



MICT



5G

Somaliland

5G strategy

**Ministry Of Information and
Communications Technology**

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ABBREVIATIONS:

1. 3GPP: 3rd Generation Partnership Project
2. MICT: Ministry of Information & Technology
3. 5G: 5th Generation Technology
4. NSA: Non-Standalone
5. SA: Standalone
6. EMBB: Enhanced mobile broadband
7. URLLC: Ultra-reliable low-latency communications
8. MMTC: Massive machine-type communication
9. GHz: Gigahertz
10. MHz: Megahertz
11. NR: new radio
12. ICT: Information Communication and Technology

CHAPTER ONE

INTRODUCTION

5G Technology Overview

This strategy document outlines the approach of the Ministry of Information and Communication Technology (MICT) of Somaliland to the deployment, regulation, and management of 5G technology within the country. The strategy aims to leverage the potential of 5G while ensuring its secure and inclusive implementation for the benefit of all citizens.

The National Strategy to 5G details how the Somaliland will lead global development, deployment, and management reliable 5G infrastructure.

5G is the latest iteration of cellular technology that will provide seamless coverage, high data rate, low latency, and highly reliable communications. It will increase energy efficiency, spectrum efficiency, and network efficiency as well as the efficiency of other systems. Besides providing faster and reliable access, it will act as an information duct built to connect billions of smart devices. In Somaliland, the deployment of 5G was launched in January, 2024. However, the operators started the implementation of the first phase of 5G New Radio (5G NR) for a Non-Standalone (NSA).

The Preamble to the strategy objectives and enabling guidelines of the framework recognizes the Ministry mandate for management of the spectrum resource and sets out the role of the objective and strategy for undertaking this responsibility.

New capabilities of mobile communication networks enabled by 5G technology will allow higher quality video services with mobility at high speed, business automation delivered through billions of connected devices, delivery of critical services such as tele-surgery and autonomous cars assured by low latency and ultra-reliable networks, and improved productivity assisted by high quality, real-time data analytics. MICT will foster collaboration, develop policies, provide infrastructure, and promote digital literacy to ensure equitable access, enhanced connectivity, and inclusive socio-economic development.

Unlike existing mobile communication networks, 5G networks will allow the tailoring of requirements for each of these different use cases within the same network. The government established a task force and surveys to articulate the vision for 5G in Somaliland and to recommend strategy initiatives and action plans to realize that vision. The 5G launching will be released, suggesting measures in the areas of Spectrum Policy, Regulatory Policy, Education, and Awareness Promotion Program. By the end 2027, the traffic over cellular networks (coverage) are expected to grow 80% of the population compared to 2024.

5G for the Digital Transformation

5G technology is crucial for vertical industries, enabling high-performance mobile communication infrastructures, connected driving, logistics, energy management, and continuous connectivity of wearables, assistance systems, household electronics, and sensors. The following depicts key advancements in digital transformation that will be assisted or centrally supported by 5G, as Figure 1 represents.

Agriculture: 5G technology can revolutionize agriculture by enabling real-time data streaming for farm equipment. This can improve crop management, livestock analysis, and autonomous vehicle operation. It can also provide expert advice for remote farming areas, enabling better communication between farmers and experts. This technology is expected to revolutionize agriculture in the coming years.

Manufacturing: Manufacturers can leverage 5G technology to support critical applications, reducing costs, enhancing flexibility, and reducing latency. By combining sensor data with machine learning algorithms, companies can monitor equipment in real-time, predict machine failures more accurately, and reduce downtime.

Healthcare: 5G technology can enhance telemedicine and hospital applications, enabling faster treatment and access to specialists. Remote patient monitoring improves healthcare delivery and preventative care. Its increased bandwidth allows for large data files and lower latency, enabling real-time high-quality video, enabling AR and VR in surgical procedures.

Smart cities and Communities: Smart cities utilize low-power digital devices for IoT, with 5G offering faster and larger real-time connectivity. It's used in traffic management, public transit, grids, energy systems, outdoor lighting, and smart homes. Data collection and maintenance are crucial for optimizing connectivity.

Public Safety: 5G enhances public safety by providing real-time access to mission-critical information, improving connectivity, and ensuring reliable communication. It prioritizes emergency communications between first responders, providing them with situational awareness, leading to improved safety and overall outcomes.

