

## Why Telnic's .tel is an sTLD

A common pair of questions seems to have been raised regarding the .tel-Telnic proposal; “*what is the served community and what is the Sponsoring Organization*”? An implied question is “*what is the goal of .tel*”?

To answer this, it is useful first to consider what the goal of an sTLD is, and how it fits with the gTLD system. This has to reflect the history – how did we get here?

After this, we consider the detailed roles expected of the Sponsoring Organizations at the heart of all proposals.

We consider how a community can be defined, in terms of the personal role or characteristics of the registrant, and in terms of the usage to which the domain registration is put.

We then describe the way in which we envisage how a personal name space can be used to store personal (or corporate) communications contacts.

Finally, we describe how the Sponsoring Organization for .tel will have to remain neutral, balancing the different interests of the community served, and not fall under the sway of any single sectional interest.

### 1. History

Initially, the gTLDs were partitioned into name spaces that supported different groups. Thus .mil served the community that was connected to MILNET and so was associated with Department of Defense use. Similarly, .edu served the Academic community. With network expansion away from ARPANET, there was a demand for domain names from organizations that didn't fit within these communities; thus the .com (and .org and .net) gTLDs served the general pool of registrants that were not tied to Academic or Military institutions. The introduction of .int was intended to cover those potential registrants who had operations in more than one country, and initially was used to deal with global infrastructure developments. This proved a major role, so that .arpa was introduced to deal with “infrastructure” issues.

In parallel, a similar process was developing in other countries, with the creation of country-code specific TLDs. In the UK, for example, the original domain name registrations were dealt with via the Joint Academic Network (JANET); as commercial companies inter-connected with this network, a defined partitioning into the .ac and .co second-levels was made, allowing registrations for academic and commercial communities to be made separately. As networks were interconnected between the various countries, so the existing domain name system evolved.

Over time, the gTLD system and its role relative to the ccTLDs was refined; for example, no longer did potential registrants for .com,.net, or .org need to be U.S.-based organizations. Their operational rules were limited to ensuring that the DNS continued to operate; what the delegations were used for was unimportant. They had become true general as well as global TLDs.

With the introduction of ICANN, one of the roles it took on was ensuring that the DNS provided support for all Internet users. It became apparent (from the many issues raised) that there were potential users who had a discrete identity that was not

reflected in the global nature of the general gTLDs, and yet didn't fit into the strictly country-based communities either. Thus the sTLD process was developed to deal with this perceived "gap".

## **2. Role of Sponsoring Organizations**

The goal was to have identified groups served by proposed sTLDs with a strong Sponsoring Organization to control those aspects of the sTLD that are specialised and so don't fall under general ICANN guidelines.

Specifying the identity of the group served is a crucial task of the Sponsoring Organization at the heart of each of the sTLD proposals. The sTLD communities are not mutually exclusive (i.e. a person can register a domain in .cat, and potentially in .travel).

Similarly, there are a number of "interested parties" for each potential identified community, and balancing the interests of these different parties to ensure common agreement on the operation of the sTLD is also a key task. Looking after the interests of all of those affected by the proposed sTLD is a responsibility delegated by ICANN to the Sponsoring Organization and its specialists.

ICANN is also responsible for ensuring the integrity and continued stable operation of the DNS. Thus, another requirement in this process is to ensure that the Registries operating the proposed sTLDs continue to operate. In practice, this means there is a Sponsoring Organization that ensures the Registry serving a community does not cease operations. It is important that the sTLD operation is commercially viable, and if not then there is a group who can be called on to provide the needed financial support.

It also follows from this that, in most cases, an overly restrictive community means that there is little revenue for the Registry operation using "normal" registration charges, and so funding must come from somewhere; the Sponsoring Organization must ensure that the Registry "business proposition" is viable, in conjunction with the community. In this way, a balance is struck between the commercial drives of a Registry and that of the community served by this "franchise".

In the past, the sTLD operations have been restricted to non-profit organizations; this is not the case for this set of proposals, so that some are operated on a non-profit whilst other proposals have for-profit organizations.

