

## Take 5 Geo Processing with ENVI Services Engine

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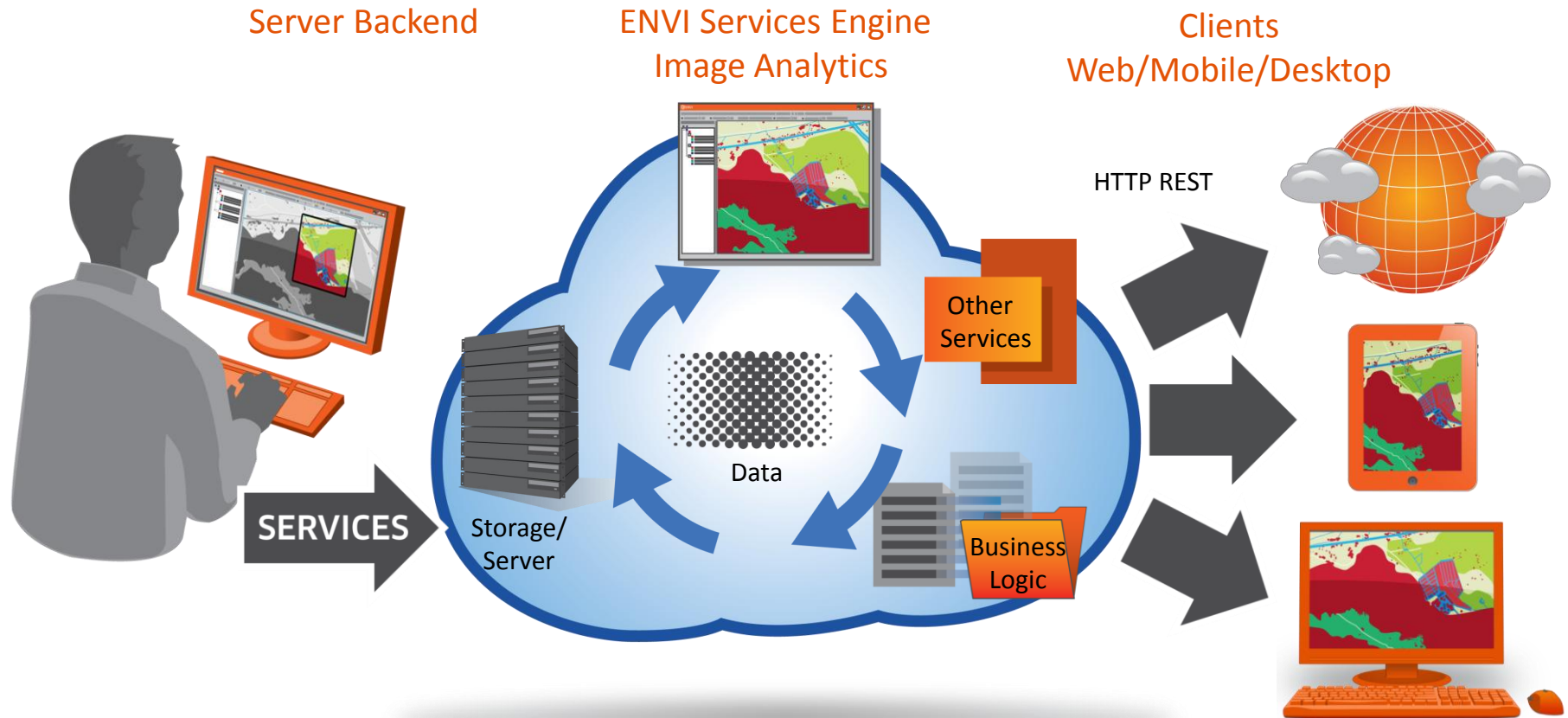
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# ENVI Services Engine – Overview



## Services Developer

- > ENVI algorithms
- > IDL pro code
- > C++...

## Systems Engineer

- > Apache web server
- > GeoServer
- > J2EE – GXP Xplorer
- > Catalog software
- > ArcGIS Server
- > ...

## Client Developer

- > HTML5
- > Native mobile (iOS, Android)
- > Silverlight
- > C++
- > ...

# Developing Apps with IDL & ENVI : Landsat prototype

## Apps deployed in the Landsat implementation

- Encapsulate IDL/ENVI functions into discrete solutions.
- Use the deployment engine for on-demand IDL/ENVI processing.
- Operate on data accessed via a catalog implementation.
- Quickly re-purpose existing code.

