

Computing Off Campus

A guide for the Carnegie Mellon remote user

A Computing Services Publication: July 28, 2008



Traveling or working from home? This document provides information relevant to Carnegie Mellon affiliates who need to access the Internet, send and receive e-mail, or use Andrew Calendar or other services remotely.

Secure Your Computer

Viruses, worms and computer break-ins are commonplace regardless of where you are computing. Be especially careful when using unencrypted hotel or coffee shop networks. Don't risk problems! Follow steps in the *Securing Your Computer: General Practices* document at www.cmu.edu/computing/doc/security/general/.

How will you connect?

Before you can establish an Internet connection, you need to decide on the type of connection you want to use. Your choices may vary depending on whether you will be connecting from your home or while traveling.

Connecting from home

Determine the type of Internet connection that is available in your home or apartment. You may be able to choose from DSL, broadband or dialup Internet Service Providers (ISPs). Whatever service you choose, configuration instructions will be provided by that ISP.

Connecting while on the road

Many hotels and conference facilities provide complimentary Internet services. When using these connection types, you must configure your operating system according to instructions provided by the facility. For example, some hotel connections may require you to disable the Internet firewall. This may mean that you'll need to reconfigure your machine for use on campus when you return.

If you plan to use hotel broadband or Ethernet services, be sure that you have the following:

- an Ethernet card (or port) installed in your laptop
- an Ethernet cable (or verify that one is supplied by the hotel)

If you are traveling for work and your hotel or location does not offer Internet access, speak with your department administrator. Your department may already subscribe to a service that can be used while travelling. Be sure to install and configure the necessary software well in advance of your trip.

If you pay for a dialup ISP at home, you may be able to use the same service provider at no additional cost while you're on the road. Before you travel, call the ISP or visit their web site to determine dialup access numbers that will be LOCAL to you when you're on the road. Although most ISPs allow for more than one user/computer per account, they may charge when there is simultaneous use. When you are traveling, consider these charges if someone at home may be using the ISP account.

How to Send and Receive Email Remotely

Depending on how you normally send and receive email, the process may change when connecting through a third party ISP.

Using Andrew Webmail

Reading your email via a Web browser can be a very convenient solution. Andrew Webmail works very well with our e-mail system. To use Andrew Webmail, you will need:

- A recent version of a web browser (e.g., Internet Explorer, Safari) Note: The WebISO authentication used by Webmail requires a 128-bit-capable browser. A “Page cannot be displayed” message appears if your browser is not compatible.
- Cookie support must be enabled on your browser. Note: Browsers ship with cookies enabled. Unless you have changed this setting you probably do not need to take any steps to enable cookies; they are probably already enabled.
- For help, read *Configuring your Web Browser* at www.cmu.edu/computing/doc/web/configure/ and *Using Webmail* at www.cmu.edu/computing/doc/email/webmail/.

Using Outlook (Windows) or Entourage (Mac) to Read Email

The campus mail server is compatible with Outlook (Windows) and Entourage (Mac). Computing Services provides extensive documentation to help you configure these mail clients to send and receive mail. Refer to www.cmu.edu/computing/email/clients.html for more information.

Using Pine

Pine is a UNIX email client for Cyrus, the campus mail server. To use Pine, you need a telnet client. Windows users can download SSH Secure Shell telnet client from the software page at www.cmu.edu/computing/software/all/. Mac computers may use the native **Terminal** application.

Follow these steps to use Pine via an SSH session:

1. Launch an SSH session. Depending on which client you use, do one of the following:
 - SSH Secure Shell - Select **File > Connect** and type **unix.andrew.cmu.edu** in the Host Name field of the “Connect to the Remote Host” dialog box. In the User Name field, enter your Andrew ID and click **Connect**. You are prompted for your Andrew password.
 - Terminal (Mac OS X) - Select **Applications > Utilities > Terminal**. In the Terminal session window, enter **ssh userid@unix.andrew.cmu.edu** (where *userid* is your Andrew ID), and then enter your password.
2. Type **pine** and press **Enter** to access the Pine mail client interface.
4. Navigation instructions are provided at the bottom of each screen or you can type **?** to view on-line help at each screen. For more detailed instructions, see *Using Pine on UNIX* at www.cmu.edu/computing/doc/email/pine/.

Disconnected E-mail Operations

Using the disconnected feature of your mail client allows you to store messages in remote mailboxes on your computer’s hard drive. You can then access, read and otherwise manipulate these mail messages when your computer is not connected to a network. Any changes made to a message while in disconnected mode will be reflected in its online counterpart the next time a network connection is established.

To configure Outlook or Entourage for disconnected mode, refer to the following online documents:

- *Outlook 2007: Disconnected Mode* at www.cmu.edu/computing/doc/email/outlook/2007/disconnect-mode.html
- *Outlook 2003: Disconnected Mode* at www.cmu.edu/computing/doc/email/outlook/2003/disconnect-mode.html
- *Entourage Disconnected Mode* at www.cmu.edu/computing/doc/email/entourage/disconnect-mode.html

Accessing Other Services

While working remotely, you may need to access Andrew Calendar, AFS space, library licensed resources, files on a server, or protected web pages.

