



# Introduction to Industry Configurations for the Utility Network

Michael Miller and Paul LeBlanc

An abstract graphic on the right side of the slide features various geometric shapes and patterns. It includes a large blue triangle with a white topographic contour pattern, several overlapping rectangles in shades of blue, orange, and green, and a cluster of small orange dots. The overall style is modern and technical.

**GIS  
INSPIRING  
WHAT'S  
NEXT**

# Agenda

- **Overview of the Utility Network**
- **Utility Network Industry Configurations**
- **Getting Started**
- **Data Models and the Asset Package**

# The Utility Network

- **Enables ArcGIS to manage and model any resource delivery network**
  - High fidelity representation
  - Connectivity model
  - Enforced data integrity
  - Simple cartographic representation of dense asset clusters
  - Advanced network analytics
  - Services based architecture
  - Accessible to any device or application supporting web services

# Esri is Providing Industry Specific Utility Network Configurations

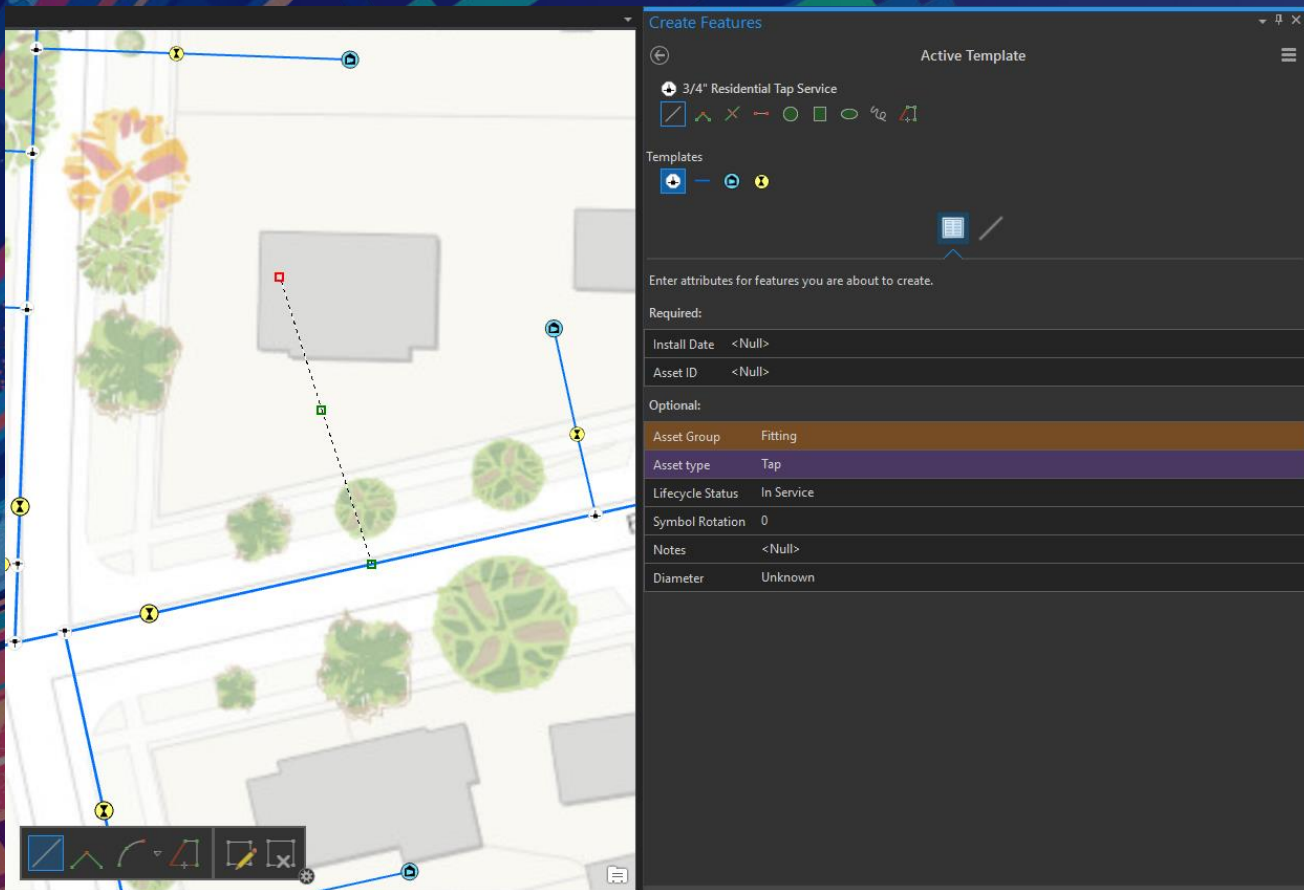
For popular resource networks

- **Available today for:**
  - **Electric**
    - Transmission
    - Distribution
  - **Gas**
  - **Water Distribution**
  - **Sewer**
  - **Stormwater**
- **Coming in the future:**
  - **Telecommunications**

# Utility Network Industry Configurations

- **Recommended starting place**
  - Fully usable out of the box
  - Not intended to be all encompassing
  - Extend as necessary to fit your needs
- **Each configuration includes a data model, maps, instructions, and workflows**
- **Free and supported, like all ArcGIS Solutions**





# Industry Configurations

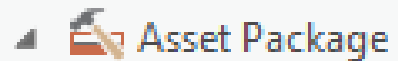
Michael Miller

# What you get with an Industry Configuration



A screenshot of a software menu titled "Utility Network Package Tools". The menu is white with rounded corners and is set against a dark blue background with abstract, colorful geometric shapes. The menu items are listed below the title, each preceded by a small icon representing a document or folder.

## Utility Network Package Tools

A sub-menu titled "Asset Package" is shown, containing five items. Each item is preceded by a small icon representing a document or folder.

