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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

- 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

- 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

- 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
- Municipal Broadband Prohibited
- Conditions on Municipal Broadband

Map showing the states with restrictions on municipal broadband.
Entry conditions are wide ranging

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

- 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