The screenshot displays the 'Landsat Processor' web application. The interface includes a sidebar with navigation options: 'Data Query and Identification', 'Create Training Data', 'Process Data', 'Layer Manager', 'Locations', 'Products', and 'Thumbnails'. The 'Process Data' section is active, showing a 'Current Lock Raster ID: 14991' and buttons for 'Classify With Training', 'Classify Without Training', 'Atmosphere Correct', 'Anomaly Detect', 'NDVI', 'NDVI Time Series', and 'Change Detection'. A progress bar indicates 'Getting Image Service Data (1/7)' at 30%. The main area features a map of Paris with a search bar and a table of Landsat data.

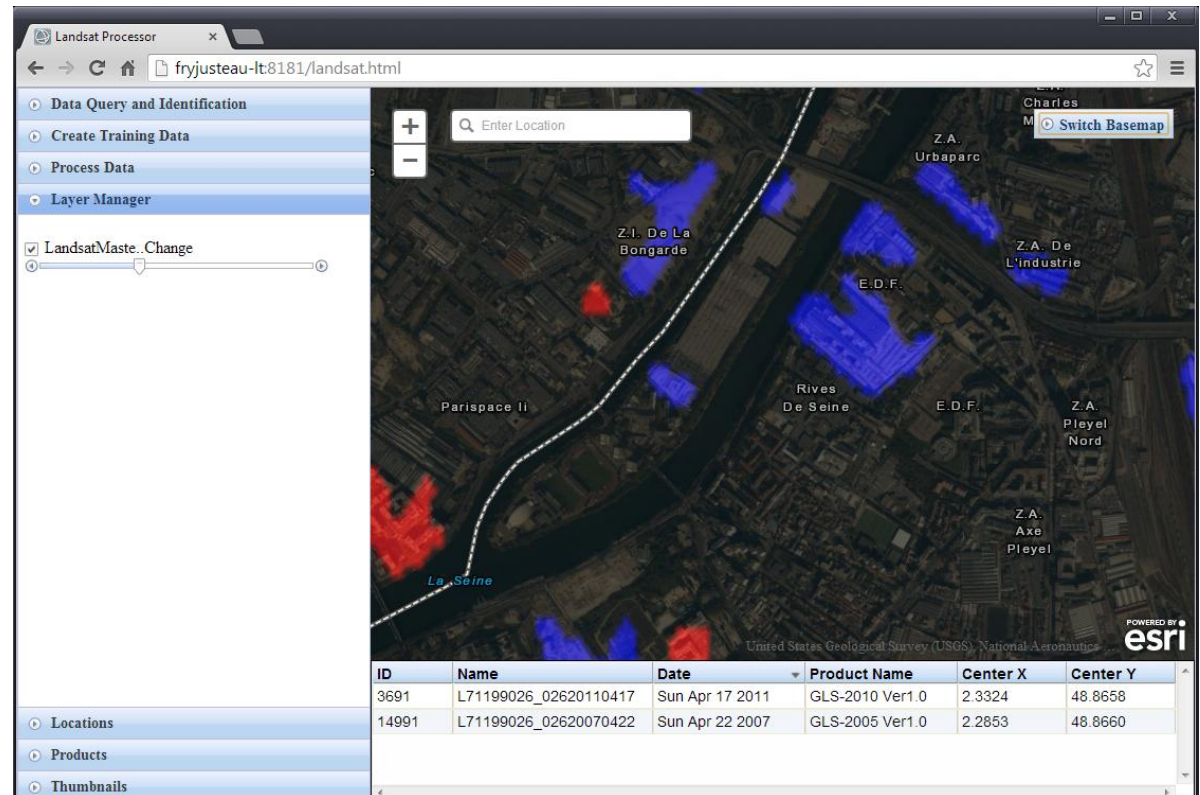
ID	Name	Date	Product Name	Center X	Center Y
3691	L71199026_02620110417	Sun Apr 17 2011	GLS-2010 Ver1.0	2.3324	48.8658
2942	L71200026_02620100624	Thu Jun 24 2010	GLS-2010 Ver1.0	0.7695	48.8684
14991	L71199026_02620070422	Sun Apr 22 2007	GLS-2005 Ver1.0	2.2853	48.8660



