AUSPI's Question wise Response to TRAI Consultation Paper No. 4/2012 on Auction of Spectrum

Without prejudice to our Members' rights to have Spectrum up to 6.2 / 5 MHz GSM/ CDMA as part of Contractual Commitment between Government and operators

Preface

(i) AUSPI welcomes the opportunity to comment on issues concerning consultation paper on Auction of Spectrum. **AUSPI's comments on the Consultation Paper on Auction of Spectrum are entirely without prejudice to our member operators' right to receive contracted spectrum of 2x6.2 / 2x5 MHz GSM/CDMA for which they have already paid the entry fee.**

(ii) The Unified Access Service **licensees have valid contractual agreement with the Government to receive 2x6.2 MHz GSM spectrum and 2x5 MHz CDMA spectrum bundled with the license against the entry fees already paid. It is a legitimate right within the existing contractual compliance requirement to receive this 2x6.2 MHz GSM and 2x5 MHz CDMA spectrum.**

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AUSPI's Response to the issues raised by TRAI are as follows:

Q1) How can the various principles outlined by the Hon'ble Supreme Court in various observations brought out in Para above be sufficiently incorporated in the design of spectrum auction?

The issues of **competition, equality, public interest, public trust** have been outlined in the Hon'ble Supreme Court judgment. The auction design based on the following suggestions would help these principles to be addressed truly:

Equality:

(i) Obligation of the Government towards the existing operators for their requirement to be met upto the contracted spectrum i.e. 6.2/5 MHz for GSM/CDMA.

(ii) Adequate 2G spectrum is put for auction in each LSA to ensure that the existing players can have upto the prescribed limit of 8/10 and 5/6.25 MHz 2G spectrum for GSM/CDMA so that they are able to compete on equal terms with the old incumbent players.

(iii) By restricting those operators for participating in the auction who have more than or equal to 8/10 MHz GSM spectrum (in circle and Metro respectively) from participation in the forthcoming Auction and thus help achieve the objective of equitable distribution of spectrum. Keeping the constrain of availability of spectrum in most of the circles.

(iv) Balance the supply/demand situation of Spectrum by ensuring that the sufficient quantum is put up for 2G auction of 1800/800 MHz without creating artificial scarcity. This would lead to fair discovery of the actual market price of the natural resource without causing the winner's curse. This would also ensure fair competition in the market.

(v) To create a level playing field amongst incumbents, new and prospective TSPs for equal **quantum in 900 MHz and 1800 MHz** spectrum band.

Competition:

(i) By proposed so called 'liberalisation' TRAI seems to suggest that we leave 5 MHz behind in the hands of the operators who hold the spectrum today with the intention of their offering future services on LTE with that spectrum. Our contention is that this would be further unfair to newer operators who not only never got the benefit of the 900 MHz spectrum for even 2G use. This is the equivalent of creating a differential access right (practically a right of first refusal) to some operators for future generation telecom services and for the totally unrelated reason that they were the first bidders for 2G services 15 years earlier. This would be a further major distortion of the level playing field principles.

(ii) Liberalisation would distort and deflect the intended direction of the Hon'ble Supreme Court for 2G Auctions and also prevent the desired principles outlined by Hon'ble SC. Liberalisation of spectrum at this stage should not be allowed as it will be a complete deviation from the Hon'ble Supreme Court Directive to auction 2G spectrum.

(iii) An entirely free and open auction allowing all the players without limits has a substantial risk in that the old incumbent operators who already have large spectrum holdings beyond the Contracted and Prescribed Limits may resort to such practices in auction preventing entry of new operators. These old incumbent operators are also likely to affect the possibility of additional allocation of Spectrum within the Contracted and Prescribed Limits to the new existing operators by bidding for more spectrum beyond these limits and thus inhibit the competition in the 2G services. Competition is to be promoted through 2G spectrum Caps.

Public interest-

(i) The aim of the auction should not be to maximize revenue to the National Exchequer. The affordable, ubiquitous service to the consumer through a sustainable telecom industry should be at the heart of all telecom policies. In line with **that sufficient spectrum should be made available to meet the 2G spectrum demand** for telecom Operators to come out with sustainable business plans to meet the demands from varied segments of the society, especially at this stage of the growth where different Socio Economic Class of India expects to be part of the Inclusive India. Regulatory recommendation should help achieve this Public Interest of the 2 major stake holders i.e. Telcos and Consumers and ensure that the auctioned spectrum price do not get to the inflated levels through artificial scarcity created in the Auction design/process.

(ii) Public interest of affordable, scalable and QoS enabled 2G service can only be ensured through a sound and stress tested techno-economic model based reasonable reserve price to be set for 2G spectrum, considering the true reflection of current market conditions in 2012-13.

(iii) Spectrum is a natural national resource and it should be utilized for the welfare of "Aam Aadmi". The aim of auction should be to lead to affordable services to public. Revenue earning by the Government is a by-product and maximization of revenue should not be an objective for the auction.

