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An Update on DNS Integration Measurements and Challenges

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Agenda

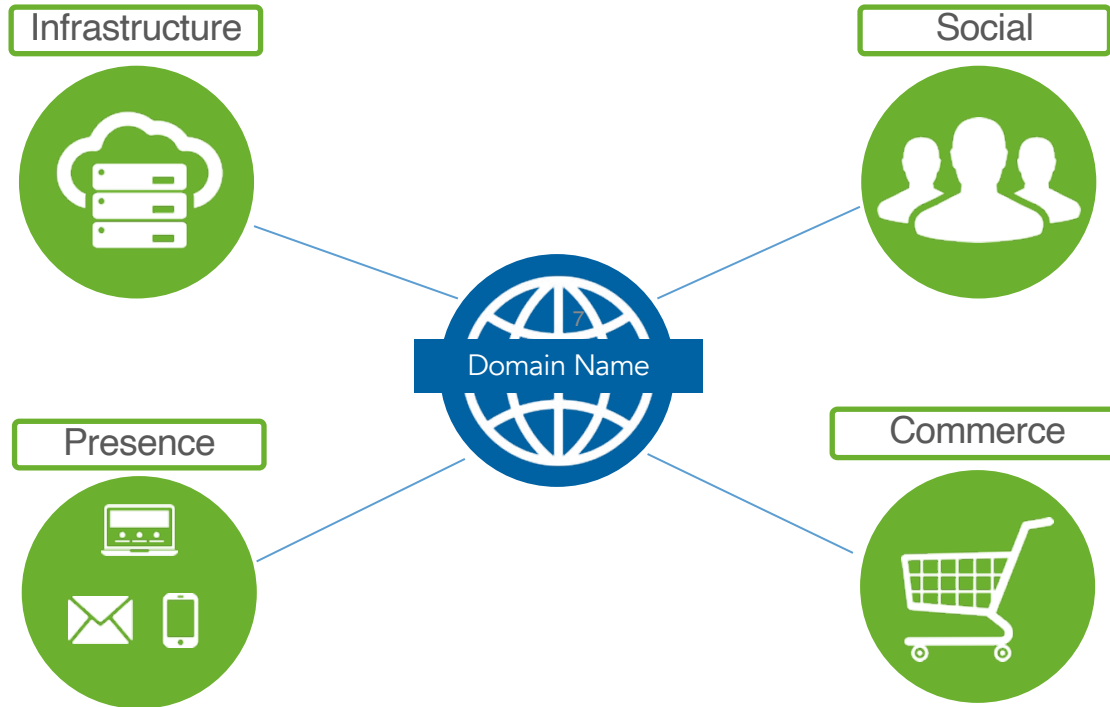
Diversification of Global DNS

Considerations with Existing DNS integrations

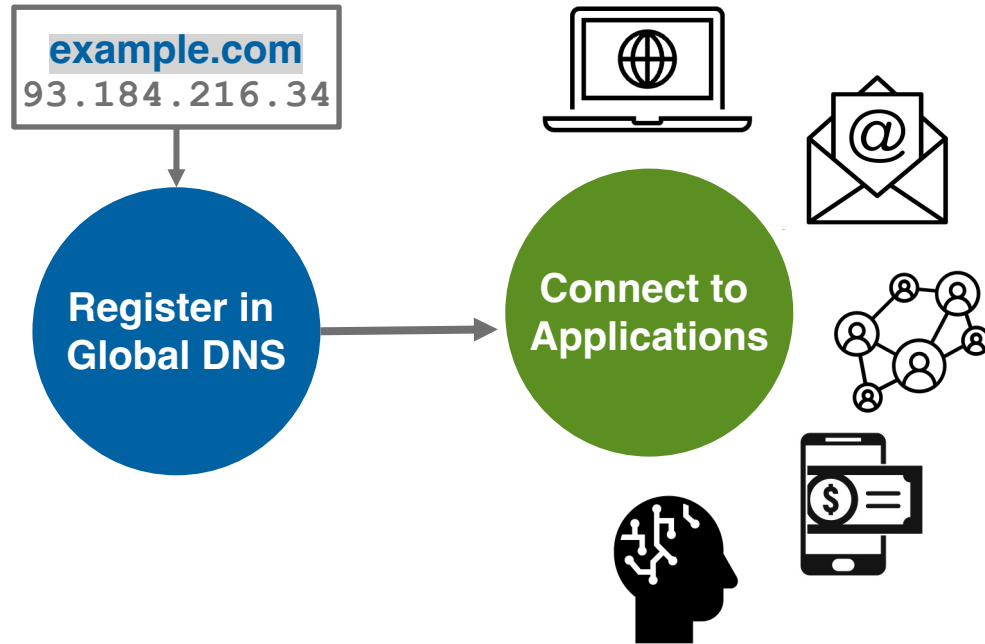
Measuring Existing DNS Integrations

Closing Remarks

A domain name remains the anchor tenant in the internet ecosystem and is well equipped for future integrations

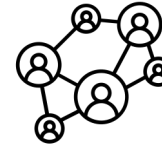


Domain names are user-friendly identifiers that can connect to many applications



Considerations with Existing DNS Integrations

- **Control**
- **Domain Lifecycle**
