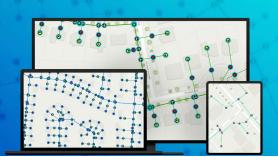
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1. Does this require additional extensions above Pro/Enterprise?

The ArcGIS Field Maps mobile app requires that you sign in with a named user. It is included with the Mobile Worker, Creator, and GIS Professional user types. No additional licensing is required to view a Utility Network but the <u>Utility Network User Type Extension</u> is required for tracing.

2. Will the ability to add/edit relationships (related tables/features) on ArcGIS Online

ever be implemented? Right now, this must be done in Pro before publishing, but makes it difficult to add related tables to existing data in ArcGIS Online.

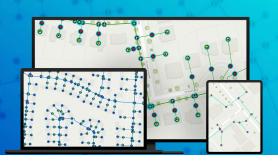
Editing of related tables is coming to the June release of ArcGIS Online. The creation of related tables will still require publishing from ArcGIS Pro.

3. Is possible to work in Field Maps with branch versions?

ArcGIS Field Maps has limited support for branch versions. If your map includes branch versioned data, you can take map areas offline, and the generation of the offline map area will create a new version for your edits. Field Maps Designer does not include a user experience for creating or switching versions so be careful if wanting to use branch versioned data while connected. Managing branched versions to support connected workflows is in our road map.

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4. For offline mode, must it use hosted features?

ArcGIS Field Maps requires sync-enabled feature layers, but those services can be referenced feature layers or hosted feature layers. Please consider choosing an appropriate transaction model that fits your editing workflow needs.

5. How does using Field Maps in a disconnected environment work?

With Field Maps you can take map areas offline and view, query, edit, record your location, and receive location alerts while fully disconnected. Field Maps can the synchronize changes (local edits or edits from others) when you receive connectivity. Read the <u>offline guide</u> and learn how best to manage offline workflows.

6. Do I have to add a field to collect the latitude and longitude?

If using GPS to capture locations, you can leverage the <u>GPS metadata fields</u> to automatically capture latitude/longitude for you. You can also add your own fields and use the forms capabilities to write latitude and longitude values using <u>calculated expressions</u>.

7. Is streaming best as a point, line, or polygon layer?

<u>GPS streaming</u> is supported with line and polygon features. You can capture by distance or time interval as well. GPS streaming is not supported with point features.

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8. Is 'select multiple' question type available on Field Maps yet? If not, will it be soon?

It is not available yet, but this enhancement request is in our road map for next year. Please vote up this requirement on the <u>ArcGIS Ideas site</u>.

9. Is it possible to add new attributes without having to create new geometries in the

ArcGIS field maps?

Yes. Field Maps supports editing of existing features where you only add/update attribute values without having to modify geometry. In fact, you can set <u>editing options</u> on a feature layer or feature layer view so that mobile workers can only edit the attributes of a feature and not the geometry.

10. Can you Enter Containment in Field Maps?

No. Within Field Maps you can view containment and associations but editing is not supported.

11. Do you need to use the new map viewer for Field Maps, or can you use map viewer

classic?

We recommend you use the new Map Viewer to make the most of your experience. However, you can use Map Viewer Classic with = Field Maps Designer if you like. Certain capabilities, such as <u>pop-up</u> <u>elements</u> with charts are only available in the new Map Viewer.

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12. When searching for an asset, do you need the exact name, or does it accept wildcard

search?

When configuring feature search capabilities for layers within your map, you have the option of choosing an Equals or Contains operator except for integer fields. With integer fields, Equals is required. Please read the <u>Configure feature and table search</u> documentation topic to learn more about configuring feature search.

13. I'd like to be able to set the number of points averaged based on the feature. Is that possible?

Yes. Setting the number of positions required for GPS Averaging is available in the <u>Collection settings</u>.

14. Will Workflow Manager have any role in future versions of Field Maps?

We do not have any direct integration planned between Workflow Manager and Field Maps at this time. However, you can use the two products together if you like. If there is a specific integration you see valuable, please post your idea on the <u>ArcGIS Field Maps Ideas page</u>.

15. How does Planning & Coordinating in Field Maps compare to Workflow Manager?

Field Maps can complement the workflows you create and manage in Workflow Manager. Planning field work involves authoring maps, gathering data, designing forms, creating offline map areas, and more. Defining steps within a job, you can build a planning process for that improves consistency and efficiency when deploying field workflows.

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Coordination involves effective communication between the office and field workforce and enforcement of business processes. In Field Maps, recording and sharing location can help office workers know where their mobile workforce is at any time. Using <u>web hooks</u> in Workflow Manager, you can create jobs that enforce and automate business process when mobile workers update data.

