VIEW POINT

LOCATION AS A COMPETITIVE ADVANTAGE: HOW ENTERPRISES CAN SCALE GEOSPATIAL INTELLIGENCE

Abstract

Geospatial intelligence is evolving from a specialist mapping function into a strategic enterprise capability that supports operational efficiency, risk management, customer engagement and growth. As cloud computing, AI, IoT and digital twins converge, organisations are increasingly using GIS mapping service platforms to transform spatial data into actionable business insights. The four key strategies for scaling geospatial intelligence across the enterprise include adopting a cloud-first architecture, establishing robust data governance, building workforce capabilities and integrating GIS into core business systems.

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For decades, a geographic information system (GIS) mapping service was largely viewed as a specialist capability. Urban planners used it to manage land use, utilities relied on it to monitor networks, and logistics teams employed it to optimise routes. As a result, geospatial technology often remained confined to individual departments, disconnected from broader business strategy.

That model is rapidly becoming obsolete. Location intelligence (LI) is emerging as a foundational enterprise capability that supports decisions across operations, customer engagement, risk management, sustainability and growth planning. As organisations digitise assets and embrace artificial intelligence (AI), geospatial intelligence is becoming a connective layer that helps leaders understand what is happening, where, and why.

The market's growth reflects this shift. According to Global Market Insights, the global GIS market was valued at approximately USD 11.6 billion in 2025 and is projected to reach USD 43.4 billion by 2035. Similarly, Spherical Insights & Consulting states that the cloud GIS market is expected to grow from USD 2.45 billion in 2025 to USD 13.5 billion by 2035. These numbers point to more than technology adoption. They signal a fundamental shift in how organisations collect, analyse, and operationalise information.

The enterprises creating the greatest value from geospatial investments today are no longer treating GIS mapping service platforms as mapping tools. They are treating location intelligence as a horizontal enterprise data layer that supports decision-making across the business.

From maps to enterprise intelligence

Historically, GIS was associated with visualisation. Users created maps to display assets, routes, territories, or infrastructure. Modern platforms do far more.

According to Esri, GIS today functions as a system of record, engagement, and insight, helping organisations integrate spatial data with operational and business information. At the same time, AI is dramatically increasing the value of geospatial data through automated feature extraction, satellite imagery analysis, anomaly detection, and risk identification.

This convergence of geospatial technology and AI – often referred to as GeoAI – is transforming how enterprises approach planning and operations. GIS mapping service investments are no longer about producing better maps but about enabling better business decisions.

1. Establish a cloud-first geospatial architecture

Many organisations still operate GIS environments built for departmental use. These legacy deployments often rely on isolated databases, desktop applications, and infrastructure that limit collaboration.

Cloud-native GIS platforms provide the foundation for enterprise-wide adoption by enabling centralised data management, real-time collaboration, elastic computing resources, and seamless integration with digital systems. According to Spherical Insights & Consulting, demand for cloud GIS solutions is being driven by growing requirements for real-time analytics, remote accessibility, and scalable data management.

The strategic importance of cloud GIS is illustrated by Esri's 2025 collaboration with AWS to advance generative AI capabilities within ArcGIS. Cloud migration should therefore be viewed not as a technology upgrade but as the foundation for enterprise-wide GIS mapping service adoption and real-time analytics.

2. Treat spatial data as a strategic enterprise asset

Technology is rarely the biggest obstacle to scaling geospatial intelligence. Data is. Many organisations struggle with duplicate spatial datasets, fragmented ownership, inconsistent standards, and poor integration across systems. The result is multiple versions of the truth, which can undermine operational and strategic decision-making.

According to Esri's GIS governance guidance, successful enterprise GIS programs require clear ownership, data stewardship, metadata standards, and governance policies.

Leading organisations establish frameworks that define authoritative data sources, ownership responsibilities, quality standards, metadata requirements, and security controls. They also integrate spatial data with ERP, CRM, asset management, and business intelligence systems. The organisations generating the greatest returns from GIS mapping service investments recognise that spatial data should be governed with the same discipline as financial, customer, or operational data.

3. Build geospatial capability across the workforce

One of the biggest misconceptions about enterprise GIS programs is that they are technology initiatives. In reality, they are organisational change initiatives. Many deployments fail to scale because they remain concentrated within technical teams.

According to the ArcGIS Architecture Center, successful GIS programs require executive sponsorship, stakeholder engagement, and structured change management. As GeoAI capabilities mature, organisations will increasingly require professionals who understand spatial analytics, data science, machine learning, and business operations. Many leading enterprises are responding by creating GIS centres of excellence, investing in workforce training, and building cross-functional teams.

A phased approach can reduce the risks of implementation. Organisations that begin with focused, high-impact use cases often build credibility faster than those attempting enterprise-wide deployments from the outset.

4. Integrate GIS into the enterprise intelligence stack

Enterprise geospatial intelligence creates the greatest value when it becomes part of everyday decision-making. The objective is not to create another standalone platform but to embed location intelligence within existing business systems and workflows.

Utilities are integrating GIS with IoT sensors and asset management systems to monitor infrastructure performance, predict failure, and prioritise maintenance. Logistics organisations use location intelligence to optimise routes and improve fleet visibility. Retailers combine demographic and market data within GIS platforms to improve site selection and identify growth opportunities.

According to McKinsey, organisations that successfully combine operational technology, advanced analytics, and digital capabilities are better positioned to improve performance and resilience.

The next frontier is digital twins. By combining GIS, IoT, engineering, and operational data, organisations can create virtual representations of physical assets and environments. These models support scenario planning, predictive maintenance, and performance optimisation. As digital twin adoption grows, GIS mapping service platforms are becoming a critical foundation for these capabilities.

The organisational imperative

Geospatial intelligence is no longer a technology discussion; it has become a business performance discussion.

Location intelligence helps organisations identify operational risks, optimise asset performance, prioritise investments, improve field operations, uncover growth opportunities, and strengthen sustainability planning. Organisations that can answer these questions faster and more accurately gain a significant edge.

Scaling geospatial intelligence is not a GIS project, but an enterprise transformation initiative. Success requires cloud-first architecture, strong data governance, workforce readiness, executive sponsorship, and deep integration with enterprise systems.

The rapid growth of the GIS market reflects a broader reality: location intelligence is becoming a foundational layer of digital business. Organisations that invest in enterprise-wide GIS mapping service capabilities today will be better positioned to improve efficiency, strengthen resilience, reduce risk, and unlock new opportunities for growth.

How can Infosys BPM help?

Infosys BPM's Geospatial Data Services help enterprises unlock greater value from geospatial intelligence through end-to-end GIS services spanning mapping, data capture, integration, spatial data management, analytics and reporting. Backed by more than 20 years of experience across utilities, oil and gas, telecom, mining and transportation, we help organisations improve asset visibility, streamline field and network operations and strengthen decision-making. Our scalable delivery model and project-ready GIS framework enable faster responses to outages, operational disruptions, demand fluctuations and evolving regulatory requirements.

Sources:

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For more information, contact infosysbpm@infosys.com

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