Education: 5G technology can significantly transform education, especially in underserved areas, by utilizing AR/VR tools and enhancing learning technologies, thus closing achievement gaps.



Figure 1. Digital Transformation

5G Use Case Categories

MICT is focusing on how 5G can enhance technology-enabled operations. In 5G parlance, these are called use-case categories or functionalities. Figure 2 represents 5G-enabled use cases that fall into three general categories, as defined by the 3rd Generation Partnership Project (3GPP), a partnership of organizations that develop global telecommunication standards.

- a) Enhanced mobile broadband (eMBB): Allows for massive improvements in connection speeds, supporting speeds 10 to 20 times faster than today's 4G.

- b) Ultra-reliable low-latency communications (uRLLC): Provides high reliability and low latency, reducing the time needed to send a signal and receive a response to 10 milliseconds or less.
- c) Massive machine-type communication (mMTC): Enables a “connected everything” future by supporting device densities of 1 million per square kilometer, versus 4G’s maximum of 100,000.

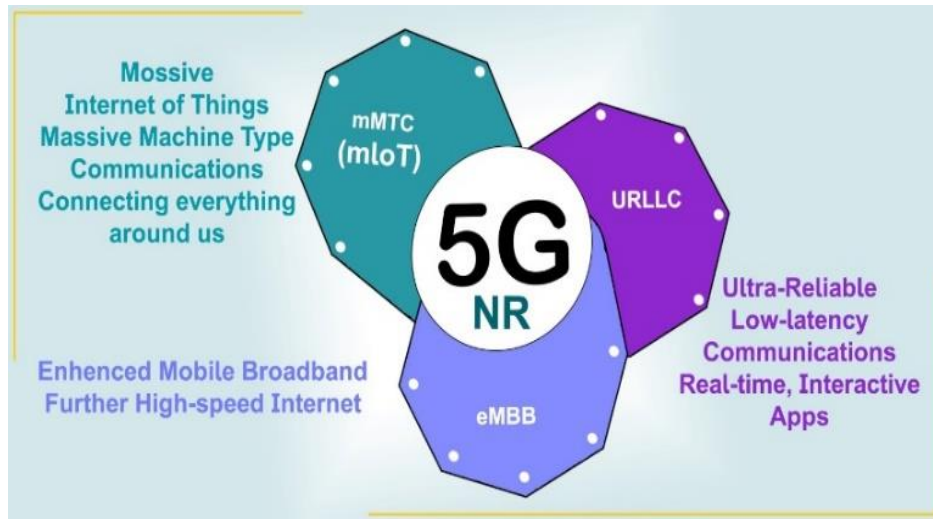


Figure 2. 5G Use Case Categories

5G Services

5G services can be provided in two ways including:

a) Non-Standalone (NSA) 5G:

- I. NSA 5G is an early deployment option that builds upon existing 4G LTE infrastructure.
- II. In NSA 5G, the 5G Radio Access Network (RAN) is added to the existing 4G core network (EPC).
- III. The 5G RAN provides enhanced data speeds, lower latency, and increased capacity compared to 4G LTE.
- IV. However, the core network remains the same as the 4G LTE core, limiting the full potential of 5G capabilities.
- V. NSA 5G primarily focuses on improving data speeds and capacity while leveraging the existing 4G infrastructure.

b) Standalone (SA) 5G:

- I. SA 5G is a more advanced and complete deployment option that includes both the 5G RAN and the 5G Core Network (5GC).
- II. In SA 5G, the 5G RAN and the 5G Core Network are built from scratch, providing a native 5G experience.
- III. The 5G RAN offers improved speed, latency, and capacity, while the 5G core network introduces new functionalities and capabilities specific to 5G.
- IV. SA 5G enables advanced features such as network slicing, ultra-reliable low-latency communication (URLLC), and massive machine-type communication (mMTC).
- V. SA 5G has the potential to fully unlock the transformative power of 5G across various industries and use cases, including augmented reality, autonomous vehicles, and smart cities.

Vision

To position Somaliland as a regional leader in the adoption and utilization of 5G technology, driving digital transformation, innovation, and socio-economic growth for the benefit of all citizens.

Mission

Our mission is to create an enabling environment for the successful implementation of 5G technology in Somaliland.

