



With over 100 years of combined fiber and wireless network integration experience, Noovis provides government and commercial customers with environmentally responsible solutions that solve their growing network challenges. Noovis designed networks provide inherent benefits and advantages that offer its clients meaningful separation from their competitors.

Our team's extensive professional experience across the industry includes implementing, engineering and supporting some of the largest metro area and campus networks in the country. Our capabilities include outside plant, inside plant, fiber optic and wireless networks. Previous experience includes holding key positions on teams supporting Verizon FiOS, Sandia National Labs, the first Secure Passive Optical LAN installations for the United States Air Force and Air National Guard, Reliant Stadium, New Orleans Convention Center, Verizon Center, and the Hart Senate building as well as multiple commercial installations including Erickson Living's nationwide PON, DAS and Wi-Fi integration effort.

As a result, we have established long-standing business relationships with some of the most respected technology manufacturers. These relationships along with our extensive past performance make us a strong partner and advisor for our clients with respect to all of their communication and infrastructure requirements – today as well as into the future. We are proud of our team's deep knowledge, experience and longstanding relationships that embody *The Noovis Way*.

Professional Services

- Program Management Oversight (PMO)
 - Overall program planning
 - Inside/Outside plant design
 - Construction and installation
 - Expert Quality Assurance
 - System provisioning
 - Ops and Maintenance Support
- Technical Consulting
 - Request for Quote development
 - Detailed design services
 - Vendor evaluation and testing
 - Network assessment/integration
 - Wireless integration and design
 - RF assessment
 - Carrier coordination
 - DAS, small cell, Wi-Fi
- Technical Training via Noovis University
 - Optical network design
 - Optical LAN and campus planning
 - Vendor specific training
 - Protected Distribution Systems

Implementation Services

- Inside/Outside Plant
 - Technical design
 - Pathway creation
 - Installation
 - E2E testing
 - As-built documentation
- Systems Provisioning
 - Engineering and turn-up
- Wireless Integration
 - Cellular design/installation
 - W-Fi design/installation
 - E2E testing
 - As-built documentation
- Operations and Maintenance Support
 - Remote monitoring
 - NOC support
 - On-site troubleshooting
 - N²OA

Turn-Key Services

Teaming with clients to act as their IT General Contractor, Noovis is uniquely experienced to work with and guide both engineering and installation teams to fully integrate complex services across an agile optical platform. Turn-Key implementations to include all aspects of fiber optic and wireless network creation from design to turn-up and follow on support.

Our Experience

Noovis' recent history includes large campus implementations, federal and commercial projects as well as nationwide Operations and Maintenance support.

- Provided turn-key engineering, design and installation of Erickson Living's Connect network across three MD communities. This 18 month build-out includes:
 - 127 miles of fiber
 - 4,000 Optical Network Terminals
 - 2,500 Wireless Access Points
 - Three separate Integrated Distributed Antenna Systems (DAS)
- Physical Access Management (Access Controls, IP Video Surveillance)
- Currently providing Operations and Maintenance for over 20,000 Ethernet ports supporting over 9,000 users nationwide
- Led vendor evaluation and testing for clients exploring Passive Optical LAN technologies
- Created the Noovis Innovation Center for industry collaboration in Hanover, MD
- Developed the Noovis Network Operations Application (N²OA) as an innovative infrastructure management tool to support our client's networks
- Material support to the National Aeronautics and Space Administration (NASA)

Throughout their careers, the Noovis leadership team has served in both front line and senior management positions with some of the industry's largest and most trusted organizations. Specific to Gigabit Passive Optical Networking and wireless integration, Noovis' combined 70+ years of experience is broad and encompassing. Some key achievements include:

- Led a statewide Fiber to the Premise (FTTP) buildout for 230,000 homes annually to include:
 - Capital Management of \$200M+ budget
 - Engineering and Design
 - Material forecasting
 - Scheduling and resource coordination
 - OSP Construction
 - Network "Ready for Sales" creation
- Creating FTTP Best Practices and driving cost savings initiatives across the Mid-Atlantic Region
- Engineered, designed and installed the first PON implementation for the Department of Defense as well as the Intelligence Community
- Provided a full turn-key PON solution for the Air National Guard Headquarters and Command Center at Joint Base Andrews
- Provided engineering and design support to the following DAS and Wi-Fi implementation teams:
 - Reliant Stadium
 - New Orleans Convention Center
 - Verizon Center
 - Hart Senate Building
- Provided the initial Proof of Concept PON test bed for the Dept. of Energy at Sandia National Labs
- Hosted multiple vendor and industry speaking engagements nationwide
- Contributing Author to the BICSI 13th edition of the TDMM providing guidance on Best Practices for Enterprise PON in the industry