



**NATIONAL
COMMUNICATIONS
AUTHORITY**

NEWSLETTER

MAY - AUGUST, 2023



TRIAL PHASE OF DIGITAL AUDIO BROADCASTING (DAB) LAUNCHED IN GHANA

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This newsletter was produced by the Consumer and Corporate Affairs Division of the
National Communications Authority, August 2023

TRIAL PHASE OF DIGITAL AUDIO BROADCASTING (DAB) LAUNCHED IN GHANA



I am delighted to declare the first ever trial of Digital Audio Broadcasting in West Africa, duly launched
- Hon. Mrs Ursula Owusu-Ekuful, Minister for Communications and Digitalisation



Hon. Kojo Oppong Nkrumah, Minister for Information, highlighted Government's support for Ghana's digitalisation agenda

The Minister for Communications and Digitalisation, Honourable Ursula Owusu-Ekuful officially launched the trial phase of the Digital Audio Broadcasting service in Ghana on 22nd August, 2023.

With the launch, Ghana becomes the first country in West Africa and the fourth on the continent to deploy the DAB service. The DAB platform in Ghana is being implemented by the National Communications Authority (NCA), and involves 18 stations – 11 based in Accra and 7 in Kumasi. With the commencement of the trial, listeners in the two cities will be able to access any of the stations using DAB+ receivers. The initial trial is expected to last six months after which the NCA will review and decide the next phase of its deployment.

Sharing the challenges Ghana faces with the current FM Broadcasting service, the Director General of the NCA, Joe Anokye, said “there are severe constraints on frequency for FM Radio Broadcasting services in many major cities in Ghana. According to Mr. Anokye, as an Authority mandated under Section 2 of the

Electronic Communications Act 2008, Act 775, to regulate the radio spectrum allocated for use by broadcasting organisations and providers of broadcasting services, it is important that the NCA comes out with a mechanism that addresses the frequency limitations for FM radio and for stations to reach more cities outside of their immediate area with the same programme content.

Mr. Anokye indicated that DAB in Ghana will not use the same frequencies as the traditional analogue FM stations as DAB is being deployed in the frequency range 174 to 230 MHz. He called on all stakeholders in the value chain to help Ghana succeed in implementing this project especially the Electronic Communications Equipment Dealers since supply of DAB equipment is key in its implementation.

Delivering her keynote address, the Honourable Minister for Communications and Digitalisation (MoCD), Mrs. Ursula Owusu-Ekuful, highlighted the benefits and the pivotal role played by Ghana in embracing this ground breaking technology. She touted Ghana's unwavering commitment



Mr. Joe Anokye, Director General of the NCA, stated that the introduction of DAB is consistent with the Government's vision for digital acceleration and transformation



George Sarpong, National Media Commission



Bernie O'neil, Project Director of WorldDAB

to embracing digital innovation, adding that it has propelled the country to the forefront of the transformative movement.

She emphasised that the MoCD has been steadfast in its mission to craft and shape policies that do not only facilitate the creation of information and communications infrastructure, but also drive the development of services that foster economic competitiveness.

The Minister added that her Ministry is committed to empowering all Agencies under MoCD

to adapt to the ever-evolving technological landscape by adopting innovative strategies and approaches to their work. She commended the NCA for their continuing efforts to deliver innovative and cutting-edge solutions. “

Speaking at the event, the Minister for Information, Honourable Kojo Oppong Nkrumah, said that DAB will provide significant economic benefits within the broadcasting industry. He said with the relatively high operational costs of running traditional FM stations in Ghana, it was welcoming to have a technology that



Participants included Board Members of the NCA, some Management Staff of the NCA, Managing Director for Graphic Communications Group, Mr. Ato Afful and some dignitaries



A participant who emerged victorious in securing a DAB portable device



Winning a DAB desktop device brought him immense joy

reduces these costs and improves efficiency of resources. He further expressed optimism that DAB will encourage the production of content that contributes to societal growth and attracts more investors, leading to job opportunities. The Minister applauded the NCA for their efforts and looked forward to the successful implementation of the DAB pilot programme together with a robust regulatory framework.

Stakeholders present at the launch included the Deputy Minister for Communications and

Digitalisation, Ama Pomaah Boateng, the NCA Board Chairman, Isaac Emmil Osei-Bonsu Jnr and some members of the NCA Board as well as the Executive Secretary of the National Media Commission, George Sarpong. Also present were the representatives of the 18 stations, Ghana Independent Broadcasters Association (GIBA), Advertisers Association of Ghana (AAG), Ghana Private Road Transport Union (GPRTU), PROTOA. Agencies under the MoCD and the Project Director of WorldDAB, Bernie O'neil were also present.



A group photograph of dignitaries at the event

DIGITAL AUDIO BROADCASTING: THE NEW ERA OF RADIO BROADCASTING IN GHANA

In recent times, Frequency Modulation (FM) radio has evolved into a vital medium for communication, entertainment, and information dissemination in Ghana. As Ghana's population continues to grow and urbanise, there has been a rising demand for FM radio stations in major cities. However, this demand has encountered limitations due to the scarcity of available FM frequencies, resulting in various challenges. Some of the issues currently affecting Ghana's FM radio landscape include:

- a. **Spectrum Constraints:** The availability of FM frequencies is constrained and this hampers the issuance of new FM radio authorisations.
- b. **Interference Issues:** FM radio stations often experience interference, leading to poor sound quality and disrupted reception for listeners. Furthermore, this interference presents a challenge for advertisers and broadcasters, affecting their ability to reach their target audiences and generate potential revenue.

As part of the Authority's desire to employ

innovation in addressing the above challenges, the Authority has adopted a new digital radio technology, Digital Audio Broadcasting (DAB).

About the DAB

DAB is a digital radio technology that allows for the transmission of audio content over the airwaves using digital signals. It also provides improved sound quality, more choice of stations per frequency and additional interactive features compared to traditional analogue FM radio.

Some Benefits of the DAB are outlined below:

1. **Overcoming Frequency Constraints:** With severe constraints on FM radio frequencies in major Ghanaian cities, DAB offers a solution to expand coverage and cater for the growing demand for sound broadcasting services.
2. **Improved Reception Quality:** DAB utilises digital signals, mitigating interference and delivering superior audio quality compared to traditional analogue FM radio.



1. Car Adapter
2. Portable Player
3. Multipurpose Player

3. **Efficient Spectrum Usage:** DAB allows more stations to share the same frequency channel and transmitter thereby enhancing energy and frequency efficiency.
4. **Enhanced Interactive Services:** In comparison to FM, DAB allows the transmission of metadata such as text and images for the following – service and programme information, emergency warnings, news, weather and traffic information.
5. **Ease of Selecting DAB stations to listen:** Consumers are able to select DAB stations by searching for the names of the stations instead of memorising their frequencies.

DAB Trial in Ghana

In August, the DAB trial commenced with 18 existing stations in Accra and Kumasi. FM stations involved in this trial will share the same frequency channel to deliver DAB services and will be heard simultaneously in Accra and Kumasi. This trial positions Ghana as the first country in West Africa and the fourth in Africa to deploy DAB.

The trial seeks to:

1. Test the features, coverage characteristics and other technical metrics of DAB+ to inform frequency planning and regulatory standards.
2. Establish the quality aspects of DAB and the transmission parameters, which deliver optimum quality.
3. Ascertain the issues that may emerge with multiple stations sharing the same infrastructure with a single transmission

network provider.

4. Explore the market readiness and required market structure to inform the development of appropriate authorisation for DAB.

Prior to the commencement of the trial, DAB Stakeholder Sensitisation, the Authority engaged with representatives of the selected FM stations as well as KNET, the technical partners for the project on 24th July, 2023.

On 17th August, 2023, Dealers and Manufacturers of Electronic Communications Equipment were also sensitised and encouraged to manufacture and procure DAB receivers for public use when implemented.

DAB Receivers and Specifications

In order to explore the advantages associated with this innovative technology, Ghana has adopted the DAB Plus (DAB+) standard. Consumers will therefore require standalone DAB radios, DAB+ enabled car stereos, and even DAB+ functionality in select smartphones and portable devices to enable them receive DAB broadcast.

DAB+ Receivers should have the following minimum technical specifications:

1. Frequency Range: Receivers shall be capable of receiving DAB and DAB+ Digital Radio broadcasts in the frequency range 174 to 230 MHz.
2. RF Performance, Sensitivity & decoding should conform to requirements of ETSI TS 103 461 V1.2.2 (2020-10) i.e. Digital Audio Broadcasting (DAB); Domestic and in-vehicle digital radio receivers; Minimum requirements and Test specifications for technologies and products.



3. Power Supply: The receiver shall be supplied with 100v – 250v to 12v DC where the nominal frequency shall be 50Hz.
4. Text Display: The receiver must have a means of displaying text to the user. The text display shall display the audio service name (the Component Label).

☒ The text display must be able to display the following graphic symbols, correctly mapped, visually well-formed and clear:

ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789

Consumers are entreated to look out for the below certification marks when buying a DAB + receiver:



Rights and Responsibilities of Consumers

What Are My Rights?

Consumers have the following statutory rights when they start using any telecom service:

1. The right to have access to basic telecommunication services at affordable prices.
2. The right to choose from a variety of telecom services provided.
3. The right to be informed about products and services in complete, accurate, simple and clear language.
4. The right to address complaints and to be heard about quality, delay, quantity and tariff with regard to the nature of the communication service provided.
5. The right to request or access information on bills.
6. The right to privacy of information.

What Are My Responsibilities?

Consumers should be aware of their responsibilities as follows:

1. Not rely solely on service providers' information and choice.
2. Carefully read terms and conditions on contracts, promos and adverts and understand them before subscribing.
3. Be well informed of telecom services and products from your service provider.
4. Inform Service Provider about changes in personal circumstances such as change in name or address.
5. Keep receipts, cancelled contracts, bills and instruction. They will be useful in problem solving.



**National
Communications
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Digital Audio Broadcasting (DAB+) Specifications for Radio Sets

Scan the QR Code for the receiver specifications



Ensure that the receiver has these DAB+ Certification Marks:



Certification mark
digitalradio
Approved Product

***ETSI TS 103 461 V1.2.2 (2020-10)**



Listen to these **18 FM Stations in Accra and Kumasi** simultaneously during the **DAB trial**



SIM REGISTRATION: INTRODUCTION OF SHORTCODE FOR CHECKING SIM CARDS LINKED TO A GHANA CARD

On 1st May, 2023, the National Communications Authority (NCA) introduced a new shortcode (*402*1#) that allows consumers to easily check the number of SIM Cards registered with their Ghana Card.