Public Trust

(i) The auction design for 2G spectrum to encourage sincere bidding which is free from collusion, predation, artificial demand reduction etc.

(ii) The auction should ensure public trust by making it transparent.

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Q2) What are the key objectives to be kept in mind in the auction of the spectrum?

The objectives to be met through Auction are suggested below:

Level Playing Field	(i) To ensure a level playing field between TSPs by giving them an opportunity to be able to have access to the critical mass of spectrum of at least 6.2/ 5 MHz GSM/CDMA and also providing forward path upto the **"Prescribed Limit."**
	(ii) To create a level playing field amongst incumbents, new and prospective TSPs for equal quantum of spectrum as per the Prescribed Limit by specifying this as cap limit.
	(iii) To create a level playing field amongst incumbents, new and prospective TSPs for equal **quantum in 900 MHz and 1800 MHz** spectrum.
Optimal Quantum of Spectrum	(i) Uncertainty in 2G Industry to be removed and sustainability should be the most important criterion by putting enough spectrums for auction of 1800/800 MHz band.
	(ii) To ensure the adequate availability of spectrum for the forthcoming expansion need of the society especially from the hinterland India.
Current Market Reflected	(i) To decide the Reserve Price of spectrum considering the current 2012-13 driven market conditions of higher generic costs, higher levels of capex, opex, significantly new current tariffs, both local and STD being the same level, different supply, demand and demographics scenarios, different terrain to be covered from 2013-14 onwards etc.
	(ii) The Reserve prices should reflect the Government objective for Tele-density improvement rather than addressing the maximising revenue potential for National exchequer.
Focus on 2G and Responsive to Supreme Court's observations	(i) Hon'ble Supreme Court of India direction is triggered by 2G related issues for grant of licence and allocation of spectrum in 2G band in 22 Service Areas and thus auction is recommended to be implemented.
Separate auction for 800 & 1800 MHz band	Separate but simultaneous auction for different bands of spectrum. It is clear that not all spectrum bands have equal use and therefore equal values. For example with the deterioration in the CDMA ecosystem, the value of the 800 MHz spectrum for CDMA operators is not the same as the value for 900 MHz for GSM operators. Deriving

a value for such spectrum by linking the pricing for the two is incorrect, distorts the true value of the two bands and places one set of operators who are already disadvantaged by being in the limited availability 800 MHz band at an even further disadvantage in terms of being able to compete in the market. Therefore each band should be auctioned independently and its own true value independently determined without recourse to linking it to the value of spectrum in other bands.

Q3) What should be the amount of spectrum which should be auctioned?

(i) The amount of spectrum to be auctioned should take into account the following:

a. Ability to meet the requirement of all existing TSPs for initial/contracted limit.

b. To provide growth path for all current Spectrum holders who do not have Prescribed Limit of Spectrum to go up to the Prescribed Limit

c. Prevent any operators to hold spectrum more than the Prescribed Limit

(ii) After meeting the requirement of eligible operators for additional spectrum upto the Contracted limit, the remaining spectrum in 1800 MHz and 800 MHz spectrum should be allocated through auction for 2G GSM and CDMA based services respectively.

(iii) The spectrum that is going to be made available by Defence forces in next 400 days should be included in the available spectrum for auction.

(iv) The 900 MHz band to be re-farmed today. But in no event should this time period extend beyond the date of extension/renewal of the current licenses starting 2014.

(v) Balance the supply/demand situation of the 2G Spectrum by ensuring sufficient quantum of spectrum to be put for 2G auction of 1800/800 MHz spectrum. Creation of artificial scarcity of 2G spectrum for revenue maximisation for National Exchequer should be avoided as that is not consistent with the Telecom Policy objective of affordable services and Sustainable Industry and also against SC Outlined principles as mentioned in our response to Question1.

(vi) Hence all available spectrums should be auctioned and nothing should be withheld.

(vii) In 1800 MHz the total spectrum to be put for auction should include spectrum available in the following categories:

- Spectrum available as per the information on WPC website
- Spectrum vacated on cancellation of 122 licenses
- Spectrum to be vacated by Defence in next 400 days.

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Q4) Should the spectrum be liberalised before it is put to auction?

(i) By proposed so called 'liberalisation' TRAI seems to suggest that we leave 5 MHz behind in the hands of the operators who hold the spectrum today with the intention of their offering future services on LTE with that spectrum. Our contention is that this would be further unfair to newer operators who not only never got the benefit of the 900 MHz spectrum for even 2G use, but now will never be able to access the spectrum even for future generation services. This is the equivalent of creating a differential access right (practically a right of first refusal) to some operators for future generation telecom services and for the totally unrelated reason that they were the first bidders for 2G services 15 years earlier. This would be a further major distortion of the level playing field principles

(ii) Hon'ble Supreme Court of India in its judgment has directed that TRAI shall make fresh recommendations for grant of licence and allocation of spectrum in 2G band in 22 Service Areas by auction. Liberalization of 800/1800 MHz for possible use of advanced UMTS/LTE technologies will distort the 2G Auction process disturb the level playing field, affects the Govt policy of acquiring right value for Spectrum for such use in relevant bands and for applicable quantum considered essential for such liberalised usage. **Also this Liberalisation is beyond the scope of SC Directive and Govt's intended objectives.**

(iii) The trigger for 2G auction is Supreme Court judgment and accordingly spectrum should be auctioned as per the principles and direction of that judgment.

(iv) Auction of spectrum linked to Liberalisation for use of advanced 3G/4G service will change the dynamics of the market which is already plagued with many issues of Non Level playing field. The spectrum should not be liberalised unless level playing field is ensured.

(v) The liberalised use of 800 MHz and 900/1800MHz at this stage will distort competition in the Indian mobile markets. This distortion arises because there is uneven holding of 900/1800 MHz spectrum bands. The incumbent operators would be able to dedicate some part of the spectrum for existing 2G operations and the rest they would use for advanced 3G/4G services. Thus liberalisation will directly alter the established balance of long-term network capacity between operators and the service delivery capability of the operators.

(vi) The larger spectrum holdings by incumbent operators would provide them with significant technical and commercial advantages with the liberalised use.

(vii) The imbalance to be caused by spectrum liberalisation will substantially distort the mobile market and would lead to marginalisation or even lead to the exit of network operators within sufficient spectrum holdings.

(viii) The Service providers have paid Rs 16,750.58 crore for 2x5 MHz pan India spectrum in 2.1 GHz spectrum band for 3G services. **Liberalisation of 900/1800MHz spectrum will lead to increase in the total 3G spectrum supply from current level to a much higher level without any payment being involved.** Thus

operators who have enough spectrum and are able to provide 3G services in 900/1800 MHz will hugely benefit without having to pay Rs 16,750 crore for 2x5 MHz spectrum for upgrading to 3G services.

(ix) The liberalised use of spectrum is to be allowed only after level playing field is achieved through equitable distribution of spectrum and through payment of higher license/spectrum charges applicable for 3G/4G service. **Without meeting the level playing field objective of the 2G spectrum liberalisation may be unlawful and also cause huge loss to the National Exchequer.**

(x) TRAI is requested to keep a note of the Supreme Court judgment, principle of equality, level playing field enunciated in the judgment, and disparities between the holdings of different operators while deciding the liberalisation policy. **Without equitable distribution spectrum, liberalisation will only distort competition in the market. It is therefore suggested that spectrum should not be liberalised at this stage.**

Q5) For the re-farming of 800 and 900 MHz bands from the existing licensees, which of the three options given above should be adopted? Please elaborate with full justification.

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Q6) What are the issues that may arise in the above mentioned re-farming process?

<u>First proposal:</u> Withdrawal of 800/900 MHz spectrum

800 MHz Spectrum

(i) Withdrawal of 800 MHz spectrum can be considered only when alternate spectrum is available for relocation of CDMA subscriber base. However there is no discussion in the paper for any alternate path for CDMA operations. There are no alternate bands identified in the last 15 years for 800 MHz in CDMA and no spectrum in alternate bands has ever been made available for use by the operators. Contrast this with GSM where 1800 has been an alternate band to GSM for over the last 15 years and even incumbent operators have a mix of allocation of 900 and 1800 and hence have had adequate opportunity to gain experience and knowledge in running networks on both bands in GSM.

(ii) At present, re-farming of 800 MHz spectrum is not an appropriate decision as sufficient spectrum in 2G band is to be made available in 22 Service Areas for existing operators as well as new operators so that they have scalable operations and are able to effectively compete in the market.

(iii) For CDMA operators it is important that adequate cross over time to an alternate band (that is yet to be identified) be given to ensure that customers and operations are not impacted and any migration of customers happens smoothly.

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900 MHz Spectrum

(iv) The 900 MHz should be re-farmed immediately as sufficient spectrum is available in 1800 MHz to relocate existing operators. It will not be possible to carryout re-farming subsequently as spectrum to relocate incumbents in the 1800 MHz spectrum band would not be available.

(v) The re-farming of 900 MHz spectrum band immediately will be in line with the principle of quality laid down by the SC for allocation of spectrum.

Second and Third Option: Spectrum Re-farming of 800/900 MHz to provide 4G services

(vi) We strongly oppose second and third option as it will distort competition in the Indian mobile markets, The proposals will benefit only existing holders of 900 MHz spectrum band as they have large holding in 900 and 1800 MHz spectrum bands which can be combined. These operators will be able to planning the allocation and utilising the spectrum for advanced 4G services.

(vii) The benefit to provide advanced UMTS/LTE services in existing band to only few incumbent operators would provide them with significant technical and commercial advantages with the liberalised use in providing mobile data at high download speeds.

