### **Presenter**



Marcos Allende López
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### Very important and related matters...

- Identity proofing
  - Authentication

Authorization



### **Authentication**

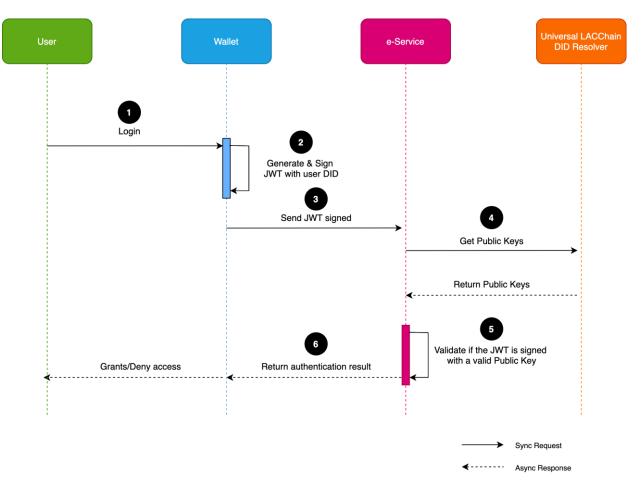
To digital wallets

To services of all kinds



# Authentication to services of all kinds - DID Connect

- 1. "sub", the DID of the subject
- **2. "iss"**, the id of the verification method to be used as authentication method.
- **3.** "aud", the DID of the wallet that is trying to authenticate
- **4.** "iat", the issuance date of the JWT in milliseconds (UNIX timestamp format)
- **5. "exp"**, the expiration date of the JWT in milliseconds (UNIX timestamp format)
- **6. "userinfo"**, the extra information of the user, could be in any JSON format, for example a VC or VP



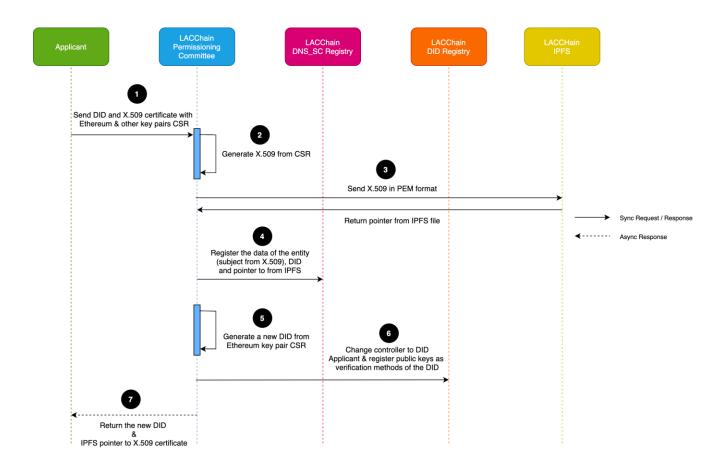


# Authentication to services of all kinds - DID Connect

- 1. Based on DIDs and optional use of VCs/X.509
- 2. X.509 can also be inside the DID as a public key
- 3. Original development: https://developer.kaytrust.id/Specs/DIDConnect/

