

Using SCP / SFTP

Introduction

This document will discuss the use of SCP (Secure Copy) and SFTP (Secure FTP) for securely transferring files from one system to another, mainly from a Microsoft Windows (win32) system to a UNIX system. This tool--scp--allows for a variety of improvements over the older FTP-based tools, primarily in the area of security.

Why use SCP?

Many people feel comfortable with their old tools such as WSFTP which, for the most part, get the job done. Why learn a new tool that will, essentially, do the same thing as the last tool? Well, from a strictly end-user point of view, SCP and FTP look pretty much the same; the real differences are in how the tools do their job in the background.

For example, when an FTP client (such as WSFTP) connects to an FTP server, everything the user sends--**including username and password** are sent unencrypted (in what's called "plain text"). Any system between the FTP server and the FTP client can read anything that goes by, insert data, and otherwise be intrusive. For most people, that's not a big concern; besides, what are they going to do, read your (public) web pages on the way by? Well, once a "bad guy" has your username and password, they can log in as you. Once they're logged in as you, they can search for additional security holes through which to further their goals.

So, by avoiding FTP and it's associated servers and client software packages, a more secure environment is created which protects both our users as well as our systems.

In addition to being more secure, SCP applications such as WinSCP provide additional features such as verifying the identity of a remote system that you're connecting with, a scriptable interface for uploading and downloading files automatically, and provides a graphical tool that you can use to manipulate files the same way you would local files.

WinSCP

WinSCP is a free SCP and SFTP client that runs on Microsoft Windows systems such as Windows 95 / 98 / ME, Windows NT / 2000 / 2003, and Windows XP. This product will allow you to securely log into SUNY IT systems and transfer (both upload and download) files.

WinSCP is available at <http://winscp.sourceforge.net/>.

Installing WinSCP

Installation of WinSCP is fairly simple and can be accomplished in a few short steps:

1. Download the WinSCP archive from <http://winscp.sourceforge.net/eng/download.php> to your local system. You will want to download the WinSCP Installation Package. At the time of writing, this was labeled as the "WinSCP 3.6.6 installation package" and was roughly one and a half megabytes in size (about an 8 minute download on a 56k connection).
2. For Windows NT, 2000, 2003, and XP Professional platforms, you will need to log in to your system using the 'administrator' account (or another account that allows you to install software). Windows 95, 98, ME, and XP Home do not have to perform this step.
3. Launch the application by clicking on the icon of the downloaded file. If you can not find the icon, you can find it by going to Start then Find (files) and typing in "winscp*setup.exe".

4. The installation program will lead you through the various steps for installing WinSCP. The installation default values are acceptable and do not need to be changed.
5. You're done--WinSCP is installed.