



## Federal Design, Implementation and Staff Augmentation Project

### The challenge

Chesapeake NetCraftsmen was engaged by a large government Network Operations Division to provide additional support to professional staff in its Network Operations Section (NOD). The Network Operations Division is responsible for the installation, maintenance, troubleshooting and security of all data communication networks and systems.

The 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.

### The Chesapeake NetCraftsmen solution

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

- Router and Hub Upgrade. We worked with a senior Operations Specialist in upgrading Cisco 2500 series routers and Cabletron hubs to the selected Cisco 1750 router and Cisco 1900 Switch, on coordinating a schedule, configuring all new routers and switches, testing all new equipment, documentation, shipping of old and new equipment and providing phone support to the installation technician
- Development and Maintenance of an ACL and Firewall Syslog System. There are approximately 600+ ACL's, with 35+ statements each, maintained by NOD. Chesapeake NetCraftsmen aided in the development and all daily maintenance of the systems, immediate reporting of security violations, as well as providing written operational procedures
- Provide Tier 3 Support for Operations Specialist. The assigned Chesapeake NetCraftsmen CCIE assisted other Network Engineers and Operations Specialists in troubleshooting and solving complex network issues, and provided knowledge transfer and training for the newly implemented technologies
- Support for new gigabit Ethernet backbone. We assisted the Network Engineers and Network Operations Specialists in upgrading their switched network to a higher core/backbone capacity to handle the growth in traffic for common services and the planned growth in IP Multicast applications. Chesapeake NetCraftsmen provided design validation, configurations, in-lab testing, transition to production operation, and monitoring of the process

- Support for IP Multicast. The client had performed limited testing on applications that rely on large-scale IP Multicast network capability and had decided to ramp these applications to a production status. We assisted the Network Engineers and Operations Specialists with this, and provided design validation, in-lab testing, transition to production operation and monitoring

### **The results**

Thanks to Chesapeake NetCraftsmen's diligent attention to detail and exemplary work ethic, the client's network now runs faster, and their applications run faster and with greater stability/accuracy. Their employees can also now perform a greater number of tasks in less time, with greater accuracy and less frustration. Their network is also far more secure and better positioned to take advantage of future technologies and expected growth.