

Network Operations at Sandia National Laboratories: Overview for AWE

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Our information environment is highly capable, but also diverse and complex

Average 24x7 network availability:

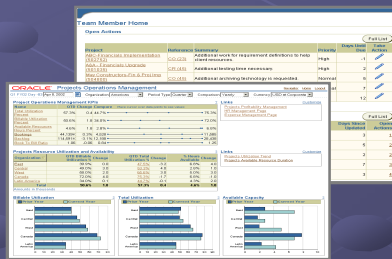
- Open network 99.98%
- Restricted network 99.96%
- Classified network 99.96%



- 2900+ SON machines
- 26,000+ SRN machines
- 3,800+ SCN machines
- 1100+ standalone classified machines

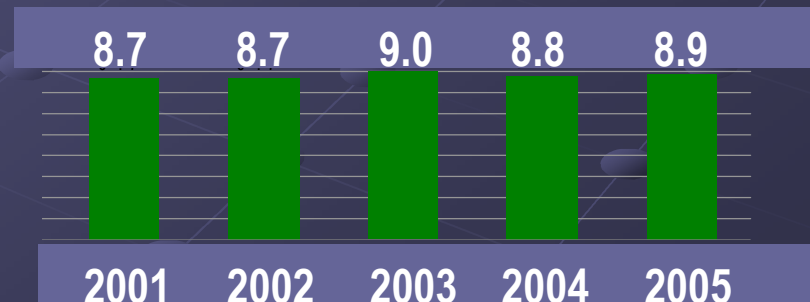


Robust enterprise web-based applications and ERP systems



World-Class capacity computing systems and enterprise servers

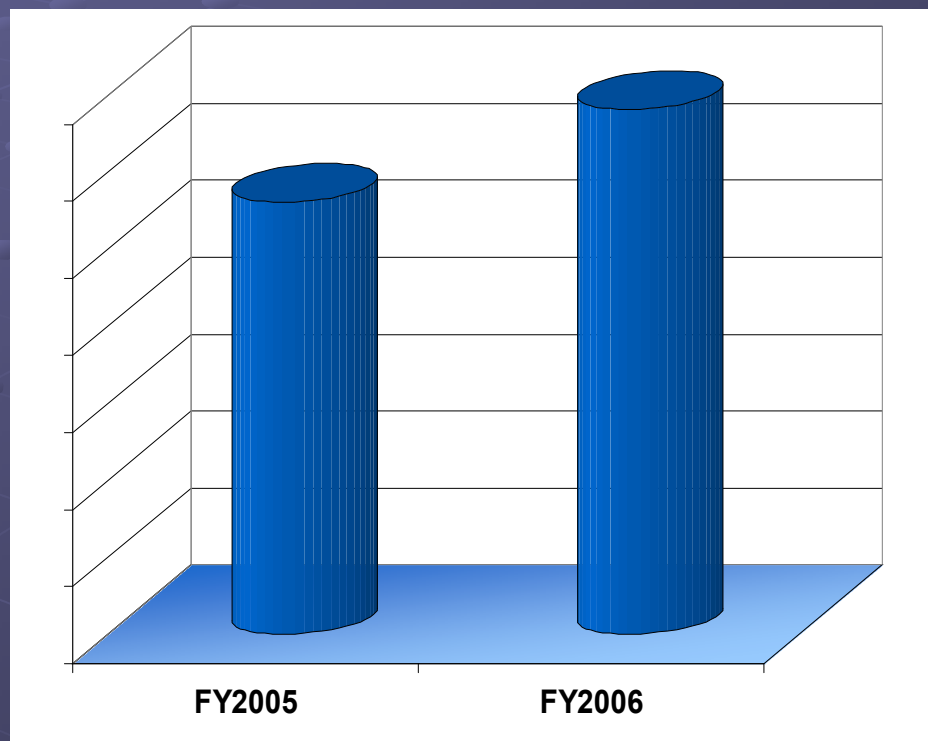
CSU Customer Satisfaction



A Few Critical Statistics

- **19000+ active registered users**
 - 9000+ employees and students
 - 8000+ contractors
 - 2000+ visitors
- **High speed connections**
 - 3000 connections at 1 Gb/s; capacity for another 3000
 - 700 connections at 10 Gb/s
- **Millions of Email a month**
 - 9 Million+ internally
 - 3 Million+ in/out from the Internet
- **Thousands using real-time collaboration tools**
 - 3800+ Instant message users
 - 200+ SharePoint sites

