

Dialing Into the Dartmouth Network With a Macintosh®

Who needs this document?

Anyone with a Macintosh computer and a 9,600 bps or faster modem who wants to access the Dartmouth network from off campus.

What dial-up software should I use?

Peter Kiewit Computing Services recommends *Apple Remote Access* (ARA) version 3.0 or higher. ARA is included as part of Mac OS 8.5 and higher. ARA version 3.x is the most stable, reliable, and easy-to-use dial-in program that we have tested for the Macintosh.

ARA is not sold separately for the Macintosh operating system. Therefore, if you are using a Macintosh with an operating system version 7.6 to 8.1, you can use *Open Transport/PPP* (OT/PPP); see the chart on page four of this handout. The operating system version you are currently using may require you to download some system updates or the *Open Transport* software. The system updates and *Open Transport* software are available on the PUBLIC file server. If you decide to use OT/PPP software, you will **not** have access to AppleTalk services, which include being able to select AppleTalk Zones (and therefore, connect to AppleTalk servers or printers). If you need to have access to the AppleTalk services and you cannot use *Remote Access*, you should use the *LinkUPPP!* v. 2.1 software (it is available on the PUBLIC file server). The installer, **LinkUPPP! Install 2.1r1**, will fit onto a high-density floppy disk. An installer/user's guide is available as a separate file.

What do I need to get started?

You will need to know what version of the operating system you are using to determine what dial-up software to use, and you will need a modem. Your modem must be connected to a standard telephone line (analog or residential). Connecting your modem to a digital phone line (such as Dartmouth's digital phone system or an ISDN line) may cause damage to your modem and/or computer.

You also need to use the correct script for your modem. This is specified in the Modem Control Panel. Most often, the modem scripts included with the Macintosh operating system are correct. If the modem is new, the media that came with the modem will include the modem script. Make sure you install the modem script using the directions that came with the modem. For the few cases where newer modem scripts have been released by the manufacturer or by Apple, these scripts may be available on the PUBLIC file server in the Network Software—>Dial-Up Software—>Modem Scripts folder. The modem manufacturers post updated modem software on their individual Web sites for improved modem performance and/or reliability. On the PUBLIC file server, go to the Third Party Support—>Apple Computer, Inc.—>Networking & Communications—>Modem—>Apple Modem Updater 2.0 folder. Apple Modem 2.0 is needed for almost all G3 and G4 computers with modems sold before November 2000.

How do I configure my network software settings?

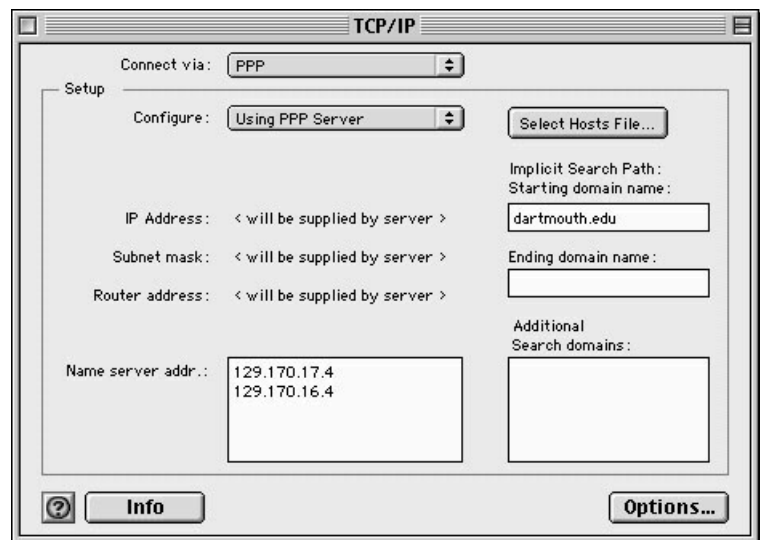
If you want to use network or Internet services such as *BlitzMail* or browse the Web on your computer when you are dialed in, you need to set up your computer to use the Internet as a dial-up user. This is done in the *Remote Access*, TCP/IP, and AppleTalk Control Panels.

How do I configure the TCP/IP Control Panel?

