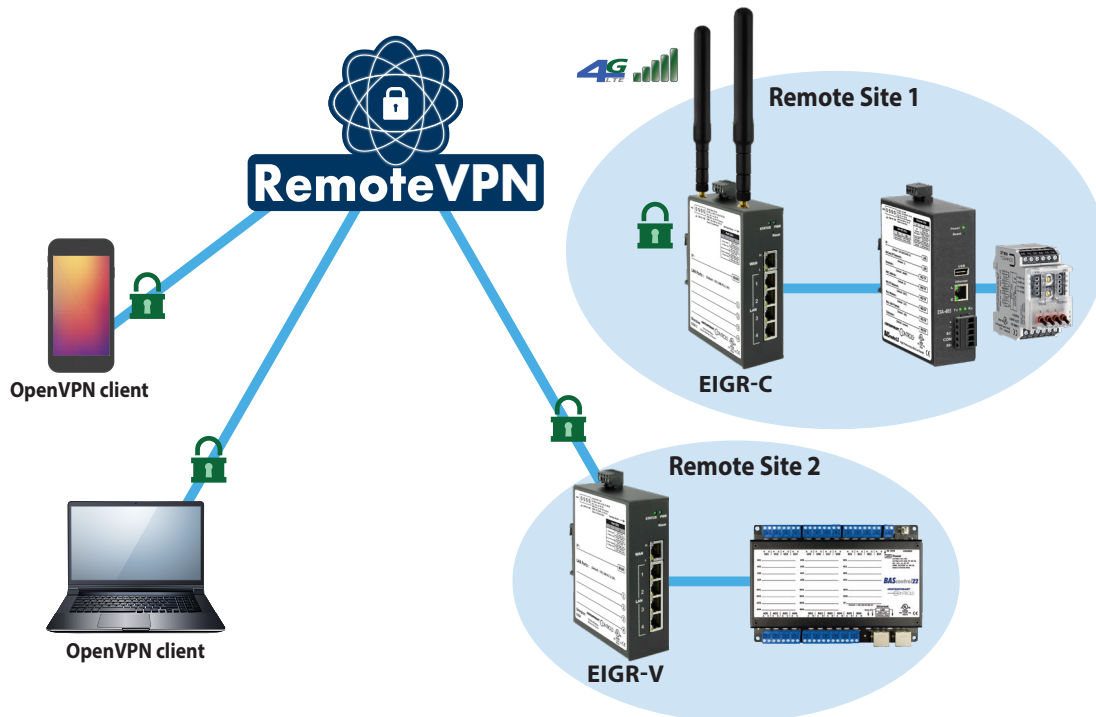




Understanding Contemporary Controls' VPN Options



A virtual private network (VPN) can provide secure access to remote job sites while giving systems integrators the flexibility to monitor and maintain systems from the convenience of their home or office.

However, deciding which VPN is right for you can be confusing. *Which VPN service should I use? What are the features, capabilities, and limitations? Can I maintain my own VPN?*

Contemporary Controls offers three VPN solutions to meet your remote access needs – our **RemoteVPN subscription service**, and our **Self-HostedVPN** and **BridgeVPN** solutions.

