Esri International User Conference

July 23–27 | San Diego Convention Center

What's New in the Community Maps Program

Don Cooke

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Topics for the Session

- Community Maps Place with ArcGIS Online
- New World Topographic Map Design
- Dynamic Attribution
- Issue Reporting
- New Participation Model
- How to get involved

ArcGIS is a Complete System

Managing and working with geographic information

- Online (public or private cloud)
- Server (on premises or private cloud)
- Desktop
- Mobile/devices
- Content

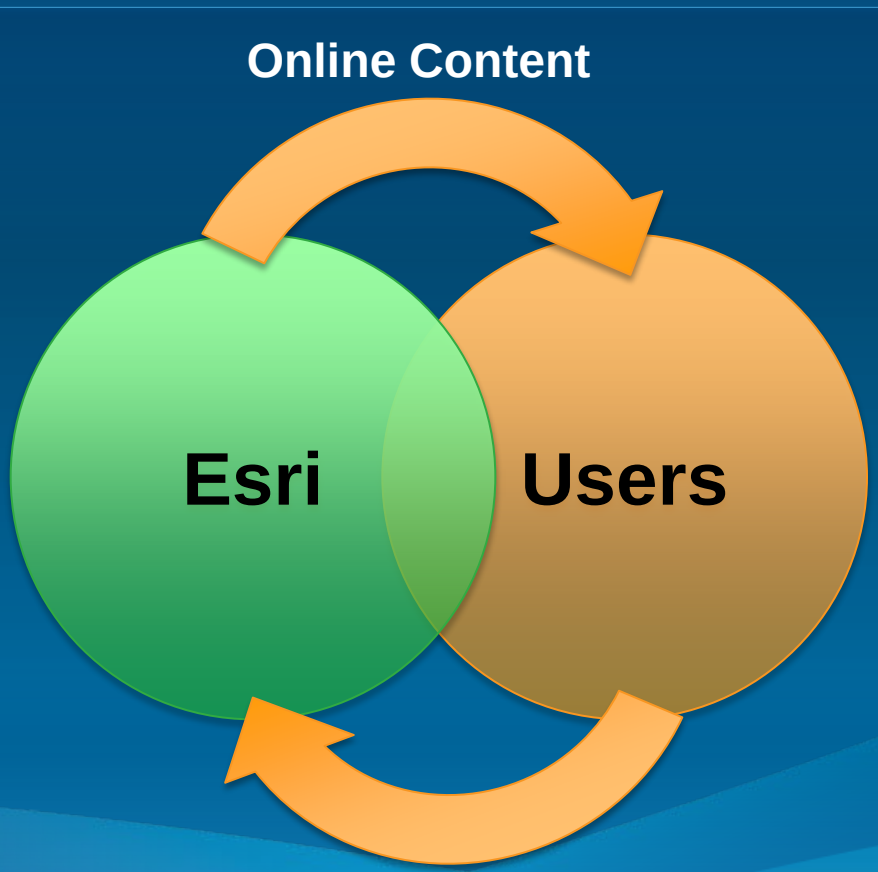
Many deployment options

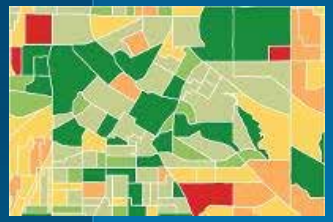
Content Powers the ArcGIS System

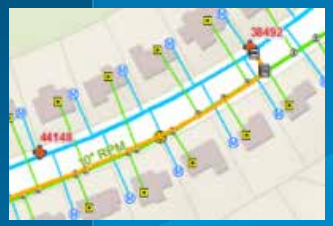
- **ArcGIS includes a Rich Set of Ready-to-Use Global Geographic Content, which is Available to Users of the System**
  - **Basemaps & Imagery**
  - **Geocoding & Routing**
  - **Location Analytics**
  - **Analysis & Reporting**

Content Published by Esri and Users

Built by and for ArcGIS User Community







Ready to use Global Content in the ArcGIS System

- **Primary Themes for Global Content Development in 2012**

- Map Services
- Image Services
- Task Services
- GeoProcessing Services
- Popup Services

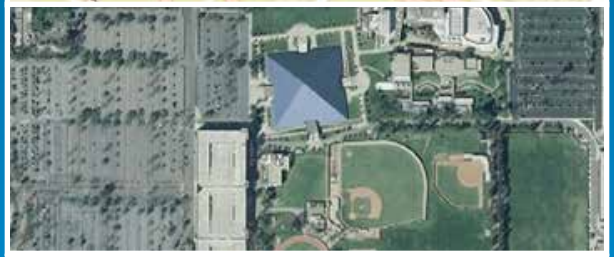
Community Maps Products

World Topographic Map

§ Local, regional, national contributions

World Street Map

§ National-level contributions



World Imagery Map

§ Local, regional, national contributions

Oceans Basemap - New!

§ National and scientific communities

Audience Survey

Raise your hand if you:

- **Published in the World Topographic Map**
- **Working on getting published in World Topographic Map**
- **Published or working on getting published in another Community Map? (Street, Imagery, Oceans)**
- **Attended the previous session – Getting Started with the Community Maps Program**

Purpose of Community Maps Program

Esri-led initiative to enhance online maps with community-provided data

- **Support Building Useful and Reliable Basemaps**
  - **Designed to support a variety of maps and apps**
- **Assemble Authoritative Data from GIS Community**
  - **Data from local authorities and leading providers**
- **Provide High Quality Cartography**
  - **Beautiful maps built with best available sources**

Benefits of Community Maps Program

- Detailed Basemap for Your Community Online
  - High-quality cartography with your accurate data
  - High-performance and availability service
- Basemaps are freely available to ArcGIS and Web users
  - No hosting costs or support required from participant
  - Use in your ArcGIS maps and apps
  - Use in your public facing web and mobile apps
- Developer APIs freely available to build Web Apps
  - REST, JavaScript, Flex, Silverlight, Mobile APIs available
  - Combine your map services with community basemap

Growth of Community Maps Program

50% increase in participation from UC 2011

New Map Product – Oceans Basemap

- Next Canvas and National Geographic maps

Increased Participation Trends

- National Mapping Agencies
- Council of Governments
- Campuses
- Scientific Organizations

Demo Theater | Contributing to the Oceans Basemap
Tuesday 11:30 – 12:00 + Wednesday 12:00 – 12:30 Exhibit Hall C

Current Participation Model

Community Maps Classic Participation Model

- Esri seeded the map
- Best available commercial content
- ArcGIS user community invited to enhance map with their content
- Users created complete basemaps of their communities
- Esri hosted the basemaps for use by all

Current Participation Model

Compile → Review → Author → Cache

Gather or create all required data

Review data quality and completeness

Apply template, adjust data, visually review

Create map cache with ArcGIS Server

Process will remain available indefinitely

What’s New with Community Maps Program

- New World Topographic Map Design
- Dynamic Contributor Attribution
- Issue Reporting
- New Participation Model

New World Topographic Map Design

- New unified world-wide design
- Optimized to support operational and thematic data
- Updates focus on small and medium scales
- Topography relief more prominent
- Transportation network less prominent

