

Notes from SURA IT Committee Meeting

Atlanta, Georgia

July 27 , 2006

Special thanks to Dan Updegrave for providing notes from the meeting on which this summary is based.

This meeting was very well attended with 52 people present from SURA and member institutions.

The meeting was essentially broken into two major pieces with the morning spent reviewing the history and current status of high performance network development activities in the SURA region. This included an overview by Don Riley of SURA's [past regional network infrastructure activities](#), an [update on NLR](#) by Larry Conrad, an [overview of Internet2 developments](#) (NewNet, FiberCo, [WaveCo](#)), a review of the many state based regional optical network (RON) initiatives that have developed in the SURA region, and the current state of non-interaction between Internet2 and NLR.

The rest of the day was focused on generating a dialogue that in general can be divided into two major discussion areas:

1) Leveraging SURA member investments in RONS for maximum benefit to the region, independent of what happens with the national backbones - to improve service and drive down connectivity costs throughout the region

* Admirable progress on additional state-by-state networking initiatives, notably Alabama, Arkansas, and South Carolina. Not only are we seeing more research universities connected, but also we have real examples of for multi-state partnerships that are producing cost savings through shared resources and bandwidth aggregation.

* Continued frustration, however, from Mississippi, Tennessee, Kentucky, and West Virginia, although Alabama and NASA have funded link < Atlanta - Birmingham - Huntsville - Nashville > and Oak Ridge has a path all the way to Chicago. There was a desire expressed for the region to find ways to help these four states to address their individual challenges, as, arguably, the region can be no stronger than its weakest areas.

* Impending loss of free back-haul for Abilene connections. This may be an excellent time to discuss how the SURA region can benefit from its investments in RONS and in NLR by rethinking how SURA members connect to Abilene (and its successor network). For example, over a year ago, Florida established a 10G link over NLR from FLR to Atlanta (SoX/SLR) over which they aggregate both their commodity internet and their Abilene access. North Carolina has recently decided not to renew its OC-48 connection in Raleigh in favor of using its NLR connection to Atlanta to aggregate its Abilene connectivity with SoX. Not only does this reduce NC's and SOX's Abilene connection fees, but also NC has discovered it needs less Abilene capacity because of the amount of traffic already being carried on NLR PacketNet.

As shown on the attached spreadsheet, of the 36 Abilene connectors (as of a recent tally before MCNC re-homed), 15 are in SURA territory. Moreover, 7 SURA universities are supporting single connections to Abilene -- Louisville, Memphis, Mississippi State, South Florida, Florida A&M, Tulane and Texas Tech. Aggregation on a regional level should result in significantly reduced costs across the SURA region. However, the challenge is how to connect these institutions to the aggregation points, in the face of the

loss of free backhaul by Qwest to Abilene. Here, opportunities for dark fiber through FiberCo and the possibility of lower-cost OC-X service via WaveCo may provide some opportunity.

* Desire to have current information about the status of state and multi-state networks – especially to expand and keep updated the information gathered and shared at this meeting.. There is likely an opportunity for SURA to work with The Quilt in this area to leverage their efforts to document RON activity across the country.

* As an example of how the region could leverage its investment in RONS, Larry Conrad reported that FSU has a disaster recovery site functioning in Atlanta, enabled by the 10G link to Atlanta. While research prospects have, nominally, driven our state, regional, and national advanced networking initiatives, it is clear that these assets could be leveraged in other ways. The University of Texas System, for example, is actively exploring creation of three disaster recovery sites (Dallas area, Houston, Austin) that could be shared among their 15 campuses, using LEARN as the backbone. Governing Boards are keenly interested in this, after last year's disasters, and some might be willing to provide funding for big pipes if they understand the short-term business value as well as the long-term research value.

2) General concern and frustration about the breakdown in Internet2-NLR merger talks and the desire to influence the governance structures of these organizations.

* Desire to aggregate our collective influence, especially as regards services, pricing, and governance of "Internet2 and NLR."

* Members of the Internet2 NPPAC and the NLR Board were present at the meeting and will convey this concern to their respective organizations.

* Announcement that NLR is engaged in partnership exploration with Battelle Memorial Institute. Given importance of ORNL (managed by Batelle and university consortium) in our region and the extent of ORNL's fiber holdings, such a partnership, if it comes to fruition, could be a big deal for the region. It was noted that the partnership exploration agreement that NLR has executed is an exclusive six month agreement that effectively precludes any merger talks between NLR and Internet2.

* General concern and frustration about Internet2 governance. Internet2 has a process in place to rethink and reform its governance structure so this may be a particularly good time for the SURA region to express its concerns.

Going Forward

As a result of this dialogue two working groups were formed. The first focused on examining opportunities for leveraging regional investments in RONS to drive down network connectivity costs and improve services across the region will be lead by Larry Conrad (Florida State University).