### Asset Package

Apply Asset Package

Change Asset Package Spatial Reference

Export Asset Package

Upgrade Asset Package

Stage Utility Network

# Getting Started

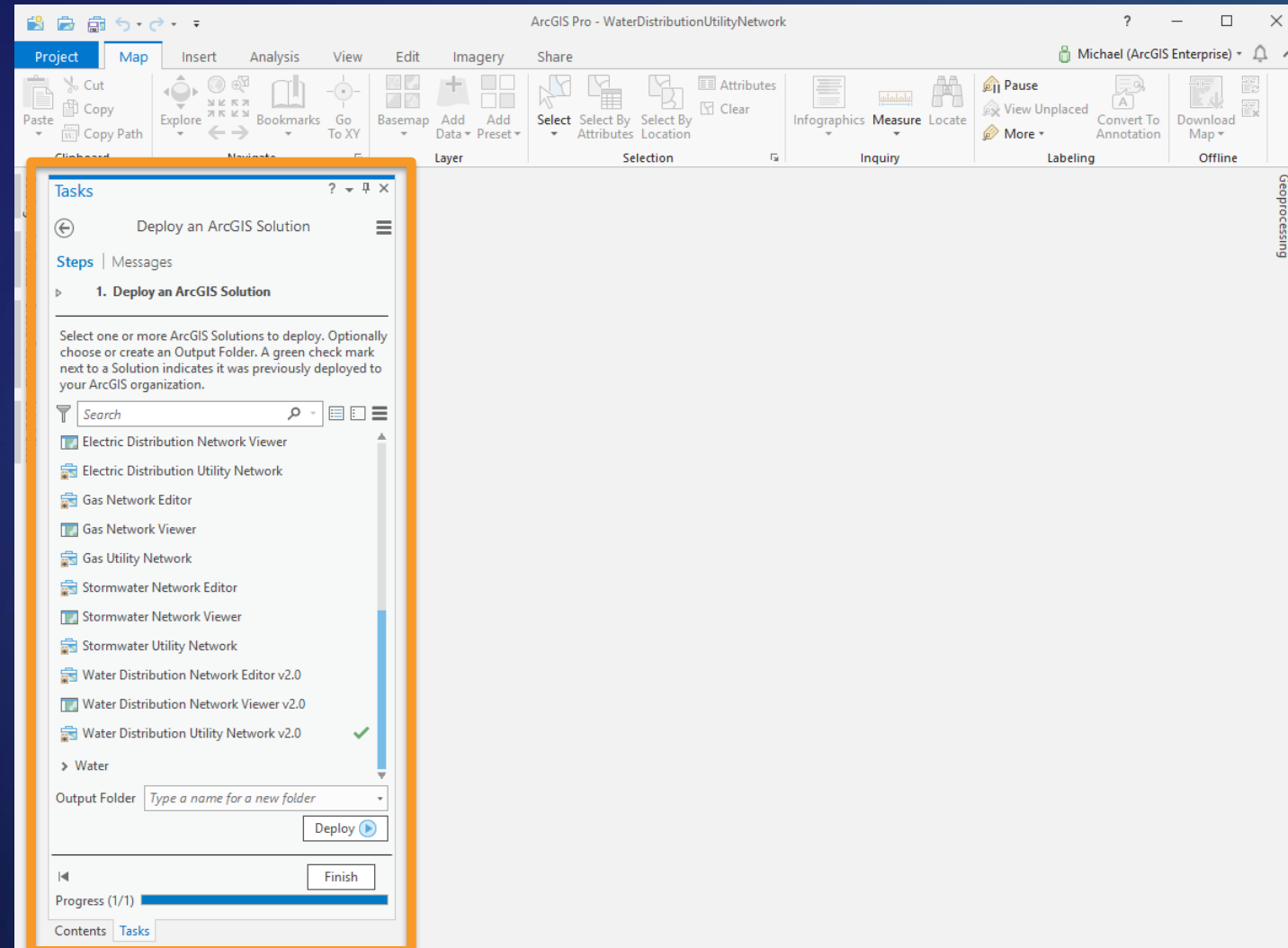
