NATIONAL COMMUNICATIONS AUTHORITY

NatCA

2024

ANNUAL REPORT

FOREWARD BY THE CHAIRMAN

It is with great pleasure that I present the Report of the National Communications Authority (NatCA) for the year 2024. As the regulatory body responsible for overseeing the telecommunications sector in Sierra Leone, we are committed to promoting a competitive, innovative, and consumer-friendly industry that contributes to the country's economic growth and development.

NatCA's work aligns with the President's BIG FIVE GAME CHANGERS Priority Areas, in which Pillar Five emphasize the importance of ICT in driving economic transformation and improving the lives of Sierra Leoneans. In line with these priorities, we have focused on:

- *Infrastructure Development: Expanding access to telecommunications infrastructure, including broadband and mobile networks, to support economic growth and social development.*

- *E-Government and Digital Services: Promoting the use of ICT to enhance government services, increase transparency, and improve citizen engagement.*

- *Digital Literacy and Skills Development: Building the capacity of Sierra Leoneans to participate in the digital economy and take advantage of opportunities in the ICT sector.*

- *Cybersecurity and Consumer Protection: Ensuring a safe and secure telecommunications environment for all users, and protecting consumers from cyber threats and unfair practices.*

- *Innovation and Entrepreneurship: Fostering innovation and entrepreneurship in the ICT sector, to drive growth, create jobs, and promote economic diversification.*

In this report, we highlight the key activities, achievements, and challenges faced by NatCA in 2024, as well as our strategic priorities for the future. We reflect on the progress made in expanding access to telecommunications services, promoting investment, and ensuring a safe and secure telecommunications environment for all Sierra Leoneans, in reference to the Fifth Pillar of H.E. Brig. Rtd. President Julius Maada Bio's BIG FIVE GAME CHANGERS.

At the heart of our achievements is a dedicated team of professionals at NatCA, whose expertise and commitment have been invaluable in driving the Authority's vision. I commend the determination of my colleagues on the Board, Management and Members of Staff at the Authority for their resilience to deliver and the achievements thereof. I look forward to an even more exhilarating 2025 in the regulatory environment.

I would like to express my gratitude to the Ministry of Communication, Technology and Innovation, our stakeholders, operators, and the NatCA team for their tireless efforts in driving the telecommunications sector forward. We look forward to continued collaboration and cooperation as we work together to build a more connected and prosperous Sierra Leone.

Amb. Joseph C. Blell. OON, CRSL, JP.
Chairman of the Board

MESSAGE BY THE DIRECTOR-GENERAL

The ICT sector in Sierra Leone continued to record significant growth, leading to an increase in the number of residents accessing various ICT services. This growth was as a result of the Authority's continued provision of an enabling regulatory environment for service providers in the telecommunications sector.

While this report is a statutory responsibility, it gives us great pleasure to report the achievements, financial accounts, challenges and opportunities that 2024 presented. This Report chronicles the significant strides taken by the Authority within the period under review.

Like previous years, 2024 brought expected growth trends in the sector as indicated by our industry statistics embedded in data from operators. As at December 2024, the total number of licensed Mobile Network Operators (MNOs) was four (4) and the number of fixed networks, also known as the Public Switched Telephone Network (PSTN) was one (1). Furthermore, thirty-two (32) Internet Service Providers (ISPs) and twenty (20) Television (TV) Stations had licenses to operate.

Similarly, One Hundred and Ninety-Four (194) Frequency Modulation (FM) Radio Stations were authorized to broadcast. Additionally, Infrastructure-based licenses were granted to three (3) Communications Operators, with a licensing regime based on open access; namely, Zoodlabs, Leonecom and Metro Cable.
As reported by Statistics Sierra Leone (Stats SL), there was a decline in Gross Domestic Product (GDP) contribution from the sector from 28.2% in 2023 to 12.1% in 2024; representing a decrease of 16.1% year-on year.

During the period under review, the Authority provided input into the Data Protection Bill as proposed by the Ministry of Information and Civic Education. The Bill potentially seeks to impose compliance obligations on Sierra Leonean companies across all sectors, which include audit checks, publication of data protection policies, filing of audit reports, amongst others, and severe penalties for its breach.

Furthermore, the Authority continued to engage stakeholders in validating the revised Regulations on Communications Quality of Service (QoS) and Subscriber Identification and Registration Management. The Authority will continue to safeguard consumer interest, improve alignment among stakeholders and deepen the already existing trust.

Improvement of service quality is one of the major focuses of the Authority. In an effort to address poor service quality across telecoms network in the country, it became pertinent for the Authority to implement measures to solve this problem in order to give Sierra Leoneans value for their money. In view of this, during the period under review, the Authority intensified its monitoring of QoS metrics and engaged stakeholders to solve issues emanating from suboptimal service delivery to consumers. Some service providers reported that disruptions were linked to the incessant vandalization of telecoms infrastructure across the country. To this end, the Authority continued its drive to engage Honourable Members of Parliament, the Security Agencies and other relevant stakeholders to ensure adequate protection for operators and to protect national infrastructure.

It further bolstered the Authority's resolve to engage with security agencies.

As a result of the Authority's determination to maintain a safe and robust communications networking environment, several compliance monitoring exercises were conducted to ensure the safety of masts and towers, thereby ensuring all health fears on Electromagnetic Field (EMF) emissions were duly addressed and complaints from consumers and state officials relating to structural placement as well as pollution related concerns were escalated, and satisfactorily resolved.

Also, in view of the need to ensure telecoms consumers were made aware of their rights as contained in the Consumer Bill of Rights, the Authority conducted a number of consumer outreach programmes and educated consumers. The Authority was able to document **371** complaints relating to service providers and successfully resolved **301**, with **70** requiring escalations. Special consumer intervention programmes were also convened in appreciation of its importance to the industry using appropriate platforms.

Further to the Authority's continued partnership with the international telecommunications community, the Authority maintained its corporation with globally recognized organizations and contributed to discussions on global telecoms issues. As a result of these partnering opportunities, the Authority gained insight into some core concerns faced within the country, bordering on building confidence in the use of ICTs to facilitate a more secure network infrastructure, services and applications. In addition, the Authority's participation at ITU Study Groups brought about a refined strategy for entrenching local content in telecoms applications and services in the industry.

During the period under review, power supply continued to be one of the major challenges faced by the industry. As in previous years, the importance of reliable electricity to telecommunications operations could not be overstated. Inadequate supply affected the quality of service delivered by operators, who experienced interruptions and increased operational strain.

Although the issue of power was outside the Authority's mandate, it was noteworthy that operators incurred significant overhead costs as they relied on alternative

sources of energy to sustain operations and maintain service continuity.

The challenges facing the telecoms industry can be resolved; however, they require the collaborative efforts of government, industry players and Law Enforcement Agencies. The Authority has been proactive in anticipating these problems and developing strategies to address them. Those strategies are beginning to bear fruit. It is our hope that the dividends of these efforts are accrued at the earliest to enable all stakeholders enjoy a truly sustainable telecoms market.

While the Authority extensively monitored Quality of Service from Service Providers, the need for expansion of telecommunications infrastructure has become imperative especially in light of emerging technologies and appetite of telecoms consumers.

There remains an inherent risk posed to the industry should this required upgrade be neglected as the current infrastructure base may be unable to sustain telecoms services at the standard that the Authority stipulates. Additionally, community issues in some parts of the country, amongst others, also contribute negatively to this challenge; yet, the Authority continues to engage all stakeholders within its statutory reach in order to address such issues and reach a mutually acceptable compromise.

I would like to appreciate the contributions of the Ministry of Communication, Technology and Innovation, Honourable Members of Parliament, the Board of Directors, Management and Staff of NatCA for the support and collaboration we enjoyed in 2024, and solicit continuous partnership in tackling the concurrent and future challenges facing the industry.

I look forward to an exciting and vibrant year as the sector diversifies and embraces convergence.

Amara Brewah

Director-General

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ACKNOWLEDEMENT

The National Communications Authority (NatCA) extends its sincere appreciation to all individuals and institutions whose contributions made the successful preparation of the 2024 Annual Report possible.

We acknowledge the leadership and guidance of the Chairman, Amb. Joseph C. Blell and Members of the Board of Directors, whose strategic direction continues to strengthen the Authority's mandate and operations. Our gratitude also goes to the Director-General, Mr. Amara Brewah, and the Deputy Director-General, Mrs. Maama Seiwoh-Koroma, for their unwavering support and commitment throughout the year under review.

We also acknowledge the Directors, Managers, and Staff whose timely contributions and dedicated work made this Annual Report possible.

Finally, we appreciate our stakeholders and sector partners for their continued cooperation and support in advancing the communications sector in Sierra Leone.

Together, we remain committed to strengthening the Authority's role in promoting innovation, regulation, and sustainable growth in the digital ecosystem.

Annual Performance and Accountability Report of the National Communications Authority

Pursuant to Section 25 (1) of the National Communications Authority Act 2022, "the Authority shall, within three months after the end of each financial year, submit to the Minister a report of the activities, operations, undertakings, property and finances of the Authority for that year, including the audited accounts of the Authority together with audit report".

Additionally, Section 25 (3) of the National Communications Authority Act 2022 states that "the Minister shall, within three months after the year to which the report relates lay the approved report before Parliament".

The Annual Report outlines the corporate activities of the Authority, including Mobile Network Operators and other Service Providers in an accountable and transparent manner. Being a statutory obligation of the Authority to prepare an Annual Report, the Report contains statistics of our operations and comprehensive details to enable our esteemed readers to understand our core functions, mandate and the activities carried out during the year under review.

Corporate Annual Reports are expressions designed as part of accountability and transparency in the conduct of the corporate activities of organizations, particularly public sector agencies.

The Annual Report, which is the result of collective efforts of the Board of Directors, the Director-General, Senior Management and Staff of the Authority, highlights the achievement and challenges during the reporting period. The Report also sets the agenda for the following year.

 The objective of the Report among others include:

i.   To collate, analyze and articulate the key activities of the Authority in the last one-year.
ii.   To highlight landmark achievements and match challenges with achievements.
iii.   To track and evaluate compliance and due diligence in the implementation of policies and programmes.
iv.   To evaluate the performance of the Authority during the period under review against its mandate and core objectives.
v.   To present a report that would offer the Board and Management the opportunity to review, appraise priorities and strategies adopted in 2024 against actual performance with a view to improving during the year 2025.

OUR MANDATE

The National Communications Authority is entrusted with the following core responsibilities:

- **Licensing and Regulation**: Oversee and regulate all Communications Service Providers operating within Sierra Leone.
- **Spectrum Management**: Plan, assign, and administer the national frequency spectrum to ensure efficient and equitable usage.
- **Numbering Administration**: Manage the National Numbering Plan (NNP) to support seamless connectivity and service delivery.
- **Market Oversight**: Promote fair competition and encourage sustainable investment across the communications sector.

STRATEGIC OBJECTIVES OF THE NATIONAL COMMUNICATIONS AUTHORITY

The Authority is committed to achieving the following strategic goals:

- **Promote Inclusive Connectivity**: Bridge the communication gap between rural and urban communities across Sierra Leone.
- **Expand National Coverage**: Facilitate the growth and accessibility of domestic telecommunications services, including voice and data.
- **Safeguard Consumer Interests**: Uphold and protect the rights of consumers through effective regulation and advocacy.
- **Foster Market Fairness**: Ensure a level playing field and healthy competition among sector participants.
- **Strengthen Regulatory Sustainability**: Build and maintain a robust, transparent, and forward-looking regulatory framework.
- **Enhance Service Quality**: Monitor, enforce, and improve standards to ensure reliable service delivery and compliance.

The Authority operates on six fundamental values namely: **Professionalism**, **Respect**, **Integrity**, **Fairness**, **Innovation** and **Transparency**.

CORE VALUES ➢ Professionalism ➢ Fairness ➢ Respect ➢ Innovation ➢ Integrity ➢ Transparency	**Professionalism:** We display a high level of expertise and discipline and our communications are clear, targeted and effective
	Respect: We duly regard the rights of all our stakeholders
	Integrity: We interact and deal with honesty and sincerity
	Fairness: We offer our stakeholders (Internal & External) just treatment without favoritism or discrimination
	Innovation: We advocate for continuous innovation to develop the ICT industry in Sierra Leone
	Transparency: We are open and transparent in our dealings with all our stakeholders

FUNCTIONS OF THE NATIONAL COMMUNICATIONS AUTHORITY

1. Progressively foster the development of information and telecommunications technology
2. Grant licenses for the provision of ICT services and ensure compliance with the terms and conditions of the licenses
3. Monitor and supervise the international communications gateways or appoint a third-party agent to monitor and manage all international communications gateways in Sierra Leon
4. Regulate and monitor the ICT sector in Sierra Leone
5. Establish the protection of data on computer files and their transmission to safeguard the secrecy of electronic communications in collaboration with all Operators and service providers
6. Coordinate the protection of essential ICT active and passive infrastructure facilities in Sierra Leone
7. Ensure fair competition amongst licensees, operators of communications networks and service providers of public communications
8. Investigate and resolve disputes

   i. Relating to harmful interference with Radio Frequency
   ii. Amongst operators and end users relating to rates, billing, services
   iii. provided and to facilitate relief where needed amongst the users and service providers or operators
   iv. With respect to facilities sharing, inter-connection, co-location of active and passive infrastructure sharing; and

      In cases where further redress is lacking for disputing license operators or service providers of public communications service

9. Establish quality of service indicators and reporting requirements for service providers or operators

10. Establish the national numbering plan and assign numbers to operators of communications networks and service providers of public communications
11. Support the implementation of the Universal Access Policy
12. Ensure access, interconnection and interoperability of public communications networks
13. Maintain a register of operators
14. Maintain a database of subscribers
15. Ensure operator' obligation for the expansion of coverage of electronic communications services
16. Issue general rules on the determination of applicable rates and charges
17. Ensure the safety and quality of all electronic communications services and goods, and for that purpose. Determine technical standards for electronic communications networks and the connection of consumer equipment to electronic communications networks and health issues such as the exposure to electromagnetic radiations;
18. Maintain standards for electronic communications equipment and establish procedures for type approval regime in order to grant approval for equipment and to ensure that type approval procedures are adhered to;
19. Develop and manage the national frequency allocation plan;
20. Protect the interests of consumers purchasers and other users of electronic communications services;
i. Establish training standards for communications operators and service providers and monitor the implementation of the training standards;
ii. Ensure compliance with national and international communications standards and obligations laid down by international communications agreements and treaties to which Sierra Leone is a party, and issuing certificates of compliance in relation thereto; and
iii. Undertake all necessary measures to perform the functions of the Authority specified in the Act

BOARD OF DIRECTORS

Amb. Joseph C. Blell, Chairman

Madiana Nyanda Samba, Director

Hon. Jusufu B. Mansaray, Director

Paul Squire Esq., Director

Amb. Solomon Gembeh, Director

Sally Adams, Director

Samuel Squire, Director

SENIOR MANAGEMENT

Amara Brewah

Director-General

Maama Seiwoh-Koroma

Deputy Director-General

Braima Ronnie Kargbo

Director, Administration & HR

Abdul Bah

Director, IT

Ibrahim Dumbuya

Director, Finance

Sahr M. Sewah

Director, Engineering & Infrastructure

Abdul Ben-Foday

Director, Corporate & Industry Affairs

Smart I. B. Kokofele

Director, Regulatory Administration

Juldeh O. Bah

Director, Internal Audit & Risk Management

Harding Tommy

Director, Policy & Government Relations

Mohamed Kenneh, Esq.

Director, Legal Affairs

David Saffa

Director, Procurement

DEPARTMENTAL REPORTS

1.0   ENGINEERING AND INFRASTRUCTURE DEPARTMENT

STATISTICAL DATA FOR TECHNICAL AND ENGINEERING ACTIVITIES

1.1.1   MANDATE OF THE DEPARTMENT

The Department of Engineering and Infrastructure is responsible for processing all applications related to the acquisition and use of radio frequency spectrum and other telecommunications services. It ensures appropriate drive tests are conducted periodically to verify Quality of Service standards, implements Type Approval procedures for all telecommunications equipment, and develops technical standards to guide network rollouts and planning.

1.1.2   THE TELECOMMUNICATIONS INDUSTRY AT A GLANCE

i.   OVERVIEW OF THE INDUSTRY

The overall outlook of the telecommunications sector is provided in the tables below, with figures denoting the number of operators, subscribers and other related statistics and data.

In 2024, the total number of licensed Mobile Network Operators (MNOs) was four (4) and the number of fixed networks was one (1). Furthermore, thirty-two (32) Internet Service Providers (ISPs) and twenty (20) Television (TV) stations had licenses to operate. Similarly, at least one hundred and ninety-four (194) Frequency Modulation (FM) radio stations were authorized to broadcast as at December 2024. In addition, three (3) Infrastructure-based Communications Operators had licenses: Zoodlabs, Leonecom and Metro Cable.

There was a steady growth in the number of licensed MNOs, ISPs and FM radio stations, while there was a decline in the number of TV stations in 2024. The number of fixed wireless networks and infrastructure -based communication operators remained the same over the past four years.

Table 1. 1 Authorized/Licensed Service Providers

No	Category	Year on Year					
		2019	2020	2021	2022	2023	2024
1	Mobile Network Operators (MNOs)	4	4	3	3	3	4
2	Fixed Wireless Networks	1	1	1	1	1	1
3	Internet Service Providers (ISPs)	16	18	20	27	31	32
4	Television (TV) Stations	14	12	15	18	21	20
5	Frequency Modulation (FM) Radio Stations	138	140	158	177	190	194
6	Infrastructure-Based Communications Operators	2	2	3	3	3	3

ii. NETWORK COVERAGE BY AREA AND TECHNOLOGY

In 2024, the total geographic area covered by Second Generation (2G) technology was about 71,000m^2, Third Generation (3G) technology was approximately 69,000m^2 and Fourth Generation (4G) technology was estimated at 63,000m^2. The population covered by cellular network was approximately 97.36%. The nationwide coverage of 2G was about 98.55%, 3G was around 96.48% and 4G stood at 97%, as detailed in Table 1.2. Of the three (3) Mobile Network Operators (MNOs) in the country, Orange (SL) had vast cellular coverage in terms of area and population.

Table 1. 2 Mobile Cellular Network Coverage by Area and Technology

Description	Total Area (Sq. meters)	Orange (SL)	Africell (SL)	Qcell (SL)	Nationwide
		% Coverage	% Coverage	% Coverage	% Coverage
2G Technology Coverage	70,699.77	98.55%	92.16%	82%	98.55%
3G Technology Coverage	69,157	96.48%	77.48%	82%	96.48%
4G Technology Coverage	62,915.98	97%	61.72%	54%	97%
Population Covered by Mobile Cellular Network	-	2G: 97.36%	2G: 92.16%	2G: 78%	-
		3G: 96.19%	3G: 77.48%	3G: 78%	
		4G: 92.92%	4G: 61.72%	4G: 51%	

iii. TOTAL SUBSCRIPTIONS AND PENETRATION RATES

The statistics on the number of subscriptions was analyzed based on data provided by three (3) MNOs. The total number of subscriptions were not unique mobile subscribers as due consideration was given to the multiplicity of Subscriber Identification Modules (SIMs) owed by end-users. In December 2024, mobile voice and data subscriptions were 8,200,229 and 3,608,579 respectively. The mobile voice subscriptions increased from 6,944,709 in 2023 to 8,200,229 in 2024, representing a growth of 18.08%. Similarly, mobile data subscriptions increased from 2,181,873 in December 2023 to 3,608,579 in December 2024, indicating a growth of 65.39%.

The penetration rate for mobile voice subscriptions in December 2023 was 79%, which rose to 94.89% in December 2024, showing an incline of 20.11%. Similarly, the data/internet penetration in December 2023 was 24.82%, which rose to 41.76% in December 2024, representing a growth of 68.25%.

The details of total subscriptions together with both voice and data penetration rates are provided in Table 1.3.

Table 1. 3 Total Subscriptions, Voice and Data Penetration

Subscriptions	Year on Year						Year on Year
	Q4 2019	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024	Growth (%)
Total Mobile Voice Subscription	6,863,347	7,463,097	8,045,936	6,781,786	6,944,709	8,200,229	18.08
Total Mobile Data Subscription	1,404,600	1,451,575	1,841,123	1,894,783	2,181,873	3,608,579	65.39
Mobile Voice Penetration (%)	88	93.56	96.31	78.81	79	94.89	20.11
Mobile Data Penetration (%)	18.07	20.57	22.04	22.02	24.82	41.76	68.25

iv. TOTAL DOMESTIC AND INTERNATIONAL VOICE, DATA AND SMS TRAFFIC

Apart from data usage (in GB), there was significant drop in the minutes for voice traffic and Short Message Service (SMS) counts in Q4 2024 compared with Q4 2023.

The inbound international traffic dropped from 14.87 million minutes in December 2023 to 11.20 million minutes at the end of 2024, representing a decrease of 24.69%. Similarly, outbound international traffic decreased from 9.99 million minutes in December 2023 to 7.42 million minutes at the end of 2024, representing a decline of 25.70% compared with the minutes in December 2023.

The billable On-Net traffic decreased from 1.33 billion minutes in December 2023 to 811.9 million minutes at the end of 2024, representing a decline of 39.15% in comparison with the minutes in December 2023. Similarly, outgoing billable Off-Net traffic decreased from 656.5 million minutes in December 2023 to 497.8 million minutes at the end of 2024, representing a drop of 24.17% compared with the minutes in December 2023.

The billable total domestic mobile voice traffic decrease from 1.99 billion minutes in December 2023 to 1.31 billion minutes as at end of December 2024, representing 51.99% decline compared with the minutes in December 2023.

Furthermore, mobile data usage rose from 58,730,128.37 GB in December 2023 to 94,655,312.57 GB in December 2024, representing an increase of 61.17% compared with data usage in December 2023.

Additionally, the total number of international Short Message Service (SMS) sent at the end of December 2023 was 4,062,665 compared with 3,342,215 at the end of 2024, recording a decrease of SMS count by 21.56%. Similarly, the volume of domestic SMS traffic declined from 70.70 million in December 2023 to 39.30 million in December 2024, representing a year-on-year decrease of 79.90%.

The details of the total domestic and international voice traffic, data usage and SMS counts are outlined in Table 1.4. The figures provided in Table 1.4 are also pictorially represented in Figures 1.1, 1.2 & 1.3.

Table 1. 4 Total Voice Traffic, Data Usage and SMS Counts

Total Traffic and SMS Counts	Year on Year					
	Q4 2019	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024
Incoming International Traffic (Minutes)	20,099,193.98	31,307,806.74	26,837,833.93	18,251,460.67	14,873,611.60	11,201,716.18
Outgoing International Traffic (Minutes)	14,614,803.45	17,472,914.13	18,210,699.60	14,839,097.44	9,997,726.24	7,428,258.62
Billable Outgoing Off-net Traffic (Minutes)	118,881,281.90	260,084,957.28	530,905,719.24	677,117,566.19	656,486,696.45	497,799,046.33
Billable On-net Traffic (Minutes)	311,522,112.90	1,018,875,028.49	1,514,644,237.11	1,166,166,379.52	1,334,219,996.14	811,900,423.51
Total Domestic Mobile Voice Traffic (Minutes)	430,403,394.80	1,278,959,985.77	2,045,549,956.35	1,843,283,945.72	1,990,706,692.59	1,309,699,469.84
Mobile Data Usage (GB)	6,732,960.86	14,104,986.68	28,582,441.20	59,415,674.59	58,730,128.37	94,655,312.57
Domestic SMS Count	130,988,413	151,179,291	188,672,555	218,846,073	70,701,824	39,300,702
International SMS count	2,764,074	3,295,751	3,898,989	4,845,789	4,062,665	3,342,215

Figure 1. 1 Domestic Mobile Voice Traffic in Minutes
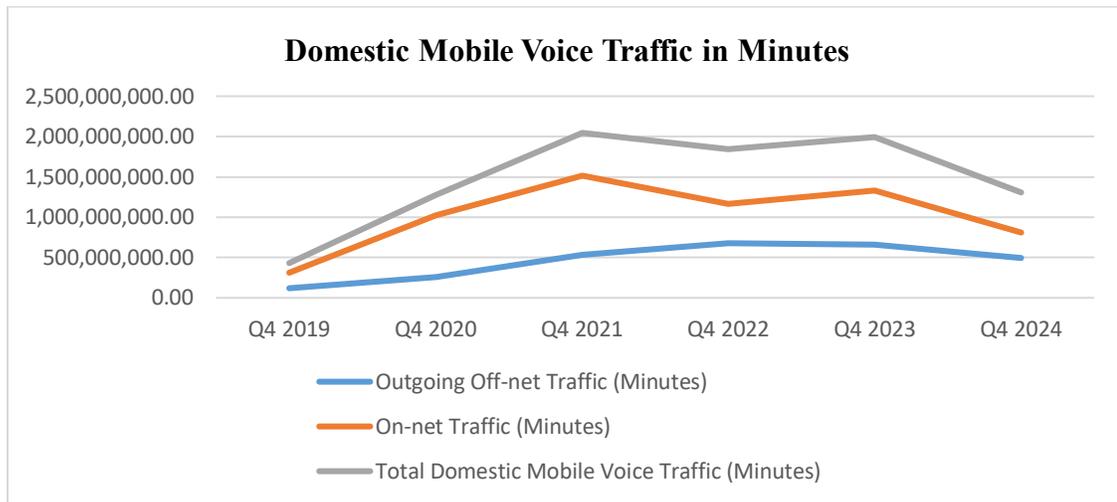
Figure 1. 2 International Voice Traffic in Minutes

International VoiceTraffic in Minutes

— Incoming International Traffic (Minutes) — Outgoing International Traffic (Minutes)
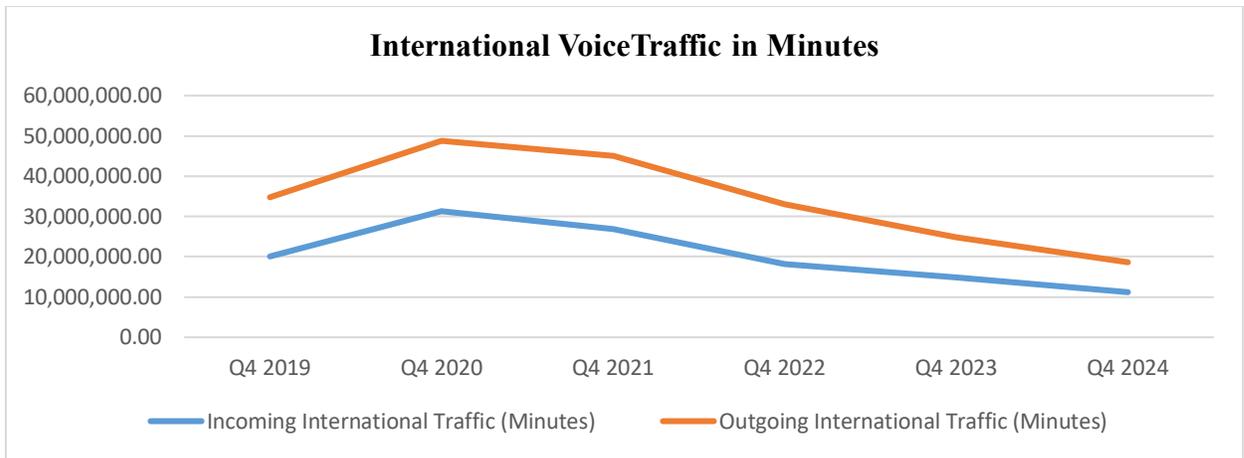
Figure 1. 3 Domestic and International SMS Count

Short Message Service Count

—●— Domestic SMS Count —●— International SMS count
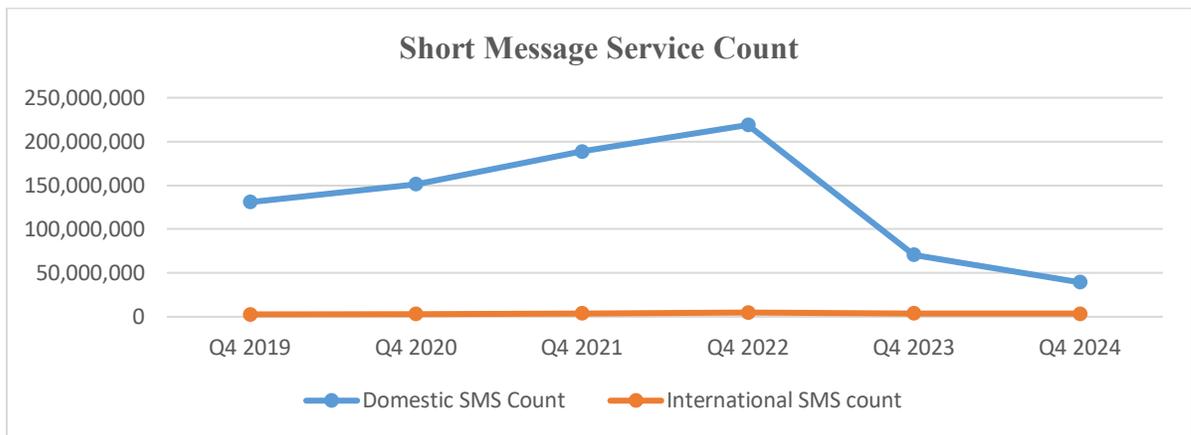
Figure 1. 4 Annual Mobile Data Usage in GB

Mobile Data Usage (GB)
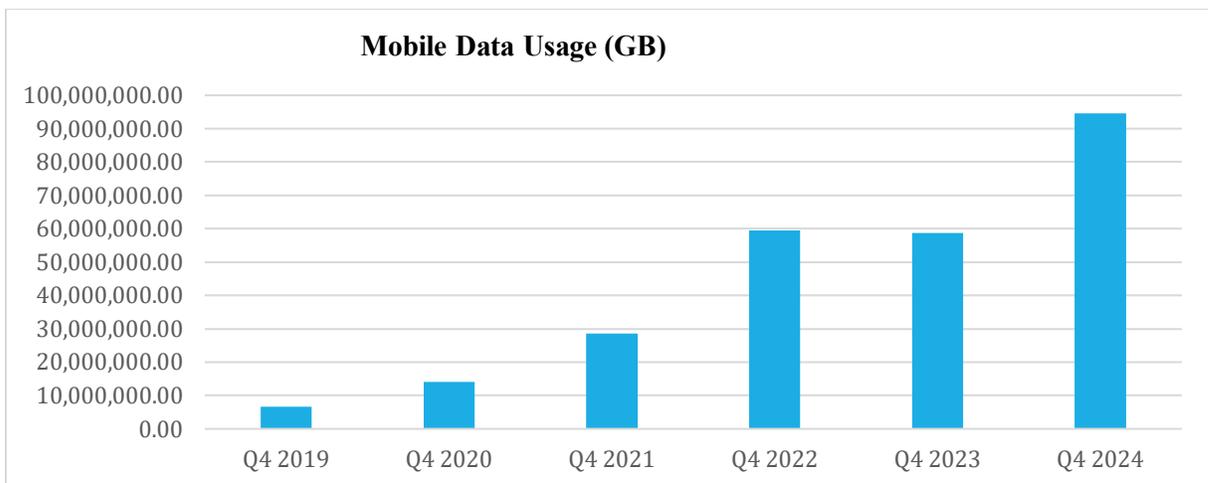
v.   AUTHORIZATION IN THE BROADCASTING SECTOR

The number of operational FM radio stations in December 2024 was 188 as opposed to 184 in December 2023, indicating a growth rate of 2.17%. Additionally, the number of TV stations in operations in December 2024 was 17, while in December 2023, the number of authorized and operational TV stations were 21 and 20 respectively. The details of the total authorized and operational FM radio and TV stations are captured in Table 1.5.

