



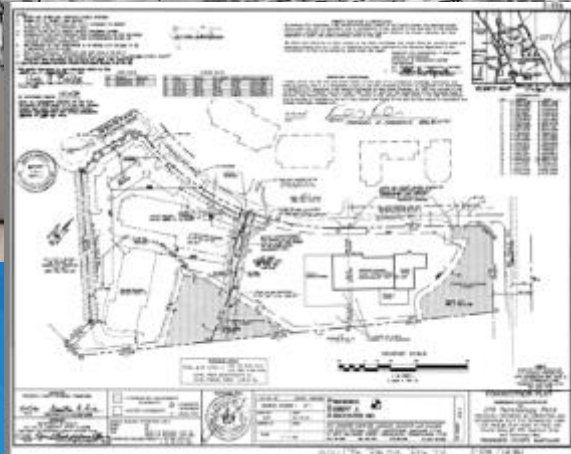
ArcGIS for Assessment, Tax, and Land Records

Brent Jones PE, PLS

Esri

System of Record

Organizes and Manages the Legal Record of Ownership, Value and Location



Cadastral History



Quebec, Canada

Parcel Query



Auckland,
New Zealand

Tax Parcels



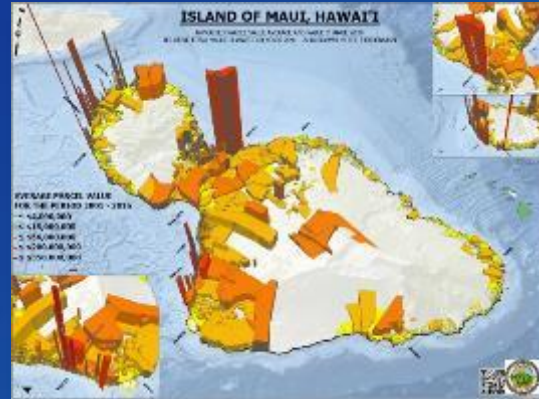
Wisconsin



System of Insight

Understand the factors impacting property value and use

Parcel Values



Maui

Historic District Property Values

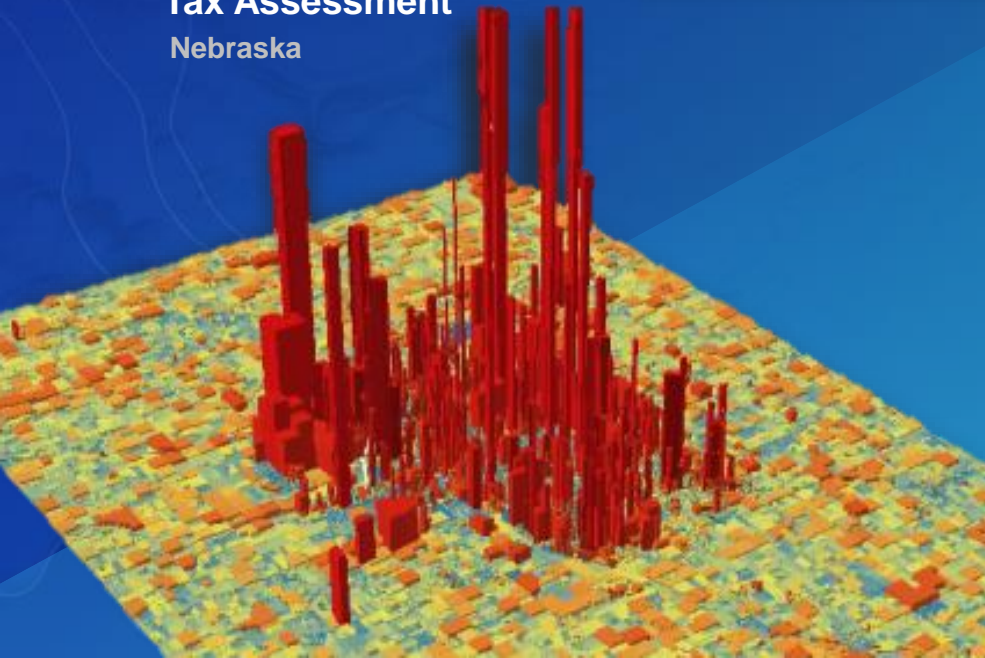


Georgia

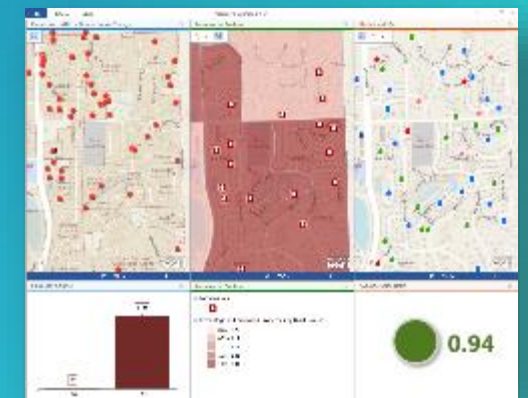
Trade Market Area Analysis



Tax Assessment Nebraska



Operations Dashboard



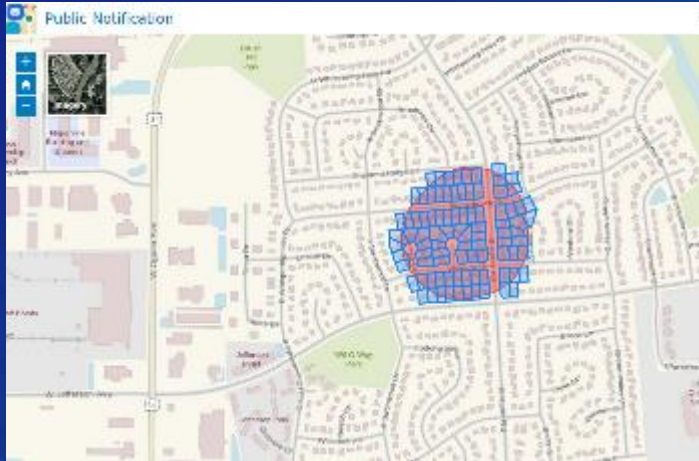
Value Analysis Dashboard



System of Engagement

Modern Transparency

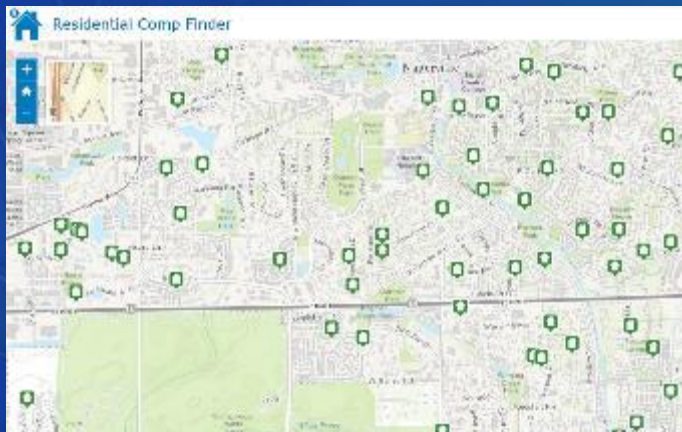
Engaging taxpayers, businesses and citizens with government



