

# SNAP - School Network Amplification Platform



## BENEFITS

- Accelerates downloads of Internet content used for instruction, such as multimedia.
- Frees T-1 bandwidth to be used for critical Internet-connected applications.
- Saves valuable classroom time for teaching, not downloading.
- Speeds up routine downloads such as workstation updates.

*“The SNAP Server really delivers. Our website download speeds have increased tremendously. Every single user has noticed the difference.”*

- Scott Humberd, Technology Coordinator, Bradley County, TN



## The Challenge

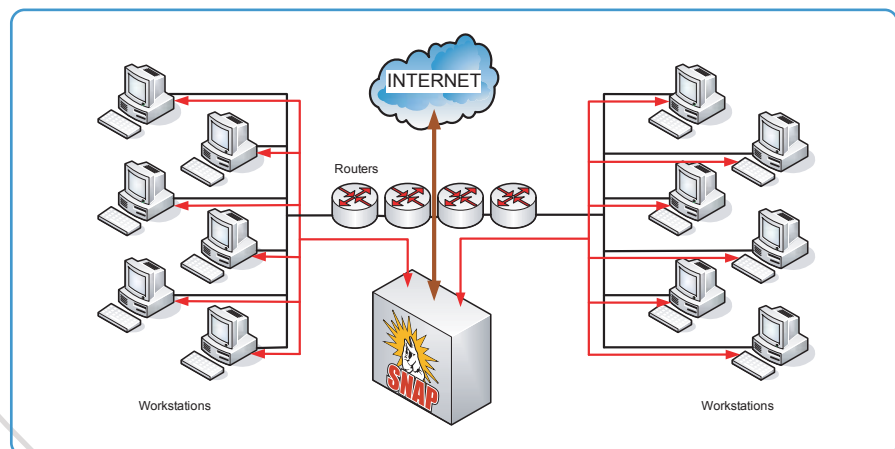
Any network with a large user population has a good chance of getting caught in a bottleneck when those users try to reach the information superhighway. When hundreds of even thousands of users browse the Internet at the same time, your Internet access may feel more like you're in an information slow lane.

## The Solution

ENA's School Network Amplification Platform – SNAP – speeds up that access and allows your network to function with optimal efficiency without requiring a broader bandwidth connection to the Internet. By temporarily storing commonly used Web sites and files (including video, sound, and large images) at a central location on your network, a process called caching, more than half of all Internet requests are answered within your local area network. Since most local area networks run at speeds equivalent to about 60 simultaneous T-1 lines, SNAP effectively doubles your Internet capacity and allows users to access information much faster than ever before.

For example, imagine a computer lab where the teacher has asked 30 students to each download and view a 90-second video that is 5 Mb in size. Even if those 30 students were the only users on the network, it would take a standard T-1 line more than 12 minutes to download the file to each computer (that's assuming the Web server hosting the file is able to handle all the simultaneous connections). Once the file is downloaded to each computer, it is stored in the computer's cache and can be recalled quickly. However, since the cache is at the individual computer instead of the network level, it will still take much of the period to get the file onto each computer.

**The SNAP solution can virtually double standard T-1 speeds and increase the availability of Internet content in the classroom.**



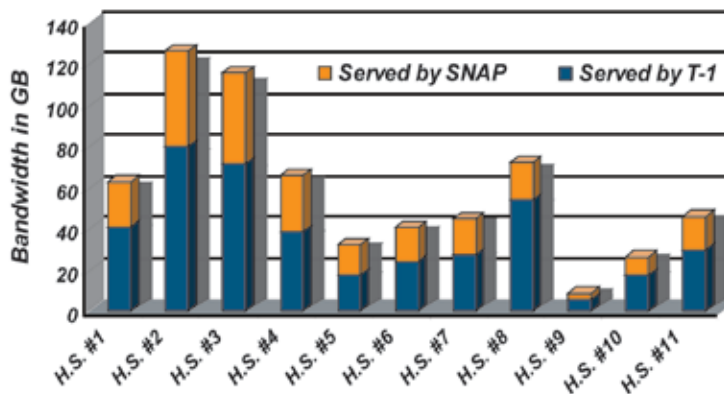
By using SNAP to “clear the pipe” of those simultaneous downloads of multimedia and Web traffic, the school district is able to make better use of applications that require real-time connections such as Web-based student information systems of Voice over Internet Protocol (VoIP). In addition to bandwidth savings, SNAP maximizes the effectiveness of your existing network infrastructure by helping to deliver bandwidth to the applications that need it most. When used in conjunction with ENA’s Quality of Service (QoS) service, individual Internet activities can be prioritized above other Internet traffic to a finer degree of effectiveness.

Jimmy Anderson, technical coordinator for Alamo Special School District, in Alamo, Tenn., immediately noticed the benefit of the SNAP system when he was performing one of his regular responsibilities: running Windows Update on PC workstations. Anderson’s first update was a 10 Mb download, which took approximately three minutes over a T-1 line. The update on the second workstation was a completely different story. “It only took as long as it takes for me to speak this sentence – it just flew across the screen,” Anderson said. “And all the rest of the machines zipped right on through too. It saved me a ton of time.”

SNAP is currently implemented in more than 200 sites across ENA-managed networks. Maximize the effectiveness of your network and implement SNAP today and let ENA help you accelerate your downloads to 66 times faster than T-1 speeds.

*The SNAP solution can increase standard T1 speeds by 25 times and dramatically increase the ability of Internet content for classroom instruction.*

### Real World SNAP Example All High Schools in One TN District



An actual school district using SNAP servers in ten different schools. The graph compares the amount of content downloaded from the Internet versus content downloaded to the school from the SNAP server at 66 times the speed of the school's T-1 connection.

#### About ENA, Inc.

ENA provides managed network and technology solutions for school systems, libraries, and governments. ENA was founded with a vision to provide technology solutions that make reaching and using valuable information as easy and reliable as turning on the lights. Since 1996, we have established a reputation as experts in the design, deployment, and operation of broadly distributed networks. ENA created the first statewide K-12 network in the United States, connecting all schools and school districts in the state of Tennessee, making Tennessee a model for the nation. Today, customers know ENA as a reliable partner with expert knowledge in Internet connectivity, value-added customized services, E-Rate and other funding sources. Our solutions reflect years of experience in helping our customers radiate success through technology.



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