

WIRELESS BROADBAND ACCESS (WBA) SPECTRUM ALLOCATION FRAMEWORK

A. Summary of WBA Frequency Bands to be Allocated

	2.3 GHz	2.5 GHz
Bandwidth to be allocated	50 MHz	90 MHz
Total number of available lots for bidding	10 lots	15 lots
Size of each lot up for bidding	5 MHz	6 MHz
Total cap per bidder (SingTel & StarHub)	4 lots	
Total cap per bidder (other operators)	6 lots	

B. Spectrum Fees, Rights, Rollout Obligations & Moratoriums

1. Spectrum Fees Payable

Description	Fees Payable	Comment
Spectrum Management Fee (Annual Fee)	<ul style="list-style-type: none"> \$13,200 per lot for 2.3 GHz \$13,500 per lot for 2.5 GHz 	Standard Annual Fees with or without Auction
Facilities-Based Operator (FBO) Licence Fee (Annual Fee)	1% of Annual Gross Turn Over (AGTO)	
Spectrum Right Minimum Starting Bid Price (One-off Fee)	\$1,000 per lot	Additional One-time Fee with Auction

2. Licensing

Successful bidders who do not own a Facilities-Based Operator (FBO) licence will need to apply for one before deploying their WBA services. Successful bidders who already own FBO licences will need to modify the scope of their systems and services under their existing FBO licence.

3. Spectrum Rights

IDA recognises that due to the still-evolving standards of the technology, a longer period is required by successful bidders to recoup their investments in WBA. As such, IDA will grant successful bidders a 10-year spectrum right to provide greater investment certainty to them.

4. Rollout Schedule & WBA Moratorium

IDA will require successful bidders to offer their WBA services to the public within 18 months if they obtain the 2.5 GHz spectrum and/or within 36 months if they obtain the 2.3 GHz spectrum. This takes into account the technology and market developments in the two frequency bands. IDA will not impose a moratorium on the future allocation of wireless broadband spectrum.

5. WBA & 3G Moratorium

IDA recognises that the line distinguishing WBA and 3G is blurring and may converge in future. However, IDA must honour its commitment made in the 3G auction, to not allocate spectrum for 3G mobile communication services before 1 January 2006. Therefore, IDA will distinguish 3G and WBA by their mobility factor. IDA has adopted from the International Telecommunication Union (ITU) definition of “pedestrian mobility speed” for 3G technologies to differentiate between the two.

To be specific, this means that wireless broadband operators may only offer fixed or pedestrian mobile services from now until 31 December 2005. Operators are not allowed to provide mobile services at vehicular speeds for now. This restriction will be lifted once the 3G moratorium ends on 31 December 2005.

IDA will also allow 3G licensees the added option to deploy wireless broadband in their 3G frequency bands. This will allow 3G licensees the flexibility to optimise their 3G spectrum usage and introduce new complementary wireless technologies for consumers.

C. **Timeline for WBA Spectrum Allocation**

No.	Timeframe	Activity
1.	February 2005	<ul style="list-style-type: none">• IDA announces WBA spectrum allocation and licensing details.
2.	March 2005	<ul style="list-style-type: none">• Interested companies clarify allocation and licensing details.
3.	April 2005	<ul style="list-style-type: none">• Interested companies apply to participate in allocation process.• IDA determines how spectrum will be allocated i.e. auction or administrative allocation.• IDA allocates WBA spectrum.