

COUNTRY CODES & DOMAINS

3: From Code to Domain: who and how?

A SERIES OF GUEST ARTICLES BY MIKE LOCKE

Now we're at the 3rd in this series looking at how Sark can benefit from its own corner of the internet.

In #1, we saw how international bodies use Country Codes for their own purposes, such as getting a letter from one country to another. We also saw how Country Codes are now allocated by international agreement to territories meeting strict criteria.

In #2, we looked at how Domains make sense of the internet. How the Domain Name system translates the ordinary names of sites that you and I use into the binary numbers used by computers and routers to give us the web pages and emails we want.

So we know about international Country Codes and we know what Domain Names are for. How are the two connected? How do we get from the international – ISO – code to the internet – IANA – domain?

From ISO Code to Domain

ISO doesn't control the internet and IANA doesn't decide what a country is. So how does the ISO list relate to the IANA ccTLD and vice versa? The glib answer is "it just does". To give you a proper picture we need to look at some history.

In the past, the internet bodies did their own thing. These days, they have adopted the use of international standards so it's worth starting there.

BSI: the world's 1st Standards Body

If you're buying steel rails for your trams, you want to know they have the right strength and can support your tram (or train) to run safely and reliably. You'd need to know you're buying a standard product which complies with the specifications you want.

Who decides that? In our case, that's the British Standards Institution. You may know the initials from the "BSI Kitemark™". It's the world's first National Standards Body dating back to 1901. And the first standard was indeed for rails.



BSI standards cover most of the things we do, buy or make. This includes the names of countries so that when someone says "Great Britain" we know that doesn't mean "Sark" and when someone says "France" that doesn't include "Îles de la Manche".

How do we get international agreement on standards in general and country identification in specific?

From BSI to the ISO

The BSI organized the first ever Commonwealth Standards Conference in 1946 from which grew the International Standards Organization (ISO). And that's how the world agrees. Each ISO member has a "mirror committee" of the ISO committee coordinating their particular standards.

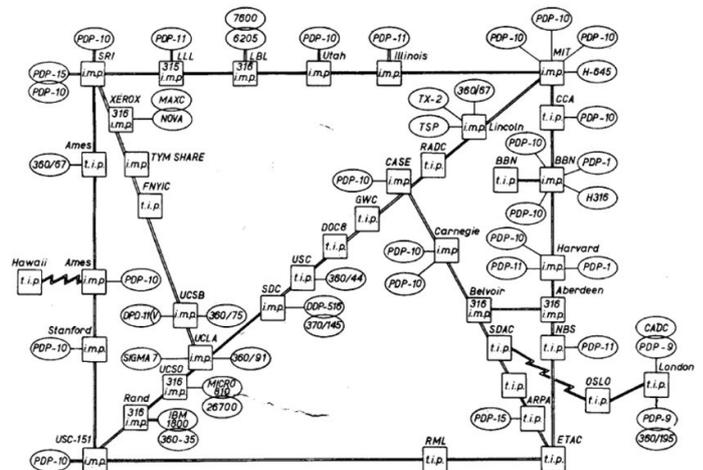
Role of ISO

In the case of "Coding of country names and related entities", the BSI committee is "IDT/2/11" which mirrors ISO/TC 46 on "Information and documentation". The ISO 3166/MA maintains the ISO 3166 international standard for "Codes for the representation of names of countries and their subdivision".



The Internet, Countries & ISO

In the beginning, the internet organised their own connections and how to identify them. Initially, they were just connecting a few computers in the US. Even in the late '70s, there were only a handful of computers in 3 (or 4) countries.



In those days, this was the responsibility of one of the founding fathers of the internet: Jon Postel. He was the original administrator of IANA which oversees global IP addresses, DNS management and more besides.

When Island Networks applied for the codes for Guernsey .gg and Jersey .je in the '90s, these internet codes were the sole responsibility of IANA. If they approved the case, they issued the ccTLD.

