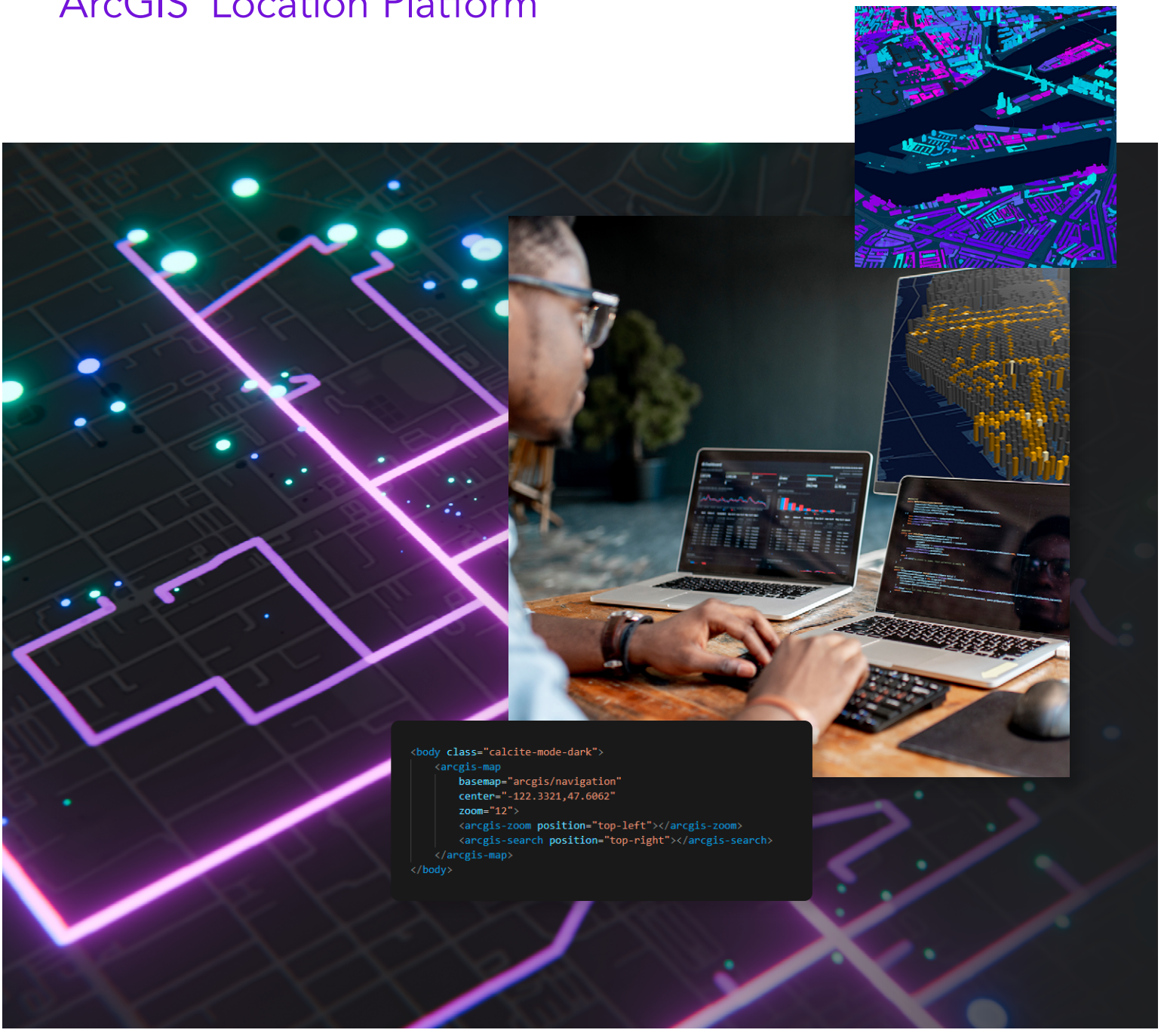
esri | THE SCIENCE OF WHERE®

Unlock Location Capabilities in Business Systems and Applications

ArcGIS® Location Platform



Overview

Harness the Power of Location

"Where" questions are potent. Whether you're designing apps—for construction or energy, federal or local government, conservation or commercial business—accurate and reliable location capabilities can't be missed. That's because organizations of all sizes now rely on location to unlock insights that drive growth, efficiencies, and innovation.

