Regional Impact Activities

1. **Project THOR**
   
   **Timeframe:** CY 2019  
   **Priority:** A

   - DOLA awarded NWCCOG a $1M matching grant for Project THOR Network Establishment Costs and selected local community fiber and Meet Me Center Builds.
   - NWCCOG has submitted a DOLA application December 1st, to assist us in paying the CDOT IRU for 3 years up front. This will reduce our long term expenses as we deploy the network.
   - NWCCOG continues conversations with CDOT about costs and fiber routes for Project THOR. Jon Stavney and Nate Walowitz have negotiated terms for a 10-year agreement, renewable for 2 additional 10 year periods. CDOT will also waive their standard maintenance fees so long as we pay for 3 year intervals in advance of all periods under contract.
   - Nate and Jon continue to meet with local governments and two commercial entities about Project THOR Meet Me Center hosting.
   - Based on meetings and conversations, Nate has committed interest from City of Aspen, City of Glenwood Springs, Town of Vail, Summit County, Clear Creek County, Yampa Valley Electric, NCB, Town of Eagle and Town of Gypsum.
   - Nate Walowitz and Kirk Magnussen (Grand County IT Director) have had meetings with Middle Park Health and their interest to become a Meet Me Center Host initially in Kremmling and Granby. Middle Park Health sees this as part of their service to community at large and also assists their business maintain resilient affordable connectivity to provide the best possible patient care.
   - NWCCOG is working with Eagle County and their consultant, HR Green, to determine the best approaches and a business case for the lower Eagle River valley.
   - San Isabel Telecom (ForeThought) has identified the availability of CDOT conduit from I-70 adjacent to the Eagle exit to U.S. 6. They have expressed interest in partnering with Project THOR and Town of Eagle to share costs of the path. This will benefit both their commercial goals and bringing Project THOR cost efficiently to the Town of Eagle and ForeThought.
   - Nate Walowitz and Jon Stavney are working with our attorney to create, review, and edit the Network Operator agreement with Mammoth Networks and the Meet Me Center Host contracts.
   - Our selected network equipment manufacturer, Ciena, is creating a network hardware design for the Project THOR network and we will use this information to release an RFP in January to identify a cost competitive vendor for Ciena equipment, software, support and training. In addition to obtaining pricing for Project THOR, NWCCOG will also be requesting discounted pricing for a 3 year IDIQ (Indefinite delivery, indefinite quantity) contract so our partners can purchase Ciena equipment beyond Project THOR.
2. **Broadband Legislation and State Broadband Policy**  
   **Timeframe:** CY 2019  
   **Priority:** A  
   - A bill to modify right of way agreements to allow broadband as a utility use in power utility rights of way and easements is being drafted. This would make it more affordable for power utilities to market existing fiber for commercial use and could ease easement challenges they have related to broadband. Nate Walowitz will forward this language as soon as it emerges.

3. **NWCCOG Service Provider Relationships**  
   **Timeframe:** CY 2019  
   **Priority:** A  
   - San Isabel Telecom (ForeThought) now has reservations about Project THOR but they are willing to continue working with NWCCOG to deliver better service and reach more subscribers in Eagle and Gypsum.  
   - Mammoth Networks continues to work with Pitkin County, Moffat County, Routt County, Rio Blanco County, Grand County, Middle Park Health, and NWCCOG, as well as numerous other local governments to assist in broadband deployments and needed connectivity.

4. **DOLA Broadband Grants and Funding**  
   **Timeframe:** CY 2019  
   **Priority:** A  
   - See Project THOR above.  
   - NWCCOG assisted Eagle County in obtaining a 25% matching grant for their Lower Eagle County valley broadband study.

5. **FirstNet Colorado**  
   **Timeframe:** CY 2019  
   **Priority:** C  
   - FirstNet Colorado participants and State OIT continue to support public safety and will provide advice to local governments and agencies to support decisions based on pricing, capabilities, and network coverage needed to ensure that public safety agencies needs are met throughout the state.  
   - ATT is aggressively marketing FirstNet priority access voice and data services to the public safety community including volunteer first responders.  
   - Verizon Wireless has released their Public Safety Broadband product to volunteer firefighters nationwide. This will deliver priority access voice and data services to volunteer first responders. Costs for the program could save first responders $10 per month on their current service bills.
**County/Local Government Projects**

1. **Eagle County**  
   Timeframe: CY 2019  
   Priority: A  
   - Nate Walowitz and Jon Stavney are working with Eagle County and their towns to help create a unified strategy to support multiple stakeholders, local governments and leverage Project THOR.  
   - Nate Walowitz is working with HR Green, the Eagle County consultant, to ensure they have all Project THOR and broadband provider information for their study.

2. **Grand County**  
   Timeframe: CY 2019  
   Priority: A  
   - Grand County has passed a Senate Bill 152 exemption by 78%.  
   - NWCCOG is working with Grand County IT to ensure that they engage all potential players in Grand County’s strategic objectives for broadband throughout the county.  
   - Mountain Parks Electric has chosen to move forward with a middle mile network design that could be leveraged by Project THOR and local ISPs and businesses to support improved broadband in Grand and Jackson County in the 3-year timeframe.  
   - Middle Park Health is interested in serving as a Meet Me Center Host. Conversations with Grand County, NWCCOG are ongoing.

