Data and System Interoperability with ArcGIS

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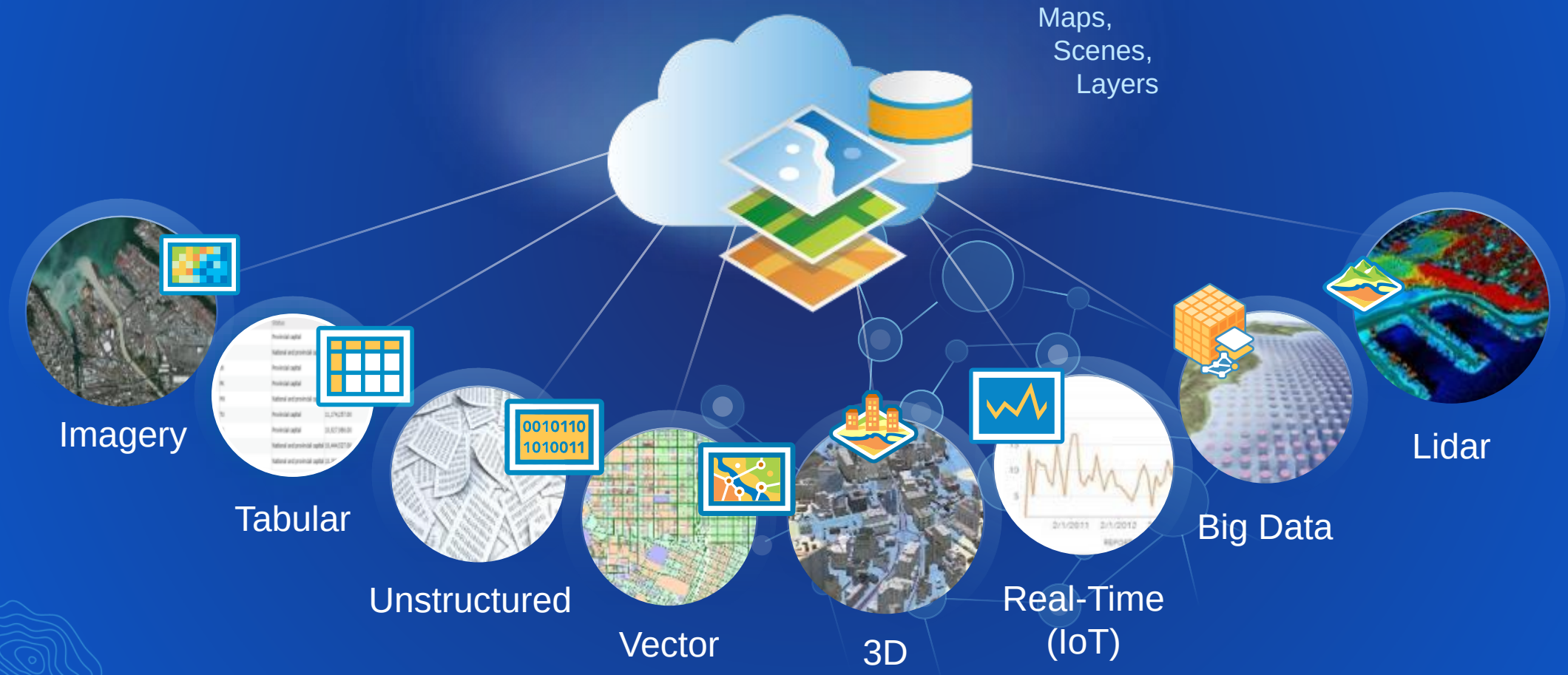
Satish Sankaran
Esri

Integrating External Data

Creating a common language



Common Database Connections Supported in ArcGIS

User Managed Databases with direct connections

- SQL Server
- PostgreSQL
- SQLite
- Oracle
- SAP plus Netezza
- SAP Hana
- DB2
- Informix
- Teradata
- Dameng

Cloud Data store locations

- Amazon Simple Storage Service (S3)
- Microsoft Azure Blob storage
- Microsoft Azure Data Lake storage*
  Big data file shares only
- Alibaba Cloud Object Storage Service (OSS)* cannot be used for big data file shares.
- Huawei Object Storage Service (OBS)* cannot be used for big data file shares.

Other Ingest Resources

- **Registered Big Data stores**:
  - File share
  - HDFS
  - Hive

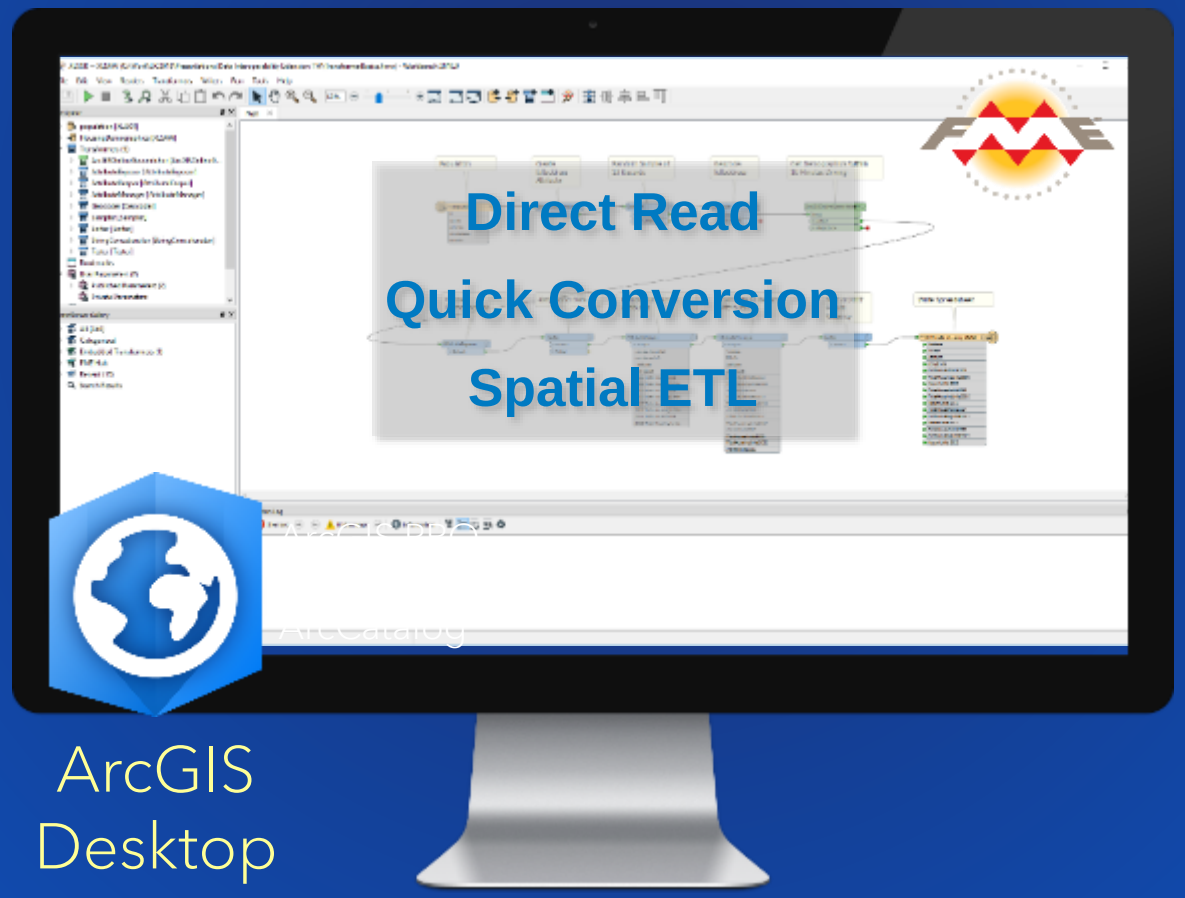
* Support Starting at Enterprise 10.6.1+

