

DIGITAL MARIN STRATEGIC PLAN



TABLE OF CONTENTS

Introduction	1
Guiding Principles	3
Methodology	4
Existing Assets	5
Marin's Digital Needs.....	7
Marin's Digital Roadmap	8
Goal 1 - High-quality broadband is available to everyone in Marin.....	9
<i>Strategy: Assist with the deployment of universally accessible public and public/private broadband services throughout Marin</i>	<i>11</i>
<i>Strategy: Improve the quality, reliability, resiliency, and safety of Marin's broadband services.....</i>	<i>12</i>
<i>Strategy: Increase access to affordable broadband service</i>	<i>13</i>
Goal 2 - Everyone in Marin can take advantage of all online opportunities	14
<i>Strategy: Coordinate and expand digital literacy training in Marin.....</i>	<i>15</i>
<i>Strategy: Expand community-based programs to provide end user devices and support.....</i>	<i>16</i>
<i>Strategy: Help organizations create easy to use digital services that work for everyone</i>	<i>18</i>

Goal 3 -Marin has a high rate of digital adoption that benefits everyone 19

Strategy: Improve privacy, security, and digital accessibility across Marin.....20

Strategy: Address barriers through education and community problem solving21

Strategy: Increase public value from investments in technology22

Goal 4 -Marin has a communitydriven organization with amission of broadband for all 24

Strategy: Obtain funding and create an independent operating entity25

Getting There..... 27

Risk and Impact Analysis..... 28

Timeline..... 29

Initiatives to Bridge the Digital Divide.....30

Appendices..... 31

- 1 - Needs Assessment Report
- 2 - Magellan Conceptual Network Design
- 3 - Executive Steering Committee
- 4 - Project Administration

Founding Partners32



Requests for disability accommodations may be made by phoning 415-473-6309 (Voice), CA Relay 711 or by e-mail at Digital@MarinCounty.org. Copies of documents are available in alternative formats, upon request.

Executive Steering Committee

Ann Mathieson

Chief Executive Officer
Marin Promise Partnership

Bruce Vogen

Research Analyst
Marin Resident

Elise Semonian

Planning Director
Town of San Anselmo

Javier Trujillo

Chief Assistant Director
Marin County Information
Services and Technology

Jessica MacLeod

*Director, Digital Service
and Open Government*
City of San Rafael

Johnathan Logan

Vice President, Community Engagement
Marin Community Foundation

Liza Massey

Chief Information Officer
Marin County

Michael Frank

Executive Officer
Marin General Services Agency

Mike Blakeley

Chief Executive Officer
Marin Economic Forum

Rebecca Woodbury

Former Director
City of San Rafael

Ross Millerick

*Director, IT Management
and Lecturer Golden Gate University*
Novato USD Trustee

Sarah Jones

Former Director
Marin County Free Library

Project Team

Jeff Daniel

Project Manager
Marin County Information Services
and Technology

Abbie Ridenour

*Education Pioneers COVID
Response Fellow*
Marin Promise Partnership

Aidan Vermeulen

Former College Intern
Marin County Information Services
and Technology

Daniella Baker

Administrative Support
Marin County Information Services
and Technology

Nina Bell

Administrative Support
Marin County Information Services
and Technology

INTRODUCTION

The internet is a fundamental element of our lives. From our economy to education, it provides us with access to opportunities and critical services. The COVID pandemic and other recent disruptive events underscore Marin's need to end internet access inequities and bridge the digital divide - the economic, educational, and social inequalities between those who have computers and online access and those who do not have it. Students need reliable home connections for distance learning. Families need online access to information and support services. Our businesses and growing remote workforce demand more from internet providers to remain competitive. High speed internet has become equal to water and electricity.

In June 2019, the Marin County Board of Supervisors approved the development of a Digital Infrastructure Strategic Plan, which became the Digital Marin project. At the same time, the Marin County Civil Grand Jury released the [Marin's Telecommunications Disconnect Report](#) underscoring the need for improved leadership and coordination of telecommunications efforts. Digital Marin became a collaborative effort involving representatives from every sector including residents, business, education, government, healthcare, non-profits, utilities, and technology providers. From the outset, the project envisioned a future where everyone in Marin has access to universally available, affordable, reliable, resilient, and safe broadband with robust devices, technical support, and the digital literacy needed to take part in an ever increasing digital world. This vision also included serving residents, businesses, and other organizations better through public and private collaborations and sharing of data and resources.

The needs assessment findings solidified our belief that access to high-speed internet is crucial for participation in today's society, but barriers exist.

The digital needs assessment process was conducted through community outreach. This approach created collaborations among Marin's residents, businesses, and public and private sectors that will serve us well moving forward. It confirmed that the price and availability of internet services in Marin are consistent with other Bay Area counties. With that said, our consultants, Magellan Advisors, found that despite Marin County's position next to a global technology hub, the number of entities owning network infrastructure, and the relative affluence of our population, the County has few network assets. They also found that internet access infrastructure and broadband options are no better than most other communities across the country. The findings solidified our belief that access to high-speed internet is crucial for participation in today's digital society, but barriers exist for some residents. Residents and businesses without broadband service most often cited the lack of availability and cost of service as reasons for not having it.

