

# Common Operating Picture for Support Enabling NetCentric Operations

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### **Discuss the requirements and high level architecture for a Common Operating Picture (COP) to enable actionable knowledge**

- **Integrate existing systems into an enterprise architecture to share information between systems**
- **Decrease the decision cycle time of the force and to visualize the course of action**
- **Rapidly take action and track execution**

### **Building blocks are:**

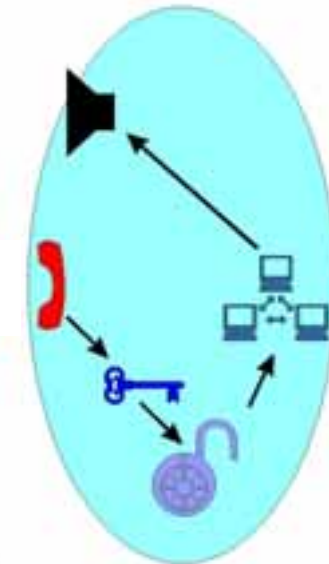
- **COTS technology**
- **Geographic information system (GIS)**
- **Central user interface (portal)**
- **Net-centric environment building on Web services (SOA ).**

**Synchronize combat power at the right place and the right time to achieve decisive results.**

## Art

- Anticipate required decisions
- Anticipate actions: friendly and hostile, and neutral
- Make decisions...even in an uncertain environment

