

NAME

tigervncserver – start or stop a TigerVNC server

SYNOPSIS

```
tigervncserver [[user@]host][:display#] [-dry-run] [-verbose] [-useold] [-cleanstale] [-localhost
[yes|no]] [-name desktop-name] [-geometry widthxheight] [-depth depth] [-pixelformat format]
[-xdisplaydefaults] [-wmDecoration widthxheight] [-fp font-path] [-fg] [-autokill] [-noxstartup]
[-xstartup script] [-rfbport port#] [-httpPort port#] [-baseHttpPort port#] [-SecurityTypes sec-
types] [-PlainUsers user-list] [-PAMService service-name] [-PasswordFile|-passwd|-rfbauth passwd-
file] [-X509Key cert-key-file] [-X509Cert cert-file] [Xtigervnc-options...] [-- [Xtigervnc-session op-
tions...]]
tigervncserver -kill [[user@]host][:display#]:* [-dry-run] [-verbose] [-clean]
tigervncserver -list [[user@]host][:display#]:* [-cleanstale]
```

DESCRIPTION

tigervncserver is used to start a TigerVNC (Virtual Network Computing) desktop. **tigervncserver** is a Perl wrapper script which simplifies the process of starting an instance of the TigerVNC server **Xtigervnc**. It runs **Xtigervnc** with appropriate options and starts some X applications to be displayed in the TigerVNC desktop. **tigervncserver** can be run with no options at all. In this case it will choose the first available display number (usually :1), start **Xtigervnc** as that display, and run a couple of basic applications to get you started. You can also specify the display number, in which case it will use that number if it is available and exit if not, e.g.:

```
tigervncserver :13
```

Moreover, a username and a hostname can be given to start the **tigervncserver** via SSH on the given machine under the provided user account, e.g.:

```
tigervncserver franz@kopernikus:13
```

Note that this **requires the same version** of the **tigervncserver** wrapper script on the remote machine as is on the local machine. System defaults for this wrapper script are found in `/etc/vnc.conf`. This defaults can be overwritten by the user defaults given in `$HOME/.vnc/vnc.conf`. Finally, commandline options have the highest priority overwriting the settings in both `/etc/vnc.conf` and `$HOME/.vnc/vnc.conf`. Editing the file `$HOME/.vnc/Xvnc-session` allows you to change the applications run at startup (but note that this will not affect an existing desktop).

OPTIONS

You can get a list of options by giving **-h** as an option to **tigervncserver**. In addition to the options listed below, any unrecognized options will be passed to **Xtigervnc** – see the **Xtigervnc(1)** man page, or "**Xtigervnc** –help" for details.

-dry-run

Do not actually do anything, but only perform the checks if the requested action would be possible. For example, there will be checks performed for the availability of the requested display number display#.

-verbose

This will turn on some debug output.

-useold

Only start a new TigerVNC server if a **Xtigervnc** server for your account is not already running on the requested display number display#. If no display number is requested, a new TigerVNC server will only be started if there is no TigerVNC server running under your user account. In any case, information about the newly started TigerVNC server or the reused TigerVNC server session will be printed.

-cleanstale

Sometimes the Xtigervnc server crashes and does not clean up correctly. In this case, there will be a stale pidfile in \$HOME/.vnc as well as stale X11 locks and sockets in /tmp. When the **-cleanstale** option is given, then tigervncserver first tries to cleanup all these stale files before trying to determine which X display number is available for use.

-localhost [*yes|no*]

Should the TigerVNC server only listen on localhost for incoming TigerVNC connections. Useful if you use SSH and want to stop non-SSH connections from any other hosts. If the option is not specified, then the behavior is as follows: We will only listen on localhost if the *sec-types* list does not contain any **TLS*** or **X509*** security types or if the list contains at least one ***None** security type. Otherwise, we will listen on all network addresses of the machine.

-name *desktop-name*

Each desktop has a name which may be displayed by the viewer. It defaults to "*host:display#(username)*" but you can change it with this option. It is passed in to the Xvnc-session script via the \$VNCDESKTOP environment variable, allowing you to run a different set of applications according to the name of the desktop.

-geometry *widthxheight*

Specify the size of the desktop to be created. Default is 1024x768.

-depth *depth*

Specify the pixel depth in bits of the desktop to be created. Default is 24, other possible values are 8, 15 and 16 - anything else is likely to cause strange behavior by applications.

