



# **Spectrum Auction and the Case Study from Pakistan**

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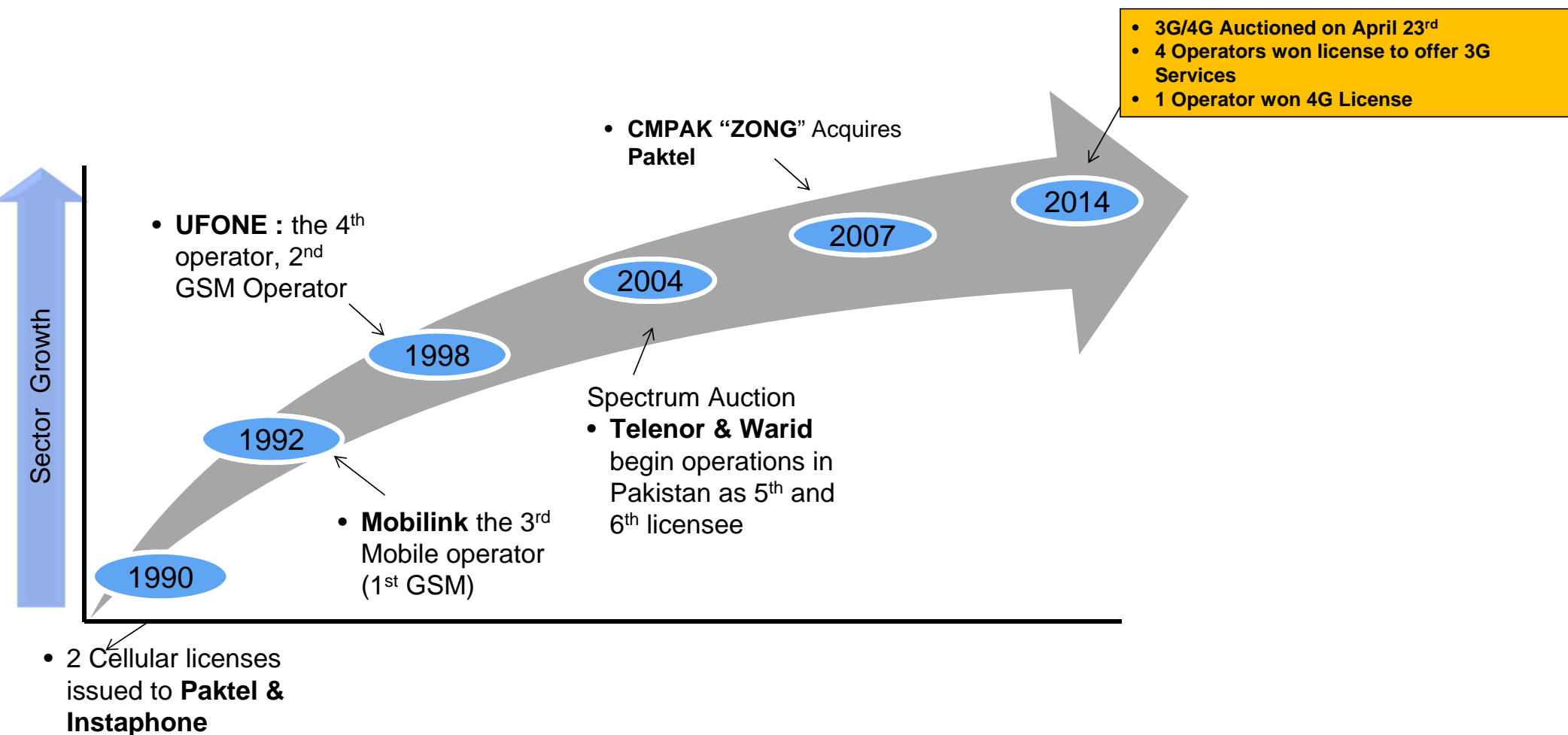
# Overview of the Presentation

