

The Exchange Network Browser

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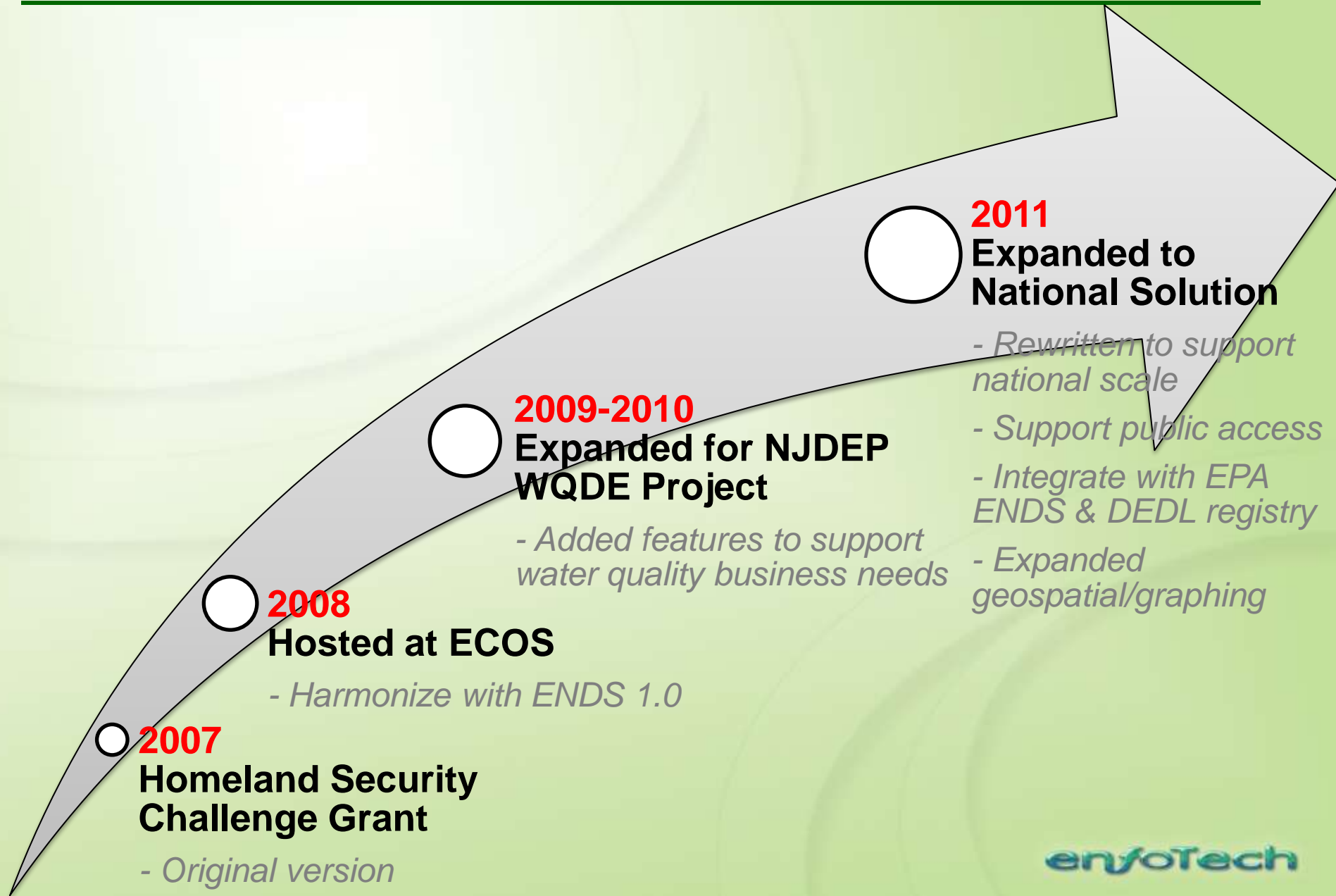
Topics

- ◆ What is the EN Browser?
- ◆ EN Browser Development History
- ◆ Demo
- ◆ Current Development Status
- ◆ Future enhancements

What is the Exchange Network Browser?

- ◆ Interacts with and retrieves data from publishing Nodes (Query / Solicit)
- ◆ After raw data (XML) is retrieved, data can be:
 - ▶ Transformed (HTML, CSV, etc) for easier viewing
 - ▶ Geocoded and mapped
 - ▶ Plotted on graphs
- ◆ Integrated with Exchange Network Discovery Service (ENDS)
- ◆ Current location:
 - ▶ <http://www.exchangenetworkbrowser.net/enbrowser>
(URL will be changing within the next 1-2 months)

EN Browser: Development Timeline



EN Browser: Extended Development Team

- NJ DEP
- MI DEQ
- NH DES
- ME HETL
- US EPA (HQ & Region I, II, V)
- enfoTech
- ECOS
- OR DEQ
- NE DEQ

