

# Technology Infusion Archive

The continuing rapid change of information technologies means that there is always a gap between the "state-of-the-art" and the "state-of-the-practice". This gap represents lost opportunities to provide capabilities needed to achieve the goals of the organization. For Earth science data systems, this gap can be fairly large and may persist for a relatively long time. This is because the volume and complexity of Earth science data often mandates the use of specialized technologies, which do not have the broad industry backing that facilitates the rapid adoption of commodity technologies. And although the ESDSWG emphasis on including principal investigator processing in the mix of science data processing providers creates new opportunities for innovation, it also creates the additional challenge of operationally deploying new technologies across many distributed systems. What is needed is a process to help close the technological gaps between what is needed, what is available, and what is deployed.

The purpose of Technology Infusion is to enable NASA's Earth Science community to reach its research, application, and education goals more quickly and cost effectively through widespread adoption of key emerging information technologies. To accomplish this the focus is on two tasks:

- Define and conduct community-based processes to identify needed capabilities and technologies;
- Define approaches and processes to infuse new technologies into the evolving Earth science data systems.

Technology Infusion technical report ([Practical Data Interoperability for Earth Scientists](#) - Christopher Lynnes, Ken Keiser, Ruth Duerr, Terry Haran, Lisa Ballagh, Bruce H. Raup, Bruce Wilson).