

Integration of DNS Domain Names into Application Environments: Motivations and Considerations (draft-sheth-dns-integration)

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What are DNS integrations?

- DNS integration:
 - How a DNS domain name is enabled for use as an identifier in an application environment
- Responsible DNS integration:
 - Takes into account qualities and considerations that provide a consistent user experience and extends the security, stability, and resiliency of the global DNS
- Draft's goal is to give guidance to help applications provide responsible DNS integrations
- Example integrations presented at [2024's CENTR Jamboree](#):
 - Bluesky's social handles
 - ENS's DNSSEC-based integration
 - Microsoft's GitHub

Outline of draft-sheth-dns-integration-02

- Motivations:

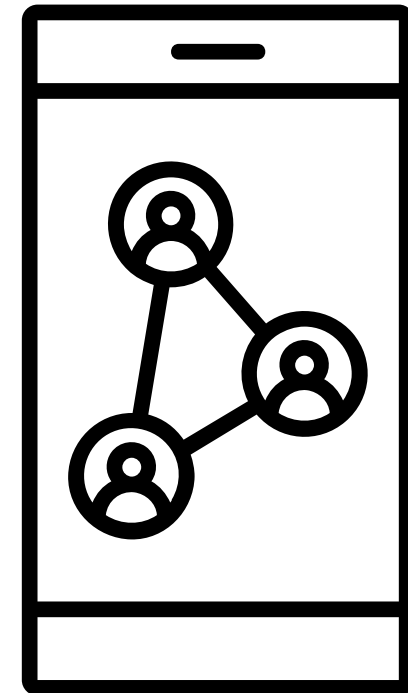
- Global Consistency
- Stability
- Flexibility
- Verifiability
- Reputation and Brand

- Challenges:

- Domain Name Lifecycle
- Domain Control Validation
- Completeness
- Synchronization
- Protocol Evolution
- Identifier Attribution
- Variety of DNS Management User Interfaces
- DNS Record Support

Case Study: Social Handles

Bluesky handle example

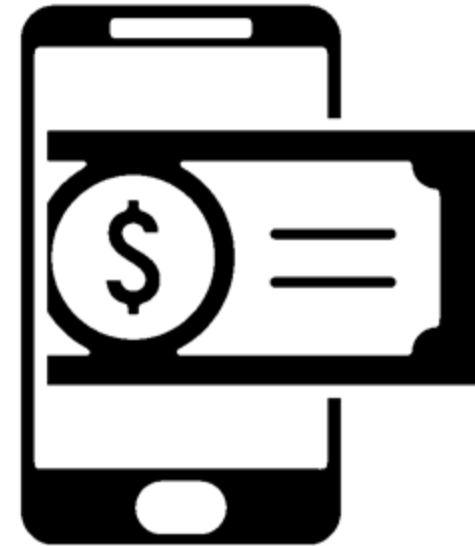


Social media applications could use domain names as user handles

More info: [Bluesky's Domain Names as Handles blog post](#)

Case Study: Digital Wallets

Gasless ENS integration
leveraging DNSSEC for trusted
identity verification



Digital wallets can use domain names to
process cryptocurrency transactions

More info: [Ethereum Name Service's gasless integration blog post](#)

Next Steps

- Please review and provide feedback
 - Feel free to find us this week
 - Or reply on the DNSOP mailing list [to our request for feedback](#)
 - Or send us an email
- Adoption by a working group
 - Bluesky, ENS, and other application communities are receptive to advice to help improve their integrations

Appendix: Verisign materials on responsible DNS integration

Venue	Title	References
CENTR Jamboree 2024	Responsible Integration and New Use Cases of DNS Domain Names.	Slides
W3C AC 2024	Responsible Integration of Domain Names.	Slides
DNS and Internet Naming Research Directions Workshop 2024 (DINR)	Measuring DNS Integrations into Blockchain Namespaces	Slides , Paper
ICANN DNS Symposium 2023 (IDS)	Bridging Perspectives: Understanding the Challenges and Opportunities in Current DNS Integration	Video , Slides
Applied Networking Research Workshop 2023 (ANRW)	Call for Collaboration: DNS Integrations	Video , Slides , Paper
DNIB.com Article	Traditional Domain Names, New Environments: Integrating into Blockchains and Beyond	Article