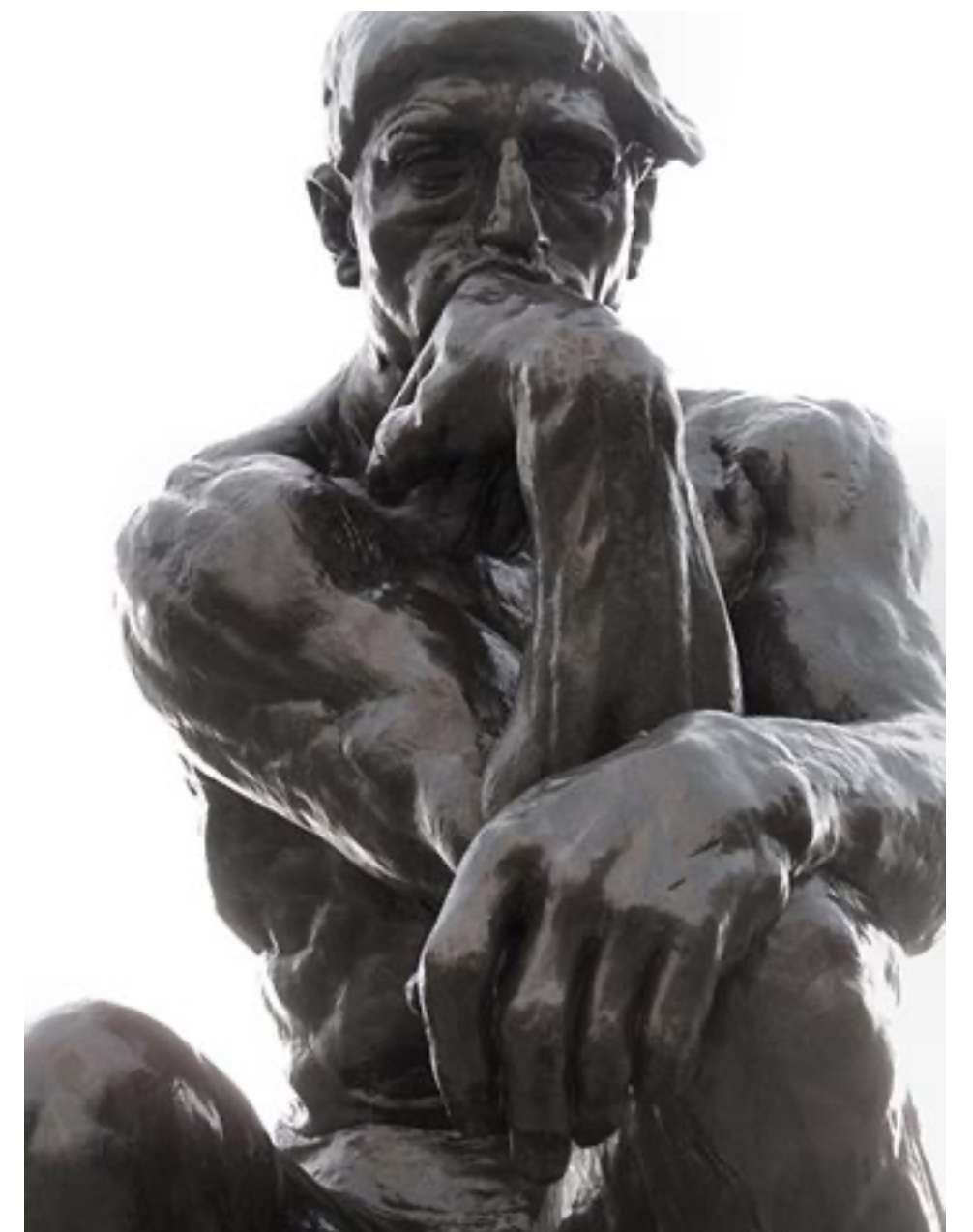


Keeping up with the DNS in the IETF

Benno Overeinder



The DNS Universe @ IETF

DOH 2017

DNSSD 2013

DANE 2010

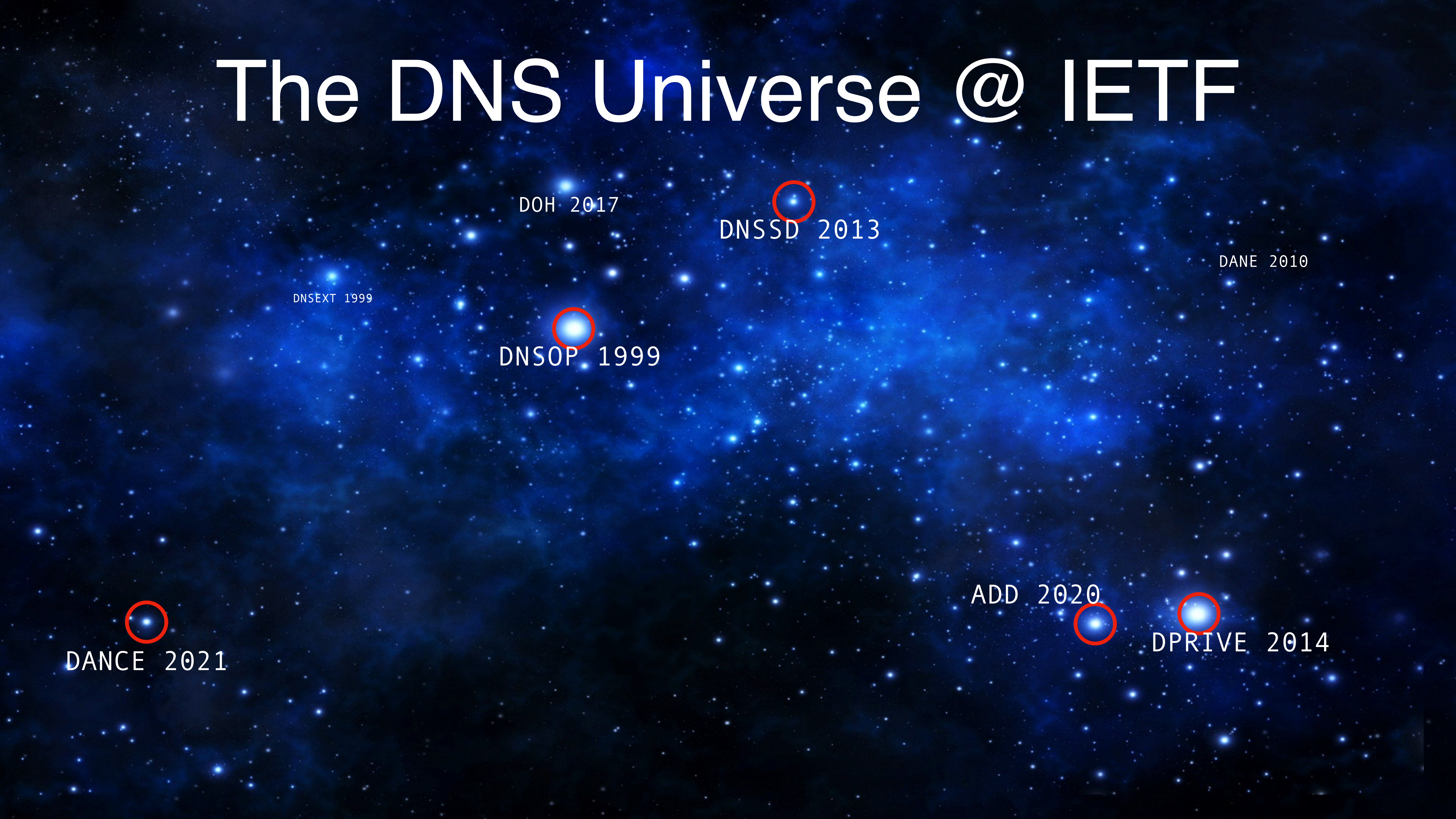
DNSEXT 1999

DNSOP 1999

DANCE 2021

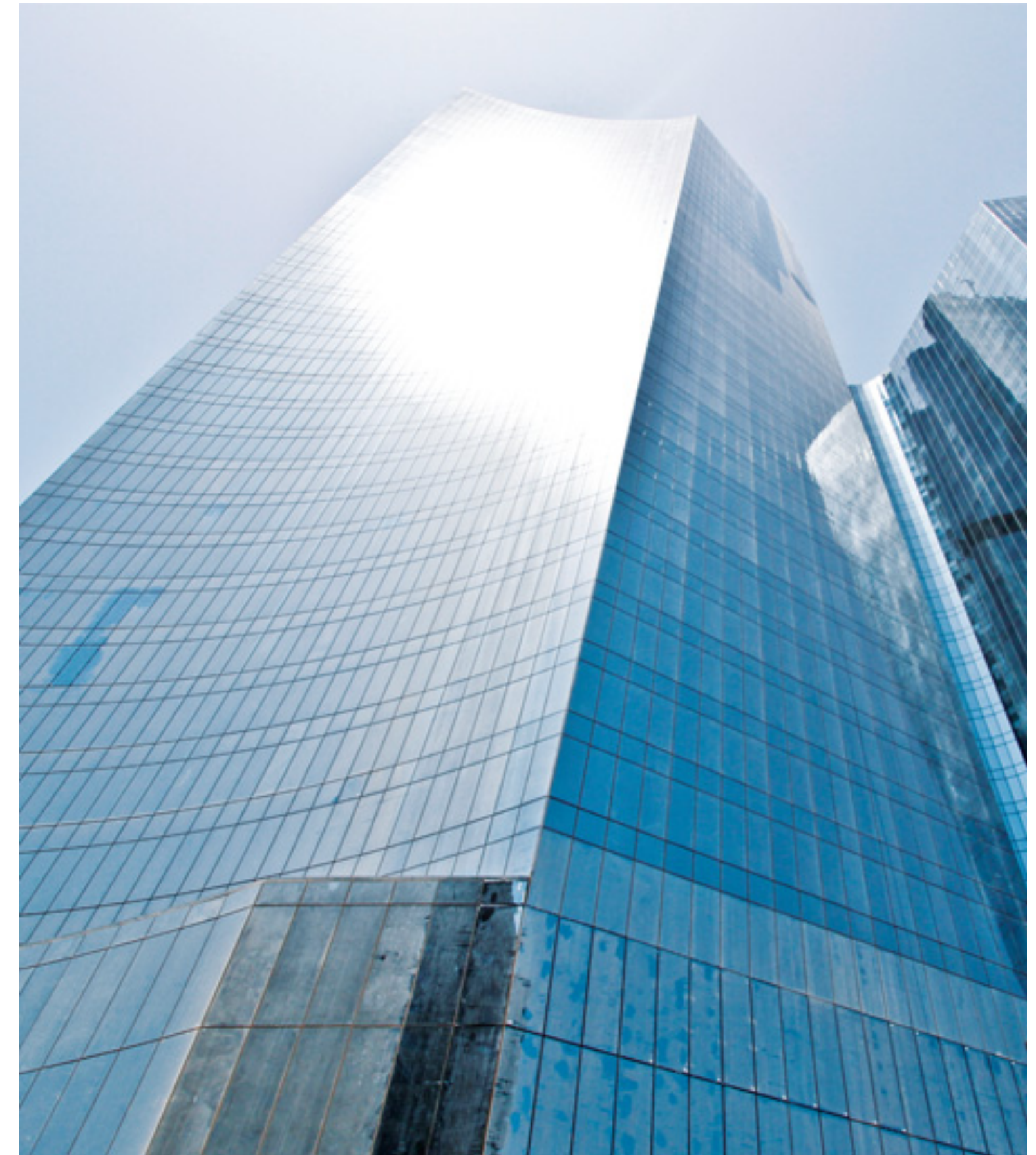
ADD 2020

DPRIVE 2014



Recently Finished Work in DNSOP

- Guidance for NSEC3 Parameter Settings (RFC 9276)
 - NSEC3 iteration count 0 (1 hash iteration)
 - not use salt (indicated with length 0)
- DNS catalog zones (submitted to IESG for publication)
 - automatic DNS zone provisioning among DNS primary and secondary nameservers
 - send to the IESG



Almost Finished Work in DNSOP (1)

Working Group Last Call

- Service binding and parameter specification via the DNS (DNS SVCB and HTTPS RRs)
 - improve security, privacy and performance (*and enable aliasing of apex domains*)
 - almost done: some technical concerns were raised that were addressed in revision 11
- Fragmentation Avoidance in DNS
 - substantial feedback during WGLC



Almost Finished Work in DNSOP (2)

Close to WGLC

- DNSSEC Automation
 - RFC 8901 Multi Signer DNSSEC Models
 - elegant insight using RFC 8901 for generic use-case changing NS operator for signed domains (without going insecure)
- Automatic DNSSEC Bootstrapping using Authenticated Signals from the Zone's Operator
 - in-band method for DNS Operators to securely publish DNSSEC key parameters for zones under their management
 - co-publishing CDS/CDNSKEY records in signed zones



Ongoing Work in DNSOP

- DNS Error Reporting
 - DNS Error Reporting is a lightweight error reporting mechanism
 - reports are based on Extended DNS Errors [RFC8914]
 - a method for a validating recursive resolver to automatically signal an error to an agent specified by the authoritative server