Design Objectives

Maintain the 'look and feel' of a traditional topographic map

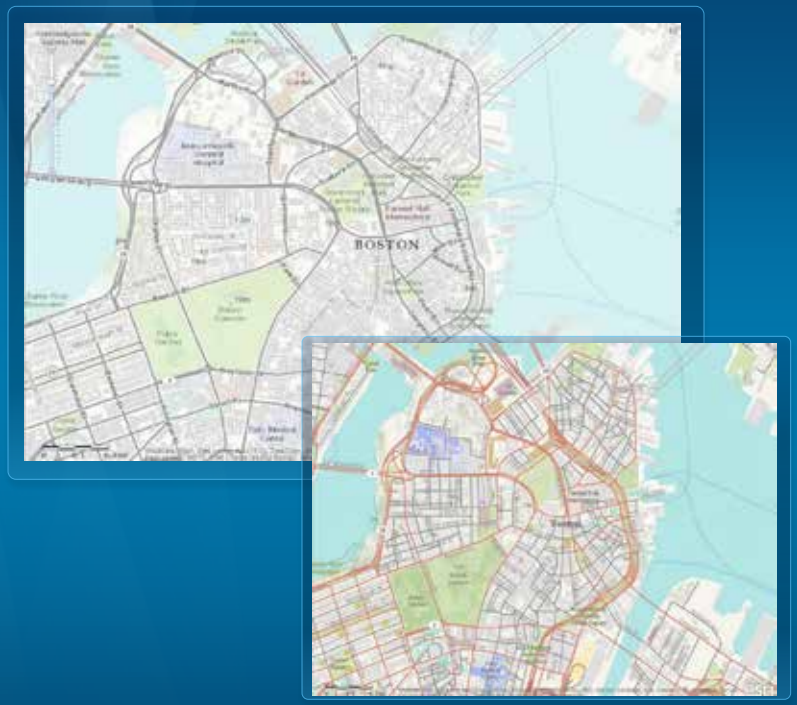
A functional and simple design that can be implemented by our community of contributors

Compliment Esri's existing suite of basemaps

Limit the number of changes as the scale increase

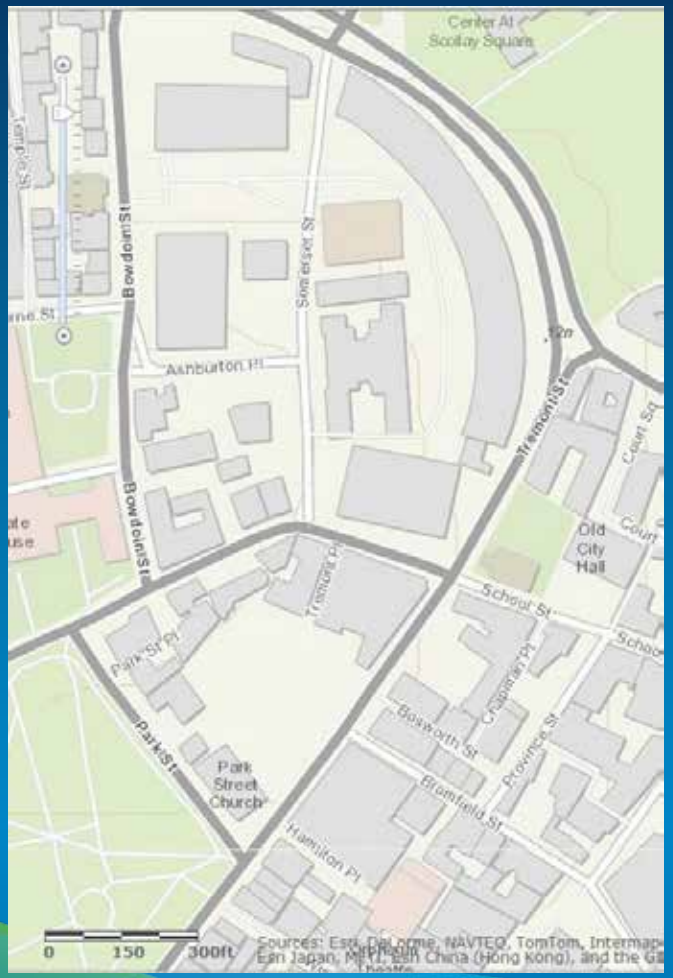
Respect and maintain characteristics of the current design

Bottom line –
the design MUST look great!



New World Topo

New



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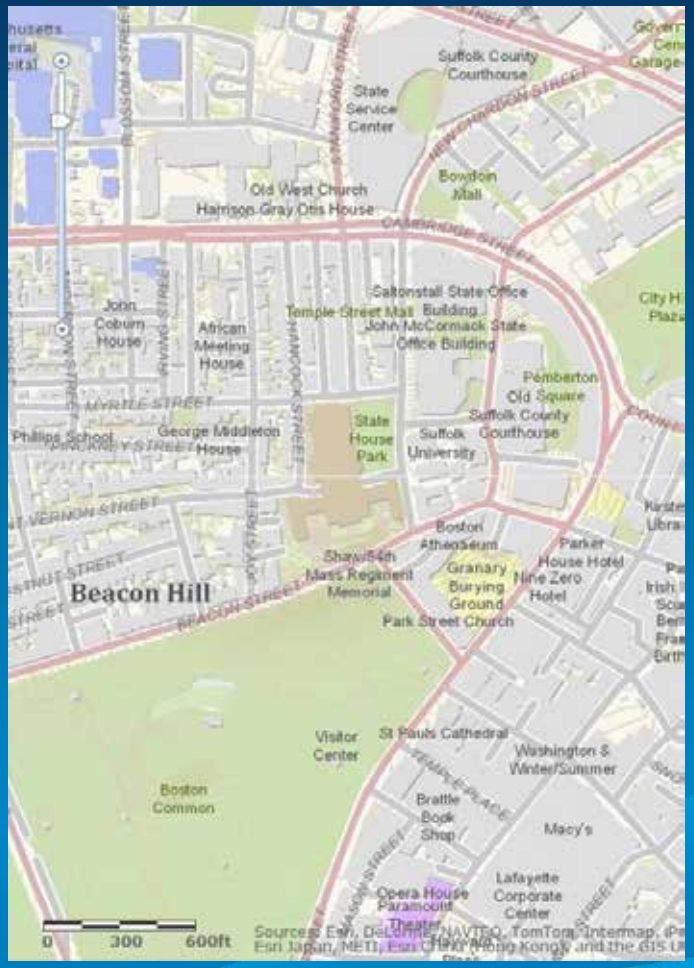

