# Web-Based Data Access and Visualization

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## Goal

- Provide an easy-to-use interface for accessing, exploring, processing, and visualizing data collected from the iUTAH project.

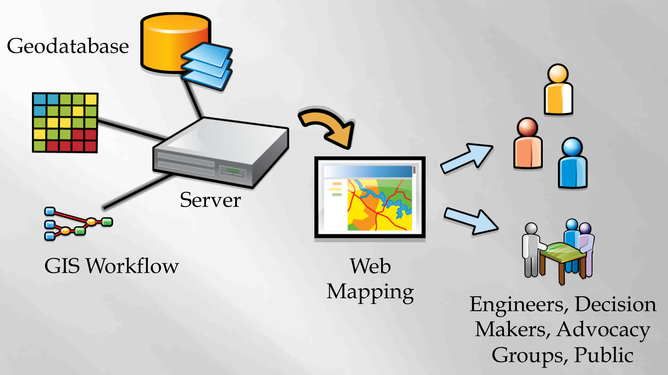


Figure 1. Web interface allows wide accessibility.

## Research Methodology

- Stream data into an online database where it can be properly documented with meta-data and linked to a central hub that makes the data easily searchable
- Provide a system where data can be fed into server-based models and automated workflows
- Link data to a custom web interface where it can be visualized through maps, charts, and graphs and downloaded for additional analysis, modeling, and research

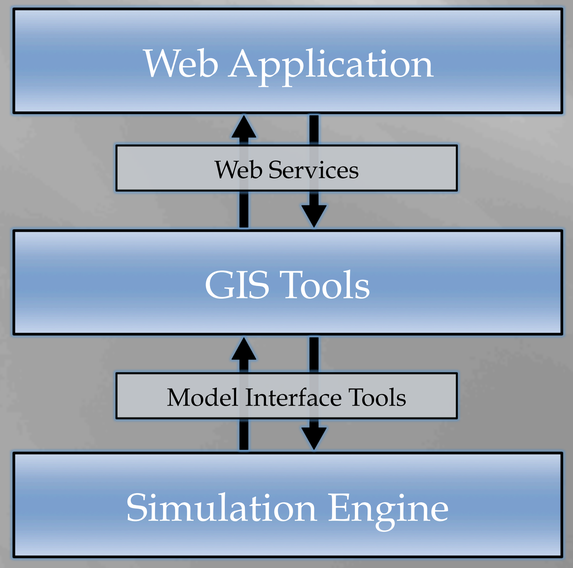


Figure 2. Architecture for cloud-based modeling.

## Results

- A web application has been developed to automate the creation of groundwater maps

([www.ci-water.byu.edu/groundwatermapping](www.ci-water.byu.edu/groundwatermapping))

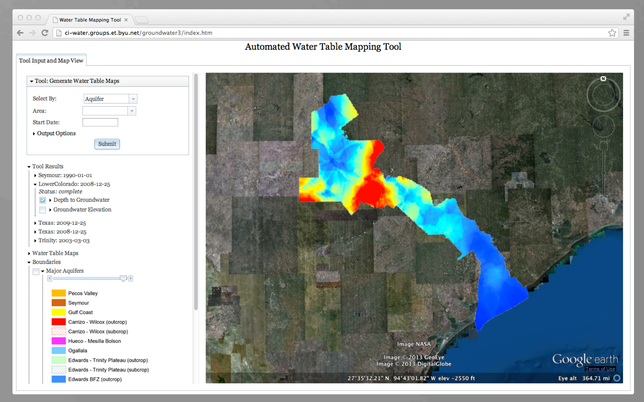


Figure 3. Web application for generating groundwater maps.

- A system using all open source tools is being developed to replace proprietary software
- A framework for online modeling and visualization will allow future researchers to access data and cloud computing more readily.

iUTAH EPSCoR Graduate Research Fellowship Program

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