

Government of Niue
National ICT Policy
2023 - 2030

Prepared by the National ICT Committee

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Foreword

During the 2023 National Planning Summit, two important issues were highlighted: the growing challenges facing Tāoga Niue, including Vagahau Niue, and the increasing importance of technology in daily lives and the long-term development of Niue. The path we tread today is deeply rooted in our shared commitment to find synergies between these two issues and how one can complement the other by harnessing the immense potential of technology for the benefit of our beloved Niue.

Niue has been on the development of its ICT sector for the past thirty years, which was amplified with the passing by the Niue Assembly of the Communications Act 1989. The legislations objectives aim to facilitate the development of communications both within Niue and elsewhere, providing within Niue public communications services of a kind and quality appropriate to the social, cultural, educational, and economic needs, supervising the quality of materials and programmes to benefit the Niuean community, and providing the people of Niue with a reliable and efficient communications and ICT services at a reasonable cost.

As we embrace the digital age, we must ensure that the content and services available to our people reflect our unique identity, respond to our needs, and contribute positively to our growth.

As the Minister of ICT for Niue, I am honoured to be part of this journey towards a digitally empowered and resilient Niue. Together, with the support of the Government, dedicated public servants, our vibrant communities, and the resilience that defines us as Niueans, we will continue to evolve, adapt, and thrive in the ever-changing landscape of technology. In this digital age, ICT knows no boundaries, and our commitment extends not only to fostering local connectivity but also to engaging with the wider global community, ensuring not one citizen is left behind.

This National ICT Policy is a testament to our commitment to shaping a future where technology becomes a powerful tool for preserving our culture, enriching our human resources and education, enhancing our economy, and connecting our people. It is my hope that through this policy, we will lay the foundation for a brighter and thriving Niue for generations to come.

Let us embark on this exciting journey, knowing that the road ahead is full of promise and that with unity and determination, we will turn our ICT vision into reality.

Kia Monuina!



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Hon. Crossley Tatui

Minister for Finance & Infrastructure (ICT)

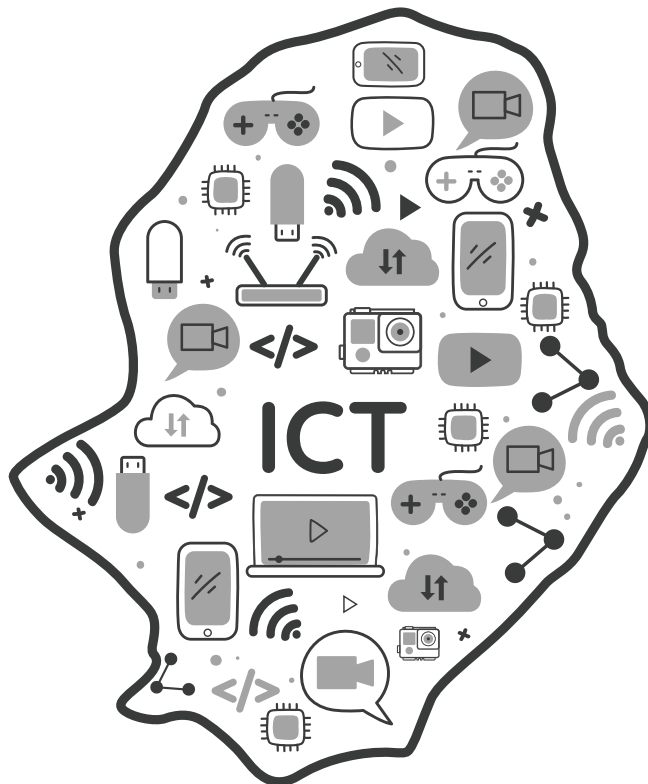
Introduction

Niue is a small Pacific island nation with a population of approximately 1,700 people. The island faces a number of challenges related to its remoteness, limited resources, and vulnerability to natural disasters and global shocks. However, with the increasing importance and advancement of information and communication technologies (ICTs) in today's world, Niue has the potential to leverage these technologies to overcome some of its challenges and achieve its national development goals in line with the 2050 Strategy for the Blue Pacific Continent and the 17 United Nations Sustainable Development Goal's (SDG's). Although the availability and use of ICT in Niue has increased significantly over recent years, there are still many aspects of our everyday life where further ICT development would be very beneficial for the community.

The expansion, diversification, and effective application of ICT in Niue would have many benefits. Among other things, it would:

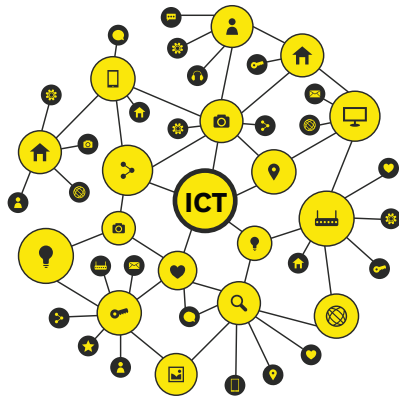
- **Foster an information society**, where the creation, use and distribution of information is a significant economic, social, and cultural activity;
- **Provide enhanced opportunities** for education, health, infrastructure management, and other public services;
- **Enhance social equity**;
- **Promote greater transparency**, governance, responsiveness, and accountability within government;
- **Provide a cost-effective means** of delivering various government and commercial services throughout Niue.