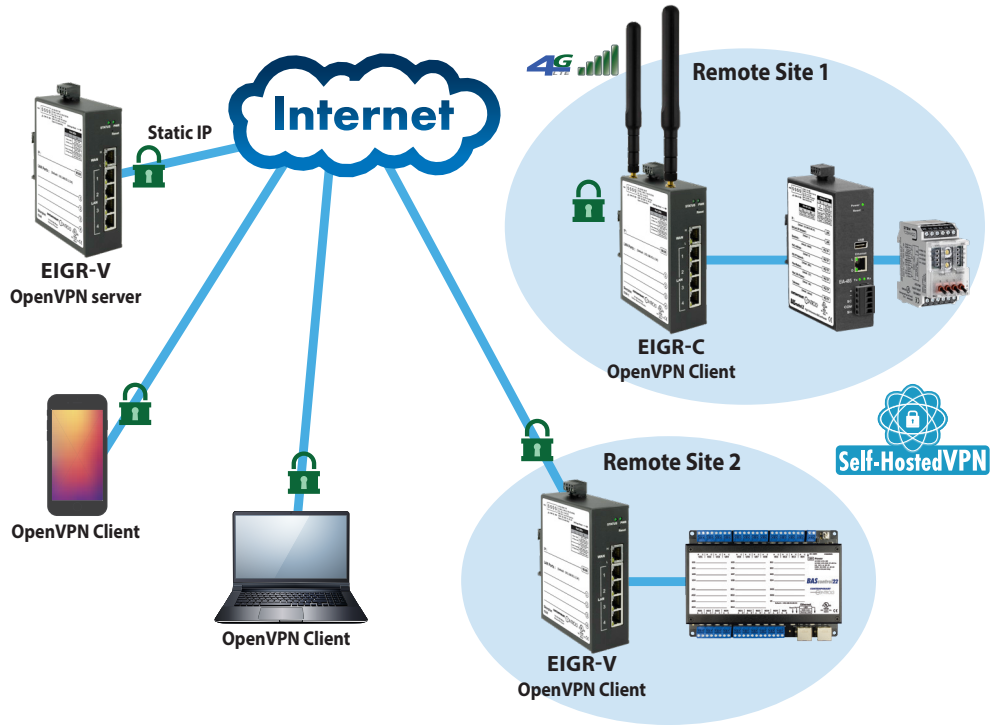
Contemporary Controls' EIPR-V, EIGR-V series, and EIGR-C series Skorpion IP routers support OpenVPN® client functionality and can be used with our RemoteVPN subscription service. Our EIGR-V, EIGR-VB, and EIGR-C

routers can be configured as VPN servers for our Self-HostedVPN and BridgeVPN solutions.

RemoteVPN subscription service: Contemporary Controls' RemoteVPN subscription service provides secure communication and the convenience of remote access without having to maintain the VPN server. Hosted on the Internet and maintained by Contemporary Controls, RemoteVPN incorporates a cloud-based OpenVPN server, OpenVPN clients for workstations and mobile devices, and OpenVPN routers installed at job sites.

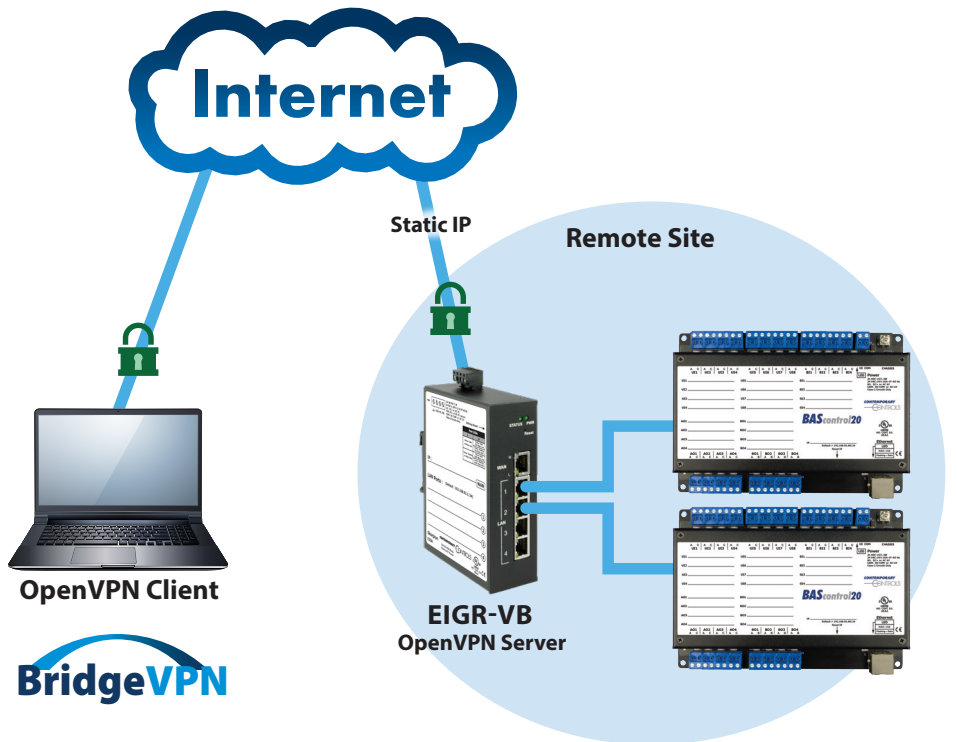
In addition to the RemoteVPN subscription service, Contemporary Controls offers Self-HostedVPN and BridgeVPN solutions which allow users to set up and maintain their own secure remote access without subscription fees and without the need for a cloud-based VPN server.

