



# **Montana Department of Commerce**

## **Montana Broadband Deployment Task Force Proposal**

# Executive Summary – Current Status

- Montana is 50 out of 50 for broadband deployment nationally
- No one size fits all technology can be deployed for ubiquitous, reliable and efficacious service
  - Multiple providers and constituencies have delivered a nonuniform patchwork quilt of broadband availability
    - Definition of “acceptable” broadband service paints a better than actual picture
    - Rural areas are a deficit, but deficient broadband service for business common
- Previous programs (e-rate) have been cumbersome to administer
- Some providers have invested heavily to build higher end service and incurred significant debt prior to COVID, CARES and ARPA
  - Potentially debt relief may be an option for advanced efforts made
- No structure or organization exists today that has ability to organize, control, contract, deploy, manage and execute a coordinated state effort



## A 1 Gbps Goal is a Technology Deployment Fail in Advance

- Current expertise rates 100/100 Mbps as minimum performance goal
- “Future proof” plans for 1 Gbps universal service will be challenged before all systems are in service
- A 10G target is already planned, so we can avoid the technology skip often experienced in telecom since conversion from analog began in 1980’s if we look ahead
- Total estimated cost to meet 1 Gbps goal from today’s state of deployment in Montana = ~\$700M



# Speed War is from Within by Application

- 5G mobility is 5<sup>th</sup> generation technology
  - Homes require both due to proliferation of connected devices
- 10G internet is 10 Gigabits per second
  - 10 Gbps is up to 10 times faster than 5G and more than 700 times faster than the average U.S. internet speed of around 18 Mbps
  - Both are needed to power IOT, autonomous driving, interactive learning and AI big data processing, storage and retrieval – Autonomous driving will = 4 GB of data/per car/day
  - The increase of mobility, voice and video, combined with virtualization is doubling of data every 2 years (2×2)
- Evolution of speeds will move to include fiber, cable and satellite to a minimum of 10G by 2035



