Marina Compass
Visualizing HANA Graph and Spatial

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THE BEST RUN **SAP**

Build intelligent applications with advanced analytical processing

Structured Data
Unified data model & SQL language across all data types

Spatial
Combine business data with geographical data

Graph
Build & analyze relationships in data on the fly

Text & Search
Full-text search, navigation, and access to structured & unstructured data

SAP HANA

Predictive
Proactive & intelligent decisions
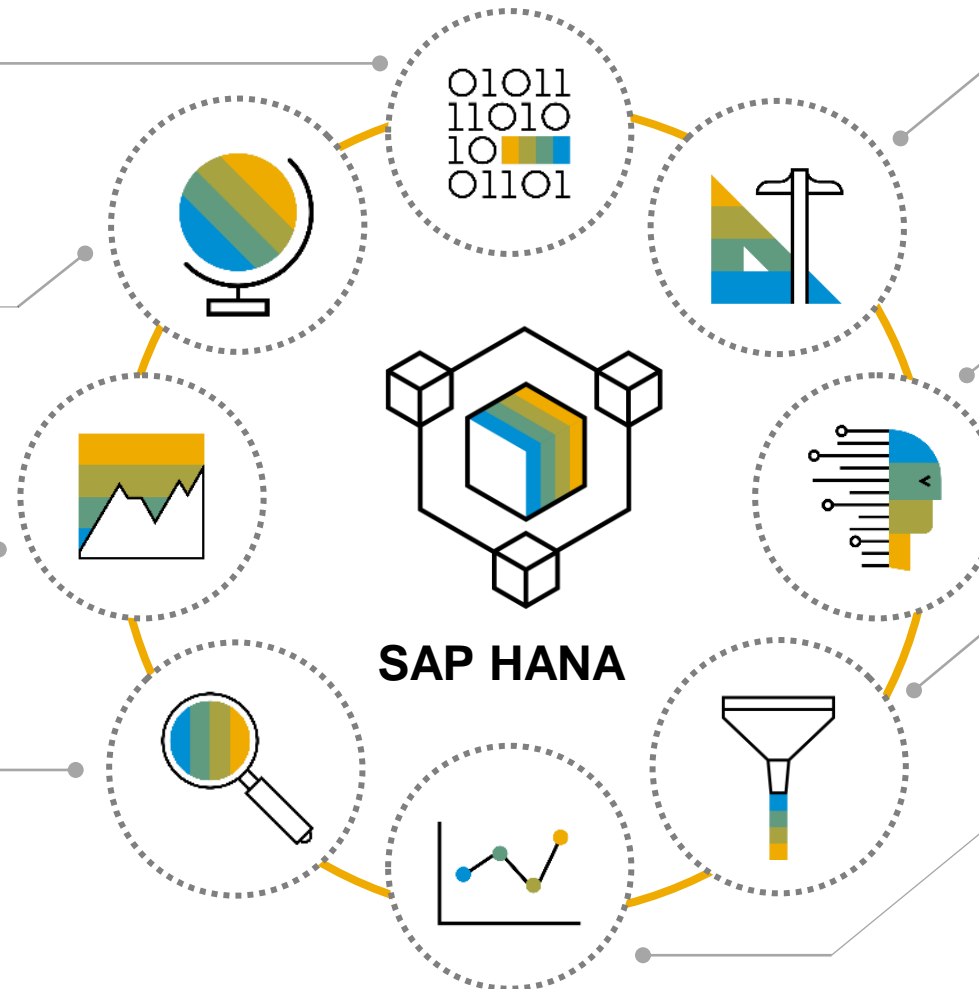
Machine Learning
Train & deploy models in real time
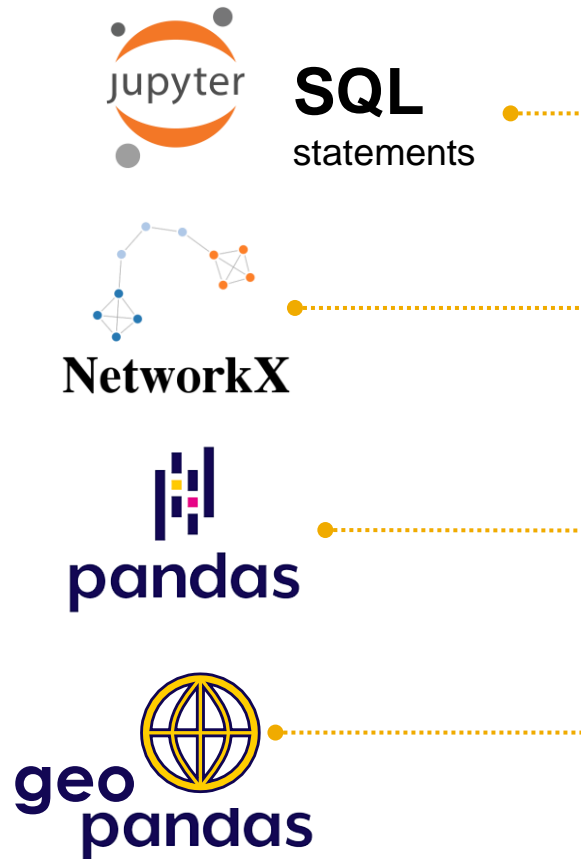
Streaming
Real-time analysis of data streams

