

TTIG Pilot Project Case Study: The Education Gateway Delivers a More Useful Internet

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The Challenge: The Internet is an Untapped Resource in Texas Classrooms

A huge benefit and time saver occurs in the condensing of sites in the "package" format. The toolbar approach has offered an easy-to-understand set of teaching tools and adds huge value to the infrastructure that is already in place at all Cuero schools.

—Assistant
Superintendent of
Curriculum and
Technology,
Cuero Independent
School District

The Texas General Services Commission (GSC) identified a need to provide a new suite of services to better serve the public education sector, healthcare entities, and local communities in Texas. In order to fulfill the educational component of this initiative, GSC turned to Education Networks of America, one of the providers of GSC's TEX-AN 2000 service. The long-term goal of the pilot project was to gain support that will lead the statewide deployment of over 50 common infrastructure nodes.

Schools involved in the pilot were located in the Austin Independent School District (AISD), Burnet Consolidated Independent School District (BCISD), Cuero Independent School District (CISD), and El Paso Independent School District (EPISD). The pilot schools included both urban and rural schools, with a range of technical architectures. Pilot schools were selected to demonstrate the ability to provide the services to rural and under-served communities.

The schools had 3,138 computers for 800 teachers and 10,116 students. All users were given unprecedented online applications and community tools, while maintaining local control, decision-making, and customization of services on a community-by-community basis.

The Solution: The Education Gateway Improves Internet Use in Classroom

Leveraging its experience as an Internet, application, integration, and managed services provider to the K-12 education market, ENA designed solutions that complemented the rest of the pilot project, including the following efforts:

- Provide **design and engineering support** throughout the lifecycle of the pilot.
- Provide **personnel and technical support** to the consolidated help desk function operated by Southwestern Bell.

After studying the schools' technology architecture and technical requirements, ENA built service platforms at strategic points within the schools' network infrastructures. Each service platform was placed in a different setting (regional, district, or campus) to verify the flexibility of the Education Gateway solution. Each service platform delivered a suite of services targeted to the schools' needs, including the following services:

- **Education Gateway** – The delivery mechanism for ENA's integrated content solution is the Education Gateway, a browser-based toolbar that is always available and always on.
- **Internet Caching** – In order to support the anticipated increase in Internet usage, ENA implemented edge caching to bring content closer to users' browsers, increasing network speed and reliability.
- **Filtering** – Objectionable content was blocked from children through ENA's filtering systems. Though not included in this project, school administrators can be assured that their systems allow authorized bypass by supervising adults in order to ensure First Amendment protection.
- **Firewall Security** – Firewall security was implemented in each service platform to ensure that schools' networks remained secure and student information remained private.

