

How will the Utility Network Affect You?

Introductions

Duane Holt | Intermountain Rural Electric Association

- GIS Director
 - 23 years with IREA
 - 30 years mapping utilities
 - MGIS – University of Denver 2010
 - GISP for the last 7 years
- First *Utility Network Jumpstart* User



Skye Perry | SSP Innovations

- CEO & Principal Consultant
- Esri & Schneider Electric Technical Architect



Who is SSP

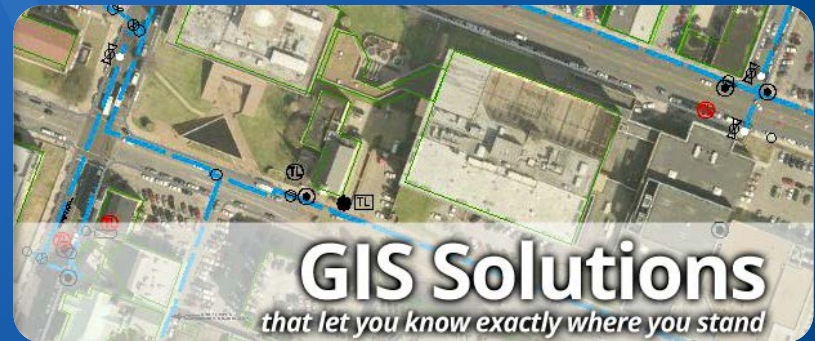


Focus on Electric, Gas, Water, Pipeline & Fiber

- Utilities
- Pipeline
- Telecom

GIS Services

- Product Implementation
- Customization
- Systems Integration





Utility Network 101

Why a New Network?

- Esri's goal is to create a network that will service the customer's requirements *for the next 15 to 20 years*
- The geometric network has reached a mature lifecycle and has limitations
 - Performance
 - No support in ArcGIS Pro
 - No native lifecycle management (planned/created vs. existing)
 - Not enough support for future DMS integration
- Services Based
 - Allows for consumption by any Esri platform (ArcGIS Pro, Web, Runtime)

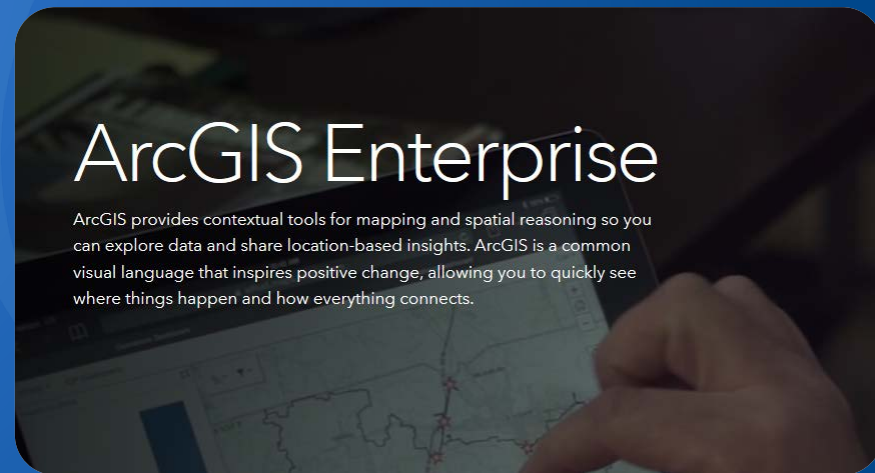
Utility Network 101

What's Needed?