- **Alignment**
- **Utility**



Measuring Synchronization in DNS Integrations

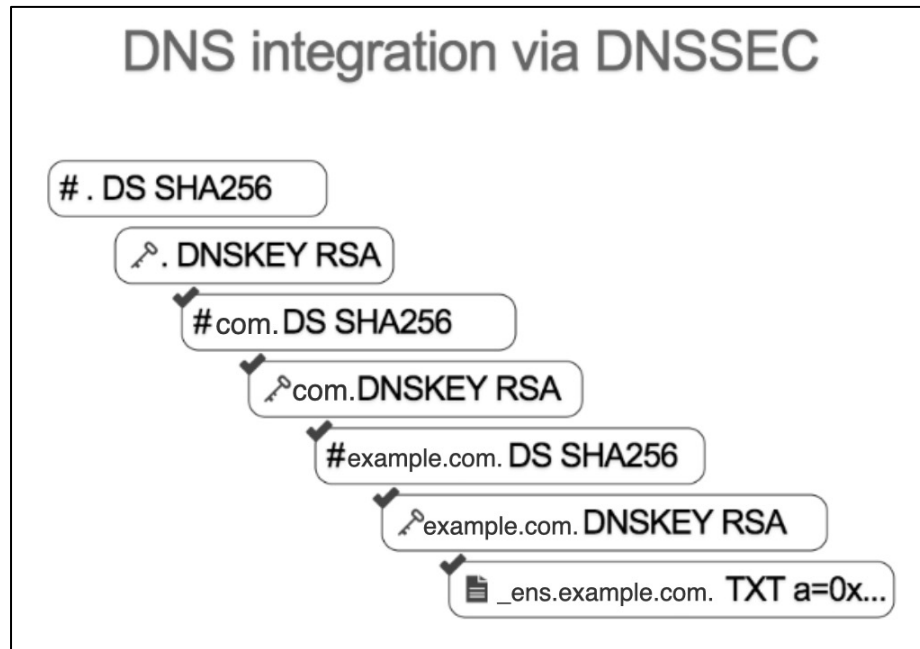
- A DNS domain name integration is synchronized if:
 - The DNS and the integration match at the time of measurement
 - Users can verify that this is accurate in some way
 - E.g., the DNS zone file provides evidence
- Synchronization Classifications:
 - In Sync
 - Out of Sync
 - Ambiguous

On-Chain ENS DNSSEC Analysis

Status	Percentage	Count*
Out of Sync	35.85%	484
Ambiguous	3.48%	47
In Sync	60.67%	819
Total		1,350

src: Verisign research analysis of data available via [Alchemy API](#)

*Number of DNS Domain Names



src: original version from [ENS Blog Post](#)

