**Configuring ports**

By default, *VNC Server* listens for connections on a particular port. In addition, *VNC Server (Enterprise)* and *VNC Server (Personal)* listen for *VNC Viewer for Java* download requests on a different port. You can change these ports, or make them the same.

**Note:** *VNC Server (Free)* does not listen for *VNC Viewer for Java* download requests. Upgrade the host computer to *VNC Server (Enterprise)* or *VNC Server (Personal)* if this feature is important to you.

By default, two separate ports are assigned when *VNC Server* starts, one for connections and one for download requests:

•  Under Windows and Mac OS X, *VNC Server* in both Service Mode and User Mode is assigned port 5900 for connections and port 5800 for download requests.

•  Under UNIX/Linux, *VNC Server* in:

— User Mode is assigned port 5900 for connections and port 5800 for download requests.

— The first instance of *VNC Server* in Virtual Mode is assigned port 5901 for connections and port 5801 for download requests. Subsequent instances of *VNC Server* in Virtual Mode are assigned port numbers incremented by one, where possible, for example 5902, 5903 (and 5802, 5803), and so on, up to the maximum number of desktops permitted by the host computer’s license.

**Note:** For more information about running multiple instances of *VNC Server*, and the different modes, see [Running multiple instances of VNC Server](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ai1039488.html).

If more than one instance of *VNC Server* is running on a host computer, they must all listen on different ports; see below for information on resolving port conflicts. Note, however, that a particular instance of *VNC Server* can listen on the *same* port for connections and download requests; see [Making the connection and download port the same](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ai1047203.html#Rai72352) for more information.

**Note:** When connecting to *VNC Server*, a user must qualify the host computer’s network address with the port number in all cases *except* when *VNC Server* is listening for connections on port 5900 only. For more information, see [Qualifying a network address with a port number](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ae1017368.html#Rae31813).

**Resolving port conflicts**

*VNC Server* must listen for connections and for *VNC Viewer for Java* download requests on a unique port. This is one on which no other instance of *VNC Server*, nor any other program or service, is listening.

Port conflicts disable *VNC Server*. You should be able to resolve them by changing ports on the **Connections** tab of the **VNC Server - Options** dialog. [More on this dialog](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ai1073353.html#Rai34203).



**Changing the connection port**

You can change the port on which *VNC Server* is listening for connections. If you do this:

•  Users need to know the new port number (if it is not 5900) in order to connect. For more information, see [Qualifying a network address with a port number](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ae1017368.html#Rae31813).

•  If the host computer is protected by a firewall, then the firewall must be configured to allow incoming network communications to the new port. For more information, see [Allowing network communications through a firewall](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ae1017368.html#Rae90007).

•  If the host computer is protected by a router and users are connecting over the Internet, then the router must be configured to forward communications to the new port. For more information, see [Configuring a router to forward network communications](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ae1017368.html#Rae94827).

To change the port, enter a different number in the **Accept connections on port** field. Note that changing this option does not affect currently connected users.

**Changing the download port**

You can change the port on which *VNC Server* is listening for *VNC Viewer for Java* download requests. If you do this:

•  Web browser users need to know the new port number in order to download. For more information, see [Qualifying a network address with a port number](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ae1017368.html#Rae31813).

•  If the host computer is protected by a firewall, then the firewall must be configured to allow incoming network communications to the new port. For more information, see [Allowing network communications through a firewall](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ae1017368.html#Rae90007).

•  If the host computer is protected by a router and web browser users will connect over the Internet, then the router must be configured to forward communications to the new port. For more information, see [Configuring a router to forward network communications](https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/ae1017368.html#Rae94827).

To change the port, enter a different number in the **Serve Java viewer on port** field. Note that changing these options does not affect currently connected users.

**Making the connection and download port the same**

*VNC Server* can listen on the same port for connections and download requests. This may simplify firewall configuration and make the host computer more secure.

To use the same port, enter the same number in the **Accept connections on port** and **Serve Java viewer on port** fields. Note that configuring these options does not affect currently connected users.