

Case Study

# U.S. County Brings Free Public Wi-Fi to More Than 30,000 Rural, Low-Income Students and Workers

## The client

Located in a Southern U.S. state, this county government is home to more than 850,000 residents. The county encompasses more than a dozen school districts and hosts several collegiate institutions. Recent census reports have found that the county is ranked among the poorest in the U.S., with upwards of one-third of families living below the poverty line.

## The challenge: Narrowing the digital divide at a critical time

As the COVID-19 pandemic has swept through the country, various regions and demographics have been hit harder than others. The county had received critical funding as a part of federal government aid and needed to apply these funds strategically to navigate its most pressing challenges.

Each city within the county had claimed its portion of the federal aid to support its citizens; however, residents located outside of city limits had a different set of challenges. Unlike city dwellers, the county's rural population lacked internet access and is generally living on the less privileged side of the so-called digital divide.

As a result of the pandemic and social distancing guidelines, the county needed to embrace both remote work and distance education. But without proper internet access at home, launching these initiatives proved to be a daunting challenge.

Industry:  
Government

## Insight provided:

- Multilayered network design
- Planning and deployment of a reliable wireless network
- Electrical remediation services and tower construction
- Ongoing network monitoring and maintenance
- Professional services

## Three-layer network approach:

1. Fiber and wireless point-to-point (PTP) equipment connects base stations
2. Wireless Point-to-MultiPoint (PTMP) extends connectivity to the street level.
3. Wi-Fi mesh nodes with rooftop mesh access points (RAPs) and mesh access points (MAPs) extend to the client level.

## The solution: A multiphased approach and multilayered network with ongoing expert support

Due to the extreme pressure the county was facing to complete its project by Dec. 31, 2020 (the deadline for CARES Act Funds spending), the county shortened the procurement cycle by avoiding a full RFP and instead elected to use an approved contract via an RFQ. By leveraging an existing OMNIA contract through Insight Public Sector — and avoiding a fully-negotiated new contract — the county saved an estimated four weeks of time.

The county requested Insight propose a solution for strategy, design and deployment of a free public internet access Wi-Fi network across several precincts. The Insight Cloud + Data Center Transformation (CDCT) team, in collaboration with SmartWAVE, was selected to help the county with this large-scale and time-sensitive project.

As of August 2020, the Insight services team is in the process of multiphased project delivery planned to occur over a couple of months. This includes planning, design, electrical remediation, and tower construction and installation. Each phase addresses the core and access network and wireless network, including radio frequency (RF) analysis and field site surveying. The new multivendor network is comprised of Cisco, Palo Alto Networks and Ruckus® wireless mesh.

Our team is also providing the county with three years of ongoing support services to respond to issues as they arise and maintain the network for peak performance. This includes monitoring, data analytics, optimization, software updates and engineering support.

## The result: Broad, free internet access to support education and remote work

Through working with Insight and SmartWAVE, the county can provide free public Wi-Fi internet access to more than 30,000 students and teleworkers. The network design has built-in safety and compliance features to ensure user and business data and privacy are protected.

Our three-layer network design leveraged as much existing infrastructure as possible — water tanks, light and telephone poles — to expedite services delivery and control costs. Insight's engineering services will help the county continue to deliver reliable, secure internet access to residents in need for years to come.

## About Insight Public Sector

At Insight Public Sector, we help organizations of all sizes navigate complex challenges through our four key solution areas: Digital Innovation, Cloud + Data Center Transformation, Connected Workforce and Supply Chain Optimization. With deep expertise and end-to-end capabilities, we'll help you manage today's priorities and prepare for tomorrow's needs.

## About OMNIA Partners

OMNIA Partners is a leading group purchasing organization (GPO) in procurement and supply chain management. Comprised of four subsidiaries: Corporate United, Prime Advantage, National IPA and U.S. Communities, OMNIA Partners serves over 35 industries in both the private and public sector.

### Benefits:

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Free public Wi-Fi access to  
**30,000+**  
students and remote workers

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Secure, wireless  
network design

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Cost-effective solution  
leveraging existing  
infrastructure

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Significant narrowing of a  
growing digital divide at a  
critical time

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Well-maintained and  
optimized network  
through an expert  
support team

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