

Commonwealth of the Northern Mariana Islands (CNMI)
BEAD FIVE-YEAR ACTION PLAN
DRAFT (~~AUGUST~~ ~~#JULY~~ 2023 Revision ~~21~~)



INTERNET FOR ALL

Five-Year Action Plan



U.S. Department of Commerce
National Telecommunications and Information Administration

Note: This document is intended to serve as an organizational tool that supports each Eligible Entity in capturing notes and developing its BEAD Five-Year Action Plan.

RED TEXT AND COMMENTS TO BE DELETED BEFORE DISTRIBUTION

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Internet For All

1 Executive Summary

[Insert summary of Five-Year Action Plan, restating purpose and key points of the plan - TO BE DONE LAST TO SUMMARIZE KEY CONTENT]

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2 Overview of the Five-Year Action Plan

2.1 Vision

By 2030, CNMI envisions a community where every resident will have meaningful access to robust, reliable and affordable high-speed Internet bolstered by a dedicated digital equity response that enables all of our residents to succeed in digital space. All communities will have ready access to local resources to provide wrap-around services supporting digital inclusion, digital equity, and digital literacy. Broad geographic coverage of traditional Community Anchor Institutions together with newly minted Community Digital Hubs provide residents with neighborhood digital resources.

This vision will be supported by the CNMI Broadband Policy and Development Office (BPD / Broadband Office) through the National Telecommunications and Information Administration's (NTIA) Broadband Equity, Access, and Deployment (BEAD) Program, which represents the largest of the federal broadband funding programs and prioritizes last-mile support for our unserved and underserved communities. The CNMI Broadband Policy and Development Office was established by Directive 2023-003 on April 21, 2023. The mandates of the Broadband Program include:

1. Assisting the Governor and the Commonwealth government to perform and carry out functions and duties necessary to develop and implement a broadband strategy for the Commonwealth that promotes advanced broadband network services, expands the digital economy, increases consumer options, promotes digital literacy, increases broadband equity, and supports access and affordability for residents across the islands of the Commonwealth;
2. Managing and leading the Commonwealth's efforts to apply for federal grants and coordinate the use of broadband funding available to the Commonwealth, and shall receive the assistance and cooperation of the Office of Grants Management staff and administrator to ensure compliance with all requirements of federal broadband programs, including but not limited to the timely submission of plans, reports, and data;
3. Developing strategies, plans and projects with sufficient research, data collection, outreach and training to transform the Commonwealth's internet infrastructure and improve internet reliability, affordability, accessibility, and speed, and shall receive the assistance and cooperation of the Department of Finance including the Office of Information Technology, the Office of Planning and Development, the Department of Commerce, and other relevant executive departments and agencies and their principal executives including the heads of public corporations and autonomous agencies, in a concerted effort to consolidate and coordinate all resources of the Commonwealth relating to the upgrade of broadband infrastructure and services in the Northern Mariana Islands;
4. Engaging with stakeholders in the Commonwealth both in the public and private sectors in the development of strategic plans for improved broadband services, including consulting with the members of the legislature, mayors of the municipal governments and members of the municipal councils, utilities, healthcare providers, educators, businesses, agricultural sector, fisheries sector, tourism sector, public safety entities, nonprofit organizations, consumers, community leaders, and broadband service providers;
5. Developing and employing or contracting personnel resources with knowledge of broadband, telecommunications and information technology policy subject to availability of authorized funding;

6. Developing and maintaining a broadband map as a platform for data collection to track the availability of broadband services, government investments, and progress, as well as other related information, and ensure public access to the data;
7. Reporting to the Governor on a regular basis and as directed by the Governor on the status of the Broadband Policy and Development Program, including plans and projects and advise the Governor on actions necessary, including proposed legislation, for broadband development;
8. Evaluating the extent, quality, accessibility, and affordability of broadband services in the Commonwealth;
9. Developing strategies to facilitate buildout and implementation of broadband infrastructure necessary to achieve functionally universal broadband access for all homes and businesses in the Commonwealth;
10. Developing and advocating for policies that make high quality broadband service more accessible, affordable, and reliable in underserved and unserved communities; and
11. Taking necessary steps to promote strategies related to technology, information security, cybersecurity, software, hardware and infrastructure.

With these mandates in mind, the BPD aims to serve as lead facilitator and collaborator with all shareholders in telecommunication deployment and use in the CNMI to achieve the goals of this program and this 5-year Broadband Strategic Plan: ensuring broadband adoption and availability and use of all technologies necessary to deploy, operate, and maintain high levels of broadband service. The delivery of resources and programs to unserved and underserved areas of the state will have a customer centric approach that will be open and transparent, complement regional priorities.

Taken together, the long list of federal programmatic support and state-level commitments to program implementation will ensure that the CNMI has robust, reliable, affordable and sustainable efforts that are all-inclusive of first-, middle- and last-mile infrastructure, combined with robust, community-based services supporting digital equity and literacy, and support for a digitally literate workforce of the future.

2.2 Goals and Objectives

CNMI’s overall goals for broadband planning for investment of federal broadband program funds are to:

- (a) **Broadband Program Establishment** - Establish a program through the Broadband Office to manage grant applications and implementation efforts that ensure sustainable, robust, reliable, and affordable access to the internet for residents of the CNMI;
- (b) **Ensuring Service and Affordability.** The CNMI Community is “100% Served” by Affordable Broadband;
- (c) **Expanding Digital Inclusion and Digital Equity** - Expand on efforts to enable digital inclusion and digital equity for all residents of the CNMI; and
- (d) **Building Digital Literacy** - Build community capacity to achieve digital literacy including online safety and security training for all CNMI residents through statewide initiatives.

Specific, measurable, achievable, realistic, and measurable objectives to achieve these cross-cutting goals include:

***Broadband Program Establishment** - By 2025, the CNMI Broadband Office is fully staffed and sustainably funded to support ongoing program implementation and five-year plan updates of the 2025-2030 Broadband Plan.*

Broadband Service - The CNMI Broadband Policy and Development Office leads planning and implementation efforts to complete work plan development for priorities identified in the 2023 Five-Year Broadband Plan with a focus on ensuring sustainable efforts that result in improvements of the CNMI’s coverage and service level such that by the end of 2024 there is an implementation plan with dedicated funding by 2025 to achieve 100% “broadband served” population by 2028 with a goal of “fully served” by 2030 (100Mb download and 20Mb upload speeds).

