



Fit-for-Purpose Land Administration

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Cloud

GIS Cloud

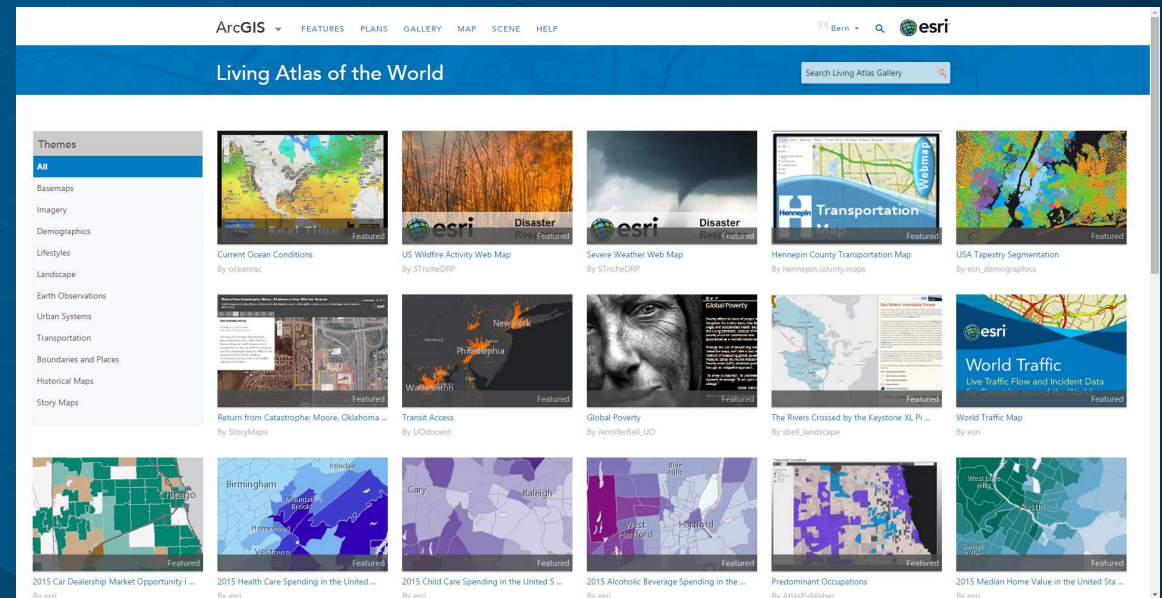
- Hosted publishing and analytics
- Hosted apps
- Hosted content (Living Atlas)
- Sharing and collaboration
- Public ecosystem
- Integration with on-premises Web GIS