**Information Society
Opportunities
Social Equity
Greater Transparency
Cost Effective**



Purpose

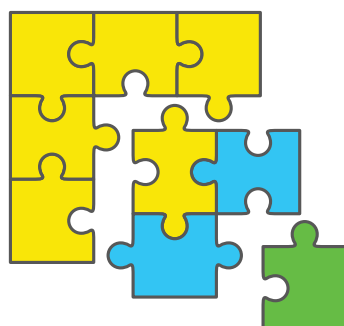
The purpose of the ICT Policy is to provide a comprehensive and strategic agenda/framework that guides, supports, and facilitates the implementation of ICT-related projects, programs, and initiatives in Niue in a coordinated approach. The overarching policy should ultimately benefit all of society and is expected to leverage the power of technology to advance various sectors, improve socioeconomic well-being, and empower citizens. Additionally, the policy seeks to address key ICT needs and priorities identified by key stakeholders. It is worth noting that Niue has not yet established a formal ICT policy. Therefore, this document represents a significant milestone as it signifies the first comprehensive ICT policy for Niue, aimed at fostering a conducive environment for supporting ICT development on the island.



Comprehensive and strategic agenda/framework that guides, supports, and facilitates the implementation of ICT-related projects, programs, and initiatives in Niue in a coordinated approach

National Policy Context

In crafting the Niue ICT Policy, it is imperative to consider the broader national policy context within which our digital aspirations and strategies are anchored. The alignment of our ICT goals with the overarching national plan and other sectoral policies/frameworks is essential for coherent and sustainable development.



National Policy



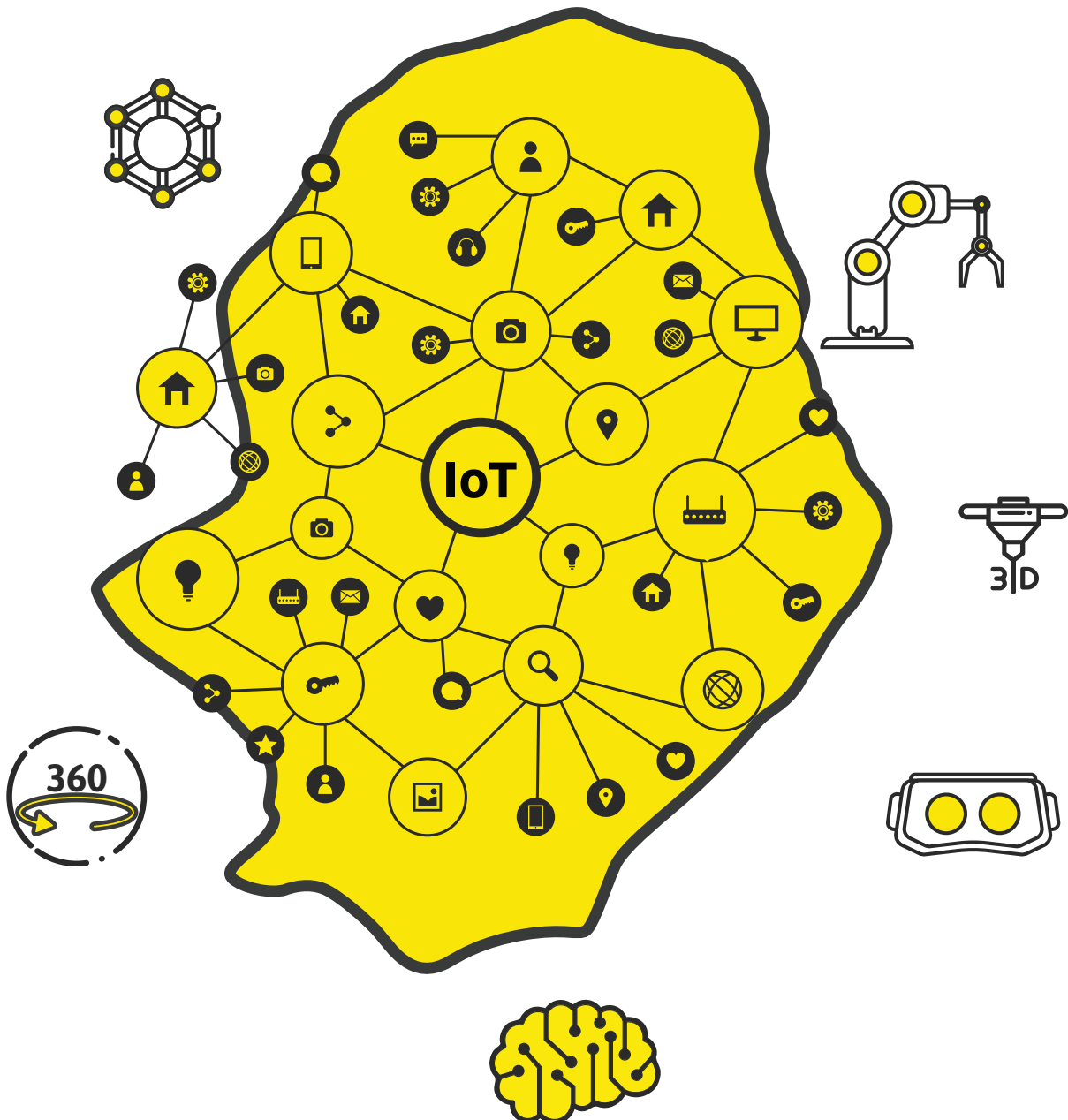
Sectoral Policy



ICT Goals

Emerging Technologies

In developing the Niue ICT Policy, it is crucial to recognize and embrace the rapid growth and advancement of emerging technologies that have the potential to transform the island's digital landscape and empower its people. Examples of such emerging technologies include, but are not limited to, Artificial Intelligence (AI), Robotics, 5G, Blockchain, Virtual & Augmented Reality, 3D Printing, and Internet of Things (IoT). By integrating these emerging technologies into the policy, Niue can harness the transformative power of digital innovation to drive economic development, improve public services, and enhance the overall well-being of its people.



Linkages to National, Regional & Global Development Goals

National

The NNSP 2016-2026, identifies ICT as a key priority area under the Infrastructure Pillar in which it hopes to sustain quality and reliable ICT. Additionally, the plan prioritizes the reinstatement of the Government ICT Department, the review and establishment of ICT legislation/policy, and implementation highlighting security and ensuring quality ICT infrastructure. It is imperative to note the significance of leveraging ICT to support the progress of the entire plan through the seven pillars and its strategic objectives, including sectoral plans.

