![esri]

Esri International User Conference | **San Diego, CA**

Technical Workshops | **July 12, 2011**

Working with ArcGIS Online

Bern Szukalski, Deane Kensok

Topics for this Session

- **ArcGIS Online Overview**

- **ArcGIS Online Content**
  - **Demo: Tour of Online Content**

- **Using ArcGIS Online**
  - **Demo: Tour of ArcGIS Online (ArcGIS.com)**

- **Road Ahead**
  - **Enhanced Maps & Tools**
  - **ArcGIS Online for Organizations**
    - **Demo: Online Account & Hosted Services**

- **Q & A**

ArcGIS Online Overview

Bern Szukalski

ArcGIS is a Complete System

A Complete and Integrated Geographic Information System

Web

Mobile

Desktop

- **Discover**
- **Create**
- **Manage**
- **Visualize**
- **Analyze**
- **Collaborate**

Cloud

Enterprise

Local

ArcGIS Online Is Built-in To ArcGIS

An integrated part of the user experience

- **Basemap galleries**

- **Searching and sharing**

- **Built-in tools and capabilities**

  - **Geocoding, gazetteer, etc…**

ArcGIS Online

Open data platform for maps and geographic information

- **Easily create and share maps**
- **Delivered as intelligent maps**
- **Access on virtually any device – anyone, anywhere**
- **Compliments and extends the value of your GIS**
- **Use within an organization or share with larger communities and the public**

GIS for Everyone
Easy / Open / Accessible

Intelligent Web Maps

Extend the value and reach of your GIS

ArcGIS Online Content

Deane Kensok

ArcGIS Online Maps

ArcGIS Online includes an Ecosystem of Resources

ArcGIS Online Maps Summary

- **Imagery**
  - **World Imagery**
  - **Bing Maps Aerial**

- **Streets**
  - **World Street Map**
  - **Bing Maps Roads**

- **Topographic**
  - **World Topographic Map**
  - **USA Topo Maps**

- **Thematic**
  - **Demographic maps**
  - **Sciences maps**

From Esri and the ArcGIS Community

World Imagery

Imagery mosaic built from best available commercial and public sources

- **USA Imagery Mosaic of 1m or Better Imagery**
  - **USDA NAIP, USGS Cities, and Commercial Imagery**
  - **Imagery from User Community (States, Counties, Cities)**
- **International Areas at 1m or Better Imagery**
  - **GeoEye IKONOS Imagery for Major Metro Areas**
  - **Contributed Imagery for Several Other Countries**
    - **Portugal, Great Britain, Belgium, Netherlands, France, …**

World Street Map

Street map built from commercial street data and other local sources

- **World Street Map down to ~1:150k Scale**
- **Detailed Street Map to ~1:10k for Many Regions**
  - Updated Coverage for North America and Europe
  - New Coverage for South America and Australia!
  - Contributed Street Maps for Several Other Countries

World Topographic Map

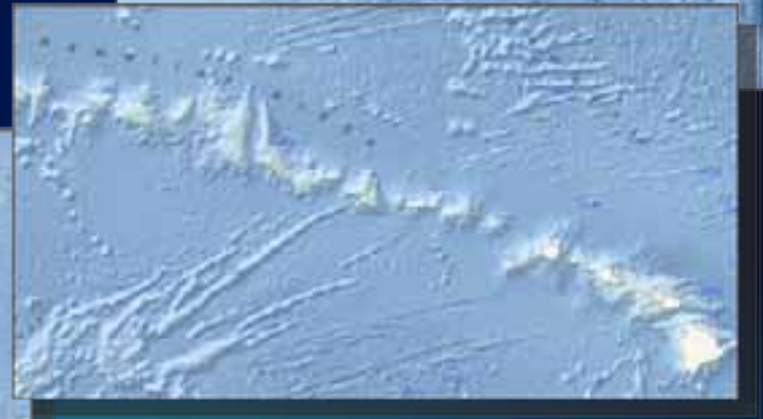**Topographic style basemap built from best available data sources**

- **Same Coverage as World Street Map PLUS**
  - **Worldwide Map down to ~1:150k**
  - **N. America & Europe down to ~1:10k**
  - **S. America and Australia down to ~1:10k**

- **Great Momentum with Community Participation**
  - **4x more maps published since last year**
  - **250+ more community maps in production**
  - **Hundreds of active participants**

- Ongoing Monthly Updates
  with New Coverage & Detail

Ocean Basemap

Basemap for Ocean GIS

- **Bathymetry, surface & subsurface names, depth values**
- **Initial Release down to 1:1m worldwide**
- **Plans Forward**
    - **Expand as New Community Map**
        - **National & local contributors**
    - **U.S. Waters, downs to 1:36k**
    - **Operational Overlays**
    - **Task Services**
        - **Elevation**

New Imagery Services

- **From** serving **tiles to** serving **information** to users
  - Not only a nice looking basemap
  - Introduction of dynamic and analytical services

- New Global Land Survey Landsat Services
  - Multiple maps presenting different views of earth
  - Help to illustrate and understand global change over time

