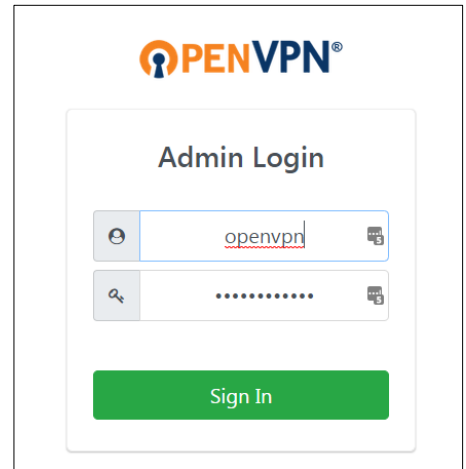


## Overview

MSA Safety’s FieldServer gateways can enable technicians to remotely connect to Ethernet devices/PLCs in the field. With OpenVPN running on the gateway, the technician can remotely access their Ethernet devices with local Windows management/configuration programs to perform diagnostics, download new firmware and reprogram the device without going to the site. Technicians can also connect to web servers located on remote Ethernet devices.

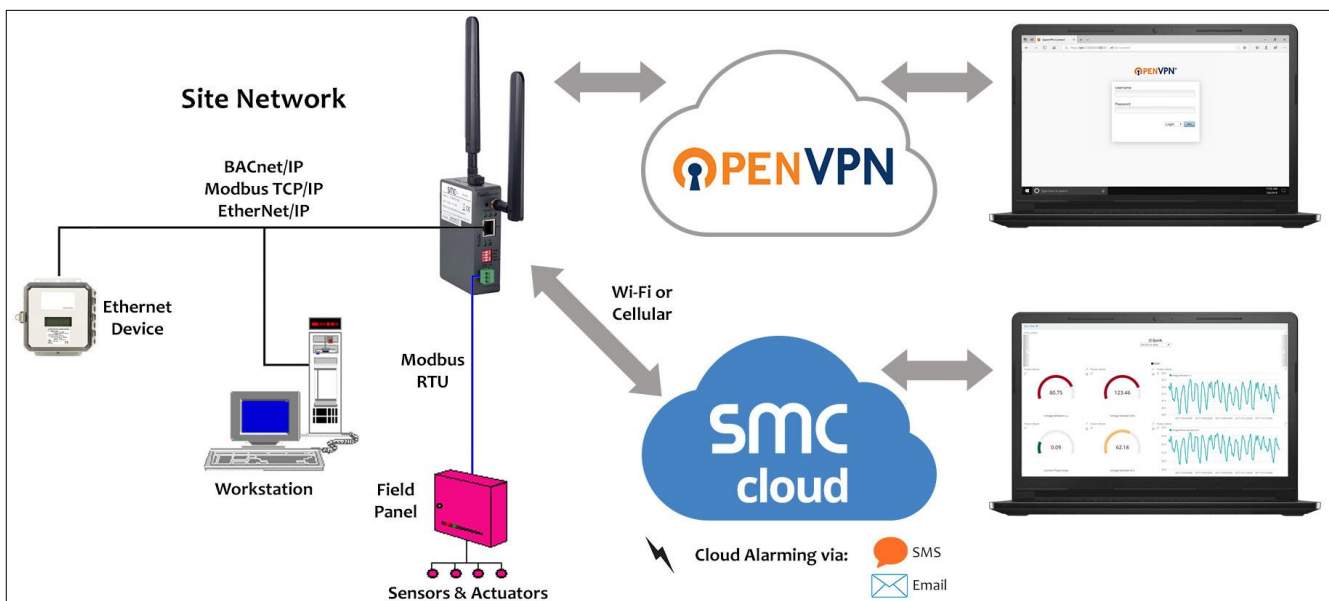
OpenVPN establishes an encrypted and authenticated secure tunnel from your local PC or mobile device to remote devices connected to the FieldServer. The FieldServer acts as a proxy, allowing access to the site devices.

OpenVPN software runs on both ends of the internet tunnel to keep your data secure. Both endpoints can have dynamic IP Addresses. OpenVPN only needs one physical port to work, is immune to VPN blocking and can function as a Layer 2 or 3 VPN. OpenVPN needs the following ports open to work: UDP 1194, TCP 80 and 443. For additional details on the OpenVPN compatible FieldServers, see the [ProtoAir product webpage](#) on the Sierra Monitor website. For instructions on setting up an OpenVPN client, see the [OpenVPN Start-up Guide](#).



## Benefits of OpenVPN

- Communicate using any Ethernet Protocol when an OpenVPN connects to a FieldServer.
- Scalable VPN server that is easy to set up and manage.
- Support for both site-to-site and remote access virtual networking.
- Easy distribution of VPN clients and connection profiles directly from the OpenVPN Access Server.
- Ability to set up fine-grained access controls at user and group levels.



## Access Your Devices as if You Were On-Site

- OpenVPN gives you access to your device remotely as if you had a local, direct network connection. All the same access and program compatibility is available to use as if you were connected via an Ethernet cable.
- A FieldServer gateway (connected to your device) enables it to act as an OpenVPN proxy to the site's local network. For example, the FieldServer can allow a remote EtherNet/IP application to communicate to an on-site EtherNet/IP device.

## Administration Web Portal

- Administrator portal provides for intuitive configuration of settings.
- User connection access logs can be viewed and searched.
- For those administrators that prefer Command Line Interface (CLI) access, a rich command set is available.

## User Access Control

- Global, Group, and User hierarchy allows for methodical access configuration.
- Rules can be defined at the IP address, protocol, and port granularity.

The screenshot displays the OpenVPN Access Server web portal interface. The top navigation bar includes the OpenVPN logo, the text "Access Server", and a "Logout" button. A left sidebar menu is organized into sections: "Status" (with links for Status Overview, Current Users, and Log Reports), "Configuration" (with links for License, TLS Settings, Network Settings, VPN Settings, Advanced VPN, Web Server, Client Settings, and Failover), and "User Management" (with links for User Permissions, Group Permissions, and Revoke Certificates). The main content area is titled "User Permissions" and features a search bar with the placeholder text "Search By Username/Group (use '%' as wildcard)", a dropdown menu for "No Default Group", and a "Search/Refresh" button. Below the search bar is a table with columns for "Username", "Group", "More Settings", "Admin", "Allow Auto-login", "Deny Access", and "Delete". The table contains two rows: one for "openvpn" and one for "New Username". The "openvpn" row has a "More Settings" icon, a checked "Admin" checkbox, and unchecked "Allow Auto-login" and "Deny Access" checkboxes. The "New Username" row has a "More Settings" icon and unchecked "Admin", "Allow Auto-login", and "Deny Access" checkboxes. At the bottom of the table area, there is a toggle switch for "Require user permissions record for VPN access" set to "Off" and a "Save Settings" button.

## Multiple Secure Authentication Modes

- Integrated with two-factor authentication using Google Authenticator.
- Plug-ins can be used to integrate multi-factor authentication with Duo Security, smart cards and any TOTP based token generators.
- Users can be authenticated using PAM, RADIUS, LDAP, Active Directory, or a local user database.

## Device Monitoring and Data Collection

- In addition, MSA Safety's SMC Cloud gives users remote access to FieldServer gateways (including all features contained therein) and will push the data for your registered devices to the cloud for analysis.
- OpenVPN is supported by the following FieldServer gateway models:
  - FPC-N64 (Dual Ethernet)
  - FPA-W44 (Wi-Fi & Ethernet)
  - FPA-C4X (Cellular & Ethernet)