

# FIS

IST/Clearing 2019

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## IST/Clearing: Generic Solution





#### **Supported Transaction Types**

Originals

- Purchases ('Drafts')
- Purchases with Cash-Back
- Refunds/Returns/Credits
- Reversals
- ATM Cash Advances
- Manual Cash Disbursements
- Quasi-Cash ('Unique')

Presentments

- Presentments: 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> for all 'draft' types
- Reversals for all 'draft' types
- Rejects
- Returns
- Reclassifications, Downgrades Exceptions
- Chargebacks: 1<sup>st</sup>, 2<sup>nd</sup>
- Fee Collections
- Retrieval Requests

**Reconciliation and Settlement** 

- Visa VSS
- MC Settlement Reports

**Special Types** 

- BIN table updates
- Currency Exchange Rate updates

#### **Core Interfaces**





#### **Card Schemes**

- VISA: BASE II, BIN, ARDEF, REGARDEF
- MasterCard: IPM, MPE
- AmEx: GNS, CAPN, EMEA, JAPA
- Diners
- JCB
- Discover
- UnionPay
- DinaCard

#### **Payment Processors**

- Draft256
- Paymentech
- TSYS
- Internal
- TC57
- OCS



- **Multi<sup>3</sup>**: Multi-Institution, Multi-Region, Multi-Currency
- Universal: Support for all major Card and Payment Schemes
- **Compliant**: Semi-annual compliance releases
- **Profitable**: IRF qualification process optimized for best rates
- **Evolving**: New features are being added constantly
- **Customizable**: Easy to use custom features, even on the fly
- **Scalable**: Multi-threaded, optimized to utilize available hardware
- Lights-off Ready: Runs 365x24x7, minimum administration
- **Flexible**: Extended configurability in every functionality
- Secure: PA-DSS 3.2 certified



## Import: Step by Step





Convert incoming file records into Canonical Clearing Messages

Enrich transaction with Merchant, Issuer BIN, Acquiring BIN information Suspend transactions/batches if enrichment fails

Validate EDC transactions. Suspend transactions if validation fails

Determine transaction routing. Suspend transactions if routing fails.

Qualify EDC transactions for IRF. Suspend transactions if qualification fails.

Assign MAS Code (to be used by the IST/MAS for Merchant Settlement)

Log transaction to the DB

Check totals, flag imported file as processed. Suspend batches/files if totals mismatch.

Update GL accounts, totals



#### **Transaction Suspension**



- Three levels of suspension: Transaction, Batch, File
- Transaction level:
  - Errors in enrichment, edits, routing, IRF qualification, mod10 check, etc.
  - Inactive or expired merchant
- Batch level:
  - Missing or misconfigured merchant
  - Inactive or expired merchant
  - Unmatched totals amounts or counts
  - Number of suspended transactions exceeds threshold count or percentage
- File level:
  - Unmatched totals amounts or counts
  - Number of suspended transactions exceeds threshold count or percentage
  - Number of suspended batches exceeds threshold count or percentage
  - Time-outs
- Suspended transactions may or may not be sent to GL and MAS (configurable)
- Most suspended transactions may be fixed and re-processed



#### **Transaction Enrichment**





#### Transaction validation – Custom rules





#### **Transaction Routing**



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Txn Source Txn Type PAN Low PAN High Card Scheme Currency Txn Receiver Additional	EUR 456789		Primary Dest Primary Format Primary Mode Secondary Dest Secondary Format Secondary Mode Acq BIN Acq ICA	VISA BASE II File Export IST/MAS MAS File Export 456780 not set	IRF Qualification MAS Code Assignment Logging Totalling GL Booking

# Interchange Qualification: Countries, Regions, World







# Interchange Qualification: Engine

Fis

## GL Booking



<ul> <li>Transacti</li> <li>Source F</li> <li>Transacti</li> <li>Destination</li> <li>Card Sch</li> <li>+ up to 3</li> </ul>	ormat on Type on neme		ns	<ul> <li>Accou</li> <li>Suspe</li> <li>Write-</li> </ul>	nt Payable nt Receivable nd Account off Account Account		Validation Routir
							IRF Qualif
	Payable to	Merchant	Receivable from	om CA Su	spended I	ForEx	
Normal Flow	Payable to 100	Merchant		<b>om CA</b> Su 100	spended I	ForEx	
Normal Flow		Merchant			spended I	ForEx	MAS Cu Assignn
Normal Flow Suspended		Merchant			spended I	ForEx	Assignn
	100	Merchant			100	ForEx	Assignr
Suspended	100	Merchant		100	100	ForEx	Loggi
Suspended	100	Merchant		100	100		Assignr Loggi
Suspended Re-processed	100	Merchant	3	100 100	100		Assignr



#### Tasks

- Import
  - Prescheduled
  - Directory scan (start / stop)
- Export
- System tasks
  - BIN table updates
  - Memory cached data reload
  - Suspended transactions reprocessing
  - Anything else

#### Scheduling

- Immediate execution ("Run now")
- One time scheduled tasks
- Recurring tasks
  - Day of week
  - Date of month
  - End of month



#### Calendars





## Multi-currency



- Support multiple rate sets
- Exchange rate set origins:
  - Card Schemes: VISA (BASE II), MasterCard (IPM), etc.
  - Generic format for local/national Forex rates providers
  - Manually entered via a GUI screen
- Rate set selection:
  - By destination
  - By transaction card scheme
  - Default set
- Use historic or current rates
- Conversion results consistent across IST/Clearing and IST/MAS



#### **Building a Solution**





**Custom Code** 

#### **IST/Clearing**

**IST/Foundation** 

**Project-specific configuration**: Routing rules, GL booking, calendars, currency conversion rules and rates, merchant description, BIN ranges, etc.

**Project-specific functionality**: Custom interfaces, reports, edits, etc.

**Application-level functionality**: Product-specific modules and logic: standard interfaces, routing, edits, IRF qualification, calendars, etc.

**Low-level functionality**: Low-level building blocks: mailbox subsystem, task management, DB management, tracing mechanisms, entitlement, etc. Shared by all IST products



# Thank you