If you have ideas on how you'd like to see these two product work together, please post on the ArcGIS

Field Maps Ideas page.

16. How can I add a shape file to show my boundaries?

You can add a <u>shapefile as a layer</u> in ArcGIS Online or ArcGIS Enterprise. That layer can then be included in the map you take to the field. There is no way to directly add a shapefile using the Field Maps mobile application on your device.

17. Will Offline maps support Dimensions and Annotations in Field Maps?

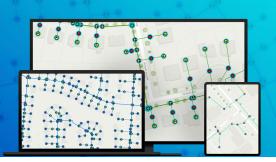
Yes. With ArcGIS Enterprise 10.7+, ArcGIS Server feature services support the creation of offline replicas with dimensions and annotation. The Rest API documentation for <u>Create Replica</u> includes additional details.

18. Can you elaborate more on the attachment (Pictures) options?

Field Maps supports capturing photos by invoking the camera or picking a photo from your camera roll. You can name the photo attachment if you like, and you have settings to compress photos to minimize size if you'd like as well.

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19. How many photos can be attached?

You can attach as many photos to a feature as you like. You can also attach files and/or video as well. In future updates, photo capture will be included within the logic of your form so you can determine how many photos are required before submitting edits.

20. Any plans for being able to create connectivity or containment associations from field

maps?

In future updates, we will consider editing workflows. If you'd like to share your need to create connectivity or containment associations in Field Maps, please post on the <u>ArcGIS Field Maps Ideas page</u>

21. Is a verification process possible after someone submits new data in a form?

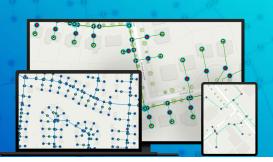
Yes. There are several different approaches for managing a verification process. Consider approaches using an appropriate transaction model, distributed collaboration, or perhaps even using attributes on feature layers. If you have questions on how best to manage GIS content, please contact your account manager for assistance.

22. If multiple inspections are done on a single hydrant, are they attached to the hydrant by a serial?

Multiple inspections are best managed using 1:M <u>relationship classes</u>. For the system to manage these relationships, the primary key should be the GlobalID and a foreign key should be a GUID field. These relationship classes can be created using ArcGIS Pro.

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23. We have walk along the way of transmission line to locate the pipe and valves?

Yes. You can see your GPS position relative to asset layers in your map and you can select an asset and tap the Compass tool to navigate – it will display the distance and bearing you are away from the asset. If you are interested in Field Maps supporting a "stakeout" capability, this is an enhancement we are considering in a future release of Field Maps. Please post your needs on the <u>ArcGIS Field Maps Ideas</u>

<u>page</u>

24. Can this ArcGIS field map be integrated with SAP Scheduling for leaks?

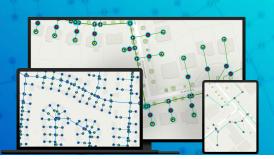
Though we do not have direct integration with SAP Scheduling, it is possible to integrate SAP with Field Maps. Please speak with your Esri account manager to understand how best to integrate.

25. What are the APIs to interact with Field Maps? What is the best way to interact (two way) with a separate app? How can the authentication be unified between Field Maps and the separate app?

Using <u>app links</u>, Field Maps can integrate with other applications and there are several partner applications that do so today. The recommended approach for authentication is for separate apps to an ArcGIS identity, however each application will need to separately manage their authentication process. This is a key limitation of mobile apps on iOS and Android platforms.

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26. Does ArcGIS Field Maps have the capability of integrating directly or indirectly with

3rd party applications like Mulesoft or Maximo?

Integration with 3rd party applications can be accomplished using app links, as mentioned above, or via a back-office process where content is extracted, transformed, and loaded (ETL'd) into a feature layer so that it can be used in maps and apps like Field Maps.

27. How do you integrate field maps with GNSS?

Using a Bluetooth connection between a GNSS receiver and your mobile device, you can specify the receiver as a <u>location provider</u>. Once chosen, the receiver will be the only source of positions used.

28. Can I use an ArcGIS field map to collect data and integrate it with GPS handheld to get

the location and directly fill in the field map form?

Yes. You can pair with an external GPS receiver or use the integrated receiver. The location captured can be automatically written to the form (via GPS metadata or as fields you manage as well).

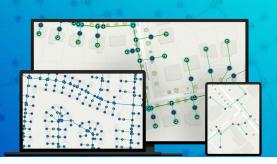
29. Is Survey123 going away and being replaced by Field Maps? or will they both remain?

