



North Dakota Legislative Information Technology Committee

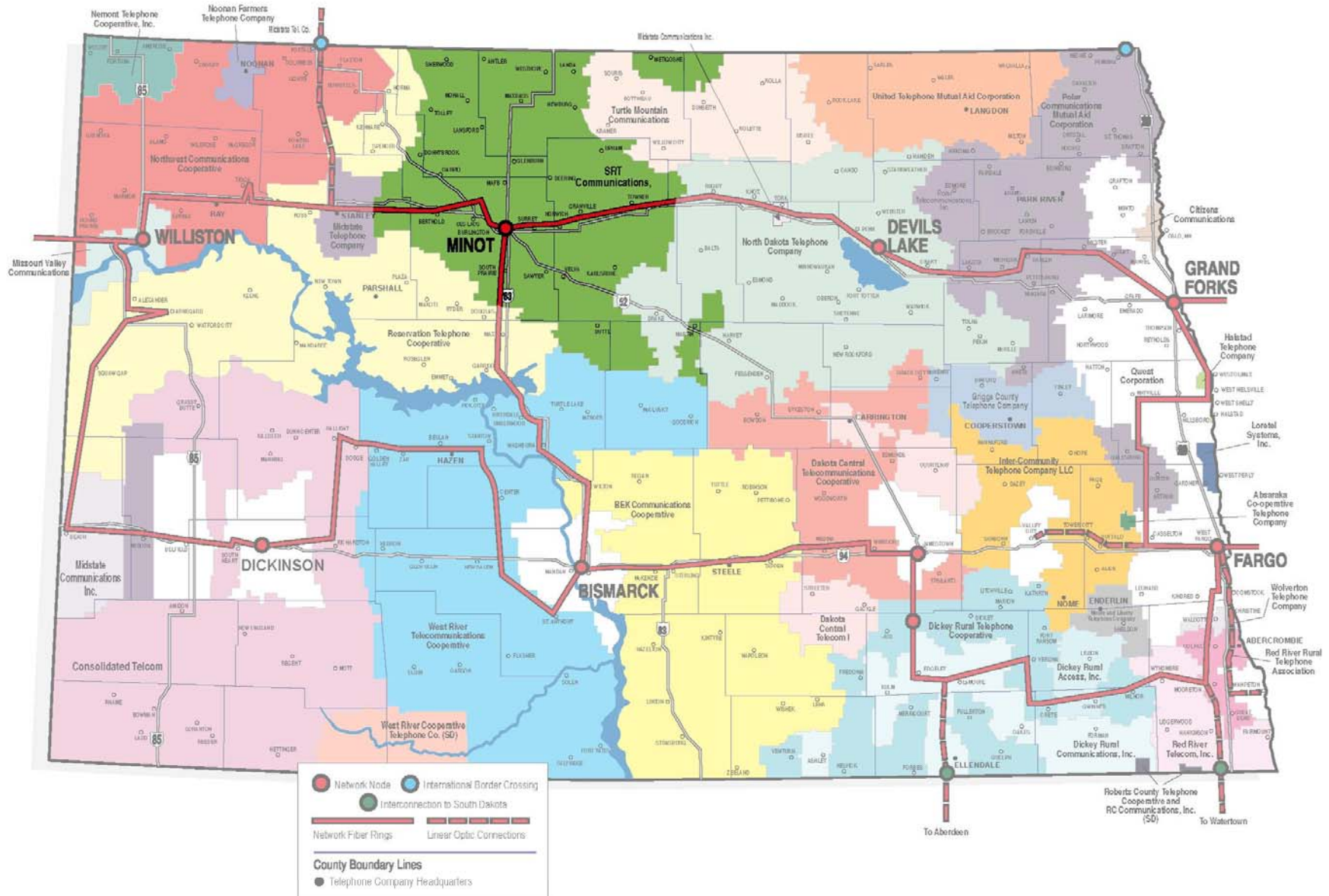
Shawn G. Grosz

Director of Network Technology
SRT Communications, Inc.