Regional

The 2050 Strategy for the Blue Pacific explicitly highlights ICT in Thematic Area Seven which focuses on Technology and Connectivity. The strategic pathway under thematic area seven aims to empower regional cooperation through connectivity via ICT. It also notes the importance of respecting data sovereignty and governance in the collection, analysis, and use of data and information to support effective decision-making.

International

ICT plays an integral part in achieving all the 17 SDGs and empowering communities across the world. ICT falls directly under SDG 9 based on building resilient infrastructure, promoting sustainable industrialization, and fostering innovation. Investment in ICT infrastructure is paramount to achieving all the priority areas within this policy.

Emphasizing the connections to the aforementioned national, regional, and global development goals and frameworks is crucial to ensuring coherence in our objectives. This alignment not only ensures that our policy achievements resonate with regional and international goals but also positions us to leverage potential financial assistance from development partners who share our commitment to these shared objectives.



Vision

Niue's vision for ICTs is to foster a modern, connected, and innovative society that harnesses the full potential of ICTs to drive economic growth, improve social well-being, and enhance the quality of life for all. To achieve this vision, the Government of Niue has developed this National ICT Policy that provides a framework for the integration and harmonization of the Government's national policy priorities and the ICT-related goals and initiatives of the key sectors of the economy.

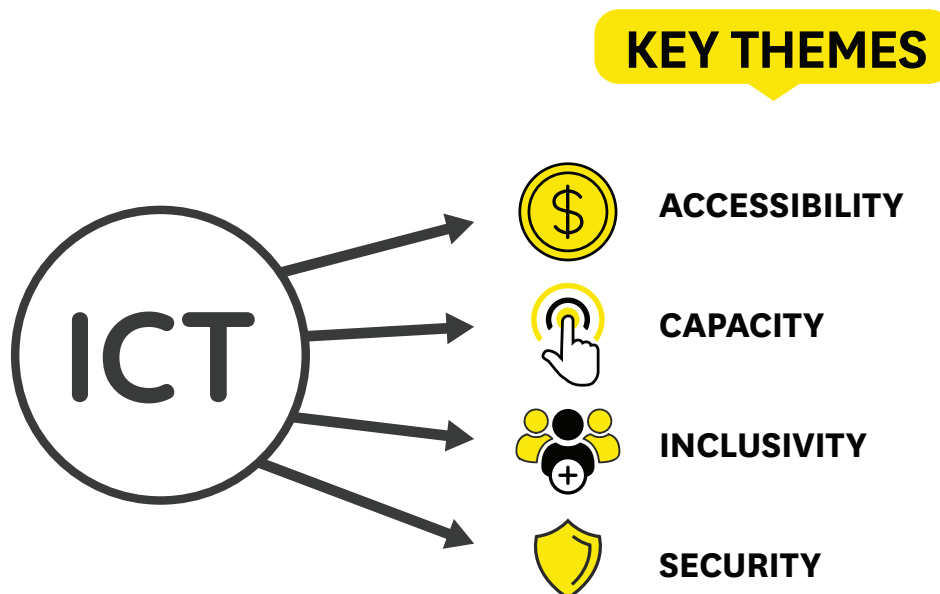
The vision sets out eight ICT strategic priorities based on the key themes of:

Accessibility, which describes the Government's desire to maximize the availability and affordability of ICT and of opportunities to use and utilise the benefits of ICT;

Capacity, which reflects the Government's desire to ensure that all residents acquire and continually develop the skills necessary to use ICTs effectively to access and share information;

Inclusivity, which reflects the Government's intention to work in partnerships with international/regional organisations, the private sector, and community organisations to achieve its vision.

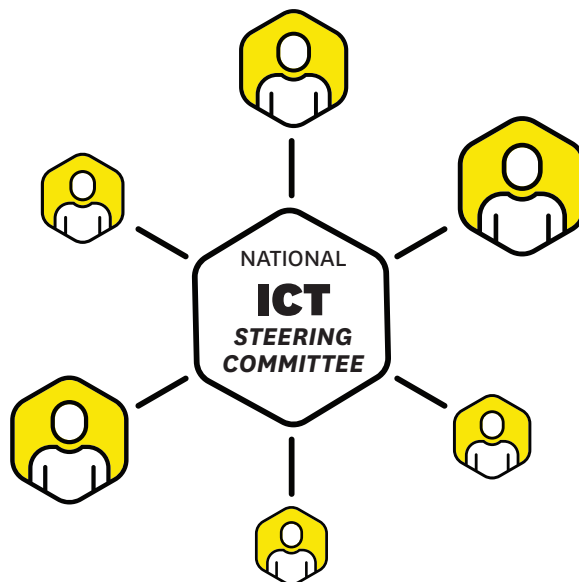
Security, which demonstrates the Government's intention to ensure the safe, secure, and responsible use of ICT and that the integrity of IT systems or data is not compromised by external ICT threats.



Implementation

The successful implementation of this National ICT Policy will require the collaboration and cooperation of all stakeholders, including government agencies, the private sector, civil society, and the people of Niue. The Government of Niue is committed to working closely with key development partners to invest in the necessary infrastructure, skills development, and regulatory frameworks to achieve this vision, and looks forward to working with all stakeholders to make this vision a reality.

To facilitate this, a National ICT Steering Committee consisting of key stakeholders will be established to provide guidance and oversee the implementation of this policy, and ensure that the objectives set out in this policy are met.



Objectives

The objectives of this policy are to:

1. Develop a modern and reliable ICT infrastructure that supports the delivery of high-quality services to the people of Niue.
2. Work in partnerships with the private sector and community organization to foster the growth of a vibrant and innovative ICT industry that creates jobs and drives economic growth.
3. Enhance the provision of public services through the use of ICT/digital platforms.
4. Ensure that the use of ICTs is sustainable and environmentally responsible.

