HARMONY

Bringing Data Together by Bringing Services Together

NASA's Harmony project aims to exploit opportunities made possible in the cloud in order to make it easier for scientists to access the data they need.

Patrick Quinn NASA/EED-2/ELEMENT 84
patrick@element84.com

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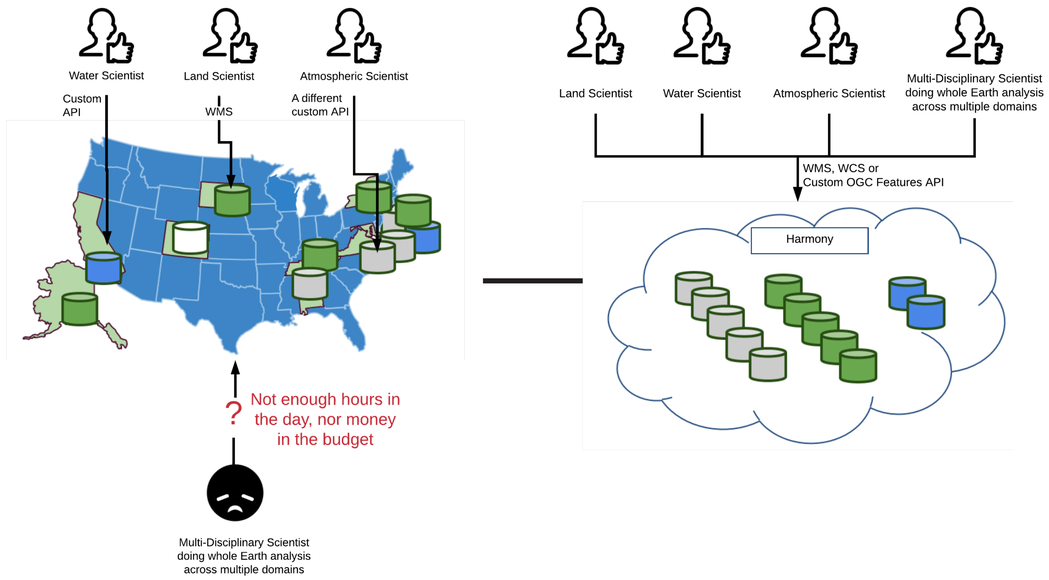
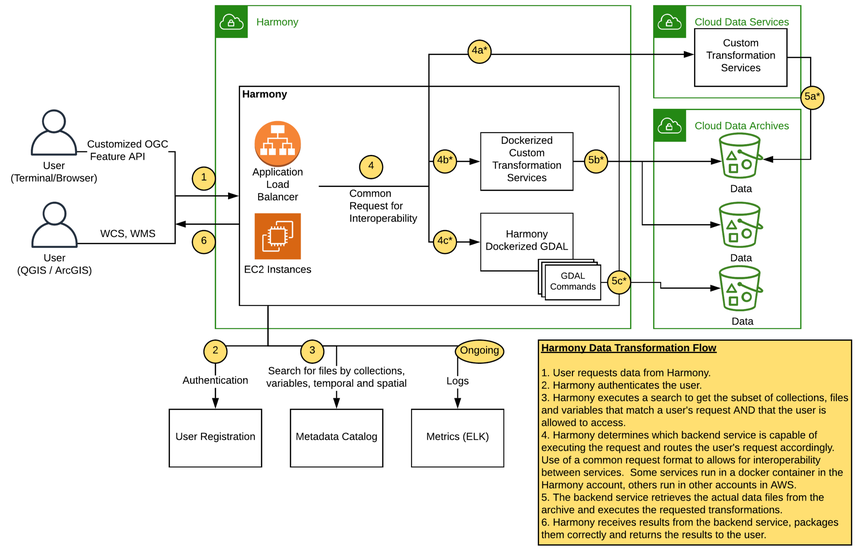
HOW LONG DOES IT TAKE YOU TO DO SCIENCE?



HARMONY IN-DEPTH



CLOUD OPPORTUNITIES

NASA's SWOT and NISAR missions will bring petabytes of new science data to the cloud starting in 2021. Existing mission data, such as ICESat-2, may also be migrated to the cloud in the future, resulting in the co-location of large volumes of data for the first time. Choosing the correct data formats, scaling patterns, transformation services and funding models will allow users unprecedented cross-product compute capabilities.

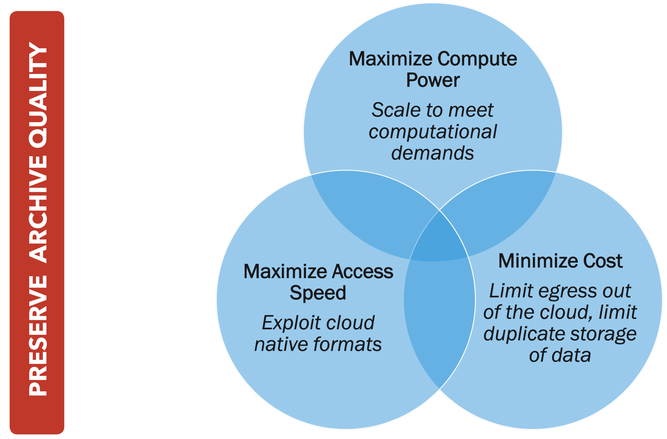
CONSISTENT STANDARDS & COMPLIANT INTERFACES

Regardless of science domain, users will be able to use OGC-compatible tools and also a customized OGC Features API to access cloud hosted data. APIs will allow the users to request only the data they want, in the format and projection they want, allowing them to skip manual intermediary processing steps.

COMMUNITY DEVELOPMENT

Working across organizations, companies and contracts reduces the barriers for re-use of code and sharing of domain knowledge.

OPTIMIZE VIA METRICS



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NASA Official: Chris Lynnes | christopher.s.lynnes@nasa.gov

Secret Decoder Ring
API – Application Programming Interface
ELK – ElasticSerach Logstash Kibana
EOSDIS - Earth Observing System Data and Information System
ICESat – Ice, Cloud and land Elevation Satellite
NASA – National Aeronautic and Space Administration
NISAR – NASA-ISRO SAR
SWOT – Surface Water Ocean Topography
OGC – Open Geospatial Consortium
GIS – Geographic Information System
WCS – Web Coverage Service
WMS – Web Mapping Service