EMEA OpenTelemetry End User Discussion Group Notes

2024-02-20

Attendees:

- Henrik
- Dan Gomez Blanco (Skyscanner)

Propose one or more topics via the Agile Coffee board and vote on topics (2 votes in total per person)

Participation

- Also in other regions?
- Change the time slot (later in the date)?
- On demand
- Lack of awareness
- Prepared agenda/tying back to roadmap

Topics:

2024-01-16

Attendees:

- Michael Hausenblas (AWS)
- Dotan Horovits (Logz.io, CNCF Ambassador)
- Henrik
- Dan Gomez Blanco (Skyscanner)
- Trond Andersen (Norwegian health care software provider, Dips)
- Joel Verezhak (OpenSystems)

Propose one or more topics via the Agile Coffee board and vote on topics (2 votes in total per person)

Participation

- Also in other regions?
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    - Prepared agenda/tying back to roadmap

Topics:

Monitoring of the telemetry mesh - how to observe the observer?

- Joel: standardizing on OTel
- Environment: Kubernetes (central + fleet)
- OTLP receiver for traces, OTLP exporter to Tempo
- Loki receiver
- Metrics migration in process
- Gateway for edge devices
- Do a bit of routing in the collectors
- Wrote some processors on our own (to debug)
- Scrapping the collectors externally and ingest into Thanos
- Loki resulting in a 500 though logs were mostly (99%+) ingested … how to deal with this?
- Failover to other collectors for example when bad config pushed
- Could OpAMP be of use? https://opentelemetry.io/blog/2023/opamp-status/
- Concerning adoption:
    - Personally started out at KubeCon EU 23
    - Some colleagues had early buy-in, concerns about maturity level of components
    - Then POC around logs, wrote own processor (this customization, allowing teams to develop their own processors, give it to platform team was a huge selling point)

Metric view

- Dan: at Skyscanner we have a dedicated team for distro
- Auto-instrumentation enabled by o11y team centrally
- We provide default metric views (for example no HTTP endpoint re cardinality) https://opentelemetry.io/docs/specs/otel/metrics/sdk/#view
- How can we make upgrades smoother?
- Could https://opentelemetry.io/docs/specs/otel/metrics/supplementary-guidelines/ be updated to address this?
- Does Config WG cover it? Seems so, see code
- What about OTel Operator Auto-instrumentation?
-

2023-11-21

Attendees:

- Michael Hausenblas (AWS)

- Martin
- Dotan

Propose one or more topics via the Agile Coffee board and vote on topics (2 votes in total per person)

Selected Topics:

1. None, due to lack of end users joining

2023-10-17

Attendees:

- Michael Hausenblas (AWS)
- Steve Gordon (Elastic)
- Mat Wilk (New Relic)
- George K (University of Uppsala)
- Dan Gomez Blanco (Skyscanner)
- Trond Andersen (Norwegian health care software provider, Dips)
- Ian Thompson (Globalization Partners)

Propose topics using the Agile Coffee board

Topics:

- Client-side testplan + feature flags in opentelemetry-demo
- Exemplars - what is the state of support by vendors (and open source projects)
- Service Map Connector - any other than Tempo supporting this?
- OpAMP update

OTel demo/client side testplan

- See feature request https://github.com/open-telemetry/opentelemetry-demo/issues/1164
- Skyscanner plans to contribute this feature (client-side injection)
- Is that useful?
- Do people use the client-side instrumentation?
    - Trond: we're giving it a try (tracing parts), wanting logs
    - George: planned for 2024
- Other demo scenarios?
    - Dan: from vendors? Showing DX in the context of the product
    - AI on Michael to bring back that proposal to the demo WG
- Ian: We find it challenging to get started with serverless
    - GP plans to create an issue to capture that