Whilst the profit basis of the organization should not matter (in that the same requirements from stable and continued operation are applied) it may affect the Governance, structure and internal balance of the Sponsoring Organization that is, in effect, responsible for the sTLD.

In a for-profit proposal, it is important that the policy setting function of the Sponsoring Organization is autonomous from the Investors. In practice, there will be influences in both directions as no policy can be set regardless of financial consequences. However, care must be taken to ensure that these distinctions are not blurred.

For example, for a Sponsoring Organization to manage the sTLD policies effectively, it should be careful to consider both the requirement for a commercially viable Registry and the neutrality of the organization. Its policy setting functions should not

be dominated by the interests of any sectional group, regardless of the financial power of that group relative to the other community members. This is a challenge for any proposal, but with one involving a for-profit organization, it must be seen that, beyond doubt, the Sponsoring Organization is strictly neutral and represents all users in the community equally.

One should not be confused between the constituency of the Sponsoring Organization (i.e. entities that have board member representation) and the community served by the sTLD. The constituency of the Sponsoring Organization has to reflect the whole community, rather than only a portion of that community. Where there is board representation reflecting equally the wide spread of interests in the community, then the constituency of the Sponsoring Organization can be said to be democratic. Where that constituency does not reflect the plurality of the served community, then it is hard to convince people that that community is well served.

### **3. *How Should a Community be Defined?***

As already mentioned, the existing general gTLDs have no restrictions on the people they serve (or the use to which domains are put), and so any identified group chosen by an sTLD proposal reflects an aspect of life of the potential registrants.

For all of these proposals, the identity is defined by a role taken by a registrant in a served aspect of their life. Thus, for example, a Catalan-speaking person could register a domain under .cat; they could simultaneously register a domain under .edu (if they fulfilled the “Educational Establishment” criteria). These registrations reflect different aspects of their life and are not in any way contradictory.

Thus what appears to be a simple question – “how is this person in the served community different from that person who isn’t” – is not quite so straightforward. The real distinction may be between two aspects of the same person’s life.

Identification of a community based purely in terms of the personal characteristics of registrants is only one distinguishing factor and does not always have any meaning when applied to DNS. For example, it is hard to see how a community of registrants who are “left-handed people” has any relation to the content of their “published” zones.

With several of the proposals, the community identity is defined by the use to which domain registrations are put, as well as the personal characteristics or organization membership of the registrants.

For example, the purpose served by a registration under .cat is considered important – it should be to further the social and cultural aims of the Catalan community.

In this case, the community membership is not only defined by inclusion (i.e. what aspect is part of this community) but also exclusion (i.e. what aspect is explicitly not allowed in this community).

Definition of community in terms of the usage aspect is important, not only for culture-based proposals like .cat but also for all of the communications-based proposals (.mobi, .tel-Pulver, and .tel-Telnic). The set of people who could ask for or use registrations in the communications-based proposed sTLDs is almost everyone. Their community is defined by the communications aspects of the registrants’ lives.

This emphasises another related point; the size of the community alone does not determine whether or not the proposal needs to be an sTLD or is more suited to a general gTLD. This is solely determined by whether or not the community requires a Sponsoring Organization to define, control and protect its specific activities.

In the case of .tel-Pulver, registrations are open only to service providers, but these are expected to use their domains to publish information on the communications contacts of their service customers.

In the case of .mobi, registrations are open both to Service Providers (and Content or Application providers) and to individuals.

In the case of .tel-Telnic, registrations are open to individuals and companies that wish to store personal or corporate communications contacts. It excludes use to identify machine node addresses.

These communications-based sTLDs all require a strong Sponsoring Organization to ensure the correct operation of the domain space and to balance the conflicting interests of the parties involved in their chosen communities.

## ***4. Telnic's .tel: An sTLD for Personal and Corporate Contacts***

### **4.1. People are not Machines**

Curiously, the generality of Internet users (either individuals or corporations) are not represented by current DNS name spaces. The machines they use are, the servers that support their applications are, but we feel that the people aren't.

