

**Workshop on Economic Aspects of Spectrum Management**

21-23 November 2016, Teheran – I.R. Iran

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# Spectrum Management: A Kashfar Case Study

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**COMCO**

**Communications Commission of Kashfar**

*Republic of Kashfar*

2016

# KEY INFORMATION

## Information

Country setting: Kashfar

Geography: ITU – Region3

## Key Stakeholders

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- **Communications Minister**
- **CommCo:** Regulator for the information, communications and media (ICM) industries
- **Kashfar Telecom:** Incumbent Operator
- **DigiKashfar and AITel:** Existing Mobile Operators
- **GogoTech and Neotel:** Potential New Entrant
- **CBAP:** Commercial Broadcasting Association of Kashfar



# A WHAT SERVICES SHOULD BE ALLOWED IN THE SPECTRUM?

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## SERVICE & TECHNOLOGY NEUTRAL

- I. TECHNOLOGY NEUTRAL : 2G/3G/4G/....
- I. SERVICE NETRAL : VOICE, M2M/IoT/DATACOM, MOBILE BROADBAND, ETC

# B HOW SHOULD THE BAND BE ALLOCATED

900 MHz :  
 Kasfar Mobile (10 MHz)  
 DigiKashfar (7,5 MHz)  
 AITel (7,5 MHz)

1800 MHz :  
 Kasfar Mobile (20 MHz)  
 DigiKashfar (20 MHz)  
 AITel (20 MHz)

700 MHz Potential Bidder:  
 Kasfar Mobile  
 DigiKashfar  
 AITel  
 GogoITech  
 NeoTel

TABLE I: METHODS OF SPECTRUM ALLOCATION

S. No.	Method	Time Consumption	Efficiency	Revenue Generation	
1	Administrative process	Time consuming	Marked by red-tape	Not much	
2	Lottery	Time efficient	Least efficient	Not much	
900 MHz (Existing)	3	First-come-first-served	Time efficient	Less efficient	Not much
1800 MHz (Existing) 700 MHz (5 MHz Block)	4	Auction	Time efficient	Efficient	More revenue

# B HOW SHOULD THE BAND BE ALLOCATED

ANALOG TELEVISION ERA

328 MHz

478 ← ----- → 806 MHz



DIGITAL TELEVISION ERA

PPDR = 2x5 MHz



478 526 ← ----- → 694 806 MHz

192 MHz

← ----- →  
112 MHz

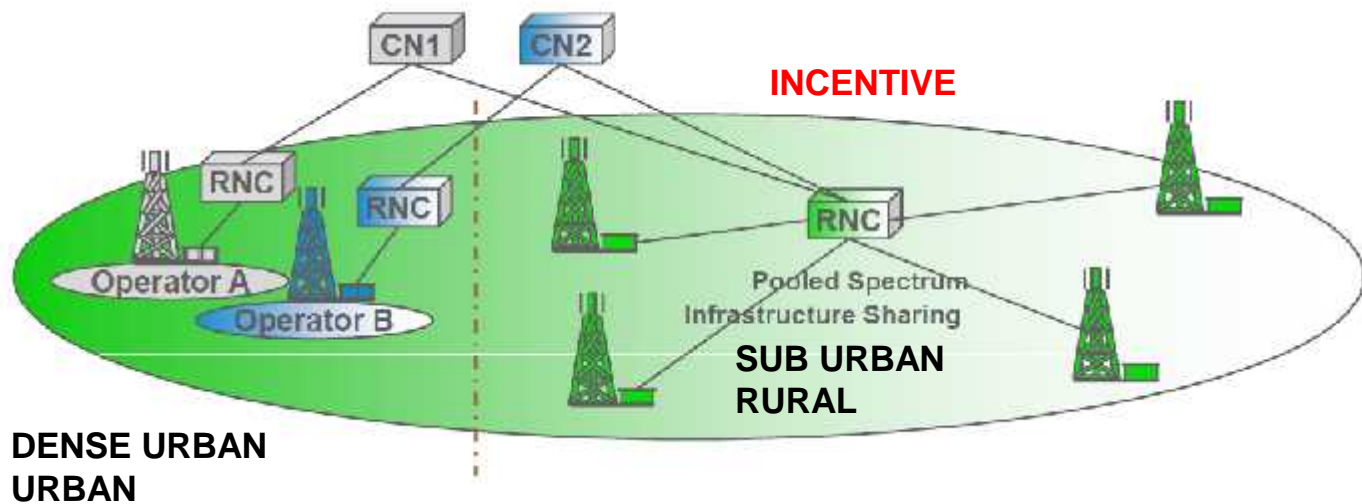
PPDR : 2x5 MHz

2 x 40 MHz FDD (Block of 5 MHz & spectrum cap for 4 block)  
use to accelerate mobile broadband in nation

C

# SHOULD THERE BE ROLLOUT (COVERAGE) OBLIGATIONS IMPOSED ON THE SUCCESSFUL LICENSEES

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Dense Urban	50	75	100%	100%	100%	100%	100%	100%	100%	100%
Urban	10%	20%	40%	60%	80%	100%	100%	100%	100%	100%
Sub Urban	10%	20%	40%	60%	70%	80%	90%	100%	100%	100%
Rural	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