Consumers are required to provide their Ghana Card PIN and Date of Birth for verification,


following which an SMS with the list of numbers linked to their Ghana Card will be displayed.

This exercise is intended to help consumers identify any unknown number(s) linked to their Ghana Card, for which they can request a delinking from their Service Provider.

How to Check SIMs Linked to your Ghana Card

STEP 01

Dial ***402*1#**



STEP 02


Enter your Ghana Card PIN (Enter letters and figures without hyphens) for verification.

Personal ID Number
GHA00000000023

STEP 03

Enter your Date of Birth (DDMMYYYY) for verification.

Date of Birth
13061986



STEP 04

Once verified, you will receive an SMS with a list of mobile numbers linked to your Ghana Card, including the corresponding networks.

The information displayed will include the subscriber's Numbers and corresponding networks.

Example:


- AirtelTigo - 027 000 0000 - AT
- MTN - 024 000 0000 - M
- Telesol - 025 000 0000 - TL
- Vodafone - 020 000 0000 - V

Effective 1st May, 2023


If you identify any unknown mobile number(s) linked to your Ghana Card, request for a delinking of the number(s) from your Service Provider as soon as possible.

Remember to contact your Service Provider if you have any challenges





For more information, call **100** on all **Networks** or NCA on **0800 110 622**



MINISTRY OF COMMUNICATIONS AND DIGITALISATION GHANA



NATIONAL COMMUNICATIONS AUTHORITY

SURFLINE'S SERVICE OUTAGE AND DELINKING OF SIMS: NCA'S EFFORTS TO SAFEGUARD SUBSCRIBERS



***Surfline SIMs
have been Delinked***

All Surfline SIMs have been delinked from the Central SIM Database. Subscribers will now be able to link additional SIMs to their Ghana Cards if they desire.

Early this year, the NCA had noted with grave concern inquiries by the public regarding Surfline's operations and service outage. Following a formal communication by the company to shut down its Radio Access Network due to some operational challenges, the NCA confirmed its awareness of Surfline's service outage and the fact that the Authority had been engaging with Surfline to offer support to ensure that subscribers involved were protected.

The NCA's engagements with Surfline were intended to give the company the opportunity to:

1. Resolve issues concerning its indebtedness to its Service Providers
2. Publish information on its service outage to its subscribers
3. Ensure that customers who had purchased data plans do not lose their data, and where applicable, appropriate compensation paid by Surfline to customers for any loss of

service

4. Commence the process to initiate bulk-delinking of Surfline SIMs from the Central SIM Database in the event the company fails to resume its operations and in relation to this, enable consumers to keep only their registered active SIMs.

Subsequent to this, on 31st May, 2023, the NCA announced that all Surfline SIMs had been delinked from the Central SIM Database. This action provided subscribers who hitherto had reached the ceiling of 10 individual SIMs with the addition of their Surfline SIMs, the opportunity to link additional SIMs to their Ghana Cards.

The general public particularly subscribers of Surfline is assured of the Authority's unrelenting commitment to protect the interest of Surfline customers and all users of telecommunications services as well as stakeholders within the Industry.

NCA INTRODUCES TECHNOLOGY NEUTRALITY IN GHANA



- *Technology neutrality is one of the remedies to address Significant Market Power (SMP) concerns.*
- *It aims at creating a level playing field and stimulate investment in infrastructure for the deployment of 4G networks by the non-SMP operators.*

The National Communications Authority (NCA) has taken a significant step towards correcting the market imbalances and boosting consumer choice in the telecommunications sector with the introduction of technology neutrality for non-SMP operators.

This initiative will grant Vodafone and AT the authorisation to re-farm their spectrum assignment in the 900MHz, 1800MHz, and 2100MHz bands to provide 4G services, subject to paying an annual premium.

Technology neutrality is one of the remedial actions to address Significant Market Power (SMP) concerns. The benefits of Technology Neutrality include:

- The opportunity for operators who do not currently have 4G services to deploy it within their current spectrum assignment, leveling the playing field and enhancing their competitiveness.
- The option for non-SMP operators with 4G services to re-farm portions of their current spectrum assignment to improve the quality of their 4G services.
- Enhanced consumer choice for 4G services.

The NCA remains committed to fostering an environment that encourages competition, investment, and technological advancement for the benefit of all stakeholders.

WTISD 2023 – PUBLIC-PRIVATE PARTNERSHIP TO IMPROVE CONNECTIVITY



Prof. Ezer Osei Yeboah-Boateng, Deputy Director General, Technical Operations, giving the welcome address



The Board Chairman of NCA, Mr. Emmil Osei-Bonsu, delivering a speech



Deputy Minister for Communications and Digitalisation, Hon. Ama Pomaa Boateng, delivering the keynote address

The National Communications Authority (NCA) on Wednesday, 17th May, 2023, marked the World Telecommunication and Information Society Day (WTISD) which is celebrated annually worldwide with a Forum. The event which was held at the NCA Tower in Accra was commemorated on the theme “Public-

Private Partnership to Improve Connectivity”.

In a welcome address read on behalf of the Director General, Mr. Joe Anokye, the Deputy Director General in charge of Technical Operations, Prof. Ezer Osei Yeboah-Boateng, stated that Ghana’s government, through the



A cross section of participants at the event



The Panelists sharing knowledge on the theme

Ministry of Communications and Digitalisation (MoCD), has been actively promoting its Digital Agenda which seeks to bridge the digital divide, enhance digital literacy and increase access to connectivity.

