**http://www-01.ibm.com/support/docview.wss?uid=swg21086718**

**Question**

How can I determine what size packet a TCP/IP connect can maintain? Can you find what the Maximum Transmission Unit (MTU) a TCP/IP will sustain.

**Answer**

There are many applications and hardware that do not conform to the normal MTU of 1500 for TCP/IP actual packet size is lower [1472] due to header information. This is not unique to any specific operating system that uses TCP/IP.

Reducing the MTU size can help eliminate some connectivity problems occurring at the protocol level. Guidelines on how to perform MTU packet size testing are shown below. Additional information can be found in the Admin Help topic, [Troubleshooting TCP/IP problems for NRPC](http://publib.boulder.ibm.com/infocenter/domhelp/v8r0/topic/com.ibm.help.domino.admin85.doc/H_ABOUT_TROUBLESHOOTING_TCP_IP_PROBLEMS.html).  
  
NOTE: MTU size is TCP/IP issue, not a Lotus Products issue. Customers who find there is a problem with MTU size should contact the network administrator or the person who manages the network connectivity.   
  
***GENERAL GUIDELINES FOR MTU TESTING***  
  
Use the following command at the Operating System prompt. [note: the 1024 is only arbitrary start amount ]

**ping -f -l 1024 <IP Address>**

Explanation of parameters:   
The switch "- f" (minus sign followed by lowercase F) indicates do not fragment.   
  
The second switch "-l" (minus sign followed by lowercase L) is for size, and the number following it indicates the packet size you will be sending.   
  
Some operating systems and TCP/IP stacks allow additional parameters, for example, "-n <number>", which indicates how many times the ping is sent.   
  
If this PING passes successfully you will get a reply from the IP address, it will include the TCP/IP address you pinged as well as the size of the packet and the time it took to respond.   
  
If the packet size you used was too large you will get.the message:   
  
"Packet needs to be fragmented but DF set"   
  
To get a successful connection you cannot exceed the MTU and you may have to reduce the packet size to accomodate the product.