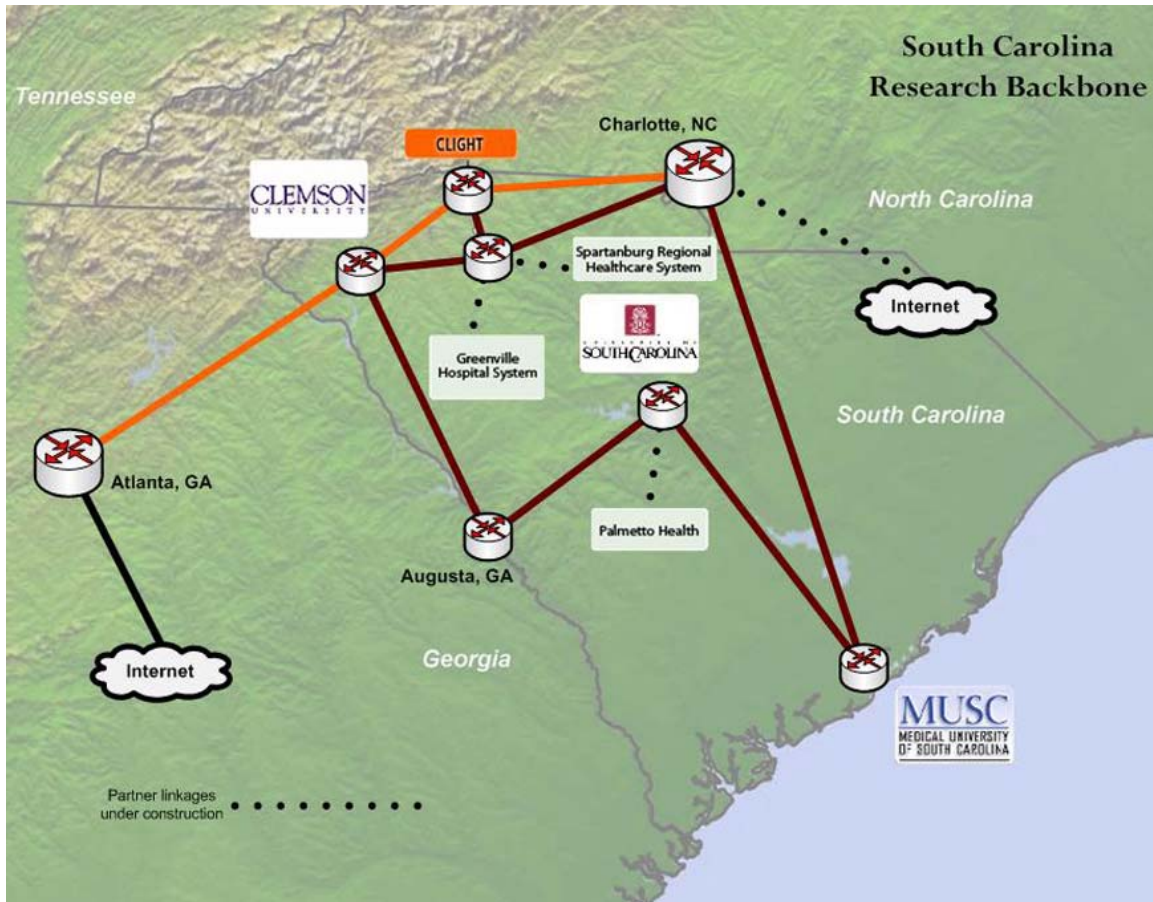


SOUTH CAROLINA LIGHT RAIL



Message from the Chairman – Dr. Frank Clark

Bill Hogue, with his early vision for a South Carolina Research and Education network, Jim Bottum, with his dedicated focus to increase research opportunities and economic development for South Carolina and I, with a goal to connect the state's rural and urban medical centers and hospitals thank the South Carolina legislature for providing the necessary funding and authority to create the state's fiber optic Research, Education, and Medical network, the South Carolina Light Rail in 2008.

We also thank the three University Presidents for their support and their efforts to keep the idea alive and on the appropriate agendas. Much appreciation also goes to the Health Sciences South Carolina CIO Committee which gave the vision a framework in which to become a reality.

The SCLR Board looks forward to providing the direction and insight that will allow the South Carolina LightRail to become one of South Carolina's greatest technological assets.

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Clemson University

University of South Carolina

Associate Members

Health Sciences South Carolina

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Savannah River Labs

South Carolina Research Authority

Palmettonet Health Service Provider Network

Historically Black Colleges and Universities (HBCUs)

Public and Private Colleges and Universities

STRATEGIC ALLIANCES

Southern Crossroads (SOX)

The Southern Crossroads (SoX) GigaPoP is a cooperative initiative of SLR. SoX is designed to facilitate access to current and future highly integrated, digital communications services for education and research in the Southeast.