- Spectrum Auctions
- History of Cellular Wireless communication in Pakistan
- First Spectrum Auction for Cellular Mobile services in Pakistan: 2004
- Lessons learned from Auction in 2004
- Spectrum Auction for 3G and 4G services in Pakistan 2014
- Current Situation
- Lessons learned

# Spectrum Auction

- Auction has become the most popular technique to award spectrum
  - Single criterion: More transparent
  - No human judgment involved
  - Awarded to those who value it the most
- However many Spectrum Auctions have resulted in very high amount of upfront money
  - UK in 2000
  - India in 2010 (More than two times the MNOs spent in two years on the network)
- Issues
  - High expectation by the government (Finance)
  - Spectrum Auctions have become very difficult to conduct due to media hype and other issues

# History of Cellular Mobile Services in Pakistan

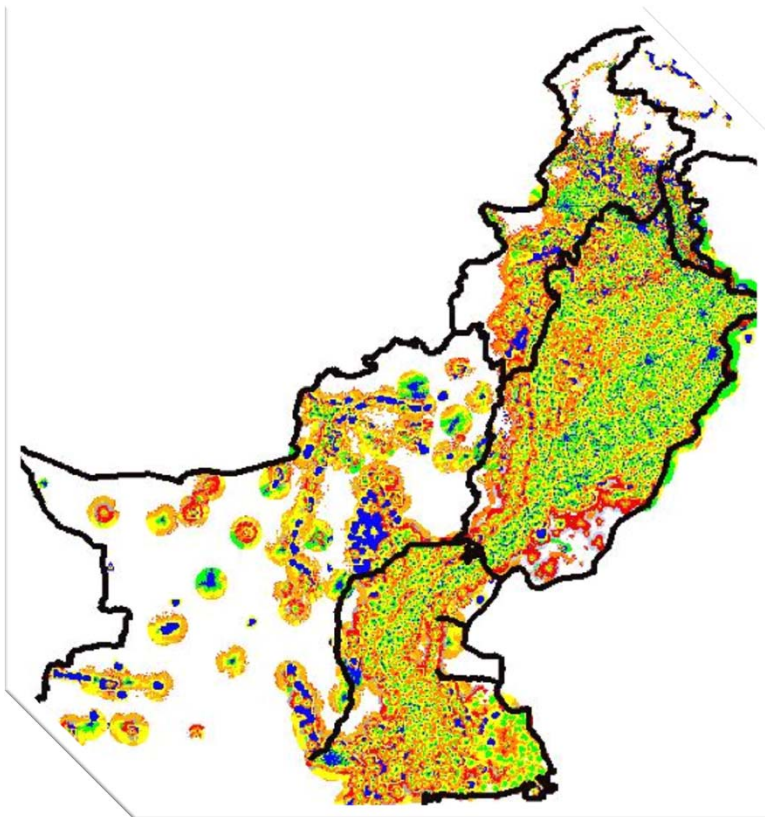


## First Spectrum Auction in Pakistan: 2004

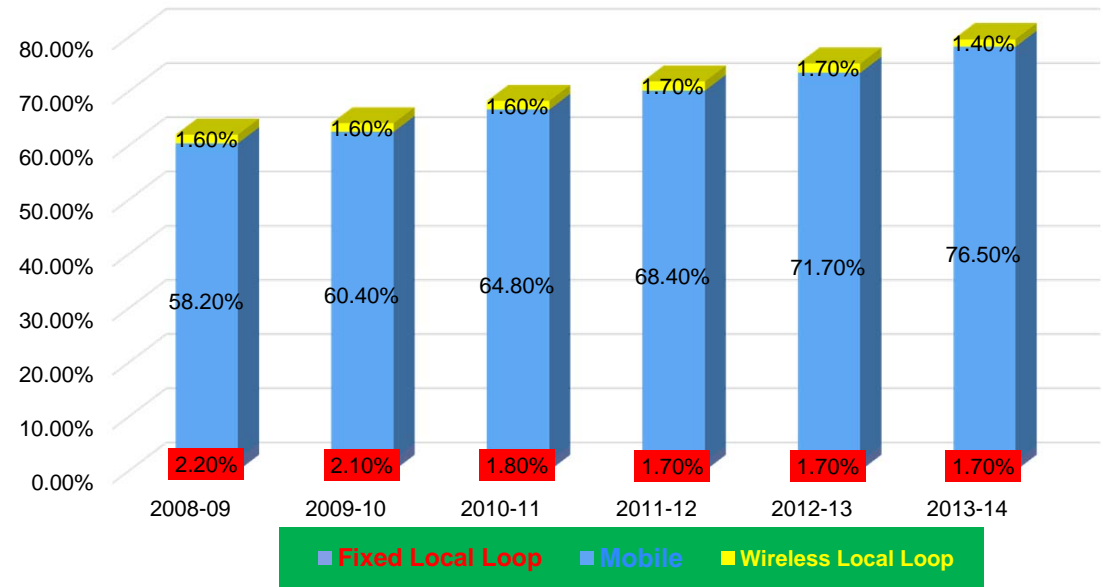
- Total Spectrum offered was 2 lots with the following configuration:
  - Total Spectrum 13.6MHz x2
  - 4.8MHz x2 in 900MHz band and 8.8MHz x2 in 1800MHz band
  - Spectrum in 900MHz band was valued at 2.5 times the one in 1800MHz band
- Payment terms were 50% advance and rest in 10 years (later relaxed further)
- Auction winning price of USD 291 Million per lot. Total of USD 582 Million
- Telenor and Warid won the licenses

# Access to basic telephony

Wide-spread overage of cellular mobile services in provinces of Pakistan



Teledensity in Pakistan



- Most people in Pakistan have access to basic telephony, mostly using mobile phones
- Moving into an age where mobile use is about more than circuit switched voice and SMS

## Lessons Learned from Spectrum Auction 2004

- Although Licenses were technology neutral, Spectrum allocated was most feasible for GSM
- Spectrum auction in the 2100 MHz was to happen in 3 years time
