

A guide to internationalized top-level domains

ICANN is planning to introduce new domains containing only non-English characters. **Elisa Cooper** explains what the policy means for IP owners and their domain name portfolios

Imagine an English-speaking tourist in a Japanese train station where all schedules, maps and directions are written in Kanji. Think about how difficult it would be for that tourist to understand timetables, identify the correct route and purchase tickets. For most internet users, the bulk of whom do not speak English, navigating the internet via domains containing Roman characters can be just as challenging. But the introduction of internationalized top-level domains may soon bring such linguistic imperialism on the web to an end.

There has been much speculation about the introduction of internationalized top-level domains, and now – for better or worse – it looks as though they may finally be descending upon us. Non-English-speaking internet users will clearly benefit from the ability to navigate to websites using domains containing only native character sets. However, those responsible for the management of corporate domain name portfolios will be challenged with determining what, where and how to register in these proposed new extensions.

The International Corporation for Assigned Names and Numbers (ICANN), the non-profit body responsible for oversight of the domain name system, has publicly stated their commitment to implement internationalized top-level domains. There is even the promise of fast-tracking the implementation of some prominent ccTLD (country code top-level domains) internationalized top-level domains. It is expected that some of these fast-tracked ccTLD internationalized top-level domains will be launched as early as mid to late 2008.

With close to 98 million gTLDs (generic top-level domains) currently registered worldwide, and more than 71% of internet users speaking languages other than English, the introduction of internationalized top-level domains makes sense. For those concerned with protecting valuable domain name portfolios however, there will be many new issues to address, including what, where and how to register these new extensions.

What is an internationalized top-level domain?

Currently, IDNs (Internationalized Domain Names – not to be confused with internationalized top-level domains) are available for registration in the gTLD name space. They appear as ‘**例え.com**’ or ‘**例子.net**’. Only the characters set to the left of the extension name appear in native character sets. Many ccTLDs also offer the ability to register domains containing native character sets. China, for example, was the first to offer IDNs back in 2000. Other ccTLDs offering IDN registrations include: Austria, Brazil, Chile, Denmark, Finland, Germany, Greece, Hong Kong, Hungary, Iceland, Japan, Liechtenstein, Lithuania, Norway, Niue, Peru, Poland, Portugal, Sweden, Thailand, Turkmenistan and Turkey.

ICANN’s proposed internationalized top-level domains on the other hand, would appear as ‘**טעסט.ביי שפּיל**’ or ‘**例子.测试**’, so that all of the characters in the string would appear using native character sets. The thought is that for existing gTLDs, translated or transliterated versions of .com, .net, .org, .biz and .info would

One-minute read



ICANN, the body that oversees the domain name system, is planning to implement a new system of so-called internationalized top-level domains that will contain only native character language sets. This is good news for non-English-speaking internet users who will be able to navigate their way around websites using domains written in their own language. But it poses big challenges for domain name portfolio managers already struggling to keep on top of an expanding number of domains - from .mobi to .asia. In this article Elisa Cooper provides the background to the proposals and explains what IP owners need to do in preparation for the new domains.

Types of domain names

Current	ASCII domain names A-Z, 0,9, -	product.net company.com
	International Domain Names (IDN)	例子.net 例え.com
Proposed	International TLDs	例子.测试 טעסט.ביי שפּיל



be created. The same would hold true for ccTLDs, although methods for translating or transliterating the current two-letter extensions have yet to be clearly defined.

How do they work?

When an IDN is entered into a web browser, the native characters are translated using the Punycode conversion method into strings that can be understood by the internet. Punycode is the standard for conversion of IDNs from their native character sets into an ASCII string. The native characters of www.kimiräikkönen.com for example, would be converted into www.xn—kimirikknen-p8a1v.com (converted strings always begin with 'xn-'). You may have seen these converted strings in the past if you have ever conducted research using a Reverse Whois tool, as this is how IDNs appear within Whois ownership records.

A similar method of encoding would also be used by inter-

nationalized top-level domains. Thus, although the end user is able to enter and see the native characters in their browser, the string is actually being converted so that the domain points to the correct location.

ICANN support

While records indicate that initial discussions of internationalized top-level domains go back as far as 2000, ICANN contracted Autonomica AB of Stockholm, Sweden in 2006 to develop, conduct, and report on the results of laboratory testing of internationalized top-level domains in a setting similar to that of the public root. In 2007, ICANN launched an evaluation that enabled internet users to test for themselves some of the proposed new extensions with 11 evaluative top-level domains representing the term “test” translated into: Arabic, Persian, Chinese (simplified and traditional), Russian, Hindi, Greek, Korean, Yiddish, Japanese and Tamil. Based on these tests, Autonomica concluded that, “No impact at all could be detected. All involved systems behaved exactly as expected.”

