



Movia—Danish Public Transit Agency

Server GIS Improves Operational Efficiency, Planning, and Customer Service

CASE STUDY



CHALLENGE

Public transit agency sought to improve customer service and increase operational efficiency by creating a server-based integrated system that supports workflow, transit and route planning, and forecasting.

RESULTS

- A 20 percent decrease in software maintenance costs
- Transit network data quality improved by 15 percent
- 5–10 percent time saved utilizing new work processes
- Increased ability to deliver new types of services to Movia passengers

“The system has improved efficiency and allows the analysis of a much wider range of parameters.”

Mogens Buch-Larsen,
Vice President, IT,
Finance and Human Resources, Movia

Movia is Denmark’s largest public transit agency, serving 214 million passenger trips per year in the Greater Copenhagen area and parts of eastern Denmark. With 570 bus lines and 9 local train lines in its coverage area, Movia strives to meet the daily transit needs of 2.4 million inhabitants with an employment base of 1.2 million jobs.

The Challenge

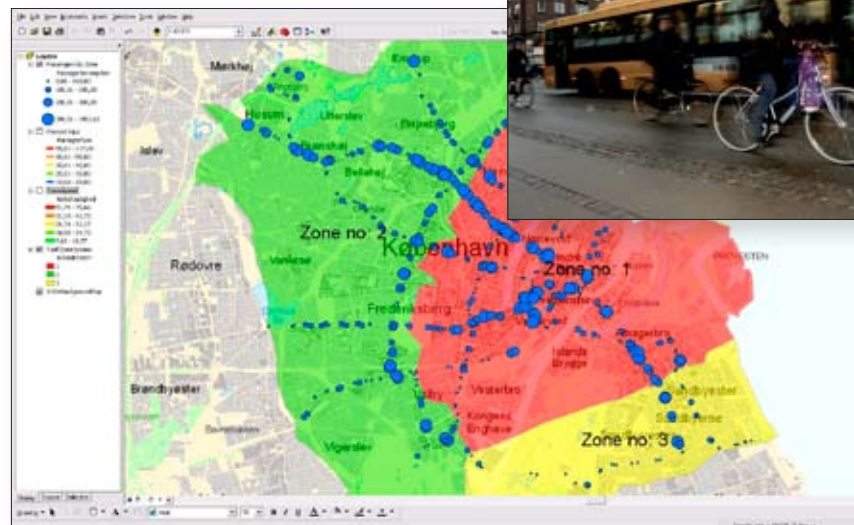
To meet the increasingly higher demands of its customers and provide the best customer service possible, Movia needed to make some technical updates. The public transit agency found that its information system and internal processes needed streamlining to eliminate its time-consuming and complicated workflows. Movia also desired to incorporate vital transit planning data, such as demographic characteristics and location of educational facilities, which it would use for route planning.

The agency’s goals were to design a more efficient workflow, increase customer service by providing real-time transit information, and create an integrated planning system where all the vital parts of transit planning and operations are integrated into one solution. Movia also wanted to have access to relevant data to perform analyses and forecasting to enhance its transit planning.

The Solution

The integrated system that Movia was seeking did not exist in an off-the-shelf software solution. Therefore, the company sought a strategic cooperative relationship that could assist in developing and maintaining the desired solution. Movia found that Informi GIS A/S, Esri’s distributor in Denmark, offered the best solution and support to accomplish its goals.

“We chose a GIS [geographic information system] platform, key in the IT architecture,” says Movia’s head of IT, Carsten Bo Jacobsen, “as we believed that in travel planning and customer information, the map is the key element.”



GIS allows Movia to analyze passenger counts by transit area.

Learn more at www.esri.com/transportation.

Movia—Danish Public Transit Agency

ESRI SOFTWARE USED

ArcGIS Server
ArcSDE®
ArcMap™

OTHER SOFTWARE USED

Microsoft® SQL Server®

DATA USED

Commercial Road Network from
National Cartographic Bureau

Statistical/Demographic Data
from National Statistics Bureau

FOR MORE INFORMATION



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Movia selected Informi GIS and ArcGIS® Server because, at a strategic level, the pairing had the most to offer in relation to GIS collaboration and product development.

Building on ArcGIS Server, the partnership developed GeoTransit, a whole new range of transit applications that seamlessly integrated the information from Movia's existing systems with spatial data maintenance tools. GeoTransit supports Movia's enterprise-wide business processes by providing the tools to maintain the spatial location of stops, routes, patterns, and fare zones along with the ability to integrate current schedule information, passenger counts, predictive travel time information, and real-time road closure information.



The number of buses running during rush hour can be visualized enterprise-wide.

The Results

Before Movia's new GIS solution, it could take three days for a driving plan to be assigned to a bus route through a specific area because the required information was located in many different systems. Now that all the systems have been integrated, it takes only a day to complete the same task. The process has become much easier to manage because the system provides direct access to all relevant information, and having more efficient workflows has reduced the time needed to train new transit planners.

With GIS as a central part of the IT architecture, data is now linked and can be used for routing/planning. This gives Movia the ability to better analyze stops by identifying passengers within a specific service area. Movia has also found it useful to identify the busiest bus stops in a service area and show how many buses are running daily at one stretch to ensure efficient route planning. To provide passengers with bus arrival information at particular stops, Movia calculates travel speed on selected lines and transmits this information to kiosks.

Movia's GeoTransit system meets the needs and requirements of a modern transit agency driven to compete with other, more individual modes of travel, such as automobiles. It has allowed more efficient and accurate route planning, ultimately improving the company's overall bottom line. The GIS-based GeoTransit has improved opportunities for providing customer information, which in turn has helped increase customer satisfaction.

Learn more at www.esri.com/transportation.