

ArcGIS Online Routing and Network Analysis

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Agenda - ArcGIS Online Network Analysis Services

- **What** they are, **how** to access, **where** to use, and **why** you'd want them
- Demos
- Summary & Resources

Network Analysis Capabilities



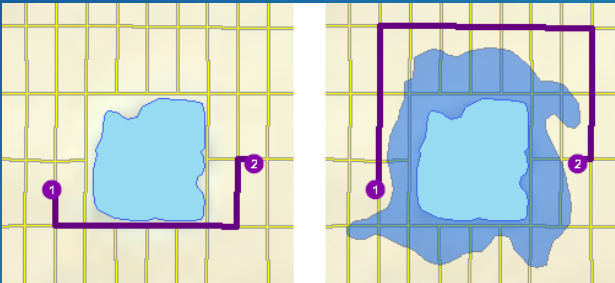
Travel Modes



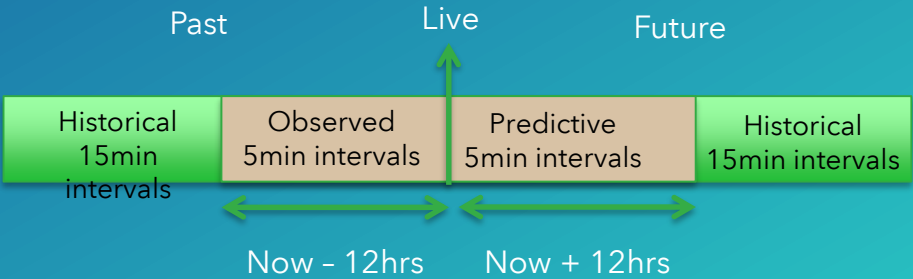
Commercial Grade



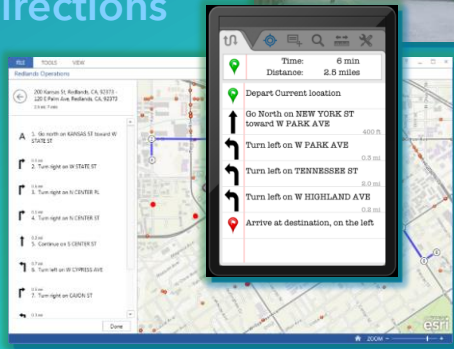
Barriers



Traffic Aware

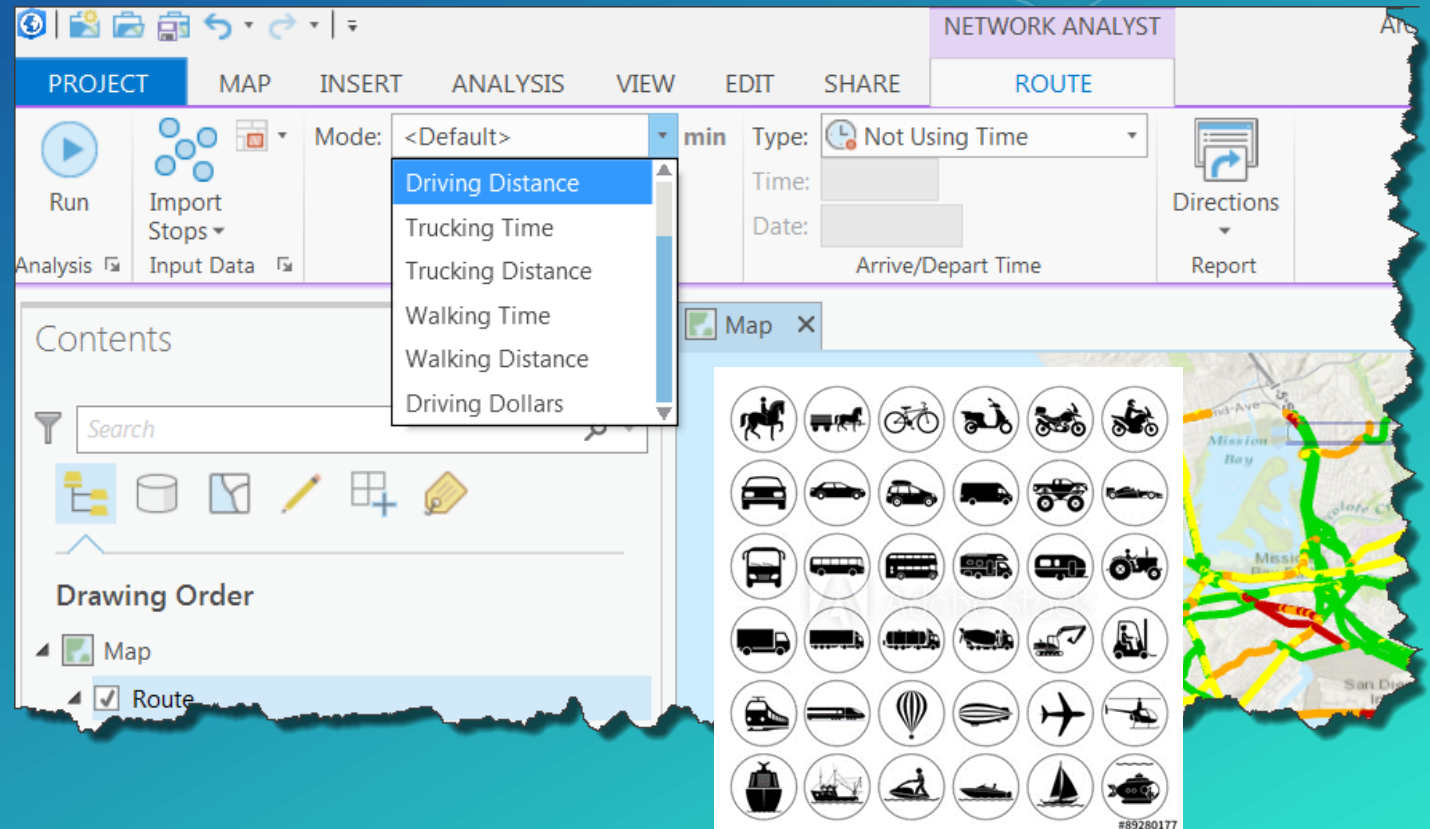


Directions



What is a Travel Mode?

- Model a specific vehicle type – ambulance, oversized vehicle, walking, 4-wheel, etc...
- Admin configures once
- Users access everywhere
- Why?
 - Consistency
 - Ease of use
 - Standard company policy



ArcGIS Online



- Credit transactions
- Automatically updated
- No custom network data
- Max limits per solve

ArcGIS Enterprise



- Cost of Ownership
 - Hardware
 - Software
 - Data
 - Time
- Update yourself
- Custom network data
- Customize services
- SLA

Types of Users



Pro Network Analysis – All Solvers Supported By Online

No need to manage a network dataset.

