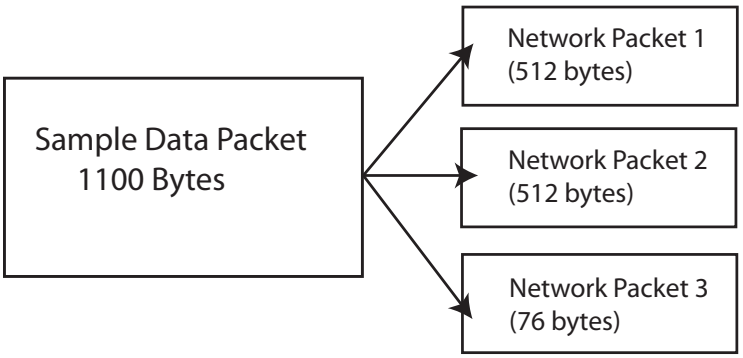
CONNX Solutions™
Simplified Data Access™

WHITE PAPER

Data Compression

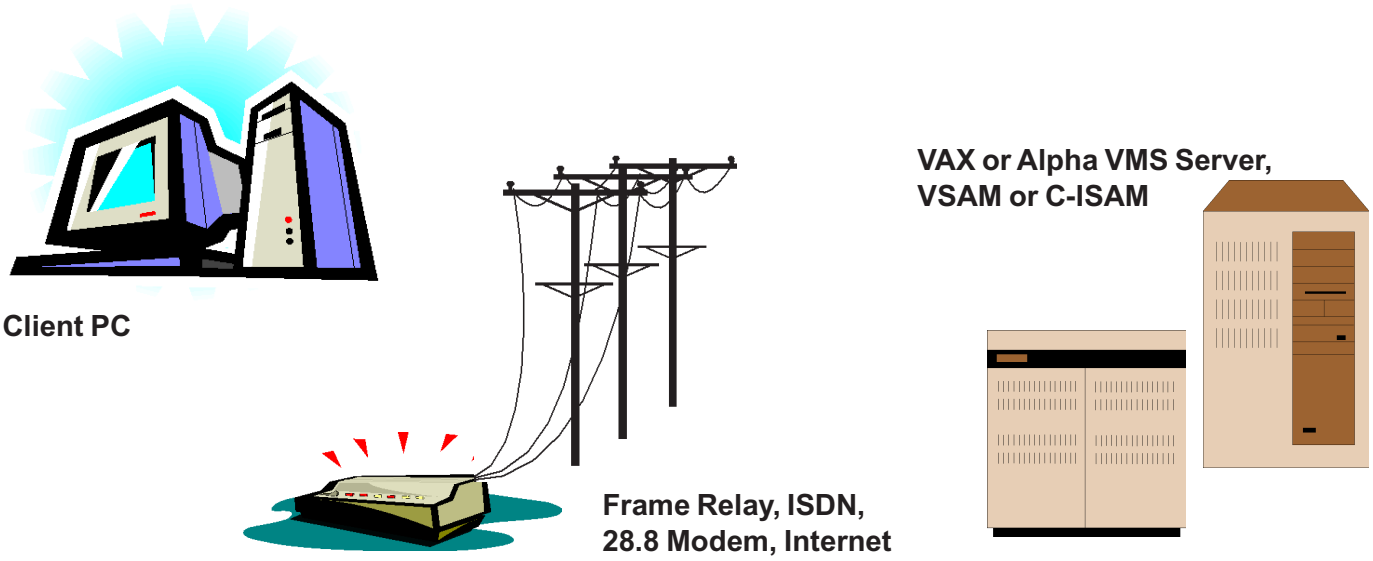
by Larry McGhaw, Director of Development,
and Ed Zuris, former Technical Support Manager

When using CONNX on Wide Area Networks (WAN), network latency strongly influences CONNX performance. Network latency is the time difference between a client sending a network packet and the host receiving that same packet. When data is transferred between a client and a server, the data is broken into network packets. Networks always transfer data in small packets (usually around 512 bytes).