GIS Content

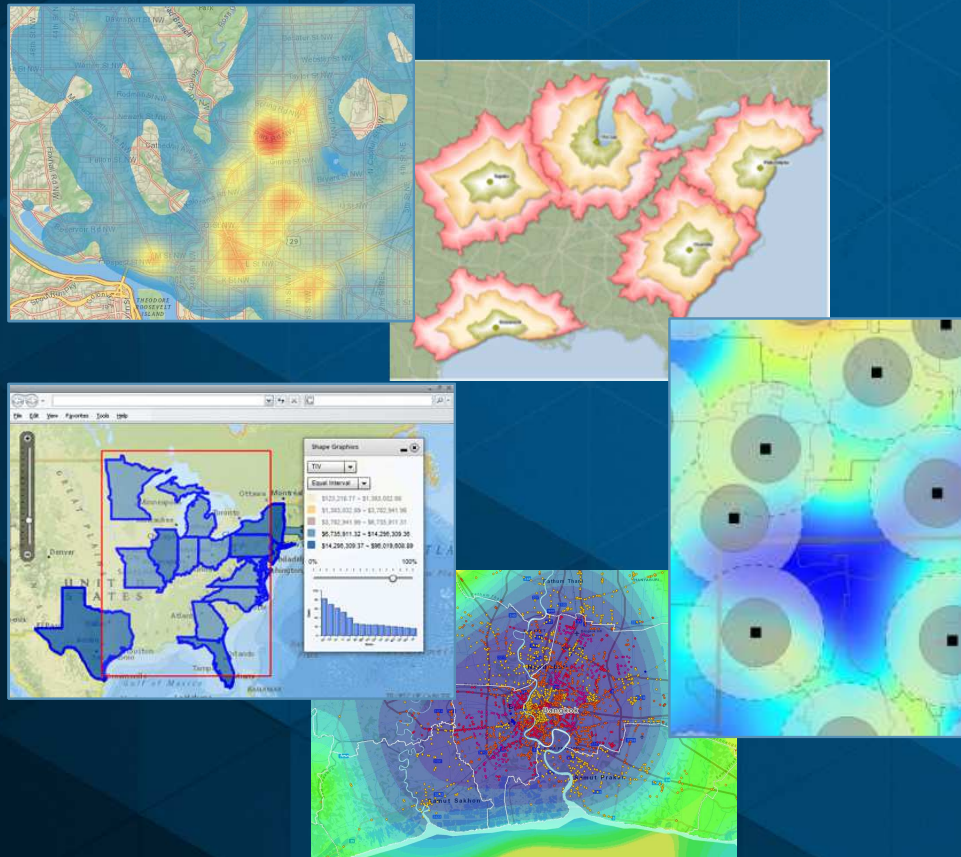
Living Atlas

- Basemaps
- Demographics and Lifestyle
- Transportation
- Urban Systems
- Earth Observations
- Global Imagery
- Landscape
- More....



GIS Services

Hosted publishing and analysis



Route Proximity Find Nearby
Extract Buffer Pattern Analysis
Drive Time Analysis
Data Enrichment Intersect
Aggregate Points Merge
Dissolve Boundaries Union Summarize
Watershed Find Hot Spots
Field Calculator

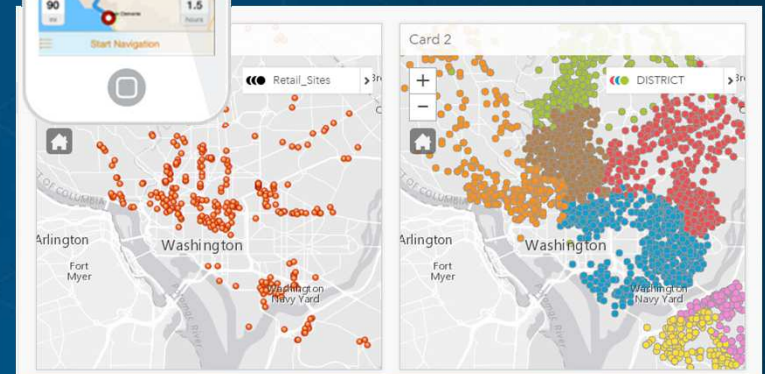
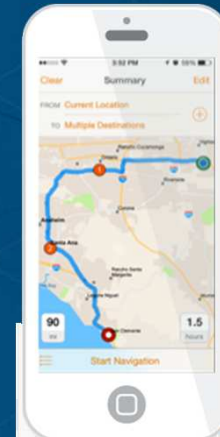
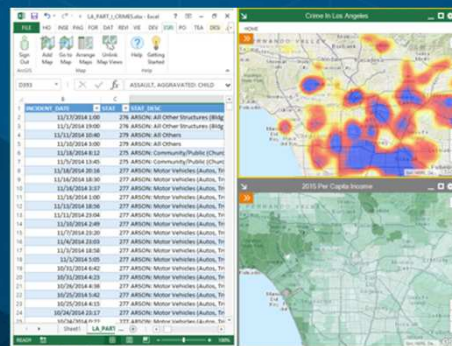
GIS Apps

Support your workforce and workflows

- Maps for Office
- Open Data
- Collector
- Operations Dashboard
- Explorer
- Navigator
- Workforce Manager
- Drone2Map
- Insights
- Earth



