Patria

DOME
provides real-time situational awareness

DOME is the hub
for mission critical location data

DOME provides real-time situational awareness by receiving data from other systems through standardized APIs. DOME has been built to handle even the most unconventional location data formats and bring everything together for easier interpretation. The information is presented in map layers, so your command can see the situation developing on several different levels and make the right decisions for the mission.

Efficient user management ensures the right people get the right intel. You can interact with the objects on the map by commenting on them and assigning them to other users. Data visibility to different user groups can be restricted diversely, including geographic restrictions. DOME also includes automated publishing service, which allows the user to upload a file (e.g., NATO Vector Graphics image) to the servers, which becomes available as a map layer to other users.

## DOME emphasizes automated data processing and security.

Data Collector & Distributor (DCD) collects the data from external sources and saves it to CORE database. This data is again automatically processed into reports, that have both static and dynamic map layers. It also supports time series map layers, so that the user can run through both past events and future forecasts.

In addition, DOME provides data access for AI data analytics tools to enrich reported information.

The system is designed to be flexible. DOME is based on Docker container microservice architecture. Thanks to its structure, DOME can run a stripped version for a single portable device, or for hundreds of people in a dedicated data center.

**Understand and communicate the developments in your battlefield.
Both time and space.**
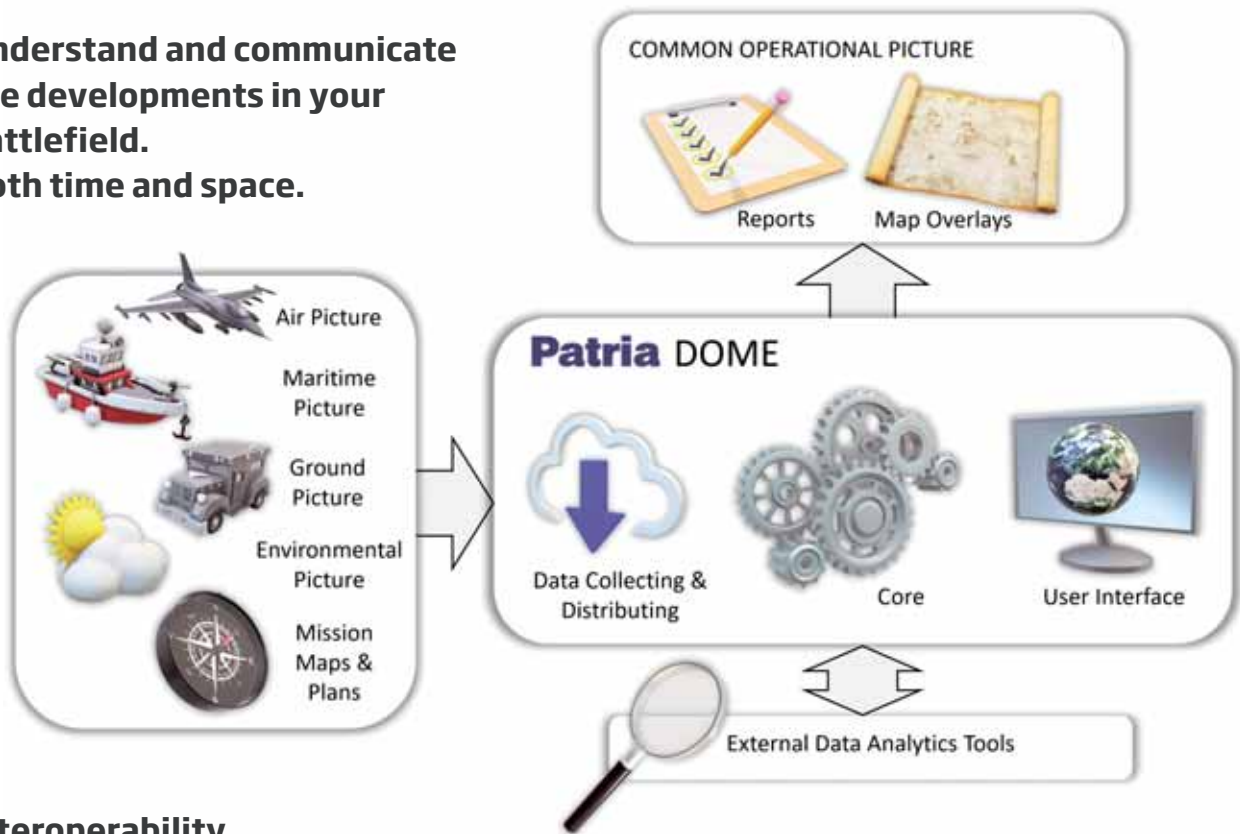
Interoperability

*FMN (Federated Mission Networking,
https://www.act.nato.int/activities/fmn) framework creates a baseline for military GIS interoperability issues.
DOME fulfills FMN Spiral 3 requirements set for geospatial data exchange.
There are several other services recognized in NATO C3 Technical Services Taxonomy where DOME
can be used as an implementation.*

C3 Technical Services Taxonomy

Environmental Functional Services

- Recognized Environmental Picture Services

Situational Awareness Services

- Recognized Picture Services
- Sybology Services
- Overlay Services

Data Science Services

- Reporting Services

Geospatial Services

- Geospatial Catalog Services
- Geospatial Web Feature Services
- Geospatial Web Map Services
- Geospatial Web Map Tile Services
- Geospatial Web Coverage Services

Message-Oriented Middleware Services

- Message Brokering Services
- Message Routing Services
- Message Queueing Services

Gather mission critical data and create automated reports with valid and updated data.

Use real time situational picture and forecasts to support decision making.

Share situational data, maps, plans and reports for other units through FMN interfaces.

Technical specifications

Supported Standardized APIs

- WFS - Web Feature 1.0.0 | 1.1.0 | 2.0.0
- WMS - Web Map Service 1.1.1 | 1.3.0
- WMTS - Web Map Tile Service 1.0.0
- WMS-C - Web Map Service Cached 1.1.1
- CSW - Catalog Service 2.0.2
- WCS - Web Coverage Service
  1.0.0 | 2.0.1 | 1.1.0 | 1.1.1 | 1.1
- WPS - Web Processing Service 1.0.0
- TMS - Tiled Map Service 1.0.0

Static data

Vector-based data sources:
- CSV-files
- ESRI-shapefiles
- GeoPackage

Databases:
H2 | Microsoft SQL Server
MongoDB | Oracle | PostGIS

Raster-based data sources:
- AIG - Arc/Info Binary Grid
- ArcGrid - ARC/INFO ASCII GRID
- DTED -elevation model
- ECW
- EHdr
- ENVIHdr
- ERDASImg
- GeoPackage
- GeoTIFF
- GRIB
- ImageMosaic
- ImagePyramid
- JP2ECW, JP2K
- JP2MrSID
- MrSID
- NITF
- NetCDF

Dynamic data

Weather data:
- GRIB/GRIB2
- GeoTIFF
- METAR and TAF messages

Plans:
- NVG 1.4 | 1.5 | 2.0
- KML/GML/XML
- GPX-route data

Situational awareness data:
- Asterix CAT62 -surveillance messages
- JREAP C
- GeoJSON

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