The Earth Science Data and Information System (ESDIS) project is working with several partners to prototype and evaluate data and services to the Cloud to enable more science and save costs. The program comprises a family of complementary prototypes, to be followed by operational transitions where shown to be cost-effective.

**Alaska Satellite Facility DAAC**
- is prototyping an Edge Server using AWS Web Object Storage
- is prototyping on-demand processing of radar data in the cloud

**ESDIS and MSFC**
- are directing an Ingest + Archive Management Prototype using AWS Lambda services
- are directing a prototype implementation of the Global Image Browse Service (GIBS) in the cloud using AWS Lambda services

**ESDIS**
- is directing a prototype implementation of the Global Image Browse Service (GIBS) in the cloud using AWS Lambda services
- will begin migrating the Common Metadata Repository (CMR) catalog and search engine to AWS this summer.
- will migrate its search client to AWS by July.

**ESDIS**
- is working with major cloud vendors to enable efficient distribution of data from the DAACs to the cloud.

**Credit (so far...)**
- NGAP Team
- Computing Services Service Office (OCIO)
- ESDIS Networks Team
- ESDIS Security Team
- ESDIS Distributed Active Archive Centers
- ESDIS Review Team
- GIBS Team
- JPL Instrument Software and Science Data Systems
- Amazon Web Services
- Google Earth Outreach and Earth Engine
- Microsoft

**The NASA-compliant General Application Platform (NGAP)** enables us to operationalize ESDIS applications in the OCIO’s General Purpose Managed Cloud Environment

**Policy and Security Compliance**
- Deployment Automation
- Load Balancing
- Auto-Scaling

**Lambda service lessons**
- Web Object Storage lessons
- Policy and Security Compliance
- Deployment Automation
- Load Balancing
- Auto-Scaling

**Cloudified Analysis Algorithms**
- ESDIS is promoting a JPL prototype to demonstrate and benchmark common data analysis tasks in the cloud.
- ESDIS and the DAACs* are constructing a Python toolkit to be deployed in the cloud to make analysis in the cloud easier for scientists.

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*DAAC = Distributed Active Archive Center