GISS and …… ArcGIS Collector

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USFS Region 6 Data Resources Management
April 2014

Agenda

- Overview and ESRI Strategy for Apps
- Collector for ArcGIS
- What it can/can't do
- Demo FIMT Data Collection
- Summary and Q & A

Adapted from presentation ***Using ArcGIS on Smartphones and Tablets in Disconnected Environments*** by Jeff Shaner, ESRI

The ArcGIS Platform – Web Maps via "Portal"

Web GIS Options – Hosted *or* On-Premises Web Maps

ArcGIS Online (Hosted)

- Public URL
- Hosted Data
- ESRI account log in

ArcGIS for Org (Hybrid)

- Public URL
- Hosted data or internal…
  - SDE
  - ArcServer
- ESRI account log in

Portal (Internal)

- Internal URL
- Internal data
  - SDE
  - ArcServer
- AD Log in
- VPN?

HOME GALLERY MAP GROUPS

Sign In

US FOREST SERVICE

100 Years of Caring for the *land* and serving *people*

U.S. Forest Service

Administrative Boundaries Map

Administrative Forest Boundaries

Administrative Ranger Districts

Administrative Region Boundaries

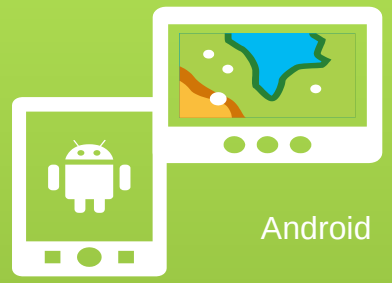
http://usfs.maps.arcgis.com

USFS AGOL/AG4O/Portal Strategy is being redefined

USFS AGOL/AG4O Info

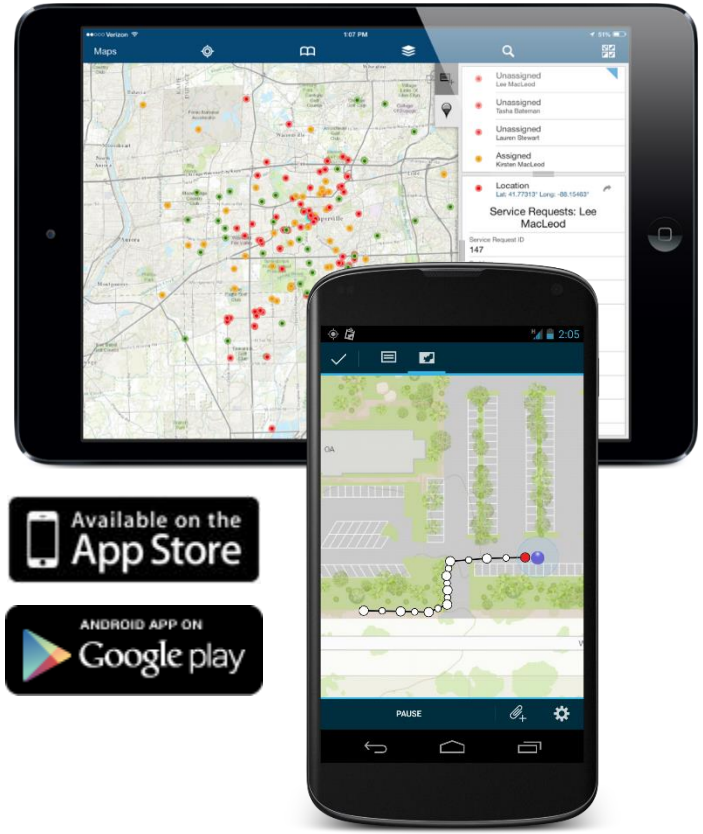
http://fsteams.fs.fed.us/sites/wo-ems/Shared%20Documents/WebFSGroup_ArcGIS.pdf

ESRI Strategy Toward Mobility



Collector for ArcGIS

- COTS Mobile app targets field workflow needs
- Collect and update data
  - Using your location or the map
  - Fill out forms
  - Capture media (pictures, videos)
- Types of use
  - Collect asset locations and status
  - Ground-truth their GIS data
  - Make observations/conduct surveys
  - Replace paper-based forms/process
- Minimal Training Required
- "Free" * Works with AG4O accounts



What Can It Do?