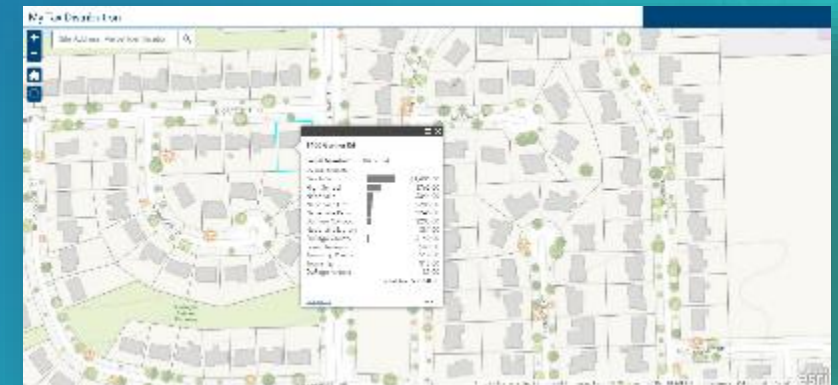
Public Notification



Residential Comparable Sales



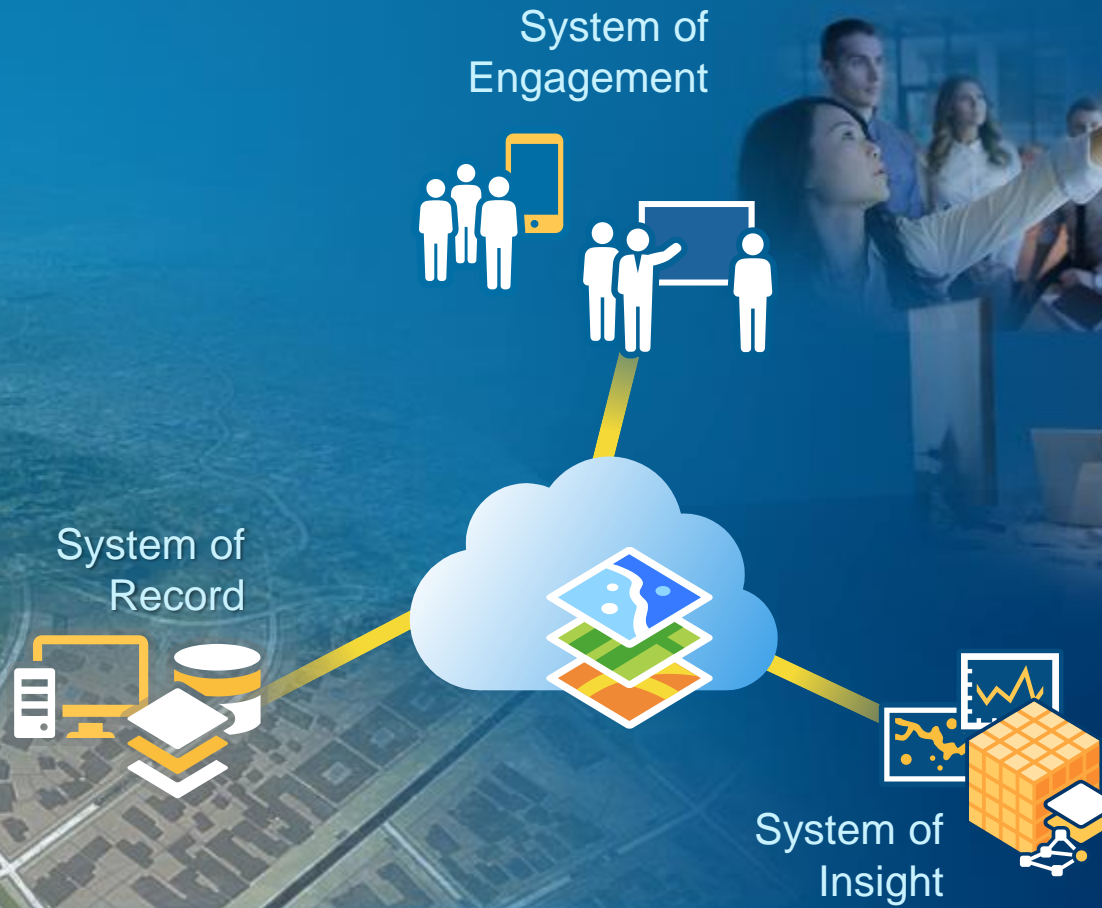
Public Access to Tax/Parcel Data



My Tax Distribution

ArcGIS

Enables Multiple Types of Systems



ArcGIS – Modern Architecture



Simplifying and Expanding

Client / Server	→	Web Services & Apps
Stand-Alone Desktop	→	Connected Desktop
Data Models	→	Web Maps & Layers
Static Data	→	Real-Time
Single Server	→	Distributed Computing
Custom Applications	→	Configurable Templates & Apps
Proprietary Data	→	Open Data & Shared Services
2D Features	→	3D Features
Spatial Analysis	→	Spatiotemporal & Big Data Analytics
Digital Cartography	→	Smart Mapping

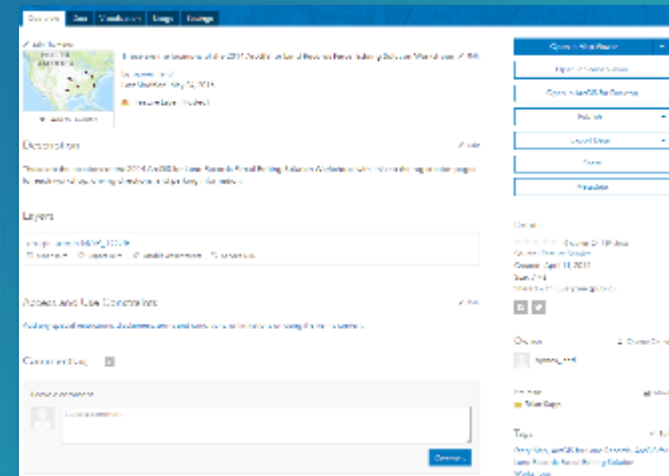
Web Services

Organizes and Securely Sharing Data.....

https://

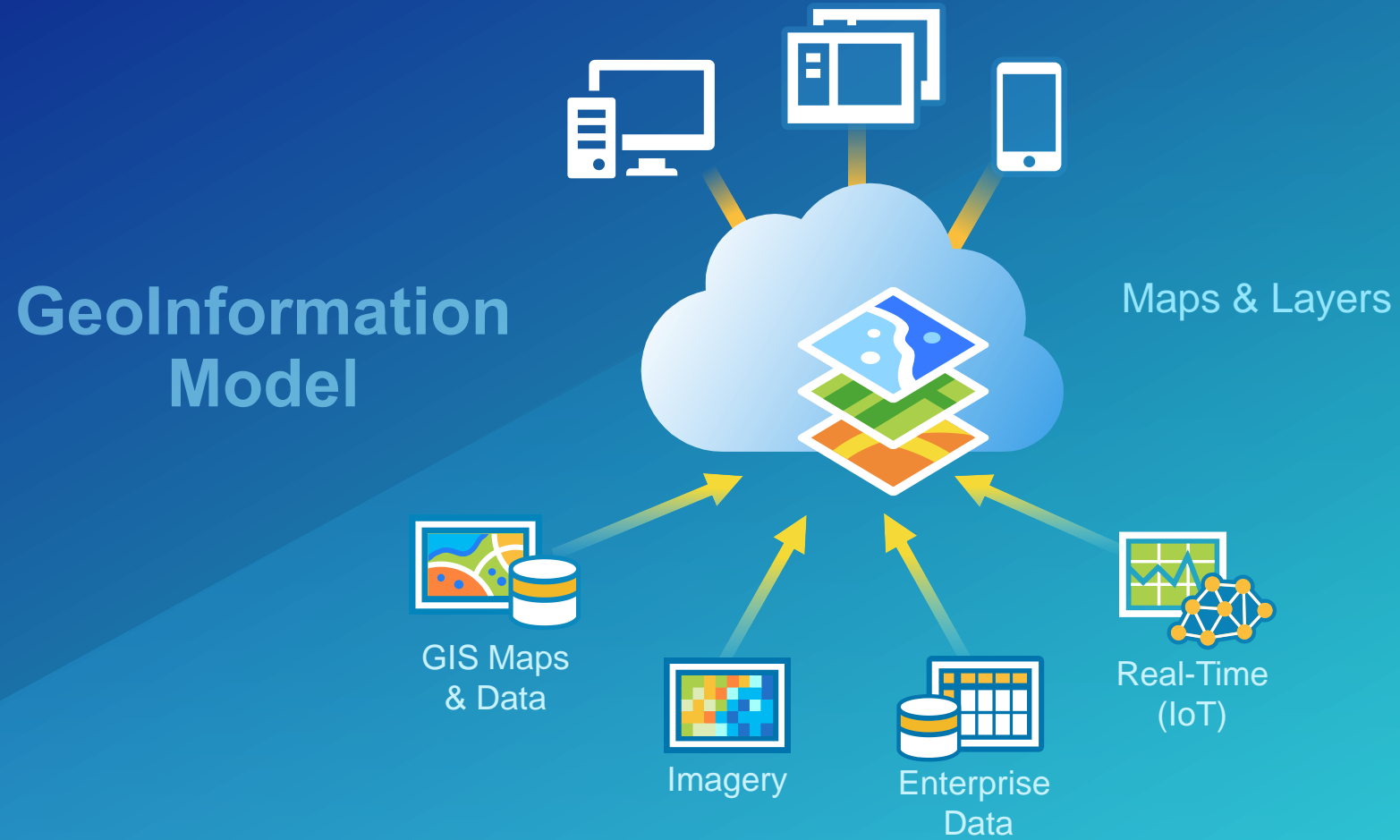
- Secure
- Standards-based
- Controlled Access via Identity
- Control Who Does What
 - View
 - Query
 - Edit
- Monitor/Track

<http://esriland.maps.arcgis.com/home/item.html?id=5969689b642840e39cf0491669484e0b>