Carolina Gigapop

Carolina Gigapop is a cooperative initiative of MCNC and CLight. The Carolina GigaPoP provides access to regional, national, and international networks in Charlotte, NC.

National LambdaRail

National LambdaRail, Inc. (NLR) is a major initiative of U.S. research universities and private sector technology companies to provide a national scale infrastructure for research and experimentation in networking technologies and applications. NLR puts the control, the power and the promise of experimental network infrastructure in the hands of our nation's scientists and researchers.

Internet 2

Internet2 is the foremost U.S. advanced networking consortium, participating in AtlanticWave on behalf of the New York City-based Manhattan Landing (MAN LAN). Led by the research and education community since 1996, Internet2 promotes the missions of its members by providing both leading-edge network capabilities and unique partnership opportunities that together facilitate the development, deployment and use of revolutionary Internet technologies. Internet2 brings the U.S. research and academic community together with technology leaders from industry, government and the international community to undertake collaborative efforts that have a fundamental impact on tomorrow's Internet.

ABOUT OUR EQUITY AND AFFILIATE MEMBERS



Clemson University Biotechnology Facility



In 2001, Clemson University adopted a set of 10-year goals aimed at making the school one of the nation's top 20 public universities by increasing quality in teaching, research, public service and student achievement.

A cornerstone of Clemson's quest for excellence has been the development of an academic strategic plan to:

- (1) attract and retain top faculty,
- (2) manage enrollment to ensure a top-tier classroom experience,
- (3) revamp the curriculum to increase rigor and relevance, and
- (4) identify eight emphasis areas in which Clemson will build nationally competitive programs.

Emphasis areas were selected on the basis of existing faculty strength, opportunities for external funding, and alignment with South Carolina's economic development needs. They include: Advanced Materials, Automotive and Transportation Technology, Biotechnology and Biomedical Sciences, Family and Community Living, General Education, Information and Communications Technology, Leadership and Entrepreneurship, and Sustainable Environment.

Clemson's reputation as a national university is growing. In 2001, Clemson was named TIME Magazine's Public College of the Year for its innovative communications-across-the-curriculum program. In its 2009 annual college guide, U.S. News and World Report ranked Clemson 22nd among national public universities, while Kiplinger's Magazine ranks Clemson 24th among the nation's best values in higher education. The Princeton Review and Forbes.com named Clemson one of the top 25 "most-wired" college campuses, and in 2007, readers of The Scientist ranked Clemson the best place to work in academia among academic institutions.



Clemson has seen rapid progress in research, almost doubling external support in just three years. Clemson's Center for Advanced Engineering Fibers and Films was designated a national engineering research center by the National Science Foundation, one of only 23 in the nation. In recent years, Clemson research has generated 10 spin-off companies and created more than 100 jobs. The Clemson University International Center for Automotive Research, a 250-acre research campus devoted to automotive and motorsports research in Greenville, has generated more than \$200 million in public and private support. The university also is investing more than \$80 million over the next five years in research and education to support an advanced materials economic cluster, emphasizing the emerging photonics industry, and recently announced plans to develop a campus in Charleston devoted to restoration research and education. Through partnerships with the Greenville Hospital System and the Greenwood Genetic Center, Clemson is helping support the state's biomedical industries and improving quality of life.

Clemson is attracting outstanding new faculty, many of whom have recently received such prestigious awards as National Science Foundation Career Awards, Guggenheim and Fulbright Fellowships, and recognition from the National Endowment for the Humanities. A bioengineering faculty member was recently named one of the top 100 young innovators by Technology Review, a publication of the Massachusetts Institute of Technology. The student body is equally impressive. This year's freshman class had an average SAT score over 1225 and included more than a third of the state's Palmetto Fellows – a 24 percent increase over the previous year.

Clemson was founded in 1889, a legacy of Thomas Green Clemson, who willed his Fort Hill plantation home, its surrounding farmlands and forest, and other property to the state of South Carolina to establish a technical and scientific institution for South Carolina. Clemson opened its doors to 446 students as a military college in 1893.

Today, Clemson is classified by the Carnegie Foundation as a Doctoral/Research University-Extensive, a category comprising less than 4 percent of all universities in America. More than 16,000 students select from undergraduate and graduate degree programs in more than 80 fields of study offered by five colleges: Agriculture, Forestry and Life Sciences; Architecture, Arts and Humanities; Business and Public Affairs; Engineering and Science; and Health, Education and Human Development.