Maps for Office



Insights

A Platform for Land Administration

Collect



Produce

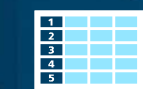


Workflows

Features

Products

Share



Specifications



Data Models



Production
Management

Manage

Collect | Produce | Manage | Share

Many Tools

Supporting Many Workflows

Field Data Collect

Manage

Share/Publish



Fit For Purpose LA & GIS

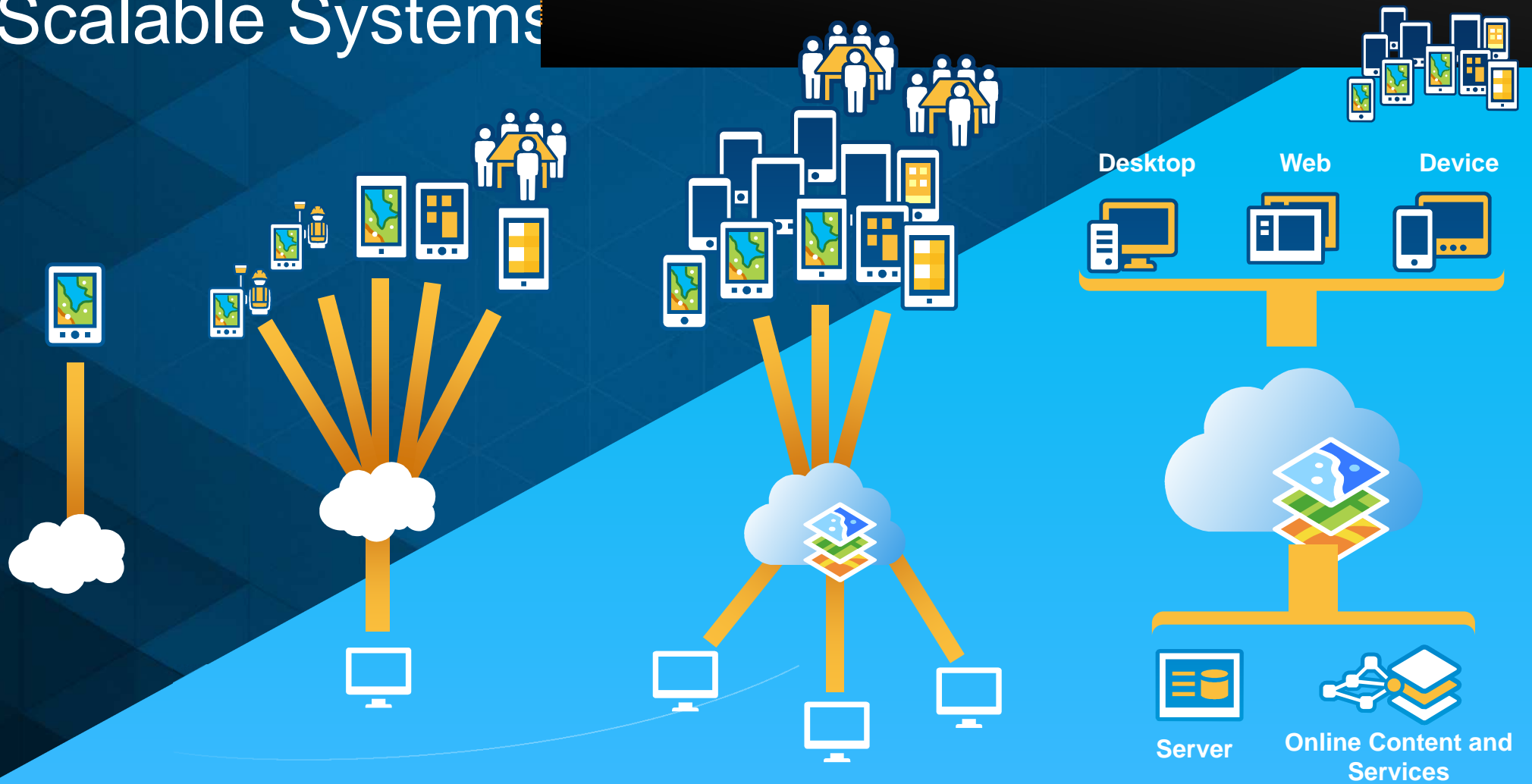
FFP processes with FFP technology

LADM
Hosted Services

Browser Editing



Scalable Systems



Quick Statistics - Colombia

- Population 48 Million (between Spain and S. Korea)
- Parcels 15 Million
 - Urban 11.6 Million
 - Rural 3.5 Million
- Area 441,000 sq. mi. (3x Montana)
- Population Density 105 per sq. mi. (~ Tennessee)
- Peace process with FARC began 2012 - Havana, Cuba