Table 1. 5 Authorization in the Broadcasting Sector

FM/TV Authorization and Operations	Year on Year					
	Q4-2019	Q4-2020	Q4-2021	Q4 -2022	Q4-2023	Q4-2024
FM Authorizations	132	140	158	177	190	194
FM Station Operating	132	136	144	173	184	188
TV Authorizations	13	12	15	18	21	20
TV Stations Operating	11	11	13	17	20	17

a.   Categories of Authorized FM Radio Stations

The number of authorized commercial, religious and advocacy (NGO) FM radio stations in operations throughout 2024 was 92, 40 and 2 respectively, with growth rates of 2.22%, 2.5% and 100% correspondingly. The number of community, public, public foreign and campus FM radio stations experienced zero growth rate throughout 2024. The details of the categories of authorized FM radio stations are summarized in Table 1.6.

Table 1. 6 Categorizes of Authorized FM Radio Stations

Category of FM Radio Stations	Year on Year					
	Q4-2019	Q4-2020	Q4 2021	Q4 2022	Q4 2023	Q4-2024
Public	7	7	7	7	7	7
Public Foreign	6	6	6	6	6	6
Commercial	49	54	68	78	90	92
Religious	28	36	37	39	39	40
Community	30	32	34	36	37	37
Campus	3	4	5	10	10	10
Advocacy (NGO)	1	1	1	1	1	2

vi.   MOBILE VOICE SUBSCRIPTIONS AND MARKET SHARE

In the fourth quarter of 2024, Africell had 54.51% of the mobile voice market share with 4,469,817 subscribers, representing an increase of 29.18% in mobile voice subscriptions compared with the values

recorded in 2023. The current mobile voice market share makes Africell the Market Leader in Mobile Voice Services.

Similarly, the mobile voice subscriptions for Orange increased from 2,988,879 in December 2023 to 3,153,182 in December 2024, representing an increase of 5.49%, and the mobile voice market share plummeted from 43.04% in December 2023 to 38.45% in the final quarter of 2024.

However, Qcell had 7.04% of the mobile voice market share with 577,230 subscriptions in the fourth quarter of 2024, representing an increase in the mobile voice subscriptions by 16.43%. A detailed analysis of mobile voice subscriptions and market share per Operator is outlined in Table 1.7 and also represented pictorially in Figure 1.4.

Table 1. 7 Mobile Voice Subscriptions and Market Share per Operator

Mobile Network Operator		Year on Year					
		Q4 2019	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024
Africell (SL)	Mobile Voice Subscription	4,145,383	4,015,580	3,891,132	3,742,853	3,460,060	4,469,817
	Voice Market Share (%)	60.40	53.81	48.36	55.19	49.82	54.51
Orange (SL)	Mobile Voice Subscription	2,473,881	3,228,977	3,830,037	2,623,153	2,988,879	3,153,182
	Voice Market Share (%)	36.04	43.27	47.60	38.68	43.04	38.45
Qcell (SL)	Mobile Voice Subscription	110,540	218,540	324,767	415,780	495,770	577,230
	Voice Market Share (%)	1.61	2.93	4.04	6.13	7.14	7.04
SIERRATEL	Mobile Voice Subscription	133,543	0	0	0	0	0
	Voice Market Share (%)	1.95	0.00	0.00	0.00	0.00	0.00
Industry Total Voice Subscription		6,863,347	7,463,097	8,045,936	6,781,786	6,944,709	8,200,229

Figure 1. 5 Market Share on Mobile Voice Subscriptions per Operator

Mobile Voice Market Share per Operator

- Africell: 55%
- Orange: 38%
- Qcell: 7%
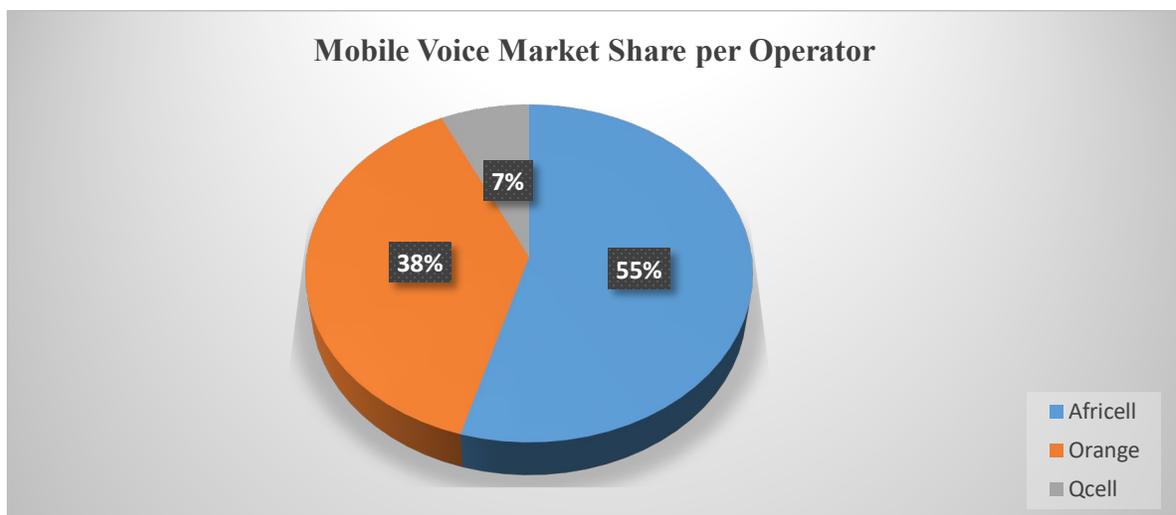
vii.   MOBILE DATA SUBSCRIPTIONS AND MARKET SHARE

Generally, there has been steady growth in mobile data subscriptions since 2019. Unlike the other two Mobile Network Operators, the mobile data subscriptions for Africell rose from 743,239 in December 2023 to 961,846 in December 2024, representing an increase in subscriptions by 29.41%. On the contrary, the mobile data market share for Africell dropped by 34.06% in December 2023 to 26.65% at the end of 2024, indicating a decline of 7.41%.

However, the mobile data subscriptions for Orange rose from 1,033,858 in December 2023 to 2,168,427 in December 2024, representing a substantial increase in the mobile data subscriptions by 109.74% compared with figure in December 2023. The mobile data market share for Orange increased from 47.38% in December 2023 to 60.09% at the end of 2024, making Orange the Market Leader in Mobile Data Services.

In December 2023, Qcell had mobile data subscriptions of 404,778, while in December 2024 the mobile data subscriptions was 478,306, representing an increase of 18.17% in comparison with similar values recorded in December 2023. The mobile data market share for Qcell decreased from 18.55% in December 2023 to 13.25% at the end of 2024

A detailed analysis of mobile data subscriptions and market share per Operator is outlined in Table 1.8, also represented pictorially in Figure 1.5.

Table 1. 8 Mobile Data Subscriptions and Market Share per Operator

Mobile Network Operator		Year on Year					
		Q4 2019	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024
Africell (SL)	Mobile Data Subscription	751,935	809,966	829,537	732,602	743,239	961,846
	Data Market Share (%)	65.31	55.80	45.06	38.66	34.06	26.65
Orange (SL)	Mobile Data Subscription	342,214	494,939	778,686	846,725	1,033,858	2,168,427
	Data Market Share (%)	29.72	34.10	42.29	44.69	47.38	60.09
Qcell (SL)	Mobile Data Subscription	57,230	146,670	232,900	315,456	404,776	478,306
	Data Market Share (%)	4.97	10.10	12.65	16.65	18.55	13.25
Industry Total Data Subscription		1,151,379	1,451,575	1,841,123	1,894,783	2,181,873	3,608,579

Figure 1. 6 Market Share on Mobile Data Subscriptions per Operator

Mobile Data Market Share per Operator

Qcell 13%
Africell 27%
Orange 60%

■ Africell ■ Orange ■ Qcell
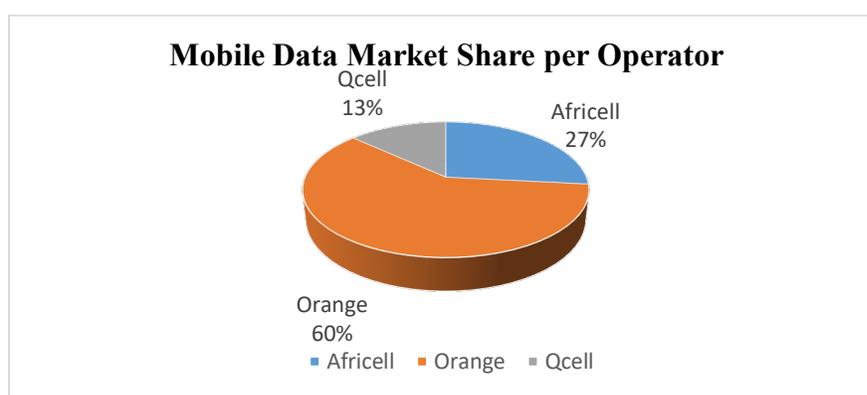
viii.   MINUTES OF USE (MOU) AND AVERAGE REVENUE PER USER (ARPU)

The Minutes of Use (MoU) per subscription is the total volume of traffic for a specific period divided by the total subscriptions for a defined period. The MoU per subscription decreased from 286.65 in December 2023 to 159.71 in quarter 4 of 2024, registering a decline of 79.48%.

The Average Revenue Per User (ARPU) in United States Dollars increased steadily from $11.98 in December 2023 to $13.09 in the fourth quarter of 2024. Similarly, ARPU in Leones rose from Le. 272.32 in December 2023 to Le. 297.07 in December 2024.

A detailed analysis of the minutes of use and average revenue per user is outlined in Table 1.9, and the pictorial representation is shown in Figure 1.6.

Table 1. 9 Minutes of Use and Average Revenue per User

Traffic/Subscription	Year on Year					
	Q4 2019	Q4 2020	Q4 2021	Q4 2022	Q3 2023	Q4 2024
Total Domestic Mobile Voice Traffic	430,403,394.80	1,278,959,985.77	2,045,549,956.35	1,843,283,945.72	1,990,706,692.59	1,309,699,469.84
Mobile Voice Subscriptions	6,863,347	7,463,097	8,045,936	6,781,786	6,944,709	8,200,229
Minutes of Use (MoU) per Subscriber	62.71	171.37	254.23	271.80	286.65	159.71
Average Revenue per User (SLL)	37.00	101.11	150.00	258.21	272.32	297.07
Average Revenue per User (US$)	3.81	9.98	13.33	13.71	11.98	13.09
Floor Price (SLL)	0.59	0.59	0.59	0.95	0.95	1.86
Bank of Sierra Leone USD Exchange Rate	9.7167	10.1334	11.2557	18.835	22.7228	22.6920

Figure 1. 7 Minutes of Use and Average Revenue per User
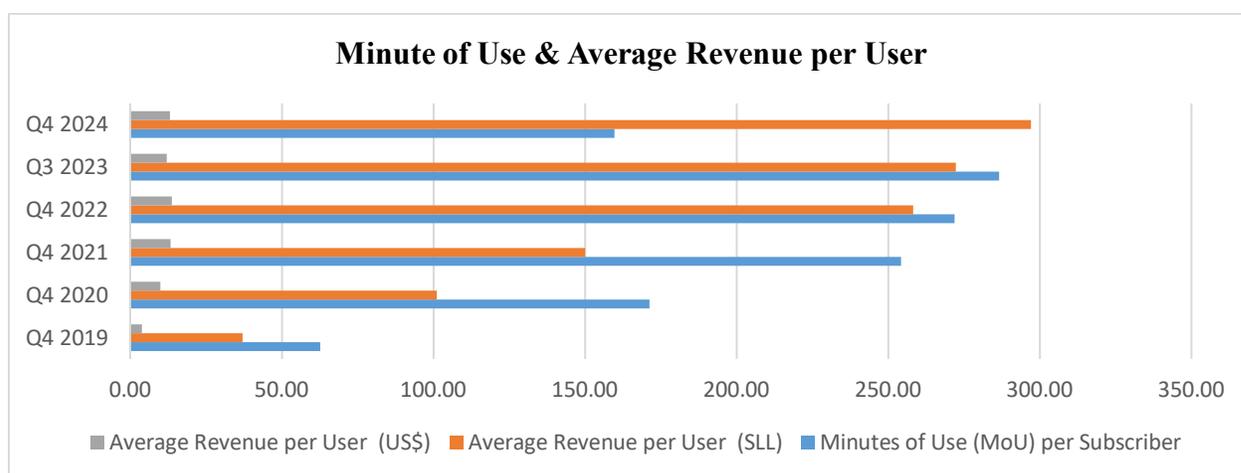
1.1.3   Licenses and Authorization

The National Communications Authority grants Licenses or Authorizations to several service providers including Internet Service Providers, Broadcasting Stations, Mobile Network Operators, Ship Stations,

VSAT Operators, UHF, VHF & HF services, Type Approval for electronic communication equipment, Numbering Resources, etc.

i. Mobile/Cellular Network Operator License

The Telecommunications sector has evolved dramatically with many diversifications over the past years, characterized by vibrant competition and innovative products and services. The Authority has granted telephony licenses to operators, which are classified into fixed and mobile licenses, and they provide services and products to the market using the 2G, 3G, 4G and 5G technologies.

As at December 2024, there were three (3) mobile telephony licensees in operations in the country delivering services and products using the following technology outlined in Table 1.10. The content of Tables 1.11, 1.12 and 1.13 indicate that Orange has the widest coverage area and more sites of all technologies.

During the period under review, the cumulative number of operational sites for Africell, Orange and Qcell were 550, 574, and 296 respectively. Taking into consideration the factors of colocation and infrastructure sharing among operators and the deployment of multiple technologies, Africell had 528, 546 and 310 sites using 2G, 3G and 4G technologies respectively. Likewise, Orange deployed 574, 574 and 565 sites using 2G, 3G and 4G technologies correspondingly, while Qcell constructed 296, 296 and 85 sites using 2G, 3G and 4G technologies respectively.

Unlike Qcell which has deployed 4G technologies and launched 4G services in eight (8) districts in the country including Bombali, Bo, Kenema, Kono, Karene Port Loko, Western Area Urban and Western Area Rural, Africell and Orange have deployed and launched 4G technologies in all districts across the country.

Tables 1.11, 1.12 and 1.13 depict the patterns of site deployment by district across the country for Africell, Orange and Qcell respectively.

Table 1. 10 Licensed Mobile Network Operators & Technologies Utilized

S/N	Licensed Mobile Network Operator	Technology	Total Sites-2019	Total Sites-2020	Total Sites-2021	Total Sites-2022	Total Sites-2023	Total Sites-2024
1	Africell	2G, 3G & 4G	115	214	228	327	381	550
2	Orange	2G, 3G & 4G	389	445	501	544	562	574
3	Qcell	2G, 3G & 4G	115	189	189	265	296	296

Table 1. 11 Africell Site Data on Technology per District at the end of 2024

S/N	District	Technology		
		2G	3G	4G
1	Bombali	29	29	20
2	Tonkolili	29	29	13
3	Kono	34	33	12
4	Bo	42	43	19
5	Kenema	41	41	16
6	Moyamba	23	23	5
7	Pujehun	19	20	5
8	Bonthe	21	20	9
9	Western Area Urban	120	139	137
10	Koinadugu	17	17	6
11	Karene	13	13	2
12	Falaba	19	18	1
13	Western Area Rural	30	31	31
14	PortLoko	38	38	25
15	Kambia	21	21	6
16	Kailahun	32	31	3
	Total Number of Sites per Technology	528	546	310

Table 1. 12 Orange Site Data on Technology per District at the end of 2024

S/N	District	Technology		
		2G	3G	4G
1	Bo	59	59	58
2	Bombali	27	27	27
3	Bonthe	14	14	14
4	Falaba	21	21	21
5	Kailahun	27	27	27
6	Kambia	19	19	18
7	Karene	17	17	16
8	Kenema	48	48	47
9	Koinadugu	19	19	19
10	Kono	38	38	38
11	Moyamba	28	28	29
12	Port Loko	34	34	33
13	Pujehun	21	21	18
14	Tonkolili	26	26	24
15	Western Area Rural	69	69	69
16	Western Area Urban	107	107	107
	Total number of Sites per Technology	574	574	565

Table 1. 13 Qcell Site Data on Technology per District at the end of 2024

S/N	District	Technology		
		2G	3G	4G
1	Bombali	8	8	3
2	Tonkolili	8	8	0
3	Kono	10	10	2
4	Bo	28	28	6
5	Kenema	16	16	2
6	Moyamba	10	10	0
7	Pujehun	9	9	0
8	Bonthe	6	6	0
9	Western Area (Urban)	120	120	57
10	Koinadugu	5	5	0
11	Karene	2	2	1
12	Falaba	1	1	0
13	Western Area (Rural)	34	34	12
14	Port Loko	13	13	2
15	Kambia	10	10	0
16	Kailahun	16	16	0
Total		296	296	85

ii. Internet Service Provider License

An Internet Service Provider (ISP) is a company that provides Internet connectivity or services to home and business customers using traditional modem dial-up, Digital Subscriber Line (DSL), Asymmetric Digital Subscriber Line (ADSL), cable modem broadband service, dedicated fiber optic cable, Wireless Access Point, etc. Quite recently, Wireless Internet Service Providers have started offering Internet access through wireless LAN or wireless broadband networks.

In addition to the three (3) mobile/cellular operators that provide mobile data to subscribers, the total number of authorized Internet Service Providers (ISPs) delivering data services to the market in December 2024 was Thirty-Two (32), as outlined in Table 1.14.

Table 1. 14 Summary Statistics for Authorized ISPs in Sierra Leone as at December 2024

Type of Internet Service Provider (ISP)	Total No. of Authorized ISP	Total No. of ISP in Service	Total No. of ISP out of Service
Tier 1&2 ISP	32	32	0

iii. Frequency Modulation (FM) Station Authorization

The National Communications Authority granted authorizations to four **(4)** FM radio stations in 2024 in addition to **190** FM Broadcasting Stations in 2023, bringing the cumulative number of FM radio

stations to **194** in December 2024. Out of the total number of authorized FM Broadcasting Stations, **183** radio stations were operational in December 2024.

The authorizations of FM broadcasting stations are classified into different groups, which are detailed below:

a) **Public FM Stations**: These are stations owned and operated by the Sierra Leone Broadcasting Corporation, and/or any other station established by the Government of Sierra Leone by a statutory enactment or policy.

b) **Public Foreign Stations**: These are stations established by Foreign Governments through diplomatic arrangements to re-broadcast/relay content from foreign countries such as BBC, RFI, VoA, etc.

c) **Commercial Stations**: They are stations that are privately owned and operated for profit and controlled solely by independent commercial groups or individuals.

d) **Community Stations**: These are stations meant for a non-profit broadcasting service provided for a specific (marginalized) community by a radio or television station whose ownership and management are representative of the community for which the service is provided.

e) **Religious Stations**: These are stations established by religious organizations for non-profit broadcasting service to promulgate the teachings and the word of God to their congregation or followers.

f) **Campus Stations**: These are stations operated within the ambit of educational institutions.

A breakdown of authorizations by classification for all FM radio stations across the country in December 2024 is provided below:

- 7 Public Radio Stations
- 6 Public (Foreign) Radio Stations
- 92 Commercial Radio Stations
- 37 Community Radio Stations
- 40 Religious Radio Stations
- 10 Campus Radio Stations
- 2 Advocacy (NGO)

The summary of Authorized FM Station in the Country at the end of 2024 is outlined in Table 1.15.

Table 1. 15 Summary Statistics for Authorized FM Station in the Country at the end of 2024

No.	Name of District	Total No. Authorized	Public	Public Foreign	Commercial	Religious	Community	Campus	Advocacy (NGO)	Total No. in Operation	Total No. not in Operation
1	Western Urban	49	1	3	25	16	1	3	0	47	2
2	Western Rural	17	0	0	10	3	3	0	1	14	3
3	Bo	17	1	1	8	6	0	1	0	17	0
4	Bonthe	4	0	0	1	0	3	0	0	4	0
5	Moyamba	6	0	0	3	1	1	1	0	6	0
6	Pujehun	6	0	0	2	0	4	0	0	6	0
7	Kailahun	11	1	0	5	0	4	1	0	11	0
8	Kenema	23	1	1	12	4	4	1	0	23	0
9	Kono	10	1	0	7	1	1	0	0	10	0
10	Bombali	18	1	1	10	5	1	1	0	17	1
11	Koinadugu	4	0	0	1	1	1	1	0	4	0
12	Tonkolili	8	1	0	1	1	4	1	0	8	0
13	Karene	3	0	0	2	0	1	0	0	2	1
14	Falaba	1	0	0	0	1	0	0	0	1	0
15	Port Loko	11	0	0	5	1	4	0	1	9	2
16	Kambia	6	0	0	0	0	6	0	0	4	2
Total		194	7	6	92	40	37	10	2	183	11

iv.   Television (TV) Broadcasting Stations Authorization

The Authority granted authorizations cumulatively up to 20 TV Broadcasting Stations in Sierra Leone. Out of the total number of authorized TV Broadcasting Stations, 17 stations were on-air in December 2024.

The TV broadcasting stations are classified into Analogue Terrestrial television, Digital Terrestrial Free-To-Air Television, Digital Terrestrial Pay Television, Satellite Television, Digital Cable Television and Television over Internet Protocol.

Analogue Terrestrial Television Stations are TV stations that transmit analogue waveforms and receive both voice and video signal using common aerials on a TV set. These stations are to be migrated from analogue broadcasting technology to digital broadcasting technology in compliance with the Geneva 2006 Agreement of the International Telecommunications Union (ITU) on digital migration. Tremendous efforts have made to adhere to Geneva 2006 Agreement regarding digital migration.

The number of authorized TV Broadcasting Stations under different classifications is as follows:

- 14 Analogue Terrestrial Television
- 3 Digital Terrestrial Television
- 1 Digital Terrestrial Television
- 1 Satellite Television (Free-To-Air Direct-To-Home Bouquet)
- 1 Satellite Television (Pay TV Direct-To-Home Bouquet)

The details of the authorized TV broadcasting stations are provided in Table 1.16.

Table 1. 16 Summary Statistics of Authorized Television Broadcasting Station in December 2024

No.	Types of Television Services	Total No. of Authorized TV Stations	Total No. of TV Stations on Air	Total No. of TV Stations Off- Air
1	**Analogue Terrestrial Television**	14	11	3
2	**Digital Terrestrial Television**	3	3	0
3	**Digital Terrestrial Pay Television**	1	1	0
4	**Satellite Television (Free-To-Air Direct-To-Home Bouquet**	1	1	0
5	**Satellite Television (Pay TV Direct-To-Home Bouquet)**	1	1	0
Total		20	17	3

v.   Type Approval Authorization

In accordance with the relevant provision of the National Communications Authority Act 2022, the Authority is authorized to establish technical standards applicable to telecommunications equipment, including customer premises equipment, to prevent damages to telecommunications network or services or to public health, safety or the environment.

In order to ensure maximum interoperability and conformity of equipment, the Type Approval standards set by the Authority were based on international standards from the following accredited institutions:

- International Electro technical Commission (IEC) and its International Special Committee on Radio Interference (CISPR)
- European Committee for Electro technical Standardization (CENELEC)
- European Telecommunications Standards Institute (ETSI)
- practices predominantly adopted in Europe as a member of ITU World Region 1 for spectrum allocation and by using GSM/UMTS/LTE very extensively

The following undermentioned categories of equipment are specifically excluded from Type Approval processes and standards in Sierra Leone:

i.   Services (such as broadcasting) that are currently outside the scope of the Authority's oversight under the Act.
ii.   Services (such as Public Access Mobile Radio and Integrated Services Digital Networks) that are unlikely to be provided in Sierra Leone.
iii. Services (such as analogue mobile telephony) that are obsolete,

Table 1. 17 Summary of Type Approval, Type Approval, Type Acceptance and Type Modification of Electronic Communications Equipment in December 2024

Category	Q4 2019	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024
Type Approval	130	107	75	105	94	146
Type Acceptance	130	107	75	105	94	146
Type Modification	2	1	4	0	0	0

In December 2024, 146 devices/equipment were type approved, type accepted and type modified. Most of the equipment/devices fall in the categories provided below.

- Tire pressure-monitoring sensor
- Body Control Module (BCM)/Key FOB/ Remote Keyless Entry Unit
- Radio Identification Device

- Apple Products which include m(Phones, tablets, Wireless chargers, Smart Battery Case Wireless Accessories, Airpods, etc.)
- Remote Control with Bluetooth (Smart Control)
- Transceiver for Smart TV (Wi-Fi/BT Transceiver)
- Head Unit with Bluetooth
- WLAN and GPS Technology
- Automotive Control Unit with Car Access and Immobilizer Function
- Combo WLAN/BT Module for computers (notebooks, tablets, etc.)
- NFC for Cars
- Product Link Cellular Radio Telematics Device
- Wireless Mobile Interface
- Passive Entry/Passive Start Radio Identification Device
- Car Navigation System, Real-Time PCR System

The modulation techniques for most of the equipment type approved, type accepted and type modified are ASK, FSK, OFDM, DSSS, GFSK, WCDMA, π/4-DQPSK, 8DPSK, CCK, DQPSK, DBPSK, 256QAM, 64QAM, 16QAM, QPSK and BPSK.

1.1.4   QUALITY OF SERVICE (QOS) MONITORING

The Quality of Service (QoS) monitoring of Key Performance Indicators (KPIs) is predicated on the relevant provisions of the National Communications Authority Act 2022, the Telecommunications Quality of Service Regulations 2020, as well as the Quality of Service (QoS) obligations outlined in the relevant sections of the cellular mobile licenses for operators. In order to monitor and enforce QoS obligations, the Authority hired a consultant, SALCAN Telecoms, to analyze and generate data, using five (5) consumer-oriented methodologies, for KPIs of radio network parameters, including network availability, call connection success rate, SDCCH call drop rate, TCH call drop rate and TCH congestion rate.

i.   Second Generation (2G) Key Performance Indicators

a.   Network Availability

Network availability is the ratio of probable attempts for mobile network services to the total number of attempts. The threshold for network availability is ≥ 95%.

Throughout 2024, none of the operators was fully complaint with the pre-defined threshold of 95% for network availability. Africell failed to meet the pre-defined threshold of 95% in September 2024. Orange failed to meet the pre-defined threshold of 95% for eight (8) months (May, June, July, August, September, October, November and December), recording as low as 84% in August, while Qcell met the pre-defined threshold of 95% in three (3) months only (October, November & December) throughout the year, recording as low as 90% from April to July, as outlined in Table 1.18.

Table 1. 18 Network Availability (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	98	98	98	97	97	97	96	95	93	96	97	97
Orange	97	97	97	96	93	90	85	84	86	93	94	92
Qcell	91	92	91	90	90	90	90	91	92	97	98	96

The average trend of network availability in 2024 is shown in Figure 1.8.

Figure 1. 8 Network Availability
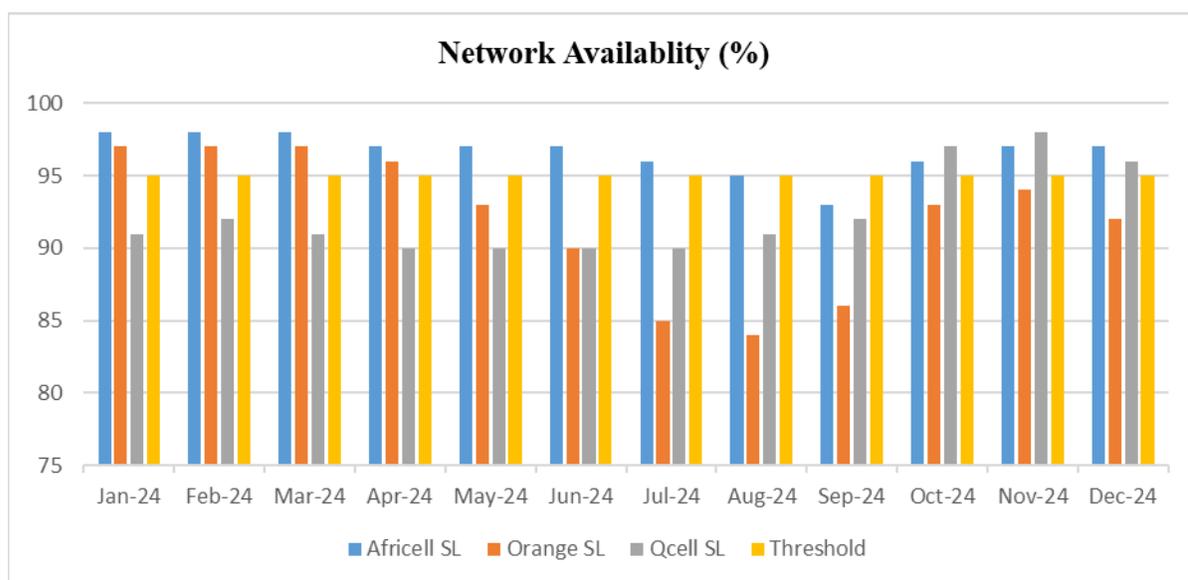
b. Call Connection Success Rate

The Call Connection Success Rate indicates the probability of successful calls initiated by the mobile station. The threshold for call connection success rate is ≥ 95%.

Throughout 2024, Orange and Qcell met the pre-defined threshold of 95% for call connection success rate, while Africell failed to meet the predefined threshold of 95% in October 2024, recording 94.9%, as detailed in Table 1.19.

Table 1. 19 Call Connection Success Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	98.6	98.6	98.5	98.6	98.7	98.4	96.1	95.2	95.1	94.9	98.6	97.5
Orange	98.8	98.7	98.6	98.7	96	94.6	96.2	95.1	96.8	97.7	98.3	97.7
Qcell	99.8	99.7	99.1	99.6	98.4	96.9	99.6	99.8	99.6	99. 0	99.7	99.2

The average trend of call connection success rate in 2024 is depicted in Figure 1.9.

Figure 1. 9 Call Connection Success Rate
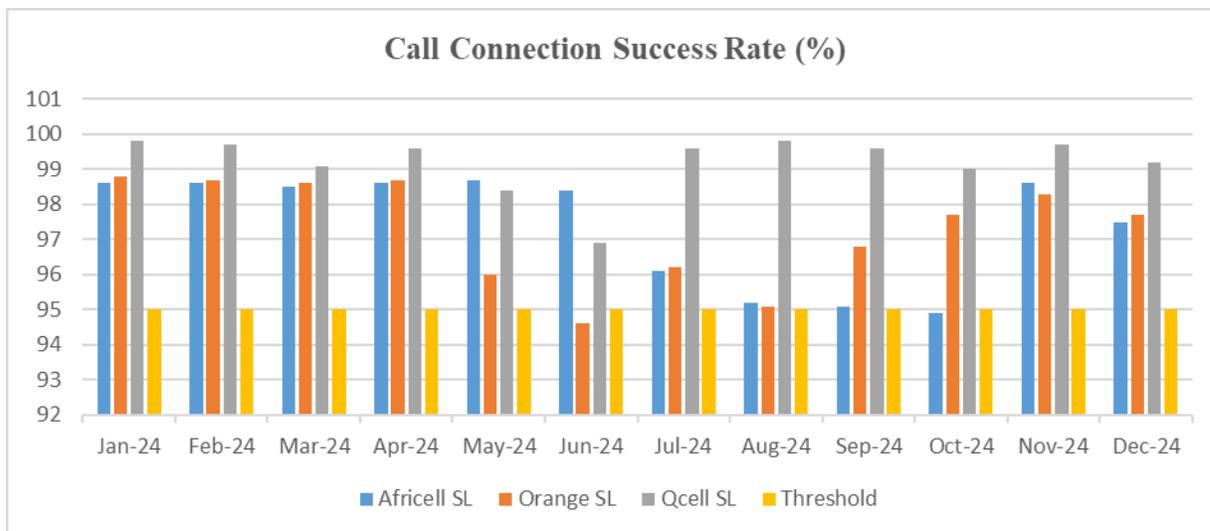
c. TCH Congestion Rate

The TCH congestion rate is the proportion of the number of TCH assignment failures to the number of TCH seizure requests. The threshold for TCH congestion rate is ≤ 1.5%.

Throughout 2024, no operator exceeded the pre-defined threshold of 1.5% for TCH congestion rate, which is detailed in Table 1.20.

Table 1. 20 TCH Congestion Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell (SL) Ltd	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.04
Orange (SL) Ltd	0.16	0.17	0.17	0.27	0.73	1.07	0.92	0.78	0.28	0.12	0.12	0.21
Qcell (SL) Ltd	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.01	0.03	0.02	0.02	0.01

Largely, the average TCH congestion rate significantly improved. The average trend of TCH congestion rate is shown in Figure 1.10.

Figure 1. 10 TCH Congestion Rate

TCH Congestion Rate (%)
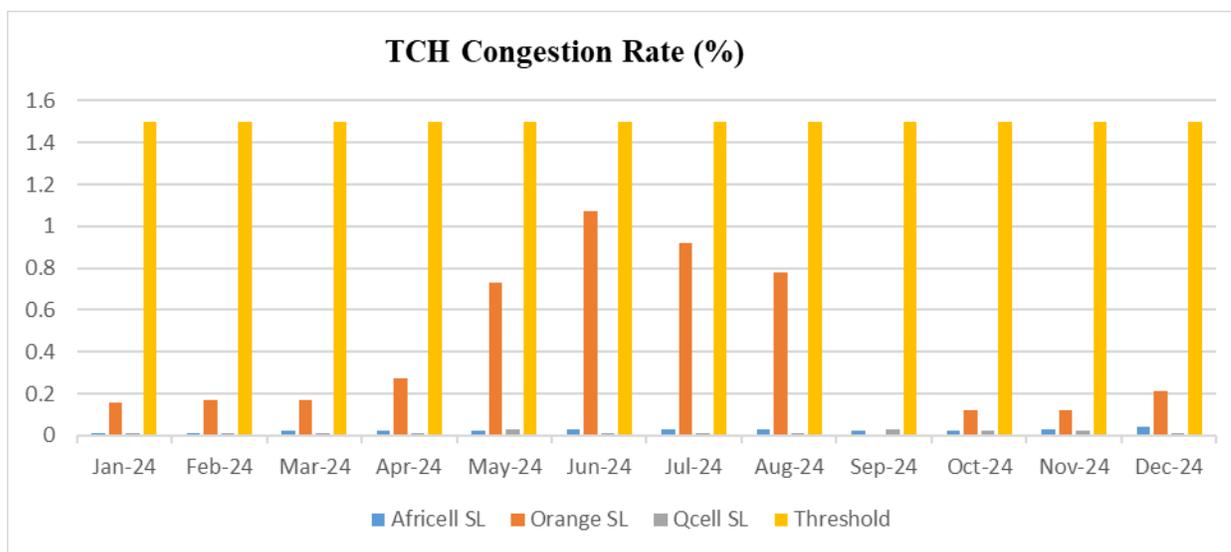
d. Traffic Channel (TCH) Drop Call Rate

The Traffic channels (TCHs) are the combination of voice and data signals (time slot assignments) that exist within a communication channel. The TCH call drop rate refers to the ratio of call drops to successful TCH seizures after the successfully assignment of the Base Station Controller (BSC). The threshold for TCH drop call rate is ≤ 2%.

Throughout 2024, Orange, Africell and Qcell did not exceed the pre-defined threshold of 2% for TCH call drop rate, as outlined in Table 1.21.

Table 1. 21 TCH Drop Call Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	0.14	0.13	0.15	0.15	0.14	0.15	0.18	0.19	0.20	0.20	0.15	0.16
Orange	0.38	0.4	0.39	0.41	0.52	0.54	0.51	0.58	0.38	0.27	0.27	0.28
Qcell	0.13	0.13	0.13	0.12	0.14	0.13	0.13	0.13	0.13	0.12	0.13	0.13

Generally, there was considerably improvement in the average TCH drop call rate in 2024. The average trend of TCH drop call rate is shown in Figure 1.11.

Figure 1. 11 TCH Drop Call Rate
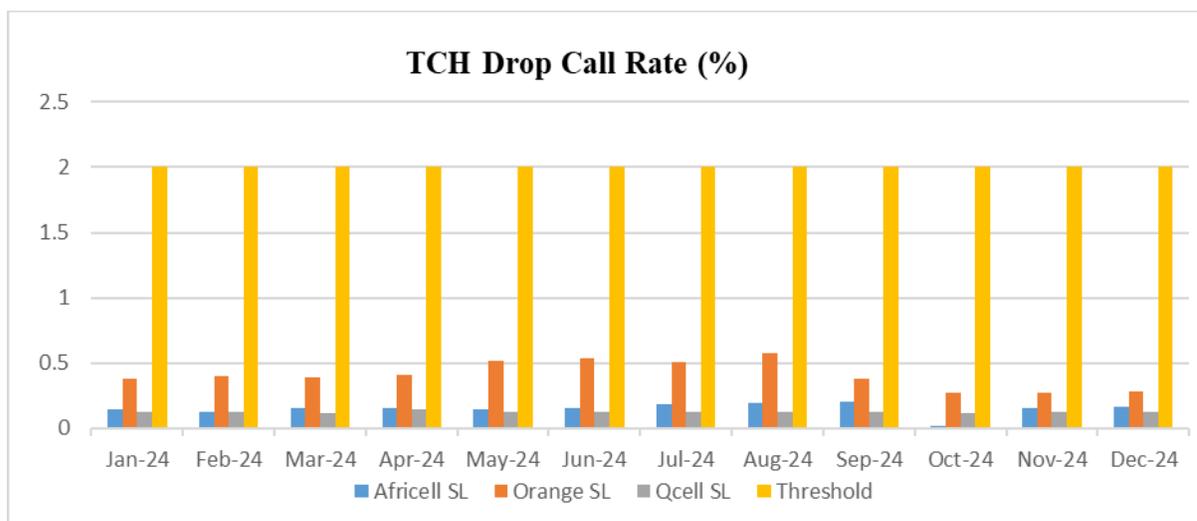
1.1.5 STAND-ALONE DEDICATED CONTROL CHANNEL (SDCCH) CALL DROP RATE

The Stand-alone Dedicated Control Channel (SDCCH) is a signaling channel that exists between GSM Mobile device and GSM Base Station. The SDCCH is used mostly for short transactions, including initial call setup, registration, SMS transfer and cellular financial transactions. The SDCCH call drop rate indicates the probability of call drops when the mobile station occupies the SDCCH. The threshold for SDCCH drop call rate is ≤ 1.5%.

Throughout 2024, Qcell met the pre-defined threshold of 1.5% for SDCCH call drop rate, while Africell failed to meet the pre-defined threshold in four (4) months (July, August, September and October) recording as high as 2.6%. Similarly, Orange failed to meet the pre-defined threshold in five (5) months (May, June, July, August and September), recording as high as 3.24%, as detailed in Table 1.22.

Table 1. 22 SDCCH Call Drop Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	0.61	0.59	0.92	0.82	0.70	0.79	2.16	2.25	2.39	2.60	0.69	1.48
Orange	0.26	0.35	0.39	0.29	2.35	3.24	2.06	3.12	1.91	1.39	1.02	1.52
Qcell	0.14	0.24	0.89	0.32	1.48	0.17	0.38	0.15	0.26	0.13	0.18	0.71

The average trend of SDCCH call drop rate in 2024 is shown in Figure 1.12.

Figure 1. 12 SDCCH Call Drop Rate
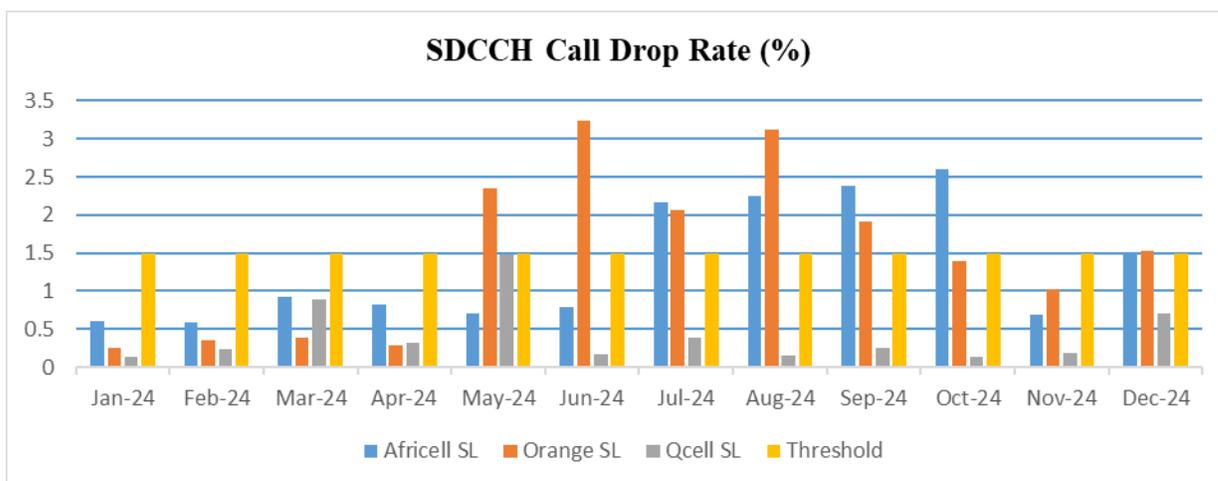
1.1.6 ANNUAL AVERAGE TRENDS OF 2G KEY PERFORMANCE INDICATORS

Consistent with the relevant provisions of the Telecommunications Quality of Service Regulations 2020, the analysis of key performance indicators is based on a cell site but not a sector or a cell.

Even though some sectors or cells might not meet the pre-defined thresholds of the KPIs, yet the overall annual average performance by the three (3) operators was satisfactory for four (4) KPIs, while the overall average performance for network availability was unsatisfactory for 2024.

The data for the annual average trend of KPIs from 2019 to 2024 is provided in Table 1.23.

Table 1. 23 Annual Average Trend of 2G Key Performance Indicators (KPIs)

Key Performance Indicators (KPIs)	Year on Year					
	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Network Availability (≥ 95%)	99.27	99.28	99.40	98.57	95.73	93.6
Call Connection Success Rate (≥ 95%)	98.73	96.29	98.98	98.34	99.14	99.0
TCH drop Call Rate (≤ 1.5%)	1.23	1.08	0.97	0.36	0.34	0.22
TCH Congestion Rate (≤ 2%)	0.48	0.22	0.22	0.13	0.09	0.06
SDCCH Call Drop Rate (≤ 1.5%)	0.25	0.11	0.11	0.15	0.24	0.37

The annual average trend of KPIs from 2019 to 2024 is shown in Figure 1.13.

Figure 1. 13 Annual Average Trends of Key Performance Indicators
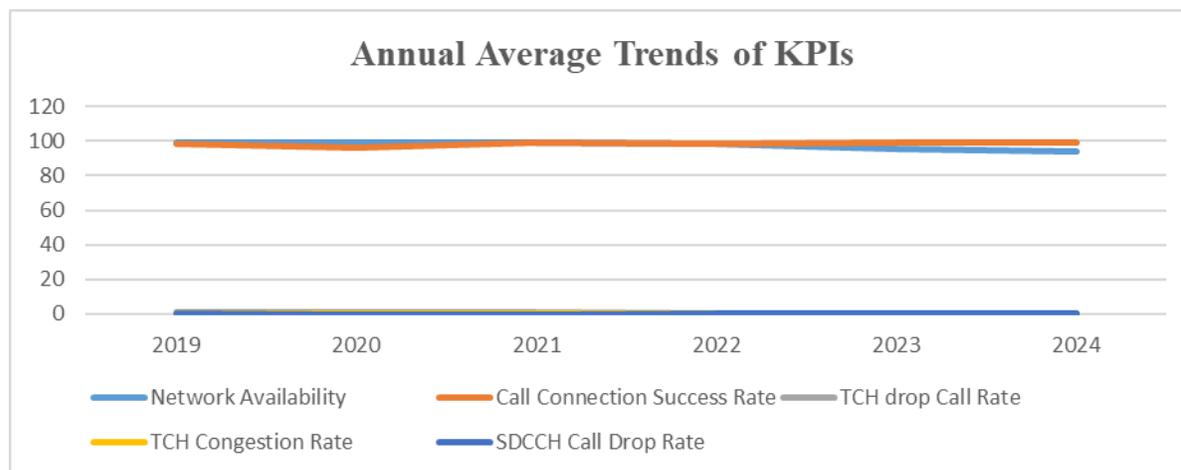
i. Third Generation (3G) Key Performance Indicators

Following the preparation for the analysis of 3G QoS KPIs through sourcing of performance management files from MNOs and the subsequent analysis, the generation of comprehensive reports commenced in July 2024. The QoS report for 3G services outlined analysis of data on KPIs starting from July 2024.

ii. Network Availability

Network availability is the ratio of probable attempts for mobile network services to the total number of attempts. The threshold for 3G network availability is >90%.

From July to December 2024, Orange, Africell and Qcell met the predefined 3G threshold of 90% for network availability as detailed in Table 1.24 below.

Table 1. 24 Network Availability (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	N/A	N/A	N/A	N/A	N/A	N/A	96	97	93	97	97	97
Orange	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85	99	99	99	99
Qcell	N/A	N/A	N/A	N/A	N/A	N/A	90	93	92	95	96	95

iii. Voice Connection Success Rate

Voice Call Connection Success Rate is a measure of the probability that a user can successfully establish a voice call when requested. The threshold for Voice Call Connection Success Rate is > 95%.

From July to December 2024, Orange, Africell and Qcell did not go below the predefined 3G threshold of 95% for voice connection success rate, as detailed in Table 1.25 below.

Table 1. 25 Voice Connection Success Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	N/A	N/A	N/A	N/A	N/A	N/A	99.2	99.1	98.7	98.8	99.3	98.9
Orange	N/A	N/A	N/A	N/A	N/A	N/A	N/A	99.3	98.3	99.6	99.7	98.8
Qcell	N/A	N/A	N/A	N/A	N/A	N/A	99.2	99.4	99.3	99.3	99.4	99.3

iv.   Data Access Success Rate

Data Access Success Rate is a measure of the network's ability to successfully establish a data session when requested by a user. The threshold for Data Access Success Rate is > 98%.

From July to December 2024, Africell and Qcell met the predefined 3G threshold of 98% for data access success rate. Orange failed to meet the threshold in August, September and October 2024, and did not submit PM files in July 2024, as detailed in Table 1.26 below.

Table 1. 26 Data Access Success Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	N/A	N/A	N/A	N/A	N/A	N/A	99.1	98.9	98.6	98.6	99.0	98.7
Orange	N/A	N/A	N/A	N/A	N/A	N/A	N/A	97.5	95.8	97.9	98.7	97.8
Qcell	N/A	N/A	N/A	N/A	N/A	N/A	98.5	98.7	98.4	98.4	98.6	98.5

v.   Voice Call Drop Rate

Voice Call Drop Rate is a measure of the percentage of successfully connected voice calls that are abnormally terminated by the network before the user ends the call. The threshold for Voice Call Drop Rate is < 2%.

From July to December 2024, Orange, Africell and Qcell met the predefined 3G threshold of 90% for voice call drop rate, as detailed in Table 1.27 below.

Table 1. 27 Voice Call Drop Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	N/A	N/A	N/A	N/A	N/A	N/A	0.07	0.08	0.10	0.11	0.13	0.08
Orange	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.31	0.16	0.05	0.05	0.06
Qcell	N/A	N/A	N/A	N/A	N/A	N/A	0.16	0.14	0.13	0.12	0.11	0.13

vi.   Data Drop Rate

Data Drop Rate is a measure of the percentage of data sessions that are abnormally terminated by the network before completion. It reflects the network's ability to maintain an active data session once it has been successfully established. The threshold for Data Drop Rate is <2%.

From July to December 2024, Orange, Africell and Qcell met the predefined 3G performance threshold by maintaining a Data Drop Rate below 2%, as detailed in Table 1.28 below.

Table 1. 28 Data Drop Rate (%) for 2024

Mobile Network Operators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Africell	N/A	N/A	N/A	N/A	N/A	N/A	0.22	0.23	0.26	0.26	0.21	0.21
Orange	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.69	0.31	0.23	0.21	0.25
Qcell	N/A	N/A	N/A	N/A	N/A	N/A	0.35	0.29	0.33	0.31	0.29	0.29

1.1.7   ASSIGNMENT OF SCARCE RESOURCES

i.   Spectrum Management and Assignment

The management, assignment, licensing and regulations of the use of the radio frequency spectrum and the geostationary satellite orbits in Sierra Leone are provided for in the relevant sections of the National Communications Authority Act 2022. In ensuring the effective and efficient use of the scarce resources, the activities undertaken in 2024 relating to planning, engineering, authorization and monitoring are summarized as follows:

ii.   Spectrum Planning

Spectrum Planning involves the allocation of portions of the frequency for specific use in accordance with international agreements, technical characteristics and national priorities and policies.
In December 2024, the spectrum planning activities of the Authority are as follows:

- Continued the re-planning of FM frequencies from even to odd channels with a separation of 400 KHz, thereby increasing the usable channels to more than 50.

- Maintained a collaborative working relationship with the Sierra Leone Maritime Administration in the assignment of CALL SIGN to ships/vessels operating in the terrestrial waters of the country.
- Conducted cross border frequency coordination with Liberia Telecommunications Authority (LTA) to mitigate harmful interference, minimize spurious emission of signals and replan broadcasting and traffic frequencies channels.

iii. Spectrum Authorization and Assignment

Spectrum Authorization involves granting access under specific conditions of spectrum resources to operators for utilizing various types of Radio Communication equipment and certification of radio operators. In December 2024, the Authority granted authorization to different categories of Operators including:

- 4 FM Stations for radio broadcasting
- 230 vessels/ships for Call Sign
- Several VHF Mobile/Handsets, Base stations and Repeaters
- Several Microwave transmission resources to MNOs for network expansion

Furthermore, the total bandwidth allocated by the International Telecommunication Union (ITU) to Region 1 — which includes Sierra Leone — for Access Radio Frequencies supporting technologies such as 2G, 3G, UMTS, 4G, LTE, and 5G, was 975 MHz.

Out of the total bandwidth of Access Radio Frequencies, 715MHz were assigned to different operators, representing 73.33% of utilization. In considering the proportion of utilization of assigned frequency bandwidth, the Authority cumulatively assigned 34.62% to Orange, 28.32% to Africell, 22.38% to Qcell, 5.59% to SIERRATEL and 17.48% to Smart Telecoms (One Mobile) to provide different services to end-users. A summary of assignments and distributions of access radio frequencies in December 2024 is detailed in Table 1.29. The pictorial representation of the assignment is provided Figure 1.14.

Table 1. 29 Summary of Assignments of Access Radio Frequencies

Freq. Band	Spectrum Bandwidth	Spectrum Utilization	Spectrum Availability	Africell		Orange		Qcell		Sierratel		Smart		Total Utilization
				Assigned	% Assigned	Assigned	% Assigned	Assigned	% Assigned	Assigned	% Assigned	Assigned	% Assigned	
700_28	45	45	0	0	0%	15	33.30	15	33.30	0	0	15	33.30	100.00%
800_20	30	30	0	15	50.00	0	0	0	0	15	50.00	0	0	100.00%
900_8	35	35	0	7.5	21.40	12.5	35.70	15	42.90	0	0	0	0	100.00%
1500_11	20	0	20	0	0	0	0	0	0	0	0	0	0	0.00%
1800_3	75	75	0	35	46.70	25	33.30	15	20.00	0	0	0	0	100.00%
2100_1	60	50	10	20	33.30	15	25.00	15	25.00	0	0	0	0	83.30%
2300_40	100	50	50	0	0	40	40.00	0	0	0	0	10	10.00	50.00%
2600_38 TDD	50	50	0	25	50.00	0	0	0	0	25	50.00	0	0	100.00%
2600_7 FDD	70	20	50	0	0	20	28.60	0	0	0	0	0	0	28.60%
3500_42 TDD	200	160	40	100	50.00	60	30.00	0	0	0	0	0	0	80.00%
3500_22 FDD	90	0	90	0	0	60	0	0	0	0	0	0	0	0.00%
3500_43 TDD	200	200	0	0	0	0	0	100	50.00	0	50.00	100	50.00	100.00%
Total Bandwidth (MHz)	975	715	260	202.5		247.5		160		40		125		
Total % of Assignment					28.32%		34.62%		22.38%		5.59%		17.48%	

Figure 1. 14 Distribution of Access Frequency Spectrum to Mobile Network Operators
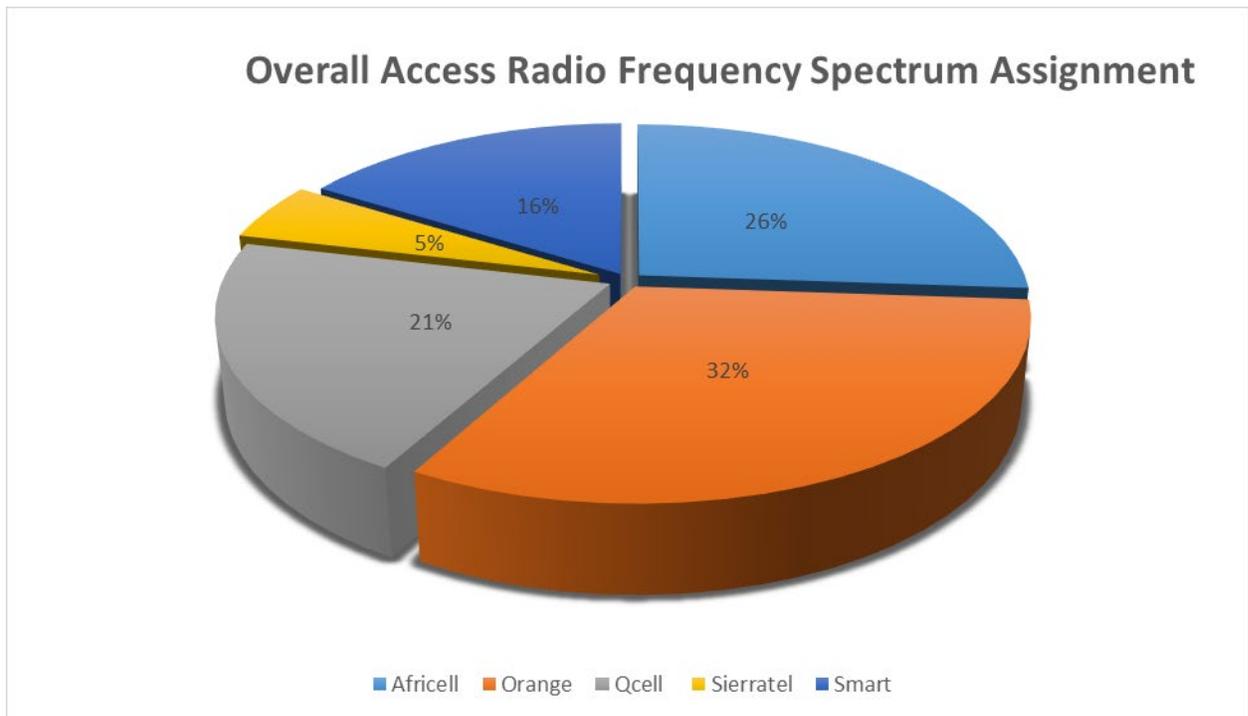
iv. Spectrum Engineering

Spectrum Engineering involves the development of electromagnetic compatibility standards for equipment that emits or is susceptible to radio frequency harmful interference. This aspect is related to type approval of different electronic equipment, which requires the submission of declaration of conformity certificate, culminating into the issuance of type approval and type acceptance certificates for 146 devices at the end of 2024.

v. Spectrum Monitoring and Compliance

Spectrum Monitoring and Compliance involves the monitoring of the use of the radio spectrum and the implementation of measures to control unauthorized use. In December 2024, the Authority achieved the following:

- Conducted spectrum monitoring across the country using physical means. The mobile spectrum monitoring system is currently not functional, thereby inhibiting the effective monitoring of all radio frequency spectrum.
- Coordinated and identified interference sources.
- Identified and located illegal transmitters.
- Obtained statistical information related to spectrum occupancy.
- Manually investigated interference complaints and inspected radio equipment across the country.

vi. Infrastructure-Based Communications Operators

Zoodlabs is a member of the Africa Coast to Europe (ACE) Consortium and operates a subsea cable and submarine Cable Landing Station under the auspices of the Government of Sierra Leone on a contractual basis. Similarly, Leonecom operates a Terrestrial Fiber Optic Cable Backbone in Sierra Leone based on Contract Agreement. Additionally, Metro Cable, a private owned Infrastructure service provider, operates a metropolitan terrestrial fiber optic cable network, which provides last-mile connections to end-users and service providers.

vii. Subsea Cable Operations

The Authority granted license to Zoodlabs to operate and manage the submarine landing station in Freetown, and serves as a Consortium member on the ACE subsea cable on behalf of the Government of Sierra Leone. The ACE subsea cable has ten (10) landing points and a cable length of 17,000km spanning from France to South Africa, with an initial landing capacity of 20Tb/s.

Based on the Construction and Maintenance Agreement (CMA) and the pattern of utilization of the ACE submarine cable, the incoming international uptake of traffic grew from 29.15 Gb/s as at December 2020 to 91 Gb/s in December 2024. The incoming international traffic dramatically increased from 67.45 Gb/s in December 2023 to 91 Gb/s in December 2024, representing a growth rate of 34.91%%. Additionally, the outgoing international traffic increased from 5.84 Gb/s in December 2020 to 16 Gb/s in December 2024. There was moderate increment of outgoing traffic from 12.44 Gb/s to 16 Gb/s, indicating a growth rate of 28.62%.

The data on cumulative incoming and outgoing international traffic on the subsea cable are provided in Table 1.30.

Table 1. 30 Total ACE Subsea International Traffic (Gb/s)

Total Traffic	Year on Year					Year on Year
	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024	Growth (%)
Cumulative Total Incoming International Traffic (Gb/s)	29.15	34.76	47.45	67.45	91	34.91
Cumulative Total Outgoing International Traffic (Gb/s)	5.84	7.29	8.13	12.44	16	28.62

The pictorial representation of the ACE subsea cable incoming and outgoing international traffic is shown in Figure 1.15.

Figure 1. 15 Total ACE Subsea International Traffic (Gb/s)
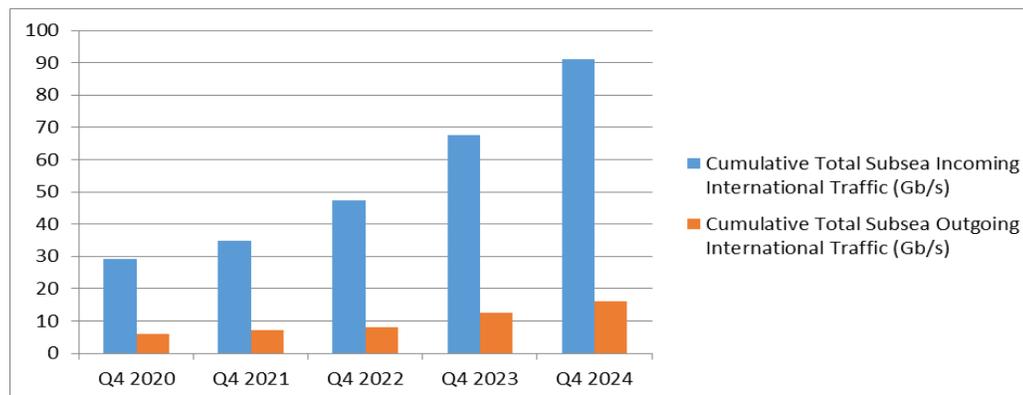
1.1.8 Terrestrial Fiber Optic Cable Operations

Aside MNOs that have authorization to deploy terrestrial fiber cable pursuant to the relevant provisions of their 4G license, the terrestrial fiber optic cable infrastructure that is based on open access regime, is managed and operated by Leonecom and Metro Cable.

At the moment, Leonecom has the exclusive right to manage and operate terrestrial fiber cable backbone across the country. Following the completion of various terrestrial projects, the deployment of inland fiber optic backbone increased from 1,000 km in December 2020 to 1,632 km in December 2024. No significant deployment of terrestrial fiber optic cable was undertaken in 2024. Similarly, the total traffic traversing the inland fiber optic cable backbone dramatically grew from 8 Gb/s in December 2020 to 45 Gb/s in December 2024. The transmission of traffic by various operators including MNOs and ISPs gradually increased from 30 Gb/s in December 2023 to 45 Gb/s in December 2024, representing a significant growth of 50%.

The data on the cumulative total length of terrestrial fiber optic cable deployed and cumulative total traffic traversing inland fiber optic cable is provided in Table 1.31.

Table 1. 31 Cumulative Total Length of Fiber Cable (km) - Leonecom

Total Cable Length & Traffic	Year on Year					Year on Year
	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024	Growth (%)
Cumulative Total Length of Fiber Cable (Km)	1,000	1,000	1,600	1,632	1,632	0.00
Cumulative Total Traffic Traversing Terrestrial Fiber Cable Network (Gb/s)	8	12	23	30	45	50.00

The pictorial representations of the cumulative total length of terrestrial fiber optic cable deployed and cumulative total traffic traversing inland fiber optic cable is shown in Tables 1.16 and 1.17 respectively.

Figure 1. 16 Cumulative Total Length of Fiber Cable (km) - Leonecom

Cumulative Total Length of Fiber Cable (km)
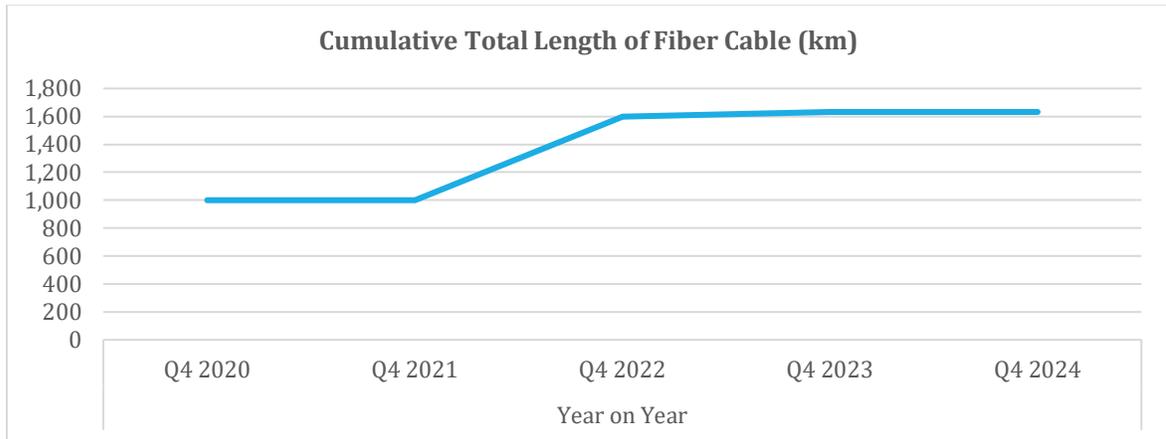
Figure 1. 17 Cumulative Total Traffic Traversing Terrestrial Fiber Cable Network (Gb/s) - Leonecom

Cumulative Total Traffic Traversing Terrestrial Fiber Cable Network (Gb/s)
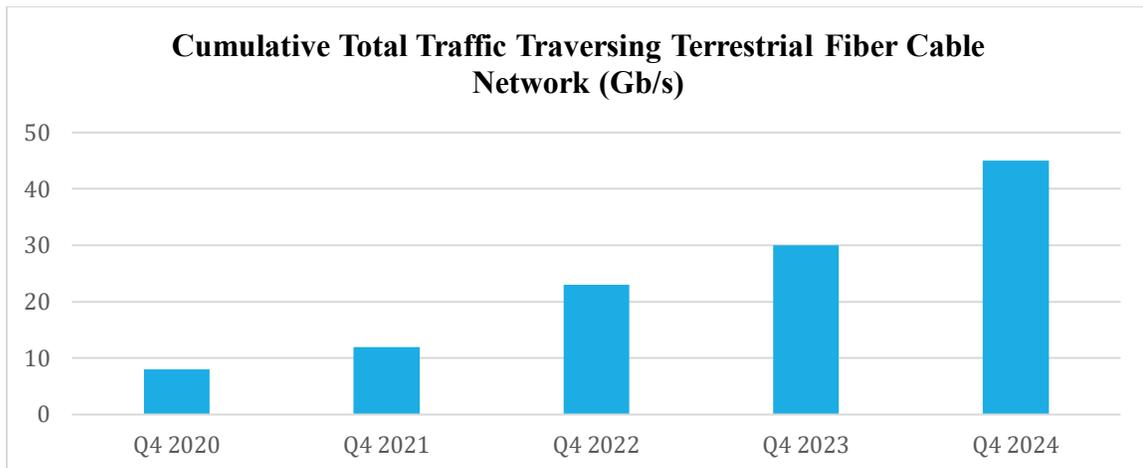
In 2024, Metro Cable operated a license to deploy metropolitan fiber optic infrastructure in the capital city of Sierra Leone. During the year under review, the company actively engaged in the rollout of aerial fiber optic cables across the Western Area Urban and Western Area Rural Districts, with the objective of enhancing last-mile connectivity for ISPs and expanding access for customers to high-speed broadband services.

Prior to 2024, aerial fiber optic deployment was minimal, with only a few kilometers of underground cable laid by SIERRATEL in 2020. The deployment of metropolitan fiber optic aerial cable by Metro Cable gradually grew from 30 km in December 2021 to 750 km in December 2024. The cumulative total length of metropolitan fiber optic cable steadily increased from 659 km in December 2023 to 750 km in December 2024, representing a growth rate of 13.81%. The data on the cumulative total length of metropolitan fiber optic cable deployment is provided in Table 1.32.

Table 1. 32 Cumulative Total Length of Fiber Cable (Km) Deployed by Metro Cable

Total Cable Length	Year on Year					Year on Year
	Q4 2020	Q4 2021	Q4 2022	Q4 2023	Q4 2024	Growth (%)
Cumulative Total Length of Fiber Cable (Km)	0	30	587	659	750	13.81

The pictorial representation of the cumulative total length of metropolitan fiber optic cable deployment is shown in Figure 1.18.

Figure 1. 18 Cumulative Total Length of Fiber Cable (km) Deployed by Metro Cable
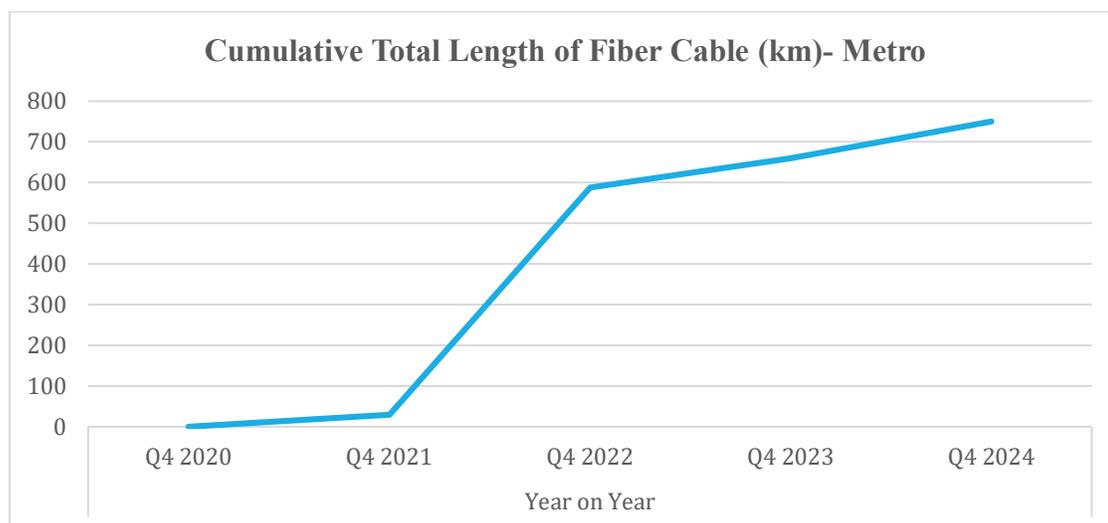
1.1.9   Regulated Services

The National Communications Authority is established, among other things, to license and regulate electronic communications operators. In the pursuit of its mandate, the Authority provides the enabling environment to operators and service providers to deliver different services, regulated by the Authority, to ensure optimal quality of service and enhanced service delivery to end-users, avoid market failure, foster effective competition and increase access to emerging technologies.

In accordance with the provisions of the Telecommunications Licensing Regulations 2020, twenty-seven (27) services outlined in Table 1.33 are regulated by the Authority.

Table 1. 33 Regulated Services

No.	Regulated Services		No.	Regulated Services
1	Cellular Technologies and Access Frequencies (2G, 3G & 4G)		15	Infrastructure Services- International Broadband Gateway
2	Fixed Telephone Network		16	Numbering Administration including Short Codes, USSD code, etc.
3	Frequency Modulation (FM) Broadcasting		17	Type Approval, Type Acceptance and Type Modifications
4	Television (TV) Broadcasting		18	Communications Value Added Services (VAS)
5	Broadband Wireless Access		19	Local Voice over Internet Protocol (VoIP)
6	Internet/Public Data Service Provision		20	Short Message Services (SMS) Gateway
7	Microwave Radio Frequencies		21	Unstructured Supplementary Service Data (USSD) Gateway
8	Aeronautical Radio		22	Dealership
9	Amateur Radio		23	Installer's Authorization
10	Maritime Radio		24	Very Small Aperture Terminal (VSAT)
11	Infrastructure Services- Telecommunications Tower/Mast		25	Landing Right Authorization
12	Infrastructure Services- Terrestrial Fiber Optic Cable		26	Mobile Satellite Services (MSS)/GMPCS
13	Infrastructure Services- Mobile Money Transactions or Financial Technologies		27	Trunk Radio Network
14	Infrastructure Services- International voice Gateway			

1.1.10 CHALLENGES

Amidst the varying achievements in 2024, the Department of Engineering and Infrastructure had the following challenges:

- Lack of radio frequency spectrum monitoring and management tools to access spectrum occupancy and harmful interference.
- Lack of Type Approval laboratory to determine the standards of imported electronic communications equipment.
- Increase in Over-The-Top (OTT) traffic thereby reducing international traffic volumes.
- Inadequate tools and equipment to conduct engineering and regulatory tasks.
- Lack of required equipment to conduct drive test to ascertain the Quality of Service (QoS) and Quality of Experience (QoE) parameters of telecommunications services.
- Lack of SIM Box detection equipment to combat SIM Box fraud.

1.1.11 RECOMMENDATIONS

Based on the prevailing circumstances and envisaging advancement in technologies and services, the following are recommended:

- Acquire radio frequency spectrum monitoring and management tools.
- Devise a mechanism of mitigating the increase OTTs traffic thereby restoring high international traffic volumes.
- Procure the required equipment to conduct drive test to access QoS and QoE.
- Procure SIM Box Buster equipment to track grey traffic and pinpoint locations of grey traffic termination.
- Review Telecommunications Quality of Service (QoS) Regulations 2020 to include per sector or cell analysis rather than per site.
- Review Telecommunications Licensing Regulations 2020 to include services of emerging technologies.
- Review Telecommunications Radio Frequency Spectrum Regulations 2020 to include ITU approved frequencies.
- Review Telecommunications Electronic Communication Equipment Type Approval Regulations 2020 to optimize the list of equipment to be type approved.
- Facilitate the migration of analogue broadcasting technology to digital broadcasting technology in compliance with the Geneva 2006 Agreement of ITU.

2.0   DEPARTMENT OF REGULATORY ADMINISTRATION

2.1.1   BACKGROUND

The Department of Regulatory Administration (DRA) is entrusted with the responsibility of stabilizing the performance of Sierra Leone's Telecommunications and Information Communication Technology (ICT) sector by ensuring strict adherence to the provisions outlined in the National Communications Authority (NatCA) Act 2022.

In fulfilling its mandate, the Department applies compelling and rigorous enforcement tools to promote regulatory compliance across diverse licensing regimes and evolving market dynamics. Its work ensures that operators uphold service standards, consumer protections, and sectoral integrity.

2.1.2   Core Functions

- **Regulatory Development**: Develop telecommunications regulations in accordance with **Section 194** of the NatCA Act.
- **Licensing Oversight**: Review, generate, and manage all types of licenses and authorizations for approved communications services.
- **Compliance Enforcement**: Administer and enforce compliance with license conditions and monitor adherence to service obligations.
- **Service Monitoring**: Determine regulatory compliance with services offered by licensed operators.
- **Standards Formulation and Enforcement**: Formulate and enforce standards for telecommunications and IT systems.
- **International Standards Alignment**: Review and update standards approved by **ITU, ATU, CTO, WATRA, ECOWAS, ETSI, and FCC**, ensuring conformity with assigned spectral bands.
- **Tariff Regulation**: Lead the review and monitoring of tariffs applicable to telecommunications services and ensure operators comply with advertised offerings.
- **International Rate Determination**: Lead in setting international rates and participate in dispute resolution processes as required.
- **Numbering Plan Administration**: Develop and manage the **National Numbering Plan (NNP)** for the domestic telecommunications market.
- **Global Coordination**: Coordinate with and update the **ITU** on numbering issues in line with international best practices.
- **Number Block Management**: Supervise the sale and administration of number blocks for new applications and deployed services.
- **Sectoral Data Reporting**: Collate and report ICT industry data on a periodic basis.
- **Cybersecurity and Awareness**: Ensure the mitigation of cybercrime and promote cybersecurity awareness across the sector.
- **Revenue Assurance and Fraud Management**: Safeguard revenue streams and lead efforts in fraud detection and prevention.

2.1.3 THE TELECOMMUNICATIONS INDUSTRY AT A GLANCE

2.1.3.1 LICENSING OF SERVICE PROVIDERS

As part of its core mandate to oversee and review the issuance of all license types and authorizations for approved telecommunications services, the Authority has continuously enhanced its licensing regime to reflect market dynamics and regulatory best practices.

In response to increased demand and a competitive business environment, NatCA has implemented unified licensing frameworks to accommodate new service providers and foster innovation across the sector. These reforms have led to the entry of new operators and the expansion of service offerings in Sierra Leone's telecommunications market.

2.1.3.1.1 Mobile Network Operators (MNOs)

- All five licensed MNOs have 4G licenses.
- Orange and Africell operate on 4G+, offering enhanced speeds and coverage.
- Four MNOs (Africell, One Mobile, Orange, & Qcell) are currently undergoing 5G trials, with the newest entrant, One Mobile, deploying a standalone 5G network.

2.1.3.1.2 Licensing Expansion

The industry has recorded a notable increase in the licensing of:

- Internet Service Providers (ISPs)
- Fintech platforms
- Short Code Users
- Broadcast entities (TV & FM Stations)
- VHF/UHF Radio operators
- Type Approval authorizations for electronic communication equipment

2.1.3.1.3 Licensing Regulations and Revenue Streams

The Licensing Regulations enacted in 2020, currently under review, have enabled the introduction of new revenue streams by expanding license categories to include:

- Individual and Class Licenses
- Infrastructure-Based and Service-Based Licenses
- Value Added Service Providers (VASPs)
- Special Numbering Resource Users

These reforms support a more flexible and inclusive licensing environment, aligned with international best practices.

2.1.3.2   ICT Service Provider Database

NatCA has developed and maintains a centralized database of ICT Service Providers, which:

- Reflects all licensed entities
- Tracks regulatory compliance and license fee payments
- Supports transparency and operational oversight

2.1.3.3   Sectoral Statistics and Public Access

Comprehensive statistical data on:

- Licensed telecommunications operators
- Subscriber volumes

Network coverage by technology have been collated and published on the Authority's official website: www.natca.gov.sl.

2.1.3.4   Industry Snapshot: 2024

Below is a detailed breakdown of the telecommunications industry as of 31st December 2024, capturing the entry and exit of service providers under NatCA's diversified licensing administration. This reflects the Authority's commitment to market openness, regulatory modernization, and service innovation.

2.1.4   SERVICE PROVIDERS

The following table presents the distribution of licensed service providers across Sierra Leone's telecommunications and broadcasting sectors:

<div align="center">

Table 2. 1 Licensed Service Providers

</div>

CATEGORY	No. OF LICENSED ENTITIES
MOBILE NETWORK OPERATORS (MNOS)	5
INTERNET SERVICE PROVIDERS (ISPS)	35
SATELLITE ISPS / VENDORS	3
ICT VENDORS	2
TELEVISION STATIONS	20
FM RADIO STATIONS (FREQUENCY MODULATION)	202
VSAT OPERATORS (VERY SMALL APERTURE TERMINAL)	3
VHF/UHF RADIO USERS	21
VALUE-ADDED SERVICE PROVIDERS	5
SHORT CODE USERS	209
SHIP STATIONS	15

Notes and Clarifications

- Although four MNOs are currently active, five were licensed during the reporting period, including Sierratel, which still operates a fiber-based data network.
- A total of 35 ISPs held valid licenses to provide internet services nationwide.
- 20 television stations were in operation, with ongoing updates and renewals.
- 202 FM radio stations were authorized to broadcast under valid frequency licenses.
- Licensing also extended to specialized users such as short code holders, ship stations, and radio operators using VHF/UHF and VSAT technologies.

This summary reflects the diversified licensing landscape shaped by NatCA's regulatory reforms and market liberalization efforts.

2.1.5 FM STATIONS

Summary of the FM Station Analysis: 50% (Commercial), 19.8% (Religious), and 18.8% (Community-based). Freetown hosts the largest share (24.3%) of all stations, followed by Kenema (12.4%) and Bombali (9.4%).

Table 2. 2 List of FM Stations

NO	STATION NAME	COURAGE AREA	FREQ CHANNEL (MHZ)	BUSINESS CLASS
1	BELIEVERS BROADCASTING NETWORK (BBN)	FREETOWN	92.9	RELIGIOUS
2	REDEEMER RADIO	FREETOWN	92.5	RELIGIOUS
3	AIR RADIO	FREETOWN	105.3	COMMERCIAL
4	SLBC FT (STATE)	FREETOWN	100.1	PUBLIC
5	RADIO DEMOCRACY	FREETOWN	98.1	COMMERCIAL
6	RADIO KALLEONE	FREETOWN	105.7	COMMERCIAL
7	UNIVERSAL RADIO	FREETOWN	98.9	COMMERCIAL
8	VOHANDICAP	FREETOWN	96.1	COMMUNITY
9	SKY RADIO	FREETOWN	106.5	COMMERCIAL
10	KIDS RADIO	FREETOWN	102.9	COMMERCIAL
11	RADIO I AM	FREETOWN	97.7	RELIGIOUS
12	TUMAC RADIO	FREETOWN	89.3	COMMERCIAL
13	AHAMADIYA MUSLIM	FREETOWN	91.7	RELIGIOUS
14	RADIO TEMPO	FREETOWN	94.9	COMMERCIAL
15	FREEDOM RADIO	FREETOWN	90.1	COMMERCIAL
16	EAGLE RADIO	FREETOWN	91.3	COMMERCIAL
17	CAPITAL RADIO	FREETOWN	104.9	COMMERCIAL
18	DESTINY RADIO	FREETOWN	94.1	RELIGIOUS
19	FREETOWN RADIO	FREETOWN	90.5	COMMERCIAL
20	CHOICE RADIO	FREETOWN	93.6	COMMERCIAL

21	BBC RADIO	FREETOWN	94.5	PUBLIC (FORIEGN)
22	ELIM RADIO	FREETOWN	104.1	RELIGIOUS
23	MERCURY RADIO	FREETOWN	92.1	COMMERCIAL
24	EDUCATION RADIO	FREETOWN	95.3	EDUCATION
25	RADIO MARIA	FREETOWN	90.9	RELIGIOUS
26	VOICE OF KORAN	FREETOWN	95.7	RELIGIOUS
27	MOUNT AUREOL RADIO	FREETOWN	107.3	EDUCATION
28	VOICE OF ISLAM RADIO	FREETOWN	102.1	RELIGIOUS
29	AYV RADIO	FREETOWN	101.7	COMMERCIAL
30	COUNTRY RADIO	FREETOWN	88.9	COMMERCIAL
31	STAR RADIO	FREETOWN	103.3	COMMERCIAL
32	VOICE OF GRACE	FREETOWN	88.5	RELIGIOUS
33	VOICE OF HOPE	FREETOWN	93.7	RELIGIOUS
34	RADIO FRANCE INT.	FREETOWN	89.7	PUBLIC (FORIEGN)
35	VOICE OF AMERICA (VOA)	FREETOWN	102.5	PUBLIC (FORIEGN)
36	ZCAMI RADIO	FREETOWN	96.9	RELIGIOUS
37	JESUS IS LORD RADIO	FREETOWN	101.3	RELIGIOUS
38	TRUE TOK RADIO	FREETOWN	98.5	COMMERCIAL
39	MERCY RADIO	FREETOWN	100.9	RELIGIOUS
40	THE DOOR CHURCH RADIO	FREETOWN	107.9	RELIGIOUS
41	CITIZEN RADIO	FREETOWN	103.7	COMMERCIAL
42	HANDS OF HOPE (GENDER FM)	FREETOWN	100.5	COMMERCIAL
43	FRY FRY RADIO	FREETOWN	97.1	COMMERCIAL
44	PAN AFRICAN STV	FREETOWN	89.9	EDUCATION
45	RISE RADIO	FREETOWN	96.3	COMMERCIAL
46	EPIC RADIO	FREETOWN	99.3	COMMERCIAL
47	HOT FM	FREETOWN	88.1	COMMERCIAL
48	SEVENTH DAY ADVENTIST	FREETOWN	107.7	RELIGIOUS
49	TRUTH RADIO	FREETOWN	103.9	COMMERCIAL
50	VICTORY FM RADIO	WESTERN RURAL	88.1	COMMERCIAL
51	CULTURE RADIO	WESTERN RURAL	104.5	COMMERCIAL
52	AL-MIMBARR RADIO	WESTERN RURAL	90.3	RELIGIOUS
53	VOICE OF PEACE DEV(VOPD)	WESTERN RURAL	96.5	COMMUNITY
54	VIASCITY RADIO	WESTERN RURAL	100.5	COMMERCIAL
55	VOICE OF PENNISULAR/TOMBO	WESTERN RURAL	96.1	COMMUNITY
56	RADIO LION MOUNTAIN	WESTERN RURAL	101.3	COMMERCIAL
57	VOICE OF SHEPHERD	WESTERN RURAL	88.7	RELIGIOUS
58	UNITED VENTURES RADIO	WESTERN RURAL	103.1	COMMERCIAL
59	VISION FM	WESTERN RURAL	91.5	COMMERCIAL

60	BANANA ISLAND RADIO	WESTERN RURAL	103.7	COMMUNITY
61	ACTIVIST POWER RADIO	WESTERN RURAL	97.3	COMMERCIAL
62	HOREMOW RADIO	WESTERN RURAL	87.7	RELIGIOUS
63	VOICE OF SALONE NW (YARMS FARM)	WESTERN RURAL	91.9	COMMERCIAL
64	RUMBA FM (GODERICH)	WESTERN RURAL	89.3	COMMERCIAL
65	PIKIN TOK RADIO (GRAFTON)	WESTERN RURAL	91.1	ADVOCACY/COMMERCIAL
66	AMERICAN POP RADIO	WESTERN RURAL	90.7	COMMERCIAL
67	RADIO BANKASOKA	PORT LOKO	97.5	COMMUNITY
68	ADVOCACY RADIO	PORT LOKO	99.5	ADVOCACY/COMMERCIAL
69	SISTA RADIO (LUNGI)	PORT LOKO	95.9	COMMERCIAL
70	LUNSAR RADIO	PORT LOKO	99.1	COMMUNITY
71	CRYSTAL RADIO(LUNSAR)	PORT LOKO	100.5	COMMERCIAL
72	MASS RADIO (MASIAKA)	PORT LOKO	90.2	COMMUNITY
73	GALAXY RADIO (LUNGI)	PORT LOKO	106.1	COMMUNITY
74	TRANSIT RADIO (LUNGI)	PORT LOKO	100.3	COMMERCIAL
75	YANKESS RADIO (LUNGI)	PORT LOKO	88.3	COMMERCIAL
76	VOICE OF YOUTH (SONGO JUNCTION)	PORT LOKO	107.1	COMMERCIAL
77	RADIO NEW SONG (SONGO)	PORT LOKO	91.3	RELIGIOUS
78	RURAL FARMERS (RFM) RADIO_PORT LOKO	PORT LOKO	98.9	COMMERCIAL
79	RADIO KHALIZA (ROKUPR)	KAMBIA	89.2	COMMUNITY
80	RADIO KOLENTEN	KAMBIA	90.7	COMMUNITY
81	RADIO MARWOPNET (GBALAMUYA)	KAMBIA	88.3	COMMUNITY
82	SCARCIES RADIO	KAMBIA	90.1	COMMUNITY
83	CART-BARMING	KAMBIA	106.7	COMMUNITY
84	RADIO BANKHI SOLOFARAY	KAMBIA	93.7	COMMUNITY
85	WUSUM RADIO (MAKENI)	BOMBALI	88.5	COMMERCIAL
86	MANKENEH RADIO(MAKENI)	BOMBALI	96.1	COMMUNITY
87	HOPE FM (MAKENI)	BOMBALI	93.3	COMMERCIAL
88	AMZA RADIO (MAKENI)	BOMBALI	96.9	COMMERCIAL
89	VOICE OF SALVATION (MAKENI)	BOMBALI	88.9	RELIGIOUS
90	BBC RADIO (MAKENI)	BOMBALI	91.7	PUBLIC (FORIEGN)
91	CAPITAL RADIO (MAKENI)	BOMBALI	103.3	COMMERCIAL
92	AHMADIYYA RADIO (MAKENI)	BOMBALI	107.7	RELIGIOUS
93	MARIA RADIO (MAKENI)	BOMBALI	101.1	RELIGIOUS
94	SLBC(MAKENI)	BOMBALI	88.1	PUBLIC
95	AIRADIO (MAKENI)	BOMBALI	105.3	COMMERCIAL
96	REDEEMER RADIO (MAKENI)	BOMBALI	97.3	RELIGIOUS
97	AYV (MAKENI)	BOMBALI	101.7	COMMERCIAL
98	FRY FRY RADIO (MAKENI)	BOMBALI	97.1	COMMERCIAL

99	EDUCATION RADIO (MAKENI)	BOMBALI	95.3	EDUCATION
100	RADIO NEW SONG (MAKENI)	BOMBALI	97.7	RELIGIOUS
101	RADIO LOMTI (MAKENI)	BOMBALI	97.7	COMMERCIAL
102	JICC RADIANT RADIO - MAKENI	BOMBALI		COMMERCIAL
103	RURAL FARMERS (RFM) RADIO_MAKENI	BOMBALI	98.9	COMMERCIAL
104	SELLA RADIO OKENTUN(KAMAKWEI)	KARENE	94.1	COMMUNITY
105	VOICE OF KARENE (VOK) KARENE	KARENE	98.5	COMMERCIAL
106	START-N-LIGHT RADIO (KARENE)	KARENE	91.3	COMMERCIAL
107	CITIZEN RADIO (KONO)	KONO	107.5	COMMERCIAL
108	EASTERN RADIO(KONO)	KONO	96.5	COMMUNITY
109	VOICE OF KONO (KONO)	KONO	98.1	COMMERCIAL
110	NEW SONG(KONO)	KONO	91.3	RELIGIOUS
111	PEOPLE'S RADIO (KONO)	KONO	99.3	COMMERCIAL
112	SLBC(KONO)	KONO	90.1	PUBLIC
113	VOICE OF SANDOR RADIO (KONO)	KONO	95.7	COMMERCIAL
114	FRY FRY RADIO (KONO)	KONO	97.1	COMMERCIAL
115	AYV (KONO)	KONO	101.7	COMMERCIAL
116	AFRI RADIO (KONO)	KONO	105.3	COMMERCIAL
117	RURAL FARMERS (RFM) RADIO_KOIDU CITY	KONO	98.9	COMMERCIAL
118	RADIO BINTUMANI (KABALA)	KOINADUGU	93.7	COMMUNITY
119	SHALLOM (KABALA)	KOINADUGU	89.5	RELIGIOUS
120	EDUCATION (KABALA)	KOINADUGU	95.3	EDUCATION
121	FRY FRY RADIO (KABALA)	KOINADUGU	97.1	COMMERCIAL
122	RURAL FARMERS (RFM) RADIO_KABALA	KOINADUGU	98.9	COMMERCIAL
123	GBONKELENKEH RADIO (YELE)	TONKOLILI	93.7	COMMUNITY
124	REDEEMER RADIO(MAKALI)	TONKOLILI	88.9	RELIGIOUS
125	NUMBARA RADIO(BUMBUNA)	TONKOLILI	102.5	COMMUNITY
126	RADIO KONIKAY(MAKALI)	TONKOLILI	89.3	COMMUNITY
127	SLBC (MAGBURAKA)	TONKOLILI	94.1	PUBLIC
128	RADIA GBAFT (MILE 91)	TONKOLILI	91.1	COMMUNITY
129	CANADIAN COLLEGE (MILE 91)	TONKOLILI	95.7	EDUCATION
130	FRY FRY RADIO (MILE 91)	TONKOLILI	97.1	COMMERCIAL
131	RURAL FARMERS (RFM) RADIO_MAKALI	TONKOLILI	98.9	COMMERCIAL
132	VOICE OF WANJAMA(PUJEHUN)	PUJEHUN	100.1	COMMERCIAL
133	WANJEI RADIO(PUJEHUN)	PUJEHUN	101.1	COMMUNITY
134	ZIMMI RADIO (ZIMMI)	PUJEHUN	107.5	COMMUNITY
135	RADIO SAHN MALEN(SAHN MALEN)	PUJEHUN	88.5	COMMUNITY
136	VOICE OF MANSORO (FAIRO)	PUJEHUN	90.5	COMMUNITY

137	FFR FRY RADIO (PUJEHUN)	PUJEHUN	97.1	COMMERCIAL
138	NJALA RADIO (MOKONDEH CAMPUS)	MOYAMBA	92.5	EDUCATION
139	RADIO MODCAR(MOYAMBA)	MOYAMBA	94.9	COMMUNITY
140	FOUNTAIN OF PEACE (MOYAMBA)	MOYAMBA	89.7	RELIGIOUS
141	KORIE RADIO (TAIAMA)	MOYAMBA	100.5	COMMERCIAL
142	HEART FM RADIO	MOYAMBA	95.9	COMMERCIAL
143	FRY FRY RADIO (MOYAMBA)	MOYAMBA	97.1	COMMERCIAL
144	RADIO MOA (KAILAHUN)	KAILAHUN	105.7	COMMUNITY
145	SLBC(KAILAHUN)	KAILAHUN	94.9	PUBLIC
146	RADIO NJALUAHUN (SEGBWEMA)	KAILAHUN	107.7	COMMUNITY
147	RADIO KISSI BENDU (KOINDU)	KAILAHUN	107.3	COMMERCIAL
148	JAWEI DELIGHT COMMUNITY (DARU)	KAILAHUN	96.1	COMMUNITY
149	EDUCATION RADIO (KAILAHUN)	KAILAHUN	94.4	EDUCATION
150	ESATERN COMMUNITY RADIO (DARU)	KAILAHUN	89.7	COMMUNITY
151	KAMBOI AGRIC RADIO (BUEDU)	KAILAHUN	92.9	COMMERCIAL
152	VOICE OF KISSI-TONGI RADIO (BUEDU)	KAILAHUN	97.7	COMMERCIAL
153	FRY FRY RADIO (KAILAHUN)	KAILAHUN	97.1	COMMERCIAL
154	RADIO KPAVAJA	KAILAHUN	90.5	COMMERCIAL
155	SLBC KENEMA	KENEMA	93.5	PUBLIC
156	GOLA RADIO(KENEMA)	KENEMA	100.5	COMMERCIAL
157	STAR LINE RADIO(KENEMA)	KENEMA	98.5	COMMERCIAL
158	EASTERN RADIO(KENEMA)	KENEMA	100.5	COMMUNITY
159	RADIO NORGOWA(KENEMA)	KENEMA	101.3	COMMERCIAL
160	RADIO ALQURAN ALKANIN(KENEMA)	KENEMA	106.5	RELIGIOUS
161	RHEMA RADIO(KENEMA)	KENEMA	88.1	RELIGIOUS
162	VOTE FM(KENEMA)	KENEMA	88.9	COMMERCIAL
163	KAMBOI AGRIC RADIO(KENEMA)	KENEMA	92.5	COMMERCIAL
164	VOICE OF LOWER BAMBRA (TONGO)	KENEMA	104.9	COMMUNITY
165	RADIO MARIA(KENEMA)	KENEMA	90.9	RELIGIOUS
166	EDUCATION RADIO(KENEMA)	KENEMA	93.5	EDUCATION
167	AYV RADIO (KENEMA)	KENEMA	101.7	COMMERCIAL
168	CITY OF MUSIC RADIO (KENEMA)	KENEMA	103.3	COMMERCIAL
169	AIR RADIO (KENEMA)	KENEMA	105.3	COMMERCIAL
170	BBC (KENEMA)	KENEMA	95.3	PUBLIC (FORIEGN)
171	REDEEMER RADIO (KENEMA)	KENEMA	88.5	RELIGIOUS
172	ALL OUT RADIO(KENEMMA)	KENEMA	90.1	COMMERCIAL
173	FRY FRY RADIO (KENEMMA)	KENEMA	97.1	COMMERCIAL
174	NYAPUE RADIO (KENEMMA)	KENEMA	106.1	COMMERCIAL
175	TOP RADIO (KENEMMA)	KENEMA	103.7	COMMERCIAL

176	MUGBOMA FM RADIO (BLAMA)	KENEMA		COMMUNITY
177	VOICE OF KENEMA (VOK)	KENEMA	102.9	COMMERCIAL
178	RURAL FARMERS (RFM) RADIO_KENEMA	KENEMA	98.9	COMMERCIAL
179	RADIO TONYA_TONGO FIELD	KENEMA	91.3	COMMUNITY
180	REDEEMER RADIO (BO)	BO	91.3	RELIGIOUS
181	RADIO NEW SONG(BO)	BO	97.7	RELIGIOUS
182	ALL OUT RADIO(BO)	BO	92.9	COMMERCIAL
183	KISS FM(BO)	BO	104.1	COMMERCIAL
184	VOICE OF FAITH(BO)	BO	89.3	RELIGIOUS
185	AHMADIYYA RADIO (BO)	BO	88.3	RELIGIOUS
186	SLBC (BO)	BO	96.5	PUBLIC
187	EDUCATION RADIO(BO)	BO	91.5	EDUCATION
188	RADIO MARIA(BO)	BO	91.7	RELIGIOUS
189	BBC(BO)	BO	94.5	PUBLIC (FORIEGN)
190	CLASSIC RADIO(BO)	BO	99.7	COMMERCIAL
191	AYV RADIO(BO)	BO	101.7	COMMERCIAL
192	CAPITAL RADIO(BO)	BO	102.5	COMMERCIAL
193	AIR RADIO(BO)	BO	105.3	COMMERCIAL
194	SERMON ON THE MOUNTAIN	BO	107.1	RELIGIOUS
195	FRY FRY RADIO_BO	BO	97.1	COMMERCIAL
196	MOONLIGHT RADIO_BO	BO	104.5	COMMERCIAL
197	RURAL FARMERS (RFM) RADIO_BO	BO	98.9	COMMERCIAL
198	RADIO IMPERI (RUTILE)	BONTHE	93.3	COMMUNITY
199	RADIO BONTHICO_BONTHE	BONTHE	96.9	COMMUNITY
200	NGANGAY RADIO	BONTHE	99.3	COMMERCIAL
201	VOICE OF WOMEN (MATTRU)	BONTHE	88.5	COMMUNITY
202	SHALLOM(FALABA)	FALABA	93.3	RELIGIOUS

Table 2. 3 Business Class Distribution of FM Stations

BUSINESS CLASS	COUNT	PERCENTAGE
· **COMMERCIAL**	· 101	· **50.00%**
· **RELIGIOUS**	40	**19.80%**
· **COMMUNITY**	· 38	**18.81%**
· **PUBLIC**	13	**6.44%**
· **EDUCATION**	· 10	· **4.95%**

- *Commercial stations* dominate the landscape, reflecting strong private sector engagement.
- *Religious stations* form a significant share, indicating vibrant faith-based broadcasting.

- *Community stations* are widely distributed, supporting local voices and development.
- *Public and educational stations* remain essential for national coverage and learning.

Table 2. 4 Regional Distribution of FM Stations

Region	Count	Percentage
· Freetown	· 49	· 24.26%
· Kenema	· 25	· 12.38%
· Bombali	· 19	· 9.41%
· Bo	· 18	· 8.91%
· Western Rural	· 17	· 8.42%
· Port Loko	· 12	· 5.94%
· Kono	· 11	· 5.45%
· Kailahun	· 11	· 5.45%
· Tonkolili	· 9	· 4.46%
· Moyamba	· 6	· 2.97%
· Kambia	· 6	· 2.97%
· Pujehun	· 6	· 2.97%
· Koinadugu	· 5	· 2.48%
· Bonthe	· 4	· 1.98%
· Karene	· 3	· 1.49%
· Falaba	· 1	· 0.50%

- *Freetown* remains the broadcasting hub, hosting nearly a quarter of all stations.
- *Kenema, Bombali, and Bo* show strong regional broadcasting presence.
- *Western Rural and Port Loko* contribute meaningfully to the national footprint.
- *Emerging districts* like Karene and Falaba are beginning to establish local stations.

i. **Visual Summary**

Figure 2. 1 Pie Chart - Business Class Distribution for FM Stations

Business Class Distribution for FM Stations

4.95%
6.44%
18.81%
50.00%
19.80%

■ Commercial ■ Religious ■ Community ■ Public ■ Education
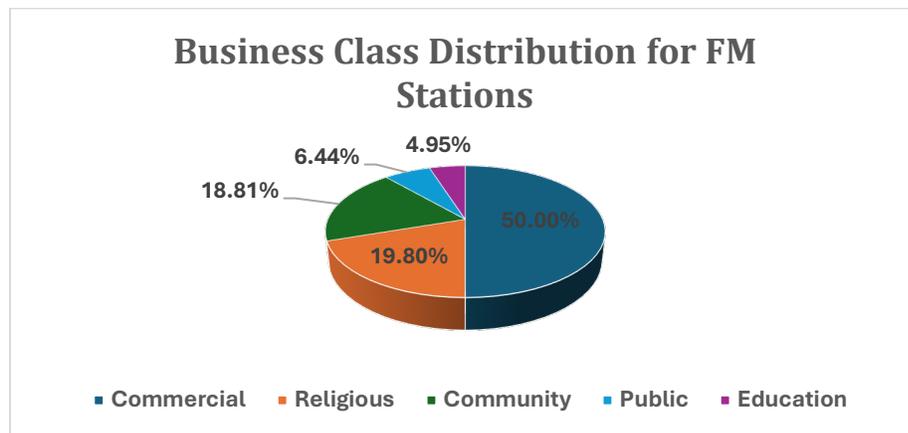
This chart highlights the dominance of commercial broadcasting, with strong representation from religious and community stations.

Heatmap – Regional Distribution
o *Freetown*: 49 stations (24.3%)
o *Kenema*: 25 stations (12.4%)
o *Bombali*: 19 stations (9.4%)
o Other regions range from 1 to 18 stations

The heatmap visually emphasizes regional broadcasting density, with Freetown as the central hub.

Figure 2. 2 Distribution of FM Station per Region
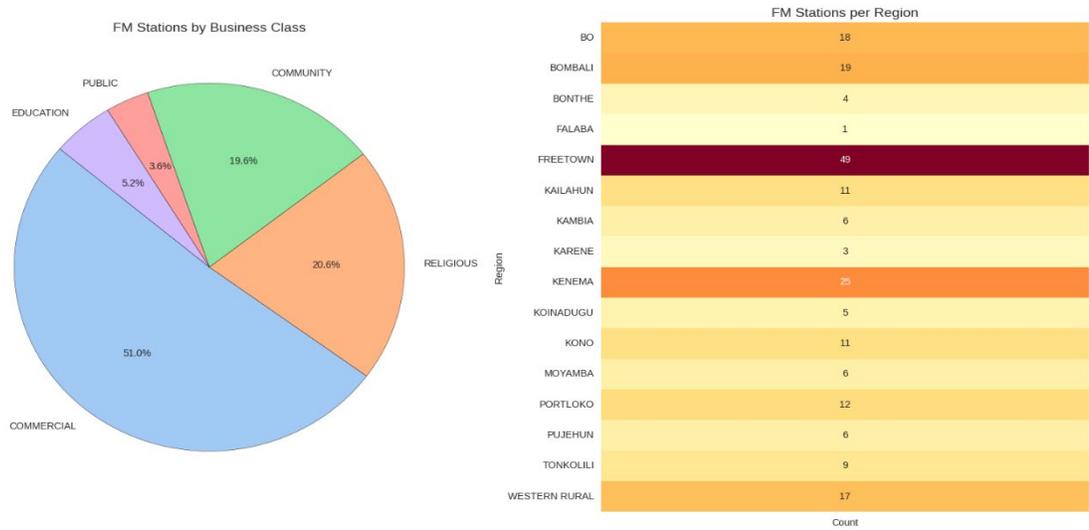
Figure 2. 3 Distribution of FM Stations by District
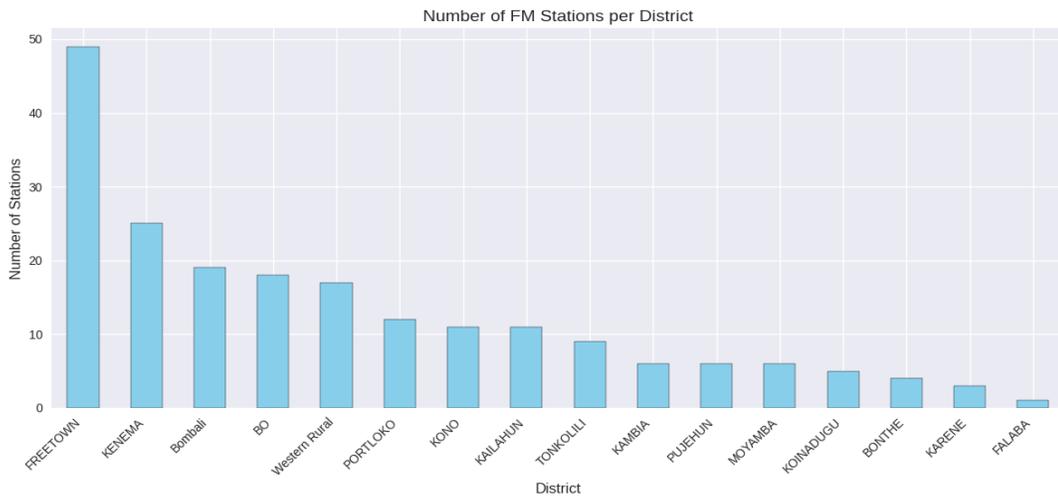
2.1.6 TELEVISION STATIONS

Analysis of TV Stations: 57% (Commercial), 19% (Religious), and 14% (Satellite/nationwide). Western Area hosts the majority (38%) of stations, followed by nationwide coverage (10%) and regional hubs like Bo, Kenema, and Makeni.

Table 2. 5 List of TV Stations

NO	COMPANY NAME	TRADE NAME	AREA(S) OF OPERATION	CHANNEL NUMBER
1	STAR MEDIA GROUP	STAR TV	WESTERN AREA	21
2	SIERRA LEONE BROADCASTING	SLBC NEWS	WESTERN AREA, BO, KENEMA, MAKENI	24 & 27
3	REDEEMER MEDIA NETWORK	REDEEMER TV	WESTERN AREA	25
4	MERCY MISSION	MERCY TV	WESTERN AREA	29 &39
5	AMAZE TELEVISION	AMAZE TV	WESTERN AREA	32
6	AFRICA YOUNG VOICES	AYV TV	WESTERN AREA, BO, KENEMA, MAKENI, KONO	33 & 34
7	FREETOWN TELEVISION NETWORK	FTN	WESTERN AREA	35
8	KARIMA TELEVISION	KARIMA TV	KENEMA CITY	36
9	CENTRAL UNIVERSITY TELEVISION	CENTRAL UNIERSIRY TV	MILE 91, TONKOLILI DISTRICT	44
10	SLIK TELEVISION	SLIK TV	WESTERN AREA	37
11	CLASSIC TELEVISION	CLASSIC TV	BO CITY	39
12	HUMBLE TELEVISION	HUMBLE TV	FREETOWN	22
13	MAGIC TELEVISION	MAGIC TV	FREETOWN	38
14	TRUTH TELEVISION	TRUTH TV	FREETOWN	26
15	SATELLITE CONNECTION	SATCON	WESTERN AREA	35, 36, 37, 40, 41, 42, 43, 44
16	iTV/Le Wireless / LUCID	LUCID	WESTERN AREA	38, 39, 45, 46, 47, 48, 49
17	Real Vision SL	Real Vision SL	WESTERN AREA	28, 30
18	STARTIMES MEDIA SATELLITE TELEVISION	STARTIMES	NATIONWIDE	
19	MULTI TELEVISION	MULTI TV	NATIONWIDE	
20	MULTICHOICE TRANSNATIONAL LTD	DSTV	NATIONWIDE	

Table 2. 6 Business Class Distribution

Business Class	Count	Percentage
Commercial	12	**57.14%**
Religious	4	**19.05%**
Satellite/Nationwide	3	**14.29%**
Public	1	**4.76%**
Educational	1	**4.76%**

- *Commercial stations* dominate the landscape, reflecting private sector investment in media.
- *Religious broadcasters* maintain a strong presence, especially in Western Area.
- *Nationwide platforms* like Startimes, DSTV, and Multi TV extend coverage across all districts.

Table 2. 7 Geographic Coverage Distribution

Region/District	Count	Percentage
Western Area	11	37.93%
Freetown	3	10.34%
Nationwide	3	10.34%
Bo	2	6.90%
Kenema	2	6.90%
Makeni	2	6.90%
Kono	1	3.45%
Kenema City	1	3.45%
Mile 91 (Tonkolili)	1	3.45%
Bo City	1	3.45%
Tonkolili District	1	3.45%

Western Area remains the broadcasting hub, hosting over a third of all TV stations.
Nationwide operators ensure broad access to satellite and subscription-based content.
Regional cities like Bo, Kenema, and Makeni show growing media footprints.

2.1.7   VERY SMALL APERTURE TERMINAL (VSAT) OPERATORS

Sierra Leone's connectivity is structured across three tiers: VSATs for niche enterprise use, ISPs for urban and Small and Medium-Sized Enterprises (SME) coverage, and Starlink for remote broadband access. As fiber networks and satellite services expand, VSATs are gradually being replaced by more scalable, cost-effective solutions. Together, these technologies form a layered framework that supports institutional, commercial, and underserved communities.

Table 2. 8 VSAT Users

No.	VSAT Operator	Business Class	Quantity
1	Socfin Agricultural Company	COMMERCIAL	1
2	World Vision	COMMERCIAL	10
3	World Bank	COMMERCIAL	1

2.1.8 VHF/UHF USERS

Table 2. 9 VHF/UHF Users

#	Operator	Base Station	Repeater	Handheld	Mobile Vehicle
1	G4S	1	2	29	0
2	OCTEA GROUP LTD.	1	4	86	0
3	Meya Mines	1	1	30	0
4	Sun Bird	1	0	18	0
5	SIERRA LEONE AIRPORT AUTHORITY (SLAA)	12	3	37	0
6	SIERRA RUTILE	14	4	186	0
7	VIMETCOM	0	0	19	0
8	NECTAR SL BULK TERMINAL	1		10	0
9	SKY Handling Partner (SHP)	5	0	13	0
10	MSF - Belgium	2	0	32	36
11	MSF - Holland	4	0	18	16
12	Kingho Investment Company Ltd	5	5	40	5
13	IC (SL) Diplomatic Security Ltd	1	1	50	4
14	GEM FAIR	0	0	5	0
15	Macauley, Bangura & Co.	0	1	6	0
16	KENYA AIRWAYS KQ	1	0	3	0
17	SITA B. V	1	0	0	0
18	Advanced Security & Management Service	1	1	1	1
19	MIRO FORESTRY SL LTD	1	2	10	22
20	MARAMPA MINES LIMITED (MML)	6	2	234	48
21	SOCFIN AGRICULTURE COMPANY	2	2	35	5
22	SIERRA LEONE BREWERY	1	1	7	0
23	WORLD VISION	0	0	10	0

2.1.9 SHIP STATIONS

Table 2. 10 SHIP STATIONS

NO.	VESSEL OWNER/	Quantity
1	SEA COACH	5
2	ATLANTIC FISHING COMPANY LTD	8
3	OK GLOBAL FISHING COMPANY LTD	3
4	OK GLOBAL FISHING COMPANY LTD	7
5	First Tricon Ltd	1
6	SIERRA FISHING COMPANY LTD	12

7	HORSE FISHING COMPANY	7
8	TIMA FISHING COMPANY	3
9	HUAANG FISHING COMPANY	2
10	TANDEEN FISHING COMPANY	2
11	RICKMA FISHING COMPANY	2
12	DEFARTES GLOBAL SERVICES CO /DIVINE SHIPPING AGENCIES	2
13	PENINSULAR FISHING COMPANY	1
14	Sierra Leone Maritime Administration (SLMA)	400
15	R & Z International	1

2.1.10 VALUE ADDED SERVICE PROVIDERS (VASPS)

Table 2. 11 VALUE ADDED SERVICE PROVIDERS (VASPS)

NO.	NAME OF INSTITUTION	ALLOCATED CODE
1	CEE DEE INVESTMENT	SMS, USSD & Voice
2	SIGMA VENTURES	SMS, USSD & Voice
3	NICHE TECHNOLOGY	SMS, USSD, VOIP & NDC
4	ROUTENOTE	USSD
5	WIREPICK	SMS

2.1.11 SHORT CODE USERS

Below is the number of short codes approved by the Authority up to 2024.