The needs assessment also better defined where Marin is experiencing the digital divide. While residents in five geographic areas - the Canal Neighborhood, Marin City, two areas in Novato, and West Marin – most disproportionately experience it, so do Marin’s older adults and persons with disabilities. Findings also showed that lack of availability or competitive options, inconsistent service levels and pricing, and other barriers exist to varying degrees in Marin, even in affluent areas, and the need for improved digital literacy, better devices, and increased digital adoption cuts across all socio-economic groups. These findings influenced the Plan’s focus on equity. Details about the findings from the needs assessment and gap analysis are available in the Digital Marin Needs Assessment Report. (See Appendix 1)

Marin’s physical access to the internet has been left in the hands of private companies that are not required and do not provide universal service. This approach is not unusual for counties of all sizes and geographic makeup. It created the lack of competition, service gaps in less profitable areas like West Marin, and other outcomes we found. For example, the telecommunications industry is currently advertising “5G” as an alternative to wired internet. Based on past experience, this new technology will be installed where providers expect the highest return on investment, not where the systems are most needed in Marin, such as the Canal area.

Hands on leadership at the local level, backed by State and Federal government and partnerships with the private sector, are needed to solve our problems and meet local digital needs. Achieving Digital Marin’s vision also requires collaboration, time, funding, policies, programs, and a continued commitment particularly to those areas of Marin that are deemed un- or under-served by Federal and State laws. Establishing a community driven operating entity, launched and incubated within the County of Marin organization but supported by all sectors, is vital to success.

Actions taken to implement the Plan must include transparent tracking and reporting of performance, disaggregated by factors like race, age, and income, to ensure that resources are equitably applied especially to those with the most need. This Plan includes key performance indicators (KPIs) - quantifiable measures that gauge progress - that will be further refined during implementation of the Plan. Progress will be measured and reported using these KPIs.

This Strategic Plan is the roadmap to move Marin from where we are today to a better digital future by creating leadership, governance, collaboration, and actions that advance broadband deployment and digital adoption. Creation of the Plan was made possible by members of the Executive Steering Committee, Work Groups, Project Team, and the project’s consultant, Magellan Advisors. It is better because of the advice, input, and feedback of over 3,000 Marin residents, business owners, community advocates, and employees from government, education, and other industries.

GUIDING PRINCIPLES

From inception through completion of this Strategic Plan, the Digital Marin project followed four guiding principles.

Broadband for All

The digital divide is closed so every resident, community, and organization in Marin can take advantage of all digital opportunities and resources.

Inclusive & Equitable

Digital projects and initiatives are inclusive and equitable, involving and benefiting all of Marin's communities and sectors.

Community Driven

Digital solutions are community driven to address what communities say is important.

Forward Thinking

Digital projects are forward thinking with near-term wins and long-term gains.

METHODOLOGY



PROJECT APPROACH

Development of the Strategic Plan was managed as a project with a project plan, project manager, tasks, timeline, and monthly reporting.

Project leadership provided by an Executive Steering Committee. Marin Managers Association served as project sponsors.



COMMUNITY INVOLVEMENT

Community outreach resulted in more than 3,700 touch points, including 12 surveys and more than 70 meetings, focus groups, briefings, and interviews.

Touch points also included providing comments, subscribing to the weekly newsletter, and participating as stakeholders, community advocates, or subject matter experts.



ASSET INVENTORY

The Project's consultant, Magellan Advisors, conducted an inventory, assessment, and gap analysis of Marin's network assets and services.

Magellan Advisors provided findings and recommendations including a phased, conceptual network design.



NEEDS ASSESSMENT

Community needs were used to develop a Needs Assessment Report that identified seven (7) digital needs.

The Report was made available for public comment, updates were made, and the final Report is posted on the [GoDigitalMarin](#) website.



BEST PRACTICES

Plans and projects from other government entities were reviewed, and we participated in development of the California State Broadband Action Plan.

We participated in workshops and other forums conducted by the FCC, CPUC, Smart Cities Connect, and other organizations, and are members of NBNCBC and NATOA.



ADOPTION AND ENDORSEMENT

The Strategic Plan was made available for public comment, updates were made, and the final Plan is posted on the [GoDigitalMarin](#) website.

We are seeking adoption or endorsement by boards, councils, commissions, and other leadership bodies for organizations in all sectors.

EXISTING ASSETS

The project's consultant, Magellan Advisors, conducted an inventory and gap analysis of Marin's digital infrastructure. They found a significant discrepancy between factors typically associated with well-connected regions and what was found in Marin.

According to Magellan Advisors,

Marin County has numerous private and public players in the network infrastructure and services space. In contrast, network assets and services are quite modest, particularly in comparison to leading communities, many of which are less affluent and densely populated, and much farther from major tech hubs than Marin.

While these findings and the information obtained through surveys, interviews, and focus groups outline the challenges faced in achieving Digital Marin's vision, we have existing assets to build upon.

Infrastructure

- California Open-Access Middle Mile Network (proposed)
- California Research and Education Network (CalREN)
- Commercial middle mile and backhaul networks
- Incumbent providers' networks
- Light and telephone poles
- Magellan Advisor's Recommended Conceptual Network Design
- Marin Emergency Radio Authority (MERA)
- MIDAS
- Public Benefit Fiber in SMART easement
- San Rafael Fiber Network
- Satellite service
- Towers

Collaborations

- Bolinas-Stinson Union School District Connectivity Committee
- Canal Neighborhood Wi-Fi Project
- Digital Marin Project
- Marin City Free Internet
- Marin General Services Authority (MGSA)
- Marin Broadband Taskforce
- Marin Information Security Collaboration
- Nicasio Broadband Network Project
- North Bay/North Coast Broadband Consortium
- Shoreline Connectivity Project

Data Sharing

- Community Information Exchange Movement
- Integrated Justice System
- MarinMap
- Marin Promise Partnership

Funding Sources

- California Advanced Service Fund Grant
- Community Foundations
- Federal Recovery and Infrastructure Funds
- Private Donors
- State Broadband Funds

MARIN'S DIGITAL NEEDS

The Digital Marin project conducted community outreach by dividing Marin's stakeholders into sectors and assigning at least one (1) member of the project's Executive Steering Committee as a liaison to each. The seven sectors are: business and economic development; education; government and emergency management; health and community based organizations; internet, communication and technology providers; planning, transportation, public works, and utilities; and residents. The individual findings for each sector were analyzed and combined into a [Needs Assessment Report](#) that identified seven (7) overall needs. These needs represent challenges that must be overcome to achieve Digital Marin's vision.

