**Quality Management & Testing Strategy**

**For Transaction Integrity, Security, and Compliance**

**Goal**

To ensure the platform delivers **secure**, **accurate**, and **regulatory-compliant** mobile money transactions across telecom and financial infrastructure.

**Quality Objectives**

* 100% traceability of transactions
* <0.01% transaction failure rate
* Zero security breaches or unpatched CVEs
* 100% audit trail compliance (AML, CBK, GDPR)

**Quality Control Mechanisms**

| **Area** | **Tests** | **Tools** |
| --- | --- | --- |
| Functional | USSD/UI workflows, KYC verification, agent onboarding | Selenium, Postman, Robot Framework |
| Security | Pen testing, token expiry, API encryption, role-based access | OWASP ZAP, Burp Suite, Vault |
| Compliance | AML thresholds, fraud alerts, data retention rules | ComplyAdvantage, Custom Rules Engine |
| Performance | Load testing, failover, scaling | JMeter, Locust, APM tools |
| Integration | API handshake, fallback scenarios, timeout recovery | Postman, Insomnia, Jenkins pipelines |

**Test Phases**

1. **Unit Testing** – Each module (wallet, agent, bank API)
2. **Integration Testing** – End-to-end money flow across telco and financial systems
3. **UAT (User Acceptance Testing)** – With agents, customer support, compliance officers
4. **Regulatory Testbed** – Simulated audits, compliance transaction scans
5. **Security Review** – Third-party ethical hacking, threat modeling

**Defect Management**

* Severity 1 issues resolved within 12 hours
* Root cause analysis (RCA) documented
* Weekly bug triage with dev + QA + product

**Acceptance Criteria**

* Zero P1/P2 bugs in production
* 100% test case coverage for AML & KYC flows
* CBK sandbox test pass before go-live