**80%**

U.S. homes have access to 1 Gbps internet speeds

**12,400%**

Increase in top available internet speeds in the last ten years

**15GB**

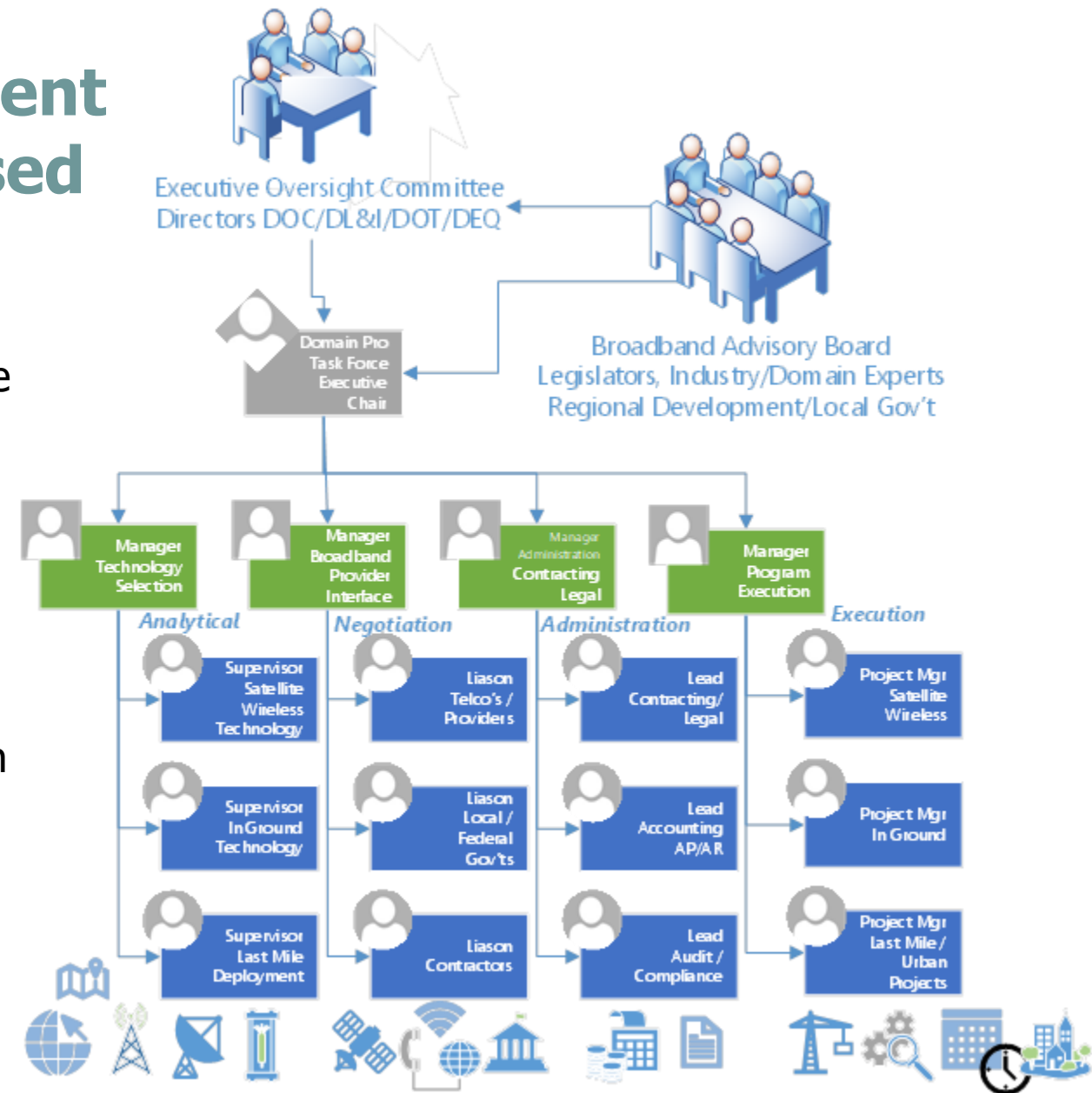
Amount of data needed daily to make autonomous cars a reality

Source: NCTA.com



# Montana Broadband Deployment Task Force 2021-2025 Proposed

- Designed to operate outside agency constraints and for funded time and deployment only – time limited and funding dependent – no tail
- Executive Chair is an empowered, working executive position accountable for total program success start to finish
- Directed and controlled by Executive Oversight Committee of Agency Directors and guided by Broadband Advisory Board with representation from Legislature, industry and technology experts, Regional development organizations, MACo, League of Cities and Towns, Tribal leaders, OPI etc.
- Structure is flexible, but set to be responsive to high quality and time driven execution to meet full budget absorption and program performance goals prior to program sunset
- Commerce serves as conduit for funds
- Assumes 1 HC FTE / \$10M of funds / 4 yr. life
  - \$350M = 35 HC



# Montana Ubiquitous Broadband Deployment Plan

Execute delivery of high capacity future state broadband to 100% of Montana citizens and businesses.

## PURPOSE

Attain coverage using ARPA & other funding with minimum 100/100 speeds plus future state 10G preparation.

## GOAL

Execute complete state coverage 2021-2025.

## OBJECTIVE

Use targeted time limited focused Task Force – single mission.

## STRATEGY

Combine domain experts with Executive Oversight and Advisory Committee accountability to meet or exceed all goals with transparency and efficiency.

## TACTICS

Ground level strategy and contracted deployment of infrastructure installation including performance incentives/penalties and committed matching funds.

