



# 5th Annual i3Forum Conference

## The Future is All IP

May 15, 2014  
Chicago

*IPX transport,.... what is it really?*



**IPX transport, Medicine,  
Automobiles...**

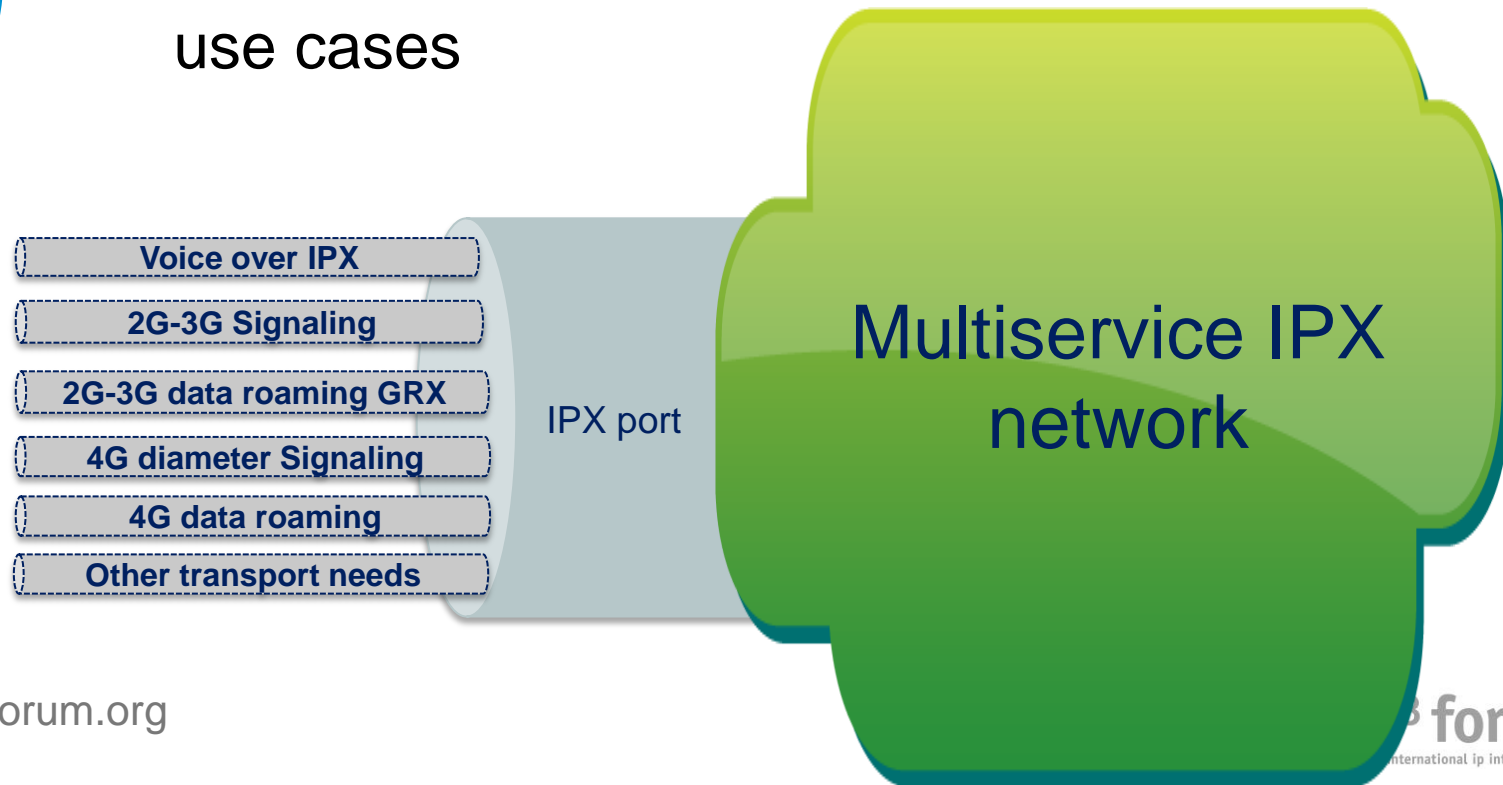
**These are all generic terms,**

**Generic terms are not enough  
to select what you really need  
and want**

# Whitepaper on IPX Transport Service

## Topics for the discussion:

1. Who are the users of IPX transport services
2. What are the different IPX transport use cases
3. What are the similarities and differences between use cases



