



Government Wi-Fi selector guide

Alcatel-Lucent OmniAccess Stellar WLAN Solution



Thank you for downloading this guide on Wi-Fi infrastructure. It is your personal guide to the solutions within the [Alcatel-Lucent OmniAccess® Stellar WLAN](#) product line, and how they help to deliver the services and resources your users need, wherever they need them.

Wireless connectivity plays a huge role in that transformation, making it possible for government employees to get online and use in a secure and reliable way.

What's important to public employees and citizens?

Delivering an excellent digital experience for everyone, from a social service agency to a 911 call center. The right network ultimately determines if citizens are going to get mobile services to make their lives easier and safer, such as immediate access to public resources and emergency responders. And it is the network that also dictates whether government employees are able to handle more calls, making communication as secure and efficient as possible, while reducing cost and risk.

Shape the citizen experience

Citizens are the customers of government – and like any customers, their needs must come first. In the digital era, those needs include online access to services and resources that will make their lives safer and easier. These services range from air quality alerts sent to the public via mobile devices to real-time wayfinding signage to indicate emergency evacuation routes. They also include Smart City technologies that leverage constant flows of data to help scale resources to meet variations in water or power usage, or to meet emergency communication needs.



Harness operational efficiencies

From an operational point of view, a modern network infrastructure should also facilitate employee collaboration, simplify network and device management, and enable the real-time operational and business data collection that's needed for faster, better decision making. Public employees should be able to stay connected when in the office or on the go. Smart device networks – such as those connecting CCTV or IP TV and managed from a single interface – ensure safety while boosting productivity.

Prioritize safety and security

Indeed, the issue of safety and security looms large for government networks today. A modern digital infrastructure can provide a formidable line of defense for citizens, government employees, and public property alike. Government networks exchange masses of data – from sensors in roadways to taxation and assessment records, employee information, and public utility monitoring. And every new app, personal device, or IoT deployment creates a new vulnerability for a potential cyberattack. The best defense? A Wi-Fi network with in-built security, rather than a legacy model with defense at the perimeter.

As you'll see over the course of this guide, the OmniAccess Stellar WLAN product line has been designed with these government needs in mind. However, this is only an initial guide to what may be the specific needs and requirements of your organization.

We hope you find this guide relevant and valuable. Once you've read it, please get in touch with us at: www.al-enterprise.com/contact-us



Enhanced wireless mobility, from the mayor's office to the road maintenance crew, is essential for a better user experience across your public sector infrastructure. The new Alcatel-Lucent Wi-Fi 6 access points enable Service Defined Networking, Unified Service and Network Management and extended IoT services for a next generation WLAN network with better user experience.

- **Offer a faster and more secure citizen experience** – The new Stellar Wi-Fi 6 APs create a more secure and faster mobile user experience, especially in high-density indoor and outdoor locations like stadiums or arena, metro stations, hospitals and large college campuses
- **Increase operational efficiency** – greater performance and high availability of mission-critical services, encouraging staff collaboration, simplifying network and device management, and enabling real-time operational and business data collection
- **Improve safety and security** – improved efficiencies during emergency incidents for bandwidth hungry and latency sensitive applications such as IoT devices and sensors to monitoring and tracking everything from energy usage to intrusion in secure areas

Mobility for government

The OmniAccess Stellar WLAN product line offers enterprise-grade features and operational simplicity, as well as a low total cost of ownership (TCO). With our global reach and local focus, our solution works harder for you:

- **High-performance public Wi-Fi** – for high density indoor and outdoor spaces with thousands of connections, ruggedized access points for harsh environments and optical (SFP) connectivity to reach longer distances
- **Unified access** – with secure connection to the wired and wireless LAN. Controlling access according to a user profile enables you to deliver different services to different groups of citizens (e.g. by street, precinct or school district) or individual employees, according to their profile and permissions
- **Greater IT efficiency** – with time-saving automation to get operational teams working faster
- **New services and resources** – new technologies such as customized location services (wayfinding, dynamic geofencing, location analytics) can be delivered over the network to provide benefits to both citizens and public employees.
- **Proactive analytics** – to simplify network operations and troubleshooting



Flexible solutions to transform government

The ALE Stellar WLAN architecture provides the digital foundation for innovative, mobile government services.