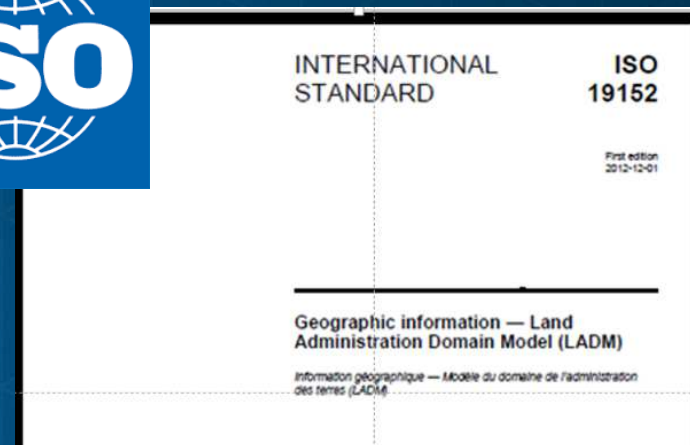
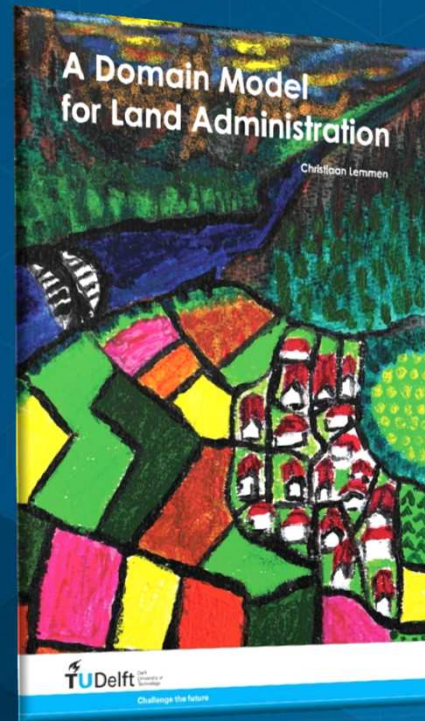
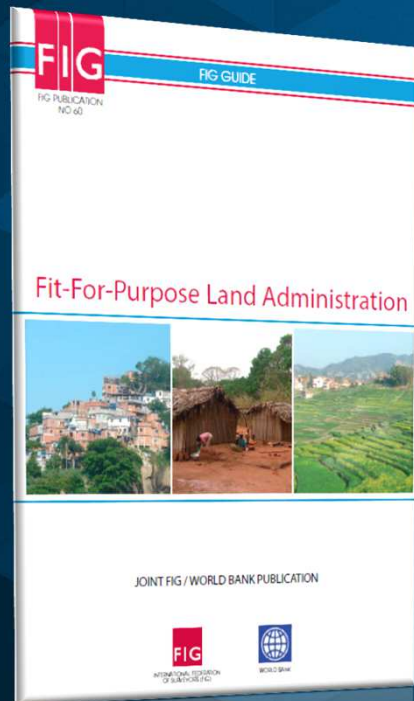


Situation

- Post-Conflict Colombia
- Need low-cost, efficient cadastral data collection methodology
 - No programming
 - No software development
- Resolve boundary issues
- Serve data into multi-purpose cadastre
 - Connect with registry
 - Strengthen property tax
 - Support planning



