A Broadband Policy Agenda From Next Century Cities

Government at all levels, as well as philanthropies and private citizens, can contribute to making broadband accessible to all.

The following is adapted from "Connecting 21st Century Communities: A Policy Agenda for Broadband Stakeholders," published by Next Century Cities in July 2015. Access the full report at http://nextcenturycities.org/connecting-21st-century-communities-a-policy-agenda-for-broadband-stakeholders. The full report has examples for each policy suggestion.

Next Century Cities (NCC), a nonpartisan, city-to-city collaborative with more than 100 members, is dedicated to elevating the voices of communities in the broadband policy discussion and sharing resources and knowledge among members.

This policy agenda offers policies that will move communities in the direction of fast, affordable, reliable Internet access available to all. Expanding high-quality Internet access in a community, whether large or small, can yield a multitude of benefits for residents – from improved health services to new opportunities for small businesses, higher property values and a stronger local economy.

LOCAL GOVERNMENT

Local governments occupy a critical role in the success of broadband projects and are ideally equipped to identify and address a community's specific Internet access needs. Local governments are better equipped than any other level of government to decide whether the community is well served and the needs of residents, businesses, and anchor institutions are being met. They are also best poised to understand community challenges and assets that will impact the success of any project. Some policies for effective local government engagement include

Promoting "dig once" for efficient building. This is a collection of approaches that collectively aim to get conduit, fiber and other assets placed at a very low cost as part of other projects – for instance, by installing conduit underground as part of a sewer main replacement or requiring that a new housing development include multichannel conduit when it is being built. The conduit and fiber may later be used by the local government or leased to other providers. Over a period of 10 years or more, this policy could result in fiber throughout the majority of a community.

Creating broadband-ready buildings. New providers may find it all but impossible to serve potential subscribers in existing multitenant residential and commercial buildings. Requiring buildings to have wiring or ducts that facilitate multiple providers can go a long way toward facilitating more investment in higher-quality networks.

Streamlining permitting and rights-of-way management. Local governments should make permitting as easy as possible for building these essential networks. By streamlining permit processes, local governments can reduce the cost of a potential deployment and ensure that a network owner will begin to collect

revenue more rapidly, both of which make a community a much better prospect for investment (whether external or internal). In many cases, local governments do not own the utility poles. Without owning the poles, there is little a local government can do to force a pole owner (often the incumbent telephone company) to "play nice" with a planned network.

Connecting government offices and anchor institutions with institutional fiber networks. Hundreds of local governments have decided to own and/or operate networks that serve only public facilities. In other cases, school districts have begun to build fiber networks or lease dark fiber to operate internal networks. They have found that self-provisioning can ensure higher reliability, greater capacity and more flexibility at a lower total cost than other solutions. This approach results in greater efficiency and can create the expertise needed to later begin offering services to businesses and residents if necessary.

Serving citizens with a public network. Some of the best places in the United States to get Internet access are communities in which local governments directly provide services. In most cases, the local government offers the triple play of telephone, Internet access and cable television in competition with national cable and telephone companies. Offering the three services has been seen as the safest way to ensure the private investors that financed each project will be repaid because these communities have often chosen not to use taxpayer dollars to finance the network.

Most of these communities have built networks via already existing municipal electrical companies. Recently, however, more communities without public power are adopting this approach.

Teaming up with private partners. Some local governments have chosen to expand services with a partnership in which they share risks and rewards with a trusted partner. The

> Building and operating an institutional fiber network can save costs for local government and develop the expertise needed to operate a network that serves businesses and residents.

local government often focuses on core infrastructure or funding while relying on its partner to provide the services, which tend to evolve more rapidly and require more marketing savvy. This is an area with a lot of active interest and new models but only a few long-standing examples.

Exchanging successes and best practices with peers. Communities can help their peers across the country by creating channels to share best practices and lessons learned from their broadband projects. This knowledge sharing can occur through institutionalized and informal forums alike. Many local governments have made it a priority to share their knowledge, whether by presenting at conferences, joining Next Century Cities, doing interviews on Gigabit Nation or the Community Broadband Bits podcast or writing articles to explain what they did and why. These lessons are very important to inform other local governments because local governments have more challenges than, and different assets from, the typical small ISP building a fiber network. If local governments do not share their experiences, others will have to reinvent the wheel.

