TSA Response to Ofcom Consultation on NGNs.

1. *How do you envisage the model of competition changing over the next 3-5 years, and what sort of input products will be needed to support this competition?*

TSA is a membership organisation of 350 members across the Telecare industry. The majority of the membership are providers of social care and alarm monitoring services, typically funded as part of a local authority or Housing Association service. Only 15% of TSA members are commercial organisations manufacturing equipment or software. It is estimated that there are currently around 1.5m people receiving Telecare services in the UK, mostly in the form of Social Alarm monitoring. TSA seeks to promote best practice and service improvement across the industry. TSA is funded by membership subscription. A key issue for TSA Service providers is that there is no way for our service providers to know that the service user has switched CP and this could significantly impact on installed service provision after service provisions have been confirmed rendering provision unsafe. However our service users, typically old and vulnerable people of limited means, have limited means and are therefore anxious to take advantage of lower cost telephone service options. FTTP would generate particular problems for Telecare provisions and make compliance with existing Euro Norms unachievable. The industry is already investing in R&D to address the threats and opportunities but being largely SME based has limited resource. There is a concern to understand how anticipated service demands will be funded given that in general the vulnerable service users have limited means. Future uncertainty is threatening the industry's international leadership position.

2. *Do you agree with our analysis of the requirement for xMPF?*
Our primary concerns are the variability of service quality provided by different suppliers; the inability of the care providers to identify or communicate with the Telecomms service provider on service related issues on behalf of the service user because of data protection restrictions.; our inability to identify the retail service provider or for the retail service provider to recognise connected Telecare equipment; the absence of an identified service point of contact within the Telephone service provider who understands and can be contacted on Telecare service provision issues; the lack of notification when provisioning changes are made which could adversely impact on Telecare service delivery and reliability or to who issues of fault resolution can be addressed.
Telecare equipment relies on rapid call set up and low probability of blocking to enable a 'blue light' responsive service.

3. *What additional technical standardisation work is required to support NGN deployment?*

Standards are needed to facilitate and control the interconnection of NGN and legacy voice networks;

- BTs 21CN and 20CN other suppliers TDM networks

- BT's TDM to other suppliers NGNs

Interconnectivity already creates issues for Telecare and alarm systems, which to date are being neglected in comparison with 21CN. The end-to-end delays and Jitter associated with multi-network hopping require quantification and resolution of customer specific issues that arise. In this sense, any delays to BT NGNs do not avoid the need for shorter-term action.
For Telecare equipment to work, call set up times need to be reasonable and round trip delays consistent with the National Plan limits.

As many Telecare Service providers make use of Non Geographical numbers, the inconsistent ways in which these are routed and charged by different service providers is a cause for concern.

We believe standards also have a role to play in ensuring compatibility between the NGN, future NGA, and CPE. Published network standards/plans to which all CPs adhere, would assist manufactures to continue producing CPE with full compatibility at the network interface. This would also help to identify and avoid at an early stage any network conditions which would affect safety and compatibility of Telecare, fire-alarm and other safety related CPE. It may be appropriate to develop such network standards/plans through the NICC.

4. *What policy positions do you believe Ofcom ought to adopt in relation to interconnection between IP and TDM networks?*

There is a need for interconnect policies related to service performance and these should be consistent with ensuring the ongoing compatibility and levels of service established by current CPE and TDM based networks, especially in relation to Telecare and safety systems.

5. *Do you have any comments on our analysis of investment uncertainty in relation to BT's 21CN plan?*

This uncertainty extends beyond operator investments and also affects service delivery, for example through unpredictable impact on Telecare and alarm system operation. This is an important issue for Telecare providers. The industry needs to make significant investments to manage the changes. Survey of members has identified that around a 3rd of equipment installed in service users homes may need to be replaced. A recent sample survey of members identified over £20m of additional capital expenditure as a result of NGN changes and an estimated cost of £200 per installation, this translates to an expected cost to the industry in the region of £100m. There are additional costs in communicating with service users and managing the necessary changes. Accurate and long range plans communicated early to telecare providers is seen as an urgent and unsatisfied requirement. This applies to all Communications providers.