(viii) The imbalance likely to be caused by spectrum re-farming in the proposed second and third option will lead to a highly skewed factor in the mobile operator market and would lead to marginalisation or even lead to the exit of new 3G operators who do not have access to sub-GHz spectrum band.

(ix) Not ensuring the equitable access to the spectrum for use of advanced UMTS/LTE services would lead to a non-level playing field. It will also not be in the public interest and would not be supported by public trust.

Conclusion

In view of the above it is suggested that 900 MHz spectrum bands should be re-farmed immediately.

Q7) For new technologies e.g. UMTS/LTE, 5 MHz is the minimum amount of spectrum required. Certain licensees have only 4.4 MHz spectrum in 900 MHz band and 2.5 MHz spectrum in 800 MHz band. What are the possible options in case of such licensees?

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Q8) Some GSM spectrum allocations may be interleaved between operators; to avoid fragmentation, reconfiguration between operators may be required. Whether frequency reconfiguration is required and what are the challenges and possible solutions?

(i) It has been submitted above that the Hon'ble Supreme Court of India in its judgment has directed that TRAI shall make fresh recommendations for grant of licence and allocation of spectrum in 2G band in 22 Service Areas by auction.

(ii) Liberalization of 800/1800 MHz for advanced UMTS/LTE is beyond the scope of SC judgment. The trigger for 2G auction is Supreme Court judgment and 2G spectrum should be auctioned as per the principles and direction enunciated in the judgment. Any matters related to the standard Channel plans i.e. sub 5 MHz or 5 MHz or 10 MHz etc to be adopted for launching new LTE Advanced services should be a part of a PURE Play 4G Auction plan. First step is to ensure the level playing field amongst the existing 2G players by helping all of them to have access to 6.2 MHz each and 900 MHz spectrum is equally distributed. Let the GSM industry attain that status. A stable and sustainable 2G industry is a must for a possible 4G launch where in the available 2G NW Infra of Towers, BTS / Backhaul and the Core N/W are supposed to be exploited. 3GPP2 proposed schemes like Carrier Aggregation (CA) to help utilise multi band Spectrum holding by Operators would address the issues of fragmented Spectrum/ Contiguous Spectrum etc. As mentioned above 4G Auction needs to be entirely separate spreading across the 2 bands of 700 and 2500 MHz bands. Carrier Aggregation techniques can be used effectively. In any case Auction of spectrum for advanced 3G/4G service at this stage will change the dynamics of the market. Therefore this issue is not relevant at this stage.

(iii) Further, it has also been submitted above that the incumbent operators have large spectrum holding and they would be able to dedicate some part of the spectrum for existing 2G operators and the rest for advanced 3G/4G services.

(iv) The option of Liberalised use of existing 2G spectrum bands for UMTS/LTE services may be considered only after 2G spectrum is equitably distributed to meet the 2G Auction objectives as outlined above.

(v) Fragmented allocation of GSM spectrum has happened due to non availability of contiguous spectrum due to usage of the cellular band by other users for non commercial use. However, in present allocation scenario, reconfiguration would be a very difficult exercise. We suggest that fragmentation issue can be taken at the time of extension/renewal of licences.

Q9) Should the re-farming of spectrum in 800/900 MHz bands be dealt independently or should a comprehensive approach be adopted linking it with the availability and auctioning of 700 MHz band?

(i) The 900 MHz spectrum bands may be re-farmed immediately as spectrum in 1800 MHz spectrum band is available to relocate existing holders. The re-farming of 900 MHz and reallocation through auction in blocks of 2.2 MHz at this stage will help new operators to cost effectively cover rural areas.

(ii) 800 MHz can be re-farmed when spectrum in alternate band is available to relocate current holders.

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Q10) Which of the two approaches outlined above be adopted?

At present 800/ 900 MHz spectrum band is being used for 2G services. The 700 MHz spectrum band will be auctioned for advanced LTE services. **Debarring existing 800/900 MHz spectrum band holders from participation in 700 MHz would be extremely unfair and highly discriminatory.** Also all over the world all existing TSPs use their established NW Infra, NW operations and marketing NW to be able to launch the 4G services on incremental investment basis. This would help them to offer 4G Broadband services at most economical level. Regulator cannot deny the availability of 700 MHz Spectrum access chance to the existing 2G/3G operators. They should be given a fair chance to enable them to provide and effectively compete on advanced broadband services market segment. **Therefore, when auction takes place, all licensees should be allowed to participate in the auction.**

Q11) When should 700 MHz spectrum be auctioned?

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Q12) Should the auction in 700 MHz band be linked with the granting permission for the liberalized use of 800/900 MHz band?

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Q13) How much spectrum in 700 MHz band should be put to auction initially and what should be the amount of spectrum which a licensee should be allowed to win in that auction?

