Hearing on E-Rate 2.0: Connecting Every Child to the
Transformative Power of Technology
Senate Commerce Committee
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Good afternoon Chairman Rockefeller, Ranking Member Thune and Members of the Committee.

Our nation's children are in the fight of their lives.

In this globally connected world, our children aren't just competing against the kids down the street for a job, or a spot in college. They are competing with kids around the world.

To compete and succeed, our children need to have the latest technology in their hands and access to the world's libraries at their fingertips.

And this access shouldn't be limited to the privileged few, but to all kids -- whether in Silicon Valley, or Shepherdstown, or Sioux Falls.

And that's where the E-rate program comes in. E-rate is the foundation for internet access in public schools and libraries across America. Since its inception 15 years ago, E-rate has connected over 100,000 schools to the Internet – in all 50 states.

And the results from connecting schools have been nothing short of amazing.

After Hurricane Katrina, Cisco created the $80 million 21st Century Schools initiative to provide the latest networking technology in rebuilt schools on the Gulf Coast. In Jefferson Parish, Louisiana, 8th grade students' math test scores jumped by 16 percent between 2005 and 2009. Significant gains were also seen in English, Science, and Social Studies at all grade levels.

And when Mooresville School District in North Carolina invested in wireless networking, digital devices and digital textbooks as part of a turnaround program, individual students showed 20-40 percent improvement in reading, math and science test scores. The school district's ranking jumped by 13 points, and graduation rates increased by 22 points.

Similarly, video conferencing technologies allowed teachers in the Long Beach and Fresno school districts to share best practices in real time. The result: 2,000 additional students tested as proficient or advanced in math than the year before -- that's 2,000 lives changed through better education and better collaboration.

So the impact of E-rate has been significant.

But the simple truth is that technology has changed dramatically over the last 15 years, and the E-rate program needs to keep up with the times.

School networks need to be able handle increased traffic from digital books and video, video collaboration technologies, and a wide array of mobile devices like iPads and laptop computers.

Additionally, these networks should enable remote learning and remote network access - especially for rural areas, where graduation rates are less than the national average by almost 10 points and access to specialized instructors who can offer courses not available everywhere is extremely limited.

All this and more requires high-speed connections at speeds far greater than many schools and libraries offer today.

Furthermore, the traditional E-rate program primarily focused on providing a broadband Internet connection to a school, and secondarily on deploying a network within the school. This model is no longer sufficient.

We need to consider all aspects of a network – including broadband Internet access, individual school networks, and district-level wide area networks – when designing a structure for E-rate for the next 15 years. This is how medium and large businesses build networks to be cost effective and to meet their communications needs. School networks should operate on the same principles.

So policymakers should do three things to modernize the E-rate program.

- First, program funding levels have barely changed since 1998 while the bandwidth and networking needs of the schools have dramatically increased. Today, 80 percent of schools and libraries believe their broadband connections don't meet their current needs.

  In the early years of the program, the funding met the majority of the requests from applicant schools and libraries. In recent years, funding has only been available for about half of the requested amounts. Funding levels should meet the needs of more schools and students, not fewer.

- Second, minimum bandwidth requirements should be adopted, varying based on the size of a school, to ensure that all schools have both in-building and district-wide networks that are operationally capable of supporting modern education technology and devices. Just as our expectations for broadband have evolved, so too should the capacity of networks deployed in schools.

- Third, current E-rate rules -- which fund Internet connectivity first as "Priority 1" services and then send the leftovers to fund "Priority 2" networking inside the schools -- no longer make sense. Internet access is an important element of a network, but districts have to be able to access content on their own servers for distribution within the district. And that content is meaningless to teachers and students if it cannot be delivered via effective in-building and district-wide

networks. So the outdated distinction between Priority 1 and Priority 2 should be eliminated.

In summary, I believe that our nation's children are in a fight for their future in the context of a global connected world, rapid changes in technology and the digital divide. Our view is that investment in technology and an enhancement of the E-rate program will benefit our children and our country by creating a future where we are building a competitive workforce focused on innovation, competitiveness and job creation.

The bottom line is this: Modernizing the E-rate program is a critical investment in the future of our nation, and Cisco looks forward to working with this Committee, the FCC, and the schools to provide our children with the best education possible.

Thank you for your attention to this important matter today, and I look forward to answering your questions.