

ARL RAPID remote diagnostics

Connections, security, and use

What is RAPID?

RAPID (Remote Access Program for Interactive Diagnostics) is a remote desktop solution part of our service contracts that allows ARL instrument users to receive support from Thermo Fisher Scientific ARL remote support team through a VPN connection. RAPID reduces the time to solve problems, helping users to be up-and-running at all times.

With the consent of the user, trained Thermo Fisher Scientific ARL remote support team can perform the following actions using RAPID.

- Run service test software and diagnostics on Thermo Scientific™ ARL instruments
- Optimize system performance
- Check and modify system settings
- Patch and upgrade software

If needed, a Thermo Fisher Scientific specialist from anywhere in the world can be invited to a RAPID support session, further shortening the time to solution.

The secure RAPID infrastructure

Our network configuration makes it easy to connect with Thermo Fisher Scientific through your corporate or institutional network in a secure fashion (see Figure 1). The RAPID Secure Portal is central to the RAPID infrastructure.

A secure Linux server manages all connections between your instruments and Thermo Fisher Scientific ARL remote support team. To reduce vulnerabilities, Thermo Scientific Secure Portals are located in demilitarized zones (DMZs) outside the main corporate network. Each portal is secured with a firewall and has the minimum number of ports open to the outside world.

To enhance global performance and network availability, three Secure Portals have been deployed: in Eindhoven, The Netherlands; in Hillsboro, Oregon, USA.

In addition to the Thermo Scientific Secure Portals, RAPID includes important security features designed to help prevent unauthorized connections and to ensure you control access to all RAPID sessions.

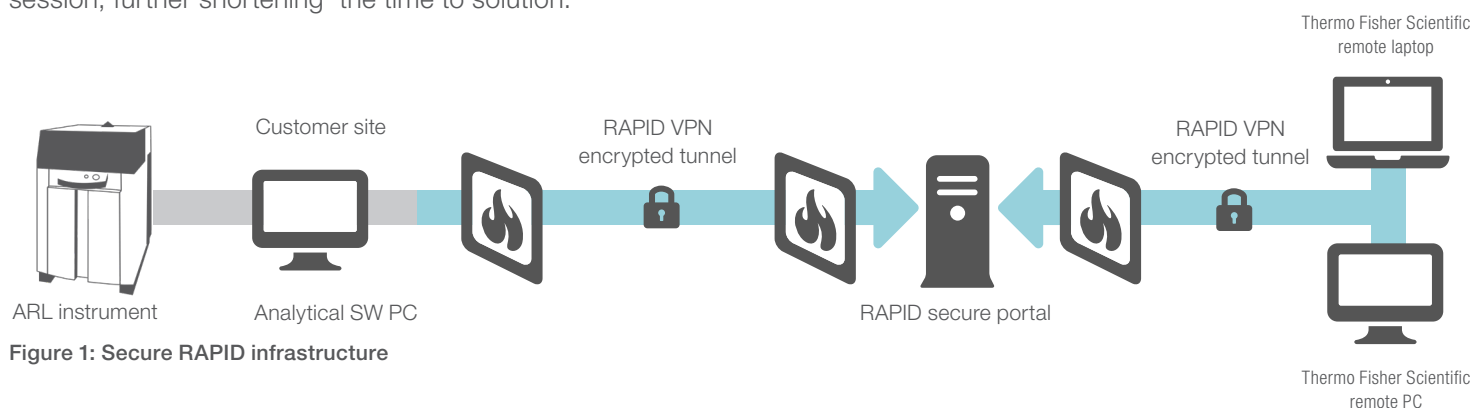


Figure 1: Secure RAPID infrastructure

Encrypted communication protocol

All RAPID connections are set up using OpenVPN, a secure communication protocol that uses SSL encryption to provide confidentiality between the client and the Thermo Scientific Secure Portals.

Session initiation

All RAPID sessions must be initiated at the instrument end—so the tool owner is always in control of the start and end of a RAPID session.

Authentication

RAPID offers multiple levels of password protection for your administrator and each of your users. For example, RAPID requires a username and password to access the VPN from the customer side. From the service side, Thermo Fisher Scientific service engineers must provide an authenticated password to log into the Thermo Scientific Secure Portal. Once a VPN connection has been established, an additional password is required to access the instrument. This password is created and controlled by the instrument owner, and can be changed for every call.