Series Data
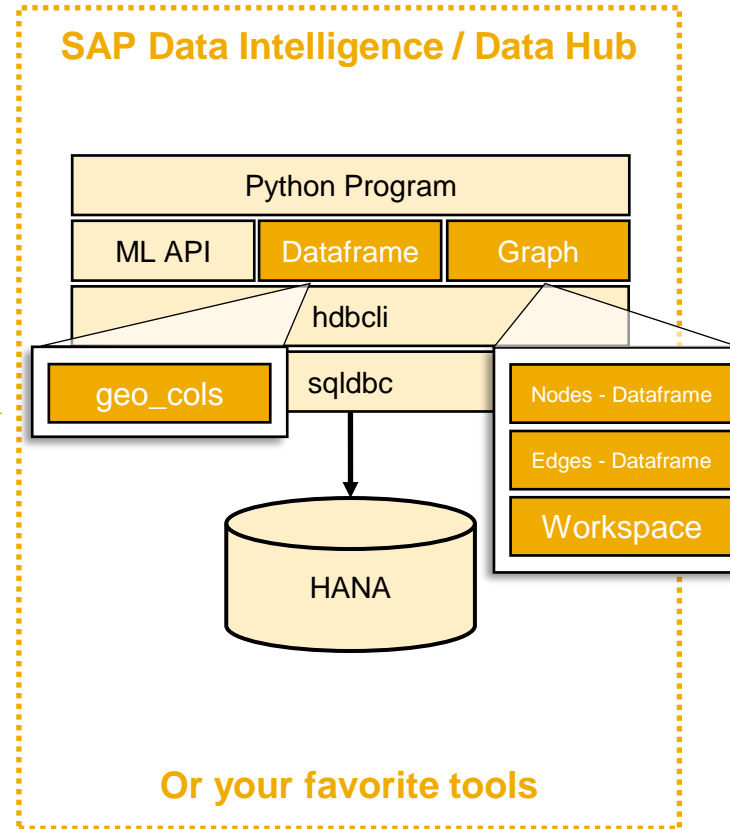Capture & analyze a sequence of successive data points

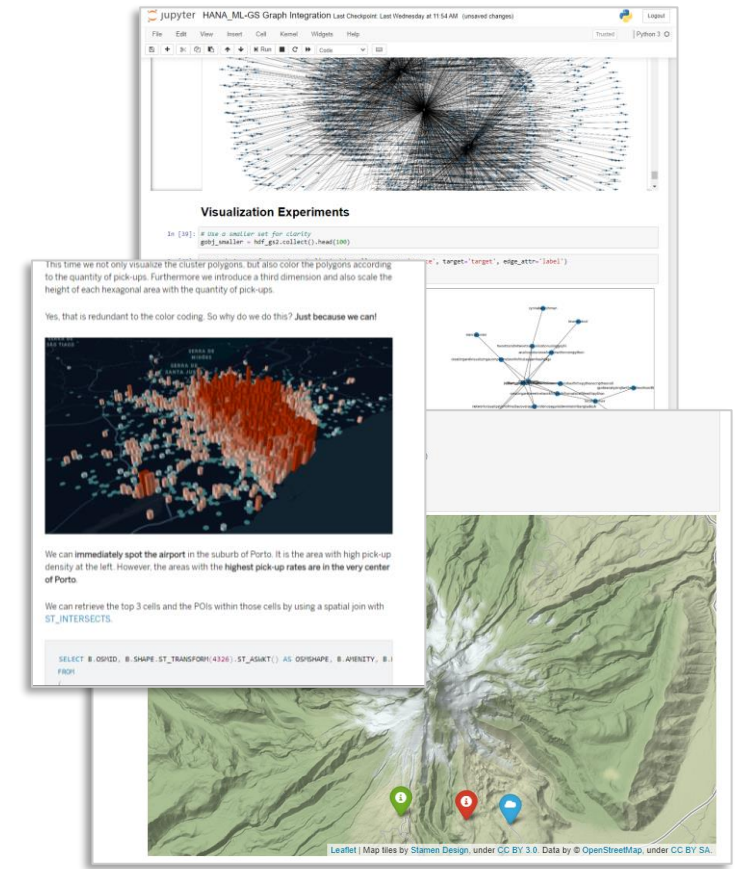# What is HANA ML | High Level Architecture