- Part (20 MHz) of the Uplink was allocated to WLL services based on CDMA2000
- Payment terms according to Finance were not good enough
- **All of the above combined along with procedural violations and PTCL's sales purchase agreement resulted in delay of 3G spectrum auction**

## Spectrum Auction 2014

- Initial Government Policy Directive was issued on 7<sup>th</sup> October 2013. Salient features were as follows:
  - Spectrum to be auctioned was 30 MHz in 2100 MHz only
  - Consultant was to be hired
  - Payment terms were 100% advance or 50% advance with the rest in 5 years
  - Policy directive was subject to review based on the consultant's feedback from PTA and consultants
- Value Partners Management Consulting Limited was selected on 23<sup>rd</sup> November 2013 from among five shortlisted applicants



## Key Features of the IM

- Realizing that we were already late in 3G, 20 MHz of Spectrum in the 1800 MHz was added for 4G LTE services beside the 30 MHz in 2100 MHz. Some spectrum in the 850 MHz was kept for new entrant.
- Base Price was kept at the highest level of valuation of spectrum and was USD 295 Million for 10 MHz in 2100 MHz and USD 210 Million in the 1800 MHz
- The spectrum cap in 2100MHz was 15MHz and 10 MHz in the 1800 MHz band
- License duration was kept at 15 years
- Payment terms were 100% advance or 50% advance with the rest in 5 years with interest

## **Key Features of the IM Contd.**

- In order to be eligible for 10 MHz in the 1800 MHz, the condition was that the bidder had to win at least 10 MHz in 2100 MHz
- Auction methodology was two stage SMRA. The first stage was based on sealed bid with the bidders showing interest and submitting 15% of the base price for at least 10 MHz in 2100MHz band.
- A two stage process was chosen as the auction methodology
- The first stage was the sealed bid stage
- Second stage was SMRA conducted via the internet

