

Private LTE/5G as a Service

for State/Local Government

Logicalis helps you plan, integrate multi-vendor technologies, and deploy a full stack, best-of-breed, subscription-based private LTE/5G network for more secure and reliable connectivity that streamlines the employee and constituent experience.

City, county, and state governments face many of the same challenges as the private sector: how to do more with less, recruit and retain skilled IT professionals, modernize their legacy infrastructures, and ensure data security and privacy. Ultimately, they aim to ensure employees are effective and productive, while providing a streamlined citizen experience.

But with the physical area that must be connected, the growing number of devices and endpoints on the network, an increasing population (with demands to match), and ongoing budget issues, there's a massive disconnect. Configuring and optimizing Wi-Fi across dispersed operations—from the field to outdoor venues to remote facilities at the edge, whether across town or across the state—is a nightmarish task that's made more complex by unpredictable device density, questionable access point interoperability, and shaky QoS guarantees.

Planning and deploying a best-of-breed, subscription-based private wireless network requires significant multi-vendor technology and integration skills. Logicalis combines Cisco networking expertise and its award-winning managed services—with an industry-leading ecosystem of carrier services—to deliver a full-stack, subscription-based Private Network Services solution that supports your wireless infrastructure, while driving increased IT productivity and ensuring a streamlined experience for constituents.



How private wireless networks enhance state/local connectivity

Private wireless networks offer significant benefits over Wi-Fi for city, county, and state governments. These environments typically use WLAN and have multiple applications within a wide area deployed, but Wi-Fi and public networks typically aren't options due to reliability, security, bandwidth, and availability concerns. Plus, it's impossible to run cabling across entire cities, counties, or states or to reach remote areas. The result is often spotty or otherwise unreliable connections—if there's connectivity at all.

Wi-Fi and private 5G can work together to provide universal, last-mile connectivity to unserved and underserved communities, ensuring secure and reliable connections for people, devices, and applications. Better yet, community members can navigate within and across boundaries using multiple devices and be completely unaware of network handoffs occurring in the background as they travel between the wireless infrastructure and the cellular infrastructure.

In addition, most state and local governments don't want to operate yet another network, particularly with ongoing IT recruitment challenges. They'd rather maximize IT productivity so they can better focus on their core mission of delivering innovative constituent services. Logicalis is expert at integrating 5G with leading networking and security technologies at the core and delivering it as a service, allowing your IT team to re-focus on the business of efficiently running the government.

Here are some use cases:

Use case #1:

Public health and welfare agencies: Connect and empower constituents

Knowledge is power. Yet today, too many individuals and communities lack access to high-speed internet, either due to affordability or lack of availability. That means that kids can't access resources needed to stretch their learning and adults can't readily access resources required for routine needs, such as paying utility and tax bills, finding local services, interacting with their kids' schools, and more.

Fortunately, the federal government has announced \$42.45 billion in funding to improve Internet access through the Broadband Equity, Access, and Deployment (BEAD) initiative.

BEAD allows state and local governments to expand high-speed internet access by funding planning, infrastructure deployment, and adoption programs.

Logicalis can improve overall connectivity for constituents with a private LTE/4G network that offers a last-mile universal connectivity solution that eases reliability, security, bandwidth, and availability concerns—and ensures equal internet access for all.



Use case #2:

Health services and education: Connect to campus-wide health and learning

Providing health services and education to constituents typically means supporting a massive number of devices and bandwidth-intensive applications across a large area—areas where cabling is difficult, if not impossible. Wi-Fi is typically fast and reliable—but not always, especially as needs grow.

With Wi-Fi and reliable private LTE/5G connectivity, you can:

- Put ancillary programs and services on their own network, enabling reliable connectivity for mission-critical clinical and learning services—or vice versa.
- Promote the ultimate fan experience in sports stadiums and arenas at the campus edge.
- Power innovation and research by enabling fast processing of massive datasets and computations.
- Enable new and emerging applications and technologies, such as AI, AR/VR, digital twins, and robotics, which are critical to advancing learning and healthcare.
- Maximize the life of your wireless infrastructure and avoid a costly rip-and-replace situation.
- Improve security and safety by integrating and connecting IoT devices and casting a wide security net over campus settings.
- Integrate telehealth into clinical workflows to better manage patient care, increase clinical productivity, and reduce costs.

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- Provide lifecycle management for physical plant, IT assets, and other equipment to reduce costs and ensure equipment is in good working condition.
- Ensure reliable connectivity on buses, in parking facilities, outdoor areas, etc.