Broadband Affordability - The CNMI Broadband Policy and Development Office leads planning and implementation efforts with a focus on working to define “affordability” of broadband services in the CNMI, collect necessary data, and develop programmatic interventions to ensure equitable and affordable costs that result in improvements of the CNMI’s affordability and service level such that by the end of 2024 there is a supporting implementation plan with dedicated funding by 2025 to achieve 100% “affordability” with sustainable funding for necessary support and / or subsidy programs as needed by 2028.

Expanding Digital Inclusion and Digital Equity - By 2025, the CNMI Broadband Office and Broadband Stakeholders have expanded on implementation of objectives for Digital Inclusion and Digital Equity reflected in this five-year plan and subsequent updates that lower access costs and improve accessibility which are formalized in a dedicated Digital Equity Plan that is submitted to the Planning and Development Advisory Council for review and inclusion in the 2025 update of the CNMI’s Comprehensive Sustainable Development Plan, with metrics established and baseline data being tracked for plan updates for the next five year update.

Building Digital Literacy - By 2025, the CNMI Broadband Office and Broadband Stakeholders have expanded on implementation of objectives for Digital Literacy reflected in this five-year plan and subsequent updates that increase community understanding and use of digital tools including providing training and expanding accessibility and support services on the islands of Saipan, Tinian, and Rota, with plan updates submitted to the Planning and Development Advisory Council for review and inclusion in the 2025 update of the CNMI’s Comprehensive Sustainable Development Plan, with metrics established and baseline data being tracked for plan updates for the next five year update.

Program goals, performance measures, and objectives are detailed further in the narrative that follows. Implementation strategies are detailed further in Section 5 of this plan.

Goal: Broadband Program Establishment

The CNMI Broadband Policy and Development Office (BPD) is established and fully staffed through the National Telecommunications and Information Administration’s (NTIA) Broadband Equity, Access, and Deployment (BEAD) Program, to implement broadband deployment and equity planning and implementation opportunities.

Performance measures:

- Total FTEs hired and retained for the CNMI Broadband Program
- Total additional grant funding identified, applied for, and obtained

Objectives:

To expanded access to more affordable, high-speed internet that connects them to information and to the tools and resources they need to thrive in their jobs, their studies, business growth, or their organizational missions:

By August 2023, BPD will have an affordable office to house BPD employees.

Performance Measure: Commercial office space cost savings

By October 2023, BPD will have all the necessary staff in place to run and fulfill the BEAD, DE, Capital Projects Fund (CPF), and USDA’s BTA grants as applicable and support establishment of dedicated funding to sustain the office and support sub-grant needs of the program.

Performance Measure: Positions filled before October 2023; office funding needs assessed and support mechanisms identified by December 2023

By November 2023, Administrative Officer and Human Resources Specialist will have received training for Time Keeping, Munis, EEOC, and other relevant training to assist BPD in all administrative processes.

~~Strategy: OIT will train employees on the Munis system. Set up training with OPA for EEOC and employee rights of which includes but not limited to sexual harassment in the work place. Calendar training with OPM for Time keeping and supervisors training.~~

Performance Measure: Number of trainings

By June 19, 2023, BPD will submit a USDA BTA grant application for a grant writer/technical assistance to support CNMI’s efforts to improve accessibility and promote equity in CNMI’s persistent poverty communities of Saipan, Tinian, and Rota.

Performance Measure: Review and Submission before the June 20, 2023 deadline; number of grants successfully obtained and deliverables achieved through BTA support.

By August 30, 2023, BPD will submit the BEAD 5-year plan to the NTIA portal to support ongoing priority development and project implementation.

By October 30, 2023, BPD will submit the Digital Equity 5-year plan to the NTIA portal to support ongoing priority development and project implementation.

By December 30, 2023, BPD will submit (after public comment period) the BEAD Initial Proposal to the NTIA Portal initiating funded projects.

By June 30, 2024, BPD will submit (after public comment period) the BEAD Final Proposal to the NTIA Portal for remaining funded projects.

Performance measures: # of stakeholder engagements, public comments, federal review, local coordination meeting, project selection matrix, number of projects funded, number of projects initiated, number of projects implemented.

By February 1, 2024, BPD has assessed program needs and submits local funding requests to CNMI government to support staffing and program implementation needs to support sustainable

funding needs and address needs that are unmet by federal funding. By June 30, 2024, remaining unmet needs are identified and efforts to address them are underway through pursuit of appropriate grants and/or public private partnerships or other funding mechanisms or technical support agreements.

Performance measure: Annual program costs assessment completed and included in 2024 budget request; # of grants obtained, # of staff supported by federal and/or local funds; # of public-private partnerships or Memorandums of Understanding executed to fill capacity gaps and support program sustainability and implementation needs.

By 2027 the CNMI Broadband Office reconvenes Broadband Planning stakeholders to review and update this five-year plan.

Performance measures: # of stakeholder engagements, public comments.

By August 30, 2028, BPD will submit the BEAD 5-year plan update to the NTIA portal to support ongoing priority development and project implementation.

Performance measures: # of stakeholder engagements, public comments, federal review, local coordination meeting, project selection matrix, number of projects implemented.

Goal: Expanding Broadband Service

The CNMI Broadband Policy and Development Office leads planning and implementation efforts to complete work plan development for priorities identified in this 2023 Five-Year Broadband Plan with a focus on ensuring sustainable efforts that result in improvements of the CNMI’s coverage and service level such that by the end of 2024 there is an implementation plan with dedicated funding by 2025 to achieve 100% “broadband served” population through broadband serviceable location (BSLs) by 2028 with a goal of “fully served” by 2030 (100Mb download and 20Mb upload speeds). All inhabited areas of the CNMI have [established and reliable](#) internet connections available.