Version 10.2.2

Can Do:

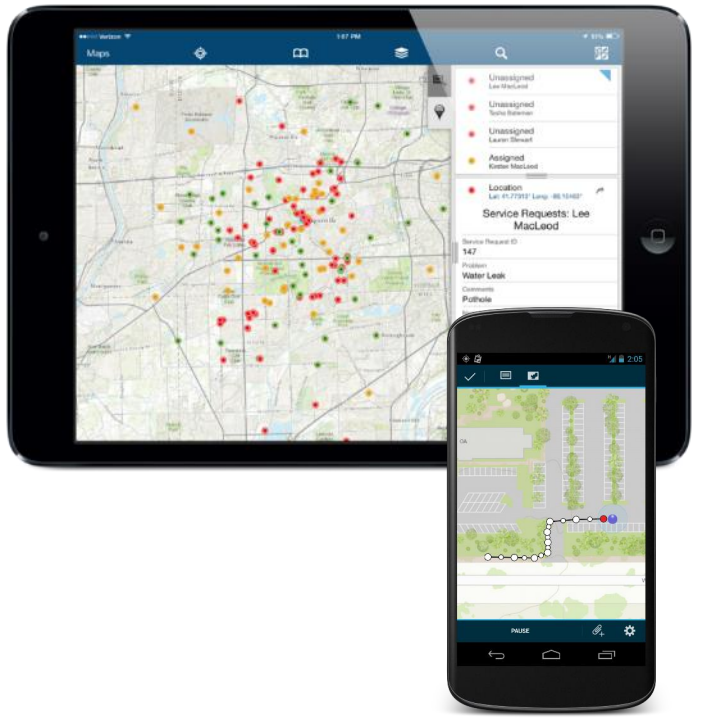
- Simple Feature Service Editing
  - Create, Update, Delete
  - PT/LN/PG
- Attribute Forms
- GPS or Digitize
- GPS Streaming
- Related Photo
- Rudimentary Form Design
- Repeated Attributes
- Repeat Geometry
- Offline Data
- Location Tracking *
- Feature Editor Tracking
- Feature Accuracy Thresholds
- Side Loading TPK Base Maps

Can't Do:

- Related Tables, complex schema
- Custom Forms
- Custom Scripting
- Versioned DB
- Local GDB Editing
- Feature Offsets
- Position Averaging
- Post-Processing GPS data
- Offline Location Tracking
- Only ESRI Base Maps *
- Offline Map Services *
- Windows OS Products

Using Collector

Demo

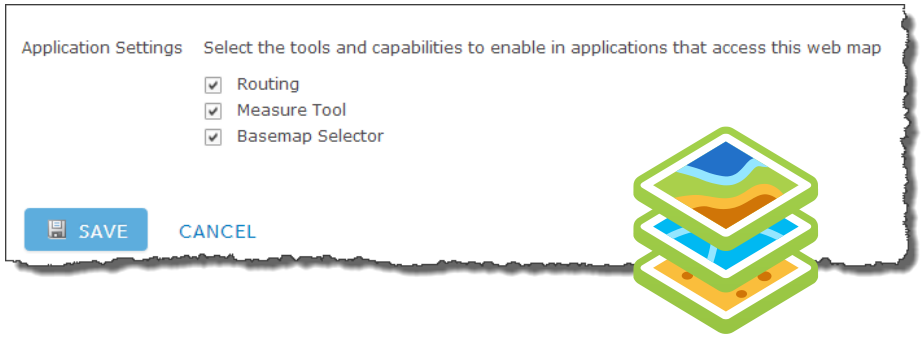


GISS Benefits

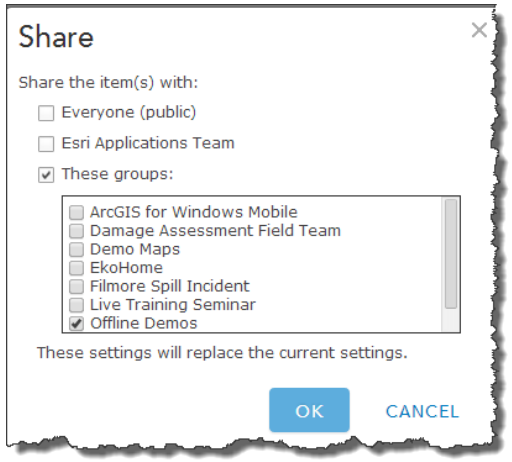
- Real-time data updating
- Minimal data processing
- No cables, no download queue of Field Observers
- Fully attributed features
- Feature Metadata
  - Collector, date, accuracy
- Cross-Platform, multi-agency, shared with vetted collaborators
- Data can be pushed out to field observers
- Data can be taken offline

