



# Aconite

## EMV Transaction Enabler

## Solving the **EMV** challenge for legacy systems

**For card issuers and transaction processors, complying with EMV mandates for authorisation processing is a major challenge.**

- *Can your existing or in-house system be upgraded?*
- *Are the upgrades available in the required timescale?*
- *Will you be forced to take a major release?*
- *Is the upgrade cost prohibitive?*

Even if EMV upgrades to existing systems are available in the required timescale, they are often delivered only as part of a major release. Not only does this involve significant cost, but requires regression testing of all authorisation functions, not just integration testing of EMV specifics. Some vendors are producing partial solutions that rely on third-party components, while heavily customised systems may not be upgradeable without substantial new investment.

### The Aconite Solution

Aconite has created **EMV Transaction Enabler** to provide a low impact, low risk yet comprehensive solution to EMV authorisation processing. **EMV Transaction Enabler** performs the EMV-specific processing, leaving the existing system to handle card, account and funds checks.

Functions supported by

#### **EMV Transaction Enabler:**

- Message management - extracting and interpreting the EMV data from inbound messages
- EMV on-line card authentication (CAM2 ARQC/ARPC processing)
- Detection of exception conditions in critical EMV data
- Invoking EMV Issuer Script Processing (where Aconite's EMV Script Processor is also installed)
- Formatting EMV data in outbound messages
- Full logging and context management

Based on platform and database independent J2EE technology, **EMV Transaction Enabler** runs within an Application Server (such as WebSphere) either on the same physical platform as the existing authorisation system or on a separate machine.

Message definitions are soft and flexible allowing rapid implementation of new or enhanced protocols. Industry-standard messaging, including VisaNet and BankNet, is supported as standard.

**EMV Transaction Enabler** sits alongside an existing system and EMV processing is invoked through a simple message call. Integrating **EMV Transaction Enabler** requires minimal change to existing systems, but the appropriate solution will depend on factors in the existing configuration.

### At a glance

#### business benefits

- ✓ Fast-track to the EMV end-game
- ✓ Protect investment in existing systems
- ✓ Low impact, low risk solution

#### key features

- ✓ Integrates with existing systems or stand-alone deployment
- ✓ Scalable and performant
- ✓ Platform and database independent
- ✓ Flexible protocol and message handling
- ✓ Rules driven authentication decisions
- ✓ CAP/DPA Compatible



## KEY FEATURES

### Scalable and Performant

Capacity and throughput is limited only by hardware and database access.

### EMV Transaction Enabler evolves with you

Expand message-handling capabilities with EMV Transaction Enabler's fully flexible message manager. Handles any message protocol including bit-mapped (e.g. ISO8583), TLV and delimited formats such as APACS.

### Platform and Database Independent

**EMV Transaction Enabler** is built using a J2EE component - based architecture implemented in an Application Server using JDBC database interfaces. Deployment in various environments is possible, such as Solaris/Oracle, Win2K3/SQL Server and zOS/DB2.

Communications with external systems and devices uses TCP/IP. Alternatively, bespoke messaging can be implemented.

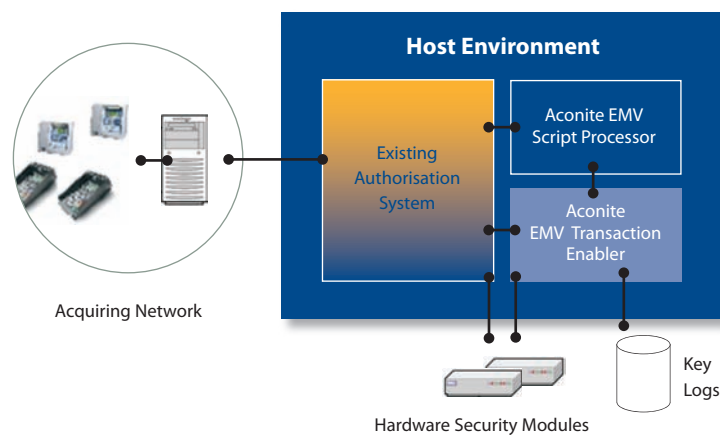
### Transaction Process

EMV authorisation requests are processed as follows:

- The authorisation system calls EMV Transaction Enabler with the EMV data or the whole request.
- EMV data is extracted and de-blocked and a log entry is created.
- Keys and other data are retrieved and an HSM call is made to verify the ARQC cryptogram in the request and to generate the ARPC response cryptogram (assuming that the response will be "approve").
- Configurable checks are made on the ATC (Application Transaction Counter) and any exception conditions in TVR (Terminal Verification Results) and CVR (Card Verification Results) are detected.
- EMV Transaction Enabler returns the result of EMV processing to the existing system.

- If the existing system declines the authorisation request, **EMV Transaction Enabler** re-calculates the ARPC using the correct Response Code.

- If Aconite's EMV Script Processor is also deployed, **EMV Transaction Enabler** will pick up any pending scripts to be returned to the card.



## Further Information

For further information and pricing details on Aconite's **EMV Transaction Enabler** or to discuss your EMV requirements with us, please contact Aconite at [EMV@aconite.net](mailto:EMV@aconite.net)

## About Aconite's EMV and Smart Card Products

Aconite has a strong track record of providing specialist EMV and Smart Card services and solutions to clients. Our in-depth knowledge and extensive experience in these key areas gives our clients the confidence to conduct business effectively.

## About Aconite

Aconite develops and delivers smart card payment solutions to issuers around the world, providing a rapid and cost-effective route to international standards compliance and delivery of innovative card payment solutions to new and existing markets.

Incorporating a unique blend of proven software solutions and professional services, Aconite solutions can be tailored to meet individual business requirements without the need to replace legacy systems and with minimal impact on staff and processes. Based in the UK, Aconite has a presence in five regions: Europe, Middle East, Asia, The Americas and Southern Africa.

Further information can be found on the Aconite website at:

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