

Checklist

This Checklist is intended for representatives of community and local governments in California interested in implementing a government-led wireless network. The Checklist is divided into four sections: Fact Finding and Planning, Decision Making, Request for Proposals (RFP), and Implementation. The steps in this Checklist are written in an ideal chronological order, but the reader should be aware that project implementation is usually affected by many factors that impact the timing and sequence of the steps. This document concludes with references to additional guides and toolkits produced by other organizations.

The reader is strongly encouraged to read the full *Wired for Wireless? Towards Digital Inclusion and Next Generation Government-Led Wireless Networks* report before using this Checklist. This Checklist is based on research data presented by this Summary Report and its associated research documents. Many issues are not fully elaborated here, which may affect their interpretation.

Fact Finding and Planning

Identify the current broadband policies in the jurisdiction.¹

Broadband policies provide a clear goal for policy makers, local government staff, industry representatives, and community members to work toward.

Identify civic and political leaders in your community advocating for broadband.

Assess the broadband needs of the community.

- Some assessment mechanisms include focus groups, town hall meetings, interviews, and surveys. It is recommended that a comprehensive approach be developed, which would include a combination of all the mechanisms stated above. In many cases, local governments are contracting with consultants to conduct feasibility studies.
- Talk to different stakeholders: government agencies and departments, industry representatives, non-profit organizations, and the community at large.
- Assess how the identified needs impact the applications and technology requirements (type of wireless technology, upload/download speeds).

1. The California Emerging Technology Fund (CEFT) is currently funding research on model broadband policies. Please check the CETF website for more information about the research. Additionally, please refer to the Regulatory Review research document of the Wireless Comparative Analysis and Best Practices Education Project (<http://www.CommunityPartners.org/wireless-documents.html>) or (www.cetfund.org/resources/information).

Gather jurisdiction information and data pertinent to the business planning process.

- Obtain a topology map of the area to best understand where added costs may be incurred due to the terrain.
- Compile a list of the high altitude public access fixtures which a vendor may use to affix their wireless equipment, such as: cell, water, radio, TV, and fire look-out towers; and public buildings and structures. Also assess the availability of electrical power at each location.
- Identify hardware and software requirements that enable the services and features that government departments, resellers, and end-users need, want, and would like to have.²
- Understand the possible value-added³ services and features based on planned levels of security, quality of service, bandwidth, and redundancy.
- Explore and define the levels of services that would be provided to end-users.

Map broadband availability in your jurisdiction.

Obtain data about where broadband is currently available. Data may be obtained from: California Broadband Initiative (<http://www.calink.ca.gov>), local community technology organizations, libraries, schools, health facilities, and local providers (wired and wireless).⁴

Map the assets of the community by collaborating with stakeholders.

When assessing the needs of the community and government agencies/departments in your jurisdiction, also evaluate the assets they have available to invest in the project. In some instances, communities are already implementing community wireless networks. Also, as indicated above, government entities may have resources they can contribute, such as: access to fiber networks (e.g. water and power departments), current local government providers, light poles and tall buildings for the attachment of equipment (e.g. public utility and planning departments), and existing funding for specific broadband initiatives (e.g. city development agencies).

Make Digital Inclusion components an integral part of the network planning and implementation.⁵

Providing access to the Internet is only one of several key components to bridging the Digital Divide. Identify existing programs administered by government, industry, and community that:

- Develop online content and software applications that are relevant to the community using the wireless network.
- Help low-income communities with the costs of online devices (computers, cell phones, wireless cards, assistive technology) and monthly service.

2. Nice-to-have services and features are those that may not be required or needed but may be desirable to increase functionality and desirability.

3. Value-added services and features are those that increase user adoption or service value, such as voice-over internet protocol (VoIP), video telephony, internet protocol television (IPTV), managed firewalls, among others.

4. There are several online tools to find WiFi hotspots in California, such as Anchor Free (<http://anchorfree.com/hotspotfinder>), Wi-FiHotSpotList.com (<http://www.wi-fihotspotlist.com/browse/us/2000238/>), and JiWire (<http://www.jiwire.com/>). The State of California website also provides a list of State facilities/entities that provide free public wireless Internet (<http://www.ca.gov/WiFi.html>).

5. To truly pursue a comprehensive Digital Inclusion strategy, consideration must be given to the following key components: Stakeholder Engagement, Adoption, Availability, Applications, Affordability, Accessibility, and Assistance. For more information, please refer to The Pursuit of a Digitally Inclusive California section of the *Wired for Wireless? Towards Digital Inclusion and Next Generation Government-Led Wireless Networks* report (<http://www.CommunityPartners.org/wireless-documents.html>) or (www.cetfund.org/resources/information).

- Help populations with disabilities access and use the technology.
- Assist users with maintenance, technical support, and upgrading.

Learn from the past.

Communicate with other jurisdictions already implementing projects and review previous research.

Decision Making

Identify clear objectives for the project.

The objectives of government-led wireless networks can generally be categorized into three different areas:

- Government Operations and Services (emergency services, employee communication, movement of data).
- Public Policy Goals (improving education, promoting workforce development, and economic development that includes drawing tourism and attracting high-tech companies to the region).
- Public Access (providing broadband access to the community at affordable rates and/or deployment in underserved areas).