Standards-based Solution Requirement



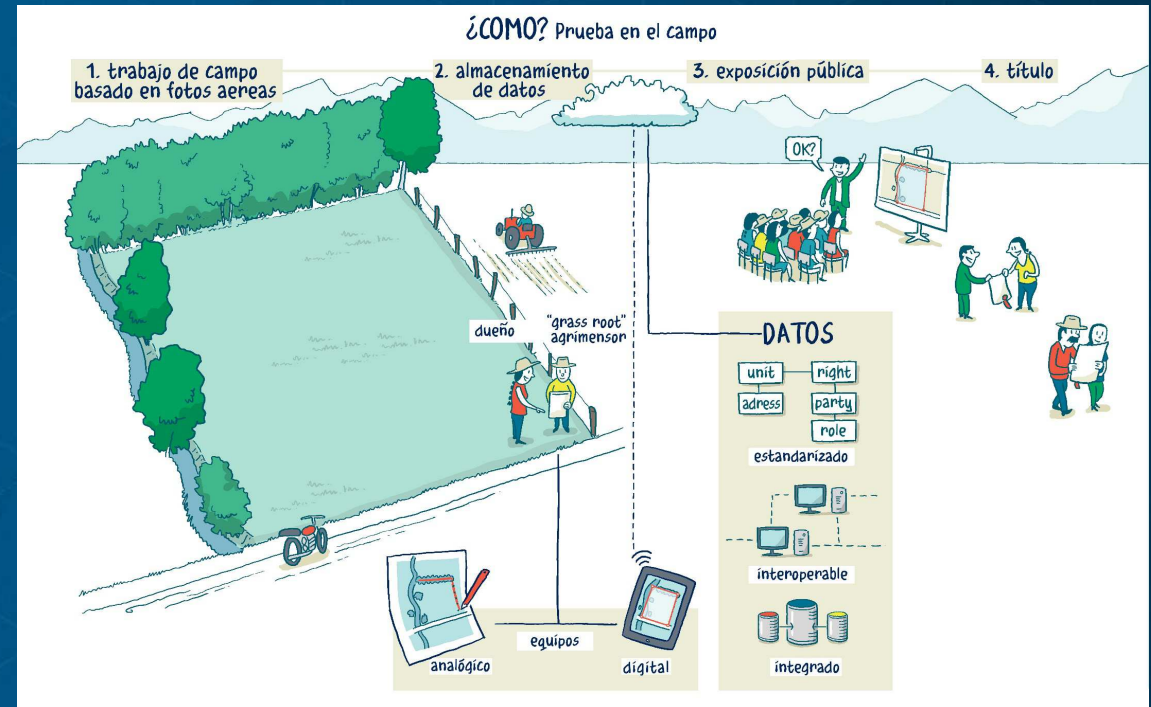
ISO 19152

Typical Situation

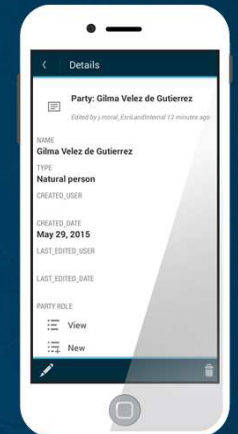
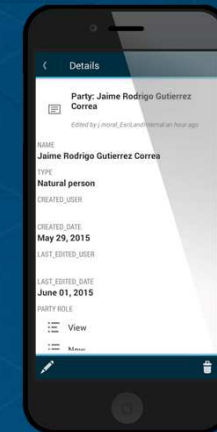


Methodology

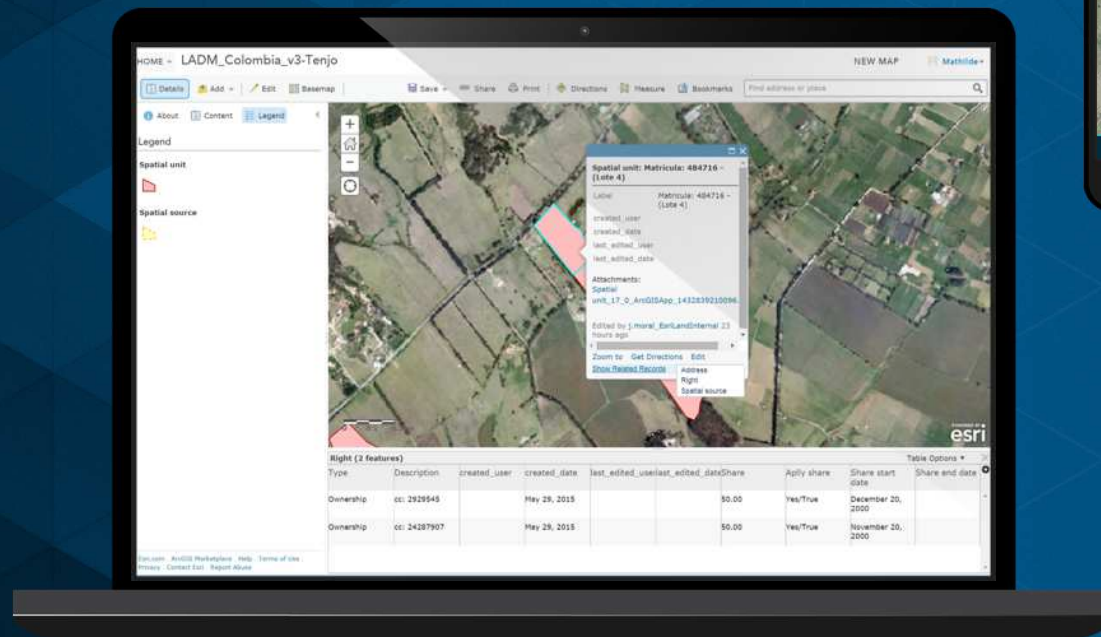
- Data model LADM
- Trimble R1 GNSS (sub-meter)
- Ortho photos (digital)
- Collector for ArcGIS on Android
- Cloud storage Data (spatial and legal)
- Collect Once - participatory aspect