Paul Leblanc



# Deploying a Utility Network Configuration

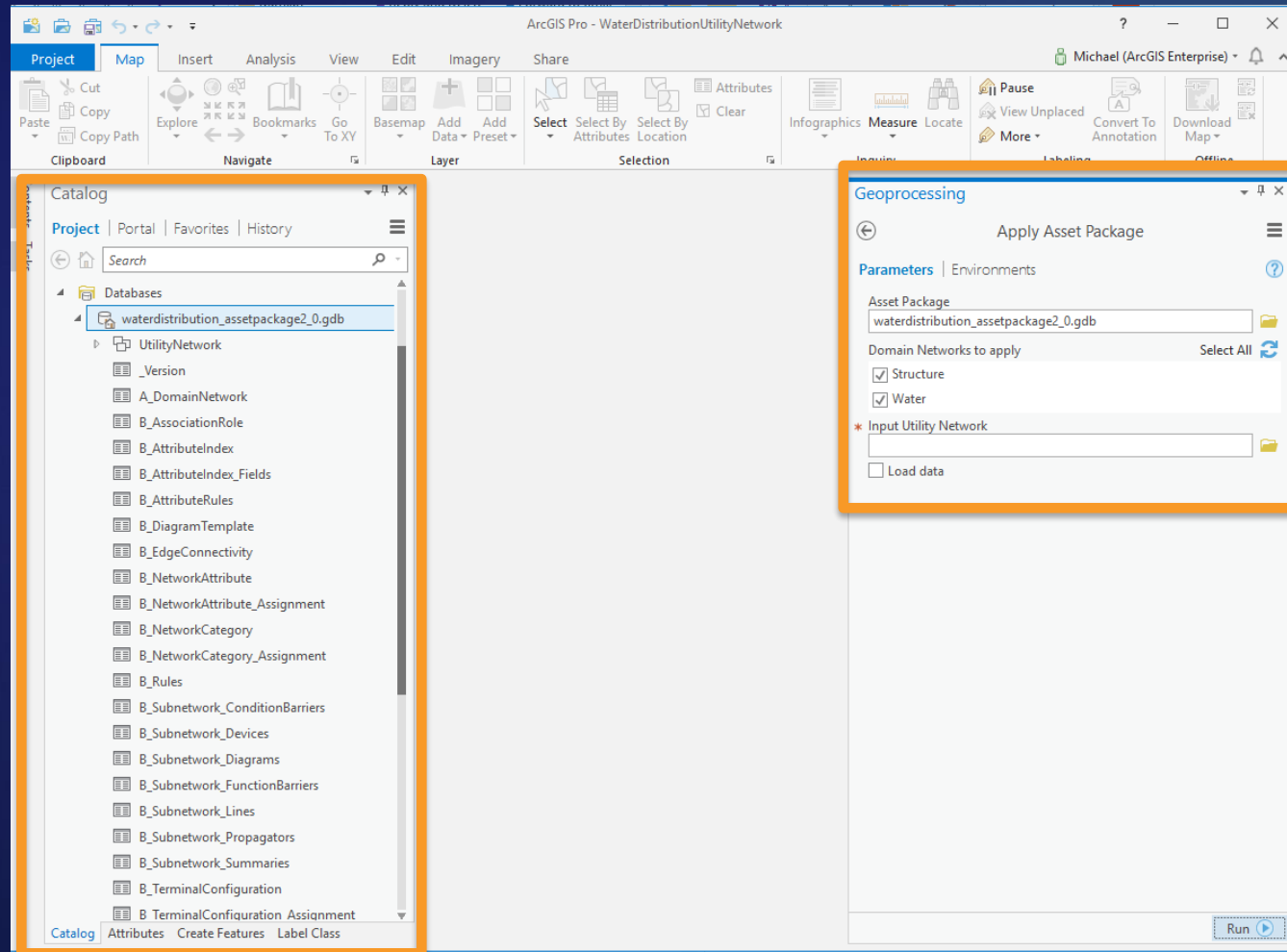
In the Solutions Deployment Tool chose your configuration