ETL using Data Interoperability Extension

Extract from

- File
- DB Connection
- API

Transform



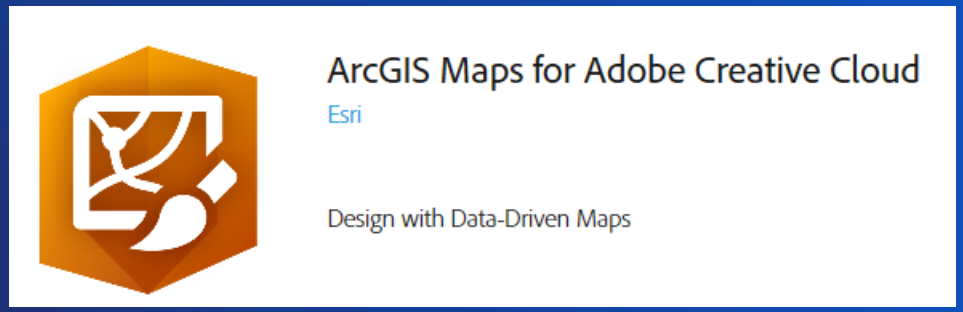
ArcGIS Desktop

Load

ArcGIS Enterprise

ArcGIS Online

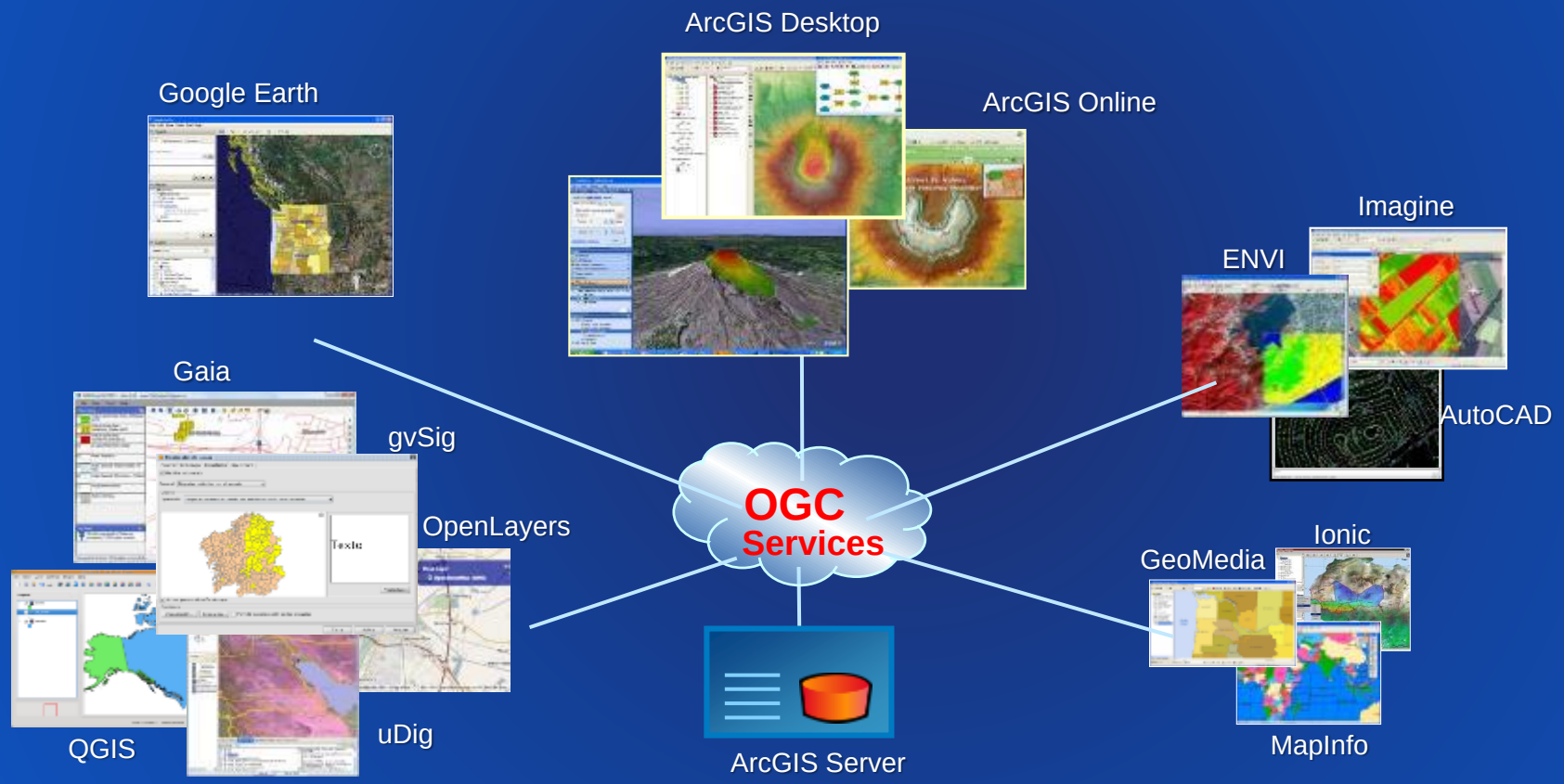
Direct Integration

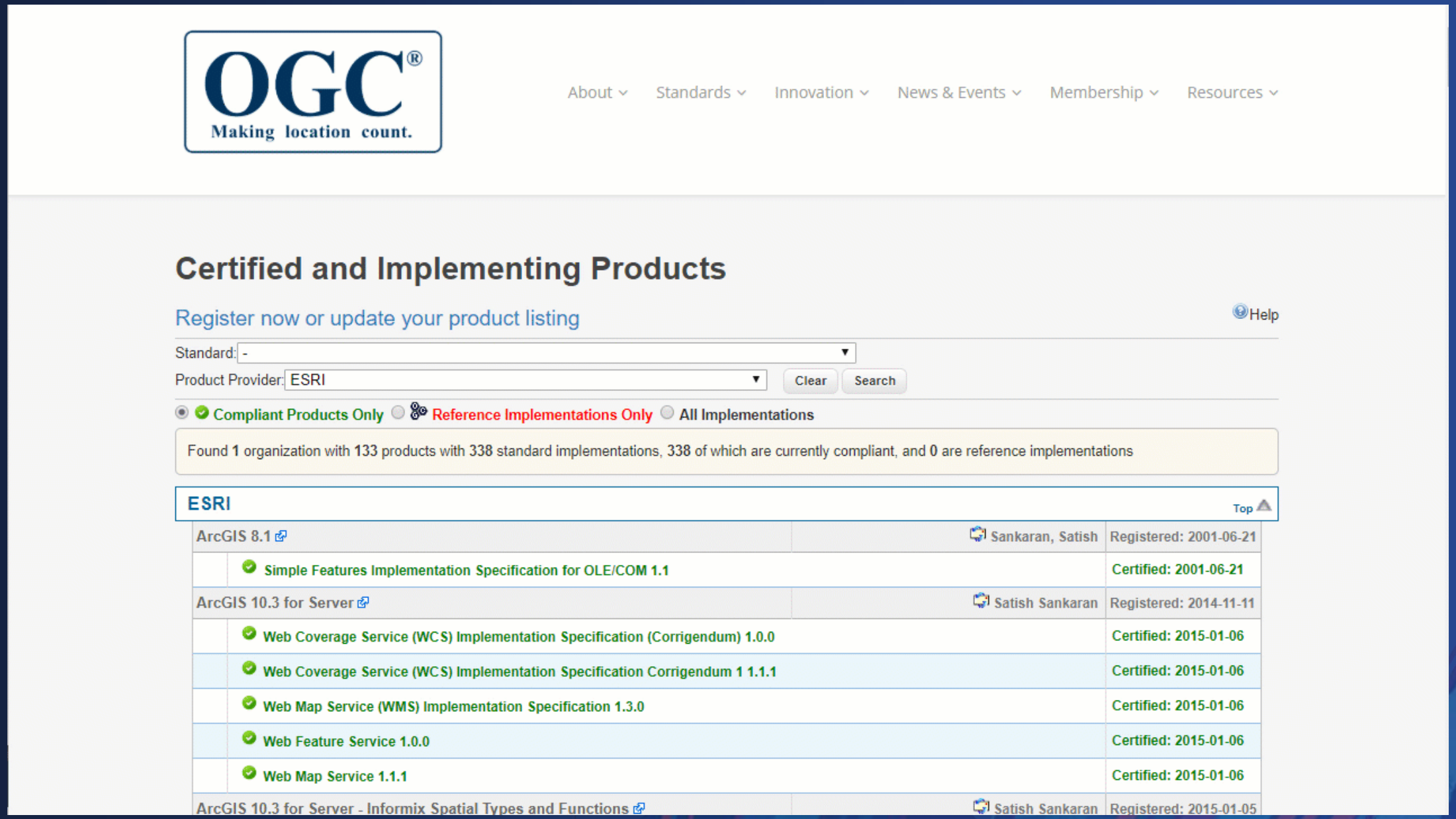


Sharing using Web Services

Effectively and freely sharing your derivative work

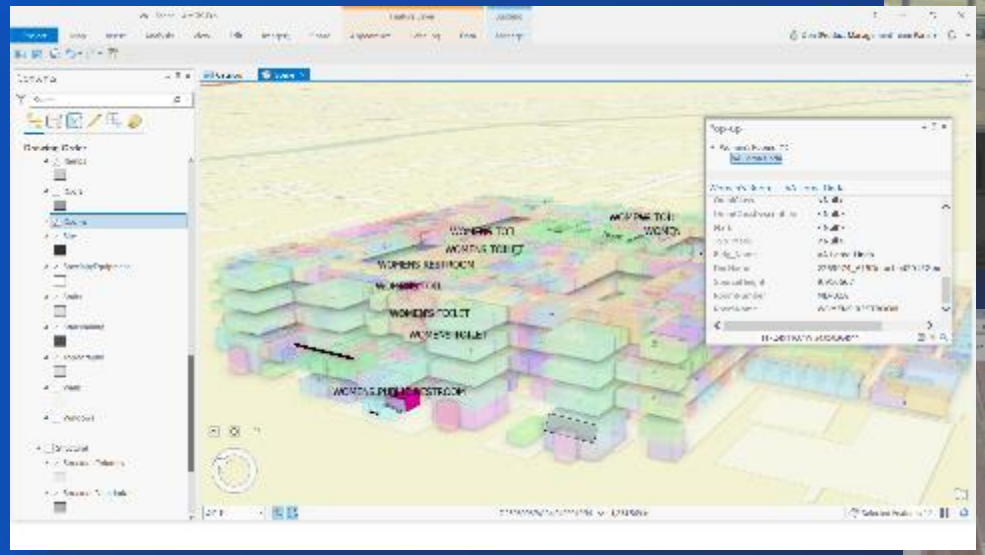
Interoperable Geospatial Web Services

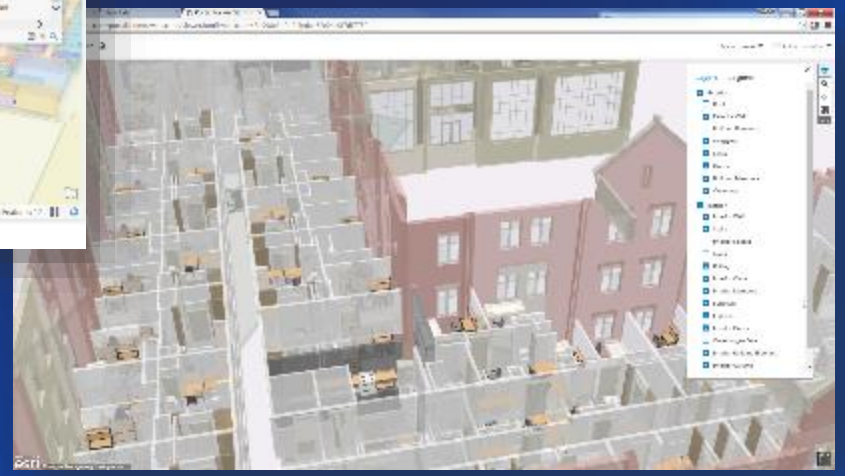




