



Mission-Critical, Vision Essential

Virtually every organization faces increasing challenges managing information resources today. However, the sheer volume of information, applications and systems at work within a building the size of the Pentagon and an organization the size of the Department of Defense is staggering. Add to this the truly critical nature of the network's mission and rapid access and vault-tight security are absolutely vital.

As the Pentagon's massive network grew and evolved, numerous applications had been developed to administer the network and manage its day-to-day operations. The applications had to run simultaneously, requiring cluttered and often multiple screens. To manage this increasingly complex network, the administrators needed the ability to sort, sift and securely present all, and only, the information necessary for each specific task. To achieve this goal, prime contractor Lockheed Martin called in network management and data visualization specialist Edge Technologies.

The Pentagon faced challenges that confront nearly all legacy networks. Effective management requires running numerous web-based applications simultaneously. This not only consumes and clutters valuable screen real estate, it also requires the user to login several different times and remember several different sets of credentials and web addresses. With each new application, the network had become increasingly difficult to manage. In addition, the customer required authentication (CAC/SecurID/LDAP), load balancing/failover, security, and custom integrations.

Further complicating matters, many management applications aren't inherently secure, and securing all of these applications can require considerable configuration. Opening up the firewall for each of these applications creates potential security vulnerabilities and makes the firewall harder to manage. What's more, provisioning access controls to these applications for each user or user group is time consuming and difficult to maintain.

To resolve these issues, the customer had a wish list of features for the solution. First, they wanted their applications (i.e., Netcool Suite, Remedy, etc.) integrated onto a highly secure yet easy-to-use single-sign-on (SSO), single-sign-out (SSX) desktop. In addition, the customer wanted a customizable look and feel (LAF), login pages, session extension, automated password reset, floating of channels/views (launching in a separate window), and custom integrations. And the solution needed to provide more than 1000 administrators with exceptional performance, high availability and integrated application round-robin/failover across multiple physical sites.



Helping the Pentagon Take Command and Control of its Network

In 1992, the Pentagon was designated a National Historic Landmark and had never undergone a major renovation. The Pentagon Renovation & Construction Program Office's (PENREN's) activities began in 1993 in a historic effort to modernize six-and-a-half million square feet within the 65-year-old structure. PENREN rebuilt the Pentagon after the terrorist attack on September 11, 2001. Today, the PENREN project is nearly 70% complete.

PENREN's stated mission is to provide the Pentagon with optimum facilities and information technology through renovation, construction and modernization. Just as the Pentagon's physical infrastructure had become a massive maze of modern and legacy structures and supporting systems, so had its information network.



Off-the-shelf Simplicity, Custom-made Success

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The Pentagon's requirements were ideally suited to a hybrid custom/COS solution based on Edge's integration workhorse, enPortal. Edge Technologies' enPortal is the industry's leading secure, single sign-on network management integration portal. A distinct advantage of enPortal is extremely rapid deployment made possible by enPortal's prepackaged Product Integration Modules (PIMs). enPortal PIMs provide plug-and-play integration of products from CA eHealth, Hewlett-Packard, InfoVista, Micromuse, Remedy and more. At enPortal's core is Edge's innovative, patented Web Content Retrieval Technology. This intuitive software engine collects and consolidates information from the network's existing management tools and applications. enPortal aggregates this information and presents it to the user through a highly customizable dashboard. enPortal also provides access to all underlying information through a single sign-on.

SSO, customizable LAF and login pages, the interface to develop custom integrations, and the API to write custom authenticators are all base features of enPortal. Using enPortal technology as the core of the solution, the Edge team then developed a number of enhancements tailored to the Pentagon's unique environment. To solve the access to the server consoles, Edge integrated Sun Secure Global Desktop into enPortal. For the LDAP/SecurID/CAC authentication, Edge developed custom authenticators, as well as SSX to logout users from back-end applications upon logging out of enPortal.

To achieve the Pentagon's reliability objectives, Edge developed a round-robin/failover module to spread web traffic across multiple back-end web servers and to failover, if necessary. Edge also combined the natural progression of integrated/ utilized technologies (e.g., Java, Apache Web Server, Apache Tomcat JSP Server, Oracle Instant Client) with a series of enPortal enhancements for added stability and performance.

Results

Using enPortal as the cornerstone of a comprehensive Network Management strategy, Edge was able to quickly and securely help the Pentagon:

- ▼ **Reduce Complexity.** enPortal eliminates the need for multiple consoles, providing access to a variety of applications through a single screen.
- ▼ **Enhance Security.** enPortal organizes and focuses access to underlying applications, managing access through a single, closely controlled login point.
- ▼ **Maximize Performance.** enPortal's ability to consolidate pertinent information onto a single pane of glass provides the clarity needed to identify and resolve issues more quickly.
- ▼ **Save Time and Money.** enPortal's Rapid Deployment eliminates the "heavy lifting" and maintenance inherent to in-house integration.

Ensuring its network is operating at peak efficiency is vital to facilitating better, faster decision-making. Edge Technologies empowers the Pentagon's network management team to do precisely that, quickly, securely and comprehensively.

About Edge

Edge Technologies specializes in managing the way people view, share, engage, and secure information. Businesses and government agencies rely on Edge COTS and custom solutions to align their content with their mission.

Edge Technologies is focused on core practices in Data Visualization, Information Integration, and Flex Consulting. Edge products and services empower your internal staff to accelerate the accomplishment of mission objectives, and to achieve a greater return on IT investment.

Since 1993, Edge has been providing leading-edge products and services to many of the world's most sophisticated network infrastructures. In fact, Edge's core management and technical team developed such groundbreaking solutions and products as N-Vision™, enPortal™, and AppBoard™.



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