

Wyandotte Municipal Services and CommScope: A Partnership Built from the Inside Out

Customer

Wyandotte Municipal Services,
Wyandotte, MI

Challenges

- Small town had outgrown its legacy HFC network
- Lacked the technical resources to evaluate and propose the best way forward
- Limited budget

Solutions

- CommScope Professional Services team conducted thorough network audit, design and cost analysis.
- CommScope Sales supplied:
 - 85 miles of OSP fiber
 - 1x4 optical splitters
 - 8-port fiber taps
 - Fiber enclosures
 - Hardened fiber drop cable

Located on the banks of the Detroit River, Wyandotte, MI is just 11 miles from Detroit. Despite the proximity to its much larger neighbor, this town of nearly 26,000 has an independent character and strength that is 100-percent homegrown.



“Wyandotte has developed a reputation as a destination for new and expanding businesses. We are spreading economic growth and investing in arts, food, culture, retail and services that will be attractive to future generations,” said Paul LaManes, General Manager, City of Wyandotte.

A newly upgraded all-fiber broadband network will ensure Wyandotte has the digital foundation to support the community's growth for generations to come.

The community-owned fiber network is managed by Wyandotte Municipal Services (WMS). Created in 1889, WMS is one of the oldest community-owned utilities in the U.S. In 1983, they introduced basic cable television service over a coaxial network. By 1999, that network had

quickly evolved into a HFC infrastructure providing broadband cable, internet and phone service to 7,544 residential and business subscribers.

As the community has grown, traffic volume and application demands began to strain the network's capabilities. In 2018, WMS decided it was time, not just for a network upgrade but to lay the foundation for Wyandotte's digital, smart city future.

Sorting through the issues

The WMS project team's initial ideas for an HFC refresh quickly evolved into a discussion about a fully re-designed fiber to the home (FTTH) network. WMS quickly recognized they needed a fiber partner at the table to help the team talk through and objectively evaluate the decisions.



They selected CommScope. As a turnkey provider, CommScope offers deep expertise in HFC and FTTH: design, engineering and implementation.

The relationship officially began in April 2018 as WMS worked with CommScope's Professional Services team on an analysis to define and quantify the cost and benefits of upgrading the existing HFC network versus building a FTTH network. This initial high-level evaluation looked at the current HFC architecture and technologies and WMS' existing business resources and future service goals.

The team's initial findings confirmed what WMS believed, that an FTTH build made the most sense. Following the initial audit, CommScope Professional Services conducted a more in-depth analysis that addressed challenges such as headend relocation, fiber overlay requirements, an FCC repack, IP-delivery requirements, and municipal funding. This involved:

- Analyzing various FTTx architectures and IPTV solutions
- Developing a five-year broadband technology roadmap
- Evaluating potential service offerings
- Designing a plan and layout for the headend move
- Performing detailed OSP fiber design services
- Conducting off-air antenna and satellite signal surveys

Measuring success externally and internally

By December 2019, WMS had a solid FTTH plan that was efficient, forward-looking and aligned with their business vision. Equally important, CommScope gave WMS the resources, solutions and experience to execute the FTTH design, end to end. The OSP design includes 85 fiber miles, 98-percent of which will be installed aerially. The network architecture features 1x4 optical splitters serving up to four 8-port fiber taps for each 32 homes-passed PON area. Final project planning began in August 2020, and deployment of the new fiber network is expected to begin in March 2021, with turn up by November 2021.

When the project is completed, nearly 13,000 homes and more than 700 commercial buildings will have access to up to 10Gbps of internet, IP video and smart home services. The modernized fiber network will also enable WMS to offer a variety of new services while generating significant OpEx savings. For example, the new IPTV solution will use a pay-as-you-grow model, so WMS can launch new services without risking CapEx; and the passive OSP design will reduce truck rolls and increase system reliability. As a community-owned non-profit, WMS will be able to re-invest those savings back into the network to provide improved services and future capabilities for the community.

Community leaders like LeManes are excited about the long-term possibilities. "Super-fast broadband will kick Wyandotte's evolution into a new gear, paving the way for new applications that improve the quality of life and advance social progress," he said.

We are stronger together

Beyond the obvious success of the WNS FTTH project, there is a deeper lesson to be learned here. "You don't know what you don't know," as the saying goes. Sometimes, it takes an objective third-party to help identify the blind spots and get you over the hump. Recognizing and admitting you have resource gaps isn't easy, but it is critical, especially for smaller organizations like WMS.

"It's great that city planners are investing the time to consult with network connectivity vendors to digitally transform their communities," said Andy Ciccone, vice president of Comm/Data and Commercial, Institutional and Government at Graybar, a leading communications and electrical products distributor who worked with CommScope on this project. "The improvements to Wyandotte's network infrastructure will have a positive economic impact on the community and it will significantly enhance residents' lives."

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