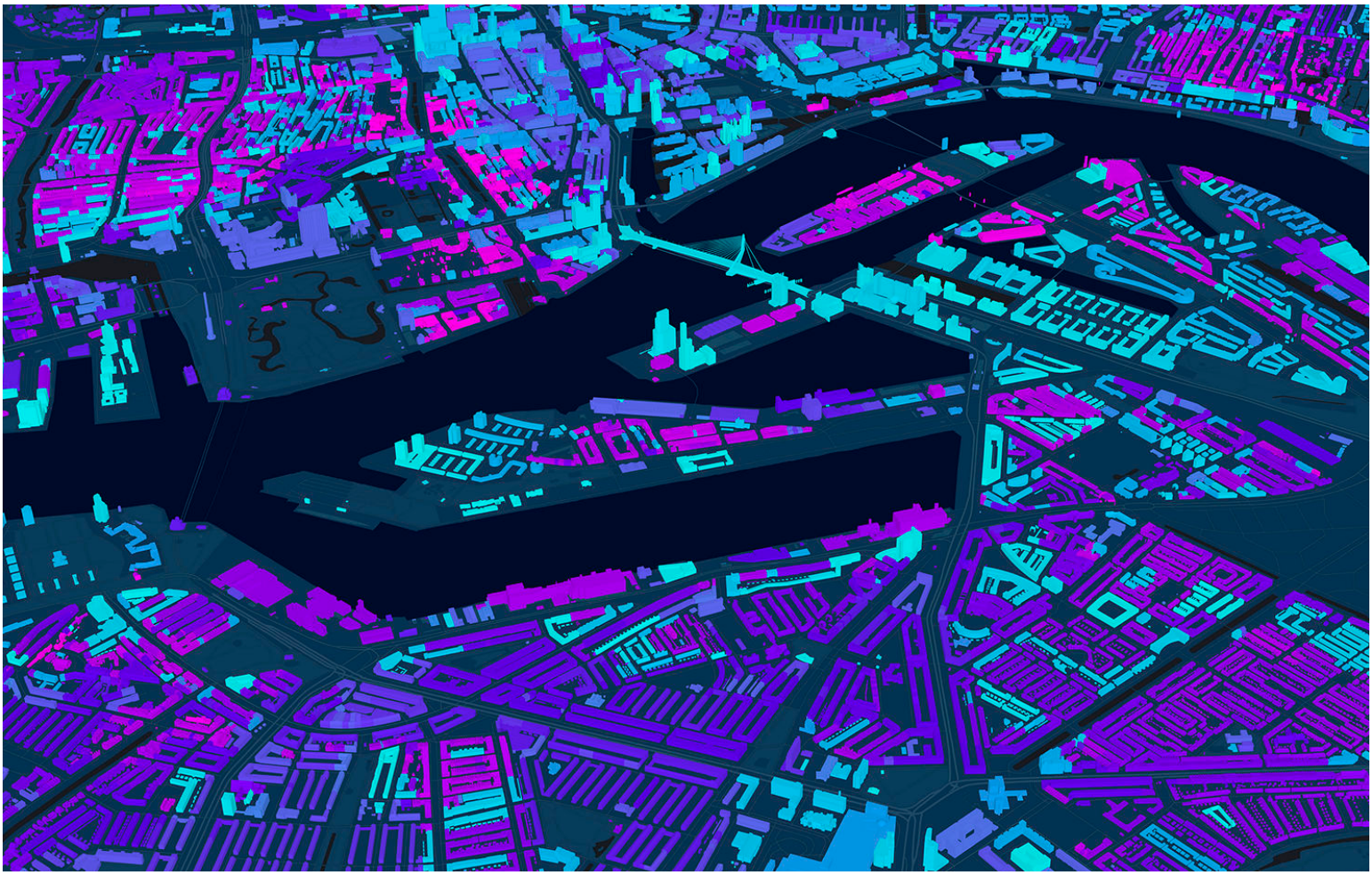
To design this kind of solution, organizations have a high bar to clear. Users expect seamless location-aware experiences. And when a competitive advantage is on the line, timelines get tighter, and the margins of error get slimmer.