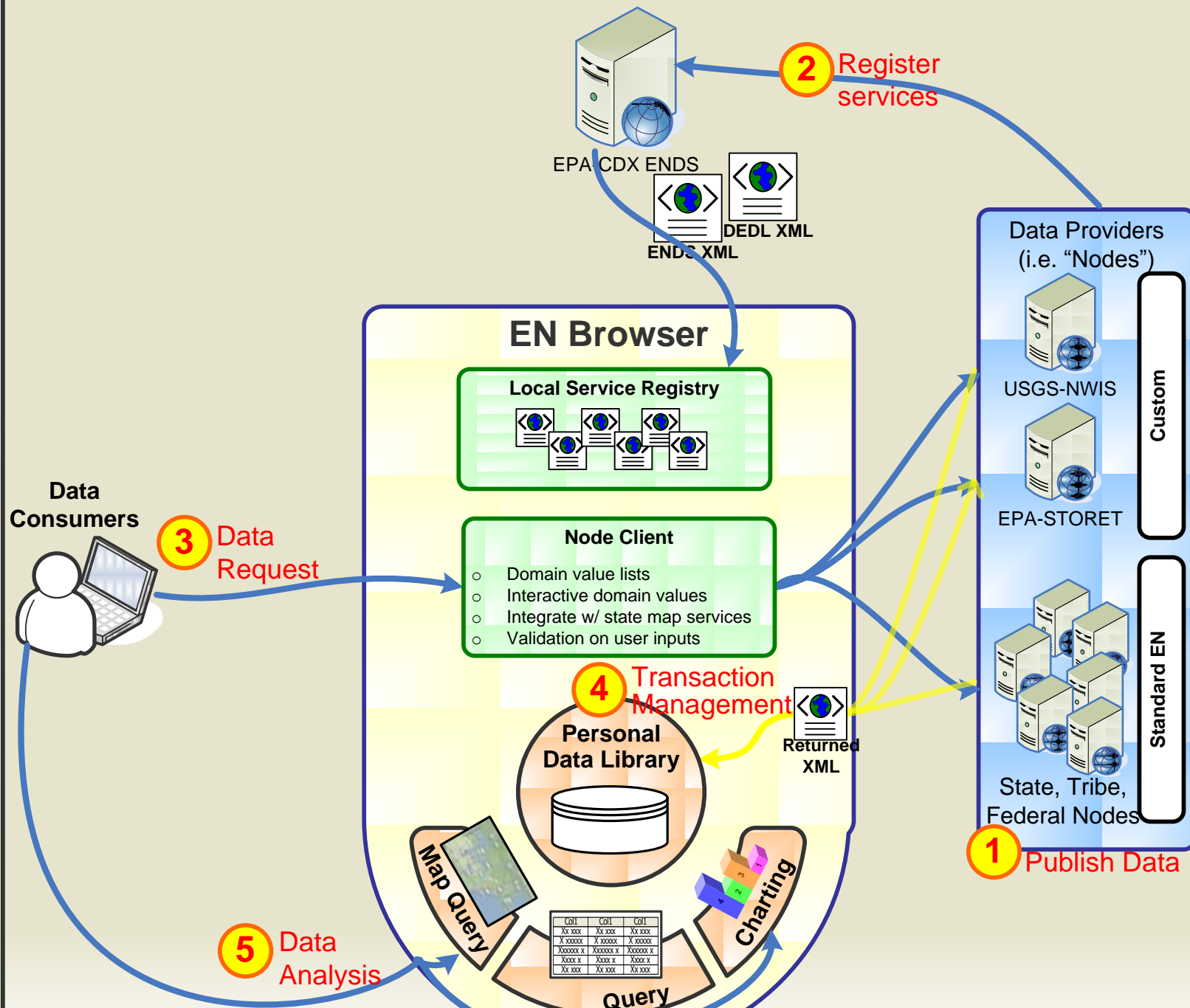
2007
Homeland Security
Challenge Grant

2008
Hosted at ECOS

2009-2010
Expanded for NJDEP
WQDE Project

2011
Expanded to
National Solution

Exchange Network Browser – Functional Overview



Unique Features of EN Browser

- ◆ Public access & secure (NAAS) access
- ◆ Daily ping of Nodes
- ◆ Advanced Solicit handling
- ◆ Full ENDS / DEDL Support:
 - ▮ ENDS (describes services):
 - ▶ Node info, basic service info (name, parameter listing)
 - ▮ DEDL (further describes service parameters):
 - ▶ Parameter label, required ind, allow multi-select, RegEx, parameter pick lists (can be static or dynamic) with name/value pairs, string formatting
 - ▶ Geospatial-based querying (using publish WMS/WFS map services)
- ◆ Data Analysis:
 - ▮ Mapping (including geocoding data without lat/long)
 - ▮ Charting (Time Series, Bar Chart, Bivariate scatter plot)
- ◆ Open Source Solution