Users on our Classified Network

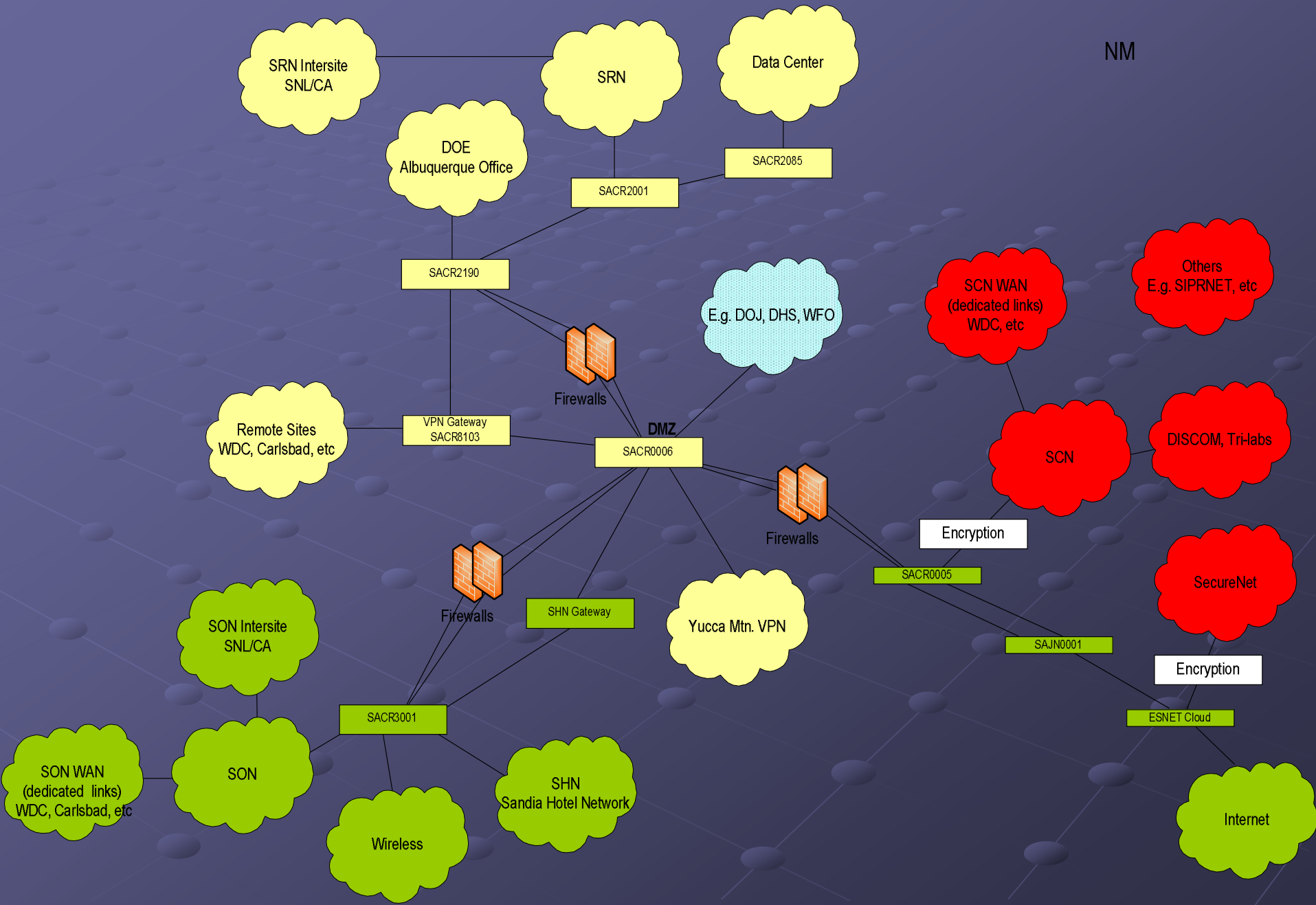


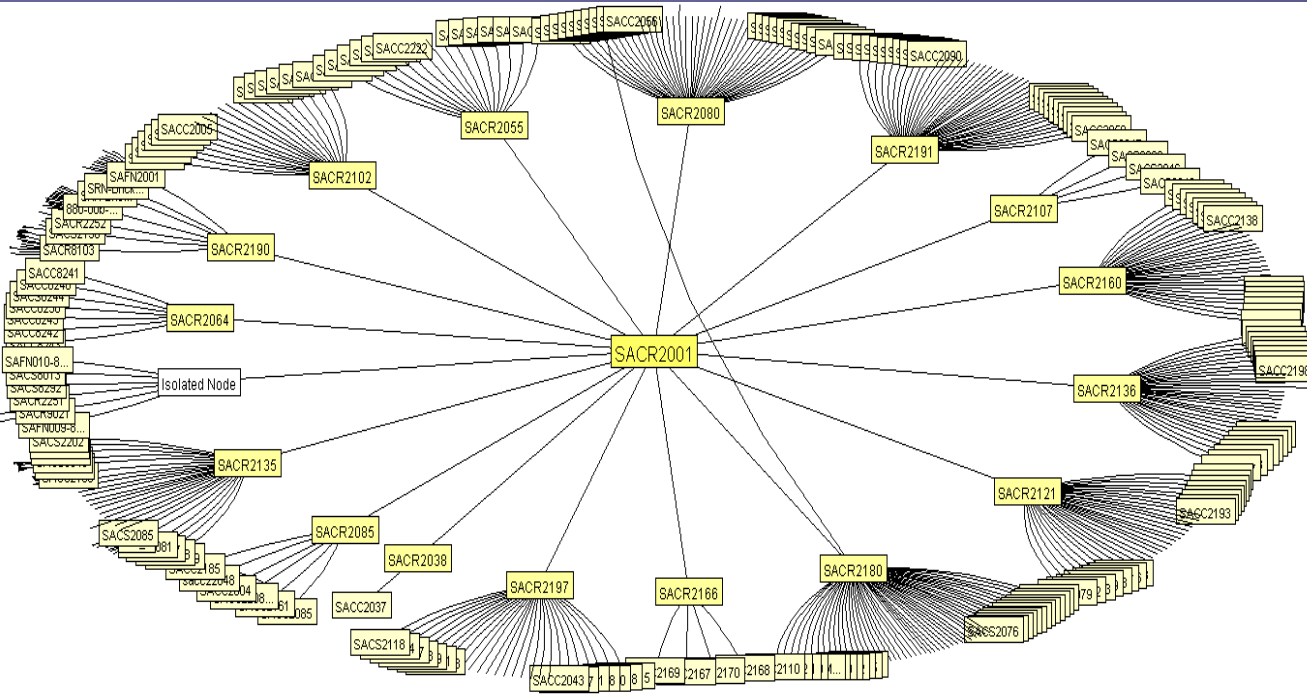
