

ICANN Start, Episode 3: What Is a ccTLD?

Released 1 March, 2010

[Music Intro]

Welcome to *ICANN Start*. This is the show about one issue, five questions:

- What is it?
- Why does it matter?
- Who does it affect?
- What are the key concepts I must know about it?
- How can I learn more?

Produced by the Internet Corporation for Assigned Names and Numbers, ICANN: One world. One Internet. Everybody connected. [*Sung – “All around the world”*]

Scott: Thank you for joining us on this episode of *ICANN Start*. I'm Scott Pinzon. Our subject matter today is country code Top-Level Domains, usually abbreviated ccTLDs. Our subject matter expert is Bart Boswinkle, Senior Policy Advisor to the ccNSO. That's the country code Name Supporting Organization.

Welcome to the podcast, Bart.

Bart: Thank you, Scott.

Scott: Our first question: What is a ccTLD?

Bart: There is a list which is called ISO 3166-1. The International Standardization Organization maintains that list. On that list are the names of countries and territories which have been recognized by the UN. As soon as a country or territory has been recognized by the UN, this ISO maintenance agency will allocate a two-letter code to the name of that territory. That is a “country code”. Through that manner, you get the definition of a ccTLD.

But the basic thought under it is that country code Top Level Domain is a locally-managed top-level domain. That means in territory, the manager itself is linked with the territory where the country code refers to.

Scott: What are some examples of two-letter ccTLDs and the countries they go with?

Bart: I think the most obvious one is .us. It refers to the territory or the country of the United States of America. Another one might be .tv. This refers to the country or the islands of Tuvalu. That's the reason why it exists, because it is listed on the ISO 3166. Another major one might be .jp for Japan, .cn for china and .de for Germany.

Scott: Lots of people that use the Internet mostly think of .com. They use it for ecommerce or shopping or something. They're not thinking of country codes at all. So why do ccTLDs matter?

Bart: At the end of the day, as I said, they are managed locally. If you look, for instance, in Germany or in the country where I'm from, from the Netherlands, the most used top-level domain is not .com but is .de for Germany or .nl for the Netherlands. Because they have

the appreciation for their local country, and at the time when the Internet got popular it was easy to register a domain name with that ccTLD.

Scott: If I am using the Internet in Japan and I really would prefer to deal with a Japanese company, I might prefer something that ends with .jp.

Bart: Yes, and probably for Germany and for some of the well-established ccTLDs you see that most companies, especially the middle and small ones, have registered under their country code and not using a .com, because they're focused locally.

Scott: When you make that association between a country code and a country, it might lead a listener to assume that all of these are owned and operated by governments. Is that so?

Bart: No, that's not the case. If you go back in the history, the people who are running the ccTLDs or the entities running ccTLDs are supported or are the trustees in principle of what is called the "local Internet community". That is all the relevant stakeholders for that ccTLD. This *includes* the government but it's not *only* the government.

At the same time I have to say in some countries it is very clear that it is run by the government. That is because the whole governance mechanism is ruled by legislation, for instance. Or the initial ccTLD operator was linked with the government, either as an academic institution or as an agency of a government.

So, it is a very diverse landscape that you see in the ccTLD environment.

We just discussed why does it matter from a user perspective. In the ICANN environment it matters as well. Most people know the Generic Name Supporting Organization and you have the country code Names Supporting Organization. Now, if you look at the GNSO, what it is, its scope is far broader than the scope of the ccNSO and what the ccNSO does with regard to the ccTLDs. One of the reasons is, for instance, that registration policies are set locally. So by the ccTLDs themselves –

Scott: Okay.

Bart: So this role is not for the ccNSO. The ccNSO only deals from a policy perspective with very limited global essential policies in order to maintain the interoperability of the Internet. If you look at the GNSO, they deal with registration policies for all gTLDs.

Scott: That's a very interesting distinction you make. ccTLDs are often held in contrast to gTLDs which are the generic ones I mentioned like .com. So if you come to ICANN you hear a lot of talk about ICANN's arrangement with registrars and registries and the Registrar Accreditation Agreement, but none of that really relates to the ccTLDs. Is that correct?

