

Government Gazette

GENERAL NOTICE

NOTICE 730 OF 2014

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA



PURSUANT TO SECTION 4 (1) OF THE ELECTRONIC COMMUNICATIONS ACT
2005, (ACT NO. 36 OF 2005)

**HEREBY ISSUES A NOTICE REGARDING THE DRAFT IMT ROAD MAP FOR
CONSULTATION – INVITATION FOR COMMENT DOCUMENT.**

1. The Independent Communications Authority of South Africa ("the Authority"), hereby publishes **the Invitation for Comments document on the Draft IMT (International Mobile Telecommunication) Roadmap for Consultation** in terms of section 2 and 4, read with sections 30, 31(4), and 33 of the Electronic Communications Act (Act No. 36 of 2005).
2. Interested persons are hereby invited to submit a hard copy as well as an electronic version of their representation on the Draft IMT Roadmap by no later than 16h00 on Tuesday, 7 October 2014.
3. When compiling their representation in terms of (2) above, respondents are required to respond to the questions using the attached template which can be obtained on the ICASA website: www.icasa.org.za.

4. Written representations or enquiries may be directed to:

The Independent Communications Authority of South Africa

Pinmill Farm Block A

164 Katherine Street

South Africa

Private Bag XI0002

Sandton

2146

Attention:

Mr Manyapelo Richard Makgotlho

e-mail: rmakgotlho@icasa.org.za

5. All written representations submitted to the Authority pursuant to this notice shall be made available for inspection by interested persons from 8th of October 2014 at the ICASA Library or website and copies of such representations and documents will be obtainable on payment of a fee.

Where persons making representations require that their representation or part thereof be treated as confidential, then an application in terms of section 4D of the ICASA Act, 2000 (Act No. 13 of 2000) must be lodged with the Authority. Such an application must be submitted simultaneously with the representation on the draft IMT roadmap. Respondents are requested to ensure that any confidential material is marked clearly as confidential or placed in an annexure which is titled confidential. Kindly note that should the request for confidentiality be refused, the person making the request will be allowed to withdraw the representation or document in question.

Dr SS MNCUBE
CHAIRPERSON



Invitation to Comment
on the
Draft IMT Roadmap

August 2014

1 Cover Sheet

Title

Chief Corporate Services Officer (CCSO)

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1.1 Confidentiality

See page 2 above.

1.2 Declaration

I confirm that the information supplied on the cover sheet may be incorporated into a formal consultation response: it can be published by ICASA, unless otherwise specified on this cover sheet, and I authorise ICASA to make use of the information in this response to meet its legal requirements.

Signed  at MIDRAND

Date 07 OCTOBER 2014

2 Invitation to Comment

The Authority invites written comment from relevant stakeholders on the draft IMT Roadmap and Feasibility studies for IMT in 450-470 MHz and 880-960 MHz.

2.1 IMT450

2.1.1 The Authority invites industry views on IMT usage in general in 450-470MHz.

Neotel supports the view that the Authority should explore radio frequency spectrum bands that are as valuable and conducive for the development of Broadband Wireless Networks in order to bridge the digital divide. Radio frequency bands, such as the 450-470 MHz band are better suited for the coverage of sparsely populated rural areas as well as urban areas. The 450-470 MHz band is being widely used to provide coverage in many sparsely populated developing countries, including Namibia, Mozambique and Angola.

In this respect Neotel supports this proactive steps to maximise the value of spectrum that might potentially be sitting dormant and not effectively utilised.

This 450 - 470 MHz band has been identified and allocated for IMT since WRC-07. See footnote below stating that the band already allocated to Mobile Services and identified for IMT.

"5.286AA The band 450-470 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). See Resolution 224 (Rev.WRC 07). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC 07)".

2.1.2 The Authority invites industry views on IMT paired spectrum usage for PPDR.

Neotel supports the use of the 450 - 470 MHz band to provide services that could maximise the potential of this scarce national strategic resource. As mentioned in 2.1.1, the 450 MHz band is well suited for large coverage areas as well as urban areas.

The Authority's audit report, "Consolidated Spectrum Audit Monitoring Report: 450-470 MHz Ref: 18/9/1/2" indicated largely under-utilisation of this band.

However, the IMT450 band is primarily occupied by government and emergency services which requires consultation with the Minister responsible for electronic communications for the migration thereof.

Neotel is of the view that the allocation of 20 MHz is not sufficient to accommodate many operators and the paired use of the spectrum may further erode the usage of this band if the entire band is not available.

Though the band is appropriate for lower data rates and capacity, the fees as per the AIP spectrum fees is lower than the higher frequency bands as well.

2.1.3 The Authority invites industry views on IMT paired spectrum usage for the SA connect initiative.

Neotel supports any technological development that favours the most efficient and effective as well as the most cost effective method to achieve the ambitious targets set in the National Broadband Policy "SA Connect" (Dec 2013).

The use of the IMT450 band is dependent on equipment availability and a level of development of devices that could function across the band.

Neotel also advises that there must be synergies and compatibility between the technologies deployed in the band in order to enjoy the economies of scale presented by the IMT450 ecosystem.

2.1.4 The Authority invites industry views on IMT unpaired spectrum usage for M2M and smart energy/grid applications in South Africa.

The delivery of Machine-to-Machine (M2M) services are allowed on both wireless and wired systems to communicate with other devices of the same type. M2M is a broad term and does not pinpoint a specific wired or wireless ICT technology.

Neotel is of the view that the above-mentioned are applications or service types. Furthermore convergence promotes technology and service neutrality. Therefore I-ECNS licensees should have a choice to determine what applications and services to offer on its network.

M2M forms an intergral part of the "internet of things" (IoT) ecosystem which includes smart energy/grid applications.

Neotel is therefore of the view that there is no need to dedicate spectrum for M2M applications.

2.1.5 The Authority invites industry views on the migration of incumbents (Transnet, SAA, Telkom, etc.) out of the 450-470 MHz band.

Neotel supports the optimum use of the IMT450 band. There is no doubt that the introduction of IMT technologies will result in better spectrum efficiency and will certainly pose an opportunity to modernise incumbent wireless networks.

Amongst others, some of the principles of migration imperatives are to minimise cost, consideration of the duration of the licence and the equipment life cycle. The current users of the IMT450 band may have legacy systems which nearer their end-life cycle.

However, migration of these State Owned Companies (SOC) and Government services requires ICASA to consult with the Minister responsible for electronic communications as per section 34(16) of the ECA.

Neotel suggests that due process be followed in this regard.

2.1.6 The Authority invites industry views on the migration time line.

Migration generally has major cost implications for licensees. Therefore issues that have to be considered amongst others are duration of the licence and the equipment life cycle. The current users of the IMT450 band may have legacy systems which nearer its life cycle.

An appropriate dual transmission period between the existing and destination bands is crucial to achieve a seamless migration of services. In order to further minimise the cost of migration it is imperative that licensees be exempted from paying license fees for the destination bands until migration is completed within the timeframe.

2.1.7 The Authority invites industry views on destination bands.

Neotel's views are that the destination band must be in alignment with the technology trends and adopted allocations on an international, regional and national level. The destination bands should additionally not be unique to South Africa but rather globally accepted to lower the cost of communications and service and to further enjoy the economies of scale that comes standard with harmonised allocations.

Neotel further submits that interim unique destination bands could be utilised to expedite migration in respective band and to accommodate for multiple migrations that may exist due to channel arrangement that may overlap with proposed more efficient technologies.

2.1.8 The Authority invites industry to give any other inputs that must be taken into consideration when finalising plans for the IMT 450 band

Neotel believes that the IMT450 band has to be optimised to promote spectrum efficiency and to introduce state-of-the-art modern technologies hence staying abreast of the latest technological developments.

2.2 IMT700

2.2.1 The Authority invites industry views on Option 1 (ITU Region 3).

The IMT800 frequency arrangement is already well established and has been adopted through an extensive consultative process in conjunction with ITU recommendation ITU-R 1036-4 (A3). The afore-mentioned frequency arrangement has also been adopted in the SADC FAP as well as the National Radio Frequency Plan. Any change to this arrangement requires further extensive consultation with SADC and stakeholders which will cause unwarranted delays in using the band.

