



IEHG Working Group
Iquitos Peru

November 14, 2012

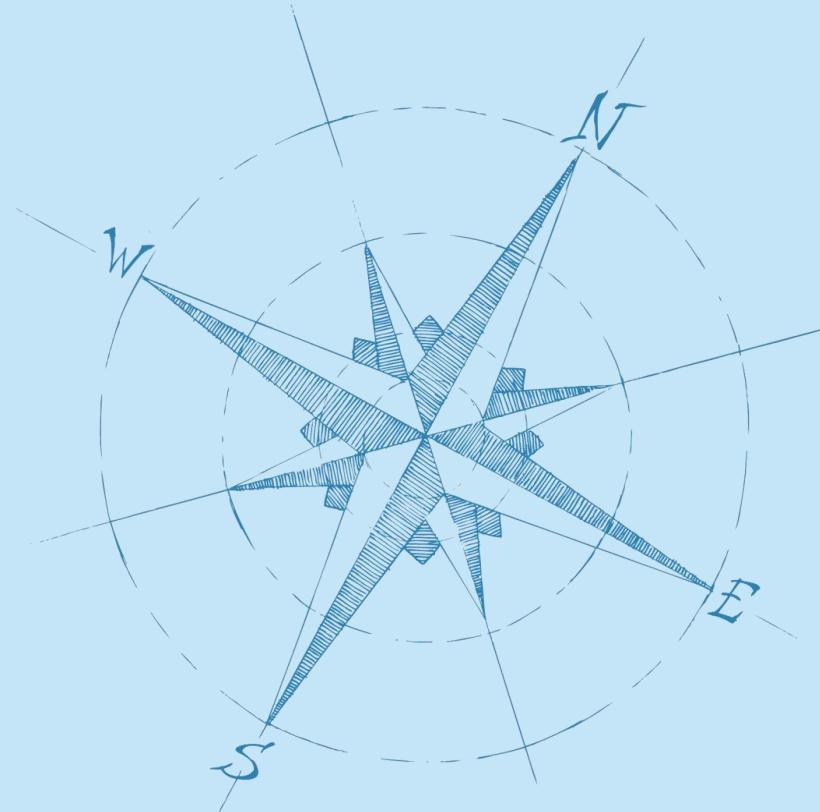
ArcGIS for Maritime

Tom De Puyt



Overview

- Esri Maritime
- ArcGIS for Maritime
- Esri Maritime Online

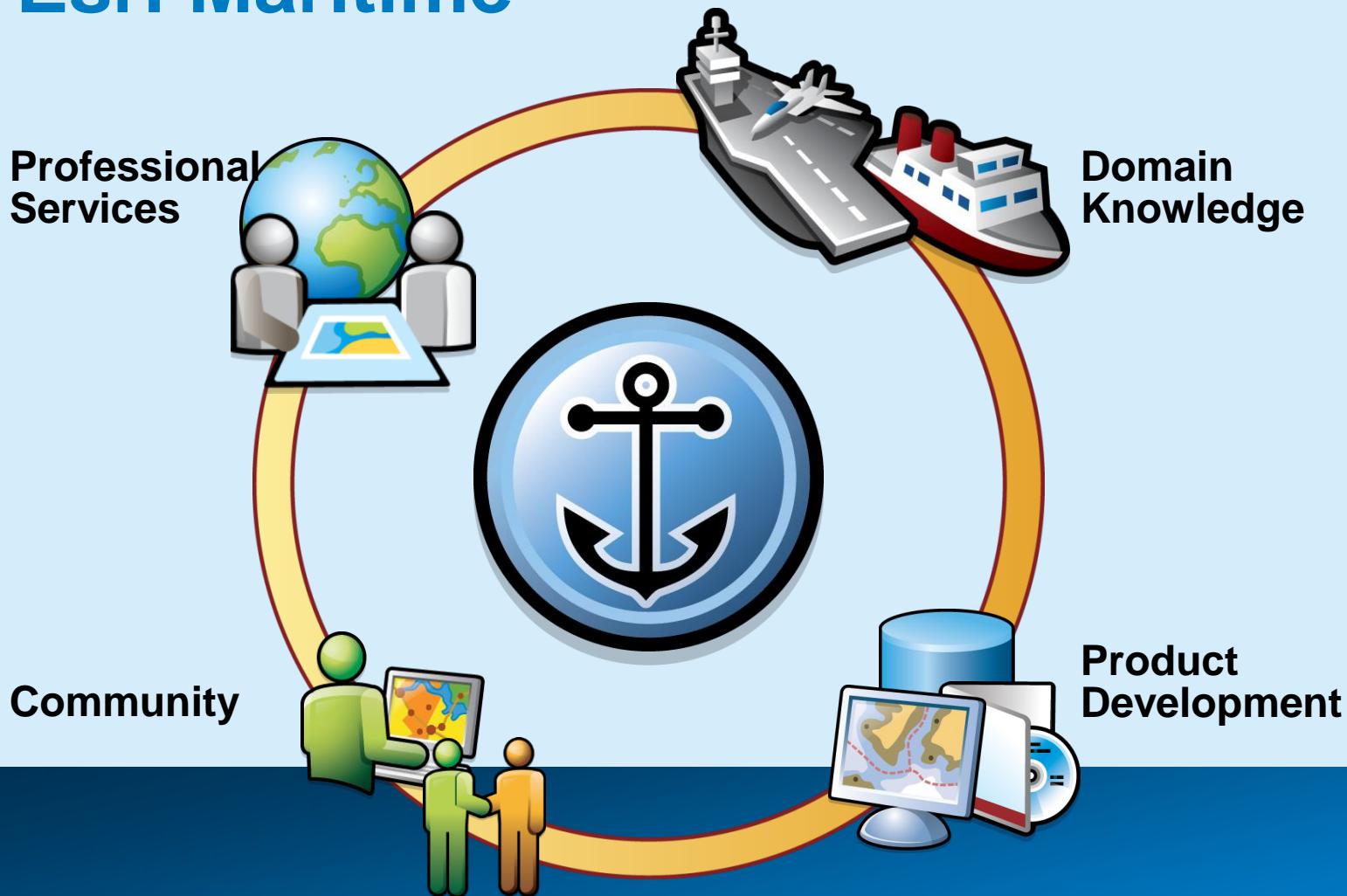


Building a foundation of knowledge for the future.

Esri Maritime

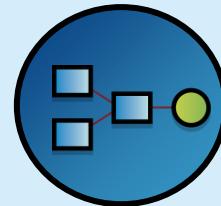


Esri Maritime



Professional Services

- Training
- Workshops
- Implementation Support
- Consulting



Workflows



Web Services



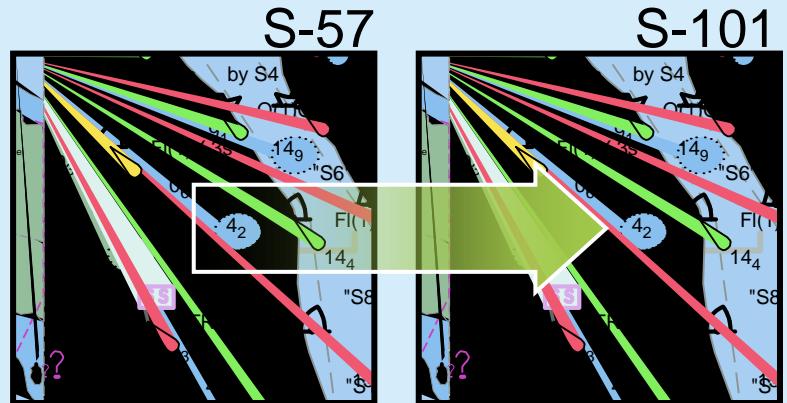
Planning

Domain Knowledge

- Maritime Defense
- Nautical Charting
- Bathymetry / Hydrography
- Port Management
- Oceanography / Science

Community

- International Standards
- S-101 Converter
- Resource Center
- Partnerships
- Outreach