Self-HostedVPN solution: For network savvy users, Contemporary Controls' Self-HostedVPN solution utilizes the EIGR-V Skorpion Gigabit IP router configured to operate in OpenVPN server mode. This allows the router to act as the VPN server capable of supporting Contemporary Controls' wired and cellular routers as VPN clients. This Self-HostedVPN solution provides wired or wireless remote access for multiple clients – up to 15 wired/cellular IP routers in OpenVPN client mode and 15 OpenVPN clients on PC/tablet/phone.






BridgeVPN solution: For single-site, remote access solutions, Contemporary Controls also offers a BridgeVPN solution which utilizes the EIGR-VB and EIGR-C Gigabit IP routers configured to operate in OpenVPN server mode as a wired and wireless bridge VPN server. This BridgeVPN solution can support up to 10 VPN clients on Windows/Linux PCs.

These Self-HostedVPN and BridgeVPN OpenVPN clients can be located anywhere that has Internet connectivity. The EIGR-C router adds support for cellular networks on the WAN side, allowing use at sites without Internet access.



To help facilitate your decision about which VPN is right for you, the following table provides a comparison of the features, capabilities, and limitations of our RemoteVPN

subscription service, and our Self-Hosted and BridgeVPN solutions. For more information, visit the [CTRLink IP Routers](#) pages on our website.

Feature	 RemoteVPN	 Self-HostedVPN	 BridgeVPN
VPN Server Hosted/ Maintained by	Contemporary Controls	User	User
VPN Server Device	Cloud Server	EIGR-V Skorpion Gigabit IP router	EIGR-VB and EIGR-C Skorpion Gigabit IP routers
Subscription Fee	Yes	No	No
Static IP from User	No	Yes, for VPN server	Yes, for VPN server
Static IP on VPN Client	No	No	No
VPN mode between client/server	Routing	Routing	Bridge
Client router devices at remote sites	Yes	Yes	No
Client Router devices	EIPR-V, EIGR-V, EIGR-C	EIPR-V, EIGR-V, EIGR-C	
Client Devices at Home/Office	PC/Tablet/Phone	PC/Tablet/Phone	PC
Windows OS Support	Yes	Yes	Yes
Linux OS Support	Yes	Yes	Yes
iOS Support	Yes	Yes	No
Android Support	Yes	Yes	No
Multicast/Broadcast allowed through VPN tunnel	No	No	Yes
BBMD required for BACnet	Yes	Yes	No
Maximum router clients	60 per user account	15	0
Maximum PC/Tablet/ Phone clients	120 per user account	15	10 (Windows and Linux PCs only)
Configure Access Permissions for a Home/ Office client for specific router client	Yes, via cloud account	Yes, via webpage of EIGR-V VPN server router	No, all clients have access
Access from a client PC/Phone/Tablet to multiple router sites simultaneously	Yes	Yes	No, only one site at a time
Wired Remote Access	Yes	Yes	Yes

Cellular Remote Access	Yes	Yes	Yes
Remote Site Startup Before the Infrastructure is Completed	Yes	Yes	Yes
Cellular Access at Multiple Sites	Yes	Yes	No
Remote Access to an Existing Building Automation System such as a JACE	Yes	Yes	Yes
Interconnect Multiple Facilities	Yes	No	No
Access Wi-Fi Devices at Remote Site	Yes, with wired or cellular Internet connection	Yes, with wired or cellular Internet connection	Yes, with wired or cellular Internet connection
Interconnect to Other Topologies	Yes	Yes	Yes

