A geographic information system (GIS) lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends.

GIS benefits organizations of all sizes and in almost every industry. There is a growing interest in and awareness of the economic and strategic value of GIS.

Cost Savings from Greater Efficiency

**Cost Savings from Greater Efficiency**

GIS is widely used to optimize maintenance schedules and daily fleet movements. Typical implementations can result in a savings of 10 to 30 percent in operational expenses through reduction in fuel use and staff time, improved customer service, and more efficient scheduling.

Better Decision Making

**Better Decision Making**

GIS is the go-to technology for making better decisions about location. Common examples include real estate site selection, route/corridor selection, evacuation planning, conservation, natural resource extraction, etc. Making correct decisions about location is critical to the success of an organization.

Improved Communication

**Improved Communication**

GIS-based maps and visualizations greatly assist in understanding situations and in storytelling. They are a type of language that improves communication between different teams, departments, disciplines, professional fields, organizations, and the public.

Better Decision Making

**Better Record Keeping**

Many organizations have a primary responsibility of maintaining authoritative records about the status and change of geography. GIS provides a strong framework for managing these types of records with full transaction support and reporting tools.

Better Decision Making

**Managing Geographically**

GIS is becoming essential to understanding what is happening and what will happen in geographic space. Once we understand, we can prescribe action. This new approach to management—managing geographically—is transforming the way organizations operate.

Source: <http://www.esri.com/what-is-gis>

For reference:

1. [**Introduction to Algorithms by Thomas H. Corman**](http://www.amazon.com/Introduction-Algorithms-Edition-Thomas-Cormen/dp/0262033844?tag=javamysqlanta-20)
2. [**Algorithms by Robert Sedgewick & Kevin Wayne**](http://www.amazon.com/Algorithms-4th-Edition-Robert-Sedgewick/dp/032157351X?tag=javamysqlanta-20)
3. The Algorithm Design Manual by Steve S. Skiena
4. **Algorithm in Nutshell**
5. **Algorithm Design by Kleinberg & Tardos**

GIS is the go-to technology for making better decisions about location. Common examples include real estate site selection, route/corridor selection, evacuation planning, conservation, natural resource extraction, etc. Making correct decisions about location is critical to the success of an organization.

A geographic information system (GIS) lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends of a network, map etc. which mostly depends on graph algorithm. For better performance Dijkstra algorithm is beneficial than Bellman-Ford Algorithm in this sector.

\begin{keywords}

Dijkstra Algorithm, Bellman-Ford Algorithm, Complexity, Shortest Path etc.

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