Collector uses Web Maps

- Collector uses maps that include:
  - Layers from 1+ feature services (editable)
  - Location Tracking layer (optional)
  - Basemap
  - Application settings

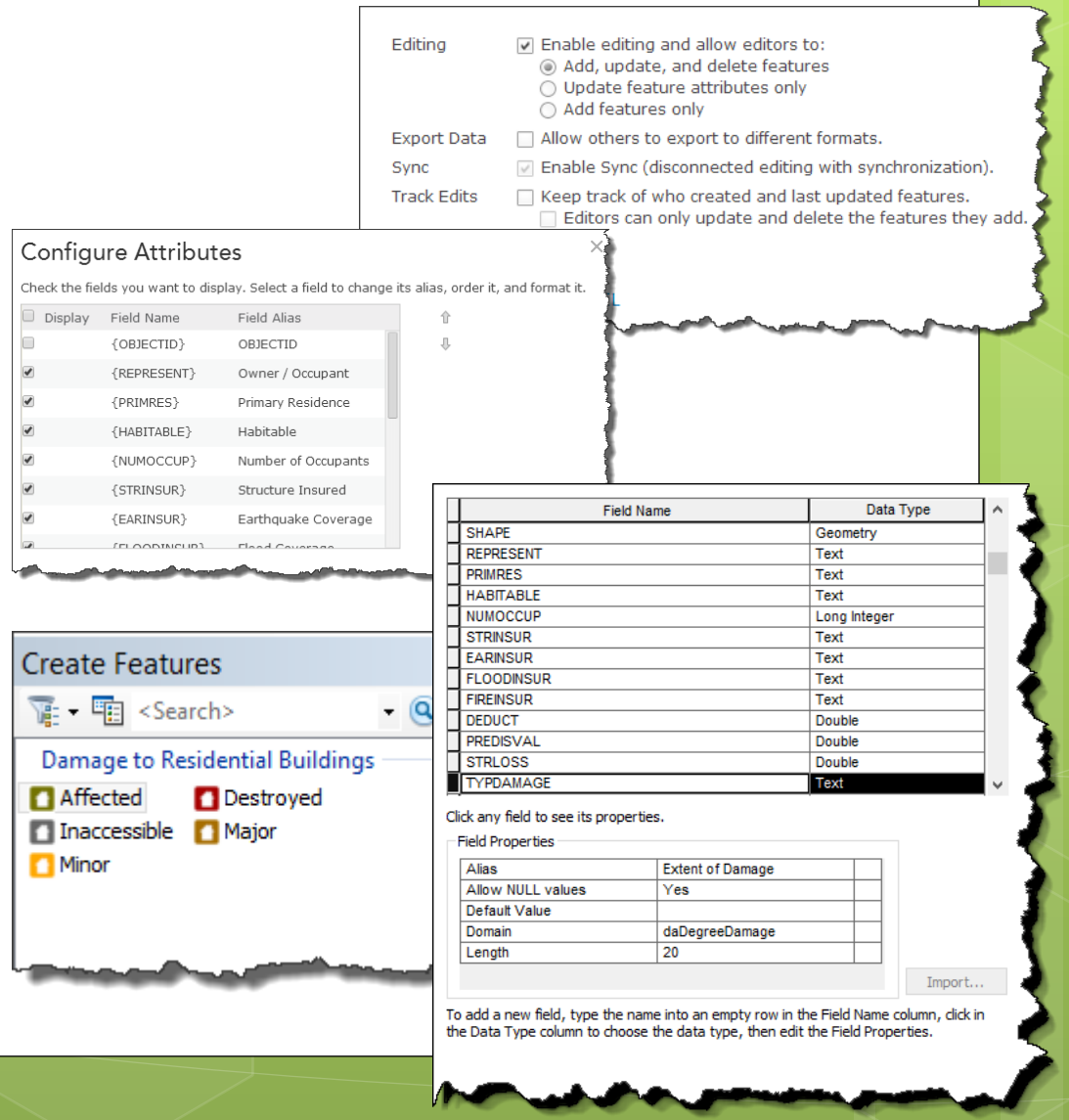


- Share Maps to field workers using Groups:
  - Create Named Users for each field worker
  - Invite field workers to groups
  - Share maps into groups



