

# All-IP: regulation, interconnection and portability

Brian Potterill, Competition Policy Director

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# Numbering

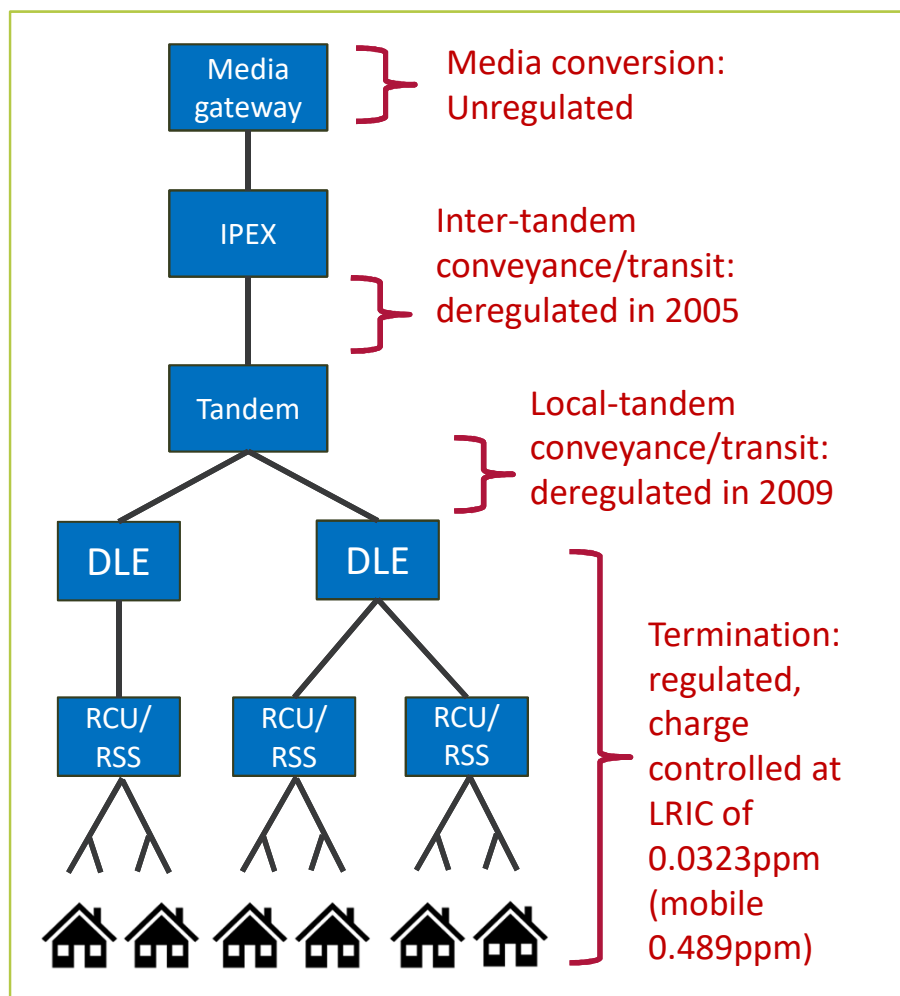
Number	Use	Small Print
<b>Geographic (01 / 02)</b>	Allocated for services from a fixed location	01534 (Jersey), 01481 (Guernsey), 01624 (Isle of Man). All typically treated as international.
<b>03</b>	Calls charged at a standard rate (i.e. same as calls to geographic / mobile).	
<b>071-5, 077-9 (mobile)</b>	Allocated for use with mobile services	Calls to 5.3 million numbers allocated to providers in Channel Islands typically treated as international calls. Calls to smaller providers sometimes excluded from call allowances.
<b>080</b>	Free to caller	
<b>084/087</b>	Calls charged in two parts: the Service Charge – specific to the number and set by the service provider – and the Access Charge	Service Charge up to 7p for 084, up to 13p for 087. Access Charges vary by provider, but typically 50p+ from mobile
<b>09 / 118</b>		Service Charges at 100+ price points, typically ‘premium rate’ and including price per call and/or price per minute.
<b>070</b>	Personal numbers	Premium rate (though recent changes to wholesale regulation should bring these in line with mobile in 2019)
<b>076</b>	Paging / Isle of Man mobile	Calls to Isle of Man numbers typically treated as international calls

# Numbering



Calls are free to UK fixed and mobile numbers




# Interconnection



- Regulation designed for a system where BT was dominant
- BT (uniquely) has end-to-end obligation
- Network access on reasonable request
- (BT only) interconnection circuits subject to a charge control
- Charge controls evolved as BT's dominance of transit reduced
- All providers (both fixed and mobile) subject to a charge control
- No charge control for termination on BT's IPX: DLE termination is judged to be sufficient of a constraint


## Nuisance calls



 **Crewe Police**   
@PoliceCrewe 

WARNING  If you receive a call or recorded message from 0300 200 3300 claiming to be from HM Revenue with a warrant for your arrest due to unpaid taxes, put the phone down and DO NOT respond - THIS IS A SCAM! #hereforyou

5:57 am - 30 Oct 2018

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- Fundamental to the legitimacy of telephony and numbering. This is an industry problem, not just a regulatory one
- For ‘persistent misuse’, Ofcom has powers to fine or withdraw numbers
- Recent changes require CLI Data to include a valid, dialable telephone number which uniquely identifies the caller
- Spoofing is likely to be a growing problem
- Common database for authentication (see Blockchain presentations this afternoon)

# Porting

- Porting rules flow from a General Condition B3 (old GC 18)
  - B3.3 The Regulated Provider shall provide Number Portability within the shortest possible time, including subsequent activation, on reasonable terms and conditions, including charges, to any of its Relevant Subscribers who so request.
- Processes agreed and implemented by industry, enforcement of GCs by Ofcom on a case by case basis
- Previous attempt to impose a direct routing system (on mobile) failed [2007-2010], but we did highlight that the case would be stronger in an all-IP world
  - “we consider that a direct routing solution for interconnected fixed networks ... could become viable if and when next generation core network technology is adopted widely by network operators”. Ofcom, April 2010, Statement on Routing calls to ported telephone numbers

## Summary

	Current state	All-IP
<b>Interconnection</b>	Intrusive regulation on all CPs, by number range	Lighter touch regulation
<b>Number Management</b>	'Once and for all' allocation in large blocks	Numbers allocated individually
<b>Authentication</b>	Limited	All calls
<b>Porting</b>	(Mostly) onward routing Complex supply chain	Individual numbers reallocated, direct routing



**Thank you**