As the state's land-grant university, Clemson reaches out to citizens, communities and businesses all over South Carolina. Clients ranging from farmers and schoolteachers to at-risk youth and community leaders benefit from Clemson's diverse, local public service activities. The Public Service Activities division includes the county-based Cooperative Extension Service, five off-campus Research and Education Centers, and critical regulatory responsibilities for plant and animal health.



Charles P. Darby Children's Research Institute



Since 1824 as the first medical school in the South, the Medical University of South Carolina (MUSC) has grown into one of the country's major academic health care centers. Its mission is to preserve and optimize human life through education, research and health care by providing primary care services for the local community and serving as a referral center for specialized care for patients from across the state, the nation and the world.

The University's influence extends beyond its campus to meet the needs of underserved populations in the community and state. The Association of American Medical Colleges' prestigious Outstanding Community Service Award honored the university's pledge to community service.

MUSC, its medical center, and its affiliated practice group employ about 10,000 people. The medical center includes three hospitals: the main hospital, the Children's Hospital and the Institute of Psychiatry, totaling approximately 600 beds. Outpatient clinics, facilities and services on campus and throughout the community range from primary care and prevention to specialized care provided by MUSC's Bone and Joint Center, Digestive Disease Center, Heart and Vascular Center, Hollings Cancer Center and Transplant Center.

MUSC Surgeon's performing ground breaking surgical procedure



Students leave the MUSC campus with strong academic preparation and a commitment to the well-being of their patients. The six colleges, Dental Medicine, Graduate Studies, Health Professions, Medicine, Nursing and Pharmacy, prepare approximately 2,400 students in the university's doctoral, master's and baccalaureate degree programs. More than 500

interns, residents and fellows receive training in specialty areas and 1,100 full-time faculty members provide students with opportunities in a caring and nurturing learning environment.

MUSC ranks among the nation's top ten for NIH research growth as reported by the Chronicle of Higher Education. Many of these activities advance economic development by introducing new technology and fostering links with industry and other academic institutions. In the fiscal year 2005, MUSC faculty garnered \$180.6 million in research funding. The recently opened Charles P. Darby Children's Research Institute is the largest and most comprehensive facility of its kind.



With more than 200 years of history and tradition, the University of South Carolina is redefining itself for decades to come. The state's flagship university is one of only 62 public universities to receive the Carnegie Foundation's highest designation for research.

Dr. Tom Borg (center) Director of the Regenerative Medicine



The University's main campus is located in the capital city of Columbia, but the University has impact statewide. Senior campuses are located in Upstate (Spartanburg), Aiken, and Beaufort, and regional campuses are located in Lancaster, Sumter, Salkehatchie (Allendale and Walterboro), and Union.

Working with government, business, and community leaders, the University has developed a unified plan that will allow it to expand from its origins on the historic Horseshoe to its future—Innovista, a research and innovation district that will stretch to the banks of the Congaree River.

Innovista represents a new vision for research by creating a vibrant, urban community where students and researchers, including those from the private sector, will live, work, learn, and play. Innovista will represent South Carolina's five core research areas—biomedical and public health, Future Fuels™, nanoscience and nanotechnology, software and technology, and the environment—but will include other initiatives and business partners that serve the knowledge economy. Innovista's first private tenant, for example, is a leader in software applications for the insurance industry and will create several hundred high-paying jobs.

South Carolina faculty are leaders in public health research, particularly in health disparities, obesity, and children's physical activity. Biomedical researchers from across academic disciplines are studying cancer, neurosciences, bioengineering and regenerative medicine, health disparities, and issues that affect families such as nutrition and exercise, child mental health, and infant development.

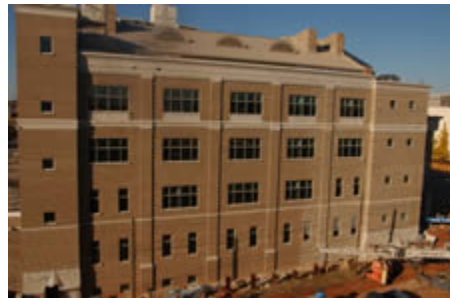
The University's faculty garnered a record \$173.3 million in federal, state, and private funding for research, outreach, and training programs in 2005-06, and several key hiring plans will introduce more talent and expertise to the faculty ranks.

Health Sciences South Carolina is one of many collaborative ventures for University researchers and faculty members. Others include partnerships with international institutes specializing in alternative energy research, the Savannah River National Laboratory, and the National Science Foundation, which founded at South Carolina the nation's only Industry/University Cooperative Research Center for Fuel Cells.

