



SoftTalk

The Official Newsletter of the Roanoke Valley Personal Computer Club

Volume 17 Number 6

Serving the Roanoke Valley

June 2003

Data Speed Record Crushed

By Ashlee Vance in San Francisco
Posted: 06/06/2003 at 17:23 GMT

U.S. and European scientists have set a new data transfer speed record, shattering the previous mark using nothing but good old fashioned Ethernet.

The researchers sent one terabyte of data from Sunnyvale, California to Geneva in less than an hour. Their 2.38Gb/s sustained rate for a single TCP/IP data stream beat the old top mark by a factor of 2.5. At this rate, users could send a full CD in 2.3 seconds or 200 full length DVD movies in an hour. Wouldn't that make Hollywood mad?

"To put the numbers into perspective, at a transfer rate of 2.38 Gb/s, we could easily transfer the printed text in the entire Library of Congress in less than a day between Sunnyvale, California and Geneva, Switzerland," said Dr. Wu-chun Feng, team leader of network research RADIANT at Los Alamos National Labs.

Feng will be speaking next month at the The Register sponsored Royal United Services Institute (RUSI) Future Computing conference. He'll discuss the power of green computing.

It was Feng's networking team at Los Alamos who caught the attention of fellow researchers and ultimately inspired an attempt at the Internet2 Land Speed Record. RADIANT demonstrated a 4Gbps single TCP/IP data stream at Supercomputing 2002, which prompted calls from California Institute of Technology (Caltech), the

European Organization for Nuclear Research (CERN), and the Stanford Linear Accelerator Center (SLAC).

Instead of using specialized interconnects such as Quadrics or Myrinet, the scientists achieved their record with 10Gig E NICs from Intel along with a standard Linux TCP implementation. This could be a sign of good things to come for end users, as commonly used networking gear appears ready to satisfy the bandwidth hungry.

The scientists, of course, will get to play with the speedy kit first and are hoping the performance boost could help accelerate collaborative research efforts. Projects in areas such as grid computing where data is spread among a number of institutions should benefit from the extra network pace.

Some of the researchers are also hoping this proof point will encourage software developers to begin writing some applications with high bandwidth in mind.

For those in search of the fine details, the scientists used the optical networking of the LHCnet, DataTAG, TeraGrid, StarLight, and a Chicago-Sunnyvale link loaned by Level(3) Communications. They also used the Intel 10-Gigabit Ethernet (10GbE) PCI-X network adapters (PRO/10GbE LR) on a Cisco 12400 Series router with 10GbE and OC192 optical modules at Sunnyvale, Cisco 7600 Series routers with four 10GbE and OC48 optical modules at Chicago and at Geneva. ®

Windows 98 SE Upgrade

Thought you might like to hear about my recent experience with installing Windows 98 SE Upgrade. I have been using the Windows 98 OEM version since I bought this computer, and it has been working just fine. But I decided to upgrade to SE a few weeks ago - I have installed this upgrade at least 8 times on other machines, and didn't expect any trouble.

Everything went smoothly until it restarted to "Run Windows for the first time". I got a blank, black screen with an hourglass in the center, it stayed that way for about 15 minutes. No mouse action, nothing. Shut the computer off, restarted using a boot disk that could recognize the CD drive, and ran the setup again from the CD. Same result, got a black screen, but it only lasted a few minutes, then the process continued and Windows 98 SE was successfully installed.

Next time on the Internet I found that some links wouldn't work. Tried to uninstall and re-install IE6, it wouldn't uninstall. Tried to repair IE (version 6 with SP1), that didn't help. Oh, well, I settled for Netscape, that still worked OK.

Tried to run Norton AntiVirus Live Update - got a message that there are no Norton products on my computer to update. Checked the Symantec site, found this problem listed, followed their solution (download and install a file that was the wrong version), and then Norton worked normally. Ran Live Update to bring my Norton up to date, then scanned my system (72,049 files - no infection). Deleted all extraneous files, ran ScanDisk, then Defrag.

(Continued on page 3)

The Next Meeting

Place: Arnold R. Burton
Technology Center
1760 Roanoke Boulevard
Salem, Va. 24153
Date: Sat., June 14, 2003
Time: 9:15 AM - 12:30 PM
Room 105

This newsletter is published by the RVPCC. Its contents are the views of individuals and not necessarily those of the membership.

Upcoming Presentations:

June 14

To be announced

July 12

To be announced

August 9

Special Meeting Location this month -

Meeting at WDBJ-7
for a tour of their new facility!