Simply put, organizations need high-quality location services to solve the challenges they face.

The right location services can reduce development time and effort—but they must be easy to use and quickly deployable. Asking developers to learn a new language or framework is a surefire way to slow production.

Another maligned approach involves piecemealing services from multiple vendors. Requirements analyses must be repeated. Discrepancies and incompatibilities are easily overlooked. This can sink a project—even after launch.

Instead, organizations can build highly performant solutions using the most accurate and trusted maps, data, and location services available in the market—through Esri, the leader in geographic information system (GIS) technology. With Esri's ArcGIS Location Platform, everything is in one place and designed to meet developers where they are, with tools they know.



Hook Into the Most Powerful Location Capabilities on the Market

ArcGIS Location Platform is a secure and comprehensive solution that gives organizations all the location services they need in one place, with options to scale as needs grow. Development teams begin each project with

- Rich aerial and satellite imagery data layers, along with remotely sensed data from leading agencies, including the National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), and US Geological Survey (USGS), in addition to other leading imagery providers.
- Access to high-quality data services such as points of interest (POI) data; live feeds such as traffic and weather, movement data, and imagery; and more than 15,000 demographic, psychographic, and business variables.
- ArcGIS Living Atlas of the World, the foremost collection of ready-to-use maps and authoritative geospatial data from around the world.

Additionally, developers approach any project with a full set of tools—a JavaScript software development kit (SDK) for the web, native SDKs for mobile and desktop, scripting APIs for automating tasks, and low-code app builders—working how they see fit. They can use their preferred processes, frameworks, and mapping libraries, such as Leaflet, OpenLayers, Mapbox GL JS, MapLibre GL JS, and CesiumJS.

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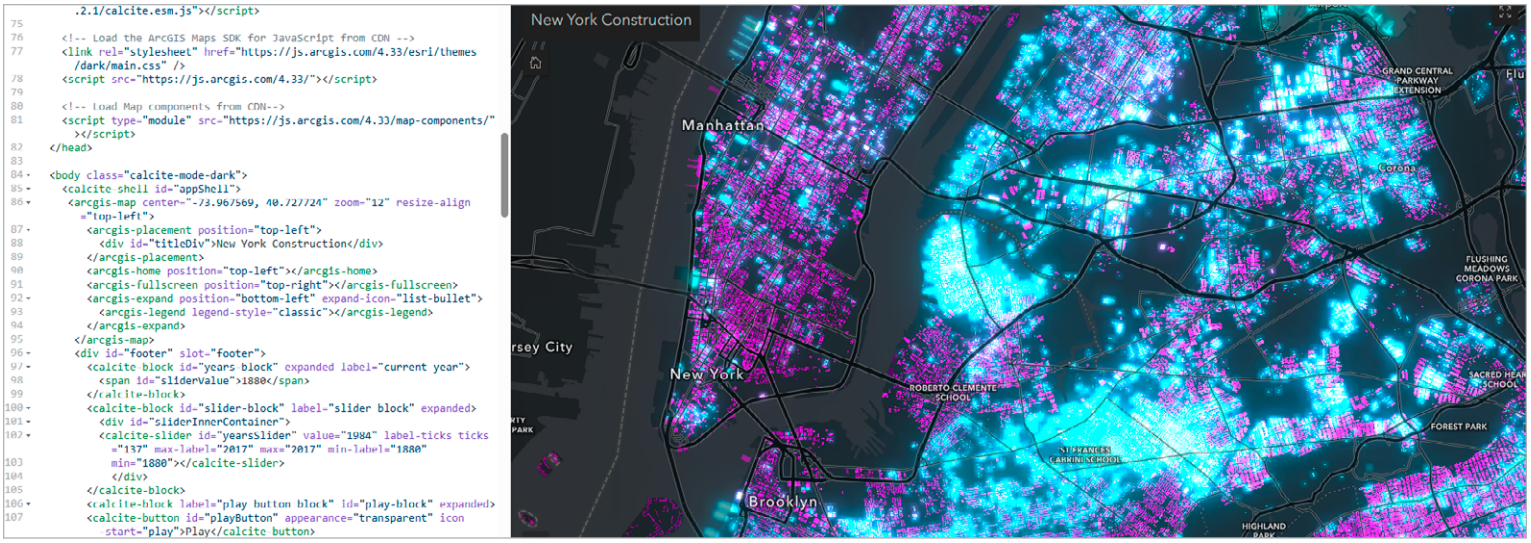