## Revisions in the IM

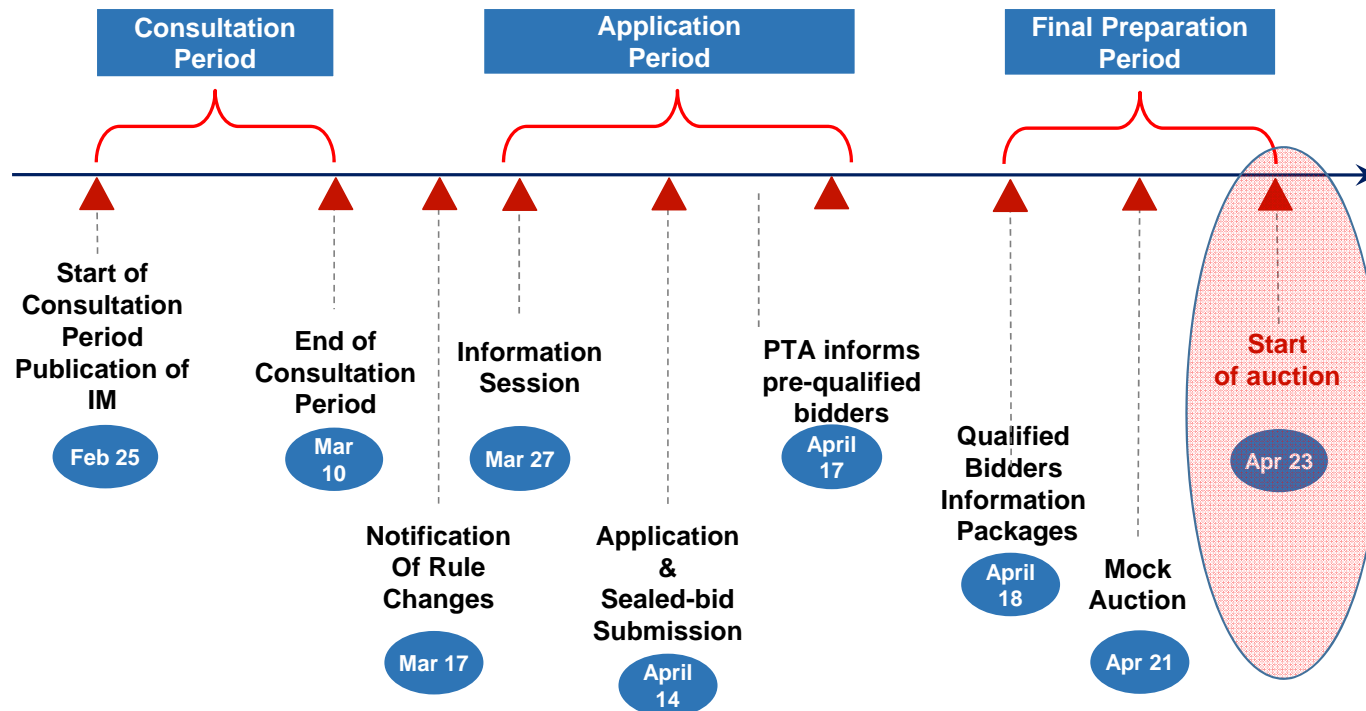
- No new spectrum to be auctioned in the next 18 months
- Operators could pay the spectrum fee in local currency also
- Roll Out obligations for 4G were relaxed and winners could use the 1800 MHz spectrum in the interim period for 2G also
- Spectrum allocation in 1800 MHz was to be adjacent to the current allocation