Access controls

The tool owner also controls who is allowed to participate in a RAPID session. Each remote user must obtain the systems' local IP address from the tool owner in order to complete the connection.

Annual independent security reviews

Thermo Fisher Scientific conducts annual penetration reviews on the RAPID network using an independent, third-party firm that specializes in system security reviews. The testing aims to identify possible vulnerabilities in the infrastructure, and the firm makes recommendations for improving security.

Data controls

Tool owners further safeguard data by only using reference samples during RAPID sessions. Sensitive data should only be saved on a password-protected archive or file server (a common practice among leading research institutions), rather than on the instrument PC. This ensures that sensitive files are not accessible during a RAPID session.

Site requirements

You must have a broadband Internet link of at least 10 Mbps upload speed connected to the instrument. 20 Mbps or greater is recommended.

If your network is protected by a firewall, port 1194 must be opened outbound for TCP and/or UDP to at least one of the following RAPID VPN servers (opening to all is recommended for maximum flexibility and performance).

RAPID VPN Server RAPID VPN Server Location		
(DNS name)	(IP Address)	
rapidvpn-nl.fei.com	192.87.67.16	Europe (Eindhoven, NL)
rapidvpn-us.fei.com	66.192.179.36	USA (Hillsboro, OR)

You can test whether the connection to the RAPID portal is enabled by performing a simple Telnet test. Type: telnet <RAPID VPN server name> 1194 from a command-line prompt. If the command succeeds, the prompt turns blank and the title bar of the window displays the text "Telnet <RAPID VPN server name>." If not successful, it displays an error message. Precondition for test: Telnet is installed on the PC.

Need more information?

Send technical questions regarding the setup and infrastructure of the RAPID program directly to rapidsupport-bea@thermofisher.com. RAPID support personnel are available to discuss your security issues and help with the necessary network configurations. For additional information regarding the program, please visit thermofisher.com/bea-services-rapid.

Register at thermofisher.com/bea-services-rapid

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ARL RAPID FAQs

What does RAPID cost?

RAPID is available at no additional cost to customers whose RAPID-enabled Thermo Scientific tools are covered under an eligible Thermo Scientific service contract or new system warranty.

How does the ARL remote support team control the instrument?

Once a session has been initiated by the user, the ARL remote support team controls the system using a screen sharing application based on UltraVNC. UltraVNC is distributed under the GNU. General Public License Version 2. A copy of the source code can be obtained from one of the Thermo Fisher Scientific service centers.

Why is the use of port 1194 required?

The Internet Assigned Numbers Authority (IANA) has registered port 1194 for use by OpenVPN. Because RAPID relies on OpenVPN for the connection to the Thermo Scientific Secure Portal, it is a requirement that the IT network allows outbound connections (UDP or TCP) over port 1194.

How do I access the RAPID Secure Portal?

The Secure Portal can be accessed by going to rapid.fei.com with your web browser. The address of the VPN connection is: see RAPID server table. Note that the VPN connection is set up using the OpenVPN client software so you do not need to use this address yourself.

How will my current firewall setup impact RAPID?

Your network firewall needs to be opened to allow outbound UDP or TCP traffic on port 1194.

Will the ARL remote support team have access to everything on our network?

The RAPID connection enables communication between the Thermo Fisher Scientific ARL remote support team and the instrument PC. The remote user has the same access rights as the local user currently logged in at the system, so shared network resources accessible locally are also accessible remotely. Turning off network sharing eliminates any access beyond the Thermo Scientific instrument.

Can I use my existing corporate VPN instead of Thermo Fisher Scientific VPN?

No, only the Thermo Fisher Scientific VPN is set up to run through the Thermo Scientific Secure Portal and can offer the Thermo Fisher Scientific security features. You always have the option to set up your own remote access to your system for other purposes, but this would not be usable or supported by Thermo Fisher Scientific.

How do I decide which Secure Portal to use?

In general, connect to the SecurePortal that is in the same geographic area as the instrument to minimize latency. Any of the Secure Portals can be used, however.

For technical questions about RAPID, please contact us at rapidsupport-bea@thermofisher.com.

Find out more at thermofisher.com/bea-services-rapid

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