## Science

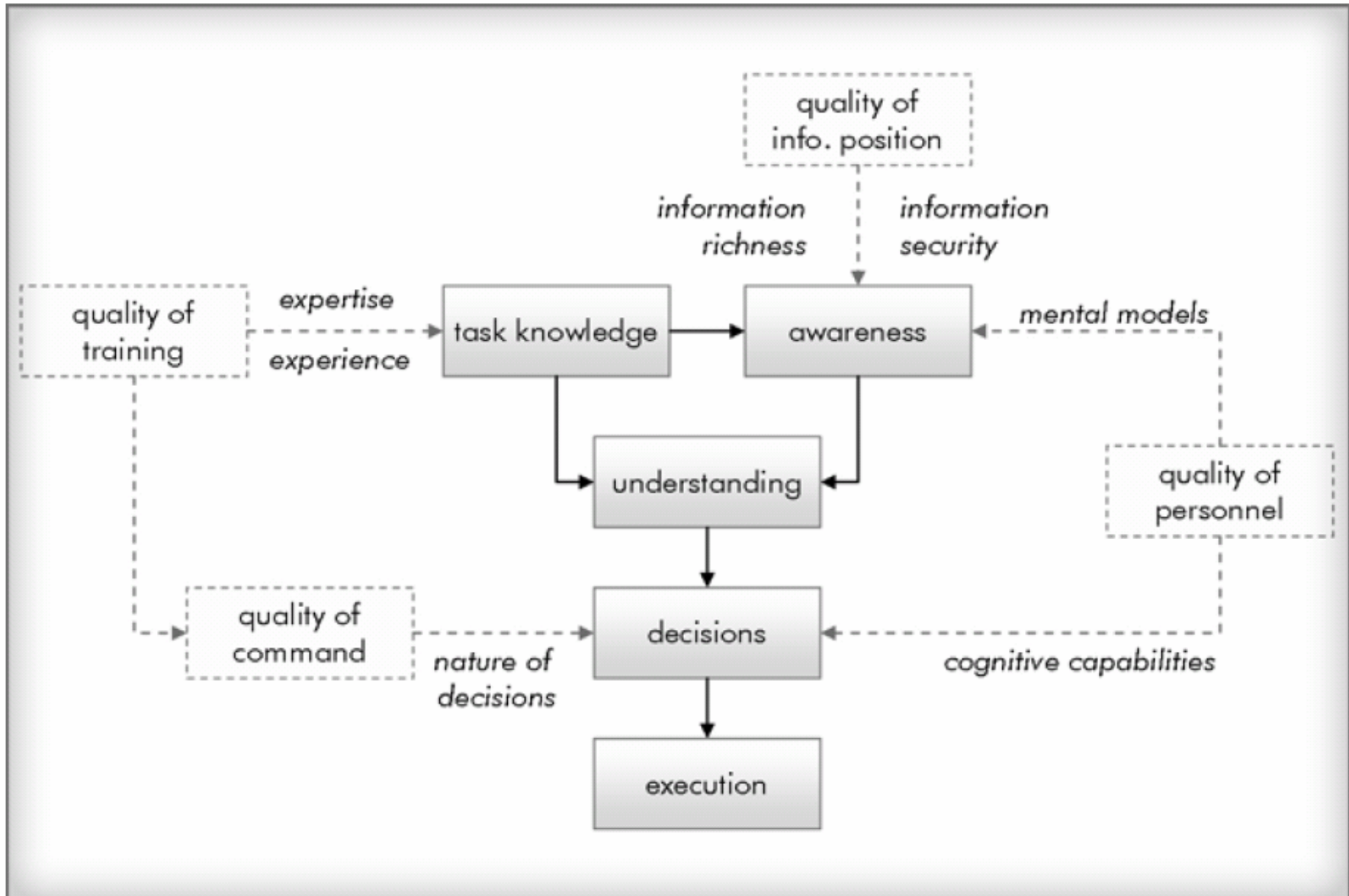


### Art and science



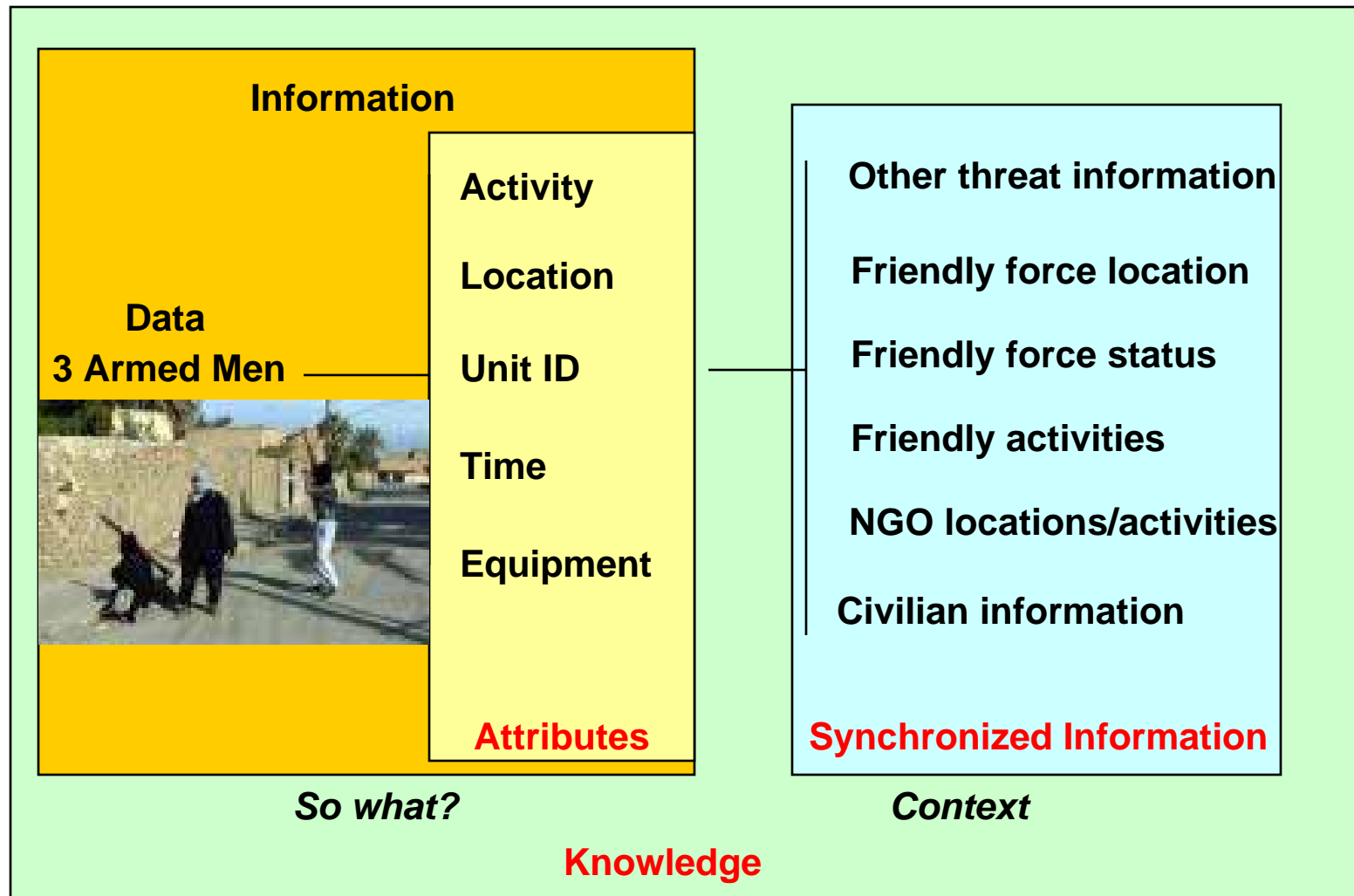
**Complete the puzzle**

# Individual Sensemaking



Source: Alberts – Understanding Command & Control – CCRP Series 2006

## A simple example...



## A More Sophisticated Example

One of the key issues in Bosnia is the division of Bosnia into the Republic of Srpska and the Federation. The RS was very much interested in a separate government and country for the Serbs.

Patrols from an infantry company in my brigade came across a water problem in Modrica, a city in the RS located at a critical pinch point. The company reported the problem, but didn't follow up aggressively. He didn't think this was important since there was no follow up from the division.



As the brigade commander, I didn't hear about until I was discussing a problem relating to proper information requirements for patrols with the company commander.

This location is critical. It's right at the pinch point of the eastern and western wings of the RS.

After checking, I found that this problem was shared by Odzak, a Federation city across the river.

If we could get a joint CA project that required both cities involvement moving to fix the water problem, we could quite possibly loosen the RS grip in this key area.

