Lumen® Enterprise Wireless Access Service FAQ

Learn more about Lumen EWAS Solutions

Product questions

Q **What is Enterprise Wireless Access Service?**

Enterprise Wireless Access Services provides a fully configured wireless internet access solution including procurement, staging, installation, and ongoing management of a fixed wireless solution.

Enterprise Wireless Access Service is sold as a Lumen-managed service as a monthly recurring cost, with Lumen retaining device admin control and management of the SIM Data plans.

Lumen's solution leverages multiple carrier relationships and multi-carrier SIMs, along with the latest Enterprise grade wireless CPE for a robust and reliable wireless access product that is suitable for primary, backup, and temporary primary use cases.

Q **Can this be used as a primary connection for my location?**

Yes, EWAS was designed to be used as a primary access option. However, even with the latest enhancements that makes our Fixed Wireless Access service more resilient to network outages/ congestion, and able to access substantially higher throughputs with 5G speed, EWAS is still a best-effort internet service that may or may not be suitable as the only WAN connection at a site depending on the customer's use-case and availability or throughput needs.

We recommend EWAS for primary access when terrestrial services such as Lumen DIA or Fiber+ are unavailable, or wireline 3rd party broadband (Lumen BIA) options are limited.

EWAS is a great fit for backup use cases, load balancing, or other use cases where it is functioning as a complementary IP Access service to a high availability primary service.

Q **What CPE options are available?**

There are multiple equipment options for EWAS including the Cradlepoint L950 LTE Adapter, InHand ER805 5G Router, and Inhand Outdoor 5G Router. We expect to release additional kit options in the future as well available in the future.

Q **What do I need to get connected?**

The EWAS Multi-Carrier wireless device is configured in router mode by default, with Wi-Fi turned off as a security measure. To connect to the device, a Cat5e cable should be connected to LAN1-4 on the EWAS device and connected to a WAN Port on a customer's switch, firewall, or router.

For more details reference the specific router instructions on the EWAS Product Readiness page.

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What accessories are included with EWAS?

Enterprise Wireless Access Service provides all required accessories to use Wireless Service as part of the Router Selection. With the ER805 we include the AC Adapter, 30 Ft. Cat5e cable, 4x Standard Paddle Antennas, and a wall mount bracket. This is consistent with other Lumen EWAS Enterprise deployments as well. Optional Accessories that can be added are Aftermarket Extended Hi-Gain Antennas, and a Battery Backup Universal Power Supply.

What can be done to help improve EWAS performance if I have a challenging location?

Lumen EWAS can be configured with optional, extended antennas for hard to serve locations either pre or post-install.
For extremely remote locations, there is also a ruggedized outdoor mounted router that can be ordered by contacting your account team.

Will EWAS support WiFi hotspot as well?

The Multi-Carrier 5G offering has WiFi disabled at the initial launch due to security risks. The onboard Wi-Fi of the InHand ER805 router may be enabled via a ticket to Lumen repair.

Note that not all models of EWAS have onboard Wi-Fi, such as the Cradlepoint L950 LTE Adapter.

What are lead times for installation?

The standard interval for EWAS Multi-Carrier with OnSite Install is 30 business days.
For customers who elect to complete a self-install, the standard order interval is 10 business days.

Are there SLAs associated with EWAS?

Standalone Primary Cellular Internet (EWAS) does not carry a Network SLA, it is a best effort internet service. When combining backup cellular internet with Silver/Gold MPLS or Internet, Lumen offers a site-level service availability SLA of up to 99.99% uptime.

Is EWAS available at international locations of the USA?

Lumen EWAS is currently available in the United States exclusively.

Technical and configuration questions

What is the Default IP Setting for EWAS Multi-Carrier?

The default network architecture for EWAS Multi-Carrier with InHand assigns a **private dynamic IP address (DHCP)** to the EWAS device behind carrier-grade NAT. This means that the customer's connected edge device will receive a private IP address, which is not accessible from the public internet. As a result, users outside of the customer's network will not be able to access the device directly. However, the device will still be able to access the public internet through the carrier-grade NAT.

A public static IP address is not assigned to this service by default.

What are the latency ranges for EWAS?

With any wireless solution, latency is highly variable based on signal strength, and local conditions. In testing we found that the higher performing carriers (at the test locations in 5G markets / major metro) averaged latency in the 40-70ms range. A typical 'national average' range for latency with cellular internet is ~50-200ms.

Is EWAS suitable for VoIP OTT traffic?