Many of South Carolina's programs are nationally ranked, including the Moore School of Business' undergraduate and graduate programs in international business; U.S. News and World Report ranks the undergraduate program No. 1 for the 10th consecutive time, while the graduate program is No. 1 among public universities for the 18th consecutive year and No. 2 overall.

The Department of Exercise Science's doctoral program is ranked No. 1 in the nation in kinesiology and exercise science, according to the 2005 Faculty Scholarly Productivity Index by Academic Analytics.

SC Norman J. Arnold School of Public Health



Along with prestigious graduate programs, the University's undergraduate enrollment is booming with ever-larger and more competitive freshman classes. The freshmen from fall 2006 set records for their size (more than 3,700) and SAT scores (1171 average). Freshmen enrolling in the South Carolina Honors College had average SAT scores of 1398. Total enrollment at Carolina for undergraduates and graduates is more than 27,300, with some 350 degree programs to choose from. Since 1994, South Carolina students have earned more than \$9 million in prestigious national scholarships such as the Goldwater, Truman, Rhodes, and National Science Foundation scholarships and the Fulbright Fellowships.

Chartered in 1801, South Carolina began classes in 1805 with nine students and a single building, Rutledge College. As the campus grew and buildings were added during the next 50 years, a horseshoe layout was adopted. Today, the Horseshoe is on the National Register of Historic Places, with 10 of its 11 buildings dating to the 19th century.

With a rich history, a dynamic future, and a talent pool of top students and faculty, it's no wonder the Wall Street Journal recently recognized South Carolina as one of eight flagships universities with rising academic quality. Through its research, scholarship, outreach, and service initiatives, the University contributes to the greater good of its community, state, and beyond.



About Health Sciences South Carolina

Health Sciences South Carolina was founded in April 2004 with a vision of improving the health and economic well-being of the state through a coordinated strategy to advance research and education. The founding partners include two of the state’s largest healthcare systems and two of the state’s research universities, Greenville Hospital System University Medical Center, Palmetto Health, the Medical University of South Carolina and the University of South Carolina. They created this unique public-private partnership to leverage existing resources, secure investment, attract partners, create momentum and drive results. After a single year, the collaborative has grown to include Spartanburg Regional Healthcare System and Clemson University and has begun affecting change and achieving results.

Collaborative partners have pledged approximately \$2 million each for the next 10 years toward research projects that support their respective missions and improve the overall health status of South Carolinians and beyond. These investments are structured to be eligible for matching funds appropriated through the South Carolina Research Centers of Economic Excellence Act for professorships and the Life Sciences Act for capital construction. These investments in research, which could reach more than \$200 million in the next decade, expand the opportunity to attract and recruit nationally renowned researchers, accelerate

"This is a perfect example of the kind of long-term commitment we need to see between the private and public sectors in order for South Carolina to make progress in improving the quality of healthcare and outcomes, creating jobs, and seeing average income rise."

Dr. Andrew Sorensen
President, USC
May 2002-July 2008

economic development, compete more effectively for national grant support and attract additional federal, state and private funds.

"The stars are aligned for great things. With the Endowed Chairs Program, the Life Sciences Act, the research-related construction at MUSC and USC, and Health Sciences South Carolina, we have the momentum we need to create a true statewide health sciences cluster that can result in world-class research, breakthrough technology, and the creation of highly-skilled, high-paying jobs."

April 2004
Frank Pinckney
President & CEO
Greenville Hospital System

Health Sciences South Carolina has made a strategic decision to focus its resources on the creation of a Clinical Research Center of Economic Excellence that consists of two integrated research units – one dedicated to statewide clinical research and the other to statewide health services research. All clinical research activity will be clustered within focus areas of neurosciences, cancer and vascular diseases, each with

the ability to deliver tangible results. By targeting some of our state’s most vulnerable health issues – cancer, stroke and cardiovascular disease – the collaborative aims toward quickly improving the state’s health status. An already funded proposal may soon be mapping the brain’s activity in an effort to treat the devastating effects of stroke. The health services research unit is being developed around research in areas that target clinical effectiveness and patient safety, issues of paramount importance to health care today. Practically speaking, our first endowed chair in that area may soon be training health care workers on computerized human simulators and measuring the effectiveness of that training. Researchers at all partner institutions will be readily translating scientific discovery to the bedside in clinical trials throughout the state.

In its first 18 months of endeavors, Health Sciences South Carolina funded two Endowed Chair proposals, has a third just approved for funding, and has submitted

three additional proposals for funding consideration in 2006. MUSC and USC integrated their two Schools of Pharmacy into the SC College of Pharmacy and expanded it to Greenville Hospital System University Medical Center's campus. Research campuses are being developed in three regions of the state and Life Sciences Act infrastructure funding is being directed toward facility development on those campuses.

