

CDNI Logging

draft-ietf-cdni-logging-21

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Changes between -19 and -20: ABNF

- Remaining ABNF corrections (with Pete Resnik's help)

Changes between -19 and -20

Privacy

- The “CDNI Logging Privacy” design team (formed after Prague) came up with an analysis of Privacy concerns and a solution to address those.

Changes between -19 and -20

Privacy

- Concerns:
 - Detailed information known by dCDN is not a Privacy concern in itself (it generated it)
 - Detailed information known by uCDN is not a Privacy concern in itself (it sees most of the information when processing the initial request)
 - Transporting detailed information over the LI interface is not a Privacy concern in itself (usual IETF privacy protection mechanisms can be used e.g., TLS)
 - large volumes of detailed information about content delivery to users, potentially traceable back to individual users, may be collected in CDNI Logging files. These CDNI Logging files represent high-value targets at risk of potential data exfiltration. This is a Privacy concern that needs protection

Changes between -19 and -20

Privacy

- Solution:
 - Use c-groupid logging field (instead of c-ip & c-port)
 - opaque identifier for an aggregate set of clients, derived from the client IP address. Group clients into aggregates: e.g., US/TN/MEM/38138.
 - Agreement out-of-band between dCDN and uCDN on a mapping address→
 - mapping SHOULD be chosen such that each aggregate contains more than one client

Changes between -19 and -20

Privacy

- Solution (Ctnd):
 - For special situations (e.g., to allow more detailed analytics, or to allow a-posteriori analysis of individual delivery for example in situations of performance-based penalties), the solution allows to use a mapping identifying a single client (but encrypting it, and allowing to restore it when needed). There are additional mechanisms to protect against long term attacks. Risks for enduser privacy are made clear, and an alternative approach (that can be used in some use cases) is discussed.

Changes between -20 and -21

- Addresses all editorial comments from Kevin's message:
 - <http://www.ietf.org/mail-archive/web/cdni/current/msg02313.html>
- Addresses private editorial comments from Kevin on IANA text to align with cdni-media-type

Next Steps

- Work with Stephen Farrell to have the Privacy related DISCUSS cleared
- Adjust text related to choice of algorithm for mapping of IP addresses into c-groupid (“Mandatory-to-Implement” vs “Mandatory-to-use”)
- Resolve private comment from Kevin on CDNI Logging File extension approach (ie “Logging File version” versus “record-type”)
- Get IESG approval