Purpose

The strategy develops and implements policies and regulations to promote the efficient deployment and usage of 5G technology in Somaliland. This includes spectrum management, licensing, privacy and security guidelines, and standards compliance. A favorable regulatory framework develops to encourage investment, competition, and innovation in the sector. Infrastructure deployment is facilitated by collaborating with public and private sector stakeholders. Spectrum allocation will be managed by ministry bodies to ensure optimal performance and compatibility with international standards. Training programs will be established to enhance the technical skills and knowledge of government officials, industry

professionals, and the general public. Public awareness campaigns will be launched to educate citizens about the benefits of 5G technology. Regular monitoring and evaluation are conducted to optimize outcomes and address emerging challenges.

Objectives

Somaliland Post and Communications Act, No. 50/2020, mandated the MICT to carry out responsibility for implementing and managing the radio spectrum resource. However, the following are the objectives of the 5G strategy:

- a) To ensure efficient spectrum utilization, including equitable access to its benefits in both urban and rural locations.
- b) To provide the country with the connectivity needed to increase its resilience to future crises.
- c) To support and strengthen the Innovation and Investment in the country
- d) To strengthen Somaliland's 5G security.

These strategy objectives are designed to facilitate the widespread adoption and successful implementation of 5G networks in Somaliland, ultimately leading to enhanced connectivity, economic prosperity, and technological advancement throughout the region.

CHAPTER TWO

ENABLING ACCESS TO RADIO SPECTRUM

Guiding Principles for 5G spectrum

The national spectrum allocation shall be guided by the following principles in order to accelerate the country's ongoing socioeconomic development:

- a) The national spectrum allocation should be consistent with the 5G strategy as well as other relevant national policies and objectives.
- b) The national spectrum allocation should support the growth of the country's communications sector:
 - I. Making spectrum available for use in a timely manner;
 - II. Approving a technology-neutral spectrum licensing strategy;

- III. Implementing internationally harmonized frequency allocations and standards;
- IV. Implementation of appropriate interference protection procedures are in place;
- V. Using effective and timely enforcement that is appropriate for the risks associated with noncompliance;

Radio Spectrum for 5G Services

The Somaliland Ministry of Information and Communication Technology (MICT) recognizes the importance of 5G technology in driving economic growth and digital connectivity. The ministry is committed to facilitating the efficient allocation and management of the 5G spectrum. This includes fair and transparent distribution of spectrum licenses to qualified operators, optimizing spectrum resources for maximum capacity and quality of service, and ensuring robust security and privacy measures. The goal is to create an enabling environment for the successful deployment of 5G technology in Somaliland, promoting digital transformation and improved connectivity.

Therefore, the ministry shall:

- a) Allocate appropriate spectrum bands for 5G services, considering the unique requirements of different applications and use cases.
- b) Develop efficient spectrum management strategies to meet the increasing demand for wireless services while ensuring optimal spectrum utilization.
- c) Encourage spectrum-sharing initiatives and explore dynamic spectrum access technologies to maximize spectrum efficiency.

Figure 3 compares various frequency bands based on their physical properties. Technically, spectrum is technology neutral i.e. any spectrum band can be used for deploying any technology. However, while deciding on the deployment of technology, apart from the technical factors, the development of the ecosystem plays a significant role.