Popular Data Science Tools

jupyter

SQL statements

NetworkX

pandas

geo pandas

SAP Stack

SAP Data Intelligence / Data Hub

Python Program

| ML API | Dataframe | Graph |

hdbcli

geo_cols	sqldbc	Nodes - Dataframe
		Edges - Dataframe
		Workspace

HANA

Or your favorite tools

Visualization Objects

Pandas columns are to numpy as GeoPandas columns are shapely

Marina Compass Architecture
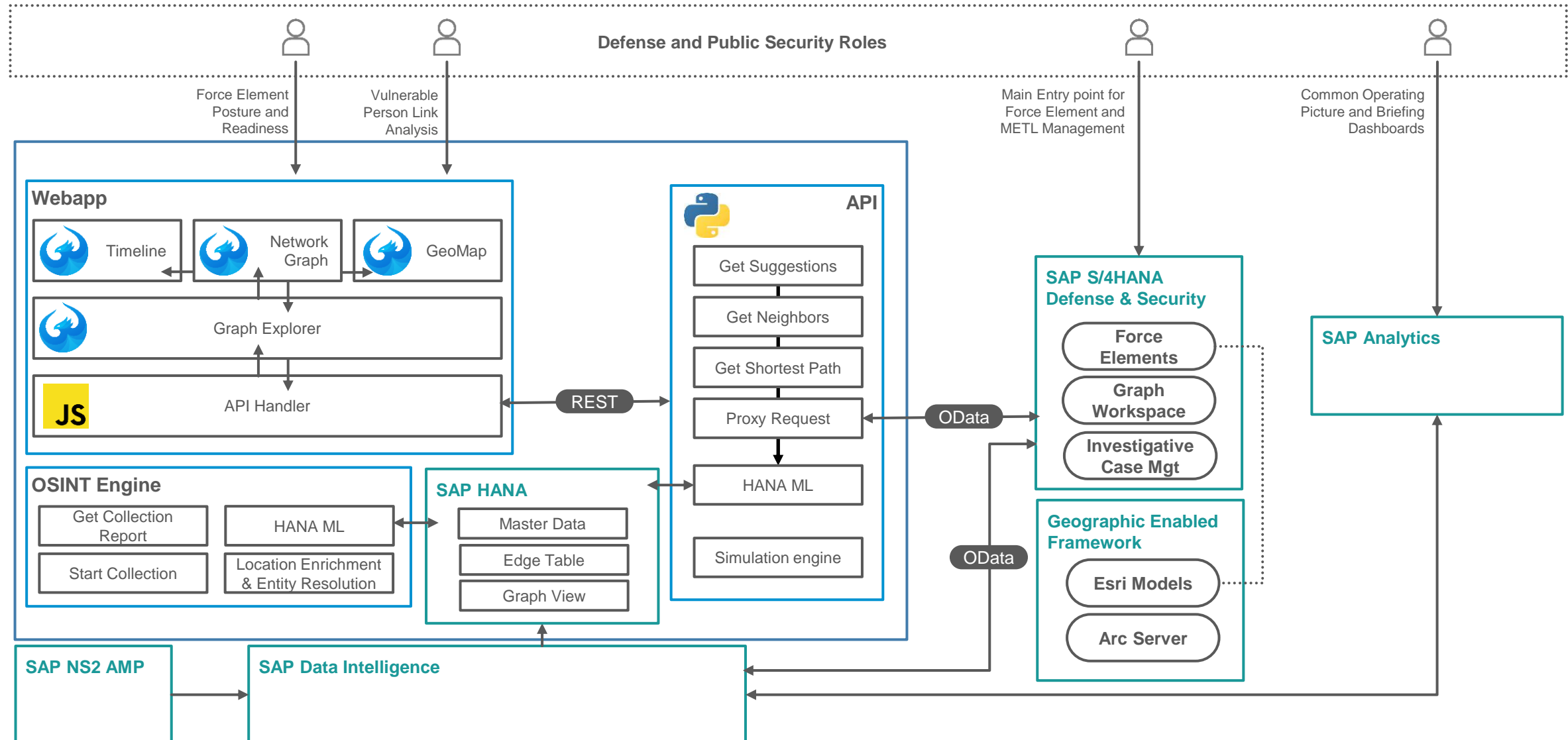
Analyzing ACLED Data with Graph, Geospatial and Timeline
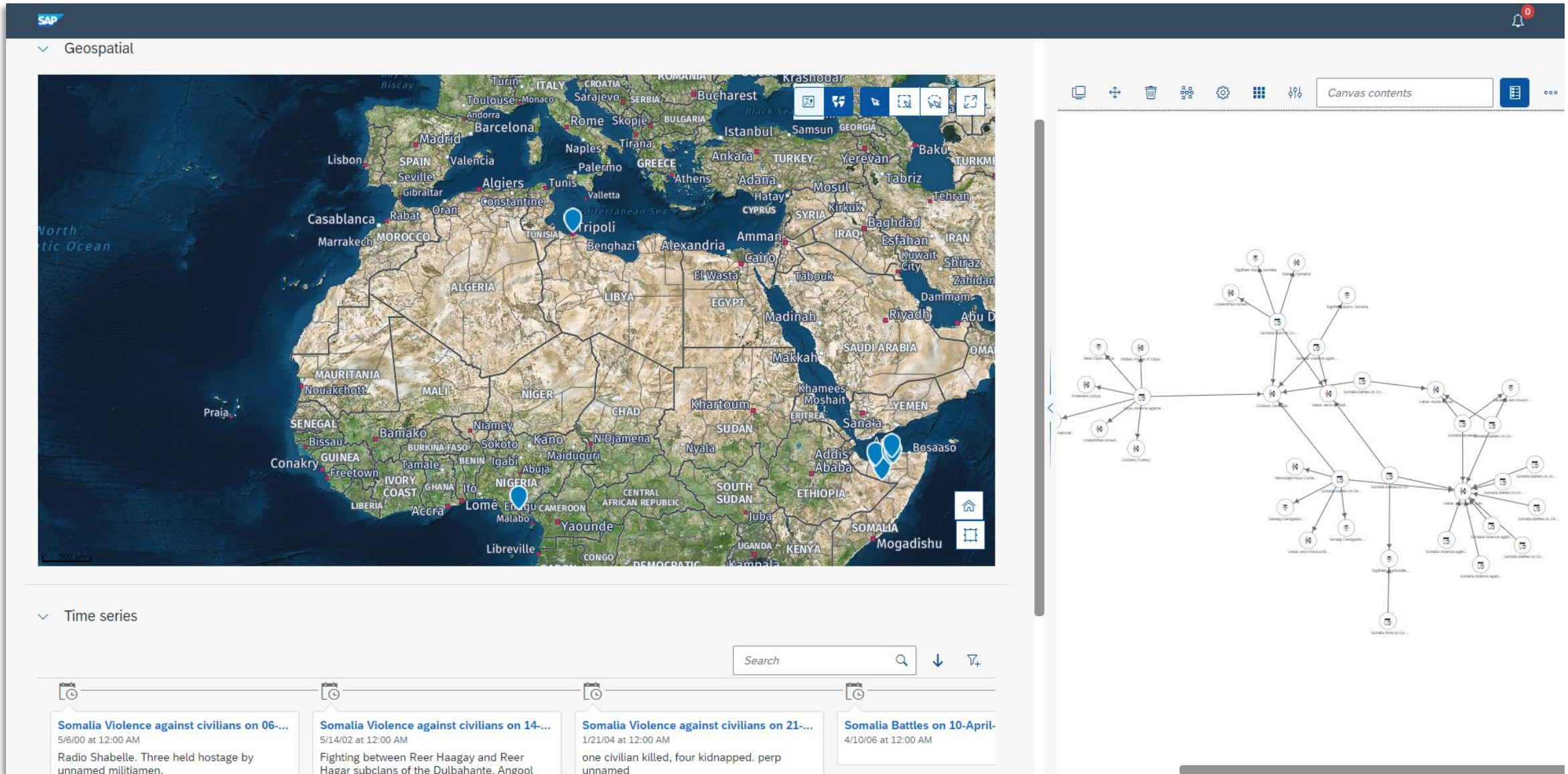
Shortest Path between event in Somalia and Place in Nigeria