## Result of the sealed bid stage (14<sup>th</sup> April 2014)

- Four out of five Operators submitted sealed bids with as follows:
  - Ufone: 15 MHz in 2100 MHz and 10 MHz in 1800 MHz
  - Zong: 10 MHz in 2100 MHz and 10 MHz in 1800 MHz
  - Mobilink: 10 MHz in 2100 MHz
  - Telenor: 10 MHz in 2100 MHz
- Demand in 2100MHz was 45MHz against a supply of 30 MHz
- Demand in 1800 MHz 20 MHz which was equal to the supply
- Auction was to happen only in 2100MHz
- Winner of 10 MHz in 2100 MHz was to be allocated 10 MHz in 1800 MHz at USD 210 Million/10 MHz
- Lot size was chosen to be 10 + 5 +5 +10 MHz in the 2100 MHz band

	2014 NGMSA Spectrum Auction Results							
	Committed Amount (in US \$)							
	Round 1	SHB	Free Points	Round 2	SHB	Free Points	Round 3	...
Blocks (2100 MHz band)								
<b>A:</b> 2x10 MHz	\$295,000,000	Zong (10/10)	Zong 0	\$295,000,000	Zong (10/10)	Zong 0		
<b>B1:</b> 2x5 MHz	\$147,500,000	Ufone (5/15)	Ufone 2	\$147,500,000	Ufone (5/5)	Ufone 0		
<b>B2:</b> 2x5 MHz	\$147,500,000	Telenor (5/10)	Telenor 1	\$147,500,000	Telenor (5/10)	Telenor 1		
<b>C:</b> 2x10 MHz	\$295,000,000	Mobilink (10/10)	Mobilink 0	\$300,900,000	Ufone (10/10)	Mobilink 2		
<b>Subtotal of Committed Amount (2100)</b>	<b>\$885,000,000</b>			<b>\$890,900,000</b>				

# Project Time Lines



## Result of the Auction (23<sup>rd</sup> April 2014)

- All four Operators who submitted the sealed bids won spectrum as follows:
  - Zong: 10 MHz in 2100 MHz and 10 MHz in 1800 MHz
  - Mobilink: 10 MHz in 2100 MHz
  - Telenor: 05 MHz in 2100 MHz
  - Ufone: 05 MHz in 2100 MHz
- Auction was conducted online, lasted for one day and was broadcasted live
- Operators were already allowed to have a trial setup since February and showcased their network performance at the auction venue setup for the media and other interested parties
- Total upfront amount raised was USD 1.22 Billion including Advance Tax.
- Total upfront amount received: USD 1.07 Billion

# Results of Spectrum Auction 2014: Summary



3G/4G Operator

- ZONG won both in 1800 and 2100 MHz



3G Operator

- Mobilink won 10 MHz in 2100 band



3G Operator

- Ufone won 5 MHz only in 2100



3G Operator

- Telenor won 5 MHz in 2100

Government  
got a total of  
USD 1.22  
Billion from  
the auction



## Immediate Post Auction Situation and Award of Licenses

- Continuous Media engagement before and after the auction
- Help and advice was also sought from Advisory groups, knowledgeable individuals
- License Award Ceremony: 22<sup>nd</sup> May 2014. Celebrated the World Telecom Day on the same date
- Prime Minister was the Chief Guest. Ambassadors from many countries attended the ceremony
- All the operators have started commercial mobile broadband services (HSPA+ and HSPA+ DC, LTE)
- Petition in the Islamabad High Court was swiftly dismissed