# *Whitepaper on IPX Transport Service*

## Topics for the discussion:

### 1. Who are the users of IPX transport services

- Mobile operators 2G-3G
- Mobile operators 4G
- Fixed Operators
- Online Service Providers

# Whitepaper on IPX Transport Service

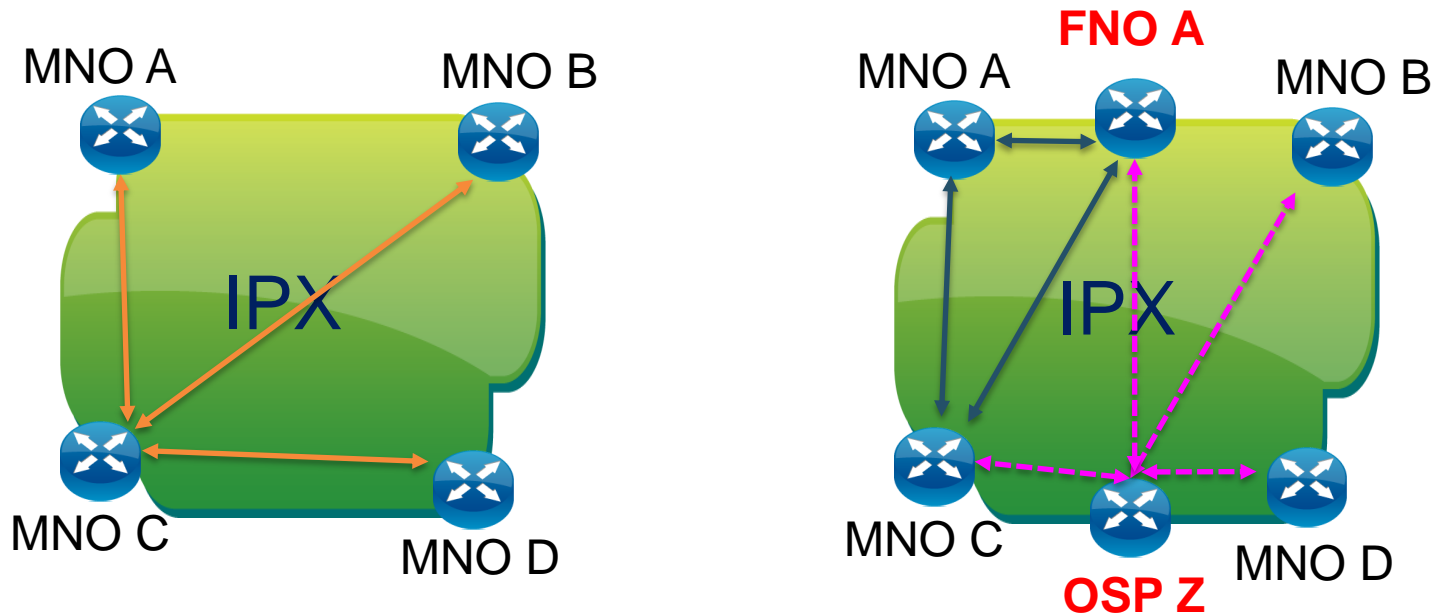
## Topics for the discussion:

### 1. What are the different IPX transport use cases

IPX				
GRX	IPX data roaming	IPX transit	Point-to-Point service such as "Leased Line"	Point-to-Multipoint service such as "IP VPN"
<ul style="list-style-type: none"><li>- 2G-3G roaming</li><li>- MMS etc</li></ul>	<ul style="list-style-type: none"><li>- 2G, 3G and 4G</li><li>- MMS etc</li></ul>	<ul style="list-style-type: none"><li>- Any transport need</li></ul>	<ul style="list-style-type: none"><li>- Selective point-to-point only</li></ul>	<ul style="list-style-type: none"><li>- Selective point-to-multipoint only</li></ul>

# Whitepaper on IPX Transport Service

## Roaming versus other transport, examples



↔ Roaming traffic between MNOs

↔ Transit

↔ Point to multipoint

# Whitepaper on IPX Transport Service

## Similarities and differences

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QoS	Onnet with one IPX only	End-2-End across <u>two</u> IPXs (backbones only)	End-2-End across <u>two</u> IPXs (backbones only)	End-2-End across two IPXs	End-2-End across two IPXs

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Class of services	Best Effort only	Different CoS	Different CoS	Different CoS	Different CoS



