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GIS IN POWER UTILITY SECTOR

GIS - As most of the well know experts has defined GIS as follows.

1. The system having information regarding geographical features it's called GIS.

2. A system with a good combination of hardware and software, by which user can store, retrieve and analyse the data is called GIS.

Introduction to GIS in power utility sector -

In the last 10-15 years the power industries have been developing power transmission systems to meet the growing demand with growing population in India. On the contrary selecting and constructing suitable sites for transmission lines becoming difficult and also has been restricted, due to developmental activities undertaken by various state govt in particular to rural areas as well as growing concerns on environmental issues.

Power industries being a vital source of necessity to mankind has to keep records of electrical assets such as no of poles, circuits length, transformers, location information of substation and many more, with the use of GIS information all these facilities can be better organized and managed with a digital systems (advanced servers, computers & smart phones). The linkage of database with a representative map in GIS application will enable user to edit, update and modify the information. Also GIS facilitates the user with digital data and real time maps for better planning and monitoring of on going works with more focused approach.

GIS can effectively manage information on the distribution of electricity to customers and information describing the attributes of each customer such as location and electricity use. The automated mapping facility helps the user to quickly creat maps of their jurisdiction to take a quick decision.

The information retrieval facility is another dimension of GIS, by utilizing this feature administrators can get immediate information with few 1 or 2 clicks in a system, for example if a CCC manager wants to see the no of DT's with 100 Kv voltage installed in a particular place or area, he can visualize and fetch the desired information in a flick of seconds. At times where Station manager want to assess the cable length to be laid in particular area or locality, GIS will return with precise reports and data within few seconds to minutes. This process eliminated the wrong assessment and manual errors, which eventually befits the organization in terms of commercials.

To conclude, GIS provides a wide range of solutions encompassing the entire business value chain in the power distribution sector from setting up distribution network and load management to customer information, assets management, billing and customer services. Digital system provides timely, accurate and easier way of acquiring information, which is very vital in taking prompt and accurate decisions.