CNS /Update Newsletter Feature

Internet Response Improved; Internet2 Goes Live

UF Information Technology

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Internet Response Improved; Internet2 Goes Live

New peering arrangements have given UF Internet users good response time at all times of the day, according to Charles Benjamin, NERDC's inter-network coordinator.

A change by BellSouth in backbone Internet service providers (ISPs), from Gridnet to UUnet, has made a big difference, said Benjamin. "Previously, most UF Internet traffic going to outside locations went through the MAE-East Network Access Point (NAP), a very busy switch in Washington D.C. We would get good response time in the morning, but as national traffic picked up during the day, the MAE-East NAP became a bottleneck." A NAP is a high-speed traffic exchange switch to which many routers can be connected.

"Slowdowns we experienced in the past have nothing to do with NERDC's connection to BellSouth. The slowdown was out there on the Internet," said Benjamin.

The UUnet backbone has connections to other high-capacity ISP's along its length. These "peer-to-peer" arrangements allow data to travel more directly. The backbone change was made by BellSouth on Sunday morning, March 15, and subsequently tested by NERDC staff.

John Sheehy, NERDC systems programmer, commented, "I've seen noticeably better latency and throughput in my Web browsing. Also, there's a lot less mail queued up in my sendmail queues due to timeouts." BellSouth, said Benjamin, has estimated that with Gridnet, 85 percent of UF traffic went through MAE-East, while with UUnet, only five percent does.

FloridaNet/Internet2 Live at UF, FSU, UM

Internet2, the Next Generation Internet (NGI), is alive! Network Services staff recently installed a distributed "gigapop" connection point at NERDC to pipeline Internet2 traffic to and from participating universities in Florida. "So far, we have connected UF, FSU, and the University of Miami," said Judy Hulton, NERDC engineer. These universities are also the first connected members of FloridaNet, the high speed data network for Florida educational institutions. Gigapops are NGI connection points using advanced large-capacity routers and switches.
Alan George, associate professor of electrical and computer engineering at UF, said his department has been using FloridaNet for research for almost two weeks. "We are connecting our labs at UF and FSU to do distributed computing of large parallel processing jobs, including sorting and matrix operations. We get as many computers at each lab as we can running in parallel, then run those two sets in parallel over FloridaNet. We are also using FloridaNet for experiments with high-performance networks, as well as video-conferencing and distance education."

FloridaNet/NGI members are now poised to begin national collaborative research too. On Monday, April 13, the recently-completed OC3 physical link to the national vBNS (very high speed Backbone Network Service) was turned on for the first time, and UF began receiving routing table information from vBNS. "In other words," said Benjamin, "Internet2 traffic is now being routed from UF, over the OC3 connection to Southern Crossroads, through vBNS, and on to other Internet2 universities." The OC3 link (full-duplex, 155 Megabits per second) connects the NERDC gigapop to Georgia Tech and Southern Crossroads (SoX), a high speed local peering arrangement for NGI universities in Georgia, North Carolina, Alabama, Tennessee and Florida.

Your Comments are Welcome

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