



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

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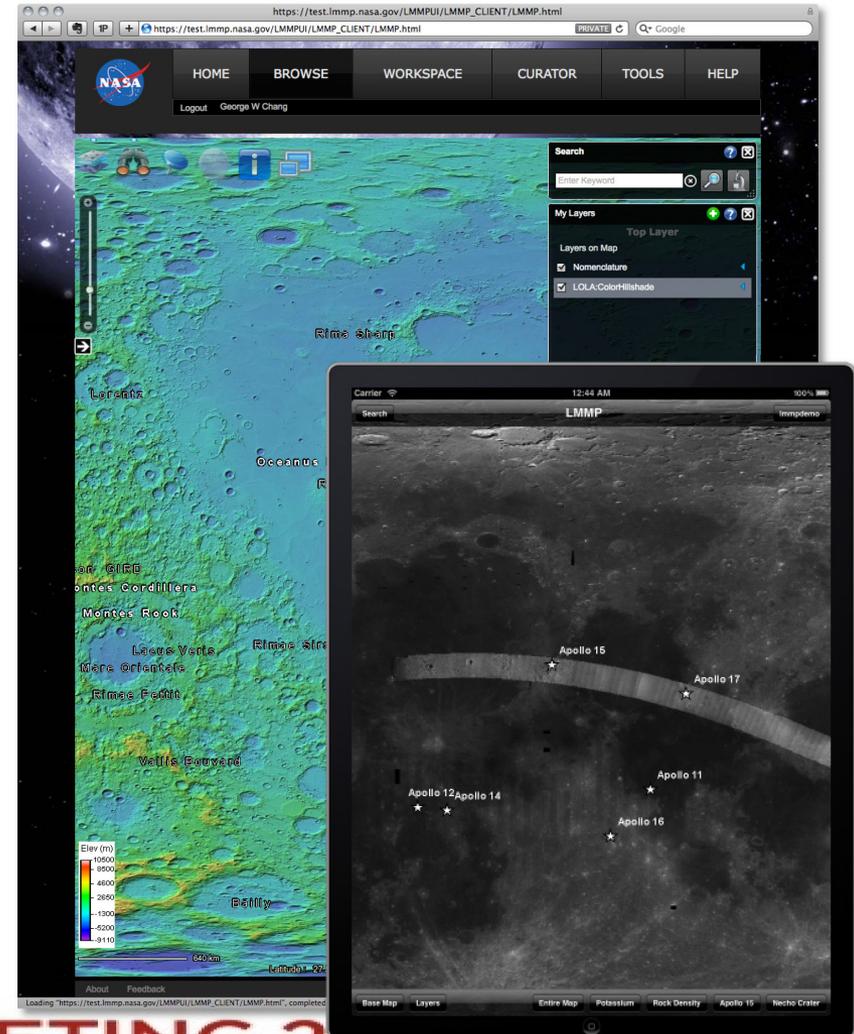




# Lunar Modeling and Mapping Project

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- 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



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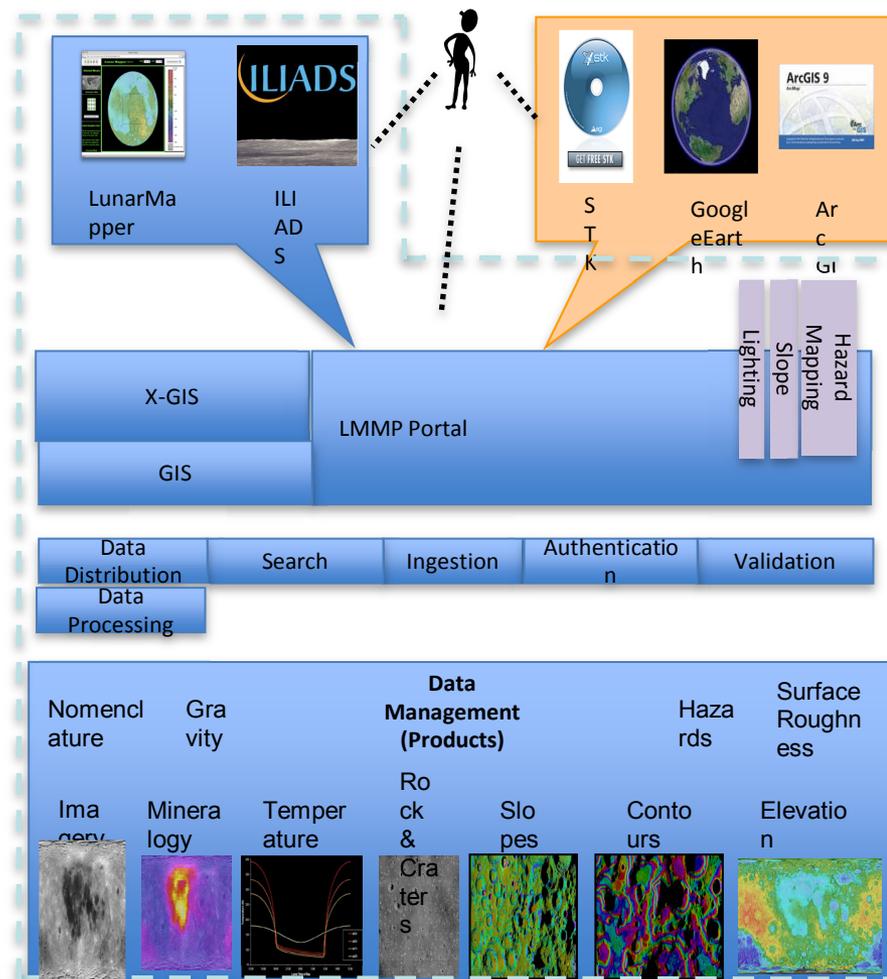




# LMMP Portal Architecture

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- 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



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# Open Standards

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



[OGC® Standards](#)



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# Open Technologies

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



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# 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
- Resuability



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# Demonstration

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