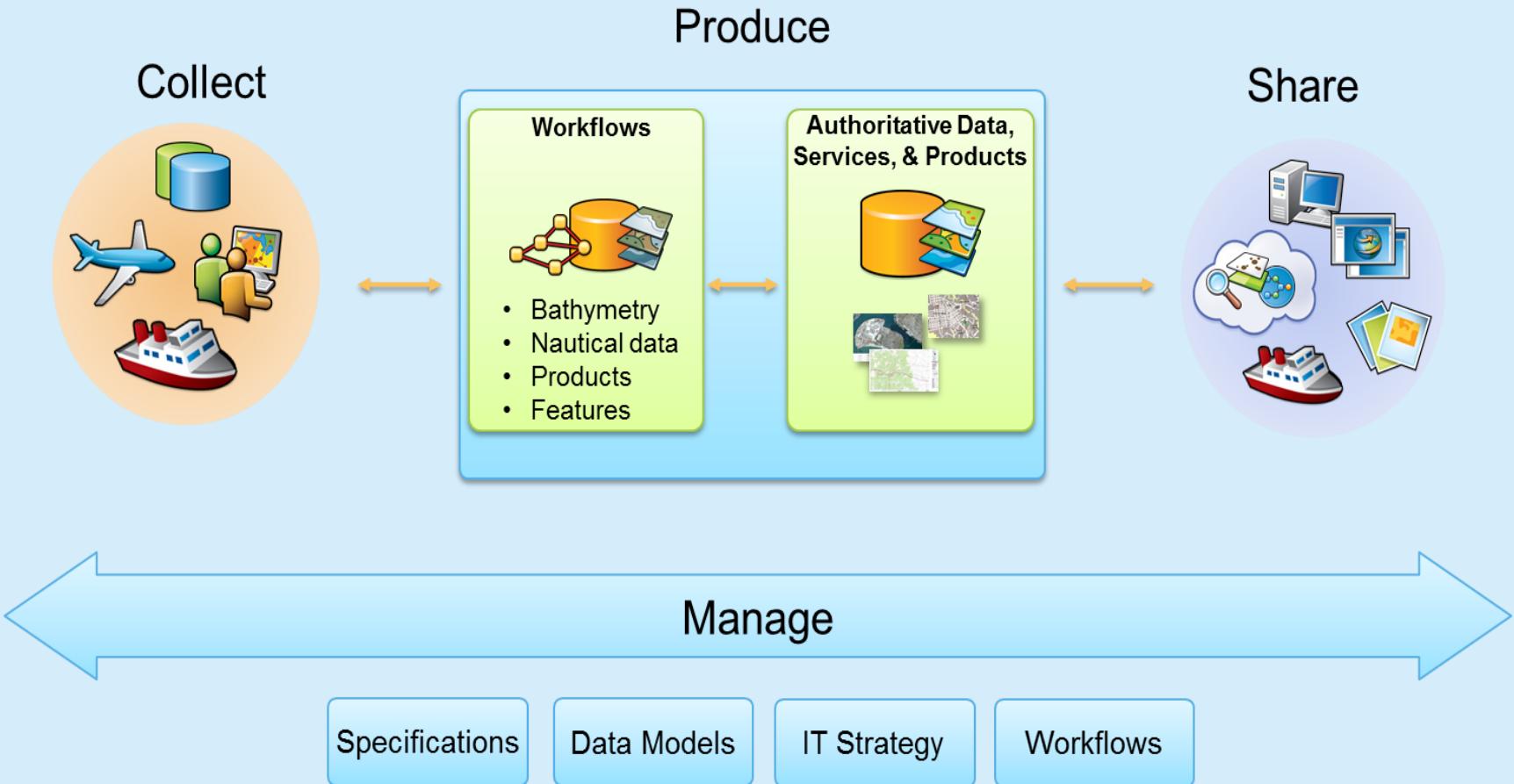
Product Development

- ArcGIS for Maritime: Bathymetry
- ArcGIS for Maritime: Charting
- Online Content: Ocean Basemap
- Esri S-57 Viewer
- Online Services

ArcGIS for Maritime

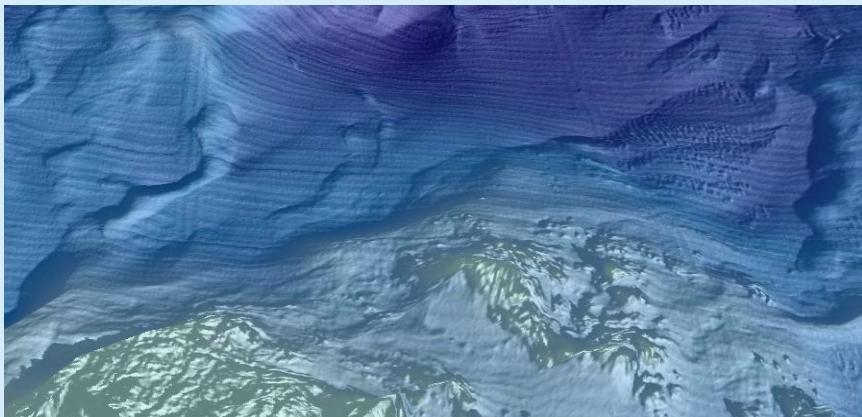


ArcGIS for Maritime



ArcGIS for Maritime

Bathymetry



Store, discover, model and manage bathymetric data.

Charting



Create, maintain and publish charts for navigational and marine purposes.

ArcGIS for Maritime: Bathymetry

Business Problem

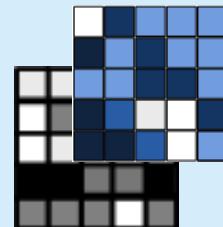
- Large **volumes** of data
- **Unstructured** metadata
- Unable to gain **value** from their data

ArcGIS for Maritime: Bathymetry

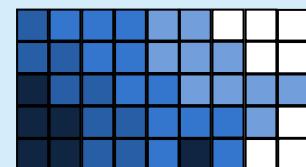
System for the management, discovery and composite modeling of bathymetric data & metadata.