Performance measure: % CNMI Population considered “served”

Objectives:

The CNMI Broadband Policy and Development Office leads planning and implementation efforts to complete work plan development for priorities identified in the 2023 Five-Year Broadband Plan with a focus on ensuring sustainable efforts that result in improvements of the CNMI’s coverage and service level such that by the end of 2024 there is an implementation plan with dedicated funding by 2025 to implement priorities to achieve 100% “broadband served” population by 2028 with a goal of “fully served” by 2030 (100Mb download and 20Mb upload speeds).

Priorities and Implementation Support - Prioritizing investments to achieve Broadband goals

- **First Mile** - To ensure reliable broadband connections in critical areas of the state that lack access to high-speed internet, a first mile connectivity feasibility study shall be conducted to include identification and initial environmental analysis of TransPacific Cable Landing in the CNMI and deployment support. This feasibility study will include assessment of costs and make recommendations for proposal development that will address latency challenges and meet identified accessibility and equity needs.

- Middle Mile - Program development and project implementation shall support Carrier Neutral Network Neutral Internet eXchange Point (IXP) Development and Open CLS Development to support network neutral station deployment to reduce user costs and improve broadband latency and reliability.
- Last Mile - Program development and project implementation shall support improvement of connections between the Service Providers and end users to reduce user costs and improve broadband latency and reliability.
- Remote Area Connectivity (ie: Inhabited Northern Islands): - Identify Broadband Serviceable Locations (BSL) not currently included in the FCC datasets and ensure inclusion in future updates. Determine needed technology for establishing internet connectivity for connecting these unserved households located in extremely remote areas. Prioritize internet connectivity for these regions.
- To support expanded service objectives, the BPD will work with the reinvigorated Public Utilities Commission and revisit Public Law 12-39 to develop and implement service solutions throughout the CNMI.

Goal: Expanding Broadband Affordability

The CNMI Broadband Policy and Development Office leads planning and implementation efforts to complete work plan development for priorities identified in the 2023 Five-Year Broadband Plan with a focus on working to define “affordability” of broadband services in the CNMI, collect necessary data, and develop programmatic interventions to ensure equitable and affordable costs that result in improvements of the CNMI’s affordability and service level such that by the end of 2024 there is a supporting implementation plan with dedicated funding by 2025 to achieve 100% “affordability” with sustainable funding for necessary support and / or subsidy programs as needed by 2028.

Performance measures: Definition of “affordability” adopted by 100% of BSLs and CAIs; % CNMI Population considered to have “affordable” access to broadband

Objectives:

The CNMI Broadband Policy and Development Office leads planning and implementation efforts to complete work plan development for priorities identified in the 2023 Five-Year Broadband Plan with a focus on ensuring sustainable efforts that result in improvements of the CNMI’s affordability of broadband services such that by the end of 2024 there is an implementation plan with dedicated funding by 2025 to implement priorities to achieve 100% “broadband served” population by 2028 with a goal of “fully served” with “affordable” access by 2030.

Goal: Expanding Digital Inclusion and Digital Equity

The CNMI Broadband Policy and Development Office leads planning and implementation efforts to complete work plan development for priorities identified in the 2023 Five-Year Broadband Plan with a focus on ensuring sustainable efforts that result in improvements of the CNMI’s all-inclusive of first-, middle- and last-mile infrastructure, combined with robust, community-based services supporting digital

equity and literacy, as well as online security and data management awareness and support for a digitally literate workforce of the future.

Performance measure:

- CNMI’s Five-year Broadband Plan is completed in 2023 and reviewed and updated as needed by 2028 for inclusion in forthcoming updates of the CNMI’s Resources Report and 2021-2030 Comprehensive Sustainable Development Plan (CSDP)’s 2031-2040 update;
- Total additional grant funding identified, applied for, and obtained
- Number of active entities in CNMI’s Community Anchor Institution (CAI) registry
- Number of qualifying CAI projects submitted and funded

Objectives:

5-year Plan - Supporting Broadband Deployment and Equity Planning and Implementation

- To achieve access to robust, reliable and affordable high-speed Internet bolstered by a dedicated DE planning and prioritized CPF implementation that enables all of our residents to succeed in the digital space
 - By 2025 all CAIs in the CNMI will be registered, mapped, and tracked by the Broadband Program so that by 2030 all tracked CAIs will have at least gigabit fiber internet connections available to them at an annual cost no higher than 150 percent the national average on a per Megabit per Second basis.
 - By 2027 the CNMI Broadband Office reconvenes Broadband Planning stakeholders to review and update this five-year plan for submission to NTIA by 2028; and
 - The CNMI Broadband Office Addresses gross inequalities on Digital Equity (DE), BEAD, and CPF by building a sustainable broadband program that ensures plan development and achievement of critical action items so that by 2030 all residents of Saipan, Tinian, and Rota will have reliable access to the internet through broadband connection or cell service provider in home or at a convenient community anchor institution. Critical action items are identified and furthered through DE planning and priority project implementation.

Digital Equity - Advancing access, literacy, and equity

- To expand equity planning and further implementation priorities that advance the following three pillars of digital equity: 1. Access - Affordable, quality broadband for all; 2. Literacy - A baseline of digital competence for all; and 3. Livelihood - Societal systems effectively leveraging digital opportunities to improve lives
 - By 2024, the CNMI Broadband Program supports the development and endorsement of CNMI’s Digital Equity Declaration which reflects a definition of “digital equity” that is right-sized for CNMI and supports working group meetings to identify additional implementation opportunities and program needs, [with integrated and coordinated support of tele-health deployment with CHCC and tele-education with PSS, NMC, NMTech, and other education partners;](#)
 - By 2025, long-term goals, mid-term objectives, and short-term action items identified by the CNMI Broadband Program and Digital Equity Working Group are reflected in a

targeted DE Plan and incorporated into the 2025 update of the CNMI’s Comprehensive Sustainable Development Plan;

- By 2026, additional funding to support implementation of priorities identified in the 2025 DE Plan have been submitted to support project implementation from 2026 - 2028; and
- By December 2027, unmet needs from the DE Plan are assessed and included in the Five-year Broadband Plan update.

Goal: Building Digital Literacy and Security

Build community capacity to achieve digital literacy including online safety and security training for all CNMI residents through statewide initiatives that align with school curriculum and community education programs.