Turn Big Ideas into Tangible Outcomes

Developers bring ideas to life first by crystallizing the requirements, features, and scope. Next comes the architecture—the tech stack, infrastructure, and integrations.

In a location-based application, a set of lightweight yet powerful location services can handle the heavy lifting.

For example, consider a smart city management application and the location services that support city department heads in managing service delivery.

- A **basemap service** provides the foundational map layer for visualizing and understanding the city's infrastructure and geography.
- A **geocoding service** parses location data—ranging from building addresses to the real-time location of emergency response vehicles—into longitude and latitude coordinates.
- A **routing or navigation service** provides utility crews and emergency responders with advanced turn-by-turn directions that account for vehicle specifications and active road closures.
- A **data enrichment service** for **spatial analysis** provides urban designers with decision-support and planning tools.
- A **place finding service** locates points of interest based on user queries—such as parks, public buildings, or transportation hubs—adding to the functionality.

Developers orchestrate these capabilities across a range of configurations—web, desktop, mobile, online and offline, system-to-system, and indoor and outdoor deployments—to meet the needs of every user.

Why Use a Location Platform?

Location platforms give organizations a single, trusted provider for multiple capabilities, enabling them to add features anytime with a consistent experience. Organizations get enterprise-grade support and extensive documentation for both prototyping and production.

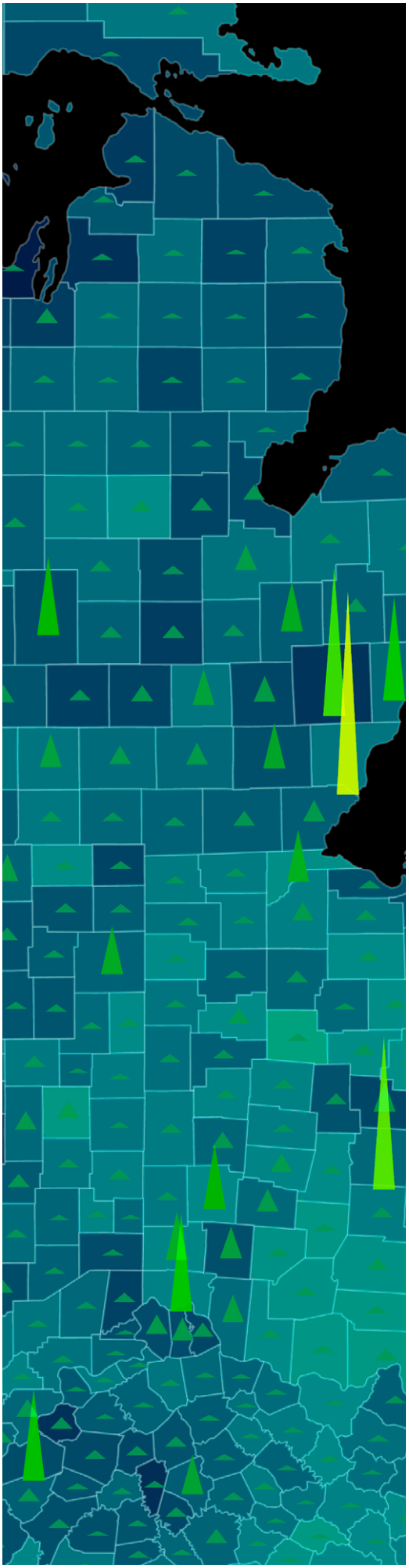
As a cloud-based solution, a location platform integrates location services into a larger enterprise system, making them accessible through APIs and SDKs—without requiring extra infrastructure. Developers have everything in one place for building high-performance, accurate applications.

