AFS Freight Billing & Logistics Management System - Functional Architecture
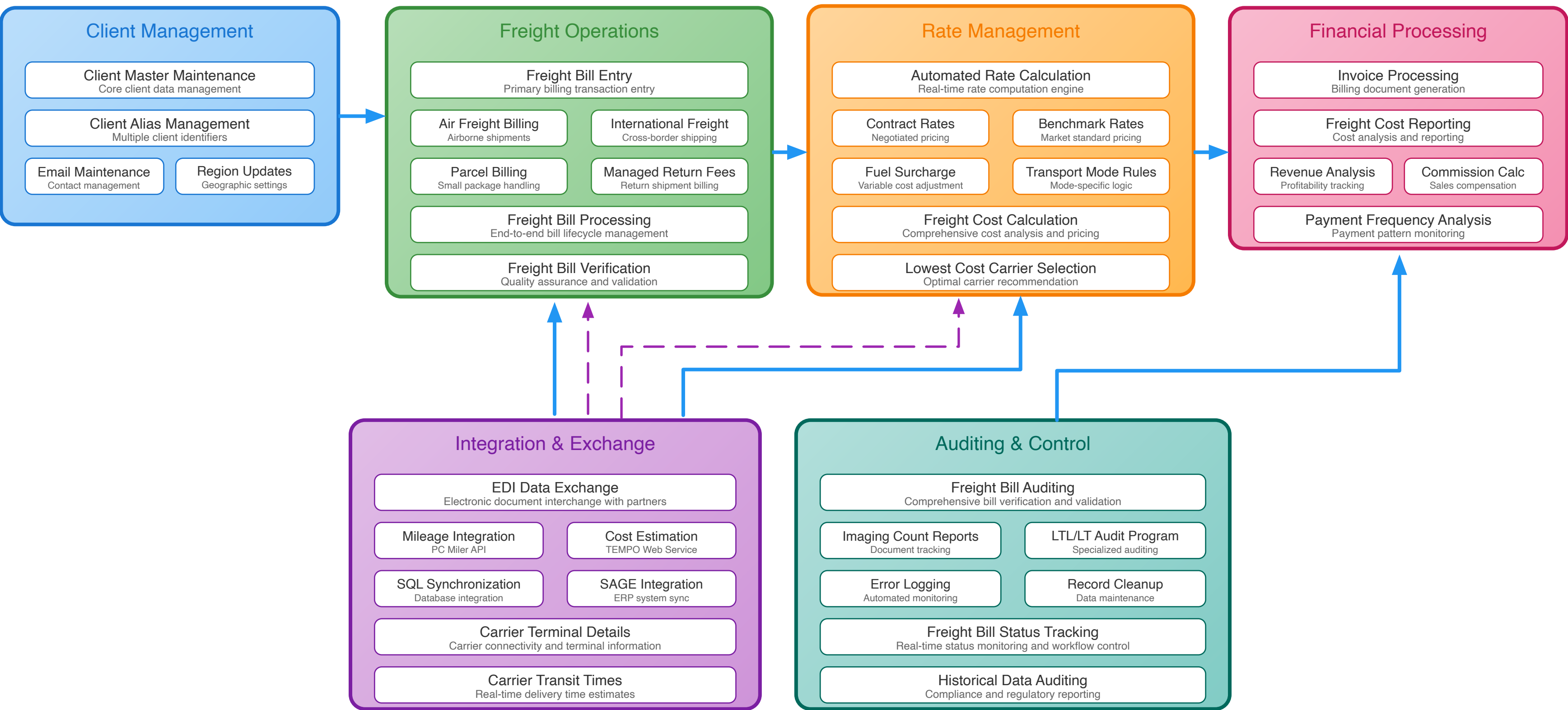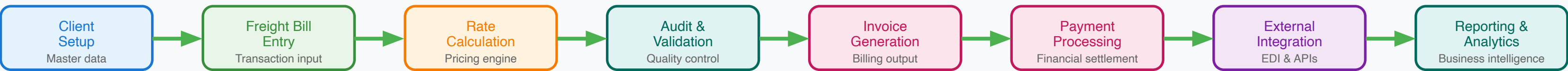
Core Business Functions and Relationships

Client Management

Client Master Maintenance
Core client data management

Client Alias Management
Multiple client identifiers

Email Maintenance
Contact management

Region Updates
Geographic settings

Freight Operations

Freight Bill Entry
Primary billing transaction entry

Air Freight Billing
Airborne shipments

International Freight
Cross-border shipping

Parcel Billing
Small package handling

Managed Return Fees
Return shipment billing

Freight Bill Processing
End-to-end bill lifecycle management

Freight Bill Verification
Quality assurance and validation

Rate Management

Automated Rate Calculation
Real-time rate computation engine

Contract Rates
Negotiated pricing

Benchmark Rates
Market standard pricing

Fuel Surcharge
Variable cost adjustment

Transport Mode Rules
Mode-specific logic

Freight Cost Calculation
Comprehensive cost analysis and pricing

Lowest Cost Carrier Selection
Optimal carrier recommendation

Financial Processing

Invoice Processing
Billing document generation

Freight Cost Reporting
Cost analysis and reporting

Revenue Analysis
Profitability tracking

Commission Calc
Sales compensation

Payment Frequency Analysis
Payment pattern monitoring

Integration & Exchange

EDI Data Exchange
Electronic document interchange with partners

Mileage Integration
PC Miler API

Cost Estimation
TEMPO Web Service

SQL Synchronization
Database integration

SAGE Integration
ERP system sync

Carrier Terminal Details
Carrier connectivity and terminal information

Carrier Transit Times
Real-time delivery time estimates

Auditing & Control

Freight Bill Auditing
Comprehensive bill verification and validation

Imaging Count Reports
Document tracking

LTL/LT Audit Program
Specialized auditing

Error Logging
Automated monitoring

Record Cleanup
Data maintenance

Freight Bill Status Tracking
Real-time status monitoring and workflow control

Historical Data Auditing
Compliance and regulatory reporting

Core Business Process Flow

Client Setup — Master data → **Freight Bill Entry** — Transaction input → **Rate Calculation** — Pricing engine → **Audit & Validation** — Quality control → **Invoice Generation** — Billing output → **Payment Processing** — Financial settlement → **External Integration** — EDI & APIs → **Reporting & Analytics** — Business intelligence

Legend

- Client Management
- Freight Operations
- Rate Management
- Financial Processing
- Integration & Exchange
- Auditing & Control

— Process Flow
— Function Dependencies
-- Integration Feedback

Business Functions:
• 50+ documented subjects
• End-to-end logistics coverage

Key Business Capabilities

Multi-Modal Support:
• LTL, Truckload, Air Freight, International
• Parcel and managed returns

Rate Calculation:
• Contract, benchmark, and spot rates
• Fuel surcharge automation

External Integrations:
• PC Miler, RateWareXL, TEMPO
• EDI with carriers and customers

Audit & Compliance:
• Comprehensive bill validation
• Historical data auditing