New WAN Dramatically Slashes Cost, Adds Speed and Security

Company Profile

ERS is a leading provider of integrated communications and information solutions with over 50 years of experience in meeting the mission-critical requirements of public safety, public service, government and enterprise customers in Northeast and Central Indiana. ERS has over 100 employees spread throughout 6 offices.

Situation

ERS' offices were connected via Frame Relay, ranging from T1s at the major sites to 56K digital leased lines at smaller sites. The problem is, today's apps require more bandwidth than the current Frame Relay setup could handle without adding a lot of recurring monthly costs for higher circuit speeds. Plus, ERS was already paying thousands of dollars a month for a managed solution where the provider would monitor, install and configure the routers.

ERS determined that it needed to control costs, yet ensure the stability and redundancy of its system.

Bottom line, ERS needed a solution that would scale to carry voice, offer cost effective redundancy, increase link speeds, and reduce monthly recurring costs.

Solution

A solution was engineered by the ERS Data Solutions Group utilizing Cisco routers built for DMVPN (Dynamic Multipoint Virtual Private Network) using IPSEC\GRE tunnels. During implementation, the Frame Relay network was used to provide redundancy. This technology allows each site that has traffic destined for another branch office to dynamically build a VPN to the network avoiding congestion at the main VPN hub site.

The solution included DMVPN capable routers with static connections from each remote site, as well as the capability to build tunnels to the other remotes. 2800 series CCME (Cisco Call Manager Express) routers were used at each site to allow for the future addition of VoIP to each location.

Results

"Our savings with the WAN are huge!" says Brian Hull, General Manager Emergency Radio Service Inc. While using Frame Relay, ERS paid thousands of dollars per month for a very slow speed WAN. After implementation of the "New WAN', ERS realized an 80% reduction in costs as compared to the previous WAN using frame-relay. The upgrade also increased branch office data rates by a minimum of 20 times, which greatly improves employee productivity.

The new WAN delivers in other areas as well; "As ERS continues to grow and develop, adding new applications for remote users, and branch offices will not be a major undertaking," says Hull. It has also made acquisitions much easier. "As long as they have a high-speed Internet link, we can configure a router for whatever type of link they have, and connect the new office in a matter of days rather than weeks, as typically experienced with telecom providers.