Map packages and Asset Package containing the schema to configure the utility network for your domain are loaded to your Portal



# Load the Schema to the Utility Network

If necessary extend the provided Asset Package to meet additional organizational needs



Use the Apply Asset Package Geoprocessing Tool from the Utility Network Package Tools to load the Asset Package to a utility network

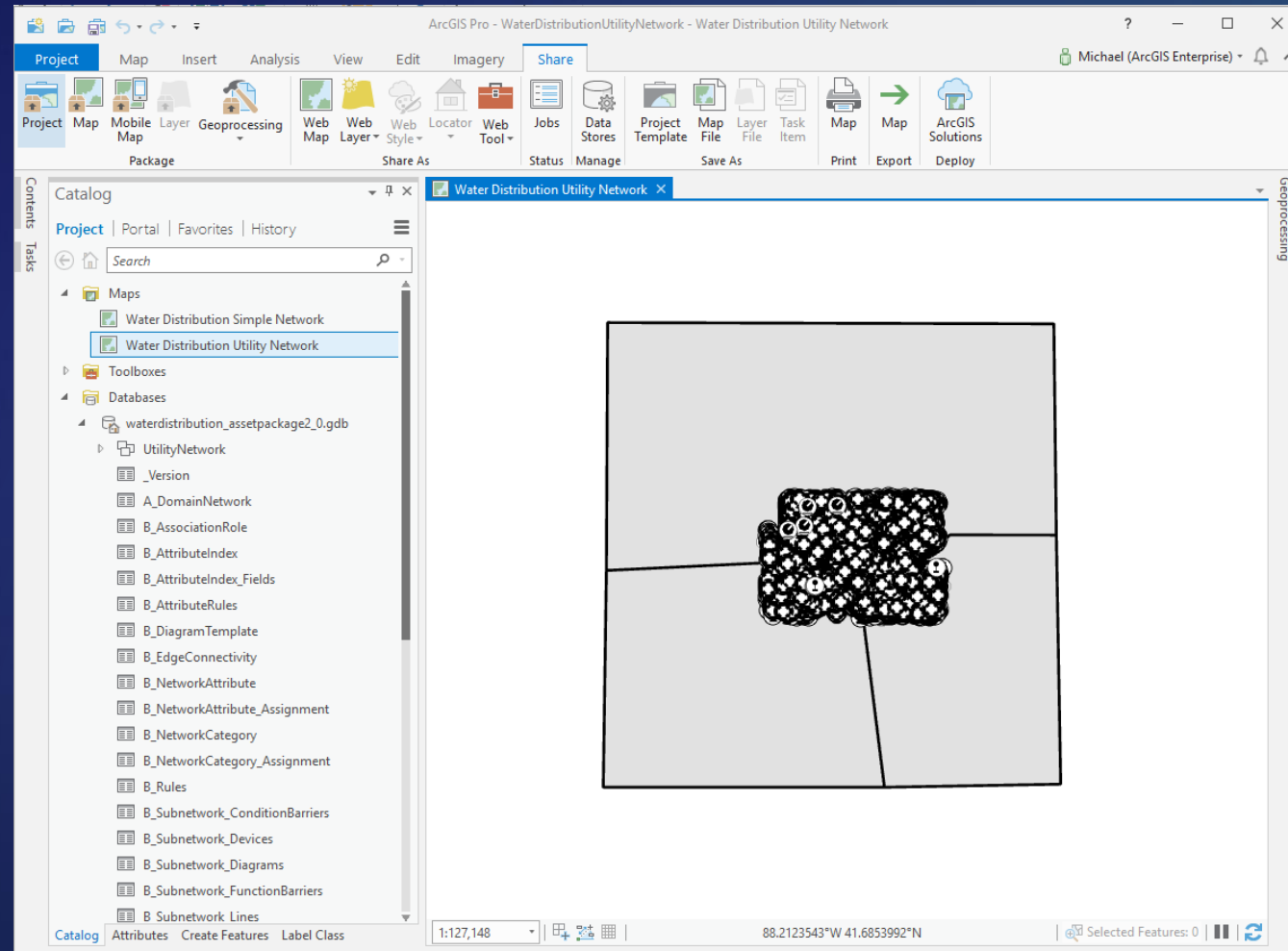
# Publish the Utility Network Service

Repair broken layer data sources in the provided maps

Publish the utility network feature service

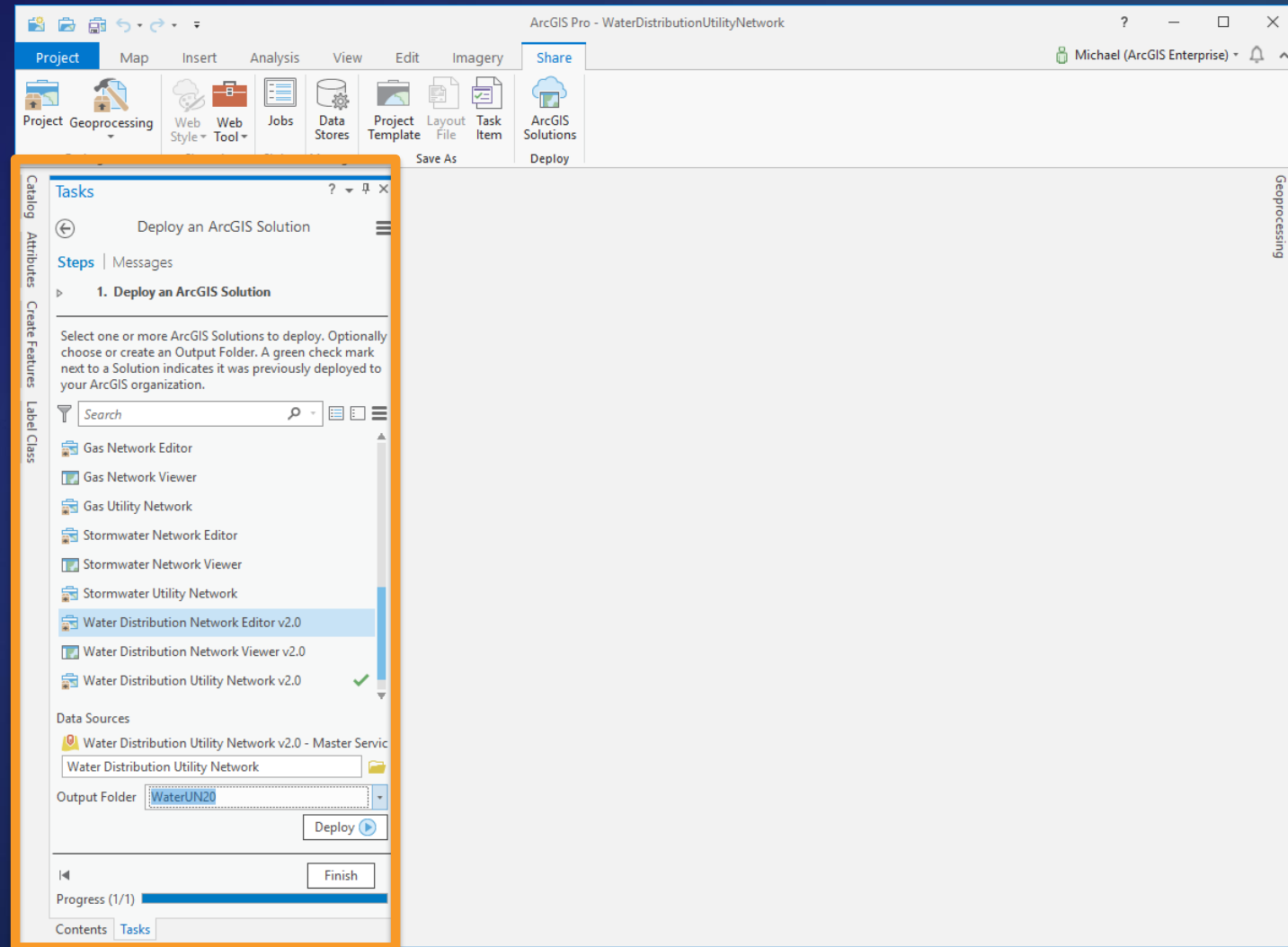
Publish provided simple network map

Your utility network is now available



# Publish Viewer and Editor Maps

Use the ArcGIS Solutions Deployment Tool to deploy Network Viewer and Network Editor maps