The result? Less time to build and ship, and less risk after launch.

A Platform That Meets Organizations Where They Are

With Esri's ArcGIS Location Platform, teams can

- **Use location services without stitching together multiple vendors or APIs.** ArcGIS Location Platform delivers a complete collection of services from basemaps and geocoding to routing, elevation, and spatial analytics.
- **Access services with open APIs and integrate with open-source libraries.** Services are accessible through RESTful APIs and work with tools like Postman and OpenAPI Generator. Plug-ins such as Esri Leaflet allow developers to easily combine ArcGIS location services with open-source mapping libraries.
- **Accelerate development of both new and existing apps.** Modular APIs and SDKs enable faster prototyping and time to launch, while also simplifying the process of integrating services into existing apps without major refactoring. This reduces time-to-market and preserves prior development investments.
- **Build web and mobile apps with SDKs for major programming languages.** A location platform backed by enterprise developer product teams offers extensive options, including SDKs for JavaScript, iOS, Android, and cross-platform frameworks like .NET MAUI and Qt.
- **Spend less time troubleshooting with comprehensive support.** Detailed guides, code samples, and responsive technical support are crucial for performance and uptime. A location platform-as-a-service (PaaS) provider, such as Esri, offers this level of enterprise support.
- **Scale from prototype to production with confidence.** An enterprise-grade location platform has the power to support apps at any scale, from serving a handful of users to thousands. ArcGIS Location Platform offers transparent consumption-based pricing, global infrastructure, and proven reliability.
- **Build with trusted, market-leading services and data.** Esri's location services are proven, enterprise-grade, and trusted by thousands of organizations worldwide. Organizations benefit from authoritative data and robust APIs that ensure accuracy, reliability, and long-term support.



Advanced Capabilities for Solving Complex Challenges

A successful location-based solution adds value to enterprise data and delivers an accessible, rewarding user experience. ArcGIS Location Platform makes it possible, offering a rich suite of accurate, reliable, and industry-leading location services.

Basemaps at the Ready

Basemaps must be visually striking, with a design that enhances the application's mission and resonates with its users. ArcGIS Location Platform offers more than 50 ready-made basemap styles to start their projects. Each basemap style can be customized to meet specific aesthetic and functional needs of a mapping application or solution.

Each category offers a range of basemap style options:

- Streets: Emphasizing road networks and urban features
- Topography: Highlighting natural terrain and land features
- Satellite: Displaying satellite imagery
- Reference: Providing minimal geographic features and labels
- Creative: Offering alternative cartographic designs

Basemap Customization: With ArcGIS Location Platform, developers have built-in functionality for modifying basemap labels, colors, and layer visibility. These styles can be accessed and customized according to preferences—either via basemaps services, or mapping APIs and libraries, such as Leaflet, OpenLayers, and MapLibre.

Accuracy You Can Trust: Basemap providers source data from authoritative organizations such as cities, counties, and universities. Esri enhances its location data through partnerships with GPS companies like TomTom and Garmin, as well as federal agencies like the National Geospatial-Intelligence Agency, to improve offerings for ArcGIS Location Platform users.

Flexible, Precise Geocoding

A geocoding service must work seamlessly with other services for the app to function with the precision users expect. Accurate results require dependable location data.

With ArcGIS Location Platform, developers tap into addresses and landmarks from the most extensive coverage worldwide. This data is collected from the best available sources worldwide—not just a single provider.

Plus, ArcGIS Location Platform lets developers use geocoding with open-source and third-party libraries, frameworks, and SDKs.

