Appendix C – References & Related Work

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License: Apache 2.0 | Repository: github.com/twincodesworld/LHDNS

Foundational Systems

- **DNS (Domain Name System):**
  Mockapetris, P. (1987). *Domain names - concepts and facilities.* RFC 1034.
  Mockapetris, P. (1987). *Domain names - implementation and specification.* RFC 1035.
- **DNSSEC (DNS Security Extensions):**
  Arends, R., et al. (2005). *DNS Security Introduction and Requirements.* RFC 4033.
- **Tor (The Onion Router):**
  Dingledine, R., Mathewson, N., & Syverson, P. (2004). *Tor: The second-generation onion router.* USENIX Security Symposium.
- **Namecoin:**
  Kalodner, H., et al. (2015). *Namecoin: A decentralized naming system based on Bitcoin.*
- **Ethereum Name Service (ENS):**
  ENS Documentation. https://ens.domains/
- **IPFS (InterPlanetary File System):**
  Benet, J. (2014). *IPFS - Content Addressed, Versioned, P2P File System.*

Cryptography & Privacy

- Chaum, D. (1981). *Untraceable electronic mail, return addresses, and digital pseudonyms.* Communications of the ACM.
- Goldberg, I. (2007). *On the security of the Tor authentication protocol.*
- Bernstein, D. J., et al. (2015). *Post-quantum cryptography.* Springer.
- Krawczyk, H. (2001). *The Order of Encryption and Authentication for Protecting Communications (or: How Secure is SSL?)*

Distributed Systems & Consensus

- Nakamoto, S. (2008). *Bitcoin: A Peer-to-Peer Electronic Cash System.*
- Buterin, V. (2014). *A Next-Generation Smart Contract and Decentralized Application Platform.* Ethereum Whitepaper.
- Ongaro, D., & Ousterhout, J. (2014). *In Search of an Understandable Consensus Algorithm (Raft).*

Related Research on Decentralized Naming

- Ali, M., Nelson, J., Shea, R., & Freedman, M. J. (2016). *Blockstack: A global naming and storage system secured by blockchains.*
- Zooko's Triangle (2001). Discussion on the trade-offs between human-meaningful, secure, and decentralized naming.
- NSec (2019). *Secure Naming Systems and Censorship Resistance.*

LHDNS Contribution

While prior systems (DNS, ENS, Namecoin, Blockstack, Tor) address subsets of the naming and privacy problem, none provide a **unified architecture** that combines:

- Ephemeral hash-based resolution
- Ledger-backed accountability
- Incentive alignment via staking and micropayments
- Native privacy (onion routing, cover traffic, ephemeral keys)
- Regulatory compatibility

LHDNS is positioned as a **next-generation naming layer** that synthesizes lessons from these systems into a coherent, scalable, and adoptable framework.