In areas of strong coverage, where latency is held under 100ms, VoIP OTT (cloud) traffic can be passed over a cellular connection without much concern. In areas where there is poor cellular coverage or environmental factors impacting performance, VoIP experience can be degraded.

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Q **What are typical throughputs for EWAS Multi-Carrier?**

Typical speeds vary dramatically by location, but when on a 5G connection we see performance can be upwards of 120 Mbps DL / 70 Mbps UP. In areas with poor signal strength, or 4G LTE only performance may be as low as 10 Mbps DL / 2 Mbps UP.

Q **If I am in a market that only has 4G LTE connectivity (e.g., Alaska), what benefit do I have to deploying a 5G enabled device?**

5G routers offer several advantages over 4G routers, even in 4G-only markets. First, 5G routers perform better even in 4G markets because they support several mid-bands (such as B41, B66, etc.) which offer higher speeds than traditional LTE bands on lower-spec'd LTE (Cat 6) routers. Second, they are designed to be future-proof and can take advantage of the latest speeds and features as they become available.

Q **With the Multi-Carrier 5G unlimited plan is there a data threshold that once exceeded the speeds will drop below 5G?**

No, 5G unlimited rate plans will not be rate limited at a certain usage threshold or revert to only 4G bands. This is possible due to the far greater amount of capacity built on 5G networks to accommodate large data loads. **Note that all carriers reserve the right to throttle during times of congestion, national emergencies, outages, etc. but those scenarios are considered exception-based versus normal operating procedure.

Q **Are speeds symmetrical with EWAS?**

No, speeds are asymmetrical. If your customer needs symmetrical speeds, a better option is Fiber + or DIA.

Q **Are external antennas an option? And will there be an extra cost if one is needed?**

The standard kit list for the ER805 5G Router includes 4x Paddle Antennas (4x4 MIMO). Note that the offering does support ***optional*** high-gain, extended antennas. With the added carrier options built into the enhanced EWAS offer, extended antennas are seldom required but can be quoted before or after install by your Lumen sales representative.

Q **Does EWAS include an RF Survey including signal strength readings?**

With the EWAS Service, Lumen uses a 'remote site survey' where wireless router runs through initial boot function that tests all available carriers at the customer site, and locks into provider with the strongest signal. Additionally, our managed install partner assesses the throughput of device and will move/install optimally within customer site as part of their install procedure help ensure optimal wireless performance.

Q **Can I use Multi-Carrier 5G with customer provided wireless router?**

EWAS is only available as a fully configured device + SIM data plan, as a managed service.

Q **Who supports Day 2 issues for EWAS Multi-Carrier?**

Lumen repair is responsible for Tier 1 troubleshooting, and first call. Customers must call in trouble tickets to Lumen repair or initiate a support request via the Control Center portal.

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Q **What ports must be opened on the customer edge device to support EWAS?**

While Lumen requests that the custom edge device open all ports to the EWAS WAN connection, here are the specific ports that the EWAS router must have access to in order to perform device management functions and pass IP traffic.

- **Port 80** is the default port for HTTP, the protocol used to transfer hypertext documents over the internet.
- **Port 81** is an alternate port for HTTP that is sometimes used for load balancing or testing.
- **Port 82** is an alternate port for HTTP that is sometimes used for proxy servers.
- **Port 83** is an alternate port for HTTP that is sometimes used for web conferencing.
- **Port 115** is used for the Line Printer Daemon (LPD), a service that allows users to print files to a remote printer.
- **Port 443** is the default port for HTTPS, the secure version of HTTP.
- **Port 1883** is used for the MQTT protocol, a lightweight messaging protocol that is often used for IoT applications.
- **Port 8000** is a common alternate port for HTTP.
- **Port 8080** is another common alternate port for HTTP.
- **Port 8883** is used for the MQTT-S protocol, a secure version of the MQTT protocol.

Contact, quoting and ordering

Q **What contract terms are available?**

Lumen EWAS is supported by 12-, 24-, 36-, and 60-month standard contract options. Modular term lengths are also possible when working with your sales representative.

Q **How can I get a quote for Lumen EWAS and how do I place an order?**

Lumen EWAS is quote and ordered through Lumen sales. Engage your assigned account representative for more information.

Q **If I am moving locations, can I keep my EWAS service?**

EWAS is designed as a fixed wireless cellular solution versus a ‘mobile hotspot’. For customer moves engage your customer success or sales representative for submitting a new order.

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