Each member of Health Sciences South Carolina is a substantial driver of the state's economy and an essential provider of health services, education and research. Collectively, they stand as a significant economic engine,

powering a total statewide economic impact of nearly \$8.5 billion in 2004, according to USC's Moore School of Business, Division of Research. This impact includes 47,100 employees comprising one out of every 38 jobs in the state and representing 3.3 percent of South Carolina's total employee compensation. Together, the four founding partners along with Spartanburg Regional Healthcare System and Clemson University are responsible for the lion's share of the health sciences academic and research programs in South Carolina. Individually, the four hospitals are among the state's largest providers of healthcare services. The group and their respective boards have made significant financial and philosophical commitments to realizing a bold vision. These investments, project by project, in health sciences research and education will promote the best interests of the state as a whole, not burdened by politics, geographic boundaries and self-interests.

"Pooling the financial and intellectual resources of our respective institutions presented us with a once-in-a-lifetime opportunity to change the course of South Carolina's future for the better."

Dr. Ray Greenberg
President, MUSC

"This is an opportunity for researchers to make a difference. That's pretty exciting. We're talking to researchers who are working all over the world who are interested in coming here. While it's important we work together to improve clinical research, it is critical to address population issues."

April 2004
Kester Freeman
CEO, Palmetto Health

As a 501(c)3 organization, Health Sciences South Carolina's distinguished board is comprised of the CEOs of the founding partners, Charles D. Beaman, Jr., Palmetto Health; Raymond Greenberg, MD, PhD, MUSC; Michael C. Riordan, Greenville Hospital System University Medical Center, and Harris

Pastides, PhD, University of South Carolina.

They have since been joined by Ingo Angermeier, Spartanburg Regional Healthcare System, and Jim Barker, Clemson University, to continue their visioning and leadership for this unprecedented partnership for South Carolina.

Collaborative Projects Anticipated for 2009 Include:

Technology Meets Medicine and Art

*By Jill Coley, The Post and Courier, Monday,
November 26, 2007*

Photo by Wade Spees, The Post and Courier



Joint effort helps create prostheses to reconstruct patients' identities.

Betsy Davis, a maxillofacial prothodontist, works to make facial prosthetics, like this eye, look like the real thing they're replacing -- at MUSC. After life-saving surgeons remove a nose, an eye or part of a jaw riddled with cancer, survivors often are left with a mutilated sense of identity. Children stare. Adults quickly avert their gaze. "When we say, 'Hello,' we look at the face," said Dr. Betsy Davis, director of maxillofacial prosthetics at the Medical University of South Carolina. "We're in a society where many times we are judged by our appearance." Davis uses silicone prostheses to restore the self-esteem of people who lose a facial feature through disease, accident or birth defect. She held in one hand two tiny ears, the size of dollar coins, that she made for a young burn victim. The work combines dentistry, medicine and a flair for art, she said. Skin tone is detailed down to pink, spidery capillaries. Hairs and a flake or two of dry skin add realism. Now she's reaching out to the discipline of engineering to help her patients feel whole again, faster.

Davis teamed up with Randy Emert, a Clemson University professor of engineering graphics, who applied "rapid prototyping" to the creation of facial prostheses. Rather than crafting a mold freehand from photographs, Davis now sends Emert a CT scan of the body part. At Clemson, Emert uses software to analyze the scan and print out a wax model, layer by layer. "My experience has all been in manufacturing and automotive," Emert said. Working with Davis isn't all that different, he said. "To me, it's always been making technology and tools easier, faster and more efficient for people." A patients' wait time for his prosthesis is halved, from about two weeks to one.

Gary Reeves, a Baptist minister from Conway, was born without his right ear. He underwent reconstructive surgery as a child, but the effort failed. "I didn't believe anything could be done," he said. About 30 years later, when a school secretary noticed the smooth skin where his right ear should be, she told him that her father lost his ear in an accident and had a prosthetic one made. "The lady who told me about it, I see her as a godsend," he said. That conversation put Reeves on a path to MUSC's Maxillofacial Prosthodontic Clinic. Before receiving his prosthesis, Reeves never wore sunglasses in public. He kept them in his car. Now, he feels comfortable in shades. "It didn't bother me until people noticed," he said. Prostheses must be replaced every few years because of wear, and with children, to keep pace with their growth. Reeves' first ear was hand-carved by Davis and anaplastology technician Kathy Hood. When he was ready for his next one, the rapid prototyping technology was in place. In addition to being faster, the new model was based on a CT scan of Reeves' left ear. Giving patients a feature that is truly theirs gives them peace of mind, Davis said. For cancer patients facing the surgical removal of a feature, Davis can scan and reconstruct their pre-operation face. An engineering alliance among MUSC, the University of South Carolina and Clemson is the basis for Davis' partnership with Emert.