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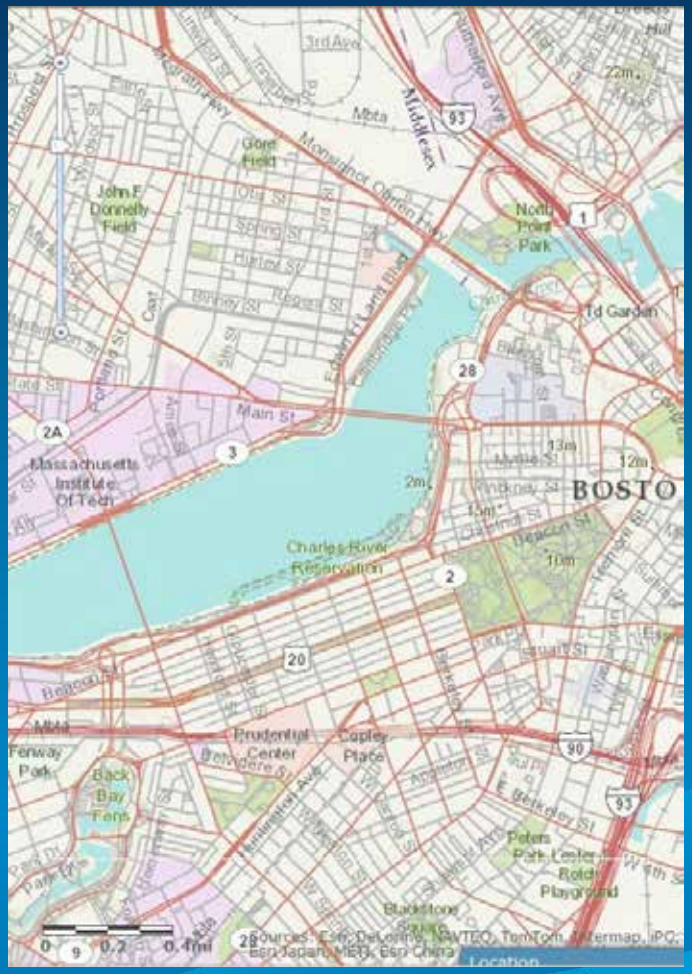

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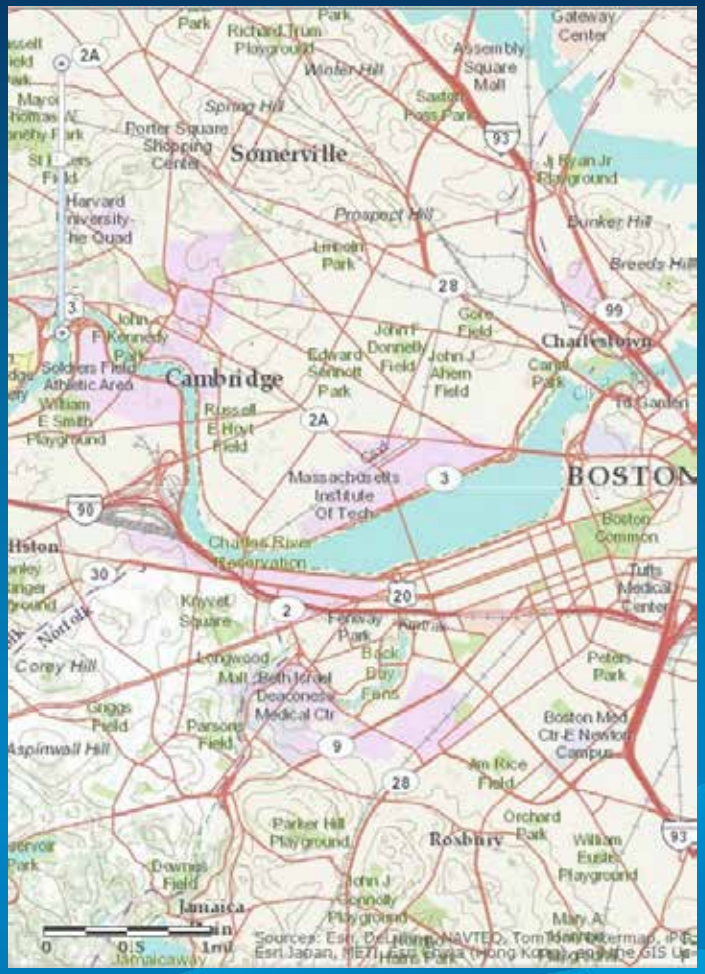

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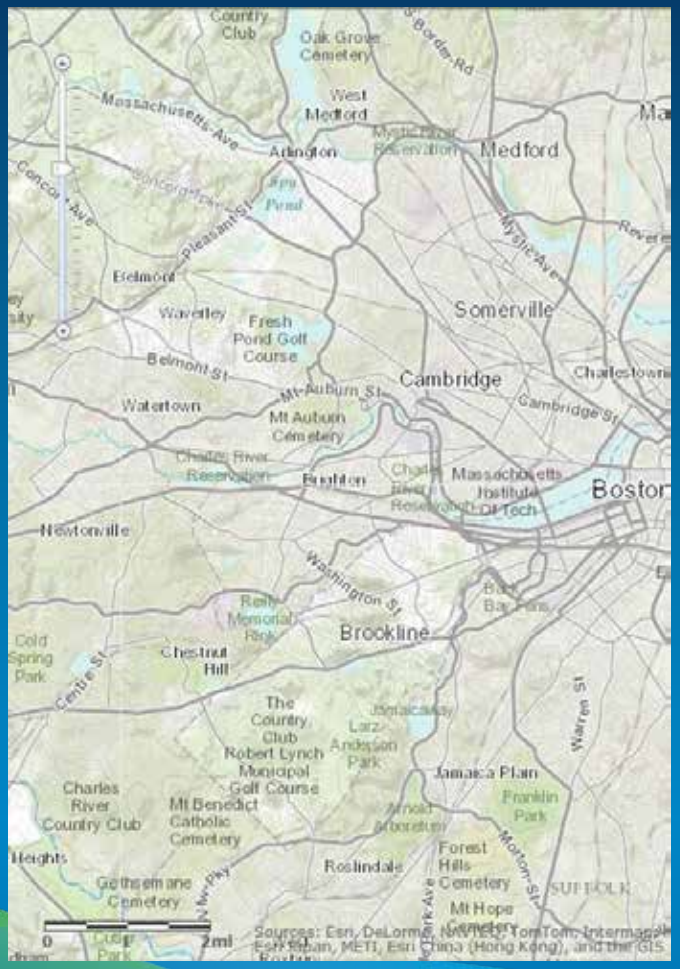