Performance Measure: % Adoption as a core curriculum K-12, # of schools participating; # technical instructors that complete “digital literacy” training and certification

Objectives:

- By December 2023 the CNMI Broadband Office has assessed funding needs and curricula options to work with the CNMI Public School System (PSS) and interested private school partners to include digital literacy coursework development and provide sustainable funding to support curricula implementation in the 2024-2025 school year;
- By December 2024, BPD will leverage DE funding for “train the trainer” or other training for technical program curriculum development and capacity building;
- By 2025, the CNMI Broadband Office has collaborated with PSS, Northern Marianas College (NMC), and Northern Marianas Technical Institute (NMTech) to further develop digital literacy training support for technical specialists (teachers) to establish “core coursework” for K-12 education as well as support continuing education coursework considering opportunities to promote training on technology and software tools that can assist business efficiencies and growth in the public and private sectors;
- By 2026, community-wide literacy trainings are available to fill training gaps that are identified through coursework development with partnering educational and community anchor institutions with regular programming offered annually to build literacy and equity outcomes that safeguard end users and address software and hardware needs to support online security and ensure community competencies in online content and data management;
- By December 2027, CNMI Broadband Partners have held at least three qualifying trainings that enhance digital literacy and identify user needs, employing a “pre-” and “post-” user training survey to identify and address remaining gaps to further literacy and equity goals that are incorporated as action items as appropriate in the 2028 plan update; and
- By the year 2028, the CNMI Public School System and NMC/NMTech will improve its infrastructure and instructional technology services to provide equitable digital learning and literacy programs to 100% of K-12 students in an accessible, secure and safe learning environment through the support of highly trained teachers, administrators, and other educational staff.

Read together, these goals and objectives will further the mandates of the Broadband Office, support ongoing implementation of the Broadband Program, and ensure progress towards the CNMI's telecommunications accessibility, equity, and literacy goals.

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3 Current State of Broadband and Digital Inclusion

3.1 Existing Programs

Activity Name	Description	Intended Outcome(s)
Broadband Program Development Office	The CNMI Broadband Office has been established and is expanding capabilities to support broadband initiatives	To achieve mandates and long-term telecommunications goals reflected in Broadband 5-year Plan, DE Plan, and CNMI’s 2021-2030 CSDP
PSS	Technology on wheels / Laptop lend out program, webpage curriculum, mifi loan for unserved children, tech hub development Sustainable funding and coursework for Technology Center and curriculum development for grades K-12 and at NMC / NM-Tech	To promote and provide access to learning from grades K-12 Expansion of digital literacy courses and support services offered to grades K-12; graduate level digital literacy “teachers” certified through NMC/NM-Tech programs
DCCA Community Center Connectivity Support	Computer access for homework and school related projects, printing applications, NAP application assistance, register for trainings and workshops (Students and parents), SHEFA computers for community use	To service low income households, at risk youth, and students, high speed internet service area to support scholarship applications
CHCC	FCC Consulting Assistance for Hospitals, Schools, Libraries; Subsidy and Digital Literacy Outreach	Successfully obtain FCC support for telehealth services and deployment through community outreach support

Activity Name	Description	Intended Outcome(s)
NMC / NMTech	Technology center and curriculum development	Expansion of digital literacy education courses and support services offered to college students and community members
Joeten Kiyu	Internet accessibility and training support	To expand accessibility at library internet hubs
<i>DOL</i>	Job training and online application support	To expand worker skills and accessibility to support economic diversification and improved digital literacy
<i>CNMI Judiciary</i>	Legal services kiosks	To support access to legal forms and services and for supporting pro se filings.

Table 1: Current Activities that the Broadband Program/Office Conducts

The CNMI Broadband Policy and Development Office was established by Directive 2023-003 on April 21, 2023 and current activities are focused on program development and implementation. The mandates of the Broadband Program include developing strategies, plans and projects with sufficient research, data collection, outreach and training to transform the Commonwealth's internet infrastructure and improve internet reliability, affordability, accessibility, and speed, and shall receive the assistance and cooperation of the Department of Finance including the Office of Information Technology, the Office of Planning and Development, the Department of Commerce, and other relevant executive departments and agencies and their principal executives including the heads of public corporations and autonomous agencies, in a concerted effort to consolidate and coordinate all resources of the Commonwealth relating to the upgrade of broadband infrastructure and services in the Northern Mariana Islands. These efforts are ongoing and will support goals to continue engagement with stakeholders in the Commonwealth both in the public and private sectors in the development of strategic plans for improved broadband services, including consulting with the members of the legislature, mayors of the municipal governments and members of the municipal councils, utilities, healthcare providers, educators, businesses, agricultural sector, fisheries sector, tourism sector, public safety entities, nonprofit organizations, consumers, community leaders, and broadband service providers.

Table 2: Current and Planned Full-Time and Part-Time Employees

Current/ Planned	Full-Time/ Part-time	Position	Description of Role
<i>Current or Planned</i>	<i>FT or PT</i>	<i>Position</i>	Brief description of role
<i>Current</i>	FTE	Broadband Special Assistant	Achieve CNMI telecommunications goals and the mandates of Directive 2023-003
<i>Current</i>	FTE	BPD Administrative Officer	Supports Special Assistant in program development and implementation
<i>Current</i>	PT	Broadband Planner	% FTE supporting planning needs
<i>Current</i>	PT	Lead Planner	% FTE supporting planning needs
<i>Current</i>	PT	Finance Development Officer / GIS Technical Analyst	% FTE supporting broadband technical assistance needs
<i>Planned</i>	FTE	Digital Equity Project Manager	Proposed under submitted DE
<i>Planned</i>	FTE	Data Collection Lead	Proposed under submitted DE
<i>Planned</i>	FTE	ACP Coordinator	Proposed under submitted ACP to oversee broadband assessment and outreach contract
<i>Planned</i>	FTE	BEAD Project Manager	Oversees BEAD projects
<i>Planned</i>	FTE	Project Manager CPF	Oversees CPF projects
<i>Planned</i>	FTE	Digital Equity Outreach Specialist	Oversees DE outreach
<i>Planned</i>	FTE	BEAD Outreach Coordinator	Oversees outreach for BEAD
<i>Planned</i>	FTE	BPD Grants Specialist	Oversees all grants including reporting, subgrant management, and future applications
		BPD Program Manager	Oversees project management for all projects within BPD
		BPD Social Media and Marketing Coordinator	Coordinates program and projects for BPD communications

