

TITLE

Mac OS X 10.2: How to Set the MTU Value During Startup

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TOPIC

Use the procedure below to create a startup item script that sets the maximum transmission unit (MTU) value for your network interface(s). This may be required when using certain Internet service providers.

Note: This document applies to Mac OS X 10.2 through 10.2.8.

DISCUSSION

Important:

- This document discusses an advanced procedure. If you are not familiar with command line interface and manual configuration in general, you should seek assistance. If you do not follow these steps precisely, the script may not work, which could prevent the computer from starting up normally.
- AppleCare does not offer any type of free technical support on setting up or creating Startup Items. Contract based support for setting up and creating Startup Items, and creating shell scripts is only offered by Apple Professional Services. For more information on Apple Professions Services see (<http://www.apple.com/services/>).

Follow these steps to create a script that sets the MTU each time the computer restarts:

1. Open Terminal (/Applications/Utilities/).
2. Type: `cd /Library`
3. Press Return.
4. Type: `mkdir StartupItems`
5. Press Return. (If you encounter an error, continue to step 6.)
6. Type: `cd StartupItems`
7. Press Return.
8. Type: `mkdir MTU`
9. Press Return.
10. Type: `cd MTU`
11. Press Return.
12. Type: `pico MTU`
13. Press Return.
14. In the pico editor, paste in the following text.

Begin copying below this line.

```
#!/bin/sh

. /etc/rc.common

##
# Configure a network interface MTU setting
##
#
# This script will set the MTU setting for the specified interface(s)
#
# The name of the interface (ex. en0) must be edited to match the interface
# to which the MTU setting should be applied
#
##

StartService ()
{
  ConsoleMessage "Configuring MTU"

  ### uncomment lines and change the value following 'mtu' as appropriate

  if [ "${MTU:=-NO-}" = "-YES-" ]; then

    # /sbin/ifconfig en0 mtu 1490
    # /sbin/ifconfig en1 mtu 1490

  fi

}

StopService ()
{
  return 0
}

RestartService ()
{
  return 0
}

RunService "$1"
```

End copying above this line.

15. Uncomment the `/sbin/ifconfig` line(s) to set the MTU for a particular interface.

Note: Removing the number sign (`#`) from the beginning of a line uncomments it. Typically, `en0` is the interface name for the Built-in Ethernet port and `en1` is interface name for the AirPort Card. This is not always the case, though. To confirm that a network port is associated with a particular interface name, open the Network Utility (`/Applications/Utilities/`), and click the Info tab.

16. When you have finished customizing the file, save it (press Control-O), press Return, and exit pico (press Control-X).

17. Type: `chmod 755 MTU`

18. Press Return.

19. Type: `pico StartupParameters.plist`

20. Press Return.

21. In the pico editor paste in the following text.

Begin copying below this line.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple Computer//DTD PLIST 1.0//EN"
"http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>Description</key>
  <string>Can set MTU</string>
  <key>OrderPreference</key>
  <string>None</string>
  <key>Provides</key>
  <array>
    <string>MTU</string>
  </array>
  <key>Requires</key>
  <array>
    <string>Network Configuration</string>
  </array>
</dict>
</plist>
```

End copying above this line.

22. When you have finished customizing the file, save it (Control-O), press Return, and exit pico (Control-X).

23. Type: `chmod 755 StartupParameters.plist`

24. Press Return.

25. Type: `sudo pico /etc/hostconfig`

26. When prompted, enter your password.

27. Press Return.

28. In the pico editor, add this line at the bottom:

```
MTU=-YES-
```

29. Save it (Control-O), press Return, and exit pico (Control-X).

When you restart the computer, MTU is set for the interface that you specified.

Notes

1. The MTU will be reset after changing a Location, waking the computer from sleep, or changing the state of the network interface. To use the script again without having to restart, enter the following command:

```
sudo SystemStarter start MTU
```

2. If you experience any issues or wish to not set MTU during startup, you can turn off the new script by changing the MTU line in `/etc/hostconfig` to:

```
MTU=-NO-
```