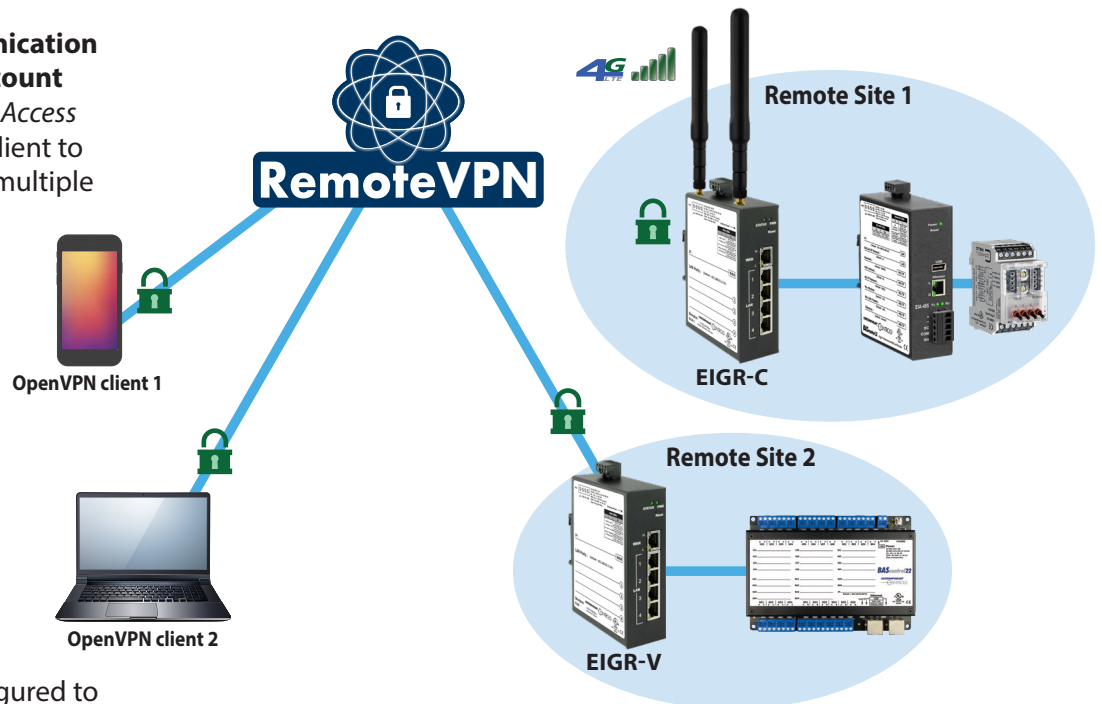
Note: The Static IP Address requirement for VPN server for Self-Hosted and BridgeVPN can also be fulfilled by connecting the OpenVPN Server IP router behind an existing Internet firewall/router with a Public Static IP. The Internet firewall/router will need to have a Port Forwarding entry for the OpenVPN port forwarded to OpenVPN Server router.

RemoteVPN Solution Communication Options:

RemoteVPN cloud account provides options to set *Network Access Permissions* for each OpenVPN client to communicate to the devices at multiple remote sites.

For example:

- OpenVPN client 1 can be configured to communicate to Remote Site 1.
- OpenVPN client 2 can be configured to communicate to Remote Site 2.
- OpenVPN client 1 can be configured to communicate to Remote Site 1 and 2 simultaneously.
- OpenVPN client 2 can be configured to communicate to Remote Site 1 and 2 simultaneously.
- OpenVPN client 1 and client 2 can simultaneously talk to Remote site 1 and 2.

