

REMARKS BY GEORGIA TECH PRESIDENT G. WAYNE CLOUGH  
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- History shows a clear pattern of development for information technology – a burst of entrepreneurial activity when a new technology is first introduced. Then a lull while the unsound and impractical ideas and companies are weeded out and the practical applications settle into the harness. And then massive economic growth, because as the technology is smoothed out and applied, it stops being a novelty for nerds and becomes economically compelling.
- We are presently in that sorting-out lull with the Internet, and we are about to hit the massive growth stage in which the next iteration of the Internet becomes economically compelling. Or as this week's *Forbes ASAP* puts it, "The tech revolution is about to get rebooted."
  - Several new technologies are on track to converge and create the Next Generation Internet, which will be much faster, more powerful, and capable of multiple real-time operations simultaneously.
  - You may have already heard the term "tera-bit computing" which means linking the processors of thousands of computers, enabling them to work in concert to process billions of instructions in a second.
  - Most major IT companies, from Microsoft and Hewlett-Packard, to Sun, Oracle, and IBM have initiatives in development for the Next Generation Internet.
- *Forbes* estimates that by the year 2020, the "great global grid" that will be created by the Next Generation Internet could be a \$20 trillion industry – twice the size of the present U.S. gross domestic product.
- The question is: Will the South be ready to take advantage of the tremendous economic opportunity the Next Generation Internet will provide? Or will we be looking around at other regions in four or five years to see what we missed and why our economy is once again lagging behind?
- If the answer is yes, we want to be ready, then the obvious place to begin is with the research universities of the region, because, as Presidents Lee and Steger have illustrated, we have a head start on building and using sophisticated IT networks.
- SURA is the rallying point for developing regional IT networks in the South.
  - SURA enables member universities to deal with vendors in bulk, reducing costs and opening doors for rural universities to participate.
  - Regional connectivity enables SURA universities to share information and data, and access each other's expertise and resources. It helps us make good use of our

regional research facilities like Jefferson Lab and Oak Ridge Lab, and keep in touch with the federal research community.

- Georgia's Skidaway Institute of Oceanography, which is a major marine research facility for the South, is developing a system of scientific sensors out in the ocean that stream real-time data to communications systems mounted on off-shore military towers. The question is, how to put all that data to use in this region, and you will hear more about that in a few minutes.
  - SURA provides regional coordination for Internet 2, for which Georgia Tech is a giga-pop provider for the South. Internet 2 is devoted to scientific research data, and it's about 600 times faster and more powerful than the regular Internet that you use. Internet 2 puts its member universities at the cutting edge of IT research and usage, and makes higher education an obvious drive for new IT and Internet applications.
- Thus, SURA is the obvious jumping-off point for using regional IT networks as a catalyst for economic development.
    - Think of the way growth crops up around the exits of an interstate highway. The exits – which are the major points of connectivity – attract gas stations, restaurants, motels, and businesses that need easy access, followed by residential developments for the workers at those businesses.
    - It works the same for the information super highway – the economic development of the future will crop up around major points of connectivity. Models that leverage regional IT networks for economic development are already being developed in California and in the upper Midwest around Chicago.
  - SURA wants to work with the Southern Governors to help this region develop the powerful IT networks that will make us a leader for the Next Generation Internet and will serve as tools to drive economic development and improve education from K-12 to lifelong learning.