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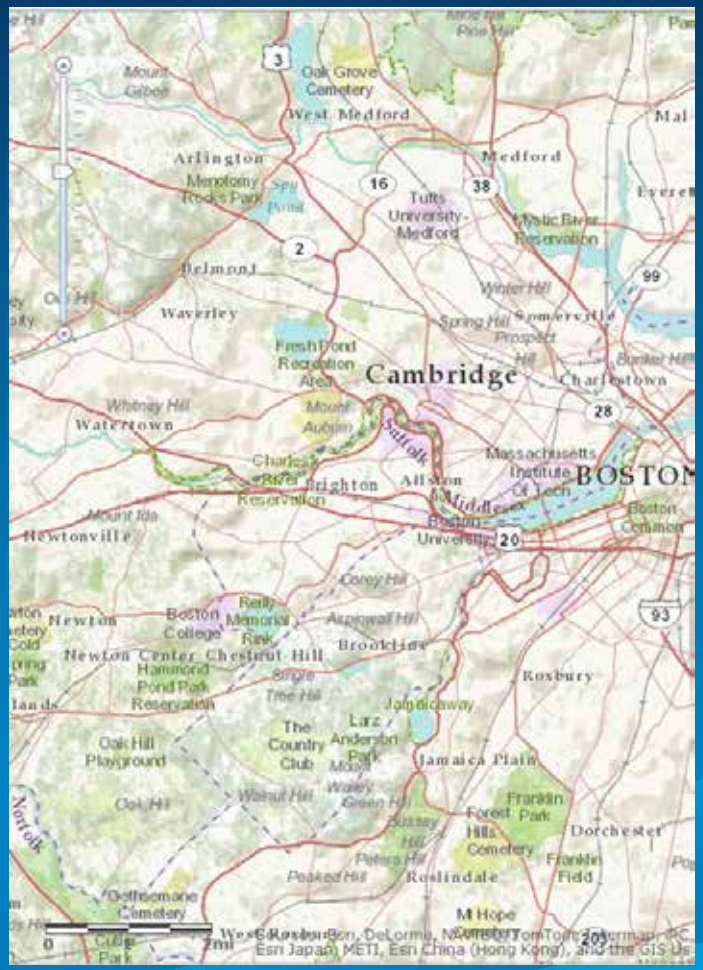

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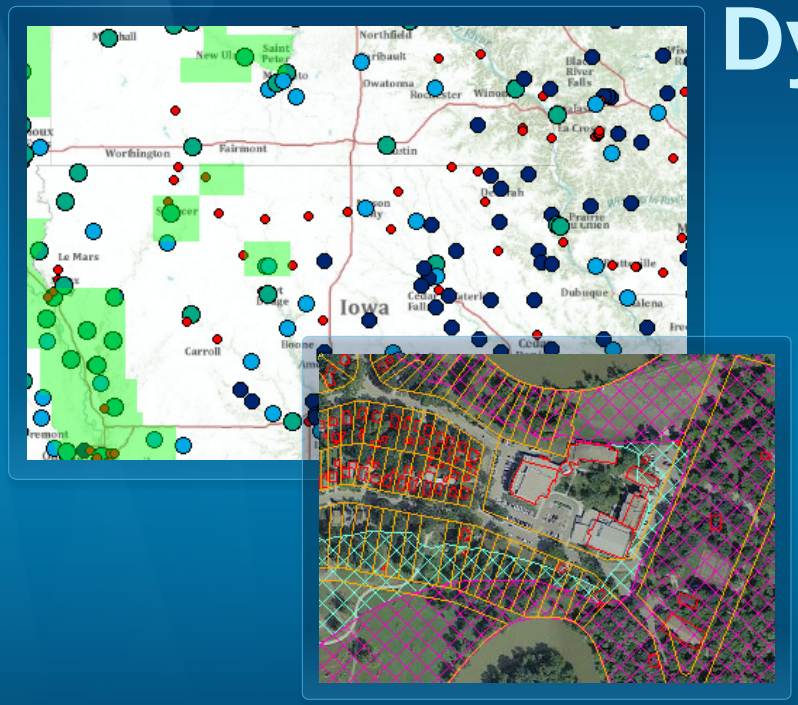
Dynamic Attribution

Ensuring you get credit for participation

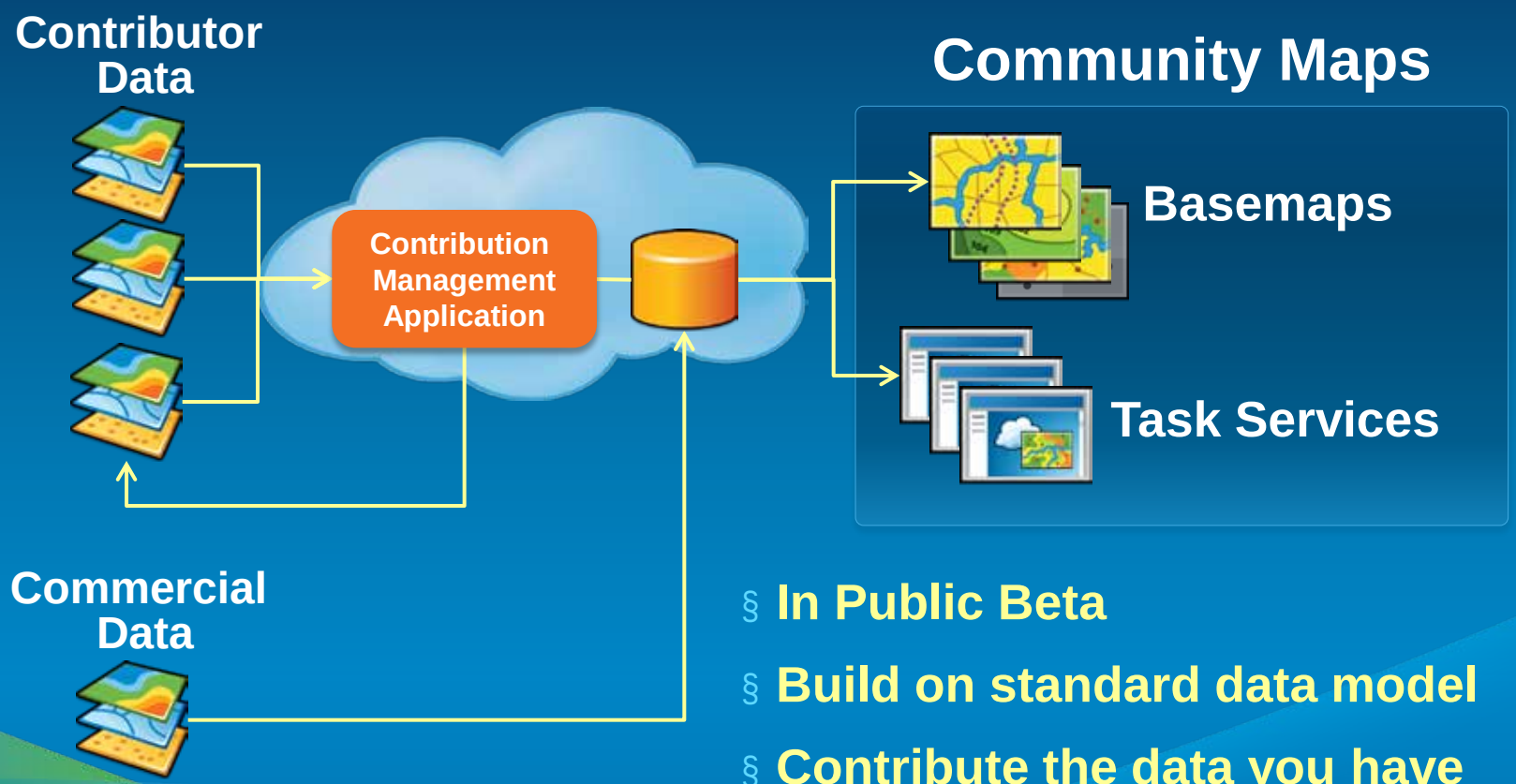


Dynamic Attribution and Issue Reporting

Introducing Community Maps 2.0

Introducing Community Maps 2.0

New Participation Model



- In Public Beta
- Build on standard data model
- Contribute the data you have

Goals of Community Maps 2.0 Participation Model

- Easier for you to participate
- Easier for you to maintain
- Your content in more:
  - Community basemaps
  - At more scales
  - In new task services
- Deliver more useful maps and services