# Key Issue

**Build knowledge**

**Fill in the gaps**

**Presentation is key to both building knowledge and filling the gaps.**

**Information may not become knowledge without a geo-spatial presentation**

- See key linkages that may not be discernable via textual displays
- Most people react more to visual than textual presentations

**Text**



vs.

**Geo-Spatial**



# Supporting Requirements

## **Link data to GIS**

- **Dynamic**
- **Drill-down**

**Enterprise rather stovepipe**

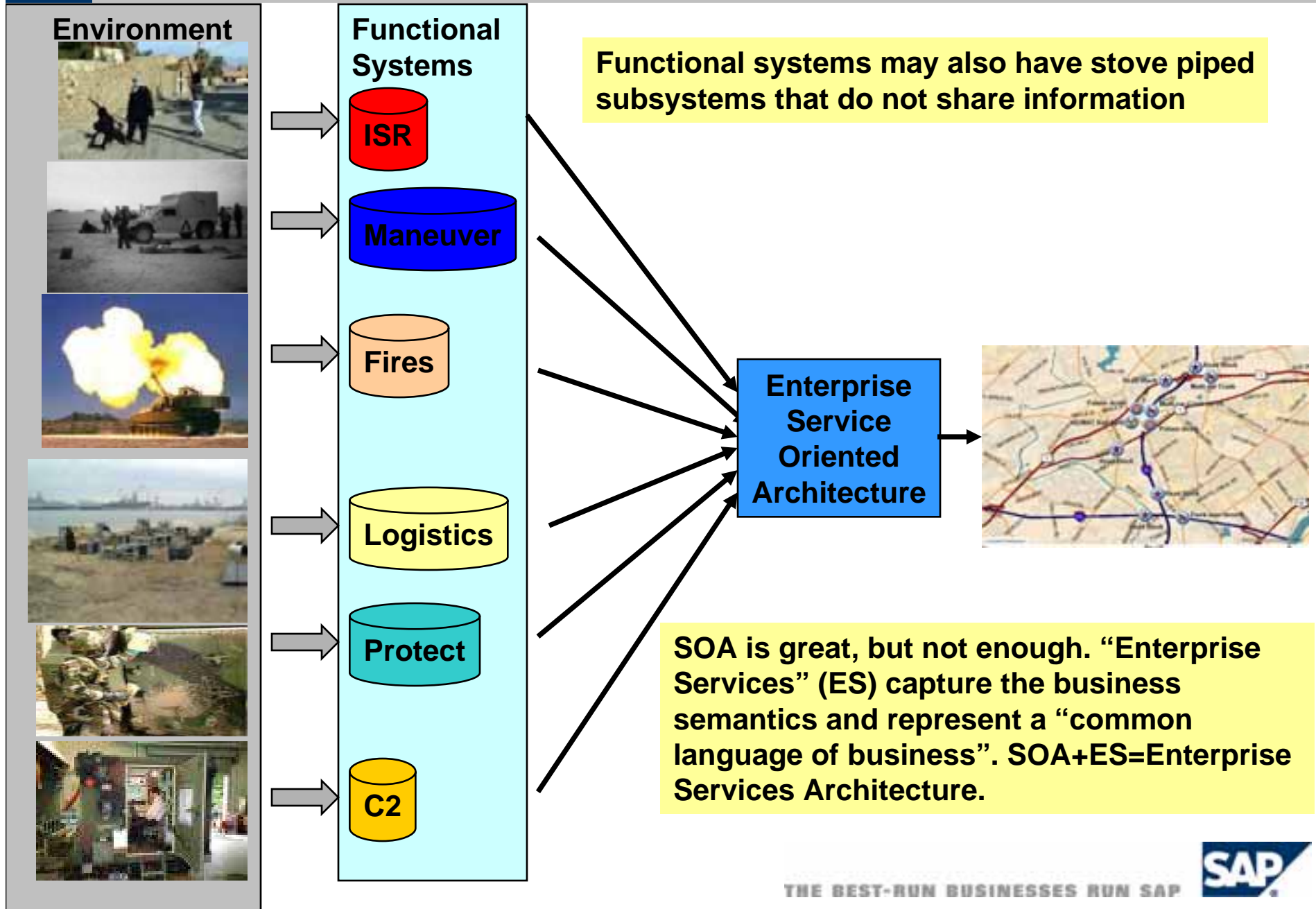
**Refresh the data for real-time/near real-time**