-pixelformat *format*

Specify pixel format for server to use (BGRnnn or RGBnnn). The default for depth 8 is BGR233 (meaning the most significant two bits represent blue, the next three green, and the least significant three represent red), the default for depth 16 is RGB565 and for depth 24 is RGB888.

-cc *3*

As an alternative to the default TrueColor visual, this allows you to run an Xtigervnc server with a PseudoColor visual (i.e. one which uses a color map or palette), which can be useful for running some old X applications which only work on such a display. Values other than 3 (PseudoColor) and 4 (TrueColor) for the **-cc** option may result in strange behavior, and PseudoColor desktops must be 8 bits deep.

-xdisplaydefaults

The **-xdisplaydefaults** option can be used to derive values for the above three options, i.e., **-geometry** to **-pixelformat**, from the running X session. The derived dimensions are adjusted by the **-wmDecoration** option.

-wmDecoration *widthxheight*

sets the adjustment of the dimensions derived by **-xdisplaydefaults** to accommodate the window decoration used by the X11 window manager. This is used to fully display the VNC desktop even if the VNC viewer is not in full screen mode.

-fp *font-path*

If the tigervncserver script detects that a font path is configured in /etc/X11/xorg.conf, it will attempt to use this font path for Xtigervnc. Otherwise, if no font path is configured, the tigervnc-server script will attempt to start Xtigervnc and allow Xtigervnc to use its own preferred method of font handling (which may be a hard-coded font path or, on more recent systems, a font catalog.) The **-fp** argument allows you to override the above logic and specify a font path for Xtigervnc to use.

-fg

Runs the Xvnc-session as a foreground process. This has two effects: (1) The Xvnc-session can be aborted with CTRL-C, and (2) the TigerVNC server will be killed as soon as the user logs out of the window manager in the Xvnc-session. This may be necessary when launching TigerVNC from within certain grid computing environments.

-autokill

Automatically kills the TigerVNC server whenever the Xvnc-session script exits. In most cases, this has the effect of terminating Xtigervnc when the user logs out of the window manager.

-noxstartup

Do not run the \$HOME/.vnc/Xvnc-session script after launching Xtigervnc. This option allows you to manually start a window manager in your TigerVNC session.

-xstartup *script*

Run a custom startup script, instead of \$HOME/.vnc/Xvnc-session, after launching Xtigervnc. This is useful to run full-screen applications.

-rfbport *port#*

Specifies the TCP port on which Xtigervnc listens for connections from viewers (the protocol used in VNC is called RFB - "remote framebuffer"). The default is 5900 plus the display number *display#*.

-httpPort *port#*

Specifies the port on which the mini-HTTP server runs. On default, the server is not started.

-baseHttpPort *port#*

Specifies the base for the port number on which the mini-HTTP server runs. The real **-httpPort** option will be derived from this base plus the display number.

-SecurityTypes *sec-types*

Specify which security scheme to use for incoming connections. Valid values are a comma separated list of **None**, **VncAuth**, **Plain**, **TLSNone**, **TLSVnc**, **TLSPlain**, **X509None**, **X509Vnc** and **X509Plain**. Default is **VncAuth** if **-localhost** is not given and **VncAuth**, **TLSVnc** if **-localhost no** is given.

-PlainUsers *user-list*

A comma separated list of user names that are allowed to authenticate via any of the ***Plain** security types (Plain, TLSPlain, etc.). Specify ***** to allow any user to authenticate using this security type. Default is to only allow the user that has started the tigervncserver wrapper script.

-PAMService *service-name*

PAM service name to use when authenticating users using any of the ***Plain** security types. Default is **vnc** if /etc/pam.d/vnc is present and **tigervnc** otherwise. The tigervnc-common package ships the /etc/pam.d/tigervnc PAM service configuration for use by tigervncserver.

-PasswordFile *passwd-file* | **-passwd** *passwd-file* | **-rfbauth** *passwd-file*

Specifies the file containing the password used to authenticate viewers for the security types VncAuth, TLSVnc, and X509Vnc. The *passwd-file* is accessed each time a connection comes in, so it can be changed on the fly via **tigervncpasswd(1)**. The default password file is \$HOME/.vnc/passwd.