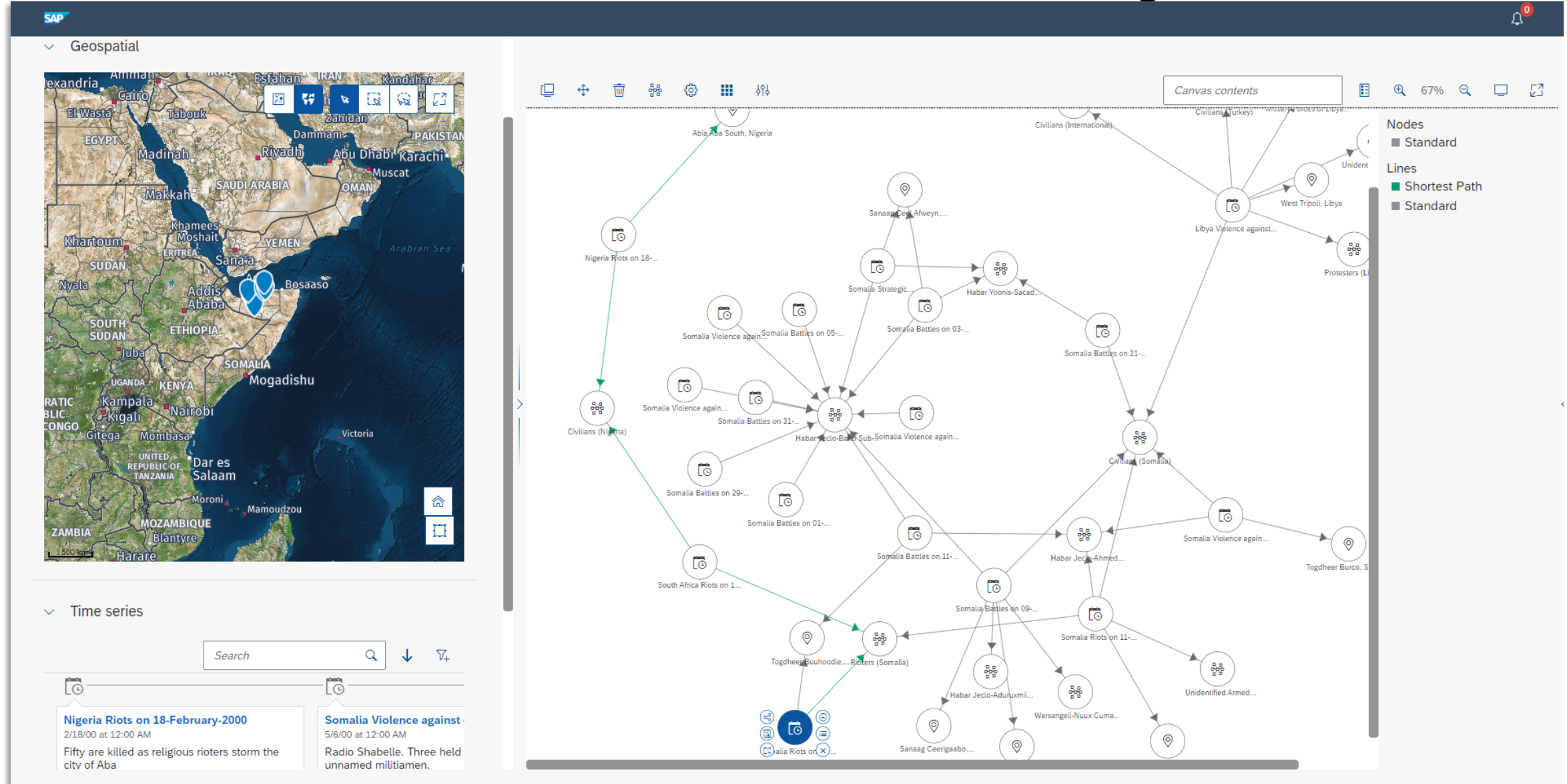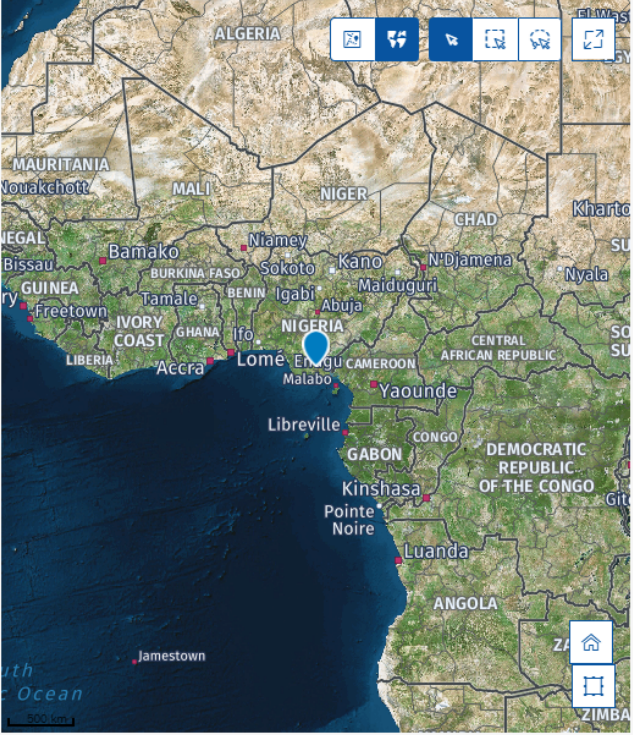
Grouping events by category…
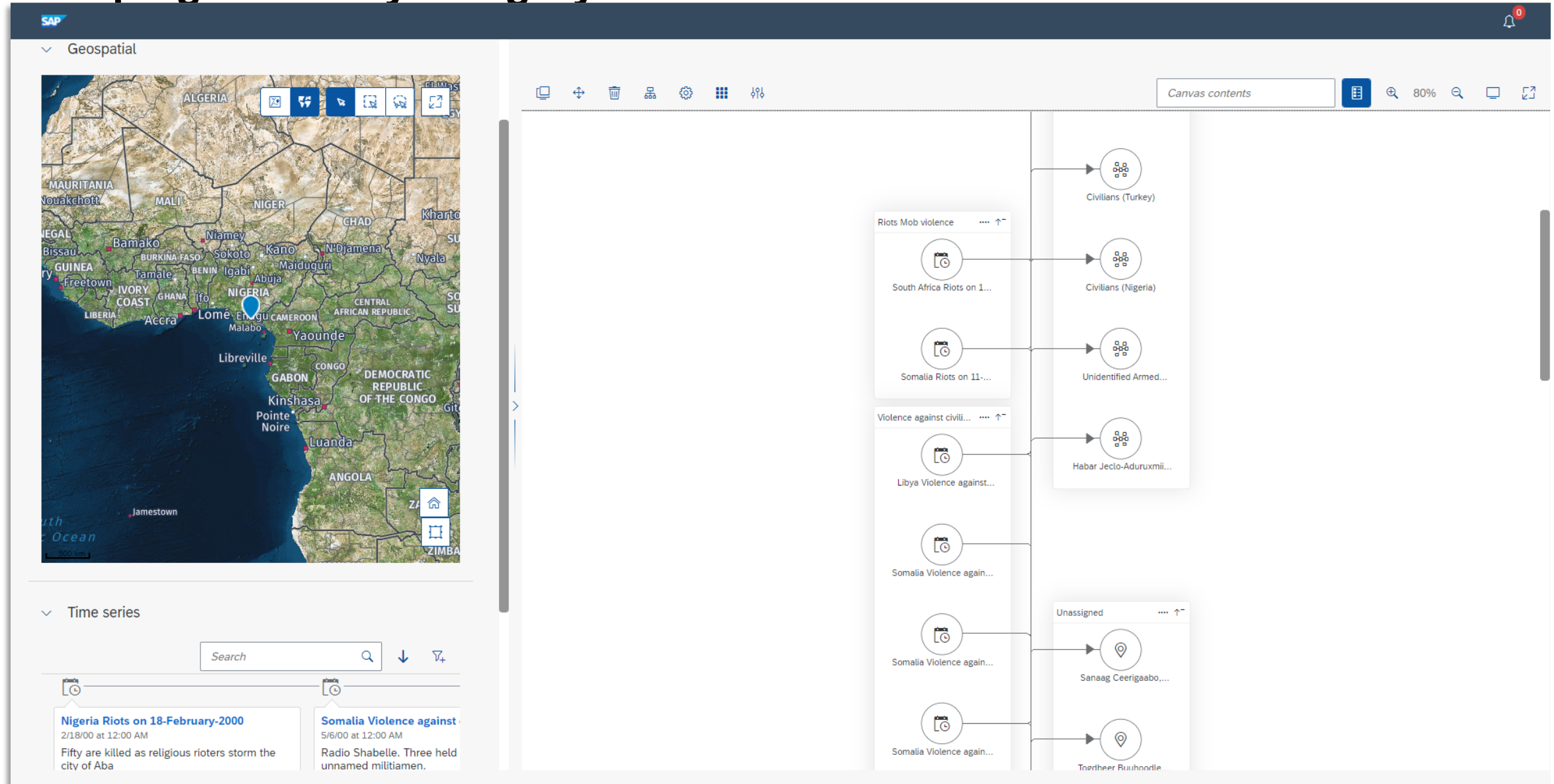
… or any available attribute among entities like source