Metadata



Gridded Data



Composite Surfaces

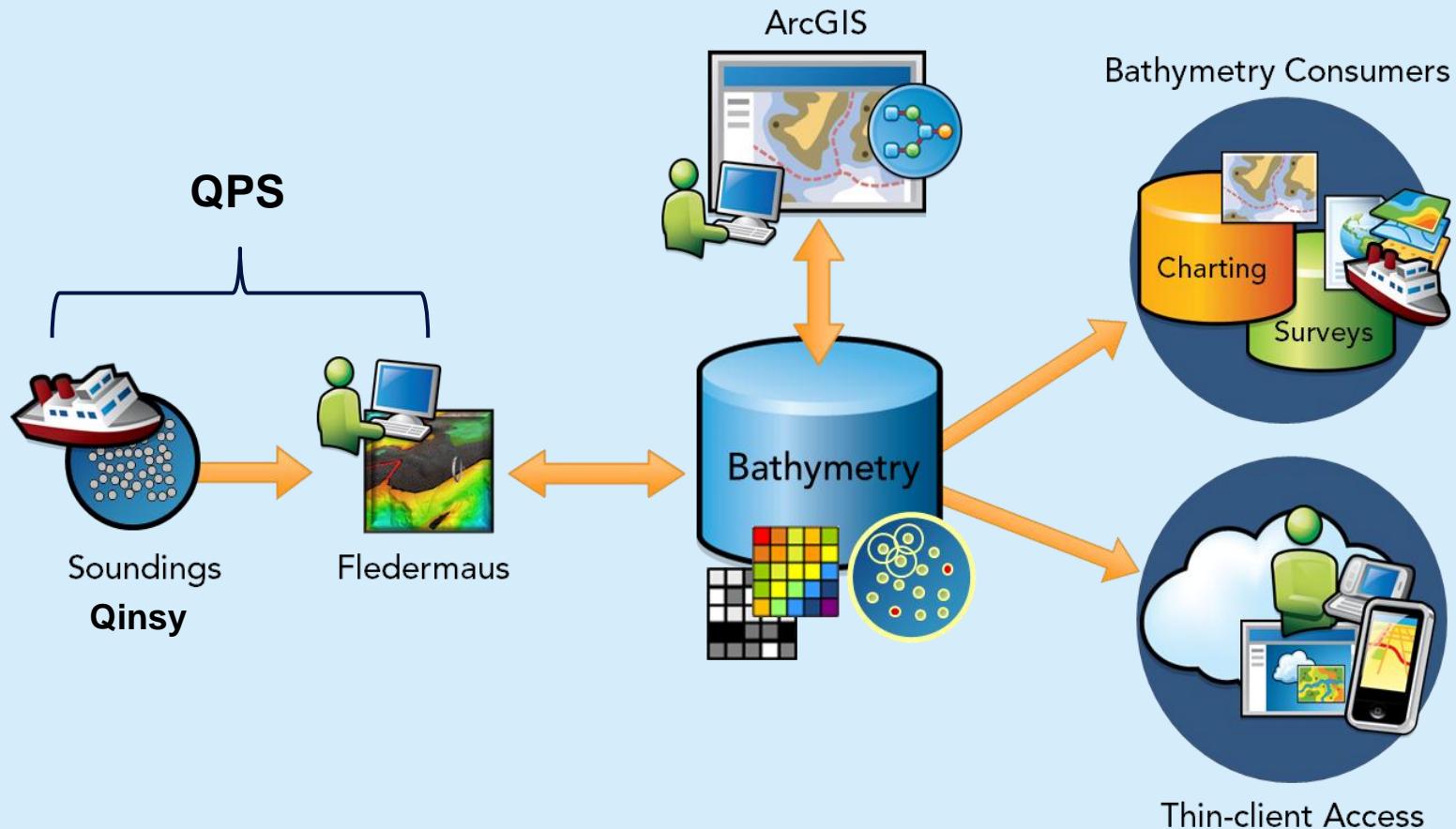
Intelligent
Metadata

Optimized
Storage

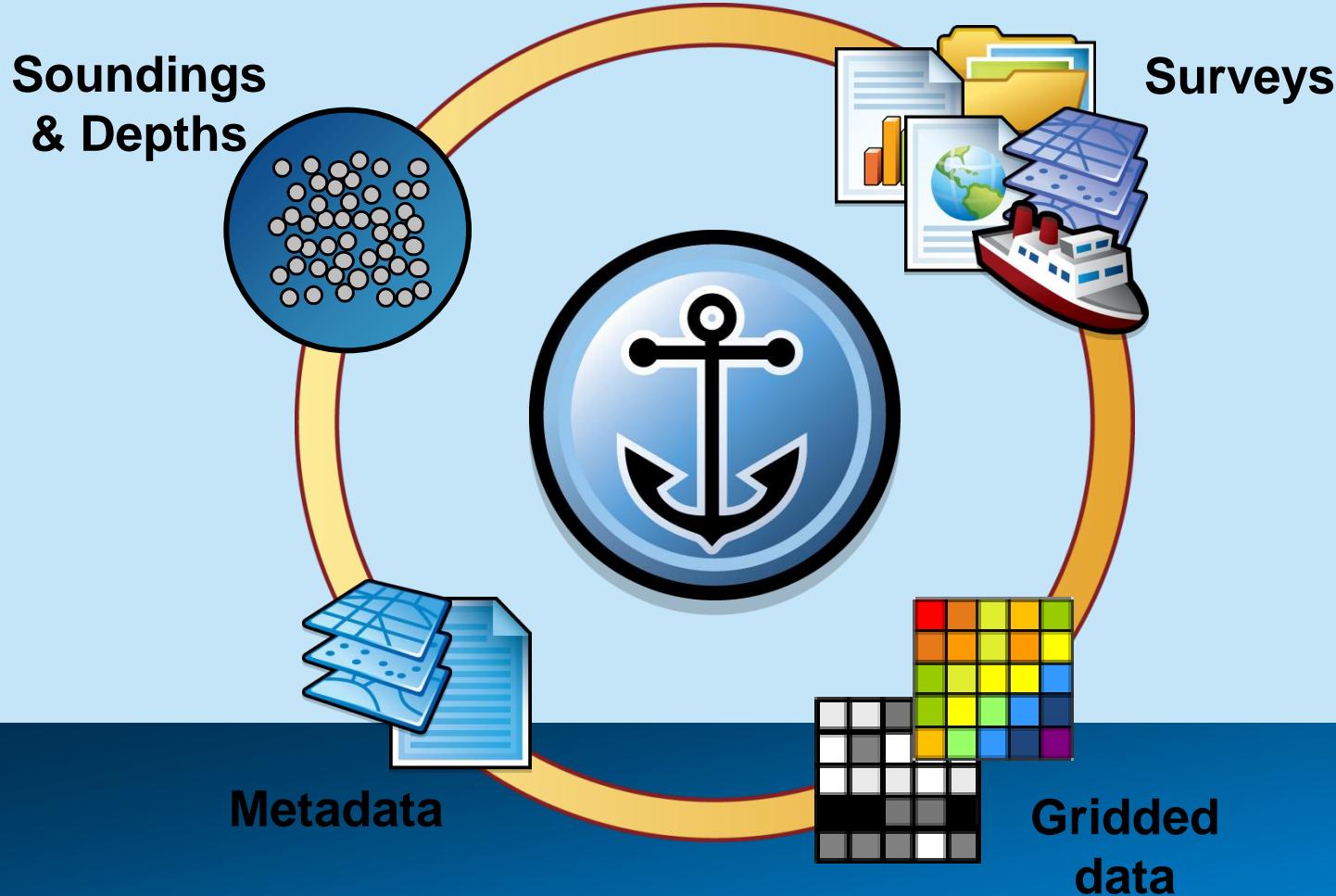
Interactive
Modeling

ArcGIS for Maritime: Bathymetry

Part of the ArcGIS system

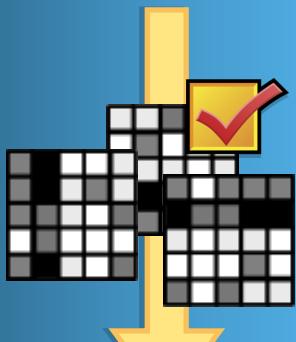


ArcGIS for Maritime: Bathymetry

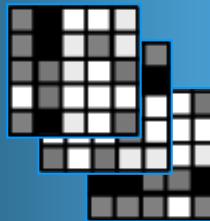


ArcGIS for Maritime: Bathymetry

Register



Explore



Gridded
data

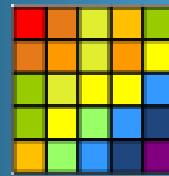


Collections



Metadata

Compose



Surfaces

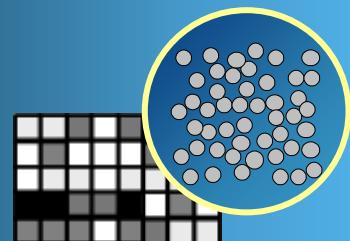


Features



Queries

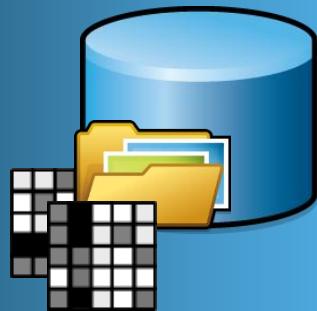
Share



ArcGIS for Maritime: Bathymetry

Technology Highlights

Optimized Storage



- Raster Datasets
- Register
- Index

Intelligent Metadata



- Harvest
- Extend
- Store/Index
- Dynamic UI

Interactive Modeling



- Mosaics
- Search tool
- Rule based composition

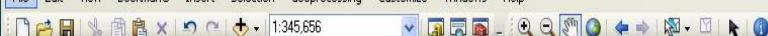


Table of Contents

Layers

BIS

 Explore Bathymetry Preview Boundary Footprint Image

Value

High : -9.05806

Low : -185.229

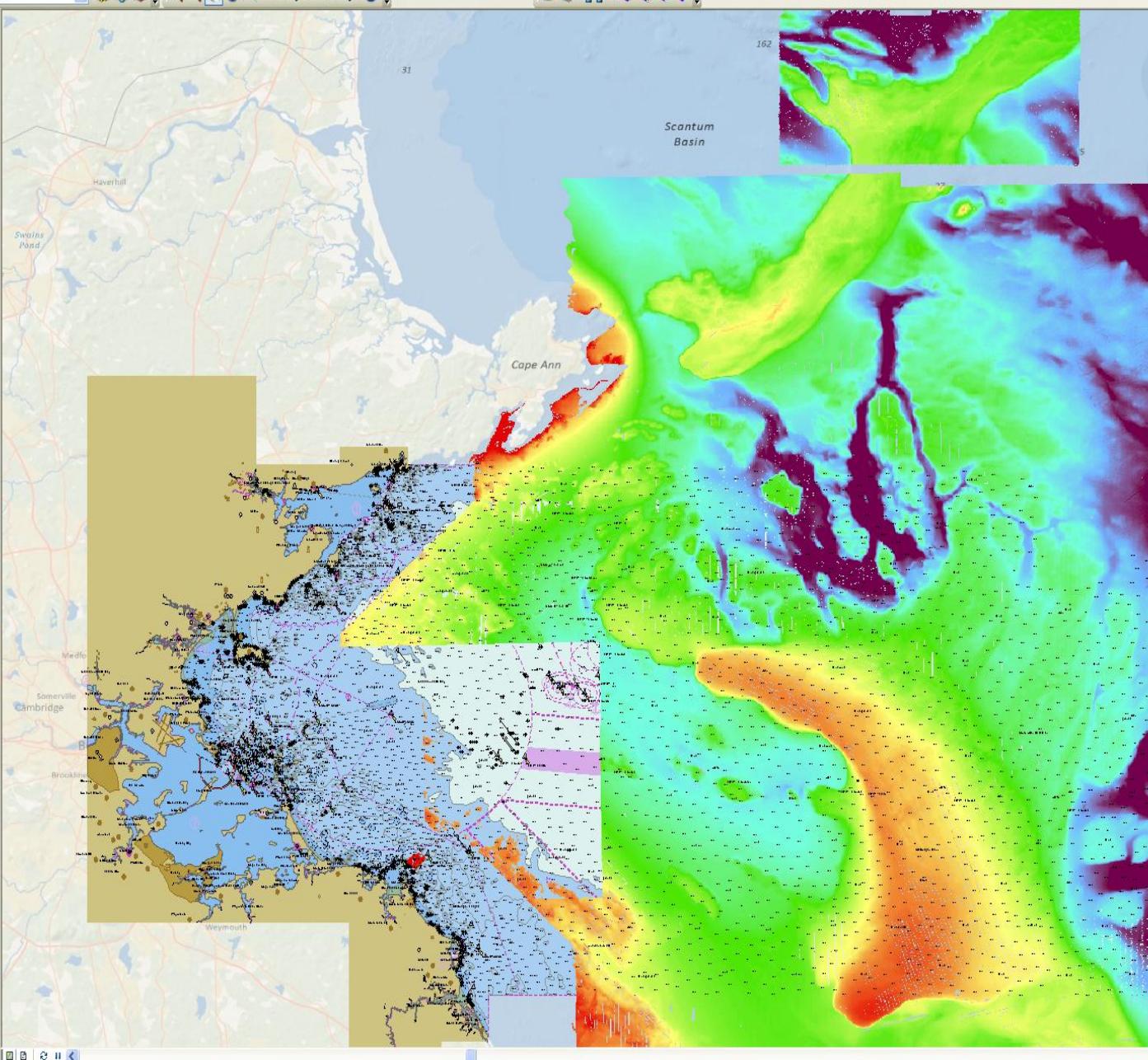
BDI

 Boundary Footprint Image

Value

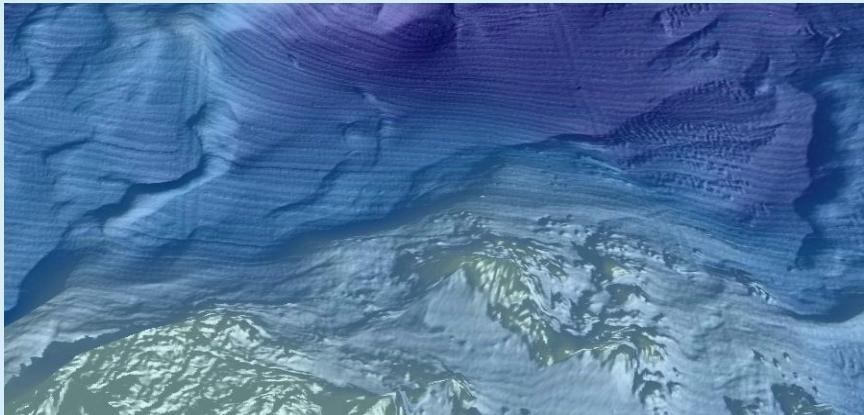
High : -7.29433

Low : -231.345

 Nautical Ocean Basemap

ArcGIS for Maritime

Bathymetry



Store, discover, model and manage bathymetric data.

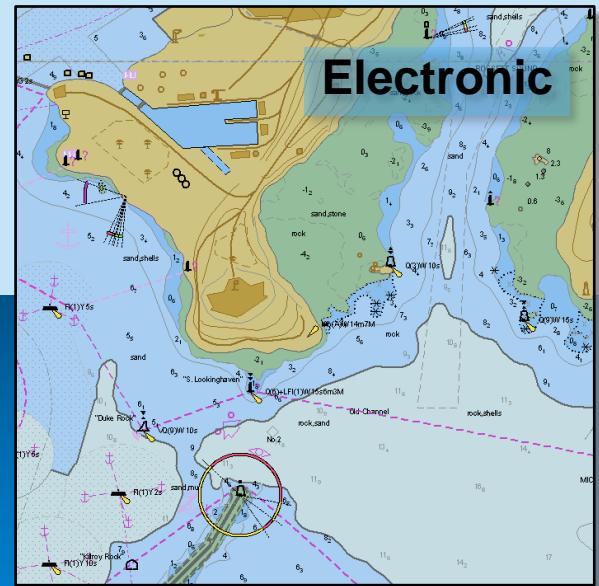
