

AEM Torino Plugs into a Geospatial Environment

Italian multi-utility AEM Torino creates a central database that houses its CRM, SAP, and GPS data using Bentley's MicroStation®, MicroStation GeoGraphics®, Bentley® Descartes™, Bentley® Publisher™, and Bentley® Connector™ for MySAP.com®.

One of Italy's largest multi-utilities is one of the first in the world to implement an integrated, seamless geospatial database to manage its CRM, SAP, and GPS data more effectively. The S.I.T. Project (Sistema Informativo Territoriale) applies Bentley's geospatial applications to enable AEM Torino to better serve the 900,000 residents of Turin with electricity, district heating, and gas services.

The new IT platform takes AEM Torino from a CAD-based approach using MicroStation to an intelligent database approach for storing its graphic and attribute data using MicroStation GeoGraphics, Bentley Descartes, Bentley Publisher, and Bentley Connector for MySAP.com. All network data from SAP, all data from c_nrg—AEM Torino's CRM application—and all GPS fleet position data is now accessible from one central database. Previously, network maintenance details were only available to AEM Torino CRM and SAP users. GIS users could not access it.

"The Bentley solutions AEM Torino has implemented as part of our S.I.T project provide the highest level of integration among different applications and the most advanced graphical technologies," says Dr. Andrea Zampollo, S.I.T. project manager. "With the S.I.T. project in place, thanks to Bentley technologies, all our data is now accessible to anyone who needs it. This greatly reduces the amount of time it takes for any user to access information and gives all our users access to much more information than they could access previously. Ultimately, this means we can serve our customers more effectively and increase the volume of business we can handle."

S.I.T project achieved these goals:

- managing AEM Torino's internal processes more efficiently
- using the central data store to help meet customer needs more effectively
- improving production processes to offer new and improved services to customers

SUMMARY

Organization

AEM Torino S.p.A.

Vertical Market

Geospatial - Utilities

Location

Turin, Italy

Project Objectives

- Manage internal processes more efficiently
- Use a central data store to help meet customer needs more effectively
- Improve production processes to offer new and improved services to customers
- Allow company personnel to retrieve customer information linked to the graphical representation of the network
- Easily locate and route maintenance teams
- Publish data across the Internet and intranets, reducing paper documentation

Fast Facts

- AEM Torino is one of Italy's largest multi-utilities, serving 900,000 residents with electricity, district heating, and gas services
- Its new geospatial system connects graphical data with other enterprise technologies, such as customer relationship management (CRM) and enterprise resource planning (ERP)
- The system benefits and connects design and engineering professionals, the sales force, call-center operators, and work-order dispatchers
- Both graphic and attribute data are stored seamlessly in Oracle Spatial

Bentley Products Used

- MicroStation
- MicroStation GeoGraphics
- Bentley Descartes
- Bentley Publisher
- Bentley Connector for MySAP.com

Lightening-fast results

Since the start of the S.I.T. project, AEM Torino has streamlined several work processes. SIT project users will include design and engineering professionals, sales force staff, call-center operators, work-order dispatchers, and back-office personnel. These users can now perform queries quickly and easily, create reports, retrieve customer information rapidly, publish data through the Internet and intranet, access all enterprise-wide data, and reduce paper documentation.

"There's no longer any need to execute batch procedures to provide information and reports to other departments, such as for work orders," says Zampollo. "We've also eliminated duplications. For example, now our maintenance teams can access and print maps without having to request them from other departments. We also no longer have to place attribute information on maps, as we can now access that same information from SAP."

Reducing design time

Designers and engineers save an estimated 20 to 30 percent of time designing and updating networks. Attributes are now automatically updated from SAP and c_nrg.

"With the new system it's no longer required to input all the information which already resides in SAP and c_nrg in the design environment. This makes it unnecessary both to input and check that data," says Zampollo.

Routine, preventive, and emergency maintenance

AEM Torino's maintenance planner manager can create and execute preventive maintenance plans to avoid costly repairs and power outages down the line. For example, if a certain type of transformer has a fault, engineers can access SAP data to figure out how many exist on the network and how much it would cost to replace them. Then work-order dispatchers can print out maps of where the faulty transformers exist on the system and give them to the field maintenance teams, so they can go out and replace them.

Emergency repairs can now be performed much more quickly using Bentley's geospatial solutions. With the c_nrg connection, users no longer have to upload attribute information on critical customers, such as hospitals. The information is available directly within the distribution network maps in MicroStation GeoGraphics. This eliminates the need to request contract information from other departments, thus allowing prompt decisions on repairs or breakdowns.

Having GPS data available makes it possible to route maintenance fleets more efficiently. Work order dispatchers can now see how close maintenance fleets are located to plants and networks and will be able to define the shortest path to follow to reach a place of intervention. Previously, dispatchers were only able to locate maintenance fleets by street.

Bentley Benefits Beat Out Competitors

AEM Torino has been a Bentley SELECT subscriber since 1995, citing free software updates and upgrades as one of Bentley SELECT's primary benefits.

A solid relationship with Bentley has been another benefit, as well as one of the main reasons AEM Torino selected Bentley solutions for the S.I.T. Project (Sistema Informativo Territoriale).

"Our steady and most satisfactory relationship with Bentley eased the decision-making process for us," says Dr. Mario Cipriano, director of Information Systems.

AEM Torino had been using AutoCAD to read files from its suppliers but found it to be an unsuitable tool for network design management within a cartographic environment.

"For wide-scale projects, AutoCAD has not been found feasible," says Dr. Andrea Zampollo, S.I.T. project manager. "It wasn't efficient for us. We prefer the open, user-friendly environment of MicroStation."



Sharing information

Using Bentley's geospatial solutions, AEM Torino can also quickly integrate distribution network information from other utilities and public administration companies which operate in the same territory.

Creating a homogenous environment

The S.I.T. project has enabled AEM Torino to create a homogeneous environment, including high, medium, and low voltage, public lighting, and traffic lights. It helped AEM Torino to standardize the modeling of the objects; create a unique access point to the different information, and standardize work processes.

Shedding light on future endeavors

With Phase One of the S.I.T. project complete, Phase Two of the S.I.T. is scheduled for completion by December, 2004. Phase Two entails implementing Bentley Publisher to publish data over the Internet and on mobile devices to support the network maintenance teams. AEM Torino will also use Bentley's geospatial applications to gather data for commercial department and authorities requirements, provide profitability analyses, conduct territory network planning, support the customer call center, provide fast feedback to the Italian Electrical Authority, and define best tariff policies.

"As a forward-thinking company, we were looking for an innovative solution to help us better manage our internal processes, know and serve our customers better, and better handle our production processes," said Dr. Mario Cipriano, director of information systems. "Such a solution would ultimately help us improve our business and better serve our market, with the possibility of offering new services as needs change. Bentley offered a versatile and indispensable alternative toward achieving our goals: a geospatial environment that has many useful applications, bringing an implicit cost reduction with the digital flow of information.

"Furthermore, Bentley technologies have proven even more useful than what their functionalities originally performed for us, giving AEM Torino the opportunity to strengthen its business by offering new services to the market."



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