**Provide supporting screens as required**

**Context is king!**



# Building the Knowledge Framework



# Expanding the Framework

**Pure visualization of current events is not enough:**

**Trends**

**Analysis**

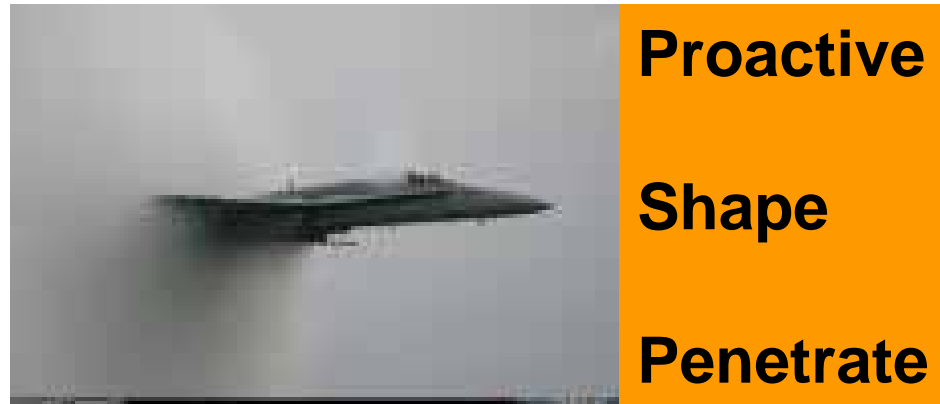
- Linkages
- Decision support