To achieve this, he emphasised that the Ministry and its Agencies have implemented various initiatives such as Rural Telephony, UMTS 900, Girls in ICT, Community Information Centres and National Roaming amongst others. Prof. Yeboah-Boateng also noted that these projects are being monitored to ensure their efficient sustainability and to achieve its objective of improving connectivity.

The Deputy Minister for Communications and

Digitalisation, Hon. Ama Pomaa Boateng, addressing participants on behalf of the Sector Minister, Hon. Ursula Owusu-Ekuful, highlighted that the Rural Telephony Project (RTP) and the Ghana Rural Telephony and Digital Inclusion Project (GRT&DIP) are dedicated to bridging the connectivity gap in underserved and unserved communities within the country. She indicated that these initiatives aim to provide voice and data services to rural areas and are focused on extending network coverage to rural locations through sustainable methods.

Speaking on the Girls in ICT project, Hon. Ama Pomaa Boateng stated that the government has raised its target of training people. This, she said includes Government's commitment of \$2.6



There was an opportunity for participants to ask questions



Some questions came in thick

million to develop innovation centres aimed at educating 3,000 individuals by 2024.

Mr. Emmil Osei-Bonsu Jnr., the Board Chairman of NCA, delivered a speech on behalf of the Secretary-General of the International Telecommunication Union (ITU), highlighting that WTISD offers a platform for a shared responsibility in assisting Least Developed Countries (LDCs). He emphasised that this collective effort aims to make 2023 a year of remarkable digital progress in LDCs, fostering a globally connected world where everyone, regardless of their location, can access and benefit from technology.

The Head of the Office and Representative of UNESCO to Ghana, Mr. Abdourahamane Diallo, was also present to deliver the message of the UN Secretary General, Antonio Guterres. He stated that Ghana must dramatically improve accessibility and inclusivity and eliminate the digital divide.

As part of the programme, a panel discussion was also held on the topic, '**How stakeholders can collaborate to bridge Ghana's connectivity gap**'. The panel consisted of prominent stakeholders in the Communications Industry, each representing their respective organizations. Among the esteemed executives present were Mr. Prince Ofose Sefah from the Ghana Investment Fund for Electronic Communications (GIFEC), Mr. Solomon Richardson from the National Information Technology Agency (NITA), Mr. Emmanuel Kwarteng from MainOne Ghana, and Mr. Selorm Adadevoh from MTN Ghana.

The panel shared their experiences, steps taken, collaborations with the Public Sector, and future projections for optimum connectivity. The Panelists recognised the vital role the government played in shaping connectivity policies and regulations. They also emphasised the need for public-private partnerships to drive progress and stressed the importance of ongoing cooperation to address emerging challenges and maximise the impact of their collective efforts.



A group photograph of some participants with the Deputy Minister for Communications and Digitalisation

GHANA AND CÔTE D'IVOIRE LAUNCH BILATERAL ECOWAS 'FREE' ROAMING INITIATIVE AND ADDRESS SPECTRUM INTERFERENCE AT BORDER MEETING



Ghana and Côte d'Ivoire have embarked on collaborative efforts in the field of telecommunications, forging important initiatives to enhance connectivity and communication services. One significant milestone is the launch of bilateral roaming services between the two countries, a move that not only reduces roaming rates and charges but also facilitates cross-border movement for subscribers.

Additionally, Ghana and Cote d'Ivoire have undertaken discussions to address network interferences along their borders, recognising the importance of managing frequencies, spectrum, and radio bands to ensure uninterrupted communication services for their respective populations.

Summary of the collaborative engagements which endeavours to reflect a shared vision of

connectivity, trade enhancement, and regional integration are highlighted below:

Launch of ECOWAS 'Free' Roaming Initiative

Ghana and Côte d'Ivoire launched a bilateral roaming service under the ECOWAS Roaming



Prof. Ezer Osei Yeboah-Boateng and Ms. Namahoua Touré exchanging pleasantries after signing the Memorandum of Understanding



Mr. Kwame Baah-Acheamfuor delivering a speech on behalf of Hon. Ursula Owusu-Ekuful



Prof. Ezer Osei Yeboah-Boateng speaking at the event

Regulations, making them the first countries to activate such services for voice, SMS, and data. This initiative, aimed at reducing roaming charges within the two countries and facilitating cross-border communication, was launched in Abidjan, Côte d'Ivoire, on 14th June, 2023.

Following the successful launch of the service, subscribers traveling between the two countries will no longer incur international roaming charges, significantly reducing costs and enhancing convenience.

The launch is a significant achievement in regional cooperation and connectivity, aligning with the vision of a borderless Africa. The two countries also plan to initiate discussions

with their neighbouring countries to expand the initiative's reach. The Deputy Director General for Technical Operations at the NCA emphasized the initiative's potential to promote collaboration, trade, and tourism.

A Memorandum of Understanding was signed to facilitate ongoing cooperation between Ghana and Côte d'Ivoire in the implementation of the ECOWAS Roaming Initiative. Representatives from both countries, regulatory authorities, and telecom companies attended the launch event.

Ghana and Côte d'Ivoire hope that the successful implementation of this initiative will inspire other ECOWAS Member States to participate, fostering regional connectivity, trade, and tourism.



