



NWSC Wide Area Network Planning

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Overview

- Background: Bi-State Optical Network (BiSON) Partnership
- Expanding BiSON Into The NWSC
- Current Status
- Costs





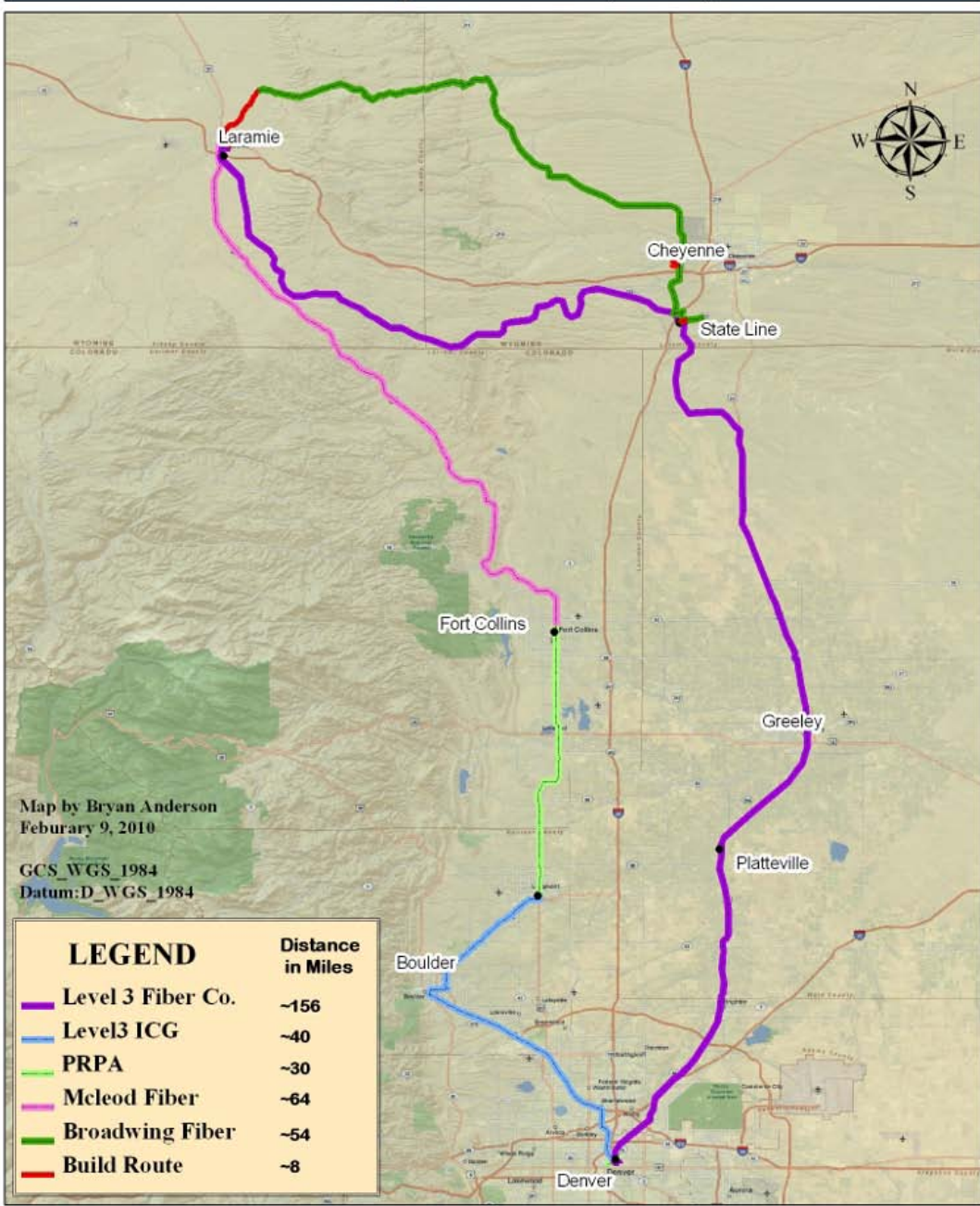
BiSON Partnership

- Partners are NCAR, NOAA-Boulder, University of Wyoming and Colorado State University
- Partnership is over five years old now.
- Fiber network connecting Boulder, Denver, Laramie, Fort Collins and Longmont in a ring.
- Movaz/Adva Wave Division Multiplexing (WDM) equipment used to 'light' the fiber.