Methodology



LADM in ArcGIS Online



Browser Capabilities

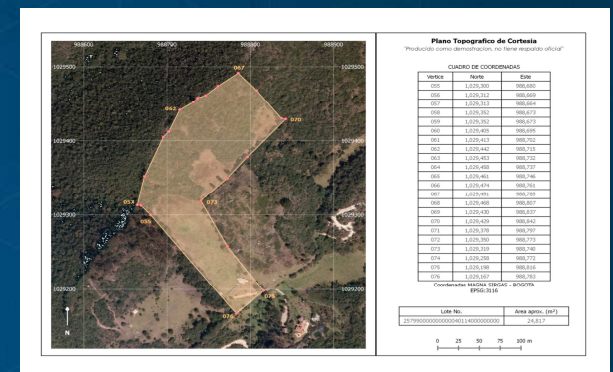


Apps

Many More.....



Base Maps and Data



Reports

Area Calculations

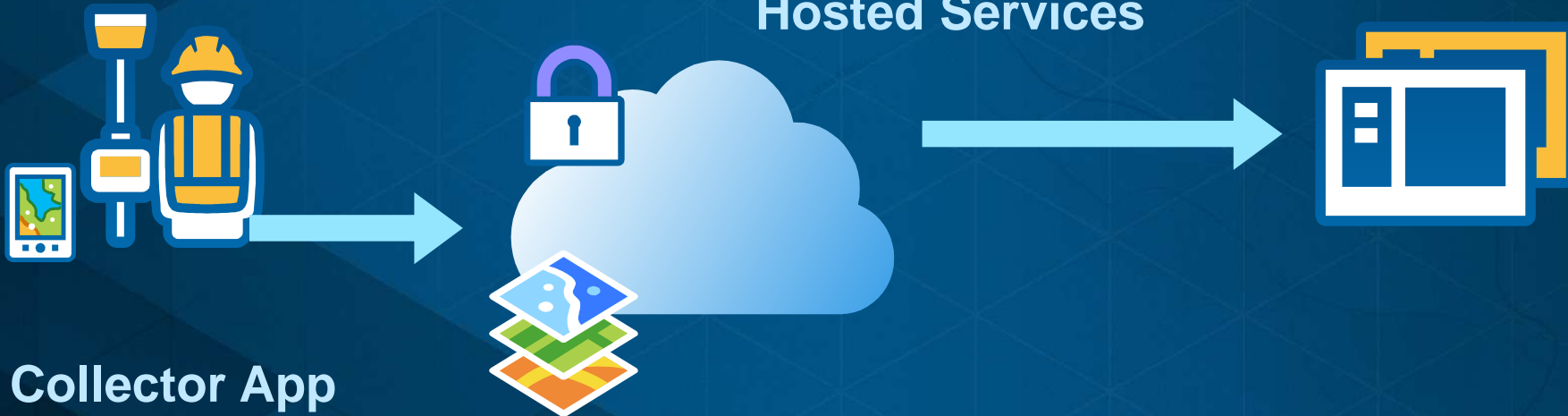
Spatial Unit	Area IGAC m2	Area Test m2	Δ Area m2	Relative Error
21	1,378	1,330	48	0.0348
22	1,589	1,604	15	0.0943
23	1,806	1,768	28	0.0155
24	1,735	1,714	21	0.0121

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