- Serving Near Real-Time Imagery for Major Events
  - Japan Tsunami, Southern Storms, …

Thematic Maps

Variety of demographic and sciences maps focused on specific themes

- **USA Demographic Maps**
  - Maps for 20 Essential Variables of Latest Esri Data

Population	People	Economics
Population Density	Median Age	Household Income
Daytime Population	Diversity	Home Value
1990-2000 Change	Household Size	Unemployment
2000-2010 Change	Social Vulnerability	Labor Force Participation
2010-2015 Change	Tapestry	Retail Spending

- **USA National Maps**
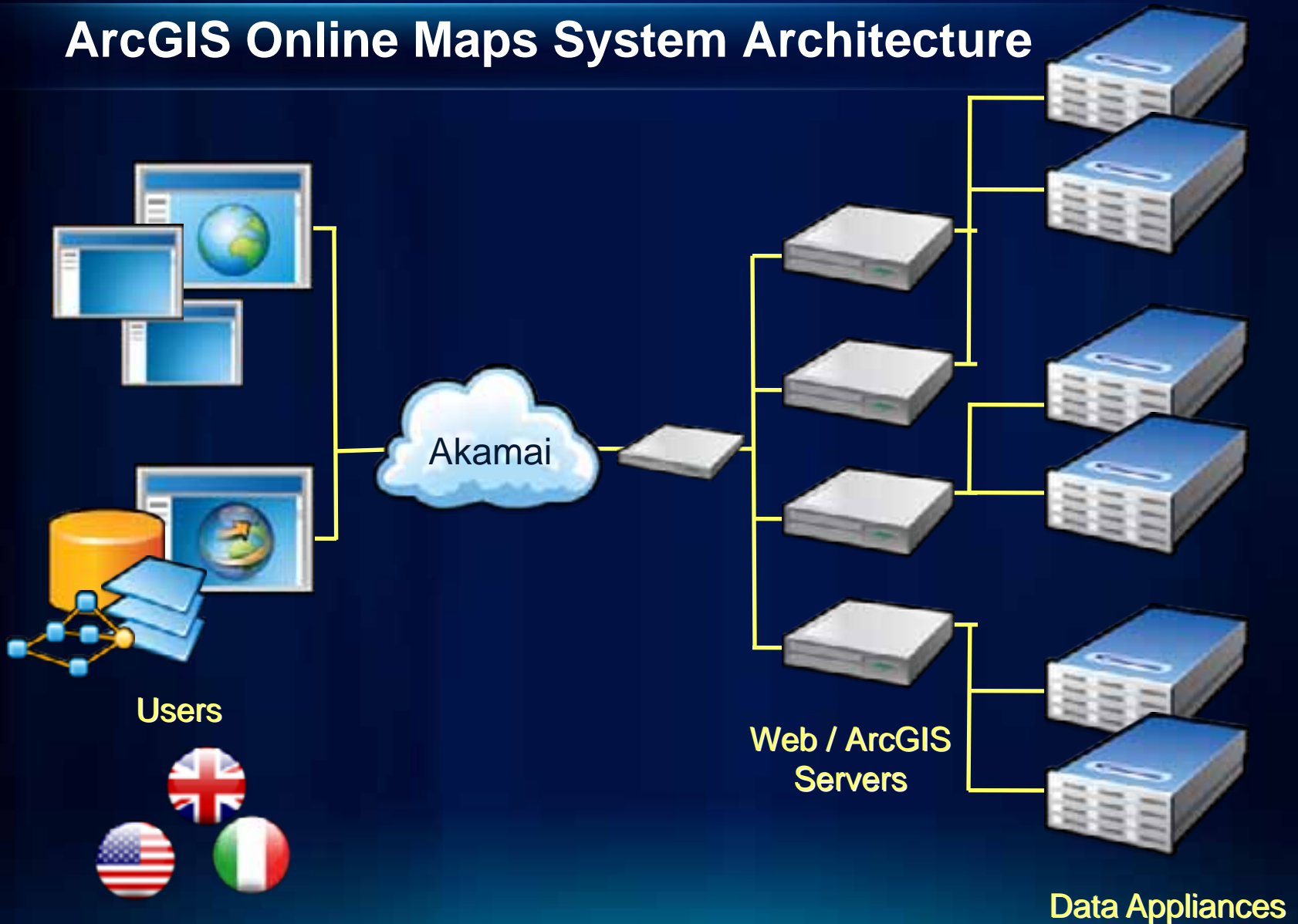 - Nationwide maps featuring data from Federal sources
- **Global Maps**

ArcGIS Data Appliance

ArcGIS Online Maps "in a box" for deployment on private network

- **Ready-to-use maps for publishing with ArcGIS Server**

ArcGIS Online Maps System Architecture

Users

Akamai

Web / ArcGIS Servers

Data Appliances

Community Maps Program

www.esri.com/communitymaps

- **Method to Improve Community Maps that Esri Hosts and Provides Freely to our ArcGIS Users**