At present, the information held in a registrant's domain indicates node names and IP addresses, as well as the application services that run on those nodes. Thus the identity of a potential registrant does not reflect the use to which they put their domain registration.

### **4.2. People as Numbers: ENUM is half the solution**

The introduction of ENUM changes that – for the first time, personal communications contact data is to be “published” in DNS in a coherent and structured way. The E.164 telephone number acts as a top level identifier for that person, and with ENUM, this is tied to a defined domain name space. Using this, we now have a DNS space that represents a user rather than their machines. Within ENUM, the registrants can store and “publish” the communication contacts that relate to them, rather than just the machines they use.

However, there are several limitations and restrictions in the use of telephone numbers as universal identifiers, and they interfere with the goal of ENUM.

The assignment process by which E.164 numbers are provided is closely controlled to ensure that a given number is truly unique. The existing (and quite reasonable) process by which this is done involves national control over those number spaces, and thus, in ENUM, implies national control over the associated domain name space.

There is another risk to the use of E.164 numbers as personal or corporate identifiers; these numbers are traditionally associated with Telephony Service, and in many

jurisdictions current plans assume that an ENUM domain registration will be valid only while the registrant has Telephony Service provided via their E.164 number. If that service ceases, then their entitlement to the E.164 assignment (and thus to the ENUM domain) also ceases. Thus, unless the registrant is guaranteed exclusive and continued assignment of an E.164 number, then the ENUM domain is not always a reliable place either to store or to look up personal contacts.

Finally, the basic advantage of telephone numbers as identifiers is also one of their most marked weaknesses. They are easy to dial into even the most basic communications terminals, but they are hard to associate with a person – as most customers do not have a free choice of the E.164 numbers they are assigned, they are not readily predictable, and they are not very memorable.

### **4.3. People as Names: Telnic's .tel is the solution**

With the introduction of more capable terminals (for example, with mobile phones or PC-based VoIP clients), many people have been enthusiastic in their use of in-built address books and other aids that allow them to operate on the level of names rather than numbers. This is neither surprising nor unexpected – nor is it a passing fashion. For this reason, we believe that whilst ENUM is a major step forward in allowing a personal name space for communications contacts, it is to some degree an interim technology that is limited by the use of E.164 numbers as the “top level” personal identifier.

The .tel-Telnic proposal envisages a true Personal name space to store and publish communications contacts for individual and corporate registrants.

This domain space uses the names that people find easier to use than E.164 numbers, but employs similar DNS technology to the ENUM system. The zones for **.tel** domains will hold NAPTRs that indicate the registrant's communications contacts, and by querying these clients (or their agents) can decide on the most appropriate form of communication, without requiring dedicated support in any single Service Provider's infrastructure.

This means that the domain fulfils the goal of a personal domain space, without the limitations of number-based identities. It does not conflict with other TLDs as they will continue to be used to identify machines.

In common with the other communications-based sTLD proposals, we believe that a gTLD is inappropriate. This task requires a neutral Sponsoring Organization that can build consensus amongst the different groups affected by **.tel** mediated communications; it is too important to leave to any one sectional interest.

## **5. *Telnic's .tel Sponsoring Organization and Community***

### **5.1. Telnic's .tel needs a unique policy perspective**

There are several key aspects to the .tel-Telnic proposal that, in combination, have a unique influence on the policies and operations that justify an sTLD. Whilst it is the role of the policy setting function (defined in our proposal as the Policy Advisory Group, or PAG) to establish the issues and the policy choices to be made, we raise a few of them here.

