

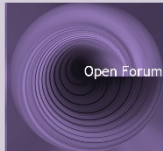
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UK Interoperability Standards

Open Forum 2017

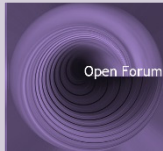


8th November 2017



- Personal introduction
- Changing technology / migration from PSTN to VoIP services
- What is All IP (Voice)?
- NICC All IP Task Group positioning
- NICC All IP Task Group deliverables
- What have we learnt?





Last year

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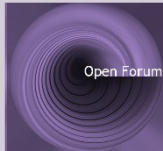


All IP Insight Session

John Barton – BT Solutions Architect
10th November 2016

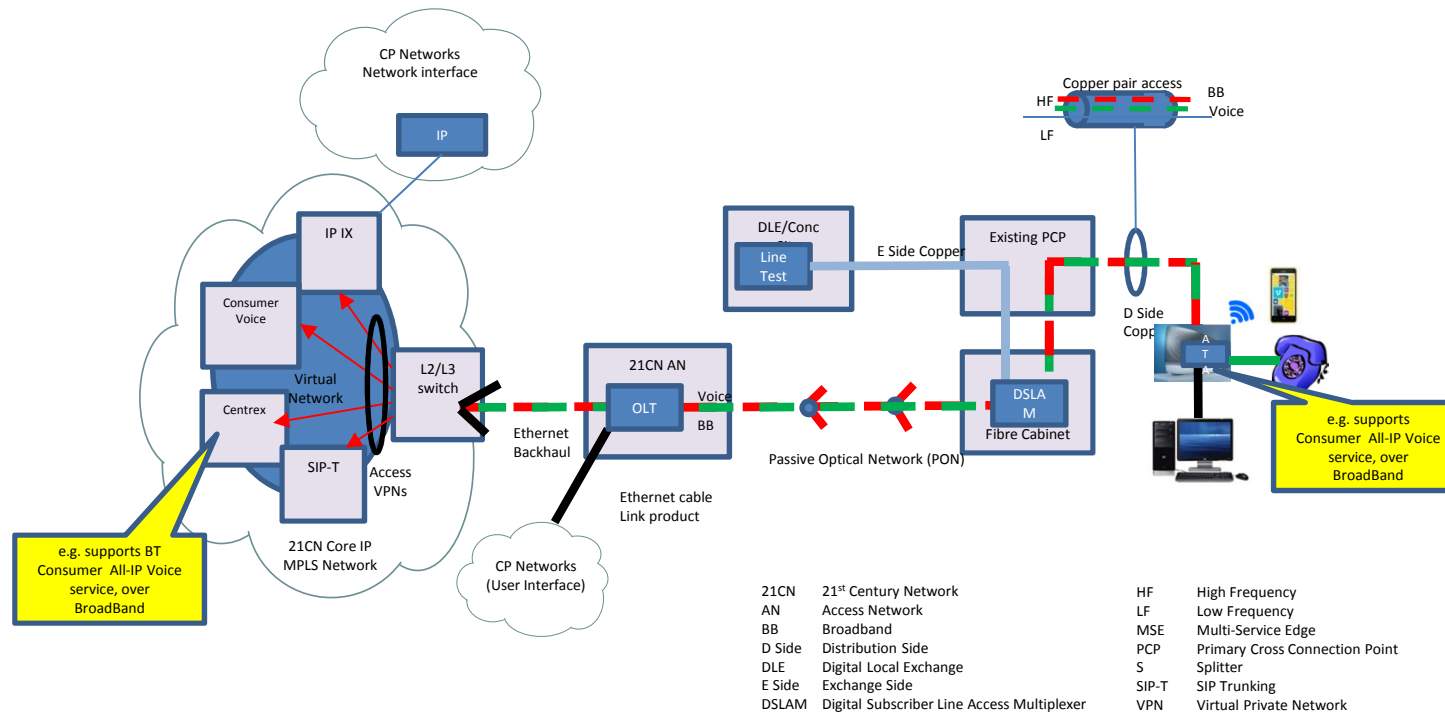


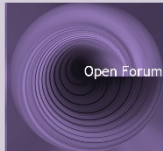
NICC Standards Limited



VoIP replacing PSTN service

All IP Voice – Voice over Fibre BroadBand from the Exchange (SOGEA)





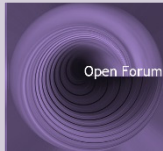
What is All IP (Voice)?