Collecting data to prove the case. Data about broadband networks and their impacts can provide a powerful tool for advocates in other communities seeking similar infrastructure. Local governments are ideally positioned to gather important information that demonstrates the positive impacts of ubiquitous broadband access. Unlike private-sector companies, which are focused on maximizing revenue, local governments

should be focused on ensuring that businesses and residents can maximize the benefits of connectivity.

STATE GOVERNMENT
State governments can play critical roles in facilitating and empowering community-led broadband initiatives. These include

Empowering communities through resources. Through funding initiatives, state governments can play a critical role in assisting community-led efforts. For instance, state governments can create grant or loan approaches to encourage projects. Minnesota spent $20 million on grant funding for 19 projects to expand Internet access in the most rural areas. New York has established a $500 million fund for matching grants to build high-capacity networks. States may also establish an effort to aid local governments in accessing capital markets by combining multiple offerings into one and offering a backstop to ensure a low interest rate.

States should be aware that requiring networks to serve only underserved or unserved populations makes long-term financial sustainability questionable. Allowing networks that serve largely unserved or underserved areas to overlap some areas with existing service may be preferable.

Convening partners. State governments can bring together stakeholders and communities to discuss the importance of broadband and share best practices to facilitate further network development. These are key opportunities to shine a light on successful examples. States must be careful not to be captured by incumbent interests that may want to restrict the types of approaches available.

Modernizing state-level regulations. Approximately 20 states have limited local government capacity to invest in broadband. States should remove any barriers to local choice – communities will have to take responsibility for the consequences of any action or inaction. Some have justified states' preempting local authority as a measure to protect taxpayers. To date, NCC is unaware of a single instance in which a state had to deal with any debt created by a community network. When authority is unclear, the state should make it clear that local governments have the authority to build or partner for new networks.

Creating representative task forces. Task forces or committees focused on Internet access have been created in many states but have not often resulted in substantive new investment or changes to the status quo. States that have task forces should consider increasing representation from local businesses, residents and local governments to ensure incumbent voices do not dominate the agenda. Particularly in rural areas, the voices of cooperatives and other locally rooted entities should be elevated rather than those of service providers that are not locally based.

Building out the middle mile. Ensuring that communities have robust backhaul to connect to the rest of the Internet is important for financially viable business plans for next-generation networks. In many regions, a small number of ISPs dominate the backhaul market. Building middle-mile connections, most notably open-access networks in which multiple providers can use the infrastructure, will allow ISPs (particularly small private and community networks) to offer high-capacity connections at reasonable prices. ISPs may even be able to offer their services anywhere the middle mile can connect them to open last-mile networks.

Elevating the issue and stakes. Elected officials, from the governor to state legislators, can use their positions to call for local choice and block any actions by incumbents to use their power to restrict competition in the telecommunications market. Speaking out in favor of smart local approaches will result in more attention and media coverage, which will inspire other communities to work toward better Internet access.

FEDERAL GOVERNMENT

The federal government was essential in ensuring all Americans were connected to the electrical grid, which it accomplished by encouraging investments by municipalities, cooperatives and the private sector. This lesson is directly applicable to efforts to connect everyone with high-quality Internet access. The federal government can take the following actions:

Protecting market competition through antitrust and antimonopoly action. The federal government has the authority to prevent market consolidation and mergers that are not in the public interest. In recent years, the Department of Justice and the Federal Communications Commission have stopped mergers between AT&T and T-Mobile and between Comcast and Time Warner Cable. The federal government should take a stronger role in limiting the power of the largest firms to ensure small firms are able to enter the market and compete.

Removing barriers and breaking down silos. In some cases, the federal government can act as a bulwark against state barriers regarding broadband infrastructure projects. By exercising preemptive powers, federal policymakers can remove barriers to broadband deployment as well as break down bureaucratic silos.

For instance, one agency may refuse to allow grants for one kind of infrastructure to be used for multiple purposes, meaning that conduit for traffic signaling may not be used to improve Internet access for businesses or anchor institutions. Though these rules may make sense narrowly in the silo, they raise the cost of investment in needed infrastructure when viewed more holistically. The executive branch should review such rules to lower the cost of infrastructure investment and remove any uncertainty in how valuable assets may be used.

Strengthening the case through nationwide data collection. Collecting high-quality data at the national level can help inform community decisions by providing a wealth of information about approaches and tools to meet unique needs. Current data collection is insufficient, leading to numerous examples of people buying homes after being promised they have broadband Internet access only to find out they do not. In collecting this data, agencies should develop reasonable processes for small ISPs, recognizing that they are often already responsive at the local level.