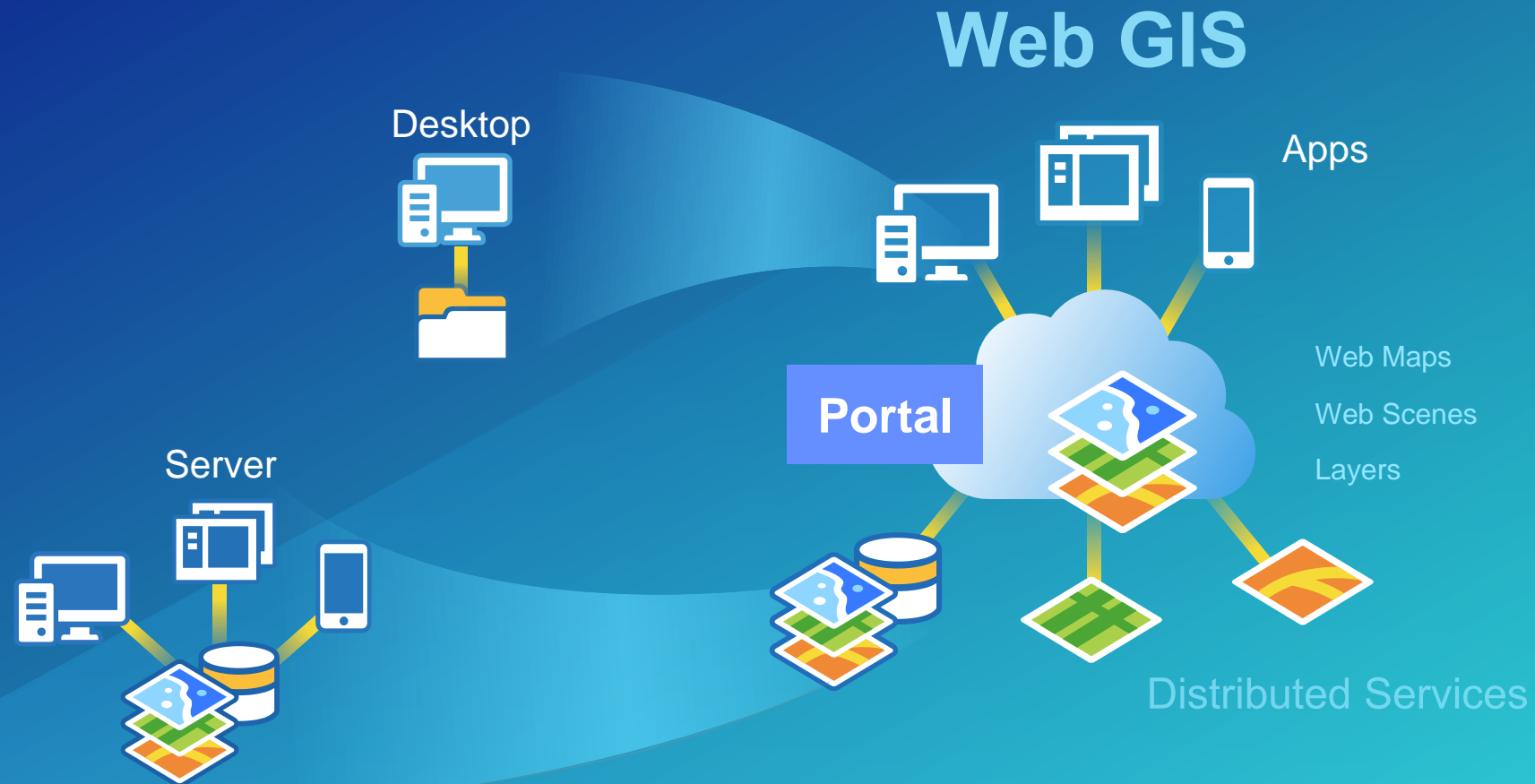
Web GIS

Dynamically Abstracts and Organized All Types of Geospatial Data...



Web GIS

WebGIS is a Transformational Architecture

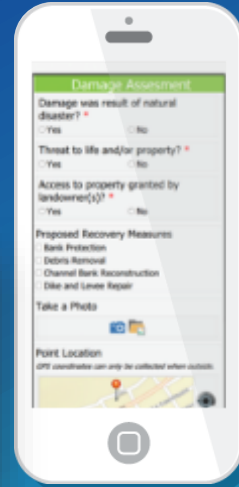


Bringing Together Systems of Record with a System of Engagement

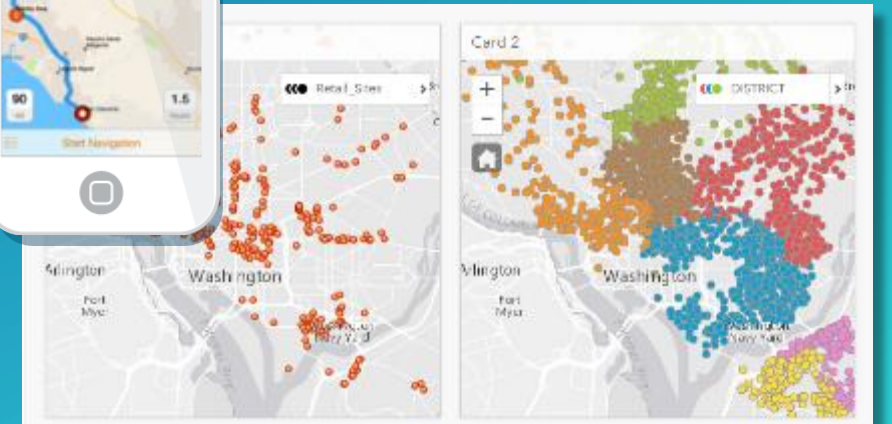
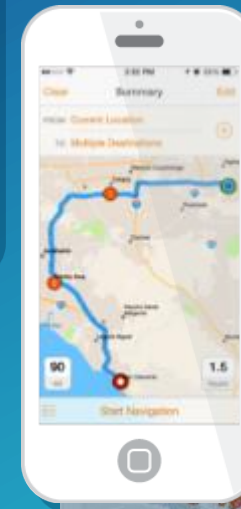
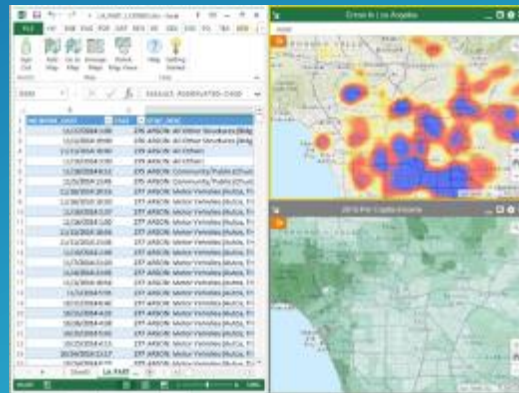
ArcGIS Apps

Powered by Services

- Workforce
- Operations Dashboard
- Navigator for ArcGIS
- Collector for ArcGIS
- Survey123
- Explorer for ArcGIS
- Maps for Office
- Drone2Map
- Insights for ArcGIS
- ArcGIS Earth
- Templates....



Maps for Office



Insights

Support your workforce and workflows....

Apps

Extending ArcGIS Capabilities Everywhere

Field

Collector

Navigator

Workforce

Survey123

Drone2Map

Office

ArcGIS
Earth

Explorer

Maps for
Office

Maps for
SharePoint

Operations
Dashboard

Maps for
Adobe Creative
Cloud

Maps for
Power BI

CityEngine

GeoPlanner

Business
Analyst

Community

Story
Maps

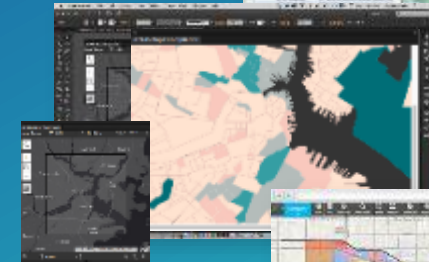
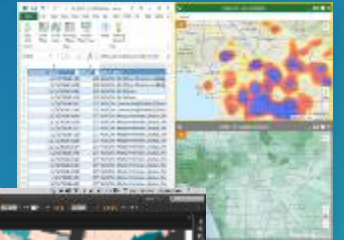
Initiatives

