Architecture

- The architectural view is comprised of many perspectives. As the product evolves we will strive to separate out the views. In particular, we would like to differentiate between:
  - The structural architecture
  - The technology infrastructure and data flow architecture
  - The data architecture
VOEIS System Structure
VOEIS Prototype
Infrastructure

DFD L2 Big Sky

Big Sky
- Data Logger
  - Radio Equipped Field Sensors
- Weather Station
  - Raw data
  - Process Data
    - MSU Tools
      - Local scientist data
    - Internal Data Store
      - Internal data store: SQL-like for now, but non-relational planned. Superset of data stored on a HIS server
    - Private HIS Server
      - Data in HIS schema format. Loss of semantics is possible from raw data

public cloud
- HIS Server n
  - HIS Server 1
    - MSU HIS Server
      - CUAHSI Tools
        - MT & KY Research Labs
Data Architecture
Collaboration

• Work with all partners to develop an extensible integrated data management architecture
  – Supports various data paths through a framework
  – Supports bi-directional flows between storage and analysis
  – Quality Control
  – Data Analysis

• Work with Kentucky, NCSA to develop the critical component interfaces
  – Simulation
  – Visualization