Collector for ArcGIS
Out-of-the-Box Field Solution

Clarke Wiley
Director of Pipeline
clarke.wiley@sspinnovations.com
Informal Poll

- How many operators are electronically collecting data in the field?
- How many operators are using ArcGIS Online or ArcGIS Server to deploy field maps?
- How many are using Collector for production data collection?
Collector is Part of ArcGIS Online

- Collector is an OOTB App for **iOS**, **Android** and **Windows**
- Consumes **Web Maps** Published in ArcGIS Online or Portal for ArcGIS
- Licensed via your **ArcGIS Online** Organizational Account
ArcGIS Online – GIS Evolving

The Landscape of GIS is Changing

- ArcGIS – A Complete GIS Platform
- Mapping, Analyzing, and Managing Geographic Information
ArcGIS Online – GIS Evolving

Accessible Anywhere
ArcGIS Online – GIS Evolving

Powered by Services
What it Means to Pipeline Operators

- Leverage your **existing investment** in:
  - ArcSDE
  - ArcGIS Server
- Configurable **out of the box solution** to collect/update asset attribution and supporting features
- Keep your On-Premise GIS Data **Secure** Behind Your Firewall
- Create New Field Workflows – **Quickly!**
- **Integrate/Automate/Empower** Field Data in the Back Office
- Provide **easy to use** tools for field office or remote data collection/verification
Publishing Feature Services for Collector

Feature Service Options

- **Operator-Hosted ArcGIS Server**
  - Service Managed Internally
  - Data Stored on Operator-Owned Server
  - ArcSDE Feature Classes are EASY to publish

- **ArcGIS Online-Hosted**
  - Cloud Hosted, Reduces Load on Your Servers
  - Can publish via Shapefile, CSV, or File Geodatabase
  - Need Plan to Transfer/Replicate Data to Back Office
Publishing Feature Services for Collector

- Create New Feature Class
  - Points, Lines, or Polygons
- Publish Existing Feature Class

**Best Practices**

- Create a **dedicated dataset** to contain all editable classes
- Use **Domains** wherever possible for easy field data entry
- Apply **Defaults** to any applicable fields to minimize field interaction
Publishing Feature Services for Collector

- **Enable Attachments**
  - Collector has Native Attachment Support
  - Creates related _ATTACH table
  - Stores Attachments in DB

- **Best Practices**
  - Review and determine permanent storage options for back office photos
  - Default is in GDB but table space can get huge
  - Options for custom workflow to export pics to a share drive
Publishing Feature Services for Collector

- Publish to ArcGIS Server
  - Editable Feature Service
  - Enable Editing Access

- Best Practices
  - Secure your ArcGIS Server + Web Adaptor with SSL (https only)
  - Secure your Feature Service with ArcGIS Server Security
Creating your AGOL WebMap

- Create a New WebMap
  - Add Backdrop Data Map Services
  - Add Feature Service from Org
  - Save & Share WebMap w/Groups

Best Practices
- Test adding collection points in the ArcGIS.com WebMap
- Fix Issues on ArcGIS.com before testing Collector
Consume WebMap in Collector

- Collected Data is Instantaneously Saved to Server / SDE
- Available in ArcGIS.com, ArcMap, Dashboard, any AGOL App
- Will include attachment data
Consume WebMap in Collector

- Log In to Organizational Account
  - Only Maps with Collectable Items are Available
  - Click the Map Button on Add Screen to place point on map
- Simple, Easy Create and Editing Tools
Empower New Data  Use Cases

- Collect Supporting Features for Pipeline Attribution & Analytics:
  - HCA/Class Structure Verification
  - Foreign Line Crossings
  - Encroachments
  - Right-of-Way
  - Field Office Collection & Inputs
  - Risk Inputs
  - Pipeline or Feature Verifications

- Easily deployed and used by ‘non-GIS’ users and contractors
Focus on the Collector Pattern

- **Expose** New Data to Field Operations
- **Collect** New Data from Field Operations
- **Empower** Your Operations with Integrated Workflows

The value of the solution lies in using the *out-of-the-box* Collector application

- Esri maintains the software and releases quarterly via auto online distribution
- Keep your automation in the back office - increase ROI, simpler upgrade path
What About Disconnected Access?

- Supports three map service types:
  - Feature Services w/Editing Operations
  - Tiled Map Services
  - Esri Basemap Services

Collector user can download map areas to their device.
Disconnected - What Can We Do

- Enable Feature Services for Offline Access

- Allows for Map to be Downloaded to the Device & Edits to be Synched Back to Feature Service
Disconnected - What Can We Do

- **Downloading the Map:**
  - Defines a specified spatial extent (my work area for today)
  - Defines a zoom level for the cache
  - Caches the tiled basemap
  - Caches the Feature Service
  - Collects Features Locally Just as If Connected

- **After Establishing Network Connectivity, Syncing the Map:**
  - Passes the local features back into the Feature Service
  - Feature Service doesn’t know about the offline collection
Demo – Field Data Collection
with Collector & ArcGIS Online
Collector for ArcGIS
Out-of-the-Box Field Solution

Clarke Wiley
Director of Pipeline
clarke.wiley@sspinnovations.com