The second group, lead by John Mullin (Georgia Tech) will examine ways in which the SURA region can leverage its collective investments in Internet2 and NLR to influence the governance and communications processes of these national academic networking organizations.

Initial groups were formed to address these two issues at this meeting and are currently engaged in drafting initial position papers that will be made available to the broader IT Committee for further development.

Attendees (52):

Name - University

JL Albert - Georgia State University
Randy Anderson - George Mason University
Bliss Bailey - Auburn University
Alan Blatecky - University of North Carolina
Bob Cloud - University of Alabama in Birmingham
Larry Conrad - Florida State University
Tony Conto - MAX
Gary Crane - SURA
Hud Croasdale - Virginia Tech
Cas D'angelo - Georgia Institute of Technology
Mike Dennis - University of Georgia
Jerry Draayer - SURA
Larry Flournoy - Texas A&M University
Doyle Friskney - University of Kentucky
Tracy Futhey - Duke University
Tim Griffin - Mississippi State University
Dan Grimm - University of Delaware
Jack Hall - Florida Atlantic University
Don Halverstadt - University of Alabama in Huntsville
Priscilla Hancock - University of Alabama System
James Hilton - University of Virginia
Bill Hogue - University of South Carolina
Marc Hoit - University of Florida
Julio Ibarra - Florida International University
Bill Johnson - ONENet
Mark Johnson - North Carolina Research & Education Network
Jim Jokl - University of Virginia
Dave Lambert - Georgetown University
Craig Lovelace - Old Dominion University
David Matthews - Morgan University of Georgia
Don McLaughlin - West Virginia University
Charlie McMahon - Louisiana State University
Robin Miller - Ole Miss University
John Mullin - Georgia Institute of Technology
Newt Munson - William & Mary- VIMS
Dick Newman - Florida Institute of Technology
Dave Pokorney - University of Florida
Mike Rackley - Mississippi State University
Pedrag Radulovic - University of Tennessee
Sandy Redman - University of Alabama in Huntsville
Don Riley - SURA and University of Maryland
David Roach - Ole Miss University
Chandler Robinson - Clemson University
Brian Savory - Georgia Institute of Technology
Stuart Seruya - University of Miami
David Shealey - University of Alabama in Birmingham
Tripti Sinha - University of Maryland
Dan Updegrove - University of Texas at Austin
John Vilseck - West Virginia University
Jim Williams - LEARN
Tim Williams - West Virginia University

Bob Zimmerman - University of Arkansas

Abilene Connector List

There are 36 Abilene Connectors - 15 in the SURA region.

INSTITUTION	RATE	COST	RENEWAL MONTH
University of South Florida	OC3	\$110,000	Jun
MREN	GIGE	\$250,000	Jun
SoX	10GigE	\$480,000	Jul
LaNet	OC3	\$110,000	Jul
NYSERNet, Inc.	GIGE	\$250,000	Jul
North Texas GigaPoP	OC12	\$220,000	Jul
Texas GigaPoP	OC3	\$110,000	Aug
Drexel University	OC3	\$110,000	Aug
MCNC	OC48	\$340,000	Aug
CaIREN-2 South	10GigE	\$480,000	Sep
Merit Network, Inc.	OC12	\$220,000	Sep
MAX GigaPoP	OC48	\$340,000	Sep
NOX	OC48	\$340,000	Sep
Mississippi State University	OC3	\$110,000	Sep
MAGPI	OC48	\$340,000	Oct
WiscREN	OC12	\$220,000	Oct
Texas Tech University	OC3	\$110,000	Oct
Pittsburgh GigaPoP	OC48	\$340,000	Nov
Tulane University	OC3	\$110,000	Dec
Great Plains Network	GIGE	\$250,000	Jan
University of New Mexico Main Campus	OC48	\$340,000	Jan
Indiana GigaPoP	GIGE	\$250,000	Jan
OARnet	OC48	\$340,000	Jan
OneNet	OC12	\$220,000	Jan
University of Oregon	OC12	\$220,000	Jan
Iowa State University	OC3	\$110,000	Feb
Intermountain GigaPoP	OC12	\$220,000	Feb
University of Minnesota-Twin Cities	OC12	\$220,000	Feb
University of Texas at Austin	OC12	\$220,000	Mar
Front Range GigaPoP	OC12	\$220,000	Mar
University of Arizona	OC3	\$110,000	Apr
University of Louisville	OC3	\$110,000	Apr
Pacific Northwest GigaPoP	10GigE	\$480,000	May
NYSERNet (Buffalo)	OC12	\$220,000	May
Florida Agricultural and M	OC3	\$110,000	May
The University of Memphis	OC3	\$110,000	May
TOTALS		\$8,340,000	