Open Data

Photo
Survey

Quick
Report

Crowdsourc
e Polling



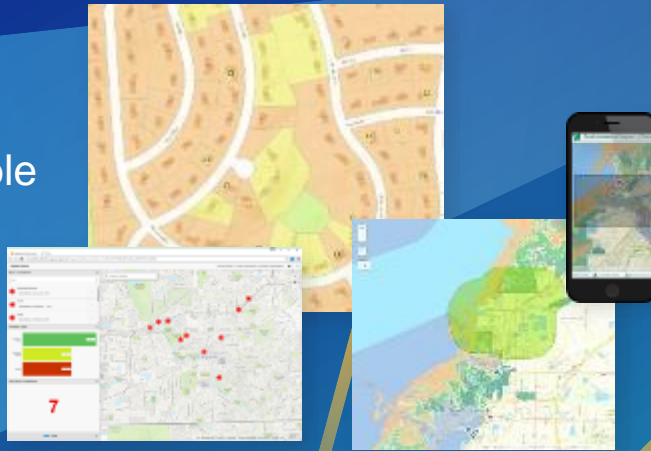
Focused, Powerful, and Ready-to-Use

Hundreds of Ready-to-Use Maps & Apps

Open-Source Solutions

- Easily Configurable
- Fully Supported
- No Cost

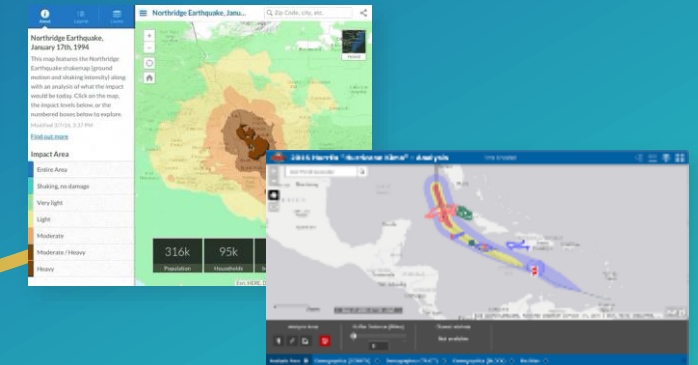
Local & State Government



Utilities & Telecom



Emergency Management & Public Safety



Military & Security



Open-Source Solutions

450+ Solutions
500,000+ Downloads



Delivering Innovation & Best Practices

Land Records

Parties, Geometry, Rights

Documents and data - ownership, value, use, planning and development of real property

- Deeds
- Mortgages
- Leases
- Titles
- Liens
- Foreclosures
- Discharges
- Easements
- Plats
- Subdivisions
- Land Surveys
- Assessment Data
- Property Tax Data
- Images
- Parcels
-



And ancient indexing systems.....

Parcels

More than geometry.....

- Geometry
- Parcel ID
- Area
- Land Use Code
- Address
- Owner
- Value
- Grantor/Grantee
- School District
- Sale Date
- Sketch
- Improvements
- Construction Type
- Photos
- Value History
- Section-TWP-RNG
- Subdivision
- Tax Account Number
- Voting Ward
- Census Block
- Neighborhood
- Soils/Ag
- Zip Code
- Ownership History
- Parent Parcel
- Tax Districts
- Special Districts
- Lot/Block
- Zoning
-

PARCEL: 276000743992		100 POWERCRAFT CR	
JONES ALAN W			
Parcel			
Tract(s)	27600074		
Parcel Use Code	37-0-0010-A0-0		
Land Use Code	201		
Land Use Description	R-1 CONDO/GRAND TOWNHOUSE/1-22		
Ownership Location	R-1 CONDO/CR 3 LUG R CONDO/MS		
Lot Area	108.84		
Acres	2.5		
County	10000000		
Region	000000000000		
Subregion	000000000000		
Section	000000000000		
Owner			
Owner(s)	JONES ALAN W		
Owner(s)	JONES ALAN W		
Mailing Address	100 POWERCRAFT CR		
City/ST			
Mailing Address	100 POWERCRAFT CR		
Mailing Address	100 POWERCRAFT CR		
Current Assessment			
Assessed Value	Assessed Value	Assessed Date	
50,000	50,000		
Estimated Taxes			
County	100		
Region	000		
Subregion	000		
Total	2.000		
No Lien	00		
Lot Sale			
Buy Date	01-00-01		
Buy Price	200,000		
No. of Lots	1		
Trans. Fee and Tax	000-000		
Region	000000000000		
Subregion	000000000000		
Section	000000000000		
Unit Number	276000743992		

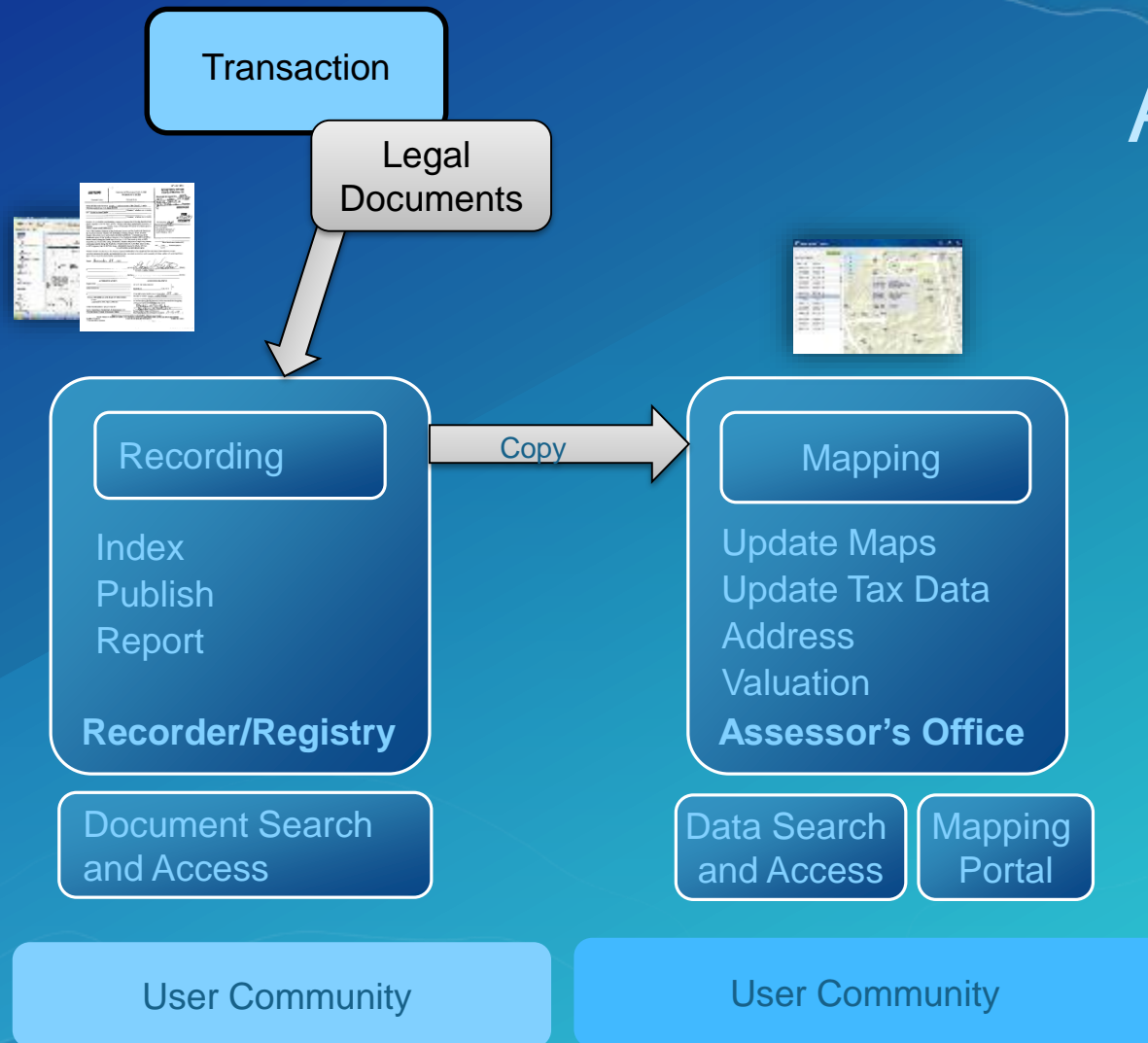
Source Data File		Data Transfer File		Target Data File	
Field Name	Value	Field Name	Value	Field Name	Value
NAME	John Doe	NAME	John Doe	NAME	John Doe
ADDRESS	123 Main St	ADDRESS	123 Main St	ADDRESS	123 Main St
PHONE	555-1234	PHONE	555-1234	PHONE	555-1234
EMAIL	john.doe@example.com	EMAIL	john.doe@example.com	EMAIL	john.doe@example.com
DOB	1980-01-01	DOB	1980-01-01	DOB	1980-01-01
SEX	M	SEX	M	SEX	M
HEIGHT	180	HEIGHT	180	HEIGHT	180
WEIGHT	75	WEIGHT	75	WEIGHT	75
HAIR_COLOR	Brown	HAIR_COLOR	Brown	HAIR_COLOR	Brown
EYES_COLOR	Blue	EYES_COLOR	Blue	EYES_COLOR	Blue
SKIN_COLOR	Fair	SKIN_COLOR	Fair	SKIN_COLOR	Fair
RELIGION	Christian	RELIGION	Christian	RELIGION	Christian
POLITICAL_AFFILIATION	Democrat	POLITICAL_AFFILIATION	Democrat	POLITICAL_AFFILIATION	Democrat
EDUCATION_LEVEL	High School	EDUCATION_LEVEL	High School	EDUCATION_LEVEL	High School
EMPLOYMENT_STATUS	Unemployed	EMPLOYMENT_STATUS	Unemployed	EMPLOYMENT_STATUS	Unemployed
ANNUAL_INCOME	25000	ANNUAL_INCOME	25000	ANNUAL_INCOME	25000
HOUSING_STATUS	Rent	HOUSING_STATUS	Rent	HOUSING_STATUS	Rent
VEHICLE_OWNERSHIP	No	VEHICLE_OWNERSHIP	No	VEHICLE_OWNERSHIP	No
CRIMINAL_RECORD	No	CRIMINAL_RECORD	No	CRIMINAL_RECORD	No
PSYCHiatric_HISTORY	No	PSYCHiatric_HISTORY	No	PSYCHiatric_HISTORY	No
ADDRESSES	123 Main St	ADDRESSES	123 Main St	ADDRESSES	123 Main St
PHONES	555-1234	PHONES	555-1234	PHONES	555-1234
EMAILS	john.doe@example.com	EMAILS	john.doe@example.com	EMAILS	john.doe@example.com
DOB	1980-01-01	DOB	1980-01-01	DOB	1980-01-01
SEX	M	SEX	M	SEX	M
HEIGHT	180	HEIGHT	180	HEIGHT	180
WEIGHT	75	WEIGHT	75	WEIGHT	75
HAIR_COLOR	Brown	HAIR_COLOR	Brown	HAIR_COLOR	Brown
EYES_COLOR	Blue	EYES_COLOR	Blue	EYES_COLOR	Blue
SKIN_COLOR	Fair	SKIN_COLOR	Fair	SKIN_COLOR	Fair
RELIGION	Christian	RELIGION	Christian	RELIGION	Christian
POLITICAL_AFFILIATION	Democrat	POLITICAL_AFFILIATION	Democrat	POLITICAL_AFFILIATION	Democrat
EDUCATION_LEVEL	High School	EDUCATION_LEVEL	High School	EDUCATION_LEVEL	High School
EMPLOYMENT_STATUS	Unemployed	EMPLOYMENT_STATUS	Unemployed	EMPLOYMENT_STATUS	Unemployed
ANNUAL_INCOME	25000	ANNUAL_INCOME	25000	ANNUAL_INCOME	25000
HOUSING_STATUS	Rent	HOUSING_STATUS	Rent	HOUSING_STATUS	Rent
VEHICLE_OWNERSHIP	No	VEHICLE_OWNERSHIP	No	VEHICLE_OWNERSHIP	No
CRIMINAL_RECORD	No	CRIMINAL_RECORD	No	CRIMINAL_RECORD	No
PSYCHiatric_HISTORY	No	PSYCHiatric_HISTORY	No	PSYCHiatric_HISTORY	No