To enable your computer to dial out using your modem, you will need to enter some configuration information. If you have decided that your computer cannot use *Remote Access* or *OT/PPP*, use the configuration instructions found in the same folder on the PUBLIC file server as the installer, **Link-UPPP! Install 2.1r1**.

1. Open your **TCP/IP** Control Panel by selecting it from Control Panels under the **Apple** menu. **Note:** You may receive a dialog box indicating that TCP/IP is not currently active and asking if you want to make it active. If so, click **Yes** to allow your Macintosh to use Internet services.

In Mac OS X, select **System Prefs** under the **Apple** menu. Click on **Network** in the **Internet and Network** section.



2. Select **PPP** in the **Connect via:** field, and select **Using PPP Server** in the **Configure:** field. Under the **Edit** menu, select **User Mode**. Make sure that **Advanced** is selected and click **OK**. In the **Name server addr.:** field, type **129.170.16.4**. Press **Enter**, then type **129.170.17.4**. In the **Starting Domain name:** field, enter **dartmouth.edu**.
3. Close the window. A dialog box will appear asking if you want to save your changes. Click **Save**.

How do I set up my AppleTalk settings?

If you wish to use AppleTalk services while using *Remote Access*, including printing to LaserWriter printers on campus or connecting to AppleShare file servers such as the PUBLIC file server, you can set your AppleTalk connection to take advantage of your dial-up connection to Dartmouth.

Note: AppleTalk servers will only be available through connections made directly to Dartmouth.

To do this, open the **AppleTalk** Control Panel. Set the **Connect Via:** field to **Remote Only**. Save your changes when you close the window.

How do I configure the Remote Access Control Panel?

1. Open the **Remote Access** Control Panel by selecting it from your Control Panels under the **Apple** menu.
2. In the **Setup** box, select **Registered User**. Enter your full DND (*BlitzMail*) name in the **Name** field, and your DND password in the **Password** field.
3. In the **Number:** field, type the appropriate telephone number for your modem and location. This is the telephone number your computer will call to connect you to Dartmouth.

There are four telephone numbers you can use:

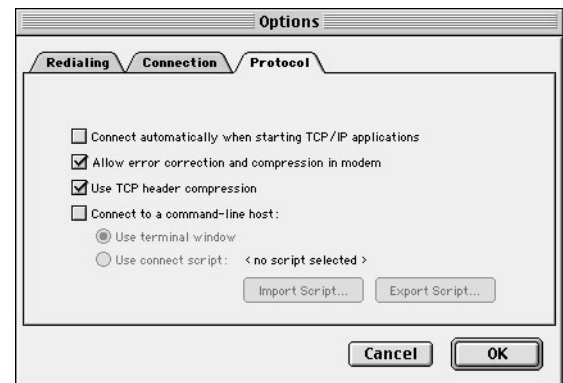
- **603-653-5250** — This telephone number is for the main modem pool and has a capacity for over 200 simultaneous connections. Modems of any speed equal to or greater than 9,600 bps can connect to this pool.
- **802-299-1111** — If you are calling from an exchange where White River Junction exchanges are a local call and Hanover is not, you may want to use this number.
- **802-449-1111** — This telephone number is for those calling from the Bradford, VT area.
- **603-643-0102** — This telephone number is for those users whose modems don't perform well at 56,000 bps.

There are several different things you may need to add in front of the telephone number, depending on where you are calling from. They include:

- If you are calling from outside the area code of the selected number, you need to enter **1-603** or **1-802** as part of the number (e.g., 1-603-653-5250 or 1-802-299-1111). If it is a local call, just enter the seven digit number (e.g., 653-5250 or 299-1111).
- If you are calling from a phone system that requires dialing 9 for an outside line, add **9** and a **comma** (,) before the number (e.g., 9,643-0102 or 9,802-299-1111).
- If you are using a calling card to make the call, enter **0** (zero), then a **comma** (,), the **selected number**, another **comma** (,), then your **calling card number** and **PIN number** (sometimes you need multiple commas before the calling card number).
- If you have call waiting on your line, you should deactivate it before you dial in to Dartmouth by adding ***70** and a **comma** (,) before the number (e.g., *70,643-0102).