Small WLAN	Medium-sized WLAN	Large WLAN	Multi-site WLAN
<p>For compact, self-contained sites, such as a smaller government hub.</p> <p>Entry level AP AP1101 - Wave 1 AP1201 - Wave 2</p> <p>For linking several smaller government sites.</p> <p>Mid-level APs AP1220 series Wave 2 - built-in and external antenna AP1320 series Wi-Fi 6 - built-in and external antenna</p> <p>Outdoor AP AP1251 Wave 2 - built-in antenna AP1360 series Wi-Fi 6 - built-in and external antenna</p> <p>Standalone deployment Wi-Fi Express (Scalable up to 64 Access Points)</p>	<p>Reliable, efficient coverage for medium sized government centers like police stations and public health facilities.</p> <p>Entry level AP AP1201 - Wave 2</p> <p>Mid-level APs AP1220 series Wave 2 - built-in and external antenna AP1320 series Wi-Fi 6 - built-in and external antenna</p> <p>Outdoor AP AP1251 Wave 2 - built-in antenna AP1360 series Wi-Fi 6 - built-in and external antenna</p> <p>Managed deployment OmniVista 2500 OmniVista Cirrus (Cloud)</p> <p>Distributed Intelligent Architecture</p> <p>Location-based services Alcatel-Lucent OmniAccess Stellar Indoor Location-Based System</p>	<p>Fast, cost-effective coverage across major facilities like public utilities.</p> <p>Entry level AP AP1201 - Wave 2</p> <p>Specialized AP AP1201H integrated telephony connectivity</p> <p>AP1201 Mid-level APs AP1220 series Wave 2 - built-in and external antenna AP1320 series Wi-Fi 6 - built-in and external antenna</p> <p>High-end APs AP1230 Series Wave 2 - built-in and external antenna</p> <p>Outdoor AP AP1251 Wave 2 - built-in antenna AP1360 series Wi-Fi 6 - built-in and external antenna</p> <p>Managed deployment OmniVista 2500 OmniVista Cirrus (Cloud)</p> <p>Distributed Intelligent Architecture</p> <p>Location-based services OmniAccess Stellar Indoor Location-Based System</p>	<p>Connecting several sites into a single WLAN, such as geographically-separate governmental entities.</p> <p>Entry level AP AP1201 - Wave 2</p> <p>Specialized AP AP1201H integrated telephony connectivity</p> <p>Mid-level APs AP1220 series Wave 2 - built-in and external antenna AP1320 series Wi-Fi 6 - built-in and external antenna</p> <p>High-end APs AP1230 Series Wave 2 - built-in and external antenna</p> <p>Outdoor AP AP1251 Wave 2 - built-in antenna AP1360 series Wi-Fi 6 - built-in and external antenna</p> <p>Managed deployment OmniVista 2500 OmniVista Cirrus (Cloud)</p> <p>Distributed Intelligent Architecture</p> <p>Location-based services OmniAccess Stellar Indoor Location-Based System</p>



Built for better user experience

The OmniAccess Stellar WLAN product line provides a simple, efficient enterprise-grade solution to provide the best user experience for citizens and public employees.



Entry-level APs

AP1101

At 3x the speed of previous industry standard access points, the AP1101 is designed specifically for use in a smaller public sector hub.

- The 802.11ac Wave 1 access points are plug-and-play with up to 1.2 Gb/s throughput
- Fine-tuned for specific applications such as voice or video
- Especially cost-effective for smaller wireless networks
- Simple to use for user account creation and management with no IT skills needed

AP1201 - built-in antenna

This access point supports the 802.11ac Wave 2 Wi-Fi 5 standard.

- Dual radio (2.4GHz and 5GHz)
- High-speed Wi-Fi with up to 1.2 Gb/s throughput
- Supports medical standards EN 60601-1-1 and -2
- Built-in Bluetooth low energy (BLE) beacon/receiver radio makes location services possible (Zigbee capable)
- DPI built-in



Specialized AP

AP1201H – built-in antenna

This access point supports the 802.11ac Wave 2 Wi-Fi 5 standard.

- Dual radio (2.4GHz and 5GHz)
- High-speed Wi-Fi with up to 1.2 Gb/s throughput
- Designed for special use cases where in room Wi-Fi/telephony (IP or RJ-45 passthrough) integration are required
- BLE enabled via USB port



Mid-level APs

AP1221 – built-in antenna

AP1222 – external antenna connectors

These access points support the 802.11ac Wave 2 Wi-Fi 5 standard.

- High-speed Wi-Fi with up to 2.2+ Gb/s throughput
- Better user experience through a higher density of devices with no performance drop
- Optional Bluetooth low energy beacon radio makes location services possible



AP1321 – integrated omni-antenna

AP1322 – external antenna connectors

These access points support the latest Wi-Fi standard 802.11ax also known as Wi-Fi 6.

- Tri-radio AP, high-speed Wi-Fi with up to 3 Gb/s throughput with a dedicated radio for band scanning
- Bluetooth low energy beacon radio, making location services possible
- Better user experience through Wi-Fi 6 increased throughput, higher client density and battery optimization for connected devices





High-end APs

AP1231 – built-in antenna

AP1232 – external antenna connectors

These access points support the 802.11ac Wave 2 Wi-Fi 5 standard.