From The President's Desk

by Tim Johnson
president@rvpcc.org



Utilities are a PC user's friend! I love using utilities. There are many out there that we use and take for granted. WinZip is a good example. How did we ever get by without it? Version 9 of WinZip is coming out soon. It is in beta test now. I have been using the beta version and it has been real stable. You can read up on what is new by visiting

www.winzip.com.

Another site to find many useful utilities is a place called SysInternals. Check them out at <http://www.sysinternals.com>. One cool utility I found there and use is PageDefrag which will defragment your paging files and Registry hives helping your computer run better. Take a look around their site and try some of the free and useful utilities offered for download.

Microsoft bragged about how much better Windows NT 4 was about not needing to be defragged very often. Everyone knows Win9x needed defragging pretty regularly. Well there is now news that Windows XP fragments faster than Windows 95 or Windows 98! Yes, it has been reported that Windows XP just sitting there idling will fragment. Just think what happens when you start to use it more! So it would be good to schedule defrag to run automatically in the Windows Scheduler or to remember to manually run it once a month or so.

Working with the City of Roanoke is great! I am learning many new things daily. The city has many computers and lots of software to play with! And I get paid to do work with the computers doing what I love! Now that's a job!

I will miss being with you this month. We are traveling out of town to my sister's. Ernie and the officer's will be there to keep things running smoothly. Enjoy the meeting!

RVPCC Officers

President:

Tim Johnson...562-0140
president@rvpcc.org

Vice President:

Ernest Arnett...540-483-4854
vicepresident@rvpcc.org

Secretary:

Margaret Hoag
secretary@rvpcc.org

Treasurer:

Azella Tingler...989-7808
treasurer@rvpcc.org

Public Relations:

Lionel Melancon
pr@rvpcc.org

Public Relations:

Bill Scott
pr1@rvpcc.org

Membership Chairman:

Del Kirschner...989-8913
membership@rvpcc.org

Roanoke County Schools:

Homer Duff...774-6862
rcschool@rvpcc.org

WebMaster:

John Yeatts
web@rvpcc.org

Email:

info@rvpcc.org
members@rvpcc.org
officers@rvpcc.org

Web:

<http://rvpcc.org>

Editor:

editor@rvpcc.org

Secretary's Report

By Margaret Hoag
secretary@rvpcc.org



Tim Johnson called the meeting to order.

Opening Remarks: The newsletter was late again, even though it was sent to the mailer on Tuesday.

Lionel Melancon suggested that the members keep up on the news by using the Web Page if the newsletter is late. It was also suggested that since we don't seem to be getting our money's worth with the current mailer, a different way of getting the news out might be tried.

Officer Update:

Secretary: Margaret Ann Hoag - Minutes were approved as printed in the newsletter. (Even though we hadn't received the newsletter yet)

Membership Chairperson: - Del Kirschner - We had 3 guests today: Connie Kirk, Tom and John Cook.

Treasurer - Azella Tingler - All bills are paid and we are solvent. She has closed the 1st. Virginia Bank Account and has opened an account with 1st. Union/Wachovia Bank. We are allowed 50 transactions a month without a fee.

Public Relations - Lionel Melancon - An upcoming program will be from Hayes, Seay, Mattern and Mattern. Several people gave program suggestions.

Public Relations - Bill Scott - He is giving a short program today on USB Portable Storage.

Roanoke County Schools - Homer Duff - Absent. Tim Johnson thanked the Roanoke County Schools for the use of their facilities and encouraged members to support their Adult Classes.

Webmaster - John Yates - No report.

Editor - We still need an editor for the newsletter. Tim Johnson did the newsletter this month.

Vice-President - Ernie Arnett - Christmas Dinner - Ernie is waiting to sign a contract with the Roanoker

Restaurant. If that fails, he has two alternative sites.

Door Prizes:

Phyllis Morris - \$10.00 gift certificate.
Richard Dierckins - Fancy Paper
Sandy Johnson - Folder
Ed Allen - CD
Ron Zell - Paper
Curry Ayers - Floppy Disks
Mike Marsh - CD
Jack Morris - CD
Hugh Martin - CD
Margaret Ann Hoag - CD
Bill Steel - CD
Lionel Melancon - Monitor Shelf Top
Bob Johnson - CD
Ernie Arnett - CD

There was a Question and Answer Period.

Program:

Tim Johnson showed and talked about lightning hitting his motherboard. It was recommended that you not get a cheap surge protector but spend at least \$30.00 for one. Tim also talked about his new business and his job interview.

Bill Scott talked about and showed a USB Portable Storage Unit. (available at Office max) It works on XP and modern lap tops. You can carry it with you on your key chain and has right protect. He showed us items from his collection of obsolete computers.