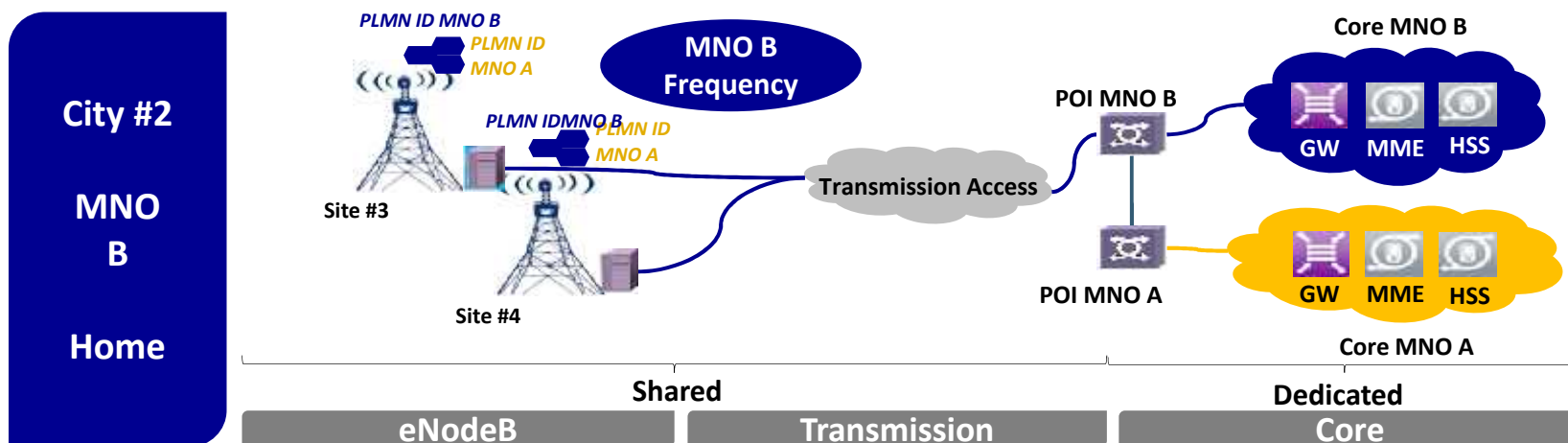


# D WHAT SHOULD THE LICENSE TERM BE CONSIDERING

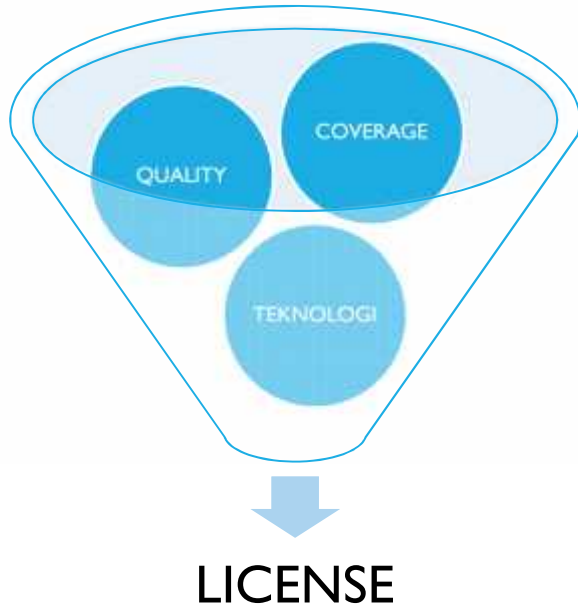
LICENSE TERM : 10 YEARS + 10 YEARS (AFTER EVALUATION)

NEUTRAL TECHNOLOGY TO MAKE SPECTRUM MORE EFFICIENT & INTERESTING FOR INVESTOR

ALL THE OPERATOR MUST PROVIDE 'PUBLIC PROTECTION & DISASTER RELIEF (PPDR SYSTEM)' AS CORPORATE SOCIAL RESPONSIBILITY (CSR). USING THE PPDR SPECTRUM WITH SPECTRUM SHARING METHODS



# **E** WHAT TYPICAL TECHNICAL CONDITIONS SHOULD APPLY TO THE NEW LICENSES?



TYPICAL TECHNICAL CONDITION : THE PROVIDER SHOULD BE RESPONSIBLE FOR QUALITY (QoS), COVERAGE (MODERN LICENSING), THE INTERFERENCE, SECURITY, DATA PROTECTION, ETC

MANAGING INTERFERENCE IN BAND & BETWEEN THE BAND : ITU R M.1801-2 (02/2013)

HEALTH ISSUE : ICN/RP



# F SHOULD LICENSES BE TRADE-ABLE?

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YES, WE ALLOW THE SPECTRUM SHARING & SPECTRUM TRADING  
(BASE ON BUSINESS TO BUSINESS AND REGULATOR APPROVAL)

INTERFERENCE AFTER SPECTRUM TRADING (IF AVAILABLE) IS  
UPON BUSINESS TO BUSINESS ARRANGEMENT WITH REGULATOR CONTROL

# OTHER SPECIFIC LICENSE CONDITIONS

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License Term/Duration : SPECTRUM LICENSE FOR 10 YEARS (CAN EXPAND TO ANOTHER 10 YEARS AFTER EVALUATION BY REGULATOR)

License Changes Including Modification, Restriction And Closedown : MOBILE SERVICE FOR 5 YEARS BY LICENCE EVALUATION

Modification of License Is Fully-Right By Regulator

License Restriction To Bidder Only

License Closedown (Licence Revoke) If Violate The Regulation/Obligation

Spectrum Fee Structure :

UP FRONT FEE (Year 1)

Spectrum Yearly Fee (Year 1 Until Year 10)