As of April 2019 | http://www.opengeospatial.org/resource/products/compliant

Working with BIM Data

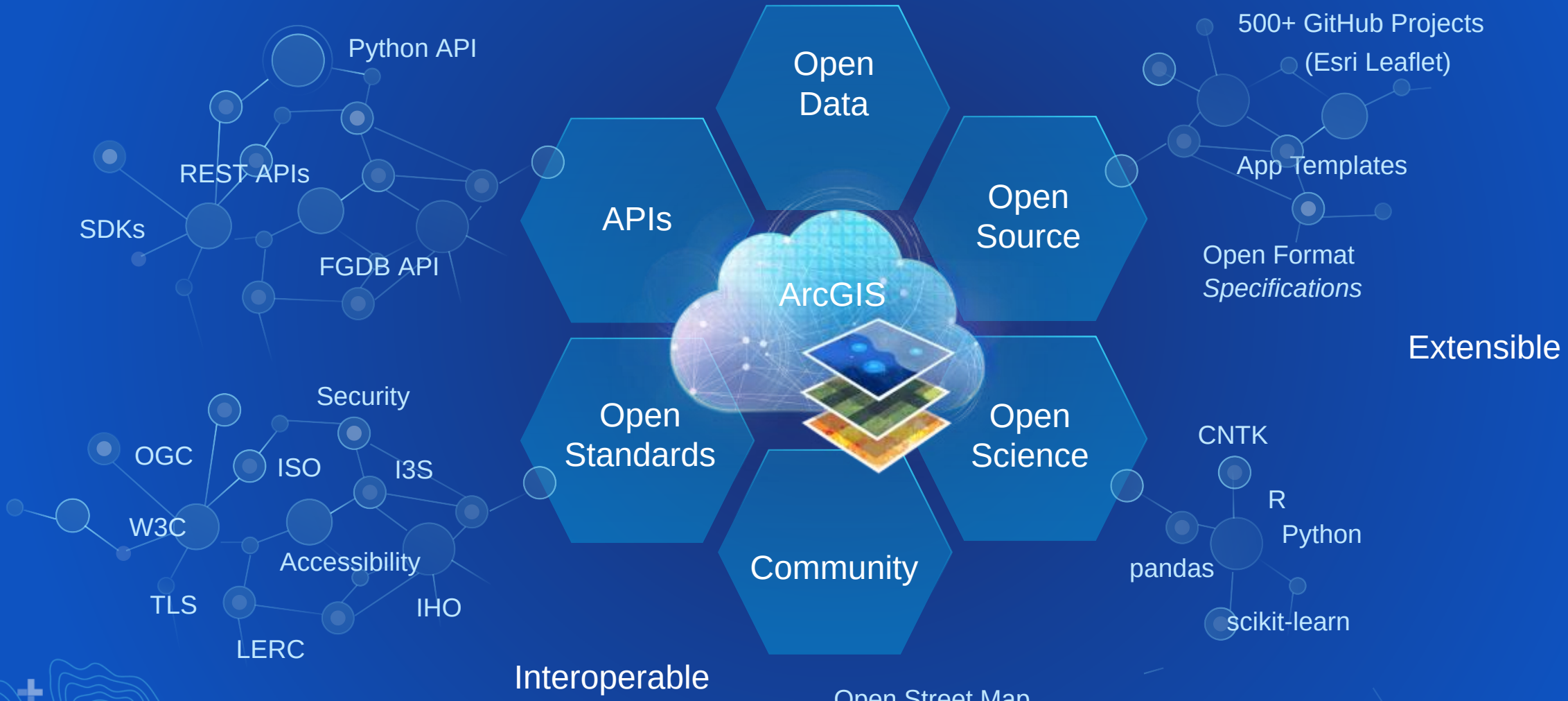




- Access IFC files using the *ArcGIS Data Interoperability Extension*
- Directly read Revit files in *ArcGIS Pro*
- *Share effectively with stakeholders in Building Scene Layer (BSL)*

Open Platform

Enterprises need Open Platforms



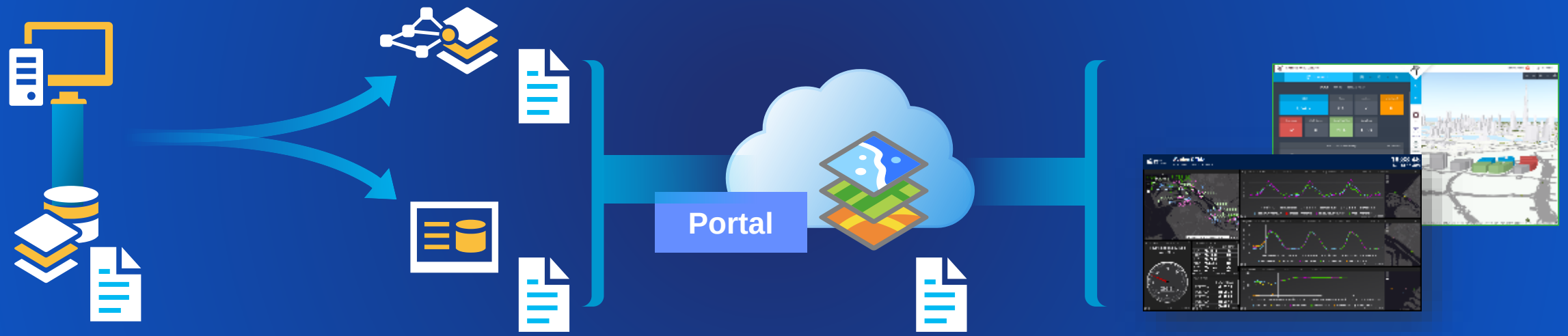
Successfully Integrated Into Thousands of Systems