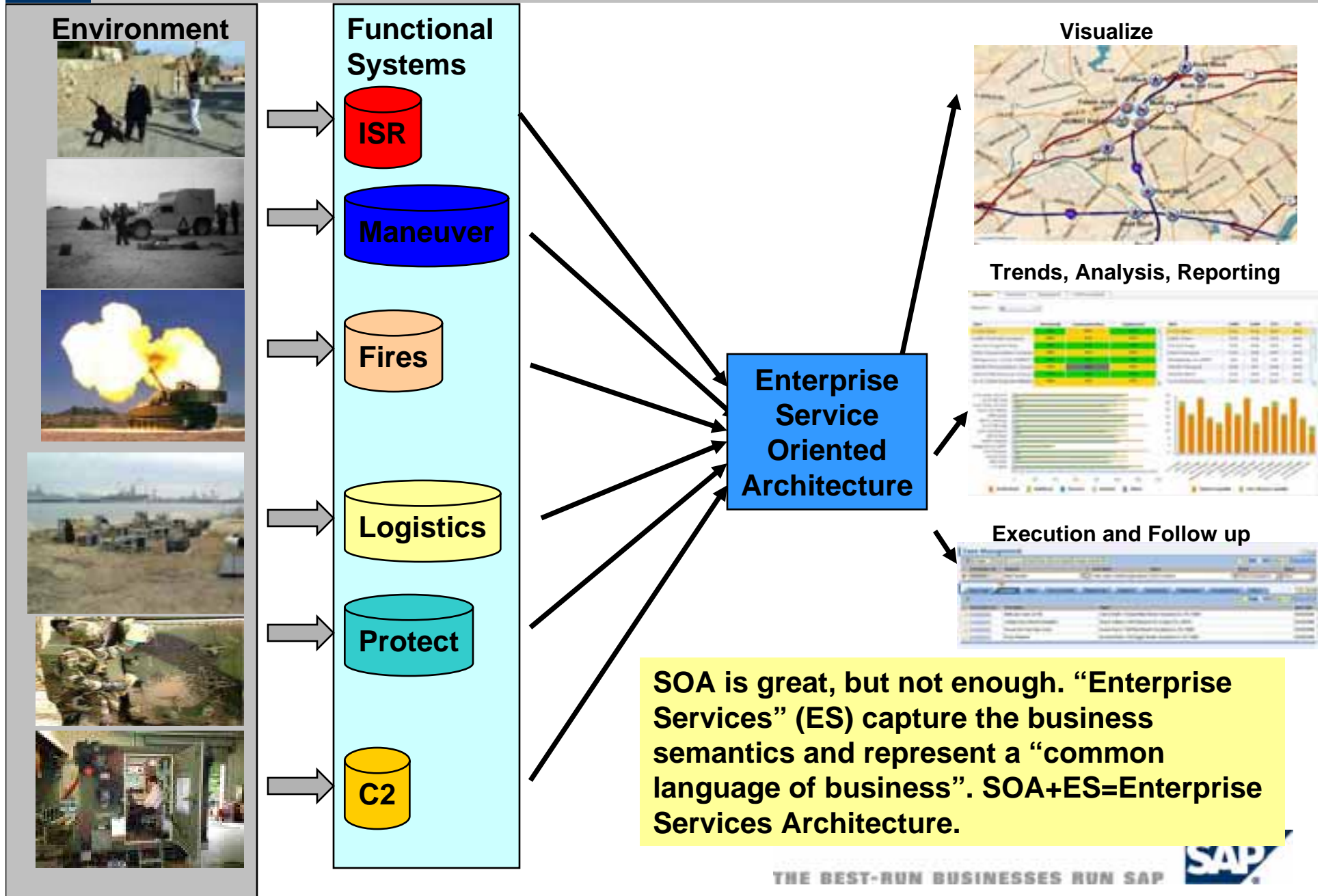
**Reporting**

**Execution**

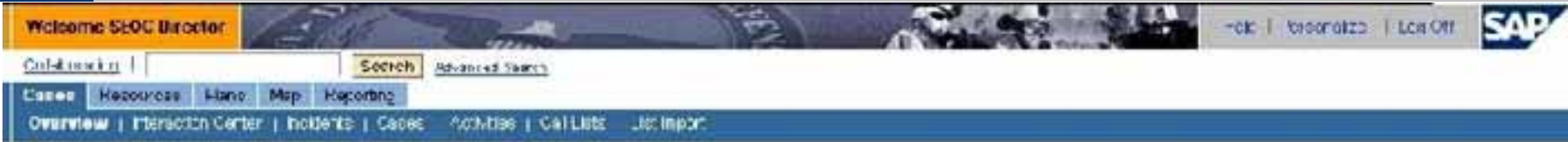
**Follow up**



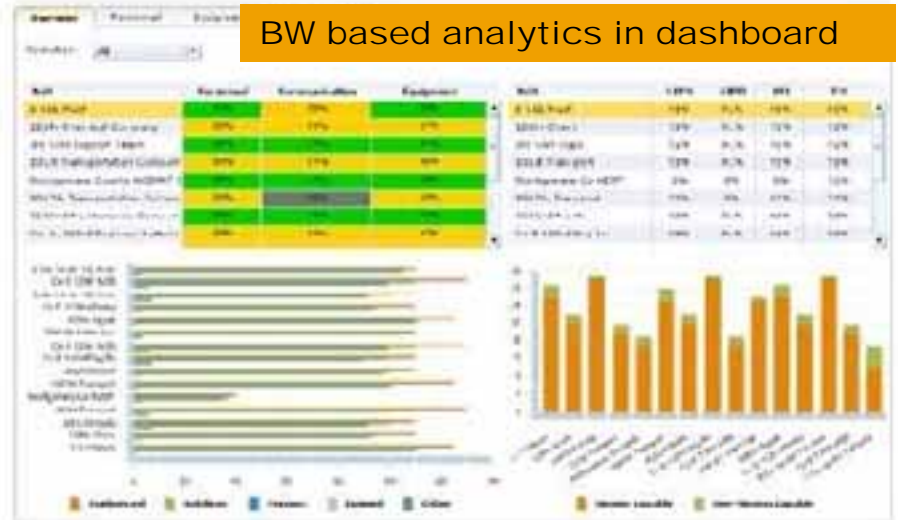
# Building the Knowledge Framework



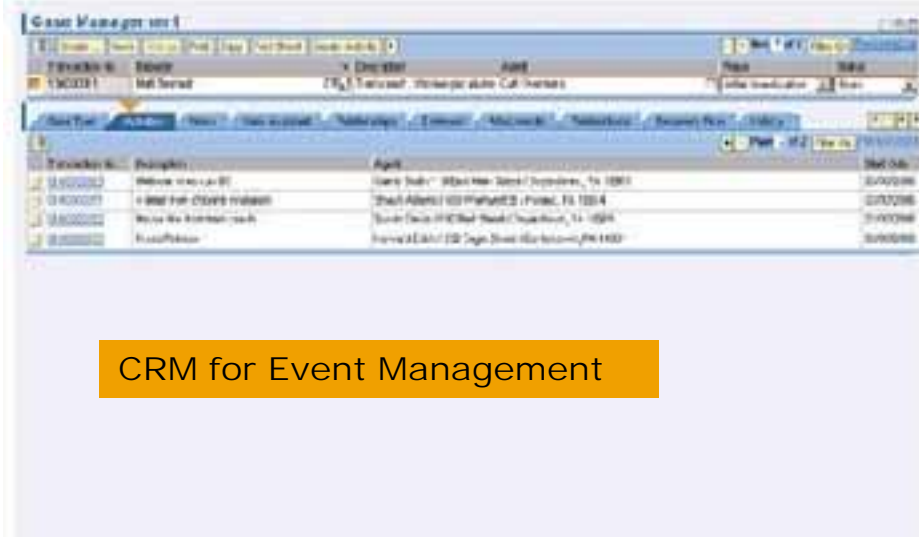
# Common Operating Picture (COP)