Davis' goal is to create the Center for Functional Outcomes and Reconstructive Biotechnology that would house specialists, including experts in cancer, speech, reconstructive surgery and maxillofacial prosthodontics. This clinical group will partner with Clemson's engineering experts in the Center for Biological Interfaces of Engineering, which the state approved earlier this year.

Dr. Karen Burg, professor of bioengineering at Clemson, said linking the two centers would marry the engineering side, which builds materials and devices, and the clinical side, which uses these materials on patients. Strengthening their virtual communications through videoconferencing can make the physical distance between the centers disappear. This alliance could one day enable clinical use of a technology called tissue engineering. Clemson bioengineers are working with tiny degradable beads that are attractive to fat cells and that encourage them to divide and multiply, Burg said. In the future, doctors might be able to harvest a patient's fat cells and grow more of those cells on the beads. The bead and cell mixture would then be injected into a body part that needs to be rebuilt. The beads would break down harmlessly in the patient, leaving him with his own cells. The technology, already successful in animals, can be used with soft tissue, such as a breast lost to cancer, or with bone. "Working together, we can come up with when this can be used clinically," Burg said. "The potential is enormous, having people from different disciplines coming together to solve clinical problems."

SOUTH CAROLINA LIGHT RAIL CHARTER

South Carolina LightRail Consortium

SECTION 1. Title 59 of the 1976 Code is amended by adding:

"CHAPTER 151

South Carolina LightRail Consortium

Section [59-151-100](#). (A) The General Assembly declares that by this chapter it is establishing the South Carolina LightRail Consortium in response to growing demand for South Carolina academic institutions to expand their capacity for high speed, highly available bandwidth across the State, nation, and world in support of their missions, and to connect directly to national and regional networks for purposes directly related to their missions.

(B) For this purpose, the South Carolina LightRail shall provide facilities-based advanced high performance communications infrastructure in support of the missions of the South Carolina academic institutions that are members of the South Carolina LightRail Consortium. The General Assembly declares its intent that this infrastructure must not compete with the commercial communications or information offerings of private sector participants.

(C) The goal of the South Carolina LightRail Consortium is to promote collaboration among participating clinical, research, and educational institutions throughout the State, region, and nation to accomplish the objectives stated above.

Section [59-151-110](#). (A) For purposes of this chapter, the South Carolina LightRail is defined as a communication grid network where the South Carolina academic institutions that are members of the South Carolina LightRail Consortium, and private organizations and entities as permitted by subsection (C) of this section tap into facilities-based fiber optic including, the National Lambda Rail, Internet2, TeraGrid, and other regional and national networks which carry high volumes of data at high speed allowing faculty members at participating institutions in different locations to collaborate in real time.

(B) The South Carolina LightRail is to be used as an academic network for the use of the South Carolina academic institutions that are members of the South Carolina LightRail Consortium for the exchange of information directly related to their missions and must not carry commercial traffic, commercial internet traffic, or K-12 traffic originated in South Carolina. Occasional and incidental use of the network by persons appropriately granted access to the network for purposes that are not directly related to the missions of the participating academic institutions is not considered a violation of this subsection.

(C) Private organizations and entities may be provided access to the network only through formal documented partnerships with one or more of the South Carolina academic institutions that are members of the South Carolina LightRail Consortium that are directly related to the missions of the partnering institutions. This access must be consistent with guidelines and procedures approved by the consortium board. These guidelines and procedures, at a minimum, shall comply with the provisions of Section [59-151-115](#).

Section [59-151-115](#). (A) Prior to allowing any university employee or student access to the network, the board must adopt guidelines and procedures which, at a minimum, ensure that:

- (1) access to the network is limited to specific university employees and specific university students who have direct involvement in one or more formal documented partnerships that meet the requirements of Section [59-151-110](#)(C);
- (2) these university employees and university students cease to have access to the network once they are no longer directly involved in such a formal documented partnership; and
- (3) the access to the network does not compete with the commercial communications or information offerings of private sector participants.

(B) Prior to allowing any private organization or entity access to the network, the board must adopt guidelines and procedures which, at a minimum, ensure that:

- (1) access to the network is limited to specified employees of these private organizations or entities who have direct involvement in one or more formal documented partnerships that meet the requirements of Section [59-151-110](#)(C);

- (2) these employees cease to have access to the network once they are no longer directly involved in such a formal documented partnership;
- (3) the access to the network does not compete with the commercial communications or information offerings of private sector participants; and
- (4) any South Carolina commercial entity has a separate commodity internet connection for its routine operations.