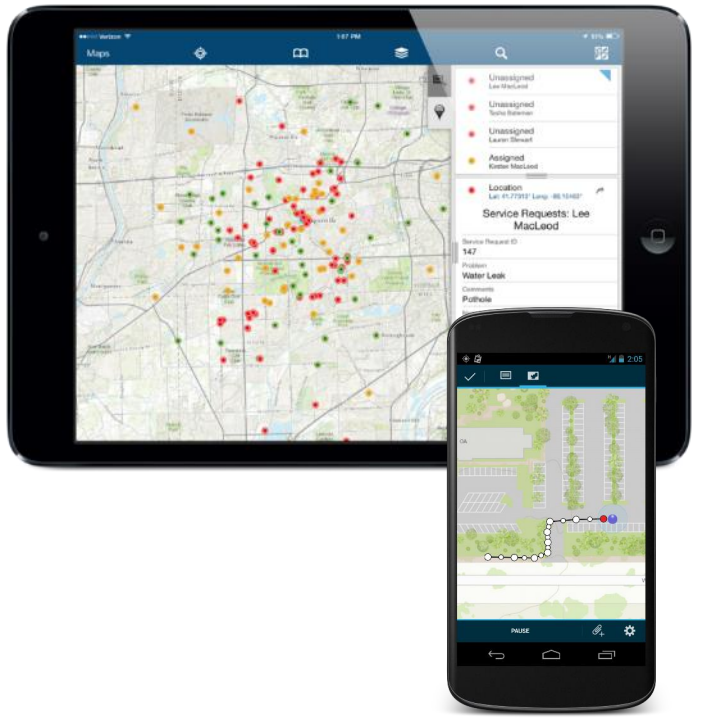
Feature Service Layers and Collection Templates

- Supported Types
  - ArcGIS Online (Hosted)
  - ArcGIS Server (On Premise)
- Supported Operations:
  - Editing options
  - Sync***
- Popups and fields
  - Define the form experience in Collector
  - Take advantage of Geodatabase capabilities
    - Feature Templates
    - Field validation
    - Editor tracking