- 1 BROADBAND FOR ALL**
Universally accessible, affordable, reliable, and safe broadband is needed throughout Marin.
- 2 AFFORDABLE INTERNET SERVICE**
Affordable broadband service is needed throughout Marin, so cost is not a barrier to entry.
- 3 RESILIENT AND RELIABLE COMMUNICATION NETWORKS**
Redundancy and resiliency are needed for all of Marin's digital infrastructure.
- 4 DEVICES FOR ALL**
Marin's residents need safe, robust end user devices to access all digital resources and opportunities.
- 5 DIGITAL LITERACY**
Digital literacy for providers and consumers of internet content and services is needed.
- 6 COLLABORATION AND DATA SHARING**
Collaboration and sharing of data and resources are needed to improve service delivery to our residents.
- 7 DIGITAL ADOPTION**
Building trust and knowledge of the benefits of participating in an ever increasing digital world is needed to increase digital adoption.

MARIN'S DIGITAL ROADMAP

Four (4) goals with enabling strategies emerged from the community outreach, needs assessment, asset inventory, and gap analysis. These goals and related strategies create Marin's digital roadmap.

Goal 1: High-quality broadband is available to everyone in Marin.

Strategies:

- Assist with the deployment of universally accessible public and public/private broadband services throughout Marin
- Improve the quality, reliability, resiliency, and safety of Marin's broadband services
- Increase access to affordable broadband service

Goal 2: Everyone in Marin can take advantage of all online opportunities.

Strategies:

- Coordinate and expand digital literacy training in Marin
- Expand community-based programs to provide end user devices and support
- Help organizations create easy to use digital services that work for everyone

Goal 3: Marin has a high rate of digital adoption that benefits everyone.

Strategies:

- Improve privacy, security, and digital accessibility across Marin
- Address barriers through education and community problem solving
- Increase public value from investments in technology

Goal 4: Marin has a community driven organization with a mission to deliver broadband for all.

Strategy:

- Obtain funding and create an independent operating entity

An illustration featuring a large magnifying glass with a dark green handle and frame. The lens is focused on a dark blue rectangular box containing white text. Above the box is a teal arrow pointing up and to the right. Below the magnifying glass handle, four stylized human figures are shown in a professional setting. From left to right: a man in a light blue shirt and dark pants holds a yellow folder; a woman in a yellow vest and teal pants holds a tablet; a man in a light blue shirt and dark pants carries a yellow and teal briefcase; and a woman in a teal dress stands next to a flipchart displaying a bar chart with three bars of varying heights (teal, teal, yellow). A dashed teal circle is positioned above the flipchart. The background is white with a faint teal bar chart visible through the magnifying glass lens.

Goal 1
*High-quality broadband
is available to
everyone in Marin*

While our research found that five (5) geographic areas of Marin most acutely experience a lack of affordable access to broadband, findings also show that lack of availability, inconsistent service levels, and lack of provider competition exist in Marin, even in some affluent areas. The gap analysis revealed Marin's two primary providers offer internet service to approximately 99% of the households in urban Marin with varying levels of service, speeds, and pricing. Surveys revealed that cost and lack of available service are the top two reasons Marin residents give when they do not have broadband at home.

70% of respondents in subsidized housing identify cost as the primary reason they do not have broadband at home.

—Marin Housing Authority Residents Survey

According to the California Public Utilities Commission (CPUC) 2020 estimates, Marin County has 591 households that are unserved, i.e., either have no internet service available in their community or service that is below the 25 Mbps download/3 Mbps upload (25/3) broadband speed policy set by the Federal Communications Commission (FCC). Of those 591 households, 208 have service at or below 6 Mbps down/1 Mbps up (6/1). These households are deemed underserved. This data is questionable since it is self-reported by internet service providers and the threshold for identifying what households are "served" is low. Detractors believe that the number of un- and under-served households is higher than reported.

This issue appears to be the case in Marin. For example, in a small number of cases, our survey respondents' speed tests for households in served areas reported results as low as 681 kb/s down and 126 kb/s up. As such, these findings show that even "served" households, i.e., those identified as receiving at least 25/3 or higher, may experience speeds below the FCC standard for broadband. Given the sample size, more speed testing is required to better define un- and under-served households.

Our research also identified issues with quality of service. Survey responses about the quality of service revealed that despite paying 5.82% more for internet only service than the \$70/month national average, only 55% of residents rated their overall internet service as good or excellent. When asked about internet slowdowns and outages, over 61% of respondents indicated that they occurred several times a year.

Outages and inconsistent cell services hinder emergency response and communication during disasters.

—Public Safety Officials

While this Plan's actions aim to address issues of pricing, availability, and service, existing laws constrain state and local governments from regulating the activities of private providers. These and other findings show that high-quality, affordable broadband services are not as available as Marin prefers. Deploying broadband infrastructure, adopting quality standards, and increasing affordability will help to address these issues.