(C) For purposes of this section, occasional and incidental use of the network by persons appropriately granted such access to the network for purposes that are not directly related to the missions of the participating institutions is not considered as competing with the commercial communications or information offerings of private sector participants.

Section [59-151-120](#). Clemson University, the Medical University of South Carolina, and the University of South Carolina in Columbia are designated as the three charter member institutions of the South Carolina LightRail Consortium and through the consortium are directed to plan, procure, administer, oversee, and manage all functions associated with the South Carolina LightRail.

Section [59-151-130](#). (A) The South Carolina LightRail Consortium must be a joint venture exclusively among the three member universities, with administrative support to be provided by an appropriate department within one or more of the universities to include procurement, accounts payable, accounts receivable, web design and hosting, and similar administrative or technical support functions.

(B) The South Carolina LightRail Consortium must be governed by a board of directors consisting of six members. The board of directors consists of two representatives each from Clemson University, the Medical University of South Carolina, and the University of South Carolina, to be appointed by the respective university presidents and to serve at their pleasure. The consortium must be chaired by a member of the board of directors from each member institution on a rotating basis among all institutions for a term of two years.

(C) Membership on the board is not an office of honor or profit within the meaning of Section 3, Article VI of the Constitution of this State.

(D) The board shall establish rules of procedure governing its operations and also may establish an executive committee of the board to act in the board's stead in the manner authorized by the full board.

Section [59-151-140](#). (A) The South Carolina LightRail Consortium is declared to be an instrumentality of this State and as such its board of directors has all powers and authority conferred upon public boards generally including the power to contract in its own name, to own property, and to sue and be sued.

(B) The board shall ensure that the consortium functions in support of its mission and in the best interests of the State and the participating universities. In support of this task, the board shall:

- (1) assist and advise the chairman of the consortium board in matters related to scientific and administrative performance, consortium directions and needs, and government and interinstitutional interactions;
- (2) conduct an annual review of consortium status, activities, and plans to evaluate overall performance relative to its mission and strategic plan and to recommend possible changes to the strategic plan or South Carolina LightRail administration;
- (3) review and approve an annual budget request for the consortium; and
- (4) review the operations of the South Carolina LightRail annually to ensure relevance, to affirm the commitments of the participating institutions, and to confirm continued compliance with the provisions of Section [59-151-115](#).

(C) Results of the annual review and budget request must be documented in a letter submitted to the presidents of the three universities.

Section [59-151-150](#). (A) The LightRail Consortium shall receive such funding as may be provided by the General Assembly in the annual general appropriations act, supplemental appropriations act, or in other provisions of law. This funding must be provided to its participating universities for purposes of the LightRail. Funds appropriated to Clemson University, the Medical University of South Carolina, and the University of South Carolina in the 2007-2008 general appropriations act for the South Carolina LightRail Consortium shall continue to be used for those purposes consistent with the requirements of this chapter and other applicable provisions of law.

(B) The LightRail Consortium shall manage its own funding provided to it by the member institutions, based on a budget prepared and administered by the chairman of the board, and recommended by the board. The consortium funding appropriated to a particular member institution must be administered individually by that institution, except in those instances when consortium actions, services, or activities require joint budget action. Sufficient annual funding to meet the strategic and operational needs of South Carolina LightRail Consortium is the joint and co-equal responsibility

of the member institutions, and the responsibility of each member institution to provide such funding must be determined annually by the board upon agreement of the institutions concerned.

Section [59-151-160](#). The value of gifts, in-kind services, grants, appropriations, or other financial considerations directed to a single university for the primary purpose of support for South Carolina LightRail Consortium must be administered and accounted for in accordance with the policies of the recipient university. The value of gifts, in-kind services, grants, appropriations, or other financial considerations directed jointly to the three universities through the consortium must be divided into three equal shares, unless otherwise specified by a donor, and must be administered and accounted for by each recipient university in accordance with the policies of that university.

Section [59-151-180](#). The South Carolina LightRail Consortium is considered a public body and as such is subject to all provisions of state law, including the Freedom of Information Act and state procurement requirements but is exempt from the planning, oversight, and project management regulations of the State Chief Information Officer. The board of the LightRail Consortium each year by February first shall submit to the chairman of the House Ways and Means Committee and the chairman of the Senate Finance Committee a report specifically identifying each entity with access to the network, the number of persons within each such entity with access to the network, and a brief description of the formal documented partnership in which the persons are involved, and any payment, including without limitations, in-kind payment, that each such organization and entity is making for access to the network."