>21% growth in users



Sandia
National
Laboratories

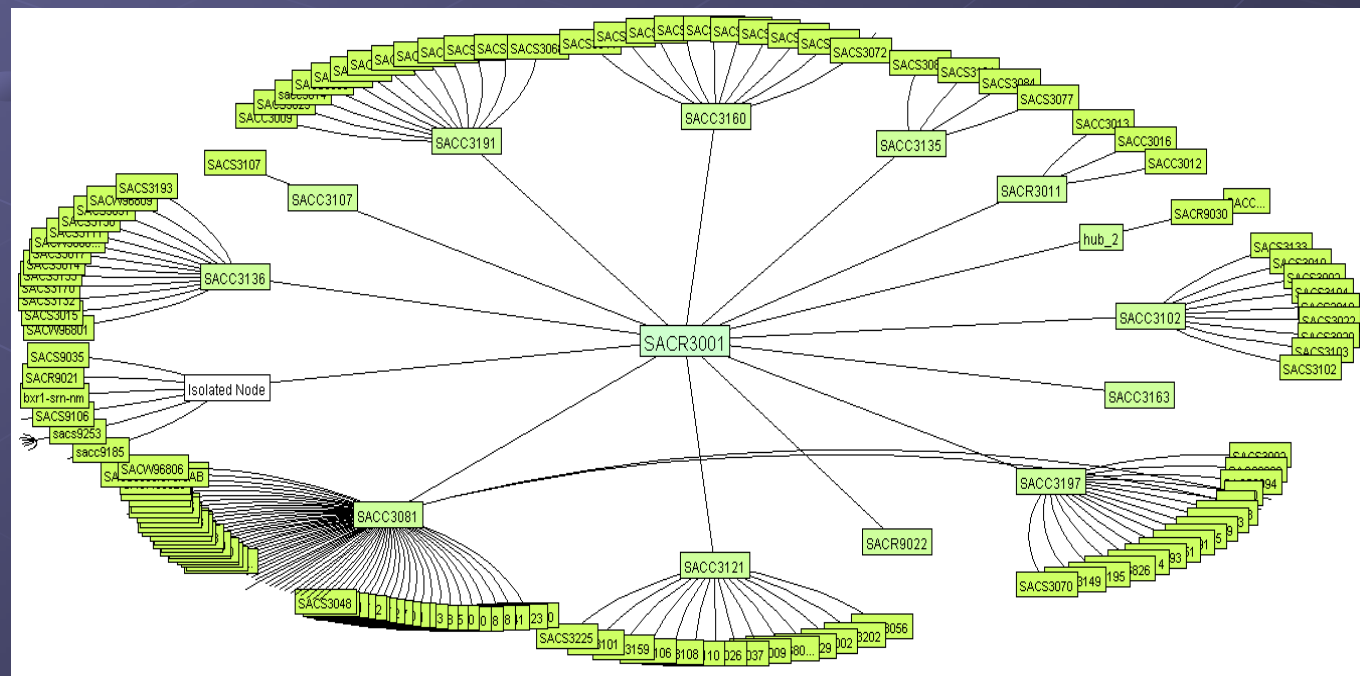
Sandia's Network Environments Overview



