

**Response to the DTI consultation on
“The Proposed Arrangements for ENUM”
on behalf of the
Internet Telephony Service Providers Association (“ITSPA”)**

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About the ITSPA

The Internet Telephony Service Providers Association ("ITSPA") represents a group of 13 UK companies, from Internet Service Providers (ISPs) and existing telecoms companies to new market entrants all of whom are interested in developing and supplying services using Voice over Internet Protocol ("VoIP") technology. Internet Telephony is the next generation of Multi-Media and Telephony Services.

The speed, flexibility and rich capabilities of the Internet, married with the global pervasiveness of the phone network, will transform the way we communicate. New features such as international roaming of your phone number, CD audio quality, integrated video calls and the potential convergence between mobile and home/office telephony. There are already more than 6 million people worldwide benefiting from making voice calls over their Internet connection, primarily in Japan and the USA. It is ITSPA's view that the UK market is now poised to similarly take off.

This is the response by ITSPA to the DTI consultation on the proposed arrangements for ENUM.

This response has been produced on behalf of the ITSPA and in conjunction with the following ITSPA Members whom are the predominant operators of next generation voice services in the UK;

- Call UK <http://www.calluk.com/>
- ET Phones <http://www.etphones.net/>
- Gossiptel <http://www.gosiptel.com/>
- Gradwell dot com Ltd <http://www.gradwell.com/>
- Idesk <http://www.idesk.com/>
- Imass Telecom <http://www.imasstelecom.com/>
- Intervivo <http://www.intervivo.net/>
- Magrathea <http://www.magrathea-telecom.co.uk/>
- Mistral Internet <http://www.mistral.net/>
- Speak2World <http://www.speak2world.com/>
- Telappliant <http://www.telappliant.com/>
- Telco Global <http://www.telcoglobal.com/>
- T-Strategy <http://www.t-strategy.com/>

Summary

We welcome the DTI's proposed arrangements for ENUM and encourage the DTI to facilitate their speedy adoption.

As the trade association for operators of new voice services and Internet Telephony we believe that ENUM represents a strategic component of the toolkit of services available to users of next generation telephony.

We believe that the proposals for the selection of the Tier 1 registry are good, but we would encourage the DTI to consider wider participation in the UK ENUM policy group as we believe there is much to be gained from wider public debate as we continue the convergence of the Internet and traditional Telecoms.

We believe that the adoption of much of the model used for the domain name system in the UK, will lead to a successful and highly competitive ENUM market place providing a diverse array of services.

Finally we strongly urge that the DTI 'fast track' the establishment of the UK Tier 1 ENUM registry to ensure that we continue our lead over our European and World Peers. Any delay in terms of progress on ENUM deployment and the establishment of the Tier 1 registry may cause the market to fragment and potentially discredit the UK ENUM service.

Response to specific questions asked by the DTI

1 How important do you think ENUM is likely to become?

We believe that ENUM represents a strategic opportunity to enhance the integration between the Public Telephony Network and the generation of new Internet based communication services – including VoIP, Instant Messaging and other future developments in the communications network.

We believe that ENUM will be one of the key tools in the convergence of the fixed and new generation voice networks and that the clear winners who will benefit from ENUM will be the end users as they will be able to take control of their telecoms identifiers and receive a simpler, integrated solution harnessing a wider range of new services including follow me routing, "presence, messaging and multi media interaction.

We also believe that ENUM should be seen in the context of number portability – allowing consumers to move their communications service between existing providers with the same level of ease that one can currently move a co.uk domain name.

We wish to note however that there is of course concern that ENUM has challenges which must be addressed and resolved which include security of customer details – including:

- the potential for "Voice Spamming" or junk phone calls; and
- interoperability between operators – when an operator attempts to make a VoIP call, it is not guaranteed that the call will connect due to codec or feature availability issues; and
- the cost and charging structure of an ENUM service has yet to be resolved and as such it is difficult to say whether the commercial model for the development to

ENUM services will be credible. Clearly, for mass ENUM adoption, the fees need to be as low as possible.

However the ENUM trial group has made good progress in these issues and we believe that the proposed ENUM Policy Group will continue this work.

Finally, it should be noted that ITSPA are currently aggressively deploying provider ENUM systems between themselves and their colleagues in Europe and the rest of the world. The adoption of ENUM provides the customers of ITSPA members with increased functionality and interconnection with other users of New Voice Services – but currently only where bilateral agreement exists between operators. We believe that adoption of public ENUM will enable service providers to increase the deployment of new services to users of existing telephony services.

2 How keen would you be to add your details to ENUM?

ITSPA members have a keen interest in ENUM and a number of members are already enabling their customers to deploy their details in private and “provider” ENUM systems. As such, it naturally follows that a number of ITSPA members are keen to permit their customers to enter into a public ENUM service which will allow service users greater integration with their traditional telephony service.