Current Status & History of ICT in Niue

There have been several ICT developments in Niue over the past two decades.

- 1989** - Niue Legislative Assembly passed the Communications Act
- 1997** - Niue's first ISP was established - IUSN now known as Kaniu
- 1999** - Niue Government signed an MoU with IUSN to acknowledge the Foundation's role in providing free internet services to the government.
- 2010** - Rollout of 2G network across the island
- 2016** - The Telecommunications Dept. was privatized in 2016 into a state-owned enterprise trading as Telecommunications Niue Limited (TNL).
- 2018** - Rollout of the whole island local Optic Fibre and 4G LTE network
- 2020** - Completion of Submarine Manatua Cable with landing at Namoui
- 2022** - Revival of the ICT Development Committee
- 2023** - Start rollout of the second local Optic Fibre cable
- 2023** - Formation of the ICT Advisory Committee
- 2024** - Launching of the National ICT Policy and Digital Strategy

Monitoring & Evaluation Mechanism

It is proposed that the review of this policy be conducted every three years by the ICT Steering Committee. An ICT Symposium involving all key stakeholders in the ICT space will be held every two years, an opportunity to report whether the policy objectives have been achieved.



3 Year review
ICT STEERING COMMITTEE

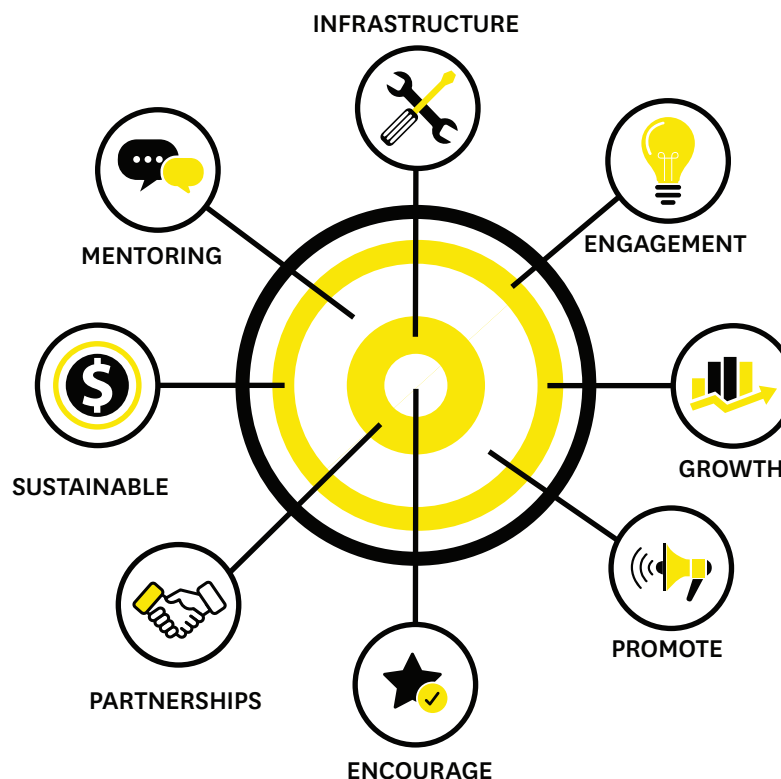


2 Year Symposium
KEY STAKEHOLDERS

Strategies

To achieve these objectives, the following strategies will be pursued:

1. Develop and implement a comprehensive national ICT infrastructure plan that includes the deployment of high-speed broadband, mobile networks, LEO satellites, and other modern technologies to enhance network coverage, reliability, and accessibility.
2. Encourage private sector engagement and investment in the ICT sector, through policies that promote competition, innovation, and entrepreneurship.
3. Establish a robust regulatory framework that supports the growth of the ICT sector while ensuring good governance, protection of consumers/users, and promoting fair competition.
4. Develop a national digital skills and mentoring strategy that includes human resource development and education programs for all, from primary school children, and adults to senior citizens.
5. Promote the use of ICTs in the provision of public services and information, including key infrastructure entities, education, health care, and other government services.
6. Encourage the development of local web content and software applications that are relevant to Niuean culture and society.
7. Foster regional and international partnerships and collaborations that can provide support, expertise, and resources to the Niuean ICT sector.
8. Ensure that the use of ICTs is environmentally sustainable, through measures and policies such as repairing rather than replacement, promotion of energy-efficient technologies, and the responsible disposal of electronic waste.



Strategic Priority One



Modern & Reliable ICT Infrastructure, Network Coverage & Accessibility (Affordability)

“Develop and implement a comprehensive national ICT infrastructure plan that includes the deployment and use of high-speed broadband, mobile networks, LEO satellites, and other relevant modern technologies to enhance network coverage and accessibility.”

It is a fundamental goal that the ICT-related infrastructure is robust and reliable to ensure all citizens have constant equal access to affordable ICT without discrimination based on income, gender, level of literacy, locality (e.g. urban or rural), or special needs (e.g. disability).