Table 2. 12 SHORT CODE USERS

SHORT CODE	NAME OF INSTITUTION
110	National Emergency Medical Services
112	National Emergency Number
113	National Fire Force
114	Anti-Human Trafficking Agency
115	Sierra Leone Red Cross Society (SLRCS)
116	Ministry of Gender and Children's Affairs
117	Ministry of Health and Sanitation
118	Lassa Fever Research Project
134	Ministry of Social Welfare (Anti-Trafficking in Persons (ATIP) Task Force)
135	National Monitoring and Evaluation Directorate
180	Orange (maternal mortality project)
202	Eastern Technical University of Sierra Leone - Kenema

218	FBC Student Union
222	Africell
228	Africell
239	TRUTH MEDIA SIERRA LEONE
299	ECOFEST MUSIC FESTIVAL COMPANY LTD
300	Freetown HQ Fire Force Station
301	Kissy Fire Force Station
302	Aberdeen Fire Force Station
303	Bo Fire Force Station
304	Makeni Fire Force Station
305	Kono Fire Force Station
306	Kambia Fire Force Station
307	Moyamba Fire Force Station
308	Kenema Fire Force Station
309	National Fire Force Training School
310	Kailahun Fire Force Station
311	Pujehun Fire Force Station
312	Port Loko Fire Force Station
313	Magburaka Fire Force Station
314	Kabala Fire Force Station
330	SEEDAC SOLUTIONS (SL) LIMITED
332	Sierra Sport Paladin
333	NATIONAL PETROLEUM (NP)
335	Niche Technologies SL LTD (CRS)
336	Easy Solar
339	Wellmax
340	Sofin
342	Trocaire (AKIS AID)
343	National Social Awards
344	Get Your Care (SL) Limited
345	MAG ENERGY
350	Solidaridad West Africa
352	MiKashBoks SL Ltd
353	SEACOACH EXPRESS
360	GEMFAIR
366	Battle Partners Ltd National Security Sector (Award of Excellence)
370	Africa Conservation Initiative Limited
377	Control Buy System (SL) Limited
380	Freetown Waste Transformers (SL) Ltd
388	AFCOM

390	CONCERN worldwide
392	AFRICELL
399	Erith Health SL Limited
454	Africell (Marketing and Sales Promotion)
475	Africell (Daily info to customers about the model & specs of Samsung project phone)
504	Sierra Leone Autistic Society
511	Plan International Sierra Leone
511	HEAL SIERRA LEONE
512	Medecine San Frontiers
521	Teen's Mum Sierra Leone
522	EMINENT WOMEN PEACE MEDIATORS SL
525	Don Bosco Fambul
530	Planned Parenthood Association of Sierra Leone (PPASL)
535	Catholic Relief Services (CRS)
540	POPULATION SERVICES INTERNATIONAL SL
545	Lizard Earth Limited
555	TRUE HOPE FOUNDATION INTERNATIONAL
560	Network of HIV Positives in Sierra Leone
567	Handicap International
569	NAMATI
570	Preparing All Citizens for Success, Sierra Leone (PACSSL)
572	Pentecostal Fellowship of Sierra Leone
585	Center for Environmental Justice and Climate Change
591	Planned Parenthood Association of Sierra Leone
599	Rainbo Initiative
701	VENDTECH GROUP
711	Sigma Ventures Limited
715	Digitallé Global Limited
720	Routenote
727	TXT Africa SL Limited
730	WATER4EVER COMPANY
747	Elephant Bet
770	Bwinners (SL) Limited
777	GinusBet
787	Wazaa Bet
790	MASS LINK LIMITED
799	MASS LINK LIMITED
810	National Social Security and Insurance Trust (NASSIT)
811	National Social Security and Insurance Trust (NASSIT)
812	National Social Security and Insurance Trust (NASSIT)

813	National Social Security and Insurance Trust (NASSIT)
814	National Social Security and Insurance Trust (NASSIT)
815	National Social Security and Insurance Trust (NASSIT)
816	National Social Security and Insurance Trust (NASSIT)
817	National Social Security and Insurance Trust (NASSIT)
818	Ministry of Information and Civic Education
819	National Social Security and Insurance Trust (NASSIT)
820	Ministry of Communication, Technology and Innovation (SLDTP)
833	Sierra Leone Local Content Agency
838	E.C.SL
840	Ministry of Lands Housing and Country Planning (SLLAP)
844	Sierra Leone Road Safety Authority
848	Ministry of Energy
853	Ministry of Basic and Senior Secondary Education (EDUCATION RADIO 95.3)
855	Sierra Leone Maritime Administration (SLMA)
858	National Civil Registration Authority (NCRA)
860	Accountable Governance for Basic Service Delivery Project (AGBSDP)
866	SALWACO
870	Sierra Leone Roads Authority (SLRA)
875	Sierra Leone Economic Diversification Project (SLEDP)
876	Ministry of Finance-RUSLP
880	National Assets and Government's (Property Authority (NAGPC)
881	Stats SL
882	Ministry Of Health And Sanitation/Red Cross
889	Bank of Sierra Leone
898	Independent Authority for Peace and National Cohesion
899	SCADeP
901	ACCESS BANK
909	Commerce and Mortgage Bank Plc
915	United Bank For Africa (UBA)
916	United Bank For Africa (UBA)
919	Rokel Commercial Bank
922	Standard Chartered Bank
930	ACTIVA International company (SL) Limited
933	BRAC Microfinance (SL) Limited
939	VISTA BANK
944	Sierra Leone Commercial Bank
955	Eco Bank Microfinance
966	ZENITH BANK
969	AFRO INTERNATIONAL

970	Sierra Leone First
977	Ecobank Sierra Leone Limited
984	FBN Bank
988	Sky Bank sierra Leone
989	Watu SL Limited
990	Wave Transfer (SL) Limited
991	Sierra Leone Financial Inclusion Project(SLSFIP)
1199	Sierra Leone National Disaster Management Agency (NDMA)
1900	Directorate of Science, Technology and Innovation (DSTI)
1901	Directorate of Science, Technology and Innovation (DSTI)
1919	Directorate of Science, Technology and Innovation (DSTI)
1999	Environment protection Agency
2019	NaCOVERC
2021	Africell_News
2022	Africell_News
2023	Africell_News
2024	FutureFlip Multimedia
2024	Africell_News
2025	VERTEX MEDIA
2122	Premier Media Group
2200	DE WOLFE SL LIMITED
2277	Sierra Kono District Entertainment Awards
2424	Institute for Legal Research and Advocacy for Justice (ILRAJ)
2626	Classic Media Empire Sierra Leone
2772	Cribs International Limited
2980	Africell (Daily News Service)
3223	AFRICELL
3333	Niche Technologies SL LTD
3334	SAFARCOM General Services
3434	BRAC SL LIMITED (NGO)
3435	Zero Corruption Campaign
3522	Better Business
3636	Africa Taxis Sierra Leone Limited
3669	Power Leone
3737	SMART SYSTEMS LTD
3747	Off Grid Power (SL)/PowerGen
3838	Creative Hub Africa
3999	Knowledge Network Solution
4221	AFRICELL
4222	AFRICELL

4223	AFRICELL
4224	AFRICELL
4225	AFRICELL
4239	AFRICELL
4242	AFRICELL
4545	AFRICELL
4747	AFRICELL
4849	AFRICELL
5050	NatCA Helpdesk
5111	PARTNERS IN HEALTH SL
5116	PARTNERS IN HEALTH SL
5117	PARTNERS IN HEALTH SL
5225	DKT International Inc. SL
5353	World Food Programme
5454	Action Against Hunger
5454	Action Against Hunger
5511	MSF Holland
5544	Purposeful
7171	PHEW SL LTD
7171	Easybet SL Ltd
7247	NOVA VESTA
7575	BIDNETWORK (SL) Limited
7777	LionBets & Fastwins (SL) Limited
8060	Ministry of Basic & Senior Secondary Education
8080	Ministry of Technical and Higher Education
8090	Department of Immigration
8122	Sierra Leone Civil Aviation Authority
8244	Freetown City Council
8282	Western Area Rural District Council (WARDC)
8505	Academic & Career Advisory, Counselling & Student Complaints Services (ACACSC)
8515	Anti-Corruption Authority
8585	Sierra Leone Agro-Processing Competitiveness Project
8616	National Consumer Protection Authority of Sierra Leone
9090	Urban Resilience Project
9270	Zeepay SL Limited
9292	Sierra Leone Insurance Association
9494	Protocol Innovation Limited/ Lion Pay
9595	ACTB Savings & Tariffs (SL) Limited
9737	GT Bank (SL) Limited

2.1.12 THE NATIONAL COMMUNICATIONS AUTHORITY ACT AND REGULATIONS

The NatCA Act 2022 establish a modern legal framework for telecommunications and ICT regulation in Sierra Leone. Following its enactment, NatCA initiated active reviews of the five Regulations drafted in 2020 to ensure alignment with the new Act and evolving sectoral needs. As part of this process, the Subscriber Regulations and the Communications Quality of Service (QoS) Regulations have already been ratified by Parliament, reinforcing consumer protection, service delivery standards, and operator accountability.

a. Regulations Status

   i.   Ratified Regulations
  a. Communications Quality of Service Regulations
  b. Subscriber Regulations

   ii.   Under Active Review
  a. Telecommunications Licensing Regulations
  b. Electronic Communications Equipment Type Approval Regulations
  c. Radio Frequency Spectrum Regulations
  d. Mobile Money Regulations

   iii.   Established Guidelines
  a. Guidelines on Special Numbering Resources

b. Public Engagement and Consumer Inclusion in the Telecommunications Sector

In line with its mandate under the NatCA Act 2022, the Department of Regulatory Administration has led robust public education and stakeholder engagement initiatives to enhance the delivery of quality telecommunications services across Sierra Leone.

As part of this effort, NatCA organized a nationwide Consumer Public Dialogue (CPD) series targeting ICT service subscribers. These engagements supported the rollout of newly enacted regulations and reinforced the Authority's commitment to inclusive, transparent, and participatory regulation.

The CPD model—now widely adopted by regulators across Africa—aims to foster consumer buy-in for regulatory processes, ensuring that end-users are actively involved in shaping the telecommunications landscape.

During these community engagements, the need to regulate the sector through enforceable legal instruments was clearly articulated. Speakers consistently emphasized NatCA's role in protecting consumers, holding operators accountable, and ensuring that promised services are delivered with integrity and reliability.

To complement in-person outreach, NatCA deployed targeted sensitization campaigns via electronic media across key districts. Radio interviews and discussion programs addressed critical topics including:

- The Authority's regulatory mandate and enforcement powers
- The impact of the new regulations on consumer rights and service quality
- Clarifications on emerging technologies such as 5G, spectrum management, and digital inclusion
- The importance of policy formulation and public consultation in sectoral governance

These interactive sessions created space for dialogue between community leaders, citizens, and regulators—strengthening public trust and aligning national development goals with consumer expectations.

NatCA has continued to develop additional Regulations and Guidelines aimed at strengthening consumer rights, market fairness, and operational transparency. These instruments are currently undergoing internal review and stakeholder validation ahead of Parliamentary approval.

c. Draft Regulations and Guidelines in Progress

1. National Numbering Resource Regulations
2. National Phone Registration Regulations
3. Competition Practices Regulations
4. Guidelines on Free and Promotional Telecommunications Services
5. Consumer Rights Regulations
6. Tariff Regulations
7. Mobile Money Regulations

These efforts reflect NatCA's commitment to building a responsive, inclusive, and rights-based regulatory environment—where consumers are not only protected but actively engaged in shaping the future of telecommunications in Sierra Leone.

d. Mobile Money Regulation and Collaboration

To strengthen financial inclusion and digital trust, NatCA and the Bank of Sierra Leone (BSL) reviewed and signed the formal MoU between them in 2024 for joint regulation of the mobile money sector. This partnership aligns telecom oversight with financial safeguards, ensuring mobile money services are secure, interoperable, and consumer-friendly.

i. Joint Oversight

The MoU enables coordinated regulation of:

- Licensing and supervision of mobile money operators
- Interoperability across networks and financial institutions
- Consumer protection and dispute resolution
- Fraud detection and AML compliance

ii. Draft Guidelines

NatCA and BSL have developed **Mobile Money Guidelines** for:

- **Operators**: Licensing, reporting, and interoperability standards
- **Agents**: Registration, transaction limits, and conduct rules
- **Users**: Transparent pricing, grievance redress, and data protection
- **Third Parties**: Integration protocols for banks, Fintechs, and aggregators

iii. Impact & Next Steps

The framework promotes safe, inclusive digital payments—especially in underserved areas. Stakeholder validation is ongoing, with formal adoption expected after parliamentary review. NatCA and BSL will jointly monitor implementation and compliance.

e. HANDLING CYBERCRIME AND CYBERSECURITY

In its exercise to fight cybercrime and at the same time enhance cybersecurity, the Authority worked with Law Enforcement Agencies like the Cyber Unit of the Sierra Leone Police (SLP) Criminal Investigation Department (CID) to handle issues of cybercrime and cybersecurity after the signing of an MOU with the Scientific Support Unit of the SLP to tackle such crimes. Different fraud detection mechanisms were put in place to recover stolen phones and combat mobile money fraud.

The Department developed specifications to procure a sectorial cybersecurity laboratory (CERT) for forensic investigations and surveillance.

f. NUMBERING MANAGEMENT

- Proper monitoring of assigned numbering blocks was done to determine actual utilization and minimize number misuse through Wangiri, ClickFarm, Simbox SIM Swap, and other methods of committing fraud.
- The Authority gets support from its membership Telecommunications regulatory bodies like ITU, WATRA and ATU to fight different kinds of fraud.
- As subscribers numbers grew, different Mobile Network Operators (MNOs) had their number blocks exhausted. As a result, MNOs requested from the Authority through the normal processes as stated in the Act and Numbering Regulations for additional National Destination Codes (NDCs) to be allocated to them.

Below is the distribution of NDCs in service.

Table 2. 13 NDCs per MNOs

OPERATOR	NETWORK DESTINATION CODE (NDC)	SUBSCRIBER NUMBER
ORANGE	71	XXX XXX
ORANGE	72	XXX XXX
ORANGE	73	XXX XXX
ORANGE	74	XXX XXX
ORANGE	75	XXX XXX
ORANGE	76	XXX XXX
ORANGE	78	XXX XXX
ORANGE	79	XXX XXX
AFRICELL	30	XXX XXX
AFRICELL	33	XXX XXX
AFRICELL	70	XXX XXX
AFRICELL	77	XXX XXX
AFRICELL	80	XXX XXX
AFRICELL	88	XXX XXX
AFRICELL	90	XXX XXX
AFRICELL	99	XXX XXX
QCELL	31	XXX XXX
QCELL	32	XXX XXX
QCELL	34	XXX XXX
QCELL	35	XXX XXX
SIERRATEL (CDMA)	25	XXX XXX
SIERRATEL (FIXED LINE)	22	XXX XXX
SMART TELECOM	44	XXX XXX

Note: Each NDC accommodates 1,000,000 (One Million Subscribers).

2.1.13 COMPLIANCE CHECKS, DEBT RECOVERY FOR INCREASED REVENUE

i. Revenue Generation

The Department undertook nationwide compliance checks on Service Providers including Mobile Network Operators (MNOs), Internet Service Providers (ISPs), Type Approval, VSAT, VHF, Short Code Users, Satellite Phone Users, and FM & TV Stations in order to verify resource allocation, service usage, invoices and payments, and outstanding bills.

The compliance checks led to the recovery of outstanding bills that graduated into debts on Service Providers. Following an operational MoU signed between NatCA and the National Revenue Authority (NRA) to improve on inter-agency cooperation, staff of NatCA and NRA

worked together on the revenue collection drive that resulted in the recovery of over 24% of outstanding bills that were nearly lost. Payment plans were agreed on with all the operators in arrears.

However, a number of challenges were encountered during the debt recovery and compliance operations including:

- Payments were made at the Bank of Sierra Leone without proper entries noted, e.g., for application fees, TV licenses, VSAT, VHF, or other type on the bank deposit slip. This made it difficult for the payment to be traced by Finance Department.
- Information sharing between NRA and Finance Department was a major challenge as when payments were made, they found it difficult to track them.

As a result of the Authority's proactiveness and results-oriented leadership, projections were made to recover the remaining debts before the end of 2024 with the help of NRA.

2.1.14 ENFORCEMENT AGAINST UNREGULATED SIM CARD SALES & NIN-SIM INTEGRATION

In line with its mandate under the NatCA Act 2022, the Department of Regulatory Administration continued to enforce strict compliance with SIM registration protocols. During nationwide inspections, thousands of preactivated SIMs were confiscated for violating registration procedures outlined in the Subscriber Identification and Registration Management Regulations. In 2024 alone, more than **4,000 SIM cards** were seized, which served as deterrent to the sales of SIMs without proper registration.

Building on this enforcement momentum, NatCA mandated the full implementation of NIN-SIM integration across all Mobile Network Operators (MNOs), starting effectively in 2024. This national directive required subscribers to link their National Identification Number (NIN) on the National ID card administered by the National Civil Registration Authority (NCRA) to their SIM cards, ensuring secure identity verification and reducing fraud, impersonation, and cybercrime.

MNOs responded with comprehensive operational measures, including digital onboarding platforms, mobile registration campaigns, and enhanced customer support to facilitate subscriber compliance. NatCA also contributed a Technical Report to the ITU, sharing Sierra Leone's integration framework and lessons learned as part of global best practice exchange.

Complementing these efforts, the Authority continued to conduct raids, arrests, and public sensitization on cyber-related offenses such as illegal SIM sales, mobile phone theft, impersonation, and harmful social media activity. These actions reinforced NatCA's commitment to a secure, inclusive, and accountable digital ecosystem.

2.1.15 TARIFF HARMONIZATION AND COST-BASED REGULATION

The NatCA through the Department of Regulatory Administration continued to implement strategic tariff harmonization measures to promote affordability, transparency, and fair competition in the telecommunications sector.

Key reforms included the removal of surcharges on outgoing international calls, the elimination of price caps on incoming and outgoing international traffic, and a reduction in the Mobile Termination Rate (MTR) for off-net calls. These interventions were designed to align retail pricing with underlying cost structures and regional benchmarks.

On **5th November 2023**, NatCA introduced revised tariff thresholds for domestic services:

- **Floor Price for Voice Calls**: Le 1.63/Min
- **Ceiling Price for Voice Calls**: Le 1.86/Min
- **Floor Price for Data**: Le 20 per GB
- **Mobile Termination Rate (MTR)**: Le 0.47/Min

These adjustments reflect a more granular, cost-reflective approach to pricing. To support evidence-based regulation, NatCA commissioned a comprehensive Cost Model in 2024, developed by a consultant engaged through a competitive procurement process. The model was to provide a robust analytical framework for determining cost-oriented tariffs across all telecommunications products and services.

Following the model's completion, NatCA began implementing key recommendations, including adjustments to wholesale and retail pricing structures, enhanced tariff monitoring mechanisms, and the development of forward-looking pricing scenarios to support universal access and investment sustainability.

These reforms mark a significant shift toward data-driven, transparent tariff regulation, reinforcing NatCA's commitment to consumer protection, market efficiency, and sectoral growth.

Table 2. 14 TARIFF SCHEDULE

Service Category	Unit / Volume	Africell	Orange	Qcell	Sierratel	One Mobile	Starlink
Voice	**Per minute**	Africell: Le 1.86	Africell: Le 1.86	Africell: Le 1.70	—	—	—
		Orange: Le 1.86	Orange: Le 1.86	Orange: Le 1.70			
		Qcell: Le 1.86	Qcell: Le 1.86	Qcell: Le 1.70			
SMS	**Per message**	Africell: Le 0.09	Africell: Le 0.14	Africell: Le 0.14	—		—
		Orange: Le 0.14	Orange: Le 0.09	Orange: Le 0.14			
		Qcell: Le 0.14	Qcell: Le 0.14	Qcell: Le 0.05			
SMS – Intl.	**Per message**	Le 1.50	Le 0.80	Le0.50	—		—
Data – Daily Bundle	10–20 MB	15MB / Le 0.40	15MB / Le 0.41	10MB / Le 0.19	—	20Mbps/ Le29	—
Data – Weekly Bundle	60MB–150MB	100MB / Le 2.00	115MB/Le 2.50	-	—	50Mbps/ Le199	—
Data – Monthly Bundle	1GB–3GB	1GB / Le 20.00	3GB / Le 62.00	1.5GB / Le 30.00	—	100Mbps/ Le799	—
MiFi – Monthly	**Speed-based**	4G LTE / Le 1,000	3Mbps / Le 550	3Mbps / Le 350	—	100Mbps/ Le799	—
		4G CPE / Le 1,999	6Mbps / Le 950	3Mbps / Le 600	—	5G CPE/Le999	—
		5G CPE / Le 5,000	10Mbps/Le 1,350	10Mbps / Le 850	—	—	—
Starlink – Monthly	Unlimited	—	—	—	—	—	Lite: Le 589 / Residential: Le 1,020
Starlink Mini	One-time	—	—	—	—	—	Le 3,930 (device + service)
Interconnection – Voice	Per minute	Le 0.47	Le 0.47	Le 0.47	—	—	—
Interconnection – SMS	Per message	Le 0.40	Le 0.40	Le 0.40	—	—	—
Voice – Intl. (Zone 1)	Per minute				—	—	—

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2.1.16 Dispute Resolution and Infrastructure Mediation

The Department of Regulatory Administration continued to play a pivotal role in resolving disputes across the telecommunications sector. In 2024, NatCA successfully mediated land access disputes between a Mobile Network Operator (MNO) and multiple landowners in Western Area, Tonkolili , Pujehun and Moyamba Districts where delayed lease payments and unclear contractual terms led to site shutdown threats and service disruptions.

Through coordinated field visits, legal clarification, and stakeholder dialogue, NatCA facilitated the renegotiation of lease terms, ensured payment settlements, and restored access to critical infrastructure—preserving network continuity while reinforcing community trust.

These site-related interventions complemented NatCA's broader mandate to promote sectoral stability, protect consumer interests, and support collaborative infrastructure development across Sierra Leone.

2.1.17 INTERNATIONAL OBLIGATIONS

In 2024, NatCA deepened its international engagement through active participation in regional and global forums, including the International Telecommunication Union (ITU), West Africa Telecommunications Regulators Assembly (WATRA), African Telecommunications Union (ATU), and the United States Telecommunications Training Institute (USTTI).

NatCA contributed to ITU Study Group meetings, both virtually and in-person, with technical submissions on NIN-SIM integration, cost modelling, and consumer protection frameworks. The Authority also played a consultative role in ATU's regional harmonization efforts and WATRA's roaming, non-geostationary satellite and cybersecurity initiatives.

In addition to fulfilling its financial obligations to these bodies, NatCA participated in capacity-building programs, policy roundtables, and regulatory benchmarking exercises, ensuring Sierra Leone's voice remained active in shaping global ICT standards and best practices.

2.1.18 NatCA Roaming Initiatives

a. Regional Alignment & Implementation

Sierra Leone remained committed to the ECOWAS Free Roaming Initiative, anchored in Regulation C/REG.21/12/17 and the Abidjan Protocol. Since implementation started in 2019, NatCA worked to harmonize roaming tariffs, eliminate hidden fees, and promote seamless cross-border communication. Africell and Orange continue to participate actively.

b. Roaming Guidelines 2024

Issued under Section 113 of the NatCA Act 2022, these guidelines formalized roaming service standards for all licensed MNOs and MVNOs. Key provisions were:

- **Tariff Regulation**: Retail and wholesale roaming charges must comply with ECOWAS ceilings.
- **Consumer Transparency**: Real-time alerts, bundle options, and emergency access must be clearly communicated.
- **Billing & Usage**: Operators must offer itemized billing, usage tracking, and bill shock prevention tools.
- **Quality of Service**: Roaming must meet ECOWAS thresholds for call completion, data speed, and SMS delivery.
- **Fraud Mitigation**: Operators must implement the ECOWAS Anti-Fraud Framework, including SIM-box detection and SIGTEL (Telecommunication Information Management System developed under ECOWAS) intelligence sharing.
- **Emergency Access**: Free emergency calls are mandatory across all ECOWAS countries.
- **Reporting**: Quarterly roaming traffic, tariff, QoS, and fraud reports are required from operators.

2.1.19 Strategic Partnerships

NatCA signed Memorandum of Understanding (MOU) with peer regulators to reinforce regional roaming coordination:

Table 2. 15 Strategic Partnerships

Partner Regulator	Country	Focus Areas
LTA	Liberia	Tariff harmonization, fraud coordination
ARTCI	Côte d'Ivoire	Interoperability, consumer protection
PURA	The Gambia	Emergency access, shared roaming frameworks
NRA	Ghana	Ongoing discussions
ARPT	Guinea	Ongoing discussions

2.1.20 Consumer Empowerment

NatCA launched public awareness campaigns to educate subscribers on roaming rights, bundle activation, and emergency access. SMS alerts, USSD codes, and mobile apps were implemented to support real-time roaming information and usage tracking.

2.1.21 Regional Impact

These initiatives supported ECOWAS goals for borderless communication, business mobility, and digital integration, while reinforcing NatCA's leadership in regulatory modernization and consumer protection.

3.0   CORPORATE AND INDUSTRY AFFAIRS DEPARTMENT

3.1   MANDATE

The Department of Corporate and Industry Affairs (DCIA) principally upholds the National Communications Authority's core values of transparency, integrity, fairness, industry participation and awareness.

The Department plays a critical role in cultivating feasible mechanisms that enhance a level playing field for consumers and operators. Stakeholder interests and concerns are pursued vigorously.

The Department is primarily responsible to provide safeguard mechanisms to promote a positive image of the Authority to its stakeholders. The Department is also responsible for educating and informing consumers, protecting their rights and resolving complaints amongst others, in order to foster business and consumer confidence in the sector.

It is no gain saying that regulatory accountability also involves regulators having appropriate procedures to channel consumer inquiries or claims, to educate consumers regarding their rights and to protect consumers in case of market failure. To this end, the Department of Corporate and Industry Affairs is very much poised.

The Department further facilitates private sector participation in the Telecommunications/ICT market, regulating and coordinating the activities of operators to ensure compliance with provisions of the Act and other regulatory instruments; pursuing processes for fair competition and pricing; and monitoring consistency as well as the quality of services delivered to consumers.

3.1.1   COMPOSITION

A Director heads the Department with several able-bodied and committed staff who collectively undertake the day-to-day activities of the Department from head office to the regional offices nationwide.

3.1.2   ACTIVITIES, FUNCTIONS AND RESPONSIBILITIES

In addition to several activities, functions and responsibilities undertaken, the department continued to:

- ❖ Empower public knowledge in basic procedures to ensure that consumers know how they would be treated in the process of transacting business with operators.