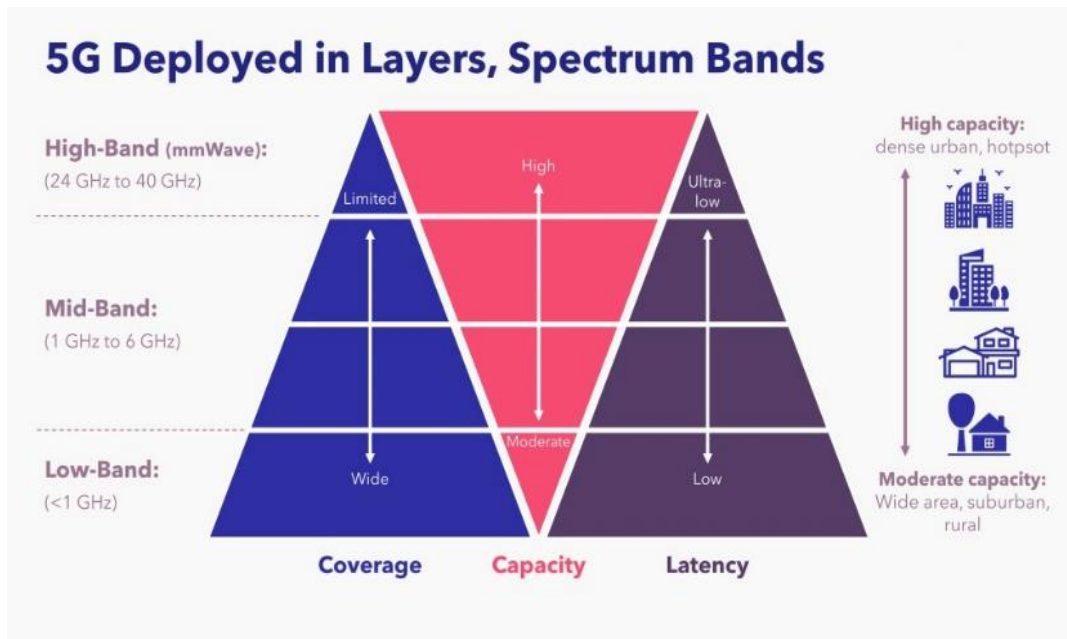


Figure 3. 5G Spectrum bands (Source: Ericsson)

Radio Spectrum Assignment Plan For 5G Networks

By introducing 5G it will be possible to meet growing demands concerning the capacity, bandwidth, availability, and latency of digital radio infrastructures. To realize these requirements and provide supply in rural areas as well as for high-capacity applications, sufficient and suitable radio frequencies will be needed. 5G will deliver these flexible networks by making use of multiple bands of spectrum including:

- a) Low frequencies (below 1 GHz), these provide wide area coverage such as that will be needed to support the IOT.
- b) Medium Frequencies (around 3.5 GHz range). These provide higher capacity than 1GHz, and provide the capacities for making higher data rates available to a large number of devices.
- c) High frequencies (24 GHz and above). These millimeter wave frequencies cover a small area and will in the main be used to support the ultrafast, complex capabilities expected of 5G.

The 3rd Generation Partnership Project (3GPP) has undertaken studies to identify

suitable bands for 5G. 3GPP has listed the following Among the identified bands, 700 MHz, 3.5 GHz, and 26/28 GHz are the 5G pioneer bands.

Applications for 5G Licenses

The MICT may from time to time publish guidelines that shall specify eligibility criteria for persons to be granted spectrum licenses.

The MICT shall, when considering an application for a radio communications license, take into consideration: -

- a) Telecom licensees had to submit application forms to MICT that amendments rules provide for the 5G MICT.
- b) Additionally, an administrative fee shall be charged by the Central government for the establishment of pole installation this fee will be limited.
- c) Potential alternative uses for the relevant spectrum band;
- d) The economic value of the 5G spectrum

5G Spectrum License

- a) Telecom licensees can enter into an agreement with the Ministry of Information and Communication Technology and it will require permission to install telecom infrastructures such as towers, poles, or optical fiber.
- b) 5G radio spectrum users shall have to obtain a spectrum license from the MICT.
- c) Spectrum licensing processes and conditions shall be developed in order to realize the economic potential of the radio spectrum.
- d) A 5G license is valid for 3 years which starts from the date of its issuance.
- e) Technology and service-neutral spectrum licensing shall be implemented to promote competition in the telecommunications sector.
- f) The spectrum License shall state the licensee's exclusive right to use the assigned spectrum and the specified license conditions associated with the use of the radio spectrum.
- g) Spectrum licensing methods and processes must be reviewed and updated on a

regular basis to keep up with evolving technologies and market demands.