And when would we use each, in your opinion?

Survey123 is not going away and will continue to grow in capability. You can integrate Survey123 with Field Maps where it makes sense to do so as well. Choose the application that best suits your project needs. Field Maps is much more than a data capture application. It is the best app for viewing, searching, and interacting with maps as well. It takes full advantage of your investment in building

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information models using the ArcGIS system. Survey123 is a great replacement for paper forms, especially if a map is not needed at all. You can quickly create a digital form and integrate the results of that form into ArcGIS.

30. What are the main differences between Field maps and Survey123?

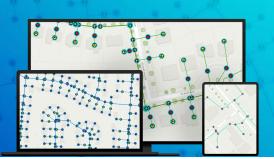
Field Maps and Survey123 are two separate mobile products. Field Maps is an all-in-one mobile app that includes advanced map viewing capabilities, location and form capture, and location sharing combined. You can use Field Maps with a viewer user type and you can use it with a mobile worker user type. Smart forms in Field Maps are a part of the maps and layers that you author and maintain in ArcGIS. The forms experience is available where those maps and layers are used.

Survey123 is a form-centric data capture app. Using the Survey123 connect app or the Survey123 web app, you design forms that will store collection results inside of ArcGIS. Using the Survey123 mobile app or the Survey123 web app, you can edit forms and store the data directly into ArcGIS.

31. Can you set a different collection accuracy requirement for map notes vs. utility assets? Ex. if sub foot accuracy is not available, allow map note collection, not utility asset.

At this point, no. Collection accuracy is the same for all layers. This is a great enhancement request! Please post your needs on the <u>ArcGIS Field Maps Ideas page</u>.

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32. In addition to Lat/Long, will the metadata collect a time stamp of when the inspection

was collected?

Yes. Editor tracking will record a time stamp whenever a feature or row in a table is edited.

33. If you use a webservice that connects to your SDE, will your existing Attribute Rules

apply when say creating new features in the field?

Yes. Currently attribute rules will fire when features sync to the database. In a future release, Field Maps will support attribute rule execution in the mobile client so they can be evaluated when disconnected as well.

34. Is the plan that Tasks will replace Workforce?

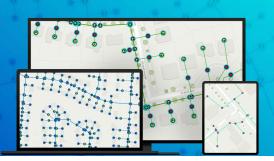
Yes. Field Maps, and the new tasks capability will eventually replace ArcGIS Workforce.

35. Are there any plans on integrating Tasks with Cartegraph?

We do not have any plans to integrate with Cartegraph at this time. If you'd like to see integration with Cartegraph, please post to the <u>ArcGIS Field Maps Ideas page</u>.

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36. With the June update, will it now be an option to use the same attribute in multiple forms? i.e., "Notes" text box being used in Form constructor for multiple items in the same form.

Forms that you author using Field Maps Designer or the Map Viewer can be stored as part of the web map or as part of the layer item. If you choose to store your form as part of the layer, it can be used across multiple maps.

37. Does Field Maps have the capability to store historical data? If so, how? Or does the data override whenever someone updates the point?

The best way to manage historical data, if related to an asset, is using geodatabase relationships. Collect will always capture new features, but you can edit existing features if you like. We encourage you to contact your account manager for advice on data management best practices.

38. When accessing assets in Field Maps, will a user be able to see work history?

If managed using geodatabase relationships, yes. You can view the full history of inspections and curate the display of that information in a pop-up.

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39. Is the restricted area added to the web map as a layer and then it can be used to

trigger a notification?

Yes. The restricted area demonstrated is called a geofence and it is stored within the web map. When entering or exiting the area you can trigger a location alert. A location alert is a location notification on the device that is supported offline. Read how to <u>add geofences</u> to your map using Field Maps Designer.

40. Can the Geofences also notify field workers if they enter an area flagged as a special

interest or higher-awareness (dangerous) location?

You are in control of the message that you would like to present, and it can be driven based on attributes within the feature as well. So, if classified as a dangerous location, you can present that to the user. You can apply a filter to the geofence to only notify users of features that are attributed as dangerous locations. Read how to add geofences to your map using Field Maps Designer.

41. In your hydrant inspection example, how did you get the symbology to change based

only on an addition to the inspection related table?

This is done by creating a hosted join layer view between the hydrant layer and the related inspection table. In this example, we are creating a dynamic layer with all the hydrant features combined with attributes of the most recent inspection on that asset. Check out this <u>YouTube video</u> for step-by-step instructions.