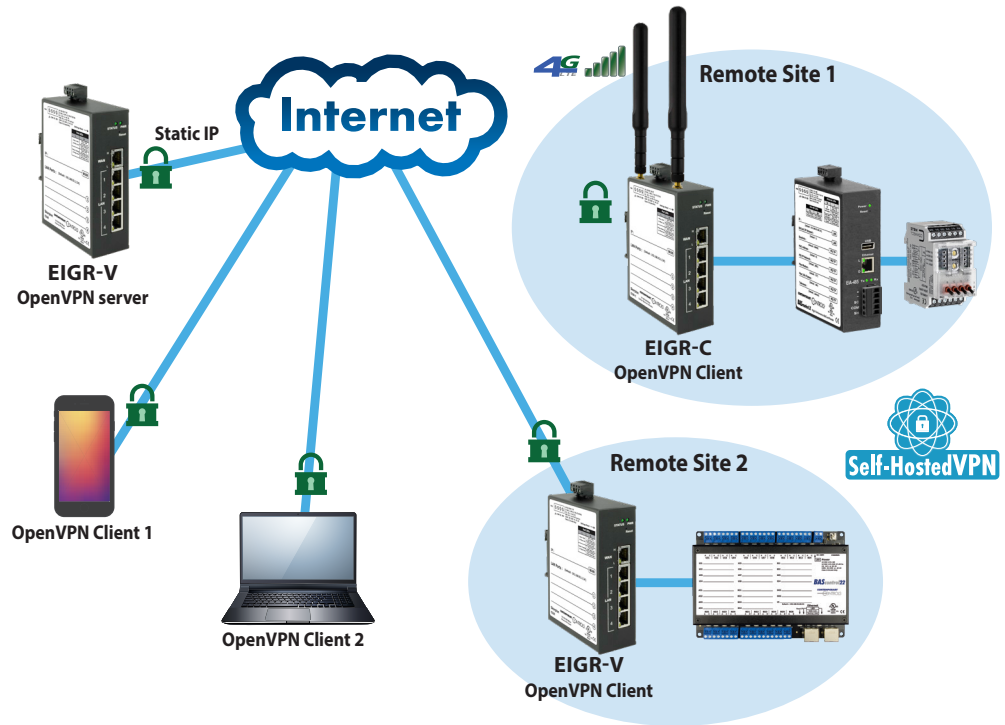


Self-Hosted Solution Communication

Options: EIGR-V OpenVPN Server IP router **webpage** provides options to set *Access Permissions* for each OpenVPN client to communicate to the devices at multiple remote sites.

For example:

- OpenVPN client 1 can be configured to communicate to Remote Site 1.
- OpenVPN client 2 can be configured to communicate to Remote Site 2.
- OpenVPN client 1 can be configured to communicate to Remote Site 1 and 2 simultaneously.
- OpenVPN client 2 can be configured to communicate to Remote Site 1 and 2 simultaneously.
- OpenVPN client 1 and client 2 can simultaneously talk to Remote site 1 and 2.