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



BW based analytics in dashboard

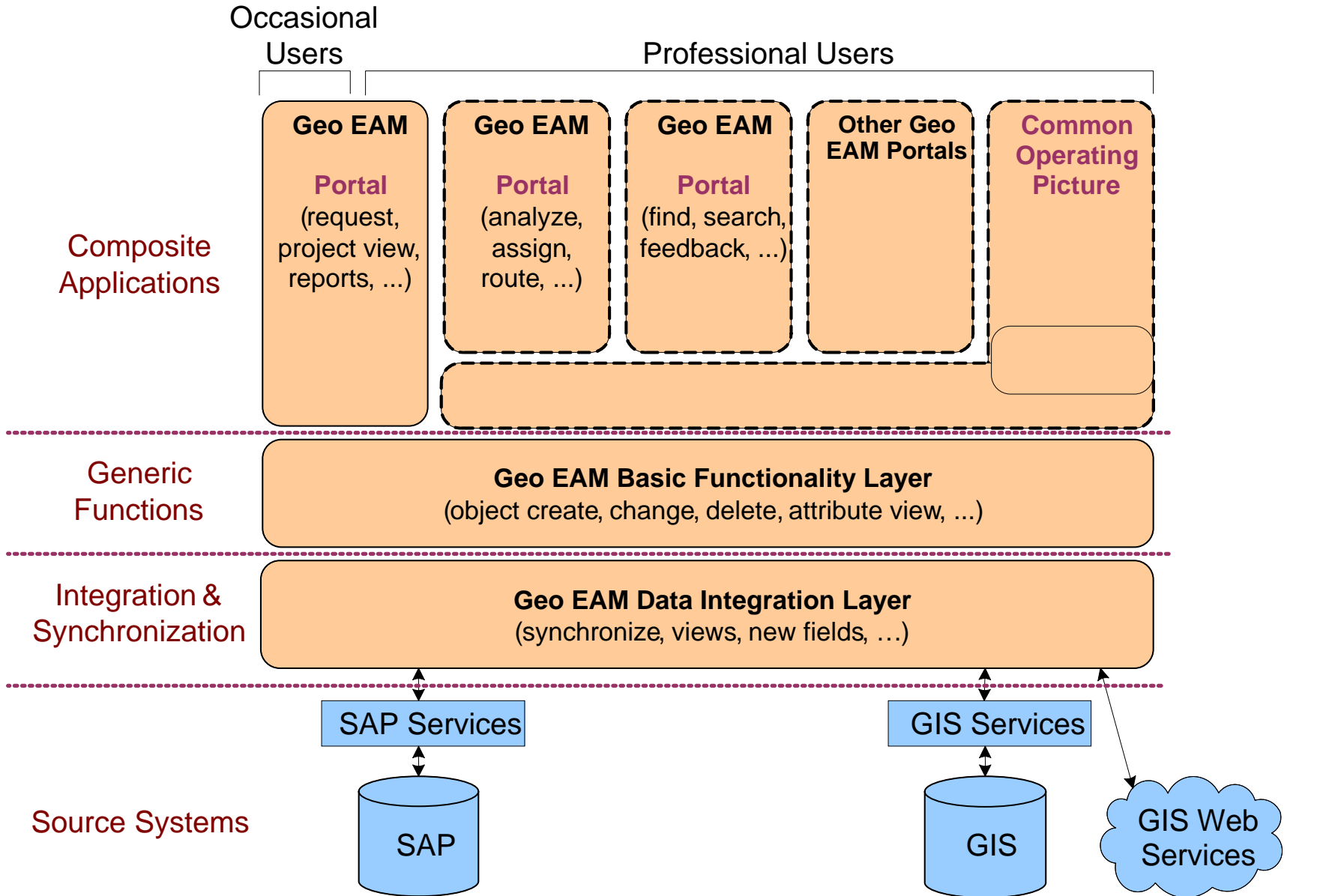


CRM for Event Management



RiverGlass Link Analysis (launched contextually from CRM)

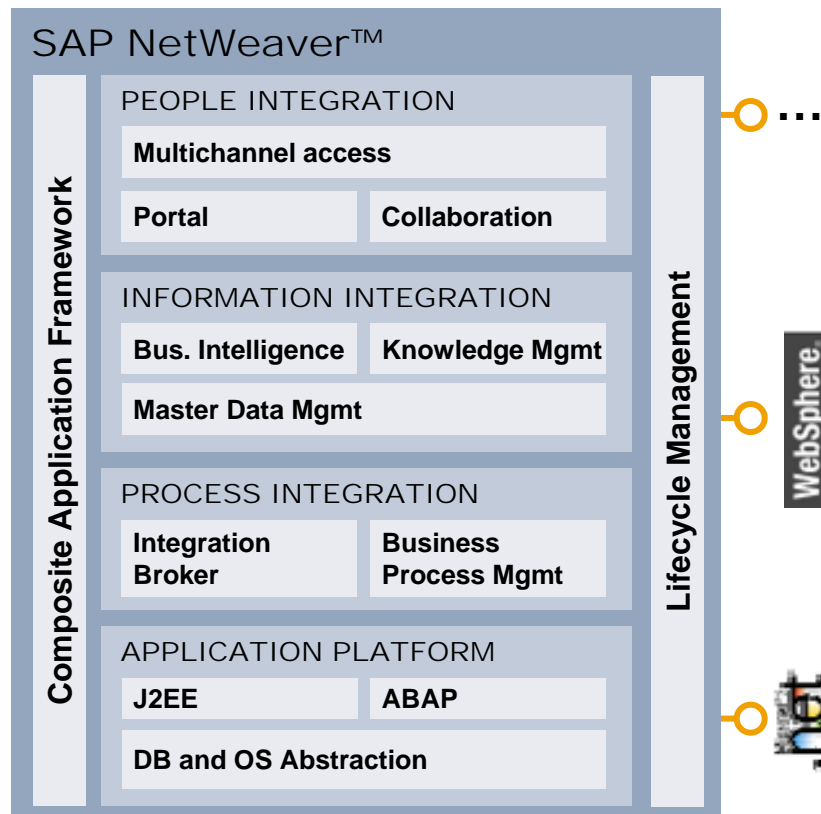
# Enterprise Connectivity





## ONE PLATFORM – ONE PRODUCT

Open integration and application platform that enables change!



