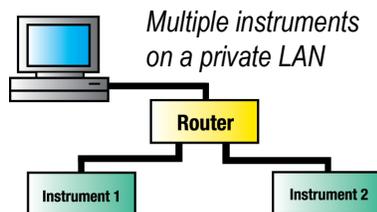


# GUIDE TO CONFIGURING AN LXI INSTRUMENT

LXI-compliant instruments demonstrate predictable operation and behavior that makes them easy to set up, configure and debug. All LXI-compliant instruments include a web interface that makes a user's manual virtually obsolete and makes it easy to configure and verify instrument set-up.



This step-by-step guide emulates configuring multiple instruments on a private LAN using a commercial PC and router. The recommended router utilizes DHCP, which automatically assigns an IP address to an instrument.

Beginning with a running PC and router equipped with DHCP, follow these steps to configure an LXI instrument:

1. **Connect** the instrument to the router using a standard Ethernet cable.
2. **Power** on the instrument.
3. **Reset** instrument to default LAN configuration (LAN reset on instrument).
4. **Discover** the instrument IP address using an LXI discovery tool.\*
5. **Access** the device web page with a standard web browser.
6. **Perform** a LAN Identify via the web browser.

\*This demonstration uses the Elgar LXI discovery utility available as a free download from the LXI foundation website.

Congratulations. You have successfully connected to the instrument without installing any drivers. Now, you can adjust its operating parameters and monitor its operation from any PC, Mac or PDA that supports Internet browsing on the network.

Typically at this point the **instrument driver** and **VISA I/O** library would be installed and a **development software** package would be used to build your application.

## Connecting Your PC to a Test System

### Simple Connection – Private LAN



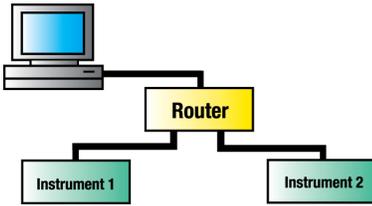
**Description:** Most new computers, including laptops, have a Gigabit LAN interface that allows users to connect to the LXI instrument via a regular or crossover LAN cable. This is possible because the Gigabit LAN standard requires Auto-MDIX, an autosensing circuit that adjusts itself to make the proper connection. Older LAN interfaces (100 Mbit) probably do not have Auto-MDIX, requiring the use of a LAN crossover cable.

**Applications:** This type of connection is useful for initial instrumentation setup and verification, as well as simple benchtop tests.



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IT'S EASIER.  
IT'S BETTER.**

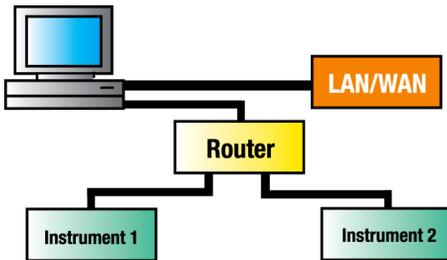
## Multiple Instruments – Private LAN



**Description:** Test systems consisting of multiple instruments require a hub, switch or router between the computer and the LXI instrument. This configuration permits the use of regular LAN cables throughout the system.

**Applications:** This type of connection is useful for standalone test systems that do not need internet access.

## Test System Subnet



**Description:** Test systems should be isolated from the company network so the test equipment does not share LAN bandwidth with all the other users in the company. This is done effectively by adding a second network interface card (NIC). No intranet/internet user can access the instruments without specific permission.

**Applications:** This type of connection is useful for remote diagnostics, system updates, and remote data acquisition.



## Subhead

Text



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