed and tested using our development environment, and you can be assured they will be PCI-compliant and ready for P2PE certification.

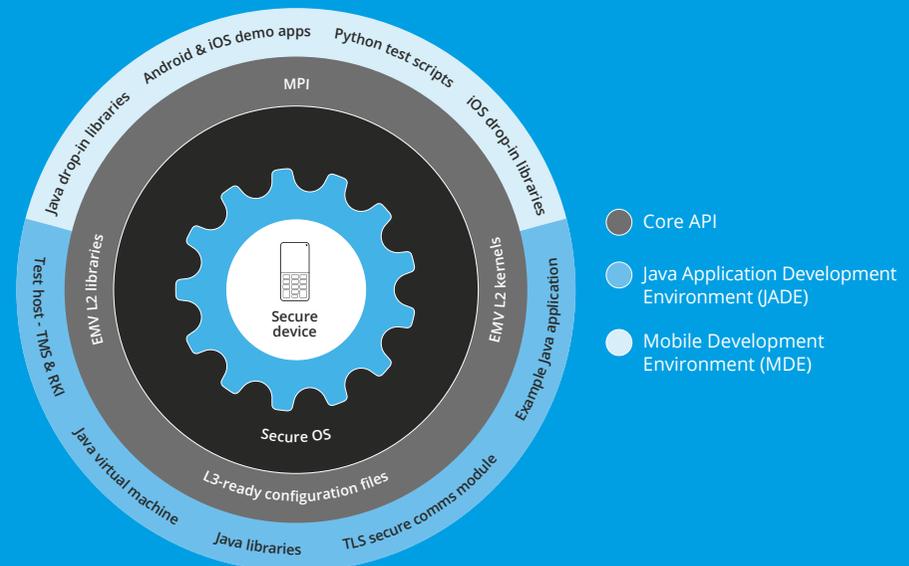
# EXPLORE OUR POWERFUL PAYMENTS ARCHITECTURE NOW

We've designed our developer's platform to be comprehensive yet easy to follow, so you can be productive from the moment you log in.

To explore the components of our payments architecture, associated APIs, and development tools, simply sign up for full access at our Development Portal now:

[www.miurasystems.com/developers](http://www.miurasystems.com/developers)

Explore our complete payments architecture for developers and integrators





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