

METADATA frame in HTTP/2 and HTTP/3

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[draft-beky-httpbis-metadata-01](#)

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Metadata blocks:

- carry information about the connection or request
- do not modify HTTP semantics
- consist of key-value pairs (not fields).

Example usage:

- logging and other diagnostics
- CPU usage, load balancing
- internal use cases.

Current deployment at Google:

- widely used internally over HTTP/2
- HTTP/3 implementation is in progress.

METADATA frames:

- are negotiated via SETTING
- carry HPACK or QPACK encoded key-value pairs (but no HTTP semantics)
- use encoding that must not change compression state.

Advantages over header or trailer sections:

- not limited to beginning or end of message
- no restrictions on byte values transmitted
- unlimited number of metadata blocks
- can be sent on the connection (stream 0 or control stream) at any time.

Links

- <https://datatracker.ietf.org/doc/draft-beky-httpbis-metadata/>
- <https://github.com/bencebeky/metadata>