Logicalis can enable a secure, private wireless network to take the stress off Wi-Fi networks, giving health services departments and education institutions the bandwidth and latency needed to support a growing number of devices, endpoints, bandwidth-intensive applications, and people. Network slicing and low-latency, ultra-reliable 5G connectivity enable mission-critical or high-value services to be given a dedicated network, providing reliable connectivity with minimal downtime.



Use case #3:

Roads and bridges: Drive more reliable connectivity for employees and travelers

Millions of people—from employees inspecting roads and bridges to workers maintaining roads and bridges to travelers using roads and bridges—travel city, county, and state roads and bridges every day. Well-maintained and usable roads and bridges not only help to prevent accidents and other hazards, they contribute to the economic and social well-being of cities, counties, and states. For those reasons, it's imperative that they're safe and in good working condition.

With reliable private LTE/5G connectivity, you can:

- Track and manage vehicle and heavy machinery fleets and other assets and ensure they're properly maintained, saving costs and downtime.
- Ensure workers can access the latest tools and equipment needed to keep them productive and safe on road and bridge construction projects.
- Keep truckers and travelers safe with reliable connectivity along highways and roads, in roadside/emergency call boxes, and in rest areas.
- Ensure truckers and travelers can access clean and working restrooms, water fountains, and vending machines at rest areas.

- Keep truckers and travelers informed with real-time data about road conditions, maps, services, and other services.
- Monitor and manage traffic through surveillance cameras and deploy emergency responders as needed in rural or remote areas.
- Protect inspectors by deploying drones and other wireless devices to quickly conduct road and bridge inspections.

Logicalis eases the typical risks associated with deploying a new network, such as upfront capital requirements, delayed ROI, technology and/or expertise challenges, added network complexity, and operational issues. With a private LTE/5G wireless network—delivered as a service—you'll experience seamless connectivity across operations, while increasing IT productivity and enabling fast ROI. Plus, private LTE/5G is ideal for outdoor or remote applications, or any environment where the wireless network is slow, unreliable, or even unavailable.



Use case #4:

Law enforcement: Connect to better protect constituents

For rapid and effective response, law enforcement organizations require clear, reliable communications between and among dispatchers, officers, and the communities they serve—whether officers are in the field, on campus, or in urban, rural, or remote areas. And that requires voice, video, data, and IoT devices—such as 911 communications, two-way radios, pagers, cellular devices, laptops, body cameras, surveillance cameras, etc.—to be integrated, connected, and monitored 24/7. But how is that possible with Wi-Fi alone?

With Wi-Fi and reliable private LTE/5G connectivity, you can:

- Speed response with clean, clear 911 communications and dispatch.
- Ensure dispatchers, officers, and emergency response personnel have the same 24/7 real-time connectivity in the field as they do at the station.
- Provide real-time situational awareness through dispatch, intelligence, and surveillance cameras.
- Easily track, manage, and monitor fleets and other assets—from purchase through maintenance to disposal—to better manage costs and condition.
- Provide location tracking so you know where vehicles are at all times.
- Enable power-only video surveillance in remote areas to help gather evidence and better address community law enforcement needs.

Logicalis can help you design, build, and run a private LTE/5G wireless network that ensures you have the bandwidth and latency needed to provide greater situational awareness, enabling officers to take more effective action. Plus, private wireless networks can be separately secured, ensuring greater control over the network environment and the people, applications, and devices that reside on it.



Use case #5:

Parks & Recreation and Game & Fish: Connect in the wild

Residents rely on our parks and campgrounds to get away from it all and spend time with family and friends. Yet, they still want modern conveniences. At the same time, park employees, rangers, and third-party vendors need to ensure they can provide a great experience to campers and park guests. But connectivity in these often-remote parks and campgrounds is notoriously unreliable, even unavailable.

With reliable private LTE/5G connectivity, you can:

- Improve the guest experience by enabling them to work, communicate, and relax 24/7.
- Rely on POS systems to increase sales for convenience stores, food services, bait shops, gift shops, and other retail operations.
- Increase revenue by issuing watercraft, fishing, camping, and hiking licenses and permits on the spot.
- Speed emergency response with call boxes on remote trails, lakes, and other areas.
- Keep guests safe with real-time area-wide warnings about weather and other events.
- Manage trails and lakes with real-time mapping and up-to-date information on changing conditions.
- Better promote park activities, events, and promotions via SMS and email and/or digital signage.