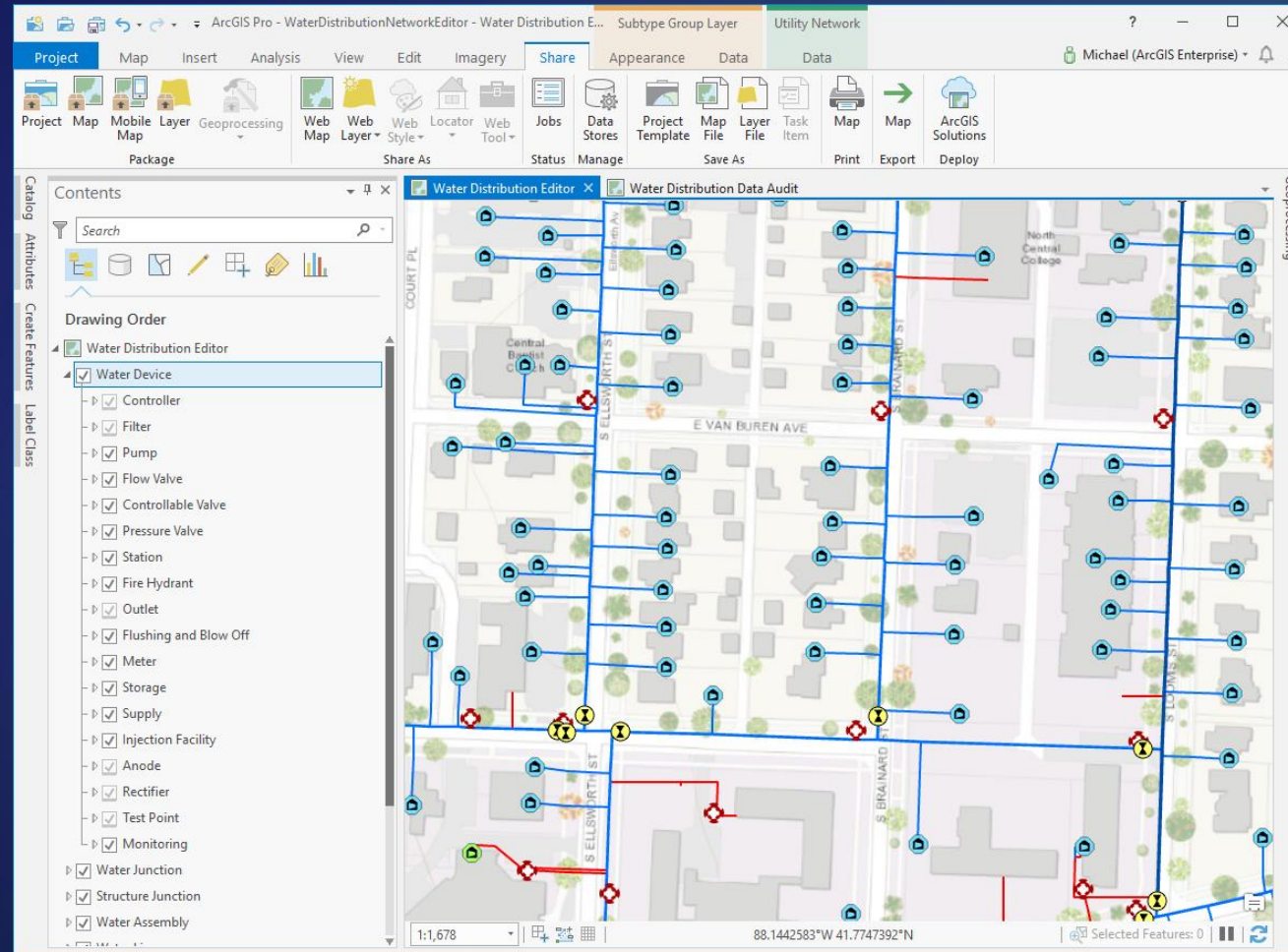


# Users Can Now Open a Map and Use the Utility Network

View on any device with the Utility Network Viewer map

Edit in ArcGIS Pro with the Utility Network Editor map

Maps have optimized layers, symbology, and popups





# Data Models and the Asset Package

The image features a dark teal background with a white title. On the left, there are abstract, overlapping lines in shades of teal and red. On the right, there are more complex geometric shapes, including a red and orange grid-like pattern and several dark blue and teal rectangular blocks, some of which are tilted. The overall aesthetic is modern and technical.

# What is the Asset Package

Delivery the data models for the Industry Configuration

- **Asset Package is a file geodatabase**
- **Snapshot of your Enterprise Geodatabase**
  - Only default version
  - Schema and/or Data
  - Imported and exported
- **Models**
  - All the Utility Network properties (serialized into the A, B, and C tables)
  - Related Tables and Layers
  - Attribute Rules
  - Annotations
- ***The asset package is not a utility network***

# Utility Network Migration Tools

- **FME Workspace for ArcGIS Data Interoperability / FME**
- **Sample schema mapper file in Excel base on common data models**
- **Sample source data**
- **Available today as a preview on GeoNet today**

# What if the Esri Supplied UN Data Model does not at all fit your needs?

- **Extend the model and migration tools to fit your needs**
- **Configure a utility network starting from an empty asset package or with the core utility network tools**
- **You are not required to use the Esri supplied utility network data models**

# Should I modify the Asset Package or the Utility Network?

- **Items that cannot be changed in a utility network**
  - **Can be modified in the Asset Package and create a UN, but requires understanding of those changes**
    - **Example: Removing a terminal configuration, will affect**
      - **Terminals Assignments**
      - **Terminal Valid Paths**
      - **Line Feature Class**
      - **Associations**
      - **Rules**
- **More advance properties should be done in the utility network**
  - **Rules**
  - **Subnetwork definition**
- **What if I change or remove items from the industry design**
  - **It might impact the provided maps and service**



# Industry Configurations Evolution

- **At each release for the next 18 months you should expect**
  - Schema changes
  - Rule changes
- **Industry Configurations are specific to a version of the utility network**
  - Thus each Industry Configuration and associated data model has a version designation
- **There is no automated migration between industry model designs**

