



BRAN In Action

NIST

o Fiber plant that takes a circuitous route - access BRAN to create a large loop for a NIST to Denver link

o NIST Fiber (USA) for various experiments - (no longer in use)

NOAA - Boulder

o GIGnet/Level 3 Primary connection - 1GE

o NIST Building

o NIST Building

o NIST Building

o NIST Building

o NIST Building

o ES&D from NIST (no longer in use)

o NOAA/NMFS (WDM) fiber - 10G + 2.5G lambda's (now down to one 2.5G lambda)

City of Boulder

o Atrium Building (Public Safety Building (1 pair, 1 Gbps)

o Municipal Building (Public Safety Building via Atrium Building (1 pair, 10 Gbps)

o Municipal Building (George Reynolds Branch Library via Atrium Building (1 pair, 1 Gbps)

o Telephone Network (Telecom for BPO/VP/P Internet connection and Boulder County, Comcast Connection (3 pair, 3 Gbps)

o Children/Youth/Families Building to Municipal Building via Atrium Building (1 pair, 1 Gbps)

o Job Center to Municipal Building via Atrium Building (1 pair, 1 Gbps)

o Public Safety Building to Yards (1 pair, 10 Gbps)

o Public Safety Building to Boulder County Communications Center via Yards (1 pair, 10 Gbps)

o 7th St Wastewater Treatment Plant to Yards via UCAR FL (1 pair, 1 Gbps)

o Fire Station 6 to Yards via UCAR FL (1 pair, 1 Gbps)

o Fire Station 5 to Yards via UCAR FL (1 pair, 1 Gbps)

o UCAR FL to Boulder County Communications Center for use by Boulder County for RVS&D fiber connection (1 pair, 10 Gbps)

University of Colorado - Boulder

o Expo - Gnet, PBX, CONN, Gnet, Gnet

o PVP/PD - Gnet to FDD

o UDS - PBX, ATM, PBX, ATM, Gnet, CONN, Gnet

o ENG - PBX, (to) CONN, PBX

o Three cells for campus telephones (all QMS (150 Mbps per cell)

o Gnet to 15th Street Campus (Gnet 1000 Mbps)

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National Center for Atmospheric Research

o M - Tempid 10GigE

o F12-TQM 10GigE

o M - 438 T1 MUX Ring (West)

o M - 438 T1 MUX Ring (East from Red 3.4)

o M - FL (R&S)

o M - CS (GigE)

o M - BBL/FL/BI GigE

o M - 438 T1 MUX Ring (East to White 3.4)

o M - BBL/FL/BI GigE

o M - BBL/FL/BI 10 GigE

o M - TQM 10GigE

o TQM - JUN/GEN 1G

o Boulder Campus (B&N) 12.5 GigE

o Boulder Denver (B&N) 2.5 GigE



BRAN In Action

NIST

o 1 fiber strand that takes a circuitous route across BRAN to create a large loop for a NIST clocking testbed
 o NIST and CU-NILA for optical experiments (no longer in use)

NOAA - Boulder

o CU and Level 3 Primary connection - 1GE
 o CU Backup - 1GE
 o FRGP Primary - 10GE
 o FRGP Backup - 2x1GE
 o NCAR Backup - 1GE
 o NLR FrameNet - 10GE
 o GSD loop - 10GE (no longer in use)
 o NOAA-NCAR DWDM testbed - 10G + 2.5G lambdas (now down to one 2.5G lambda)

City of Boulder

o Altium Building to Public Safety Building (1 pair, 1 Gbps)
 o Municipal Building to Public Safety Building via Altium Building (1 pair, 10 Gbps)
 o Municipal Building to George Reynolds Branch Library via Altium Building (1 pair, 1 Gbps)
 o Public Safety Building to CU Telecom for BIP/BIPoP Internet connection and Boulder County Longmont connection (3 pair, 3 Gbps)
 o Children/Youth/Families Building to Municipal Building via Altium Building (1 pair, 1 Gbps)
 o Job Center to Municipal Building via Altium Building (1 pair, 1 Gbps)
 o Public Safety Building to Yards (1 pair, 10 Gbps)
 o Public Safety Building to Boulder County Communications Center via Yards (1 pair, 10 Gbps)
 o 7th St Wastewater Treatment Plant to Yards via UCAR FL (1 pair, 1 Gbps)
 o Fire Station 6 to Yards via UCAR FL (1 pair, 1 Gbps)
 o Fire Station 5 to Yards via UCAR FL (1 pair, 1 Gbps)
 o UCAR FL to Boulder County Communications Center for use by Boulder County for BVS/D fiber connection (2 pair, 20 Gbps)

