

**One-time Costs\*** Total **\$1,189,415**

\*Equipment pricing based on 2009 NT Build-out with updated 2011 Infinera optics pricing

MT-Span Light Wave Addition (Spokane to Glendive)

10 DLMS at \$28600/each \$286,000  
 UM Project Management/Install \$50,000

ITSD Light Wave at each drop/add

6 TAM at \$22,200 / each \$133,200  
 10 TOM's at \$1,500 / each \$15,000

Helena Drop/Add Buildout

DTC (Chassis) \$10,500 \$10,500  
 2 BMMs at \$21,000 / each \$42,000  
 2 DLMS at \$28,600 / each \$57,200  
 Software at \$22,000 \$22,000  
 Light Wave Install costs at \$48,300 \$48,300

Helena Local Loop Access (Hut to SMDC)

Bresnan constructed dark fiber \$223,500 \*Bid for Hut to HCT Jur  
 Hut Prep (power, site survey, fiber pigtail, etc) \$110,000 \*May vary due to actu  
 No local loop DWDM

Missoula Local Loop Access (Hut to UM to State)

Shared DWDM with UM (Hut to UM) (1 wave east) \$32,250 \*Note additional wave  
 One-time DWDM / cross connect setup costs \$10,000

Bozeman Local Loop Access (Hut to MSU to State)

ATM Base equipment \$17,500  
 2 wave DWDM local loop \$44,500  
 One time setup \$10,000

Billings Local Loop Access (Hut to Iconnect)

ATM Base equipment \$17,500  
 2 wave DWDM local loop \$44,500  
 One time setup \$10,000  
 X-connect with UM fiber back to AT&T \$3,000

Miles City Local Loop Access (Hut to MCDC)

Fiber from Hut to MCDC \$34,965 Updated with UM bid f  
 Hut Prep (power, site survey, fiber pigtail, etc) \$110,000 \*May vary due to actu  
 UM Grant Money for connection -\$142,500 \*Grant money to fund

**Annual Recurring Costs** Total **\$231,150**

Share of Northern Tier

Split of \$410,000/yr between MSU, UM, State  
5% management fee to UM

\$136,667 \*Assumes 1/3 split - TE  
\$6,833

Helena

Bresnan dark fiber (hut to SMDC)

\$5,850 \*Assumed maintenanc

Missoula

Bresnan fiber

\$5,850 \*Assumed maintenanc

Local loop shared cost - shared with UM

\$6,000

UM 4% maintenance cost on equipment on orig.

\$1,290

Bozeman

Bresnan fiber

\$5,850 \*Assumed maintenanc

Local loop shared cost - shared with MSU

\$6,000

MSU 4% maintenance cost on equipment on orig.

\$2,480

Billings

Iconnect cross-connect fiber

\$5,850

Covering NT connect RU space

\$600

RU & x-connect for NT in Iconnect

\$3,000

Annual Separate Fiber cost

\$22,500 (Note decrease scale o

Miles City

Annual fiber charge & local loop

\$22,380 \*Source UM UPN Miles

re 2010  
al construction costs

s \$22,250

from UPN  
al construction costs  
fiber to MCDC & colleges

3D

re charge

re charge

re charge

over four years, 48K, 24K, 12K, 6K)

s City bid