Strategy: Assist with the deployment of universally accessible public and public/private broadband services throughout Marin

Implementing this strategy requires designing Marin's broadband network and facilitating deployment of broadband infrastructure. Three high-level actions enable increasing broadband deployment throughout Marin.

Action 1 - Deploy an open access broadband network comprised primarily, but not exclusively, of publicly owned assets

Hire a consultant to assist with development of a detailed public broadband network design that delivers best in the U.S. high-speed service in Marin, with a goal of 1 Gbps symmetrical wherever needed and possible, with an emphasis on providing internet services to Marin government entities such as city halls, schools, county and municipal facilities, joint power agencies (JPAs), and special districts. Consider all deployment options including public, public/private partnerships, and commercial. Wherever possible, incorporate competition, overbuilding, use of existing public and private network assets and services, local control, and community ownership into the design.

Include the following as part of the design process.

- As a top priority, determine the ability to use the strands of dark fiber in the SMART easement allocated to the County and the cities through which it passes in the License Agreement between SMART and Sonic.
- Identify ways to offset the cost of constructing an open access broadband network including analysis of current spending and performance metrics, such as the number of circuits and speeds, used by government, schools, anchor institutions, and other publicly-funded entities to reduce spending or divert funding.
- Use Magellan Advisor's recommended conceptual network design as a basis for development of the detailed, open-access, publicly-owned network design. (See Appendix 2)
- Coordinate with the State's Open Access Middle Mile project to take advantage of available infrastructure and technical assistance.

- Incorporate public and privately owned internet infrastructure and assets to the greatest extent possible to reduce cost and increase the speed of deployment, while still resulting in a publicly owned, controlled, or managed network, wherever possible.
- Consider all options including underground and aerial fiber, fixed wireless, wave broadband, satellite, and other available and emerging technologies.

Action 2 – Use a phased implementation of stand-alone broadband components

After a detailed broadband network design is completed and resources become available, oversee deployment of broadband infrastructure using a phased implementation of stand-alone broadband network components. Manage each phase using project management best practices that include securing funds, hiring consultants, and obtaining other necessary resources. Upon completion of each proceeding phase, launch projects to deploy subsequent phases of Marin’s public broadband network.

Action 3 – Expand deployment of broadband and increase local control

Use existing network infrastructure and services, develop residential community siting standards, adopt trench once/trench smart ordinances, standardize permit requirements and fees, and develop other rules, policies, and procedures, to the fullest extent possible. Work to update, change, or adopt laws, rules, policies, and procedures to increase deployment of broadband infrastructure with an emphasis on the deployment of publicly owned, controlled, or managed infrastructure.

Strategy: Improve the quality, reliability, resiliency, and safety of Marin’s broadband services

Implementing this strategy requires collaboration among broadband service providers, regulatory agencies, network infrastructure and asset owners, and public agencies. Also, quality, reliability, resiliency, and safety must be incorporated into Marin’s broadband network design. Two high-level actions advance improvements to broadband quality throughout Marin.

Action 4: Establish Marin’s own internet service standards

Local government is and for the foreseeable future will be constrained from regulating the business practices of private companies providing internet services in Marin. Develop internet service standards for accessibility, speed, reliability, resiliency, safety, availability, consistency, affordability, open access, and other important aspects of broadband for all that meet or, if desired and where possible, exceed standards set forth by current laws, rules, policies, and procedures. Update, change, or adopt laws, rules, policies, and procedures to put in place and enforce these service standards. Use these internet service standards during development of the detailed public broadband network design and deployment of all internet infrastructure and services in Marin.

Action 5 - Improve incumbent internet providers' services

Obtain more information about incumbents' internet prices, speeds, resiliency, and quality by conducting a county-wide speed test coupled with an evaluation of individual service provider's costs, program offerings, and quality of service standards and ratings. Work with incumbent providers to ensure that their current and future internet services meet or exceed Marin's adopted standards in an agreed upon time frame.

Strategy: Increase access to affordable broadband service

Implementing this strategy requires collaboration among broadband service providers, funding sources, non-profits, and public agencies to identify opportunities, manage and coordinate services, and market availability.

Action 6 – Increase access to affordable broadband service

Increase access to affordable broadband services for everyone, especially for those least able to pay, by identifying or creating discounted and free programs. Manage the programs through a centralized agency, whenever possible, using Federal, State, local, and other funding sources. Remove barriers to entry by ensuring the process to get discounted or free internet service is easy to complete. Coordinate with other entities such as those providing social services. Ensure services provided through discount and free programs are consistent with full price options and meet or exceed Marin's internet service standards. Increase consumer education that helps lower consumers' out-of-pocket costs by providing information about options once more speed testing and price comparisons are completed.

KEY PERFORMANCE INDICATORS

- Increase the number of households served by broadband using 2020 CPUC data as a baseline and comparing it to updated CPUC data and surveys of Marin's households
- Improve residents' and businesses' ratings of internet quality and reliability using the Needs Assessment findings as a baseline and comparing it to future survey results



Goal 2
Everyone in Marin can take advantage of all online opportunities

Despite its relative wealth, Marin has residents who suffer from the digital divide. The needs assessment found that many people lack robust devices to access the internet, digital literacy, and adequate technical support. While availability of high-quality broadband is important, these other needs must be met for everyone in Marin to thrive in the digital world.