The diagram illustrates the integration between ArcGIS Pro and ArcGIS Online for network analysis. On the left, the ArcGIS Pro logo is shown. A green arrow points from it to a blue cloud shape representing ArcGIS Online. Inside the cloud, the following services are listed: Route, Closest Facility, OD Cost Matrix, Service Area, Multi-Vehicle Routing, and Location-Allocation. Below the cloud, the text "ArcGIS Online Directions & Routing Services" is displayed. To the right, a screenshot of the ArcGIS Pro interface shows the "Network Analysis" dropdown menu. The menu lists several tools: Service Area (Generate drive-time polygons), Route (Find the shortest path between stops), Closest Facility (Find nearby locations), Location-Allocation (Choose the best locations), and Origin-Destination Cost Matrix (Measure drive times between locations). Below these tools, the "Network Data Source" section is highlighted with a yellow box, showing the URL "http://www.arcgis.com/" and the text "Signed in as user@company.com". At the bottom right of the screenshot, there is a "Run" button.

ArcGIS Pro

ArcGIS Online
Directions & Routing Services

- Route
- Closest Facility
- OD Cost Matrix
- Service Area
- Multi-Vehicle Routing
- Location-Allocation

Network Analysis

- Service Area**
Generate drive-time polygons.
- Route**
Find the shortest path between stops.
- Closest Facility**
Find nearby locations.
- Location-Allocation**
Choose the best locations.
- Origin-Destination Cost Matrix**
Measure drive times between locations.