- h) Ensuring the operations of 5G networks shall conform with international standards.
- i) The amendments create a distinction between poles and mobile towers. The overground infrastructure of a height not less than 15-30 meters shall be treated as poles and will need minimal regulatory permissions for deployment.
- j) MICT shall ensure the required infrastructure needed for a successful deployment of 5G networks.
- k) Coverage levels depend on the lot purchase and may be as high as 70% of the country over a three-year period.
- l) Environment protection for Health and Safety since the 5G power consumption is much higher compared to the 4G per (watt/bit).
- m) If the MICT determines that a radio operation or structure is likely to cause harmful interference, it may restrict the installation or operation of radio communications apparatus or the erection of structures within a specified area from the Authority's radio monitoring facilities
- n) The Ministry may suspend or terminate a radio communication license if the licensee fails to use the assigned radio frequencies within a (1year) year of the granting of the radio frequency spectrum license.
- o) Six months prior to the end of the 3-year license term, all licensees wishing to undergo the future license renewal process must provide proof to the ministry that they meet or will meet the 3-year deployment requirements for their license.
- p) The Ministry will review licensees' compliance with their conditions on the dates noted above. Where, at any point in the license term, the licensee is not in compliance with its conditions, MICT may invoke various compliance and enforcement measures.
- q) These measures may include warnings, administrative monetary penalties, legal action, license amendments, suspensions, or other measures. In certain cases of non-compliance, MICT may determine that the most appropriate course of action is to revoke the license.

Spectrum Pricing

- a) All private spectrum users shall have to pay a spectrum utilization fee.
- b) The spectrum utilization fee for licenses granted to users using a market-based licensing mechanism (for example an auction) shall be determined by the market (i.e., the successful bid price)
- c) The spectrum use charge shall be decided by MICT in cases where the radio spectrum is not released through a market-based method (for instance, an auction).

CHAPTER THREE ENABLING 5G DEPLOYMENT

5G Deployment Considerations

The Somaliland Ministry of Information and Communication Technology outlines our commitment to the responsible and inclusive deployment of 5G technology. By implementing this strategy, we aim to unlock the transformative potential of 5G for the development and prosperity of Somaliland, while prioritizing the interests and well-being of our citizens.

With the introduction of 5G, more equipment will be required to provide coverage and capacity. 5G, as well as 4G, are data-driven technologies, and high volumes of data will be transmitted between base stations and wireless devices. 5G will require a denser network of base stations than previous generations, including more fixed-line fiber optic cable for reliable and high-capacity backhaul.

Standalone (SA) Option in 5G Deployment in Somaliland

Purpose:

The purpose of this strategy is to establish guidelines for the deployment, operation, and management of Standalone (SA) 5G networks, the network components are displayed in Figure 4. These guidelines aim to ensure fair competition, network security, consumer protection, and high-quality service delivery in the SA 5G ecosystem.

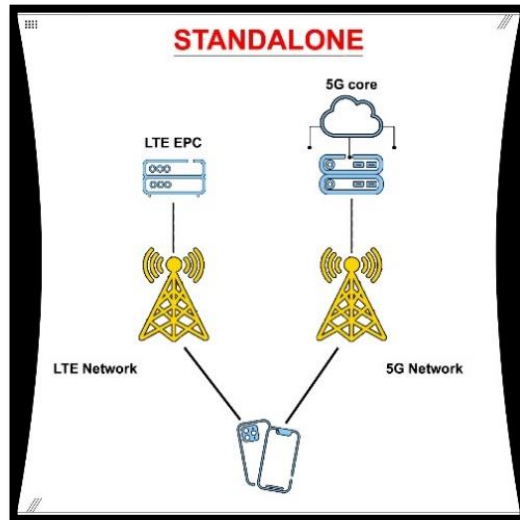


Figure 4. Standalone

a) Licensing Requirements:

- I. Operators intending to deploy SA 5G networks must obtain the necessary licenses and permits from the MICT.
- II. The Operators must follow technical capabilities, financial stability, and compliance with regulatory standards.

b) Spectrum Allocation:

- I. The MICT will allocate suitable radio spectrum bands for SA 5G deployment, considering frequency availability, interference mitigation, and scalability.
- II. Spectrum allocation will be conducted transparently and equitably, ensuring equal access for qualified operators.

c) Technical Standards and Interoperability:

- I. SA 5G networks must adhere to internationally accepted technical standards to ensure interoperability and compatibility among network equipment and service providers.
- II. Guidelines for network architecture, protocols, and interfaces will be prepared to facilitate seamless integration and efficient operation.

d) Security and Privacy:

- I. Operators deploying SA 5G networks must implement robust security measures

to protect against cybersecurity threats, safeguarding network infrastructure and user data.

