

Case Study: Data Network Review & Redesign

Client: Industry-Leading Pharmacy Services Provider

Needs: Improved Data Network Cost Efficiency

Situational Analysis:

Our Client's network standards for their smaller facilities required the costly use of primary 4xT-1 bonded circuit (4MB Port) and secondary/backup 2xT-1 bonded circuit (2MB Port) per facility. Circuits were to be carrier diverse with a primary carrier service and a secondary/backup carrier service. Client brought in OptiCOMM to assess the situation. A Data Network Review would first be initiated, and Redesign recommendations for improvements would follow.

Findings:

OptiCOMM completed a review of the data network design and conducted network usage tests and bandwidth analysis. The results revealed that the primary circuit bandwidth was adequate for current normal operations. However, the secondary/backup circuits were posing a significant cost, and were rarely utilized. The Client's internal management agreed that these smaller facilities could operate, if necessary, with reduced connectivity (50%) during an outage.

Solutions:

OptiCOMM Engineers proposed a network redesign that reduced overall circuit count by load balancing traffic between the two diverse carriers. The existing network design was reconfigured to utilize a load-balanced pair of 2xT-1 circuits (2MB Port) at each site. During normal operation, the bandwidth for the facility would be equivalent to the current design (4xT-1). In failover conditions, the bandwidth would also be equivalent (2xT-1). This network redesign would save significant costs to the Client.

OptiCOMM confirmed with the Carrier Account Team that individual T-1 components could be removed from the bonded 4xT-1 circuits at each facility.

It was also confirmed that the existing Cisco 3600 routers would support load-balancing, and that the client's engineering staff had the expertise to make the configuration changes.

Overall Impact:

- ▲ Data Network Redesign achieved full optimization and cost reduction.
- ▲ Client's network is now operating at greater efficiency with the new load-balanced traffic, reduced circuit quantity, and at lower costs for the smaller facilities.
- ▲ **Annual savings to our Client: \$3.0 million**