Registration Maintenance! = Internet Speed

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## Registration Communication matrix

<table>
<thead>
<tr>
<th></th>
<th>EPP/homegrown</th>
<th>Registrar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registrar</td>
<td>EPP/API</td>
<td>Reseller</td>
</tr>
<tr>
<td>Registrar/Reseller</td>
<td>API WEB</td>
<td>Registrant</td>
</tr>
<tr>
<td>Registrant</td>
<td>API WEB/Email</td>
<td>DNS OPERATOR</td>
</tr>
<tr>
<td>Registrar/Reseller</td>
<td></td>
<td>DNS Operator</td>
</tr>
<tr>
<td>Registry</td>
<td>NOT ALLOWED</td>
<td>Registrant</td>
</tr>
<tr>
<td>Registry</td>
<td>Registrar</td>
<td>Reseller</td>
</tr>
</tbody>
</table>
Food for thought

We have a **sacred cow**, conceptually, since the dawn of time, registrars have been granted full control of relaying & managing **ALL** registrant domain information to the registry.

No one stopped and asked when DNSSEC material was introduced if the registrar should manage this? Or **WHO** should manage this material? Or **IF** it should be the DNS Operator?

RFC5910 bingo, we all moved along and “assumed” it was the registrars responsibility and the registrars came back “hey!!! we don’t want to manage this *#%&”

Then we had DS or DNSKEY religion war, Key Relay, CDS, CSYNC, etc…

⇒ *All symptoms of a root cause.*

We need to change the model to support different authorization/delegation model for NS/DS/Glue, and a protocol to manage up the food chain.
Problem: from DNS Operators perspective

A. Who to talk to for updates?
B. How to talk to (A)?
C. How to find (A)?

For A. there are 4 choices
- Registrant (not realtime, unreliable)
- Registry (not allowed, no protocol)
- Registrar (can’t always find it, no authorization)
- Reseller (can’t find it, no authorization, no interface)
From Registrants perspective

Why bother me I’m paying you to run the system!!!!
From Registrars/Reseller’s perspective:

I own the customer contact and only the customer is allowed to update information via me.
Registry Perspective:

We want to publish accurate information!!
Solution Space: make DNS operator visible

1. Understand third Party DNS operators play important role.
2. Find a way to authorize them to perform limited set of actions on Registrants behalf ⇒ AUTHORIZATION for NS/DS/glue changes
Solution space: Communication #1

Create a REST protocol that can:
- Authenticate Operator to R* entity
- has commands to change/check NS/DS/Glue
- has redirection up/down the R* chain
  - Registry <-> Registrar <-> Reseller
Solution space: Communication

- Registry allowed to send EPP messages to Registrar with requests from DNS operator
- Registrar will feed information into normal internal change flow and issue EPP commands to update Registry.
Next steps