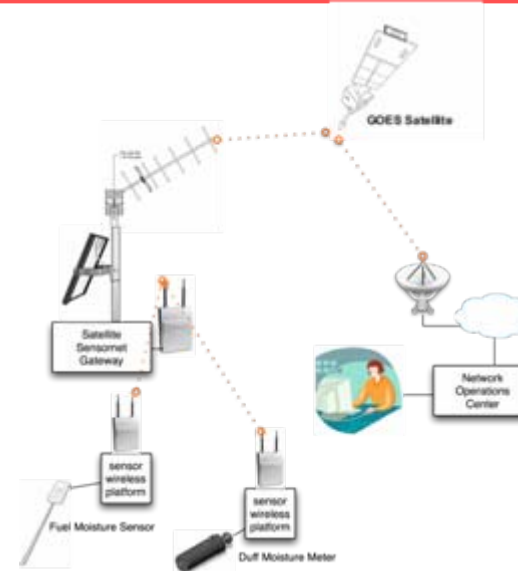# Satellite Sensornet Gateway (SSG)

PI: Aaron Falk, USC/ISI

Objective

- Enable rapid deployment of in-situ terrestrial sensors, particularly in remote or challenging environments

  - Provide a flexible, extensible interface between terrestrial in-situ sensornets and satellite communications networks.

  - Provide a structured and reusable management facility and suite of tools for remote sensor management.

Distributed Sensor Network using Satellite Sensornet Gateway

Approach

- Design and prototype a open and scalable sensornet gateway that provides storage and aggregation of data from wireless sensors, reliable transmission to a central datastore, and sensor instrument management and control.

- Blue-ribbon Science Advisory Board will shape system requirements based on research needs.
  - Design validation will be accomplished through a series of increasingly functional field deployments supporting Board members' projects.

Key Milestones

• Review technology state-of-the-art	Jan 2007
• Define mgmt/metadata architecture	Mar 2007
• Bench test single-stream prototype	Jul 2007
• Field test single-stream prototype	Sep 2007
• Architecture revision	Jan 2008
• Field test small-network prototype	Jun 2008
• Realistic multi-network field deployment	Jun 2009

Co-I's/Partners: None

$TRL_{in} = 3$

Earth Science Technology Office