



ISG'S SOLUTION BRIEF FOR THALES

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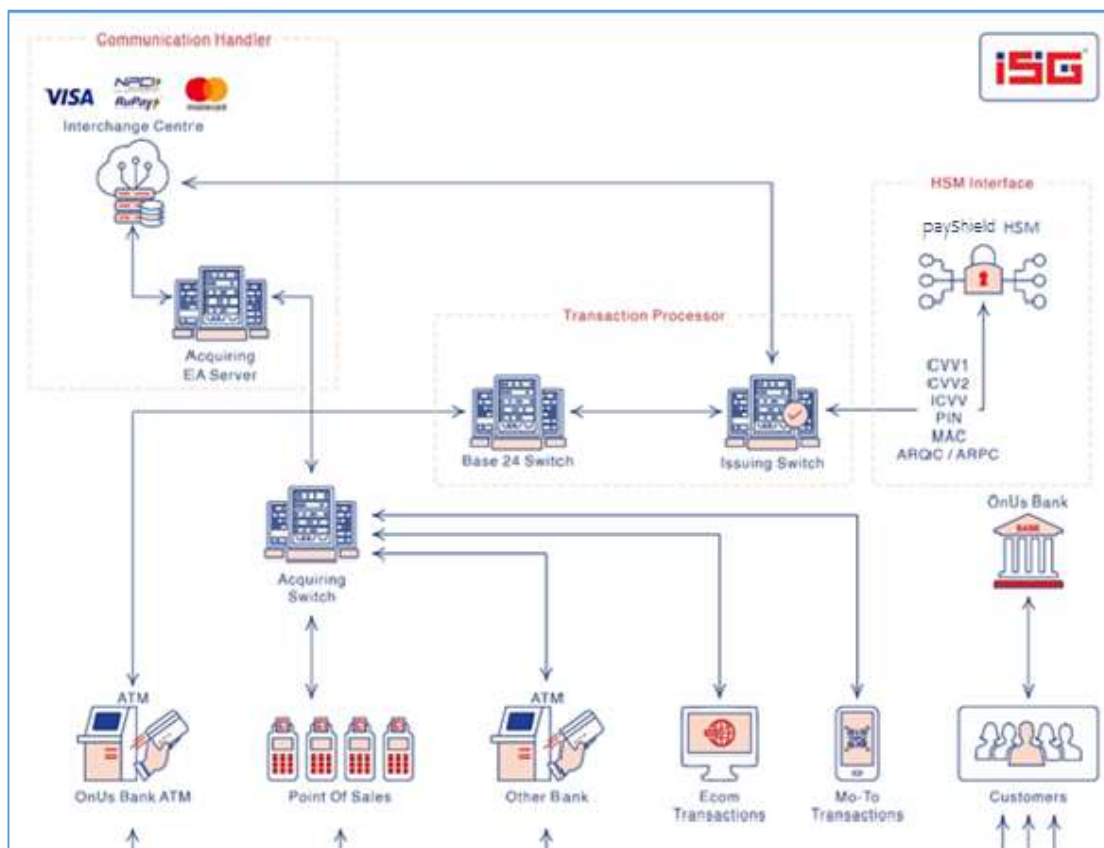
Solution Brief by In-Solutions Global Ltd

Issuing Switch

The Issuing Switch / Issuer Model is a payment transaction processing system (PTPS). It declines or approves the incoming transactions coming from the scheme, after performing various checks.

The issuer model consists of the following applications.

1. Communication handler
2. Transaction Processor
3. HSM Interface



© ISG 2023 | Issuer Switch Model

Communication handler

This module communicates with the scheme/network extended Access Server. It parses the scheme's Incoming Request and constructs the outgoing response for the scheme as per the message Standards ISO 8583.

Incoming messages received by the schemes will be parsed by the communication handler and internally send to the Transaction Processor. After getting a response from the Transaction processor, the Communication Handler constructs a response as per the scheme's message formats.

Transaction Processor

Transaction Processor receives the message from Communication Handler which is then passed on to the HSM Interface for verification. If verification of the same is failed, a declined response is sent back to the Communication Handler. And if verification takes place successfully then it proceeds to the next step. Multiple checks take place depending on the type of incoming messages, and messages are routed accordingly.

HSM Interface

Card Security Features like CVV1, CVV2, iCVV, PIN, MAC, and ARQC/ARPC are routed from the Transaction Processor to the HSM Interface. This HSM interface communicates with the Hardware Security Module for the verification of the same.

ISG integrates with payShield 10K HSM from Thales to provide users with secure EFT payments. ISG's Issuing Switch allows financial institutions to process transactions from any source – including ATM, POS, Internet, and mobile devices. ISG Issuing Switch integrates with payShield HSM from Thales to provide users with a secure payment solution on the Issuer side.

Acquiring Switch: ISG's Genius Access Point

A PCI S3 & scheme certified cloud-native solution for seamless payments integration and smart routing.

A terminal-agnostic solution that enables seamless integrations with any terminal, device, scheme, and acquiring switch keeping you on top of your customer experience. Key features of ISG's Genius Access Point include:

- Smart routing of transactions
- Real-time message format conversions
- Decision management
- Real-Time Transaction Fraud Monitoring

A microservices-based product with multi-tenant switching, & a business logic-based transaction routing solution that effortlessly manages multiple payment channels like:

- Point-of-sale devices
- Payment gateway
- Loyalty Gateway

For POS transactions, ISG's Genius Access Point depends on the HSM. This helps in implementing HSM-based key management for the transactions being routed from the POS terminals. The key blocks of the architecture are as follows:

