DNS Update with JSON

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NOW BETTER PASTING!

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Simple use case for DUJ

- It is common for service providers such as CAs and “social media” providers to want users to update the users’ zones to prove that they control those zones, or to add other features.
- Currently, service providers tell users to do this using human language describing the resource record type and data values to enter into the zone.
- “*Use your DNS provider’s web interface to add the following to your DNS zone*”

Simple solution

- Text format, called DUJ (“DNS update with JSON”)
- Service providers give a DUJ to a user instead of a line in DNS display format
- The expectation is that the user would copy and paste the text to their DNS operator to update the user’s zone.

Really limited use case

- DUJ is intended only for users who copy-and-paste.
- DUJ is not intended for any automatic zone updates.
- Different, more elaborate protocols with more challenging use cases for automatic updates, have been proposed separately; see DomainConnect.

What DUJ looks like

- There are two types of DUJ strings: DUJS (plain JSON) and DUJ64 (Base64 of DUJS).
- `[ "DUJS", [ ["add", "mail.yourname.example TXT \"v=spf1 a:mail.yourname.example ip4:192.0.2.49\""] ] ]`
- DUJS strings can be typed by users, but doing so can easily introduce errors that might negatively affect their DNS zone.
- DUJ64 strings cannot be safely typed by users.

Advantages of DUJ

- Giving the specific action is more precise than expecting a user to understand adding and removing RRs
- Removing records with DUJ works in web interfaces that don’t allow zone editing

WG adoption?

- DUJ is definitely operational for DNS operators who have web or app interfaces
- Initial response on the mailing list was positive, and good suggestions were made
- draft-ietf-dnsop-domain-verification-techniques specifies using _labels for this type of data, and telling a user how to create a subdomain could be more error-prone; DUJ handles this directly