Technical Challenges and Lessons from the Migration of the GLOBE Data and Information System to Utilize Cloud Computing Service

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Global Learning and Observations to Benefit the Environment (GLOBE)

- Worldwide transition primary and secondary school-based science and education program
- Promotes and supports teachers, students, and communities to collaborate on inquiry-based investigations of the environment and Earth systems
- Environmental measurements in Atmospheric/Climate, Hydrology, Land Cover/Biology, Soils, and Phenology
- began in March 1995 as a partnership between NASA, NOAA, NSF
- Grew to involve over 48,000 trained teachers, 26,000 schools, 1.5 million students

GLOBE Data and Information System (DIS)

- In 2010, NASA Goddard was asked to lead the evolution of the GLOBE DIS to a new architecture, software, and information technologies to achieve program goals
- The Goddard GLOBE DIS Team was formed and partnered with UCAR to develop a new enterprise portal, web application framework, and modern visualization and graphing features
- Migration to new system completed July 2012

GLOBE Transition Objective, Tasks, Milestones

In 2013, NASA Goddard Science Data Systems was asked to transition the GLOBE DIS from UCAR to ensure its long-term stability, integrity, and continued improvements.