Call for Collaboration: DNS Integrations

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Agenda

Global DNS diversification via integrations

DNS-based integrations

Server-based integrations

Issues with managing namespace integrations

Responsible integration
Diversification of Global DNS

- Register in Global DNS
- Relate to Application
  - Email
  - Web
  - ...
- New Applications?
A Partial List of Groups Currently Discussing DNS Integrations

- W3C DID
- Bluesky AT Protocol
- Microsoft Entra
- Ethereum Name Service
- Tezos Domains
- IETF keytrans
- IETF DBOUND2
- ICANN Community
- IETF DNSOP
- IETF ACME
- IRTF DIN
- CAB Forum
DNS-based Integrations

Associates a DNS domain name with another resource using DNS records

Classic example is A record for web hosts

New example is TXT to link to a W3C decentralized identifier as proposed by Bluesky
Can also be used to prove control of a domain but the rest of the integration is managed outside DNS.

Classic example is a web certificate granted by proof of DNS data.

New examples are blockchain namespaces like Ethereum Name Service and Tezos Domains using DNSSEC + TXT records.
Server-based Integrations

Associates a DNS domain name with another resource based on content hosted on a web server.

Classic example is ACME protocol's server-based approach to receive a certificate.

New example is W3C decentralized identifier did:web.
Potential Concerns with Current Approaches

• Synchronization between global DNS and new application
• Interoperability
• Support for new use cases
• DNS namespaces may have different policy emphases
• Commitment to a particular integration is unclear
Considerations with Existing DNS Integrations

Control
Domain Lifecycle
Alignment
Utility
Standardizing Responsible DNS Integrations?

New Applications

Domain Name System (DNS)

Responsible DNS integration

DIDs

Blockchains

Identity
Conclusion

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