COP for Support – Integrating SAP for Defense & Security with Geospatial Information

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Roadmap

Common Operating Picture – What is it?
SAP’s Defense Forces and Public Security
Integrating and using DFPS in a COP
Common (Relevant) Operating Picture

Common Operation Picture (COP) - A single identical display of relevant information shared by more than one command. A common operational picture facilitates collaborative planning and assists all echelons to achieve situational awareness.

Common Relevant Operational Picture (CROP) - A presentation of timely, fused, accurate, and relevant information that can be tailored to meet the requirements of the joint force commander and the joint force and is common to every organization and individual involved in a joint operation.

US Joint Forces Command Glossary
Some Thoughts on the C(R)OP

Key purpose is to enable effective and timely decision-making

- Decrease the decision cycle time of the force and to visualize the course of action
- Rapidly take action and track execution

Need to aggregate and synthesize data from multiple sources and systems

Need to present knowledge in a format decision-makers can easily digest, see what is important and use

Building blocks are:

- COTS technology
- Geographic information system (GIS)
- Central user interface (portal)
- Net-centric environment building on Web services (SOA)
SOA is great, but not enough. “Enterprise Services” (ES) capture the business semantics and represent a “common language of business”. SOA+ES=Enterprise Services Architecture.
Defense Forces and Public Security

Force Generation View

Force Employment View

Tactical Groupings

= Capability

= Organizational Structures
One integrated system to plan, execute and sustain operations
Unique Capabilities for Operational Forces

1. Flexible organizational structures with...

- Flight Operations
  - Flight status board
- Line Maintenance
  - Aircraft status board
  - Mobile maintenance processes
- Materials Management
  - Return deliveries and equipment loans
  - Condition codes, status codes, advice codes, requirement priority
  - Mobile supply processes
  - Planning, preparation and execution of dangerous goods shipments

2. ...integrated logistics capabilities

Basic Structure
- Tucson Branch
  - Phoenix Unit
- Sierra Vista Unit

Operational Structure
- Operation Full Court Press
  - Sierra Vista Unit

Copy or Link
Integrating DFPS and the C(R)OP
DFPS – C(R)OP Capabilities

Display force element status temporarily and geospatially
- Use predictive elements of Business Warehouse to predict status changes
- Show current and projected status
- Show status trends
- Predict when force elements will need to re-supplied or replaced

Find the appropriate force elements to respond to a situation
- Rapidly assess the situation
- Determine capabilities required
- Rapidly locate the nearest force elements with the required capabilities
  - Can use dispatching solutions such as Genesys to automatically locate and notify force elements
  - Leverage workflow and DFPS capabilities to rapidly task organize and cross-attach force elements into tailored organizational packages
Common (Relevant) Operating Picture [C(R)OP]

GIS Display (ESRI based, linked to all SAP components)

BW based analytics in dashboard

CRM for Event Management

DFPS Display
A railroad accident releases chlorine gas from 5 tank cars. The accident spawns a major traffic accident on I95.
Modeling the Plume

Plume analysis.
An Example

Locate and check the status of HAZMAT crews in the area. Request respirators for the team that is short.
Receive respirators for the team and bring it to green. Send the team with a certification issue to the lower hazard that does not require the certification. Move qualified teams to the chlorine spill.
Move the team with the oxygen problem to the I95 accident. Move the team that was just re-supplied to the chlorine spill.
An Example

Check the status of the team that has been on the chlorine spill the longest. Note they will need to be pulled out ASAP. Locate more teams if required.
Summary

DFPS enable C(R)OP allows:
- Integrated situational awareness and analysis in the C(R)OP
- Quickly locate and employ the appropriate assets
  - Track asset status
  - Project asset status
- Improved decision-making
  - Right information at the right time
  - Right format
  - CONOP
  - CONPLAN
  - Tailored structures