II. Compliance with national and international security and privacy standards will be ensured through regular audits and assessments.

e) Quality of Service:

I. Operators should adhere to defined quality of service (QoS) standards for SA 5G networks, ensuring minimum performance requirements for network coverage, data speeds, latency, and reliability.

II. The MICT will monitor compliance with QoS standards to ensure a high-quality user experience and fair competition.

f) Consumer Protection:

I. Operators should provide accurate and transparent information about SA 5G services, including pricing, data caps, service level agreements, and limitations.

II. Effective complaint resolution mechanisms will be established to address consumer grievances promptly and provide appropriate compensation.

g) Infrastructure Sharing:

I. Operators are encouraged to explore infrastructure-sharing agreements, such as tower sharing, to promote efficient resource utilization and minimize environmental impact.

II. Policies and regulations will support collaboration and cooperation among operators to facilitate infrastructure sharing.

h) Compliance and Monitoring:

I. MICT will establish mechanisms to monitor and enforce compliance with the guidelines for SA 5G deployment, including periodic audits, inspections, and penalties for non-compliance.

II. Operators will provide regular reports and disclosures to ensure transparency and accountability in their SA 5G operations.

Non-Standalone (NSA) 5G Deployment in Somaliland

Purpose:

This strategy aims to set rules and guidelines for the rollout and operation of Non-Standalone (NSA) 5G networks in Somaliland. The network components of NSA are indicated in Figure 5. Its goal is to promote the development of infrastructure, establish regulations, manage spectrum, ensure security, protect consumers, encourage collaboration, and foster digital inclusion to make the most of NSA 5G technology in the country.

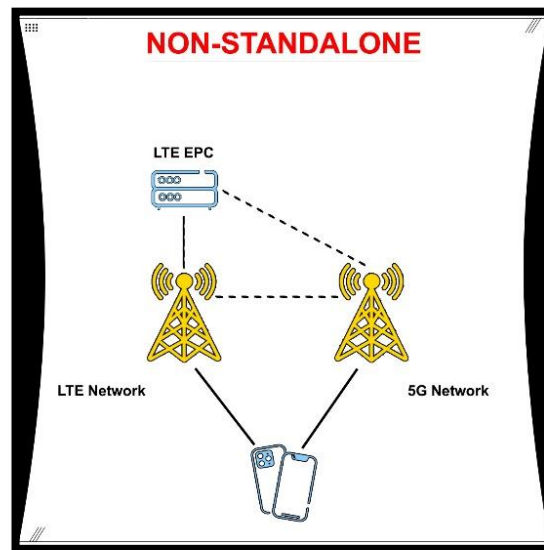


Figure 5. Non- Standalone

a) Building Infrastructure:

- I. Encourage the setup of NSA 5G infrastructure, including base stations and antennas, across Somaliland.

b) Regulatory Framework:

- I. Develop and enforce specific rules and guidelines for NSA 5G networks, covering licenses, spectrum allocation, and technical standards.
- II. Ensure compliance and best practices for NSA 5G deployment.

c) Spectrum Management:

- I. Efficiently allocate and manage radio spectrum resources dedicated to NSA 5G networks.

- II. Minimize interference and make the most of spectrum usage to support the growth and performance of NSA 5G services.

d) Security and Privacy:

- I. Establish strong security measures to safeguard NSA 5G networks from cyber threats and protect user privacy.

e) Consumer Protection:

- I. Enforce regulations to protect consumer rights in NSA 5G services, ensuring transparent pricing, quality service, and efficient dispute resolution.
- II. Promote fair practices among 5G service providers, ensuring transparency and accountability.

f) Digital Inclusion:

- I. Bridge the digital divide by ensuring equal access to NSA 5G services in both urban and rural areas of Somaliland.
- II. Implement initiatives to promote digital literacy and connectivity, empowering all citizens to benefit from NSA 5G technology.

g) Implementation and Monitoring:

The Ministry of Information, Communications, and Technology (MICT) will be responsible for implementing this policy. Regular monitoring and evaluation will be conducted to track progress, address challenges, and make necessary adjustments for effective policy implementation.