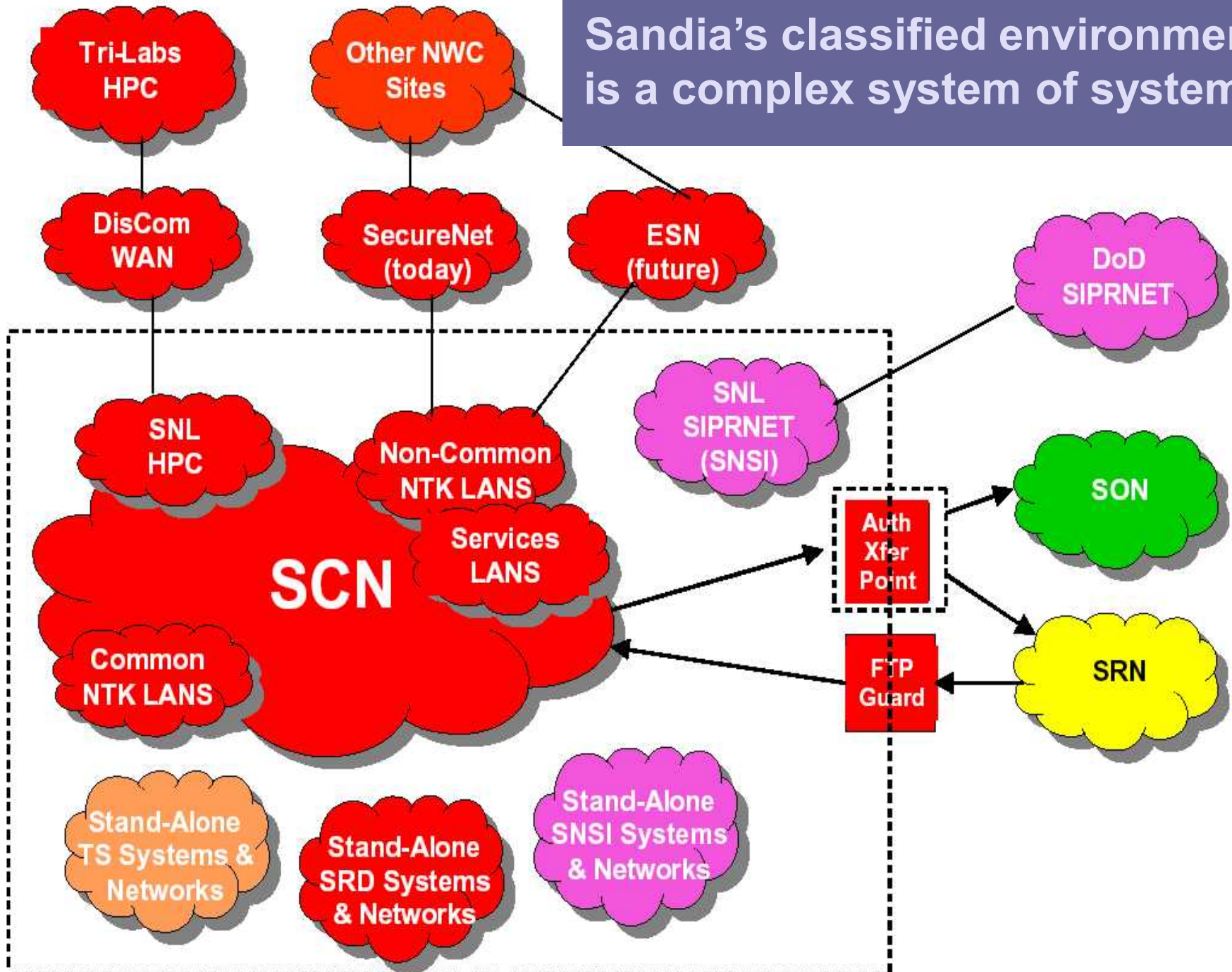


Restricted Network

Open Network



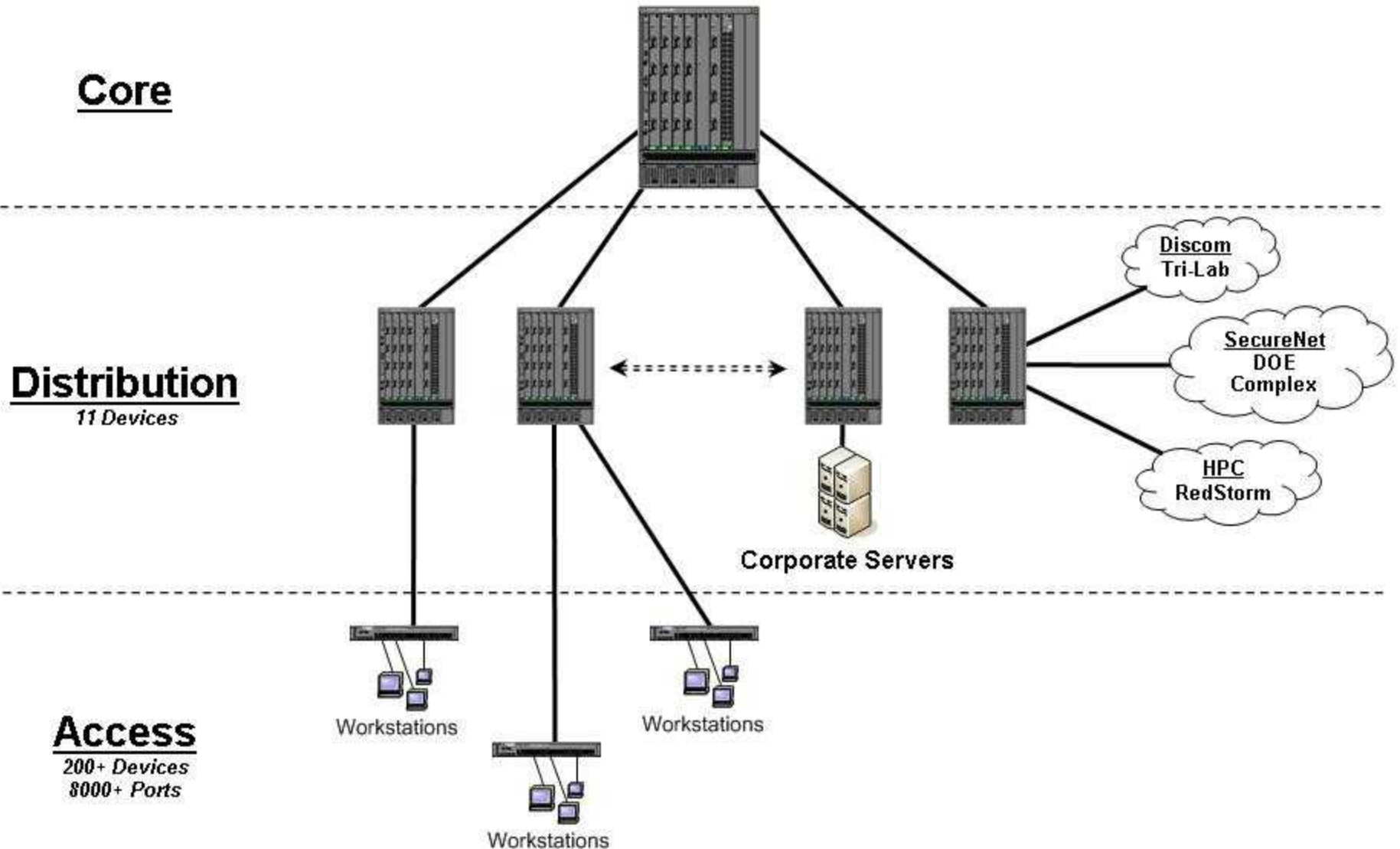
Sandia's classified environment
is a complex system of systems





Sandia Classified Network (SCN)