Interoperability in ArcGIS

Demos

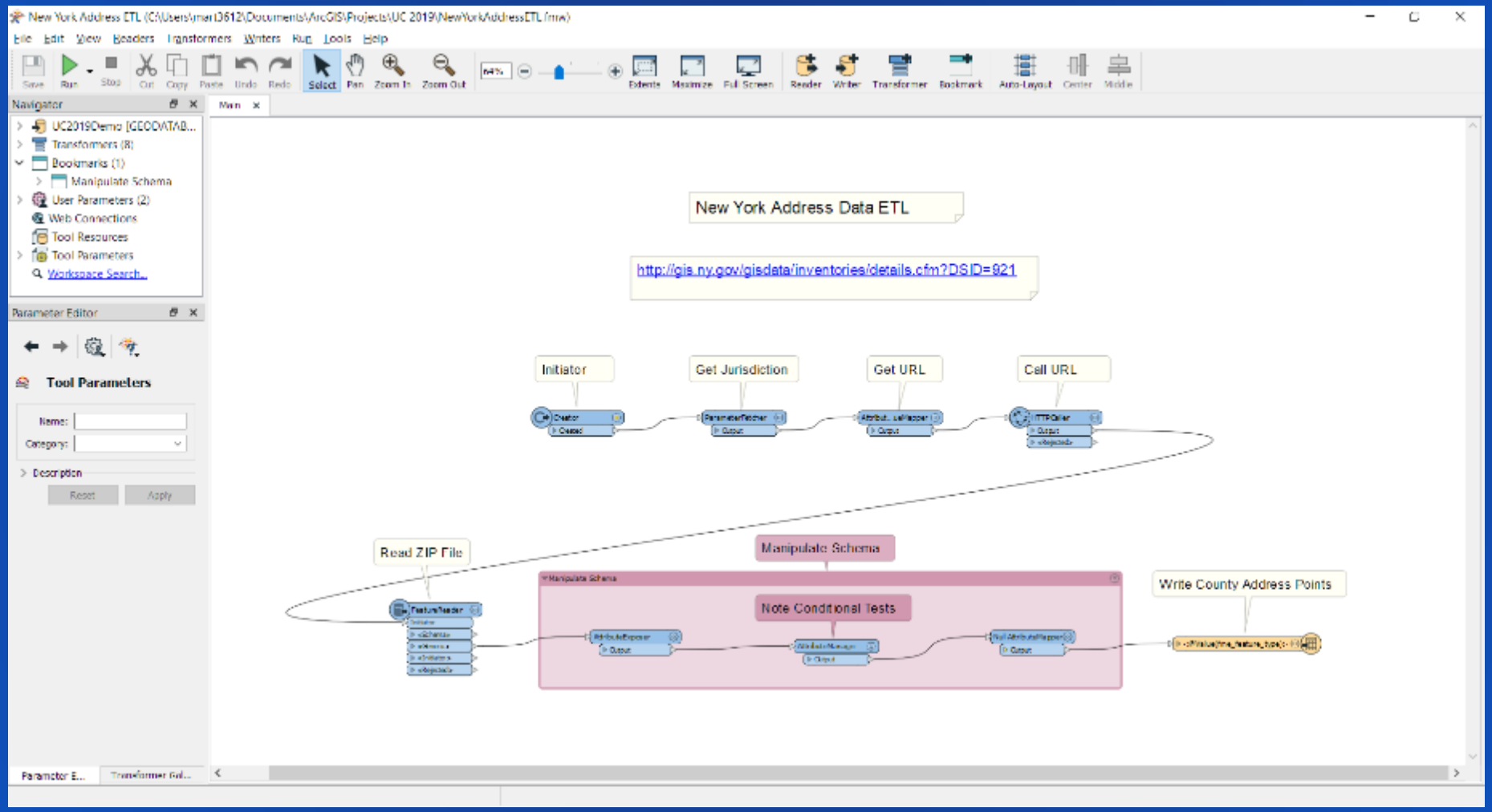
SEE
WHAT
OTHERS
CAN'T

Interoperability in ArcGIS

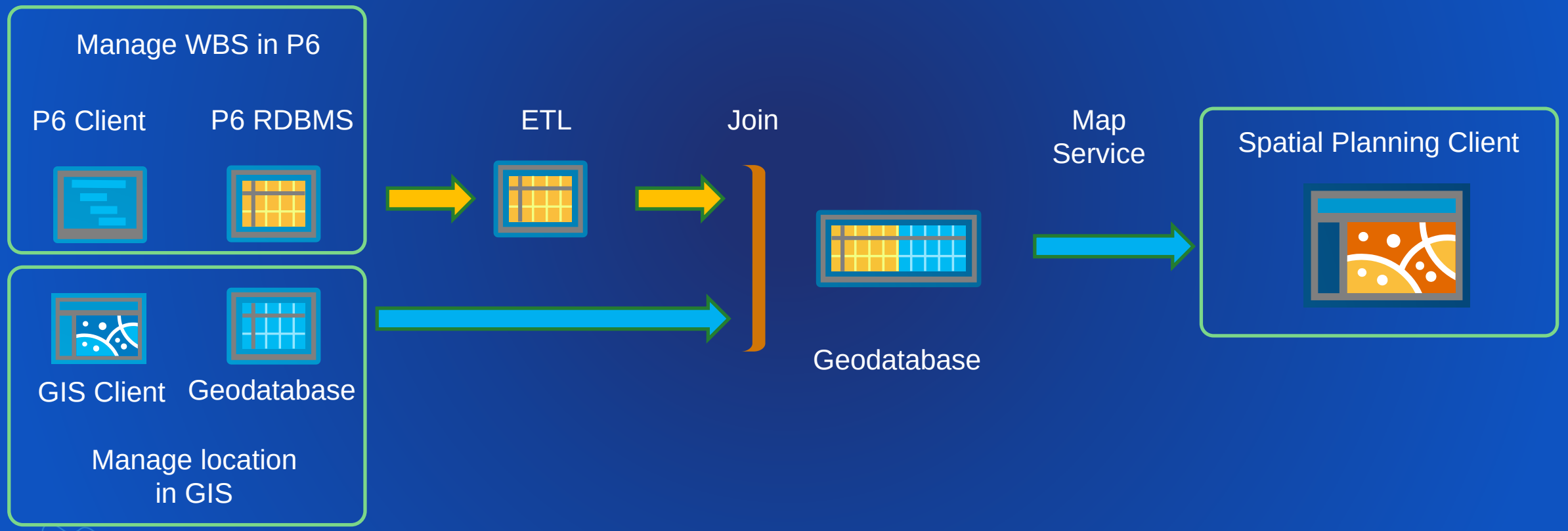


Data Interoperability

ArcGIS Pro Data Interoperability Extension

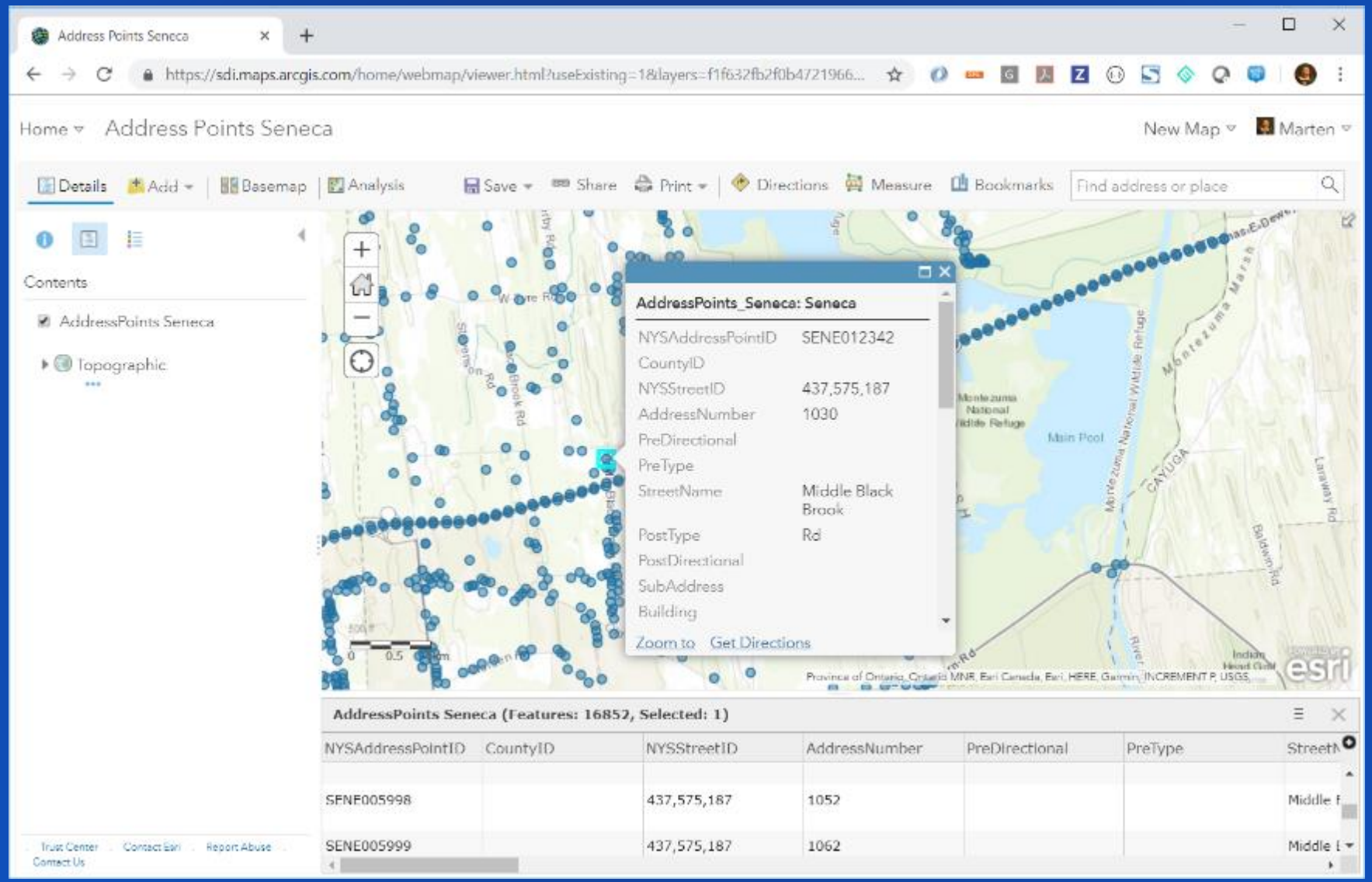


Make Project Schedules Location Aware

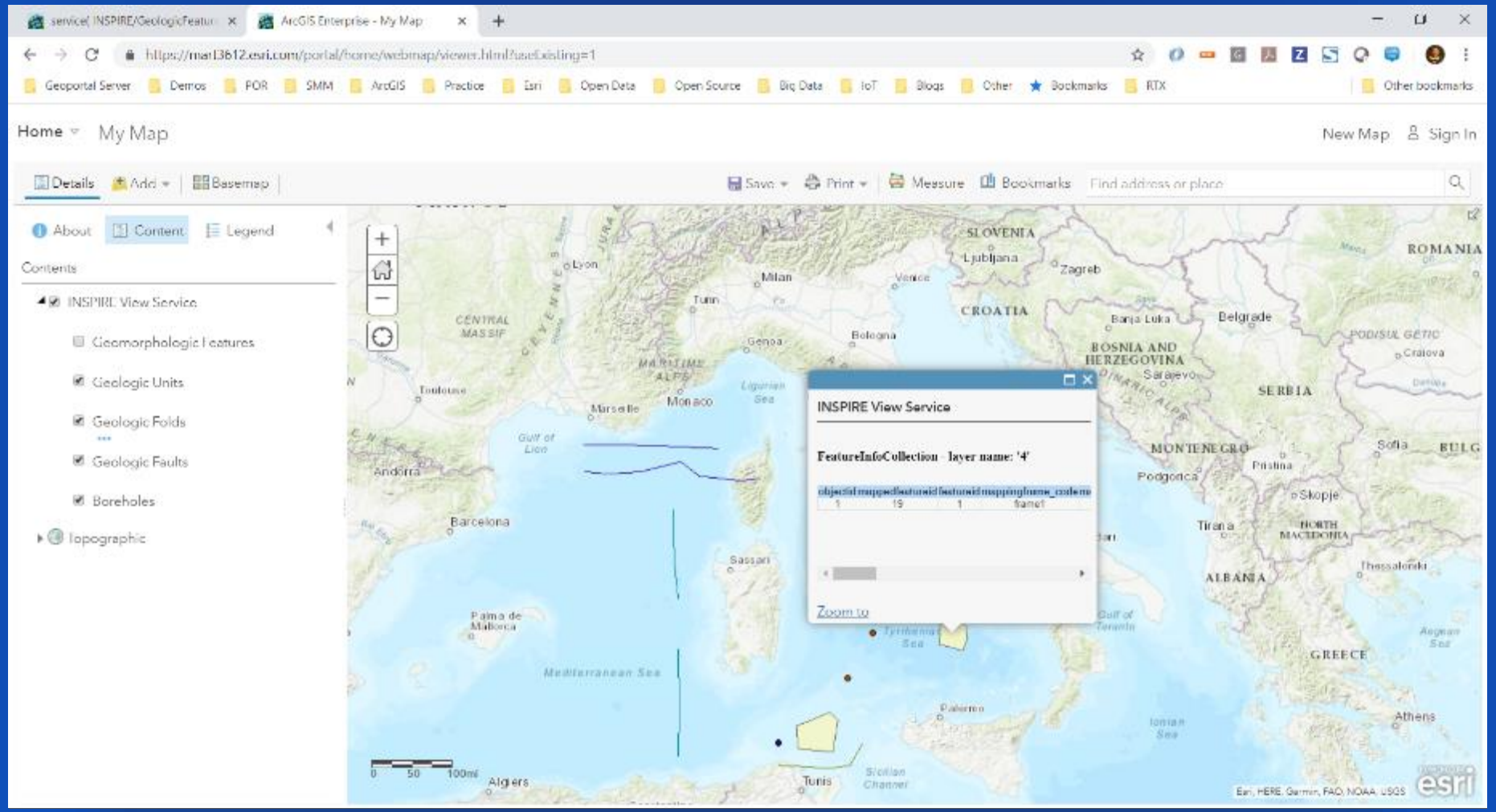


Service Interoperability

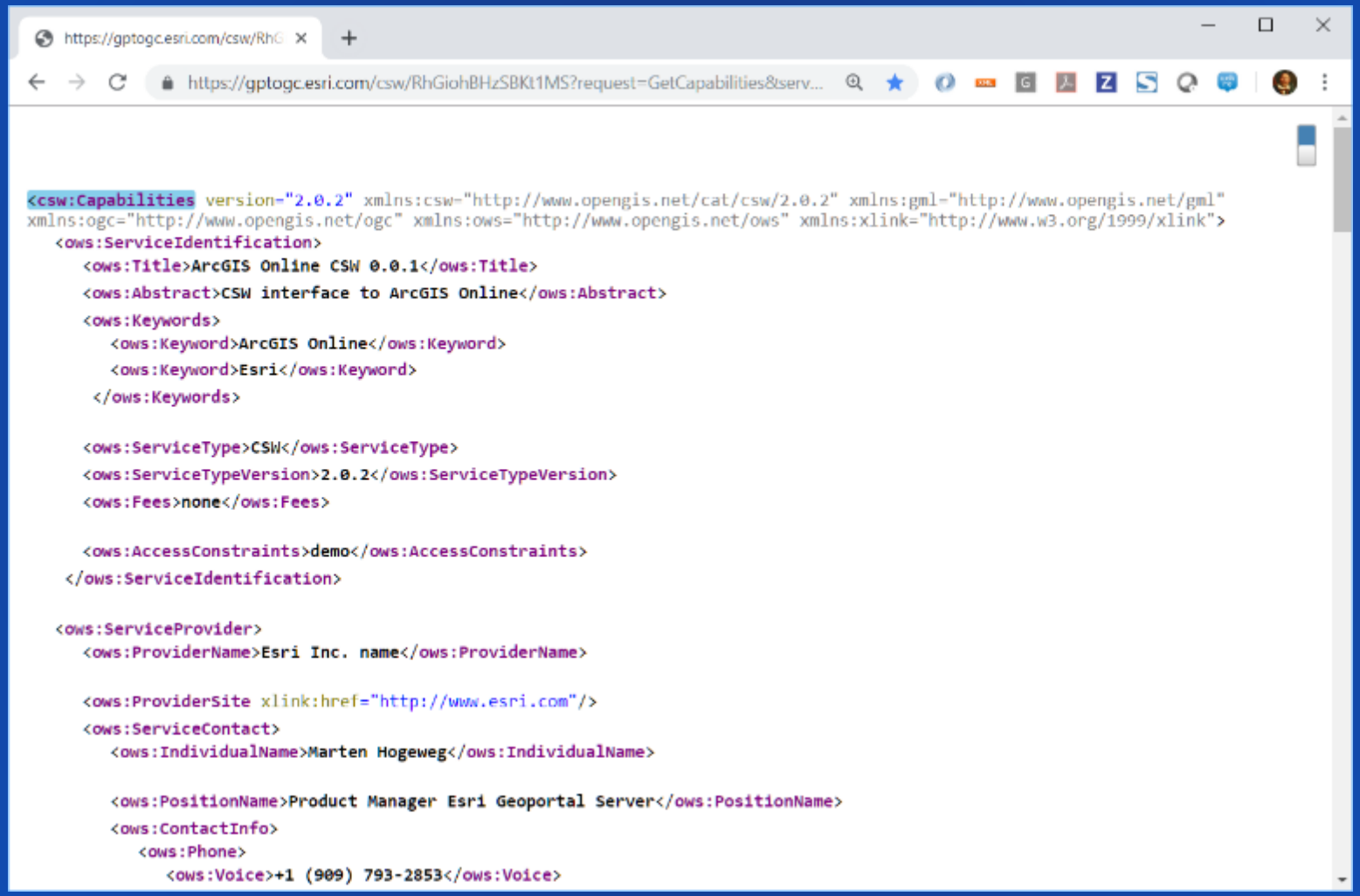
Publish as Hosted Service with OGC WFS