## EXECUTION



# Chartering Documentation

- Org structure
- One page strategic plan
- Current status
- Future state minimums
- Alignment contracts with participating entities
- Legislative reporting protocol
- Mapping alignment

## MONTANA BROADBAND ONE-PAGE STRATEGIC PLAN

### ABOUT MONTANA BROADBAND

**PAST** – Attitudes and experiences of broadband deployment historically in Montana

**TODAY** – Current state of Montana broadband deployment

**VISION** - Where we should aspire to go with broadband and why.

**MISSION** – Principles of what we will achieve and how we work to achieve it.

**CORE VALUES** - Guiding principles of our task force, accountability and how we operate

### BROADBAND GOALS

**OBSTACLES** - What could prevent us from realizing our vision

**LONG-TERM GOALS** - What **MUST** we will do to realize our vision

**SHORT-TERM GOALS** - what will be done 2021, 2022, 2023, 2024, 2025

**MEASUREMENTS OF SUCCESS** - What benchmarks will be used as indicators of success

### BROADBAND STRATEGY

**RESOURCE ASSESSMENT** - Infrastructure and resources required to realize vision

**IMPLEMENTATION** – Execution plan of objectives along with completion deadlines

**COMMUNICATION** - how the plan will be announced / assigned and to whom / tracked

**PROGRESS ASSESSMENT PLAN** - How we will report progress, monitor success, and implement revisions



County	Population	Est. % BB Coverage	Est. Pop w/o any or adequate or affordable Coverage
Wibaux	1,122	7.40%	1,039
Broadwater	5,945	10.70%	5,309
Lincoln	19,537	22.60%	15,122
Toole	4,892	22.80%	3,777
Granite	3,311	30.60%	2,298
Pondera	5,994	33.80%	3,968
Carbon	10,597	34.70%	6,920
Sanders	11,681	35.00%	7,593
Mineral	4,251	38.20%	2,627
Petroleum	453	42.30%	261
Jefferson	11,917	45.10%	6,542
Garfield	1,036	47.70%	542
Teton	6,086	47.90%	3,171
McCone	1,790	48.30%	925
Big Horn	13,387	49.10%	6,814
Musselshell	4,766	52.30%	2,273
Carter	1,331	53.60%	618
Powell	6,854	54.60%	3,112
Park	16,352	57.00%	7,031
Powder River	1,607	59.70%	648
Prairie	1,252	61.50%	482
Glacier	13,732	62.40%	5,163
Rosebud	9,152	64.50%	3,249
Ravalli	42,512	67.00%	14,029
Stillwater	9,466	67.80%	3,048
Treasure	668	69.90%	201
Madison	8,302	71.10%	2,399
Lake	30,013	71.40%	8,584

Deer Lodge	9,106	77.00%	2,094
Flathead	99,899	78.20%	21,778
Roosevelt	11,175	79.70%	2,269
Fallon	2,921	80.00%	584
Beaverhead	9,415	81.10%	1,779
Valley	7,471	83.20%	1,255
Liberty	2,351	84.00%	376
Fergus	11,221	84.60%	1,728
Judith Basin	1,954	85.20%	289
Phillips	4,077	85.20%	603
Sheridan	3,483	85.50%	505
Richland	11,199	86.20%	1,545
Gallatin	108,063	87.60%	13,400
Cascade	81,625	89.30%	8,734
Silver Bow	34,770	89.70%	3,581
Dawson	9,017	90.30%	875
Lewis and Clark	67,805	90.40%	6,509
Missoula	117,309	90.70%	10,910
Golden Valley	728	92.70%	53
Sweet Grass	3,670	92.70%	268
Custer	11,729	93.70%	739
Yellowstone	159,008	93.80%	9,858
Wheatland	2,142	96.80%	69
Hill	16,436	97.20%	460
Meagher	1,888	98.50%	28
Blaine	6,719	98.60%	94
Chouteau	5,732	99.20%	46
Daniels	1,730	99.20%	14
	<b>1,050,649</b>	<b>68.20%</b>	<b>208,189</b>

County with less than 25% BB coverage

County with less than 50% BB coverage





County	Population	Est. % BB Coverage	Est. Pop w/o any or adequate or affordable Coverage	
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County with less than 25% BB coverage  
County with less than 50% BB coverage





**Thank you**





MONTANA

