



DBOUND @ IETF

# Decentralized + Distributed

## Emissions of PSL-like data

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# Why now?

- Infrastructure has matured heavily since 2016
- Multi-tenant environments more common (☁️)
- Scaling issues are different than 2016/prior
- Small(er) set of use-cases – DMARC went elsewhere

# Decentralized

(there's only so many of us)



# Service Team Model @ AWS

- Teams owners of all facets of their service
- Advised by specialist groups (e.g. my team)
- Many-many service teams company-wide

# Single points of failure = difficult

- Single team for all of \$company doesn't scale
- Self-service enablement of application teams ideal
- DNS easy to delegate, not so w/ registry model

# Distributed

(many region, wow)



# Scale @ \$cloud

- Per-region/per-service DNS naming
- At least one DNS record per region/service
- Regions + services grow multiple times yearly
- (some services) per-resource zones/clustering
- Multi-tenant environment w/ rapid growth

# How to publish?

- Current route requires aggregation
- Scaling difficult with any SPoF
- Large number of records, regular growth
- Decentralization → self-service



# Private/disconnected networks

- Clouds made up of many disconnected networks
- Administrators might share their network w/ others
- PSL has little/no support for non-Internet networks
- Resources unique to the network, can't be pre-aggregated

# Other (PSL-supported) use-cases

- DNS-as-a-service  
(if DNS gets used)
- Wide-impact check  
("are you sure?")
- Other consumer logic  
(browsers et. al.)





# Thank you!