# On-Demand Analytics – Web : Landsat prototype

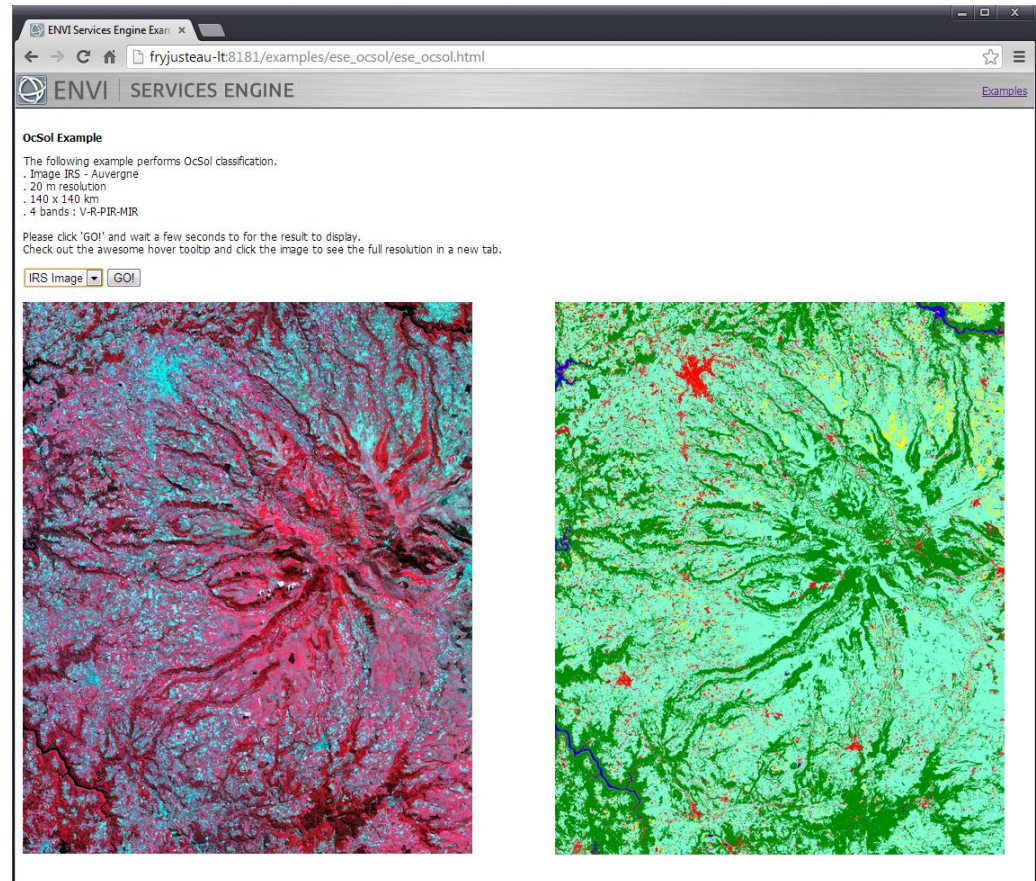
## Interactive “Change detection” App launched from browser interface

- User selects relevant App.
- Locates AOI.
- Select “before” and “after” images.
- On-demand IDL/ENVI service called.
- Results generated and displayed in a web client.



# Build Take 5 prototype using ENVI Services Engine

- Demonstrate an online, on-demand approach to Take 5 data analytics.
- Allows experts to compile and expose their workflows and tradecraft using our prototyping platform.
- Provides the flexibility to integrate into any architecture that can make http calls.
- Takes advantage of open standards allowing for integration with other Apps.
- Emphasizes the use of server side hardware by offloading processing tasks previously performed at the desktop level.

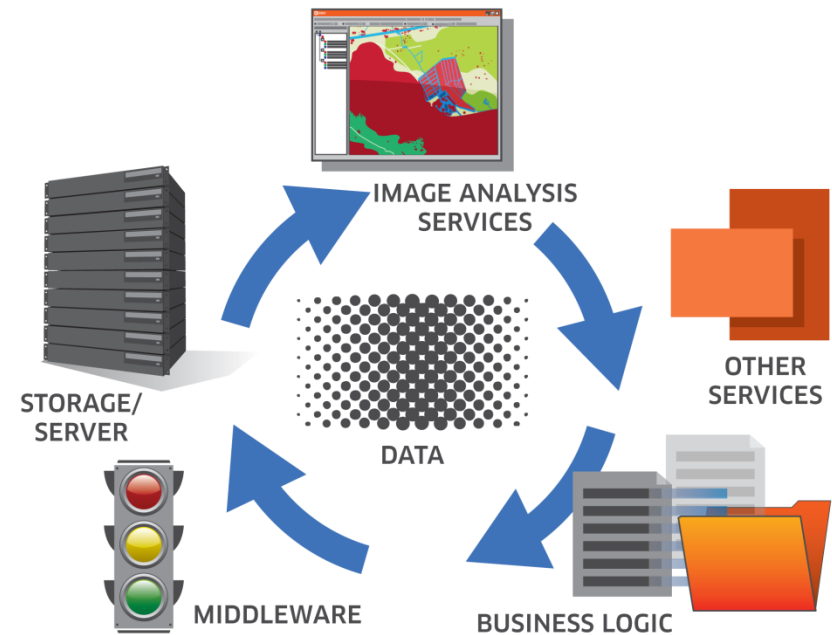


## Thank You

### Questions & Discussion

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# Scalability and Load Balancing

## ENVI Services Engine architecture: Master process and associated worker processes

