# Harnessing the Sensor Web through Model-based Observation

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Objective

The objective of this project is to build, integrate and demonstrate automated capabilities for model-based observing, a process of coordinating resources in a sensor web based on goals generated from Earth science investigations. Model-based observing will transform the sensor web into a cognitive web, a distributed, goal-directed sensing environment. The work will address three technical challenges: 1) transforming Earth science goals into plans for accomplishing those goals, 2) reconfiguring the web through the execution of the plans, and 3) generating new or revised goals from the results of previous observations.
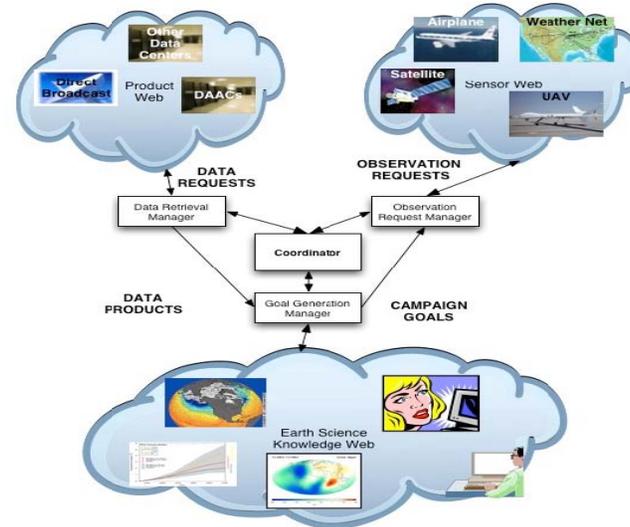
Architecture for proposed technology.

Approach

- Addressing technical challenges through the development of software capabilities for enabling three essential kinds of transformations
- Extensive leveraging of the results of previous efforts
- The extensive use of Earth science data to develop a robust demonstration platform

Co-I's/Partners

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Key Milestones

Milestone	Completion Date
Coordinator implementation completed	5-15-07
Validation testing of coordinator using TOPS data completed	11-15/07
Requests and Data products managers implementation completed	5-15-08
Integration with Sensor ML(SPS)	11-15-08
Goal Generation Manager Implementation Completed	5-15-09
First Integration completed	5-15-09
Second Integration completed	11-15-09

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