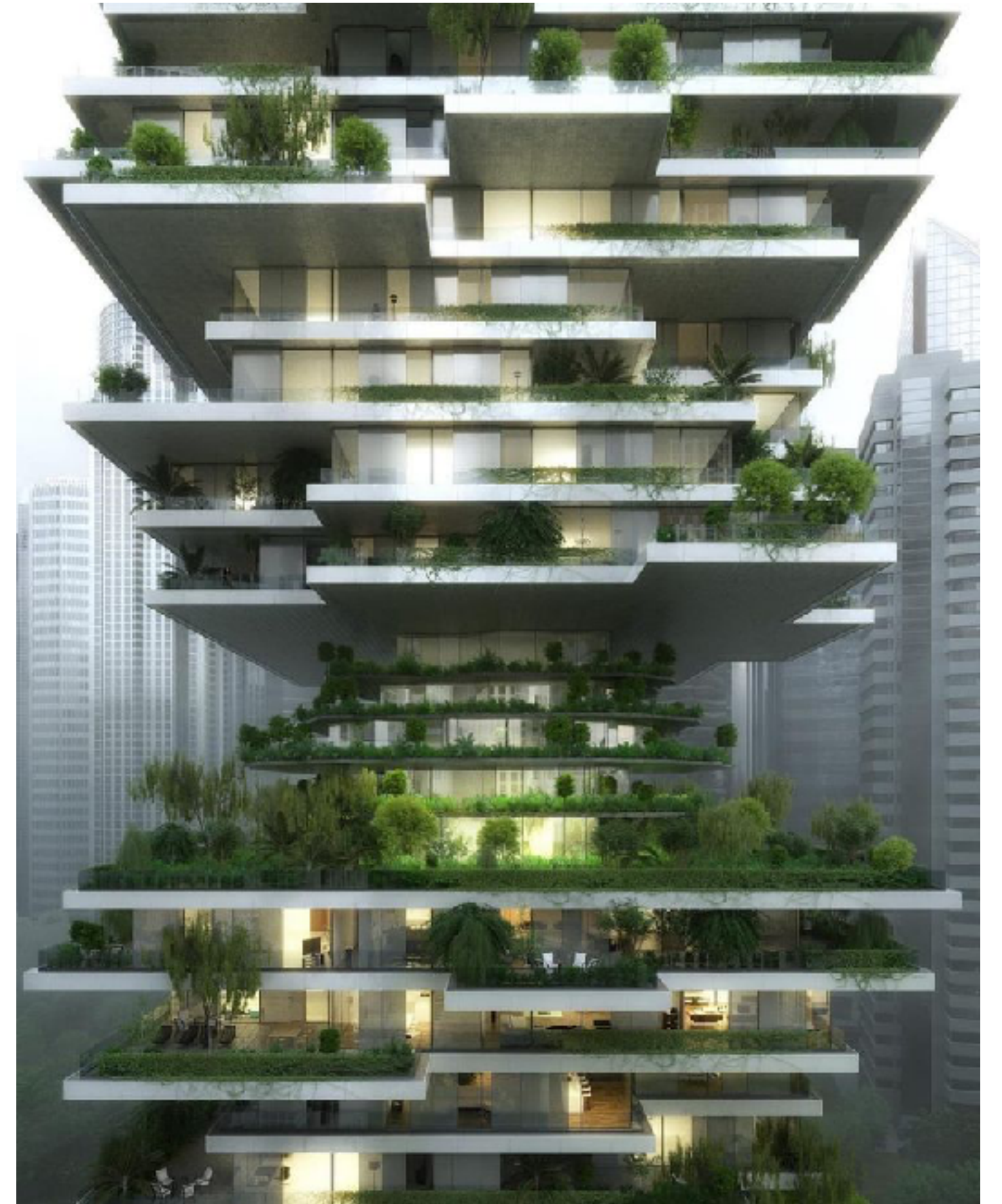


Updates from DPRIVE @ IETF110



Finished Work

- DNS over Dedicated QUIC Connections (DoQ) published as RFC 9250



Existing Work

- Unilateral Opportunistic Deployment of Encrypted Recursive-to-Authoritative DNS
 - latest version published 27 September, addressing all issues brought up on the mailing list
 - implementation in PowerDNS, DPRIVE chairs wait for several other implementations/some interoperability
 - DPRIVE chairs plan 10 minutes at IETF 115 to ask (whip) people about creating implementations



Thank YOU
&
Questions?