GitHub Verified Organization Analysis

Status	Percentage	Count*
Out of Sync	9.10%	7,593
Ambiguous	33.10%	27,861
In Sync	57.80%	48,602
Total		84,056

src: Verisign research analysis of data available via [GitHub API](#)

*Number of Organizations



src: Sample verified organization on [GitHub](#)

Bluesky Social User Handles Analysis

Status	Percentage	Count*
Out of Sync	0.23%	110
Ambiguous	1.14%	546
In Sync	98.63%	47,229
Total		47,885

src: Verisign research analysis of data available via [Bluesky API](#)

*Number of User Handles



AT Protocol



Edit Profile ...

AT Protocol

@atproto.com

2108 followers 11 following 10 posts

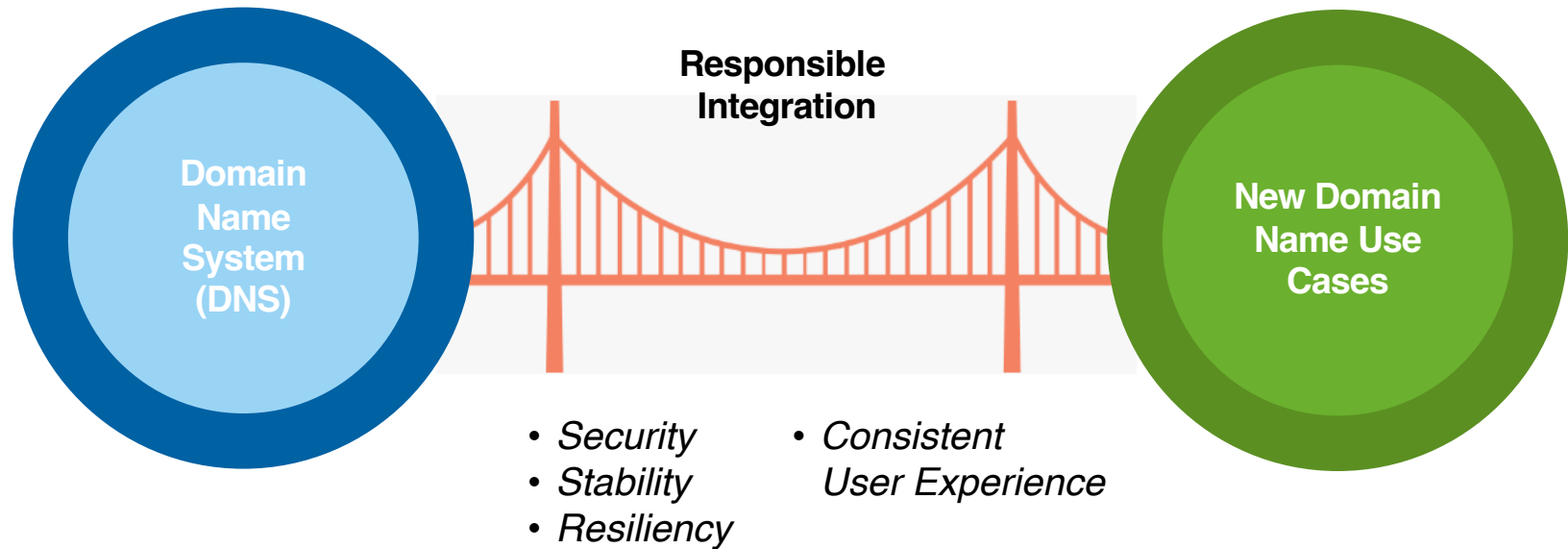
Social networking technology created by Bluesky.

src: AT Protocol on [Bluesky](#)

Measurement Summary Slide

Integration	Total Integrated	% Out of Sync	% Ambiguous
On-chain ENS DNSSEC	1,350	35.85%	3.48%
GitHub Verified Organizations	84,056	9.10%	33.10%
Bluesky Social User Handles	47,885	0.23%	1.14%

Responsible DNS integration, working toward standards and best practices



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