Group picture of the participants at the event

Bilateral Coordination Meeting on Spectrum Interference at Respective Borders



Mr. Isaac Boateng, Deputy Director, Regulatory Administration of the NCA, delivering his speech at the opening of the bilateral meeting



Dr. Yacouba Coulibaly, the Director General of the AIGF, delivering his speech at the opening of the bilateral coordination meeting

The NCA and the Agence Ivoirienne de Gestion des Fréquences radioélectriques (AIGF) in Côte d'Ivoire recently convened a crucial three-day bilateral coordination meeting in Abidjan. The meeting, held from 26th to 28th July, 2023, was prompted by numerous consumer complaints regarding network interferences encountered while accessing communication services near the shared border of the two countries.

The primary objective of this gathering was to discuss and evaluate the findings resulting from a comprehensive monitoring exercise conducted

independently by both nations along their respective borders. These discussions aimed to establish key parameters, coordinates, and monitoring zones, among other considerations. Additionally, the meeting focused on developing mechanisms for enforcing compliance once bilateral agreements were formalised.

Leading Ghana's delegation, Mr. Isaac Kofi Boateng, a Deputy Director at the Regulatory Administration Division of the NCA, expressed gratitude to the AIGF on behalf of various stakeholders, including the Minister for

Communications and Digitalisation, the Director General, the NCA's Board, and the Mobile Network Operators in Ghana.

He emphasized the essential role of bilateral discussions in the context of the International Telecommunications Union (ITU), emphasizing the need to manage frequencies, spectrum, and radio bands to ensure seamless communication services free from interference in both countries.

On the Ivorian side, Dr. Yacouba Coulibaly, the Director General of the AIGF, expressed his appreciation for the Ghanaian delegation's presence and commitment. He assured the meeting of his unwavering commitment to ensure that Mobile Network Operators adhere to the technical parameters outlined in the coordination agreement, with the goal of mitigating unintended interference along the border.

Dr. Coulibaly stressed the importance of such an agreement, particularly given the substantial shared territory of approximately 668 kilometers along the border.

The meeting concluded with the presentation of a draft methodology for measuring network signal penetration rates from neighbouring country mobile telephony operators within the border area between Ghana and Côte d'Ivoire. This draft would be formalised at a subsequent meeting once both administrations have given their approval.

Furthermore, a proposed Cooperation Agreement designed to facilitate information exchange and capacity building between AIGF and the NCA was introduced for review by both administrations, with plans to formalise it at a future meeting.



Group picture of the participants at the meeting



**Free Roaming in
Cote d'Ivoire**

Effective 14th June, 2023

Free Roaming for Voice, SMS & Data

For more information, visit www.nca.org.gh











NCA HOSTS GHANA'S FINAL PREPARATORY MEETING AHEAD OF THE 2023 WORLD RADIO COMMUNICATION CONFERENCE (WRC-23)



Prof. Ezer Osei Yeboah-Boateng, Deputy Director General (Technical Operations) giving the welcome address

The National Communications Authority (NCA) organised Ghana's Second and final National Preparatory Meeting as part of preparations for the 2023 World Radiocommunication Conference (WRC-23). The event, which was held at the NCA Tower in Accra from 26th to 29th June, 2023, was attended by stakeholders from industry and academia with the view to reaching a unified position for the country before the Economic Community of West African States (ECOWAS) and African Telecommunications Union (ATU) preparatory meetings, which were scheduled for July and August 2023 respectively.

Held every three (3) to four (4) years, the WRC is organised by the Radiocommunication Bureau of the International Telecommunication Union (ITU-R) to review and if necessary, revise the Radio Regulations and the international treaty governing the use of radio-frequency spectrum. Other areas such as the geostationary satellite and non-geostationary satellite orbits are all considered during such meetings.

In his opening address, Prof. Ezer Osei Yeboah-Boateng, Deputy Director General (Technical Operations) at the Authority, highlighted the preparations made by Ghana. He stated that the first preparatory meeting held virtually was to introduce stakeholders to the WRC-23 agenda. It also presented the studies conducted by the responsible ITU-R study groups whose findings have been consolidated into the Conference Preparatory Meeting (CPM) Report.

Prof. Yeboah-Boateng outlined the objectives of Ghana's Second National Preparatory Meeting which include consolidating the country's positions on various WRC-23 agenda items. He also noted that the NCA has prepared the various guidelines for participants to have detail conversations which will assist stakeholders in agreeing on positions that will make Ghana's inputs into the ECOWAS and ATU preparatory meetings cogent.

Prof. Yeboah-Boateng also emphasised the importance of leveraging the knowledge and expertise of the Ghanaian Communications Industry to ensure a clear understanding of consumer interests, Operator investments, and the overall development of the communications



Mr. Bernard Amissah-Ocran speaking at the event

sector. He called on stakeholders to make contributions that will, in the end, benefit Ghana and by extension, the sub-region and continent.

Mr. Bernard Amissah-Ocran, Deputy Director, Engineering Division, opened the floor for presentations and discussions on the WRC-23 agenda. He highlighted the significance of stakeholder opinions in informing Ghana's position for WRC-23 and urged participants to engage in constructive discussions during the three-day meeting.

Mr. Amissah-Ocran also noted that the decisions and recommendations made at the meeting will contribute to Ghana's proposals for the final

preparatory meetings of the ECOWAS and the ATU in July and August, respectively.