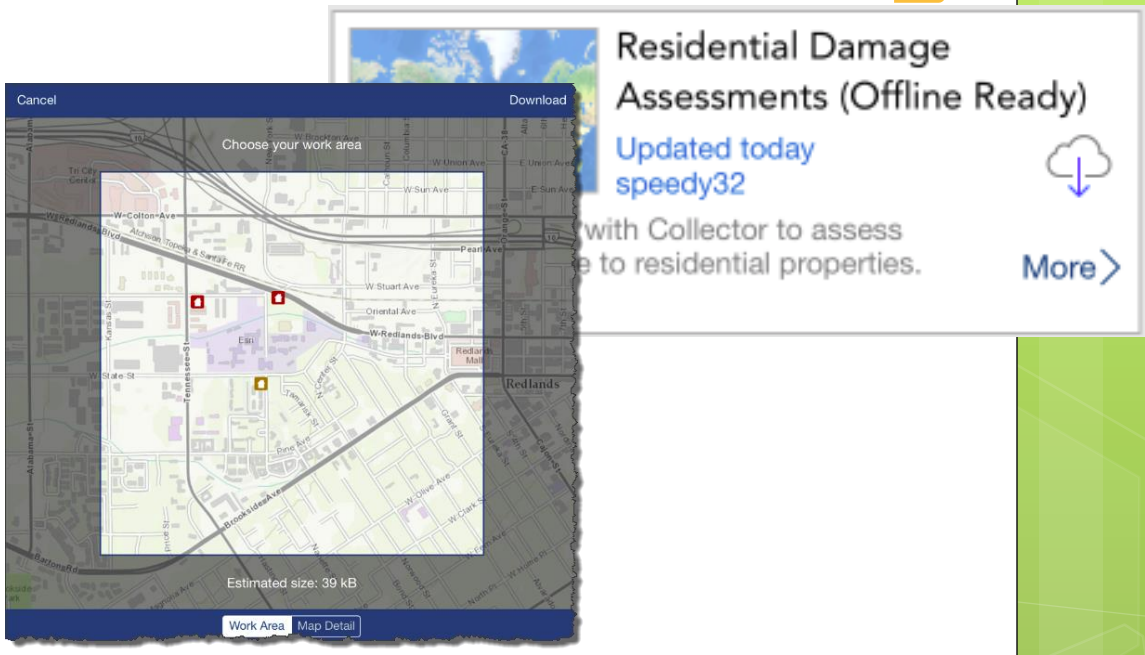


Creating and Publishing

Demo



Working Offline…



- Field user can take their map offline and…
  - View and interact with map
  - Measure distances and areas
  - View popups and media
  - Collect and update features
  - Synchronize changes between field and office
- Map layer support for disconnected editing…
  - Feature Services that support editing operations (Create, Update, or Delete) **Must have Sync enabled
  - Tiled Map Services (on-premises/hosted)
  - Esri Basemap Services

Supported Download Workflows…

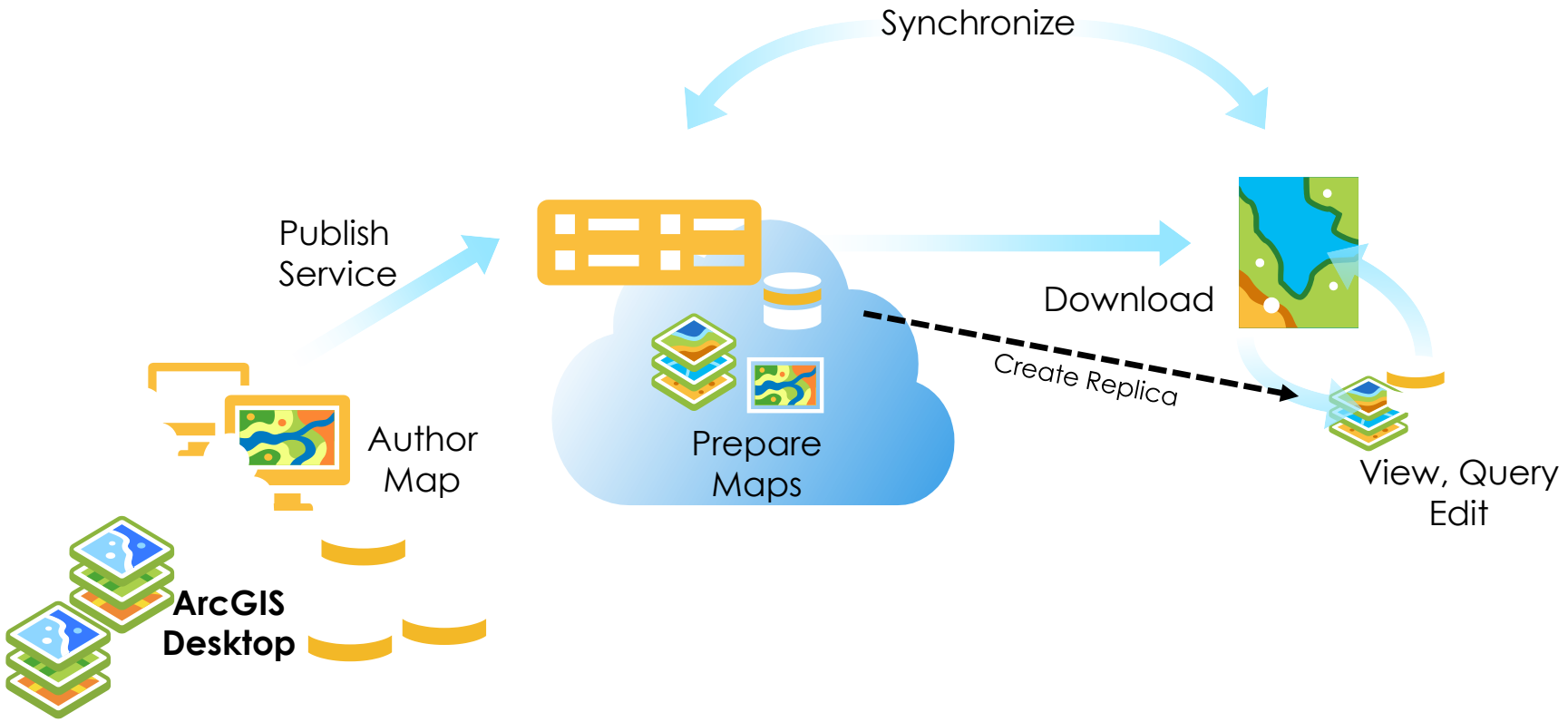
March release (10.2.2)