2008 Timeline and Financial Information

Timeline and Milestones	Dates	One Time Costs	Per Institution	Yearly Costs
Legislation adopted to create SCLR	17-Jun-08			
\$1.5M awarded to each of Clemson, USC, MUSC		\$4.5M	\$1.5M	
RFP to acquire SCLR backbone	19-Nov-07			
Respondents: SCANA, ATT, DUKE, LEVEL3				
SCLR Backbone awarded to SCANA (\$2,719,756.48)	31-Mar-08	\$2,719,756	\$906,585	
Fiber paths established to nodes:				
Clemson complete	15-Jun-08			
MUSC complete	30-Jun-08			
USC complete	30-Jul-08			
Charlotte complete	15-Sep-08			
NOC Services awarded to Clemson	30-Jun-08			
NOC services July 1, 2009	1-Jul-08			Waived
Clemson NOC services	1-Jul-09			\$70,500
Process to finalize SCLR POP hardware	18-Sep-08			
Cisco, Nortel, Ciena, Extreme, Juniper evaluated				
Juniper gear selected for POP hardware for:	10-Nov-08	\$448,477	\$149,492	\$42,264
Charlotte, Charleston, Columbia, Clemson nodes				
Total Costs		\$ 3,168,233	\$ 1,056,077	\$112,764

SOUTH CAROLINA LIGHT RAIL CONNECTIVITY GUIDELINES

(South Carolina Section 1. Title 59 of the 1976 Code, Chapter 151) "The South Carolina LightRail shall provide facilities-based advanced high performance communications infrastructure in support of the missions of the South Carolina academic institutions that are members of the South Carolina LightRail Consortium."

"The goal of the South Carolina LightRail Consortium is to promote collaboration among participating clinical, research, and educational institutions throughout the State, region, and nation to accomplish the objectives stated above.

The South Carolina LightRail (SCLR) consisting initially of The Medical University of South Carolina (MUSC), the University of South Carolina (USC), and Clemson University (Clemson) was created by the State of South Carolina to:

"interconnect their campuses and to connect to local, state, regional, national, and international networks."

"define and deploy the next level in advanced research networking within the State of South Carolina", and

"leverage private sector investments that will support economic development in the State of South Carolina."

MUSC, USC, and Clemson will leverage their networking and technology resources under SCLR in order to obtain highly-available, flexible, scalable connectivity to support their missions and answer the needs of their faculty, staff, and students.

The participation pricing structure will be based upon shared costs, equally divided among participants to include ongoing maintenance, expansion, and support of the network backbone and electronics, administrative support, Network Operations Center Support, and direct, redundant connectivity to regional, national, and international networks and providers located in Charlotte, NC and Atlanta, GA.

Members are individually responsible for membership fees toUCAID/Internet2.

The SCLR backbone contract, obtained with initial funding by the State of South Carolina (SC Solicitation 5400000052), was awarded to SCANA and consists of connection hubs located in Charleston, SC, Columbia, SC, Clemson, SC, Greenville, SC, and Charlotte, NC. The network is being designed to provide next-generation production services as well as a platform for the development of new networking ideas and protocols. With community control of the fundamental networking infrastructure, SCLR in coordination with its members, can provide the necessary scalability to efficiently provision resources to address not only the educational, administrative, and business needs, but also network and capacity intensive opportunities and requirements such as, collaborative applications, distributed research experiments, grid-based data analysis and social networking.

USE OF THE SCLR BACKBONE BY MEMBERS

The SCLR backbone will provide redundant connections between the three institutions and to regional, national, and international networks including Internet2, SOX, MCNC, NLR, and other ISPs. MUSC, USC, and Clemson will configure their networks to route IP traffic to, from and between their institutions in such a manner as to automatically divert traffic in the event of network interruptions or congestion and to provide access to real-time collaboration among the three institutions.

SCLR members each have Acceptable Use Policies in place for their current network resources and these policies shall be extended to include use of the SCLR backbone. SCLR members are individually responsible to adhere to all of the policies and procedures related to use of the SCLR backbone as amended by the State of South Carolina, and to ensure that access to the network is directly related to the mission of their institution.

Prior to allowing any commercial organization or entity access to the network, the member must ensure that:

(1) access to the network is limited to specified employees of these commercial organizations or entities who have direct involvement in one or more formal documented partnerships, and that;

(2) these employees cease to have access to the network once they are no longer directly involved in such a formal documented partnership.

SCLR does not have the means and will not monitor or judge the content of information transmitted via the Network but will investigate complaints of possible inappropriate use.