

Broadband Access Study Committee Presentation

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Trends in Broadband

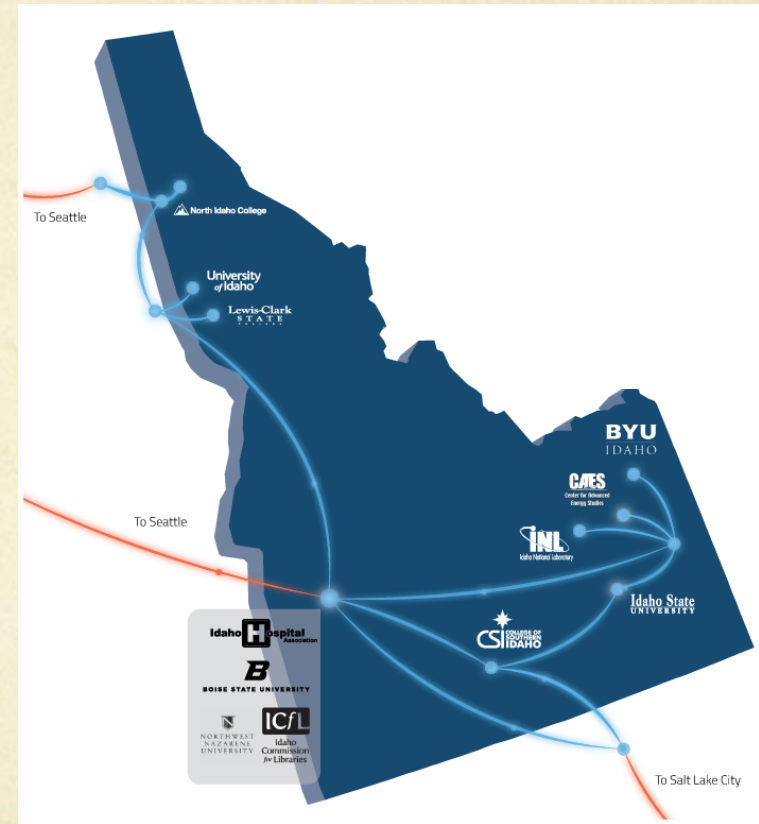
- Voracious appetite for broadband driven by:
 - “Big Data” research
 - Cloud computing
 - Wireless expectations and utilization (TV replacement)
 - Video conferencing
- 100 Gbps expectations for research
- Security concerns

Trends in Broadband

- University of Idaho peak of 2.4 Gbps in Spring 2015 and 8000 devices connected via wireless concurrently
- Boise State University peaks of 2.8 Gbps in Spring 2015 and 10,000 devices connected via wireless concurrently
- Idaho State University peak of 1.6 Gbps in Sept. 2015 and 5000 plus devices connected via wireless concurrently

Idaho Regional Optical Network (IRON)

- 10G network ready for 100G
- Redundant, reliable
- Nearly 8 year track record of success
- No legislative appropriation
- Owner operated with Idaho-centric governance model



University of Idaho

Idaho State
UNIVERSITY



BOISE STATE UNIVERSITY

Cost and Cost Containment

- UI pays \$230,000 annually for IRON, plus \$70,000+ to other vendors
- Boise State pays \$160,000 annually for IRON, plus \$36,000+ to other vendors
- Idaho State University pays \$160,000 annually for IRON, plus \$137,000 to CenturyLink
- IRON owner-operator relationship provides cost containment

Cost and Cost Containment

- Other Service through IRON besides broadband
 - Internet2 connectivity
 - L2VPN services

Cost and Cost Containment

- BSU Connects with owned (dark) fiber across Boise – Partners with UI, City of Boise and Ada County when appropriate
 - Gage Street Facility
 - City Center (Computer Science)
 - Boise State Venture College
 - UI Water Center and Law Library

Cost and Cost Containment

- Boise State currently use 2 providers
 - IRON
 - Integra
- IRON provides 1G+ to Boise Campus plus a private 10G to INL where Boise State's High Performance Computing Cluster is located
- Integra provides 1G+ circuit
- Video Caching implemented for the Residence Halls

Cost and Cost Containment

- ISU connects to centers in Meridian, Idaho Falls, and Twin Falls via CenturyLink's Metro Over Ethernet (MOE), and uses The City of Idaho Falls dark fiber ring to connect to The Health Care Education Building at EITC and at the Center for Advanced Energy Studies (CAES).

Cost and Cost Containment

- University of Idaho Primary statewide vendor is IRON, 10 Gbps capable. IRON provides point-to-point connection with 13 statewide locations
- Moscow backup internet connection through FirstStep, at 800 Mbps
- IRON plus 8 other vendors provide connectivity to non-Moscow locations in 42 of 44 Idaho counties