Three Tier Network Architecture



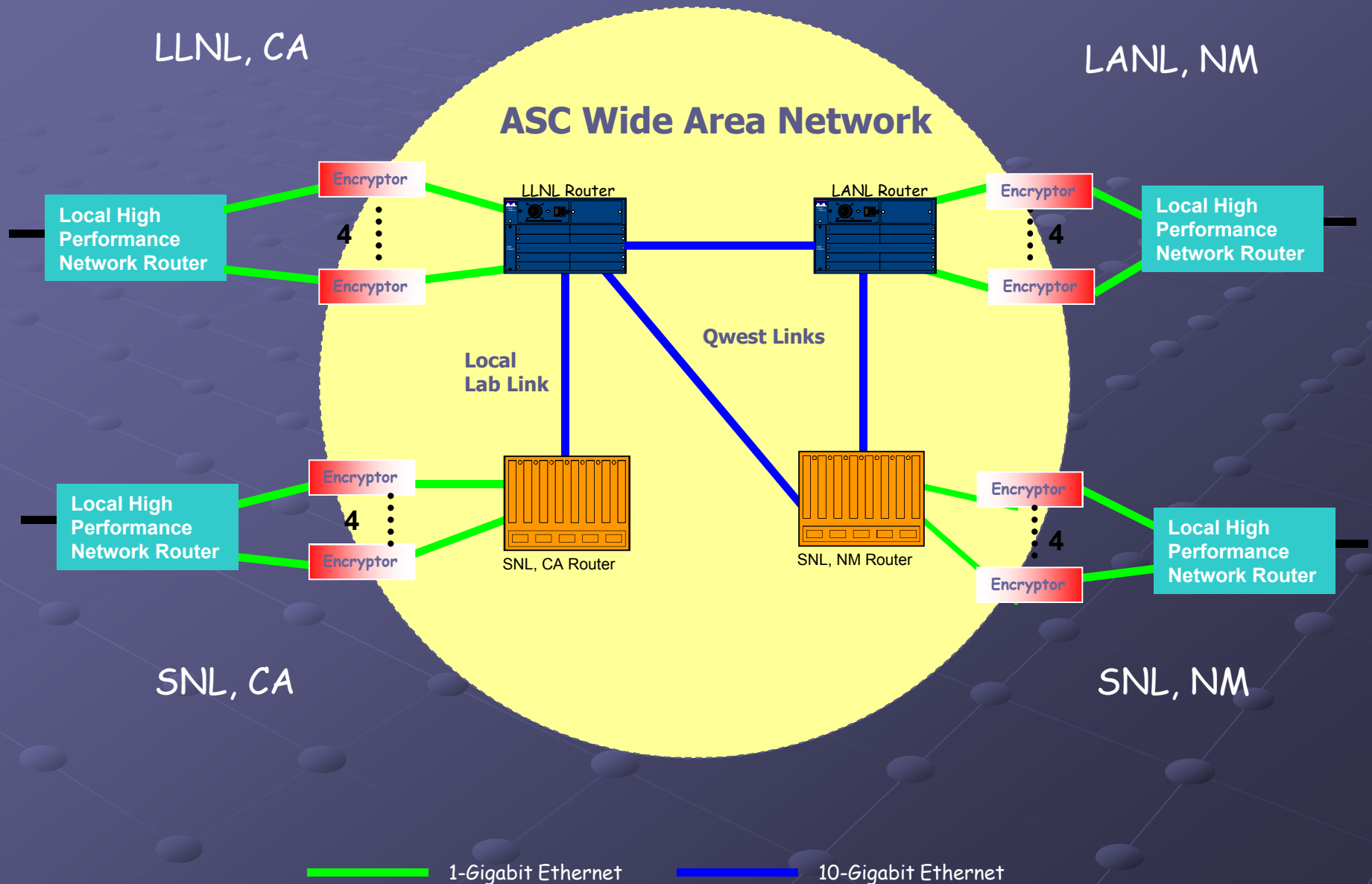
Advanced Simulation and Computing

10 Gigabit per Second