At the moment, two different groups within ICANN, the GNSO (Generic Names Supporting Organization) and the ccNSO (Country Code Supporting Names Organization) are looking at how to introduce and delegate internationalized top-level domains. So, although processes are underway to fast-track the launch of some

ccTLD internationalized top-level domains, the introduction of new gTLD internationalized top-level domains may take some time, as registry operators still need to be identified and approved. Most likely, standard launch phases will ensue as well, with special sunrise periods for trade mark holders, business owners and public entities, which could also push out initial launch dates.

While timelines for the launch of Internationalized Domain Names are not clear, one thing is certain – the introduction of these new extensions will raise many concerns for those in charge of protecting domain name portfolios and intellectual property on the internet.

Concerns for domain portfolio managers

One of the greatest concerns for intellectual property owners and domain portfolio managers will be deciding where, when and how to register across native character sets which could

possibly represent hundreds of languages. Clearly, there will not only be the added expense of additional registrations to take into consideration, but also the complexity of adding hundreds or thousands of new domains to already expansive corporate domain portfolios.

However, as with any new extension launch, there are a number of key steps which should always be employed to reduce complexity and confusion.

These include:

- Locating all existing domain name registrations so that you can decide whether these need to be registered in newly available extensions. This may include using a Reverse Whois tool to uncover domains, as well as reviewing existing trade mark portfolios to ensure adequate coverage.
- Determining how ownership information should appear, as well as where these domains should point. For example, you will certainly want to match local language sites with the appropriate internationalized top-level domains.
- Utilizing a registrar that can lead you through the process of the various sunrise periods by assisting with the collection of all required documentation and paperwork.
- Registering domains offensively so that you are promoting corporate brands in regions of the world and with languages where you conduct business or plan to do business in the future.
- Registering domains defensively, in extensions and languages where you are most vulnerable, so that you are protecting your brands from domain name squatters, kitters and phishers.

Monitoring for abuse

Due to the sheer number of anticipated internationalized top-level domains, registering every variation, in every country, and in every language will simply not be an option if the goal is to register defensively to protect against squatters, kitters and phishers. While an attempt should be made to protect against obvious targets through proactive domain registrations, this should be viewed as a first line of defense. Monitoring new internationalized top-level domain registrations of others provides an important second line of defence.

By searching for specific search terms or keywords contained within newly registered internationalized top-level domains, companies can proactively anticipate potential domain name abuse and take immediate action. This can include actively monitoring a site, filing for a UDRP (Uniform Dispute Resolution Policy) or ADR (Alternative Dispute Resolution) procedure, or challenging the accuracy of the Whois record, if the name falls into the hands of a suspicious individual or entity.

Searching through the content of sites to identify trade mark abuse, offensive content, and/or the distribution of counterfeit goods is also very important. There are now many services available to IP owners to monitor their brands online. These services can quickly filter through millions of web pages in order to identify the most egregious instances of abuse for immediate action by rights' owners. These services can help intellectual property owners to prioritize their enforcement activities and provide evidence to take action against infringers.

The effect on the end user

As the vast majority of internet users do not speak English, many will benefit from the ability to enter domain names that consist entirely of native character sets, and it will likely result in a more positive overall web experience for these users.

In a similar vein, corporations will also be able to target their prospects in various geographic regions across the world more effectively, while portraying a sense of cultural and nationalistic pride.

In some instances though, as with Hebrew and Arabic languages, which run right to left, the use of native character sets may still be confusing, as the translated or transliterated extension would still reside on the right hand side of the domain name.

Security and stability concerns

There are concerns that many existing software applications, such as those used to send and receive email, are designed to accommodate domain names containing extensions no longer than three characters. In the short term, until full application support for internationalized top-level domains is implemented, this could potentially lead to security and/or stability issues.

There are also concerns that different native character sets could cause confusion between each other due to the fact that they appear to be identical. For instance, .py, which represents Paraguay in Roman character sets, could also be used to represent Russia in Cyrillic.

Next steps

Although full implementation of gTLD internationalized top-level domains may not occur this year, it is worthwhile to begin preparing for the likely introduction of ccTLD internationalized top-level domains, which are anticipated to launch by mid to late 2008. While determining what and where to register may be a challenge, taking a systematic approach to registering domains based on your current portfolio, where you do business, where you plan to do business, and where you are most vulnerable to squatting, kiting and phishing attacks, will help to ease the complexity involved in making important portfolio development decisions.

Overall, the benefits of internationalized top-level domains are clear: both gTLD and ccTLD internationalized top-level domains will enable corporations to effectively penetrate existing markets and reach new ones.



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