BSES Yamuna Power Ltd. deploys Esri's GIS-based Automated Scheme designing solution to improve power distribution

Client
BSES Yamuna Power Limited (BYPL)

Website
www.bsesdelhi.com

Location
East Delhi and Central Delhi

Industry
Power Distribution

Organization Profile
BSES Yamuna Power Ltd. (BYPL) distributes power in Central and Eastern Delhi. The company aims to provide customers with superior, high quality services that are reliable and safe.

Solution
ArcGIS Server, ArcGIS Desktop

Highlights
Esri India helped BYPL by:
- Improving scheme designing
- Reducing overall costs
- Improving decision making
- Customizing the work flow process

Project Summary

BSES Yamuna Power Ltd. (BYPL) covers several areas of East and Central Delhi with its power distribution system. Some of the major districts where the company is present include Laxmi Nagar, Chandni Chowk, Paharganj, Mayur Vihar, Nand Nagri, Karkardooma and Patel Nagar. The organization, headquartered in the Karkardooma area of East Delhi has over 14 lakh customers and 14 division offices.

BYPL needed an efficient GIS-based solution to manage its power distribution more effectively.

Esri India offered BYPL a GIS solution to deal with its various business challenges. It integrated this offering with BYPL's existing SAP technology, helping the organization improve the overall process and ensure effective scheme design, creation and examination, etc.

Challenges

BYPL was in need of a robust solution as its existing power distribution system was facing several difficulties including the following:

- It was unable to predict and manage asset damages in different areas
- It had problems with forecasting and managing outages
- There was a lack of transparency in the overall power distribution process
- The power distribution system was not user-friendly
- The system's scheme designing, planning and management was not efficient
- Owing to the time-consuming design process, the labor and work related costs were high

BYPL was additionally facing problems in the deployment of a new process in its power distribution system. Aligning existing users with the new process was in fact one of the key technical issues confronting BYPL.

Solution

Esri India effectively implemented its GIS-based solution with the goal of improving the overall functioning of BYPL's operations.

Various technologies were used for the development of a GIS-based scheme creation module including the ArcGIS Server and ArcGIS API for JavaScript. As the application used the ArcGIS architecture, the accuracy of its corporate data assets was enhanced in an exponential manner.
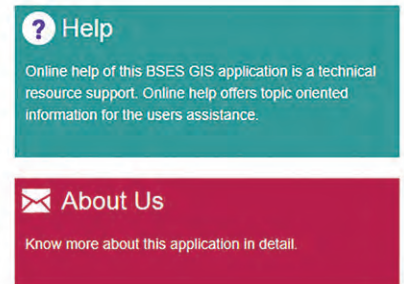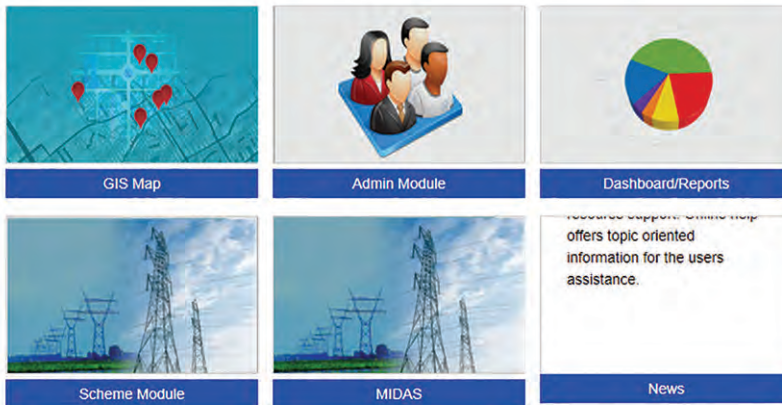
Since some of the elements of power distribution such as high tension cables, substations, grids and OH conductors could be analyzed on maps using the GIS system, BYPL was able to design construction work sketches efficiently using the solution. End users were able to receive detailed information associated with material costing, work requests and scheduling by using the work management related tools. Also, visibility for users was enhanced through the integration of the system with communication technologies such as SCADA and AMR.

The solution provided by Esri had the following features:

- Work location management
- Administrative tools
- Ability to predict costs
- Ability to customize workflows
- Design analysis

The system was utilized across BYPL's offices and other locations owing to the fact that it was based on web technology.

Key Benefits

By implementing the ArcGIS-based solution, BYPL has transformed its working style. The organization has been able to improve the overall productivity of its network engineers by almost 20 percent!

Some of the other important benefits that have resulted from BYPL's engagement with Esri India are:

- Easy and effective analysis of costs throughout the work process
- Reduction in labor costs
- Reduction in the time utilized for layout designs
- Improvement in the accuracy of designs
- Easy detection of errors in the early stages of the design process
- Automation of design layout which has eased the design process
- Easy upgradation of the system without interrupting the normal day-to-day work of the organization
- Utilization of mobile devices like smartphones and tablets for accessing the system

Customer speak

" Providing native integration of SAP and Esri products means greater flexibility for users who might want to try new configurations with the data sets created on different platforms. With the proposed integration, users don't have to leave the application at all and can do all the work at one location. "

-Anish Kalucha
Addl. V. P. (IT), BYPL