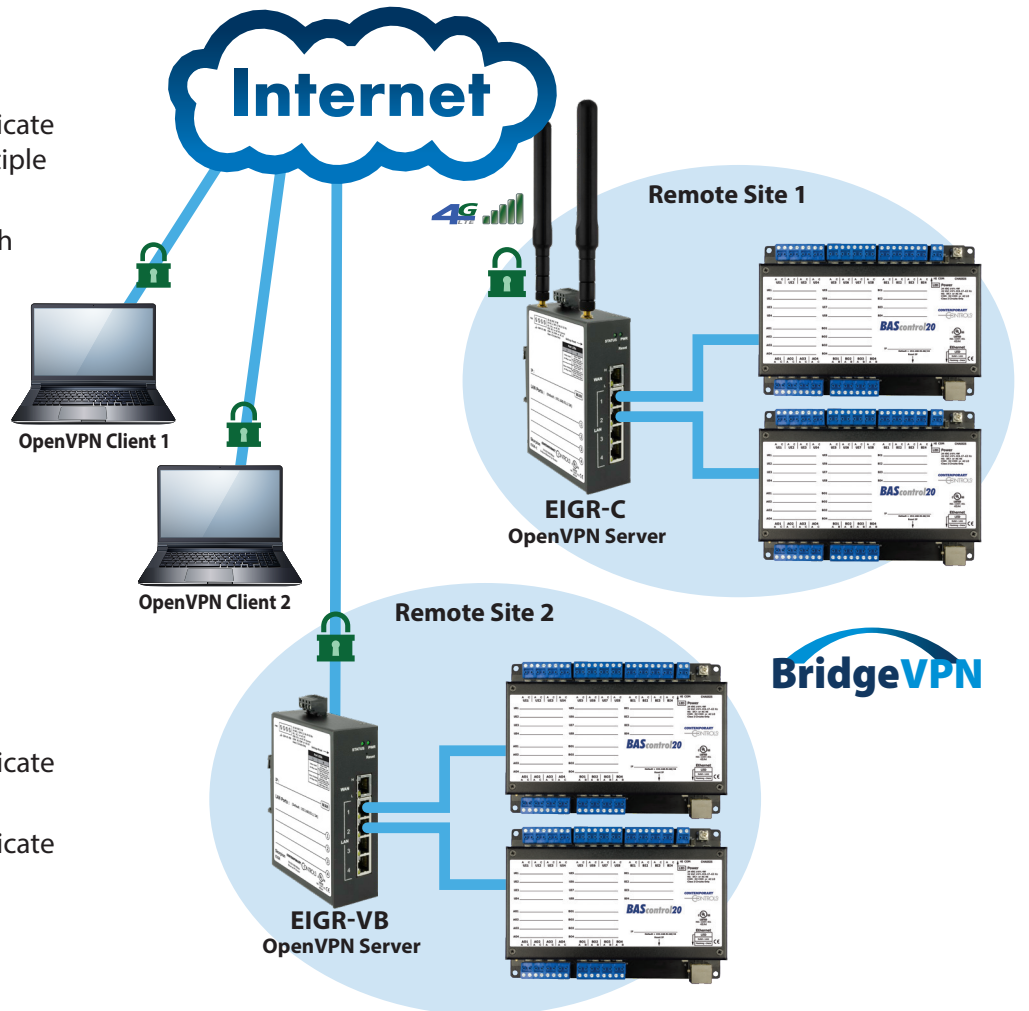
BridgeVPN Solution Communication

Options: All OpenVPN clients of an EIGR-VB OpenVPN server can communicate to a single remote site. To support multiple sites:

- A EIGR-VB or EIGR-C is required at each site.
- An OpenVPN Client can have configuration files for multiple remote sites and connect to a single remote site as required.
- Simultaneous access to multiple remote sites is not allowed.

For example:

- OpenVPN client 1 can talk to Remote Site 1 or 2.
- OpenVPN client 2 can talk to Remote site 1 or 2
- OpenVPN client 1 and 2 can communicate to Remote site 1 simultaneously.
- OpenVPN client 1 and 2 can communicate to Remote site 2 simultaneously.



Ordering Information

Model	RoHS	Description
EIGR-C2	✓	Skorpion GigE IP Router with Cellular (Europe) 0 to 60°C
EIGR-C3	✓	Skorpion GigE IP Router with Cellular (Verizon) 0 to 60°C Note: Two antennas are required but not included. Be sure to purchase two of either AC1Y001J-WHP or AC2H032C-DOM (listed below).
EIGR-C3X	✓	Skorpion GigE IP Router with Cellular (Verizon) –40 to +75°C Note: Two antennas are required but not included. Be sure to purchase two of either AC1Y001J-WHP or AC2H032C-DOM (listed below).
EIGR-V	✓	Skorpion GigE IP Router with VPN 0 to 60°C
EIGR-VB	✓	Skorpion GigE IP Router with Bridge VPN 0 to 60°C
EIPR-V	✓	Skorpion 10/100Mbps IP Router with VPN
AC1Y001J-WHP		Cellular Straight Stick Whip Antenna
AC2H032C-DOM		Cellular IP67 Outdoor Antenna with 1 meter cable

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