HTTP Timeouts

draft-thomson-hybi-http-timeout-00
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Request Timeout

• Long-polling is widely used
• Problem: no information on how long to hold a request open
  – Conservative guesses are made to avoid timeouts at intermediaries, NAT bindings, etc…
Request-Timeout* Header

- Advertise client timeout requirements
  - Intermediaries can reduce Request-Timeout according to policy or their knowledge of connection timers
  - Header gives intermediaries an explicit indicator that this is a long-lived request
  - Origin server sees lowest value

```
Request-Timeout = "Request-Timeout" ":" timeout-value
timeout-value  = 1*DIGIT ; in seconds
```

- Proposed:
```
Prefer: response-within=100
```
Request-Timeout

Client

Proxy

Gateway

Server

Does not support Timeout header

Timeout: 600

Timeout: 600

Timeout: 300

Timeout < 300s

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Idle Connection Timeout

• Idle HTTP/1.1 connections are reusable
  – ...in theory
  – in practice, not so much (see §8.1.4 of RFC 2616)
• **Problem**: Connection reuse can fail
  – The connection could be closed at the other end when a request is started
  – Bigger problem for non-idempotent requests
• Many clients seek to avoid the problem by making new connections for POST
Connection-Timeout* Header

- Hop-by-hop header
  - Token is added to the Connection header
- Both peers advertise how long they are willing to keep the connection open
- **Timeouts apply to upgraded connection**

```plaintext
Connection-Timeout = "Connection-Timeout" ":" timeout-value
timeout-value = 1*DIGIT ; in seconds
```

- **Proposed:**

```plaintext
Keep-Alive: timeout=100;max=300
```
http://tools.ietf.org/id/draft-thomson-hybi-http-timeout-00

Comments