- Click on the **Options** button, then select the **Protocol** tab. Set the options as they appear in the dialog box on the right. If you have a **Use Protocol** pop-up menu, make sure **PPP** is selected. If you check the box for **Connect automatically when starting TCP/IP applications**, when you start up *BlitzMail* or your Web browser, they will start the dial-up process. If you want to compose *BlitzMail* messages before you connect to the Internet to send them, leave that box unchecked. Make sure the **Connect to a command-line host** box is not checked. You do not need to make any changes to the options on the **Redialing** or **Connection** tabs.



Your computer is now ready to dial into Dartmouth automatically.

How do I dial in to Dartmouth after my initial setup with *Remote Access*?

From the **Apple** menu, select **Control Panels**, then **Remote Access**. Enter your DND password, then click **Connect**. You may use "Remote Access Status" in your **Apple** menu or the Remote Access icon (see illustration on the right) in your Control Strip instead of going to the **Remote Access** Control Panel.



How can I dial in without *Remote Access*?

If you are running Mac OS 7.6 to 8.5 or higher, your system comes with *Open Transport* and *OT/PPP* or *Remote Access* 3.x. If they are not currently installed on your computer, you should be able to install them from your System CD, or they may be available in the Apple Extras folder on your hard disk and can be installed from there.

If you do not want to use or cannot use *Remote Access*, you may be able to use *OT/PPP* or *LinkUPPP!*. If you want to have access to the PUBLIC file server or other AppleTalk servers on the campus network, use *LinkUPPP!* instead of *OT/PPP*. The newest version installer of *LinkUPPP!* that includes configuration instructions is located on the PUBLIC file server in the Network Software—>Dial-Up Software—>Unsupported—>LinkUPPP 2.1 folder.

Use the chart below to determine which of these applications came with your computer, or can be used at no additional cost to you.

Macintosh Model	Operating System (OS) Version	Software Updates Required	Dial-up Software Recommended	AppleTalk Services
iBook, iMac, G3, and G4	8.1 or higher		Remote Access 3.1 or higher	Yes
All other Macintosh models with a processor equal to or greater than 68030	8.5 or higher		Remote Access 3.1 or higher	Yes
	8.1		OT/PPP 1.0.1	No
	8.0		OT/PPP 1.0.1	No
	7.6 to 7.6.1		OT/PPP 1.0	No
	7.5.3 to 7.5.5		OT/PPP 1.0	No
	7.5 to 7.5.2	Open Transport 1.1.2. OS upgrade to 7.5.3	OT/PPP 1.0	No
	7.1.x 7.0.x	Open Transport 1.1.1 Network Software Installer (NSI) and MacTCP	OT/PPP 1.0 LinkUPPP! 2.1	No Yes

If you are running Mac OS versions 7.1 to 7.5.5, your system did not include dial-up software. You will need to obtain the latest versions of *OT/PPP* and *Open Transport* 1.1.2 from the PUBLIC file server. *OT/PPP* 1.0 is available in the Third Party Support—>Apple Computer, Inc.—>Networking and Communications—>Open Transport—>Open Transport/PPP1.0 folder. Open Transport 1.1.2 is available in the Third Party Support—>Apple Computer, Inc.—>Networking & Communications—>Open Transport—>Open Transport 1.1.2 Installer folder.

The *Open Transport* software referred to above can be found on the PUBLIC file server in the Third Party Support—>Apple Computer, Inc.—>Networking & Communications—>Open Transport folder. The *LinkUPPP! 2.1* software can be found on PUBLIC in the Network Software—>Dial-Up Software—>Unsupported—>LinkUPPP 2.1 folder.

How do I dial in to Dartmouth using OT/PPP?

Open Transport/PPP (OT/PPP) is very similar to *Apple Remote Access*. The only differences in the setup are the Control Panel name and a field name. Follow the steps outlined in the “How do I configure the *Remote Access* Control Panel?” with the following exceptions: When instructed to open the **Remote Access** Control Panel or window, open the **PPP** Control Panel or window; in #2, select **Registered User** in the **Connection** box, not the **Setup** box.