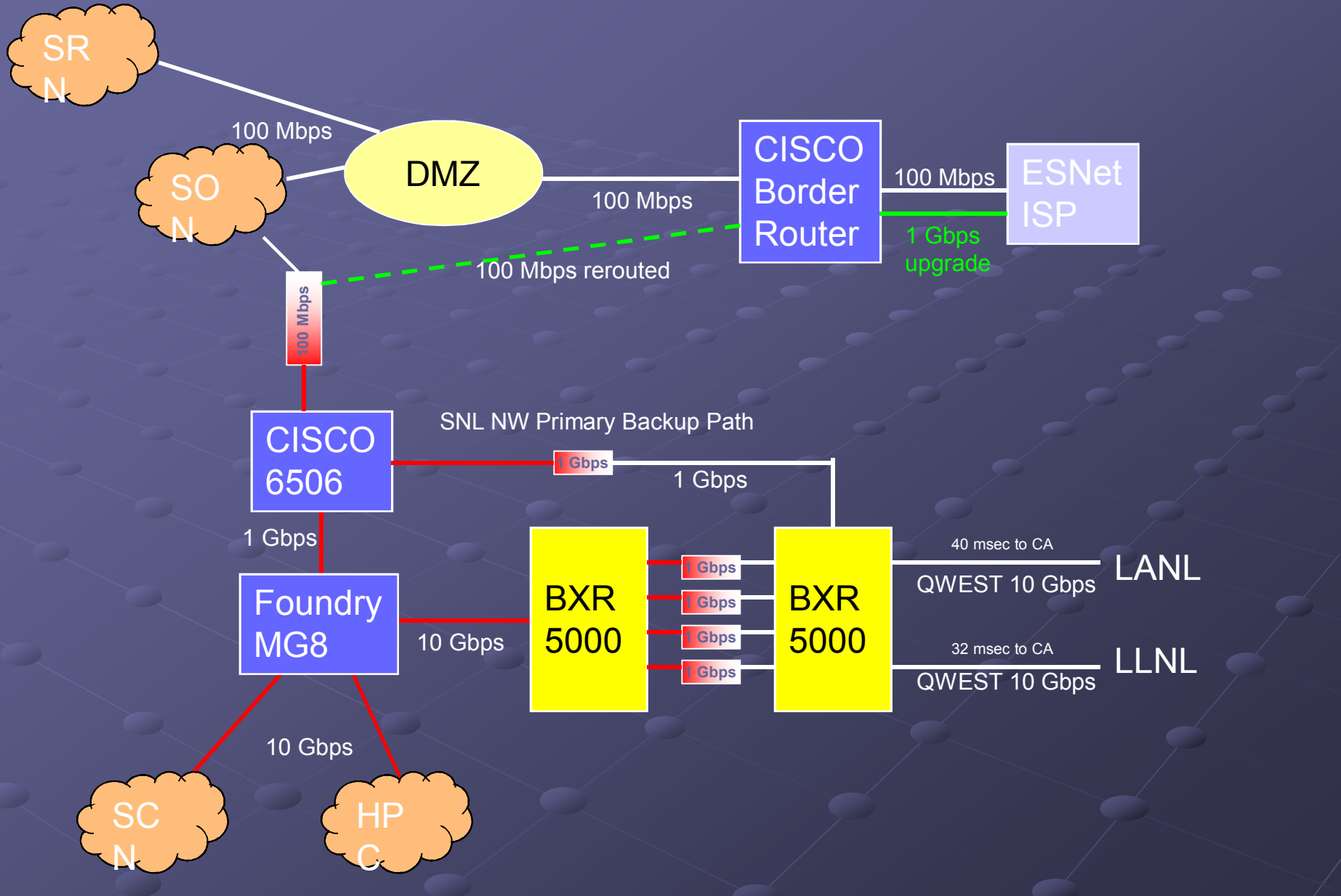
Wide Area Network



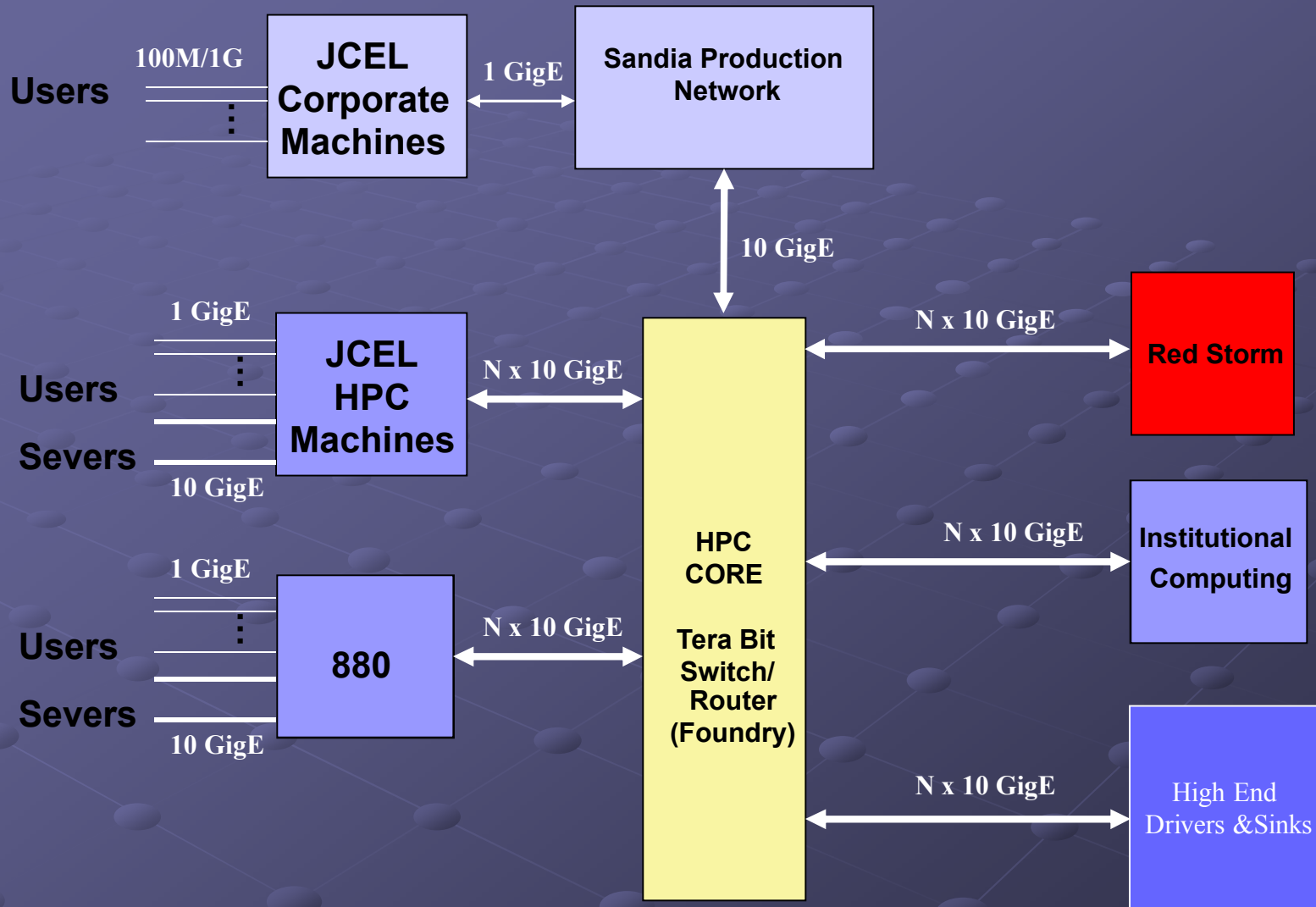
Advanced Simulation and Computing Wide Area Network



