

deSEC: Secure DNSSEC Hosting

Continued Operations and Development

Peter Thomassen <peter@desec.io>

RIPE Open House
March 7, 2023

DNSSEC validation rate

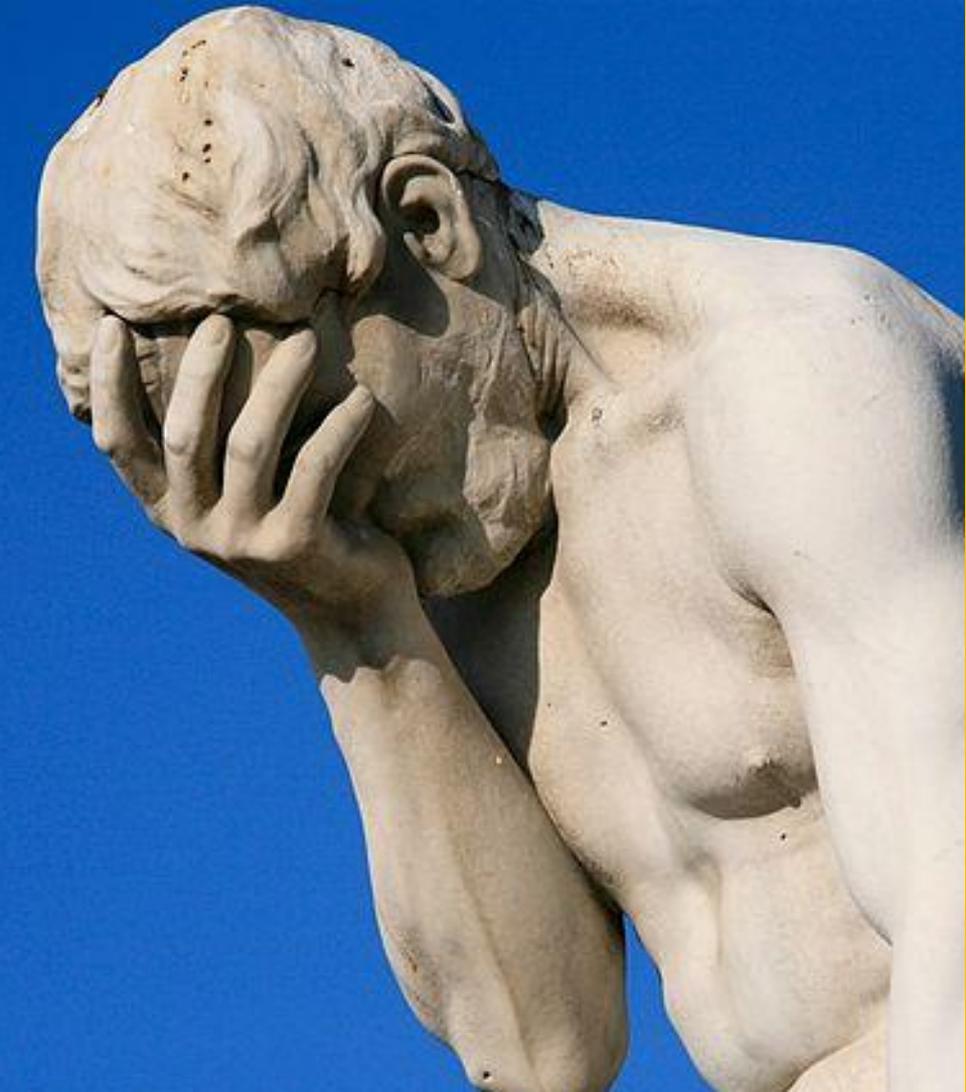
32% vs.

secure delegation rate

7%

- global average
- 50–95% in some places

- global average

A marble sculpture of a man, likely representing a figure of suffering or despair, with his head buried in his hands. The sculpture is set against a bright blue background.

DNSSEC is too hard

and we know it

A free DNS hosting service, designed with security in mind.

deSEC is a **non-profit** doing the same thing as Let's Encrypt, but for DNSSEC.