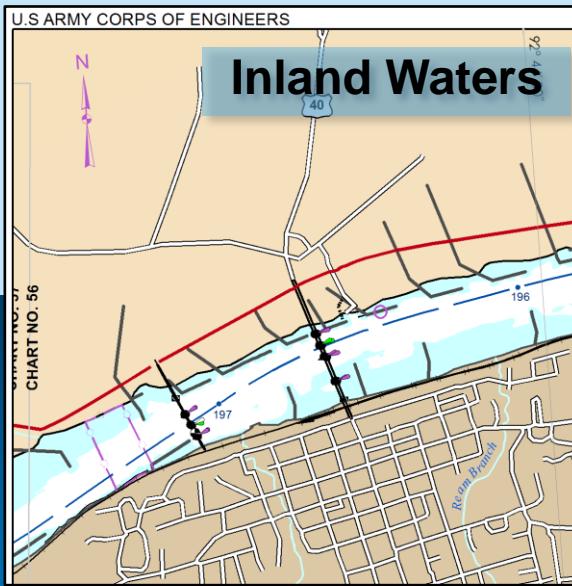
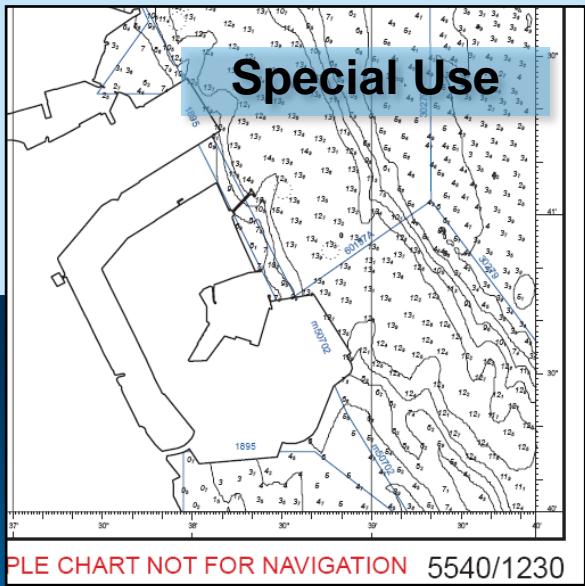
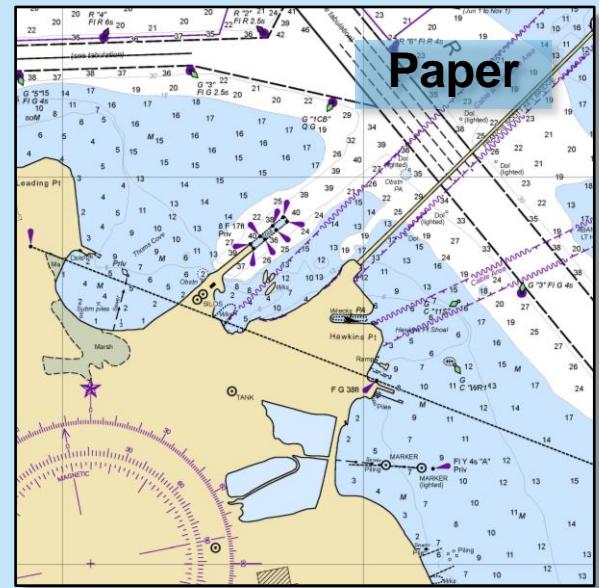
Charting



Create, maintain and publish charts for navigational and marine purposes.

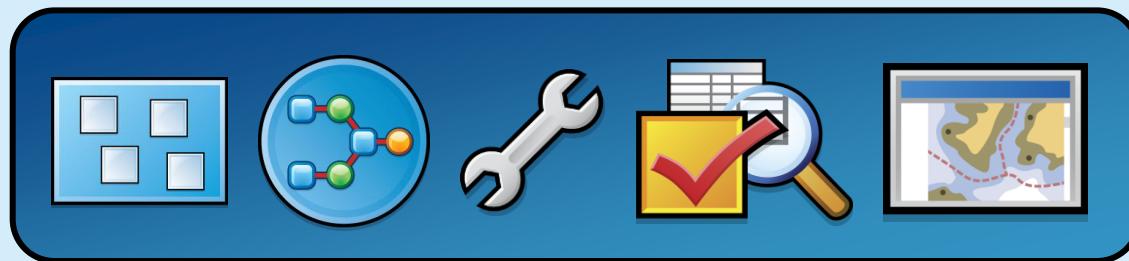
ArcGIS for Maritime: Charting

- Official and unofficial products
- High quality cartography
- Integration with full GIS



What

A production system for the **creation** and **maintenance** of navigational products and marine spatial data.



ArcGIS for Maritime: Charting

Enterprise Implementation



Desktop Implementation



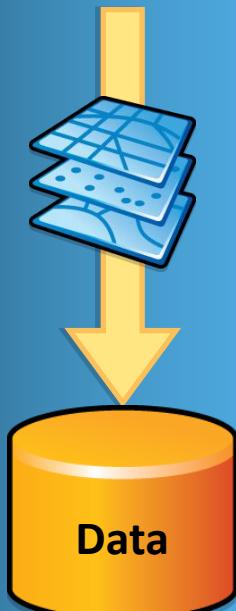
Why

Solves problems

- Centralizes data
- Improves efficiency
- Same data, different products
- Database driven cartography
- GIS based, Server enabled

How

Edit



Manage



Create



Share



Centralized data

- Product Neutral Geodatabase
- Scale banded (configurable)
- Hybrid S-57/INT-1 data model (extendable)
- Multiple cartographic displays supported
- Single Application
- Secure – historical archive
- Multi-user access



ArcGIS for Maritime: Charting

Product Management

- Framework within ArcGIS for effective management of products and associated metadata.
- Products managed internally through “Check-in/out” process
- Symbology, validation rules, conditions stored centrally
- Export and Publish process



