



GIS and EAM: An integrated solution for electric utilities

Maintaining and expanding electric utility service requires real-time knowledge of a network's capacity and asset lifecycles. However, legacy GIS software and disconnected systems can't provide the common operational picture needed to understand asset health and determine where remediation, expansion or replacement is needed.

By combining current and past asset status with planned and operational views of asset-grid interaction, utilities can better understand their network models, improve decision-making and provide a more stable and predictable grid for customers.

HxGN NetWorks + HxGN EAM

HxGN NetWorks is a flexible and integration-ready geospatial asset management solution specifically designed for the utilities and communications industry. Its robust data framework and ability to support multiple simultaneous network models allow it to maintain a digital twin of a network and supporting infrastructure. When integrated in real time with HxGN EAM, a strategic enterprise asset management solution, the combined solution's capabilities are expanded to include asset health planning and analysis, financials, proactive and reactive maintenance and work management.

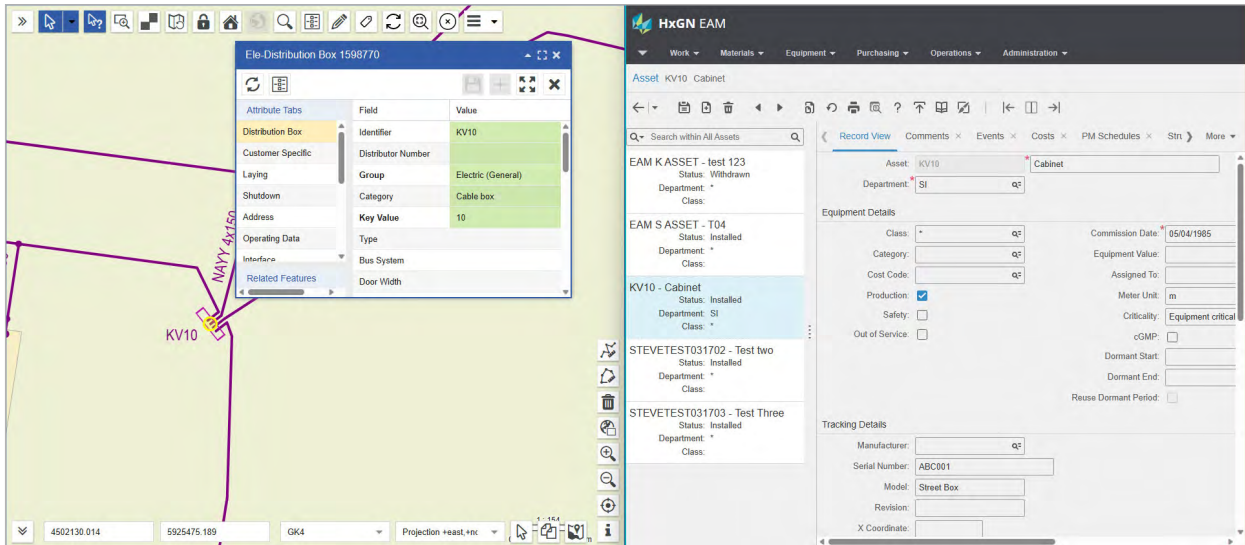
HxGN NetWorks helps electric utilities with:

- **Asset characteristics:** See assets on a map along with a robust data model to understand current and historical attributes

- **Historical information analysis:** See the network at any given time — six months ago, a year ago or longer — for complete analyses
- **Topology:** Model the multiple connectivity and ownership relationships between assets, more than just graphically, including which assets are connected and their current and planned statuses
- **Inside and outside plans:** See which customer is connected to what assets and how customers are impacted by outages
- **Smart grid:** Manage and balance your network in near-real time to accommodate larger network loads

HxGN EAM allows network providers an even clearer picture of their assets through:

- **Preventative maintenance:** Track asset performance and prepare for maintenance to prevent failure
- **Operational efficiencies:** Optimize operations and analyze trends to minimize downtime and network failures
- **Asset health calculations:** Assign an asset health score by consuming inspection information on current asset conditions and combining this with an analysis of historical trends
- **Asset financials:** Understand the cost and depreciation of assets and their overall value in comparison with other assets



On the left is a map view from HxGN NetWorks in which a user is reviewing the attributes of a distribution box, or cabinet. On the right is the HxGN EAM view of the same asset.

Integration provides the critical link

An integrated HxGN NetWorks and HxGN EAM solution allows utilities to make smarter investments. They can see their networks completely, allowing operators to calculate the effects of proposed changes and predict failures more accurately so remediation can take place before issues arise. For example, when planning to tie in microgeneration to a feeder, a company would be aware that the closest line is already overloaded or past its life expectancy.

Benefits of integration

- **More complete digital twin:** View your network in a model that offers real-time asset information and allows you to see historical data, current status and plans for maintenance or expansion
- **Integrated systems:** Manage your asset work order data alongside your GIS data to align reports with each other
- **Optimized maintenance:** Use the GIS to improve scheduling of performative maintenance on assets to ensure efficient use of crew time
- **Enhanced network validation:** Make a potentially complex task simple by understanding the criticality of specific assets in the event of an asset failure

- **Improved data quality:** Create a single standard input for the data you use by having data integrated through all systems
- **Better KPIs:** Simulate outages with dashboards to guarantee restoration will occur as quickly as possible
- **Streamlined representations in one system:** Use a single solution for interior and exterior representations and simulations
- **Improved customer satisfaction:** See asset lifecycles, outage impact on customers and optimal maintenance schedules
- **Increased employee satisfaction:** Employees can see all the data relevant to their responsibilities and department workflows in a single solution

No matter the size, demand or service area of your electric utility, HxGN NetWorks and HxGN EAM provide a scalable, integrated and configurable solution for a more sustainable and resilient network.

Explore [HxGN NetWorks](#)

Explore [HxGN EAM](#)

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