Backbone of GIS.....

Recording & Parcel mapping

Recorder

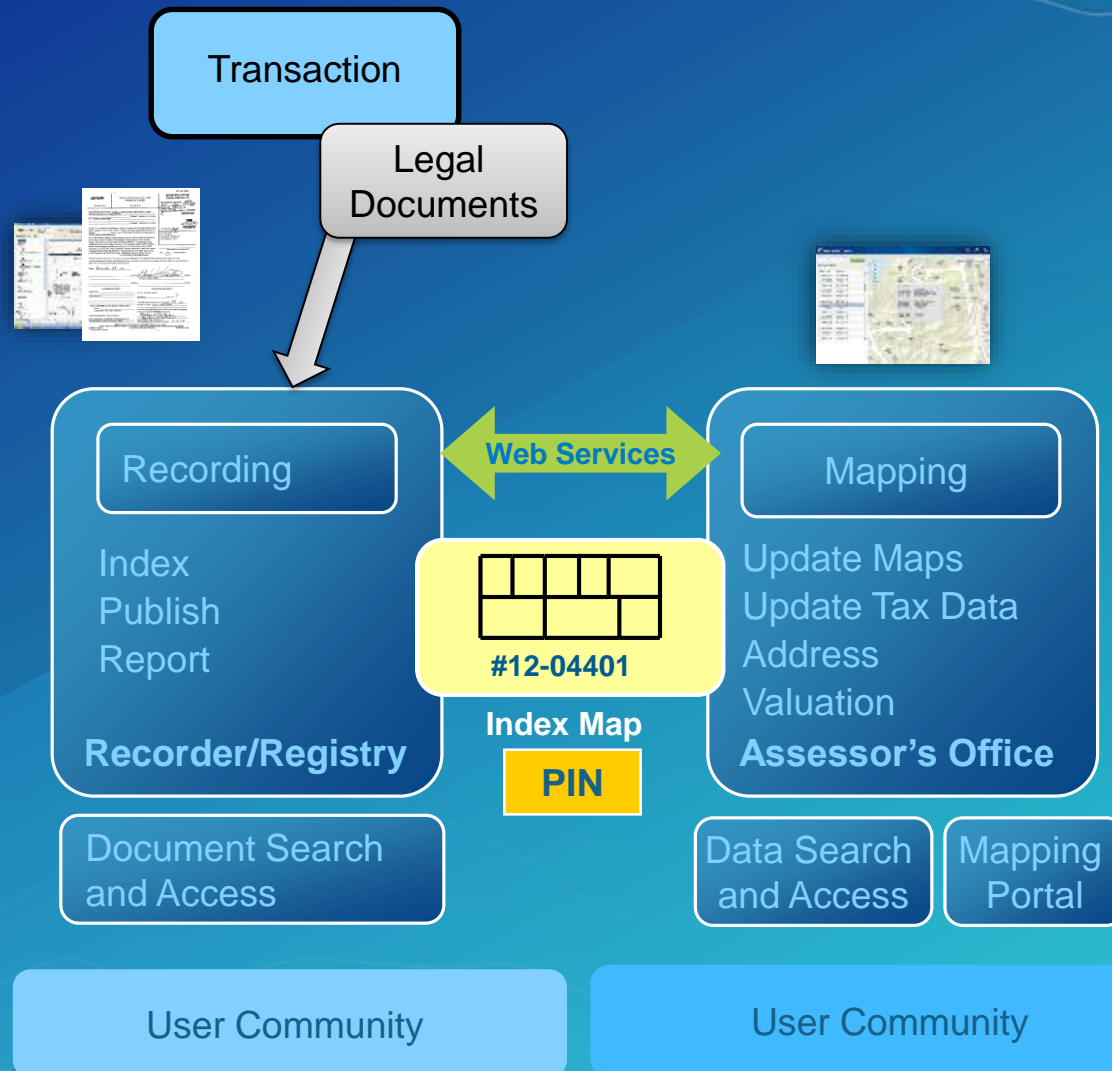
Assessor



Recording & Parcel mapping

Recorder

Assessor



GIS & CAMA Integration

Services

CAMA/Assessment / Tax Systems



Spatial Features in RDBMS
Geo-enriched Assessment / Tax Data

Python Scripts



Update
Feature
Service

Tax Parcel
Geometry



Parcel Editing Solution

GIS Portal/Cloud



Land Records Services

- Tax Parcels
- Sales
- Foreclosures
- Appeals
- Assessment Neighborhoods
- Tax Reverted Property
- Historic Parcels
- Parcel Basemaps
- Public Notification
- Others...

