

Blockchain Name Technologies



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Overview

- ⦿ Blockchain naming systems are getting more attention in the ICANN community
- ⦿ Recent ICANN publications
- ⦿ Understanding blockchain technologies
- ⦿ Understanding blockchain name system technologies
- ⦿ What to expect on these topics at ICANN 81

Why you might care about blockchain name systems

- ⦿ The global DNS is just one name system, even though it is probably the most popular one
- ⦿ Alternative name systems have their niches in users' minds
- ⦿ Most blockchain name systems have purposely created their names to be confusing with the global DNS

Recent ICANN publications

- ⦿ People in many different parts of the ICANN community asked for more information on blockchain name systems
- ⦿ They also wanted to know more about blockchains themselves because the name systems are tightly bound to the blockchain technologies
- ⦿ ICANN published two documents earlier this month to cover these requests

OCTO-039 and OCTO-040

- ⦿ [OCTO-039](#), *Introduction to Blockchain Name System Technologies*
- ⦿ [OCTO-040](#), *Introduction to Blockchain Technologies*
- ⦿ Both are technical and neutral
- ⦿ Neither promotes or disparages the technologies covered

Blockchain technologies

- ⦿ It's very likely that they are much more complicated than you think
- ⦿ For example, a blockchain is not a database that you can query
- ⦿ For our purposes, the cryptography that is talked about all the time is one of the least important parts of blockchain technologies
- ⦿ The trust model for who controls what goes into the blockchain is the most important part

Blockchain name system technologies (1)

- ⦿ Resolution of names in the blockchain name system returns an account identifier or other data that is related to blockchains
- ⦿ Activities associated with a name in the blockchain name system are permanently stored on the blockchain so that people can always view the entire history of the name
- ⦿ Purchase and update of names in the blockchain name system are paid for by blockchain coins instead of traditional currency

Blockchain name system technologies (2)

- ⦿ Alternative top-level domains (alt-tlds) in blockchain name systems can be strings that are not delegated as top-level domains (TLDs) in the global DNS
- ⦿ Blockchain name systems can coordinate with the global DNS by using alt-tlds that match the TLDs that are already delegated in the global DNS

“Integrating” alternative name systems with the DNS

- ⦿ In recent years, many blockchain name systems have talked about “integrating with” or “bridging to” the global DNS
- ⦿ This term is undefined
- ⦿ It means very different things to different blockchain name systems
- ⦿ Integrations and bridges always come with costs, often reducing the security of one or both sides of the system

Who is impacted

- ⦿ Some gTLD registry operators have said they want to integrate with the Ethereum Name System (ENS)
- ⦿ Blockchain name systems using as-yet-unallocated names are working on bridges to the global DNS
- ⦿ Some potential applicants to the [New gTLD Program: Next Round](#) have talked about applying for names that are already used in blockchain name systems

Blockchain name systems at ICANN 81

- ⦿ [How it Works: Blockchain Name Technologies](#)
 - Sunday 10 November @ 1315-1430
- ⦿ [Emerging Identifier Technologies](#)
 - Wednesday 13 November @ 1030-1200

- ⦿ How well are the blockchain name systems doing?
 - Number of names sold, usage of resolvers, ...
- ⦿ How to integrate or bridge current TLDs with blockchains
 - What does that even mean?
 - ccTLDs and gTLDs
- ⦿ Blockchain name systems and the New gTLD Program: Next Round
 - Blockchain-specific names
 - General names but with blockchain additions

Questions

⦿ ...and comments