

Increase customer convenience.
Decrease operating costs

Unattended Payment Solutions



Sagem Denmark
SAFRAN Group



It's 11 p.m., and both John's fuel tank and wallet are hovering around empty. Good thing the petrol station around the corner offers self-service.

Whether an unattended transaction involves petrol, ticket vending, parking, kiosks or gaming, consumers want convenience. And you need to deliver it.

But John isn't the only one who benefits from a secure unattended payment solution. With Sagem, you also reap advantages like higher throughput, added value, reduced operating costs, and simplified integration and technology migration. Read on to learn how.



So secure, only the bad guys complain

Sagem Denmark's unattended payment solutions are ideal for virtually any unattended environment requiring secure, reliable card payment transactions. That's why some of the world's leading companies that practice secure payment depend on Sagem. Flexibility in physical and software integration is also high with Sagem. But one thing we're not flexible on is security – a convenient fact for (almost) everyone who interacts with our unattended payment solutions.

Thrives in rough environments

Customers see convenience when they meet a Sagem solution; vandals see trouble. All our secure devices are protected against unauthorised removal and require authorised activation as part of proper installation. Even when Mother Nature acts criminal, Sagem devices perform reliably – outdoors or in, hot or cold.

Meets international and national requirements

All our products hold a wide range of security approvals and can be customised for nearly any individual application or specification. They also are continuously updated to new international standards such as EMV, VISA/PCI PED and 3DES, as well as country-specific requirements and specifications. This gives you the efficiency of a one-stop shop and simplified integration and technology migration.

Easy chip and PIN migration

Sagem products support migration to chip cards, EMV, and chip and PIN solutions. Fully fledged EMV solutions are available for some acquirers. Alternatively, Sagem devices may be deployed in non-EMV applications awaiting a future EMV update when specifications and SW applications have been finalised.



Offline PIN verification

Offline PIN verification is an integral part of the EMV (chip and PIN) concept. Since the card reader and the PIN pad are separate devices, PED requirements demand that the PIN is suitably encrypted when it is transferred from the PIN pad to the card reader. Sagem PIN pads allow authorised activation and key synchronisation after installation or replacement of either device in the field. In other words: Devices are not paired from the factory.