Publish as INSPIRE View/Download Service



Catalog Services – CSW



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<ows:IndividualName>Marten Hogeweg</ows:IndividualName>
<ows:PositionName>Product Manager Esri Geoportal Server</ows:PositionName>
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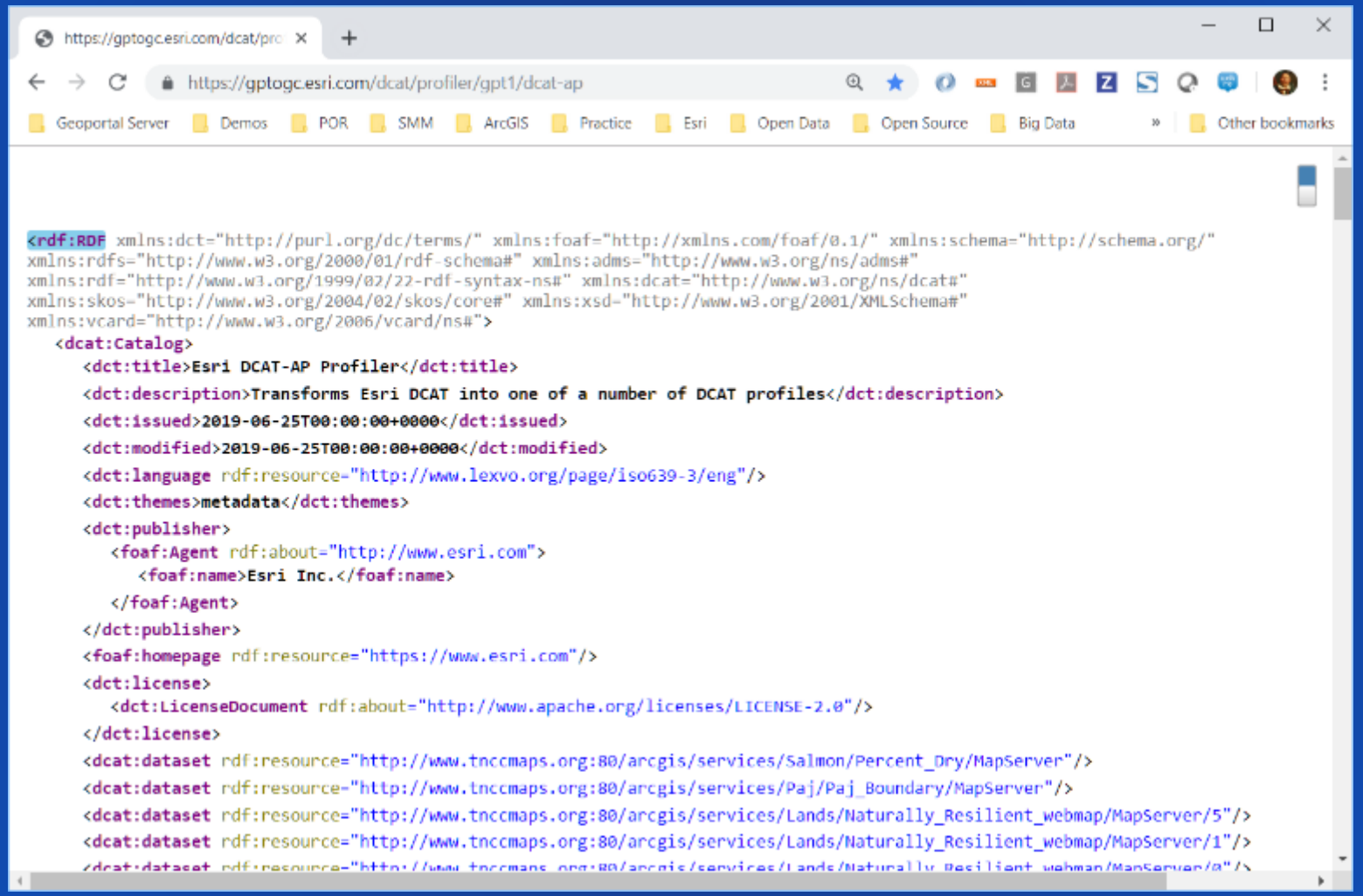
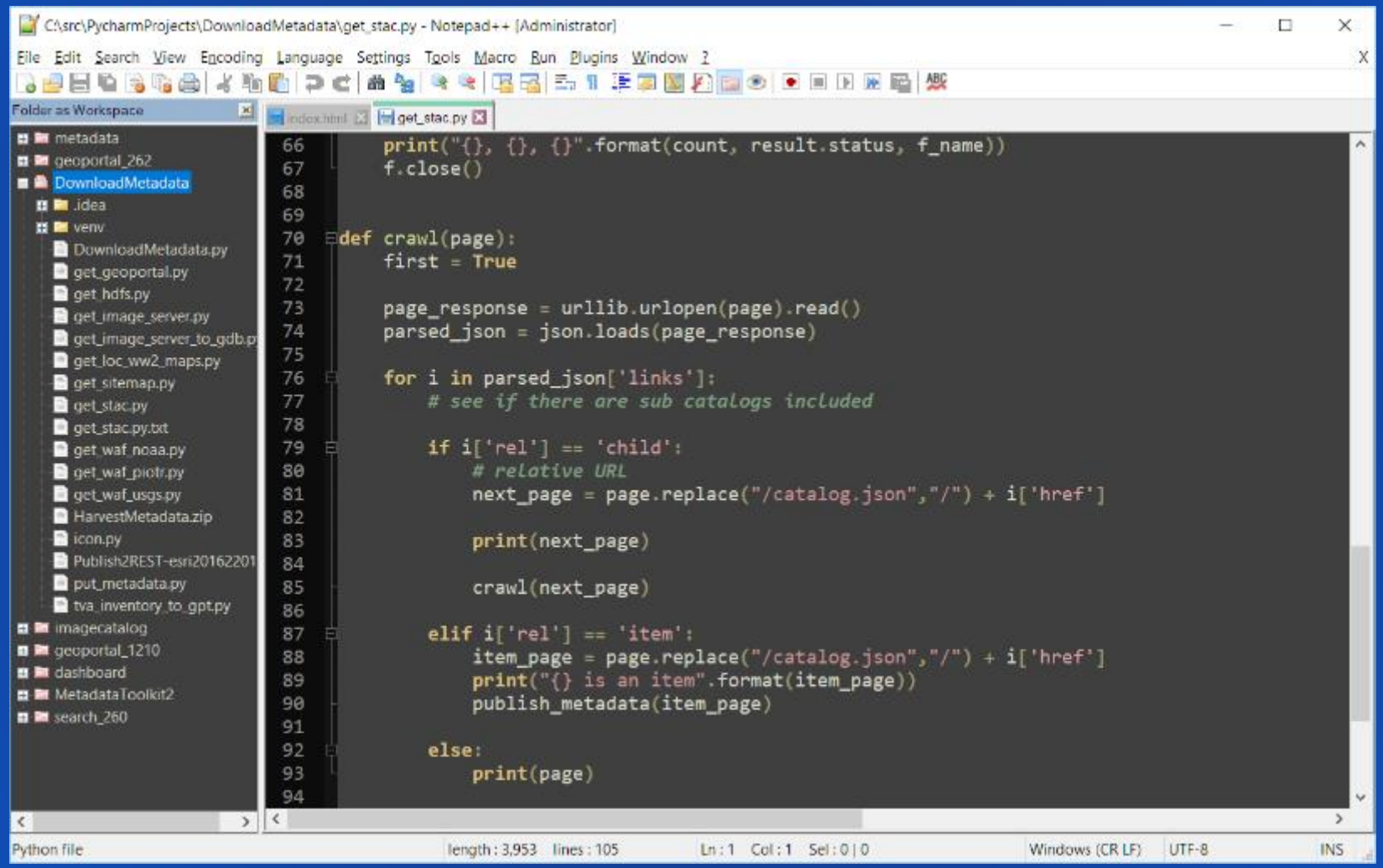
https://gptogc.esri.com/csw/RhGiohBHzSBKt1MS?request=GetCapabilities&service=CSW&version=2.0.2

