AN ESRI
WHITE PAPER

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How ArcGIS® Supports Project Delivery for AEC Firms

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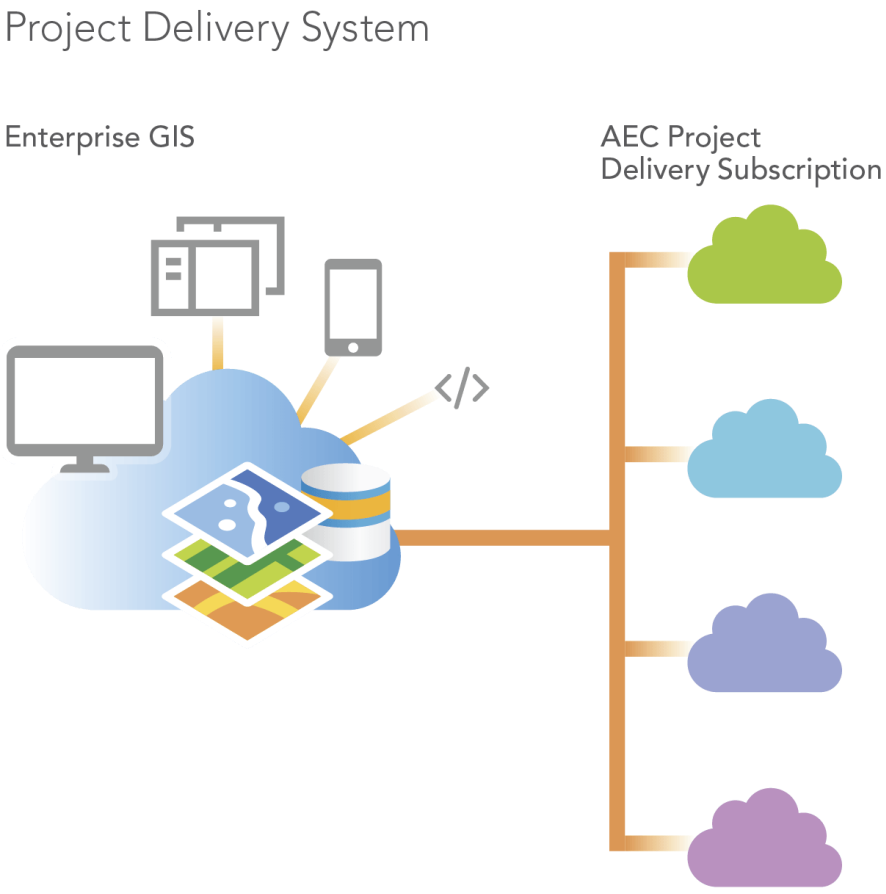
How ArcGIS® Supports Project Delivery for AEC Firms

Executive Summary

Esri® is introducing a project delivery system that enables architecture, engineering, and construction (AEC) firms to leverage the ArcGIS® platform in a manner that enables digital collaboration between AEC firms, contractors, and clients throughout the project life cycle. AEC firms are using these new capabilities to reduce their project technology costs, improve the review process, and increase customer satisfaction. Additionally, your clients will have the option to acquire the ArcGIS Online organization they have used during the review process to amplify the value of delivered project content.

What Is a Project Delivery System?

A Project Delivery System serves as a system of record and publication environment within your company and gives you the ability to deploy an AEC Project Delivery Subscription. AEC Project Delivery Subscriptions are ArcGIS Online instances deployed, managed, and administered by your AEC firm on your customer's behalf for the term of a project. Together, these environments allow you to deliver affordable and easy-to-use solutions that can be accessed by you and your clients anytime, from any device. You can deploy apps and information products to the organization, giving your clients a way to interact with you and view project information throughout the project life cycle. Esri® also provides industry-specific information products that you can use as starting points for template apps. Through these apps, you can deliver status updates, speed up reviews, show edits, and more. You can also build your own apps, extending Esri® solutions using developer APIs and SDKs.



