



▶ Passaic Valley Sewerage Commission Chooses Emtec® to Upgrade Troublesome Network

"This was the most efficient migration I have ever been involved with, in terms of both software and hardware. In every way, it was smooth as silk and I was extremely impressed with the performance of the Emtec team."

— William Sonnema, Manager of Administrative Data Processing

Company:

Established in 1902, the Passaic Valley Sewerage Commission (PVSC) is one of the oldest and largest wastewater treatment facilities in the United States. The Commission is responsible for protecting the Passaic River and its tributaries in a 100-square-mile area of Northern New Jersey from water pollution. This is no easy task, since this region is comprised of 47 municipalities with about 1.5 million residents and over 5,000 commercial and industrial users. The PVSC owns about 25 miles of intercepting sewers ranging from 3.5 to 13 feet in diameter, and handles an inflow of about 330 million gallons a day, or about a quarter of the total wastewater generated in all of New Jersey.

Problem:

The PVSC had an outdated ATM system handling administrative functions — including finance, human resources, and industrial monitoring control which determines the flow, rates and charges for industrial users. This network was highly complex, difficult to support and manage, and lacked redundancy. The Commission decided to convert its campus site adjacent to Newark International Airport from the existing ATM infrastructure backbone to one based on Gigabit Ethernet.

Solution:

The PVSC asked Emtec to guide them in the design and implementation of the new network structure. Emtec held a number of meetings with the appropriate PVSC team, headed by William Sonnema, Manager of Administrative Data Processing. Spearheading the Emtec effort as lead engineer was Richard Kelsten. The joint team decided to create a new

managed network with a redundant core infrastructure using Cisco Systems products. The core consists of a Catalyst 6509 chassis with redundant power, redundant Supervisor engines and integrated

MSFC2 routers. These components provide redundant Gigabit Ethernet links over private fiber to Catalyst 4006 and Catalyst 3500 series switches throughout the plant's three building MDFs and 16 IDF. To capitalize on having only a single location to monitor, configure and control the network, Emtec installed CiscoWorks 2000 for a centralized management platform.

Results:

Through a series of migration steps, a multiple sub-netted, single broadcast domain network was transformed into a fully fault-tolerant, multi-VLAN environment.

With new redundancy, the system can now survive any single point of failure. In addition, PVSC staff can view and manage the entire network much more easily, monitoring its "health" at any point. In addition, they can repair any failures in a fraction of the time it took previously.

What most pleased PVSC was that the new network was built in parallel with the old in a step-by-step migration, so if any problem were to arise, they could quickly revert to the old system, completely eliminating the possibility of costly and disruptive downtime. Fortunately, no problems did arise during implementation.

About Emtec: Established in 1964, Emtec, Inc. is a systems integrator that provides IT services and products to the federal, state, local, education and commercial markets. Our market leading value-based management methods, coupled with best-in-class IT technology, consulting and development services, address a wide range of specific client needs, as well as support broader IT transformation initiatives. Emtec's service capabilities span the United States, Canada and countries around the globe.