Community Maps 2.0 Key Topics

- Online Contribution Management
- Simplified Workflow
- Contributor Integration
- Standard Data Model
- Contribution Review Process
- Public Beta Program

Community Maps 2.0 Key Topics

Online Contribution Management

Simplified Workflow

Contributor Integration

Standard Data Model

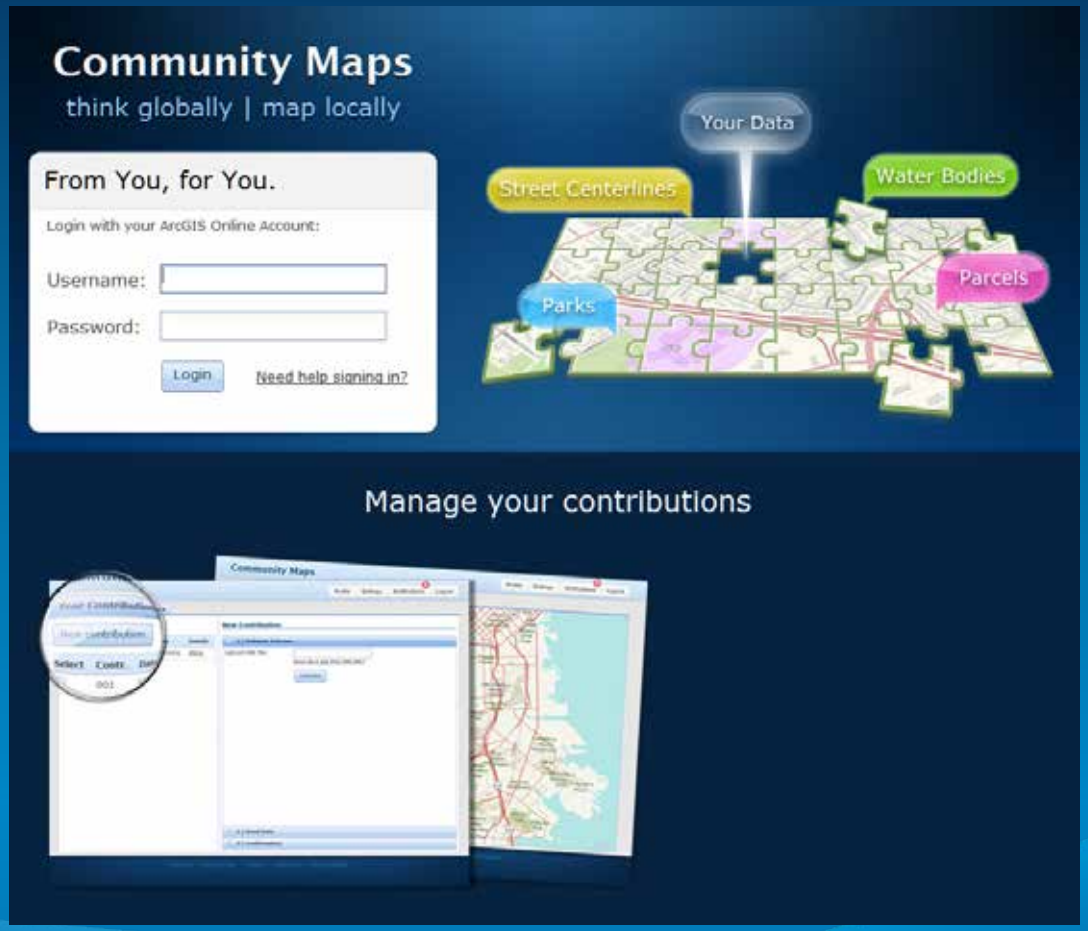
Contribution Review Process

Public Beta Program

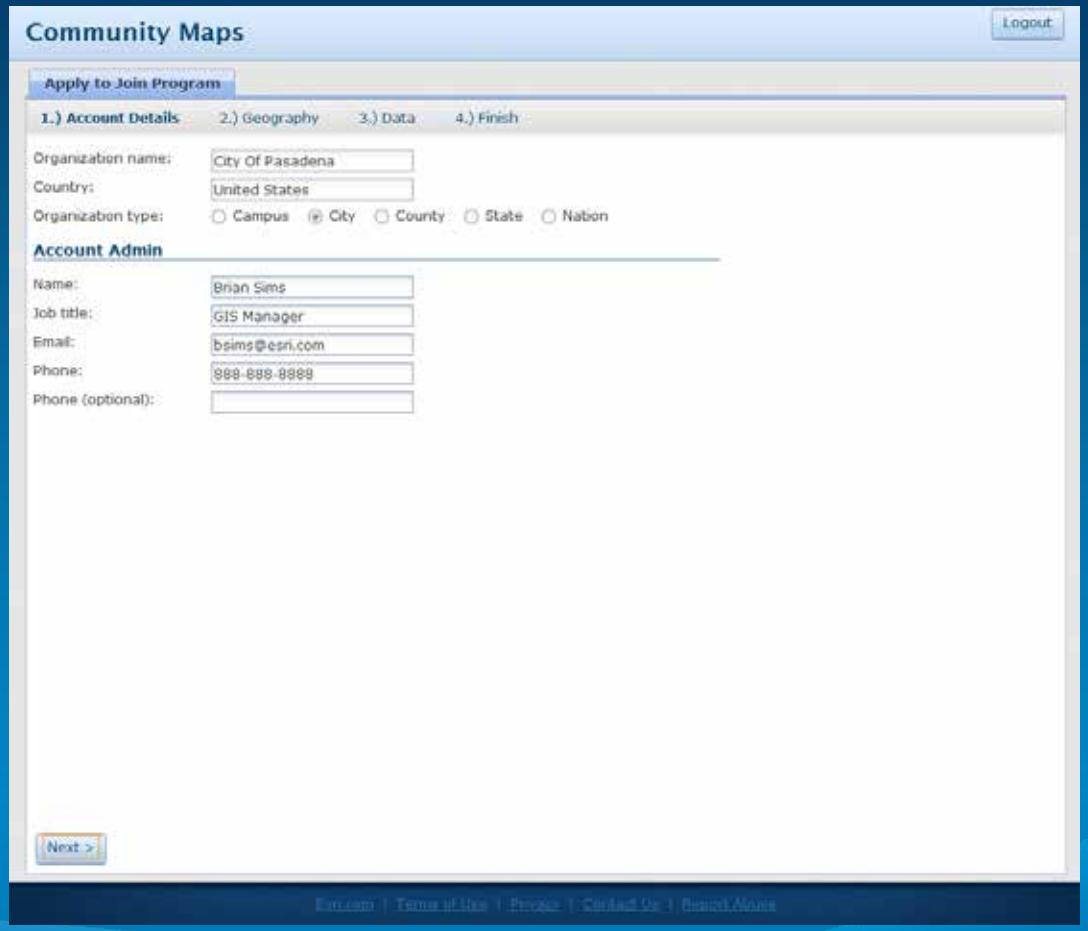
Online Contribution Management Application