The meeting is being attended by representatives of the Ministry of Communications and Digitalisation, Internet Service Providers (ISPs), Very Small Aperture Terminal (VSAT) Operators, Mobile Network Operators (MNOs), Ghana Chamber of Telecoms, Broadcasting Service Providers and some Universities in the country.

Topics outlined to be discussed during the three-day meeting include issues on Mobile, Fixed, Broadcasting, Aeronautical, Maritime and Satellite Services.



Some proposals were submitted by stakeholders



Stakeholders who took part offered constructive feedback



A section of participants at the event

NCA MENTORS GIRLS-IN-ICT PARTICIPANTS



The girls singing some patriotic songs

The National Communications Authority (NCA) hosted one hundred (100) selected participants from various regions of the 2023 National Girls-In-ICT Initiative at the NCA Tower in Accra on 11th August, 2023.

This formed part of an Open Day activity organised by the Ministry of Communications and Digitalisation (MoCD) to provide the opportunity for the selected girls to acquire knowledge, in the field of ICT of Information and Communications Technology (ICT).

Welcoming the girls on behalf of the Director General of the NCA, Mr. Joe Anokye, the Director for Consumer and Corporate Affairs Division, Mrs. Nana Defie Badu, applauded the MoCD for empowering the girls to become leaders in society. She said that the initiative gives the girls the opportunity to have a good understanding of

the ICT field to inform their career decisions.

Some female staff of the NCA served as a source of inspiration, motivating them to pursue diverse roles in ICT, not only within Ghana but also at the global level. The 100 girls selected from the



Director of Consumer and Corporate Affairs at the NCA, Mrs. Nana Defie Badu, welcoming the girls at the NCA Tower



Female staff of the NCA inspiring the girls to go higher

Bono, Bono East, and Ahafo Regions, were presented with souvenirs to aid in their studies.



A group photograph of the girls with their souvenirs

NCA, KOREA INFORMATION SOCIETY DEVELOPMENT INSTITUTE (KISDI) EXPLORE OPPORTUNITIES FOR ICT ADVANCEMENTS



Ms. Olivia Okailey Quartey, Deputy Director General for Managerial Operations at the NCA giving her welcome remarks



Dr. Eun Jin RYU, Project Manager at KISDI, speaking at the event

The National Communications Authority (NCA) has hosted a five-member delegation from the Korea Information Society Development Institute (KISDI) on 16th August, 2023. The visit

forms part of ongoing collaborations between the Ministry of Communications and Digitalisation and the Institute to provide support to the Ministry as part of its ICT development projects.



A group photograph of the delegation from KISDI with Management staff of NCA and MOCD

The collaboration also entails consultation and advisory services on the deployment of 5G Technology as well as strategies to address and mitigate cybersecurity issues.

Ms. Olivia Okailey Quartey, Deputy Director General for Managerial Operations at the NCA, expressed her delight in hosting the delegation during their visit. She stated that the NCA is determined to play a significant role in advancing Ghana's ICT sector and holds a strong belief that the discussions will yield productive outcomes. She urged the NCA Team to be highly proactive in guaranteeing that Ghana reaps substantial benefits from the collaborative visit.

Addressing the gathering, Dr. Eun Jin RYU, Project Manager at KISDI, highlighted that

the delegation in Ghana comprises experts in innovation, start-ups, senior research fellows, and cybersecurity. She stated that the visit, which is not the first of its kind, offers an opportunity to review submitted proposals and offers advice on digital policies and cybersecurity. She also noted that through targeted group discussions, they aim to share their expertise and experiences, contributing to the development of a comprehensive proposal for Ghana's national ICT policy using a systematic approach.

As part of the visit, the delegation was taken on a tour of the NCA regulatory infrastructure, including the NCA Computer Emergency Response Team (NCA-CERT), the Communications Monitoring Centre (CMC), and the Broadcasting Monitoring Centre.

Technology Neutrality Benefits to Consumers and Operators

Increased Consumer Choice: Technology Neutrality provides consumers with a wide range of mobile cellular technologies, allowing them to select services and devices that suit their needs, preferences and budget.

Improved Service and Competitive Pricing: Technology Neutrality enhances service coverage and promotes competitive pricing, attractive service packages and special offers, fostering healthy market competition and affordability for consumers.

Innovation and Development: Technology Neutrality drives innovation, continuous development and adaptability to consumer needs by encouraging infrastructure investment and integration of new technologies, ensuring consumers benefit from ongoing advancements and future-proofed telecommunications services.



NCA HOSTS EDUCATIONAL INSTITUTIONS: STUDENTS GAIN PRACTICAL KNOWLEDGE AT THE NCA

The National Communications Authority (NCA) continues its commitment to promoting educational opportunities and bridging the gap between academia and industry by hosting students from four (4) tertiary institutions on enlightening study visits. This, the NCA believes will help nurture the future generation of STEM students and foster learning beyond the classroom.

As part of the visit, the students were taken through the mandate and operations of the Authority. They also had the privilege of touring the NCA's state-of-the-art monitoring facilities such as the Broadcasting Monitoring Centre (BMC), the Computer Emergency Response Team (NCA-CERT), and the Conformance and Type Approval Laboratories among others. This afforded them the opportunity to interact with industry experts and witness cutting-edge technologies in action.

According to the Deputy Director General in charge of Technical Operations at the NCA, Prof. Ezer Osei Yeboah-Boateng, these educational visits are part of the NCA's ongoing commitment to nurturing collaboration between industry and academia. According to him, by hosting students and providing them with invaluable experiences, the NCA seeks to encourage the pursuit of careers in technology-related fields, such as computer engineering and computer science.

