



## Enterprise Edition *READ 180*

### **Microsoft Chimney, Certain Network Cards, and *READ 180*.**

**Hardware/software effected:** Windows 2003 servers with BroadCom BCM5708 network interface cards (NICs), some HP network interface cards including HP373i, and possibly other network cards.

#### **Symptoms:**

Various freezing in *READ 180*, either when logging in or when trying to progress through the program. Typically, when a station freezes, the program must be ended manually, or the station must be rebooted. When the student tries to login again, the message "already logged in" may appear and the student cannot progress. Another symptom is the student being able to log in with no problem, but the Word Zone will not work for them.

#### **Background:**

As part of the Microsoft Scaleable Networking Pack, the TCP Chimney was intended to improve server processor performance. The Microsoft Scaleable Networking Pack is part of the latest service pack for Windows 2003 Server. It is also part of client and server versions of Windows Vista. According to some Microsoft documentation, it defaulted to being inactive when it was originally released. The MSNP provides for a system in which Windows, the NIC driver, and the NIC itself cooperate to offload TCP tasks from the CPU. Broadcom NICs may not be the only interfaces affected by MSNP. It seems that without the CPU involved, the MSNP is making some assumptions about the traffic. Problems with MSNP can vary depending on the client OS, client NIC, and routers that are involved with the communications. Although the Read 180 1.2.1 maintenance release works around the TCP Chimney behavior, there may be a number of problems that MSNP causes.

#### **Solution:**

Turning off the Windows TCP Chimney on the server makes the Broadcom integrated NIC return to the behavior that is traditionally expected of a NIC. Although the TCP Chimney can be deactivated in the Windows Registry, there is a netsh.exe helper that makes it safer and easier to deactivate with the following command line statement:

**netsh int ip set chimney DISABLED**

If you require additional information or have questions regarding this issue within your specific technology environment, please contact Scholastic Technical Support at 1-800-283-5974.