Ironically, the well-documented economic benefits of Telecare will help to justify the NGN investments required, albeit the multiple authorities involved complicate the assignment of costs and benefits. A clear commitment to the upgrade of Telecare and Telehealth services to NGN compliance by UK government (or Dept of Health) would allow these services to continue without significant technology risk. This would remove obstacles to a logical programme of NGN implementation by BT (and other CPs).

Arguably a simplistic and nationwide upgrade for NGN-compatibility of affected customer equipment would be cheaper to UK PLC than the complexities of customer-equipment testing, detailed customer communication, mapping to specific, geographic problems, and ultimate resolution of individual technical issues.

6. *How do you think Ofcom should take forward considerations relating to switching involving next generation access and core networks, and which areas should we focus on?*

Whilst essential for CP service competition, there is a risk that the switching process (to and between NGNs) could be confusing for vulnerable people such as those using Telecare. As part of the switching process, it is therefore essential that customers are individually considered and that they are explicitly informed of any factors that may impact on safety applications such as Telecare, fire/intruder alarms and the like. This is especially important where the customer's prime motivation for switching may not be the basic telephony service, but that of another element of an offered "bundle", thus potentially important considerations may be overlooked. Factors include network connection capacity, CPE compatibility, and circumstances where service may be lost i.e. mains power outage. As part of the switching process, it should be the CPs responsibility to check for CPE compatibility and appropriate service level prior to accepting the customer for switching-in.

It is a concern that Telecare service providers need to be aware of service user switching in order to reassess the installation. Perceived shortcomings in CPs services and the lack of an appropriate reference point raises the risk that service users will be refused service if the service user is not connected through a ‘trusted’ CP.

Ofcom principles relating to the protection of consumers during the introduction of NGNs should continue to apply (and not just at transition). Any unreliable performance of Telecare over NGNs is of course a loss of access to emergency services for their users.

7. *Do you agree that the consumer protection principles and our approach to addressing consumer protection issues are still valid?*

TSA fully endorses the principles. The revised NGN programme is not generally communicated or understood, and is causing confusion. Telecare and remote health monitoring systems offer great promise in enabling alternative and cost-effective health and social care solutions. However, care authorities investment decisions are hampered by lack of information on NGN programmes. BT have made significant

efforts to communicate on 21CN, until the recently announced changes. Very limited information has been forthcoming from other Communications Providers, for example in relation to their own NGNs or the similar impact of network hopping.

The 3rd principle could be extended. There is potential contention as a range of services are being provided to the home by means of the CP connection in an uncontrolled way.

See also previous response to question 6 (switching).

8. *Do you agree with our assessment of how the alarm equipment incompatibility problem should be addressed?*

This is a crucial issue from Telecare perspective. As previously stated, any unreliable performance of Telecare over NGNs is a loss of access to emergency services. The Telecare Services Association has been proactive in taking a lead on behalf of its membership in developing a new communications protocol, BS8521, to operate over NGNs and in communicating the issues and challenges to its membership. We have received no financial support from Government or Communications Providers to assist in supporting this activity. This constrains our approach and the level of support we are able to offer.

Telecare and remote health monitoring systems offer great promise in enabling alternative and cost-effective health and social care solutions. However, care authorities investment decisions are hampered by lack of information and certainty on NGN programmes. The well-documented economic benefits of Telecare will help to justify the NGN investments required, albeit the multiple authorities involved complicate the assignment of costs and benefits. A clear commitment to the upgrade of Telecare and Telehealth services to NGN compliance by UK government (or Dept of Health) would allow these services to continue without significant technology risk. This would remove obstacles to a logical programme of NGN implementation by BT (and other CPs).

Arguably a simplistic and nationwide upgrade for NGN-compatibility of affected customer equipment would be cheaper to UK PLC than the complexities of customer-equipment testing, detailed customer communication, mapping to specific, geographic problems, and ultimate resolution of individual technical issues.

Given that customer-equipment providers benefit from churn in this environment, consideration should be given to financial contributions from these providers to NGN investment plans, for example through CP licensing of connectivity standards.

The response to question 7 (switching) is also relevant to this question.