- all automatic DNSSEC
- fancy API and GUI
- support for modern stuff (e.g. DANE)
- dynDNS service (under dedyn.io)

Status

- **Launched in April 2020**
Now hosting **several 10,000 zones**:
~**3.7B q/mo** (annual growth ~3-4x)
- **Active community member**
 - RIPE member, IETF contributor
 - protocol development (DNSSEC automation)
- **Costs**
 - server operations
 - anycast networks
 - development
- **Financially supported by RIPE**
Thanks!



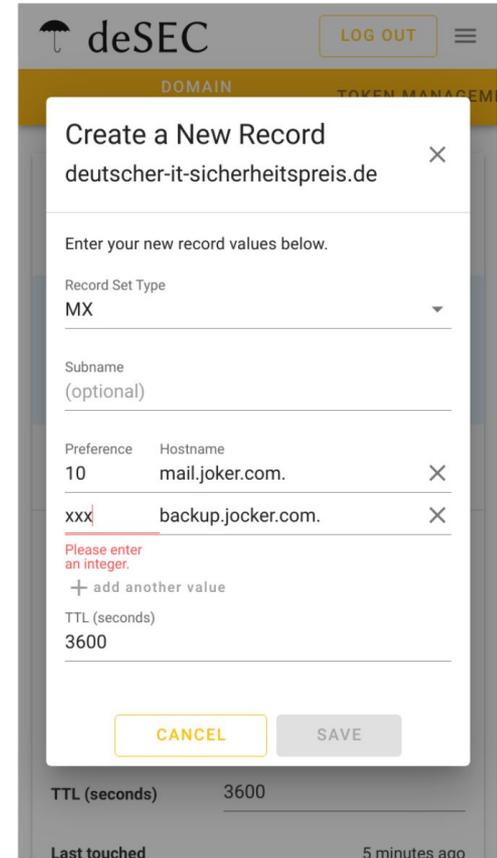
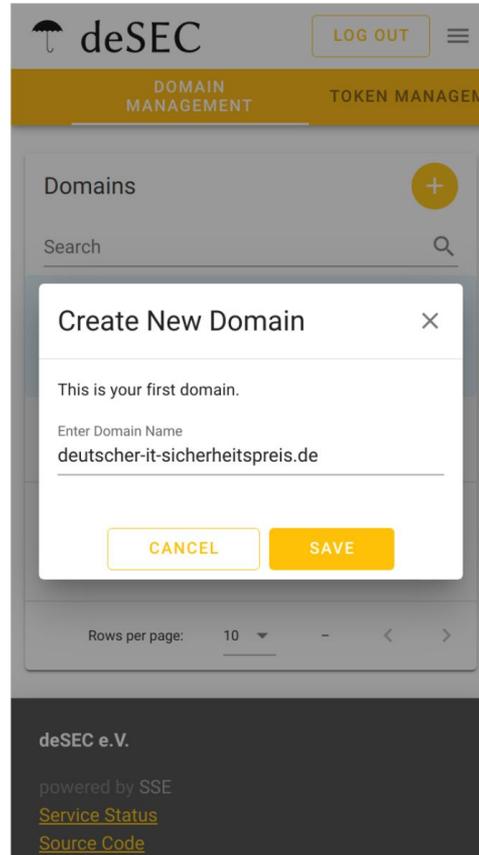
Using deSEC 101

GUI

- **Straightforward**
- **Reactive**
- **Field-level validation**
- **Mobile-friendly**
- **Zero external resources**

REST API (<https://desec.readthedocs.io/>)

- **Helpful validation**
- **Transactional bulk actions**
- **Paging, API token scoping, ...**



How do we use Funding from RIPE CPF 2022?

— — —

- Server operations
 - Primary DNS servers, DNSSEC signing
 - Backup
- Anycast delivery network
 - Replication
 - DDoS mitigation
 - Monitoring
- Development
 - DoQ
 - API improvements (record-specific token authorization; transparent replication state)
 - Anti-abuse

Thank you!

... also to our sponsors:



Questions?