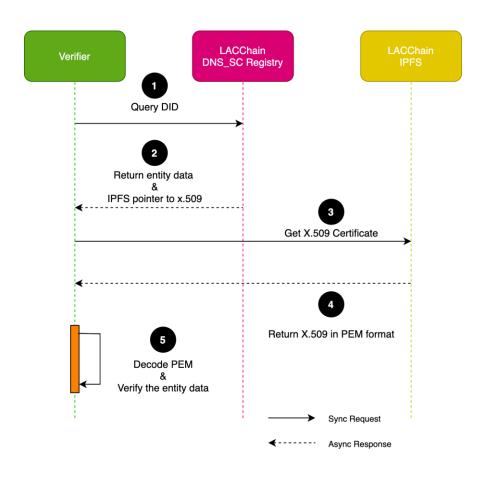


# Verification of the identity behind a DID (issuer, subject, ...) – On-chain DNS





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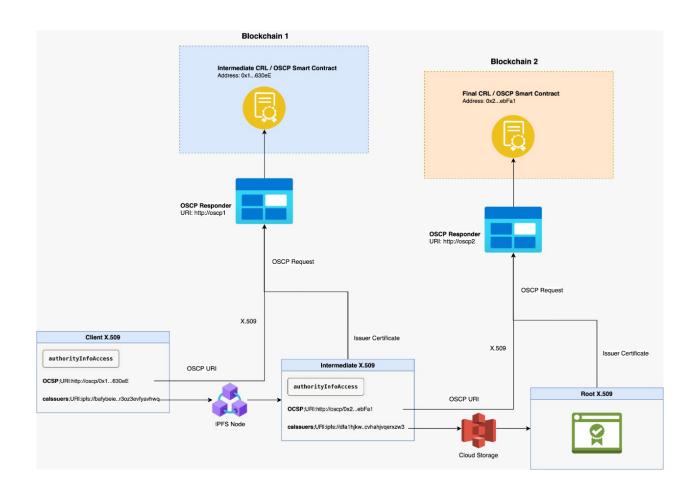


# Verification of the identity behind a DID (issuer, subject, ...) – On-chain DNS

- 1. It could be possible to erase the CA and have entities self-registering themselves and leaving the X.509 in the IPFS for verification
- 2. In some use cases is necessary to have alternative proofs or evidence of authorization to something (i.e., the issuer is entitled to the issuance of digital diplomas or vaccination credentials). This can be achieved through additional root of trusts or through chains of VCs that are packed in the VP, among other options

