

## **WELCOME!!**

Welcome to the fourth NICC Standards newsletter. In the newsletter we seek to keep you up to date on what's been going on at NICC, to remind you of the benefits of membership and highlight work areas where you may wish to be involved. Please feel free to distribute this newsletter as you wish.

## **NGA Telephony**

Next Generation Access (NGA) sees existing access technologies replaced or augmented by modern variants that provide higher bandwidth, for example Fibre to the Home (FTTH). Whilst undoubtedly providing consumer benefits, it does mean as an industry we need to look again at how we provide traditional voice telephony services. With FTTH, in greenfield sites there may be no copper lines deployed, and even in brownfield locations it may make sense to carry the voice service using the fibre and let the copper wither on the vine, potentially to be recovered in the future. But with no copper, the ability to convey voice as an analogue signal disappears.

NGA-Telephony (NGA-T) accommodates this by migrating voice to be just another IP-enabled application alongside others such as broadband internet access, albeit one needing QoS support. This is accomplished by deploying Analogue Telephony Adaptors (ATAs) to customer homes, which deliver standard telephony connectors to the customer, converting to Voice over IP (VoIP) in the direction of the network. The ATAs could be freestanding, or more commonly will be incorporated into the Network Terminating Equipment (NTE) that terminates the fibre. These ATAs in the customer home operate under the control of VoIP callservers in CP networks, so it is essential that there are technical standards for how the ATA and callservers interoperate. This has been the focus of NICC's activity on NGA-T.

It's been a very hard, long, slog, but NICC has now published its initial suite of standards for NGA-T, as follows:

### *ND1645 : NGA-Telephony; Architecture & Requirements*

ND1645 sets out the service requirements that NGA-T must fulfil. In principle, the starting point is that architecture and protocol should be capable of ensuring that the user experience doesn't differ markedly from traditional analogue telephony. ND1645 goes on to specify the NGA-T architecture, and requirements of the functional entities within that architecture.

### *ND1646 : NGA-Telephony; Management*

ND1646 specifies the interface for management of the NGA-T service, where the ATA is configured by the access network provider. It sets out the parameters to be exchanged between the NGA-T service provider and access network provider, and contains high level process for in-life management of the service.

### *ND1033 : NGA-Telephony; SIP User Profile*

ND1033 specifies the protocol to be used between the callserver and the ATA.

Completion of these documents was vital to allow deployment of NGAs : for example Openreach's Fibre Voice Access (FVA) capability is based upon NICC standards. Even following completion of these documents, NICC's activity in this area continues. We are currently in the process of putting together test specifications to demonstrate interoperability of ATAs and callservers. Also, a use-case document is being developed for the SIP specification. Plus, there may be future work in the management area - although ND1646 encompasses the situation where the access network provider configures the ATA, the architecture specified in ND1645 allows for usage of in-band techniques directly from the service provider - whether NICC develops a specification for this will depend upon demand.

## Future NICC activity

For the last few years, NICC has published its standards in the form of Releases, each of these being a suite of standards designed to be interoperable. With the conclusion of Orange Release, we've taken the opportunity to review whether the Release approach is the best way of structuring our work.

We've concluded that Releases are of value to us for programme managing our activity. However, they can be somewhat confusing to the outsider, and can result in delays to publishing our standards (for example if work in one area is complete, while work in others continues). Therefore, we've decided that while we'll continue to use Releases as an internal programme management tool, we'll issue our standards once the material relating to a "topic" becomes available. ND1610 will continue to be the umbrella document, that sets out the applicable standards for a given topic. This will be updated as and when new topics are added to our suite, and the associated spreadsheet to it (listing all the applicable standards, with version numbers) will be updated as individual standards are published/updated.

Obviously the next question is "what topics are NICC now working on?". We've reviewed our activity, and sought opinion from NGNuk and our regulatory agencies regarding which areas need our attention. This exercise has concluded that NICC will focus on the following topics:

- *Basic SIP NNI*  
This activity will produce a standard for a network interconnect SIP profile that at its most basic will support UK regulatory requirements, such as number portability and access to the emergency services.
- *Enterprise SIP*  
Drawing upon international activity at ETSI and SIP-connect, this activity will develop a UK specification for connection of IP-PBXs to the public network. The intent is that CPs will retain the ability to innovate and tailor their offering, but the document will provide a baseline standard configuration to both simplify initial deployment and facilitate migration between CPs.
- *Study of Use Cases for ND1638 (emergency service location)*  
Building upon the architecture developed in ND1638, this activity will produce "use cases" of how various service scenarios can deploy the approach in practical terms.
- *Report into support of emergency services in end-end IP environment.*  
This activity will assess the ongoing activity in various international bodies to determine potential approaches for supporting end-end IP connectivity to the UK emergency services.
- *ISUP Automatic Congestion Control*  
This activity will bring together the acquired learning from real-life deployments of ACC to potentially produce a report with recommended implementation options.
- *Dynamic Overload Control on IP interconnects*  
Once international standardisation has concluded, this activity will update NICC's SIP-based standards to incorporate dynamic overload control.
- *Review of ND1704 (end-end QoS)*  
This work will review ND1704 which sets out the transmission delay plan for UK networks, in light of the utilisation of a richer suite of codec standards.
- *Review of ANFP*  
This work will review the access network frequency plan, potentially allowing for higher access speeds in DSL deployments such as fibre to the cabinet.
- *Review /expansion of scope of ND1643 (security)*  
Following the revised EU Electronic Communications Directive, it is proposed that Ofcom will use ND1643 (minimum security standards between interconnecting CPs) as a tool to assess compliance with General Condition 3, which sets out requirements regarding network integrity. As ND1643 is currently scoped to address interconnection of NGNs, this activity will expand its scope to an appropriate level.

In addition to the above items, NICC may consider activity in the area of mobile offload onto wi-fi networks and on machine-machine communications (including, for example, smartmeters and smartgrids), should interest be shown by our members.

## WE NEED YOU!!

As ever, all new participation is welcome. Contact [paul.rosbotham@niccstandards.org.uk](mailto:paul.rosbotham@niccstandards.org.uk) to arrange a chat about where you could add value and derive benefit, and we'll get you on the mailing list. Plus, let us know if there's anything you'd like to hear about in our future newsletters, or indeed anything that you think NICC should be progressing that isn't on our workplan.