3. **Jackson County**  
   Timeframe: CY 2019  
   Priority: A  
   - VistaBeam has been working to build out a wireless network and infrastructure to deliver broadband to most homes and businesses throughout the county.  
   - Mammoth Networks is commercially leveraging expanded CenturyLink fiber connectivity and support a 1 Gig connection to support VistaBeam, North Park Schools, and local government and businesses.

4. **Pitkin County**  
   Timeframe: CY 2019  
   Priority: A  
   - Pitkin County and Garfield County are working together to address their mutual needs and support one another’s broadband infrastructure needs. Garfield County submitted a DOLA grant request in the April 2018 cycle.  
   - The County continues to work with Mammoth Networks as their Network Manager. They will first develop a complete roadmap and then create and manage a multi-use fiber/wireless broadband loop connecting all their mountaintop sites, local government buildings, businesses and residents for public broadband deployment, public safety communications and County IT network redundancy.
• Pitkin County’s Microwave and tower network will leverage Project THOR to support public safety projects; building out and moving their public safety radio communications from VHF to the State DTRS system and resilient broadband for the Roaring Fork Valley including City of Aspen.

6. Rio Blanco County  
Timeframe: CY 2019 
Priority: A

• The County continues to evaluate deployment of additional fiber where practical and fill in coverage with a network of wireless towers.  
• The fiber and wireless networks and their ISPs currently have in excess of 1000 customers.  
• Rio Blanco County intends to leverage and support Project THOR.

7. Routt County  
Timeframe: CY 2019 
Priority: A

• NCB has signed a last mile provider to assist them in deployment of additional broadband services using the NCB fiber network. 
• NCB is working with NWCCOG on Project THOR 
• NCB participants have been open to sharing how the NCB is organized, funded, and managed with other NWCCOG broadband project participants.

8. Summit County  
Timeframe: CY 2019 
Priority: A

• Summit County is continuing to work on broadband and cellular service enhancement in areas of need throughout the county. 
• Summit County is working to create a county-wide network to support local governments, schools, colleges, and health care institutions has come together to address broadband issues and leveraging existing CDOT fiber and aggregation of transport and bandwidth. This network will connect to Project THOR and support Meet Me Centers in Frisco and Breckenridge. 
• Town of Breckenridge is moving forward committing $8M to begin broadband network fiber buildout. 
• NWCCOG and Mammoth Networks are working with Town of Breckenridge and Summit County planning Project THOR connectivity to support network deployment.
9. Moffat County
   Timeframe: CY 2019          Priority: A
   - Moffat County withdrew a grant application to DOLA for their Craig/Moffat County broadband project.
   - Moffat County/City of Craig withdrew their DOLA application because Yampa Valley Electric has committed to meeting their broadband needs and delivering Fiber to the Premise.

10. Clear Creek County
    Timeframe: CY 2019          Priority: A
    - Clear Creek County continues to work with local groups that are exploring deploying broadband to rural areas west of Evergreen.
    - Clear Creek County will take advantage of Project THOR and Nate Walowitz is working with John Bottomly to develop a plan to make this reality along I-70.

11. City of Glenwood Springs
    Timeframe: CY 2019          Priority: A
    - Glenwood Springs has partnered with Colorado Mountain College to secure diverse route connectivity to Denver.
    - The City will be a regional host for Project THOR and potentially the CDOT fiber connectivity to Front Range Giga Pop in Denver.

12. Town of Breckenridge
    Timeframe: CY 2019          Priority: A
    - Nate Walowitz continues to serve as the technical advisor to Summit County and the Town of Breckenridge. The town is moving forward burying conduit and fiber as they install a new water plant and distribution network.
    - Mammoth Networks is working with Town of Breckenridge to secure backhaul connectivity for a 1st launch community. This connectivity will be integrated into Project THOR.

13. Town of Frisco
    Timeframe: CY 2019          Priority: A
    - The town has been participating in the County broadband conversations.
    - Frisco voters will vote to exempted the town from Senate Bill 152 in April 2018

14. Town of Dillon
    Timeframe: CY 2019          Priority: A
    - The town has been participating in the County broadband and county fiber backbone network conversations.
15. Town of Silverthorne  
Timeframe: CY 2019  
Priority: A

- The town has been participating in the County broadband conversations.
- Town public works and IT are working together to install conduit whenever roads in town are opened for other purposes.
- The town intends to connect to the County fiber backbone network and work with Town of Dillon to ensure fiber connectivity to Dillon.

16. Town of Red Cliff  
Timeframe: CY 2019  
Priority: A

- NWCCOG, Town of Vail, and Eagle County are working to obtain grant funding for a State DTRS IP repeater site for public safety communications. This repeater will be located on the Red Cliff radio tower that is currently delivering broadband services to the town.

17. Town of Gypsum  
Timeframe: CY 2019  
Priority: A

- NWCCOG is working with Town of Gypsum to support their interest in delivering broadband to their town using Project THOR. Nate Walowitz continue to address their questions and support their future local Meet Me Center.
- Town of Gypsum is participating with Eagle County and other local jurisdictions to explore how all participants can work together to leverage Project THOR and support one another.

18. Town of Eagle  
Timeframe: CY 2019  
Priority: A

- NWCCOG is working with Town of Eagle to support their interest in delivering broadband to their town using Project THOR. Nate Walowitz continue to address their questions and support their future local Meet Me Center.
- Town of Eagle is participating with Eagle County and other local jurisdictions to explore how all participants can work together to leverage Project THOR and support one another.