Neotel submits that any frequency arrangement which is to be adopted for IMT700 must be harmonised with the already adopted IMT800 frequency arrangement.

Moreover, there is still ongoing consultation in collaboration with the Ministry responsible for electronic communications with respect to the IMT700 frequency arrangements. In this regard there was an in principle decision endorsed by the Administration in concurrence with SADC and ATU that Option 2 will be endorsed by its Member States.

Neotel's view is that Option 1 is less spectrum efficient and this option will not allow countries to enjoy the economies of scale of the already well-established IMT800 Digital Dividend One (DD1) band. This will certainly lead to more expensive installations which will translate into higher cost to communicate. Neotel's view is that it will be impacted by a migration for Neotel irrespective of the frequency arrangement option adopted for the country. Neotel therefore requests further engagement with the Authority on the harmful interference that will be caused by migration.

2.2.2 The Authority invites industry views on Option 2 (ITU Region 1).

As per 2.2.1, Neotel will be affected with whatever option is adopted and further engagement with the Authority is requested in this regard.

Neotel hereby submits that it endorses Option 2 only as agreed by many stakeholders as it is more spectrum efficient and provide flexibility of a 15 MHz TDD assignment.

However, Neotel wishes to caution that this obscure frequency arrangement may only be unique to South Africa. There are currently no devices available for this frequency arrangement.

Once again Neotel wishes to reiterate that whatever frequency arrangement is adopted should be harmonised with the adopted IMT800 channel arrangement.

2.2.3 The Authority invites industry views on Option 3 (ITU Region 1).

Neotel hereby submits that option 3 is not supported. The reasons are similar to the ones expressed in the afore-mentioned responses.

This option is less spectrum efficient insofar as it loses 5 MHz of valuable TDD spectrum.

Neotel once again seeks an engagement with the Authority to address migration and interference matters in this band.

2.2.4 The Authority invites industry views on 2x3 MHz IMT band of ITU Region 1 solution.

Neotel hereby confirms that it supports only Option 2. In fact this 2 x 3 MHz restricted arrangement appears to be impractical.

However, there is ongoing consultation on the IMT700 frequency arrangement and the final decision on this band will be resolved at WRC-15 based on the outcome of the ITU Joint Task Group (JTG 4-5-6-7) and the Radiocommunications Assembly 2015 (RA-15).

2.2.5 The Authority invites industry views on other ITU Region 1 based suggestions.

The IMT800 frequency arrangement is already settled within Region 1 and must be retained for the South African as adopted.

The GSMA further requested the EU to provide a long term view on the 470 - 790 MHz band. The GSMA stated the following:

“We appreciate the European Commission’s efforts to address the future of this important spectrum and welcome the call for the 700MHz band to be repurposed for mobile broadband in the European Union by 2020,” said Ms. Bouverot. “To close the gap with North America and Asia, we believe it is essential that Member States have flexibility to move sooner, preferably between 2018 and 2020 and potentially earlier, to respond to the sustained growth in mobile data traffic and the dramatic change in the way citizens across Europe are watching news and entertainment content, relying more and more on the Internet to access programming.”

European reports state that the 700MHz band should be freed for mobile broadband services by 2020.

2.3 IMT750

2.3.1 The Authority invites industry views on IMT unpaired spectrum in the coverage band of 750 MHz.

Neotel supports Option 2 for the 700 MHz frequency arrangement as well as the IMT750 unpaired arrangement related to this.

However, there is ongoing consultation at an international, regional and local level of the repurposing of the band from broadcasting services to mobile broadband services.

Neotel suggests that these ongoing discussions be followed industry with respect to the IMT750 arrangement.

2.4 IMT800

2.4.1 The Authority invites industry views on Option 1 (ITU Region 3).

Neotel has pronounced its views in 2.2.1 and therefore does not support Option 1 (ITU Region 3) for the IMT800 arrangement.

