

Reporting Network Errors (ideas and discussion)

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Previous Work

- draft-palet-ietf-v6ops-he-reporting
- draft-palet-v6ops-he-reporting
- draft-xie-v6ops-network-happyeyeballs

Report from Where?

- HEv3 is only at browsers?
- Should it be also in other apps?
- Should be implemented in the OS so is widely available for any app?

- This is relevant, because it may impact the reporting solution that we adopt
 - W3 Reporting API in the OS?

What to Report?

- Broken AAAA RRs
- Routing black holes
- Service outage
- IPv6 routing broken, or too slow
- QUIC filtering

- When?
 - Aggregated
 - Every failure or every “n” failures
 - Every “n” minutes?

Report to Whom?

- Broken AAAA RRs -> Authoritative DNS server
 - IPv6 failure -> ISP, transit(s), content provider
 - QUIC failure -> ISP, transit(s), content provider
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- Should we decide a “main” responsible depending on the reason of the failure?

Different Reporting?

- Authoritative DNS server may be used to W3 Reporting API
- ISPs, transit providers, content providers even Authoritative DNS servers, already use syslog or similar standard mechanisms

Privacy Considerations (1)

- What we need to report without compromising user privacy?
 - Avoid source address/details, report only destination and failure itself
- Are we happy with partial reporting?
 - i.e., if the failure is closer to the content provider side, they may be able to get an alert, test and resolve
 - If the failure is closer to the ISP, the content provider being reported, will not be able to know the source, but the ISP knowing the destination may fix it or communicate to the content provider

Privacy Considerations (2)

- Vendors and operators already log/collect telemetry, with different degrees of “privacy”
 - We had this discussion about CGN in v6ops
 - Collecting data is not against privacy if not disclosed?
 - Allowed for network O&M

Integration with HEv3

- HEv3 aims to standards track
- Reporting should also aim to standards track
- **MUST** we ensure that any HEv3 implementation also supports reporting?
- **MUST** we somehow, mandate the support of the reporting collection?

Next steps

- How we decide all those different points ?
- Questions ?
- Inputs ?