Table 3: Current and Planned Contractor Support

Current/ Planned	Time	Position	Description of Role
<i>Planned</i>	FT	Broadband Specialist	Provides subject matter expertise to Broadband Program and stakeholders
<i>Planned</i>	FT	Digital Equity Specialist	DE Contractual support proposed
<i>Planned</i>	FT x 3	Municipal Broadband Planning Support and Capacity Building	Supports data collection and ground-truthing, identification of island- and village-specific deployment needs, and supports submission of projects

Current/ Planned	Time	Position	Description of Role
<i>Planned</i>	FT	Communications Outreach Coordinator	Supports Broadband Office to schedule and host monthly stakeholder hybrid meetings, including supplying support services to ensure streaming is available for inter-island attendees, captures and shares key take-aways, and supports advertisement of calls for proposals as they are published
<i>Planned</i>	FT	USDA-BTA Broadband Analysis and Outreach	Supports data collection, analysis, recommendation development and outreach for Broadband Program
<i>Planned</i>	PT	GIS / Broadband Mapping Support	Coordinates with geospatial information systems development

Table 4: Broadband Funding

Source	Purpose	Total	Expended	Available
BEAD	Funds will support planning and implementation of prioritized projects to provide enhanced connectivity to unserved populations across the islands, followed by underserved, and will supplement digital equity programs.	\$81M	N/A- Award pending	\$81M
Digital Equity	DE Planning funds will be allocated to support work plan development and project solicitation, prioritization, and implementation as well as incorporation of DE Plan into coordinated digital literacy projects targeting unserved, underserved, and disadvantaged populations.	\$50M	N/A- Award pending	\$50M
CCPF	CPF funds for the pre-construction engineering	\$14M	N/A- Award pending	\$14M

Source	Purpose	Total	Expended	Available
	and design will support environmental analysis, permitting, and monitoring / contract management services to fast-track deployment of infrastructure			
Broadband ACP	Facilitate awareness and participation in the Affordable Connectivity Program (ACP)	\$400k	N/A- Award pending	\$400k
USDA BTA	Identifying and addressing barriers and addressing coverage gaps and quality of services challenges to develop strategies to increase access and quality of broadband services	\$250k	N/A- Award pending	\$250k

3.2 Partnerships

Table 5: Partners

Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
CNMI Office of Planning and Development (OPD)	OPD supports current Broadband Program planning needs while dedicated staffing is being pursued and will continue to support plan development and implementation as it relates to sustainable growth planning elements identified in Public Law 20-20 and the telecommunications goals of CNMI’s 2021-2030 Comprehensive Sustainable Development Plan (CSDP) and future plan updates
CNMI Office of Information and Technology (OIT)	OIT supports current Broadband Program subject matter expertise needs by leveraging expertise of specialists within OIT program
Public and Private Education Partners	The CNMI’s Public School System as well as stakeholders from private schools, the Northern Marianas College, and Northern Marianas Technical Institute collaborate to expand age- and skill-level appropriate -introductory to advanced level coursework and community targeted trainings to enhance digital literacy in the CNMI with a focus on addressing access needs of low income and unserved and underserved populations including distance learning support services for remote populations
Health Sector Partners	The Commonwealth Healthcare Corporation on Saipan and clinics located on Tinian and Rota continue to lead efforts for telehealth

Government, Private Sector,
and Non-Profit
Organizations

deployment that will support broadband deployment through CAIs as well as equity and literacy program goals
The government, private, and non-profit sectors represent significant stakeholder groups that support deployment of and avail of broadband services. Ongoing coordination will ensure needs prioritization and implementation of critical action items that promotes improved service and digital literacy throughout the CNMI

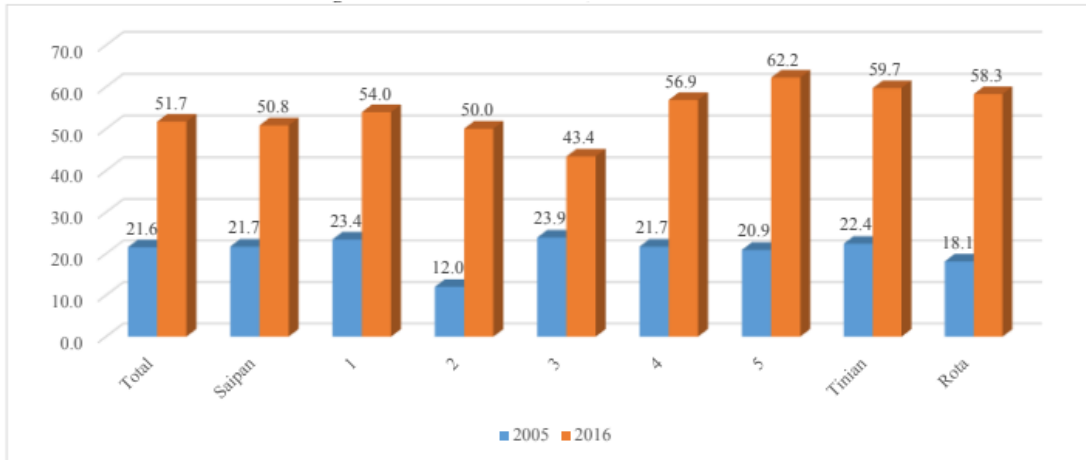
3.3 *Asset Inventory*

The CNMI is reliant on two commercial carriers - Docomo Pacific and IT&E - to service the region’s telecommunications needs. In June 2017 Docomo Pacific completed installation of a second undersea cable running 183 miles from Guam to Rota, Tinian, and Saipan in a “daisy chain” alignment aiming to expand speeds, services, and systems redundancy between the islands. Middle mile improvements continue but are largely focused on economic hubs where there are existing needs and users that can pay high costs to support service expansion. In 2021, CNMI-OPD and OIT launched the federally funded Affordable Connectivity Program (ACP), which offers a maximum \$30 a month discount on high-speed internet for qualifying households. As of May 2022, 2,913 households within the CNMI were signed up for the program, which is anticipated to last at least through 2025 and which an estimated 80-90% of all CNMI households are eligible for. Despite these efforts, which included cost sharing from the CNMI government, latency challenges persist and overall the communities of the CNMI remain unserved and underserved due to tremendous costs of broadband service deployment and maintenance from the first mile to the last mile. High costs and limited availability of reliable computers and work / study spaces also present challenges to digital literacy and deployment. While several programs have been rolled out to support improved access for students - particularly as part of COVID-19 response efforts that necessitated remote learning environments - additional training and accessibility to dedicated internet hubs remains a priority to support the goal of reliable and convenient access to high-speed internet for all.