- Collector user can download map areas to their device

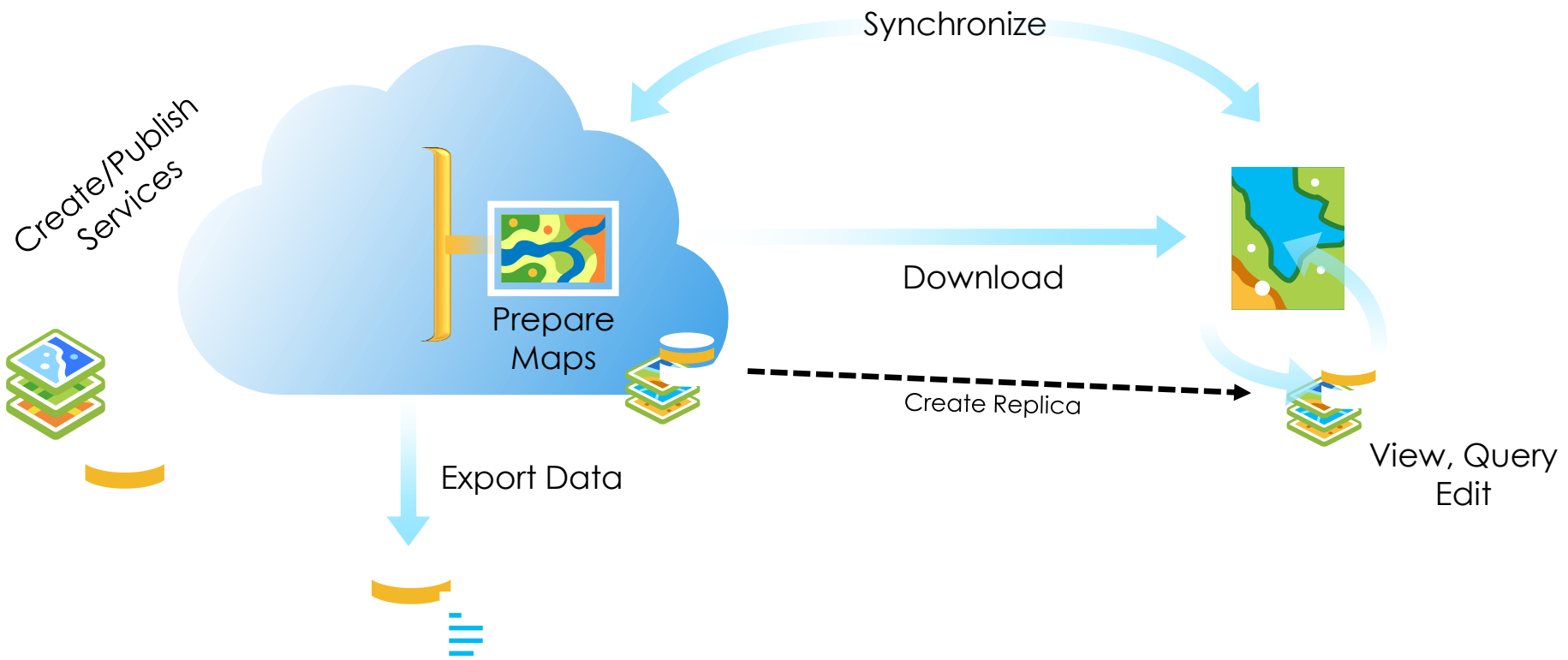
July release

- Field managers can improve field workflows by preparing maps for Collectors

Synchronization Workflows (On-Premises Services)



Synchronization Workflows (Managed Services)



Things you should know…

Maps

- Feature Service and Tiled Map Service Layers only
- Both hosted and on-premises Feature Services supported
- Synchronization is bi-directional

Preparing your data and services

- Must enable sync operation on feature services
- Multi-user geodatabases/managed databases only
- Must archive your feature classes to edit (no versioned editing support)
- Global ID must be primary key for relationships/attachments

- USFS AGOL/AG4O/Portal Strategy is being redefined
- Pilot Project FY14 – ArcGIS Collector and Fire

Additional Collector Info

- http://blogs.esri.com/esri/arcgis/tag/collector/
- http://doc.arcgis.com/en/collector/
- http://doc.arcgis.com/en/collector/android/collect-data/offline-use.htm