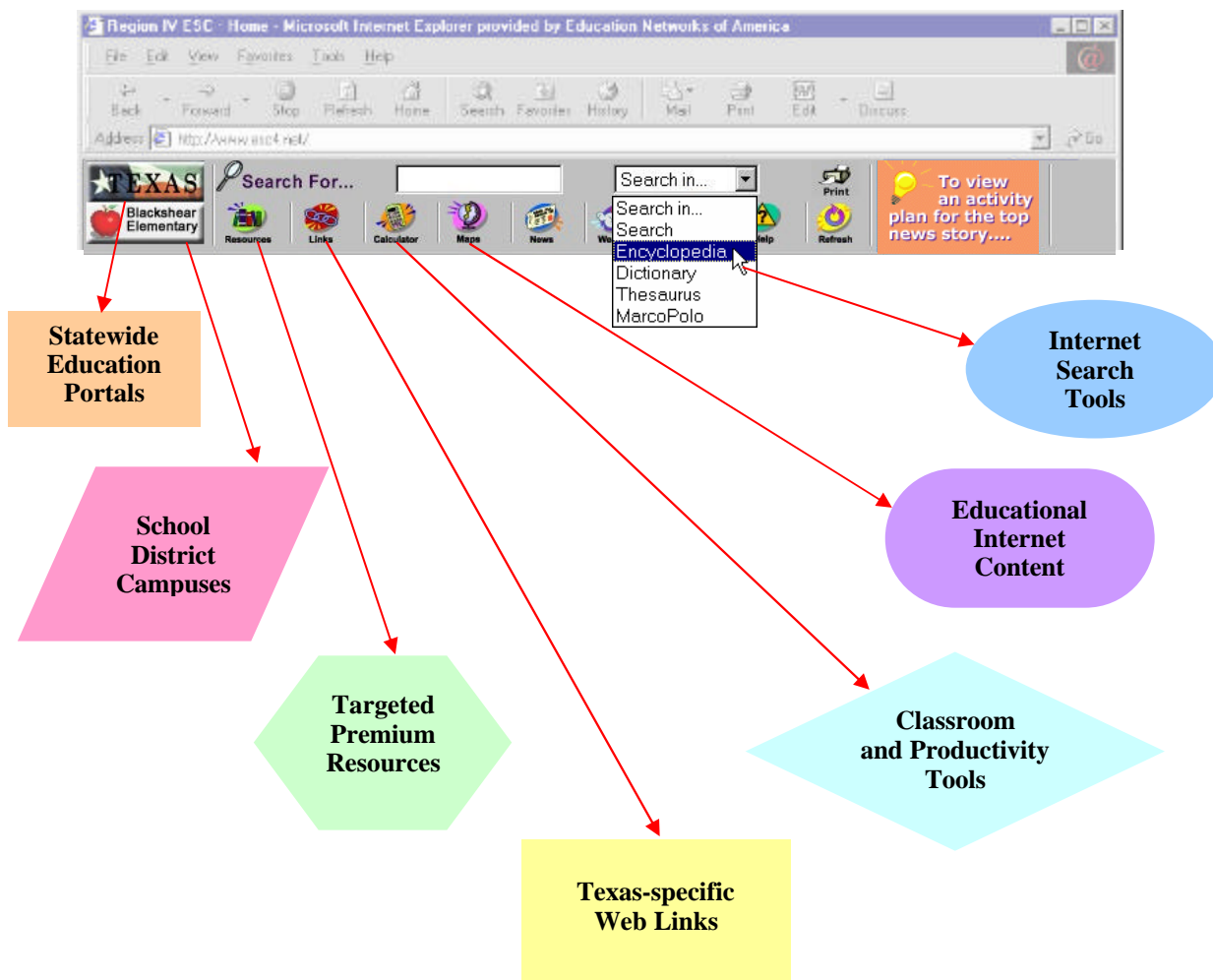
I use the toolbar as a safe, educational resource to let my kids get on the Internet to do research. I know I can let them go and not worry that they are getting into something unacceptable. The toolbar has been invaluable to assist the Spanish-speaking kids use the ESL games to start learning vocabulary.

—Teacher,
Blackshear
Elementary,
Austin Independent
School District

- **Customer Support**— ENA provided user support throughout the pilot project in several ways, including kickoff sessions, online tutorials, site training, online help, and help-desk support.

For the teachers and students in the pilot schools, the services provided by ENA appeared in their Internet browsers as the Education Gateway toolbar. The Education Gateway toolbar delivers customized content, applications, and productivity tools.

The following illustration shows a typical toolbar in the pilot project and the content it delivered:



Results: The Education Gateway Improves Instructional Relevance

As part of the Texas Telecommunications Infrastructure Gateway pilot project, the Texas Education gateway toolbar was measured to be a success in the following areas:

I really LIKE this toolbar. I have found many instructional sites that will benefit students and teachers! I want to share all of this with our teachers here at Shady Grove! I feel that you have given me a tool that my teachers are really going to access and benefit from!

—Computer Lab
Teacher,
Shady Grove
Elementary School,
Burnet Independent
School District

- The Texas Education Gateway toolbar **increased Internet use** (by 100% at two of the sites) due to the toolbar's availability, ease of use, and exceptional content for integrating technology into classroom instruction.
- Edge caching maximized existing bandwidth, allowing Internet use to increase without increasing Internet cost. Because **network speeds increased** by as much as 75%, educational subscribers did not need to purchase additional bandwidth.
- A **standard delivery platform** increased the usability and success of existing and new statewide education initiatives.
- The familiar design and ease-of-use **increased user acceptance**. Almost 70% of teachers stated that they would recommend the toolbar to their peers.

ENA services and the Education Gateway toolbar provide statewide, standardized infrastructure and application platforms that benefit all users by controlling costs through more efficient use of existing equipment, infrastructure, and other resources. **Cost of ownership decreases, while user productivity increases.**