Equally, a number of other ITSPA members are adopting a more cautious approach and are keen to see how the deployment of the UK public ENUM service develops, because

1. Public ENUM provides a much greater level of control and delegation of the communication identifiers to customers, which may lead to greater customer migration and;
2. The structure and dependency of the UK ENUM service is not yet clear.
3. Finally, the commercial and financial models of the public UK ENUM service have yet to be formalised and confirmed.

3 Is the structure at option iv the best option for the UK market? If not, what alternative would be most suitable? Please give your reasons.

We note the report from the ENUM Trial Group in which it is stated that:

“Operating the trial with three Tier 1 providers was unsatisfactory. It introduced additional complexity and created operational problems that might otherwise have been avoided. For instance three sets of name servers, one per provider, needed to be checked rather than a single set under one administrative control. Registrars needed to know and keep track of which parts of the UK number space were allocated to which registry operator. The UKEG report recommended a single Tier 1 Registry and the experience during the trial confirms this approach should be the one to follow.”

Further, we can confirm that since the completion of the trial, we have been discussing the possibility for ITSPA members to enter their customer’s telephone numbers (the ITSPA membership includes Call UK and Magrathea Telecoms, operators with some several million UK PSTN numbers in operation) and the lack of a single registry has been the source of some frustration.

We strongly endorse the view that the “option iv” (a single ENUM registry, with separate competing name servers and ENUM registrars) is the best option for the UK Tier 1 ENUM registry.

We further note that the adoption of this model would mirror the current arrangements for the .uk domain name, which has proven to be highly successful.

4 Are the proposed arrangements likely to be sufficiently effective, transparent and commercially neutral?

Yes, we believe that the proposed arrangements are likely to be sufficiently effective, transparent and commercially neutral. We note that similar arrangements exist, and have existed in the domain name arena with great success.

5 How could the arrangements be improved?

Whilst we think that the proposed arrangements are satisfactory, we note that the success in the domain name system has come from a number of key components which include:

- Light touch regulation and inclusive participation by government
- An independent and active public policy forum at all levels, which embraces a wide range of different bodies (including stake holders from beyond direct participants in the industry – taking the Nominet PAB as an example, we involve stake holders such as Companies House, the Information Commissioner's Office, the CBI and formerly, the Institute of Directors).

We would therefore like to see greater participation by users and government in the debate held through the UK ENUM Policy Board than that which is currently proposed (2 seats for Users).

Secondly, we note that there are 8 seats (2 a piece) for Tier 2 Name Server providers, ENUM Registrars, Authentication Agencies and Application Providers, and in continuation of our proposal above – that there should be greater non-industry participation, we are concerned that in the initial years of ENUM deployment, all four described functions are likely to be performed by either similar or linked organisations and as such, the ENUM policy group may be steered strongly by the operators whom are making the best use of ENUM. Whilst it is clearly excellent that there should be such a keen interest from industry to steer the group, we do believe that significant value and balance can be added to the public policy debate through the cooption of a greater user community – with, for example representatives from the consumer space, business space, those with legal and regulatory views etc.

6 Which independent organisations would you like to see appointed to the UK ENUM Supervisory Board? Please give reasons.

As discussed in our response to question 5 (above) we do believe that significant value and balance can be added to the public policy debate through the cooption of a greater user community – with, for example representatives from the consumer space, business space, those with legal and regulatory views etc.

Therefore, we suggest that organisations such as OFCOM, the Information Commissioner, the All Party Internet Group, the OFCOM Consumer Panel, trade associations (e.g. the ITSPA, the ISPA (Internet Service Providers Association) and other Telecoms Industry bodies) and parallel bodies (e.g. from domain name industry), should be approached to see if they would be able to appoint representatives to the UK ENUM Policy Group.

7 Are the proposed principles and methods for selecting and appointing the ENUM Tier 1 Registry appropriate?

We believe that the proposed principles and methods outlined in the consultation are appropriate and correct. We are pleased to note the desire for independence and neutrality for the Tier 1 registry.

8 What additional considerations (if any) should be applied in the selection process?

We believe that whilst it is clearly important for any registry to deliver a high quality technical experience with service levels which should be commensurate with the level of service currently enjoyed by traditional telephony users, it is equally important that any Tier 1 registry should:

- have a strong understanding of the UK political and regulatory framework, particularly with respect to the views of Government and the regulators;
- and be an established leader in the development of public policy surrounding the ongoing development of internet and telecoms based naming and directory services.

Finally, we believe that the devil in the deployment of any Tier 1 registry will be the details of operating in the UK business environment, and we believe that any applicant will need to demonstrate the careful consideration they have given to balancing the needs of delivering an open and transparent service vs the issues of invoicing, debt recovery, continuity of service and the contractual framework that will be required between the registries and users.

9 How could the incentives for good performance by the ENUM Tier 1 Registry be increased?

In order for the Tier 1 registry to be operated in a neutral and impartial manner, we believe that good performance in a cost effective and economical manner should be the sole objective of the Tier 1 registry and that it is not necessarily possible to reward this performance purely in monetary terms.

We believe that good performance should be demanded by the contractual framework between the Tier 1 registry, Tier 2 registries and others, but that the achievement of excellent in this arena will already be the corporate objective for the Tier 1 registry. We note that organisations such as RIPE, ARIN, ICANN and Nominet UK already have similar corporate structures and achieve success.