Filling the funding gaps. Funding for broadband infrastructure is often difficult to find despite its critical importance to a thriving future. The federal government can assist communities through grant and loan opportunities. Rural electrification depended on the federal government's loaning funds to newly created rural cooperatives. The history of success of municipal and cooperative approaches in providing infrastructure to rural America suggests that these efforts should be prioritized for grant and loan funding. Grants and loans should cover capital costs for projects that have financially sustainable plans without requiring future federal subsidies. The federal government should ensure paperwork requirements are suited to small, rural operations.

Using the national platform. National elected leaders are powerful actors in any policy debate. National officials can influence policymakers at the state and local levels by taking stands for local Internet choice and improved access while highlighting good examples that should be emulated.

PHILANTHROPY

Philanthropic partners can be critical advocates for successful broadband projects, offering communities tools to facilitate the development of fast, affordable, reliable Internet. In many cases, philanthropies have begun to

engage productively in developing broadband networks, with room to further expand these efforts.

Some of these activities include:

Supporting advocacy. Philanthropic support has been crucial in helping to establish key advocacy groups for broadband. With funding from large foundations, organizations such as Next Century Cities are able to develop effective platforms for engaging key stakeholders and decision-makers in the larger broadband policy debate.

Funding high-impact research. Knowledge production and dissemination helps bolster community campaigns for broadband Internet, providing a sense of current gaps and suggesting possible solutions and benefits. Funding from philanthropic organizations can support high-quality research.

Creating forums for knowledge sharing. Communities and stakeholder groups often learn best when they share experiences with one another. Mutual learning forums, supported by philanthropies and foundations, can be effective tools for advancing access to fast, affordable, reliable broadband Internet.

Improving civil society and empowering communities. Other philanthropy-supported groups work in the community at large to ensure that all members of a town or city can reap the benefits of broadband Internet.

Other avenues for philanthropic engagement remain largely untapped, though they offer significant benefits to broadband deployment projects. Some of these new programs include

Working collectively with peer funders. By collaborating among partner and peer organizations, philanthropic funders can amplify the impact of individual investments and develop a shared broadband strategy.

Leveraging community foundation assets. Though smaller than major philanthropies, community foundations possess valuable local knowledge that can effectively direct resources to important players in local broadband Internet projects.

> Individual citizens can play important roles in communicating the benefits of broadband and building support within their communities for fast, affordable, reliable Internet access.

Supporting core costs through funding and investment. Philanthropies can draw upon significant funds to assist in broadband projects. Supporting broadband can include large-scale, program-related investments and instruments such as social impact bonds to support capital costs. Some challenges of connecting low-income populations are one-time capital expenditures that may be smart investments if a local service provider is willing to partner and ensure services are then available. Smaller-scale investments include matching funding to support feasibility studies.

COMMUNITY

Successful broadband projects need engagement from all members of the community to maximize networks' social benefits. This includes involvement from the private sector, key pillars of civil society and individual citizens.

Some tools for effective community engagement might include

Engaging with anchor institutions. Organizations such as libraries, schools and communities of faith often play critical roles in community projects. Identifying and engaging respected leaders of these anchor institutions can help solidify social and political support for broadband projects. These institutions are already hubs of information for many in the community and may already serve a substantial portion of the people who lack access at home or are in need of digital literacy training.

Educating communities about the benefits of broadband. High-quality Internet access creates a tremendous variety of indirect benefits for a community, including enhanced educational opportunities, avenues for civic growth and participation, improved health care outcomes and even higher property values relative to areas without high-quality Internet access. However, these benefits are accrued generally by the community rather than specifically by the network owner, not unlike the benefits from roads.

Roads themselves have tremendous maintenance costs, but they enable commerce and travel, which is why building and maintaining streets is an important function of government. The many indirect benefits from improved Internet access are not immediately apparent without an effort to engage and educate the community.

Lifting up citizen voices. Citizen testimonials about broadband offer useful tools for advocates. By putting a human face to these technological issues, citizen-centered media campaigns can help garner further community support.

Engaging the whole community. Successful broadband efforts require input from all segments of the community. Advocates should seek to engage less-advantaged communities while recognizing existing gaps in access to fast, affordable and reliable Internet.

Organizing neighborhood conversations. Conversation among residents of a community can help galvanize support for broadband infrastructure and educate community members about the importance and potential of high-speed Internet. Community members are encouraged to talk to their friends and neighbors about the need for fast, affordable, reliable Internet. ❖