The needs assessment revealed a device disparity among Marin’s residents. Devices include computers, laptops, tablets, mobile phones, landlines, and Internet of Things (IoT). When asked how many devices are connected to their home internet service, respondents to the Online Residents Survey reported 8.5 per household. In contrast, respondents to a survey conducted of residents in Marin Housing Authority’s subsidized housing reported 2.6 per household. In the Canal Neighborhood, 57% of households reported not having a computer at home and 37% of students in the Bolinas-Stinson Union School District reported not having an adequate device at home.

57% of households surveyed in one neighborhood reported not having a computer at home.

—City of San Rafael Survey of Residents in the Canal Neighborhood

Even if they have devices, some residents and business owners report not knowing where to begin. They also lack knowledge of how to perform tasks such as signing up for an email account, requesting an Uber, or participating in a telehealth session. The research also revealed that various methods and types of training are needed. For example, online digital literacy training does not work when someone is unsure of how to get on the internet. The needs assessment also revealed that digital literacy training is needed for public service employees and educators.

Strategy: Coordinate and expand digital literacy training in Marin

Participants in the needs assessment recommended two high level actions. First, creating standards for Marin to better define what digital literacy means and help residents and businesses reach at least a basic level of literacy. Also, identifying and coordinating the various existing digital literacy training programs and filling the gaps to ensure various methods of training are available to meet Marin’s diverse needs. For example, older adults say that they need training programs that tailor the content, speed, and delivery method to their needs.

Action 7 - Create Digital Literacy Standards for Marin

Develop a baseline standard of digital literacy for Marin. Work with schools and other training programs to incorporate these standards into their curriculum and

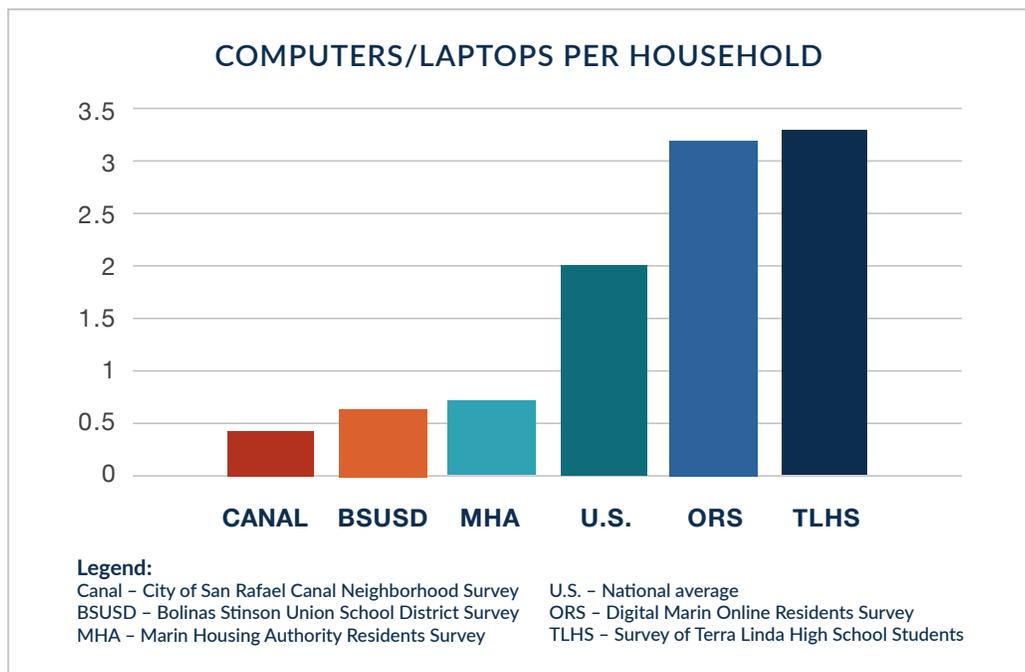
training programs. Conduct a marketing campaign to ensure that these standards are well known and adopted throughout Marin.

Action 8 - Integrate and Expand Digital Literacy Training Programs

Inventory digital literacy training programs, including those in K-12 and higher education, to determine gaps, identify redundancies, and ensure that digital literacy training is available for all Marin residents and businesses. Collect information such as intended audience, training method, curriculum, and whether the program is meeting Marin’s digital literacy standards. Ensure that resources spent on literacy training are optimized and that training is delivered in a variety of ways to meet the diverse needs of everyone in Marin.

Strategy: Expand community-based programs to provide end user devices and support

A 2020 study about consumer electronics found that U.S. households have an average of two computers. When comparing computers/laptops per household in Marin, survey respondents reported a range of less than one half (.4) per household in the Canal Neighborhood through 3.3 per household for students at Terra Linda High School in San Rafael. Even when they have adequate devices to access the Internet, some residents and business owners reported that they did not know how to take advantage of the capabilities and features, with some reporting that they never took their device out of the box.



Action 9 - Create Partnerships to Provide Devices for All

Create programs with eligibility standards to distribute low and no-cost devices to individuals and organizations. Identify needs, secure funding, determine eligibility, obtain, distribute, and track devices, and manage the program. To remove barriers, ensure that the process to obtain devices is easy to complete and coordinated with other entities such as those providing social services. Ensure that all low and no-cost devices are comparable to full price ones. Strive to create self-sustaining support models where recipients learn how to provide training and technical support for the devices to others.

Examples of potential projects identified through the needs assessment process include the following.