During the visit by Computer Engineering Students from the University of Ghana, Prof. Yeboah-Boateng shared his wealth of knowledge in microprocessor-based specialisation, computer engineering, IT-based programming, and biometric security. The students were encouraged to explore and identify their specific areas of interest within software or hardware engineering.

University of Ghana - Computer Engineering Students



On 9th March, 2023, Sixty-six (66) Computer Engineering students visited the Authority's premises with the primary goal of exposing the students to real-world scenarios and the intricate workings of the Information and Communication Technology (ICT) infrastructure within the telecommunications industry.

University of Ghana - Computer Science Students



Ninety-five (95) Computer Science Students from the University of Ghana visited the Authority on 7th July, 2023 to understudy the Authority's work on Computer Networking and Cybersecurity.

Kwame Nkrumah University of Science and Technology (KNUST) - Telecommunication Engineering Students





The Authority also hosted Ninety-six (96) final year students of the Telecommunication Engineering Department of the Kwame Nkrumah University of Science and Technology (KNUST) on 14th July, 2023. The students were given an in-depth tour of the Authority's monitoring installations and equipment testing laboratories to enable them appreciate the theories learnt in school.

Cape Coast Technical University - Electrical and Electronic Engineering Students



On 21st July, 2023, the Authority hosted One hundred and one (101) students from the Department of Electrical and Electronic Engineering of the Cape Coast Technical University (CCTU). The key area discussed was Spectrum Management.

Kwame Nkrumah University of Science and Technology (KNUST) - Telecom Engineering Students



On 28th July, 2023, NCA hosted Telecom Engineering Students from Kwame Nkrumah University of Science and Technology (KNUST). This engagement allowed students to gain an understanding of

how the Authority manages Mobile Cellular Services, Masts & Towers and other telecommunication services.



University of Mines and Technology (UMaT) - Computer Science Students

NCA welcomed Computer Science students from the University of Mines and Technology (UMaT) on the 3rd August, 2023. The purpose of this educational visit was to expose the students to the latest industry trends and operations in the field of Cybersecurity, as well as the management of radio frequency.

The NCA is dedicated to bridging the gap between academia and the tech industry, providing students from various tertiary institutions with invaluable study visits. These visits, enabled the students to explore the NCA's operations and state-of-the-art facilities, fostering a deeper understanding of the telecommunications industry. By nurturing collaboration between industry and academia, the



NCA encourages students to pursue careers in technology-related fields. The NCA's commitment to promoting collaboration between academia and industry is paving the way for a future generation of tech leaders who will drive innovation and progress in the field.



EXPLORING THE WORLD OF DIGITAL AUDIO BROADCASTING (DAB): YOUR FAQs ANSWERED



1. What is Digital Audio Broadcasting (DAB)?

Digital Audio Broadcasting (DAB) is a state-of-the-art radio technology that enables the transmission of digital audio content over the airwaves.

2. How does DAB differ from traditional analogue FM radio?

DAB stands out from FM radio in various ways. It uses digital signals instead of analogue signals, resulting in improved reception quality and reduced signal interference.

Moreover, DAB utilizes a different frequency band from FM, allowing up to 18 stations to share the same transmitter, making it more energy-efficient. DAB also offers the transmission of additional data services alongside audio content.

3. Why is DAB being introduced in Ghana?

With increasing demand for sound broadcasting

services and limited FM frequency availability in major cities, DAB addresses the frequency constraints for FM radio and allows stations to reach more cities while broadcasting the same programme content.

DAB's spectrum efficiencies make it the perfect audio technology from a radio frequency management perspective.

4. How does DAB work? Can you explain the technology behind it?

DAB works by converting audio signals from radio stations into digital format. This digital data is then compressed and combined with data from other stations (multiplexing) before being transmitted for general reception. DAB receivers decode the transmitted data, converting it back into audio signals for a seamless listening experience.

5. Will DAB use the same frequencies as traditional analogue FM stations?

No, DAB will operate in the frequency range 174 to 230 MHz, while FM radio uses the frequency band 87.5 to 108 MHz.

6. Which Digital Audio Broadcasting standard has Ghana adopted?

Ghana has adopted the DAB+ standard. DAB+ provides enhanced audio quality and higher spectrum efficiency compared to the first-generation DAB.

7. Do I need a special device to receive DAB+ broadcasts?

Yes, to experience DAB+, you will need a DAB+ compatible receiver or radio such as standalone DAB radios, DAB+ enabled car stereos, and even DAB+ functionality in select smartphones and portable devices.

8. Are there any subscription fees for DAB+ services?

No, listening to DAB+ radio stations in Ghana does not require a subscription fee.

9. Can I still listen to FM radio stations if I have a DAB+ receiver?

Yes, DAB+ receivers in Ghana are required to support FM radio services as well. This gives you

the flexibility to switch between DAB+ and FM broadcasts as desired.

10. Are there any additional features or services?

Indeed, DAB+ goes beyond traditional radio. Experience text information displayed on the radio screen, such as song titles, artiste names, and news headlines. Some DAB+ radios support interactive features like traffic updates, weather information, and on-demand content.

11. Are there any plans to switch off FM radio in favour of DAB?

Currently, there are no plans to phase out FM radio. DAB complements FM radio and offers listeners more options without replacing their existing equipment.

