OpenMap™ provides circuit-tracing capabilities necessary for probable cause analysis of networked systems. By tracing the distribution network’s topology from a point of fault, a visual depiction of the faulted area may be analyzed through dynamic coloring of the relevant one-line diagram. As more data becomes available (i.e., through Trouble Calls) the visualization can be re-analyzed to capture even greater accuracy. Of course, all available network status telemetry is used in the analysis.

The OpenMap product is a complete network management system, including a fast network topology analyzer that provides dynamic colorization of network devices and circuit trace capabilities. General SCADA features such as tagging and data interaction are also accommodated through the OpenMap user interface.

OpenMap’s Full Graphics system supports World Coordinate-based displays (such as single line diagrams), as well as page-based tabular displays. The system supports layers, overlays, panning, zooming, and automatic decluttering. Graphic data can be imported and exported either to or from other systems via DXF format.

OpenMap provides for visual interpretation of circuit tracings through the use of colorization. Network elements are color-coded according to their conditions of energized, not energized, conflicting, etc. Various extents of the distribution network may be monitored, including:

- Entire network, including colorization of all nodes and devices.
- Single island conditions, including colorization of nodes and devices within an electrical island bounding the trace selection (e.g., trace from a specified feeder through the corresponding island only).
- Source tracing, including the colorization of nodes and devices up to and including an energization source.

Continued…
OpenMap is fully integrated with the SCADA system to enable remote field switching and updated status information for affected equipment and customers. Also, the entire network may be viewed in a study mode, where future switching reconfiguration, normal status, and/or proposed status scenarios may be examined. To facilitate analysis of real-time and postulated scenarios, OpenMap may be integrated with the network analysis system (i.e., OpenDNA™), the results of which (including system violations) may be viewed directly on the topology diagram or in tabular format.

OpenMap may be integrated with a GIS system in order to facilitate updates to the network model (topology and asset definitions) when available and desired.