10 Authentication

a. To what extent are the proposed authentication methods justified?

We agree with the ENUM trial group that it is important to provide an array of authentication methods to permit customers of varying telecoms operators the ability to utilise UK ENUM services.

We believe that some authentication is essential; however we are concerned that there is an apparent strong bias against permitting telephone service providers subscribing their customers. As operators of new voice services, we believe that it will be important for us to greatly assist customers in subscribing to the UK ENUM registry and that potentially, some

service providers may require that an ENUM subscription is a necessary prerequisite for subscription to their services.

Firstly, it is our experience, from having participated in the UK ENUM trial; we perceived significant difficulty with the operational model where the Service Provider, the Authentication Provider and the Registrar were the same or related entities. For example, it was not possible to both register and authenticate numbers, which appears to be a significant restriction, particularly in the early stages when the market is smaller. We believe that “multiple memberships” should be permitted, particularly in the early stages of ENUM deployment.

b. Do they represent an unreasonable disincentive to potential ENUM subscribers?

We believe that a wide array of methods has been evaluated by the UK ENUM trial group and that the combination of these systems will provide reasonable ease for potential subscribers in the registration process.

We are concerned that in the event that operators with Significant Market Power refuse to participate as an ENUM authentication provider then it may cause significant limitations and difficulties in widespread ENUM adoption, however, we believe that all possibilities have been catered for in the trial group’s work.

We believe that in order for ENUM to be successfully adopted on a wide scale, we will need to make it as cost effective as possible which will require automated authentication mechanisms and adoption by the larger telecoms operators.

c. How much effort would be reasonable for the registration process?

We believe that consumers should be able to register their phone number for inclusion in the UK ENUM registry by simply making the request (of their service provider) and further, we believe that any registration process should be entirely electronic and not require any paper trail. Ideally, we would like a consumer to be able to dial 150 (Customer Services) and have their ENUM service setup that day.

11 a. What role, if any, should telephone service providers play in authentication?

A number of entities may have contractual relationship with a user and a service provider may be purchasing numbers from a number of Telecoms Operators. As such the entity which has the direct customer relationship (which may not be a Telecoms Operator) is the key player in the authentication chain and should be recognised as such.

Where a service provider is purchasing number service from a Telecoms Operator, we believe that all parties in the chain should work together to make authentication work as smoothly as possible.

However, if the Telco is not willing to participate as an ENUM authentication service, we believe that this should be their commercial decision and that:

- It provides commercial differentiation opportunities for other Telco’s and
- That the alternative authentication mechanisms proposed will permit all consumers to utilise UK ENUM services.

b. Should they be required to authenticate ENUM entries?

We believe it would be un-necessary to require Telephone Service Providers to authenticate ENUM entries, however it would be helpful. We are concerned that in the event that operators with Significant Market Power refuse to participate as an ENUM authentication provider then it may cause significant limitations and difficulties in widespread ENUM adoption.

12 How can the authentication proposals be improved?

Firstly, we wish to refer to the note we make in our response to question 10a, regarding the difficulties we experienced during the ENUM trial.

Ultimately, we believe that the increase of new voice services by an increased number of telephony service providers will increase the levels of ported numbers from incumbent operators and challenge the current number management frameworks. We believe that the deployment of ENUM provides an excellent opportunity for the UK number management framework to be evaluated (we note the OFCOM consultation on number portability, and propose to respond to this).

We believe that in time, where there to be a centralised number registry it would provide an improved mechanism for ENUM authentication – in that there would be a single authentication point.

13 What interest do you have and what uses do you foresee for a UK number range specifically for entries in ENUM and independent of the provision of a telephone service?

We believe very strongly that ENUM should be supported for all PSTN numbers however there may be some limited scope for a UK number range specifically for ENUM. We note the adoption by OFCOM of the 056 number ranges for new voice services and believe it might be desirable to require public ENUM registration for numbers allocated in these ranges.

14 Competing systems

a. Do you consider that there is a role for more than one such system in the market?

We note the emergence of the Internet Phone Alliance, DUNDI and other operator based ENUM systems which offer alternate directory lookup services for internet based telecom.

We believe that all of these systems will contribute to the increasing of IP based interconnects and that undoubtedly there will be many different telephone directory systems and interconnection models. We believe that commercial market forces will dictate their adoption.

Therefore we strongly urge that the DTI 'fast track' the establishment of the UK Tier 1 ENUM registry to ensure that we continue our lead over our European and World Peers. Any delay in terms of progress on ENUM deployment and the establishment of the Tier 1 registry may cause the market to fragment and potentially discredit the UK ENUM service.

b. What controls should be applied to other systems to ensure that they are run in a responsible manner?

At present, we believe that controls are not necessary for other systems and that commercial market forces will dictate their adoption.

c. How should such controls be applied?

We believe that any controls deemed necessary should be applied through the current "light touch" regulatory framework utilised by Government and applied equally to all naming and directory services.