700 MHz band spectrum should be independently auctioned separately. Newer generation services are bandwidth intensive and hence ensuring that each operator has adequate spectrum would ensure that services provided are of quality and it is possible for the operator to optimize his network to deliver this quality at the best possible price to the consumer. Our recommendation would be to allocate spectrum in chunks of 10 MHz for new services like LTE because technically lesser allocations lead to sub optimal use of the spectrum.

Q14) What should be the structure of the auction process?

Independent auction should be conducted for the following categories:

- **Auction of 4.4 MHz GSM for Start-up spectrum needs for new licensees**
- **Auction of 2.5 MHz CDMA Start up spectrum needs for new licensees**
- **Auction of additional 1.8 MHz GSM spectrum blocks beyond the Contracted spectrum for existing licensees subject to the condition that the spectrum cap i.e. Prescribed limit is not violated.**
- **Auction of additional 1.25 MHz CDMA spectrum for existing licensees subject to the condition that the spectrum cap i.e. Prescribed limit is not violated**.

- **Additionally assignment of balance of contracted spectrum may need to be ensured for the existing licensees who have so far been allocated only the start-up spectrum of 4.4MHz. (Press statement of MOC&IT dated 29th January, 2011)**

Q15) Should auction be held in single stage or multi stage?

AUSPI suggest that the Simultaneous Multiple-Round Auction (SMRA) format should be adopted.

(i) Typically most SMRA use eligibility points to manage the auction which should also be used for 2G Auction.

(ii) Eligibility points are a means to ensure that bidders do not increase the amount of spectrum they bid on from one round to the next and that switching from one category to another is broadly consistent with the expected relative values of these categories. For example eligibility point for Circle A and metro should be higher than Circle B or Circle C. **By specifying eligibility points bidders will not be able to bid for a package with an associated eligibility that is greater than the eligibility of its bid in the previous round.**

(iii) Properly chosen eligibility points in a clock auction facilitate the truthful expression of values among alternative licensed areas. Poorly selected eligibility points can result in unduly long auctions.

(iv) In India spectrum can be auctioned simultaneously for 22 circles but separately for four categories mentioned above in response to the Q 14. The eligibility for these circles can be decided based on ARPU, Geography, teledensity etc.

(v) The auction should not end when for the 1st time demand in all circles is Zero or –ve. It should continue for one more round to enable bidders who have been thrown out in the last round due to demand moving in from others circles.

(vi) Therefore it is suggested that SMRA auction for 22 circles may be adopted with the eligibility points subject to the condition that the auction should not end when for the 1st time demand in all circle is Zero or negative. It should continue for one more round to enable bidders who have been thrown out in the last round due to demand moving in from others circles.

(vii) There should be separate SMRA for 4 categories mentioned under Q14 for Start-up and Additional GSM and CDMA spectrum in 1800 MHz and 800 MHz spectrum band.

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Q16) Should there be a simultaneous auction for spectrum in 800 and 1800 MHz bands?.

(i) CDMA spectrum in 800 MHz and GSM spectrum in 1800 MHz should be auctioned separately like 3G and BWA but simultaneously for all 22 circles for determining a true and fair determination of their respective market values.

(ii) **800 MHz is for CDMA and 1800 MHz for GSM services. Auctions for 800 MHz and 1800 MHz frequency should therefore be treated as entirely two separate auctions. The mobile services on CDMA platform and GSM platform have totally different ecosystems associated with them and the revenue/MHz are significantly different. This has direct bearing on spectrum valuation**.

(iii) In views of the above it is suggested that the spectrum in 800 MHz and 1800 MHz should be auctioned separately but simultaneously for all 22 circles for a true and fair determination of their respective market values. However CDMA and GSM spectrum for 22 circles may be auctioned simultaneously.

Q17) What should be the block size of the spectrum?

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Q18) Should the block size be dependent on the frequency? If so, what should be the block size in each band?

Block size will depend on Spectrum as separate auctions are proposed for CDMA and GSM.

- GSM spectrum in 1800 MHz band should have block sizes of 4.4/1.8 MHz for Start-up/ Additional spectrum.
- CDMA spectrum in 800 MHz band should have block sizes of 2.5/1.25 MHz spectrum band for Start-up/additional spectrum.

Q19) Should there be a cap on amount of spectrum one can bid? If so, what should it be?

(i) As submitted above, existing licensees have widely varying amounts of spectrum which tend to minimise and suppress competition. Incumbents have large spectrum holding upto 10 MHz which has become a constraint on the availability of adequate spectrum for Auction for Equitable distribution.

(ii) Policies which support unlimited access to spectrum, administratively or through an auction, will provide strong incentive for incumbent operators to acquire a level of spectrum holdings and this may marginalise or foreclose their competitors, undermining their ability to compete sustainably with the incumbents in the future.

