Modernizing Land Administration Systems

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Land Administration Systems

GIS is the Technology Platform

- Digital Cadastre Mapping
- Property Valuation
- Transaction Analysis
- Integrated Land Management
- Field Data Collection
- Address Systems
- Resource Leases
- National Data Portal

Powering Land Administration Systems Worldwide……
ArcGIS is the platform for land administration systems.
GIS – The Platform for Land Administration

Tenure
- Cadaster
- Titling
- Surveying
- Addressing
- Census
- ROW

Valuation
- Valuation
- Taxation
- Subsidies

Land Use
- Permission
- Land Use
- Consolidation
- Eviction

Land Development
- Permitting
- Acquisition
- Expropriation
- Preemption

Land Market
- Land Market
- Trading

Portal

Land Applications
- Land Applications

Land Services
- Land Services

Land Information Data
- Land Information Data
System of Record

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

Understand the factors impacting property value and use

Parcel Values

Historic District Property Values

Tax Assessment
  Nebraska

Maui

Georgia

Value Analysis Dashboard

Operations Dashboard

Trade Market Area Analysis
Engaging with the public is now a two-way conversation.

System of Engagement

Engaging taxpayers, businesses and citizens with government

Portal

Comparable Sales/Analytics

Growing with public expectations and capabilities

Story Maps

Mobile

Open Data

Engaging with the public is now a two-way conversation.
ArcGIS Enables Multiple Types of Systems

System of Engagement

System of Record

System of Insight
Modern Architecture

GIS – Enabling Platform

Enabling New Capabilities

How You Integrate
- Client / Server
- Stand-Alone Desktop
- Data Models
- Static Data
- Single Server
- Custom Applications

What You Integrate
- Web Services & Apps
- Connected Desktop
- Web Maps & Layers
- Real-Time
- Distributed Computing
- Configurable Templates & Apps

Why You Integrate
- Proprietary Data
- Open Data & Shared Services
- 3D Features
- Spatiotemporal & Big Data Analytics
- Smart Mapping

Modern Architecture

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Web Services Organizes and Securely Sharing Data…..

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

https://

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

WebGIS is a Transformational Architecture

Bringing Together Systems with Modern Architecture……
Web GIS Simplifies Working With All Types of Data
Using Web Maps, Scenes, and Layers

Creating A Common Language

Apps

Imagery
Tabular
Vector
3D
Real-Time (IoT)
Big Data
Lidar

Distributed
Apps Are Bringing the Power of GIS to Everyone

Extending the Reach of GIS

Across Organizations and Beyond
Tens of Thousands of Open Datasets & Curated Living Atlas

GIS Content | Ready-to-Use Maps and Data

- Basemaps
- Imagery
- Landscape
- Oceans
- Earth Observations
- Demographics and Lifestyle
- Transportation
- Urban Systems
- Boundaries and Places

Millions of User Contributions... Billions of Views per Week
Apps | Extending GIS Capabilities Everywhere

Field
- Collector
- Navigator
- Workforce
- Survey123
- Drone2Map

Office
- ArcGIS Earth
- Explorer
- Operations Dashboard
- Maps for Office
- Maps for SharePoint
- Maps for Adobe Creative Cloud
- Maps for Power BI
- CityEngine
- GeoPlanner
- Business Analyst

Community
- Story Maps
- Initiatives
- Open Data
- Photo Survey
- Quick Report
- Crowdsourcing Polling

Focused, Powerful, and Ready-to-Use
What Apps to Use?

- Collector
- Survey123
- Explorer
- Operations Dashboard
- Drone2Map
GIS for Cadastral Agencies

- Supporting All Requirements

**Parcel Management**
- Parcel Editing
- Quality Control
- Map Production
- Address Management

**Field Operations**
- Mobile Access to View & Edit
- Workforce

**Value Analytics**
- Foreclosure Mapping
- Construction Permit Visualization
- Property Appraisal
- Visualize Property Value
- CAMA Visualization

**Public Relations**
- Modern Public Access
- Identify Flood Risk
- File Assessment Appeals
- My Tax Distribution
- Residential Comp Finder
- Workforce
Support Data/Parcel Aggregation

Web GIS solution for parcel aggregation

Authoritative Parcel Data

Community Parcel Layer

Information Products

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

Contributor Tools

Aggregation Model

Maps and Apps

COTS Tools for aggregating and sharing……
GIS for the Field | Field Data Collection and Field Force Management

- Collecting Data
- Coordinating Work
- Advanced Navigation
- Mapping and Markup

Connecting the Field with the Enterprise
3D Cadastre

Analysis, Visualization, Maps and Apps

Uncovering value locked in your data.....
Colombia
Collaborative Partnering for the Future of Colombia

- IGAC – National Mapping Agency
- Kadaster International
- Trimble
- Esri
- Esri Colombia
Standards-based Solution Requirement

ISO 19152
Typical Situation
Methodology
LADM in ArcGIS Online

Apps

Base Maps and Data

Browser Capabilities

Many More......

Reports
Fit For Purpose LA & GIS

FFP processes with FFP technology

Collector App

LADM Hosted Services

Browser Editing
Collector/ArcGIS Online | Enabling New Workflows with High Accuracy

Android

Choose your own GPS

LADM
Scalable Systems
Modern Cadastral Platform – Web GIS

Supporting Global Cadastre Requirements