World Topo Map

World Imagery

World Street Map

Canada

Portugal

Hong Kong

- **Goal: Add Coverage and Detail to our Online Maps using Rich, Local Data Sources**

ArcGIS Online Task Services (Tools)

Functional capabilities available online

- **Geocoding Services**
  - **Multi-national geocoding for North America & Europe**
    - **Supports both Interactive and Batch Geocoding**
    - **New ArcGIS 10 Locators support Single-Line Geocoding**
  - **World Places Locator**

- **Routing Services**
  - **Multi-national routing for North America & Europe**
    - **Supports multi-point routing, optimized routes, barriers**

- **Geometry Service**
  - **Project coordinates, buffer features, calculate size, …**

Using ArcGIS Online You Can …

- **Publish and manage maps and geographic information**

- **Upload and style your data**

- **Create web maps for apps, web sites, mobile**

- **Share information with defined groups**

- **Leverage Ready-to-use**
  - **Maps**
  - **Apps**
  - **Tools**

ArcGIS Online – Available to Everyone

Enabling everyone to make, share, use, and organize geographic information

- **Anonymous**
  - Discover and use maps and apps
- **With Free Account**
  - Upload and store data
  - Create web maps (mashups)
  - Participate in groups, share items, embed maps in web applications
- **New capabilities**
  - Add CSV, WMS, KML, GPX
  - Style data and save in web maps
  - Create Groups of Favorite Items

Interact with Intelligent Maps Anywhere

Any Device

Smart Phones

Apps

Tablets

Browsers

Desktop

One Map

ArcGIS Online

Using ArcGIS Online

Bern Szukalski

Road Ahead

What's Next for ArcGIS Online

More and Better Basemaps

- **Ongoing effort to enhance basemaps for ArcGIS Online**
- **Organized in three categories:**

Reference maps

•Stand-alone or with point, line overlays

Background maps

•Attractive, neutral foundation for overlays

Top maps

•Labels, lines etc. to put overlays in context

National Geographic World Map (Coming Soon)

Distinctive and Detailed Reference Map of the World

- **Useful and Authoritative Reference Map to Support Education, Conservation, and General Map Narratives**

Expanded World Imagery

Expanding with high-res imagery from commercial and public sources

Adding 50+ million sq. km. of imagery by early next year

Global Geocoding Services

Expanding coverage of geocoding services globally

- **Building ArcGIS 10 Locators for Dozens of Countries**

- **Expansion Completed in Phases**

  - **Now Available for U.S. and Canada**

  - **Expanding in North America, Europe, South America, and Australia / NZ**

- **To be Provided through Global Geocoding Service**
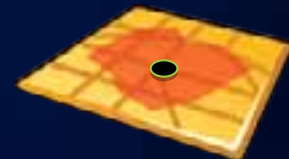
  - **REST service supporting single-line geocoding**

New Routing Services

Intelligent Network Analysis Services for Optimized Routes and More

- **Expansion of Existing Routing Services**
  - **New routing services for South America and Australia**

Routing

- **Introduce New Drive Time Service**
  - **High-performance Network Analyst service using 10.1**
  - **Available by subscription for use in maps and apps**
  - **Coverage for North America, Europe, South America, Australia initially**
  - **Coming as part of 10.1 Release**

Drive Time

ArcGIS Online for Organizations

Additional tools and capabilities that allow organizations to collaborate

- **Organizational look-and-feel**
  - Branding
  - Galleries
- **Hosting for your Maps and Data**
  - **No need for your own servers**
- **Management**
  - **Users/roles**
  - **Content, groups, galleries**
  - **Sharing (public/private)**
- **Usage Reporting**

Hosted Map Services

- **Publish from ArcMap 10.1**
  - **Create feature and/or tile services**
  - **Define the tiling scheme and other parameters**
  - **Tiles are generated in the cloud**
- **Publish feature services from web clients**
  - **ArcGIS.com**
  - **ArcGIS Explorer Online**
  - **Feature services from**
    - **CSV's, GPX's**
    - **Shapefiles**

ArcGIS Online for Organizations

Bern Szukalski and Deane Kensok

ArcGIS Portal

On-premises platform for mapping and geographic information

- **Solution for**
  - Organizations with additional security demands
  - Organizations who are prohibited from leveraging the public cloud

- **Allows for**
  - Integration with authentication system
  - Extensive customization

- **Requires**
  - Installation, maintenance
  - Infrastructure

Summary: How Can You Use ArcGIS Online?

A free account – available today

Subscriptions with hosting – **Coming Soon!**

On-premises – Portal for ArcGIS

ArcGIS Online

Additional Resources

Learn more while you are at the UC

- **Related Tech Workshops**
  - **Road Ahead – ArcGIS Online**
    - **Tue @ 3:15pm in 10**
  - **Introduction to ArcGIS Portal**
    - **Wed @ 10:15am in 15 B**
  - **Introducing Online Community Maps**
    - **Thu @ 1:30pm in 24 C**

- **Visit us at Online GIS and Content Islands**
  - **Talk with Community Maps Team at Content Island**