(iii) TRAI has held that Indian operators have spectrum requirement only upto the prescribed limit i.e 8/10 MHz for GSM and 5/6.25 MHz for CDMA for serving the Indian

Subscriber base with reasonable market share. If operators holding spectrum more than the prescribed limit are allowed to participate in the auction then it would make it impossible for few operators to reach even the minimum efficient scale with 6.2 MHz spectrum. The spectrum holding beyond the Prescribed limit by incumbents would create spectrum capacity constraint for new operators preventing effective competition.

(iv) Adherence to the Prescribed limits will protect effectively against strategic bidding being employed to reduce competition. Spectrum caps thus would create a "level playing field". **AUSPI considers application of Prescribed limit cap which is 10 MHz in Delhi & Mumbai and 8 MHz in other circles for GSM and 6.25 MHz in Delhi & Mumbai and 5 MHz in other circles for CDMA will substantially equalise spectrum holdings that would secure optimum competition in the Telecom market and going forward would facilitate spectrum liberalisation.**

In view of the above AUSPI recommends that there should be a cap equivalent to the prescribed limit.

Q20) Should there be a separate cap on the total amount of spectrum one can hold; if so, what amount should it be?

(i) Yes, there should be band wise separate caps. The CDMA spectrum and GSM spectrum should have following spectrum caps:

	GSM	**CDMA**
Delhi/Mumbai	2x10 MHz	2x6.2 MHz
Rest of India	2x8 MHz	2x5 MHz

Q21) Should there be a cap on the amount of spectrum one can hold in respect of sub-GHz spectrum? If so, what should it be?

(i) Hon'ble Supreme Court Directive is for level playing field in 800/1800 MHz spectrum allocation. We already commented earlier with sufficient justification that liberalization and re-farming should not be done at this stage of auction. We also explained why re-farming of 800 MHz spectrum band is not possible as the alternate spectrum to relocate existing CDMA operators is not available. The 900 MHz should be refarmed and allocated to operators to meet their coverage requirement. Thus giving any reference for sub-GHz spectrum by remotely hinting combinatorial usage of spectrum spread across 700, 800 and 900 MHz bands is highly unjustified at this stage of auction for 2G spectrum.

(ii) Therefore at this stage when we are considering 2G auction, the issue of consideration a cap on the amount of spectrum one can hold in respect of sub – GHZ band is not

appropriate. This issue can be considered after spectrum has been re-farmed. **The Only CAP to be applied now is the Prescribed Limit.**

Q22) Who all should be eligible to participate in the auction?
a. Only licensees whose licences have been cancelled;
b. Only eligible applicants as on 10.01.2008;
c. Only licensees whose licences have been cancelled and all new eligible entrants at the time of auction; or
d. Open to all including the existing Licensees.

The eligibility condition to participate in the 2G spectrum auction is suggested as under:

For New GSM and CDMA Spectrum License

- All entities which undertake to take UASL after successful bid

For Additional Allocation of Spectrum beyond 6.2 MHz GSM Spectrum and 5 MHz CDMA spectrum

- All existing UASL and CMTS operators except operators holding spectrum beyond the 'Prescribed Limit' spectrum of 8 MHz/10 MHz for GSM in circles and metros respectively and 5 MHz/ 6.25 MHz for CDMA in circle and metros respectively from participating in the auction. **The operators holding spectrum equal to or beyond the Prescribed Limit should not be allowed to participate in the auction.**

Q23) What should be reserve price per MHz of spectrum in the year 2012 for 1800 MHz band?

The right level of Reserve price for 800/1800 spectrum for 2G services which truly reflects the current market conditions is the absolute need of the hour.

The reserve price based on indexation on 2001 price alone will be improper as the societal conditions, demography, affordability etc have changed. The changes that have taken place since 2001 are given below:

- There is highest level of saturation in Dense Urban, Suburban markets and the demand is expected to be mainly from Rural markets which has much higher cost for delivery of service.
- The total addressable market effectively is only 170 million subscribers starting from 2013
- ARPUs is at around Rs 100 compared to Rs 600 in 2001
- Capex and Opex levels for operators increased already and also would be more for the different Geographic coverage

- Spectrum acquisition cost is higher and usage charges have also gone up. MW spectrum charges have also increased considerably

- Tariff levels are one of the lowest in the world and ARPUs continuously coming down. Talk time in MoU on per month basis is coming down

- Cost of Finance is high.

- New TSP to have pan India rollout for matching coverage of incumbents would require upfront huge capex and opex, whereas in the past, all incumbents have rolled out services town wise, circle wise and were able to meet large capex outgo from internal accruals also.

- Focus is more on higher levels of penetration in hinterland India.

- Churn at 3% per month and prepaid subscriber retention is lower than 6 months.

- Cost of regulatory compliances on account of security, MNP, UCC etc have significantly increased.

- Therefore price benchmark requires discounting for various competitive indices mentioned above having impacted the telecom sector since 2001.

