Secure Remote Access

Access your building and respond to system issues when you are not at the office

Why is Remote Access Important?

A network-based Trane® Tracer® Building Automation System (BAS) has the power to transform the way your building is operated. It allows authorized personnel to manage the systems that keep your building comfortable, whether they are onsite or offsite.

- Your facilities management team will be able to monitor temperature, lights and security 24/7, even when they're away from the building

- During the first year warranty period, Trane will be able to monitor equipment remotely and address developing problems before they have an impact on your business

- Trane technicians can service your systems faster, and more cost effectively, even when they are not at your building, to preempt any potential occupant comfort complaints

All this, and much more, is made possible by remote access to the sophisticated BAS that resides on your network.

As a global leader in commercial air conditioning systems, services and solutions, Trane has developed industry-leading best practices for cyber security. When Trane systems operate on your network, your cyber security is top priority.

Remote access—simplified and secure

Remote access to the Trane® Tracer® BAS gives authorized employees—both your company's and Trane's service personnel—greater flexibility to check on the Building Automation System when they are away from the Building Automation System.

A Tracer BAS Supports secure remote access out of the box

Tracer BAS controllers, including Tracer SC+ and Tracer Concierge™, can be configured to connect to the Trane Cloud. This connection utilizes the WebSocket protocol or OpenVPN. By eliminating the need for customer-specific solutions, this approach provides connectivity that is simple and secure, in a standardized way.

Secure remote access for your employees

Trane recommends that your employees utilize Trane Connect™ Remote Access to securely access your Tracer BAS controller. Trane Connect Remote Access utilizes a WebSocket tunnel that connects the Tracer BAS controller with the Trane Cloud to provide remote access to your facilities.

Once a Trane Connect Remote Access connection has been established by your employee, they can use their Tracer BAS controller login credentials to access their BAS.

Secure remote access for service technicians

Remote access for service personnel is especially critical during the first year warranty period. Service personnel will utilize Trane Connect Remote Access to access your Tracer BAS. This works in tandem with the WebSocket or OpenVPN connection that connects the Tracer BAS controller with the Trane Cloud to provide remote access to your facilities.

Once a connection has been established, users can access their Tracer BAS controller login credentials to access the Tracer BAS.

Trane Connect Remote Access is a standard solution that minimizes our organization's IT support requirements and provides peace of mind.

Better Building Management with Remote Access Security

Trane Connect Remote Access security features

- A firewall friendly solution to ensure secure connectivity to the Trane Cloud
- Uses only outbound ports (TCP 443)
- Requires user authentication at Trane Portal in order to find the tunnel, thereby significantly reducing potential attack surfaces
- Uses an encryption level of 256 bit AES

Firewall requirements for Trane Connect Remote Access

- Port 443 (TCP) - outbound

The WebSocket protocol facilitates real-time data transfer by providing a standardized way for the server to send content to the client without being first requested by the client. Trane uses WebSocket Secure (wss://) which uses a TLSv1.2 encrypted connection using TCP port number 443 to establish a secure connection to the Trane Cloud. The WebSocket protocol was standardized by the IETF as RFC 6455.

OpenVPN is a software application that implements virtual private network (VPN) techniques for creating secure point-on-point or site-to-site connections in routed or bridged configurations and remote access facilities. It uses a custom security protocol that utilizes SSL/TLS for key exchange. OpenVPN is only used for Trane support tools.

Trane Connect Remote Access. How it Works.

1. User registers the Tracer BAS controller with the Trane Cloud
2. The Tracer BAS controller uses a DNS handshake to initiate connection to the Trane Cloud via outbound port 443 (TCP)
3. Trane Cloud verifies Tracer BAS controller registration and creates the secure tunnel between the Tracer BAS controller and the Trane Cloud
4. To access the Tracer BAS, a user authenticates themselves through the Trane Connect portal; this is the only way to access the established secure tunnel to your Tracer BAS controller
5. Once logged into the Trane Connect portal, approved users can access the Tracer BAS controller
6. Once the Trane Connect Remote Access session has been established, the user must provide login credentials to gain access to the Tracer BAS
7. At the end of each work session, users log out of Tracer BAS controller and leave the tunnel, which is then closed and locked
8. The Trane Cloud server tracks information about who logged into Trane Connect portal, when they logged in, what sites they accessed, and when they logged out
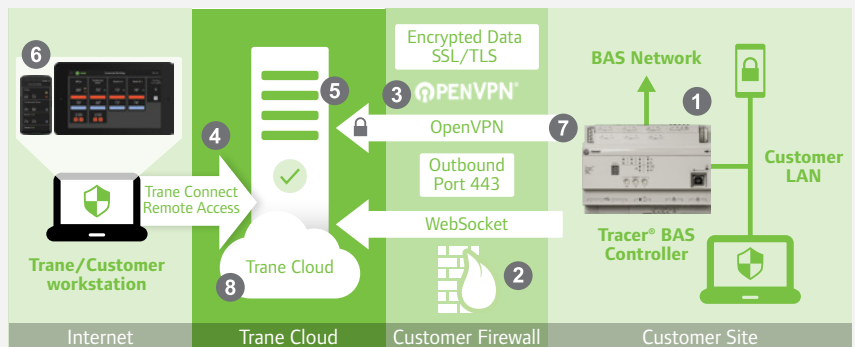
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