Coverage of Population and Minimum Quantity of Base Stations

By the end of 2027

- a) Coverage of population: at least 98% of households in each region must have at least 50 Mbit/s (downlink per antenna sector); any new telecom operators must fulfill different coverage obligations: at least 25% of households by the end of 2025, and at least 50% of households by the end of 2027.
- b) Minimum quantity of base stations for all Somaliland regions:
 - I. 200 5G base stations and

II. 100 base stations with at least 50Mbit/s in "white spots" to be put into operation.

Type Approval and Inspection

- a) A licensee shall not use radio equipment that has not been duly type-approved by the MICT.
- b) The MICT may, from time to time, rely upon the type approval of other telecom operators with effective type approval capability.

Public Awareness and Engagement:

- a) Conduct public awareness campaigns to educate citizens about the benefits, opportunities, and potential risks associated with 5G technology.
- b) Encourage public participation and engagement in the decision-making processes related to 5G deployment and policy formulation.

CHAPTER FOUR SECURITY AND STANDARDS

Cyber threats continue to impact network infrastructure, applications, and services, as well as end-users, such as consumers and enterprises. These risks will grow with the scale enabled by 5G: dramatically increased network capacity and speed coupled with more connected devices will create more potential opportunities for compromise. Emerging threats may pose a danger not just to 5G networks but to connected ecosystem players, including, for example, critical infrastructure or services like energy, manufacturing, utilities, and other industry sectors connected via 5G. The Ministry shall prioritize the security of 5G networks and should consider the points below:

- a) The Ministry shall promote secure and reliable 5G infrastructure by regularly assessing the economic and national security and other risks to this infrastructure, including defining and maintaining the relevant core security principles for this infrastructure.

- b) The Ministry, in collaboration with the private sector, shall seek to continuously identify and characterize economic, national security, and other risks posed by cyber threats to and vulnerabilities in 5G infrastructure. This effort will include maintaining an understanding of the global 5G market and 5G capabilities and infrastructure, including both space and terrestrial components. This activity will be done with appropriate intergovernmental, interagency, and private-sector engagement.
- c) The Ministry will work with the private sector to identify, develop, and apply core security principles - best practices in cybersecurity, supply chain risk management, and public safety to Somaliland 5G infrastructure. The principles will be synchronized with other security principles endorsed or enacted by the government of Somaliland including the Cybersecurity and Cybercrime Act enacted in 2024.
- d) The Ministry shall address the risks presented by the use of 5G to its economic and national security by analyzing the risks of 5G infrastructure and ensuring national critical functions and national essential functions are structured in such a way that they are resilient to these risks.
- e) The Cybersecurity and Cybercrime Act, 2024, creates a unified government-led approach that protects national critical infrastructure including but not limited to telecommunications equipment and services. Through the Cybersecurity and Cybercrime Act, the government of Somaliland will identify or develop cyber risk management standards, guidelines, and practices for public and private institutions to use when assessing and mitigating 5G infrastructure cyber risks.
- f) The Ministry shall ensure that 5G and future generations of information and communications technology and services will be deployed in a manner that protects the national security interests of the Republic of Somaliland. As such the government of Somaliland will identify a list of high-risk 5G technology and subsequently prohibit acquiring or importing them.
- g) The Ministry shall establish comprehensive security and privacy frameworks for 5G networks, devices, and applications, in collaboration with relevant stakeholders.

- h) The Ministry shall mandate network operators and service providers to implement robust security measures to safeguard against cyber threats and unauthorized access.
- i) The Ministry shall ensure transparent data handling practices and empower citizens with control over their personal data.

Ultimately, the information and communications technology (ICT) industry builds on voluntary, global, industry-led consensus-based standards that are accepted or chosen by the marketplace as the most effective or most appropriate. This is no different for 5G. The government of Somaliland shall support and promote an industry-led standards development process, participating in it where appropriate, and working to ensure that Somaliland policies point to and leverage global standards. To achieve this, the following can be done:

- a) The Ministry shall work towards employing 5G technology and setting standards in concert with private and public sectors.
- b) The Ministry shall work with the private sector, academia, and international government partners to adopt policies, standards, guidelines, and procurement strategies that reinforce 5G vendor diversity to foster market competition.
- c) The Ministry shall undertake local capacity-building efforts to support greater 5G technology standard usage among private and public sectors.
- d) The Ministry shall inculcate and emphasize the need to communicate knowledge and skills for standards, education, and training.
- e) The Ministry shall conduct awareness programs on 5G international standards and ensure that licensees are using internationally agreed 5G technology standards.
- f) The Ministry shall in collaboration with the private sector harmonize 5G technology standards and their usage for the benefit of citizens and national security.

