

# Team-oriented Agents for Enhancing Fusion Based Knowledge for the Objective Force

## Problem:

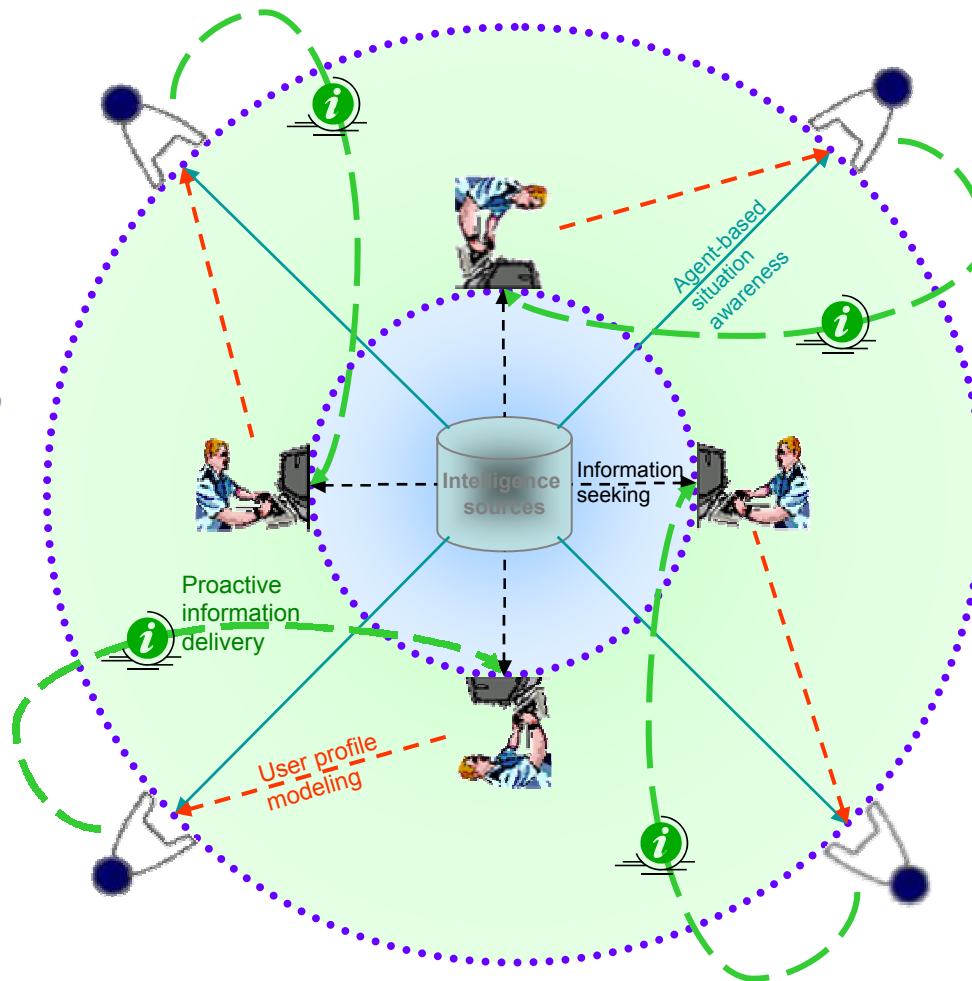
Overwhelming amount of information and knowledge needs to be accessed, fused, and interpreted more effectively by the Unit of Action.

## Barriers:

- Cells for Unit of Action need to anticipate information needs of other cells.
- Supports for different cells need to develop and maintain an overlapping shared mental model.

## Approaches:

- Develop an agent teaming technology that empowers agents with a “shared mental model” (SMM) about multiple cells.
- Agents anticipate information needs of cells using the SMM.
- Agents proactively and intelligently deliver needed information to cells.
- This research gains leverages from a novel multi-agent architecture called CAST, developed under a current AFOSR MURI grant.



## Benefits:

- Novel team-based agents proactively assist cells in obtaining and interpreting information they need.
- Improves multi-cell collaboration through agent supports.
- Enhances situation awareness of cells using agents with shared mental model.

## Deliverables:

- An agent teaming software architecture that supports FBKOF.
- The architecture will be integrated through CoABS Grid concept and/or EMAA framework by Lockheed Martin.
- Joint papers with researchers from Army Research Laboratory.

**Legends:**

- A Cell for Unite of Action
- Team-based intelligent agent
- Intelligence sources
- Information seeking
- Agent based situation awareness
- User profile modeling
- Proactive information delivery
- Shared mental model (SMM)