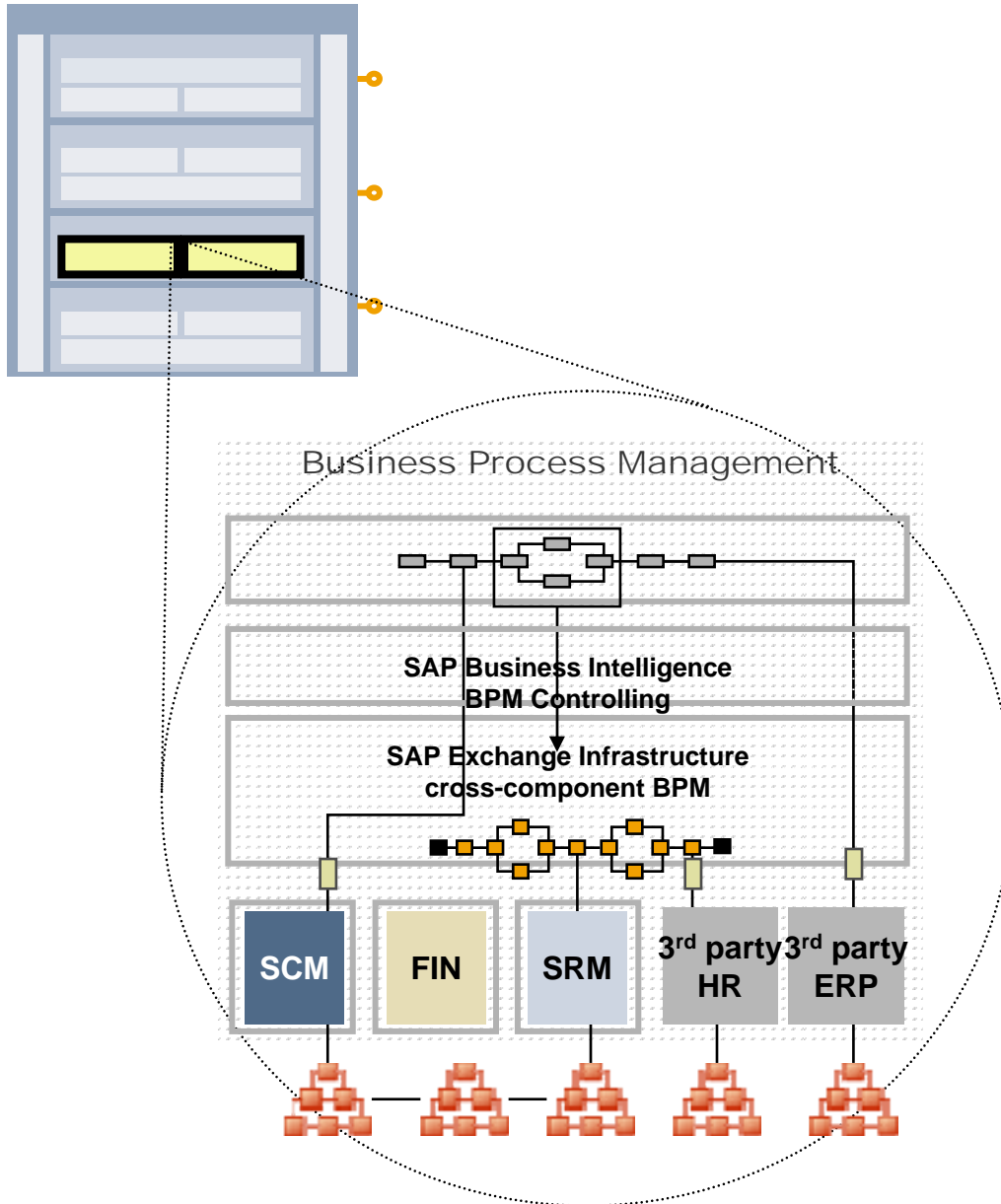
**People Integration Abstracts**  
User from Applications

