



## **Federal Level Staff Augmentation and Network Design and Validation Project Summary**

### **The challenge**

Chesapeake NetCraftsmen was engaged by a large government Technology Services Division to provide additional support to professional staff in its Data Network Engineering Sub-Division. Their network comprised approximately 150 Local Area Networks (LANs) and 400+ Wide Area Networks (WANs).

All LANs are segmented by the use of Virtual Local Area Networks (VLANs) over a Fast Ethernet Channel and Gigabit Ethernet backbone. The WAN is a Frame Relay network comprised of fractional T1 circuits. Systems supported consist of Cisco Network Registrar (CNR), Bind Domain Name Servers (DNS), Security Dynamics ACE server and HP OpenView Network Node Manager system. All systems are structured on a SUN Solaris platform.

In September 2001, the Engineering and Management Branch (EMB) completed most of the migration of the Fiber Network and common services to the new Switched Network (SN) and started the testing of the SN Core Gigabit switches.

### **The Chesapeake NetCraftsmen solution**

Our company provided individuals to monitor, complete and write weekly status reports for the following tasks:

- Assessment, Planning and Configuration for the Alteon and Cache Flow subsystem supporting the in-house servers, including performance analysis, discovery of interoperability issues and the making of subsystem re-design recommendations
- Reviewing Campus VLAN system design with a primary focus on the Internet Switch to provide redundancy and a new interface design on the Cisco PIXs
- System analysis, validation and recommendations regarding the SN PIX subsystem re-design to improve performance, which included performance analysis and pinpointing any interoperability issues
- Upgrading and optimizing VLAN/WAN; planning for migration, optimal and efficient use of bandwidth, and security considerations (e.g. VPN, Gigabit distribution, DSL and Satellite)

### **The results**

As a result of Chesapeake NetCraftsmen's diligent attention to detail and exemplary work ethic, the client's network now runs much quicker, there is greater system redundancy, newer technologies and applications now have a suitable platform on which to run, and their legacy applications run faster and with greater stability and accuracy. Because the new network design is easier to troubleshoot, the client may now spend more time thinking about how to expand and further improve the network rather than putting out fires. The new network is also far more secure and better positioned to take advantage of future technologies and expected growth.