- A high reserve price for spectrum is likely to reduce spectrum demand and also reduces the opportunities for price discovery. Thus high reserve prices can lead to an inefficient outcome. For an auction to be competitive and efficient there needs to be excess demand for spectrum relative to the available supply. Greater participation can contribute towards a more efficient outcome and may also lead to greater revenues.

At this juncture for the purpose of arriving at a reserve price for 2G spectrum which is both equitable for the operators to justify a minimum return on investment and a conducive investment environment in infrastructure on one hand and the discovery of pricing for the natural resources of country it is imperative that the following points be carefully considered :

The value opportunity in 2013 for the bidder will be a fraction of the value opportunity that was in 2001.

Q24) What should be the reserve price per MHz of spectrum in the 700/800/900 MHz bands.

Reserve price for 700 MHz should be taken up with a separate Consultation Process after the completion of auction of 2G spectrum.

Reserve Price for 800 MHzSpectrum for CDMA

(i) As mentioned above the reserve price for 800 MHz spectrum band should not be based on earlier prices as the market conditions have significantly changed. Further, the eco system for CDMA and GSM technologies are different resulting in entirely different valuation of 800

MHz spectrum for CDMA and 1800 MHz spectrum for GSM. The CDMA spectrum in 800 MHz has much lower value compared to 1800 MHz due to the following reasons:

- The CDMA has much lower adoption rate as almost 85% of the global subscriber base is on GSM and only remaining 15% on CDMA
- CDMA equipment and devices have much higher prices compared to GSM due to economies of scale advantage heavily in favour of GSM
- CDMA ARPUs are lower at Rs 71 against Rs 93 for GSM
- CDMA technology has limited market for international roaming
- The Government has not provided growth path for the CDMA operators to provide expansion for capacity and for migration to true wireless broadband on par with 3G UMTS Rel .8/9 capability.

(ii) Considering the above mentioned reasons the reserve price for 800 MHz should be much lower than the 1800 MHz spectrum. **The TRAI's earlier recommendation to price 800 MHz spectrum band for CDMA at 1.5 times the 1800 MHz spectrum band is not based on any techno-economic study and not consistent with market realities and was done based on a simple coverage criterion which is not justifiable.**

(iii) Therefore it is suggested that the reserve price for 800 MHz spectrum band for CDMA service should be lower than 1800 MHz spectrum band for GSM service.

Q25) Whether the reserve price should be uniform across the country or service area wise?

(i) No, reserve price should not be uniform.

(ii) The reserve price depends on available market, buying power, geography, number of operators etc. Each circle differs significantly on these parameters and therefore reserve price should be decided circle-wise.

Q26) What should be the roll out obligations linked to the auctioned spectrum?

(i) Given that spectrum is a valuable and scarce natural resource, any spectrum allocated should be efficiently used. For level playing field rollout obligation similar to the obligation provided in the UAS License may be linked to the auctioned spectrum.

(ii) In case any bidder already has spectrum in the 800, 900 or 1800 MHz spectrum band and has already met the rollout obligations provided in their UAS license then there should not be any additional rollout obligation applicable for the Post 2G Auction now .

(iii) The following rollout obligations as already laid down in the UASL is recommended for 2G spectrum allocated through auction to new operators:

Circles

- At least 10% of the District Headquarters (DHQs) will be covered in the first year and 50% of the District Headquarters will be covered within three years of effective date of Licence.
- Coverage of a DHQ/town would mean that at least 90% of the area bounded by the Municipal limits should get the required street coverage.

Metro

- To provide coverage in 90% of the service area at street within one year of the effective date.

27) What should be the annual spectrum usage charge for the spectrum being auctioned?

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Q28. Should the spectrum usage charge be in line with present criteria of escalating charge with the amount of spectrum holding or a fix percentage as was done for 3G and BWA spectrum?

(i) There is a legacy of payment of spectrum usage charges depending upon the quantum of spectrum held by the service provider. As revenue earned from the spectrum allocated administratively and through auction cannot be segregated, the spectrum usage charge for GSM & CDMA spectrum respectively should be on the on the respective revenues earned on the GSM and CDMA services.

(ii) The cumulative amount of 900&1800 spectrum allocated **administratively and through auction** should be counted for calculating the slab of the total spectrum holding by a service provider for levies of spectrum usage charges for GSM services. Similarly **the cumulative amount of 800 MHz spectrum allocated administratively and through auction should be counted** for calculating the slab of the total spectrum holding by a service provider for levying of spectrum charges for CDMA services.

(iii) For a 2G operator who has obtained spectrum only through auction the spectrum usage charge should be as per the charges defined on slab basis for an existing operator.

29. What should be the period of validity of spectrum?

(i) The validity of 2G spectrum allocated through auction should be 20 years.

(ii) If the period of an existing UAS/ CMTS licence of an operator expires before the expiry of the right to use the 2G Spectrum awarded by means of the current auction, then the

validity of the UAS/ CMTS licence with respect to the auctioned 2G Spectrum should be extended to 20 years.

Q30. What should be the period of price of spectrum?

