



## **Nameserver operator role at registry**

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# Who is DK Hostmaster?

- ccTLD for .dk
- Like all ccTLDs, we do things our way (for good and bad)
- Not classic R-R-R model
  
- New domains must be registered through registrar
- All subsequent transactions are based on role
  - registrant
  - administrator
  - billing contact
  - nameserver operator
- All roles (except registrant) could be the registrar
  - Almost like R-R-R



# Nameserver registration

All nameservers need to be registered

- No delegation without registration
- Automatically add glue records
- Direct contact with nameserver operator
  - Notification
    - suspension
    - redelegation



# Roles

```
% whois -- '--show-handles erwin.dk'  
<snip>  
Domain:                erwin.dk  
DNS:                   erwin.dk  
Registered:           2005-05-03  
Expires:              2018-05-31  
Registration period:  1 year  
VID:                  no  
Dnssec:               Signed delegation  
Status:               Active
```

Registrant

```
Handle:                EL12-DK  
<snip>
```

Administrator

```
Handle:                EL12-DK  
<snip>
```

Nameservers

```
Hostname:             ns1.droso.net  
Handle:               EL12-DK  
Hostname:             ns2.droso.dk  
Handle:               EL12-DK
```

```
% whois -h whois.dk-hostmaster.dk -- '--show-  
handles ns1.droso.net'
```

```
<snip>  
Nameserver:           ns1.droso.net  
Glue:                 Not being spooled
```

Contact

```
Handle:               EL12-DK  
<snip>
```

```
% whois -h whois.dk-hostmaster.dk -- '--show-  
handles ns2.droso.dk'
```

```
<snip>  
Nameserver:           ns2.droso.dk  
Glue:                 Being spooled
```

Contact

```
Handle:               EL12-DK  
<snip>
```

# Nameserver operator role

Nameserver operator has a directly relation with the registry

- Operator has a login
  - Self-service portal
  - DSU
  - EPP (soon)
- Nameserver operator can:
  - Manage nameservers (glue)
  - Move domains between nameservers (internal redelegation)
  - Manage DS

# DS Upload (DSU)

POST /1.0 HTTP/1.0

Host: dsu.dk-hostmaster.dk

Content-Type: application/x-www-form-urlencoded

Content-Length: 146

**userid**=ABCD1234-DK&**password**=abba4evah&**domain**=xn--l-4ga.dk&

**keytag1**=1551&**algorithm1**=7&**digest\_type1**=1&

**digest1**=CD1B87D20EE5EE5F78FCE25336E6519B838F7DC9



# Experience

## The Good:

- Nameserver operator can manage glue and DNSSEC directly
  - Registrant does not need to be involved
  - Also works when operator is not a registrar
  - Also works when registrar does not support DNSSEC
- Automatic removal of DS when domain changes operator
  - Old operator is no longer associated with domain
  - DS is kept after internal redelegation

## The Bad:

- All nameservers need to be registered
  - Cumbersome with many nameservers (CDNs)
  - Nameserver not yet registered is not within the registrar

## The Ugly:

- Not standard

*Can CDS and CNS achieve the Good and avoid the Bad and Ugly?*



# Questions?

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