By 1999, when our project started, IANA had resolved to use the ISO standard: ISO 3166. This moved the internet ccTLD from being something decided only by the internet bodies to something aligned with the ISO standard.

From then on, to qualify for a ccTLD, you needed to be on the ISO Standard. And that's far from easy.

BSI, ISO and Sark

As part of this process some years ago, the BSI invited me onto their mirror committee, IDT/2/11, to represent Sark and help them evidence and establish Sark's right for inclusion on the ISO list. A key step was when Chief Pleas, through Cllr Charles Maitland, ticked the essential box of inclusion on the UN M39 Statistics list, gaining us the code of 680.



Then we had to get Sark onto the ISO standard.

Establishing Sark's Rights

As we know, Sark has its own legislature, jurisdiction and relationship to the Crown in the same way as but separate from the States of Guernsey. But many international bodies confuse being in the Bailiwick with being part of Guernsey.

By the time we'd seen the potential benefit of the internet like Guernsey with their .gg, IANA had changed the rules from "make your case with us" to "only on the ISO standard". That was a huge mountain to climb which took more than 20 years.

In Oslo in February 2020, the appeal mounted by the BSI on Sark's behalf went to the ISO Technical Management Board. They approved the appeal and now Sark has been assigned the ISO Country Code of .cq.

ACRONYM CORNER

BOT: British Overseas Territories. The 16 territories around the world which used to be part of the British Empire and remain possessions of the Crown. E.g. Gibraltar, Montserrat, Falkland Islands, Pitcairn Islands etc.

BSI: British Standards Institute. The national standards body (NSB) for the UK as well as Crown Dependencies (and BOTs).

ccTLD: internet country code Top Level Domain. One of the original and senior Domain types right at the top of the internet hierarchy: delegated only to countries and territories satisfying strict international criteria.

DNS: can be Domain Name System or Domain Name Server depending on context.

IANA: Internet Assigned Numbers Authority. The first body to oversee the Domains and IP address allocations. Currently a function of ICANN.

ICANN: Internet Corporation for Assigned Names and Numbers. The international multistakeholder NPO responsible for DNS, IP addresses and much else besides.

ISO: International Organization for Standardization. The Geneva-based body that is made up of the national standards bodies around the world, such as BSI. (It's ISO rather than IOS and is the same for any language/country.)

NPO: Not-for-Profit (or Non-Profit) Organization

NSB: National Standards Body

UN: the United Nations.

Now we have to go through an even more arduous process to establish technical competence and community support to get this through IANA/ICANN.

Getting Sark onto the Internet

The internet may have been a "free-for-all" decades ago, but that hasn't been the case for some decades. The internet community recognise that domains – especially Top Level Domains – must be properly run. That covers both the technical requirements and the correct operational behaviour.

First, we need to show that we're on the ISO 3166 Standard list. That's done.

Then, we'll need to show that we have the high technical standards required to operate a ccTLD. Without that, it won't work properly and could impact the whole TLD technical structure. Not good.

We also have to show we have the right governance and policies in place to operate the ccTLD in line with international – and local - standards.



We do this by making a formal application to IANA: the internet body that administers the so-called "root nameservers" which are at the very top of the Domain Name System.

IANA has a rigorous and detailed evaluation process for both technical and operating policies. This will take many months and we are fortunate to have a number of experienced partners who will help us get over the hurdles.

Next week—and send us your questions.

In the next article "Looking after Sark", we'll look at how Sark can ensure its ccTLD is used properly to benefit us. There are rigorous technical standards and, just as important, even more rigorous rules on what is permitted and who can register a domain. These rules are called "policies". Both the technical competence and the policies must pass IANA's strict tests.

If this can be done (and we think it can), Sark will join Guernsey and Jersey (and the IoM and UK) in having a Top Level Domain and using it properly, in line with our community's expectations, to protect and enhance Sark's identity on the international stage. We're not just a part of Guernsey or the UK!

Remember, you can ask anything on this, past or future articles via newsroom@sarknewspaper.com. We look forward to telling you what you want to know.

Acknowledgements.

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