Call for Collaboration: DNS Integrations

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Verisign

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Agenda
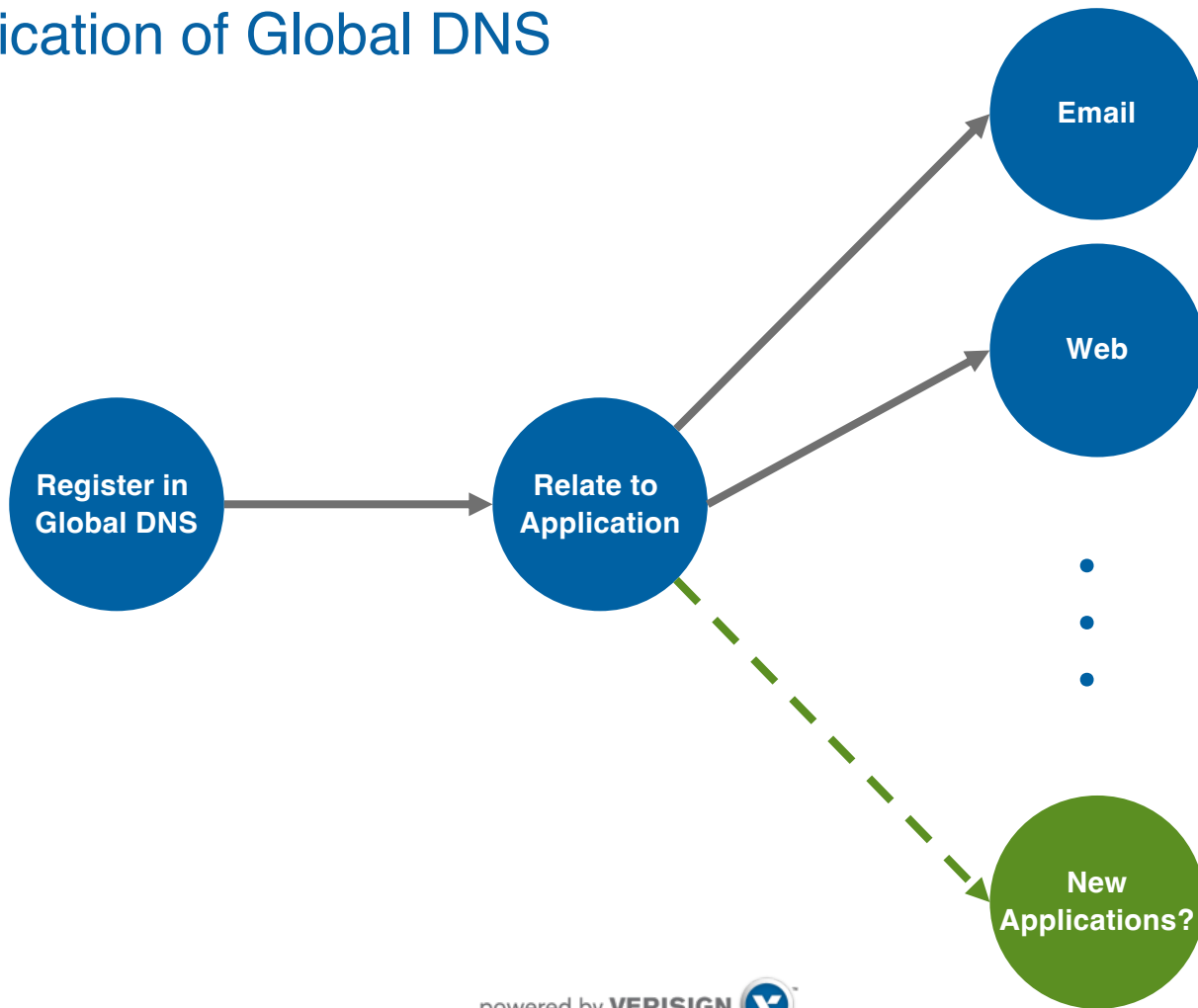
Global DNS diversification via integrations

DNS-based integrations

Server-based integrations

Issues with managing namespace integrations

Responsible integration

Diversification of Global DNS

A Partial List of Groups Currently Discussing DNS Integrations

W3C DID did:dns/did:web	Bluesky AT Protocol	Microsoft Entra	Ethereum Name Service
Tezos Domains	IETF keytrans Birds of a Feather	IETF DBOUND2 Birds of a Feather	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

DNS-based Integrations to Prove Control

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

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Potential Concerns with Current Approaches