9. *What will be the impact on vulnerable consumers of replacing telecare and other alarm equipment?*

There is a clear financial impact as identified above. There is an added complication for service providers concerned with explaining to service users why equipment has to be replaced and additional charges levied as service user consent and agreement has to be obtained for these changes and property access obtained.

10. *Do you have any other comments about compatibility of terminal equipment with NGNs and how they should be addressed?*
What other steps could be taken to help manufacturers ensure terminal equipment is compatible with the QoS parameters of NGNs?
Would it be appropriate to agree a common set of terminal equipment compatibility tests? What would be the most appropriate forum to develop these tests?

TSA has worked hard with BT and its own members to identify installed equipment and to ensure that the majority of equipment has been thoroughly tested for compatibility using BT provided test facilities.

Customer equipment testing has highlighted compatibility problems with NGNs- "a significant proportion of security, fire, and social telecare alarms…are sensitive to the increased end to end delays and Jitter of NGNs, and may therefore not operate reliably in certain circumstances".

The Telecare Services Association is co-ordinating further testing of CPE with those CPs who are able to define and characterise their NGN. Unfortunately not all are able to do this in good time (hence the importance of the availability of standards referenced in the response to question 3).

We do not agree that the BT move "towards a much slower, demand-led migration to NGNs helps by providing more time to locate and fix specific customer problems". The compatibility of customer equipment is not 'fixed' simply by slowing the NGN programme. This requires notification of the network design with sufficient lead-time to address product issues. If geographic roll-out is not defined then neither does a 'slowing' remove the nationwide risk of non-compatibility of equipment from the outset. See also the response to questions 5 and 8-9 relating to corresponding uncertainty in procurement by customer organisations.

The challenge for TSA service providers lies in the Disaster recovery/ crisis management arrangements necessary to cover the switchover period 'on the day' as well as the long term reliability of the equipment.

12. *Do you have any other comments about compatibility of terminal equipment with NGNs and how they should be addressed?*

See above. There is also a longer term issue of managing the home connection point to deal with multiple services competing for the telephony and broadband connection.

13. *Do you think there is risk of terminal equipment incompatibility that warrants further SIP UNI standardisation? How should this be progressed?*

As above points 10 -12

Although CPE connection to NGA is initially likely to be via Terminal Adaptors, in due course direct connection is probable. Any risk of application unreliability must be avoided hence communication protocols for network control purposes (SIP-UNI) should have a high level of standardisation such that all NGA and NGN implementations can be treated identically - at least for basic functionality/services. Because of the costs of development of terminal equipment, a high degree of international standardisation is desirable.

14. *Do you have any other comments about compatibility of terminal equipment with NGNs and how they should be addressed*?

As above points 10 -12

15. Will a slower transition from TDM to NGN networks pose a risk to voice quality of service? How should such risks be addressed?

The quality of voice transmission is a key requirement for effective Telecare service and as such any adverse impact during migration from TDM to TDM/NGN and ultimately NGN must be avoided. Appropriate mandatory performance standards can help mitigate this risk. Effective QoS should cover expectations of voice quality, DTMF fidelity and call set-up times

As noted elsewhere, the slower transition from TDM to NGN will also prolong the procurement uncertainty for Telecare service providers and as such legacy CPE may persist in circumstances where new equipment may be necessary to provide optimum speech performance.

16. Do you have any comments on the long-term trends in the evolution of networks to next-generation architectures?

The UK Telecare industry has led the world in terms of product innovation and service deployment. The lack of clarity surrounding UK NGN design and programme is a significant obstacle to the investment decisions for the Telecare industry.

This is already impacting on product development and the relative competitiveness of UK suppliers to international markets, indicating that this market leadership will be eroded.

Telecare and Social Alarm systems will be developed in this competitive environment, and we need to ensure they meet requirements of reliability and quality of service.
We feel that there is a critical and growing role for Ofcom in maintaining the quality of remote monitoring services that are deployed across communications networks. In a world where NGNs simplify the technology of conveyance, it is logical that Ofcom's focus should turn to network control and the quality of service associated with key applications which are highly reliant on effective telecommunications.