- Expanding School Information Systems (SIS) to include the ability to collect digital information such as availability of devices and internet service at home to address student households' needs, enable online and distance learning, and end the homework gap – when students cannot access foundational educational resources at home because of lack of devices and connectivity.
- Providing high-quality devices to all students in Marin's K-12 and higher education programs, on a one to one basis, and allowing students to keep a device upon graduation.
- Collaborating with Marin's non-profit, government, and community based organizations to provide Tech Connect Packs for residents of subsidized housing, older adults, social service recipients, homeless individuals, and other under-served people to ensure they have the devices, internet service, knowledge, and support to meet their digital needs.
- Partnering with community foundations and other organizations to distribute low and no-cost devices to non-profits and community based organizations to address their digital needs.
- Collaborating with economic development agencies and other organizations to partner with or create refurbishment programs to broaden Marin's distribution of low and no-cost devices and potentially create jobs, job training opportunities, and new businesses.

37% of students surveyed in one district reported not having a reliable device at home.

– *BSUSD Connection Committee Survey*

Action 10 - Create Community-Based Digital Support Networks

Create community-based digital support networks that serve individuals and organizations without the means to get technical support. Expand existing programs or establish new ones, potentially resulting in job creation, job training opportunities, and new businesses. Launch these projects based on each communities' specific needs and availability of resources.

Strategy: Help organizations create easy to use digital services that work for everyone

Participants from every sector expressed frustration with the difficulty in using online services. They reported poor experiences such as struggling with applications with poor user interfaces that are hard to operate or do not work on a mobile phone, do not follow digital accessibility requirements, or require scanned versions of documents instead of pictures.

Action 11: Educate providers to make online services easier to use and accessible for all

Assemble best practices for universal design and ease of use for online services. Work with schools, higher education, and other training programs to incorporate these best practices into their related curriculum and training programs. Share best practices with providers of online content and applications in all sectors. Conduct a marketing campaign to ensure that these practices are well known and adopted in Marin.

KEY PERFORMANCE INDICATORS

- Increase number of people with devices by using data collected through the needs assessment process, other sources, and additional surveys to establish a baseline to compare to future survey findings.
- Improve level of digital literacy throughout Marin by using data collected through the needs assessment process and other sources to establish a baseline to compare to future survey data.
- Improve users' ratings of online services by collecting data through surveys and other collection methods to establish a baseline and compare it to future results.



Goal 3

Marin has a high rate of digital adoption that benefits everyone

The needs assessment revealed other factors that keep people from participating in the increasingly digital world including lack of digital accessibility – the ability for people with a wide range of abilities and disabilities to use digital resources. Security and privacy concerns, as well as concerns about Electric Magnetic Field (EMF) and Radio Frequency (RF) radiation’s effect on human’s health and the environment keep people from using the internet. Also, some residents and business-people are unaware of the benefits of using the internet, so they do not pursue it.

More than 1,800 households in Marin can have internet access but choose not to do so.

—According to CPUC data

When broadband infrastructure is in place, public value is gained through deployment of smart technologies like sensors on critical infrastructure, wearable health monitors, intelligent transportation systems, temperature and moisture sensors for farming, and smart thermostats that save energy. Digital adoption also benefits the local economy through potential job creation, adding or expanding small, home-based, and digital businesses, and increasing our digital workforce.

Strategy: Improve privacy, security, and digital accessibility across Marin

Concerns with security and privacy were expressed often during the needs assessment process. Additionally, issues with accessibility of digital information and services were raised, especially by older adults and people with disabilities. These factors reduce digital adoption and decrease the value of investments in broadband infrastructure. Two high-level actions to address these issues were identified through the needs assessment process.

Action 12 - Establish a Marin Digital Accessibility Council

Establish a Marin Digital Accessibility Council to serve all sectors including public, non-profits, and private industry. Share information and resources and pursue projects and funding to improve access to digital resources and services.

Action 13 - Establish a Marin Security and Privacy Council

Expand the County-led Marin Information Security Collaboration (MISC), which currently serves government, education, non-profit, and similar public organizations, into a Marin Security and Privacy Council that includes other agencies and organizations, including for-profit enterprises. Continue to share cybersecurity information and resources, as well as broaden the focus to include digital privacy. Pursue projects and funding to improve and expand cybersecurity and privacy resources, policies, procedures, and laws that protect Marin’s residents and businesses.

Strategy: Address barriers through education and community problem solving

The research found other barriers that decrease digital adoption. One factor is a lack of knowledge about digital resources and the benefits of participating in the digital society. Another is health concerns related to digital infrastructure and devices. Educating Marin's residents and businesses and developing community-based solutions help increase Marin's digital adoption. Two high-level actions were identified through the needs assessment process.

Action 14 - Create an Education Campaign for Benefits of Digital Adoption

Educate the public about the availability and benefits of digital services. Include representatives from all sectors to ensure that the program serves Marin's residents and businesses. Help individuals and businesses identify the benefits of using digital solutions, so they can experience the full value of online services and digital opportunities.

The results of a recent survey of businesses in one of Marin's towns found that some owners are afraid to learn new technology, leaving haves and have-nots.

— Findings from Economic Development Focus Group

Action 15 - Address Residents' Concerns with Digital Technologies

Investigate community concerns including getting information from a wide-range of experts with differing opinions. Ensure that all voices are heard. Develop community-based solutions to address these concerns. Pursue these activities based upon specific needs and availability of resources.

Examples of potential topics identified during the needs assessment process include the following.

- The effect of Electric Magnetic Field (EMF) and Radio Frequency (RF) radiation on human's health and the environment.
- Privacy concerns related to data collection and aggregation, monitoring, surveillance, facial recognition, and other similar technology-enabled processes.

