

BAE SYSTEMS

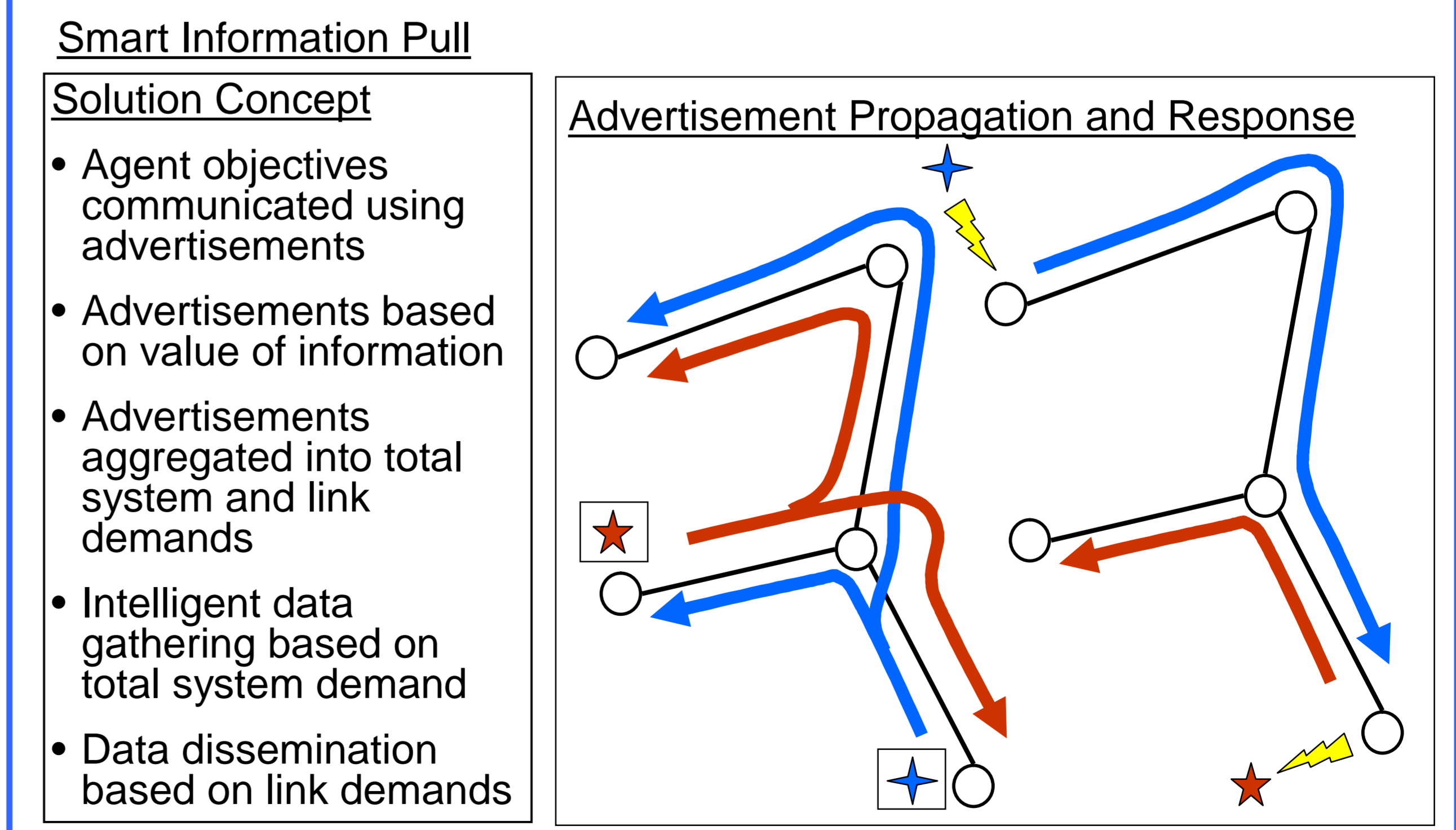
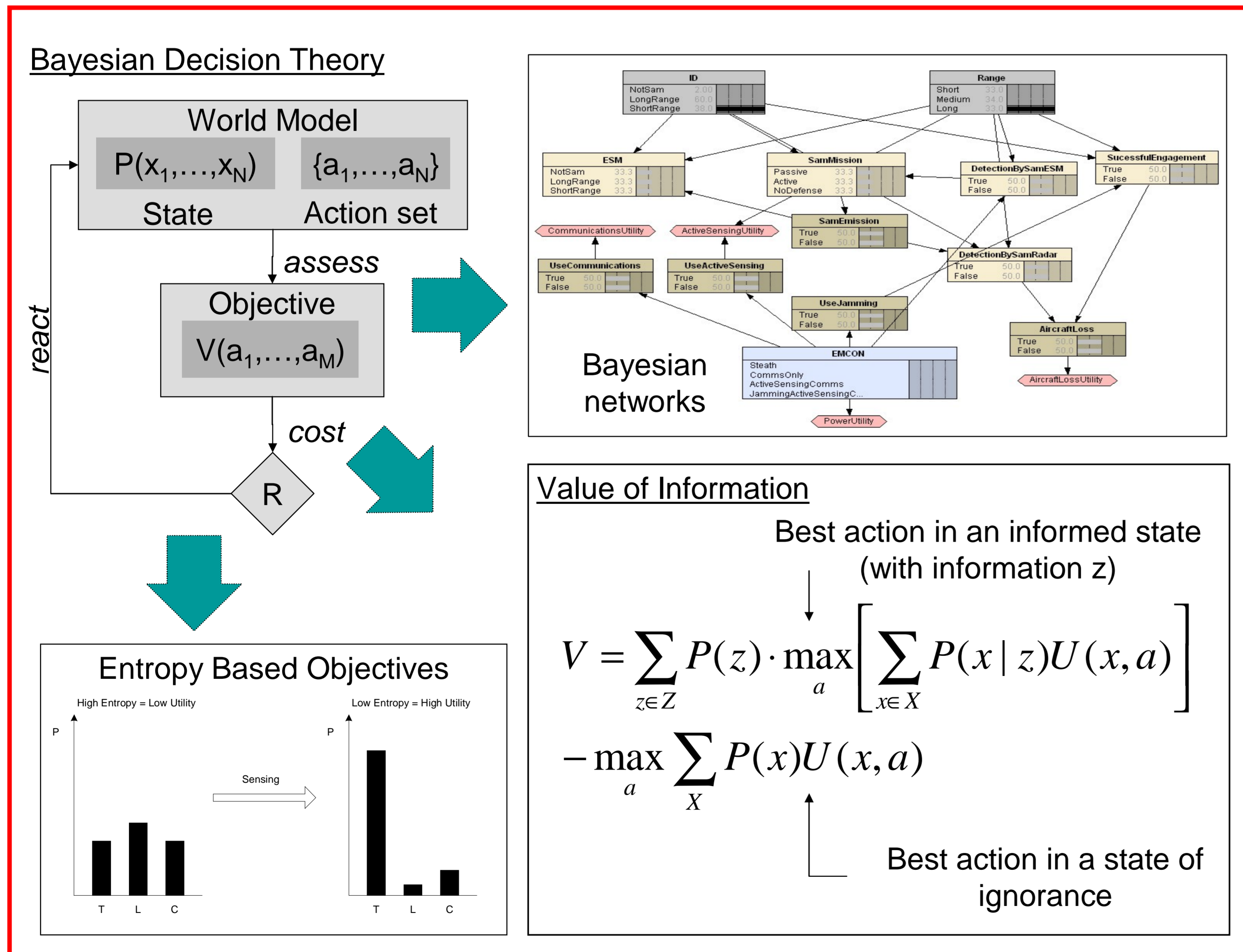
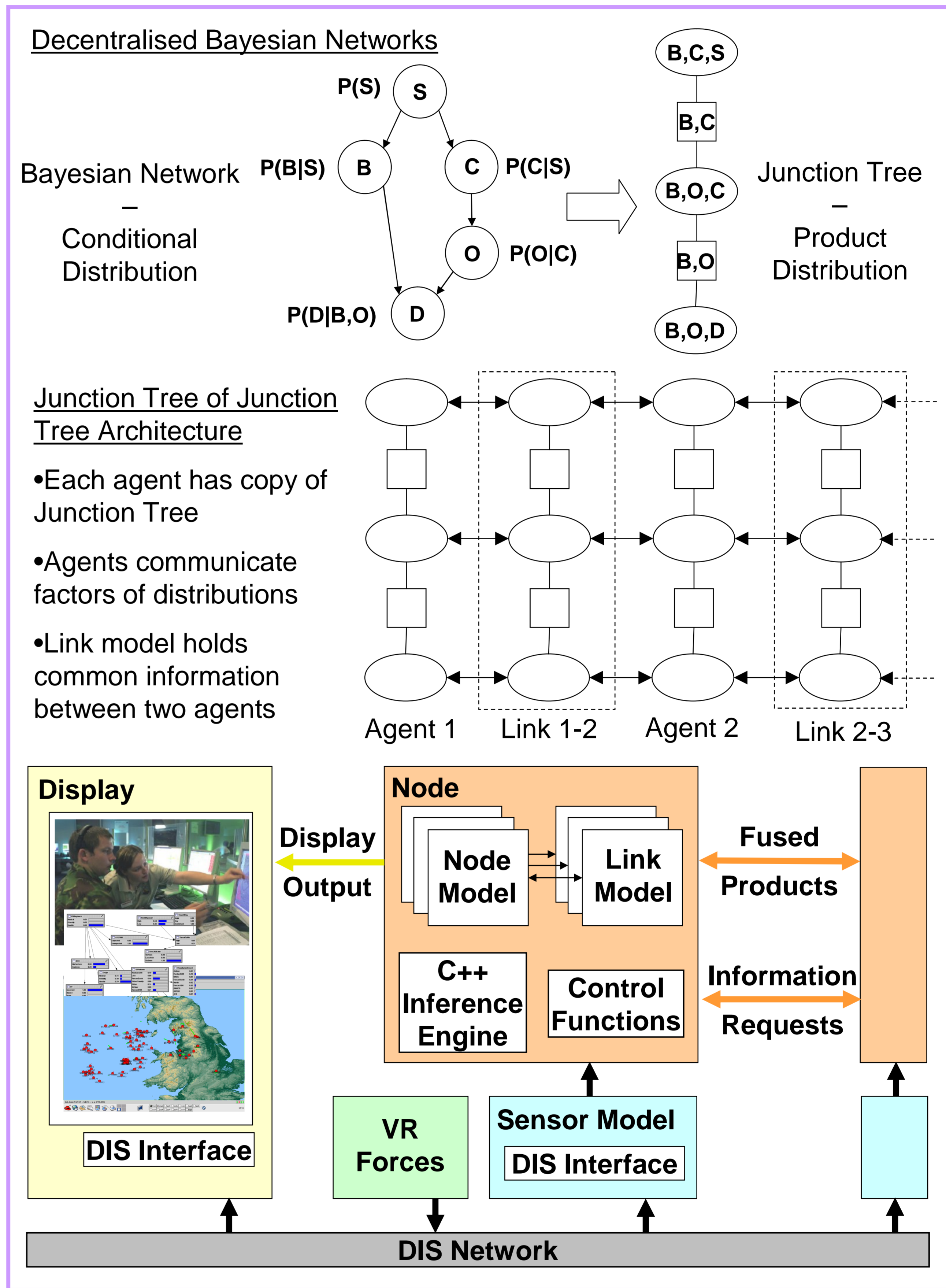
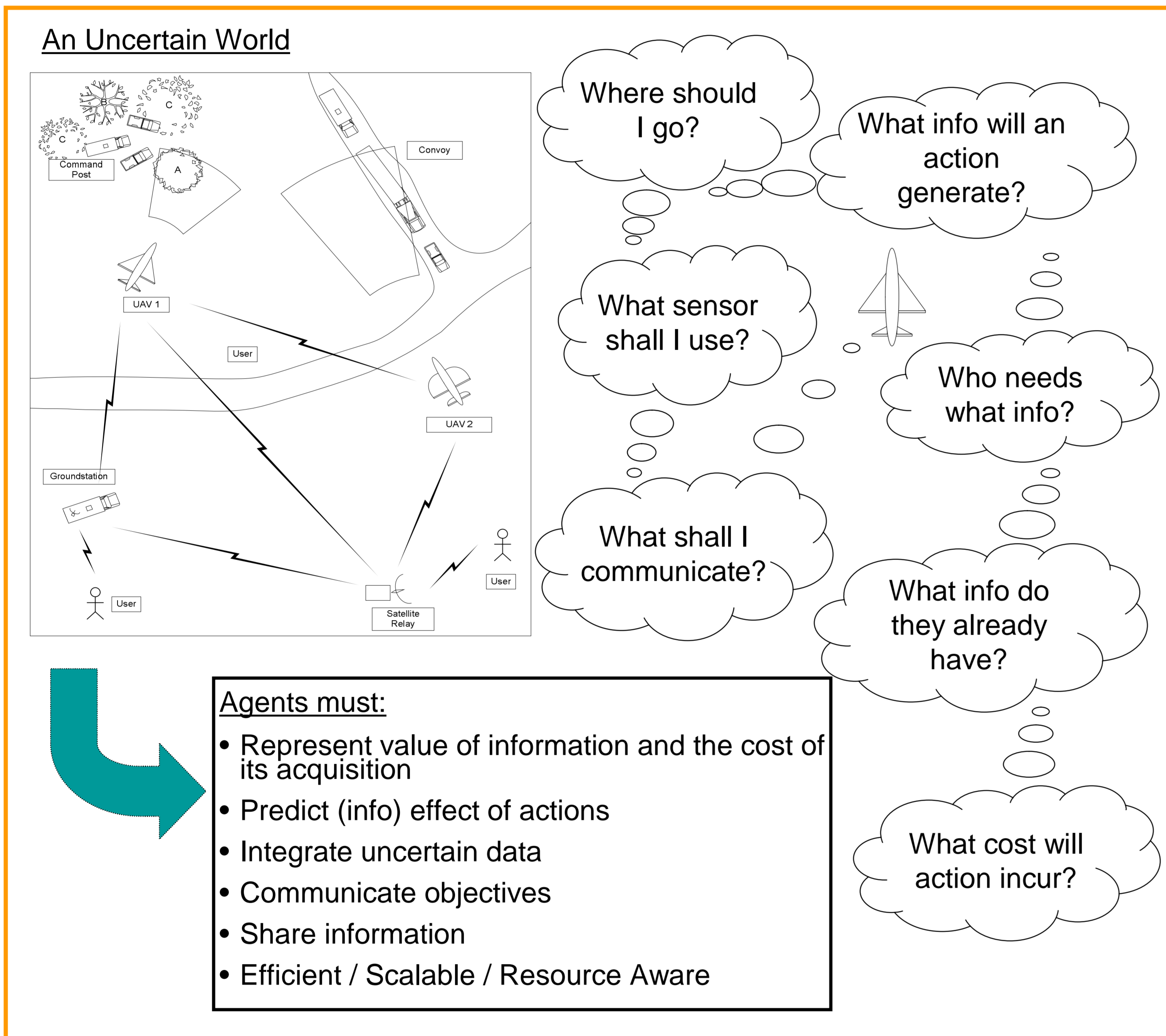
Reactive Data Gathering – AA009

Autonomous systems generally operate in a data-rich, information-poor, environment. During a mission they will be able to access considerable amounts of data, from on-board sensors and off-board sources, but only a fraction of this data will be “informative” in the sense of supporting mission-critical decisions. This project is exploring on-line reactive decision-making algorithms in which data gathering and dissemination can be driven by mission need.

- Aim**
- Develop algorithms for multi-agent data-gathering systems
 - Self-tasking system that satisfies user info requirements
 - Resource aware system – sensors and communications are scarce resources

- Approach**
- Exploit probabilistic decision making techniques in distributed setting
 - Develop efficient and scalable algorithms for information and objective dissemination

- Outcomes**
- Patented algorithm for information dissemination
 - Scalable framework for objective dissemination based on advertisements that steers information towards consumers



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