12. Want to Know More?

For further information about DAB, contact:

National Communications Authority
NCA Tower, No. 6 Airport City
Accra, Ghana

Digital Address: GL-126-7029

Email: info@nca.org.gh

Website: www.nca.org.gh


**Phone: +233 (0) 302 776 621 /
+233 (0) 302 771 701**


Digital Audio Broadcasting (DAB) is here in Ghana


Listen to these 18 FM stations in Accra and Kumasi simultaneously with a DAB+ Receiver

Accra


Kumasi







MINISTRY OF
COMMUNICATIONS AND
DIGITALISATION
GHANA



**National
Communications
Authority**

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National Communications Authority Ghana
 @NCAGhana
 National Comm. Authority

FAQs: ECOWAS 'Free' Roaming - Bilateral Agreement between Ghana & Côte d'Ivoire

1. What is ECOWAS 'Free' Roaming?

The ECOWAS 'Free' Roaming is an initiative proposed by Economic Community of West African States (ECOWAS) Ministers of Telecoms/ICTs in 2016 with the key objective to reduce roaming rates/charges within the ECOWAS Region. The Service will allow roamers to receive calls and SMS for free without paying roaming charges and reduces the prices roamers pay for the use of communication services while roaming within the ECOWAS Region.

2. What are the benefits for Consumers?

- a) Subscribers who travel to within ECOWAS Countries will receive calls without paying roaming charges and will pay the local rates of the visited Country when they initiate a call to Ghana while in the visited Country.
- b) Subscribers travelling between the ECOWAS Countries can use their mobile devices without the need for multiple SIM cards.

3. Which Countries are involved in ECOWAS 'Free' Roaming?

All fifteen (15) ECOWAS Countries are involved in this project. However, Ghana and Côte d'Ivoire are currently the only Countries that have signed agreements and activated the Services.

4. When does the bilateral agreement between Ghana and Côte d'Ivoire take effect?

The Agreement took effect on 14th June, 2023.

5. Which services is the bilateral agreement covering?

- Voice
- SMS
- Data

6. Which Mobile Network Operators are involved?

- MTN Ghana
- AT Ghana
- Vodafone Ghana

7. When does Ghana intend to sign similar agreements with the remaining ECOWAS Countries?

Following the successful launch with Côte d'Ivoire, plans are currently underway to collaborate with other Member States. This will be communicated in due course when all arrangements are finalised.

8. Who is eligible to enjoy this Service?

All Postpaid and prepaid mobile subscribers of mobile networks in Ghana are eligible for the ECOWAS 'Free' Roaming Service.

9. Do I need a new SIM Card to enjoy this Service?

No, Ghanaian telecom subscribers who travel to Côte d'Ivoire do not need new SIM Cards to enjoy the service.

10. How do I activate/subscribe to the roaming services?

You do not need to activate or subscribe. After 14th June, 2023, your Operator will automatically cease to apply the roaming charge when you travel to Côte d'Ivoire.

11. How long can I enjoy the Service when I am in Côte d'Ivoire?

Customers roaming in Côte d'Ivoire are eligible to receive calls for free for 30 consecutive days. After the 30-day free roaming period, customer must return home for at least 7 days. After 30 consecutive days, customers will be charged International Calling Rate from Ghana to Côte d'Ivoire.

12. How do I access information on tariffs/rates when I travel to Côte d'Ivoire?

When a roaming customer enters Côte d'Ivoire, the home Operator shall deliver an immediate automatic notification at no cost via SMS, E-mail or a pop window on the device, stating the applicable tariff once a roamer makes or receives calls, SMS or uses data services in Côte d'Ivoire.

13. Why can't I enjoy this Service in other Countries apart from ECOWAS Member States?

This is a special arrangement agreed upon by Member States of the ECOWAS Region. Consumers have the opportunity to enjoy this service because ECOWAS Countries have amended their laws to waive the surcharge on international incoming traffic from intra-regional roaming traffic. As a result, consumers are unable

this Service outside the ECOWAS Region.

14. What are the responsibilities of Operators? Operators are required to:

- Ensure that roaming services provided to roamers is of comparable quality to those offered by the Operator to its subscribers.
- Notify roaming customers of the duration and cost of each service utilised while roaming within ECOWAS Region.

15. Where do I complain if I have any complaints regarding this Service?

First, lodge your complaint with your Operator. You may lodge your complaint with the NCA if the issue is not satisfactorily resolved by your Operator.



Free Roaming in Côte d'Ivoire

Effective 14th June, 2023

Benefits to Ghanaians

SMS	Send Local and International SMS Receive Local and International SMS	Using Côte d'Ivoire Local Rates For Free - No longer have to pay Roaming Fees
VOICE	Make Local and International Calls Receive Local and International Calls	Using Côte d'Ivoire Local Rates For Free - No longer have to pay Roaming Fees
DATA	Internet Usage Bundled Data from Ghana will not work in Côte d'Ivoire.	Using Côte d'Ivoire local Rates <i>Note: Only Pay As You Go Data is available.</i> You cannot buy Data bundles under ECOWAS Free roaming service.





Toll free:
0800 110 622

Hotline:
0307 011 419

or via email: complaints@nca.org.gh










National Communications Authority



Who are we?

The National Communications Authority (NCA) is the central body mandated to license and to regulate electronic communication activities and services in the country.

Communications for Development



National Communications Authority Ghana



@NCAGhana