Exemplars

- Trond: very interested in the topic
- Support across vendors and OSS offerings varies
- Context: .NET
- Trond/Dan: Grafana, Prometheus supports, but others (NR, SigNoz?)
- Sampling challenge
    - https://github.com/open-telemetry/opentelemetry-specification/issues/2922
- There are also collector components such as the Span Metrics connector that enable you to create Exemplars automatically
- Trond: use case is for example Citrix server resource constraints troubleshooting

Service Graph Connector

- Trond: using Jaeger internally, was hoping that the project would adopt the connector, want to use with OpenSearch
- Is https://github.com/open-telemetry/opentelemetry-collector-contrib/tree/main/connector/servicegraphconnector used outside of Grafana? If so, where?
    - AI on Michael to reach out to Juraci to check where else used (and SMC relation) as well as OpenSearch
- https://github.com/jaegertracing/spark-dependencies/issues/110#issuecomment-1580530682

2023-09-19

Attendees:

- Michael Hausenblas (AWS)
- Steve Gordon (Elastic)
- Daniel Gomez Blanco (Skyscanner)
- MartinDotNet (Honeycomb)

Propose topics using the Agile Coffee board.

Topics:

- Profiling, where are we upto?
    - Ryan (ex-Pyroscope/Grafana) working with Michael on a blog
    - Pprof alignment the focus
    - Debate about when continuous profiling became more mainstream
    - End User had an incident that profiling solved
        - Potential blog post
    - .NET doesn't really have a concept
- Best Practices for Otel instrumentation in libraries
    - Elastic started with a basic instrumentation
    - https://opentelemetry.io/docs/concepts/instrumentation/libraries/
    - Docs discovery discussion

    - Create questions in https://github.com/open-telemetry/opentelemetry.io
    - Issue on listing OTel-native libraries and instrumentation libraries https://github.com/open-telemetry/opentelemetry.io/issues/2992
    -
- Opinionated Otel Packages
    - Should we create Otel Packages that are meta packages with easy mode setups in Otel
    - Libraries that bring in “Common” instrumentations
    - Very useful for .NET, maybe Java
    - Needs more information from other languages

2023-08-15

Attendees:

- Michael Hausenblas (AWS)
- Ivan Merrill (Fiberplane)
- Nele Uhlemann (Fiberplane)
- Brett Beutell (Fiberplane)
- Daniel Gomez Blanco (Skyscanner)

Topics:

- Usage of the OTel demo
- Client side instrumentation (browser and mobile) status

OTel demo

- Platform engineering teams using the demo to introduce OTel
- One challenge we’ve seen migrating to OTel is distributed tracing (teams not familiar with it)
- Leads to teams not using auto-instrumentation
- We at Skyscanner use game days to motivate uptake (with the demo, simulating failure)
- Teams try to debug/troubleshoot using the demo, great learning for DT
- Goal is to replicate prod env as close as possible, we (at Skyscanner) deploy the demo with Istio on top. We maintain fork and able to add the logs part via this.
- Great work around the demo!

Client side instrumentation

- New WG?
- How can we make tail based sampling work in this setup. Issues:

    - Starting with client span, using group by root span
    - When using group-by this may yield to confusion due to cardinality (HTTP method/URL path vs. user ID)

Semantic conventions

- Working across client libraries concerning default histogram bucket label (unit of time) confusing
- Semconv changed after other components stabilized

Feature requests

- Catalog of spans and metrics across instrumentation libraries (currently spread across Git repos)
    - AI on Michael to check back with TC/SIGs

OpAMP

- https://opentelemetry.io/docs/specs/opamp/
- 2023-07-18 session overview https://docs.google.com/presentation/d/1q-3uzLf3TtR-gBnyZhH3JKIfQaJskV7m5jq_WanVOeE/

2023-07-18

Attendees:

- Michael Hausenblas (AWS)
- Henrik Rexed (Dynatrace)
- Angelika Heinrich (mainstorconcept GmbH)
- MartinDotNet (Honeycomb)

Use the agile coffee board to propose topics

Topics selected:

- k8S runtime observability for managed k8s
    - Sig instrumentation introduced the tracing on k8S components (especially on the api server).
    - Kspan
    - Keptn
- Pipeline Health
    - Call to action from Michael
    - Pipeline == observability telemetry signal pipelines
    - “Checks”

        - QA'ing pipelines
        - opentelemetry-collector/docs/monitoring.md at main · open-telemetry/opentelemetry-collector (github.com)
        - opentelemetry-collector/docs/observability.md at main · open-telemetry/opentelemetry-collector (github.com)
        - Gimme a slider for managed collector instances.
- Mainframe tracing
    - OpenTelemetry's Potential for Unlocking Mainframe Insights | Broadcom
    - Used to be from your vendor movement towards OSS/Otel
    - IBM making progress too.
    - Mainstorconcept provides APM traces in using the OTEL specification : https://public.mainstorconcept.com/home/z-iris
    - We want language specific SDKs for Mainframe languages, but it's not there
    - More of an "it depends" when it comes to collector deployment scenarios
- Sooo many otel-cli's
    - We have people creating so many tools where ones exist
    - A good sign of the Otel project maturity
    - How do we make the tools more visible so we don't get the proliferation of tools for the same job.
    - More tools doing the same thing, with the same name, can get confusing and overwhelming for users.

KCD

2023-06-20

Attendees:

- Michael Hausenblas (AWS)
- Angelika Heinrich (mainstorconcept)
- Justin Gottfried (mainstorconcept)

Use the agile coffee board to propose topics

Topics selected:

1. Attribute otel.library.name (deprecated) vs. otel.scope.name
    a. https://github.com/open-telemetry/opentelemetry-collector-contrib/releases/tag/v0.76.3
    b. https://github.com/open-telemetry/opentelemetry-java
    c. → ask in otel-java
2. Connectors

2023-05-16

Attendees:

- Michael Hausenblas (AWS)
- Henrik Rexed (Dynatrace)
- Angelika Heinrich (mainstorconcept GmbH)
- Gareth Bell (Just Eat Takeaway.com)
- Trond Andersen

Agile coffee board: go to [Agile Coffee | Online Agile Coffee Tool]

Topics selected:

1. Browser instrumentation
2. Tips on advocating for OpenTelemetry in groups with mature observability integrations
3. OpenTelemetry Operator - OpAMP news

Browser instrumentation

Henrik: started to explore JS library/Node.js with the goal to interact with Web performance community
Has anyone else tried out?

- Not directly, colleague has, seems the footprint (size) is big?
- Gareth: at Just Eat we:
    - have a mature stack, proprietary,
    - looking into OTel, early adopters phase
    - unified approach
- Others: focusing on traces and logs, fetch support seems valuable
- Henrik: had high expectations concerning instrumentation, not stable yet
- Michael: semantic conventions are important
- Trond: tried React integration, generated a lot of events with a lot of noise
- Henrik: batching necessary

Tips on advocating for OpenTelemetry in groups with mature observability integrations

Gareth: Doing a company presentation on how/why to adopt OTel. Main points: vendor agnostic, open data, interoperability, backed by large community

- Trond: in our company (established ISV), instrumenting desktop and server side instrumentation, showed value in this use case (trace). Feedback: setup of the stack was challenging (stability), had to invest a lot for Kubernetes, on .NET side devs pointed out unit tests are challenging (static, async manner), struggle to get the

signals in a coherent way (correlation related between different tools). For metrics: looking forward to getting Exemplars support.
- Angelika: using OTel to provide mainframe insights, OTel support between vendors inconsistent, some vendors don't do hybrid trace (proprietary and OTel) well. We test across as many ISVs as possible, partner with them.
- Michael: using RoI driven framework (https://arxiv.org/abs/2303.13402)

OpenTelemetry Operator - OpAMP news

Henrik: OpAMP for Kubernetes … aware/used?