- Collection of online tools to manage participation
- Supports:
  - Program application
  - Submit your data online
  - Review of your data online
  - Review of your map online

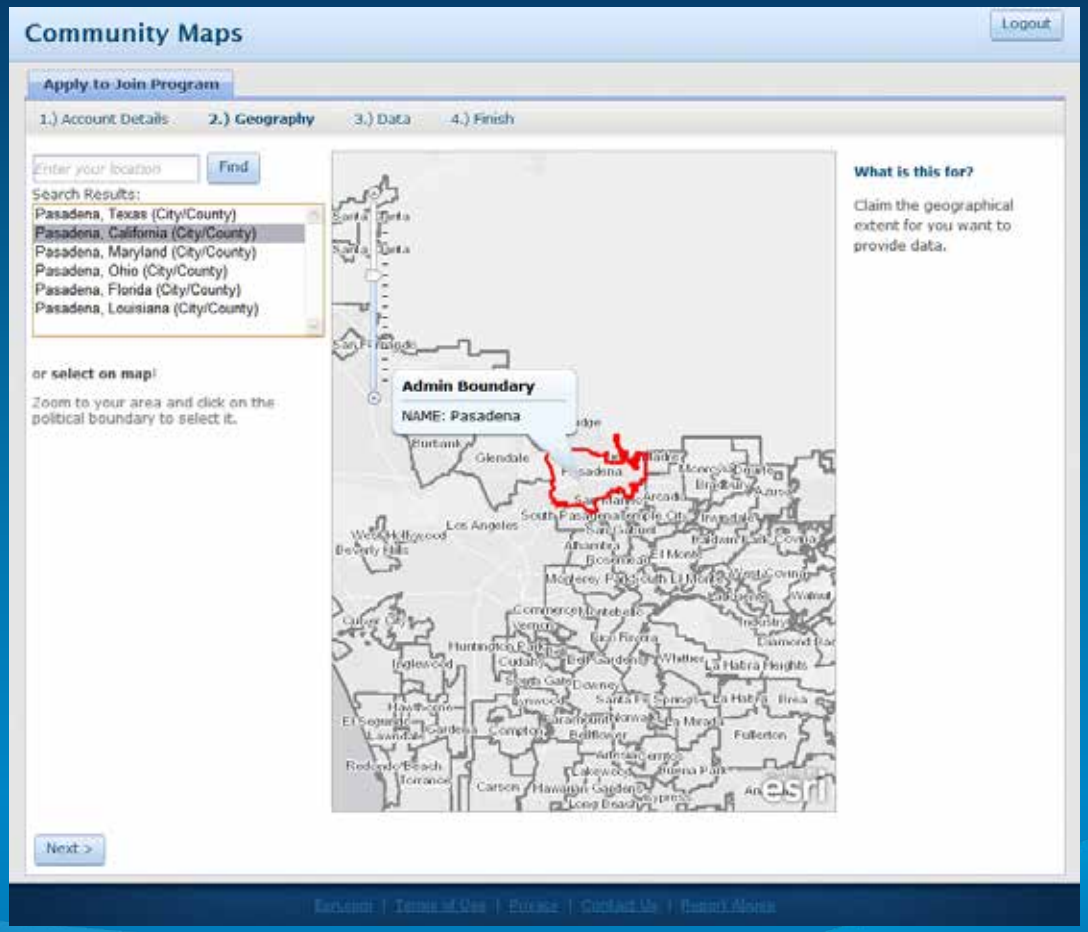
Online Contribution Management Application



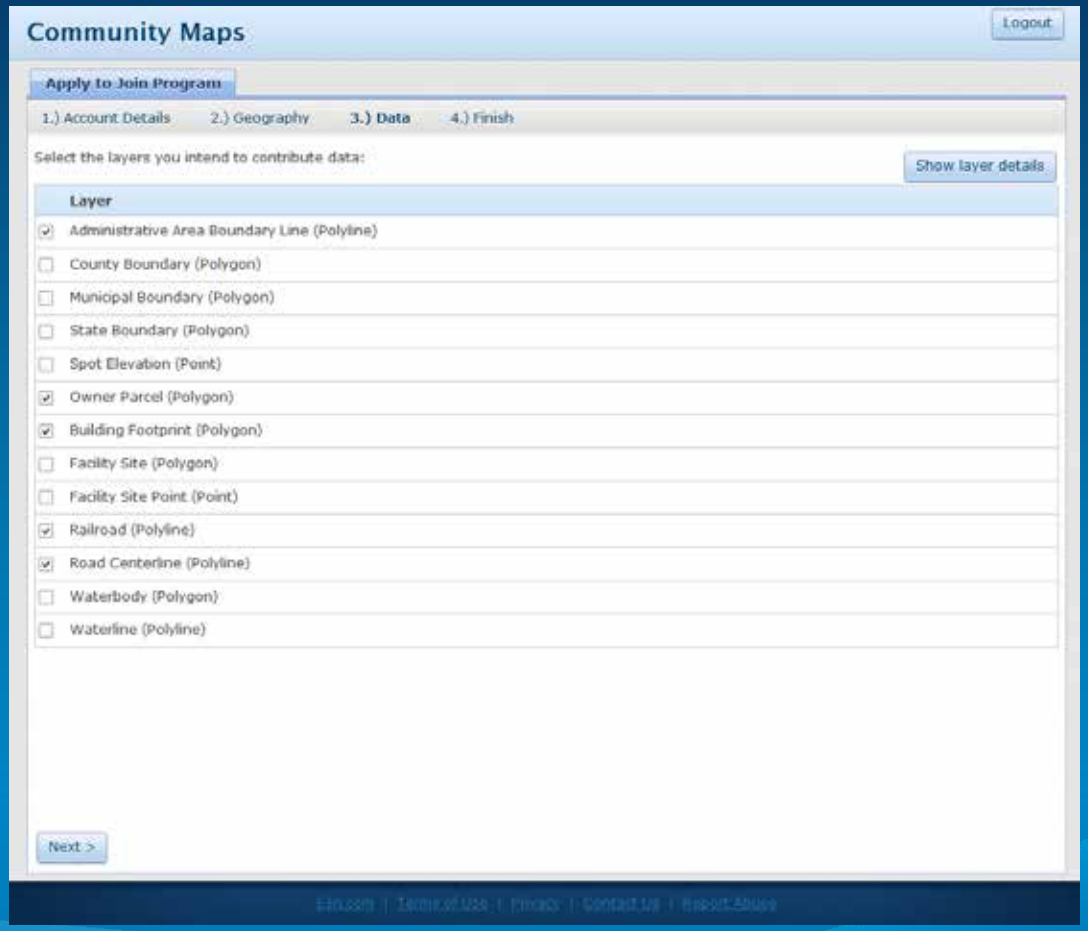
Online Contribution Management Application



