Environmental Decision Support System (EDSS™)

Decision Support Utility for Accessing Environmental Data

EDSS™ is a web application providing an efficient process to aggregate environmental, climate and weather data from various sources into intuitive displays easily manipulated by end users. The web based technology ensures information is accessible from numerous locations and devices, including smart phones and tablet computers.

Demand Description
A common theme when it comes to accessing energy, climate and environmental data sets is that it can be difficult to answer the five basic questions: Who, What, When, Where, and Why. Sometimes even the act of locating a data set or determining how it was generated can prove difficult. It is even more challenging for non-scientific individuals such as planners and policy makers who need to access and include such information in their work.

Offering Description
EDSS™ provides an end-to-end framework for development and visualization of environmental impact and energy products to deliver actionable information for planners and decision-makers in the areas of water resources, traditional and renewable energy planning, public health, infrastructure, and agriculture.

EDSS™ integrates open source packages to create a simple yet robust web application for conglomerating, searching, viewing, and downloading environmental information for both scientists and decision makers alike.

- The Geoportal web application provides an intuitive interface for searching and managing metadata ingested from data sets/data sources.
- The GeoServer and ncWMS web applications provide overlays and information for visual presentations of the data through web mapping services (WMS) by ingesting ESRI shapefiles, NetCDF, and HDF files. Users of the EDSS™ can browse the catalog of available products, enter a simple search string, or even constrain searches by temporal and spatial extents.

Combined with a custom visualization web application, the EDSS™ provides a simple yet efficient means for users to not only access and manipulate climate and environmental data, but also trace the data source and the analytical methods used in the final decision aids products.

While the main goal of EDSS™ is to provide a robust set of tools for decision makers, it can be applied anywhere to rapidly create and display data products to end users.