

# TUNING SQL SERVER NETWORK PERFORMANCE

## WHY NITROACCELERATOR SHOULD BE PART OF THE EQUATION

Fast, cheap and reliable? Not usually descriptions used for your WAN, especially when SQL Server is in the picture. The truth is, SQL Server's poor use of TCP/IP creates latency and congestion issues on the LAN and WAN. On the WAN, this translates to users who are limited in what they can do.

Contrary to popular belief, the idea of having all data available across the globe in real-time, even to-and-from the most remote office does not have to be an expensive, unachievable nightmare. There is an alternative to cobbling together combinations of nightly jobs and log shipping to move data in a compromise of time and money. Instead of the compromise, the dream of instantly available data can become reality by installing a dynamic compression solution that turns SQL Server's inefficient protocol into an efficient one capable of real-time data movement using SQL Server's native tools.

Not only does this approach enable real-time business, it also secures it by optionally keeping your data encrypted from end-point to end-point. As can be seen in table 1 below, NitroAccelerator can have a measurable payback on many of your daily tasks.

TASK	DESCRIPTION	EXAMPLE OF BENEFIT
Replication	When using native SQL Server replication, it's not uncommon for latency, as measured by how long it takes for a transaction on the replicated server to actually be replicated out to its subscribers, to become extremely high, even on a LAN. This high LAN latency has, until now, completely ruled out native replication over a slower connection. With NitroAccelerator, you will likely find that latency WAN equals or outperforms your LAN replication.	See transaction throughput increase 100X or more and latency reduced by 80-90%

SQL Server Integration Services (SSIS)	Daily data movement from remote offices or hosted/cloud based SQL Servers can take hours, which can cause reliability and data availability issues. Whether using older DTS or SSIS, NitroAccelerator makes those jobs fast and reliable.	Data movement jobs that previously took hours can be reduced to minutes.
Running Applications	Your custom in-house or third party applications that directly access SQL Server can perform poorly over WAN connections, sometimes resulting in unacceptable lag time for a dialog to display or a transaction to be committed. This latency results in frustrated users. Installing NitroAccelerator on the poorly performing SQL Server clients will fix that latency.	Applications that previously required minutes to populate a dialog will now come up in seconds.
Data Analysis	Simply pulling data to Excel or other data analysis tools can take too long to be practical even over high-speed connections. NitroAccelerator makes working with extremely large datasets efficient and painless.	The larger the dataset, the bigger the gain with NitroAccelerator. Queries that previously took 15 minutes can be reduced to seconds.

**If you are using SQL Server to and from remote offices for:**      **Then by installing NitroAccelerator, you will see:**

Replication  
SQL Server Integration Services (SSIS)  
Applications  
Data analysis tools

Improved WAN throughput by an order of magnitude or more  
Reduced latency  
Reduced bandwidth costs  
Happy and productive users  
Immediate ROI

**More Information on Where To Use NitroAccelerator**

- Cloud-based SQL Server applications
- Replication
- Custom applications that access SQL Server
- Linked server communication
- SQL Server Integration Services/Data Transformation Services
- SharePoint
- Microsoft Analysis Services
- SQL Server Reporting Services
- Crystal Reports