

Networking & Telecommunications at ORNL

Mike Turpin -- RAMS Workshop

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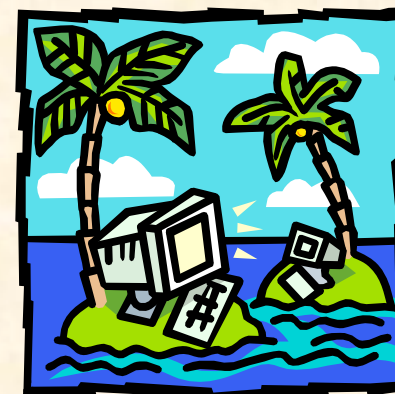
Why am I here?

I want encourage students to consider technical work opportunities in the area of networking and telecommunications.



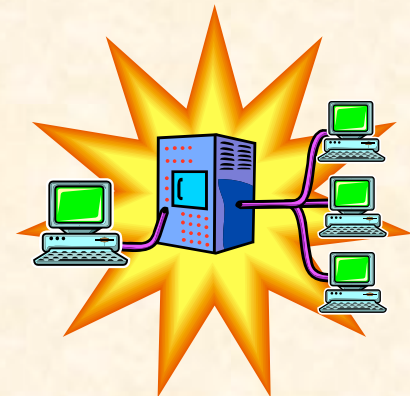
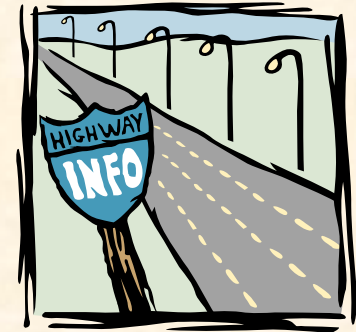
Networking & Telecommunications Infrastructure Supports Research

- **Over 400 LAN segments**
- **Over 15,000 network devices**
- **Over 2,000 Wireless/mobile devices**
- **12,600 Mbps of external connectivity**
- **Remote access technologies**



Types of projects we're working on:

- **Implementation of FutureNet – DWDM-based network that will deliver 40Gbps of connectivity between Oak Ridge, Chicago, Atlanta, and other destinations.**
- **Building networks to support data acquisition for the Spallation Neutron Source.**
- **Building networks to interconnect ORNL supercomputers with the rest of ORNL and the outside world.**



Types of projects we're working on: (continued)

- **Rollout and improvement of ubiquitous, secure, multipurpose wireless LAN infrastructure to support staff and visitors.**
- **Network consulting for Sensornet project**
- **Operation of ORNL LAN/WAN infrastructure.**

Types of students we're looking for:

- **Electrical/Electronic Engineering**
- **Computer Science/Engineering**

Useful knowledge/attributes

- **Basic knowledge & experience in computer networking**
- **Interest in applying technology to solve problems**
- **Fortitude to dig out answers**
- **Personal responsibility**