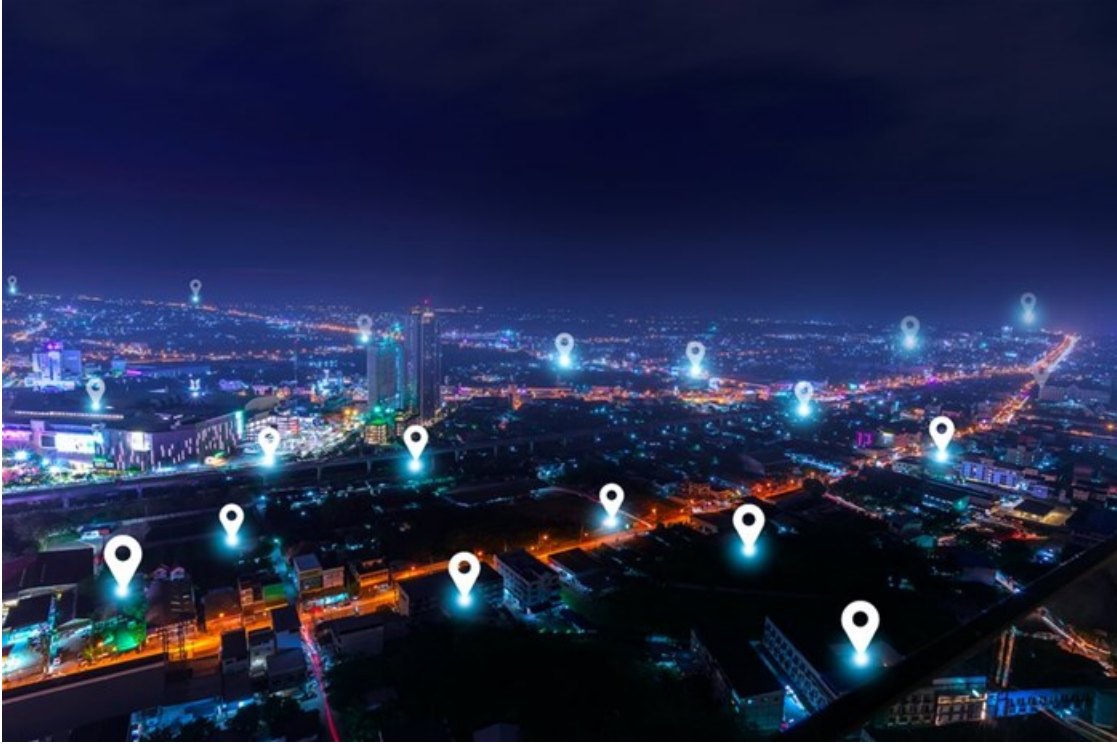


A GIS leap forward in the customer journey

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Digital satellite TV company optimises installer allocation and customer onboarding with advanced geospatial solutions.



First-of-its-kind innovative geospatial solution streamlines customer experience

One of South Africa's top digital satellite TV services has changed up its customer subscription process and installer allocation system through geospatial technologies developed and provided by AfriGIS.

The result is a smooth and effective sign-up process. By transforming the way subscribers come on board and how they are matched with the list of potential installers, the company has made the process slick, quick, and hassle-free.



Ockie Arnoldi, senior client consultant at AfriGIS

"The company's primary challenges were accurately locating new subscribers, accurately connecting them to potential installers, and managing the allocation and invoicing process efficiently," says Ockie Arnoldi, senior client consultant at AfriGIS. "Previously, the system relied on as-the-crow-flies distance calculations, which often resulted in inaccuracies due to real-world geographical constraints like rivers, bridges, mountains or roads that do not allow bi-directional travel."

The project was divided into four main components:

1. Customer location identification with AfriGIS Search (autocomplete)

This feature allows new subscribers to enter their address, which, starting from the fourth character typed, suggests potential matches from an extensive address database offering matching with more than 50 million address combinations. This seemingly simple tool is a game-changer, significantly reducing entry errors and enhancing the customer experience from the first interaction.

Upon selecting an address, the system generates precise coordinates, which are then displayed on a mapping interface. This serves a dual purpose: it visually reassures customers of the accuracy of their location, and provides a clear, intuitive base from where service coverage and allocation to an installer can be managed.

2. Installer allocation based on real travel distance

To address the inaccuracies in installer allocation, the solution shifted from straight-line distance calculations to actual road-based travel distances using a routing solution capable of providing actual distances between the customer and all potential installers.

It's an approach that ensures that the assignment of installers is based on practical and efficient travel paths, eliminating previous discrepancies in invoicing and job assignments.

3. Use of time travel bands for efficient installer matching

To manage the high volume of queries and improve system efficiency, the project introduced the concept of time travel bands. Upon receiving a new service request, the system calculates a polygon around the customer's location, delineating areas within specific contracted travel distances (e.g. 12.5km, 25km, 50km). These polygons are used to identify all potential installers within the relevant bands, streamlining the job posting process by accurately matching installers to customer locations.

"Time travel bands are an innovative concept used in geospatial analysis and service allocation," says Arnoldi. "Designed to improve the efficiency and accuracy of connecting customers with services based on travel time or distance, these bands create virtual zones around a point of interest (like a customer's location) that represent different thresholds of travel time or distance. For example, one band might encompass all providers within a 15-minute drive, another might represent a 30-minute drive, and so on."

4. Operational insights and planning

AfriGIS's solution provides the digital satellite TV company with detailed visualisations of installer coverage areas, enabling strategic planning for onboarding new installers and optimising service delivery. The company can identify service gaps and areas where additional installers are required, facilitating better resource allocation, service planning, and fairness.

This ensures that installers are distributed optimally across regions, enhancing service delivery and allocating resources where they are most needed. The ability to visualise and analyse coverage not only supports better decision-making, but also highlights the company's proactive approach to meeting customer needs and adapting to changing market dynamics.

Reaping the benefits

Where the previous system resulted in numerous re-calculations and uncertainty, both costly and inefficient, the project has significantly reduced operational costs.

"The streamlined, cost-effective solution saves the company money through having a verified customer location and all the required information pertaining to the installers at hand as soon as the new customer signs-on," says Arnoldi. "These technology upgrades have allowed our client to refine operations, leading to better service for customers, more efficient use of resources, and overall operational savings. These improvements demonstrate our joint commitment to leveraging technology for better service delivery and operational efficiency."

"As the company continues to refine and expand these improvements, the potential for even greater efficiency and customer satisfaction is huge," he adds. "We have laid a foundation for at-scale increases in customer onboarding that serves as a blueprint for other companies seeking to use innovative address and routing technology to improve their operations."

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