3.4 *Needs and Gaps Assessment*

As reflected in the analysis of available data that follows, CNMI has significant needs and gaps regarding broadband adoption, affordability, access, and equity. Persistent challenges include high-costs and supply chain impacts associated with our remote geography, lack of full broadband deployment and accessibility within educational institutions, inadequate dedicated support programs to improve access for economically disadvantaged individuals, and insufficient availability of technical support services.

The Department of Commerce’s Central Statistics Division’s 2017 Household Income and Expenditures Survey (HIES) report found that the percentage of units connected to the internet by broadband increased significantly during the 11 years. In fact, in 2005 almost no units were connected via broadband. By 2016, about 1 in every 5 units was connected. Rota continued to have almost no broadband connection, but Tinian’s was among highest use percentage-wise. Less than 5 percent of the District 5 units were connected to the internet, but the other districts had used about the same as for Saipan. Total connectivity increased substantially from the 2005 HIES report (see Figure 1, below).



Additionally, the Northern Islands community has been unserved for many years. Members of the community wish to resettle but due to lack of schools, healthcare, and other means they are unable to resettle permanently. Access to affordable internet for E-learning and Telehealth through established internet connectivity would make it a step towards making it more feasible for families to resettle permanently in the Northern Islands.

Despite improvements in broadband deployment, cost and latency challenges have remained a barrier to equitable entry. On April 21, 2023, Governor Palacios established the position of Special Assistant for Broadband Policy and Development within the Office of the Governor to head the operation and administration of a Broadband Policy and Development Program (Directive No. 2023-003). This position will oversee the Broadband Equity, Access, and Deployment (BEAD) Program, which was launched by President Joseph R. Biden under the Bipartisan Infrastructure Law.

BEAD seeks to improve access to reliable, affordable high-speed internet through grant funding and programmatic support, making at least \$25 million available to the CNMI to build infrastructure and increase adoption of high-speed internet, with priority placed on unserved and underserved areas. Eligible uses for the BEAD Program include (1) planning for the deployment of high-speed internet including research, data collection, outreach, and training; (2) deploying or upgrading internet in unserved or underserved areas or improving service to community anchor organizations; (3) installing internet and Wi-Fi in multi-unit residential buildings; (4) adoption and digital equity programs; and (5) workforce development programs and vocational training.

In addition to the BEAD Program, millions more in federal dollars are available to the CNMI for broadband infrastructure and development through other funding streams, including but not limited to at least \$14 million from the U.S. Department of Treasury's Capital Projects Fund, \$3.4 million from the U.S. Department of Commerce's Digital Equity Program, and up to \$5 million from the U.S. Department of Agriculture's Community ReConnect Program.

The Special Assistant for Broadband Policy and Development is tasked to develop strategies, plans and projects with sufficient research, data collection, outreach and training to transform the Commonwealth's internet infrastructure and improve internet reliability, affordability, accessibility, and speed, and shall receive the assistance and cooperation of the Department of Finance including the Office of Information Technology, the Office of Planning and Development, the Department of Commerce, and other relevant executive departments and agencies and their principal executives including the heads of public

corporations and autonomous agencies, in a concerted effort to consolidate and coordinate all resources of the Commonwealth relating to the upgrade of broadband infrastructure and services in the Northern Mariana Islands.

In May 2023, the Federal Communications Commission (FCC) released Version 2 of the National Broadband Map. This is an important step in meeting President Biden’s goal of connecting everyone in America to affordable, reliable, high-speed Internet service, updating location level data from 2022 that aims to improve understanding about the digital divide and target funding to connect underserved and unserved communities. The release of version 2 of the FCC’s National Broadband Map is an important part of the process of implementing the BEAD program, as this version of the map—plus additional refinements based on the FCC’s continuing work to resolve availability challenges—will be used as the basis for the state allocations. In the “Version 2” update, reported “underserved” areas increased from 110 to 243. Detailed maps are not included here but are available at <https://broadbandmap.fcc.gov/>. This dataset includes Saipan, Tinian, and Rota but does not include the Northern Islands at this time. The CNMI’s Broadband Office has been working to identify coverage and latency issues that may further impact mapping and BEAD program implementation considerations.

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4 Obstacles or Barriers

The 2013 CNMI Broadband Mapping Report highlighted numerous needs and opportunities for broadband deployment. These include:

- Cost, Access, and Speed challenges. Noting CNMI residents pay some of the highest costs for service in the nation, the report found that slow upload and download speeds are the biggest hindrance to effective broadband use.
- Insufficient broadband infrastructure. The Report concluded that CNMI lacks sufficient middle mile broadband infrastructure for its population. Large, fiber optic, undersea cables capable of carrying many gigabytes of data are necessary to provide the citizens of CNMI with high-speed broadband access. CNMI's only fiber optic cable comes from Guam. All of the major undersea cables from Asia, Japan, Hawaii or California route through Guam because of the large US military presence. This is a self-perpetuating cycle because Guam already has the necessary landing infrastructure and is thus more appealing for organizations to route through, which causes CNMI to rely solely upon its one cable to Guam for its internet connection.
- Lack of choice and competition. The report notes that the sole internet connection this cable is privately owned by IT&E Telecom, which gives them a monopoly on the data that flows to and from CNMI. This allows IT&E to charge high rates from the other telecoms that operate in Saipan and the other islands of CNMI. However, IT&E does not own any of the cables that land in Guam, so other, larger telecoms charge IT&E high rates for the data transfers. This has a cascading effect where the consumers in CNMI have to pay a lot for service (\$180 per month for an advertised 2.5Mbps) because of the several chokepoints the data must pass through.