- ArcGIS Pro
 - Native 64 bit
 - 3D enabled
 - Desktop application of the future

- ArcGIS Enterprise (10.5+)
 - Portal for ArcGIS
 - ArcGIS Server

- Enterprise Geodatabase
 - File geodatabases not supported





Utility Network Jumpstart

Steal slide(s) from iLLUMINATE deck to define the jumpstart program

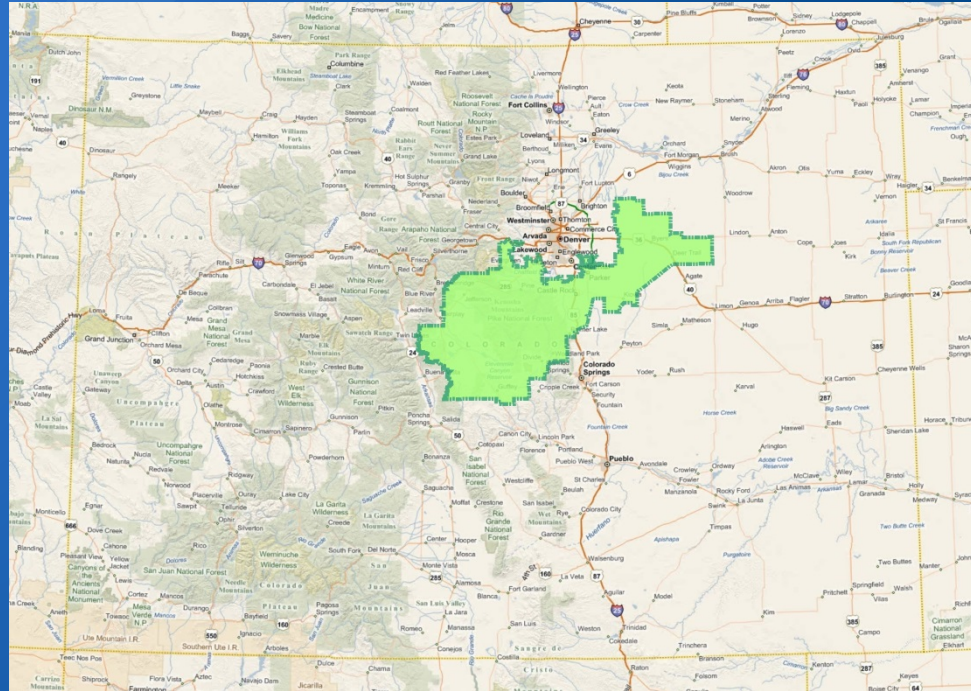
End with speaking to various customers with IREA being the first

TBD

Intermountain REA



Electric Coop serving
Central Colorado



IREA Stats



- 9,750 Miles of Distribution and Transmission lines
- 151,215 Electric meters
- 2.3 Billion KWH energy & 560 MW demand
- 225 Employees
 - 670:1 Customers to Employee Ratio

GIS at IREA



Using GIS for 10 years

- GIS Department is in the Engineering Division
 - 6 GIS staff
 - 25 Design staff
- Organization Users – ArcGIS Online / Collector
 - 136 internal – IREA Employees
 - 31 External - Contractors



Major Business Systems

GIS

- Esri
 - ArcGIS Desktop
 - ArcGIS Enterprise (Server)
 - AGOL / Collector
- Schneider
 - ArcFM Desktop
 - Designer

CIS

- Harris Cayenta

OMS

- ABB Siena Tech

AMI / MDMS

- Currently in RFP

Business Drivers for UN Jumpstart



Technology

- Keep critical systems updated
- Keep up with changing technologies

670 : 1 – How do we maintain the lean profile?

- Leveraging current technologies
- Implementing new technologies



What we hoped to gain from UNJ



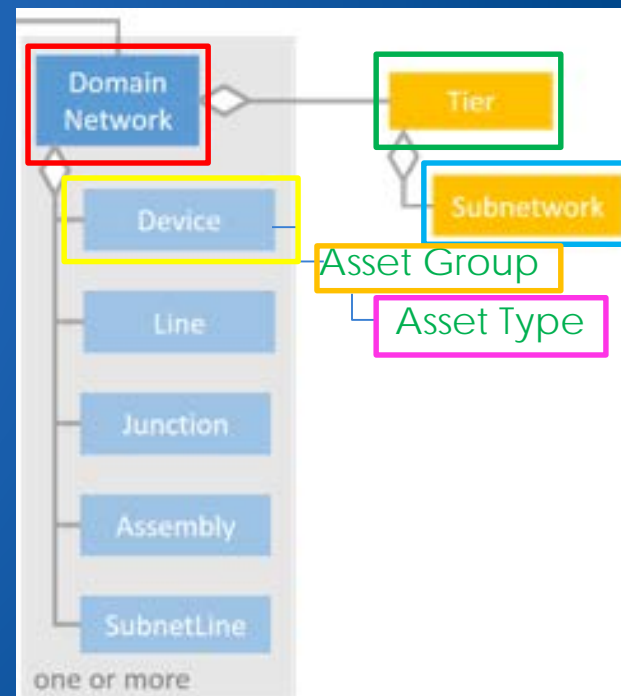
- Vision
 - How will UN affect initiatives
- Training
 - Why did Esri create the Utility Network
 - Better understanding of the UN Model
- Planning
 - Data conversion preparations
 - Integrations
- Provide Feedback to Esri
- Calm Anxieties