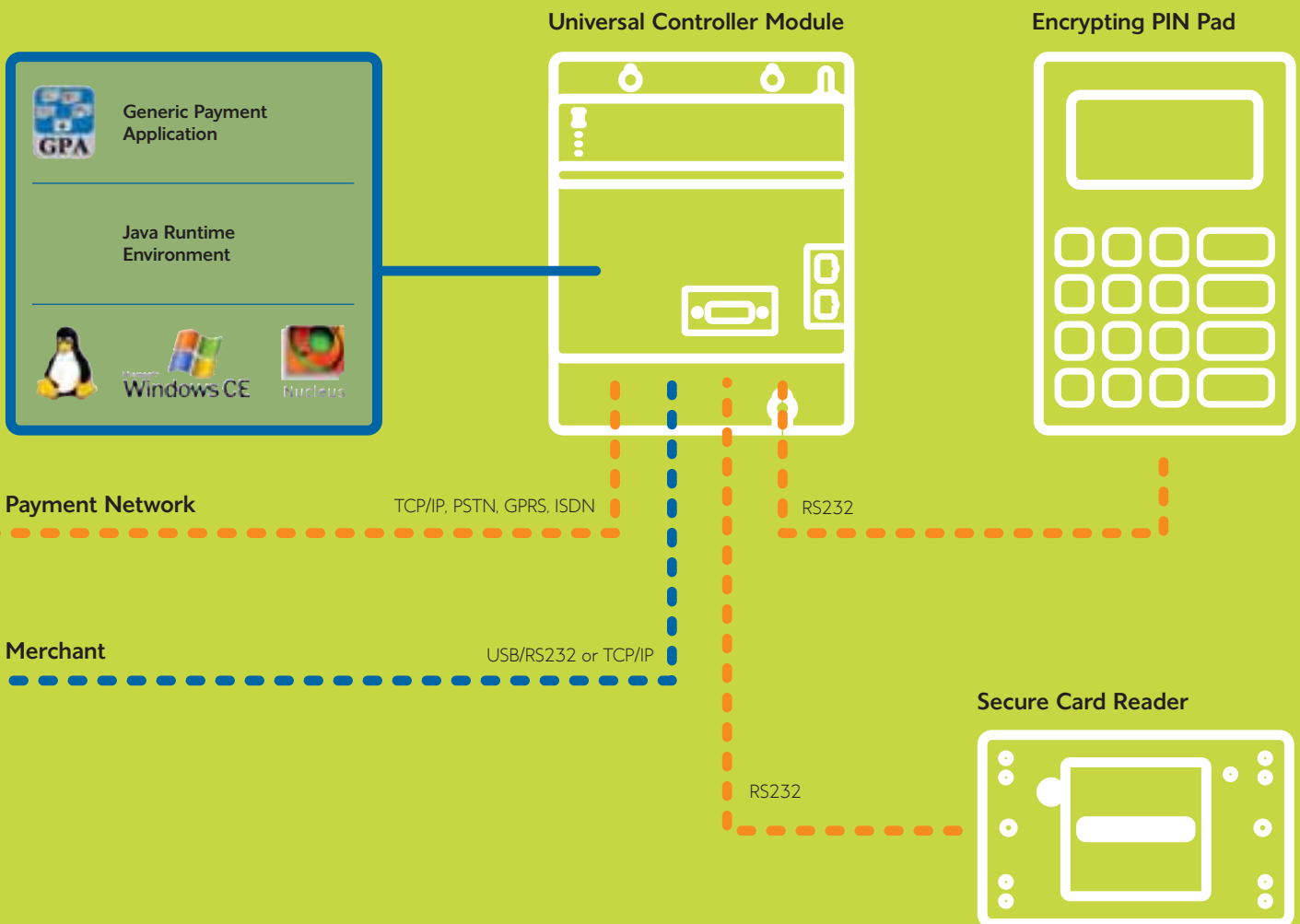
Fleet card? No problem

Some systems require features to allow use of "local" cards or fleet cards. This may include some form of PIN verification to be handled by the PIN pad. Sagem devices support this, although it sometimes requires special SW development, and it is always restricted by the security rules from co-existing banking cards. We have agreements with several well-known petrol card issuers such as DKV, UTA and Routex. Transactions on local cards are handled either by an existing application or can be incorporated into the Sagem Payment Application.

Configured to meet your needs

We'll ask you a number of questions to pinpoint the solution that best meets your needs. For example: Which payment processor do you plan to connect your payment solution to? Which terminal-to-host protocol is required? What kind of key management is required? Will you need to support magstripe, chipcards or both? Will you need online and/or offline PIN verification? Which certifications are needed? Based on your answers, we'll work with you to configure the ideal solution.

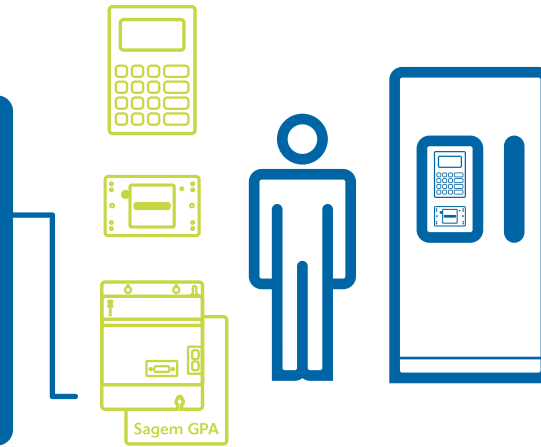
Typical setup for unattended environments with high-value transactions



Typical configurations

Self-contained payment application

Here, Sagem provides a complete payment module with payment controller platform (Sagem Universal Controller Module – UCM) and Sagem Payment Application. The UCM also communicates with the transaction host. Integration with target equipment takes place through a command protocol provided by Sagem. Examples of driver implementation and support are provided to assist integration.



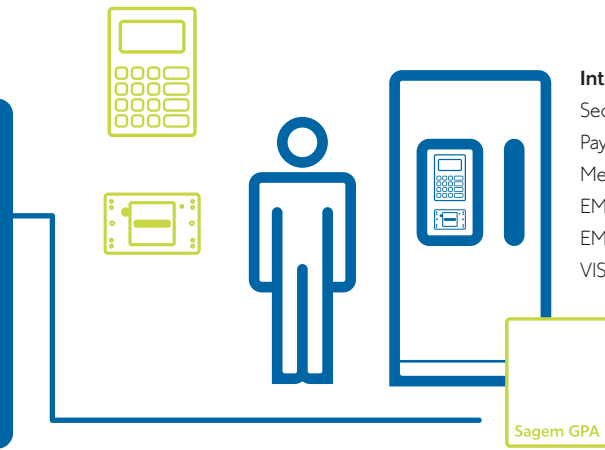
Integration Task

- Secure Software
- Payment Application
- Merchant Application
- EMV Level 1 Certification
- EMV Level 2 Certification
- VISA/PCI PED Certification

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Hosted payment application

Sagem's hosted payment application is a Java application that can be deployed on any platform with a Java runtime environment. If desired, the application can be deployed on the platform of the target equipment. Means of communication is also provided by the target equipment, allowing reuse of facilities used for other purposes. Integration takes place through an object-oriented API, either Java or a Windows COM. This reduces the complexity of the integration workload on many projects.