Strategy: Increase public value from investments in technology

Investments in broadband infrastructure and digital adoption must result in public and economic value. Value results from sharing data, applications, infrastructure, and other digital resources to improve service, increase buying power, and reduce support needs. This value is also achieved by deploying smart technologies and growing Marin's small, home-based, and digital businesses. Four high level actions were identified during the needs assessment process.

Action 16 - Identify and Increase Data Sharing Initiatives

Create collaborations, explore opportunities, develop project proposals, and get funding for data sharing initiatives to provide whole person care for individuals and families. Potential projects identified through the needs assessment process include the following.

- Expanding data sharing among schools, libraries, and education-focused community based organizations to support home access to educational resources and family and school communication while eliminating the homework gap.
- Increasing collaboration and data sharing among healthcare, mental health, social service, justice, education, non-profits, housing, and other organizations to provide wrap around services by:
 - Resourcing a backbone entity and providing community engagement, technology, and legal resources for a Community Information Exchange model;
 - Investing in data platforms for wrap around programs like Success Networks, community schools, etc.; and
 - Aligning goals and actions between existing collective impact initiatives.

Action 17 - Enable Shared Services Among Government and Educational Agencies

Create collaborations, explore opportunities, develop project proposals, and get funding for shared services among government and educational agencies to improve efficiency, streamline processes, and improve customer service. Potential projects identified through the needs assessment process include the following.

- Increasing network interconnectivity and shared digital solutions and resources to lower costs and increase consistency of services to the public.
- Standardizing processes and digital systems to make digital resources less costly and easier to buy and maintain and improve usability.
- Increasing data sharing to improve transparency, reporting, and accountability for shared goals.

Action 18 - Identify and Promote Smart Technologies

Create collaborations, explore opportunities, develop project proposals, and get funding for smart technologies that improve public service delivery and promote community engagement and public sector innovation. Include representatives from all sectors, including residents, to ensure that community needs are met, and security, privacy, and health concerns and risks are reduced or, where possible, eliminated. Base timing of these efforts upon specific needs and availability of resources.

Action 19 - Establish a Digital Business Incubator Program

Establish a digital business incubator to create or expand Marin's small, home-based, and online digital businesses. Include resources such as free or low-cost workspace, digital tools and technologies, mentorship, sharing of expertise, access to investors, and potentially, working capital in the form of grants and loans. Include representatives from business, economic development, chambers of commerce, education, and other relevant organizations.

KEY PERFORMANCE INDICATORS

- **Decrease number of households not served by choice using 2020 CPUC data as a baseline and comparing it to updated CPUC data and surveys of Marin's households**
- **Prevent or reduce the number of cyber security and privacy incidents by collecting data before actions are taken to create a baseline and measuring again after actions are taken**
- **Increase digital accessibility for all sectors in Marin by measuring accessibility before actions are taken to create a baseline and measuring again after actions are taken**
- **Realize cost savings from sharing services among government and educational agencies by comparing costs before and after actions are taken**
- **Increase number of digital businesses started or grown by comparing data before and after actions are taken**

Goal 4

Marin has a community driven organization with a mission of broadband for all



Adoption of the Digital Marin Strategic Plan by the County of Marin and Marin's cities, towns, and other public agencies, plus endorsement by educational, business, and community organizations will maximize return on the investment of time and funds in its development. Identifying or establishing an organization responsible for its implementation must also occur quickly to build on the momentum generated during the planning process and improve the ability for Marin to receive and wisely use Federal, State, and other funding. A delay in adoption and implementation of this Plan will result in the loss of community confidence and substantial funding opportunities.

Strategy: Obtain funding and create an independent operating entity

Federal and state governments are infusing billions of dollars into public and public/private broadband network development. Marin, like all counties in California, stands to benefit from these and other time-limited investments and grant opportunities. Funding from Federal, State, and local sources and private investments enable creation of the operating entity and establishment of an administrative team. The operating entity must have the ability to raise capital, invest and manage infrastructure if needed, and work with and influence organizations throughout Marin to achieve broadband for all. While taking these actions, the Digital Marin Project should continue as is, under guidance from the County of Marin and funded through the current California Advanced Services Fund (CASF) grant and the Digital Marin Strategic Plan's project budget. Two high-level actions related to this strategy were identified during the needs assessment process.

Evolve Digital Marin into a formal organization to develop, manage, and own public network assets with the Executive Steering Committee as initial Board of Directors.

—Magellan Advisors' Needs and Options Report

Action 20 - Establish a Digital Marin Operating Entity

Evolve the Digital Marin project into a community driven, independent operating entity with the ability to inform and influence policy makers and make decisions, raise capital, and spend funds to achieve Marin's shared digital goals. Secure the resources, determine the type of organization, and take all steps necessary to complete its establishment. Incubate the new entity within the County of Marin's Information Services and Technology (IST) Department until it is capable of operating independently.

Action 21 - Establish a Board of Directors

Establish a diverse, community-based Board of Directors for the Digital Marin operating entity. Have the project's Executive Steering Committee serve as the initial Board. Make modifications to the Board to ensure it represents all sectors and segments of Marin's population.

KEY PERFORMANCE INDICATORS

- **Create an effective operating entity by measuring its progress toward meeting the Strategic Plan's goals within the time frames set forth in the Plan**
- **Represent all sectors and population groups on the Board of Directors by comparing the Board's membership to the most current census data**

GETTING THERE

The roadmap to Marin's digital future is only as good as the ability to follow it. These steps ensure that Marin's digital strategy leads to realization of its vision.

