

Proposed Method

Which will be carried in two steps.

1. Apache Kudu Span receiver
2. Apache Kudu Span viewer web app

Apache Kudu Span receiver

Implementation should be done by extending the abstract class `org.apache.htrace.core.SpanReceiver`. Custom implementation with respect to Apache kudu should be done by implementing abstract method

```
receiveSpan(Span span);
```

Received spans should be asynchronously (separate new thread) written to kudu backend. Queuing mechanism for spans is mandatory when spans asynchronously written to Apache Kudu Backend.

Apache Kudu Span Viewer webapp

This composes of two components

1. Apache Kudu SpanViewer
2. UI frontend

Apache Kudu SpanViewer

This is basically a Apache kudu java client talking to Kudu backend to receive stored spans and deserialize to Span java objects. This implementation of span viewer also should have necessary Json string generation of created Span Java objects for generate Span traces on UI frontend.

UI frontend

This should facilitate UI viewing purposes of stored Spans in Apache Kudu datastore.

Deliverables

This will involve implementation of new htrace-kudu maven module in htrace modules

- Phase 1 - Apache Kudu Span receiver

KUDUSpanReceiver.java

KUDUHTraceConfiguration.java

- Phase 2 - Apache Kudu Span Viewer webapp

KUDUSpanViewer.java

KUDUSpanViewerServer.java

KUDUSpanViewerSpansServlet.java

KUDUSpanViewerTracesServlet.java

Related html and js scripts for span ui generation of web app.

- Phase 3 - Unit tests

TestKUDUSpanReceiver.java

TestKUDUSpanViewer.java

- Phase 4 - Documentation