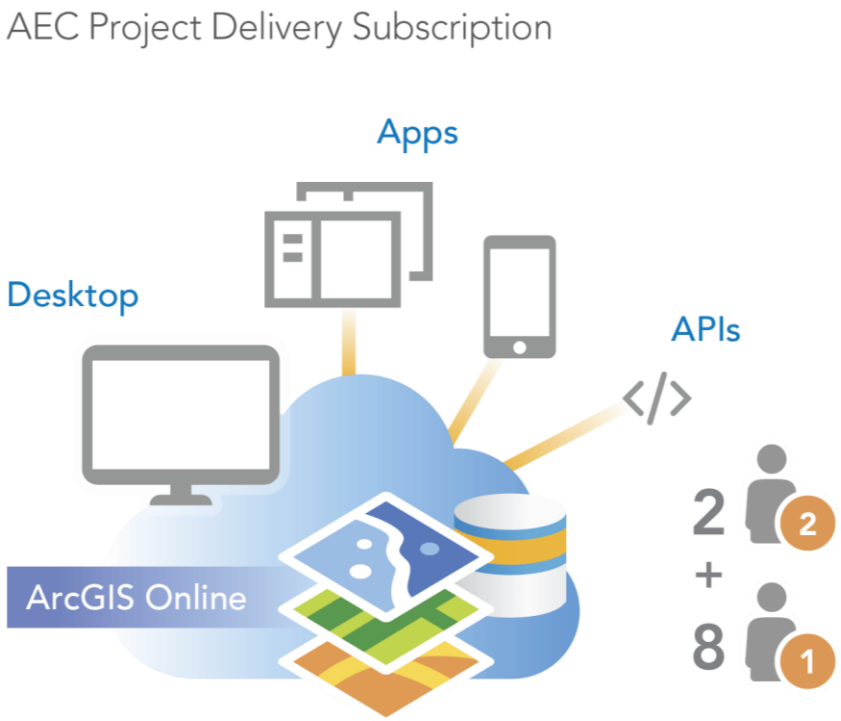
What's the Value?

With a Project Delivery System, you can improve project profitability, reduce project technology costs, and increase customer satisfaction. Other values that you can gain from this system include:

- Increasing customer collaboration and satisfaction by delivering high-quality information products.
- Improving the review process by providing access to deliverables throughout the project life cycle.
- Amplifying the long-term value of project information for clients, enabling them to leverage project content within their daily operations.
- Gaining the trust of stakeholders by working in a secure system, with controlled access, that provides up-to-date information on status history.
- Having deployment options that are right for you. Esri® can manage your GIS infrastructure or you can manage it yourself, on-premises or in the cloud through a virtual private cloud.
- Automating delivery, which allows you to quickly and easily deploy an AEC Project Delivery Subscription for every project, small or large, decreasing the overhead of delivering services to your clients.

What Is an AEC Project Delivery Subscription?

An AEC Project Delivery Subscription is an ArcGIS Online instance that allows you to manage the GIS environment for the term of the project. By leveraging ArcGIS clients and AEC firms can work collaboratively throughout the project lifecycle.



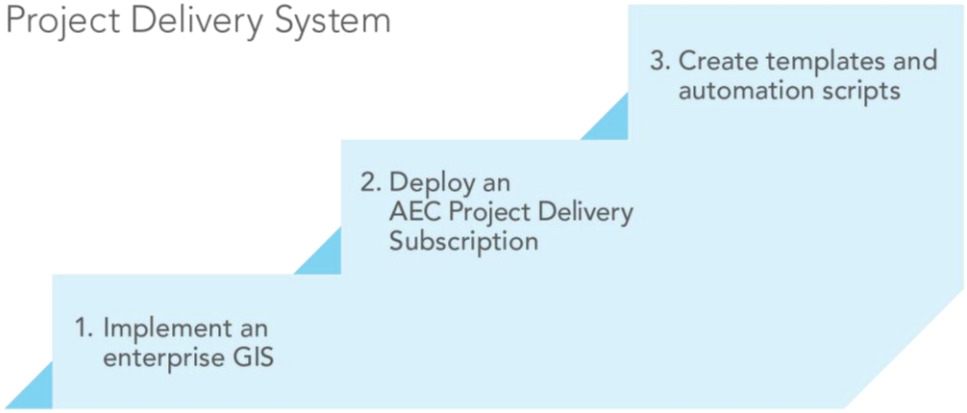
These environments seamlessly integrate with your current GIS workflows and processes. The system is extendable and allows you to automate the deployment of AEC Project Delivery subscriptions and their industry-specific information products and template apps.

AEC Project Delivery Subscription Transition

When a project is completed, your customer may opt to take over the subscription and continue managing as their own ArcGIS Online environment. Work with your Esri® representative through the transition process.