TV Headend Tour

- Robert Erskine
 - IP Video Engineer
- Chris Nett
 - IP Video Administrator
- Kevin Mitchell
 - Software Developer/Database Administrator
- Dan Roberts
 - Network Operations Manager





Network Operations Center

- Network Support
- Network Health and Performance Monitoring
- Trouble Resolution
- Alarm Reporting
- Staffed 24/7/365



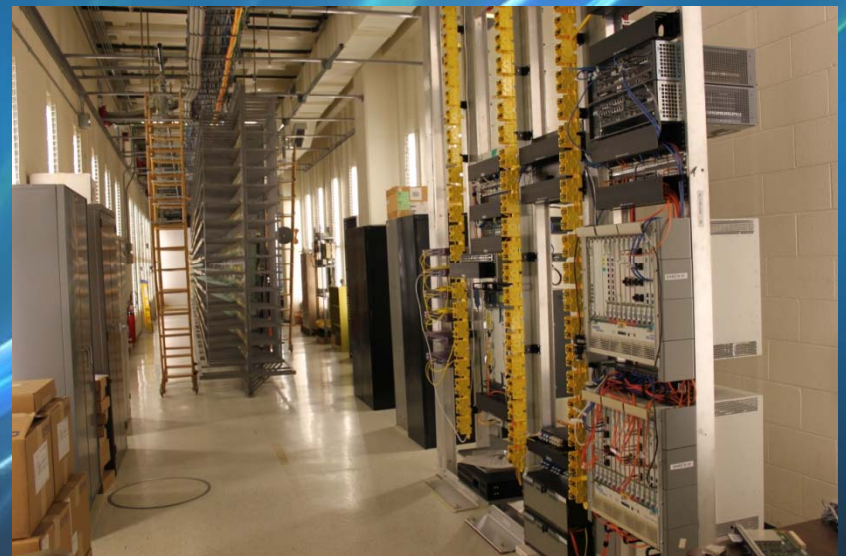
South Data Center



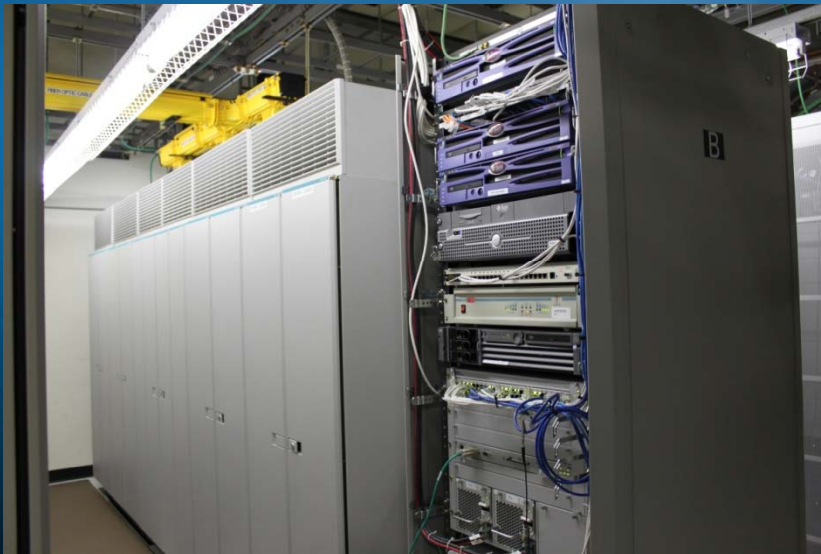
**Environmentally controlled
Backup UPS and Generator
Corporate Network
Internet Services
Data Storage and Backup
Many services duplicated at North
Data Center**