- ❖ Conduct surveys on consumer satisfaction, market placed forces and related matters as a basis for informed decision-making to improve the consumer and industry relationship as stakeholder entities.

- ❖ Facilitate the formation and functioning of Consumer Advocacy groups to provide avenues to hear the voice of consumers on issues related to quality of services.

❖ The Department ensured that systems, procedures and mechanisms were at hand to leverage consumer concerns with those of industry stakeholders.

❖ The Department successfully led the NatCA Hour Radio program as part of its broader communication strategy and to raise awareness on the scope, benefits and impact of SIM card registration, NIN-SIM integration with NCRA, Finance Act as it relates to tariffs, Quality of Service and Quality of Experience in the telecommunications ecosystem, Roaming as it unwinds in the ECOWAS region, NatCA mandate change, and several other related NatCA activities.

❖ DCIA established a functional Consumer Helpdesk with Short Code 5050 across all networks for handling complaints and resolving disputes between Consumers and Service Providers in the industry.

❖ The Department developed and implemented the Authority's outreach programs for proper dissemination of information and held public education on the ECOWAS Free Roaming Initiative and Regulations and the SMART AFRICA Initiatives.

❖ Consumer Public Dialog activities were undertaken extensively to bring consumers up to speed on activities of the Authority. In a similar manner, extensive mention was made of operators working on expanding network coverage, improving service quality, and investing in new technologies, such as 4G and 5G networks, to enhance connectivity across the country. Fiber cable network also expanded access throughout the country, a significant initiative of the government Public Private Partnership (PPP) with Leonecom.

❖ These initiatives were part of the Regulator's drive to support government's broader effort to foster economic growth, enhance social inclusion, and ensure that all citizens can benefit from the digital revolution.

❖ Guidelines on Consumer Protection were produced and the Consumer Bill of Rights updated.

❖ Local and International tariff monitoring was done daily.

3.1.3 COMMUNICATIONS QUALITY OF SERVICE REGULATIONS VALIDATION WITH SECTOR PLAYERS AND CIVIL SOCIETY ORGANISATIONS.

The validation of the Quality of Service Regulations was undertaken at the Country Lodge and Hub Hotels in Freetown, with the aim of revising the Quality of Service Regulations 2020.

The Regulations seek to satisfy consumers, operators, and government; playing a critical equilibrium in the telecommunications ecosystem.

The validation particularly enabled service providers and other stakeholders to be aligned with the provisions reviewed in the previous QoS Regulations.

Quality of Service (QoS) Regulations are enforced to ensure that service providers deliver reliable and high-quality services. This includes monitoring network performance, addressing consumer complaints, and implementing measures to improve service delivery.

3.1.4 International Telecommunication Union (ITU) Workshop and Study Group 12 Meeting on Telecommunications Quality of Service (QoS), Mamba Point, Lagoonda, Freetown

Recognizing the dynamic and evolving expectations of consumers regarding telecommunications Quality of Service (QoS), the National Communications Authority (NatCA), in collaboration with the International Telecommunication Union (ITU), convened a high-level workshop and Study Group 12 meeting at Mamba Point, Lagoonda, Freetown.

The ITU plays a pivotal role in developing and promoting global standards to ensure that citizens worldwide have access to reliable and high-quality telecommunications services. These standards serve as benchmarks for national regulatory authorities.

Following the establishment of such standards, it becomes the mandate of national regulators like NatCA to ensure that private sector service providers adhere to them. This responsibility includes monitoring compliance and encouraging operators to deliver optimal service quality to meet the growing demands of consumers.

3.1.5   MAJOR TRANSITION TO 5G INTERNET IN SIERRA LEONE

The digital revolution firmly arrived in Sierra Leone with the landmark rollout of 5G Internet connectivity — a transformative leap in the nation's telecommunications landscape.

Under the visionary leadership of Mr. Amara Brewah, Director General of NatCA, the country witnessed unprecedented progress in broadband infrastructure and mobile network innovation. Within just three months, all three major Mobile Network Operators — Africell, Orange, and Qcell — successfully launched 5G trial services, marking one of the fastest national integrations of next-generation Internet technology.

This rapid deployment reflects the proactive and collaborative regulatory environment fostered by NatCA, aimed at positioning Sierra Leone at the forefront of digital advancement in the region. The introduction of 5G is expected to significantly enhance connectivity, stimulate innovation, and unlock new opportunities across sectors including education, healthcare, commerce, and governance.

Mr. Brewah's relentless commitment to modernization laid the foundation for a future where Sierra Leoneans can enjoy world-class Internet speeds and digital experiences that rival global standards.

3.1.6   ADVANCING REGIONAL INTEGRATION: ROAMING MEETING

In 2024, Sierra Leone initiated physical Roaming Meetings in Freetown, bringing together key stakeholders from the Cote d'Ivoire Regulator, ARTCI, and later the Liberia Telecommunications Authority (LTA), and the Public Utilities Regulatory Authority (PURA) of The Gambia. The high-level engagements also included representatives from the MNOs of the four countries.

The primary focus of the meetings were to finalize Bilateral Roaming Agreements among the National Regulatory Authorities (NRAs), with the goal of adopting and signing an MoU that would set the stage for the implementation of the ECOWAS Regional Roaming Regulations across Cote d'Ivoire, Liberia, Sierra Leone, and The Gambia.

This initiative aligns with ECOWAS's broader vision of community roaming, which aims to:

- Eliminate surcharges on international calls within the region
- Ensure free call reception for travelers
- Establish fair and predictable Inter-Operator Tariffs (IOTs), set at 60/40% for voice and SMS, and 80/20% for mobile data
- Cap retail roaming charges at the highest applicable local or international rates

The 2024 meetings marked a significant step toward harmonizing legal and tariff frameworks for seamless regional roaming. The anticipated outcome is a more integrated West African telecommunications market, enabling citizens to communicate affordably and effortlessly across borders.

Figure 3. 1 ECOWAS ROAMING STATUS
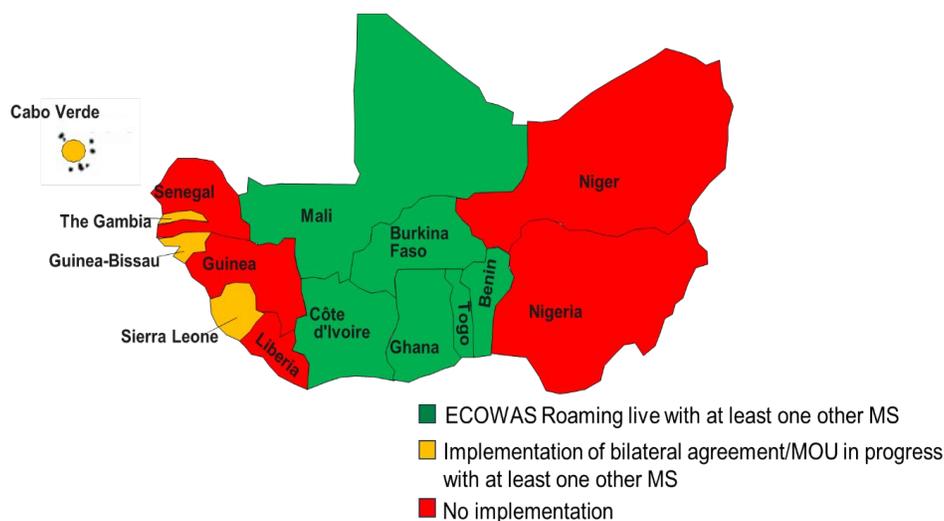
3.1.7 NETWORK TARIFF - FLOOR AND CAP PRICE

Floor prices protect operators' investment from going under due to subsidization by the operators. It creates a conducive competition environment and avoids aggressive market prices by operators. Therefore, it is preferable to have a Floor Price as well as Cap Price for healthy competition in a protected and well-regulated ICT industry.

As an ICT Regulator, NatCA's decision to set the Floor Price is of immense benefit to consumers and the nation at large.

Over the years, various algorithmic permutations have been made to ensure that Telecoms users enjoy satisfactory services while simultaneously ensuring stability in the industry.

NatCA, as the ICT Regulator has the sole mandate to review and approve tariffs justifiably. No MNO is favored in settling tariffs agreed with operators.

A Cost Study was thus undertaken by NatCA in 2024 to address these challenges, with extensive consultations done with all stakeholders (MoCTI, MOF, MNOs, Civil Society, Law Officers department, Consumers, etc.) and active benchmarking with regional countries as well as ITU and other regulatory bodies.

3.1.8 RAISING CONSUMERS AWARENESS ABOUT INTERNET OUTAGE AND REDUNDANCY IN SIERRA LEONE

Internet connections are critical to our everyday lives, and it is imperative that we mention the status of the network in Sierra Leone and at the same time showcase plans to improve services for consumers.

Following a series of internet outages in 2024 in Sierra Leone as well as other African countries, the submarine fiber Cable Landing Station (CLS) managed by Zoodlabs informed the public and the National Communications Authority (NatCA) of the causes.

The primary route through Lisbon, Portugal, had a cable cut in June 2024 and traffic to/from Sierra Leone and countries on the Africa Coast to Europe (ACE) Cable were routed through Paris and South Africa. ACE eventually restored the primary Lisbon link by 15th August 2024.

Another fiber cable cut was experienced on 7th August 2024 in Liberia where the Sierra Leone traffic was routed. NatCA's DG again summoned Zoodlabs and other operators including MNOs and ISPs to critically analyze alternative routes for Sierra Leone, and create redundancies to forestall total internet blackout for the country.

❖ As a **first** remedy, Zoodlabs was mandated to explore, through ACE, routing through Guinea, as a backup or pairing to the Liberia path.

❖ Most importantly and **secondly**, the terrestrial fiber cable network managed by Leonecom up to Guinea through Gblamuya was recommended as a viable backup route to the ACE - Zoodlabs link, to cover for any cut on the submarine fiber cable. Leonecom had established a handshake with its counterpart network in Guinea three years back, in order to create redundancies for either country. They also completed the terrestrial fiber link to Liberia through Gendema, awaiting their Liberian counterpart to interconnect. Leonecom also initiated work on a second terrestrial connection to Guinea through Koindu. Guinea's connection to several other Submarine Fiber Cables apart from ACE create multiple redundancies for Sierra Leone. Getting agreement between Regulators and higher Authorities in both countries was critical to activating the Sierra Leone - Guinea link as a redundant path for both countries. The Minister of Communication, Technology and Innovation (MoCTI) on the weekend of 9th August 2024 initiated engagements with her Guinean counterpart, in collaboration with NatCA and ARTP Guinea personnel.

❖ A **third** consideration recommended leasing fiber pairs on the overhead fiber cable running from Ivory Coast through other neighboring countries of Liberia, Sierra Leone onto Guinea for the West Africa Power Pool (CLSG) Project. This was a short to medium-term solution that would require engagement from the Ministries of MoCTI and Energy and other stakeholders like Transco, and the private company managing the Cote d'Ivoire-Liberia-Sierra Leone-Guinea (CLSG) Interconnector Project.

❖ A long-term **fourth** option solution looked at the work done by members of Zoodlabs and MNOs in Sierra Leone to land a second submarine fiber cable, the 2Africa Cable, in three years' time. This required the pushing of MoCTI, NatCA and major stakeholders to make it possible and on time.

❖ Another option proposed was to buy a Mini Gateway from a Non-Geostationary Satellite Operator (NGSO) like Starlink to create redundancy.

4.0 DEPARTMENT OF INTERNAL AUDIT AND RISK MANAGEMENT

4.1 MANDATE

The Department of Internal Audit and Risk Management (IARM) provides the Board and Management with objective assurance on governance risk and internal control processes and systems.

4.2 ACTIVITIES OF THE DEPARTMENT

The following activities were carried out in 2024.

4.2.1 Transactions Audit

The Department pre-audits the payment process in the Authority. All documents relating to payments from the Authority were sent to the Department for review, before any payments were made. Any issues/queries were cleared before allowing the process to continue. The Department recorded as best as possible all such transactions.

4.2.2 National Anti-Corruption Strategy – NACS (2024 – 2028)

The Department of Internal Audit and Risk Management is the lead Department in the Authority that monitors the implementation of the National Anti-Corruption Strategy (NACS). The Director of Internal Audit and Risk Management is the Focal Person for NACS and he is part of the Authority's Integrity Management Committee.

The 4th Generation National Anti-Corruption Strategy (2019 – 2023) ended in 2023. The Government of Sierra Leone appointed a National Team of Experts in 2023 to lead the crafting of the 5th Generation National Anti-Corruption Strategy (2024 – 2028). The Team of Experts met with Senior Management in December 2023. The purpose of this meeting was to solicit NatCA's views on "how and what measures and institutional building and strengthening mechanisms that will best support the control of corruption in the next 5 years in the management of the public sector".

In December 2024, the Sierra Leone National Anti-Corruption Strategy (2024 – 2028) was published by the National Team of Experts.

4.2.3 NatCA Anti-Corruption Policy

An internal Anti-Corruption Policy is required under the National Anti-corruption Strategy. The NatCA Anti-Corruption Policy was approved by the Board of Directors for implemention in 2026.

4.2.4 Zonal Audit

An audit of all zonal offices was carried out. The audit included a review of the previous year's recommendations, general administration, petty cash and asset verification.

4.2.5 Training and Development

Staff from the Department attended various training conferences organized by the Institute of Internal Auditors (IIA).

The benefits of attending these conferences include:

i. Experience the most comprehensive and relevant training programme impacting Internal Audit today.
ii. Participate in sessions on pressing topics such as AI, cybersecurity, fraud, corruption, digitization, and risk management.
iii. Network with a globally diverse assembly of internal audit professionals from public and private sector organizations.
iv. Engage with leading-edge product, service and technology providers with global reach.

Because of these activities, there were significant improvements in the responses relating to audited documents. This ensured Management's timely interventions to ensure compliance and implementation of audit recommendations.

5.0 ADMINISTRATION AND HUMAN RESOURCE DEPARTMENT

5.1 CAPACITY DEVELOPMENT

This Section highlights activities aimed at enhancing the Authority's capacity to manage challenges and improve and adapt to changes arising from the rapid ICT sector developments.

5.1.1 Institutional Capacity & Performance Excellence

The Authority's institutional capacity provides the foundation for achieving performance excellence, which entails possessing the requisite resources, expertise, and systems essential for fulfilling its mandate. To achieve performance excellence, the Authority fosters innovation, invests in human capital, harnesses technology and aligns efforts with strategic goals.

This holistic approach elevates capacity, resulting in performance outcomes that establish new standards of excellence.

In achieving its high Institutional capacity, the Authority prioritizes the recruitment, development and retention of talented and motivated employees through training, mentorship, and professional development programmes.

5.1.2 Human Resources

The Authority continued its re-structuring by reassigning roles in functional areas with the aim of enhancing service delivery. The staff complement stood at 162, comprising 141 staff on permanent terms and 21 on contract engagement, with a female-to-male ratio of 48:114. During the year under review, 10 staff exited the service.

5.1.3 Organizational Learning

The Authority organized training and development programmes in order to enhance staff competency for improved service delivery, effective management, career progression and professional development. The training was categorized into six broad areas: Leadership and Management Skills Development, Regulatory and Technical Capacity Building, Audit, Risk & Compliance, Financial Resource Management in the Public Sector and Information Technology Programmes.

The Authority continued its deliberate effort in encouraging employees to enroll on Career and Professional Development Courses during the period under review.

Table 5.1 outlines the training programs carried out, while Table 5.2 shows the number of employees trained.

Figure 5.1 shows the number of Training Programmes and Participants.

Table 5. 1   Training Programmes Conducted in FY 2024

Training Programme	Courses
Leadership and Management Skills Development	• Executive Management • Strategy & Business Processes Re-engineering • Human Resource Management • Supervisory excellence in Public Procurement Management, Compliance, Ethics & Contract Management • Administration and Operations Management • Public Policy & Governance • Essential Skills for Secretaries
Regulatory & Technical Capacity Building	• AI, 5G and Emerging Technologies • Practical Applications of Spectrum Monitoring and Management
Audit, Risk and Compliance	• Essentials for Audit Management • Audit & Public Sector Finance
Financial Resource Management	• Advance Public Sector Financial Management • Corporate Financial Planning • Budget Planning, Preparation, Allocation and Cost Control
Information Technology	• IT Systems & Network Security • Computer Hardware and Operating Systems
Career/Professional Development	• Employees enrolled on professional courses to enhance their career

Table 5. 2 Training Programmes and Number of Participants

Training Programme	No of Participants
Leadership and Management Skills Development	11
Regulatory & Technical Capacity Building	6
Audit, Risk and Compliance	3
Financial Resource Management	4
Information Technology	3
Career & Professional Development	8

Figure 5. 1 Chart Showing Training Programmes and Number of Participants

5.1.4   Internships and Institutional Placements

The Authority provided internship and institutional placement opportunities to 12 students, comprising 8 males and 4 females from various Universities. This was done in collaboration with the National Youth Service and was aimed at bridging the gap between theory and practice, equipping the students with essential skills and insights while enhancing their career prospects and overall readiness for the professional world.

6.0   LEGAL AFFAIRS DEPARTMENT

6.1   Introduction

The Legal Affairs Department serves as a cornerstone of the Authority's governance framework, ensuring that all institutional actions align with applicable laws and regulatory standards. Its mandate extends beyond legal advisory functions to include document drafting and review, litigation coordination, and compliance oversight across the sector. Throughout the reporting period, the Department remained focused on safeguarding the Authority's legal integrity and supporting operational transparency.

6.2   Objectives of the Department

The Department's operations are guided by the following core objectives:

- Upholding legal and regulatory compliance across all departments and activities of the Authority.
- Delivering timely and actionable legal advice to management and staff.
- Representing the Authority in legal proceedings and maintaining liaison with retained solicitors.
- Drafting, vetting, and reviewing contracts, agreements, and policy documents.
- Minimizing legal exposure and reinforcing institutional governance structures.

6.3   Key Activities Undertaken

During the year under review, the Legal Affairs Department undertook a range of activities central to its mandate:

- Drafted, vetted, and reviewed multiple contracts, agreements, and Memoranda of Understanding (MoUs) with external institutions.
- Issued legal opinions and advisory notes on policy, administrative, and operational matters.
- Managed two litigation cases, one of which was successfully resolved in favor of the Authority.
- Conducted sensitization sessions for staff on compliance obligations, regulatory ethics, and workplace conduct.
- Supported the revision and enhancement of the Authority's Legal Compliance Manual.

6.4   Institutional Contributions

The Department recorded notable achievements that contributed to the Authority's strategic goals:

- Strengthened internal compliance mechanisms and improved institutional risk management.

- Reduced the backlog of unresolved litigation through proactive coordination and legal follow-up.
- Recovered outstanding payments owed to the Authority via legal enforcement channels.
- Enhanced collaboration with external solicitors, government entities, and sector stakeholders.

6.5   Operational Considerations

During the reporting period, the Legal Affairs Department operated within a dynamic institutional environment that presented several considerations impacting workflow and service timelines.

- **Interdepartmental Coordination:** While collaboration across units remained strong, occasional delays in the transmission of documents and information required for legal review introduced minor timing adjustments in service delivery. The Department continued to work closely with colleagues to streamline these processes.

- **Team Capacity:** The Department maintained its core functions with a lean team, demonstrating resilience and adaptability. As responsibilities expanded, opportunities to reinforce staffing were paramount to further enhance responsiveness and strategic coverage.

- **Professional Development Access:** Staff remained committed to excellence despite limited access to external legal training during the period. Expanding opportunities for specialization and continuing education will support the Department's long-term capacity and institutional value.

6.6   Strategic Priorities for 2025
Looking ahead, the Legal Affairs Department will focus on the following priorities:

- Organizing legal awareness and compliance workshops across the organization.
- Finalizing and implementing a digital contract-tracking and document management system.
- Reviewing and updating organizational policies to reflect changes in national laws and regulatory frameworks.
- Strengthening compliance monitoring and enforcement mechanisms across all departments.

6.7   Outlook
The Legal Affairs Department remains committed to advancing the Authority's legal resilience and governance standards. With targeted investments in capacity-building, digital systems, and interdepartmental coordination, the Department is positioned to deliver enhanced value and institutional support in the coming year.

7.0   Information Technology Department

7.1   Introduction

The Information Technology (IT) Department continues to play a critical role in ensuring the smooth operation and modernization of the Authority's digital systems. In 2024, the department focused on strengthening ICT infrastructure, enhancing internal communication systems, and supporting the successful development of the new NatCA website — all aimed at improving efficiency and transparency across the institution.

7.2   Key Achievements

a. ICT Infrastructure and Network Support
- Provided consistent technical support to staff across departments, including troubleshooting, software installation, and printer maintenance.
- Strengthened the internal network setup to support uninterrupted operations and virtual communication.
- Improved system reliability and ensured that major ICT tools remained operational throughout the year.

b. System Uptime & Reliability and Network Enhancements
- Maintained critical infrastructure with an exceptional 95% uptime for core services such as email, file sharing, and QuickBooks.
- Oversaw a major network upgrade, increasing bandwidth by 10% and implementing a new enterprise-grade firewall, significantly improving performance and security.
- Upgraded the entire corporate wireless infrastructure to Wi-Fi 6, resulting in a 40% increase in connection speed and reliability, boosting productivity for mobile teams and video conferencing.
- Strengthened NatCA's security posture by enforcing multi-factor authentication (MFA) for all Wi-Fi access, effectively eliminating the risk of credential-based attacks.

c. System Security and Data Management
- Conducted regular system updates and antivirus installations to safeguard organizational data.
- Maintained proper access controls to ensure data confidentiality and minimize cybersecurity risks.
- Backed up essential files and departmental records to prevent data loss.

d. Cost Study and Market Analysis Project

The IT Department oversaw the Cost Study and Market Analysis for all Mobile Network Operators (MNOs), and Fiber Infrastructure companies Zoodlabs, Leonecom and Metro Cable in Sierra Leone. Over the years, MNOs have individually claimed to be dominant in market share, offering the best services while expressing concerns about undercharging ICT services.

However, the regulatory body lacked technical evidence to substantiate such claims.

In this regard, the Government of Sierra Leone (GoSL) contracted Marpij to conduct a comprehensive Market Analysis and Pricing Framework for all MNOs, Infrastructure Providers, Internet Service Providers (ISPs), and Mobile Money Operators.

The study aimed to identify operators with Significant Market Power (SMP) and provide a detailed guide for cost-based regulation for NatCA.

Under the Sierra Leone Digital Transformation Project (SLDTP), supported by the World Bank, the Ministry of Communication, Technology and Innovation (MoCTI), in collaboration with NatCA, commissioned this study to assess MNOs, ISPs, and fiber cable companies to expand digital access and increase the resilience of the digital environment. The consultant company presented findings based on data provided by MNOs, ISPs, Zoodlabs, Metro Cable, Leonecom, and Mobile Money operators.

e. Website Development and Digital Transformation
- Successfully coordinated the development of the new NatCA official website, working closely with developers and departmental content focal points.
- Held several content meetings with Departments and Management to collect, review, and validate website materials.
- Supported the development team in uploading verified information, photographs, and leadership profiles.
- Ensured timely communication and troubleshooting during content integration and testing phases.
- Purchased a dedicated MiFi device to maintain reliable connectivity and ensure project continuity.

f. Collaboration and Technical Support for Projects
- Provided ICT support for events, workshops, and photography sessions for the website and communication campaigns.
- Worked closely with the Communications Unit and Admin Department to facilitate the use of IT tools in official documentation and reporting.

g. Capacity Building and Staff Support
- Supported internal training sessions to enhance staff ICT skills and improve efficiency in using digital platforms.
- Guided staff in using modern tools for remote meetings, email systems, and online collaboration.

7.3 Operational Considerations
During the year, the IT Department managed its responsibilities effectively while navigating a growing digital landscape. A few factors shaped the pace of delivery and highlighted areas for future strengthening:

- **Hardware Resources:** Existing equipment supported core functions, though increasing ICT demands pointed to opportunities for further upgrades to sustain efficiency.
- **Connectivity:** Network services remained reliable overall, with occasional fluctuations reminding the Department of the importance of continued investment in resilient infrastructure.
- **Staffing Capacity:** The team demonstrated adaptability and commitment in managing expanding responsibilities. Reinforcing capacity will ensure sustained support for the Authority's evolving digital needs.

7.4 Plans for 2025

- Complete the full launch and management of the new NatCA website.
- Introduce a centralized IT support system for better service tracking and response time.
- Establish a data backup and document management system for digital record keeping.
- Upgrade hardware and network infrastructure to meet evolving operational needs.
- Facilitate advanced ICT training for staff to strengthen digital readiness across departments.

7.5 Outlook

The IT Department remained firmly aligned with NatCA's mission, advancing innovation, reliability, and modernization of technology services. The achievements of 2024 — including enhanced network performance, strengthened security, and the near completion of the new website — underscored the Department's role in driving digital transformation.

With planned investments in infrastructure, staff development, and system integration, the Department will be well positioned to deliver even greater value in 2025 and beyond.

8.0   POLICY AND GOVERNMENT RELATIONS DEPARTMENT

8.1   MANDATE OF THE DEPARTMENT

The Policy and Government Relations Department is a new directorate that came into existence in June 2019 to help the Commission meet legislative goals by creating policy proposals and working with government agencies and citizens.

It has the responsibility to carry out the following functions:

i.   Serve as liaison between NatCA and other Government Agencies and Institutions, for the purpose of reducing bottlenecks and enhancing information flow in the Authority.

ii.   Coordinate regulatory policy formulation through evidence-driven research and international best practice;

iii. Serve as a liaison between NatCA and other Government Agencies and institutions, for the purpose of reducing bottlenecks and enhancing information flow in the Authority.

iv.   Conduct communications sector research and publish sector performance data for public consumption.

8.2   ACTIVITIES OF THE DEPARTMENT

During the period under review, the department carried out the following activities:

i.   Supervised the successful preparation and conduct of the Access Gap Survey with the Universal Access Development Fund (UADF), leading to the identification of the mobile access gap in the country, thereby informing policymakers of expanding mobile coverage in order to provide access to mobile and internet connectivity to health centers, schools, deprived and marginalised communities.

ii.   Facilitated the development of an MoU with the Bank of Sierra Leone on Digital Financial Services (FINTECH) and customer protection.

iii. Collaborated with the Sierra Leone Broadcasting Corporation (SLBC) for the fencing and securing of Leicester Peak Communications site area.

iv.   Alongside Parliament, the Authority resolved complaints and concerns of the False Cape Garden and Development Forum of the Metchem community against Qcell and Orange with regards the installation of Cellular Mobile Towers through the intervention of the National Safety and Radiation Protection Agency and the Environmental Protection Agency (EPA).

v. Worked with Maritime Administration and Sierra Leone Industrial Fisheries Association to update data on vessels operating call signs and total number of vessels on the shores of Sierra Leone with similar equipment.

vi. Worked with MNOs and other Ministries, Departments and Agencies (MDAs) such as EPA, NASSIT, PRA, SLRA, Nuclear Safety Agency, and local councils to comply with the provisions as required by law. Also assisted in the establishment of cooperate strategies, policies and plans, to align with statutory laws regulations and standards. The Department Policy and Government Relations also conducted research and monitored legislation dealing with strict compliance with Telecommunications standards.

vii. Worked with Maritime Administration and Sierra Leone Industrial Fisheries Association to update data on vessels operating Call Signs and identify the total number of vessels on the shores of Sierra Leone with similar equipment.

8.3 WORK PLAN

The Department outlined the following priority activities to strengthen regulatory oversight, infrastructure management, and institutional collaboration:

i. **Monitoring of Statutory Payments**: Ongoing oversight of MNOs to ensure compliance with statutory payments to local councils, the Petroleum Regulatory Agency (PRA), Sierra Leone Roads Authority (SLRA), Environmental Protection Agency (EPA), National Social Security and Insurance Trust (NASSIT), the Nuclear Safety Agency, and the Ministry of Works.
ii. **Infrastructure Security**: Progress toward the fencing of the Leicester Peak communication site, aimed at enhancing security and safeguarding critical national infrastructure.
iii. **ICT Survey Collaboration**: Joint survey activities with Statistics Sierra Leone to collect and analyse ICT data for evidence-based policy and planning.
iv. **Property Tax Monitoring**: Continued monitoring of property tax payments to ensure compliance and strengthen institutional accountability.
v. **Access Gap Survey**: Collaboration with the Universal Access Development Fund (UADF) to advance the Access Gap survey, supporting efforts to expand digital inclusion and connectivity nationwide.
vi. **Regulatory Compliance**: Renewal of Environmental Protection Agency (EPA) licenses to maintain compliance with environmental standards and operational requirements.