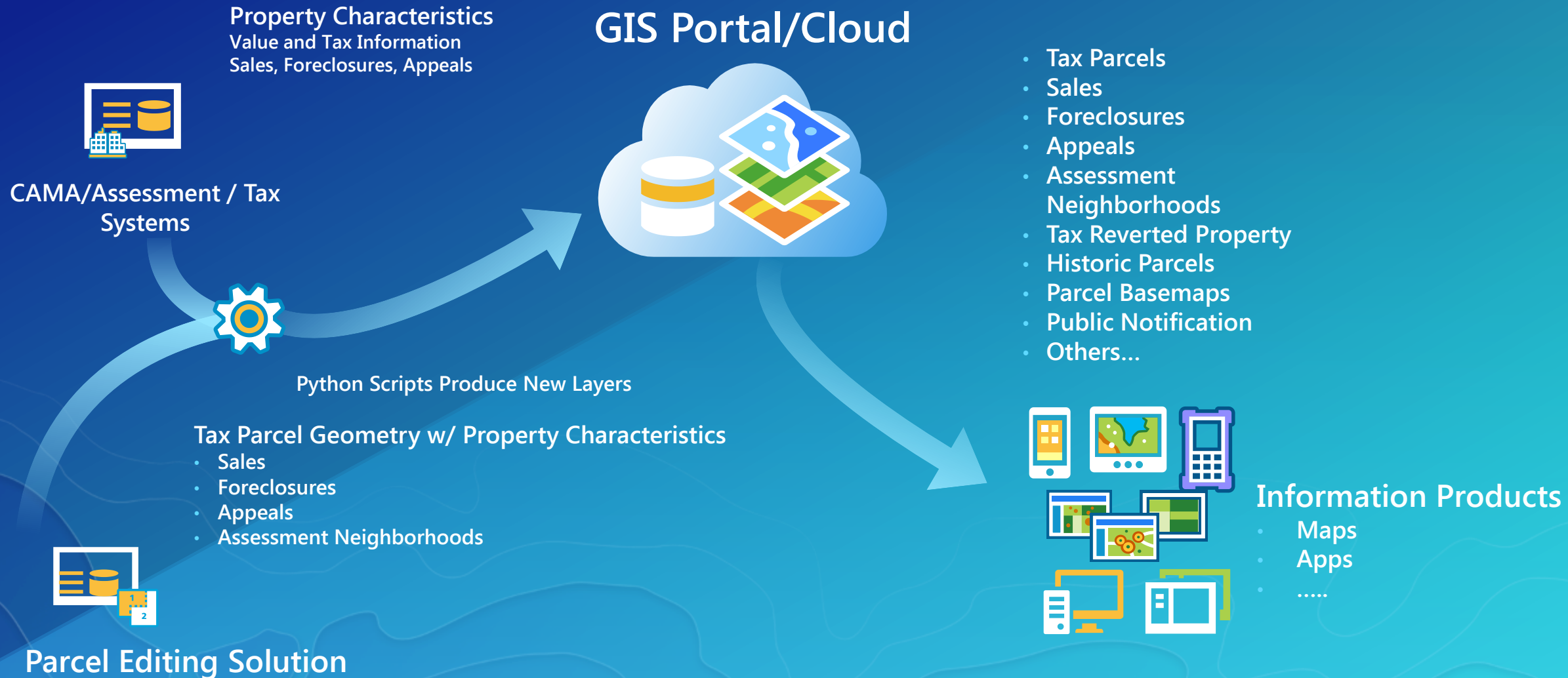
Information Products

- Maps
- Apps
-



GIS & CAMA Integration

Extract Transform and Load - ETL



GIS & CAMA Integration

Rapid Deployment

CAMA/Assessment / Tax
Systems



Python
Scripts



Update
Feature
Service

Tax Parcel
Geometry



Parcel Editing

GIS Portal/Cloud



Land Records Services

- Tax Parcels
- Sales
- Foreclosures
- Appeals
- Assessment
- Neighborhoods
- Tax Reverted Property
- Historic Parcels
- Parcel Basemaps
- Public Notification
- Others...

Information Products

- Maps
- Apps
-

Services



Challenges

Common Goals and Challenges for Assessors

- Maintaining trust and confidence of the public
- A lot of business systems....out of sync
- Keeping data current
- Minimizing appeals
- Transparent operations
- Reducing counter traffic
- Discover untaxed property
- Improved analysis
- Discover trends and patterns
- Sharing data
- Training
- Field appraiser management
- New devices
- Reduce operational costs

Similarities across the country.....

Challenges

Common Goals and Challenges for Clerks and Recorders

- Maintaining trust and confidence of the public
- A lot of business systems....out of sync
- Keeping data current/backlog
- Minimizing appeals
- Transparent operations
- Reducing counter traffic
- Generating revenue
- Improved analysis
- Discover trends and patterns
- Sharing data
- Training
- New devices
- Reduce operational costs

Similarities across the country.....

ArcGIS

Supporting the entire assessor's office



Making Mapping and GIS Available Across Your Organization....

ArcGIS for Assessment and Taxation

Supporting Assessor Requirements

Parcel Management

Field Operations

Value Analytics

Public Relations

Parcel Editing



Quality Control



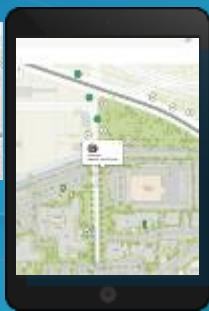
Map Production



Address Management



Mobile Access to View & Edit

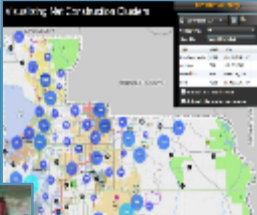


Workforce

Foreclosure Mapping



Construction Permit Visualization



Property Appraisal



Visualize Property Value



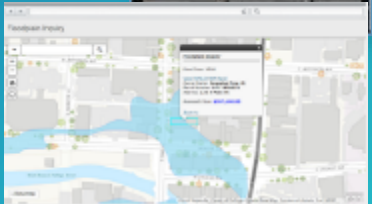
CAMA Visualization



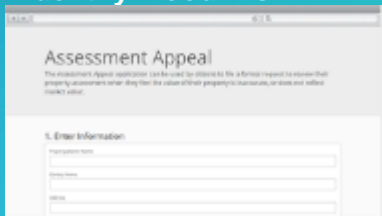
Residential Comp Finder



Modern Public Access



Identify Flood Risk



File Assessment Appeals

Open Data

Parcel Data Management

Improved, Efficient Workflows

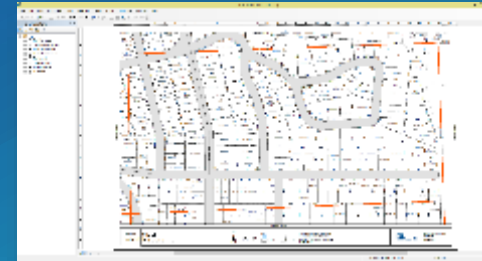
Deed Examining



Workflow Manager



Tax Map Book



Community Parcels



Parcel Editing Solution



Data Reviewer
for Tax Parcels



PLSS Editing



Addressing



Collect, Organize and Manage Data in the System of Record.....