Bart: That is correct and that is probably something people should be aware of. For instance, gTLD registrars are not by definition accredited to ccTLDs. ccTLDs have their own accreditation policies. So, once you want to register with a ccTLD or you have an issue with a ccTLD domain name, the channel is to go through the ccTLD accredited registrars and to the ccTLD and not to ICANN.

Scott: Okay. So the manager of each ccTLD gets to set their own policies, for accreditation and who gets to sell their country code and domain names?

Bart: Yes. So what you see there as well is again, a very diverse set of rules, also a diverse pool of registrars. If you take, for instance, some ccTLDs, they've accredited over 2,000 registrars; while others have limited to just a few. So, again, this is very diverse and just to meet the local needs in the country or in the territory.

Scott: Wait, wait...if I'm running a top-level domain for an entire *country*, surely I must have a giant corporation with several hundred employees, yes?

Bart: No. No, that's –

Scott: No?

Bart: It is really not rocket science to run a ccTLD or a TLD. It depends very much on the volume of transactions that takes place as well. Again, the landscape is very diverse. There is one ccTLD who is the second largest TLD in the world. That's .cn.

Scott: Sure.

Bart: And they have .de, I think it's the third largest TLD in the world –

Scott: Yeah.

Bart: That's one end of the spectrum. And on the other end of the spectrum you have ccTLDs who have just registered 500 domain names.

Scott: Very different issues of operations –

Bart: Very different issues and operational maintenance and everything else; investment...

Scott: Sure.

Bart: Most ccTLDs (and I have to stress most, so not all), are in principle run as not-for-profits.

Scott: Okay.

Bart: That makes it different. They are very cost-conscious but they're not in there for the profit. That's something for the market itself because they know they are in the particular position that they have to run it for the local Internet community.

Scott: All right. You've really cleared up the mental picture of what a ccTLD is. I'm wondering, what kinds of issues arise about them? For example, what would be the top three things under discussion right now about ccTLDs?

Bart: Now, within the ccNSO I would say the most time spent in the last one and a half years is on the introduction of IDNs for ccTLDs.

Scott: Okay, which are Internationalized Domain Names....

Bart: Domain Names, sorry for the abbreviation there.

Scott: That's okay, and in fact, I would like to do another episode on that topic alone because that's a pretty big subject.

Bart: It is. We can do that, definitely.

Scott: Okay.

Bart: A second one is stability and security of the DNS. There is a lot of work going on in that respect. In fact, one of the first DNSSEC-signed TLDs was a ccTLD. That was .se for Sweden.

Scott: Oh, good for them. I should clarify for listeners who are not familiar with DNSSEC, that those are Security Extensions to the Domain Name System.

Bart: And I would say the third topic of concern at ICANN meetings and in the ICANN environment, is just sharing experience of operational policies and everything else among peers, because as I said it was very diverse. [ccTLD managers] really want to assist each other to maintain the system in general.

Scott: I'm glad to hear that's going forward because as we know today threats on the Internet are no respecters of jurisdiction or geography or national origin. Something like Conficker could go all over the world.

Bart: Yeah, and in response to, for instance, the Conficker incident, there is a ccTLD community set up – a working group to find out ways how it could share experiences and respond to incidents like Conficker.

Scott: That sounds great. Now, if a listener is now – the lights are coming on for them and they say, “Oh, now I get what a country code Top-Level Domain is,” and they would like to learn more, what are some resources you would recommend?

Bart: As a starting point, the ccNSO itself has its own web site. That's ccNSO.ICANN.org. But you also could go to the web site of the regional organizations. The ccTLD communities also organize at a regional level, so on the continents. That is CENTRE for Europe, APTLD for the Asian/Pacific region, AFTLD for the African region, and LACTLD for the Latin American region.

Unfortunately the North American region doesn't have its own organization.

Scott: Okay. So if a listener enters in any of those character strings into a search engine, they'll find their way to all kinds of resources.

Bart: Find their way. Yep.

Scott: Bart, thank you very much for clearing that up for us, and for sharing your time. Appreciate having you here.

Bart: You're welcome.

[Music]

To let us know what you think of *ICANN Start*, email your comments, questions and suggestions to start@ICANN.org.

This program was produced in 2010 under a [Creative Commons License](#). Some rights reserved by the Internet Corporation for Assigned Names and Numbers.

ICANN: One world. One Internet. Everyone connected.