9.0   PROCUREMENT DEPARTMENT

9.1   MANDATE

The Procurement Department of the National Communications Authority (NatCA) is mandated to ensure the efficient, transparent, and compliant acquisition of goods, services, and works necessary for the Authority's operations. In alignment with national procurement laws and internal policies, the Department plays a strategic role in supporting NatCA's regulatory functions and operational effectiveness.

Its core mandates include:

- **Sourcing and Supplier Management**: Identifying, evaluating, and managing suppliers to ensure quality, cost-effectiveness, and reliability.
- **Contract Negotiation and Management**: Developing, reviewing, and negotiating contracts that safeguard NatCA's interests while ensuring compliance.
- **Purchasing and Ordering**: Acquiring goods and services that meet operational needs within budget and timeline constraints.
- **Cost Optimization**: Analyzing market trends and identifying opportunities for savings and efficiency.
- **Compliance**: Ensuring adherence to procurement laws, regulations, and internal controls.
- **Supplier Relationship Management**: Building strong partnerships to foster service excellence and innovation.
- **Risk Management**: Mitigating supply chain risks and ensuring business continuity.

9.2   Responsibilities

In 2024, the Procurement Department executed its responsibilities with diligence and strategic foresight, contributing to the Authority's overall performance. The Department's key responsibilities included:

- **Sourcing and Supplier Selection**: Conducted competitive evaluations to select vendors offering optimal value, quality, and reliability.
- **Contract Management**: Negotiated and managed procurement contracts, ensuring favorable terms and strict compliance with regulatory frameworks.
- **Purchase Requisition Management**: Processed and approved requisitions across departments, maintaining budgetary discipline and operational efficiency.
- **Market Research**: Monitored market dynamics to inform procurement decisions and identify cost-saving opportunities.
- **Strategic Sourcing**: Implemented sourcing strategies that enhanced supplier performance and reduced procurement risks.
- **Supplier Relationship Management**: Maintained proactive engagement with suppliers to resolve issues and foster collaboration.
- **Cost Savings and Avoidance**: Achieved measurable savings through negotiation, demand aggregation, and process optimization.
- **Risk Management**: Identified and mitigated risks related to supply chain disruptions, compliance breaches, and vendor insolvency.

- **Inventory Management**: Monitored stock levels and optimized logistics to support uninterrupted service delivery.
- **Reporting and Analytics**: Provided procurement performance data to management for informed decision-making and strategic planning.
- **Compliance**: Ensured all procurement activities adhered to the Public Procurement Act and NatCA's internal guidelines.
- **Tendering and Bidding**: Managed transparent and competitive bidding processes for major procurements, reinforcing accountability and fairness.

9.3   Highlights and Achievements

- Successfully executed procurement plans for departmental operations, infrastructure projects, and strategic initiatives.
- Strengthened internal controls and compliance mechanisms through staff training and process audits.
- Enhanced supplier performance monitoring and introduced quarterly vendor scorecards.
- Contributed to cost containment efforts, supporting NatCA's financial sustainability goals.

9.4   Challenges and Mitigation

The Department faced challenges including fluctuating market prices, supply chain delays, and limited vendor capacity in specialized areas. These were mitigated through early engagement, flexible sourcing strategies, and closer collaboration with internal stakeholders.

9.5   Outlook for 2025

In 2025, the Procurement Department will focus on:

- Digitizing procurement workflows to improve efficiency and transparency.
- Expanding the supplier base to enhance competition and innovation.
- Strengthening procurement planning and forecasting to align with emerging needs.
- Deepening compliance and risk management practices in line with evolving regulations.

10.0 FINANCIAL SUMMARY

The Finance Department continued to successfully implement the GPFS (General Purpose Financial Statement), as required by the PFM Act 2016 (Public Financial Management Act 2016). This dramatically improved the development of policies to enhance internal controls and overall financial operations. In 2024, the Department was structured into three (3) parts to demonstrate integrated thinking to create value and drive impact to diverse stakeholders. This ensured a clear and concise flow of information while strengthening the connection between financial and non-financial data, aligning with the Public Financial Management Act 2016. This strengthened the Department's reporting practices, aligning sustainability with the Authority's overall strategy to address customers' and stakeholders' needs better. This provided holistic insights into the Authority's business performance, risks and opportunities to enable more informed decision-making. This refined approach improved accuracy and strengthened the ability to deliver value and drive sustainable progress for long-term success.

Table 10. 1 REVENUE FOR 2024

Statement of cash receipts and payments for the year ended 31st December 2024		
	2024	2023
	Receipts/	Receipts/
	Payments by	Payments by
Receipts	SLL	SLL
	000'	'000'
Trading Activities	368,734,809	252,616,194
Proceeds from trading activities		
Other Receipts	62,325,352	299,789
Total Receipts	431,060,161	252,915,983
Payments		
Compensation of employees	67,530,093	44,578,930
Use of goods and services	189,581,134	102,719,552
Capital / Development Expenditure	93,182,249	18,260,052
Transfers GOSL	74,710,486	85,761,271
Other payments - UADF	4,103,846	1,079,860
Other payments - Social Benefits	2,769,502	2,750,547
Total Payments	431,877,310	255,150,212
Surplus (deficit)	-817,149	-2,234,229
Cash at beginning of the year	42,931,810	45,166,039
Cash at the close of the year	42,114,661	42,931,810

NatCA's revenue in 2024 increased by 46% compared to 2023, driven by the enforcement of surcharges under the Finance Act 2024 and enhanced services and resources, particularly in collaboration with Mobile Network Operators (MNOs). This growth was further supported by the recovery of operations among most telecom service providers following active debt collection efforts undertaken with the assistance of the National Revenue Authority (NRA).

The NRA strengthened its debt recovery drive, ensuring that the majority of service providers settled their outstanding obligations.

NatCA generated 74.7 Million Leones for the Government of Sierra Leone, representing 12% of total revenue, which was paid into the Consolidated Revenue Fund. In 2023, the revenue sharing was increased considerably, and the Authority generated and paid 85.7 Million Leones into the same fund. As indicated, NatCA's revenue was actual cash receipts generated and reported as per the requirements of the GPFS (General Purpose Financial Statements).

Table 10. 2 REVENUE BY CATEGORY

Revenue Sources of Funds	2024	2023
Mobile Network Operators (GSM, 3G, 4G License & other Regulatory Fees)	\310,989,939	198,009,839
VSAT & Others Operators	15,003,561	1,915,250
Type Approval Operators	815,616	410,090
Internet Service Providers	6,600,488	2,409,969
TV & Radio Operators	851,783	1,017,220
IGW Revenue	34,473,422	48,874,308
Total	**368,734,809**	**252,636,676**

Figure 10. 1 2024 & 2023 Revenue Comparison in Millions of Leones
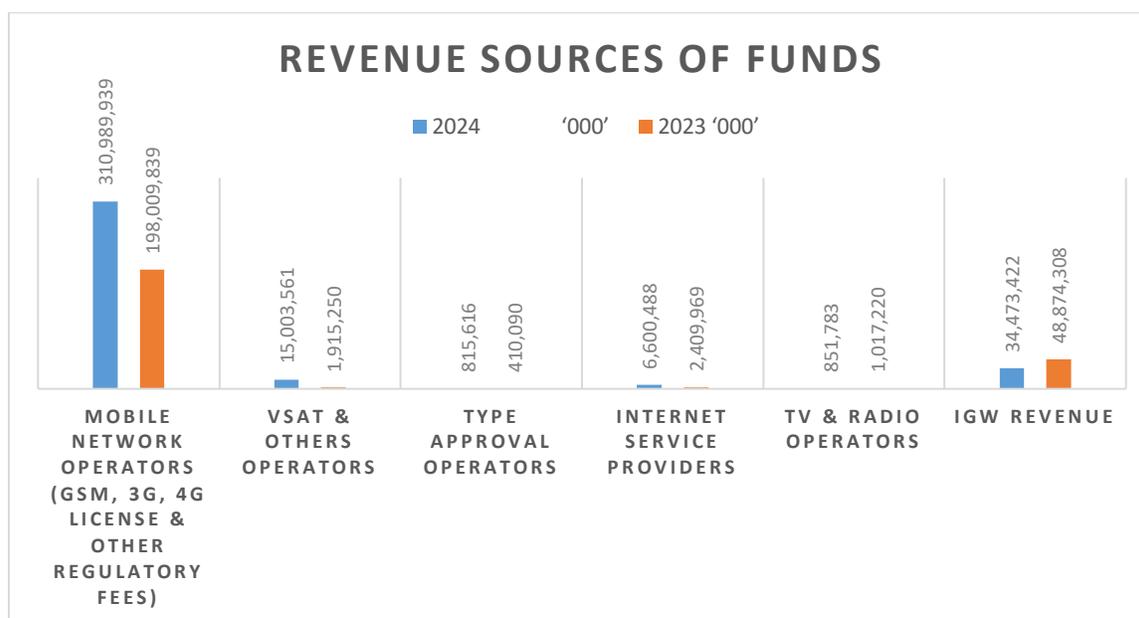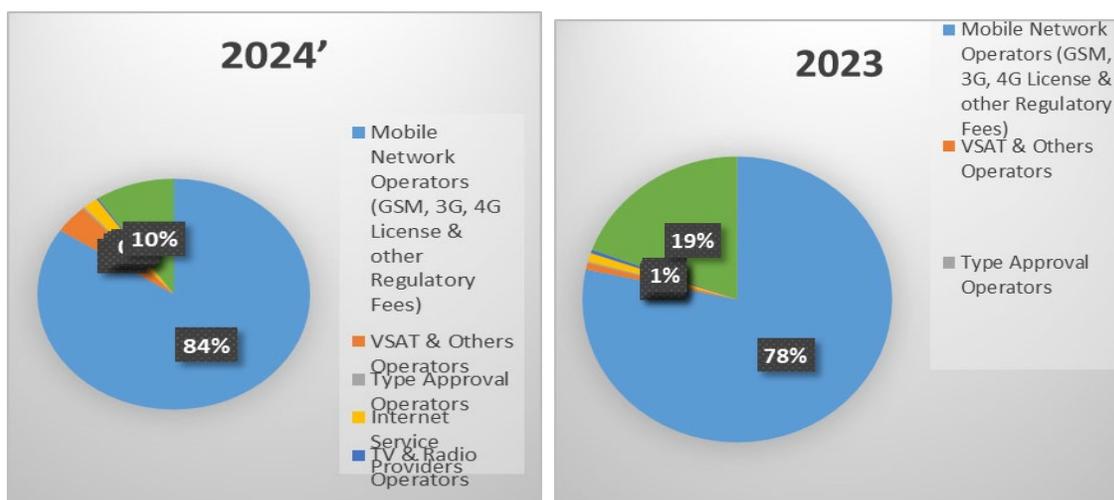

REVENUE SOURCES OF FUNDS

**Figure 10. 2 2024 & 2023 Revenue Comparism in Millions of Leones**

In 2024, NatCA expenditure increased significantly compared to 2023. The investment in the Authority's building project rose considerably in 2024 as the Authority sought to accelerate its completion. A significant portion of the end-of-service benefits of former employees was paid, the additional staff recruited during the reporting period, and the inflationary effect on the Authority's cost of living were among the reasons for the significant increase in expenditure.

Table 10. 3   EXPENDITURE PAYMENTS

Payments	2024	2023
Compensation of employees	67,530,093	44,578,930
Use of goods and services	189,581,134	102,719,552
Capital / Development Expenditure	93,182,249	18,260,052
Other payments-Social Benefits	2,769,502	2,750,543
Total	**357,166,824**	**169,388,941**

**Figure 10. 3 Payments by Category in Millions of Leones**
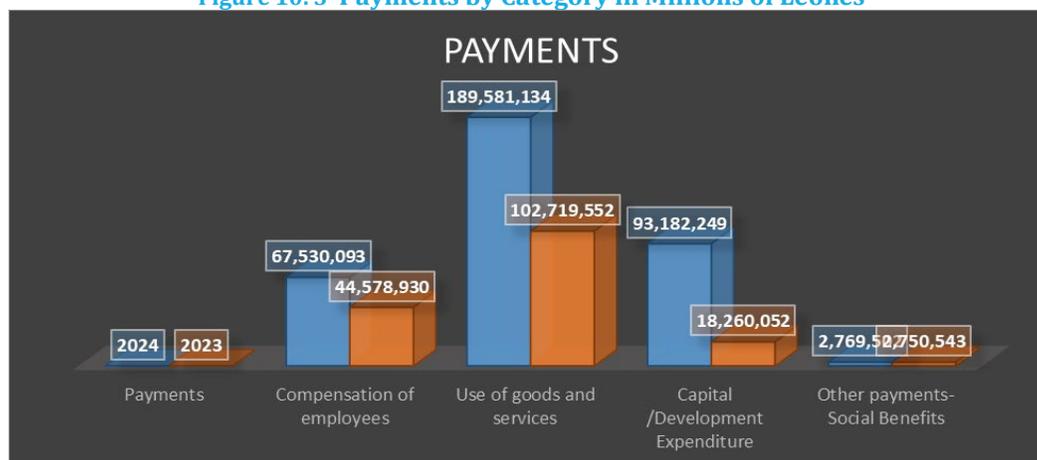
In 2024, the Authority secured a loan of Le 61,677,174 million from the Sierra Leone Commercial Bank to finance the completion of its building project. To support repayment of the loan, NatCA implemented measures to reduce capital expenditure across other categories, resulting in monthly savings of Le 3 million. All other capital expenditure items were scaled down in 2024 to complement the funding requirements of the building project.

Table 10. 4 Capital Expenditure Payments

Capital Expenditure Payments	2024	2023
Land Term Building Repayment	36,660,286.38	13,614,964.00
Land & Building – Work in Progress	44,583,128	-
Rebranding		999,700.00
Motor Vehicles/ Bikes	85,000.00	
Computer Equipment	2,904,830.00	118,000.00
Furniture & Fixtures	12,212,809.00	498,900.00
Total	**96,446,053.38**	**15,231,564.00**

The Authority's contribution to national development was prioritized to support Government Agencies and provide Corporate Social Responsibility to Non-Profit Organizations, Educational Institutions and Civil Society Organizations.

Figure 10. 4 Capital Expenditure Payments
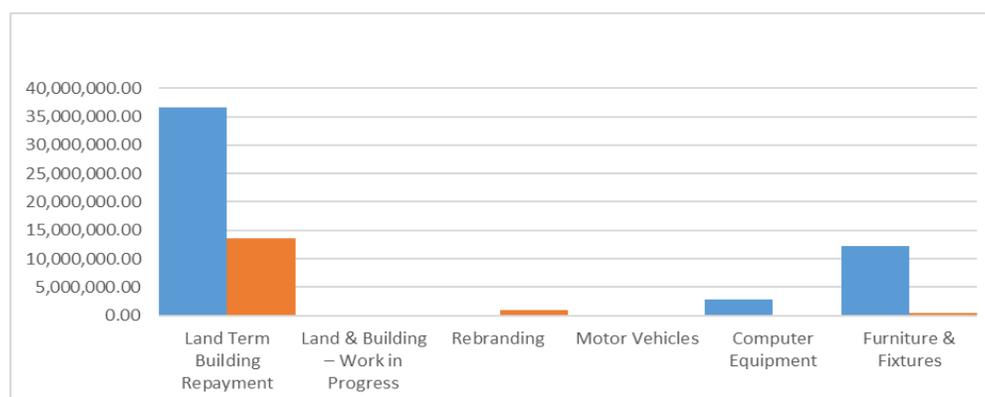
The Authority was deliberate in its support for national development, while a comprehensive policy was developed to provide guidelines for continued engagement in activities of national benefit.

Table 10. 5 Support to National Development 2024 & 2023 Comparison in Millions of Leones

Support to National Development	2024	2023
Government Agencies	1,273,560.00	624,707.00
Institutions Charity & Non Profit Organizations	50,000.00	952,940.00
Other Corporate Social Responsibility	1,405,942.00	1,135,400.00
Educational Institutions	40,000.00	37,500.00
Total	**2,769,502.00**	**2,750,547.00**

Figure 10. 5 Support to National Development
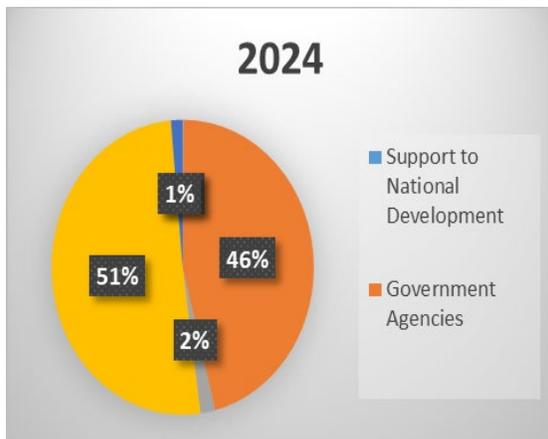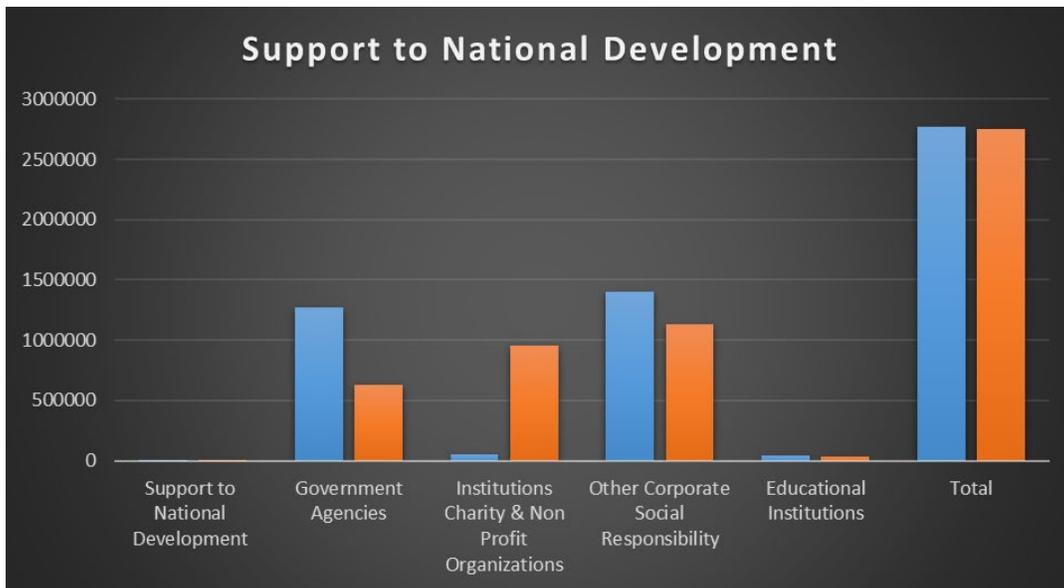
11.0 KEY ACHIEVEMENTS & HIGHLIGHTS

In 2024, the Authority recorded significant progress across regulatory modernization, infrastructure development, financial stewardship, and stakeholder engagement. Notable achievements include:

i. **Spectrum Engineering and Type Approval Expansion:** The Authority issued type approval and type acceptance certificates for 146 electronic devices, following rigorous electromagnetic compatibility assessments and declaration of conformity submissions. This milestone reflects strengthened enforcement of technical standards and improved compliance mechanisms.

ii. **Digital Penetration Expansion by MNOs and ISPs:** Mobile Network Operators and Internet Service Providers expanded nationwide coverage through new 4G/LTE rollouts, rural broadband initiatives, and affordable data packages. These efforts significantly increased digital penetration to 42%, bridging connectivity gaps and enabling more citizens to access online services, education, and e-commerce opportunities.

iii. **Metro Fiber Infrastructure Licensing:** Metro Cable implemented its infrastructure license to continue deployment of metropolitan fiber optic infrastructure in the capital city. The company actively rolled out aerial fiber optic cables across Western Area Urban and Rural Districts, marking a strategic leap in last-mile connectivity and broadband penetration.

iv. **Revenue Growth and Financial Discipline:** NatCA's revenue increased by 46% compared to 2023, driven by the enforcement of surcharges under the Finance Act 2024 and improved service delivery. The National Revenue Authority's robust debt recovery efforts ensured that most telecom service providers settled outstanding obligations, contributing to fiscal stability.

v. **Capital Investment and Cost Optimization:** The Authority secured a Le 61,677,174 million loan from Sierra Leone Commercial Bank to accelerate completion of its headquarters building. Concurrently, capital expenditure across other categories was reduced, yielding monthly savings of Le 3 million to support loan repayment.

vi. **ECOWAS Roaming Implementation:** NatCA signed a Memorandum of Understanding (MOU) with ARTCI, Côte d'Ivoire's telecom regulator, to begin the country-by-country rollout of the ECOWAS Roaming Regulation (C/REG.21/12/17). The agreements established tariff ceilings, dispute resolution mechanisms, and consumer protection measures, while joint technical groups worked on harmonizing billing systems and network configurations. A phased implementation roadmap was agreed, positioning Sierra Leone as an active partner in advancing affordable, seamless cross-border mobile connectivity across West Africa.

vii. **Regulatory Modernization and Policy Development:** Drafting and refinement of national telecom regulations, tariff frameworks, and compliance guidelines were advanced to align with ECOWAS and ITU standards. Work also began on a comprehensive policy to guide the Authority's support for national development activities.

viii. **Stakeholder Engagement and Transparency:** The Authority hosted consultative forums with operators, consumers, and government stakeholders, reinforcing transparency, accountability, and collaborative regulation.

ix. **Consumer Protection and Awareness:** Campaigns were launched to safeguard subscribers against bill shocks and poor service quality, ensuring clarity in charges and improved customer confidence.

x. **International Representation:** NatCA participated in regional and global conferences (ECOWAS, ITU, African Telecommunications Union), positioning Sierra Leone within broader telecom policy discussions and strengthening international partnerships.

xi. **Capacity Building and Institutional Development:** Training programs were delivered for staff, interns, and sector professionals to strengthen regulatory expertise and technical skills. Internal reforms improved operational efficiency and service delivery.

xii. **Youth Engagement and ICT Curriculum Development:** The Authority advanced its commitment to national development by supporting youth leadership programs and integrating ICT literacy modules aligned with global standards.

These achievements underscored NatCA's strategic focus on **infrastructure expansion and digital penetration, regulatory modernization, financial stewardship, regional integration, consumer protection, and inclusive national development**. Together, they reflected the Authority's deliberate efforts to modernize Sierra Leone's telecommunications sector while contributing to ECOWAS's vision for seamless regional connectivity.

12.0 CHALLENGES & RECOMMENDATIONS

Despite notable progress, 2024 presented several operational and strategic challenges that warrant attention. Key issues and proposed recommendations include:

- **Delayed Infrastructure Projects**

  Challenge: The Authority's headquarters building project faced delays due to funding constraints and procurement bottlenecks.

  Recommendation: Strengthen project management oversight and explore phased implementation strategies to mitigate delays.

- **Debt Accumulation by Service Providers**

  Challenge: Several telecom operators accumulated significant arrears prior to the NRA's intervention.

  Recommendation: Institutionalize quarterly debt audits and enforce stricter penalties for non-compliance to ensure timely payments.

- **Limited SME Coverage and Inclusion**

  Challenge: Small and Medium Enterprises (SMEs) continued to face barriers in accessing tailored telecom services.

  Recommendation: Develop SME-specific service packages and incentivize operators to expand coverage through targeted subsidies or regulatory relief.

- **Policy Gaps in Development Support**

  Challenge: While the Authority supported national development activities, the absence of a formal policy framework limited consistency.

  Recommendation: Finalize and adopt a comprehensive development support policy to guide future engagements and resource allocation.

- **Data Collection and Reporting Constraints**

  Challenge: Difficulties in harmonizing national indicators for reporting affected country and regional benchmarking.

  Recommendation: Invest in automated data management systems and build capacity among National Correspondents for Indicators (NCIs).

- **Roaming Implementation Bottlenecks**

Challenge: Despite signing MOUs with ARTCI to begin bilateral ECOWAS roaming, technical alignment and tariff harmonization faced delays due to operator readiness and billing complexities.

Recommendation: Establish joint technical task forces with operators to fast-track interoperability testing and phased rollout.

- **Digital Penetration Gaps**

Challenge: Rural and underserved communities still experienced limited access to affordable broadband despite MNO and ISP expansion.

Recommendation: Introduce universal service obligations and incentivize rural infrastructure investment through subsidies or tax relief.

- **Consumer Protection Enforcement**

Challenge: Rising complaints about service quality, billing transparency, and data privacy highlighted gaps in enforcement capacity.

Recommendation: Strengthen consumer protection frameworks, expand complaint resolution mechanisms, and introduce digital monitoring dashboards.

- **Capacity and Skills Constraints**

Challenge: Limited technical expertise among staff and interns slowed regulatory innovation and data management reforms.

Recommendation: Scale up training programs, regional exchanges, and ICT certification initiatives to build institutional capacity.

- **Stakeholder Coordination**

Challenge: Fragmented collaboration between NatCA, operators, and government agencies sometimes delayed policy execution.

Recommendation: Formalize stakeholder engagement platforms with quarterly review meetings and joint action plans.

Summary

Addressing these challenges will require **coordinated action across departments, stronger inter-agency collaboration, enhanced technical capacity, and sustained policy reform**. Together, these measures will strengthen NatCA's ability to deliver on its mandate and advance Sierra Leone's digital transformation agenda.

13.0 FUTURE OUTLOOK

Looking ahead to 2025, the Authority will pursue a bold agenda designed to reinforce regulatory effectiveness, strengthen infrastructure resilience, and drive inclusive digital transformation. Strategic priorities include:

- **Completion of Headquarters Building** Accelerate construction and operationalization of the Authority's headquarters to establish a modern regulatory hub, enhance institutional visibility, and improve service delivery efficiency.
- **Expansion of Fiber Infrastructure** Support continued rollout of aerial and underground fiber networks, with emphasis on underserved districts and rural communities. This will expand broadband penetration, reduce the digital divide, and enable access to e-government, education, and e-commerce services.
- **SME Coverage Enhancement** Launch targeted programs to improve telecom access for Small and Medium Enterprises (SMEs), including affordable data packages, digital literacy campaigns, and business support platforms. These initiatives will strengthen entrepreneurship and contribute to national economic growth.
- **Policy Finalization and Implementation** Approve and operationalize the comprehensive development support policy to guide national engagement, resource allocation, and consistent support for activities of national benefit.
- **Strengthening Regional Contributions** Improve national indicator reporting and regional benchmarking through enhanced data systems and training for National Correspondents for Indicators (NCIs). This will reinforce Sierra Leone's role in ECOWAS and ITU initiatives, including bilateral roaming implementation.
- **Youth Empowerment and ICT Integration** Scale up ICT and leadership training modules for secondary schools, aligning with national education goals and global digital readiness standards. This will prepare the next generation for active participation in the digital economy.
- **Regulatory Innovation and Stakeholder Engagement** Introduce digital dashboards for tariff monitoring, spectrum allocation, and compliance tracking. Expand stakeholder forums to foster transparency, collaborative regulation, and stronger consumer protection.
- **Digital Penetration Expansion with MNOs and ISPs** Partner with Mobile Network Operators and Internet Service Providers to accelerate nationwide 4G/LTE expansion, rural broadband initiatives, and affordable data packages. This will ensure inclusive access and support Sierra Leone's digital transformation agenda.

Strategic Vision

By focusing on infrastructure, policy, regional integration, and inclusive access, NatCA aims to position Sierra Leone as a **digitally empowered nation** within West Africa. The Authority's 2025 outlook emphasizes **completion of critical projects, expansion of connectivity, and empowerment of citizens and businesses**, ensuring that regulatory modernization translates into tangible national development outcomes.