



National Communications Authority

Frequently Asked Questions on UMTS-900 or 3G Services in the 900MHz Band

1. What is UMTS?

UMTS stands for Universal Mobile Telecommunications System (UMTS). It is a third generation (3G) technology.

2. What is UMTS-900?

This is the deployment of UMTS using the 900MHz frequency band which was originally assigned for the deployment of 2G services (GSM) in Ghana.

3. Which other frequency bands can UMTS be deployed in?

In Ghana, the UMTS technology was originally authorised in the 2100MHz frequency band. In other countries, the 1800MHz band has also been used to deploy UMTS 3G services.

4. Why do you now want to offer 3G in the 900MHz band?

Generally, the lower a frequency, the further coverage it provides. Therefore, offering 3G in the 900MHz band can typically double or triple the coverage area of the service. This way, areas which were hitherto unserved or underserved may be covered with the use of the new frequency. It is also a cost effective way of providing 3G services to rural areas.

In other words, UMTS makes it easier for Mobile Network Operators (MNOs) to expand their data coverage with minimum costs especially as they can be deployed over a large area at less costs. The UMTS technology also opens up the space for MNOs to reach out to folks in areas where hitherto they will not because of the costs in deploying base stations there.

5. Would this be done throughout the country?

No. The Authorisation to provide 3G services in the 900MHz band will be granted for specific areas upon application by a telco. The Authority shall give regard to unserved and underserved areas in considering the applications.

6. What is NCA's Criteria/Definition of Underserved or Unserved Communities?

These are:

- *Unserved Communities*
 - *Communities with no Communications Service*
- *Underserved Communities*
 - *May have only 2G Services i.e. No 3G service by an operator*
 - *May have poor 3G Services by an operator.*

7. What is the implication of this policy on the consumer?

Consumers who may not be experiencing good 3G coverage are likely to receive improved service coverage when the MNOs deploy the services in the 900MHz frequency band. Consumers in some rural areas may receive 3G services for the first time due to this regulatory decision.

8. Will consumers need to change their handsets or modems to be able to use UMTS900 services?

No. Existing phones which support GSM/GPRS/EDGE/3G/HSPA/HSPA+ will support all the UMTS900 services.

9. Would all operators be able to operate UMTS900 services?

Yes they can. However, each operator would deploy according to their own roll-out strategy which will be reviewed by the NCA during the application process.

10. What is the difference between UMTS900 and UMTS2100?

The UMTS900 operates using the 900MHz band whereas the UMTS2100 operates using the 2100MHz band.

11. Will this technology affect the quality of voice services?

This will not affect voice services as NCA will make sure that operators approved to deploy this technology have adequate frequency/bandwidth to deploy the service and avoid congestion.

12. Will there be a special SIM card for this service?

No, as mentioned previously, UMTS900 is the same as 3G so the existing 3G SIM cards will be able to receive UMTS 900 services.

13. What is the process of obtaining an authorisation to deploy UMTS900?

a. MNOs will have to submit an application to the NCA

i. Application to indicate the selected Underserved and Unserved Communities together with a proposed Roll-Out or Implementation plan for the indicated communities

b. NCA to review Application and confirm status of indicated communities

i. There will be a short approval process (maximum of two 2 weeks)

c. MNOs to receive Authorisation for use of the frequency to deploy this service

14. Will the NCA charge the MNOs fees for this application?

No. There will be no charges to MNOs for the processing of the UMTS900 applications. This is to promote the charging of affordable fees for 3G data services by the MNOs.

15. Why an Authorisation and not a Licence?

This is because the MNOs already have Licences to use that part of the spectrum for 2G services. This approval will authorise them to use the same spectrum for additional services, in this case, UMTS900 or 3G.

16. Is this service for only existing MNOs?

All MNOs can apply for and deploy this service.

17. What is the duration for the authorisation?

The authorisation is for the unexpired term of the MNOs' 2G Licences.

18. Will the existing quality of services parameters be the same for this technology?

Quality of Service (QoS) for this service will be same as QoS for the existing 3G service.

19. How will NCA ensure that all regulations in respect to this technology are complied with?

- *NCA will conduct periodic monitoring to ensure compliance.*
- *MNOs that default the Terms and Conditions will be sanctioned.*