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e-Connectivity™ Network Connection Specifications and Network Form

- VITROS® 5600 Integrated System
- VITROS® 3600 Immunodiagnostic System
- VITROS® 4600 Chemistry System
- VITROS® 5,1 FS Chemistry System
- VITROS® ECi/ECiQ Immunodiagnostic System

integrity by
intellicheck®



Ortho Clinical Diagnostics
a *Johnson & Johnson* company

VITROS

Network Connection Specifications

The following are required for e-Connectivity™ network connection:

IMPORTANT: *An auxiliary means of establishing a connection must not be used for the network connection. For example, a dialup PPP connection to establish connectivity to the broadband connection must not be used.*

IMPORTANT: *If you are using Cisco equipment, Portfast is disabled.*

- IPsec utilizes UDP ports 500 and 4500 outbound and inbound. These ports must be open in the local area network's firewall and allow the specified protocol.
- Continuous broadband connection or direct connection to the customer LAN with access to the Internet at a speed greater than or equal to 128 kbps.
- Support local area network port speeds of automatic, 100 and 10 Mbps with full-duplex, half-duplex and automatic detection of duplex.
- I.P. Address, Network Mask and Gateway I.P. Address must either be supplied automatically via DHCP (Dynamic Host Configuration Protocol) or statically assigned by the Information Technology (IT) department and provided to OCD Technical Support. Use the table provided in this form to record the settings.
- Support IPsec pass through to the Internet I.P. Address 148.177.0.108.

Hardware Requirements

- Female RJ45 connector on the network port within 20 feet of the center of the system.
- Category 5e or better cabling should be used for the network connection. For the ECi/ECiQ System, a Category 5e cable with a male RJ45 connector is provided and installed for e-Connectivity™. This cable will be connected to the network port provided.
- Ortho-Clinical Diagnostics (OCD) is not responsible for any other equipment necessary to support the network connection.

FAQs

1. How does e-Connectivity™ work?

An integrated NIC with dual interfaces in the analyzer's master computer creates a point-to-point VPN tunnel between the instrument and the OCD VPN router utilizing IPsec protocol. The NIC provides firewall protection for the instrument. Control is integrated with the instrument software.

2. How does e-Connectivity™ operate?

The connection is always initiated by the instrument. It automatically uploads datalogs to the OCD server once every 24 hrs. If an interim upload is desired (for more recent datalogs) it can be initiated manually at the instrument. While connected, any pending software or assay data updates are downloaded to a mailbox on the instrument. A notification flag alerts the operator to install the update.

3. How is e-Connectivity™ used?

For most issues (e.g., mechanical, operational, assay performance) OCD hotline can analyze the data with custom diagnostic tools to troubleshoot and pinpoint potential causes. Field service and support can also use this data to plan service calls and preventive service. Since the data is uploaded automatically, it is immediately accessible for analysis. If more recent data is needed, the lab may be requested to manually start e-Connectivity™ for a fresh upload.

4. Do we need to set up a VPN network for the instrument?

No. The instrument has built-in capability to create a point to point VPN. The local IT authority needs to assign an IP address and allow bidirectional traffic over UDP ports 500 & 4500 through the firewall. The assigned IP address will be configured by the installation team, so they will need the IP (unless the address assignment is by DHCP) and a working connection at the time of installation.

5. Can we terminate the VPN on our network instead of the instrument?

No. The connection model for e-Connectivity™ was developed by OCD to preserve data integrity by providing a secure, unbroken VPN tunnel from the analyzer to OCD servers at our Raritan, NJ headquarters. This system is validated and FDA compliant; it cannot be changed or supplemented.

6. Can OCD access our network via the e-Connectivity™ connection?

No. Connections from the instrument to other local networks (i.e., LIS) are isolated from the e-Connectivity™ connection.

7. Who has access to the data?

Only designated OCD employees with passwords have access to the e-Connectivity™ data.

8. Is patient identification protected?

Yes. All IDs are encrypted (independently from IPsec encryption) and can only be decrypted at the analyzer interface. Encryption is unique to each analyzer.

9. Is anti-virus protection provided with e-Connectivity™?

No. The analyzer uses a QNX Neutrino RTOS, a completely different computer environment than Windows. There are no Microsoft® components for a virus to target.

10. Is there any way to have e-Connectivity™ completely outside our network?

Yes. The system may be configured for dedicated broadband DSL or cable modem. The installation and maintenance of this connection would be the responsibility of the customer.

**Network Information for the VITROS® 5600 Integrated System,
 VITROS® 3600 Immunodiagnostic System, VITROS® 4600 Chemistry System,
 VITROS® 5,1 FS Chemistry System and the VITROS® ECi/ECiQ Immunodiagnostic System**

Instrument J# if known: _____

Customer Name: _____

Key Contact Name: _____

Key Contact Phone: _____

IM Contact Name: _____

IM Phone: _____

1	Indicate the network connection type: Customer LAN Cable Modem DSL Provider: _____						
2	Customer LAN Information: (not required if you are using a DSL/Cable Modem) <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Port Speed: Auto Negotiation 100Mbps 10Mbps Unknown </td> <td style="width: 50%; vertical-align: top;"> Port Identifier: _____ Duplex Information: Auto Full Duplex Half Duplex Unknown </td> </tr> </table>	Port Speed: Auto Negotiation 100Mbps 10Mbps Unknown	Port Identifier: _____ Duplex Information: Auto Full Duplex Half Duplex Unknown				
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3	Select IP Addressing Method <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Static IP Address IP Address, Netmask, Gateway IP Required </td> <td style="width: 50%; vertical-align: top;"> IP Address: _____ Netmask: _____ Gateway IP: _____ </td> </tr> <tr> <td colspan="2" style="text-align: center;">DHCP (Dynamic Host Configuration Protocol)</td> </tr> <tr> <td style="width: 50%; vertical-align: top;"> ISP Login Required/PPPoE (Point to Point Protocol over Ethernet) Username, Password, Gateway IP Required </td> <td style="width: 50%; vertical-align: top;"> Username: _____ Password: _____ Gateway IP: _____ </td> </tr> </table>	Static IP Address IP Address, Netmask, Gateway IP Required	IP Address: _____ Netmask: _____ Gateway IP: _____	DHCP (Dynamic Host Configuration Protocol)		ISP Login Required/PPPoE (Point to Point Protocol over Ethernet) Username, Password, Gateway IP Required	Username: _____ Password: _____ Gateway IP: _____
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DHCP (Dynamic Host Configuration Protocol)							
ISP Login Required/PPPoE (Point to Point Protocol over Ethernet) Username, Password, Gateway IP Required	Username: _____ Password: _____ Gateway IP: _____						
4	Firewall/Network Connection Requirements: <ul style="list-style-type: none"> All firewalls allow traffic to/from 148.177.0.108 port 500 (protocol 50) All firewalls allow traffic to/from 148.177.0.108 port 4500 Port can access AND ping OCD VPN Router: 148.177.0.108 All routers in the route providing NAT MUST have NAT Traversal (NAT-T) enabled <p>Is the MAC address of the device required to grant it access through the firewall? Yes No</p> <p>If yes, contact OCD after instrument is installed for this information.</p>						

Return the completed form.

e-mail: econnectivity@ocdus.jnj.com
 fax: 1-908-429-2821

Ortho Clinical Diagnostics

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