Andrew Calendar

The Andrew Calendar system is accessible remotely via the web or desktop client. To access the web client, launch a web browser and visit <https://calendar.andrew.cmu.edu/>. Note that the following features are not available on the web client:

- Ability to access as a designate (however, you can view other users' agendas)
- Ability to access In-tray view

To use either of these features, you'll need to download the Oracle Calendar desktop client from www.cmu.edu/computing/software/all/ and install it. On Macs, you must also download and install Kerberos for Mac authentication software.

Andrew File System

Once you have established an Internet connection, you can transfer files to and from your AFS home directory using a file transfer program such as SSH Secure File Transfer Client (Windows), Fugu SFTP (Mac OS 10.2.3 or above), or Fetch (Mac). Once connected, these applications behave the same remotely as they do while working on campus and can be downloaded from the software page at www.cmu.edu/computing/software/all/.

Note: Files that you want to make available to others must reside in the public subdirectory of your home directory. For more detailed information, refer to:

- Project Volumes on Andrew at www.cmu.edu/computing/doc/accounts/project-volume/
- SSH Secure Shell at www.cmu.edu/computing/doc/software/ssh/
- Fugu SFTP at <http://www.cmu.edu/computing/doc/software/fugu/>
- Fetch at www.cmu.edu/computing/doc/software/fetch/

Library Licensed Resources

Many of Carnegie Mellon's Library databases and digital resources are licensed for use by current students, faculty and staff. These databases are restricted by IP address.

Therefore, when you are using a computer on campus, you are granted access. If you are off campus and connected using a non-Carnegie Mellon connection, you do not have a Carnegie Mellon IP Address and cannot access these resources using your non-secure Internet connection.

When you are off campus, you must use a VPN connection to access the Library licensed resources. Most of the databases are accessible using WebVPN <http://www.vpn.cmu.edu/>. However, several databases, typically those with Java interfaces, do not work properly with WebVPN (e.g., ArtSTOR, NetLibrary ebooks, and AP Photo Archive). In these cases, you must download, configure and use the Cisco VPN Client. For details about the VPN service, read "Using VPN" on page 4 or visit www.cmu.edu/computing/doc/network/vpn/. For help with remote access for library resources, visit the University Libraries Remote Access site at www.library.cmu.edu/Services/remote.html.

File Sharing

Files on your office computer may be accessed remotely if the computer is configured for file sharing. Instructions for accessing files on a Windows server remotely will vary depending on the way the server is configured and other factors. In some cases, the process may be as simple as clicking Start > Run, then entering the server name. For detailed instructions on accessing your Windows server, contact your Departmental Administrator.

Note: File sharing can only be used if you establish a VPN connection. For details about the VPN service, see "Using VPN" on page 4 or visit www.cmu.edu/computing/doc/network/vpn/.

Accessing Protected Web Pages

Protected web pages can be accessed remotely from any computer as long as cookies are enabled on your browser. For detailed information about where to find cookie settings, read *Configuring your Web Browser* at www.cmu.edu/computing/doc/web/configure/. Also, JavaScript must be enabled and some services require the CMU Certificate.

Using Virtual Private Networking (VPN)

A Virtual Private Network creates a secure connection or “tunnel” between your computer and the server. This tunnel allows secure communications and the ability to extend local network access to off site locations. When computing off campus, VPN is a valuable tool for access to services and resources that are otherwise restricted to on campus connections. Members of the campus community who connect to the Internet using a third party dialup or broadband service (i.e., LAN, DSL or cable modem) have IP addresses outside the Carnegie Mellon range. VPN tunnels your Internet traffic through a secure, encrypted tunnel within the Carnegie Mellon address range, allowing access to restricted services.

When do I need to use VPN?

Typically, you will need to use a VPN connection in the following situations:

- You are off campus and need to access a service that is restricted by IP address (e.g., Library licensed resources or databases).
- You are using an application that does not provide secure transfer of data from an off-campus location.
- You are using a wireless connection on campus and you’re sending information that should be secured with an encrypted connection.
- You are accessing a service which exists only on a restricted subnet.

WebVPN or the Cisco VPN Client

Computing Services offers two VPN solutions: WebVPN and the Cisco VPN Client.

- Use WebVPN to access restricted web services, such as Library licensed resources.
- Use the Cisco VPN Client to access Windows File Shares, ACIS services (e.g., SIS, DecisionCast, HRIS), and Library resources that don’t work with WebVPN.

For an overview of VPN visit www.cmu.edu/computing/network/vpn/. For instructions on using both WebVPN and the Cisco VPN Client, visit www.cmu.edu/computing/doc/network/vpn/.

VPN: Off Campus Support Notice

Computing Services will provide BEST EFFORT SUPPORT when attempting to resolve problems related to connecting via VPN off-campus. The configurations for using VPN with different Internet Service Providers and local networks are simply too vast for Computing Services to successfully support all off-campus connections. Please visit www.cmu.edu/computing/doc/network/vpn/support-vpn.html for a complete statement of support.

Need help with computing?

The Help Center

Contact Computing Services’ Help Center for assistance with computing on campus. The Help Center is located at Cyert Hall 119 and their office hours are 9 a.m. - 5 p.m. Monday through Friday. Help Center consultants are available by phone at 412-268-HELP and via email to advisor@andrew.cmu.edu from 7 a.m. through 7 p.m. Monday through Friday.

Online Documentation

Computing Services maintains an extensive web presence at www.cmu.edu/computing/. Included in that site is a collection of over 200 documents that can step you through a number of processes and campus applications; visit www.cmu.edu/computing/doc/.