CHAPTER FIVE

INNOVATION AND INVESTMENT

The basis for sound 5G policy rests on ensuring an environment that supports innovation and encourages investment in the foundational and new technologies that will facilitate the next generation of networks. The government of Somaliland should consider a full range of policy options in order to support innovation, enable market competition, ensure a skilled workforce, and harness the transformative power of 5G. To provide an innovative and investment-enabling environment the government shall enforce the following:

- a) The Ministry shall promote network-sharing agreements between operators as a means to substantially reduce the costs of infrastructure.
- b) The Ministry shall take measures to remove administrative barriers to network deployment to allow for smoother and quicker deployment of mobile cells and fiber backhaul.
- c) The Ministry shall contribute to or empower growth by funding Research and Development for 5G use cases and incentivize 5G network build to reach remote areas of the country.
- d) The Ministry shall enable the flow of data across borders to fully realize the benefits of 5G particularly in further enabling AI and other data-driven innovations.
- e) The Ministry shall prioritize funding training and retraining for workers to prepare for and meet 5G-related workforce needs.
- f) The Ministry shall support startups and entrepreneurs in the 5G ecosystem through funding opportunities, incubation programs, and regulations to foster innovation.
- g) The Ministry shall employ net neutrality rules that can restrict a mobile operator's ability to set specific tariffs that provide enhanced services for certain applications or users. This means that more targeted forms of net neutrality could be explored to promote the ability of telecommunication operators to set optimal tariffs which could expand the output of new use cases and telecommunication services, and thereby incentivize further investment in 5G.

- h) The Ministry to enable rapid economic growth shall support short-term investment into the digitalization of government services to encourage private sector investment that will enhance economic growth.

CHAPTER SIX

IMPLEMENTATION

The realization of this strategy will require a strong will for implementation. The MICT, in collaboration with the private sector and other Somaliland development partners, will oversee the implementation of the strategy. The ministry will work on the publication of an implementation plan that sets out a national effort central to the implementation of the strategy. In the event that the implementation of the strategy requires the development of new policies and guidelines, the ministry shall, in accordance with the National Telecommunications Act, take the lead.

Assessing Effectiveness

In its efforts to implement the strategy, the ministry will follow a data-driven strategy. The ministry will assess the availability and usage of the 5G network to determine the effectiveness of this effort. The ministry shall assess the implementation of the strategy and produce a quarterly report.

Funding and Resources

The successful implementation of the strategy requires adequate funding and resources. Considering the socio-economic impact of the 5G deployment, the implementation of Somaliland 5G strategy identifies as possible sources of funding the government of Somaliland and the private sector (Telecom companies). Funding of International cooperation partners should also be sourced to assist with the implementation of the strategy recommendation.

Activities	Estimated Amount (USA)

CONCLUSION

The strategy provides overview of 5G technology and its impact on several sectors such as agriculture, manufacturing, healthcare, smart cities, public safety, and education, leading to digital transformation. It provides a detailed analysis of the categories of use cases for 5G and the various approaches to deploying it, including non-standalone and standalone methods.

The document functions as a clear guideline for the country's socioeconomic progress by establishing policies for the allocation and auctioning of the 5G spectrum. The Strategy enables the government to assign suitable frequency bands for 5G services, formulate spectrum management strategies, and enforce spectrum-sharing measures on telecommunication providers. Additionally, it furnishes the ministry with explicit recommendations about the eligibility criteria for granting spectrum licences.

The strategy mandates the ministry to develop and supervise 5G implementation policies by the end of 2027, aiming for 5G coverage of at least 80% with an established minimum number of basestations.

The strategy additionally outlines a roadmap for the implementation and deployment of 5G technology in the Republic of Somaliland. It considers the expectations of telecom companies and other stakeholders in the communication business.

Furthermore, the document explores the efficient utilisation of security and technical measures in the implementation of 5G technology. The recommendation proposes the adoption of technological standards driven by industry in both the private and public sectors.

Ultimately, the documents enhance the creation of a conducive atmosphere that fosters innovation and empowers the next generation of networks. By developing a proficient workforce and implementing cost-cutting measures, it motivates the government to create an investment-friendly climate.