Identify very clear and concise objectives. Avoid general descriptions. Always consider: Who will it benefit? How will it benefit them? How will the network be used to accomplish the objectives? What is the necessary deployment area to accomplish the objectives?

Make a decision on whether a government-led wireless network is right for your community.

Representatives of all stakeholder groups should be involved in the decision making process.

Some guiding questions in making the decision include:

- How does the network address the broadband priorities of the jurisdiction?
- Are there clear objectives for the project?
- Can the needs identified be met by the private sector? Or through collaboration with local community projects?
- Are there enough assets to secure the sustainability of the project?⁶
- Is there sufficient leadership from the community, government, and business sectors to undertake the project?

Choose a business model.

The right business model is greatly dependent on the objectives of the network and the assets identified. Each business model has its advantages and disadvantages. While the business model is not the only reason many wireless networks have not been successful (technological and political challenges have also played a role), it is clear that in order for government-led wireless networks to be sustainable they require long-term investment from the local government. Once a business model is chosen, it is important to provide a level playing field for all vendors.

6. The City of San Francisco is pursuing a different approach in which they are building targeted networks in public housing sites and supporting various local initiatives in order to accomplish their original goal of providing Internet access to the community. See case study on San Francisco in the Case Studies research document of the Wireless Comparative Analysis and Best Practices Education Project (<http://www.CommunityPartners.org/wireless-documents.html>) or (www.cetfund.org/resources/information).

- **Provider Financed:** The network provider finances the system and recoups its investment via advertising and/or subscription fees.
- **Anchor Tenant:** The local government agrees to buy a certain amount of service from the wireless provider. The agreement guarantees the provider a revenue stream, thus making the transaction attractive to the provider. The anchor tenant model is usually used in combination with the provider financed model.
- **Sponsorship:** An entity such as a company or a foundation pays for the deployment, public access, and/or community benefits.
- **Government Financed:** The local government pays for and owns the system, and may contract to have it managed.

Select an ownership model.

Who will own the assets of the network? The ownership of the assets will greatly depend on the business model selected. If the government financed or sponsorship business models are selected, the network will be owned by the local government or administrative body. If the provider financed or anchor tenant models are selected, the network will most likely be owned by the provider.

Identify an administration model.

How will the overall project be administered? Project administration refers to the overall supervision of the project and its implementation and development. Some possible administration structures include:

- A local government agency (usually the IT department).
- A partnership between a government agency and a collaborative (task force, committee, etc.) from community, business, and government entities.
- A non-profit organization that represents all stakeholders.

Decide on a network management model.

How will the network be managed on a day-to-day basis (provision of technical assistance to the network, upgrades, maintenance, customer support)? Usually the network owner determines the management model. The network may be managed by:

- The local government.
- An outside vendor.
- A partnership between the local government and a vendor.

Request for Proposals (RFP)

Research previous samples.⁷

Important issues to include are:

- Require a pilot phase; determine clear pilot objectives and timetable. State clear consequences in case objectives are not met (exit clause).
- Include provisions for technology upgrades.
- Include clear criteria for evaluating the proposals.

7. To access sample RFPs from other jurisdictions throughout the United States, visit MultiState Associates at <http://www.multistate.com/>.

Obtain input from stakeholders on a draft RFP.

Select provider.

Implementation

Conduct pilot.

Evaluate the pilot and share the results with the public.

Assess if the pilot is meeting objectives, especially technology effectiveness and sustainability.

Expand implementation.

Conduct regular evaluation of the project.

Is the project meeting the objectives? Have the original needs changed? How do new technology developments affect the project?

Stakeholder Engagement

Engaging stakeholders in the community is a key component of an effective Digital Inclusion plan. Thus, pay particular attention to the following questions in the development of a government-led wireless network.

- How will stakeholders be engaged in the planning process?
- How will stakeholders be engaged in the decision making process?
- How will stakeholders be engaged in the organizational model selected?
- How will stakeholders be engaged in the implementation and evaluation process?

Other Resources

Below you will find additional guides or toolkits for representatives of community and local governments in California interested in implementing a government-led wireless network:

- *Action Plan for Deploying Broadband Internet to Michigan Local Governments*, Michigan Department of Information Technology, (http://www.michigan.gov/documents/dit/Broadband_Reference_Guidebook_FINAL_212166_7.pdf).
- *Municipal Wireless Buyer's Guide*, DailyWireless.com, (<http://www.dailywireless.com/buyers-guides/muni-wireless-bg/>). Also see, *Five Keys to Successful Metro-Scale Wi-Fi Deployment*, Tropos Networks, (http://www.tropos.com/pdf/technology_briefs/tropos_techbrief_five_keys.pdf).
- *Planning Your Municipal Wireless Network*, BelAir Networks, (http://www.belairnetworks.com/resources/pdfs/Chklst_Muni_Ntwrk_BDMX00040_A01.pdf).
- Additional resources can also be found in the Bibliography document of this Summary Report, (<http://www.CommunityPartners.org/wireless-documents.html>) and (<http://www.cetfund.org/resources/information>).
- MuniWireless, (<http://www.muniwireless.com>).