# Summary

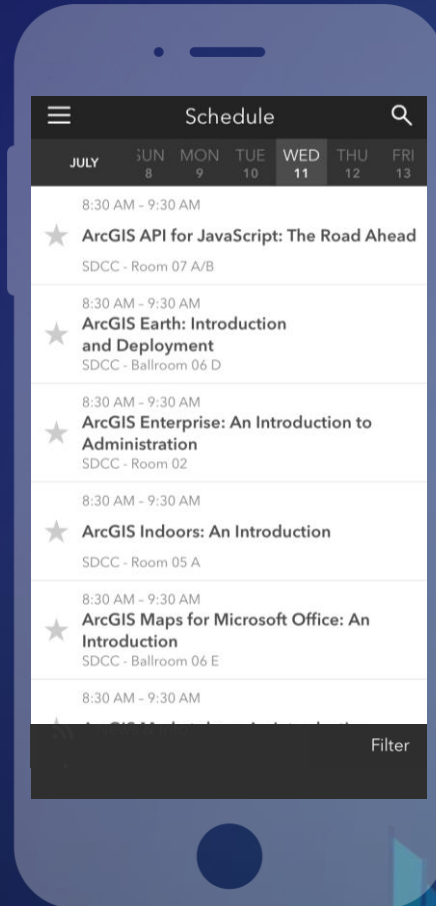
- Stand up a complete system using the sample data
- Look at where you can extend
- It is ok to not use some of the items included in the data model
- Let us know what we did wrong or where we can improve

# Please Take Our Survey on the App

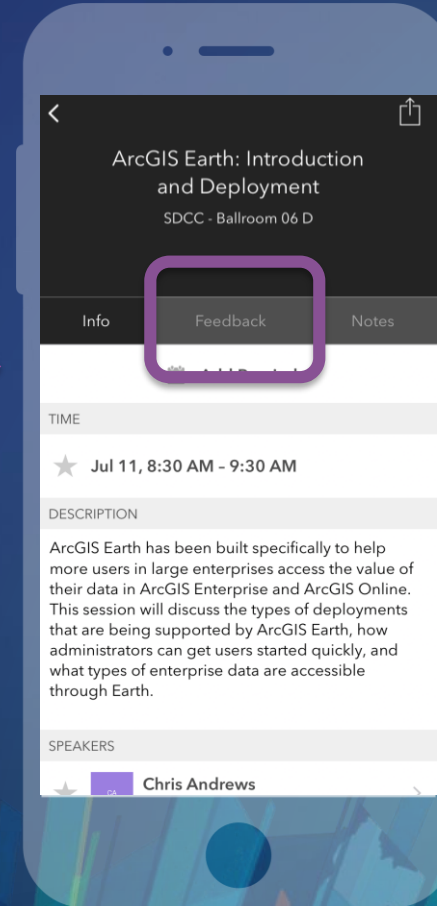
Download the Esri Events app and find your event



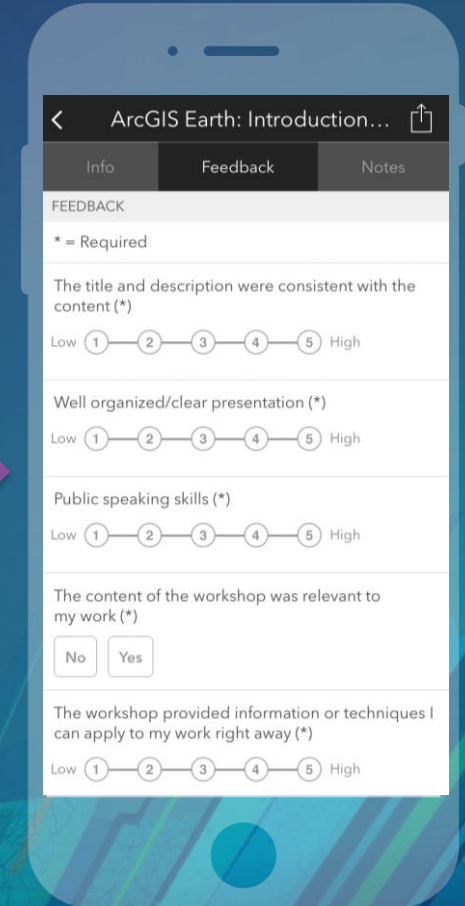
Select the session you attended



Scroll down to find the feedback section



Complete answers and select "Submit"





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