We will achieve this goal by:

1. Identifying and removing the barriers to greater adoption and use of ICT services;
2. Increasing awareness of ICT and developing ICT literacy among citizens
3. Putting in place appropriate laws, policies, and practices to ensure that everyone has an equal opportunity to access ICT regardless of the level of income, education, age, gender, and people with special needs;
4. Encouraging private sector investment in ICT infrastructure and services;
5. Working in collaboration with existing community groups, such as churches, women groups, youth, and schools to provide outreach to their constituents in raising awareness of ICT benefits and providing opportunities for hands-on training;
6. Ensuring that websites, applications, and software are designed with accessibility in mind to cater to people with disabilities. This can involve providing alternative text for images, utilizing clear and readable fonts, and creating an intuitive, user-friendly interface. Enable the use of adaptive technologies such as screen readers, voice recognition software, and alternative input devices.
7. Ensuring that ICT initiatives and programs are integrated into the developmental plans and policies of all relevant sectors (such as key infrastructure entities, education, and health);
8. Examining ways to reduce the costs of ICT equipment for underserved communities and public service sectors (such as health and education); and
9. Emphasizing the significance of a reliable and affordable national power supply service is crucial for ensuring a functional and sustainable ICT infrastructure.
10. Creating an ICT disaster recovery plan outlining the key steps to be taken in the event of a disruptive incident.
11. Establishing a secure and advanced data centre, dedicated to storing and hosting local data and information, to guarantee data sovereignty and strengthen data protection measures.

We will evaluate our progress towards this goal based on the following indicators:

- a. The number of mobile phones per capita is increased by 20%;
- b. Increased Manatua gateway and 4G network bandwidth use;
- c. The proportion of the population that regularly uses broadband internet access (wireless or fixed); and changes in the prices for ICT services and equipment.
- d. An on-island web server that hosts local online content/websites.

Strategic Priority Two



Stakeholder Inclusivity and Engagement & Digital Trade

“Encourage private sector and civil society engagement and investment in the ICT sector, through policies that promote efficiency, competition, innovation, and entrepreneurship.”

Government will harness the potential of ICT to increase the productivity of businesses and induce economic growth through widespread distribution and effective use of ICT through digital trade.

Government will also support and utilize ICT to promote sustainable development in health, education, key infrastructure entities, and other public service applications such as public safety, language and cultural perpetuation, and protection of our environment.

We will achieve this goal by:

1. Identifying ways to lower the costs for businesses to utilize ICT to improve their productivity and the marketing and distribution of goods and services;
2. Conducting frequent research initiatives to enhance the ongoing development of ICT on the island that is responsive to the needs of end-users.
3. Delivering community outreach programs to increase ICT adoption and engagement and reduce the digital divide.
4. Working with the private sector to support digital entrepreneurship and develop e-commerce systems that facilitate financial transactions using ICT;
5. Leveraging e-commerce and digital services to expand market access for Niuean products and services
6. Developing and implementing an ICT plan for the health sector that focuses on utilizing ICT to improve the delivery of health services and the recording and exchange of health-related information;
7. Integrating ICT into disaster management and recovery systems, particularly to enhance predictive capabilities and the management of disaster and post-disaster situations through access to real-time information by government officials;
8. Supporting the implementation of ICT systems to improve fisheries management in the interests of sustainability and food security;
9. Encourage the creation of local and locally relevant internet web content and software apps.

We will monitor and evaluate our progress towards this goal based on the following indicators:

- a. The percentage increase in healthcare services utilising ICT, including telehealth and telemedicine;
- b. To have 10 locally created software content like websites, and apps with some integrated e-Commerce related functionality.
- c. The incorporation of ICT into the national disaster strategy by 2027;
- d. 80% of all registered business have an online presence;
- e. The number of businesses with e-commerce and related digital transactions capability.
- f. Have 10 new businesses established within the ICT sector by 2027.

Strategic Priority Three



Governance & Security

"Establish a robust regulatory framework that supports and enables the growth of the ICT sector while ensuring good governance, protection of consumers, and promoting fair competition."

It is an important responsibility of the Government to ensure that an appropriate legal and policy framework is in place to help foster the development of an information society and to ensure that all citizens are able to participate in it.

We will achieve this goal by:

1. Reviewing and if necessary updating the existing legislation that governs the ICT sector to ensure that it is fit for purpose and draws on international experience;
2. Putting in place suitable laws, regulations, policies, and practices that ensure access to ICT infrastructure, data capturing/sharing, services and training is equitable and non-discriminatory;
3. Identifying and developing policies and laws to address the socially undesirable and illegal applications of ICT and protect the interests and privacy of all Niue residents;
4. Establishing safe and secure environments for women, girls and children to use ICT; and
5. Implement regulations and provide guidance for the utilization of AGI and Generative Ai within web and software application use across government, educational institutions, and the general public.
6. Enforce modern, flexible regulatory frameworks that support digital trade such as data protection, digital signatures, cybercrime and mechanisms that facilitate cross-border data flows while ensuring data security and consumer protection.
7. Enforce measures to protect government and critical infrastructure from cyber threats/attacks
8. Establish and maintain a comprehensive open data portal, reflecting the principles of accountability, participation, and collaboration to drive evidence-based decision-making, and stimulate local innovation.

We will monitor and evaluate our progress towards this goal based on the following indicators:

- a. The Government body responsible for ICT is reinstated;
- b. ICT is incorporated and emphasized as a pillar in the Niue National Strategic Plan;
- c. The Communications Act 1989 and related laws are reviewed and updated as necessary;
- d. Cybercrime Law is developed and passed by 2024;
- e. Any other law or regulation relating to ICT is developed and passed as necessary;

Strategic Priority Four

4

ICT Skills Development

Develop a national digital skills strategy that includes human resource development and education programs for all, from primary school children, and adults to senior citizens.

It is essential that all citizens—both young and old—acquire the skills and confidence to utilize ICT and participate in the information society. We will achieve this goal by:

1. Fully integrating the use of ICT into school curricula where practicable;
2. Ensuring teachers receive appropriate training so that they have the skills and confidence to incorporate the use of ICT into lessons;
3. Making opportunities available for public servants, the private sector, civil society, and all residents to acquire the skills and confidence to use ICT to access and share information and further their education; and
4. Facilitate, encourage and promote access for all citizens to engage in reputable online ICT courses and skill development programs offered by global corporations and recognized educational institutions.
5. Appointing ICT Champions to mentor and promote awareness of ICT, how it can be accessed and used, and its potential; and
6. Obtaining baseline information to understand the precise ICT needs and priorities of the community;
7. Attracting and nurturing tech talent through the Innovation Hub - Host at least 2 tech-related events, workshops, or training sessions at the Innovation Hub in the first year.

