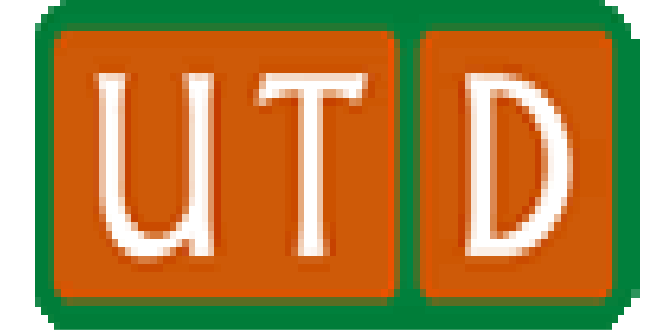


Design of a VoIP System Over SONET

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Project Goals:

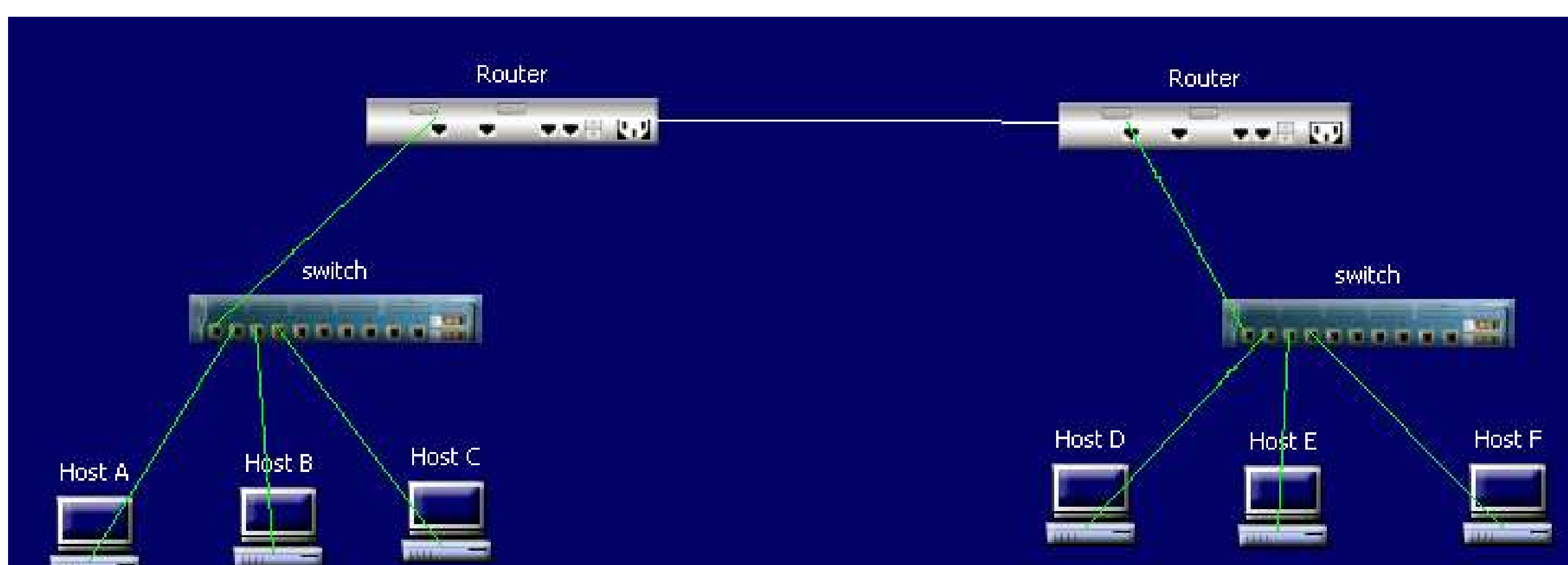
- ◆ Design and configure two remote LAN's
- ◆ Connect the LANs with Fiber Optics (SONET) link
- ◆ Install a VoIP system across the interconnected LAN's

Project Results:

- ◆ We successfully configured Ethernet for remote LAN's
- ◆ Each PC functioned appropriately and could communicate with all others on the LAN
- ◆ The remote LANs were communicating effectively over the OC-48 and OC-3
- ◆ Calls were completed between LANs using VoIP
- ◆ One on one calls, conference calls, call waiting, caller ID, and voice mail worked properly

Project Overview:

- ◆ Each remote LAN's are constructed using Ethernet technology
- ◆ The two LANS are connected using Cisco routers with Packet (IP) over SONET interfaces
- ◆ The Physical Fiber connections will be of OC-48, and an OC-3 is used as a backup
- ◆ The VoIP server is a Linux based Asterisk software on a PC
- ◆ X-Lite soft phone are used on each PC for sending and receiving VoIP calls



Project Conclusions/Outcomes:

- ◆ In the end everything planned worked as expected
- ◆ Initial configurations needed to be repeatedly reset, each week due to the equipment being available to multiple groups
- ◆ Due to this we have learned a lot about troubleshooting routers, switches and accessories
- ◆ As well as quickly and efficiently resolving issues