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42. Regarding photos, is it possible to have metadata attached to the picture itself or even printed on the photo (time, date, XY, ect...)? In my experience, this information is captured in the feature attributes.

At this time, no. This is a future capability we plan to add in a future release of ArcGIS Field Maps. Please post to the <u>ArcGIS Field Maps Ideas page</u> so that others can vote on your idea!

43. In field maps if I am updating hydrants and I want to switch to streetlights. How would you do that?

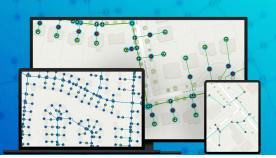
With Field Maps, you can create and update GIS features that are included in a map. If you'd like, both the hydrants and streetlights could be in the same map, and you can update either. Another option would be to create a map with streetlights and a separate map with hydrants and then switch between maps.

44. Is it possible to automatic generate/trigger a trace when field crew closing a valve in field maps, so the data with customers and area without service can be presented on a dashboard?

When edits occur on GIS features, such as closing a valve, webhooks can trigger business processes. This may include generating a trace of affected customers. <u>Read more</u> about webhooks in our documentation.

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45. Can you currently take the UN offline with Field Maps? if so, what UN features will be

missing while offline?

No. Offline support for the Utility Network is coming in a future release.

46. When viewing and tracing UNs, are Subtype Group Layers supported?

Yes, Subtype Group Layers are supported when viewing and tracing utility networks and when turning layers on/off using the Layers tool.

47. Are the Utility Network Tracing capabilities available offline?

No. Offline support for Utility Network Tracing is coming in a future release.

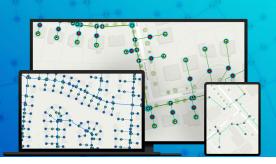
48. What version of Enterprise is needed to trace the UN in Field Maps devices in the

field? Dynamic tracing, or only trace configs?

ArcGIS Enterprise 10.9+. You need to publish named trace configurations with ArcGIS Pro. Please read the <u>Work with Utility Networks topic</u> to learn more.

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49. The Field Maps documentation page states that Editing the UN is not currently supported. I'm wondering if the editing workflow that was shown is using a web map that uses simple features or if it is a web map that has the Utility Network layers within it?

It is possible to edit features that participate in a utility network as simple features. However, editing capabilities such as attribute rules, subnetwork controllers, and associations are not well supported.

50. Did the service Ben was working with (to view containments/associations/traces) contain the utility network dataset? If yes, collection is supported on that service via Field Maps?

The service Ben was working with did contain a water distribution utility network to view the containments/associations and perform traces. There is also a utility network data model for sewer and stormwater. These can be found in the solutions web app in your ArcGIS Online org.

51. Is ArcGIS Utility Network compatible with Innovyze's InfoWater Pro?

Yes, you would import the utility network schema just as you do with your current data except the field mapping would need to be reconfigured with the new utility network schema.

52. Are these attribute fields built in the Utility Network or custom attributes?

The attribute fields shown in the demonstrations in the second half of the webinar are all part of the utility network data model for water distribution.

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53. Can the Utility Network be easily integrated with an Asset Management System?

"Easily", is a subjective term. The services-based architecture of the utility network does allow for easier integration with some asset management systems. Ease of integration does vary but that tends to be dependent on the asset management system. I would reach out to your Esri account manager and set up a meeting with a solution engineer to discuss enterprise system integration options with your particular asset management system.

54. Do your users utilize a VPN connection to maintain security between the Enterprise UN behind a firewall?

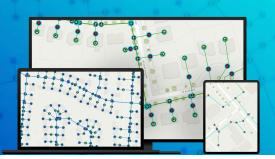
This is a common pattern for deploying mobile solutions, yes. Using a mobile device management solution, Field Maps can be deployed using per-app VPN so that mobile workers do not need to sign in through VPN separate of their ArcGIS Identity. Field Maps can push the Portal URL using an application keyword to simplify the sign in process as well. For more information, please read the <u>mobile device</u> <u>management section</u> of the deploying maps topic.

55. Will this require a network analyst license?

Viewing a Utility Network does not require any additional licensing. However, tracing and editing a utility network in Field Maps requires the Utility Network user type extension.

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56. Do attribute-only edits to a Utility Network layer require a Utility Network license?

Yes. Editing features in a Utility Network layer using Field Maps requires a Utility Network user type extension license.

57. Can you post a link to more info on Containers?

https://pro.arcgis.com/en/pro-app/latest/help/data/utility-network/containment.htm

58. Can we assign any pre-defined attribute fields to a particular asset?

Within a given feature class, yes. For example, all attribute fields within the water device feature class can be used with any features in that feature class.