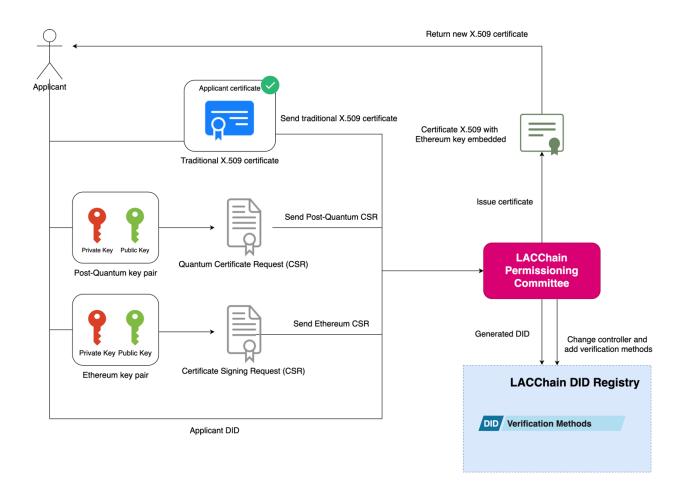


## Verification of an X.509 against a blockchain





## LACChain Permissioning Committee as a CA

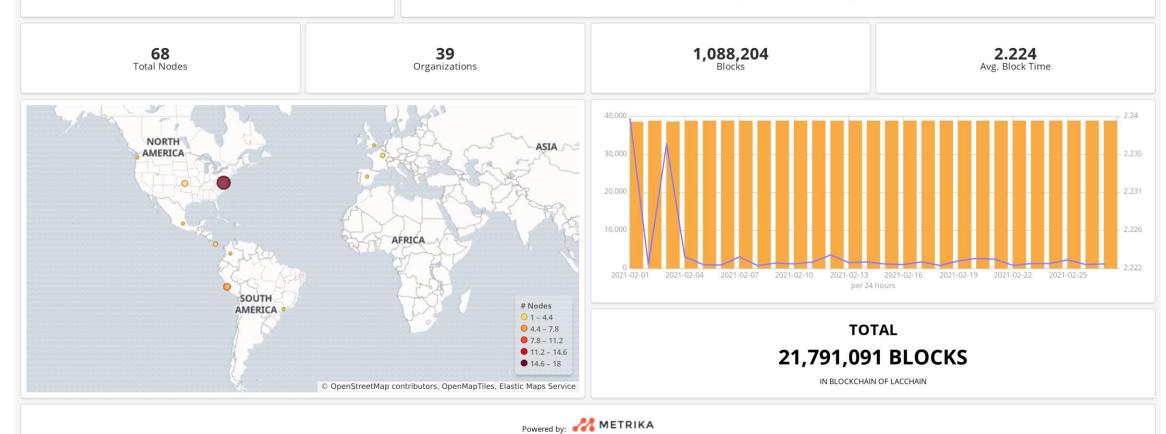




## LACCHAIN

#### **NETWORK STATUS**

#### February 1 February 28







#### **NETWORK STATUS**

February 1 February 28

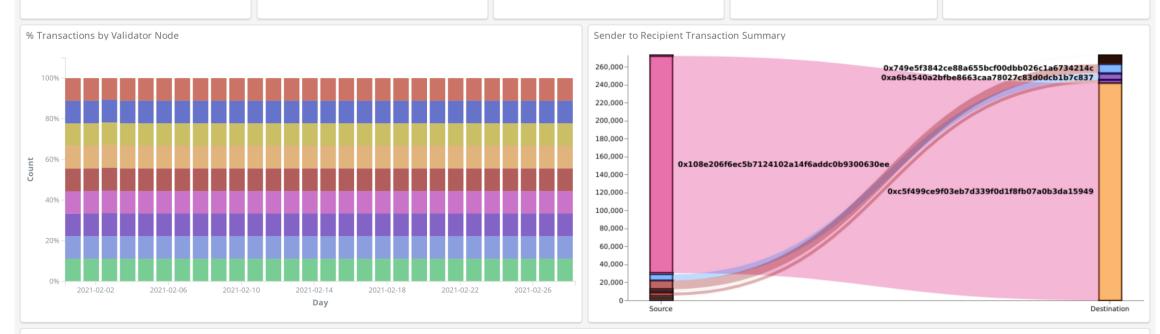
**18,633**Max Transactions per Day

**14,063.393**Avg. Transactions Per Day

**393,775**Total Transactions

**28,261,757.538**Avg. Gas/Txn

11,128,773,574,377
Total Gas

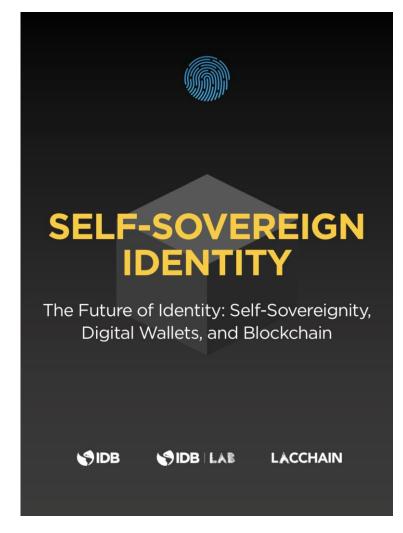




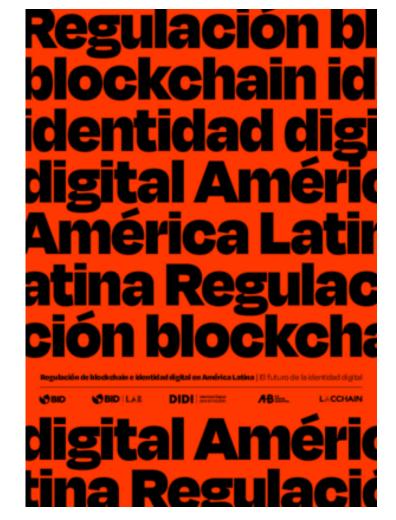




#### RECENT PUBLICATIONS













### **CONTACT US**

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Block explorer: <a href="http://dashboard.lacchain.net">http://dashboard.lacchain.net</a>



Transaction explorer: <a href="http://explorer.lacchain.net">http://explorer.lacchain.net</a>



LACChain Notarizer: <a href="http://notarizer.lacchain.net">http://notarizer.lacchain.net</a>



Github: https://github.com/lacchain



Roadmap: <a href="https://medium.com/@lacchain.official/lacchains-networks-roadmap-600b58872e43">https://medium.com/@lacchain.official/lacchains-networks-roadmap-600b58872e43</a>



Video: https://vimeo.com/336766495/b5be8ffc46



Medium blog: <a href="https://medium.com/@lacchain.official">https://medium.com/@lacchain.official</a>



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Twitter: <a href="https://twitter.com/lacchain?lang=en">https://twitter.com/lacchain?lang=en</a>



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