As all future spectrum allocation is through auction only; there is no validity period for such price is required.

Q31. Should the government allow deferred payment schedule of the spectrum auction fee, or should the payment be upfront in nature?

(i) The flexible auction payment programme will have lot of beneficial effect on Telecom growth and merits serious consideration. In many countries Phased payment plans have been adopted for successful bidders to pay their winning bids in instalments over the term of the license. The instalment payment reduces funding cost which will help faster rollout of services especially in hinterland areas.

(ii) The lump sum payment of bid amount puts difficult financial burden on winning bidders just at the time when they are beginning to invest in infrastructure. To overcome this, it is suggested that the winning bidders may be permitted to pay the amount of their winning bid in instalments over a long term horizon.

(iii) The TRAI is requested to consider formulation of the yearly payment plan of winning bid amount. The yearly payment of bid amount in instalments would help debt ridden industry to limit cost and provide affordable services to the citizens. The annual payment of bid amount can be indexed against the wholesale /consumer price index so that government revenues are protected.

(iv) There are number of options to devise payment schedule for bid amount. The TRAI may consider that winning bidders pay only 25% of the amount of their bids after auction and remaining 75 per cent would be paid in future instalments.

(v) TRAI may consider options of payment of remaining 75% of the bid amount in 10 to 15 years. Given this staggered payment schedule, the payments can be revenue-neutral for the government in present value terms by indexing it against the WPI.

(vi) The Government can securitize the Spectrum Fee by specifying the bank guarantee equivalent to the annual spectrum auction fee instalment.

(vii) Many regulators around the world who have implemented auction payments in instalments.

(viii) In view of the above, it is suggested that a deferred payment schedule of the spectrum auction fee may be adopted. This will increase the bid amount which would be a win win situation for the bidder and the government.

(ix) There should be very flexible Exit Policy for spectrum. Licensees should be allowed to surrender spectrum with appropriate refund.

Q32. Should Spectrum trading be allowed in India?

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Q33. (a) Among the various models discussed above, in your opinion which model of spectrum trading is best suited for India?

(b) In your opinion is there any other model which can be implemented in India? If yes, please describe.

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Q34. What should be the eligibility criteria to trade the spectrum?

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Q35. Whether the spectrum assigned for 3G and BWA services be allowed to trade? If yes, give reasons.

(i) The current licensing framework does not permit spectrum trading. The TRAI in its recommendations dated 11.5.2010 had recommended that the spectrum trading should not be allowed to be traded as the amount of spectrum available is limited.

(ii) The Government in its recent decision dated 15th February, 2012 has accepted TRAI recommendation that spectrum should not be allowed to be traded.

(iii) We have adopted a policy that there should be effective competition in the market with more than number of players rather than to have a policy of spectrum allowed to be traded. The spectrum trading will only encourage spectrum hoarding so that it can be traded at a premium.

(iv) Spectrum if traded at premium may have implication on tariff. Therefore, trading may prove to be counterproductive.

(v) Spectrum is a national asset with Govt having a sovereign right over it. Natural resource is allowed for use for a certain period and should not be allowed to be traded during that period. The TRAI should specify spectrum cap equivalent to the Prescribed limit so that there is no excess spectrum, no hoarding and no possibility of Trading.

(vi) In view of the above it is suggested that spectrum trading should not be allowed.

AUSPI's Question wise Response to TRAI Consultation Paper No. 4/2012 on Auction of Spectrum

Q36. Can spectrum be allowed to be mortgaged for raising capital for telecom purposes?

(i) Yes Spectrum should be allowed to be mortgaged.

(ii) The Telecom licences which are bundled with the spectrum are assigned to the lender based on the tripartite agreement entered among lenders, licensor and the licensee. This gives the right to lenders in case of default to replace the licensee by new operator but with the consent of the licensor. The Tripartite Agreement takes care of possible eventualities in the case of material default by the licensee or termination of telecom licenses by the licensor.

(iii) **The Tripartite agreement has served a very useful purpose for raising capital for telecom projects. This should continue even after delinking of spectrum from the license.**

(iv) The license/ spectrum fee paid by the licensees is considered as an intangible asset in the books of the licensees. As per RBI instructions, the licenses/ spectrum fees are to be treated as intangible assets. Spectrum is a primary asset of any telecom operator and is an essential requirement for any operator to implement its business. Since spectrum is classified as intangible asset, when banks provide funds for rollout of business plan or for meeting entry fee/ BG requirement, the loans to that extent have to be treated as unsecured loans, even though the licenses are assigned in favour of the lenders.

(v) Holding unsecured assets on the banks books have in turn several implications in terms of lower ratings, higher provisioning, etc. In case the future spectrum is priced at higher levels, as in the case of 3G spectrum then lenders may not be in a position to fund these business plans considering the unsecured nature of the lending.

(vi) Hence TRAI may recommend that the spectrum may be allowed to be mortgaged.

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