tn3270, telnet and MacIP for the Macintosh

Installation Guide

Version 1.2

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Introduction

This guide is intended for the Departmental Network Administrator (DNA) installing tn3270 for their local users. This guide assumes an installation on an AppleTalk network with access to a Kinetics appletalk-ethertalk gateway or a Cactus appletalk-broadtalk gateway (this is the usual configuration at Brown).

The distribution disk contains the generic tn3270 package, the DNA is expected to configure the software and then distribute the configured version to their users. Do not modify the original disk; you may need it in the event of an error during the configuration process.

There will be four main stages to the configuration (more explanation later). The standard TCP/IP driver (MacTCP) must be configured, the NCSA function library (used by tn3270) must be configured, the tn3270 memory size must be set appropriately for MultiFinder, and finally some tn3270 configuration files should be set up to assist the first-time user. The MacIP program does not require any special configuration beyond setting up MacTCP correctly.

Settings

To complete the installation you need to know the address of your Kinetics box, as well as other information which varies with each department. Please make sure you have obtained all of the following information from CIS with the software.

1. The AppleTalk Zone of your Kinetics or Cactus Gateway: _____

2. The IP address of the Internet Gateway: _____

3. The subnet mask: _____

4. The Local Domain: _____

5. The IP address of the Domain Name Server: _____

Configuring MacTCP

MacTCP is Apple's implementation of the TCP/IP protocols; it is called by tn3270 to send information out of the Macintosh and over the network. It must be installed

before tn3270 can function (there is a standalone version of tn3270 that does not require the MacTCP drivers; however there is no advantage to using it and CIS is recommending using the Apple network software).

The MacTCP distribution disk, in the MacTCP folder, contains two control panel devices: MacTCP and AdminTCP. AdminTCP is used to configure the MacTCP driver, and optionally to prevent end users from configuring MacTCP themselves.

Since there is no reason for the end user to change any of the settings in MacTCP, CIS recommends that the DNA distribute only a locally configured and unalterable version of MacTCP.

Following are step-by-step instructions for configuring the MacTCP driver.

1. Copy the files MacTCP and AdminTCP into your system folder; these are Control Panel Devices and must be in your system folder before they can be used.

2. Open the Control Panel and select AdminTCP.

3. Select the LocalTalk icon in the right part of the window. There should be a zone name underneath. If it doesn't match the AppleTalk Zone Name on page 1 (setting #1) click on the name and select the correct zone from the pop-up menu.

4. Now click on the More... button at the bottom of the window. A fairly complicated configuration dialogue should appear.

5. Select the Manually button in the upper left.

6. Enter the IP address of your internet gateway in the Gateway Address text box below the radio buttons (setting #2 on page 1).

7. Select the Server button in the upper left . (This undoes your earlier selection of Manually. There is a bug in MacTCP which requires you to be in Manual mode to modify the gateway number).

8. Click on the Class (the current value, not the label) and select B from the pop-up menu.

9. On the rule immediately below, click on the top of the T-bar and drag it to the right until the subnet mask matches setting #3 on page 1.

10. Now enter the Domain Name Server Information. Enter the domain and IP address from page 1 (settings #4 and #5) and click on the Default button. Ignore the two empty text boxes which will appear.

11. Click on the check box that says Protected (located in the lower left corner).

12. You have now completed the configuration of MacTCP. Click on OK and close the Control Panel. You will be warned several times that you must restart your Macintosh before the changes you made will take effect. Restart your Macintosh and open the control panel. Open MacTCP, click on More... and verify it is using the correct settings. If it isn't, use AdminTCP again to correct the configuration. You may now discard AdminTCP and MacTCP Prep from your System Folder. (MacTCP Prep is a temporary file used by

AdminTCP to communicate setting changes to MacTCP. It may be discarded after the next re-boot, when MacTCP has read the new settings).

13.   The file MacTCP in your System Folder should be copied and placed in the System Folders of all Macintoshes on your Network. (after verifying the rest of the installation, of course).

Configuring NCSA

NCSA is a function library for TCP/IP on the Mac that is used by tn3270 and NCSA telnet. A special configuration file, config.tel, is shared by the two programs.

The standard config.tel distributed by NCSA is provided on the disk. It will have to be edited slightly. Use you favorite text editor; such as TeachText or Word (be sure not to use formatting commands). Make a copy of the file and edit it.

1.   Near the top of the file (perhaps the first 30 lines) is one that says ftp=yes. This controls whether the FTP server in tn3270 is turned on by default or not. CIS strongly recommends that the default be changed to ftp=no, since it is a potential security risk (allowing files on the Macintosh to be retrieved, altered or erased over the network) and can easily be turned on when needed from the Network menu of tn3270.

2.   At the bottom of the file there is a line like name=mynameserver. Delete the number (pound) sign at the beginning of the line. Change the hostip value to the IP address of the domain name server (setting #5).

3.   You may wish to delete the three lines at the bottom of the file which look like name=ncsaa; it doesn't matter greatly.

5.   Save the new config.tel into whatever folder you'll be installing tn3270.

This config.tel file must be located in the same folder as tn3270 and its settings file(s).

Configuring tn3270 for MultiFinder

Programs that run under Multifinder have associated with them a recommended memory size. tn3270 is distributed with the suggested memory size for a MacPlus or SE (that is, black and white with a 24x80 screensize). Using tn3270 with a color monitor or a large screen increases the memory requirements.

If you start up tn3270 with too little memory it may not be able to support graphics and the screen may flicker a great deal. It is suggested that if tn3270 is to be installed on a server it be configured for the most common class of machine. Users who have a different class of machine and use MultiFinder may copy the application folder to their own disk and alter the memory size.

You may change the amount of memory used for an application under MultiFinder by selecting the application in the Finder and using Get Info... from the File menu.

Configuring tn3270

It is time to finish installing tn3270 on your machine. Place a copy of the application, config.tel and an appropriate settings file on your own disk. Make sure that MacTCP is in your system folder and you've restarted your Mac since they were configured/put there. Eject the distribution disk so you don't mistakenly use its copy of tn3270.

Open up an appropriate settings file. If you get messages about insufficient memory to allocate a bitmap, please recheck the section on multifinder above.

You will probably not be able to establish a session; this is normal the first time. Under the Settings menu select Host name... and replace the contents of the dialogue with brownvm.brown.edu. Click on Make Default and then OK.

Now press **return** or select Open Connection from the File menu. If all is working correctly you should become connected to the Brown University VM mainframe (BROWNVM).

Finally, use Save Settings... from the File menu to create a new settings file that automatically connects to Brownvm. You may distribute the settings file along with the tn3270 application. If you will be distributing multiple settings files, be sure to update the Host name... for all of them.

Distributing tn3270 to your Users

To run tn3270 your users will need the following files:

1.   tn3270, config.tel and (optionally) a settings file — all in the same folder.

2.   MacTCP and NCSA Telnet Settings (from your system folder). All these files should be placed in their System Folder. Their Mac must be restarted for the MacTCP driver to be installed.

The following are optional:

3.   If you wish to distribute NCSA Telnet, you may place it in the same folder as the config.tel file (which tn3270 and telnet share). You may also wish to include the MacIP application (for FTP transfers).

4.   You may also wish to make available the contents of the Documentation, KeyMap and telpass folders.

Documentation

The Documentation disk contains documentation on tn3270, Telnet and MacIP. It is in Word 4.0 format.

**For Further Information
(& documentation and software updates)**

Contact the person who gave you this document. Please make a note of and report any problems you have with the software, documentation or installation.