Job Title: Software Engineer – Middleware Platform
Department: System Development
Reports To: System Development Director
Location: Addis Ababa, Ethiopia
Salary Range: 1,500 – 2,500 USD monthly
Contract Type: Fixed-Term (2 Years, with potential for extension)
Project Funding Source: AfricaNenda Foundation

Position Summary:

EthSwitch is seeking a technically skilled **Software Engineer – Middleware** to support the development, configuration, and deployment of the EthBridge Middleware Platform—a scalable, secure, and real-time integration layer powering Ethiopia's Instant Payment System (IPS) and national digital financial infrastructure.

This role will focus on integrating billers and financial institutions into the IPS sandbox and live environment, facilitating seamless onboarding using standardized APIs, ISO-based messaging, and secure communication protocols.

Software Engineer will also contribute to operational monitoring, middleware enhancements, and security-driven development practices aligned with global benchmarks.

Key Responsibilities

1. Middleware Configuration & Integration

- Configure and deploy EthBridge modules to enable secure, real-time interoperability between banks, billers, and IPS.

- Develop and maintain RESTful APIs, ISO 20022/ISO 8583 message parsers, stored procedure calls, and custom adapters to support diverse integration use cases.

- Support onboarding of institutions through configuration of routing rules, API mappings, PKI and mutual TLS setups, and sandbox testing protocols.

2. IPS Sandbox Enablement & Support

- Coordinate with partner banks and billers to facilitate end-to-end testing in the IPS sandbox.

- Support API request-response validation, error tracing, and latency analysis using built-in monitoring tools (e.g., Grafana, Elasticsearch).

- Troubleshoot connectivity and message processing issues using the middleware's store-and-forward (SAF) mechanism.

3. Transaction Monitoring & Performance Optimization

- Use Kibana, Prometheus, and Grafana dashboards to track system health, rejected transactions, and performance indicators.

- Implement metrics-based alerts and suggest tuning strategies to ensure optimal message throughput and processing times.

4. Information Security & Code Quality Assurance

- Ensure integration components comply with TLS 1.3, JWT, PKI, and checksum validation standards for secure data transfer.

- Adopt test-driven development practices using Snyk, SonarLint, and SonarQube to prevent vulnerabilities and maintain clean, secure code.

- Collaborate with QA and DevSecOps teams to uphold static code analysis, automated deployment, and audit trails for all integrations**.**

5. Technical Documentation & Knowledge Transfer

- Document API specifications, middleware configuration guides, onboarding workflows, and support playbooks.

- Conduct workshops or training sessions with technical teams of financial institutions or billers as part of the onboarding process.

Required Qualifications

Education:

- Bachelor's degree in computer science, Software Engineering, Information Systems, or a related technical discipline.

Experience:

- Minimum 3 years of proven experience in middleware engineering or system integration roles.

- Strong hands-on experience with message queuing protocols (RabbitMQ, Kafka), ISO messaging formats (ISO 20022, ISO 8583), and REST/SOAP APIs.

- Familiarity with financial services, payment gateways, or national switch systems is a strong advantage.

Technical Skills:

- Middleware Platforms: RabbitMQ, ESB, or other message brokers.

- Languages & Protocols: Java, Python, JSON, XML, SOAP, REST.

- Security: TLS 1.3, JWT, PKI, checksum validation.

- DevOps & QA Tools: Snyk, SonarLint, SonarQube, Nessus.

- Monitoring Tools: Grafana, Prometheus, Kibana, Elasticsearch.

- Databases: MySQL, PostgreSQL, or similar RDBMS.

- Other: Familiarity with Docker and CI/CD pipelines is an asset.

Soft Skills:

- Strong analytical and troubleshooting abilities.

- Clear and structured communication for effective stakeholder coordination.

- Adaptability to a fast-evolving fintech environment.

- Team player with a focus on knowledge sharing and continuous improvement.

Working Environment

- Based in Addis Ababa, Ethiopia, with occasional interaction with international technical teams and stakeholders.

- Collaboration with multidisciplinary teams from system development, operations, QA, and financial institutions.

How to Apply

Interested candidates are invited to submit their CV, Cover Letter and a list of at least 3 references to info@africanenda.org and pmo@ethswitch.com **by 28th August 2025**.

Note: only shortlisted applicants will be contacted.