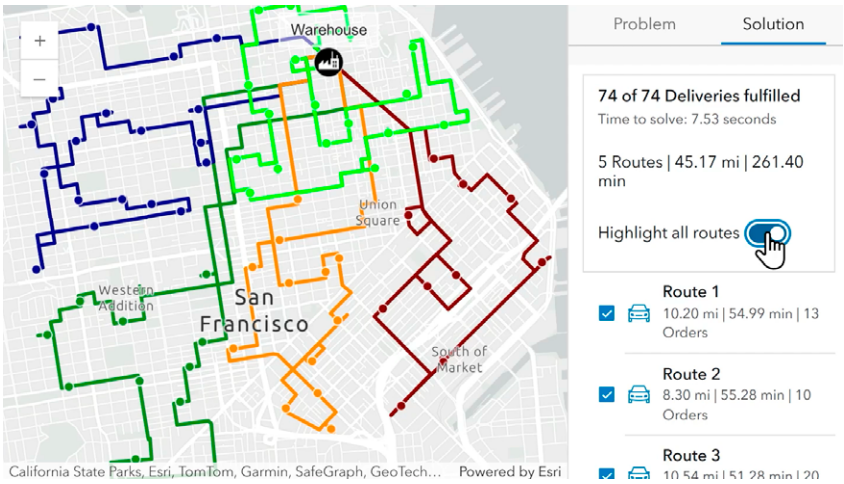
> "Not all geocoding vendors offer this seamless integration with other location services. Some restrict geocoding results to display solely on their own basemaps. This makes it challenging to customize or extend the service beyond their offerings."

A Logistics Competitive Edge

Thousands of businesses—freight shipping companies, package delivery services, retailers, quick-service restaurants, pest control companies, and agtech firms—use GIS to optimize routes and streamline distribution networks.

The financial and time savings offered by a routing application can be significant. One major logistics company credits GIS-powered location intelligence with saving millions of dollars from transportation spending each year.

The routing service within ArcGIS Location Platform provides comprehensive features for generating point-to-point routes, along with advanced solutions, including multi-vehicle routing, truck routing, and travel cost matrices.



Points of Interest Around the World

Place finding adds points of interest to a map that aids in geographic analysis and decision-making. A place finding service can help users answer some key questions such as:

- How far is a competitor's store from my business?
- What are some local attractions near this location?
- Where are the most popular Italian restaurants near my current location?
- Is this place located in a flood zone or near other natural hazards?

Esri creates ArcGIS Places datasets for more than 170 countries and regions using reliable business and location data sources. ArcGIS Places datasets provide authoritative information about geographic locations.

Places, also known as points of interest (POIs), are geographic locations represented by a single latitude-longitude point. A place may be a business, a government building such as a post office, a landmark such as the Eiffel Tower, or a natural feature like a lake or trailhead.

ArcGIS Location Platform grants on-demand access to more than 1,000 categories of POI data. This includes a variety of location- and attribute-based criteria that describe features in Earth's natural and built environments. This is one of the many valuable features available through ArcGIS Location Platform.

A Quicker Route to App Delivery

Real-time location data enhances routing applications. Developers can access this data and fast-track app delivery by incorporating curated datasets from ArcGIS Living Atlas.

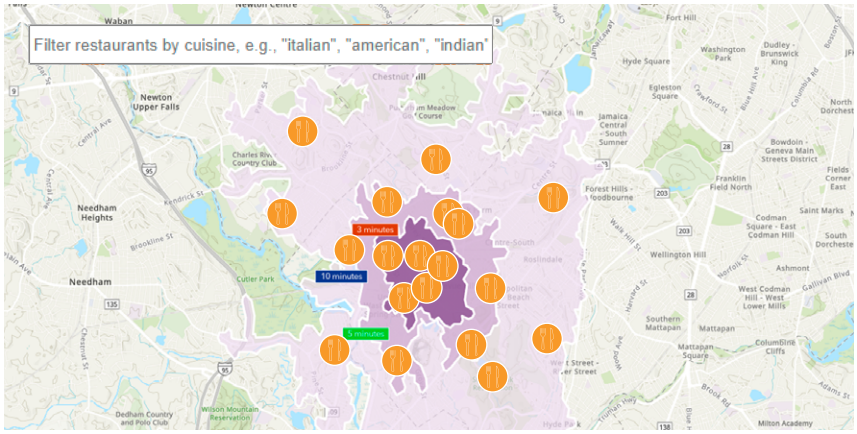
- **Streets:** A comprehensive world basemap with detailed information about roads, highways, and other transportation infrastructure.
- **World Traffic Service:** Real-time and historical traffic data used to optimize routes and reduce travel time.
- **Demographic and socioeconomic data:** Understanding population density, income levels, and other demographic factors can help optimize routes for specific use cases, such as delivery or ride-sharing services.
- **Highway Performance Monitoring System:** Data from the Bureau of Transportation Statistics reflects the extent, usage, condition, and performance of public roads in the US.