-X509Cert *cert-path* and **-X509Key** *key-path*

Path to a X509 certificate in PEM format to be used for all X509 based security types (X509None, X509Vnc, etc.) as well as its private key also in PEM format. If the certificate and its key are not provided via the **-X509Cert** and **-X509Key** commandline options or their corresponding configuration parameters in /etc/vnc.conf or \$HOME/.vnc/vnc.conf, then the tigervncserver wrapper script auto generates a self signed certificate. The auto generated self signed certificates are stored in the files \$HOME/.vnc/host-SrvCert.pem and \$HOME/.vnc/host-SrvKey.pem.

-kill *[[user@]host][:display#]:**

This kills a TigerVNC desktop previously started with tigervncserver. It does this by killing the Xtigervnc process, whose process ID is stored in the file \$HOME/.vnc/host:display#.pid. This can be useful so you can write "tigervncserver -kill \$DISPLAY", e.g., at the end of your Xvnc-session file after a particular application exits. If **:*** is given, then tigervncserver tries to kill all Xtigervnc processes with pidfiles in \$HOME/.vnc on the local machine. If no display number is given, then tigervncserver tries to kill the Xtigervnc processes of the user on the local machine if only one

such process is running and has a pidfile in `$HOME/.vnc`. If a *host* is specified, then `tigervncserver` will use SSH to kill a `Xtigervnc` process on the remote machine.

–clean If given with **–kill**, then the logfile `$HOME/.vnc/host:display#.log` is also removed.

–list `[[user@]host][:display#]:*`

This lists all running TigerVNC desktop previously started with `tigervncserver`. If a *host* is specified, then `tigervncserver` will use SSH to list `Xtigervnc` desktops on the remote machine. Stale entries are marked with (stale) in the output.

FILES

Several TigerVNC-related files are found in the directory `$HOME/.vnc`:

`$HOME/.vnc/vnc.conf`

The user configuration file for `tigervncserver`.

`$HOME/.vnc/Xvnc-session`

A shell script specifying X applications to be run when a TigerVNC desktop is started. If it doesn't exist and no system default is provided in `/etc/vnc.conf`, `tigervncserver` will create a new one which runs a couple of basic applications. To be compatible with older versions of this wrapper script, we will also use the file `$HOME/.vnc/xstartup` if it is present.

`$HOME/.vnc/passwd`

The TigerVNC password file for the security types `VncAuth`, `TLSVnc`, and `X509Vnc`.

`$HOME/.vnc/host:display#.log`

The log file for `Xtigervnc` and applications started in `Xvnc-session`.

`$HOME/.vnc/host:display#.pid`

Identifies the `Xtigervnc` process ID, used by the **–kill** option.

`$HOME/.vnc/host-SrvCert.pem` and `$HOME/.vnc/host-SrvKey.pem`

The security types `X509None`, `X509Vnc`, and `X509Plain` need a certificate and the corresponding private key. If these are not provided via the **–X509Cert** and **–X509Key** commandline options or their corresponding configuration parameters in `/etc/vnc.conf` or `$HOME/.vnc/vnc.conf`, then the `tigervncserver` wrapper script auto generates a self signed certificate for the **–X509Cert** and **–X509Key** options of the `Xtigervnc` server. The auto generated self signed certificates are stored in the above given two files. If the user wants their own certificate – instead of the on demand auto generated one – they can either specify it via the **–X509Cert** and **–X509Key** options to the `tigervncserver` wrapper script or replace the auto generated files `$HOME/.vnc/host-SrvCert.pem` and `$HOME/.vnc/host-SrvKey.pem`. These files will not be overwritten once generated by the `tigervncserver` wrapper script.

Furthermore, there is a global configuration file for `tigervncserver`:

`/etc/vnc.conf`

The global configuration file for `tigervncserver`.

SEE ALSO

vnc.conf(5x), **xtigervncviewer(1)**, **tigervncpasswd(1)**, **tigervncconfig(1)**, **Xtigervnc(1)**

<http://www.tigervnc.org>

AUTHOR

Tristan Richardson, RealVNC Ltd., Joachim Falk and others. VNC was originally developed by the RealVNC team while at Olivetti Research Ltd / AT&T Laboratories Cambridge. TightVNC additions were implemented by Constantin Kaplinsky. Many other people have since participated in development, testing and support. This manual is part of the TigerVNC Debian packaging project.