While these challenges remain nearly 10-years later, federal funding has made it possible to update coverage maps and establish programs to support improved coverage and digital equity. The goals reflected in this plan aim to address these challenges and chart a path towards enhanced access and broadband service reliability in the years ahead.

5 Implementation Plan

5.1 Stakeholder Engagement Process

On Monday, May 23, 2022, the CNMI-Broadband Team, part of the CNMI Office of Planning and Development (~~OPD~~) under the CNMI Office of the Governor, held Public Listening Sessions at the CNMI Multipurpose Center. The primary purpose of this meeting ~~will be~~ was to listen to public comments, concerns, goals, and aspirations for internet connectivity, digital equity, and broadband-related technologies, activities, and business within the CNMI. This effort re-initiated the broadband planning stakeholder engagement process. Extensive community outreach was conducted to identify relevant stakeholders and develop an initial contact list as well as support initial mapping of potential “community anchor institutions”.

Numerous one-on-one and subject-specific stakeholder calls and meetings continued since the formation of the CNMI-Broadband Team. In April, 2023, the Broadband Policy Development Program was established, creating the Broadband Office through the appointed Special Assistant. Additional meetings with local and regional stakeholders have been ongoing, and the Broadband Special Assistant has also been in close communication with program support staff and leadership from NTIA and other implementation support partners at the national level.

On Friday, July 7, 2023, the Broadband Office convened a stakeholder follow-up meeting to discuss goals and priorities identified in the plan and obtain additional feedback, and weekly stakeholder meetings as well as on-one-one meetings continued to support the development of this plan and support priority implementation actions. The CNMI Broadband Office continues to study our network conditions, engage with our institutions and businesses, and to communicate with the public.

Ongoing engagement efforts include:

- Marianas Broadband Outreach: Holding monthly communications with institutions like schools, libraries, hospitals and community centers; providing Federal Subsidy consulting for our institutions; community outreach to our residents; and, partnering with other agencies on internet-related technical and work initiatives.
- Community Pillars program: Funding opportunities for all of our Community Anchor Institutions, including schools, colleges, libraries, hospitals and clinics, community centers, public lands and facilities, and more to plan for and add internet and internet-related facilities and equipment for their constituents and their neighbors.
- Broadband Mapping: Working to build comprehensive public maps and data about internet service for our local community, our peer territories and Insular Areas, and our federal partners.

Together these efforts will support the CNMI Broadband Office to continue work to identify and engage broadband stakeholders and form the CNMI Broadband Working Group that will co-develop work plans and strategic plan updates to meet the vision, goals, and objectives reflected in this plan.

5.2 Priorities

Priorities to further CNMI’s vision, goals, and objectives for the five-year plan are detailed in the table that follows on the next page (Table 6).

Table 6: Priorities for Broadband Deployment and Digital Inclusion

Priority	Description
<i>Name of Priority</i> Broadband Program Establishment	<i>Brief description of the priority</i> Sustainable program is funded to support Broadband deployment and equity needs identified in this five-year plan and future plan updates
Overcome Latency Issue	Prioritized data-driven investments in improvements of the first, middle, and last-mile result in improved latency to ensure more equitable access to high speed internet
Expanding Digital Inclusion and Digital Equity	Equity initiatives are prioritized for funding and implemented to improve accessibility with a focus on enhancing service to persistent poverty populations on Saipan, Tinian, and Rota as well as the Northern Islands if feasible to expand digital inclusion and accessibility
Building Digital Literacy and Security	Digital literacy training support is made available through co-developed curriculum and community outreach events, with pre- and post- training surveys deployed to identify remaining training gaps and build the CNMI’s Digital Literacy program; metrics for digital literacy and security in CNMI are identified and tracked
Expanding CAI Partnerships and Capacities	Investment in priorities to achieve enhanced accessibility and service through CAIs, and ongoing partnerships with CAI to support goals of the Broadband Program will be ensured through creation and regular maintenance of the CNMI’s CAI registry which will be leveraged to continue ongoing stakeholder meetings to support DE Plan expansion for inclusion in the CNMI’s CSDP as well as the Five-year Broadband Plan update

5.3 Planned Activities

Ensure Sustainable Program Funding

- The CNMI Broadband Office will continue to establish and fill key positions for program functions and apply for competitive and noncompetitive funding and seek support from local funding as well as public / private partnerships as appropriate to ensure ongoing program development and implementation, including analysis of support needs for all inhabited islands of the CNMI.

Strengthen the “First Mile”, “Middle Mile” and “Last Mile” Connections.

- The CNMI Broadband Office will solicit professional services to conduct a feasibility study to assess alternatives and provide cost analysis to confirm priority actions.
- Request for qualifications / proposals developed to support implementation of priority actions with the goal to lower connection costs for end users and ensure reliable broadband deployment and maintenance so that program goals continue to be achieved.

Expand E-Learning for Education and Professional Development Programs and Partnerships.

- In coordination with learning institutions and CAIs, state-wide e-learning is supported including equity-based programs that ensure access to the necessary hardware and software for e-learning success with courses including information security and data management (hardware and software best practices), ArcGIS and targeted training from BroadMap on the use of its mapping tools developed specifically for CNMI so that digital literacy skills are gained through instruction and hands-on educational methods with supporting tutorials or other educational content that shows users how to perform such tasks. Targeted curriculum development will be developed and implemented to support “train the trainer” initiatives in schools as well as the public, private, and non-profit sectors.
- Pre- and post- training surveys identify priority needs which will be addressed in plan updates and ongoing competitive and noncompetitive grant applications.
- Identified CAIs provide wireless network access 24 hours a day, seven days a week to further progress towards the goal that all CNMI residents will have reliable and affordable broadband access to support digital literacy and equity objectives.

Equitable Investments Prioritized

- Access and deployment proposals from stakeholders will be solicited, reviewed, and prioritized with a focus on ensuring more equitable and affordable broadband availability to qualifying unserved and underserved as well as persistent poverty populations.
- Planned Requests for Proposals include (i) digital access locations program to support goals to enhance access and reliability; and (ii) data collection grant program to support digital equity mapping through qualifying non-profit or educational institutions.