There being no further business, the meeting was adjourned.

Respectfully submitted,
Margaret Ann Hoag
Secretary

(Continued from page 1)

System works OK now.

Back on Internet, all links are now working OK. Guess the file that Norton needed is also used by IE. Now I'm back in business.

Del Kirschner

(Continued from page 4)

tors, today's 3GHz Pentium 4 processor boasts about 100 million transistors, including its cache or on-board memory store. That's enough transistors to build about 3,500 8086s, said Dean McCarron, principal analyst at Mercury Research. "Most of the changes...have been based on performance improvement. A 386 (chip, released in 1985) and a Pentium 4 are essentially functionally equivalent. Most of the evolution has been devoted to performance, with some devoted to additional functionality," McCarron said.

At 3.06GHz, the Pentium 4 is about 600 times faster than the 8086. The increases in performance have made new applications possible. Businesses and institutions are installing computing clusters, which offer supercomputerlike performance on the cheap, to help researchers in product design, medicine and physics. At the same time, fast processors let people touch up a photo or edit a home movie on a PC, before burning it to a DVD. When the 8086 came out, such feats were unheard of--the term "desktop publishing" didn't even exist yet.

Although it took Intel 25 years to hit the 1 billion mark, 2 billion should come along quicker. Factoring in chips from other manufacturers, such as Advanced Micro Devices, the x86 should hit the 2 billion mark by 2007, Intel predicts, using data from Mercury Research. AMD has shipped around 200 million x86-based processors in the last 25 years, McCarron estimated.

A trend toward more widespread use of the chips outside of PCs should help increase x86 shipments. Because the x86 architecture is proven, has a huge base of software support and can be made fairly inexpensively, hardware makers are looking at it more closely. Future applications include everything from consumer electronics to networking equipment and adjacent office equipment like copier machines, McCarron said.



RVPCC
P.O. Box 322
Salem, Va. 24153
Web: <http://rvpcc.org>
Email: info@rvpcc.org

To:

Intel's x86--25 years later

By John G. Spooner
CNET News.com June 10, 2003
URL: <http://zdnet.com.com/2100-1103-1014981.html>

Intel on Monday quietly marked the 25-year anniversary of x86, the basic architecture underlying the chips that power most of today's PCs. Intel's first x86-based chip, the 5MHz 8086, was introduced on June 9, 1978. Earlier this year, the company passed the 1 billion mark for units shipped on x86 processors, a feat that might have been enough to prompt other companies to put up a tent and throw a party.

Not Intel, though. Instead of hosting an event, the chipmaker released a short statement by Pat Gelsinger, its chief technology officer. Gelsinger said that "the Intel Architecture (otherwise known as x86) has brought the benefits of digital intelligence to people around the world, making it the most successful computer architecture in the history of computing. Best of all, it continues to incorporate new innovations and enable new uses, promising to further transform the world of computing in the years ahead."

The first x86 processor started life as a general-purpose chip, without knowing the grand role it would play in today's PC industry. The turn of events came in 1982, when IBM incorporated a less-expensive version of the chip, dubbed the 8088, into its first IBM Personal Computer, the

grandfather of today's PC.

Since then, driven forward by Moore's Law--which states that the number of transistors on a given chip can be doubled every two years--Intel has increased the performance of its x86 chips and diversified its product lines from desktop PCs, to low-power processors for notebooks. It's even launched a line of processors specifically for servers and workstations.

"I'd look at it as: Twenty-five years ago we were presented with an amazing opportunity--some of which I think we created with the initial quality of the Intel Architecture through the 8086 and 8088--and have then spent much of that 25 years maximizing the impact of that opportunity...both for Intel and for the computing world in general," said Frank Spindler, vice president of Intel's Corporate Technology Group.

This year the PC industry is expected to turn out between about 130 million and 140 million desktops, notebooks and servers. The majority of them will be based on Intel processors. They will also incorporate other silicon built by Intel, including chipsets, network controllers and even radio modules for wireless networking.

Although Intel has made many changes to the x86 architecture over the years--increasing the performance and complexity of resulting processors many times over--the

underlying architecture has ensured that the chips still act basically the same, a factor that has helped ensure widespread use and a large base of software. Where the original 5MHz 8086 processor was built with 29,000 transis-

(Continued on page 3)

**RVPCC Internet
address:**

<http://rvpcc.org>

Email:

info@rvpcc.org

The RVPCC Newsletter
SOFTTALK is produced with:



Meeting space provided by:



www.rcs.k12.va.us/adulted/

Web hosting provided by :

ICONS <http://www.icn.net/>