Network Data Source

<http://www.arcgis.com/>
Signed in as user@company.com

Change network data source

Run

Demo

1. ArcGIS Online
2. ArcGIS Pro

Types of Users


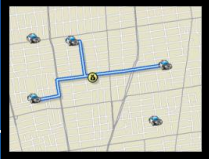

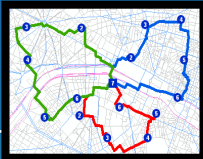
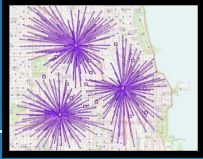
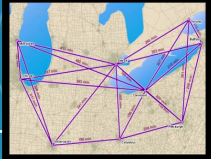









Accessing Network Analysis Services

Knowledge Worker

GIS Analyst

Developer

							
	Route	Closest Facility	Service Area	Vehicle Route	Location Allocation	OD Cost Matrix	Traffic
ArcGIS Online Map Viewer	  Connect Origins to Destinations	 Find Nearest	 Create Drive-Time Areas	 Plan Routes	 Choose Best Facilities		✓
ArcGIS Pro	✓	✓	✓	Geoprocessing	✓	✓	✓
Web API	route.arcgis.com logistics.arcgis.com	route.arcgis.com logistics.arcgis.com	route.arcgis.com logistics.arcgis.com	logistics.arcgis.com	logistics.arcgis.com	logistics.arcgis.com	traffic.arcgis.com

Global Coverage

- **Street Detail**
 - Local Roads = Best
 - Major Roads = Fair
 - None
- **Historic Traffic = Yes/No**
- **Trucking Restrictions = Yes/No**



Summary – ArcGIS Online Network Analysis Services

- All 6 solvers
- Live traffic support
- Global coverage
- Accessible across ArcGIS - Map Viewer, Pro, apps, API's & SDK's

Resources

- Coverage map: <http://doc.arcgis.com/en/arcgis-online/reference/network-coverage.htm>
- Travel Mode help: <http://doc.arcgis.com/en/arcgis-online/reference/travel-modes.htm>
- Analysis Tool help: <http://doc.arcgis.com/en/arcgis-online/analyze/perform-analysis.htm>
- Pro help: <https://pro.arcgis.com/en/pro-app/help/analysis/networks/what-is-network-analyst-.htm>
- Matt Crowder - mcrowder@esri.com
- Scott Sandusky - ssandusky@esri.com

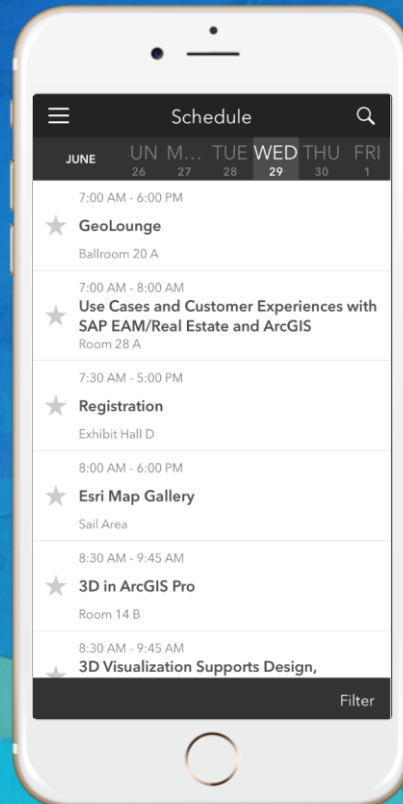
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Your feedback allows us to help maintain high standards and to help presenters

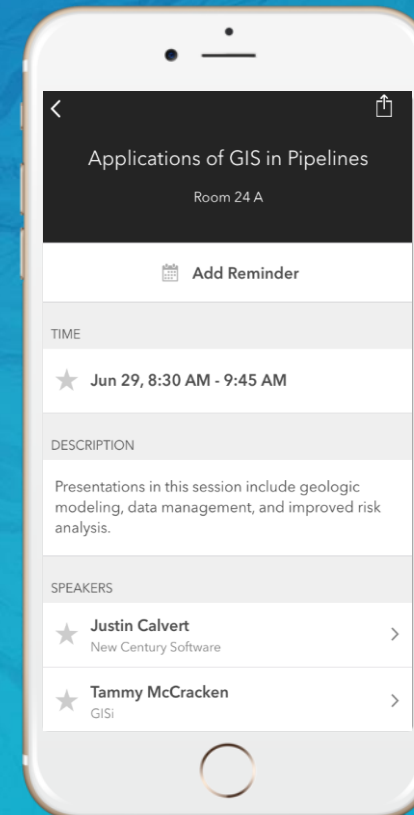
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Scroll down to the
bottom of the session



Answer survey
questions and submit