59. How can I integrate with an EAM System? Do you have any example?

Some EAM Systems can connect directly to a utility network service. Some require middle ware. Some EAM systems require custom data integrations. It varies depending on the system you have. Reach out to your Esri account manager to schedule a call to discuss options for your particular EAM System. You should also reach out to your EAM System vendor and see what built in tools are available for data integrations with other enterprise systems.

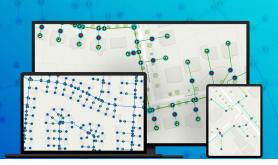
60. Can we generate preplanned map areas with Utility Network?

No. The Utility Network is not yet supported offline. This is coming in a future release.

61. Can I get support on how to create dummy data on a utility network?

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I would reach out to your Esri account manager to schedule a call and discuss options on the

functionality you are looking for.

62. We are a small water utility. Is Utility Network only available through Enterprise?

Yes. The Utility Network is only supported through ArcGIS Enterprise.

63. Are there any plans to implement Utility Network on AGOL? Enterprise is an expensive investment and is cost prohibitive for smaller utilities.

At this time, there is no planned support for implementing the Utility Network within ArcGIS Online.

64. Can you develop complex traces which not only identify the valves to close but other

valves (back-feed) to open to minimize the impacted customers?

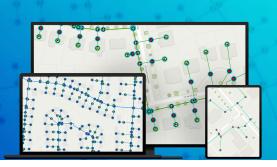
This may require multiple traces strung together in Model Builder but yes.

65. How does UN reconcile edits against the same point? Say someone is disconnected and collects a point- meanwhile someone in the office updated based on ortho. Is it a last edit scenario? Or is there the ability to prioritize certain edits?

Editing against a Utility Network uses the <u>Branch Versioning</u> transaction model. When taking map areas offline, all edits will be stored within a new version created at the time the map area was created. To learn more, read <u>Work with offline maps and branch versioned data</u>. Working connected, all edits will

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be stored in the default version. In a future release, Field Maps will support connected editing in a branch version.

66. When a feature service is being worked on by multiple editors, how does the UN reconcile conflicting edits? Is it a first come first serve, so to speak, and if so, are the previous version held?

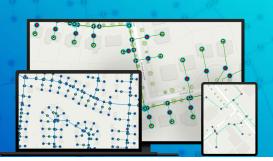
When conflicting edits in multiple versions are identified during reconcile and post, the conflict is called out and the admin doing the reconcile and post can choose which edit is valid. See Manage branch version conflicts in the ArcGIS Pro online help doc. https://pro.arcgis.com/en/proapp/latest/help/data/geodatabases/overview/manage-branch-version-conflicts.htm

67. For UNs that was set up before the field maps capabilities. Does the data just need to be republished with trace configurations? Or is there more involved in getting these capabilities?

To support tracing against a utility network you will need to publish web maps using ArcGIS Pro and share named trace configurations in the map when publishing. For more information, please read <u>Work</u> with utility networks in the ArcGIS Field Maps documentation site.

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68. How is the process and the transition from a geometric network with ArcMap to a

Utility Network with ArcGIS Pro?

There are many things to consider when migrating to the utility network. Reach out to your Esri account manager to schedule a call with a solution engineer to discuss the process and things to consider.

69. We currently use geometric network. What does it take to migrate to utility network?

What's the difference?

There are many things to consider when migrating to the utility network. Reach out to your Esri account manager to schedule a call with a solution engineer to discuss the process and things to consider.

70. Is there an offline solution, other than ArcGIS Pro, that can be deployed on desktop

(laptop/Toughbook) that allows for viewing the entire utility network?

No

71. In the UN, if a valve is closed, how is the network connectivity revalidated live so that trace results are updated?

If a valve is closed the network is still connected but any traces configured to stop at a closed valve with stop at the closed valve. With the utility network you can use network attributes as a condition in traces. The valve open/closed status is a network attribute.

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72. Can you elaborate on the consequences of having valves that will not fully close on a

utility network?

There is not a status for partially closed valves built into the utility network data models. If you wanted to add a status for partially closed, you could.

73. How are multi-family residences handled in UN? Multiple meters/service locations at

a structure?

We often see utilities use connectivity associations to connect the multiple meter locations in a multifamily residence back to the distribution mains.

74. What's the biggest obstacle to plan for UN implementation and deployment

(enterprise version)? How long does it usually take from planning to deployment on average that you see from the clients?

There are many things to consider when migrating to the utility network. Reach out to your Esri account manager to schedule a call with a solution engineer to discuss the process and things to consider.