Central Office

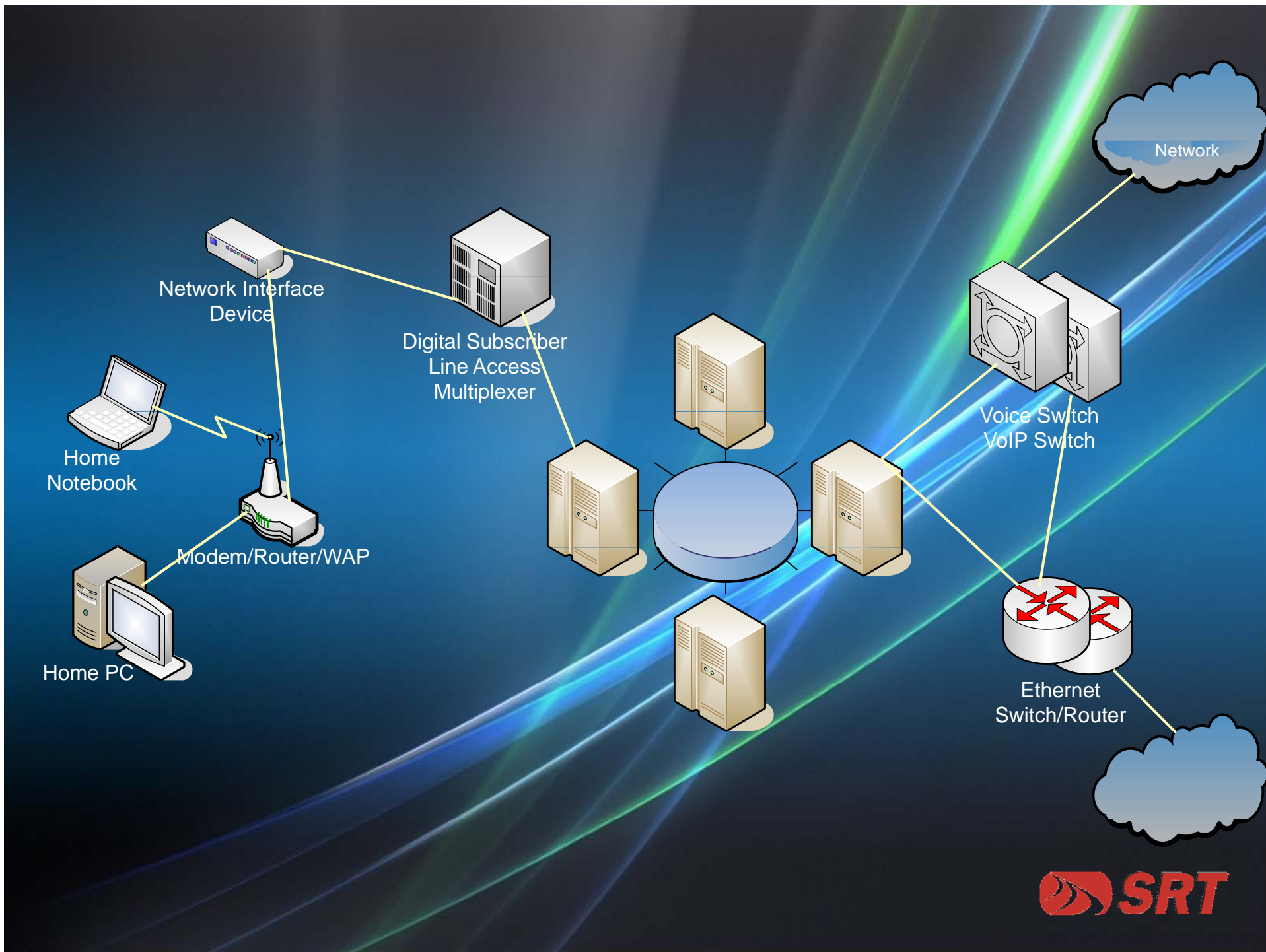


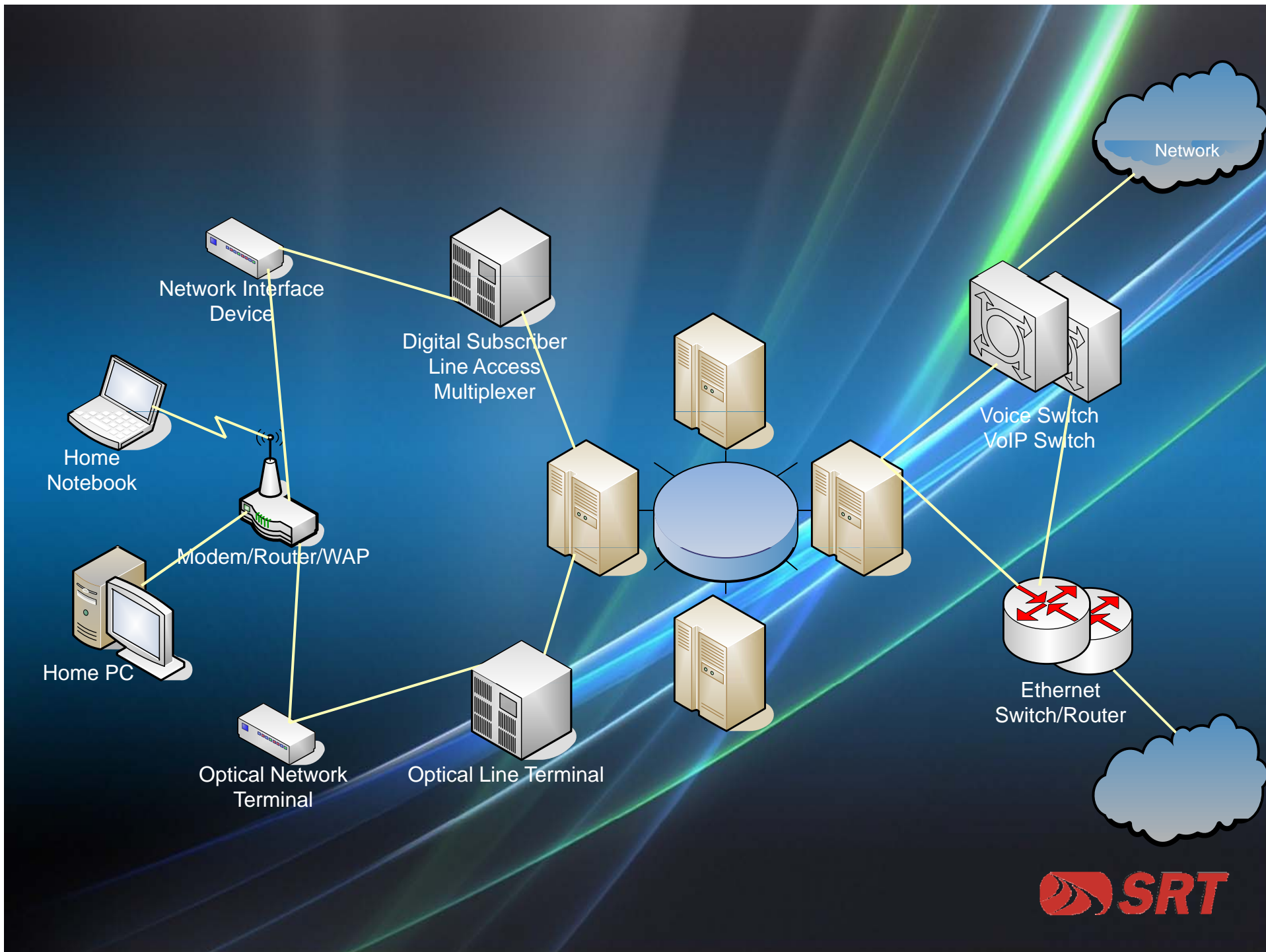
Central Office



Broadband DSL and Fiber Optics

- Deliver up to 40 Mbps over DSL and 100 Mbps over Fiber
- Voice, data, & video capabilities
- Commercial and residential services
- Wireless backhaul





Bandwidth Challenges

	June 2004	June 2010	Change
Subscribers	4,950	15,650	216%
Peak Usage	55 Mbps	1,500 Mbps	2,627%
Upstream Internet Bandwidth	310 Mbps	4,500 Mbps	1,352%

Cisco IP Traffic Forecast

- **Global IP traffic will quadruple from 2009 to 2014.** Overall, IP traffic will grow at a compound annual growth rate (CAGR) of 34 percent.
- **It would take over two years to watch the amount of video that will cross global IP networks every second in 2014.** It would take 72 million years to watch the amount of video that will cross global IP networks during calendar year 2014.

Cisco IP Traffic Forecast

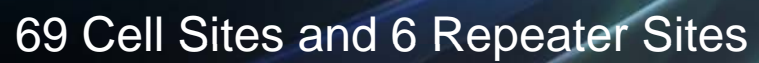