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DNS	Private DNS for 2G-3G MNOs only	GRX DNS or 4G private DNS ??	ENUM and/or any DNS	No DNS	No DNS

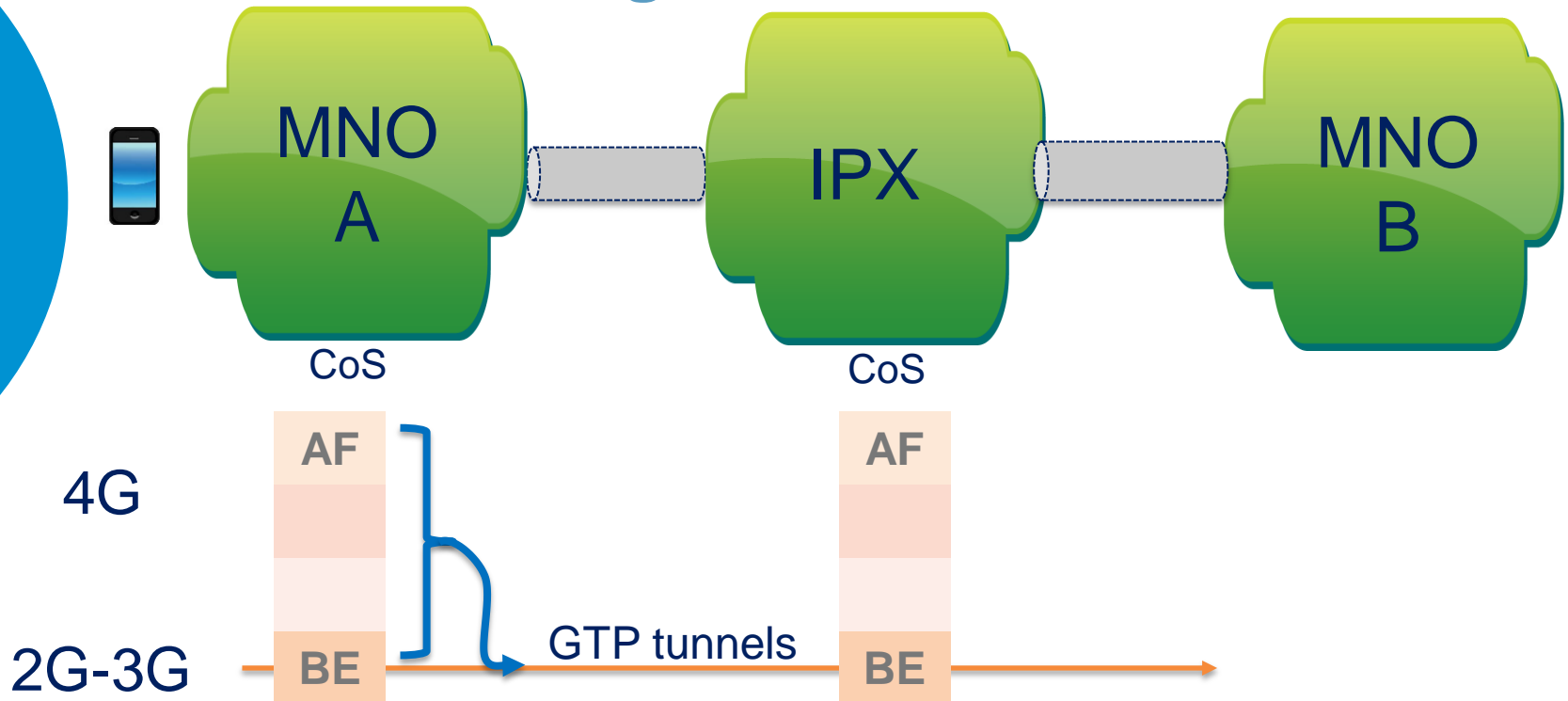
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Business model between SP and IPX-P	Both MNOs pay (flat)	Both MNOs pay (flat)	Both MNOs pay or any other bilateral agreement	Both MNOs pay or any other bilateral agreement	Both MNOs pay or any other bilateral agreement

# Whitepaper on IPX Transport Service

## Market usage today for IPX **data** roaming



- MNOs are not yet using IPX full CoS capabilities
- New transport services can make better use of CoS

# *Whitepaper on IPX Transport Service*

## Conclusion

- IPX is only a generic word, industry should stop using IPX as a catch all words for different services.
- There is more than one IPX transport use case and business model
- Different IPX transport services are required to make use of IPX full capabilities and flexibility



*Thank you.*