Catalog Services – DCAT



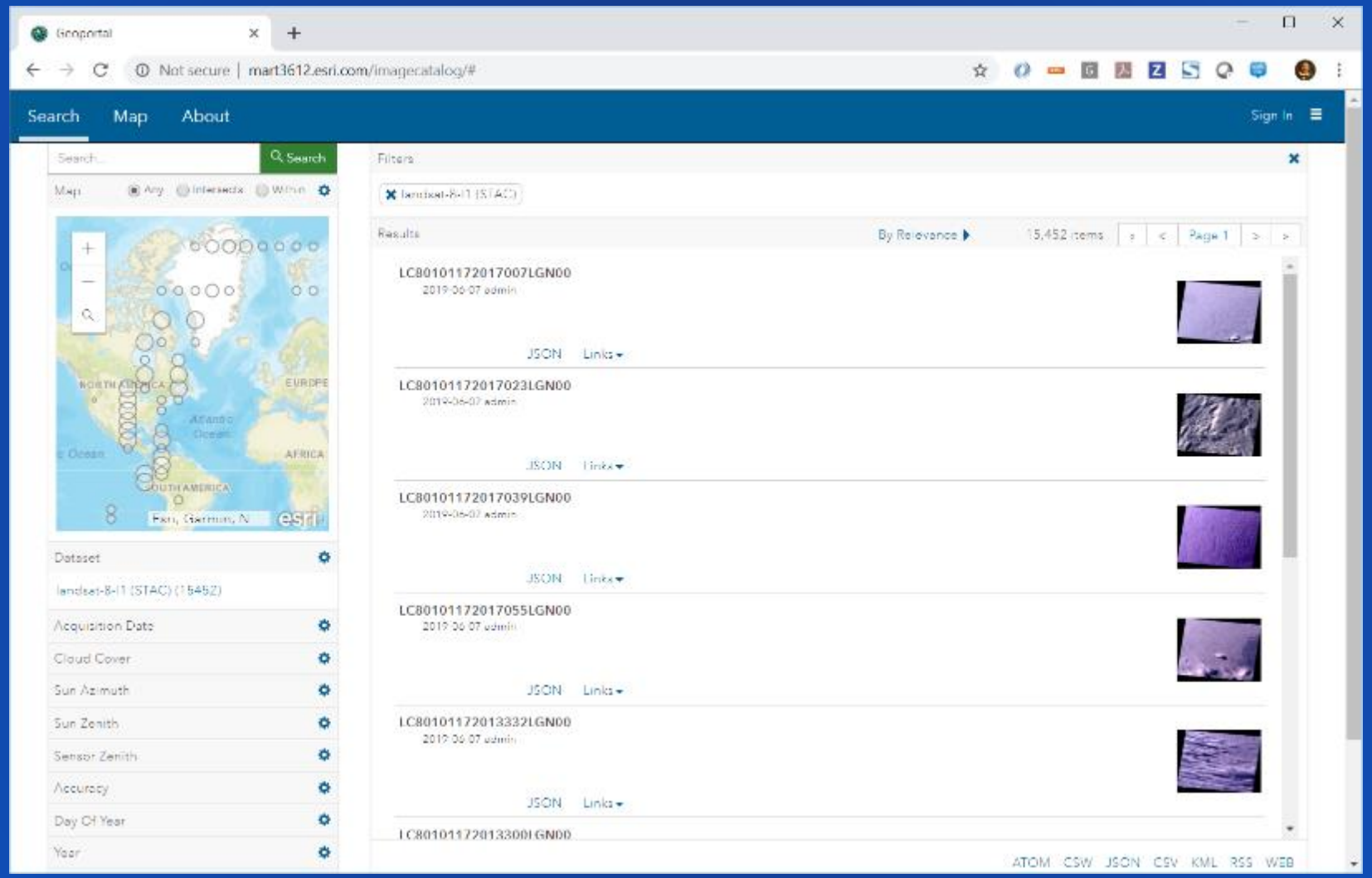
https://gptogc.esri.com/dcat/profiler/gpt1/dcat-ap

Catalog Services – Spatio-Temporal Access Catalog (STAC)



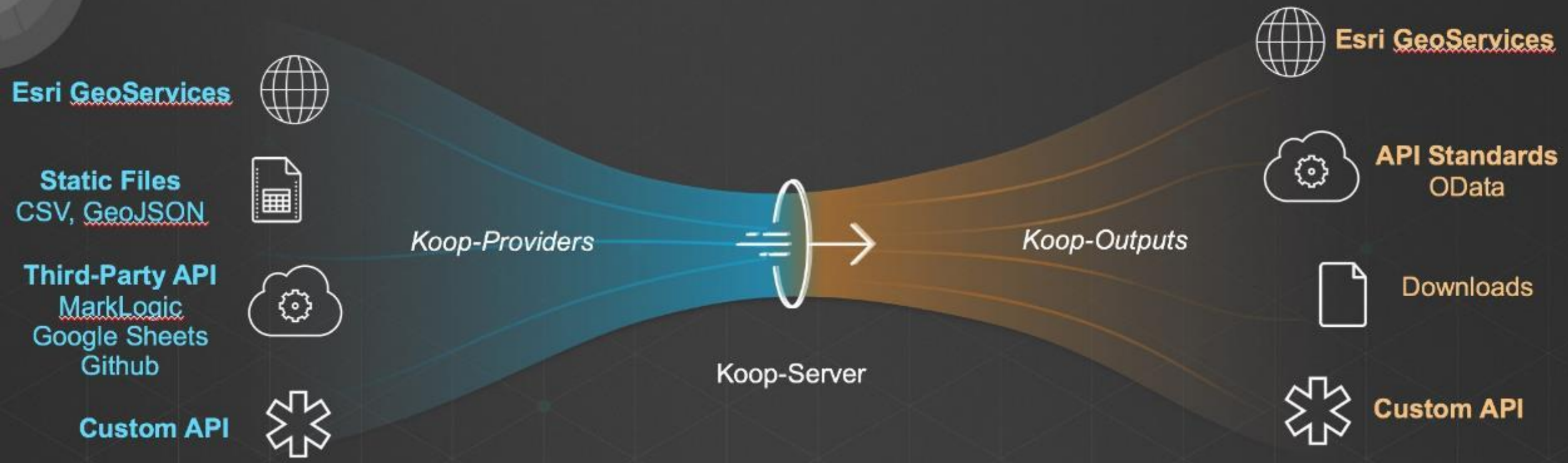
http://gptogc.esri.com/stac/catalog/52484b28322542ce97cff79046978f9e/catalog.json

Catalog Services – Spatio-Temporal Access Catalog (STAC)