Bi-State Optical Network (BiSON)



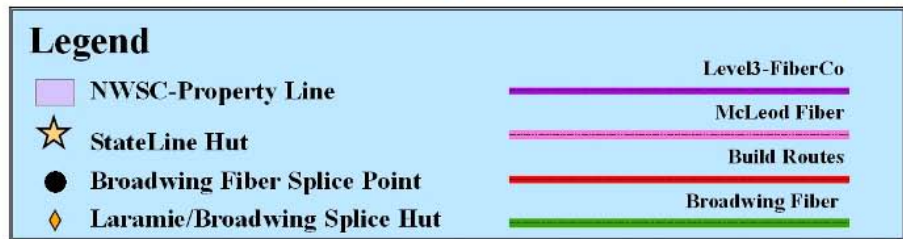
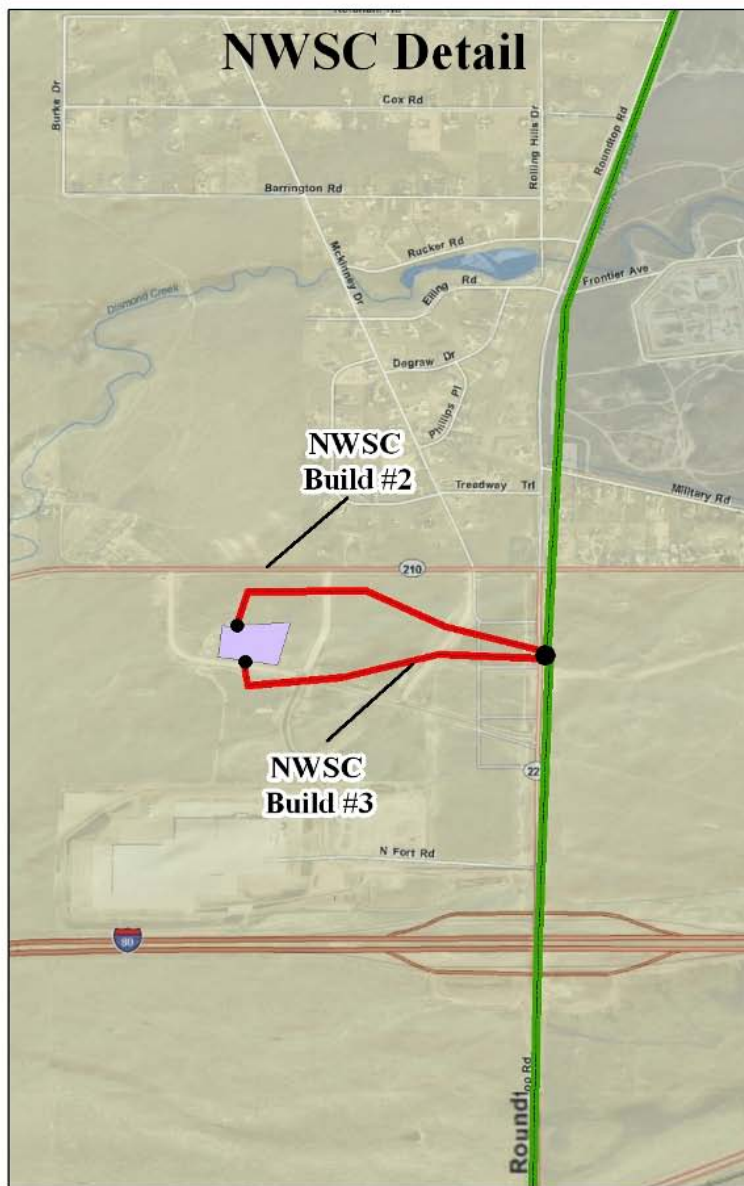


Adding NWSC to BiSON

- Two major changes to BiSON required to incorporate NWSC.
 - The fiber path needs to include NWSC
 - WDM equipments needs to be upgraded to 10G/40G/100G capability
- State of Wyoming assisting with the fiber changes.
- All BiSON members are interested in the 10G upgrade.



NWSC Build Routes



Map by Bryan Anderson
February 08, 2010
GCS WGS 1984
Datum: NAD_1983

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Fiber Costs

IRU Option	Length	Fiber Cost	O&M
WY Broadwing	535	\$100,000.00	\$3,616,600.00
FiberCo Broadwing	535	\$1,155,600.00	\$3,616,600.00
Qwest ENRON	1003.9	\$2,208,580.00	\$3,513,650.00

Private Spur Build	Budgeted	\$/mile	Approximate milage
Albany County (Laramie spur)	\$1,000,000.00	150000	6.7
Laramie County (Cheyenne spur)	\$500,000.00	150000	3.3





Status

- Wyoming Fiber pending approval: April 2010
- Hardware Upgrade
 - Did not get NSF ARI funding
 - Looking at other funding options
 - Per-partner cost \$50K-\$80K if done out of pocket
- I-25 build
 - Pending NTIA BTOP round 1 proposal
 - May be possible as a round 2 proposal as well





Questions?