Purpose-Built Tools

Integrity, Topology, History

Feature
Adjustment

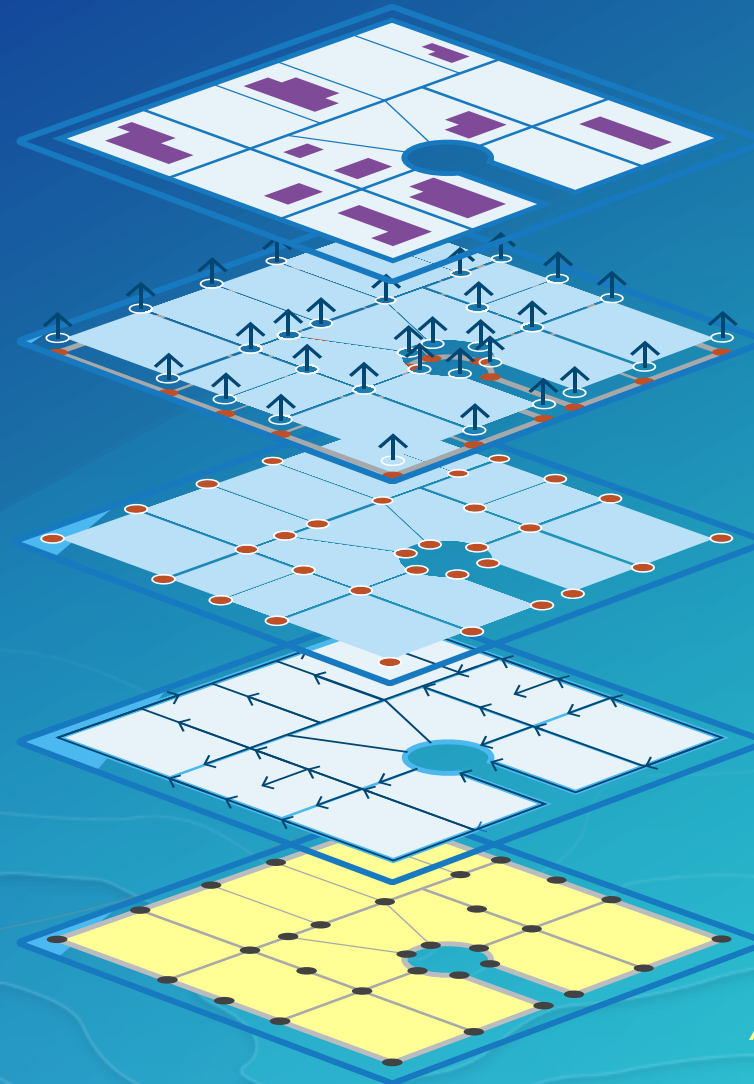
Coordinate
Updates

Control Points

Fabric
Adjustment

Measurements

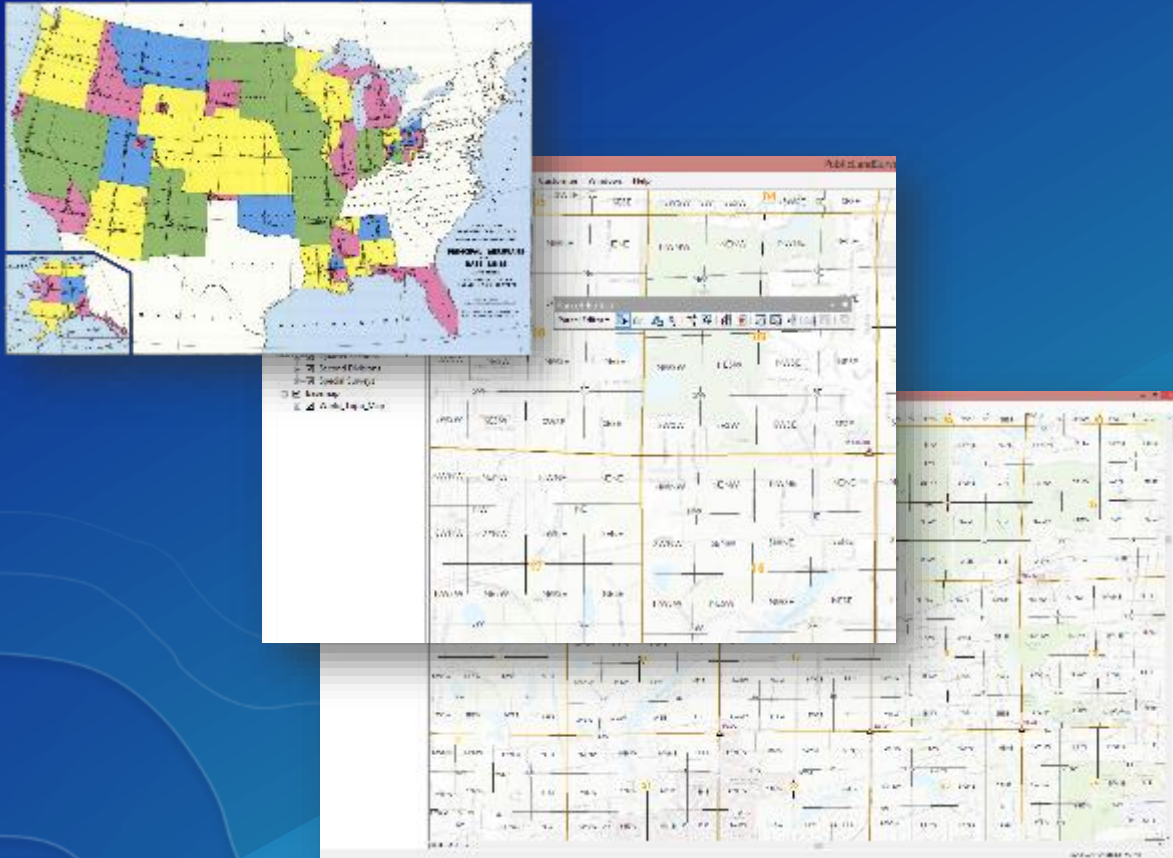
Parcel Fabric



Aligning Data Using Measurements.....

PLSS

COTS Tools for Staying Current



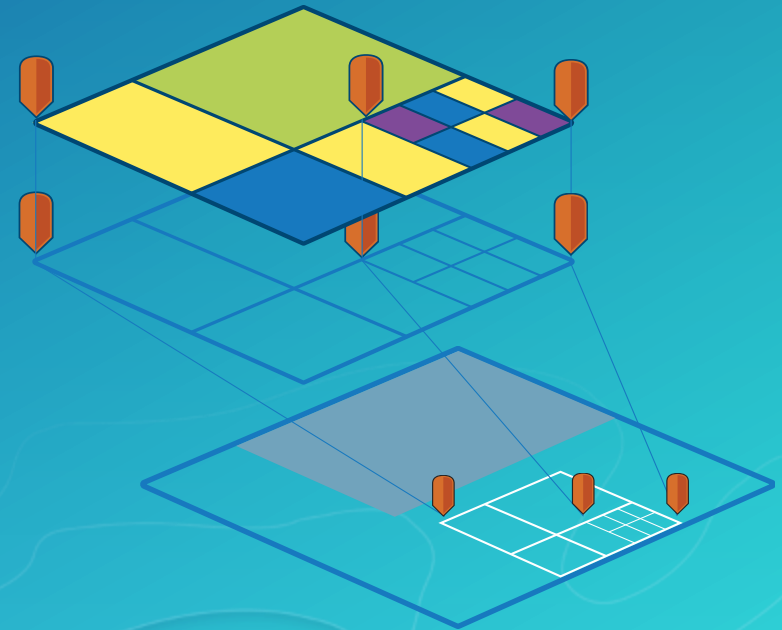
“By adopting a commercially supported package that’s compliant with national and federal standards, we’ve built a solid foundation for the future for the BLM,” Don Buhler, National Cadastral Director, BLM.

Parcel
Fabric

GIS

Parcels

PLSS

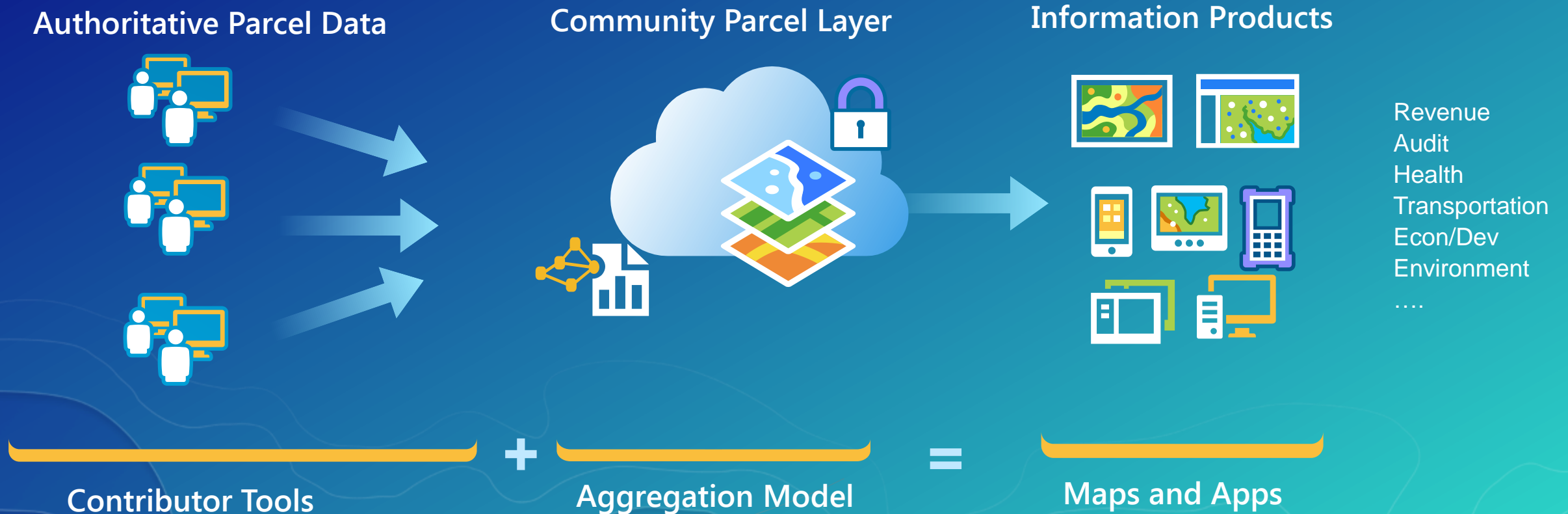


BLM – PLSS Managed in the Parcel Fabric

Connecting Layers with Measurements.....

Support Parcel Aggregation

Web GIS solution for parcel aggregation



Revenue
Audit
Health
Transportation
Econ/Dev
Environment
....

COTS Tools for aggregating and sharing.....

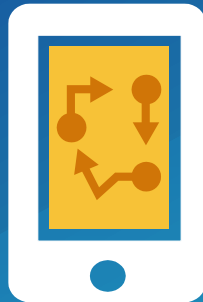
Field Operations

COTS Tools for Managing Field Appraisers

Workforce



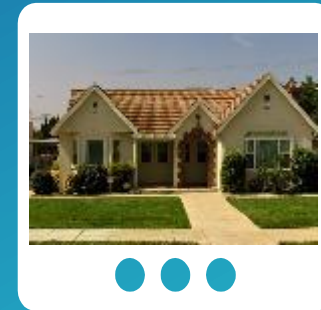
Navigator



Collector



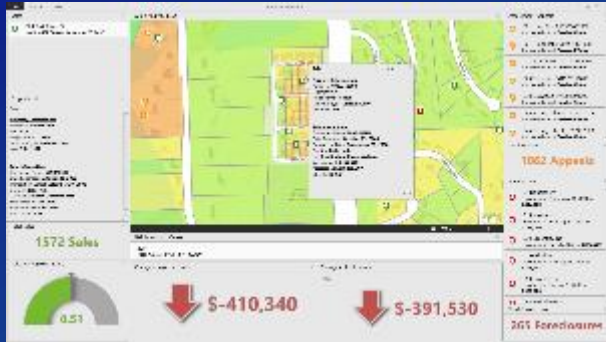
Photo Survey



Understand backlog, navigate efficiently, collect effectively.....