Globally All IP solutions have been developed in order to facilitate the closure of PSTNs, All IP (Voice) solutions are now about to be deployed in the UK, in order ultimately to achieve this same feat.

Within the UK, All IP (Voice) is a term that has been applied to an industry-wide range of PATS services delivered via IP access and transport networks, so as to meet the existing and the evolving UK Regulatory regime.”





ALL IP (Voice) – TG positioning



An All IP (Voice) Task Group was formed last year

Well supported meetings and audios have been held throughout the year, i.e. in order to progress deliverables
Pivotal to success is perceived as being a broad spectrum of support, including Communication Providers, Vendors & Regulator.

Key to our progress has been the engagement and active support of all stakeholders.

The Task Group focus has been on identifying PSTN (analogue) - VoIP solution differences and striving to manage the impacts.

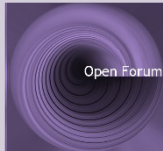
Voice Band Data (VBD) applications (aka Special Services e.g. including Fire Alarms, Burglar Alarms, Health Care pendants, EPOS Terminals & Fax machines) were quickly identified as devices where solution differences are likely to adversely impact upon performance.

Regulator and Industry engagement ensued and in overview a three dimensional strategy is being adopted so as to:

- a) identify and warn customers about the impacts of migration if they have VBD applications
- b) test VBD in realistic test environments in order to prove the effectiveness of individual applications
- c) promote the development of strategic new ip/packet based solutions as replacements for VBD

The All IP Task Group has recently been asked by the Operator, to provide a VBD test specification, before the end of the year.





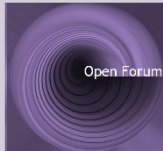
ALL IP (Voice) – TG deliverables



Deliverables either achieved or ongoing (target date 12/2017) include:

- An Ofcom/Industry document explaining why legacy VBD applications won't work in the same way over data as they do with the PSTN.
 - e.g. Varying e2e performance (Packet Loss etc), varying CPE performance (e.g. Adaptive De-Jitter Buffering, DTMF detection & generation and Clock/e2e Synchronisation accuracy, functional performance associated interactions involving many different types of different CPE (Home Routers), Complex media and signalling gateway interactions with different gateways (DTMF impacts) & Dynamic Call Routings with performance impact
- Updates to ND1704 (e2e QoS)
 - Updates to an old document including differentiated Voice Band Data service specific requirements
 - Introducing new more modern Codecs, offering potential for improved voice quality
 - The topic of 'burstiness' of packet loss and its perceived importance in Voice Quality measurement
 - Performance matrices for the different packet based technologies employed
 - Packet prioritisation for Voice Services subject to UK regulation
- Updates to ND1431 (Guidance on CPE) compatibility,
- Best Practice Guides (BPG) for:
 - DTMF – promoting more effective DTMF communication (applicability of RTP TE & terminal support)
 - Security - over the access technologies (UNIs)
 - SIP - promoting effective Media handling over the NNI





What have we learnt?

- The movement towards All IP solutions has potential impacts on our voice (& VBD) customers
 - Some positive others potentially not so
- Engagement with a committed group of active stakeholders is a key enabler to the derivation of required Standards collateral
- Agreeing standards is not straightforward.. But both professionally rewarding and perceived as essential in enabling Industry to move forward coherently coincident with technology change.
- Given sufficient lead time, we as a Standards Group can, will & do succeed in meeting our objectives





Thank You