- So far no usage
- Trond: using the Operator, GitOps model and due to size of values running into issues
- Angelika: would be useful since we have the requirement to manage different agents
- Operator see https://docs.google.com/document/d/1M8VLNe_sv1MIfu5bUR5OV_vrMBnAI7IJN-7-IAr37JY/edit#heading=h.bwt48qsb77i2
- Michael: in the Agent Management WG we plan a blog post on the current status of OpAMP and road ahead, to be published via the OTel blog

2023-03-21

Attendees:

- Michael Hausenblas (AWS)
- Henrik Rexed (Dynatrace)
- Martin Thwaites (Honeycomb)
- Please add yourself here :)

Agile coffee board: go to Online Agile Coffee Tool

Recording: Everyone agree to record the next session

Topics selected:

1. Where do we go to find documentation?
2. OpenTelemetry Messaging
3. OpenTelemetry Collector update - Connectors
4. Opentelemetry landscape

Where do we go to find documentation?

Martin: some convo on where docs should go, OTel docs site or GitHub repos?
Where would you expect to find the docs?

End-user feedback:

- Google search (or ChatGPT?)
- Usually start at the official website and due to lack of coverage jump to GitHub (end up there). In GH I start with the Markdown files and then the code.
- Especially for new assets, the docs site is not up to date and need to go to GH

What is upstream? Downstream? Distro?

- https://opentelemetry.io/ecosystem/vendors/
- https://www.honeycomb.io/blog/ask-miss-o11y-opentelemetry-collector

OpenTelemetry Message Broker Use Cases

- IoT use cases (car manufacturer)
- Message brokers
- See https://www.honeycomb.io/blog/understanding-distributed-tracing-message-bus for details
- There is also ongoing work for semantic conventions support for messages
- MQTT support?

OpenTelemetry Collector update - Connectors

- https://o11y.news/2023-03-13/#opentelemetry-connectors

OpenTelemetry landscape

2023-02-21

Attendees:

- Michael Hausenblas (AWS)
- Paul Grave
- Angelika Heinrich
- Martin Thwaites (Honeycomb)

Agile coffee board: go to Online Agile Coffee Tool

Recording: Everyone agree to record the next session

Topics selected:

1. Prometheus Exporters... which one, prometheusremotewriteexporter or prometheusexporter?
2. Experience with span links that can be shared with the group - use cases etc

3. Standardization bodies
4. OpAMP adoption

Prometheus Exporters
- Which to use, write versus pull
- Write has big warning signs around monotonic metrics being dropped
- https://opentelemetry.io/docs/reference/specification/metrics/data-model/#timeseries-model
- https://www.timescale.com/blog/prometheus-vs-opentelemetry-metrics-a-complete-guide/

SpanLinks
- What are the use cases for it?
- Think of it the following: you have a lot of microservices, generating thousands of spans
- Need to keep an overview and able to navigate
- SpanLinks enable to answer the question “where does a trace start and end”
- Also, message processing (batch of messages)
    - Each of the messages comes from potentially different source
    - What have all in common? Belong to a trace
    - Share similar context
- One to one mapping or one to many mapping? → many to many
- Does Jaeger/Zipkin support that? Jaeger does
- Status is stable and part of the original Traces spec

Standards Bodies
- What are we doing to make sure we don’t duplicate standards from other bodies
- Trace Context (w3.org)
- OpenTelemtry is not a standard, W3c is.
- What about security, what standards around data collection are in place?
- https://opentelemetry.io/docs/reference/specification/metrics/semantic_conventions/
- Nothing specific around security
- https://github.com/open-telemetry/community
- Should there be a security SIG around the idea of how to use OpenTelemetry to analyse security information.

2023-01-17

Attendees:

- Michael Hausenblas
- Henrik Rexed
- Bjoern Walk
- Trond Andersen
- Mikko Viitanen
- Severin Neumann
- Angelika Heinrich

- Adnan Rahic

Agile coffee board:
Agile Coffee | Online Agile Coffee Tool

Notes:

Recording: Everyone agree to record the next session (NEED TO FIX RECORDING PERMISSIONS)

Agile Coffee board, topics selected:

TOPIC: Will exporters support OTTL?