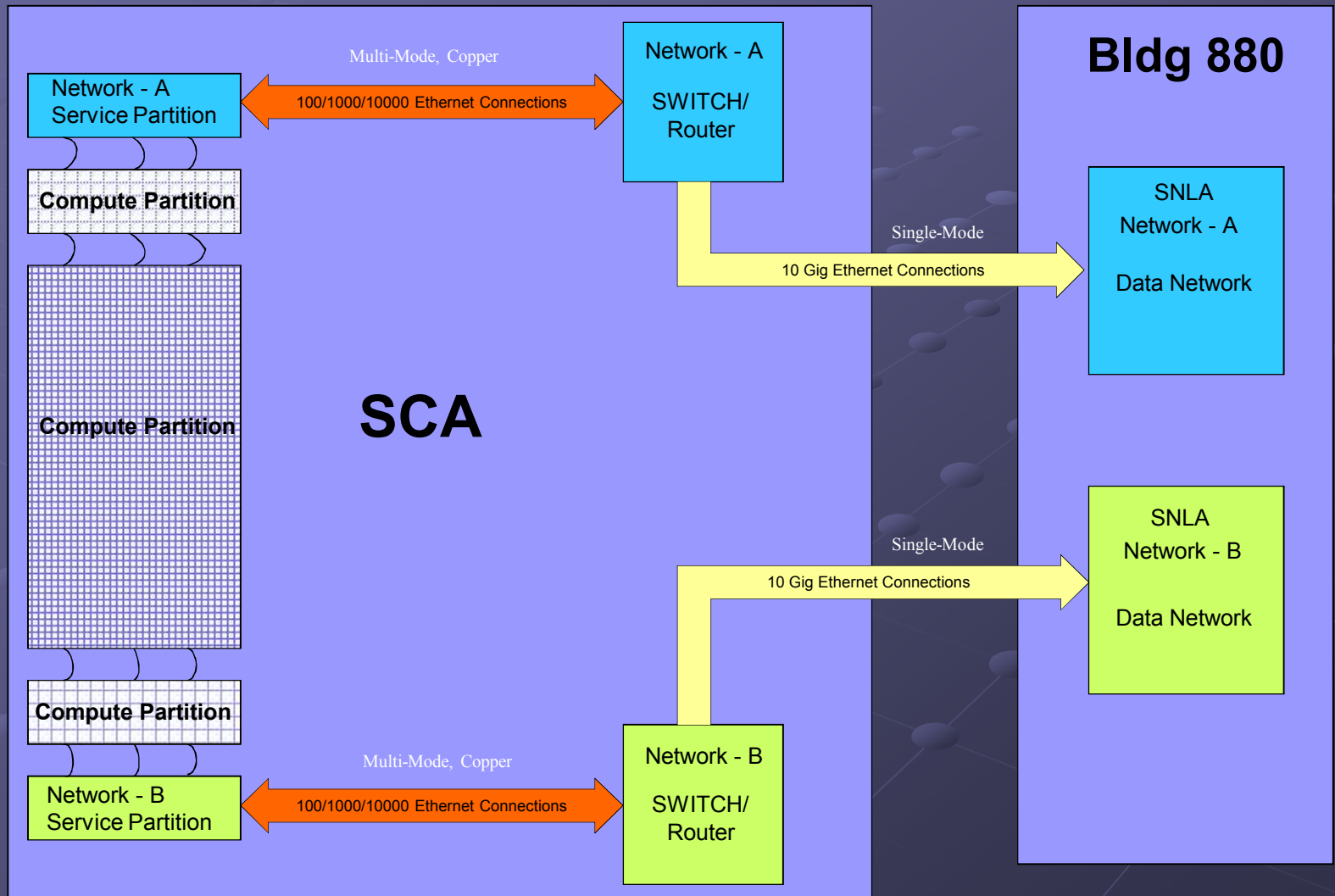
SNL/NM ASC WAN & ESnet



Enterprise Scientific Computing Data Network



Red Storm Data Network



Red Storm Network Connectivity