- Synchronization between global DNS and new application

- Interoperability

Global DNS

New Application

Responsible DNS integration?
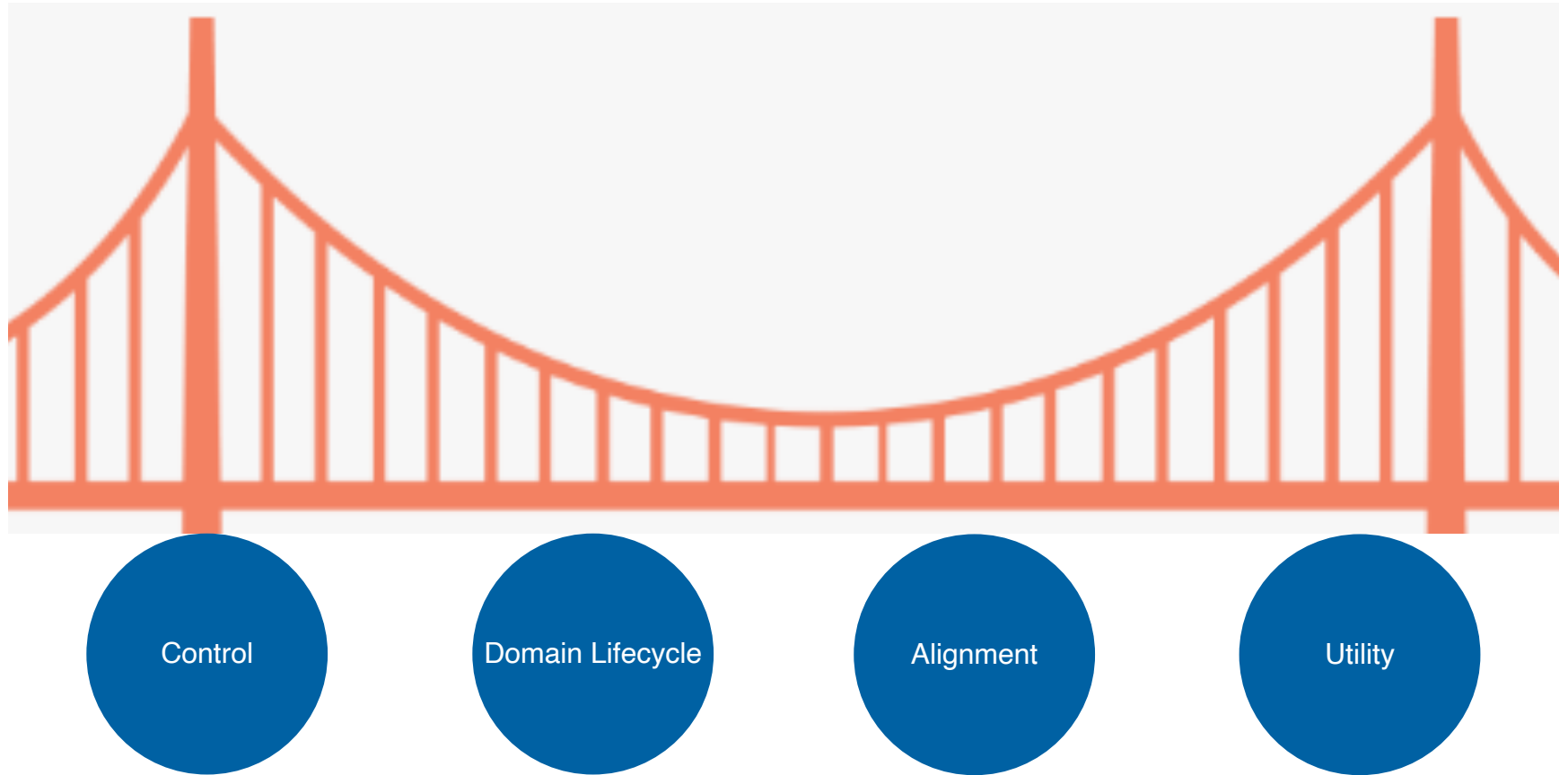
- Support for new use cases

- DNS namespaces may have different policy emphases
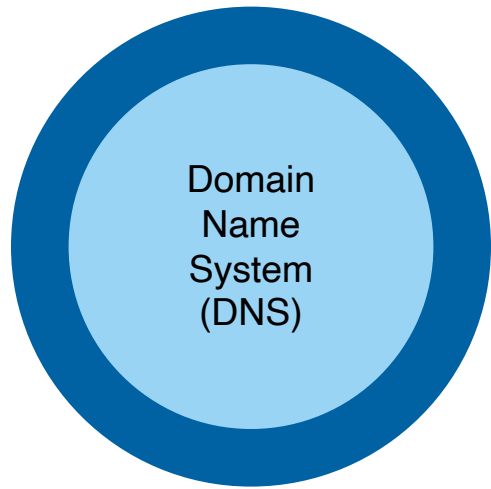
- Commitment to a particular integration is unclear

Considerations with Existing DNS Integrations

Control

Domain Lifecycle

Alignment

Utility

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Standardizing Responsible DNS Integrations?

Domain Name System (DNS)

Responsible DNS integration

New Applications

DIDs

Blockchains

Identity

Conclusion

- If you want to get in touch, please reach out to us at:

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