Hoang Thanh Pham

Solution Engineer · System Integration & Automation

Tu Liem, Ha Noi, Viet Nam

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Summary

Solution engineer with 3+ years at VIVAS - VNPT Technology, working on fault and performance management platforms for VNPT's RAN and Core networks. I have integrated 100+ Core nodes such as MME, PGW and MSS, along with RAN equipment from Ericsson, Nokia, Oracle and other vendors, using Apache NiFi flows with Python and Groovy to collect SNMP traps and vendor raw files. These platforms handle 8M+ RAN and 1M+ Core alarm events per day on on-premise Kubernetes. Comfortable with Kafka and REST integration and with troubleshooting in production. I use AI tools daily for coding, automation scripts and documentation.

Skills

Integration & Automation	Apache NiFi, SNMP, Raw Files (3GPP XML, CSV, ASN.1), Python, Groovy
Telecom Domain	Fault Management (FM), Performance Management (PM), RAN, Core Network
Streaming & Data	Apache Flink, Kafka, ClickHouse, Oracle, Redis (Lua), ETL
Infrastructure	Kubernetes, Docker, Linux, On-premise Infrastructure
Programming	Java, Python, Groovy, Go
Languages	Vietnamese (native), English (B1 VSTEP)

Experience

Solution Architect
2026 – Present

NFM-RAN Network Fault Management - Radio Access Network — *VIVAS - VNPT Technology, Ha Noi*

- Led the design and rollout of a real-time alarm correlation platform for VNPT's Radio Access Network.
- Built Apache NiFi flows (Python/Groovy) that pull Ericsson and Nokia RAN alarms from SNMP traps and raw files into Kafka.
- Handles 8M+ alarms per day with stateful Flink correlation, late-event reconciliation and automatic lifecycle handling.
- Deployed and operated the platform on on-premise Kubernetes, with high availability and horizontal scaling.

Solution Architect
2026 – Present

NFM-CORE Network Fault Management - Core Network — *VIVAS - VNPT Technology, Ha Noi*

- Designed the end-to-end architecture for a real-time Core network alarm platform that processes 1M+ alarm events per day.
- Integrated 100+ nodes such as MME, PGW and MSS from Ericsson, Nokia, Oracle and others via NiFi flows (Python/Groovy).
- Designed the serving layer for dashboards, real-time monitoring and alarm history queries, backed by ClickHouse.
- Tracked alarm lifecycle state with Redis Lua scripts for atomic state updates.
- Wrote the integration guidelines and data contracts used to onboard new node types into the central fault management platform.

Data Engineer
2023 – 2025

NPM-CORE Network Performance Management - Core Network — *VIVAS - VNPT Technology, Ha Noi*

- Built KPI collection on Apache NiFi, parsing vendor performance files (3GPP XML, CSV, ASN.1) with Python and Groovy.
- Designed ETL pipelines and processing services that feed the network monitoring dashboards.
- Tuned aggregation queries over large volumes of telecom KPI data in ClickHouse.

Backend Engineer
2023 – 2024

Political & Social Organization Platform — *VIVAS - VNPT Technology, Ha Noi*

- Developed real-time communication services: WebSocket chat, Firebase push notifications and email campaigns over AWS SMTP.
- Designed backend microservices for Official Account and mini-app platforms.

Backend Engineer
2022 – 2023

Travelopia Platform — *VIVAS - VNPT Technology, Ha Noi*

- Developed CRM and tourism management systems on a multi-tenant SaaS architecture, including email marketing workflows.
- Integrated customer data from multiple sales and social platforms through real-time synchronization services.

Education

B.S. in Computer Engineering
2021 – 2025

Hanoi University of Science and Technology (HUST), School of Information and Communication Technology (SoICT) — *Ha Noi*