University of Colorado - Boulder

o E-Geo - Gnet, PBX, CONN, Gnet, Gnet
 o CUPD - CUPD to BPD
 o UMS - PBX, ATM, PBX, ATM @ CONN, Gnet
 o ENG - PBX, (19) CONN, PBX
 o Three pairs for campus telephones at UMS (150 Mbps per pair)
 o One pair for Ethernet service at CING (1777 Exposition)
 o One pair for Ethernet service at IBSX (the Reynolds bldg) (1 Gbps)
 o One pair for Ethernet service at the CU Foundation (1 Gbps)
 o One pair for connection to Level 3/IGG in Boulder (1 Gbps)
 o One pair for test connection to NCAR (10 Gbps)
 o Three pairs for MRI connection to campus and NCAR (10 Gbps) (in June)
 o One pair for connection to NCAR (1 Gbps)
 o One pair for connection to NOAA/NIST (1 Gbps)
 o One pair to connect CUPD to BBRESTA (1 Gbps)

National Center for Atmospheric Research

o M_Trap60d 10G iE
 o T12-TCOM 10G iE
 o M_438-T1 MUX Ring (West)
 o M_438-T1 MUX Ring (East from Red 3.4)
 o M_FL (655)
 o M_CS 6 iE
 o M_NINFLR01 6 iE
 o M_438-T1 MUX Ring (East to White 3.4)
 o M_BAFLR01 6 iE
 o M_BAFLR01 10 G iE
 o M_TCOM 10G iE
 o TCOM JUN CRWD 1G
 o Boulder Longmont (BSO) 12.5 G iE
 o Boulder Denver (BSO) 12.5 G iE

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o CU Backup - 1GE

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o FRGP Backup - 2x1GE

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City of Boulder

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o Municipal Building to Public Safety Building via Altium Building (1 pair, 10 Gbps)

o Municipal Building to George Reynolds Branch Library via Altium Building (1 pair, 1 Gbps)

o Public Safety Building to CU Telecom for BPA/PAP/P Internet connection and Boulder County Longmont connection (3 pair, 3 Gbps)

o Children/Youth/Families Building to Municipal Building via Altium Building (1 pair, 1 Gbps)

o IGA Center to Municipal Building via Altium Building (1 pair, 1 Gbps)

o Public Safety Building to Yards (1 pair, 10 Gbps)

o Public Safety Building to Boulder County Communications Center via Yards (1 pair, 10 Gbps)

o 79th St Wastewater Treatment Plant to Yards via UCAR FL (1 pair, 1 Gbps)

o Fire Station 6 to Yards via UCAR FL (1 pair, 1 Gbps)

o Fire Station 5 to Yards via UCAR FL (1 pair, 1 Gbps)

o UCAR FL to Boulder County Communications Center for use by Boulder County for BVSD fiber connection (2 pair, 20 Gbps)

University of Colorado - Boulder

o Expo - Gnet, PBX, CONN, Gnet, Gnet

o CUPD - CUPD to BPD

o UMS - PBX, ATM, PBX, ATM @ CONN, Gnet

o ENG - PBX, (19) CONN, PBX

o Three pairs for campus telephones at UMS (150 Mbps per pair)

o One pair for Ethernet service at CINC (1777 Exposition)

o One pair for Ethernet service at IBSX (the Reynolds Bldg) (1Gbps)

o One pair for Ethernet service at the CU Foundation (1Gbps)

o One pair for connection to Level 3/CG in Boulder (1Gbps)

o One pair for test connection to NCAR (10 Gbps)

o Three pairs for MRI connection to campus and NCAR (10 Gbps) (in June)

o One pair for connection to NCAR (1 Gbps)

o One pair for connection to NOAA/NIST (1 Gbps)

o One pair to connect CUPD to BRESTA (1 Gbps)

National Center for Atmospheric Research

o M1 TestGrid 10G igf

o F12-TODM 10G igf

o M4-L3B T1 MUX Ring (West)

o M4-L3B T1 MUX Ring (East from Red 3.4)

o M4-FL Ra5S)

o M4-CG G igf

o M4-RIB/FLRIB G igf

o M4-L3B T1 MUX Ring (East to W20R 3.4)

o M4-RIB/FLRIB G igf

o M4-RIB/FLRIB 10 G igf

o M4-TODM 10G igf

o TODM-UNC/AVO 1G

o Boulder Longmont (BSON) 17.5 G igf

o Boulder Denver (BSON) 2.5 G igf