Neotel further submits that the IMT800 frequency arrangement according to ITU recommendation ITU-R M.1036-4 (A3) is well established in Region 1 as well as adopted in SADC and nationally.

Neotel's current assignment and users in this band will be impacted significantly in any frequency arrangement that is adopted.

Neotel therefore seeks a further engagement with the Authority on this matter.

2.4.2 The Authority invites industry views on the 2x3 MHz IMT band of Option 1 (ITU Region 3).

Neotel's views are as per 2.2.4 and therefore does not support Option 1 (ITU Region 3).

2.4.3 The Authority invites industry views on Option 2 and 3 (ITU Region 1)

Neotel has pronounced its views in 2.2.1 and therefore only supports Option 2 (ITU Region 1) for the IMT800 frequency arrangements.

Neotel's view is that the IMT800 channel arrangements according to ITU recommendation ITU-R M.1036-4 (A3) is well established in Region 1 as well as adopted in SADC and nationally.

Neotel's current assignment in this band will be significantly impacted in any channel arrangement that is adopted.

2.5 IMT850

2.5.1 The Authority invites industry views on the migration of incumbents (Neotel, etc.) out of the band.

The IMT850 band refers to the radio frequency range 824-829//869-874 MHz with a 2 x 5 MHz assignment. Neotel supports harmonisation of the channel arrangements with international best practice.

However, Neotel has communicated its envisaged migration based on the Authority's proposed migration proposal to Neotel.

Neotel wishes to express its concerns that it has not been consulted on the potential assignment to GSM-R.

Neotel's concerns are in respect of section 8.4.3 (Neotel Migration). In this regard Neotel wishes to stress that this proposed frequency arrangement will create major harmful interference on GSM-R, SRDs and Alarms in 865 - 870 MHz band. There will also be interference with the last channel IMT800 and IMT850 as the IMT800 has a reverse uplink-downlink.

Neotel seeks further engagement with the Authority in respect of the interference analyses and compatibility studies on assignments made to GSM-R and its proposed migration.

2.6 GSM900 spectrum consolidation

2.6.1 The Authority invites industry views on spectrum consolidation.

Neotel supports frequency planning approaches to rationalise spectrum usage in the GSM900 band to more spectrum efficient technologies and to enhance competition. This will follow international best practice to allow operators to migrate or refarm spectrum to state-of-the-art more spectrum efficient technologies.

The consolidation of the GSM900 band requires an extensive in-band migration and radio frequency channel changes which could lead to major cost implications for operators.

The GSM900 band affects primarily the 3 traditional mobile operators. However, it is Neotel's view that a transparent consultation should be conducted in respect of spectrum dividends which will be achieved through the consolidation of this band.

2.6.2 The Authority invites industry views on guard bands.

The GSM900 band is primarily used for GSM deployments which have synergies and compatibility between the technologies used in this band.

Neotel supports spectrum efficiency and the removal of the guard bands which could be coordinated amongst the affected operators.

Neotel submits that whatever spectrum gains be achieved from this consolidation must be transparent and be handled consistent with respect to migration in other bands.

Neotel further submits that spectrum gains as a result of the removal of the guard bands be levied in accordance with the AIP spectrum pricing regulation.

2.6.3 The Authority invites industry views on the time line of spectrum consolidation, i.e. when it should be done.

This proposed spectrum consolidation is a very resource intensive exercise and requires thorough frequency planning. Spectrum consolidation further requires regional harmonisation and consultation which has to be conducted with the affected operators in the band.

It is Neotel's view that the equipment life cycle and duration of the licence must be considered in imposing timelines on migration or repurposing of a band.

2.6.4 The Authority invites industry views on demand for IMT migration of 5 MHz taking into consideration the spectrum for IMT available in the 700 and 800 MHz bands.

The GSM900 band contains a high penetration of GSM handsets and will exist there for a considerable amount of time in future. Consolidation in scenario 3 of the GM900 band will achieve an additional 5 MHz block if operators are to be assigned equally in blocks of 5 MHz.

Neotel's view is that a 5 MHz channel/assignment is not sufficient to a broadband service considering the quality of services and capacity requirements of an effective and efficient operator.