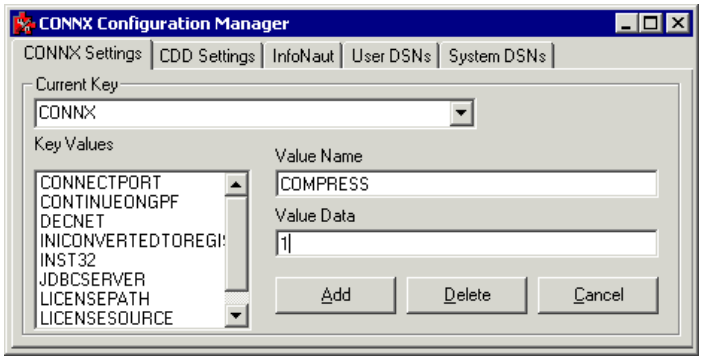


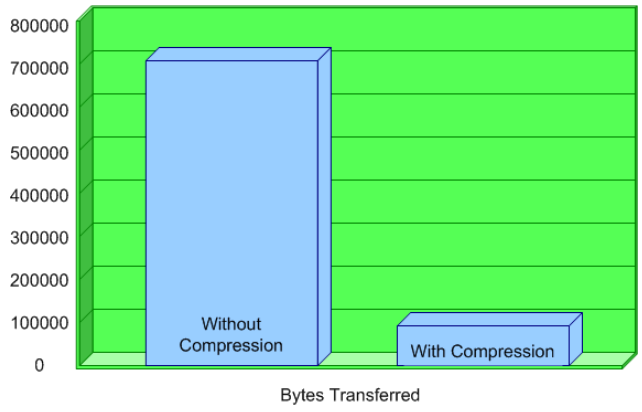
When networks have a higher latency, it takes longer for each packet to reach its destination, slowing the performing operation. When using CONNX on a Local Area Network (LAN), network latencies are relatively small. Data compression should not be used on a LAN because the time used to compress and decompress the data will be greater than the network latency.

On WANs, network latency tends to be larger, thus slowing performance. CONNX has a data compression feature that reduces the amount of data transferred between the client and the server.



The compression setting can be altered to a value of 1 (Compression On) through use of the CONNX Configuration Manager. Refer to the section on the CONNX Configuration Manager located in the CONNX User Reference Guide on page 7-2. Specifications for the Data Compression setting are described on page 7-13.

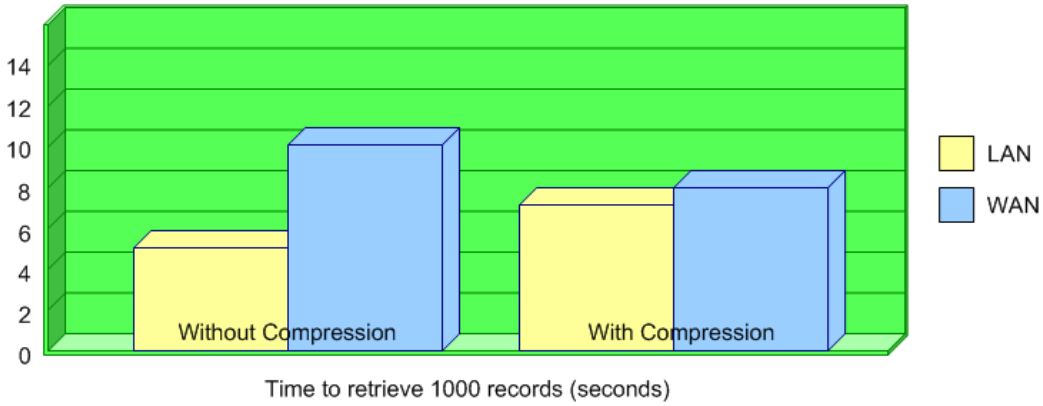




On average, CONNX data compression reduces the amount of data transferred by a factor of 7. Data compression reduces stress on WANs, and improves CONNX performance.

CONNX uses a run length encoding (RLE) compression method to reduce the amount of data transferred. RLE compression represents repeating data with just a few bytes. More sophisticated compression algorithms exist, but our research indicates that the time needed to compress and decompress data with other compression routines is greater than most network latency values, thus defeating the purpose of data compression.

revised 06/03/02



For more information about CONNX, contact:

CONNX Solutions, Inc.
2039 152nd Avenue NE
Redmond, WA 98052
Toll Free: 1-888-88CONNX
Tel: 425-519-6600
Fax: 425-519-6601
www.CONNX.com

All trademarks, registered trademarks, product names, and company names mentioned herein are acknowledged as the property of their respective owners.

CONNX® Solutions™
Simplified Data Access™