

DNS Houses (TLDs only-version)

Quickly Assembled Lightning Talk for DNS-OARC

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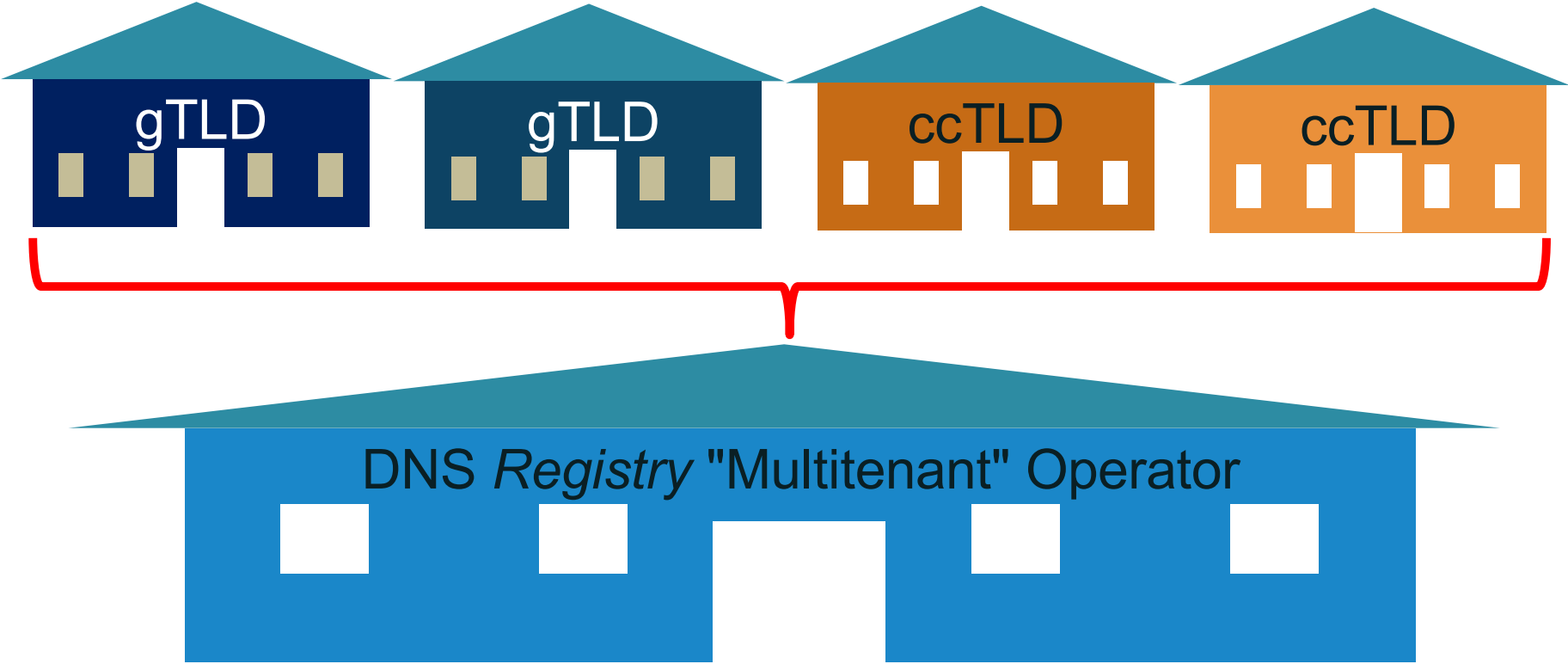
DNS-OARC 32
8 February 2020



The Reason for This

- ⊙ This is part of other work on-going
- ⊙ Measuring how a protocol feature is seen in observations
 - Reveals the impact "in packets"
 - But doesn't reveal the impact of a decision
- ⊙ Knowing "the structure" of operations
 - Focuses "capacity building" efforts (deployment)
 - Predicts what change will have the greatest impact

Registry "Houses" – Grouped Decisions



How to determine a "House"

- ⊙ Could: Survey operators
- ⊙ And/Or: Examine the RNAME field of the SOA resource record
 - This is what I use in this study
- ⊙ And/Or: Examine the NS set
- ⊙ And/Or: Examine the addresses of name servers
 - Confuses DNS hosting providers with zone operators
- ⊙ Sum: not an exact science, surveys/heuristics need updating

Top "DNS Houses" ranked by number of zones

Op "ID"	DNS Zones	Rev Zones	ccTLD Zones	gTLD Zones	Infra Zones	Servers	Addr's	Routes	ROA cover
Op1	241	0	0	241	0	4	8	31	100.00%
Op2	199	0	12	187	0	802	1575	545	<1%
Op3	161	0	3	158	0	964	1921	260	13.85%
Op4	158	0	2	154	2	59	68	217	2.30%
Op5	102	102	0	0	0	6	12	20	50.00%
Op6	82	0	5	77	0	329	656	12	66.67%
Op7	75	0	0	75	0	600	605	56	0.00%
Op8	63	63	0	0	0	9	10	12	100.00%
Op9	63	63	0	0	0	5	10	10	100.00%
Op10	58	0	0	58	0	232	24	31	100.00%
Op11	49	0	0	49	0	4	7	30	100.00%
Op12	46	0	0	46	0	5	10	3	0.00%
Op13	30	0	1	29	0	10	19	22	66.64%

Top "DNS Houses" with 2 or more ccTLDs

Op "ID"	DNS Zones	Rev Zones	ccTLD Zones	gTLD Zones	Infra Zones	Servers	Addr's	Routes	ROA cover
Op2	199	0	12	187	0	802	1575	545	<1%
Op3	161	0	3	158	0	964	1921	260	13.85%
Op4	158	0	2	154	2	59	68	217	2.30%
Op6	82	0	5	77	0	329	656	12	66.67%
Op17	16	0	16	0	0	6	12	47	65.96%
Op19	11	0	5	6	0	17	34	10	70.00%
Op22T	7	0	2	5	0	9	16	39	84.62%
Op22T	7	0	3	4	0	25	36	44	2.27%
Op26	6	0	6	0	0	4	8	11	100.00%
Op28	5	0	3	2	0	5	10	14	0.00%
Op30T	4	0	2	2	0	10	20	13	7.69%
Op30T	4	0	3	1	0	14	26	31	93.55%
Op34T...	3	0	3	0	0

Impressions

- ⊙ Yes, that's a sea of numbers to think over, in interesting ways
- ⊙ Core zone operators, judged by "RNAME" field
 - But operators #3, #10, and #17 have merged (M&A)
- ⊙ Some operators focus on a quadrant, some cross

One (DNSSEC) "use" of the DNS House construct

Operator	total TLDs	non-ccTLD	ccTLD	signed	unsigned
#2	237	219	18	237	0
#3	209	196	13	208	1
#4	164	162	2	164	0
#5	80	75	5	80	0
#9	26	25	1	26	0
#12	11	6	5	11	0
#14	7	6	1	7	0
#15T	6	0	6	6	0
#17T	5	2	3	5	0

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Thank You and Questions

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