OT/PPP does not support AppleTalk services. This means you will be able to use network applications such as *BlitzMail* on a Web browser, but you will not be able to use your Chooser to select AppleTalk Zones (and therefore, connect to AppleTalk servers or printers). Most central computers (e.g., PUBLIC) support the FTP protocol, so you would be able to connect to them using *Fetch*, *Netscape Navigator*, or *Internet Explorer* to upload or download files.

How do I dial in to Dartmouth using *LinkUPPP!*?

The *LinkUPPP! Install 2.1r1!* installer is available on the PUBLIC file server in the Network Software—>Dial-Up Software—>Unsupported—>LinkUPPP v.2.1 folder. *LinkUPPP!* is site-licensed for Dartmouth users only. Please do not give it to your friends. It requires at least a 68020 processor and Mac OS 7.0 or higher.

To install *LinkUPPP!*, drag **LinkUPPP! Install 2.1r1** and the **Installing/Using LinkUPPP.pdf** document from PUBLIC to your hard drive. Double-click **Installing/Using LinkUPPP.pdf** and follow the directions. You must have *Acrobat Reader* installed on your computer to open this document. *Acrobat Reader* is available on the PUBLIC file server in the Core Dartmouth Software—>Acrobat Reader folder.

Please **do not** install *LinkUPPP!* on any iMac or Macintosh with Mac OS 8.5 or higher. ARA 3 is included with all Mac OS 8.5 or higher system software CDs.

Troubleshooting

My modem doesn't successfully connect to Dartmouth — When you attempt to connect to Dartmouth, you should hear your modem dialing the phone if you listen carefully. If you don't hear a dial tone, check your modem's connection to the telephone jack and the telephone line itself to make sure it is working. Some modems specifically have a jack for the phone line and a separate one for a phone instrument. Make sure it is plugged into the correct one. If necessary, go to your **Modem** Control Panel and verify that your computer is set up correctly and that the modem sound is not muted.

Verify that you have the correct telephone number entered. If your telephone line requires any dialing prefixes, make sure those digits are also entered with the phone number. Look at the ends of the phone cable you are using. Make sure it has four wires, not just two.

I can't use Internet services such as *BlitzMail* — Double-check the settings in your **TCP/IP** Control Panel. Ensure that they match those that appear in this document under "How do I configure my network software settings?".

My password is not accepted by the server — The password you provide should be identical to the password you use to access *BlitzMail*. If you have difficulty, make sure the **Caps Lock** or **Num Lock** key is in the correct position and try again. If you are still unable to connect, call the Computing Help Desk at 646-2999 and select from the options provided, or contact your division's computing support office for assistance.

My modem connects, but then fails — Check to be sure that you are using the appropriate script for your modem. For Global Village modem users (internal, external, or pc card), we recommend using the "GV 28.8 - K56" script available from the PUBLIC file server in the Network Software—>Dial -Up Software—>Modem scripts—>GV v.34 & Kflex56 folder.

I can connect just fine, but my session disconnects unexpectedly — Check for updated firmware for your Apple 56K modem or for your operating system. Within Mac OS 9, there is a Software Update Control Panel. If your connection allows you to stay connected long enough, try to download the Software Update Control Panel. This process allows your computer to communicate directly with Apple to download the needed operating system software and firmware updates.

The newer Macintosh computers that have built-in modems have upgradeable firmware. Apple has provided an update that improves the reliability and throughput speed for most PowerBook G3 series, iMac, Power Macintosh G3 (Blue and White), and Power Macintosh G4 computers that were manufactured and sold before the release of Mac OS 9.1. The updater is available on the PUBLIC file server in the Third Party Support—>Apple Computer, Inc.—>Networking & Communications—>Modem—>Apple Modem Updater 2.0 folder. The Apple System Profiler application reports the current version of the modem firmware. Other modem manufacturers also offer firmware updates. Check their support Web sites for information. Additionally, some updates can also be found on PUBLIC in the Third Party Support folder, which is organized by manufacturer.

If you have any questions, call the Computing Help Desk at 646-2999 and select from the options provided, send electronic mail to **Help@dartmouth.edu**, or call your division's computing support office.