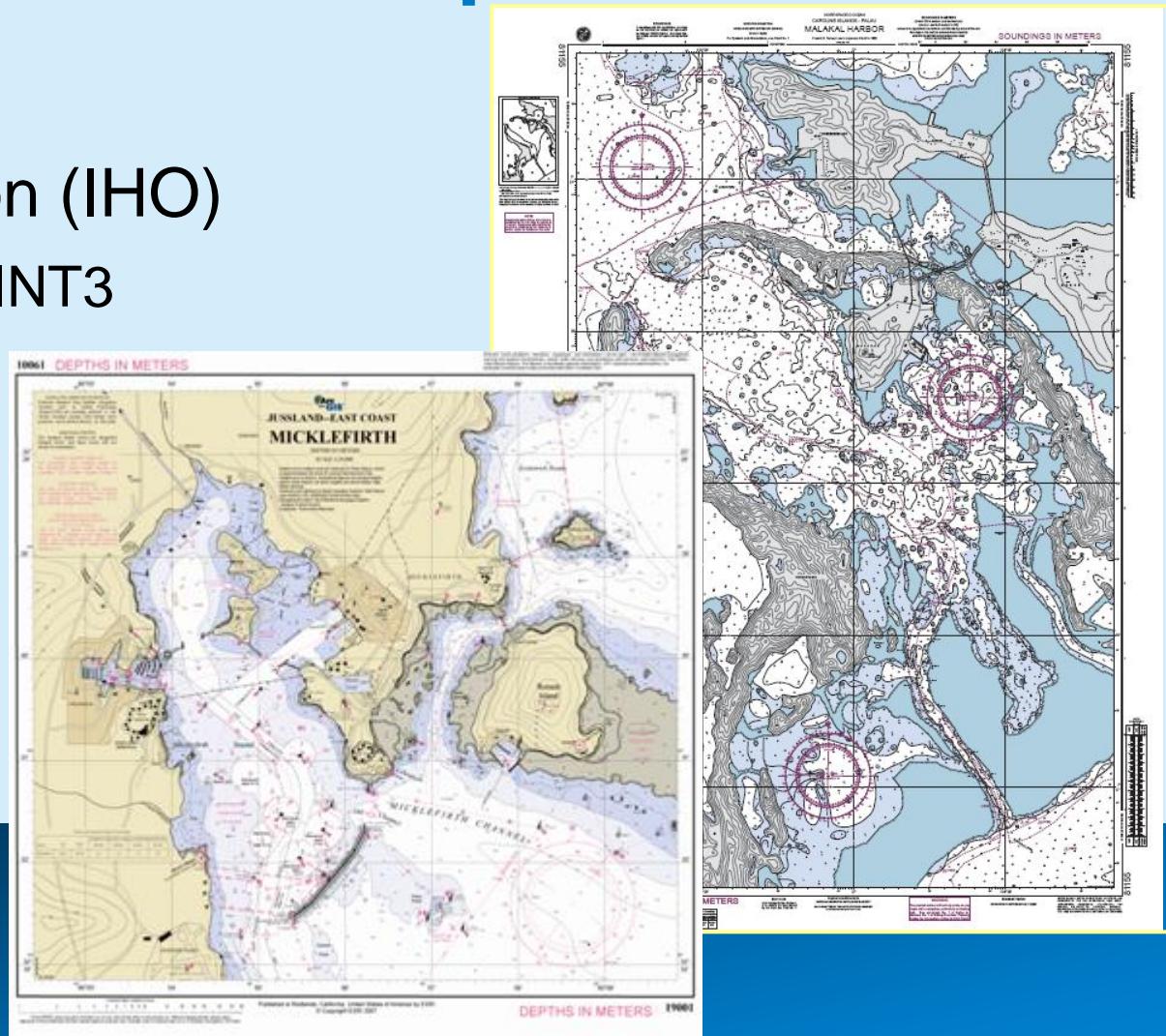
Nautical Solution – Paper chart products

S-4 Specification (IHO)

- INT1, INT2, and INT3
- Chart 1

HACG (NGA)

- GeoSym

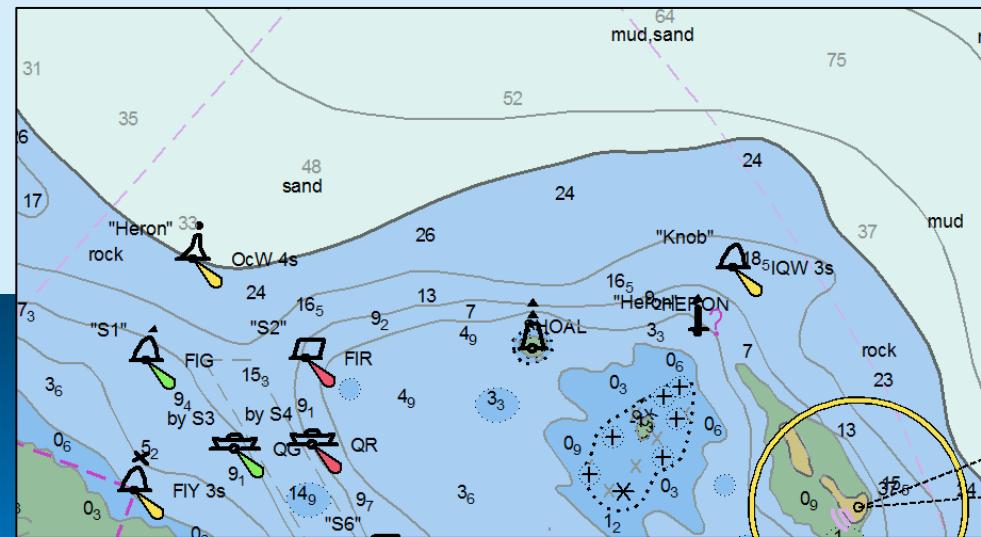


Nautical Solution – S-57 based products

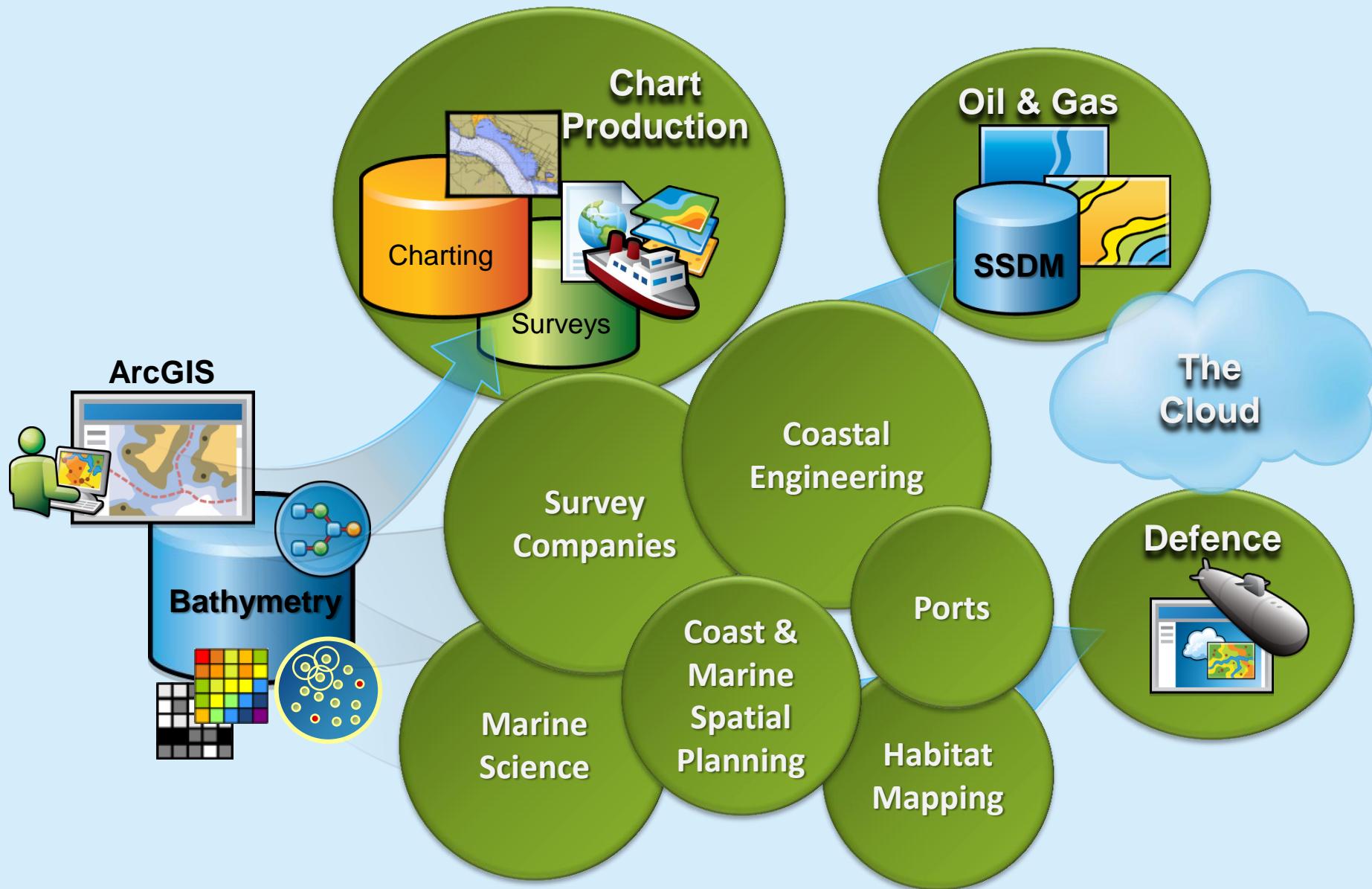
S-57 – IHO based standard

Various Products

- Electronic Navigational Charts (ENC)
 - Additional Military Layers (AML)
 - Inland ENC (IENC)
 - Extensible
 - CJ-57 ENC



From GIS to anywhere...