- Rapid 4.2+ Gb/s throughput
- Best radio coverage high-speed Wi-Fi is simple to deploy and scale
- Supports a higher density of devices with no drop-off in performance for a better user experience
- Easy monitoring of locations and tracking of people using embedded Bluetooth low energy beacon radio



Outdoor AP

AP1251 – built-in antenna

Designed to work well in any weather conditions. This access point supports the 802.11ac Wave 2 Wi-Fi 5 standard.

- Reliable Wi-Fi performance with a data rate of 1.2 Gb/s
- Fast, dual-radio operation with best-in-class RF management
- Flexible deployment with two gigabit link ports, one for the network and one for a device, such as a surveillance camera



Outdoor Wi-Fi 6 APs

AP1361 – integrated omni-antenna

AP1361D – integrated directional antenna

AP1362 – external antenna connectors

These access points support the latest Wi-Fi standard, 802.11ax, also known as Wi-Fi 6, providing a more competitive outdoor Wi-Fi offer with internal and external antennas.

- Tri-radio AP, high-speed Wi-Fi with up to 3 Gb/s throughput with dedicated radio for band scanning
- Bluetooth low energy beacon radio, making location services possible
- SFP port allowing to connect the AP with a fiber, for long distance deployments
- One 1GbE downlink, PoE PSE port to connect one IoT device, for example a surveillance camera
- Better user experience through Wi-Fi 6 increased throughput, higher client density and battery optimization for connected devices

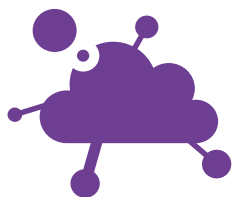


Access point management



Standalone deployment for smaller campuses: Wi-Fi Express

This lets you manage any of the Stellar WLAN access points direct from your web browser. Access points are automatically added and it's simple to set up who can have wireless access – when, where and for how long – through a management portal. Supports up to 256 Stellar access points (32 or 64 for clusters managed by AP1101, AP1201 or AP1201H).

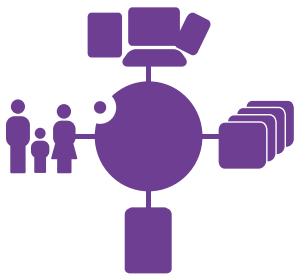


Managed deployment: OmniVista 2500 or OmniVista Cirrus

Save time and money and provide a seamless user experience with unified management of both your LAN and WLAN, through a single dashboard:

- **Secure mobility** – with best quality of service across the whole government
- **Smart analytics on network activity** – so you can maximize available bandwidth limiting some applications, such as social network traffic, while prioritizing government operational applications for staff
- **Access management for citizens, tourists and staff** – using rule-based policies to set access criteria and automatically on-board devices
- **Quick and easy scalability** – up to 4K access points*

* OmniVista 2500 required for more than 64 APs



Distributed Intelligent Architecture

Uniquely, OmniAccess Stellar WLAN distributes intelligent control to each access point. This allows:

- **Better radio coverage** – with automatic choice of the best frequency and channel to avoid interference
- **Maximum bandwidth allocation** – so devices can support more clients
- **Superior user experience for each client device** – automatically connects devices to the highest capacity access points
- **Fastest speeds** – even for older devices through airtime fair access
- **More reliable network coverage** – through a self-healing network
- **Best quality of service** – with automated services not impacting the user experience
- **Wi-Fi for highly dense areas** – high bandwidth support on a wider channel which prevents fragmentation even in highly dense coverage areas as well as a faster connection speed between devices and access points which enhances the user experience by 4X.



Secure, separate government networks

ALE's single network infrastructure, wired and wireless*, makes it easy to create function or department-specific networks such as **citizen services**, **security systems**, and **administration**. Although each service uses the same network infrastructure, IoT containment keeps them separate in virtual containers. ALE's OmniAccess Stellar products support WPA3 on all access points which provides greater protection for simple passwords, individualized encryption for personal and open networks, and even more secure encryption for enterprise networks.

*When used with an ALE LAN Solution



Location-based services

OmniAccess Stellar Indoor Location Services System can monitor locations, track people and government assets using optional or embedded Bluetooth low energy beacons and scanners. These allow you to provide new personalized services such as:

- **Way finding** – map-based directions for getting to the offices or government departments within the building
- **Push notifications** – Cities and local governments can use push notifications to wireless devices, based on location and other factors, to alert citizens to weather emergencies or other threats
- **Tracking employees and assets** – geofencing can monitor employee and asset whereabouts to help optimize processes and operations
- **Monitoring IoT devices** – Sensors in roadways, water systems and electrical grids can identify problems before they cause delays or accidents

For a more detailed consultation and assessment, please contact us today and one of our healthcare specialists will be happy to advise you.

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Digital Government Solutions

Where public employees and citizens connect for the most effective public sector services.

Where you connect securely for enhanced public safety and community livability.

Where your government infrastructure connects to enhance communications, security and efficiency.