**Information Integration**  
Provides Access to both Structured and Unstructured Information

**Process Integration**  
Facilitates integration of internal and external systems SAP and non-SAP

**Application Platform**  
Abstracts developers from Database and Operating System

# SAP NetWeaver™ - Exchange Infrastructure



## SAP Exchange Infrastructure

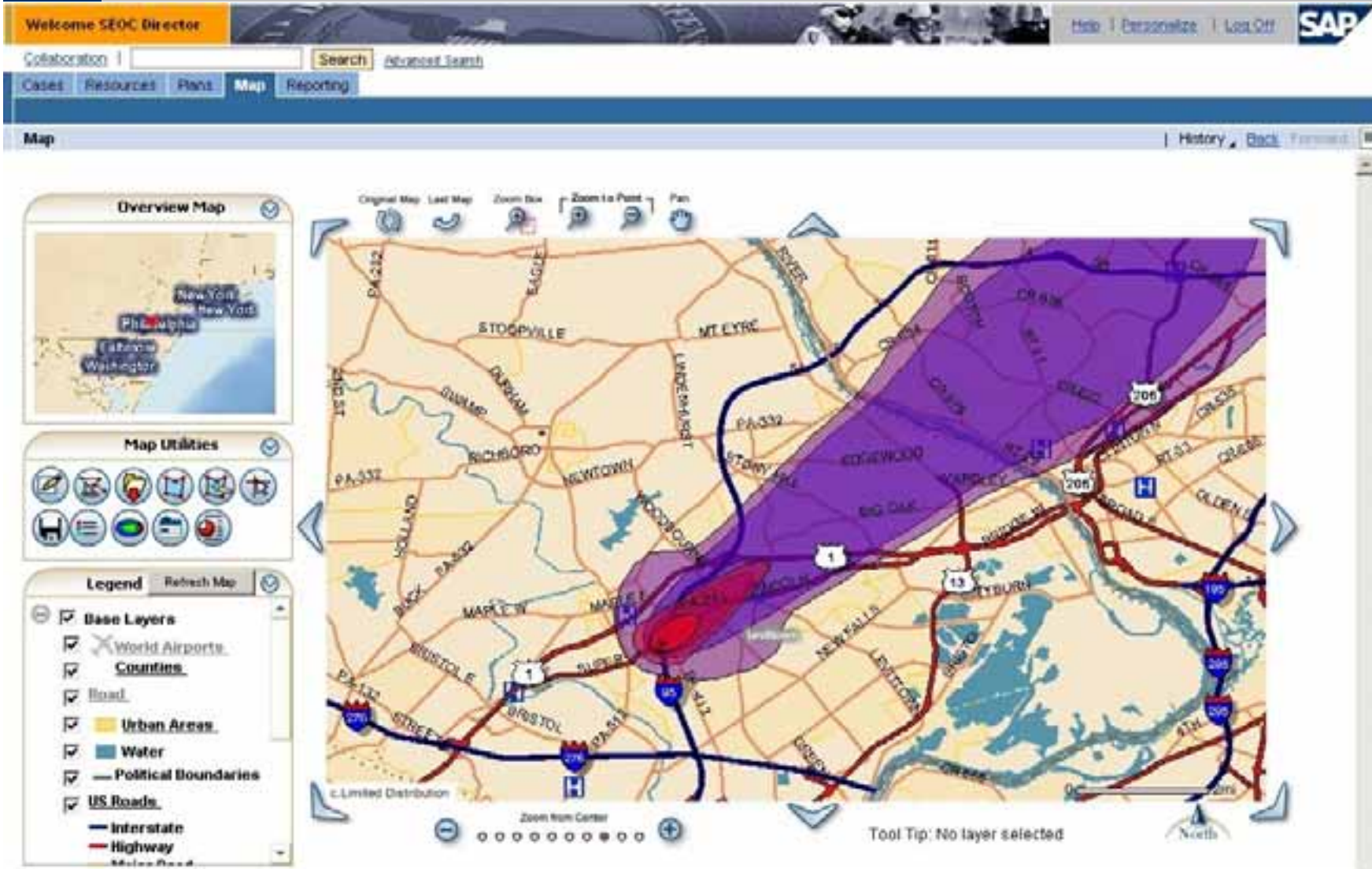
- For both internal and external process integration (with SAP and non-SAP)
- Prepackaged collaboration knowledge
- Ecosystem of non-SAP collaboration content
- Integration Broker plus Business Process Management
- Pre-built content for industry standards

# Using GIS to Manage an Incident

The screenshot displays the SAP SEOC Director interface, which is a web-based GIS application for incident management. The interface includes a top navigation bar with 'Welcome SEOC Director', a search bar, and a menu with 'Cases', 'Resources', 'Plans', 'Map', and 'Reporting'. The main map area shows a detailed street view with several incident markers: 'Road Block' (red stars), 'Multi-car Crash' (red car icons), 'Poison death' (red target icons), and 'HAZMAT Rail Spill' (yellow radiation icons). The map is surrounded by utility panels: 'Overview Map' (top left), 'Map Utilities' (middle left), and 'Legend' (bottom left). The legend lists 'Base Layers' such as 'World Airports', 'Counties', 'Road', 'Urban Areas', 'Water', 'Political Boundaries', and 'US Roads', with sub-options for 'Interstate' and 'Highway'. The map includes navigation controls like 'Zoom In', 'Zoom Out', and 'Zoom to Point', and a 'Tool Tip: No layer selected' at the bottom right. The SAP logo is visible in the top right corner.



# Event Depiction - Plume

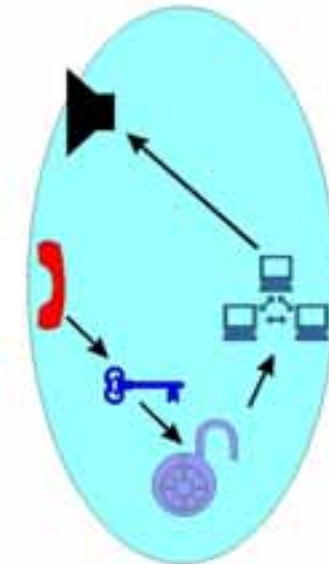


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## Science



### Art and science



**Complete the puzzle**