We will monitor and evaluate our progress towards this goal based on the following indicators:

- a. Having 80% of school curricula that integrates the use & application of ICT;
- b. Have 90% of all teacher's complete ICT education and training requirements; the proportion of all teachers who have completed ICT education and training requirements;
- c. The proportion of schools that incorporate multimedia educational materials in the classroom;
- d. Improved quality and efficiency in the execution of public service and private sector tasks; and
- e. The proportion of the population that regularly uses broadband internet access (wireless or fixed).
- f. Improved wellbeing and quality of life for Niue residents through the utilization of ICT.
- g. Increased level of IT literacy among the resident population of Niue

Strategic Priority Five



E-services

Promote the use of ICTs in the provision of public services and information, including key infrastructure entities, health care, education, and other government services.

The enhanced access to information and service enabled by ICT creates opportunities to improve transparency and accountability within government and enables greater participation in government decision-making. We will achieve this goal by:

- Developing an e-Government strategy to improve government processes and the delivery of public services through the use of ICT;
- Delivering public services to citizens through creative uses of ICT such as a government web portal, one-stop service counters, and helpdesks;
- Using ICT to facilitate the sharing of relevant data and information between government ministries and public service providers;
- Developing an internet usage policy to cover all government departments and agencies;
- Encouraging all government bodies and social and economic organizations to make greater use of ICT in their interactions with stakeholders and customers.

We will monitor and evaluate our progress towards this goal based on the following indicators:

- a. Achieving 100% of GON ministries websites with current and comprehensive information by 2027.;
- b. The adoption of a central digital payment platform for services provided by the Government by 2025
- c. Have 100% of government ministries and agencies implement an internet usage policy by 2025.
- d. The establishment and utilization of digital remote sensing/automated systems to provide support for critical infrastructure entities like Water and Power.

Strategic Priority Six

6

Digital Web/Mobile Apps & Content Development

Encourage the development of local content and applications that are relevant to Niuean culture and society.

To achieve this objective, the following actions will be taken:

1. **Support and Foster Local Talent:** Foster and support the growth of local talent in app and content development by providing training programs, scholarships, hackathons, and mentorship opportunities. This will empower Niuean individuals to create digital content and applications that showcase their unique culture and traditions.
2. **Promote Niuean Cultural Identity:** Encourage developers to create apps that reflect the rich cultural heritage of Niue. These apps should highlight Niuean traditions, history, language, music, dance, and art, preserving and promoting the island's unique identity in the digital sphere. Furthermore, support Tāoga Niue efforts to digitize archives of significance to Niue culture, tradition, and history, ensuring that valuable cultural resources are accessible and preserved for future generations.
3. **Collaboration and Partnerships:** Foster collaborations between local app developers, cultural organizations, and community groups. By partnering with these entities, developers can gain insights into Niuean customs and values, ensuring that their applications accurately represent and celebrate the local culture.
4. **Funding and Grants:** Establish funding programs and grants specifically aimed at supporting the development of Niuean digital content and applications. These financial resources will provide developers with the necessary support to create high-quality, culturally relevant apps that resonate with the local population.
5. **User Accessibility:** Ensure that the developed apps are accessible and user-friendly, catering to the specific needs and preferences of the Niuean community, including vulnerable populations. Consider factors such as language options, user interfaces that are intuitive and inclusive, compatibility with various devices, and connectivity limitations often present in remote island communities.
6. **Local App Store or Platform:** Explore the possibility of establishing a dedicated local app store or platform that showcases and promotes Niuean-developed apps. This centralized hub will make it easier for residents and visitors to discover and download apps that highlight the Niuean culture and provide valuable services tailored to the island's context.

Evaluation of progress will be based on the following indicators:

- a. Number of locally developed apps accurately represent Niuean culture and society.
- b. User feedback and satisfaction with Niuean apps regarding cultural relevance and usability;
- c. Increased usage and downloads of Niuean apps by residents and visitors.
- d. Partnerships and collaborations formed between app developers, cultural organizations, and community groups.

By prioritizing the development of digital apps that reflect the unique cultural heritage of Niue, the island can leverage technology to preserve and share its traditions, foster community engagement, and provide innovative solutions that cater to the specific needs of its population.

Strategic Priority Seven



Regional/International Partnerships

Foster regional and international partnerships and collaborations that can provide support, expertise, and resources to the Niuean ICT sector.

Streamline targeted support to achieve Niue's ICT goals in light of the increased development assistance flowing into the Pacific and individual countries.

To achieve this objective, the following actions will be taken:

1. **Partnership Identification:** Identify potential regional and international partners who can contribute to the development of the Niuean ICT sector. Explore partnerships with neighbouring Pacific Island countries, regional organizations, international development agencies, donor countries, and private sector entities. Consider their expertise, networks, resources, and alignment with Niue's ICT goals.
2. **Collaborative Initiatives:** Establish collaborative initiatives that promote knowledge sharing, capacity building, and technical assistance in the field of ICT. This can include joint research projects, information exchange programs, and skills development workshops. Foster relationships that leverage the experiences and successes of other countries and regions in implementing effective ICT strategies.
3. **Resource Mobilization:** Actively engage with regional and international partners to mobilize additional resources for the Niuean ICT sector. This can involve seeking financial assistance, grants, and technical support to fund infrastructure development, capacity-building programs, and innovation initiatives. Explore funding opportunities provided by development agencies, international financing institutions, and public-private partnerships.
4. **Policy Alignment:** Ensure that partnerships and collaborations are aligned with Niue's national ICT policies and strategies. Coordinate with partners to integrate their expertise and resources into the implementation plans and prioritize areas where support is most needed. Foster policy dialogue to address common challenges and identify areas for joint action and cooperation.
5. **Information Exchange Platforms:** Establish platforms for sharing best practices, lessons learned, and innovative ICT solutions among regional and international partners. This can include conferences, seminars, online forums, and knowledge-sharing networks. Encourage the participation of Niuean ICT stakeholders to benefit from the experiences of others and showcase Niue's own successes and lessons learned.
6. **Monitoring and Evaluation:** Develop mechanisms to monitor and evaluate the effectiveness of regional and international partnerships in supporting the Niuean ICT sector. Regularly assess the impact of collaborative initiatives, identify areas for improvement, and share progress with partners and stakeholders. This will ensure accountability and facilitate adaptive management to maximize the benefits of partnerships.
7. **Niue Language Online Translation:** Pursue international partnerships to provide support and foster collaboration with Tāoga Niue to facilitate the inclusion of Vagahau (the Niue Language) into online language translation databases.