- **In 2014, the Internet will be four times larger than it was in 2009.** By year-end 2014, the equivalent of 12 billion DVDs will cross the Internet each month.
- **The sum of all forms of video (TV, video on demand, Internet, and P2P) will continue to exceed 91 percent of global consumer traffic by 2014.** Internet video alone will account for 57 percent of all consumer Internet traffic in 2014.

Cisco IP Traffic Forecast

- **Globally, mobile data traffic will double every year through 2014, increasing 39 times between 2009 and 2014.** Mobile data traffic will grow at a compound annual growth rate (CAGR) of 108 percent between 2009 and 2014, reaching 3.6 exabytes per month by 2014.
- **Almost 66 percent of the world's mobile data traffic will be video by 2014.** Mobile video will grow at a CAGR of 131 percent between 2009 and 2014. Mobile video has the highest growth rate of any application category measured within the mobile data portion of the Cisco VNI Forecast at this time.

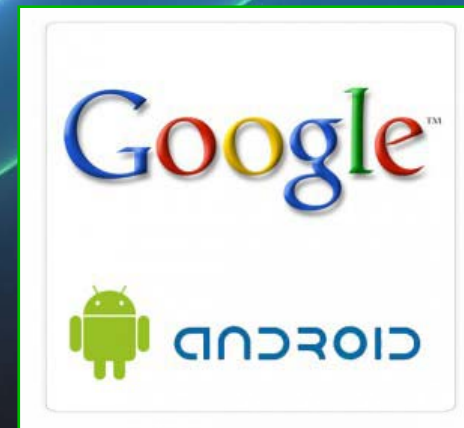
Mobile Wireless







Smartphones





Questions