Collaborative Vision

Use Digital Marin's shared vision to increase commitment and advance initiatives that improve Marin's digital future.

Community Owned

Foster community ownership and enhance local control for increased responsiveness to Marin's digital needs.

Accountable Leadership

Designate a knowledgeable, proven leader to centrally manage implementation of Marin's digital strategy.

Shared Goals

Secure adoption and endorsement of shared goals to increase the likelihood of success.

Measured Progress

Use Key Performance Indicators to measure progress toward intended results and ensure activities achieve what matters most.

Sustainable Funding

Identify sustainable funding sources to ensure that programs continue after the initial funding is used.

RISK AND IMPACT ANALYSIS

Since achieving broadband for all is resource intensive, strategies to achieve Digital Marin’s vision must be evaluated for impact and risk. While developing a detailed broadband network design and deploying broadband have high impacts, they also have high levels of risk. Despite the risk level, these two initiatives are fundamental in achieving Digital Marin’s vision. Establishing an independent operating entity is equally critical for completion of the other strategies.

Action Risk/Impact Matrix



- 1** Navy - Create operating entity, task forces, and councils. Develop business and project plans. Requires funding for operating costs including paid staff and consultants.
- 2** Red - Activities conducted by Digital Marin. Collaborate to deliver. Requires some funding. Maybe limited by lack of regulatory authority.
- 3** Purple - Physical broadband infrastructure design, development, deployment. Requires costly consultants, federal, state and local funding, cross-jurisdiction government collaboration, and a robust customer acquisition strategy. Timing must align with SB156 CA Middle Mile development and E-Rate funding cycles.

- 4** Green - Three legs of the digital inclusion stool (devices, connectivity, training) for the residents in need of assistance. Requires collaboration and funding.
- 5** Teal - Activities influenced by Digital Marin. Cost Dependent on projects.
- 6** Orange - Activities that build upon investments in the infrastructure and digital inclusion.
- \$** Indicates estimated level of funding required

TIMELINE



2022

FIRST QUARTER

Secure adoption and endorsement of the Strategic Plan
Determine organization type
Begin process to establish the community-driven operating entity

SECOND QUARTER

Begin development of a business plan
Launch the Marin Security and Privacy Council

THIRD QUARTER

Refine Strategic Plan based on the business plan
Launch the Marin Digital Accessibility Council

FOURTH QUARTER

Launch a project to develop the high-level broadband network design
Begin digital adoption efforts

2023

2023

Begin deployment of broadband infrastructure
Accelerate data and resource sharing projects
Initiate key programs for devices, support, and digital literacy training
Initiate projects to address affordability of internet service

2024

2024 & Beyond

Accelerate deployment of Smart Technologies
Establish a Digital Business Incubator Program

INITIATIVES TO BRIDGE THE DIGITAL DIVIDE

While this Strategic Plan was being developed, the COVID-19 pandemic continued to exasperate the issues facing students, households in underserved areas, older adults and people with disabilities, and other individuals facing barriers to using the internet. As a result, four projects were launched in communities around Marin - the Canal Neighborhood, Marin City, Bolinas-Stinson, and Shoreline. These projects were done in collaboration with but not led by Digital Marin. While the technical approaches taken to solve these areas' digital challenges varied, they all had strong community activism and collaboration among residents, education, government, and business.

Efforts to bridge the digital divide must continue, even if they are short-term solutions such as distributing free hot spots and providing free Wi-Fi to solve the most pressing needs until long-term solutions are available. In addition to the four collaborative digital divide projects already underway, additional projects are needed, even while the Strategic Plan is implemented.

- Identify and conduct additional needs assessment in the two under-served areas of Novato including identification of advocates to lead collaborative efforts to bridge the digital divide in their communities.
- Define, obtain funding, and provide internet service, devices, digital literacy training, and support to the five (5) subsidized housing residences for older adults and persons with disabilities.
- Further define and recommend solutions to address the specific needs of Marin's older adults and persons with disabilities and ensure that all digital projects and initiatives include addressing their needs.

More information about these and other collaborations is available on the [Digital Marin website](#).

APPENDICES

1 - Needs Assessment Report

Based on months of outreach to residents, government officials, schools, businesses, healthcare, and community-based organizations, the [Digital Marin Needs Assessment Report](#) was compiled to accurately define Marin's digital needs. The outreach process uncovered gaps that many people did not know existed and opened the door for collaboration between multiple entities.

2 - Magellan Conceptual Network Design

On June 24, 2021, Magellan Advisors presented their Digital Infrastructure Needs and Options Report to the Executive Steering Committee, Digital Marin project team, and the project's work group members. The Report informed this Strategic Plan. Topics included Marin's current internet infrastructure and services, and recommendations for an ongoing business model and a governance structure to move the Strategic Plan forward to project implementation. The [meeting notes and video](#) are available on the [GoDigitalMarin](#) website.

3 – Executive Steering Committee

The Digital Marin project was guided by an [Executive Steering Committee](#), with representation from all of Marin's sectors. Members of this committee led public outreach within the various sectors, lent their time and expertise to development of the Plan, and continue to assist in its completion and eventual implementation.

4 - Project Administration

The Digital Marin project followed best practice project management processes. More information about the [planning process](#) is available on the [GoDigitalMarin](#) website.

FOUNDING PARTNERS

Visit Digital Marin's [Partner Organizations' page](#) to view our Supporting Partners.

