Correlation Context naming

There are only two hard things in Computer Science: cache invalidation and naming things.

-- Phil Karlton

More and more scenarios require propagation of user-defined context along the distributed trace. W3C Distributed Tracing working group is working on <u>correlation context specification</u> to address these scenarios.

The important question of the header naming is currently a topic of debates and we need your feedback!

The originally proposed header name is "Correlation-Context". We are discussing three options - keep the name, complete rename of a header, or drop the dash in the name. Here are pros and cons of these three options.

Keep the name: "Correlation-Context"

Pros:

- 1. This name is consistent with the http headers naming convention.
- 2. It is already being implemented in .NET natively based on prior art that informed the draft of the specification as well as by some <u>early adopters</u>.

Cons:

- 1. The name is inconsistent with the naming pattern used in <u>Trace Context</u> specification developed by the same group.
- 2. The name is quite long (19 characters).
- 3. The term "correlation" is already used by some vendors in a context of problems correlation (for example by Dynatrace). Which may make the name confusing.

Drop the dash in the name: "correlationcontext"

Using the same logic as was applied to naming headers in <u>Trace Context</u> specification, use of dash ("-") in the name wouldn't allow to use the same name in all protocols.

Pros:

1. The name can be universally used by all protocols including some that don't support dashes ("-") in names - e.g. JMS.

Cons:

- 1. This name is inconsistent with http naming patterns.
- 2. The name is highlighted in many IDEs and editors as a syntax error:

"correlationcontext"

- 3. The name is quite long (18 characters).
- 4. The term "correlation" is already used by some vendors in a context of problems correlation (for example by Dynatrace). Which may make the name confusing.

As a note here, the promise of Trace Context specification doesn't hold. Using header names tracestate and traceparent as a single word causes many issues like syntax error highlighting in IDEs. So in many places they are already treated as two words in <u>variables naming</u> and <u>protocols</u>.

Rename header: "Baggage"

As an alternative, the name Baggage was suggested.

Pros:

- Short (7 characters) single word header name is very convenient
- The name "baggage" doesn't contain potentially confusing terms like "Correlation" and people unfamiliar with the term will not make assumptions about its purpose.
- The term "baggage" has been already popularized by OpenTracing

Cons:

- APIs operating with this header will not be self descriptive for people unfamiliar with the prior art in OpenTracing. Same as the concept of "cookie" it requires a lot of education effort to explain that Baggage is something related to distributed tracing.
- This is a major rename of a header loses all the adoption of Correlation Context terminology and implementations.

Other names?

There were more suggestions on the header naming. Do you have more ideas? Please share.

Summary

So the choice is between three options. Keeping the name allows quick wins with adoption via .NET implementation, removing dash ("-") makes it consistent with Trace Context specification and renaming to Baggage has many benefits, but requires a lot of education.

Please comment on your preference in these issues:

- Consider renaming the header from Correlation-Context to correlationcontext
- Rename the header to Baggage