Exchange Network Browser

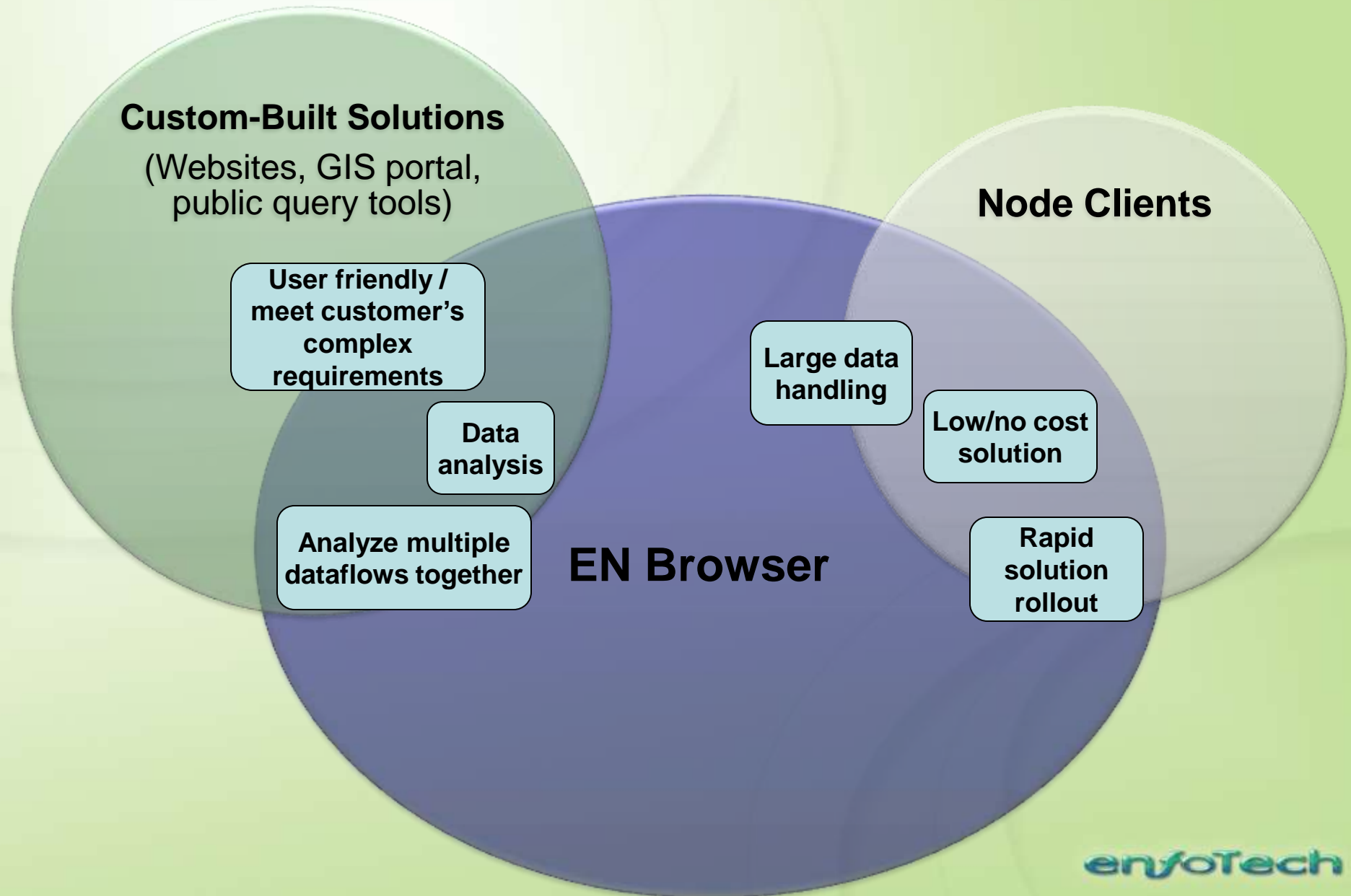
Demo

Available Content

► Data transformations currently available:

Dataflow	HTML	CSV	Mapping & Charting
FRS / FacID_v3.0			
WQX			
EIS			
AQDE			
SDWIS / EDWR			
Tier II			
EI (Environmental Incidents)			
PWTA (Private Well Testing)			
SRP			

Understanding how EN Browser “fits in”



Current Status

◆ Currently in Beta (expected completion: June 2011)

◆ Remaining Work:

- ▶ Bug fixing & usability improvements
- ▶ Data merging
- ▶ NWIS/EPA WQX service integration

◆ Framework vs. Content:

- ▶ EN Browser provides framework, but requires data publishers to:
 1. Publish data on Node (Query / Solicit)
 2. Register services in ENDS & DEDL
 3. (In some cases) Create XML stylesheets to enable data analysis features
 4. (In some cases) Create map services if you want people to interact directly with your Node geospatially

Final Thoughts & Future Project Considerations

◆ Universal tool:

- ▶ Can work with any existing or future published data flows

◆ Promotes Data Publishing Best Practices:

- ▶ So data isn't just published but well-described

◆ Needs Content:

- ▶ Will rely on data publishers to take advantage of features
- ▶ Value will increase over time as more data is published

◆ Future Considerations:

- ▶ SRS Integration
- ▶ Unit conversion
- ▶ Support more interactive service requesting

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Questions?