Logging Extensions

draft-rosenblum-cdni-logging-extensions-00

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Presented by
Ben Rosenblum, Vecima

Motivation

- RFC 7937 defines logging capabilities with an Atom-based log index of files extended from the W3C Extended Log Format, lacks endpoint discovery.

- Providers have requirements for a variety of log file formats, data fields, and delivery/receipt mechanisms.

- There's also the need to address privacy regulations in transmission of request log data between entities.

What do the extensions add?

- Container (log file) formats
  - JSON, Whitespace delimited, Protobuf, Archives (tarballs)
  - Metadata sidecars
- Record field definitions
- Record types
  - JSON, CSV, Whitespace, Protobuf
  - Defined field sets: minimal, standard, extended
  - Optional HTTP header inclusion as record fields
- Data transformations
  - Obfuscation, encryption, truncation
- Additional transport mechanisms
  - How we get the logs from dCDN to uCDN?
  - S3, SFTP, Kafka, supporting both push and pull operational modes

```
{
  "generic-metadata-type": "MI.LoggingMetadata",
  "generic-metadata-value": {
    "transports": [
      {
        "type": "MI.LoggingTransportS3API",
        "record-type": "standard_json_v1",
        "container-metadata": {
          "container-type": "json_v1",
          "name-template": "%Y-%m-%d-access.log",
          "interval": 86400
        },
        "account-id": "dCDN1",
        "endpoint": {
          "host": "s3.amazonaws.com",
          "access-key-id": "xxxxxxxxx",
          "access-key-secret": {
            "secret-store-id": "store-1",
            "secret-store-path": "/logging/dCDN1/dcdnlogs/s3"
          },
          "bucket-name": "dcdnlogs"
        }
      }
    ]
  }
}
```

MI.LoggingMetadata Example

What's planned?

- The current document is only the starting point for fulfilling operator logging requirements

- Future work:
  - Custom (metadata-defined) formats, record sets, record types, data fields, derived fields
  - Filtering
  - Sampling
  - Aggregation