Leveraging Open Standards and Technologies @ The Lunar Mapping & Modeling Project (LMMP)

Emily Law, Caltech/JPL
December 7th, 2011

Copyright 2011 California Institute of Technology. Government sponsorship acknowledged.
Lunar Modeling and Mapping Project

- Aggregates lunar data from historical and present missions
- Support Lunar Exploration
- Collaboration between various NASA centers and other government institutions
- Tools and products made available via intuitive internet portal
LMMP Portal Architecture

- Service Oriented Architecture
- Diverse data formats and data source
- Leverage cloud computing
- Utilizes open standards and technologies to facilitate platform, language and application independent access
Open Standards

- WebDAV
- OGC
  - WMS, WCS, WFS, WMTS, GML, KML
- JPEG, JPEG2000
- PNG
- GeoTIFF, GeoPDF
- PDS
Open Technologies

- Apache
  - Tomcat, HTTP, Hadoop, OODT, Solr
- Image Magick
- Redmine
- openSSO
- openSSH
- GDAL
- Postgres
- GNU
Take Away

- Interoperability
- Vendor neutrality
- Efficient use of existing resources
- Greater use of automation
- Flexibility
- More options provide more opportunities to optimise
- Lower and manageable risk
- Robustness and durability
- Quality
- Increase available skills
- Scalability
- Reusability
Demonstration