



Tech Info Library

TCP/IP Connection for the Macintosh v. 2.0.2 (8/93)

Revised: 8/16/93
Security: Everyone

TCP/IP Connection for the Macintosh v. 2.0.2 (8/93)

Article Created: 16 August 1993

TOPIC -----

TCP/IP Connection for the Macintosh 2.0.2 supports SNMP, adds several features, and fixes several bugs.

DISCUSSION -----

Installation

The TCP/IP software can now be installed using an Installer script. This script installs the MacTCP control panel, the MacTCP Token Ring Extension (if an Apple Token Ring NB card is available) and the software required to use SNMP on the Macintosh.

Note to PowerBook Duo Users with NSI 1.3

The MacTCP Easy Install option does not work on a PowerBook Duo 210 or 230. MacTCP can be installed on PowerBook Duos with the Custom Install option, although the SNMP portions will not work with the AppleTalk version running on the PowerBook Duo. This does not affect MacTCP's ability to communicate with other systems running TCP/IP nor will it affect TCP/IP applications such as telnet, ftp, mail, etc.

SNMP and Shared Library Manager cannot be easily installed onto a PowerBook Duo 210 or 230. An installer dialog will state that installation can only be done on systems with AppleTalk 58 (Network Software Installer 1.3) and higher. However, re-installing AppleTalk 58 using NSI 1.3 will not solve this installation problem. This is because NSI 1.3 does not properly install AppleTalk 58 on PowerBook Duos.

Network Software Installer 1.3.2 and higher solves the AppleTalk problem, allowing full SNMP functionality. TCP/IP Connection for Macintosh will be updated to include NSI 1.3.2, and the update will be freely available to registered users of TCP/IP Connection for Macintosh. Please contact your

Apple dealer for information on the latest NSI disk.

Do not attempt to install or use the Shared Library Manager or any SNMP component on a PowerBook Duo until NSI 1.3.2 or later has been successfully installed.

SNMP Support

After installing and starting your Macintosh, the system can be queried by SNMP for variables in the MIB-II specification (RFC 1213). Sets are allowed on only two variables, the default TTL field and the state variable in the TCP connection table. Sets are not allowed in either the address translation table or the net to media table. Sets in the state variable in the TCP table will cause a TCPAbort on the associated stream.

Additional Features

Additional features that have been added in this release are as follows:

- The MacTCP Control panel now shows the version number of MacTCP in the lower left corner of the control panel screen.
- When MacTCP is opened and its set IP address is in use by another system, MacTCP will display a notification alert giving the current IP address and the link address of the host that is using this IP address. This feature only works with the token ring and ethernet interfaces that are provided with MacTCP. MDev developers please see the section Developer changes and features in these release notes.
- MacTCP now ships with an ICMP Ping application.

Bugs that have been addressed

In this release bugs that have been addressed are as follows:

- MacTCP Token Ring Extension does not fail if token ring is not present.
- MacTCP control panel performance is improved for displaying large zone lists.
- MacTCP Token Ring Extension MTU value is interpreted unsigned.
- OpenResolver will not write to nil if given a filename.
- MacTCP now sends ICMP port unreachables.
- MacTCP Token Ring Extension default MTU is 2002 bytes.
- MacTCP DNR will not leak memory on repeated queries.
- Nonstandard addresses (see RFC 1122 page 30) using network number 0 are accepted (i.e. 192.0.0.0 and 128.0.0.0).
- MacTCP BootP hops set to 0.

Some issues to be aware of

- Since MacTCP installation will replace the SNMP Preferences file, save a copy of your modified file first.
- To reinstall the Shared Library Manager, use Custom Install.
- If you want to install the MacTCP Token Ring Extension on a machine with

no token ring card, Custom Install must be used.

- In the SNMP Trap table IP addresses must be specified with a trailing null character.

Developer changes and features

Two resources have been added to the MacTCP control panel file. The first resource is the 'arps' resource. This resource contains an integer that is the default ARP table size used by both the ethernet and token ring MacTCP MDevs. Applications that need to query a large number of local hosts (same wire) can set this value to improve the performance of MacTCP and the applications. The system must be restarted for this value to take effect. If you are developing MDevs that have address translation tables, use this value to adjust the size of the address translation tables. The resource is described as follows:

```
type 'arps' {
    unsigned longint;
};

resource 'arps' (0) {
    20
};
```

The other resource that has been added to the MacTCP control panel is as follows:

```
resource 'STR ' (130) {
    "Another device, which has the physical address ^1, is currently using
    the IP address ^0."
};
```

The string displayed in this dialog is available to MDev developers to use. The IP Address of the associated offender should be placed in the ^0 position and the hardware address should be in the ^1 position. This string is provided so that localized versions of MacTCP will allow MDevs to use the appropriate string to notify users of IP address conflicts.

MacSNMP Release Notes (v 1.0.2)

In order to preserve the setting of communities, password, trap table, etc., the SNMP Preferences file has to be dragged outside the Extensions Folder before installing a new version of MacSNMP, and dragged back inside that folder upon completion of the installation.

Bug Fixes

- MacSNMP Admin and MacSNMP Client:

Closing the community window sometimes crashed the MacSNMP Admin and MacSNMP Client.

- SNMP Macintosh Agent:

GetNext on the last element of one of the SystemFileTable's columns did not return the first element of the ApplTable.

SNMP Macintosh Agent now returns an INTEGER instead of a COUNTER for SystemFileTable.FileEntry.fileSize.

SNMP Macintosh Agent now returns an INTEGER instead of a COUNTER for ApplTable.ApplEntry.applSize.

- Macintosh System MIB:

SystemFileTable.FileEntry.fileSize is now defined as INTEGER.

ApplTable.ApplEntry.applSize is now defined as INTEGER.

TrapTable.trapProtocol is now defined as Macintosh Display String.

Copyright 1993, Apple Computer, Inc.

Tech Info Library Article Number:12964