# 8. Methods of Receipt Processing and Submission to FIRS

#### 8.1 Overview

FIRS MBS operates as a clearance model: every invoice must be received, validated, and acknowledged before it is legally recognized. Softrust and Bluelight ensure that this process is **automated**, **reliable**, **and auditable** across all entry channels — SmartAPI, file, email, and BlueBox.

<diagram: End-to-end flow — ERP/BlueInvoice/Email/BlueBox → SmartAPI compliance engine → FIRS MBS → response → archive + dashboards>

## 8.2 Supported Document Types

- **Invoices** standard sales and service invoices.
- Credit Notes negative invoices reducing liability.
- **Debit Notes** adjustments for additional charges.
- Future Expansion designed to support regulator extension to other tax documents (e.g., withholding tax certificates).

## 8.3 Pre-Submission Processing

Before an invoice is transmitted to FIRS, SmartAPI performs several safeguards:

- Schema Validation invoice checked against canonical schema and regulator schema.
- Mandatory Field Checks e.g., Buyer TIN, issue date, line totals.
- Normalization consistent formatting of dates, currencies, numeric precision.
- Master Data Cross-Check HS codes, tax codes, and TINs validated against SmartAPI's reference libraries.
- **Digital Signature Preparation** payload hash signed with PKI for non-repudiation.

If validation fails, the invoice is rejected at SmartAPI layer, with structured error messages returned to ERP, Email Connector, or BlueInvoice user interface.

#### 8.4 Submission to FIRS MBS

- **Transport** invoices transmitted over TLS 1.3 via HTTPS.
- Security signed payload with client certificate or OAuth token.
- **Idempotency** each submission carries a unique ID to prevent duplicates.
- Response Handling SmartAPI manages synchronous and asynchronous FIRS responses.

#### **Response Types**

- 1. **Acknowledged** FIRS has received the invoice, processing pending.
- 2. Cleared Invoice successfully validated, IRN and QR returned.
- 3. **Rejected** Invoice invalid, reason code provided.
- 4. **Pending** FIRS temporary status; SmartAPI queues for automatic retry.

## 8.5 Error Handling and Correction

- Errors returned include structured error code, field name, and description.
- Errors logged with correlation ID and timestamp for traceability.
- Finance teams notified via dashboards, emails, or ERP error queues.
- Corrected invoices resubmitted automatically once fixed.

#### **Examples of common errors**

- Invalid or missing Buyer TIN.
- Incorrect tax code mapping.
- Inconsistent line totals vs header totals.
- Invalid HS code reference.

## 8.6 Post-Submission Processing

Every successfully submitted invoice is enriched and archived:

- Clearance Receipt IRN, QR code, timestamp from FIRS.
- **Digital Signature** proof of authenticity and integrity.
- Audit Log Entry full trace of submission and response cycle.
- **Archival** bundled into WORM storage for 10+ years.

Invoices are also updated in client ERP (via SmartAPI callback or polling) or sent back by email acknowledgement.

<diagram: Evidence lifecycle — canonical invoice  $\rightarrow$  FIRS submission  $\rightarrow$  receipt/QR  $\rightarrow$  evidence bundle archived>

## 8.7 Monitoring and Reconciliation

- **Dashboards** show real-time clearance rates, rejections by reason, and pending items.
- Daily reconciliation automatically compares ERP, SmartAPI, and FIRS counts.
- Exception queues flag mismatches for Finance review.
- Audit-ready exports allow retrieval of receipts and evidence bundles at any time.

#### 8.8 Failover and Resilience

If FIRS MBS is unavailable or unstable:

- SmartAPI retries submissions with exponential backoff.
- Pending invoices are queued safely until FIRS becomes available.
- Clients are notified through dashboards and alerts, but no invoices are lost.
- Optional fallback paths (SFTP or batch submission) can be enabled if required.

### 8.9 Why Clients Trust This Process

- **Zero invoice loss** everything queued and tracked with correlation IDs.
- **Proactive error handling** rejects caught early, corrected quickly.
- **Audit defense** every submission tied to receipts, signatures, and evidence bundles.
- **Operational visibility** dashboards for Finance, IT, and Compliance ensure transparency.

Softrust and Bluelight don't just "send invoices" — we engineer an **industrial-grade compliance pipeline** that ensures every invoice is validated, cleared, and audit-ready.