Value Analytics

Analysis, Visualization, Maps and Apps



Value Analysis Dashboard



Value Change Over Time



Assessment Neighborhoods



Image Comparison



Photo Survey



Exempt Properties

Discover and visualize trends and patterns.....

Public Relations

Maintain Taxpayer Trust and Confidence



Portal



Top 25 Taxpayers



Story Maps



Comparable Sales Finder



Tax Parcel Viewer



Identify Flood Risk



Assessment Appeal

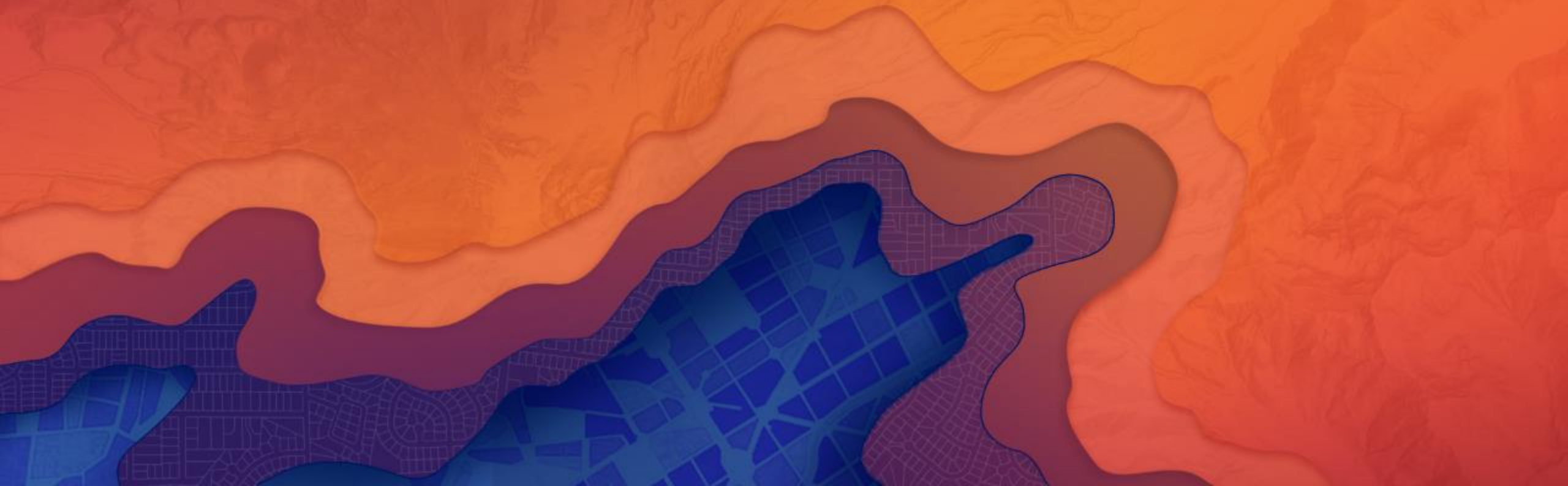


Open Data

Engage and inform the public and stakeholders.....

Resources

Training, Support, Sustainable Solutions





Local Government



State Government



Emergency
Management



Water



Electric



Gas



Defense



Telecommunications



Parks & Gardens

Local Government

ArcGIS for Local Government helps local governments leverage their geographic information and the ArcGIS Platform to improve government activities and enhance citizen services.

[Get Started](#) | [Documentation](#) | [What's New](#) | [Join Community](#)



Land Records

Manage an accurate inventory of real property owned by who owns the land, analyze land value and associated improvements, and maintain property tax records.



Water Utilities

Monitor comprehensive water distribution, flow, and consumption; identify problems and plan capital projects; and improve the operation of utility networks that provide clean drinking water and protect public health.



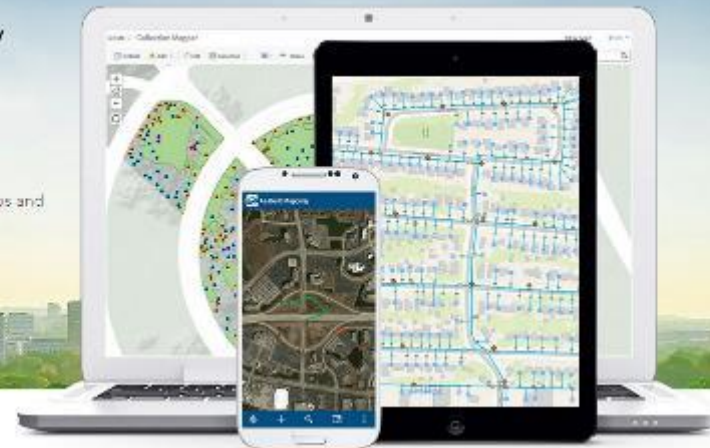
Public Works

Maintain roads of way, assess environmental quality, manage projects, and operate public works and cleaning apps.

ArcGIS Industry Specific Maps and Apps

ArcGIS Solutions deliver Ready-to-Use Maps and Apps to jumpstart your work.

[Find Yours >](#)



- **Authoritative Resources**

- Thousands of hours of professionally developed and curated content

- **Relevant Training for Your Role**

Content for everyone – professionals, students, educators

- **Many Ways to Learn**

- Multiple option and formats to meet your needs

- **Helping You Grow**

- Content for all stages along your learning journey

Land Records Meetup

Connect with Experts

The screenshot shows the 'Land Records Meetup' page on Meetup.com. The header features the group name and the Esri logo. A navigation bar includes links for Home, Members, Sponsors, Photos, Pages, Discussions, and More, along with Group tools and a My profile link. The left sidebar contains a group icon, location (Redlands, CA), founding date (Dec 21, 2012), an 'About us...' link, an 'Invite friends' button, a statistics table, social media links, and an 'edit' button.

Category	Count
Land Records Professionals	1,417
Group reviews	25
Upcoming Meetups	2
Past Meetups	77
Our calendar	1

The main content area is divided into three sections. The top section is a 'Welcome' message with a 'Schedule a new Meetup' button. The middle section lists 'Upcoming (2)' events, including 'Parcel Fabric Geoprocessing Script Tools (11:00 AM PST)' at Esri Headquarters, which has 121 people going. The bottom section lists 'Past Meetups', including 'Land Records Meeting at the Esri UC' at the San Diego Convention Center, which has 33 people going. The right sidebar, titled 'What's new', lists recent member joins such as Matt Hudson, Armstrong, Curtis Miles, Tiffany Puett, David L. Jauregui, Richard Heath, and vijay ky.

Land Records Meetup

Home Members Sponsors Photos Pages Discussions More Group tools My profile

Welcome to the Land Records Meetup!

+ Schedule a new Meetup

Upcoming (2) Suggested (2) Past Calendar

Parcel Fabric Geoprocessing Script Tools (11:00 AM PST)

Esri Headquarters
380 New York Street, Redlands, CA (map)

Thu Feb 16
11:00 AM

I'm going

121 going
1 comment

Parcel Fabric Geoprocessing tools have been organized and modified. You can now download them in a single location and easily deploy them. The collection of toolboxes...
Learn more

Hosted by: Amir Bar-Maor (Co-Organizer)

Land Records Meeting at the Esri UC

San Diego Convention Center
111 West Harbor Drive, San Diego, CA (map)

Thu Jul 13
12:00 PM

I'm going

33 going
1 comment

You have to be registered for the UC (User Conference) to participate in this event. The

What's new

NEW MEMBER
Matt Hudson joined
4h ago

NEW MEMBER
Armstrong joined
5h ago

NEW MEMBER
Curtis Miles joined
5h ago

NEW MEMBER
Tiffany Puett joined
5h ago

NEW MEMBER
David L. Jauregui joined
2 days ago

NEW MEMBER
Richard Heath joined
2 days ago

NEW MEMBER
vijay ky joined
February 6

NEW MEMBER

Land Records Webinars

Educational Webinar Series

<http://go.esri.com/land-records-webinar>



Getting the Most Out of Your GIS

Field Force Management

Maps and Excel

Value Analysis

Realizing Efficiencies

Engaging Your Constituents

Planning for Next Year

GeoNet

Connect with Peers and Experts

GeoNet

The Esri Community

esri

All Places >

Land Records



Land Records Webinars	<u>http://go.esri.com/land-records-webinar</u>
Land Records Book Offer	<u>http://go.esri.com/gis4landrecords</u>
Subscriptions -	<u>http://go.esri.com/subscriptions</u>
Maps for Office -	<u>http://go.esri.com/maps-for-office</u>



esri

THE
SCIENCE
OF
WHERE