

GEOGRAPH

CASE STUDY:

NCC Improves Fiber Network Operational Efficiency with CrescentLink

Now, all their network data is in the right place at the right time to improve outage management response time, increase customer satisfaction, and improve ROI.



NCC, a broadband network provider offering internet, telephone, video, and security services based in northwest North Dakota now has a modern, user-friendly fiber management system. It captures and integrates data, quickly delivers information to field technicians, helps plan for future expansion, and keeps their members connected.



The Challenge:

NCC serves 16 exchanges and approximately 7,000 locations in both rural areas and small towns in North Dakota with just over 3,000 miles of active fiber. Their customers include homes, schools, businesses, airports, government agencies, cellular providers, wind farms, substations, oil and gas locations, and drone towers.

The fiber management team at NCC includes a staff of only three people. They are responsible for managing network design, materials management, field and project staking, and everything else from as-building to data entry. The team needed to consolidate data sources and maximize visibility of all connected assets.

Early on they relied on hand-drawn staking sheets and outdated processes. They evolved to making updates with new construction CAD maps with files for each exchange and each town. While this was better, it still resulted in a time consuming and frustrating method which didn't provide a full view of all their connected assets.

They had also tried other software providers, but experienced poor customer support and sporadic results with problem resolution. NCC wanted a true partner and were looking for a fiber management software provider they could trust. One they could grow with. They needed a solution that was both robust and cost effective.



They needed a solution provider that could:

- ✓ Transition record keeping system from paper-based to digital.
- ✓ Provide field technicians with real-time network data.
- ✓ Migrate data from their previous solution with little downtime.
- ✓ Leverage their telecom expertise to train staff to provide ongoing and responsive customer support for their members.
- ✓ Help manage new subscriber builds and area upgrades where capacity was outgrown

“GEOGRAPH’s team has first-hand telecom industry experience, so they understood exactly what we needed.”

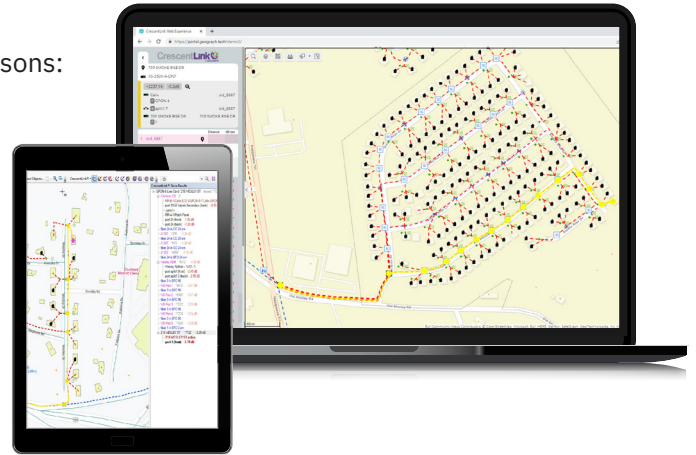
- Garth Vaagene, Engineer, NCC



The Action:

NCC did research into Esri, who recommended GEOGRAPH as a possible solution. They ultimately chose GEOGRAPH for these reasons:

- ✔ A support team with a solid background in telecommunications.
- ✔ CrescentLink’s simple user interface. To help their team understand fiber so they could visualize more complex connection configurations.
- ✔ An accurate trace function that offered the ability to trace based on as-built footages... not based on estimated shape length assets.
- ✔ GEOGRAPH’s CrescentLink software is an extension of Esri® ArcGIS®.
- ✔ A responsive and patient attitude. GEOGRAPH never left us waiting for days for follow up to our questions.



GEOGRAPH also:

- ✔ Helped with NCC’s conversion from its previous network management solution.
- ✔ Provided a comprehensive training workshop to ensure the entire NCC team was up-to-speed with CrescentLink software.
- ✔ Shared their deep understanding of telecommunications industry knowledge and Esri platform tips to highlight best practices for data modeling and management.
- ✔ Took the time to understand NCC’s specific needs and optimize their network. They helped NCC understand fiber and Esri location intelligence data.
- ✔ Helped NCC office and field personnel stay connected by sharing tools like the NCC Intranet and the 811 Handbook, along with up-to-the-minute details on ever-changing road conditions.





The Result:

With CrescentLink, NCC now has a highly-accessible, easy-to-use system of record to manage its network, troubleshoot outages, and optimize network growth for the future – all within their budget.

GEOGRAPH has given NCC the ability to look at their fiber network as a whole... as a connected communications environment of value.

NCC's records again have connectivity and meaning.



NCC's technicians can now access real-time network map updates while troubleshooting in the field.



NCC can share graphic representations of their mapping projects – instead of spreadsheets – with upper management.



NCC can look at their fiber network as a whole – helping improve operational efficiency and increase ROI.



NCC saves time and money on daily network management. They spend less time driving 2 or more hours to investigate potential outages.



NCC experiences fewer frustrations and unnecessary truck rolls when handling trouble tickets. No more measuring wheels and easier management of construction reports.



NCC no longer outsources data collection for FCC Form 477 and for the new USAC HUBB to a third party.



As-builts and plant changes are now gathered via GPS and entered into Esri® ArcMap® in real time. The NCC team no longer has to wait until the next day for updates to be seen.



“CrescentLink makes it easy to understand what’s going on in the network even if you don’t have field experience.”

- Garth Vaagene, Engineer, NCC



NCC Created a Digital Twin of Their Fiber Network Using CrescentLink by GEOGRAPH.

- ✔ Real-time communications pathways between NCC office staff and teams out in the field.
- ✔ Improved operational efficiency due to faster outage management response time and reduced expenses.
- ✔ Increased customer satisfaction metrics and fiber network management ROI.
- ✔ Complete understanding of the value of their NCC fiber network.



“Our department has evolved from being GIS editors to also being administrators and content creators. Our General Manager and Field staff like the improved offerings and the ease of use. They are most grateful that our fiber optic records now have both connectivity and meaning.”

- Garth Vaagene, Engineer, NCC

CrescentLink by GEOGRAPH is an extension of Esri® ArcGIS®, the global leader in GIS software, location intelligence, and mapping technology.

GEOGRAPH is proud to be an Esri® Gold Partner.



esri

Partner Network
Gold