Strategic Priority Seven



Regional/International Partnerships

Evaluation of progress will be based on the following indicators:

- a. Number and quality of established regional and international partnerships.
- b. Level of financial and technical resources mobilized through partnerships.
- c. Successful implementation of collaborative initiatives and projects.
- d. Feedback from stakeholders on the value and impact of partnerships in achieving Niue's ICT goals.
- e. Vagahau can be seamlessly translated online to and from any other language, enabling effective communication and understanding across linguistic barriers on the internet.

By fostering regional and international partnerships, Niue can tap into external expertise, resources, and support to accelerate the development of its ICT sector. This collaborative approach will enhance the effectiveness of Niue's ICT initiatives and help realize its vision for a digitally empowered society.

Strategic Priority Eight

8

Green-ICT

Ensure that the use of ICTs is environmentally sustainable, through measures such as the promotion of energy-efficient technologies and the responsible disposal of electronic waste.

Environmentally sustainable practices regarding ICT are important to reduce carbon footprint towards climate change. It is imperative for all stakeholders to adopt environmentally friendly practices when procuring, using, and disposing of ICT-related technologies.

To achieve this objective, the following actions will be taken:

1. **Energy Efficiency Promotion:** Encourage the adoption of energy-efficient ICT technologies, including hardware, software, and infrastructure. Promote the use of energy-saving practices such as server virtualization, power management settings, and optimized cooling systems in green data centres. Raise awareness among ICT users about the importance of energy conservation and provide guidelines for energy-efficient ICT usage.
2. **Renewable Energy Integration:** Explore opportunities for integrating renewable energy sources into ICT infrastructure. Encourage the use of solar, wind, and other clean energy technologies to power data centres, telecom towers, and other ICT facilities. Collaborate with energy providers, government agencies, and private sector stakeholders to develop sustainable energy solutions for the ICT sector.
3. **E-Waste Management:** Implement responsible e-waste management practices to minimize the environmental impact of ICT equipment disposal. Establish collection points or recycling programs for electronic waste, ensuring proper handling, recycling, or safe disposal of outdated or damaged ICT devices. Promote awareness among users about the importance of recycling and responsible e-waste management.
4. **Green Procurement Policies:** Develop and implement green procurement policies for ICT equipment and services. Give preference to vendors and suppliers who adhere to environmental standards such as ISO 14000, and provide energy-efficient products. Consider the life cycle impacts of ICT products, including their manufacturing processes, energy consumption, and recyclability, when making procurement decisions.
5. **Education and Training:** Provide education and training programs on green ICT practices to ICT professionals, students, and the general public. Raise awareness about the environmental implications of ICT usage and the benefits of adopting sustainable practices. Offer training on energy-efficient ICT utilization, e-waste management, and the importance of selecting environmentally friendly technologies.
6. **Monitoring and Reporting:** Establish mechanisms for monitoring and reporting the environmental impact of ICT operations. Regularly assess energy consumption, carbon emissions, and e-waste generation within the ICT sector. Use the collected data to identify areas for improvement and track progress in achieving environmental sustainability goals.
7. **Institute a policy that actively encourages the repair of ICT-related equipment as a preferred option over replacement.** The primary objective of this policy is to mitigate the disposal of faulty hardware into waste dumps, thereby aligning with environmentally responsible practices.

Strategic Priority Eight



Green-ICT

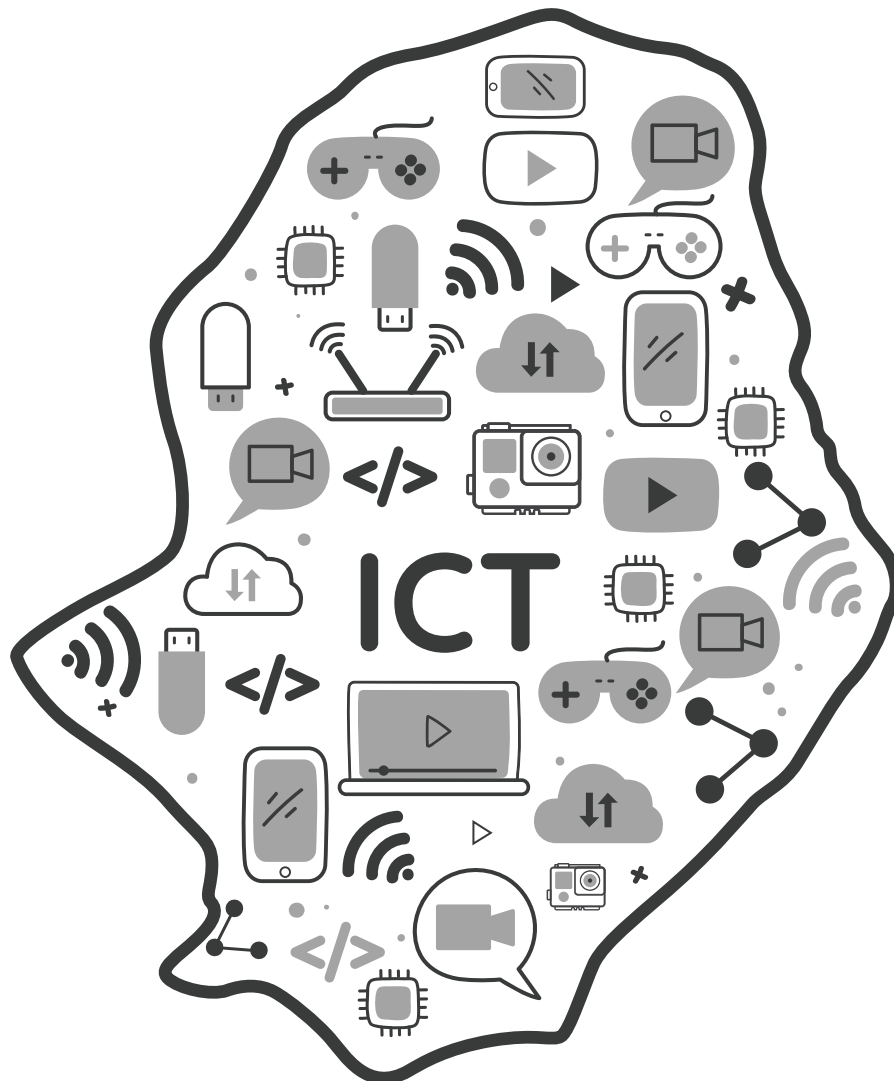
Evaluation of progress will be based on the following indicators:

- a. Energy efficiency improvements in ICT infrastructure and operations.
- b. Reduction in carbon emissions resulting from ICT usage.
- c. Increase in the percentage of e-waste properly recycled or disposed of.
- d. Adoption of green procurement policies and the use of energy-efficient ICT equipment and services.

By promoting green ICT practices, Niue can contribute to environmental sustainability, reduce its carbon footprint, and set an example for other regions in integrating technology with responsible environmental stewardship.

Conclusion

This National ICT Policy serves as a comprehensive strategic framework, outlining a visionary pathway for the cultivation of a contemporary, interconnected, and inventive Niuean society. Through a proactive integration of Information and Communication Technologies (ICTs), Niue is poised to surmount existing challenges and effectively realize its developmental objectives. By harnessing the transformative potential of ICTs, Niue can not only foster local advancements but also actively participate in and contribute to the broader global digital economy. This policy underscores our commitment to leveraging technology as an enabler for socio-economic progress among all genders of society, laying the foundation for sustainable growth and international collaboration.



Components of ICT

Governance

Information
Data Security
Cybersecurity
Cybersafety
Communications Act



Communications

Telecommunications
Broadcast Media
ISP



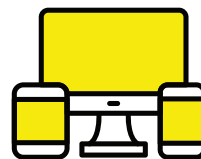
Services

Power
Water
e-Services

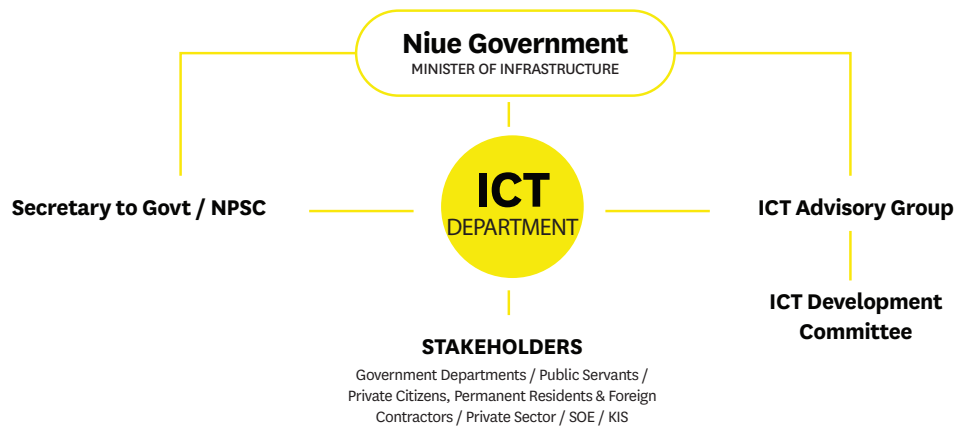


Hardware

Computers
Smartphones
Tablets



Proposed ICT Governance Structure



Members of the ICT Advisory Committee:

Dessyo Sioneholo (Chairperson); Andre Siohane, Hender Poumale, Frank Sioneholo, Aytron Tatui, Anurag Tandon (CEO Telecom Niue); Elizabeth Bestgen, Brittany Tagelagi

Members of the ICT Development Committee:

Hon. Crossley Tatui (Chair); Dessyo Sioneholo, Doreen Siataga, Andre Siohane, Hender Poumale, Tom Jnr Misikea, Frank Sioneholo, Aytron Tatui, Anurag Tandon, Roy Pavihi, Elizabeth Bestgen, Birtha Tongahai, Peter Fetaui, Deveraux Talagi, Chamberlain Pita, Richard Siataga, Brittany Tagelagi

Glossary

ICT	Information and Communication Technology
LEO Satellites	Low Earth Orbiting satellites
AGI	Artificial General Intelligence
Vagahau	Niue Language
Key Infrastructure Entities	Telecommunications, Power, Water and Broadcast Media
IUSN	Internet User's Society Niue
ISP	Internet Service Provider, local ISPs - Telecom Niue and Kaniu
LTE	Long-Term Evolution is a standard for high-speed wireless communication on mobile devices
4G	fourth-generation LTE cellular network providing VoLTE and broadband data
2G	second-generation cellular network for voice communication
VoLTE	Voice over Long-Term Evolution, allowing high-quality voice calls over 4G LTE networks

References

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