20. Appendices

Appendix A: \<BluelightSmartAPI> Endpoint List (Placeholder)

- **/invoices/submit** – submit invoice payload in canonical schema.
- **/invoices/status/{id}** – retrieve clearance status.
- **/invoices/archive/{id}** – download evidence bundle (payload, signature, receipt, QR).
- **/invoices/replay/{id}** – resubmit failed or pending invoices.
- **/reconciliation/daily** – trigger reconciliation job and download signed report.
- **/reference/hs-codes** – query or sync HS code library.
- **/reference/tax-codes** – query or sync tax code mappings.
- **/reference/customers** – maintain customer-TIN mappings.

Note: Full details, request/response examples, authentication headers, and error codes will be provided in a separate API Specification.

Appendix B: Sample Payloads (Illustrative)

Invoice Submission (Canonical JSON)

```
{
  "invoiceNumber": "INV-2025-0001",
  "supplierTIN": "12345678",
  "buyerTIN": "98765432",
  "issueDate": "2025-08-28",
  "currency": "NGN",
  "lineItems": [
    {
      "description": "Product A",
      "quantity": 10,
      "unitPrice": 1000,
      "taxCode": "VAT15",
      "hsCode": "1001.90.10"
    }
  ],
  "totalAmount": 11500,
  "sourceSystem": "SAP_ECC"
}
```

Clearance Response

```
{
  "status": "CLEARED",
  "irn": "IRN-XYZ-2025",
  "qrCode": "base64-encoded-qr-string",
```

```
  "signature": "PKCS7-digital-signature",
  "timestamp": "2025-08-28T14:12:00Z"
}
```

Appendix C: Email Connector Processing Rules

- Accepted formats: PDF, XML, CSV, ZIP bundles.
- Subject line optional, body ignored.
- Rejected attachments returned with structured error message.
- Clearance receipts attached to reply email as PDF/XML.
- Inbound invoices (received from customers) routed back to client distribution list.

Appendix D: BlueBox Deployment Guide (Overview)

- Install capture agent on Windows or Linux server.
- Configure printer spooler redirection or folder watcher.
- Define parsing rules (file naming, document recognition).
- Secure HTTPS connection to SmartAPI configured with certificate.
- Monitor via local dashboard and central SmartAPI logs.

Appendix E: Glossary of Key Terms

- **IRN (Invoice Reference Number)** – Unique identifier generated by FIRS for every cleared invoice.
- **QR Code** – Machine-readable code linking to FIRS record of the invoice.
- **TIN (Taxpayer Identification Number)** – Unique identifier for businesses registered with FIRS.
- **HS Code** – Harmonized System classification for goods.
- **UBL (Universal Business Language)** – XML schema standard for e-invoicing.
- **SIT (System Integration Testing)** – Phase of testing where system components are validated together.
- **UAT (User Acceptance Testing)** – Client validation phase to confirm solution meets business needs.
- **RPO (Recovery Point Objective)** – Maximum acceptable data loss measured in time.
- **RTO (Recovery Time Objective)** – Maximum acceptable downtime to restore service.
- **WORM (Write Once, Read Many)** – Immutable storage method preventing tampering.

Appendix F: Compliance Evidence Bundle (Contents)

Each archived invoice record contains:

- Canonical JSON payload.
- Signed submission file.
- FIRS clearance receipt with IRN and QR.
- Digital signature for integrity and non-repudiation.
- Audit log extract (submission, clearance, error events).
- Reconciliation report references.

Appendix G: Contact Matrix

Project Phase Contacts

- Onboarding Manager – primary liaison for project setup.
- Solution Architect – integration and mapping oversight.
- Finance Liaison – Finance workflows, reconciliation, training.
- Compliance Lead – regulator alignment, evidence bundles.
- Support Desk – 24x7 SLA-backed incident management.

Escalation Paths

- Level 1: Client IT and Finance analysts.
- Level 2: Softrust Integration Engineers.
- Level 3: Bluelight SmartAPI Operations.
- Level 4: FIRS regulator contact (as last resort).

Appendix H: Diagram Set (to be provided as annex)

- Solution Landscape (SmartAPI, BlueInvoice, Email Connector, BlueBox).
- Security Architecture.
- Data Mapping Flow.
- Integration Decision Tree.
- Compliance Lifecycle.
- Cutover Timeline.
- Risk Heat Map.
- Operations Cycle.
- Global Footprint and Case Study Map.

20.9 Why Appendices Matter

These appendices provide clients with:

- **Technical Depth** – APIs, payloads, deployment guidelines.
- **Operational Clarity** – runbooks, connector rules, escalation.
- **Compliance Assurance** – glossary and evidence bundle structure.
- **Evaluation Efficiency** – diagrams and quick reference matrices that simplify decision-making.