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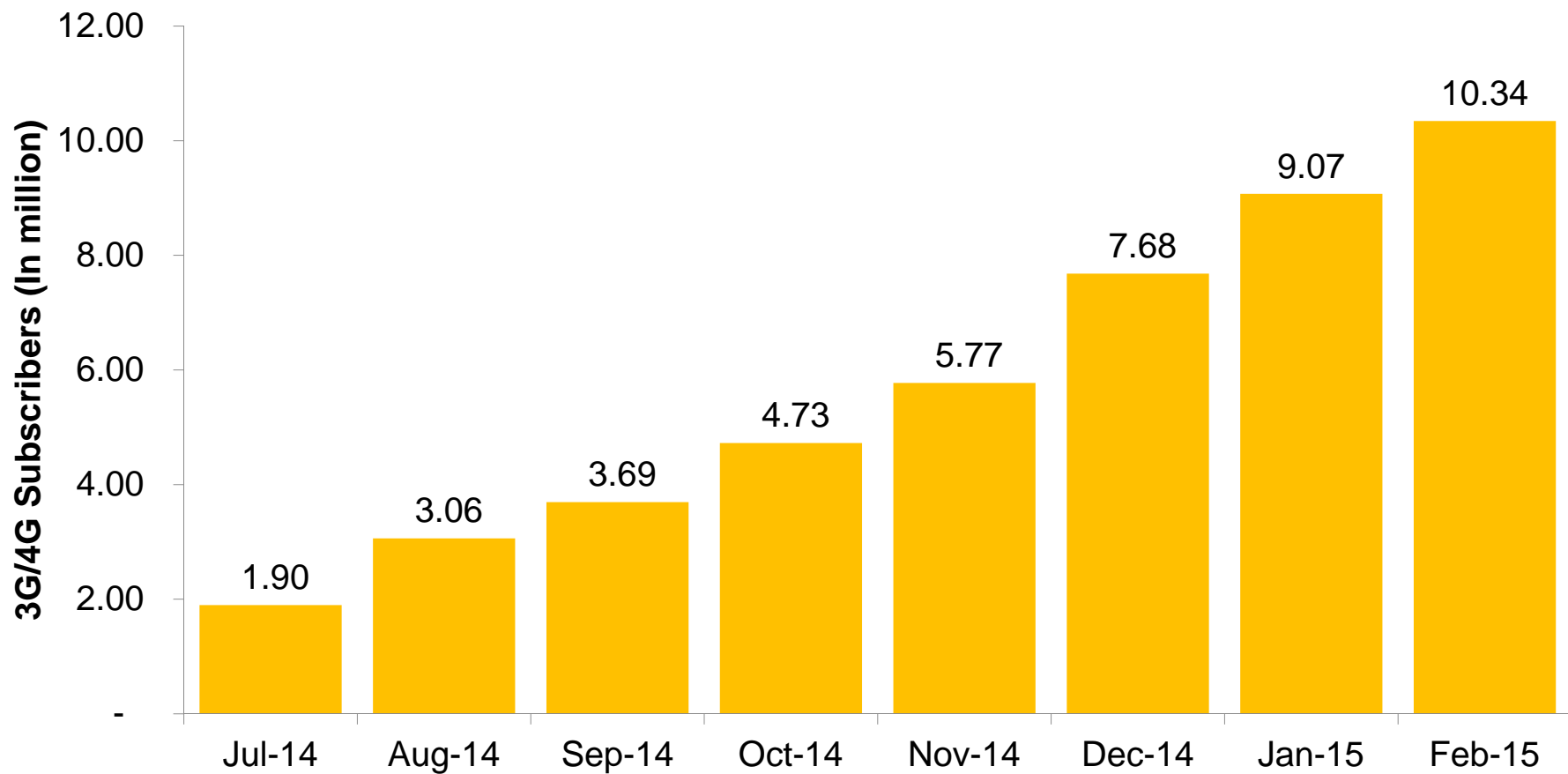
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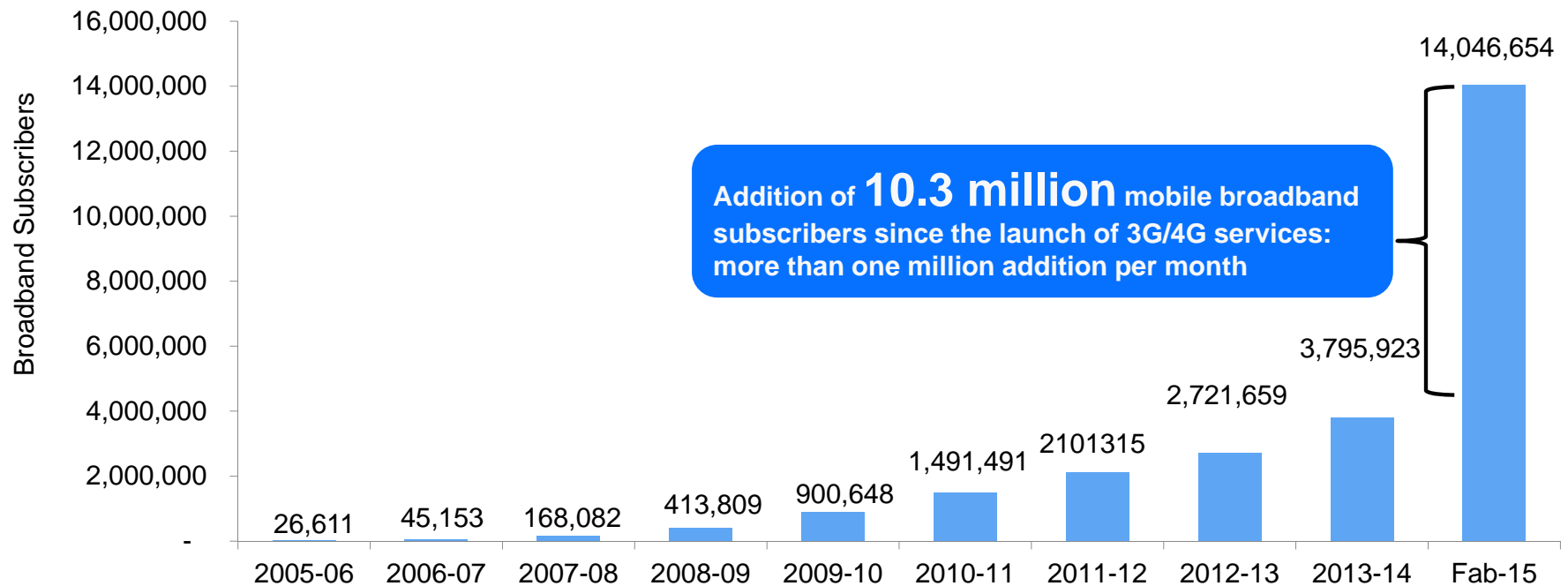




