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**Municipal Broadband:  
A Review of Rules, Requirements,  
and Options**

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# What is a municipal network?

- Service provided by a government entity; also called a government-owned network (GON)
  - Municipal utilities
  - Cities/towns
- There are 4 main types of municipal networks
  - **Municipality-owned and managed networks (city networks)** providing retail service;
  - **Utility networks** that provide broadband, telecommunications, and/or other services to their customers using the same model as their electric or other utility service;
  - **Public-private partnerships**, where a municipality contracts with a private concern to provide broadband services to its residents using infrastructure provided by the municipality.
  - **Open access (wholesale) networks**, where the city provides the infrastructure and offers it to multiple suppliers to provide retail service.
- Utility cooperatives also provide broadband

# Municipal Broadband Facts

- 143 municipal systems in place today across the country
  - Municipal power/water companies
  - City-owned/managed systems
  - Public/private partnerships
  - Some city Wi-Fi networks
- Majority are fiber based and offer high speed service
  - Exceed the FCC-mandated broadband speed standard of 4 Mbps downstream/1 Mbps upstream
  - 10 municipal systems are in the top speed category – as fast or faster than Google Fiber and other ultra high speed offerings
- There have been both successes and failures
  - Successes include Wilson, North Carolina, EPB in Tennessee, LUS in Virginia
  - “Failed systems” include iProvo and UTOPIA
  - Stranded assets/subsidy requirements are key concerns

## Proponents of municipal broadband focus on broadband as a public service

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- **Municipal systems offer a customer-focused experience**
  - Private firms must put shareholder value above customer needs
  - Municipalities know their customers better
  - Speeds are faster and prices are lower
- **Municipalities deploy networks where they are needed, including unserved and underserved areas**
- **Municipal networks increase both public and private investment**
  - Broadband infrastructure creates new business opportunities
  - Businesses demand high speed networks
- **Municipal networks increase competition**
  - Private suppliers increase speed and service to compete
  - “Open network” design may encourage multiple suppliers

## Opponents cite reduced competition, increased costs, and potential losses

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- Government-owned projects focus too much on public service goals and not enough on good business practices
  - Public service goal may obscure higher costs/reduced profits
  - Providers under price and over promise
- Municipal networks are often unprofitable
  - Taxpayers must cover increased costs and stranded assets
  - Monies could be better spent on physical infrastructure projects like roads and bridges
- Municipal providers cannot close the broadband gap
  - Provide service only to those areas where it is profitable to do so
  - Service area is primarily within the city limits and not at the more expensive edges
  - Incumbent companies must continue to serve the rest of the area, causing them to serve a disproportionate share of the higher cost customers