5.4 Key Execution Strategies

To support the CNMI’s vision and goals for broadband program establishment and implementation as well as enhancement of digital inclusion, equity, and literacy, resulting prioritized investments will be guided by the declared BEAD priorities, focusing first on extending last mile infrastructure to cover unserved areas, in coordination with statewide strategies for interconnecting with middle mile infrastructure (supported outside of BEAD) and statewide wraparound services to support meaningful adoption of high-speed internet access. In accordance with statutory requirements, project selection will be reviewed and coordinated to ensure that BEAD investments will not over-build or duplicate efforts funded by other federal funding sources.

The CNMI Broadband Office, with support funded under BEAD, will continuously monitor the overall efforts funded across all federal broadband programs. BEAD Planning Funds included support for broadband office capacity through the five-year term of award will support oversight of projects funded under BEAD, compliance and monitoring of efforts, and adaptive management planning needs through the term. Dedicated staff will also support office and implementation cost projections to secure necessary funding to ensure program continuity including timely updates of the Five-year Broadband Plan and supporting DE plan for submission to NTIA and inclusion in the regular updates of the CNMI’s Comprehensive Sustainable Development Plan.

5.5 Estimated Timeline for Universal Service

CNMI’s Comprehensive Sustainable Development Plan reflects an ambitious target that by 2030 every resident will have meaningful access to robust, reliable and affordable high-speed Internet bolstered by a

dedicated digital equity response that enables all of our residents to succeed in digital space. Swift implementation of the objectives identified in this plan will ensure progress towards that goal. Long-term accessibility and affordability will be dependent on successful cost-efficient program implementation as well as the continued availability of ACP or some similar program under the revisitation of the FCC’s Universal Service program. Long-term concerns and potential barriers to achieving CNMI’s broadband accessibility goals include the lack of secured long-term implementation support beyond this five-year funding cycle, limited availability of local technical subject matter experts and service providers, unknown disposition of ACP and related subsidy programs, and uncertainties as to high-cost and ultra-high-cost last mile buildouts. The CNMI is grateful for the much-needed infusion of funding through numerous NTIA and USDA broadband programs. However, given the high costs of broadband deployment and maintenance as well as challenges to building digital equity outcomes in remote and underserved communities, sustainable program financing will be necessary for ongoing progress towards the achievement of CNMI’s broadband goals.

5.6 *Estimated Cost for Universal Service*

The costs to achieve CNMI’s broadband program goals will be assessed further in the proposed feasibility study. This will assess opportunities to leverage funding supported by current and forthcoming grants and develop recommendations regarding the viability of public/private partnerships and other funding mechanisms and cost saving measures that will assist with implementation of this 5-year plan and ensure ongoing progress towards long-term deployment and adoption goals. The CNMI Broadband Office will expand partnerships with identified CAIs and broadband stakeholders and coordinate with the Offices of the Mayors of Rota, Tinian, and the Northern Islands to discuss and quantify costs of telecommunications infrastructure deployment and maintenance needs and leverage programs to avail of ongoing support for economically disadvantaged residents.

5.7 *Alignment*

The overall vision of the CNMI Broadband Program is to achieve meaningful access to robust, reliable and affordable high-speed Internet bolstered by a dedicated digital equity response that enables all of our residents to succeed in digital space. This envisions that all communities will have ready access to local resources to provide wrap-around services supporting digital inclusion, digital equity, and digital literacy. Broad geographic coverage of traditional Community Anchor Institutions together with newly minted Community Digital Hubs provide residents with neighborhood digital resources.

The goals of this Five-Year Broadband Action Plan - (i) sustainable program establishment and development, (ii) expanded planning for digital inclusion and equity, and (iii) targeted program implementation efforts to improve and track digital literacy are calibrated to achieve progress towards this vision incorporating a strategic adaptive management planning efforts that align with CNMI’s comprehensive sustainable growth planning processes.

These goals and objectives further align with CNMI’s 2021-2030 Comprehensive Sustainable Development Plan (CSDP) “right-sized” sustainable development goal (SDG) for industry, innovation, and infrastructure (SDG #9) that envisions that “by 2030 all residents of Saipan, Tinian, and Rota will have in-home access to the internet through broadband connection or cell service provider”.

As the CNMI works to ensure regular data collection through updates of the CNMI Resources Report and CSDP on a five-year planning cycle, additional areas of alignment to support sustainable development outcomes through broadband have been identified. These include:

Goal 4 – Inclusive Education – By 2030, all residents of Saipan, Tinian, and Rota have access to free digital literacy training to support digital inclusion and use of the internet in schools and to support economic diversification.

Goal 8 – Good Work and Economic Growth – By 2030, all businesses on Saipan, Tinian, and Rota will have “business internet” packages available to them at a cost of no more than 150% of the national average price on a per Megabit per Second basis.

Goal 10 – Eliminating inequality and Supporting Diversity, Equity, Inclusion, and Justice – By 2030, 98% of the residents of Saipan, Tinian, and Rota have affordable home internet available at their residence, where affordable is defined as a package delivering federally defined qualifying broadband services at a cost that is no more than 150% of the national average on a per-Megabit per-Second basis with no unusual fees, data caps, or other non-standard restrictions.

Goal 16 - Promoting peaceful and inclusive societies for sustainable development, providing access to justice for all and build effective, accountable and inclusive institutions at all levels – By 2025 all Community Anchor Institutions (CAIs) in the CNMI will be registered, mapped, and tracked by the Broadband Program so that by 2030 all tracked CAIs will have gigabit fiber internet connections available to them at an annual cost no higher than 150 percent the national average on a per Megabit per Second basis.

5.8 Technical Assistance

In light of the high costs of broadband deployment, maintenance, and overall program implementation, ongoing technical assistance will be necessary to achieve the vision, goals, and objectives of the Broadband program.

6 Conclusion

[Insert Text – To be updated]

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7 Appendices

2021-2023 CNMI Comprehensive Sustainable Development Plan, available at https://opd.gov.mp/assets/2021-2030_cnmi_csdp.pdf

2013 CNMI State Broadband Initiative, available at <https://opd.gov.mp/library/reports/cnmi-digital-blueprint-report-2-12-13.a.pdf>

FCC National Broadband Map, available at <https://broadbandmap.fcc.gov/>

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