CDNI Control / Triggers draft-ietf-cdni-control-triggers-12

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IETF 95 Buenos Aires – April 2016

Updates Since IETF 94 (1)

'-10', '-11 – address comments from Barry

- Editorial fixes/clarifications.
- Moved JSON formalisation to an appendix, removing the normative dependency on draft-greevenbosch-appsawg-cbor-cddl.
- Made refs to informational RFCs 2818 and 6707 normative.

Updates Since IETF 94 (2)

'-12' - address Secdir and IESG comments

- Added section '2.1.1 Multiple Interconnected CDNs' to...
 - introduce the concepts 'intermediate CDN' and 'diamond configuration', and
 - discuss issues with the diamond configuration (see next slide).
- Security considerations
 - Better aligned the 'TLS MUST ...' text with logging/metadata.
 - Explain that there's an out-of-band trust relationship between interconnected CDNs, so there is scope for one uCDN to generate work in the dCDN but the protocol doesn't aim to prevent malicious behaviour.
- Editorial fixes/clarifications, including replacement of 'http' with 'https' in example URLs.

Diamond Configuration

- When a dCDN has a choice of uCDNs for the same content...
 - The dCDN can probably tell where metadata came from by looking at the URLs
 - But it may not remember which uCDN it acquired cached content from.
- So CI/T commands forwarded by more than one uCDN at different times may interact, for example ...
 - invalidate may cause already revalidated content to be revalidated again
 - purge issued by an intermediate CDN may unnecessarily cause reacquisition from a different uCDN
 - purge followed by pre-position may cause pre-positioning to happen twice
- Re-acquisition / revalidation is always possible if content is still available, so the problem is inefficiency rather than failure.

Next Steps

- Address minor editorial comments from Vincent (secdir reviewer).
- Make sure IESG comments are cleared.