Data-Enriched Insights

Layered on a map, demographic data—population density and distribution, age, and income levels—gains crucial context. Environmental data, such as climate and weather patterns, land cover, and natural features, becomes more impactful.

Consider a quick-service restaurant that utilizes a meal delivery application. What if they could adjust menu items and offer time-sensitive discounts to users based on their location? Spatial analytics writes the recipe for this revenue-driving solution. A data enrichment service brings it to the dining table.

Organizations can leverage a comprehensive set of spatial analytics tools available through ArcGIS to develop solutions that identify patterns in data to solve complex problems.



Guide: 5 Steps to a Smooth Implementation

1 Identify Your Development Scenario

ArcGIS Location Platform offers scalable deployment options across web, desktop, mobile, online and offline, system-to-system, and indoor and outdoor environments. It is designed to be used for a variety of development scenarios, such as

- Embedding maps and spatial tools as value-added capabilities into existing products.
- Creating location-enabled commercial apps.
- Incorporating ready-to-use location services into internal solutions.
- Scripting and automating business processes.

These deployment scenarios provide greater flexibility in how you can use Esri's location services. Esri permits third-party integration with its system, fostering a collaborative ecosystem.

2 Choose the Correct Basemaps Styles Service

ArcGIS Location Platform offers two services for basemap styles services. The correct choice depends on the development scenario:

- The **ArcGIS Basemap Styles service** provides the greatest number of basemap styles, styling options, server capabilities, and the best map visualization at all zoom levels. Use the service to build mapping applications that support Mapbox styles or ArcGIS web maps. This is ideal for modern clients that support WebGL and can access vector tiles and styles.
- The **ArcGIS Static Basemap Tiles service** provides a subset of the basemap styles, styling options, and server capabilities. Use this service to build mapping applications that do not support Mapbox styles or ArcGIS web maps. It is useful for clients that do not support WebGL, prefer map tiles from a single data source, or operate under low-bandwidth conditions.

For an in-depth look at how to leverage basemaps development, **explore a detailed guide on ArcGIS Basemap services.**

3 Control Geocoding Costs

Geocoding prices can have a significant impact on the overall cost structure, particularly as demand for geocoding services scales. It's essential to evaluate not just current needs but also future requirements to avoid unexpected expenses.

Access everything you need—without paying for what you don't. With other vendors scaling up results in surprise costs. Some organizations have reportedly paid as much as $2 million per year for geocoding services with certain providers. Using ArcGIS Location Platform could save an organization up to 60 percent for the same volume of geocodes.

Optimize costs with sales support. Esri's support teams play a vital role in helping organizations rightsize their geocoding costs. By engaging with Esri experts, businesses can better understand their geocoding needs and tailor their usage accordingly. This proactive approach ensures that costs remain manageable and aligned with the organization's growth.

Want to fast-track your development process? **Explore our comprehensive documentation on how to get started with geocoding.**

4 Use Compatible Routing and Geocoding Services

When you align geocoding and routing processes, you guarantee routing results based on the most accurate location data.

This prevents discrepancies between routing and geocoding services caused by differences in data sources or providers, variations in data formats or schema, inconsistent spatial references or projections, and divergent algorithms or methodologies.

Selecting capabilities from a single vendor can help ensure accuracy, compatibility, and scaling. In short, you avoid inconsistencies in how locations are resolved—and how routes are calculated.

Access a step-by-step guide for adding sophisticated routing features with ArcGIS Location Platform at **How to build a routing app.**

5 Scale as Your Needs Grow

Whether you're starting with a small pilot or managing a global initiative, ArcGIS Location Platform is built to scale seamlessly with your ambitions.

Enterprise-ready from day one. ArcGIS Location Platform offers a robust, cloud-native infrastructure that supports high-performance mapping, spatial analytics, and real-time data processing—no matter the size or complexity of your project.