http://mart3612.esri.com/imagecatalog/#

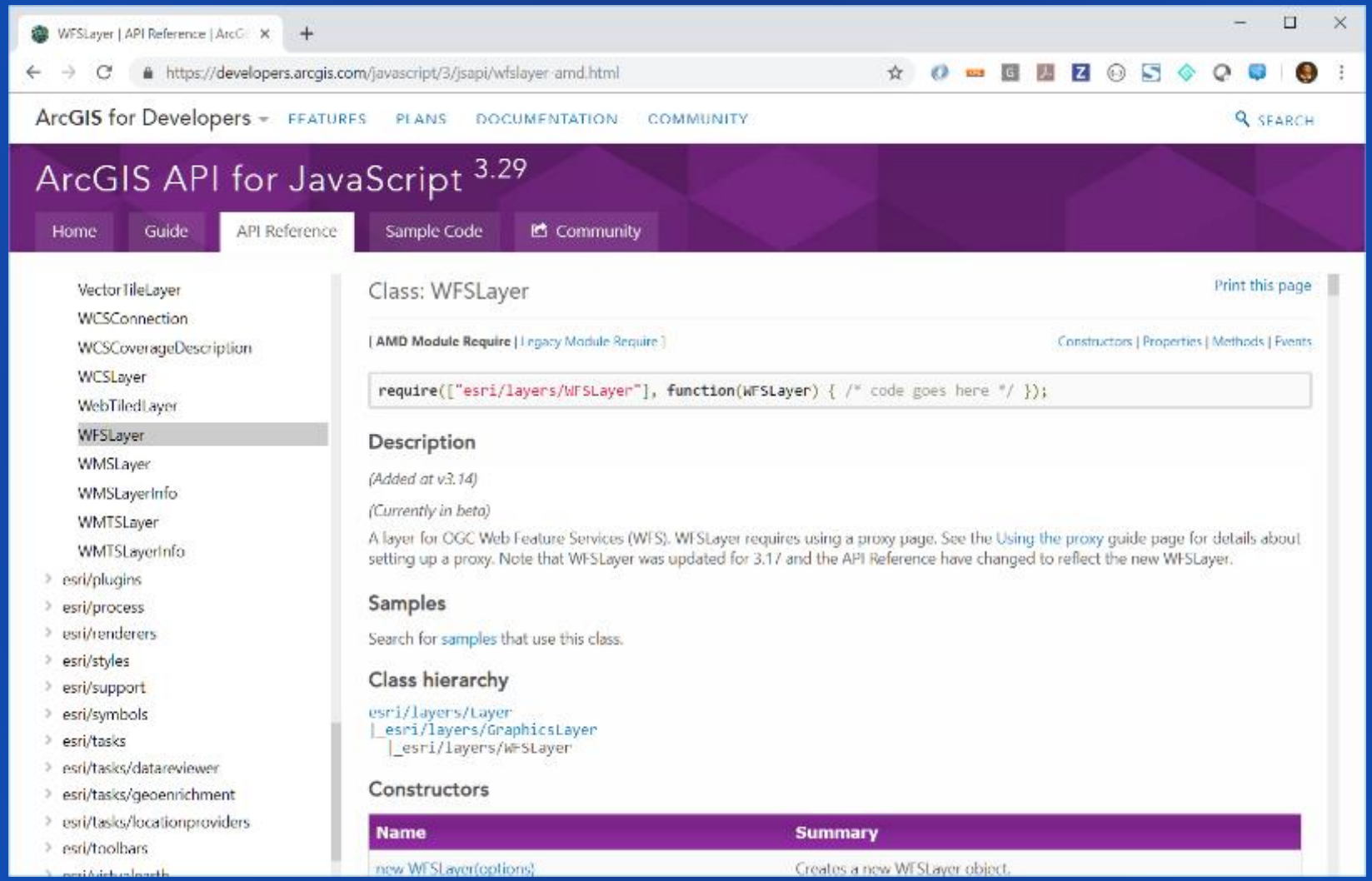
Koop



Integrating Data from Any Source

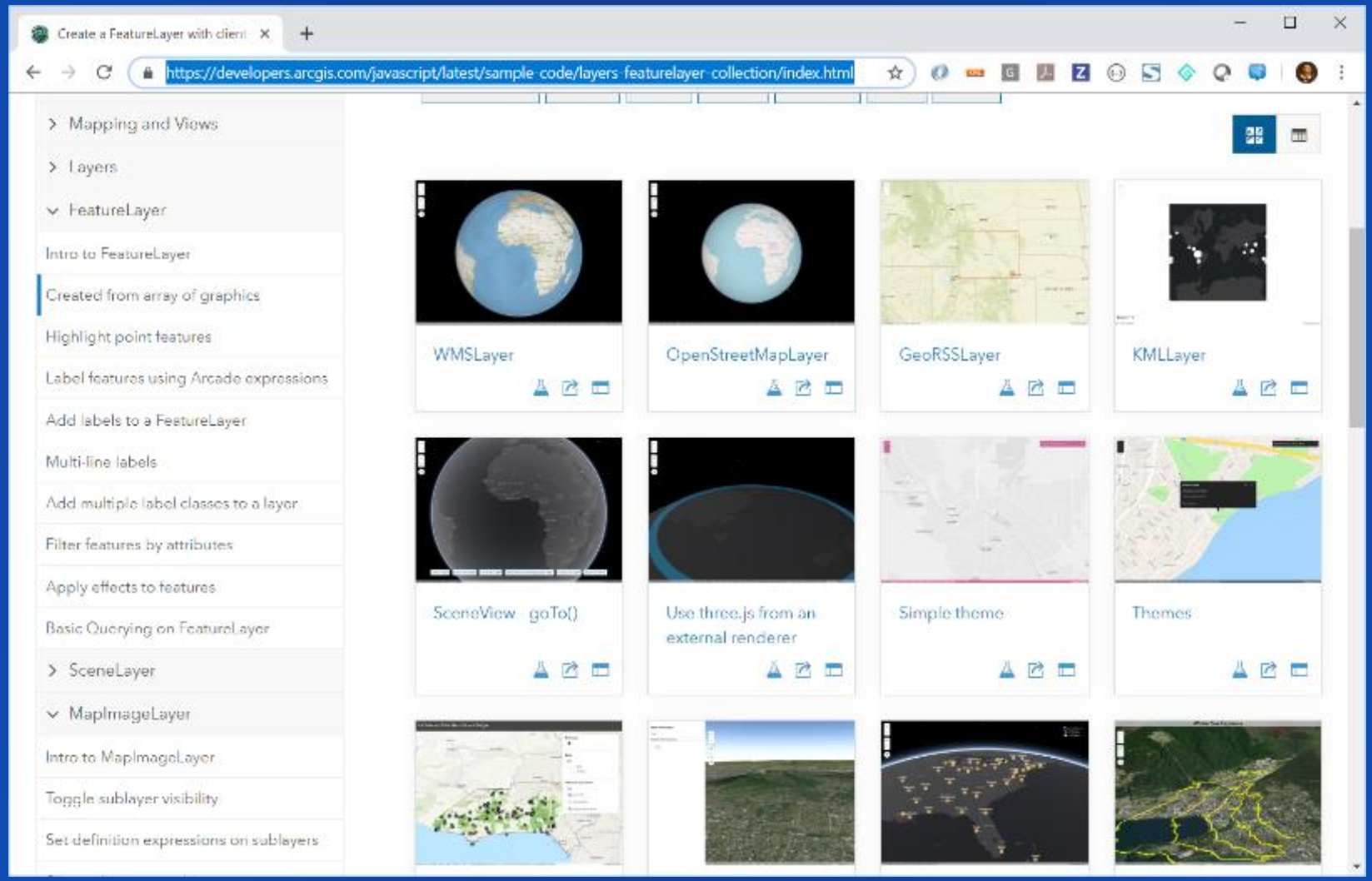
JS API Interoperability

JS API Interoperability 3.x



https://developers.arcgis.com/javascript/3/jsapi/wfslayer-amd.html

JS API Interoperability 4.x

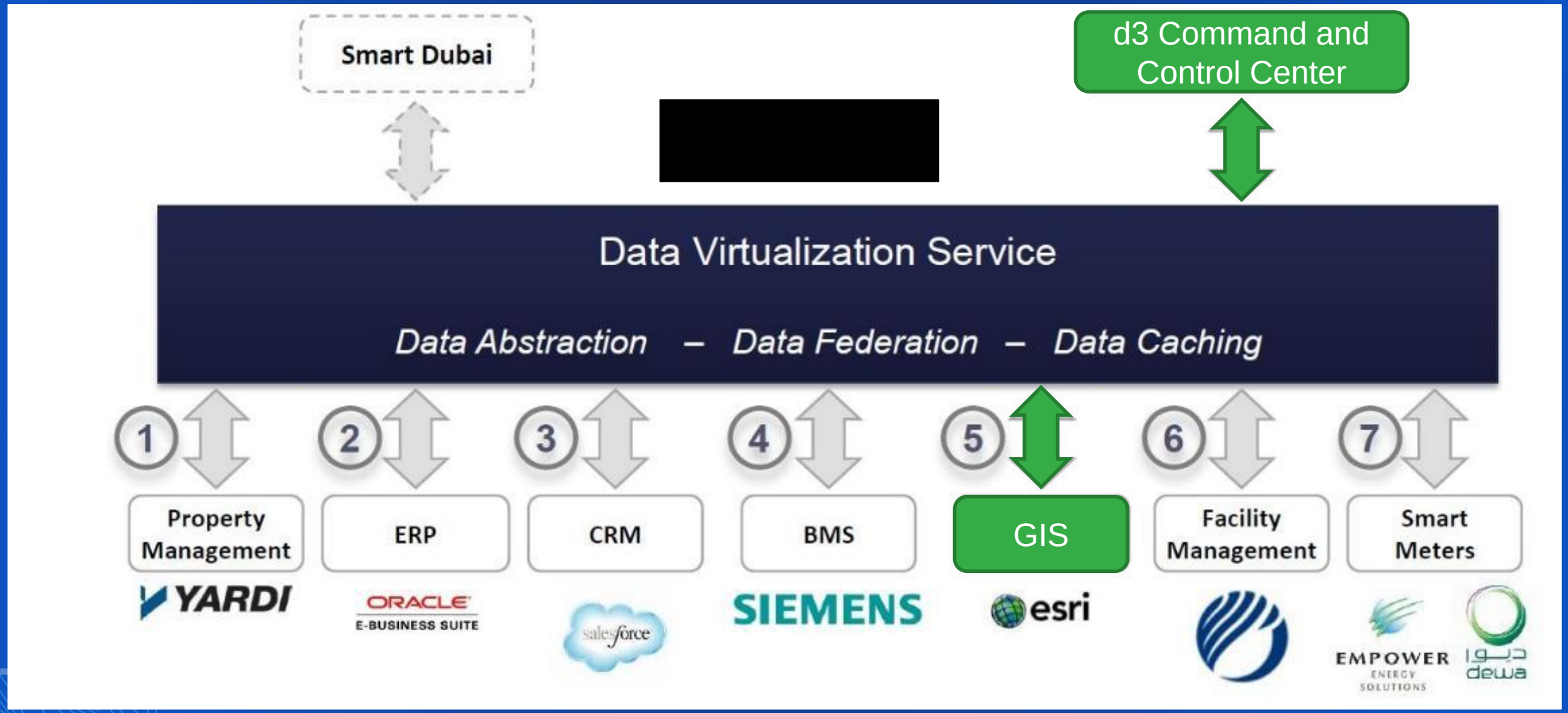


https://developers.arcgis.com/javascript/latest/sample-code/layers-featurelayer-collection/index.html