Data Migration



- Utility Type - Electric
 - Transmission, Distribution, Secondary
 - Circuit
- Point Feature Classes
 - FuseUnit, TransformerUnit, etc.
 - OH Transformer, UG Transformer
- Network Association
 - Connectivity – No more offset fuses
 - Containment
 - Bank Features – FuseBank, TranformerBank
 - Can eliminate 32k bus bar



Challenges



- Product
 - ArcGIS Pro is bulky with some performance hits
 - UN Model is general for all utilities (phasing)
 - Associated Connection not visible
- Data
 - Transmission not modeled at IREA
 - Secondary voltages not modeled well
 - Need to implement Portal



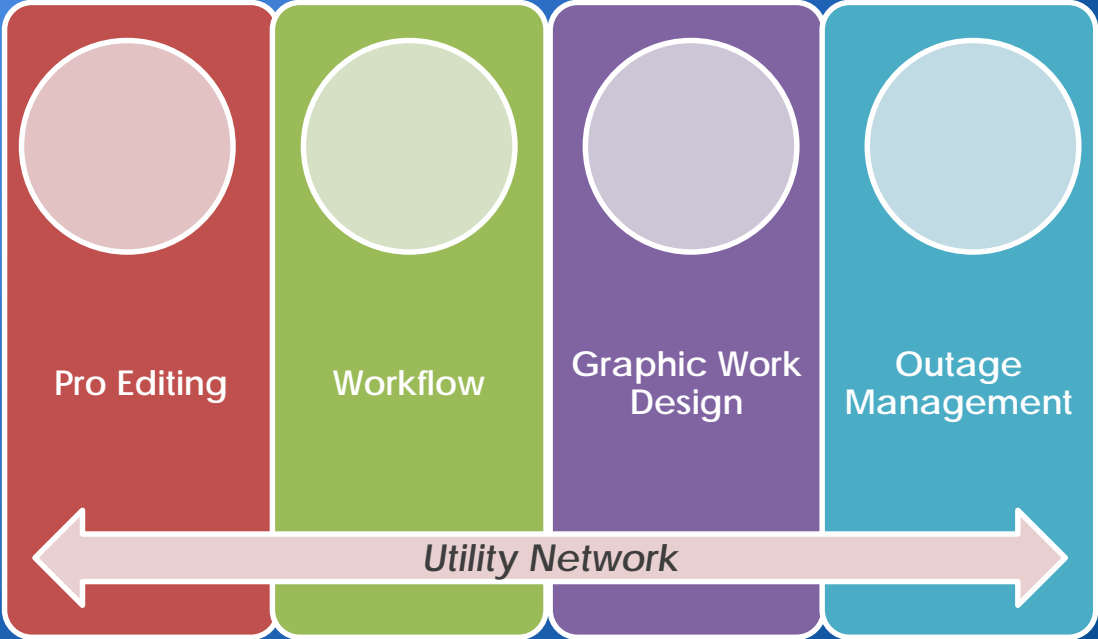


The need for Partners

- Esri as a Partner
 - They are listening to Utilities
 - There's more to this change than the Utility Network
- Third party Partners
 - Conversion methodologies
 - Automation of GP tasks – i.e. tracing, editing, toolsets, ...
 - Best practices for Utility specific modeling - Electric, gas, water ...



Utility Network Needs





SSP's Offerings Around Utility Network

Utility Network Productivity Extension

- Esri product now includes Feeder/System Management, Templates, Utility Tracing
- SSP will enhance user experience with an extension to streamline usage
- Allow utilities to harness the power of the core Esri Utility Network

Workflow Management

- SSP is extending our Workforce Management product to support ArcGIS Pro
- Capital Work Design, As-Built Updates, Ad-Hoc Edit Session Management
- Configurable workflow exposed via a web interface
- Extensible via plug in API (custom code events)



SSP's Offerings Around Utility Network

Graphic Work Design via Epoch Solutions

- Epoch has created a full fledged graphic work design solution
- Pre-integrated to SSP Workforce Management
- Supports all typical integration points for Maximo, SAP, Oracle or other WMS
- Supports Utility Network & 10.2.1 ArcFM™ systems
- SSP is the strategic implementation partner

Implement Utility Network @ Version 1 (late 2017)

- Keep editing at 10.2.1
- Use SSP Utility Network migration tools to initialize your UN geodatabase
- Promote daily edits from 10.2.1 to UN via SSP All Edits
- Begin using UN analysis, tracing, diagrams, and portal-based templates

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Questions?