Tailored to your vision. Work directly with Esri experts to configure and customize the platform to fit your workflows. With flexible APIs, SDKs, and low-code tools, you can build solutions that align with your business goals and technical requirements.

Empower your team with resources and training. Tap into Esri's extensive library of documentation, tutorials, and community support. Whether you're a developer, analyst, or technical decision-maker, Esri's training programs and professional services help you maximize the value of your investment.

50 Years of Trust

Esri is the global market leader in GIS software, location intelligence, and mapping. Since 1969, we have supported users and customers with geographic science and geospatial analytics. Esri's ArcGIS is the most comprehensive and scalable digital mapping and analytics software available today.

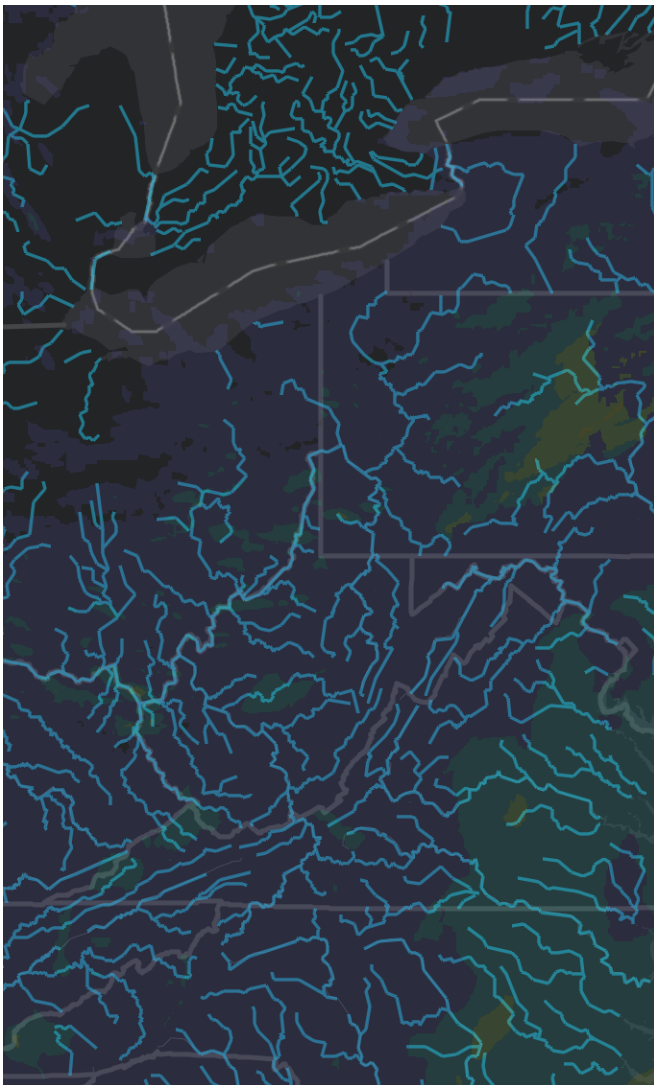
That's why ArcGIS is trusted by more than 700,000 customer organizations, including 70 percent of the largest global companies, most national governments, 30,000 cities and local governments, all 50 US states, and 12,000 universities. And it's why technology and logistics companies worldwide rely on Esri's location services for critical decision-making.

Esri provides deep support to its users and customers with their work. We believe in a geographic approach to problem-solving, brought to life by modern, enterprise-grade GIS technology.

Esri is more than a software company. We have 6,000 employees from 73 countries, all committed to using science and technology to build a sustainable world. We are a privately held, debt-free company with a proven record of sustainable growth. We are also committed to innovation, reinvesting 30 percent of annual revenue into research and development—more than double the industry average and exceeding the R&D investment levels of major technology firms.

Built on decades of expertise in location technology, Esri now offers its core ArcGIS capabilities directly to organizations, ensuring no compromise on service quality or developer experience.

We are here to support your work creating high-quality, location-enabled applications—with trusted tools, reliable data, and robust, scalable location services.



Learn More

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