

ETHERNET CONNECTION REQUIREMENTS

# Nexus®Pro



Nexus®Pro Gateway connections generally work even if a proxy or firewall is in place. This is because it uses ports 123 and 443 which are also used by all computers. In some situations, connections are blocked over those ports. In this case make sure to contact your company’s IT service to make sure that those port are available.

## Network port requirements for Nexus®Pro Gateway

### Cloud access service

The cloud access service enables the Nexus®Pro Gateway to perform a secure authentication and bi-directional communication between the gateway and the cloud. The Nexus®Pro Gateway supports the following secure communication protocols between the gateway and the cloud: HTTPS and WSS. The HTTPS (Hypertext Transfer Protocol Secure) and WSS (Web Socket Secure) protocols are very similar, both running on top of TLS/SSL over TCP connections.

HTTPS is the combination of HTTP (Hypertext Transfer Protocol) running on a secure TLS/SSL connection. Commonly, HTTPS uses a different port than HTTP (HTTP’s default port is 80 and HTTPS’s default port is 443). HTTPS runs on TLS/SSL, which, in turn, runs on TCP.

The same thing is true for WSS connectivity. The WebSocket (WS) protocol runs on TCP (like HTTP), and the WSS connection runs on TLS/SSL, which, in turn, runs on TCP. The WSS protocol is compatible with HTTPS such that the WSS connection uses the same port: the WebSocket Secure (WSS) uses port 443 by default.

Application Protocol	Protocol	Port
HTTPS	TCP	443
WSS	TCP	443

### Time service

The cloud access service maintains date and time synchronization for the Nexus®Pro Gateway. This service uses Network Time Protocol (NTP) to synchronize the gateway’s clock so that an accurate time is assigned for all gateway validation and for resource access requests.

If NTP is not available, the time setting for Nexus®Pro Gateway is not synchronized with the real time and the gateway cannot work properly. NTP runs on UDP port 123.

Application Protocol	Protocol	Port
NTP	UDP	123