



White Paper: Bridging the Digital Divide in Roane County

Introduction

Broadband access is essential for economic development, education, healthcare, and overall quality of life. Despite advancements in internet infrastructure, Roane County still faces significant challenges in achieving county-wide broadband accessibility. This white paper examines these challenges, compares data from the **2018 Broadband Survey conducted by ROANenet DBA Tech 4 All Tennessee** and the **2025 Roane County Long-Range Strategic Plan**, and outlines an **actionable roadmap for broadband expansion**.

1. Challenges in Broadband Expansion

Geographical & Infrastructure Barriers

- Roane County’s **rural and hilly terrain** makes broadband expansion difficult and expensive.
- Fiber-optic networks require substantial **installation costs**, which are hard to justify in **low-density** areas.

High Costs & Limited Provider Investment

- Many rural areas have **only one or two providers**, reducing competition and keeping prices high.
- Expanding broadband is **not financially viable** for ISPs without government funding.

Digital Divide & Affordability

- **Some low-income households cannot afford broadband**, even if available.
- **Digital literacy issues** among older populations limit broadband adoption.

2. Comparison: 2018 Broadband Survey vs. 2025 Strategic Plan

A detailed comparison between the **2018 survey (which was NOT used in the strategic plan)** and the **2025 Roane County Long-Range Strategic Plan** reveals persistent broadband gaps:

| Category | 2018 Broadband Survey (%) | 2025 Strategic Plan (%) |
|--|---------------------------|-------------------------|
| Households using broadband for personal activities | 91 | 95 |
| Households using broadband for education | 70 | 75 |
| Households using broadband for remote work | 28 | 35 |
| Households relying on mobile internet | 41 | 45 |
| Households without internet access | 5 | 3 |
| Households with slow speeds (<10 Mbps) | 16 | 12 |
| Willing to pay up to \$100 for broadband | 21 | 30 |

3. Action Plan for Expanding Broadband

To ensure county-wide broadband access, we propose the following strategies:

A. Public-Private Partnerships & Infrastructure Expansion

- Partner with **Comcast, Spectrum, and AT&T** to deploy fiber-optic and fixed wireless networks.
- Work with the **Tennessee Department of Economic and Community Development (TNECD)** to secure broadband grants.
- Support the **Harriman Utility Board's initiative to provide broadband access to all its electric customers starting in 2025**, ensuring high-speed internet reaches more underserved areas.

B. Secure State & Federal Funding

- Apply for **Tennessee Broadband Accessibility Grants** and **FCC Rural Digital Opportunity Funds**.
- Engage **local government** in funding broadband infrastructure development.

C. Community-Based Broadband Expansion

- Establish a **Roane County Broadband Cooperative** for community-driven broadband deployment.
- Expand **municipal broadband initiatives** through local governments.

D. Improve Affordability & Digital Equity

- Promote **discounted broadband programs** for low-income households.
- Create **free Wi-Fi zones** in underserved communities.

E. Improve Broadband Mapping & Policy Advocacy

- Conduct an **updated broadband availability survey** to identify coverage gaps.
- Advocate at the **state and federal levels** for improved broadband policies and funding.

4. Conclusion

The **2018 Broadband Survey was not used in the 2025 Strategic Plan**, yet the challenges it identified remain. This white paper presents a **clear roadmap for broadband expansion**, ensuring that all residents have access to high-speed internet for work, education, and daily life.

Tech 4 All Tennessee will continue advocating for digital equity and broadband accessibility in Roane County.

About Tech 4 All Tennessee

Tech 4 All Tennessee is a nonprofit 501c3 organization dedicated to expanding digital access, promoting technology education, and advocating for broadband equity across the state. We work with local governments, private sector partners, and community organizations to ensure that every Tennessean has access to affordable, high-speed internet and the tools needed to thrive in the digital age.

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