Generating massive volumes of ‘location aware’ telemetry.
Unlike other mobile activities, location-based services appeal to smartphone owners of all ages.

Source: Pew Research Center, January 2016
is your organisation prepared?
The New Utility Network
Network Management Project

- New *Utility Network* for the next 10-15 years
  - Electric, gas, water, storm water, sewer, telco, etc.
Vision statement

- Provide utility customers the ability to **model**, **edit**, and **analyse** complex networks leveraging the entire *Esri* platform
- Enable modeling concepts to better support **true** representations of what is on the ground, while fostering an easy exchange of network information with other mission critical systems
- Provide a highly responsive editing and analysis environment
Keys to Network Management

- **Increasing your ROI**
  - Services based architecture for enabling the platform
  - Ensuring data quality and correctness
  - Real world representation of what is on the ground
  - Sophisticated analysis
  - Subnetwork management
  - Improved mapping and visualisation techniques
  - Expanded data exchange capabilities
  - Increased performance
  - A strong foundation for *customers* and *partners* to leverage
Keys to Network Management

- Services based architecture for enabling the platform
  - Desktop capabilities
    - Visualise and query – mapping both geographic space and diagram
    - Editing – Advanced tools and templates
    - Analysis – complex processing with geoprocessing with reporting
Architecture services – web apps

JavaScript SDK

JSON

Feature Service
Utility Network Service
Network Diagram Service
Versioning Service

Geodatabase
Enterprise Database

Portal
Network Management Project

- **Services based architecture for enabling the platform**
  - Runtime and Offline capabilities
    - Visualize and query – mapping both geographic space and diagrams
    - Edit – perform edits in the field from inspections to simple design
    - Analyze – determine upstream device or valves to turn for an isolation while in the field
Network Management Project

• **Services based architecture for enabling the platform**
  - Web capabilities
    - Dashboard capabilities for executives
    - Thin client applications on the desk of everyone in the organization
    - Provide simple outage maps to consumers
  - Online capabilities
    - Reducing administration and cost of ownership, etc.
Keys to Network Management

- Real world representation of what is on the ground
  - Accurately representing assets for enhancing analysis and modeling and for simplifying data export for other systems
  - Device Assembly – A container for multiple devices...
Keys to Network Management

- Sophisticated analysis
  - ArcGIS Pro provides basic pre-configured tools in the gallery
    - Connected
    - Subnetwork, Subnetwork Sources
    - Upstream, Downstream
    - Loops
  - Partners and users can modify the gallery
    - Adding and removing pre-configured tools
Keys to Network Management

- Improved mapping and visualization techniques
  - Diagram capabilities integrated directly with the *Utility Network*
• Expanded data exchange capabilities
  - Expanded core capabilities mean more opportunities to do modeling and high end analysis inside the GIS.
  - Many workflows will still require moving data outside the GIS to other mission critical systems.
  - *Esri* will support these options for exporting data…
    - Export to Well Known Text
    - Export to CIM format (connectivity information only)
    - Export to connectivity table
    - Export to Geodatabase feature classes
    - Export to Json
Keys to Network Management

- A strong foundation for our **Customers and Partners**
  - Better core framework means better starting point for partner solutions

Utility and Telco Solutions

- Partner Solutions
  - Esri Solution Templates (starter capabilities)
  - Network Management Framework
  - ArcGIS Platform
Migrating to the Utility Network

1. Prepare data
2. Data mapping
3. Create staging database
4. Load data to staging database
5. Post process data
6. Load to Utility Network
Create the Destination and Provision Your Users

Configure your Web GIS portal – using Online or your own ArcGIS Server
Use Maps to Tell Relevant Stories

Illustrating the mission and key performance indicators of your organization
Empower People With Apps

Use and Share the ArcGIS Apps with Your Users

Field
- Navigator
- Workforce
- Collector
- Survey123
- Mobile (Connected & Disconnected)

Office
- ArcGIS for AutoCAD
- Maps for Office
- Explorer
- ArcGIS Earth
- Dashboard

Public
- Story Maps
- Open Data
- Photo Survey
- Crowdsourcing
Empower Your Organisation

Put authoritative maps and geographic insight into the hands of everyone
Thank you

Questions?