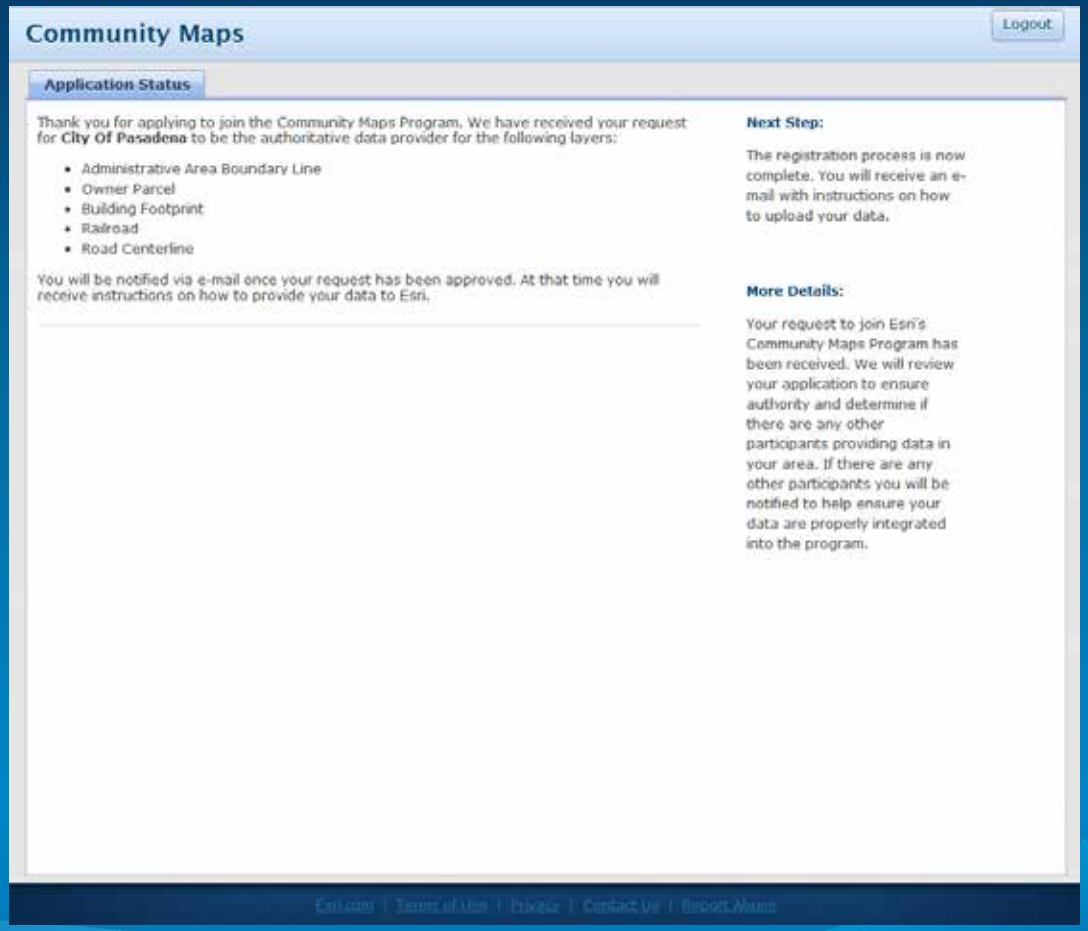
Online Contribution Management Application



Online Contribution Management Application



Online Contribution Management Application



Demo Theater | Contributing Community Maps Content Online
Tuesday 4:00 PM – 4:30 PM – Exhibit Hall C
Wednesday 1:00 PM – 1:30 PM – Exhibit Hall C

Community Maps 2.0 Key Topics

- Online Contribution Management
- Simplified Workflow
- Contributor Integration
- Standard Data Model
- Contribution Review Process
- Public Beta Program

Current Participation Model

Simplified Workflow

Apply

Apply to Community Maps Program

- **Provide agency information**
- **Select geographic area**
- **Select data to provide**

Simplified Workflow

Apply → **Upload**

Upload via web or request a drive

(1gb upload limit)

- Send zipped FGDB
- In Local Government Data Model
- In local projection

Simplified Workflow

Data

Apply → Upload → Review

Esri will review your data

Esri will let you know if we find issues

Simplified Workflow

Esri will review your data

Esri will let you know if we find issues

You review the map

Simplified Workflow

Apply → Upload → Review → **Contribute**

Contribute your data (no authoring required)

When you're ready

Esri will make the map cache

Esri will host the map cache

Simplified Workflow

Keep the map current

Update as your data change

- Minimum annually

Community Maps 2.0 Key Topics

- Online Contribution Management
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Contributor Integration

Contributor:

1. To give or supply in common with others (Webster)
2. Provider of data to the Community Maps Program (Esri)

Contributor Integration:

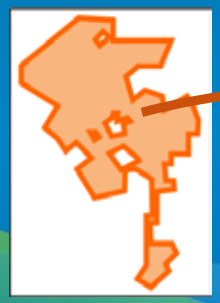
- User-lead method for organizing contributors
- Organized at the layer level
- One contributor per layer per geography
- Esri manages data integration

Contributor Integration | Scenario 1

Nested Contributors

Road Centerline

Admin Bndy
Owner Parcel
Railway
Water Bdys
Water Lines

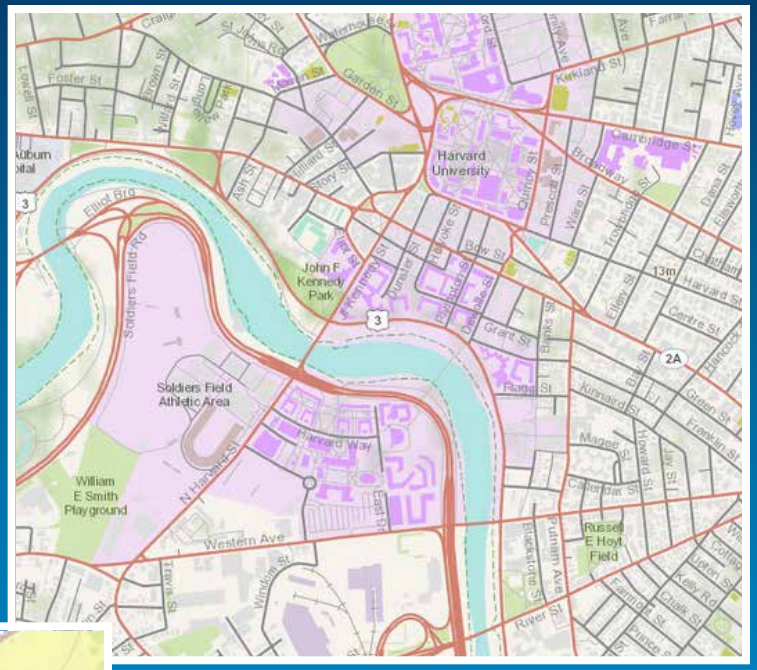


Road Centerline

Contributor Integration | Scenario 2

Nested Contributors

Boston, Cambridge, and Harvard University Collaboration



Contributor Integration | Scenario 3

Contributor	Data Provided	Area Provided
County GIS Department	Administrative Boundary	County-wide
County Assessor	Owner Parcel	County-wide
Regional DOT	Road Centerline Railway	4 city area
County DOT	Road Centerline Railway	Area outside Regional DOT area
Individual Cities	Building Footprint Landmarks Parks	City area