- **.tel** is a Name based system. Our goal is to provide domains that are exclusively tied to a person or company’s name, and are used to hold contact information associated with the registrant rather than their machines. This is a specialised use of the domain name system, and introduces new possibilities. For example, it is now practical for a registrant to store “non-Internet” contacts in their zone (e.g. telephone numbers) alongside links to their web sites. In this, it enables potential services that have not been a part of previous TLDs. It shares underlying technology with ENUM – the difference lies in name rather than number based identification, and to avoid confusion, registrations of domain names of the form used in ENUM are barred.
- **.tel** has different privacy concerns. In the case of this sTLD, we believe that our focus on personal and corporate contacts will lead to a different balance in terms of data protection and privacy. Whilst this may seem paradoxical, given that registrants will use their domains to publicize their contacts, we expect that they will wish to maintain control over any contacts available, including those from the Registry and Registrars. Against that must be balanced the concerns of existing Intellectual Property protection groups, as expressed by CCDN.
- **.tel** is an enabler for communications. We believe that, as it is used to hold contact details, most queries will be done as the prelude to a communications session. Thus there may be a reasonable expectation of DNS server performance on the part of clients who query this data. This expectation will be different from that in “traditional” TLDs, and is a direct consequence of a communication-focused sTLD.
- **.tel** is the holder for personal contact information for individuals and corporations, and therefore must guarantee fair access, use, and publication to the industry, regardless of network access technology.

## **5.2. Groups who need representation in the .tel served community**

The groups that make up the **.tel** served community and their interactions are different from other TLDs.

In addition to the usual group of interested parties (Registrants, Registrars, third parties with an interest in protecting Intellectual Property), it adds new ones.

The use of **.tel** as a prelude to communications means that third party communications service providers have legitimate interests in the performance provided by the DNS servers, not only of the Registry itself but also those Authoritative servers that host a registrant’s zone. Providers of such Authoritative DNS hosting service will need to be represented so that reasonable recommendations can be agreed.

As a holder for contact information the Sponsoring Organization has a responsibility to guarantee fair access, use, and publication. Thus, the communications service providers who use the data will need to be represented in the policy setting process. Equally, developers of new applications that process the contacts for other services (for example in a directory service web portal) will also be involved.

To initiate this process, Telnic has appointed an eminent “Interim PAG” Chairperson with the mandate to select six influential and representative individuals with the exclusive goal of establishing the PAG charter and the development of the PAG.

### **5.3. Model for Telnic's .tel Sponsoring Organization**

As the .tel-Telnic Sponsoring Organization is a commercial venture, special concern has been taken to ensure a separation between the commercial needs of the Sponsoring Organization and the policy setting role that defines the operation of the sTLD. To that end, overall control of policy setting for the **.tel** sTLD has been delegated to an autonomous Policy Advisory Group with strong Sponsoring Organisation board representation, and a mandate to ensure diversified community inclusion.

The PAG will exert effective control over policy, and is not merely a source of proposals without power. This will guide the sTLD and specify all policies to be carried out. Only in the case where policies proposed by the PAG will directly damage the stable operation of the sTLD, or are in direct conflict with ICANN agreements, can the Sponsoring Organization refuse to implement the proposals. In effect, the PAG will control all policy issues in the **.tel** sTLD.

As a closing point, there is another reason that drives us to conclude that a communications-based TLD requires a broad based and independent policy-setting constituency. The reason for using a Top Level Domain to hold name-based personal and corporate contacts is that it forms the “one place to look”. There is a responsibility that comes with this right, however.

Apart from the obvious need for the operations of the sTLD to remain commercially viable, policy setting should reflect the people served by the sTLD, not the Investors in the Sponsoring Organization. Blurring the roles and responsibilities of the two in a commercial venture can only lead to conflicts of interest.

We think that this is the only reasonable approach to a “for profit” Sponsoring Organization, and in particular for any sTLD that has its focus on communications. Only through a wide constituency with real control can we avoid the risk that the sTLD will be used by a sectional group to further their aims to the detriment of others, and particularly the registrants. No single group should be able to “take control” of this important role. The Sponsoring Organization must not only be neutral, but be seen to be neutral.

We believe that there is a business case for a Registry to support a Name-based communications contact name space, that it adds value to the Internet name space, and supports a defined use and so community. This meets the definition of a Sponsored Top Level Domain; it has an autonomous policy setting group with executive power, it has a defined community, and a well-defined use.