

## 5.3.2 Remote Desktop Facts

This lesson covers the following topics:

- Remote desktop overview and use case
- Remote desktop features
- Remote desktop technologies

### Remote Desktop Overview and Use Case

Remote desktop is a technology that lets people use their local computer (called the client) to control a remote computer (called the server). Remote desktop uses a variety of protocols to manage and secure the remote connection, such as RDP, NS, SPICE, and Secure Shell (SSH).

The following are a few scenarios illustrating the usefulness of remote desktop:

- A network administrator accesses a server in the network closet directly from her desk.
- A helpdesk worker troubleshoots and fixes an employee's computer his own computer, thus eliminating the need to go to the employee's office.
- A traveler packs a lightweight laptop, but still has access to his powerful home computer.

### Remote Desktop Features

Most remote desktop technologies include the following features:

- Send print jobs from the remote computer to a local printer
- Listen to audio from the remote system
- Copy and paste data between the local and remote systems

### Remote Desktop Technologies

The following table lists several remote desktop systems and protocols for Linux. None is strictly better or worse than the others, therefore the remote desktop system you used will often be determined by your unique circumstances and personal preference.

Technology	Description
Virtual Network Computing (VNC)	VNC allows you to connect to and control a remote computer. In doing so, it can transmit the keyboard and mouse events from the remote server back to the client computer. VNC also supports relaying the Graphical User Interface (GUI) updates back in the client computer over a network. VNC is one of the most popular remote desktop technologies.
xrdp	xrdp is an open-source implementation of Microsoft's Remote Desktop Protocol. This technology allows a Windows machine to connect to a Linux system using Windows Remote Desktop. xrdp also works with FreeRDP and rdesktop. Xrdp uses Xvnc or X11rdp to manage the X session.
NX	NX is the remote desktop protocol developed by a company named NoMachine. The NoMachine company produces a remote desktop solution named NoMachine which lets you connect using the NX or SSH protocols. The NX protocol is used by default. In addition to Linux, NX is also available on the most common platforms, such as Window, Mac, and iOS, Android, and Raspberry. NX, therefore, lets you remote desktop to and from various platforms, such as from Linux to Linux or to and from Linux and Windows.
Simple Protocol for Independent Computing Environments (SPICE)	The main purpose of SPICE is to provide a complete open source solution for remote access to virtual machines. With SPICE you can seamlessly play videos, record audio, share USB devices, and share folders without complications. The basic building blocks for SPICE are the SPICE protocol, server, and client. SPICE-related components include the QXL (a paravirtualized framebuffer device) and the guest QXL driver. Qumranet originally developed SPICE using a closed-source codebase in 2007. However in 2008, Red Hat, Inc acquired Qumranet and then in December 2009 released the code under an open-source license and made the protocol an open standard.

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