Community Maps 2.0 Key Topics

- Online Contribution Management
- Simplified Workflow
- Contributor Integration
- **Standard Data Model**
- Contribution Review Process
- Public Beta Program

Standard Data Model

Alignment with Local Government Data Model

9 Feature Classes initially

- 7 additional for Special Area of Interest / Campus

Minimal attributes required for each

- Consider using default values at first

Admin Boundary	Railroad
Building Footprint	Road Centerline
Landmark/POI	Water Body
Owner Parcel	Water Line
Park	

Standard Data Model

Data migration tools available

- Data Interoperability tools on Resource Center
- FME Workbenches on FMEpedia site

Community Maps 2.0 Key Topics

- Online Contribution Management
- Simplified Workflow
- Contributor Integration
- Standard Data Model
- Contribution Review Process
- Public Beta Program

Contribution Review Processes

Data Review

- Designed to improve quality of your map
- Not a “gotcha” process

Map Review

- Web-based review of map prior to publication
- Share with your organization, other Community Maps participants, or Esri

Data Review

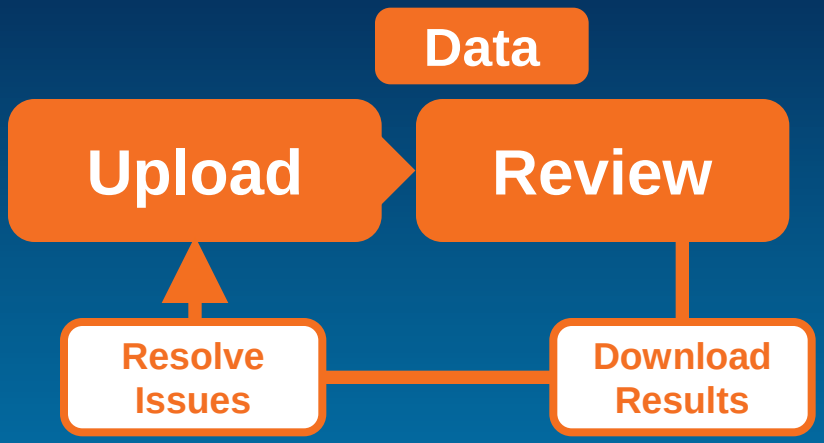
What are we looking for?

- Things that will impact the map product and production system
- Bad geometries (null geometries, self-intersecting polys, etc.)
- Map symbology elements missing or incorrect

Categorized results to help focus your review

- Errors, Warnings, Messages

Data Review



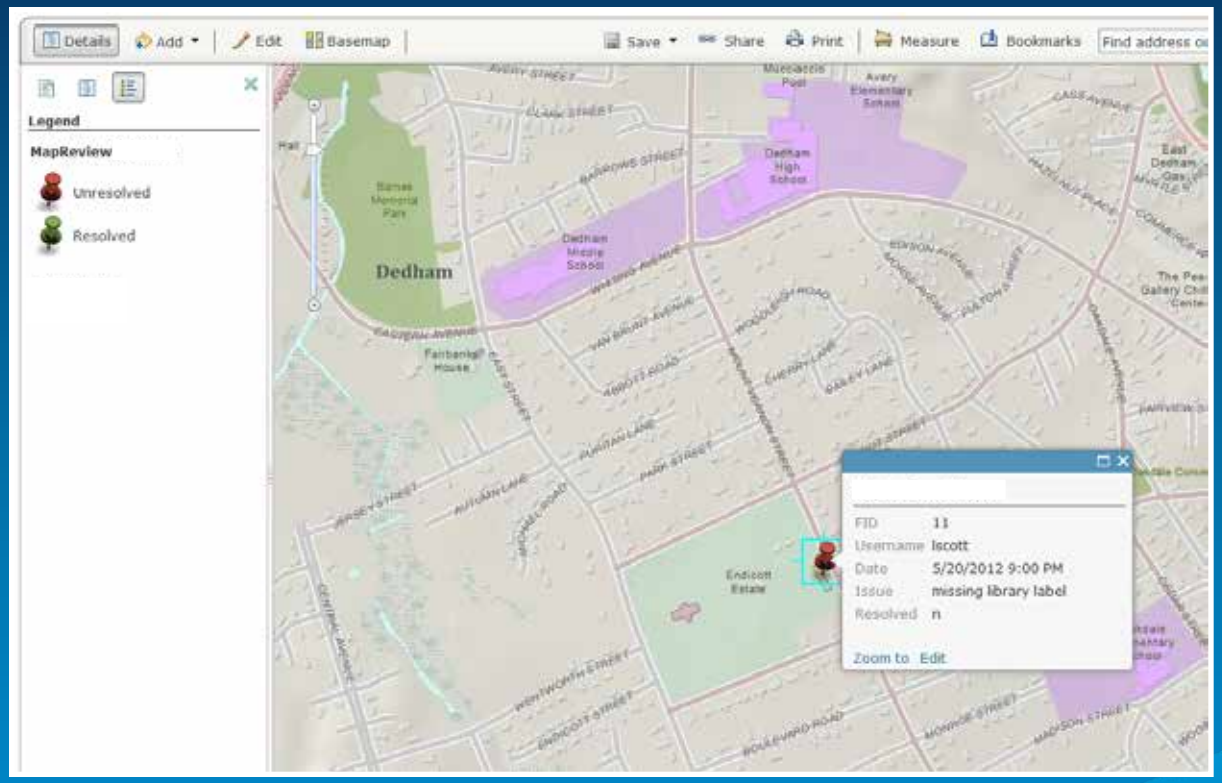
Resolution Process:

- Results available as Data Reviewer tables or FGDB
- Resolve issues in source data
- Upload resolved data

Special Data Reviewer pricing through end of year
See Data Reviewer team at Geodatabase Island

Contribution Review Processes

Map Review



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Community Maps 2.0 Key Topics

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Public Beta Program

Currently accepting US-based participants

Help influence program direction

Help ensure the program works for you

Apply today at CommunityMaps.arcgis.com

Road Ahead

What’s Next for Community Maps

Road Ahead

Your content in more basemaps

- National Geographic, Canvas, and more

Your content in more community themes

- 3D, elevation, hydrographic, bathymetric, and more
- New Community TIGER initiative

Your content in new task services

- Identify
- Query
- Search

Expanded online contribution management

How to Participate

Community Maps 2.0 Public Beta

- Apply today
- CommunityMaps.arcgis.com

Classic Participation Model

- Visit Community Maps Resource Center
- Download Tools and Templates

Attend a Community Maps Training Event

www.esri.com/ucsessionsurveys

Tuesday Session ID: 630

Wednesday Session ID: 758

Thursday Session ID: 830