Filter events by date while maintaining an overview of the original graph
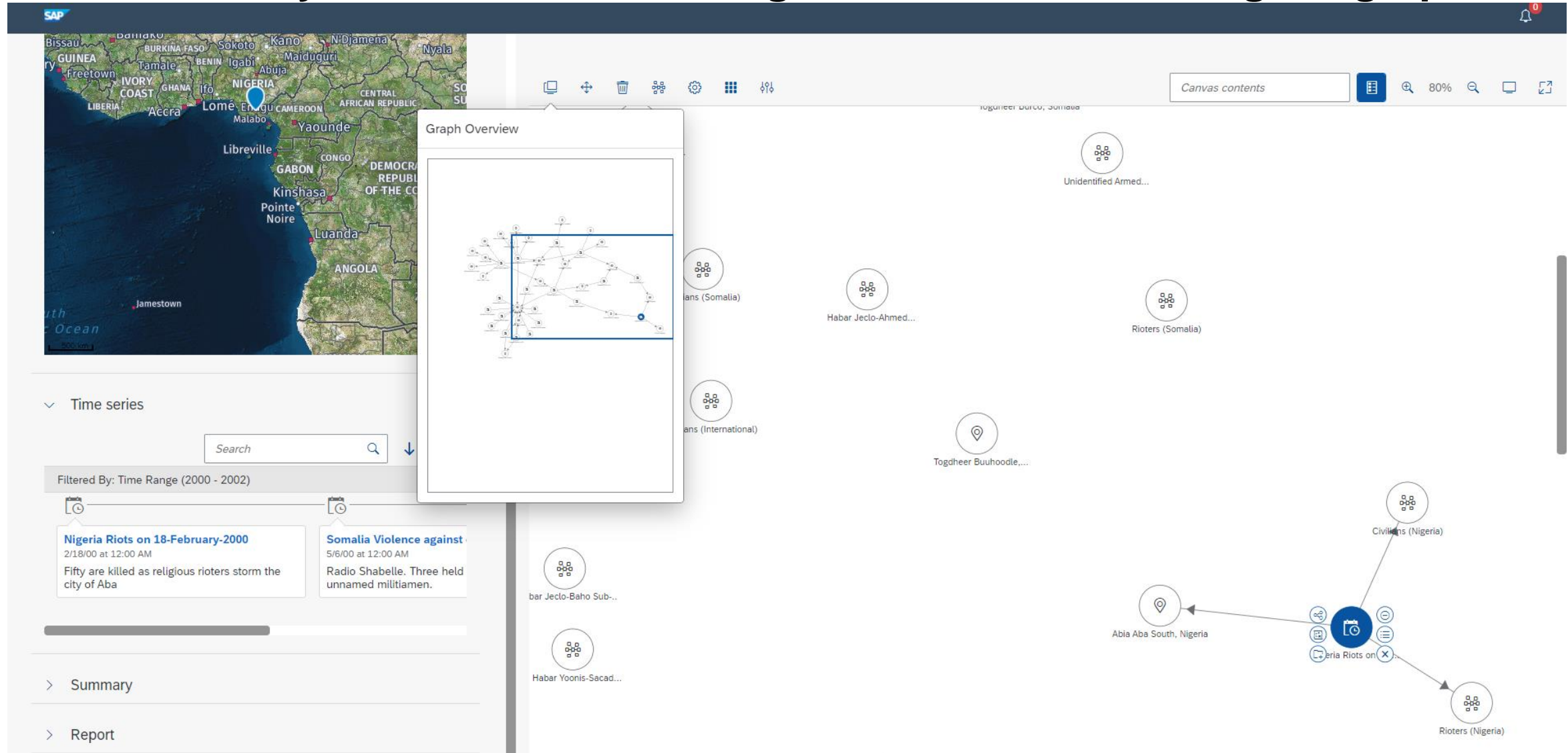
Situations Created by Graph Patterns