Implementation Steps

The steps below describe the process needed deploy your Project Delivery System. They outline the implementation method for setting up the technical infrastructure for your Project Delivery System, the process to deploy the AEC Project Delivery Subscription, and how to automate the deployment of new environments.



The recommended implementation steps include the following:

1. Choose an enterprise GIS architecture that best fits the needs of your firm. The system supports a software-as-a-service (SaaS) cloud deployment through ArcGIS Online, which is managed by Esri®. It also supports an on-premises deployment through ArcGIS Enterprise, which is managed by you. As an additional option, ArcGIS Enterprise can be deployed using any cloud provider if you have a cloud strategy and do not want to maintain server hardware.

2. Identify a customer that might benefit from this approach. When your project is ready, purchase an AEC Project Delivery Subscription from Esri®. From there, you can begin to administer the environment for your customer's needs. Configure the home page, and create groups that reference your project delivery system and its apps. Finally, add users to the environment and begin to collaborate with your customer.

3. Once you have been successful in repeatedly delivering a project for your customer, think about templatizing and automating the deployment of your AEC Project Delivery Subscriptions. Use tools like Jupyter Notebooks and ArcGIS API for Python to automate the delivery of your focused apps and project workflows.

Project Delivery System Implementation/ Documentation

Below are the steps and resources to follow if you want the Project Delivery System to be **managed by Esri®**:

1 Implement an enterprise GIS and leverage ArcGIS Online as a System of Record and Publication Environment

- What is ArcGIS Online?
- Getting Started
- Administering Your Location Platform

2 Deploy an AEC Project Delivery Subscription

Purchase an AEC Project Delivery Subscription:

- Set up the administration and branding of your project delivery organization.
- Begin sharing content between your enterprise GIS and your AEC Project Delivery Subscription.

3 Create a template environment and automation scripts (optional)

Deploy another ArcGIS Online as a template environment:

- Begin creating templates, and automate your deployments moving forward.
- Share content with groups to organize your templates.
- Install ArcGIS API for Python.
- Deploy a Jupyter Notebook on your server (optional).
- Administer the project delivery environment in ArcGIS.
- Clone items between ArcGIS Online and ArcGIS Enterprise organizations.
- Create users.

4 Run the script.

Below are the steps and resources to follow if you want the Project Delivery System to be **managed by you**:

1 Implement a hybrid enterprise GIS by utilizing ArcGIS Enterprise as a system of record and ArcGIS Online as a publication environment

ArcGIS Enterprise as a system of record:

- What is ArcGIS Enterprise?
- ArcGIS Enterprise base deployment options
- Installation guides
- Getting started with Portal for ArcGIS
- What is ArcGIS Monitor?

ArcGIS Online as a publication environment:

- What is ArcGIS Online?
- Getting Started
- Creating a collaboration between ArcGIS Online and ArcGIS Enterprise
- Collaboration types

2 Deploy an AEC Project Delivery Subscription

Purchase an AEC Project Delivery Subscription:

- Set up the administration and branding of your project delivery organization.
- Begin sharing content between your enterprise GIS and your AEC Project Delivery Subscription.

3 Create a template environment and automation scripts (optional)

Deploy another ArcGIS Online as a template environment:

- Begin creating templates, and automate your deployments moving forward.
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- Administer the project delivery environment in ArcGIS.
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Conclusion

In summary, Esri® is here to help you make every project successful. We know good collaboration and communication between an AEC firm and its clients are integral to running a successful project. We also believe that all projects are inherently spatial, and by organizing content geographically, your clients will have a new lens with which to understand the status of their projects. In this white paper, we discussed a new way of sharing information and collaborating between you and your clients during a project's life cycle. ArcGIS enables this modern approach. For support, please contact Esri®.

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Esri, the global market leader in geographic information system (GIS) software, offers the most powerful mapping and spatial analytics technology available.

Since 1969, Esri has helped customers unlock the full potential of data to improve operational and business results. Today, Esri software is deployed in more than 350,000 organizations including the world's largest cities, most national governments, 75 percent of Fortune 500 companies, and more than 7,000 colleges and universities. Esri engineers the most advanced solutions for digital transformation, the Internet of Things (IoT), and location analytics to inform the most authoritative maps in the world.

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