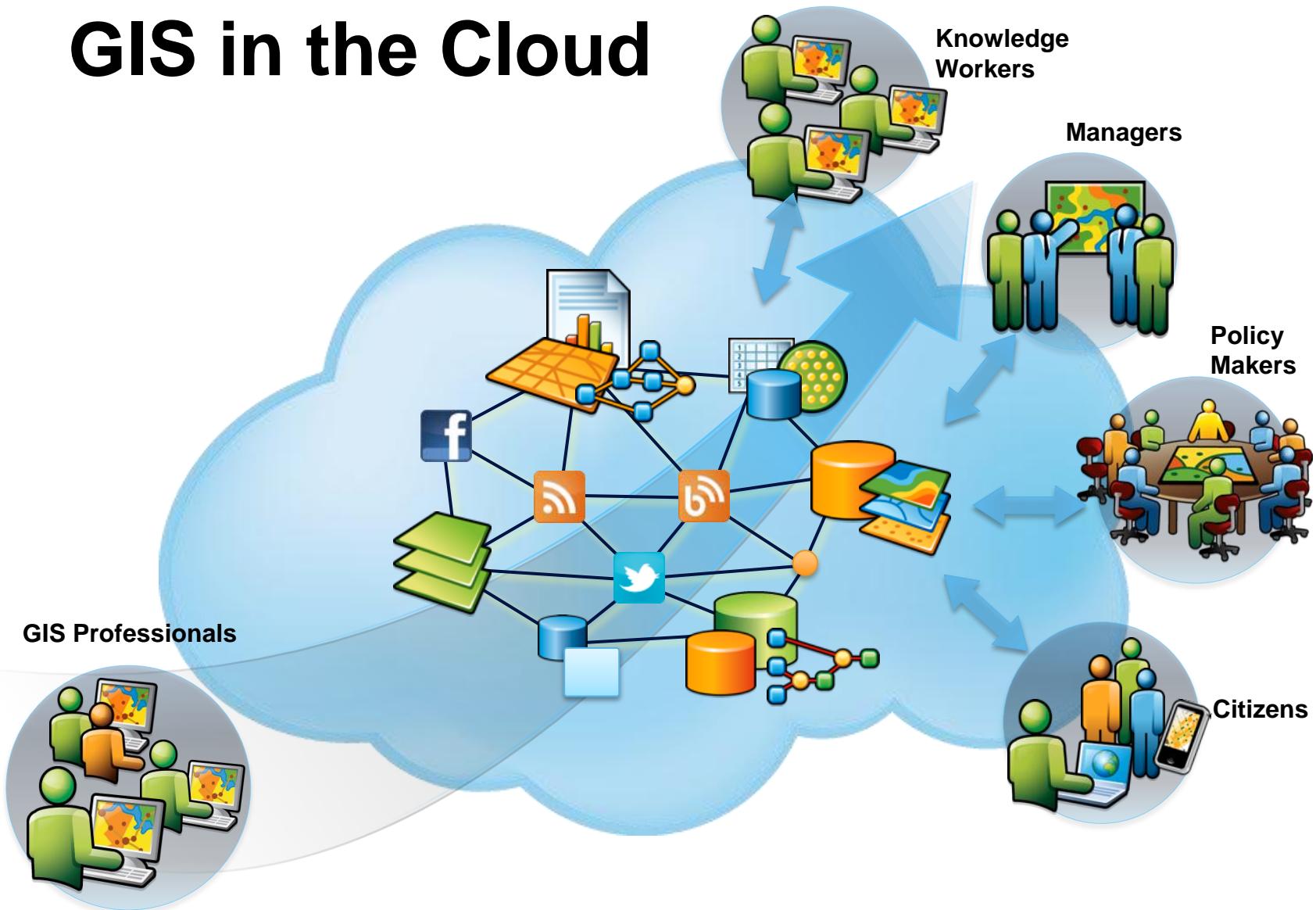


Esri Maritime: Online



modern **GIS** is shaping
attitude, approaches and
CULTURE

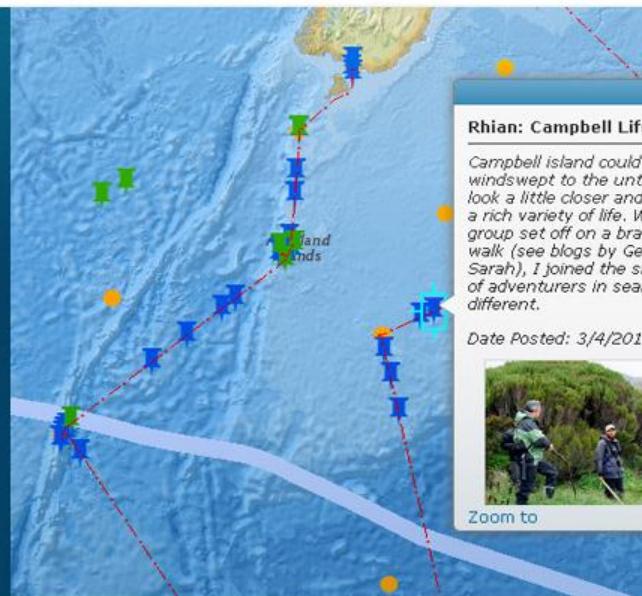
GIS in the Cloud



ArcGIS Online

Intelligent Web Maps

Turn your data into information by creating content-rich, beautiful maps that tell your story.

[Get Started »](#)

Featured Maps

[Light Gray Canvas](#)[Ocean Basemap](#)[Geography, class, and fate:
Passengers on the Titanic](#)[Around the world](#)

Make a Map »

Create a map that can be viewed in a browser, desktop or mobile device. Share it on a blog, via email, or embed it in a website.

Access via Cloud



Create Mashups



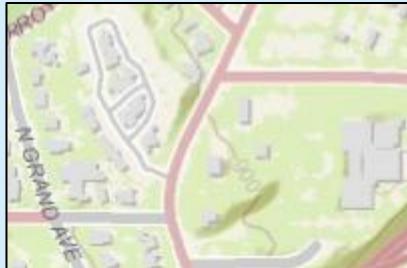
<HTML>

Create web apps without programming
May 10, 2012

Use ArcGIS Online web maps and easy-to-use templates to create a web apps within minutes.