# Exponential monthly growth in 3G/4G subscribers



# Outstanding growth in Broadband



- The availability of MBB has created the opportunity for Pakistan to have all the key drivers for m-services



# Lessons Learned

- Sealed Bid Stage turned out to be a very good idea
- Continuous Media engagement had a positive impact
- Communication and dissemination of information to courts, media and all stake holders saved us from many problems after the auction
- Help and advice of independent Advisory groups, knowledgeable individuals was of great help
- Good working with all relevant ministries and departments. No egos. Taking stand on important issues ONLY

## Lessons Learned Contd.

- Selection of good team from within the organization strengthened by local and foreign consultants
- Continuous dialogue and meetings with potential bidders
- Transparency of the process and information availability on the web site
- Believing in oneself, team work, not working for personal glory or credit. Credit part less important than the mission and even if not enough credit is given, one should not care



## 20<sup>TH</sup> GLOBAL MOBILE AWARDS

The Spectrum for Mobile Broadband Award 2015 is presented to

**THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF PAKISTAN**

This award recognises the government that demonstrates the most transparent and stable long-term spectrum policy roadmap.

3 MARCH 2015

*Anne Bouverot*

Anne Bouverot, Director General, GSMA

 **MINISTERIAL  
PROGRAMME**



# Thank You

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