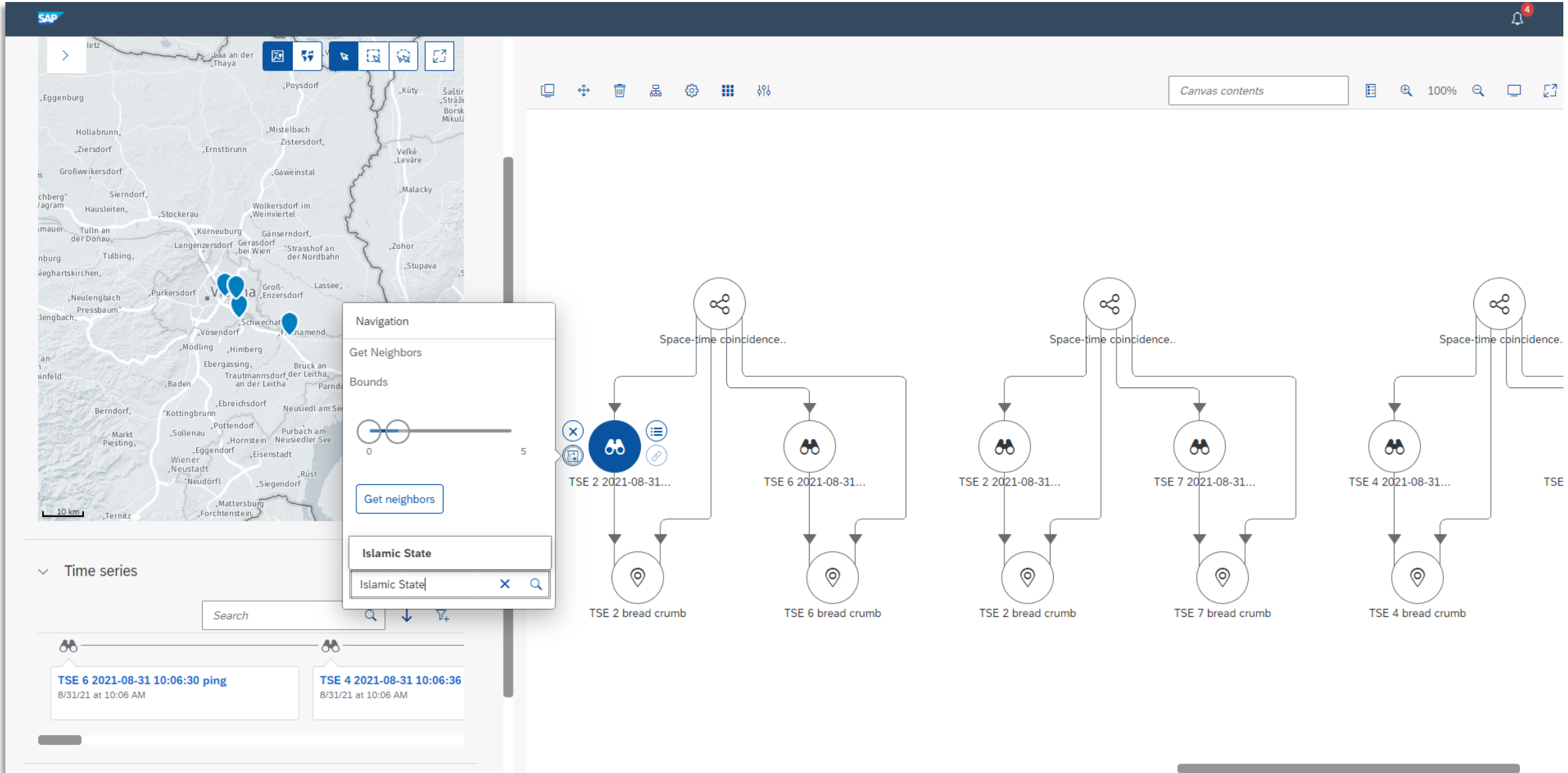# Public Security Use Case involving Space Time Coincidences

Render Coincidences on Graph, Map, and Timeline

Interrogate with Shortest Path to determine proximity to threat groups

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