Geospatially Enabled Systems

Dubai Design District

D3 Data Visualization Component



CAMPUS OPERATIONS

NOTIFICATIONS 22

D3 ADMIN

DISTRICT

STATUS TRENDS PERFORMANCE

Total	Open	Assigned	Unassigned
1,543	84	2	0

Suspended	Work Started	Completed SLA	Completed
82	0	264	1,158

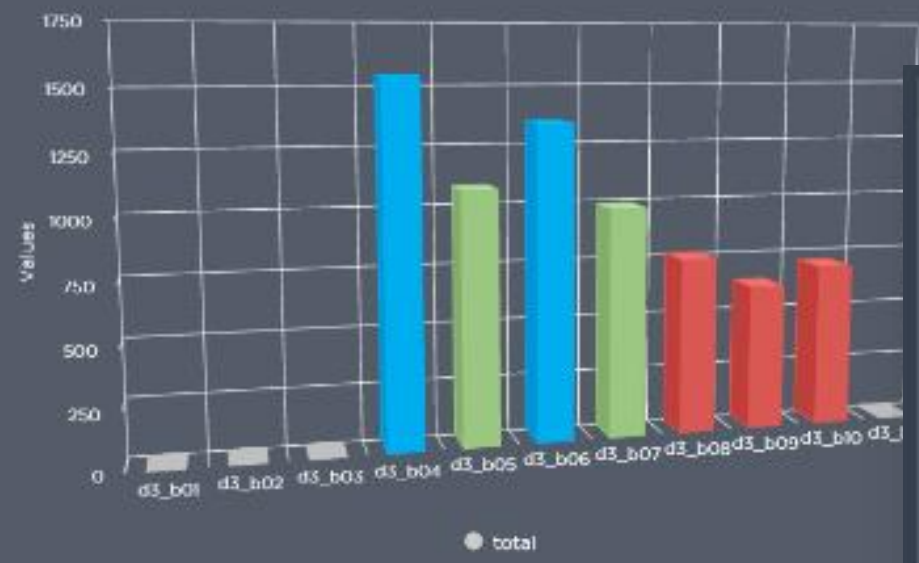
OPS

ENERGY

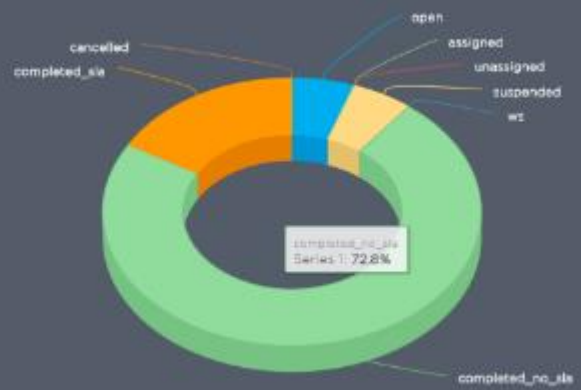
TENANT

Work Orders by Building

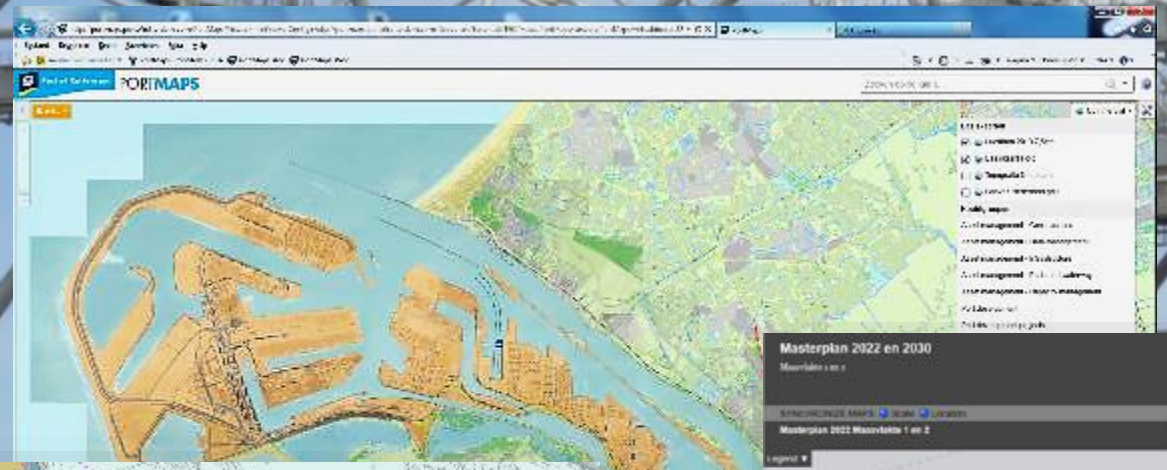
Visualize

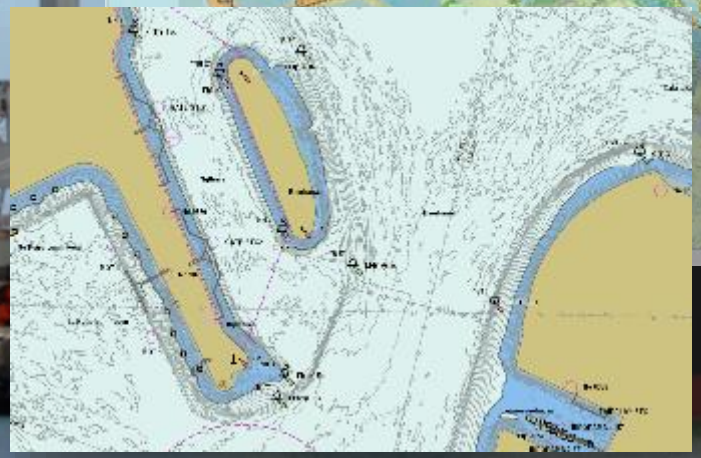


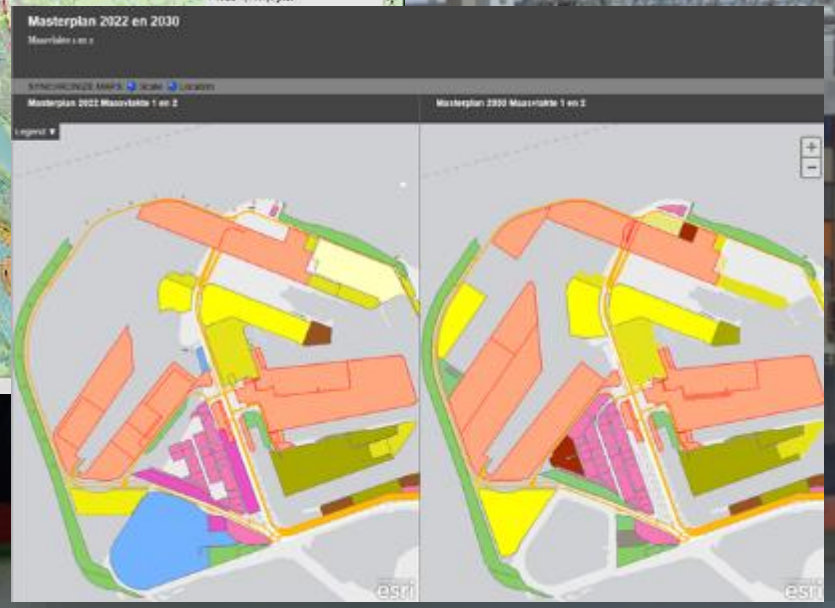
Work Orders by Status



Port of Rotterdam







- Asset Management
- Modalities
- Maritime
- Geodesign
- 3D Port
- Harbor Master

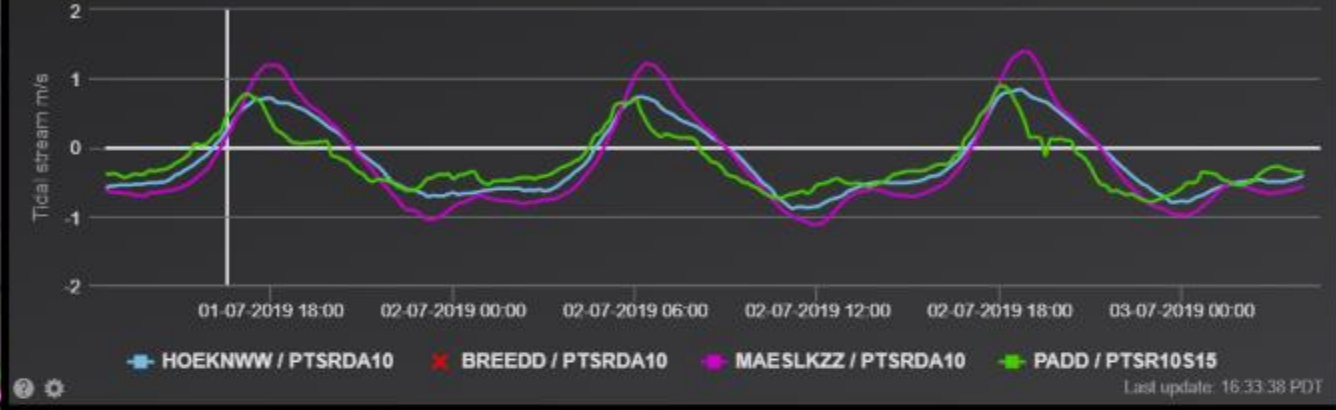
Port of Rotterdam

Weather & Tide

HYDRO METEO DASHBOARD - NAIADE

16:33:48
Mon 01-07-2019

TS | HOEK van HOLLAND | TS | MAASVLAKTE2 | TS | EUROPOORT | TS | CALANDKANAAL | TS | VLAARDINGEN | TS | BOTLEK



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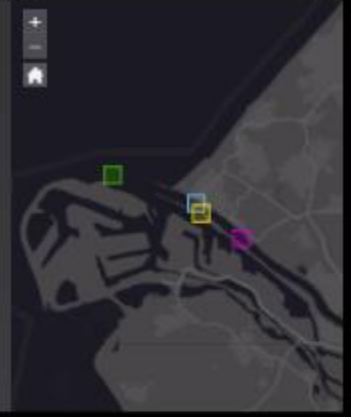
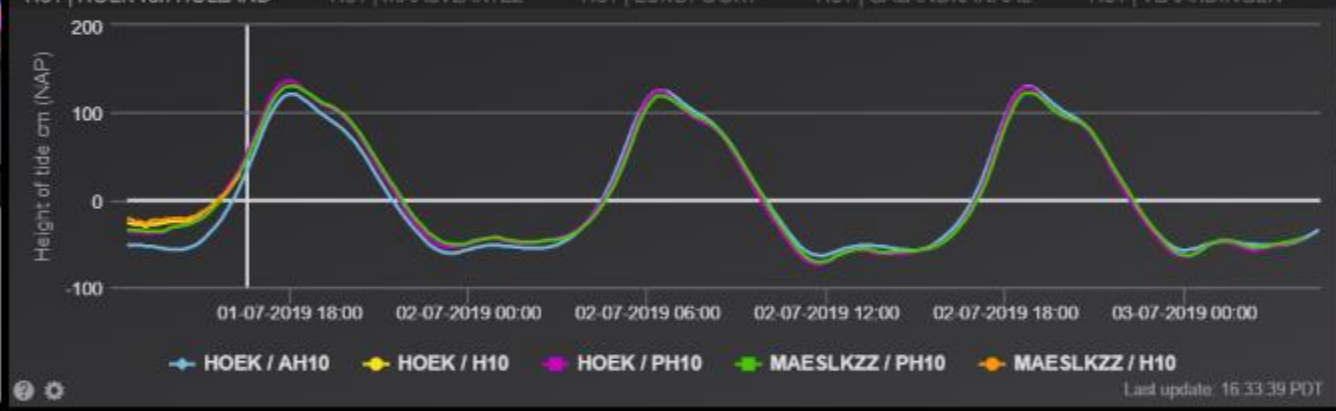


HoT | HOEK van HOLLAND | HoT | MAASVLAKTE2 | HoT | EUROPOORT | HoT | CALANDKANAAL | HoT | VLAARDINGEN | HoT | BOTLEK



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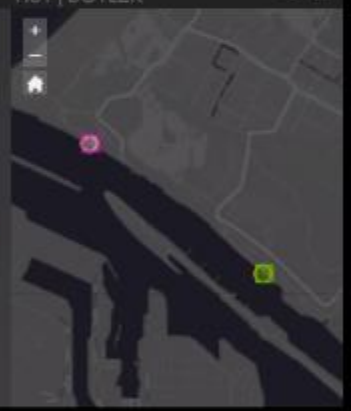


WIND | NRDP | WIND | RP10

NRDP: 3.38 m/s (3 BFT)

gust: 4.59 m/s

Last update: 16:33:36 PDT

PHW and PLW | HOEK

	HOEK	cm (NAP)
PLW	Mo 11:10	-46
PHW	Mo 18:00	136
PLW	Mo 23:30	-54
PHW	Tu 06:30	125
PLW	Tu 11:40	-74

Last update: 16:33:35 PDT

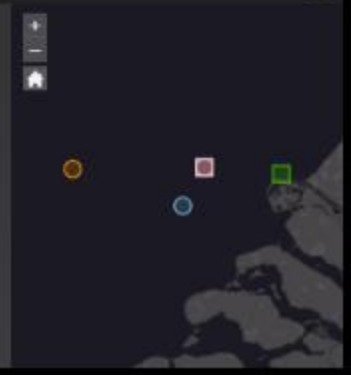
PSLW | HOEK

	HOEKNWW
PSLWDA	Mo 03:35
PSLWDA	Mo 08:35
PSLWDA	Mo 16:06
PSLWDA	Mo 20:41
PSLWDA	Tu 04:41

Last update: 16:33:35 PDT

WAVE HEIGHT | WAVE PERIOD | WIND | SALINITY | VISIBILITY

Last update: 16:33:37 PDT




WE AR
42
42
Port of Rotterdam
esri
IBM
CISCO
axians