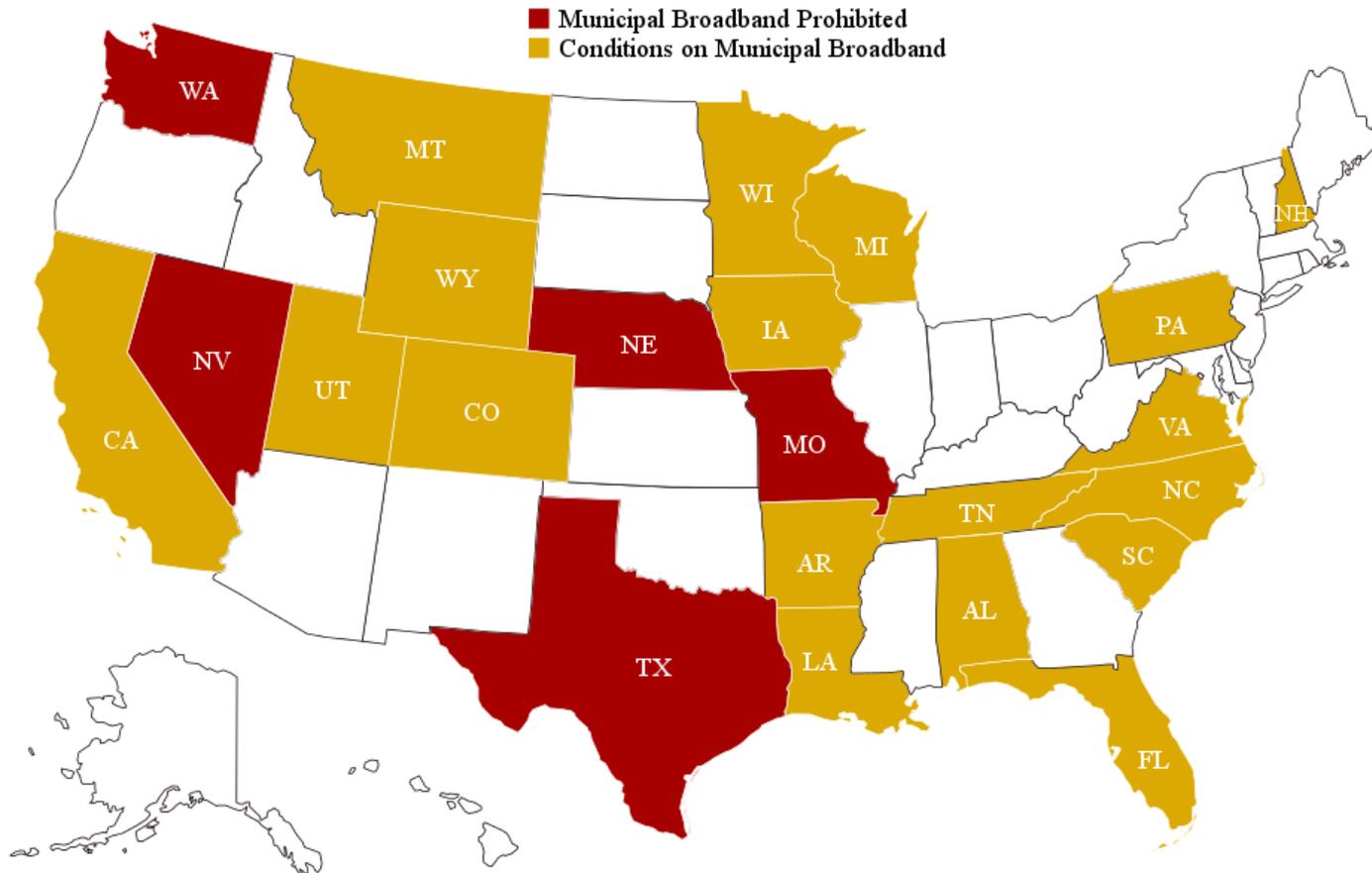
## States have responded to concerns about municipal broadband with entry conditions

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- 4 states prohibit municipal broadband completely
  - Missouri, Nebraska, Nevada, and Texas
  - Rules focus on “telecommunications” rather than broadband
- Washington allows wholesale infrastructure only; no retail networks
- 18 states condition deployment on specific requirements
  - Business plan
  - No subsidies
  - Enter unserved areas only
  - Incumbent carrier right of first refusal
- 2 municipal systems – Wilson, North Carolina, and Chattanooga, Tennessee, have asked the FCC to overturn these conditions
  - Petitioners call for the FCC to use Section 706 to reduce entry barriers and encourage further broadband deployment
  - Respondents question FCC authority and Federalism concerns

# 23 states place conditions on municipal networks

## State Regulation of Municipal Broadband



## Entry conditions are wide ranging

Requirements	States
Unserved areas/no private carrier willing to enter	CA (Note 1), CO (Note 2), MT (Note 1), PA (Note 2), SC (Note 1), WI (Note 2), WY (Note 2)
Service limited to municipality	AL, AR, MA, NC, TN, VA (Note 3 )
Referendum, public hearing	AL, CO, FL, LA, MN (Note 4), NH, NC, UT, WI, WY
Business plan, no subsidies, or tax inducements	AL, FL (Note 5), IA, LA, NC, NV, SC, UT (Note 6), VA, WI, WY
Wholesale only	WA

Note 1: May discontinue service if competitor enters

Note 2: Carrier right of first refusal

Note 3: VA svc may extend 75 mi on request

Note 4: 65% voters must agree in areas served by an incumbent provider

Note 5 : Project must break even in 4 years

Note 6: Project must break even in 5 years

Author's construct based on state data

## The jury is still out on municipal broadband

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- Managed correctly, municipal systems may be an important tool for increasing broadband adoption
- Focus on unserved/underserved areas
  - Municipal systems could act as broadband COLRs
  - Oversight could ensure adequate planning and implementation
  - Access to 911, service availability, metrics, USF remain important questions
- Good business planning is the cornerstone of success
  - Breakeven analysis
  - Accurate forecasts, including contingency plans
  - Limited or no subsidies
  - Focus on the effects of competition
- Early community support is key driver of success
  - Community meetings/referendums
  - Pre-build sales commitments following the Google model