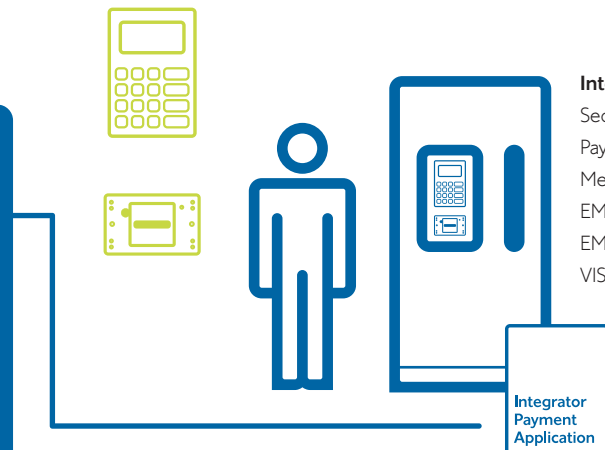
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Associated payment application

This is appropriate if the integrator prefers to use a non-Sagem payment application with Sagem payment devices – for example if integration with a third-party payment application already exists or deployment of new payment devices with an existing magnetic stripe application is desired. Such a deployment can later be upgraded with a Sagem Payment Application when local specifications are ready. Integration requires that the payment application is associated with Sagem devices through SW drivers for the application. Sagem provides the serial command protocol and assistance for development of these drives.



Integration Task

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Payment application

Sagem GPA

The Generic Payment Application (GPA) is a framework used by Sagem Denmark to implement payment application fitting the requirements of a wide range of countries and acquirers. The framework contains adaptation layers allowing implementation of different cards and host protocols. It also contains an EMV Level 2 approved kernel for chip card handling.

The GPA concept ensures that core SW components are reused, proven and tested. This reduces the cost and enhances the quality of the SW product. The integrator also gets the benefit of integration reuse if the Sagem Payment Application is used in different countries. Please contact Sagem Denmark for the latest information on availability of payment applications.



Encrypting PIN pad with display

INT2100 series

The INT2100 is an encrypting PIN pad built in stainless steel suitable for payment solutions where secure PIN entry is required in an indoor or outdoor environment. The INT2100 supports RSA and 3DES and contains a number of standard routines for payment processing. Customised secure software can be provided on demand.

The integrated and secure display makes the PIN pad ideal for applications where non-PIN digits have to be entered on the PIN pad. Security requirements often demand that the use of clear-text entry is only allowed in combination with a secure display.

The INT2100 fulfils international requirements for security and is VISA/PCI PED approved. The INT2100 has removal detection for protection against unauthorised removal.



Encrypting PIN pads

INT1315 and INT1318

The INT1315 and INT1318 support RSA and 3DES and contain a number of standard routines for payment processing. Customised secure software can be provided on demand.

Both PIN pads have removal detection for protection against unauthorised removal.

The INT1315, which comes in a variety of styles, is an encrypting PIN pad built in stainless steel suitable for payment solutions where a small, highly secure PIN pad is required. The INT1315 fulfils international demands for security and is VISA/PCI PED approved.

The INT1318 is an encrypting PIN pad built in stainless steel suitable for payment solutions where a large, highly secure PIN pad with function keys is required. The size, design and key layout of the INT1318 make it especially useful in applications that have to be available to disabled persons.

The INT1318 fulfils international demands for security and has VISA/PCI PED as well as ZKA approvals.



Encrypting PIN pads

INT1217 and INT1218

The INT1217 and INT1218 support RSA and 3DES and contain a number of standard routines for payment processing. Customised secure software can be provided on demand.

Both PIN pads have removal detection for protection against unauthorised removal.

The INT1217 and INT1218 are suitable for payment solutions where a large, highly secure PIN pad with function keys is required. The size, design and key layout make both PIN pads especially useful in applications that have to be available to disabled persons. The INT1217 also comes in a popular industry standard size.

Both PIN pads feature a polymer plastic cabinet with laser-engraved stainless steel keys and are similar in size to the INT1318. Function key colour bars are in plastic for greater durability than paint, and function keys feature embossed symbols for blind or visually impaired users.

The INT1217 and INT1218 fulfil international demands for security and are PCI PED approved.

Secure card reader

INT5010 (insertion) INT5012 (motorised)

The INT5010 and INT5012 are suitable for payment solutions where a secure card reader is required for offline PIN verification. The card readers support RSA and 3DES and contain a number of standard routines, including functionality to setup. Both use an encrypted link to a Sagem PIN pad. Customised secure software can be provided on demand. The card reader module inside is a proven and durable device from a carefully selected OEM manufacturer. The card readers fulfil international demands for security and are VISA PED approved in combination with a Sagem PIN pad.

Both card readers have removal detection for protection against unauthorised removal.

Universal controller module

INT3200 series

The INT3200 is a Universal Controller Module suitable for hosting payment applications.

The INT3200 is ideal when building self-contained payment solutions based on Sagem PIN pads and secure card readers. The module is contained in a plastic box, which can easily be mounted in the target equipment. The module holds a powerful ARM 9 based CPU, memory, network connection (Ethernet), three serial connections, USB host and slave connections. The module will be available in a special vending version that includes MDB interface. The module will fit the space of an EVA size coin-mech.





We live and breathe payment security

Sagem Denmark has more than 20 years experience in providing high-security payment solutions worldwide. Headquartered in Copenhagen, Denmark, we also have offices in Finland, Norway and Sweden. In addition to unattended payment solutions, our expertise encompasses encrypting PIN pads for the ATM market and point-of-sales terminals for the retail industry. Sagem Denmark is a fast-growing subsidiary of the French SAFRAN Group and part of SAFRAN's Defense and Security Division. The SAFRAN Group has offices in 22 countries on all five continents.



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