Neotel's view is that it is impractical to introduce a new player in this limited amount of spectrum. Therefore the differentiated x5MHz block could be assigned on a need-based where a requirement is geographically needed.

Neotel submits that any spectrum gains should be awarded through a fair and transparent process and spectrum fees be charged in accordance with the AIP spectrum regulations.

2.6.5 The Authority invites industry views on need-based differentiated spectrum assignments in the 880-915 MHz (paired with 935-960 MHz).

Neotel supports the need-based differentiated spectrum assignment provided it is done through a fair, open and transparent consultation process required in terms of the ECA.

However, any spectrum that is awarded through a need-based differentiated spectrum assignment process, an operator has to pay spectrum fees in accordance to the AIP regulations.

2.6.6 The Authority invites industry views on demand for IMT migration of 10 MHz, taking into consideration the new spectrum for IMT in 700 MHz and 800 MHz.

Neotel is of the view that for any effective and efficient network a minimum of 2 x 10 MHz channel is essential.

The consequence of insufficient spectrum is restricted capacity, which combined with burgeoning demand, causes network congestion. For applications, this means sluggish behaviour or outright failures. Access to sufficient spectrum is fundamental to capacity.

Any spectrum assignment less than 2 x 10 MHz may not allow an effective operator to achieve the targets set in the "SA Connect" National Broadband Policy.

2.7 IMT2300 unpaired spectrum TDD

2.7.1 The Authority invites industry views on usage of 2380-2400 MHz.

Neotel is of the view that usage of the entire IMT2300 band requires further consultation. The Authority confirms in this IMT Roadmap that IMT2300 spectrum has been awarded to Telkom (60 MHz) and SMMT (20 MHz).

IMT2300 band is defined as high demand spectrum and is valuable with a growing demand for it.

Neotel wishes to remind the Authority that it has applied for spectrum in this band and was informed that "The Authority is investigating a framework to migrate all existing point-to-point service in the 2.3 GHz to a new band". "The Authority is also investigating a framework for licensing frequency spectrum in the 2.3 GHz band once it becomes available".

Neotel hereby seeks clarity which process was followed to licence these operators and requests transparency on the channel arrangement. Neotel has raised this matter in the Authority's consultation on the migration plan.

2.7.2 The Authority invites industry views on usage of 2290-2300 MHz for IMT.

Neotel supports the identification of this band for IMT.

The band is currently been utilised for wireless cameras in some jurisdictions and may require further consultation along with other services which may require migration or termination.

The band is also utilised for earth stations of the space research service (SRS) operating in the band 2290–2300 MHz for deep space communications. A further assessment of the band has to be conducted as there is currently no standardisation within 3GPP.

Neotel suggests that stakeholders follows the standards development in respect of the band.

2.8 IMT2600 paired FDD spectrum

2.8.1 The Authority invites industry views on demand in the IMT2600 FDD band.

South Africa and SADC adopted the ITU recommendations ITU-R M.1036-4 frequency arrangement C1 through an extensive consultative process with industry and the region.

It is Neotel's view that this band is best suited for capacity and therefore requires sufficient block sizes. This band is crucial to achieve the broadband targets set in the Broadband Policy, "SA Connect".

Neotel therefore supports the retention of the current adopted frequency arrangement ITU-R M.1036-4 (C1).

Neotel further notes that the Authority declared the draft ITA and channel arrangement obsolete through this discussion document after an extensive consultative public process.

Neotel seeks clarity in this regard.

2.8.2 The Authority invites industry views on the migration of the incumbent (WBS), into 2380-2400MHz.

Neotel supports the principle in the Frequency Migration Regulations (2013) of "To the extent possible, migration cost should be minimised by considering, amongst other things, the duration of the licence and the economic life of the equipment".

It also Neotel's view that the destination band should be equitable and suitable for electronic communications and must have similar technical characteristics as the current assigned bands.

However, Neotel's view on this specific sub-band is same as in section 2.7.1.