Share

Basemaps



World Topographic Map



Ocean Basemap



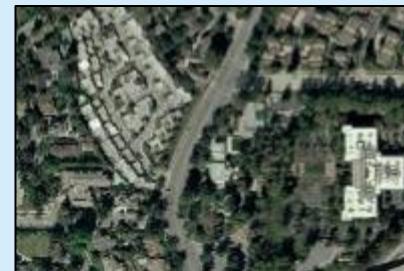
World Street Map



World Shaded Relief



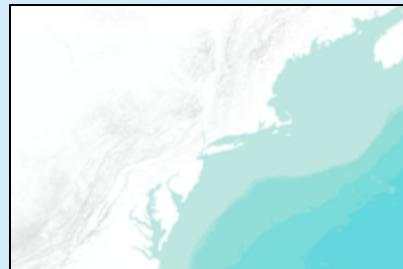
World Light Gray Base



World Imagery



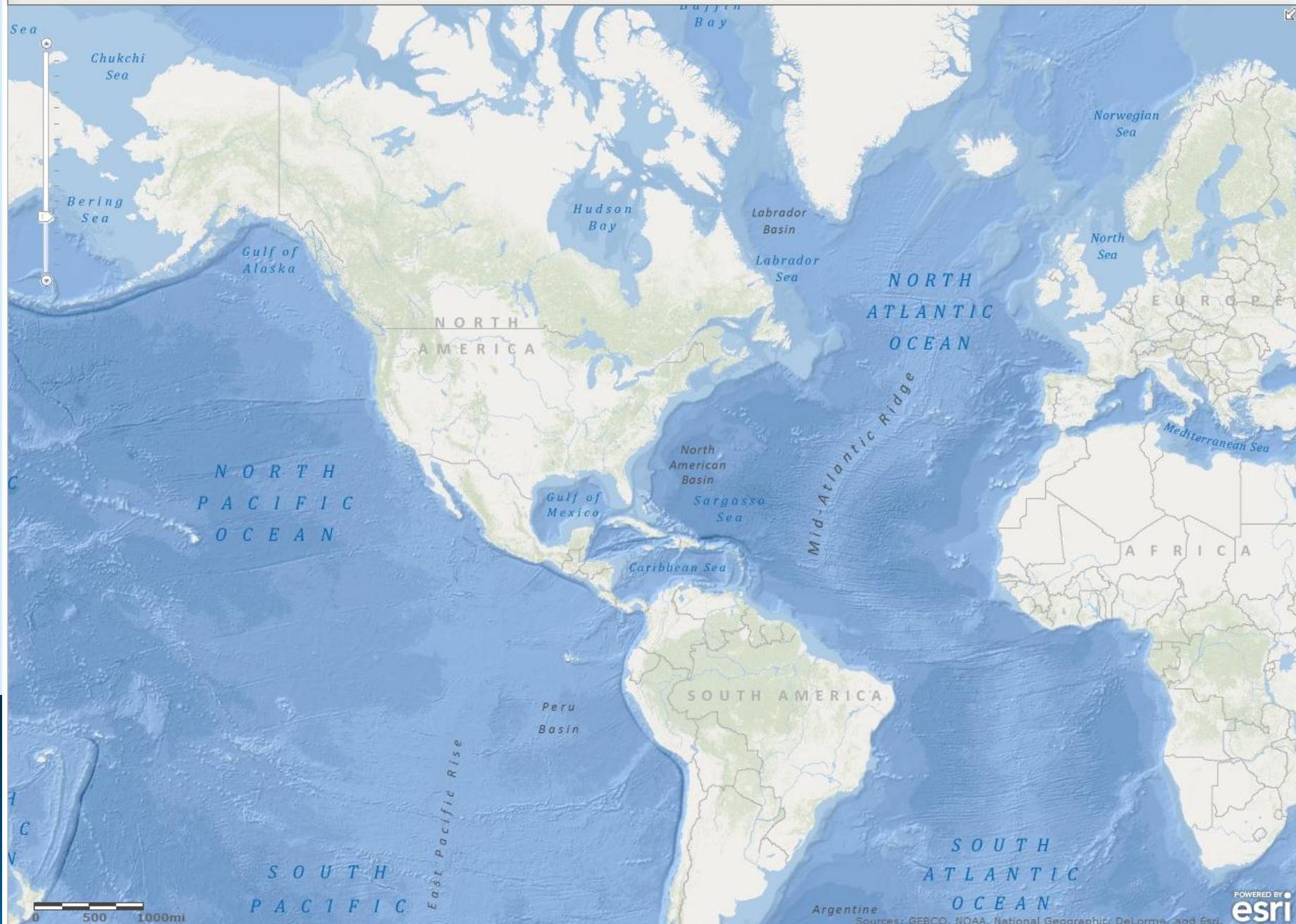
USA Topo Maps

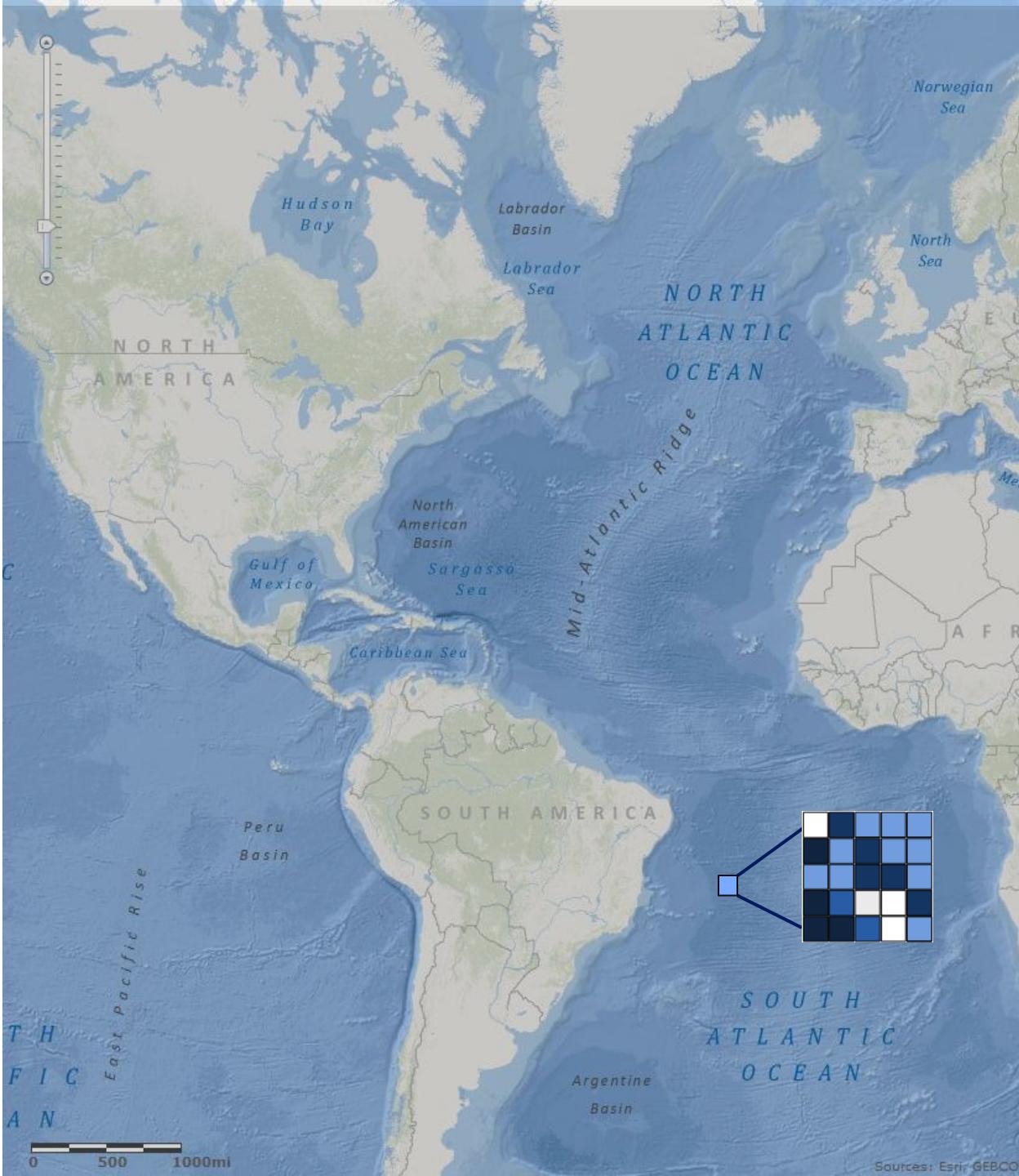


World Terrain Base



National Geographic World Map

[Details](#) [Add ▾](#) [Basemap](#)[Save ▾](#) [Share](#) [Print](#)[Measure](#) [Bookmarks](#)Find address or place 



