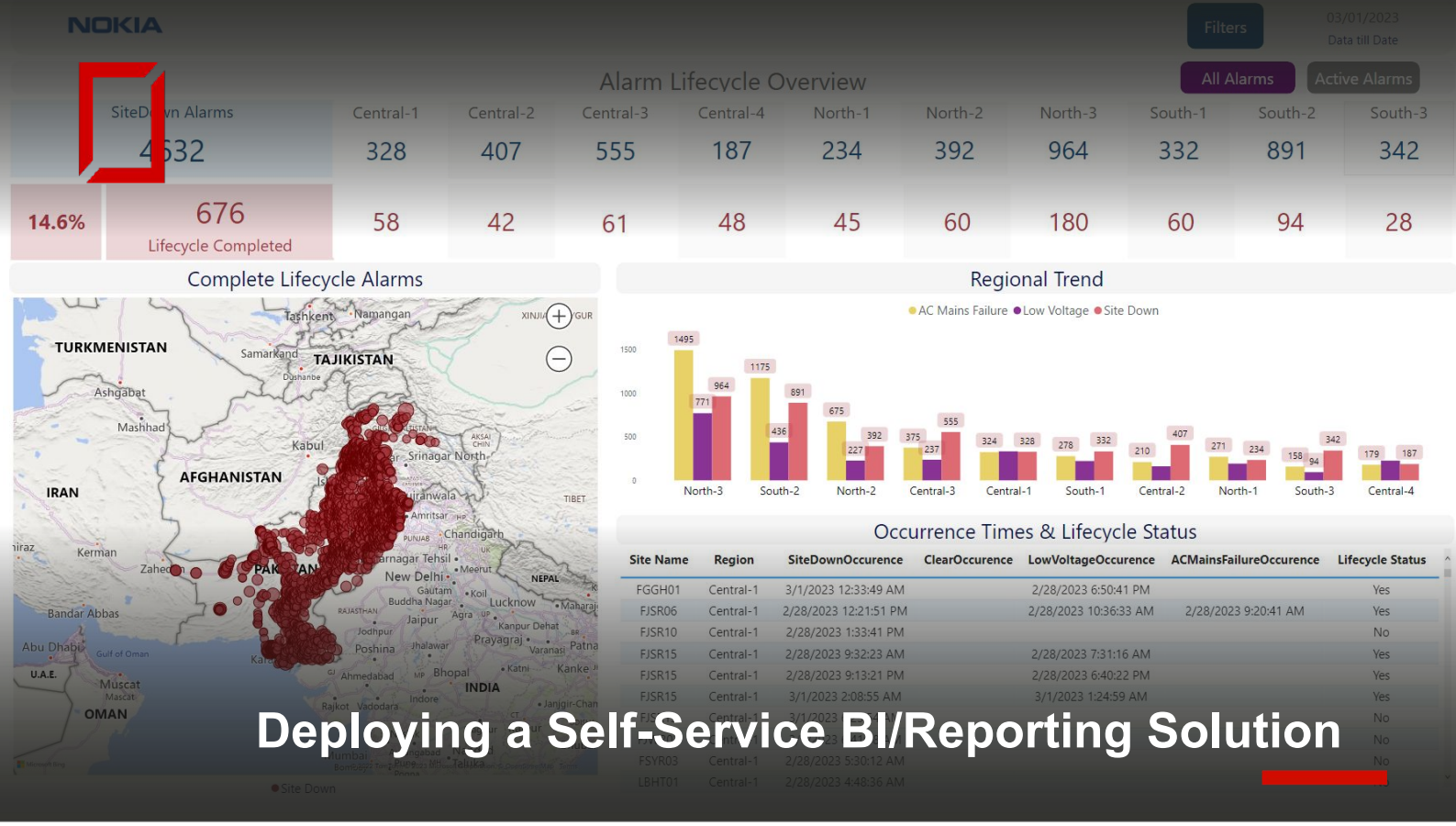

Overview

This Company's NOC Team in Pakistan was tasked with deploying a self-service BI/reporting solution for Telenor Pakistan's NOC. The goal was to provide up to 40 dashboards with drill-down functionality, representing different views of network KPIs, trends, and thresholds. The dashboards would aggregate data from various systems, including ITSM, IBM Netcool, WFM, and other systems in Company's NOC IS/IT environment. The solution would also include some static data from Excel sheets and be viewable on a variety of devices.

CUSTOMER

A Finnish multinational telecommunications, information technology, and consumer electronics corporation.

Country: USA

Industry: Private Sector

Customer Size: 500 - 1000

Publish Date: 24/02/2023

Problem Statement

This Company's NOC Team in Pakistan is assigned to implement a self-service BI/reporting solution for Telenor Pakistan's NOC, requiring a complete data pipeline to aggregate data from various systems, including ITSM, IBM Netcool, WFM, and Excel sheets. The solution should update dashboards in near real-time, be scalable, and accommodate changes in data sources and requirements. The solution should also be user-friendly and viewable on a variety of devices. The challenge is to design and implement a self-service BI/reporting solution that meets the complex requirements of Telenor Pakistan's NOC team, leverages the data assets of Company's NOC IS/IT environment, and provides real-time insights into network performance, trends, and issues.

Technical Solution

To fulfill the requirements of the NOC team, a self-service BI/reporting solution was deployed that consisted of a Postgres database, which would hold all the data required for the dashboards. The data pipeline was designed to aggregate data from various systems, including ITSM, IBM Netcool, and WFM, ensuring accuracy and compliance with data privacy and security regulations. The dashboards were built using a dashboarding tool that provided flexibility and adaptability to meet the specific needs of the NOC team. The tool also allowed the team to build their own dashboards, extending the solution beyond the initial project. The dashboards were viewable on different devices, such as PCs, tablets, and mobile phones, via a browser window. Overall, the self-service BI/reporting solution provided real-time insights into network performance, trends, and issues, and empowered the NOC team to make informed decisions to improve the network's quality and stability.

Technologies	Domain
Power BI, Node.js, Clickhouse, Docker	Microsoft Services, Backend Technology, Data lake

Results

The self-service BI/reporting solution provided the NOC team with an effective way to visualize their network data. The solution delivered up to 40 dashboards with drill-down functionality, representing different views of network KPIs, trends, and thresholds. The dashboards were built using calculation logics owned and explained by the NOC team, and they were flexible and adaptable based on changing data attributes over time. The NOC team was trained on how to use the system effectively and build their own dashboards beyond the project handover. Overall, the solution enabled the NOC team to make data-driven decisions quickly and effectively, improving their network operations.

Data Intake

Intake of existing data from Postgres DB, Excel Sheets
Data lake setup, full data migration, data cleaning scripting

Data Processing/Calculation

Scripts for data calculations / business logics implementation
SMS / Email integration for data push
Mapping suitable visualization types based on data representation requirements

Dashboards Generation

Design & Generation of dashboards
Desktop views
Mobile accessibility
Reports export
Data Integrity Checks (automated)

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