

How an innovative electricity provider is increasing network efficiency, customer satisfaction and profit by using an integrated Mapbis data environment

Client: Kayseri Electric: 610,000 subscribers, 546 employees, 50m USD profit in 2013.

Challenge: To integrate network activity, inventory and customer data, detect electricity theft, and provide a single dashboard view of all data for daily operations and strategic planning.

Solution: Mapbis scalable GIS environment, synthesizing all data into an instantly updatable system providing easy monitoring, analyses and planning



Executive Summary

Proper electricity supply is the key to industrialization and development. Kayseri is one of the largest cities in Turkey. It is one of the former capital cities also. Kayseri is now a large industrial city with many factories.

Kayseri Electric (known by the acronym KCETAS in Turkish) was the first electricity distributor in Turkey to become a private company.

Kayseri Electric is following the latest technologies to manage and monitor its full infrastructure inventory and to supply good services to its customers.

Business Challenge

- Better and faster service to the customers
- Effective use of resources for better development is an important need
- Electricity grid and subscribers must be managed in a smart way
- The maintenance of the system, new installation, replacements, and fault recovery must be effectively managed
- Managing inventory with infrastructure
- Effective sharing of data by internal users

A sustainable GIS system is needed to manage the huge infrastructure and provide better customer service. Instead of repeated high cost field operations, an easily monitored and updated system is targeted.

An up-to-date database, including maps showing the necessary detail, is a must.

Kayseri Electric must also be able to provide detailed reports to the Energy Market Regulatory Authority.

Electricity Infrastructure GIS System Customer Profile

Kayseri Electricity (KCETAS)
www.kcetas.com

Kayseri Electricity Distributor

610.000 Subscribers 546 Staff
50 Million Dolars Profit



Proje Çalışması: EDABİS – KCETAS Elektrik

Solutions

Since 2007 Mapbis has been developing custom tailored GIS solutions that provide integration with other systems. Kayseri Electric organized field teams to collect street and building inventory. Mapbis developed an easy-to-use field data collection application and field teams used it to collect both electricity and building inventory.

Transformers, poles, cables, subscriber connections, and customers' home addresses were collected. All electric inventory was enumerated and labeled.

Now the Energy Market Regulatory Authority can connect to the system remotely and can monitor all investments.

Mapbis' GIS system was designed in a central location, connected to all systems, and integrated with all workflow processes.

All subscribers were located on the map, first those in the city center, followed by those in the smaller towns and rural areas. Each subscriber's electricity consumption was mapped and analyzed, and unaccounted-for loss was decreased to 8%.

Results & Benefits

All subscribers are now mapped according to both postal address and electrical address, the latter including Transformer name, feeder name and pole/box number. One benefit of this is that in case of any maintenance or shortage in any transformer or region, the list of subscribers affected can be reported easily.

Electricity analysis can be done easily.

Data reliability is maximized.

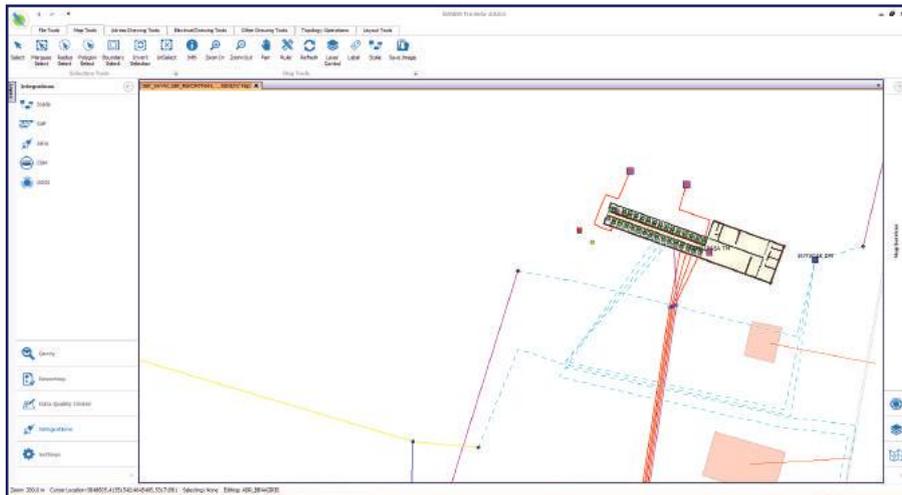
Technology Used

Oracle as a Spatial Database.

MapInfo Professional is the leading Desktop GIS solution.

MapXtreme is the powerful web based GIS application software development kit.

PowernetMaestro Electricity Distribution Network Information System, Designed by Mapbis based on MapInfo and Oracle.



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