Logicalis can help you build a Wi-Fi connectivity backhaul that helps you increase sales, provide a better guest/employee experience, and enable better communication—even in the most remote parks and campground areas.

Use case #6:

Transportation (planes, trains and...buses): Connect for a better passenger experience

Finally, many state/local governments help to manage their constituents' transportation needs—from train and subway stations to airports and bus terminals. These services require clean connections to help ensure passengers can communicate with friends and family, purchase tickets, navigate services, and get where they want to go.

With reliable private LTE/5G connectivity, you can:

- Provide reliable connectivity for passengers, whether they're at rest or in transit.
- Enable operators to quickly connect to services to get police or emergency assistance, as needed.
- Track cars, buses, trains, and other fleets in real time so you always know the location of employees and vehicles.
- Provide lifecycle management for fleets and other assets—from purchase through maintenance to end of life.
- Enable reliable operation of POS systems for third-party vendors to provide food, news, and other services.



Logicalis offers end-to-end services to help you improve connectivity for operators and passengers. From site evaluation, engineering, and implementation to 24/7 Level 1, 2, and 3 user support and/or triage and ongoing management, we can reduce the burden on your IT team and enable them to better support your core obligations to constituents.

Use case #7:

State and local governments: Connect without a costly rip and replace

As needs for wireless services grow ever larger, city, county, and state governments may find that their existing infrastructure just isn't keeping pace. The traditional solution, of course, is a complete infrastructure rip-and-replace. But for resource-strapped governments that need to get a few more years out of their wireless infrastructure, there's a better option—one that comes with IT control and budget predictability.

Logicalis can help you build a private LTE/5G network that delivers the capacity you need without a complete refresh of the wireless infrastructure.

You own the SIM cards and devices, ensuring access is only granted to trusted entities. And when provided as a service, as Logicalis does, all the design/build/run work is done for you, leaving your IT team to focus on what they do best: supporting innovative services that enable a more streamlined experience for constituents.



Benefits



Lower costs

Reduce the high cost of individual monthly cellular subscriptions through your telecom provider, while providing much more reliable service.



Improved reliability

Enjoy more reliable 4G and 5G connections that improve the citizen experience with cloud-based configuration and monitoring services across all cellular assets.



Data security

Manage and secure your data locally with local connectivity—with private wireless, your data never leaves your network.



Greater simplicity and control

Retain security and control with complete SIM management and greater operational simplicity with service and device visibility by integrating with your Cisco infrastructure.



Better investment protection

Integrate with your existing Cisco infrastructure and get seamless software and firmware upgrades to eliminate obsolescence and maximize investment protection.

Why Logicalis



Deep connectivity expertise

Logicalis has over 20 active field trials featuring considerable expertise in Evolved Packet Core design and carrier deployment.



Award-winning global services

Logicalis delivers a consistent customer experience with the same services delivered, no matter where you're located.



Expansive ecosystem development

Logicalis has teamed with industry-leading Radio Access Network (RAN), Evolved Packet Core, and User Equipment providers, as well as numerous global providers who can deploy macro-cell (towers) both indoors and outdoors.



Hefty 5G experience

Through our acquisition of Siticom and its 100+ advanced 5G employees, Logicalis has carrier industry veterans with Private 4G/5G deployment experience and deep knowledge of Evolved Packet Core to provide a more holistic solution offering.



Unique Cisco partnership

As one of just six Cisco Global Gold partners—and one of two Cisco partners authorized to provide private 5G as a service, as well as private 4G—Logicalis has deep Cisco expertise and support.



Technologies

Includes Cisco's full-stack, subscription-based Private LTE/5G solution at the core, along with a Cisco-certified RAN.

Logicalis Professional Services

Provides site evaluation, engineering, and implementation including site preparation, ordering, organization of the spectrum, SIM management, staging, profile creation, core and RAN installation, core NF configuration, and pre-launch solution validation.

Logicalis Managed Services

Provides ongoing support, including SLA management, 24/7 Logicalis Level 1 support and Level 2 and 3 triage and coordination with Cisco, RMA management, solution optimization, application and device integration, customer care and service, spectrum application, end customer service portal, and transport network managed service.

Case in point

Customer:
Local university serving some 34,000 students

Challenge: Some children in the neighborhood around the university were getting left behind educationally because they lacked internet access.

Solution: Logicalis Private 5G as a Service

Results: Because they couldn't run fiber everywhere, Logicalis deployed a private 5G network that now enables local students to access the internet for their studies.