2.8.3 The Authority invites industry views in-band migration of the incumbent (WBS), into IMT2600 unpaired spectrum.

The Authority confirms in this IMT Roadmap that WBS has been assigned 1x15 MHz TDD spectrum in the IMT2600 band.

Migration of assignments is a costly exercise and has to be minimised and to maintain a seamless transition without any disruptions to services. The net effect should always be to maintain a lower cost to communicate to the customers.

Neotel supports the migration of assignments to equivalent destination spectrum bands which has the same technical characteristics as the current assignments.

2.8.4 The Authority invites industry views on alternative destination bands for the incumbent (WBS).

Migration of assignments is a costly exercise and has to be minimised and a seamless transition should be maintained without any disruptions to services as well as sustaining the lower cost to communicate to the customers.

Neotel supports the migration of assignments to equivalent destination spectrum bands which has the same technical characteristics as the current assignments.

2.9 IMT2600 unpaired TDD spectrum

2.9.1 The Authority invites industry views on demand in IMT2600 TDD band.

Neotel is of the view that the IMT2600 band has been declared high-demand spectrum through the draft ICASA ITA and the Ministry of Communication Policy Directions (14 Dec 2011, Government Gazette 34848). In this regard Neotel suggests that the Authority follows due process in the envisaged projects for the band. The IMT2600 TDD segment is likely be used to deploy Long Term Evolution (LTE) services (4G) as it is not anticipated to see substantial growth at the expense of 2G and 3G services in coming years.

Neotel is not aware of any substantial stand-alone networks globally that operate exclusively in the IMT2600 band. The Authority seeks to promote competition through the introduction of new entrants into the mobile data market. While the Authority's intentions are laudable, it is unlikely that this approach will achieve the intended goal of increasing competition.

There are currently three national mobile data networks (MTN, Vodacom and Cell C) and three growing data networks (iBurst, Neotel and Telkom Mobile). There are therefore seven existing and nascent mobile data networks in different stages of development. The business case for further networks is limited and would warrant the rollout of services in areas of high demand only, which are generally well-served already. Furthermore, the 2.6 GHz band is not well suited for providing coverage and therefore should not attract extensive coverage targets.

2.10 IMT3500 unpaired TDD spectrum

2.10.1 The Authority invites industry views on migration out of 3400-3600 MHz from FDD usage to TDD.

South Africa and SADC has already adopted the ITU Recommendation ITU-R M.1036-4 (F2) through an extensive consultative process. There is a growing ecosystem for TDD spectrum in this band as per the Huawei White Paper. The band is largely used for Broadband FWA systems in South Africa and assigned in a FDD configuration.

Neotel has made significant investments to deploy FWA in the IMT3500 band. Manufacturers (Feb 2013) have indicated that there is an ecosystem focused on TDD which will most likely be the future of this band.

Neotel therefore supports the repurposing of this band from FDD to TDD to harmonise the band in alignment with international developments.

Neotel seeks an engagement with the Authority to perform an in-band migration to align its current assignment with this proposed TDD frequency arrangement.

2.10.2 The Authority invites industry views on status and time line.

Radio frequency migration generally has major cost implications for operators, therefore critical issues amongst others that have to be considered are duration of the licence and the equipment life cycle.

An appropriate dual transmission period between the existing and destination bands is crucial to have a seamless migration of services.

In order to further minimise the cost of migration it is imperative that licensees be exempted from paying license fees for the destination bands as well until migration is completed within an agreed timeframe.

Neotel seeks engagement with ICASA on the timelines for an in-band migration.

2.10.3 The Authority invites industry views on interest in TDD downlink focused spectrum.

Neotel supports the introduction of more spectrum efficient methods to utilise the scarce spectrum resources.

However in this respect more information is required to anticipate the downlink ratios.

Neotel therefore supports a dynamic uplink to down link ratio which provides more flexibility for the operators.

2.10.4 The Authority invites industry views on interest in TDD uplink focused spectrum.

As per the above 2.10.3, Neotel supports the introduction of more spectrum efficient methods of utilising scarce spectrum resources.

However in this respect more information is required to anticipate the uplink focus ratios.

Neotel therefore supports a dynamic uplink to down link ratio which provides more flexibility to be suitable according to customer needs.

