To help ensure a good user experience for guests at your Alexa Smart Properties properties, follow the requirements and best practices in this topic.

Firewall and network requirements

To make calls from your Amazon Echo devices, you must configure the following ports and protocols:

Service	Protocol	Destination port	Transport
Signaling	HTTPS	443	TCP
Media port/connectivity negotiation	ICE/STUN/TURN	3478	TCP/UDP Note: UDP is preferred. Only open TCP 3478 if UDP 3478 isn't allowed.
PSTN calling audio Note: G.711 audio codec	SRTP	49152 – 65535	UDP

Recommended network and security settings

- Use a dedicated SSID that has only Alexa devices connected to it.
- Alexa Smart Properties doesn't support configuring Alexa devices through captive portals.
- Configure your backend DHCP server to provide only IPv4 addresses. Disable IPv6 addresses.
- Add the following ports and protocols to your firewall allow list:

Port	Protocol	URL
123	UDP	
443	TCP	All of the following URLs: • https://pindorama.amazon.com:443 • https://firs-ta-g7g.amazon.com/FirsProxy:443 • https://todo-ta-g7g.amazon.com/FionaTodoListProxy:443 • https://guipitan.amazon.com:443 • https://det-ta-g7g.amazon.com/DeviceEventProxy:443 • https://device-metrics-us.amazon.com/metricsBatch:443

4070	TCP/UDP	
5353	UDP	
33434	TCP/UDP	https://pins.amazon.com
40317	TCP/UDP	https://pins.amazon.com
49317	TCP/UDP	https://pins.amazon.com

Recommended access point configuration

Keep the following guidelines in mind when configuring the access point for your Alexa devices.

- To prevent interference and bandwidth starvation in heavy traffic environments, set up dedicated access points that operate on Wi-Fi channels that are separate from the main property Wi-Fi and guest Wi-Fi.
- To prevent Bluetooth interference, Zigbee interference, and interference from adjacent overlapping Wi-Fi channels in the 2.4 GHz, use the 5 GHz Wi-Fi band and not the 2.4 GHz band for device operation. Also make sure to position devices away from sources of possible interference, such as microwave ovens and baby monitors.

- Alexa devices don't support DFS channels. Avoid using DFS channels on the access point.
- Set up an Access Control List (ACL) on your routers to allow-list the MAC Address of specific Alexa devices to connect to a particular access point. In the event of a temporary access point outage, this setting prevents Alexa devices from connecting to an access point further away. **NOTE**: *Speak2 does not endorse this recommendation as it limits flexibility of deployment and management of devices within a community with little practical advantage*.
- Set up the access point to operate on a fixed channel. This prevents the access point from hopping between channels and causing disconnection issues on the Alexa device. In addition, disable channel bonding on the access point, and use 20 MHz channel bandwidth.
- Set up the access point to operate within a specific transmit power range based on the type of room.
    - For smaller rooms: To ensure that the access point isn't detectable in adjacent rooms, set the transmit power to between 8 dBm (decibel-milliwatt) and 10 dBm. In addition, try to place the Alexa device at least three feet away from the access point.
    - For larger rooms and suites: To ensure that the access point is detectable throughout the suite, set the transmit power to between 15 dBm to 18 dBm. In addition, try to place the Alexa device at least three feet away from the access point. Note: The maximum recommended distance between the Alexa device and the access point is approximately 70 feet.
- Try to find the least-used channels, and set the channels on your access points accordingly. The following table shows an example channel allocation for four channels (802.11a—36, 48, 149, and 161) in a building that contains nine rooms across three floors.

| 149 | 48 | 149 |

161	36	161
149	48	149

Bandwidth

An intermittent internet connection or low bandwidth can cause streaming issues. To ensure that guests can stream music, audiobooks, and other content through Alexa, your internet connection should be at least 512 Kbps (0.51 Mbps).