Resources: OTTL

- Started out with Splunk HEC exporter
- Need transformations, didn't want to do it in processor
- From contributor side, unlikely to come to exporters (separation of concerns)
- But it's possible to do it via multiple pipelines with the routing processor
- Also: connector (NEW)
- Also: standardization on transformation processor

TOPIC: ServiceGraphProcessor

Resource: SGP

- Is there any work on integrating other graph output - for instance Jaeger?
- Seems there is no standard yet

TOPIC: OpenTelemetry Exemplars feedback and usage

Resources: Michael's talk on the topic

- Interested in usage, has anyone done it?
- No usage from folks on the call but interest
- Early days, more work to be done

2022-12-20

Attendees:

- Michael Hausenblas
- Henrik Rexed
- Paul Grave

- Yosef Arbiv
- Petr Styblo
- Trond Andersen

Agile coffee board:
[Agile Coffee | Online Agile Coffee Tool]

Notes:

Recording: Everyone agree to record the next session

Agile Coffe board, topics selected :

- Topic : Web Otel-js and dashboard solutions :

Desire to migrate vendor RUM library to OpenTelemetry to get the End2End trace.

The out of the box experience is not great because developers has to create their own dashboard to visualize the data.

Feedback on the usage of the current otel-js status of Otel RUM:
Experience was great when using the auto instrumentation library.?

Need to adopt RUM within the project. Sampling is done at the level of hte browser. Currently sampling used: 1% to 5%. TO expose the otel data , the project used the nginx ingress controller (added extra rules to limit the fake traffic, added tls as well)

What is the status of exemplars and any tools that utilize them?

Reference: Otel metrics specification on Exemplars:
https://opentelemetry.io/docs/reference/specification/metrics/data-model/#exemplars

Reference ot the .net issue :
https://github.com/open-telemetry/opentelemetry-dotnet/issues/3449

Project is using desktop application , deployed on laptop or citrix.
They would like to use otel to collect traces and metrics from the laptop to correlate the behavior of specific transaction with infrastructure usage.
(app written in .net)

Currently have not tried to implement it (waiting to get the suppor in .net).

Currently using splunk to send the metrics(and logs) and Jaeger for traces.
Using the collector processor : SpanMetrics.

Currently exemplars will add in the attributes of a metric the traceid.
THat allow us to filter the metrics using a traceid.

OpenTelemetry for receiving telemetry from mobile apps:

Adding the Otel library in the mobile app to produce metrics and traces.
Currently starting the implementation of the instrumentation that would be enabled with a feature flag.

The project would also like to report crash data from their mobile applciation: stacktrace, contexte, logs…etc
Try to find a solution to handle spikes of data related to crash events.
What to track user doing an action generating a web api on the backend, and understand a bit more how the system is used.

Looking for feedback for a similar implementation.

- ## Opamp building & debugging collector pipeline:

Opamp specification: [open-telemetry/opamp-spec: OpAMP Specification (github.com)]

THe idea is simplify the experience when creating and debugging , testing the collector pipeline. As of now we need to use the logging exporter and look at stdout.
The opamp may be the solution that could help us designing and debugging the data from ou collector pipeline.

As of now users are using Otel Operator to simplify the deployment of their operator in their k8s cluster.

Lots of customer are often concern on the actual size of their collectors.

Otel logs - feedback

- Currently using the fluentd stack, the project will look at otel logs to adjust the format in the future. Dev are looking for the log support to attach the traceid in the logs …to be able to utilize the telemetry data in a more efficient way.

- Logs collection is often a problem, with log standard would be easier to manager.

- Currently using fluentbit with loki fw. Expectation is that the collector will manage trace, metrics, logs…to easily transition tools by making one single change in the collector pipelines. Use filebeat to send logs to elasticsearch. Would like to use fluentbit -> collector-> observability solution.

-