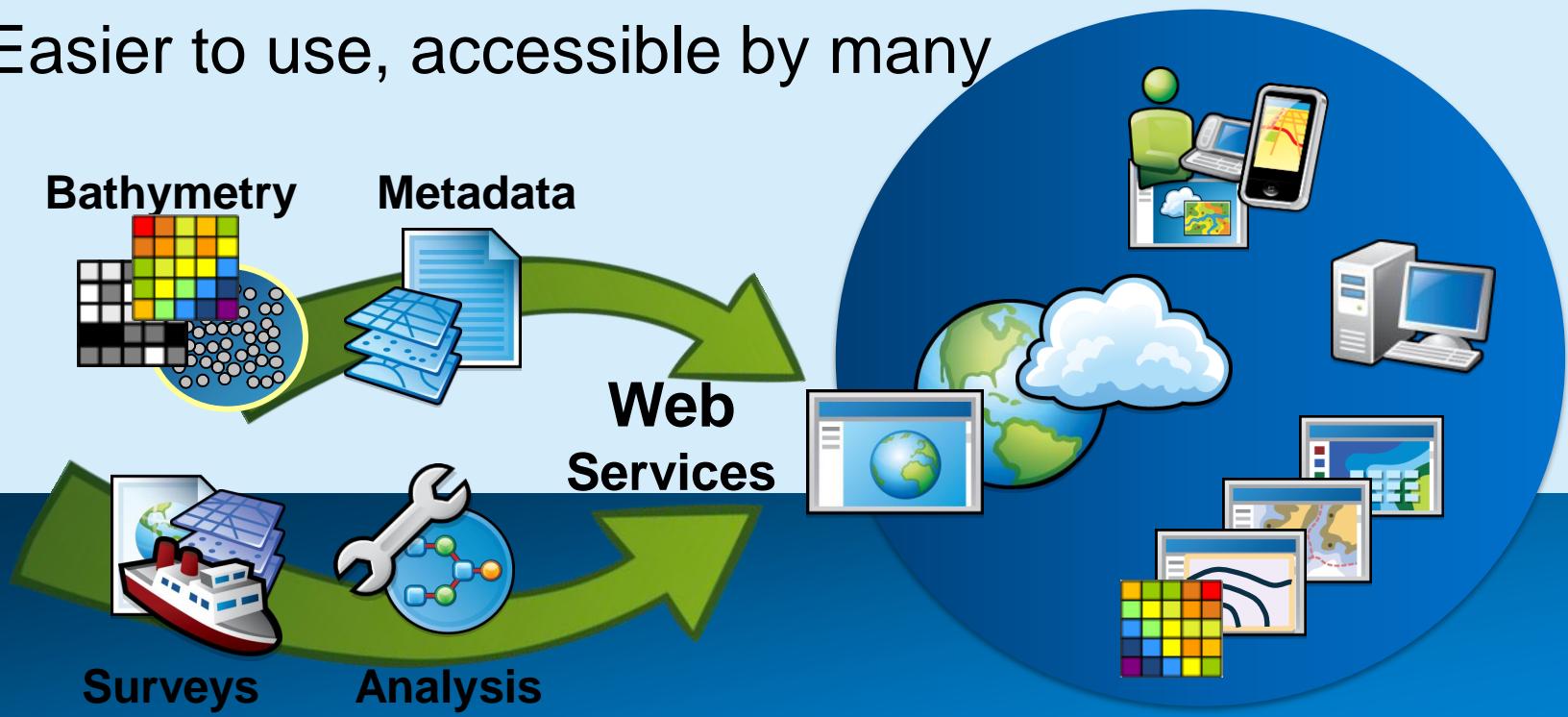
Bathymetry in the Cloud

A new generation of Server based technologies

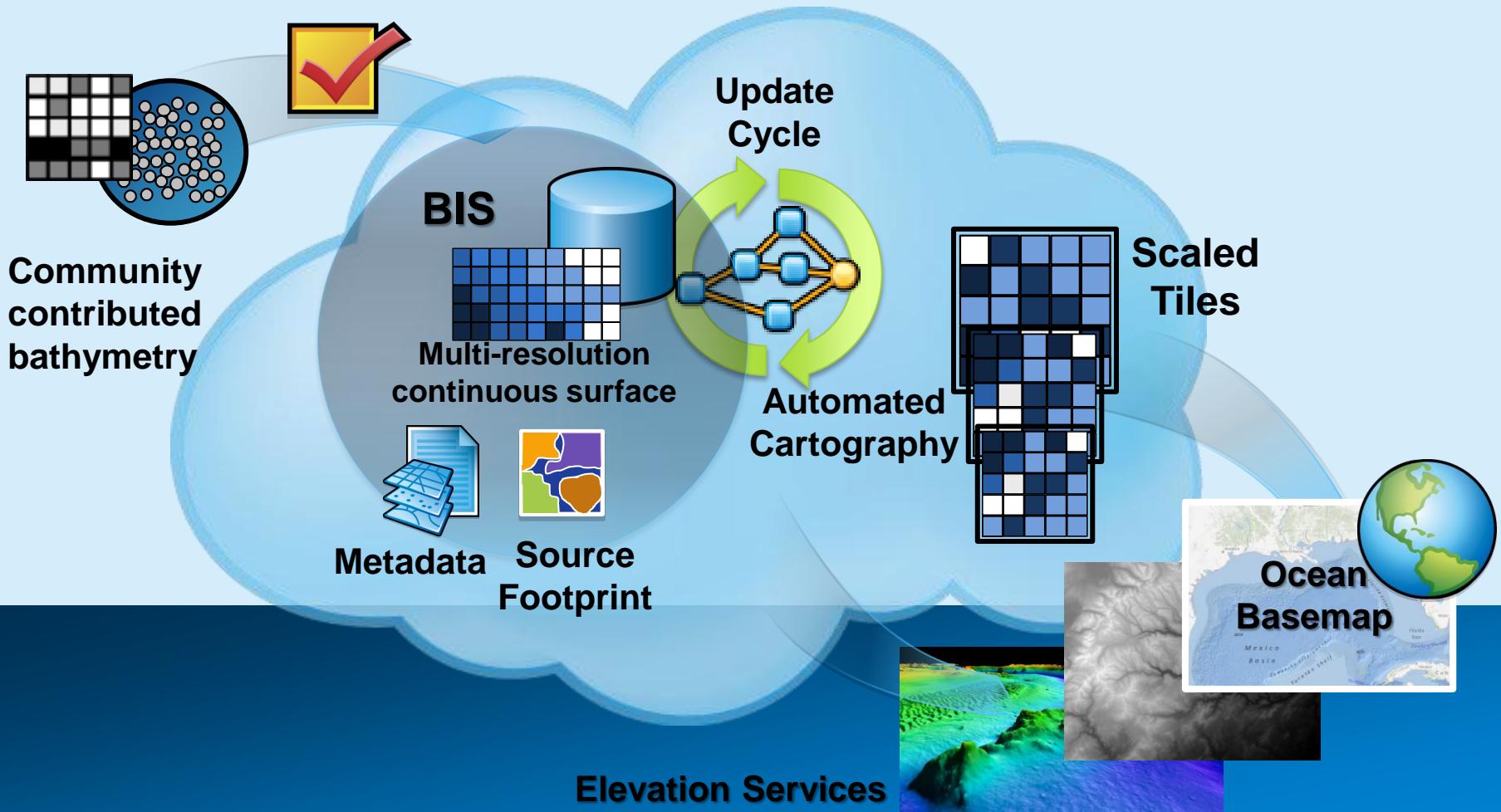
Easier to publish web content to:

- Portals | Cloud | Web Services

Easier to use, accessible by many



Bathymetry in the Cloud and Ocean Basemap



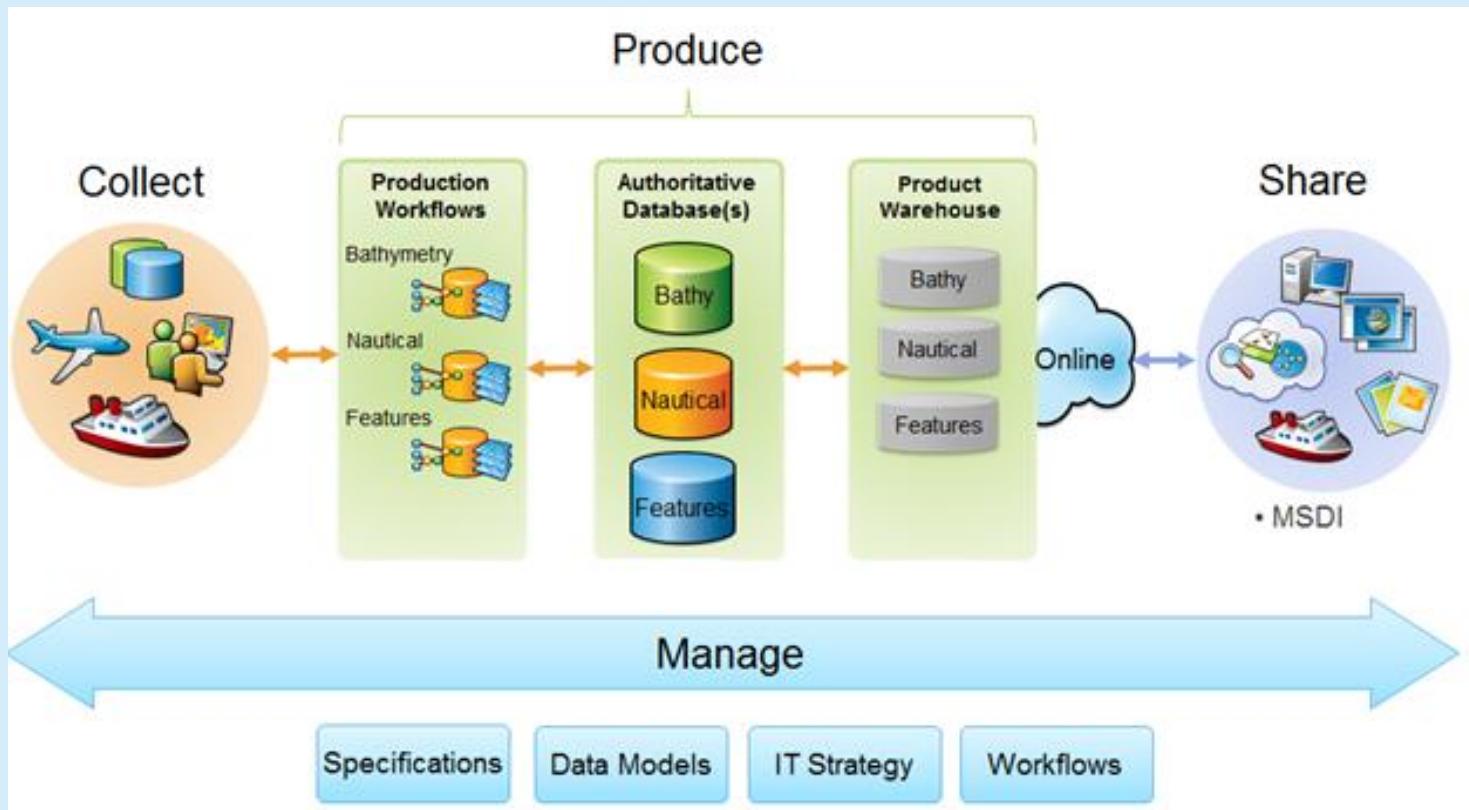
Ocean Basemap

- Seeking contributions from bathymetric sources around the world
- Agencies retain ownership of the data
- Safe and secure
 - Data cannot be queried or copied
 - Cached cartographic representation
- Promote your organization's work



OceanBasemapTeam@esri.com

Esri Maritime





esri

Thank you

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