2.10.5 The Authority invites industry views on interest in the introduction of a Managed Spectrum Park.

Managed Spectrum Parks are intended to allow access to a number of operators in a common band on a shared and as far as possible on a self-managed basis (MICT, New Zealand, 2008).

Neotel supports the concept of Managed Spectrum Parks and believes it will stimulate competition and will provide much needed access to more ECNS licensees. The concept is also intended for local and regional services and seeks to provide a low cost flexible approach to management of radio frequency spectrum. The spectrum parks model should ideally be introduced on a technology neutral platform.

There are various approaches to Managed Spectrum Parks such as a) open access b) ICASA defined numbers of users and engineering principles and c) operator defined engineering principles and use specifications.

These principles need to be agreed upfront and made available to whoever will be applying for access to these bands.

Neotel submits Managed Spectrum Parks should be licenced/Authorised on a regional or local basis or on a combination of local municipalities throughout the country to optimise the deployments in smaller rural communities.

2.11 Operators opinion on one TDD-operator instead of every operator having parts of TDD spectrum

2.11.1 The Authority invites industry views on the TDD spectrum bundling of IMT450, IMT750 and IMT2600 and assignment to one (wholesale) operator.

The IMT450, IMT750 and IMT2600 bands have capacity and spectrum bandwidth constraints and can possibly only accommodate one or smaller operations.

This combinatorial method have been introduced in other jurisdictions with individual bands having different technical characteristics and serves a specific aspect related to coverage. It is well known that the lower the frequency the larger the coverage area and higher spectrum has higher capacity.

Neotel supports the proposed assignment of the IMT450, IMT750 and a portion of IMT2600 to an operator provided that the due application and processes be followed to award the spectrum. The IMT2600 band contains more spectrum and can accommodate more operators therefore only portion of the band is suggested.

Neotel submits that migration timelines of current users in the bands have to be considered before this approach is adopted.

2.11.2 The Authority invites industry views on the operator interest in individual IMT3500 assignments per operator or in one assignment to one (wholesale) operator.

Neotel does not support the approach that the entire IMT3500 band be assigned to a single wholesale operator.

The Authority is well aware that Neotel is licensed in the IMT3500 band and has made significant investments in deploying broadband wireless access infrastructure in this band.

Neotel has in section 2.10.1 supported the repurposing the band from FDD to TDD.

Neotel seeks further engagement with the Authority to do an in-band migration in order to harmonise the IMT3500 band in alignment with international trends and the outcomes of this and other consultations.

2.12 Universal service obligations for lower frequency bands (sub-1GHz)

2.12.1 The Authority invites industry views on universal service obligations for lower frequency bands (sub-1GHz).

Neotel supports the concept that Universal Services Obligations (USO) for the sub-1GHz bands be linked to the radio frequency spectrum bands which generally is defined as a scarce national strategic resource.

Neotel submits that USOs must be measurable and achievable and that the higher spectrum bands should not attract coverage obligations due to the scientific and technical constraints that accompany the higher frequency bands.

The success of the delivery of USOs are not solely dependent on spectrum and technologies but rather administrative challenges that may arise in managing and defining these obligations.

In this respect Neotel submits that the Authority, in conjunction with the relevant stakeholders, conduct a consultative process to ensure that the delivery of these USOs are achieved within an agreed timeframe.

2.13 Capacity licence obligations for new and existing IMT bands

2.13.1 The Authority invites industry views on licence obligations for new and existing IMT bands, including infrastructure sharing.

Neotel fully supports the Authority's endeavours to increase access to Broadband Wireless Access services especially in the remote rural areas.

Neotel wishes to reiterate that the Authority should consider population based coverage targets in favour of geographically based coverage targets. The problem with geographic coverage targets is that they mandate the rollout of networks in areas where people do not live, or in areas that are so sparsely populated that alternatives to mobile data, such as satellite broadband are significantly more cost effective.

ICASA recently revised the USOs for existing licensees therefore Neotel believes there is no need to review the existing obligations as well as it should not be changed for existing licensees retrospectively.