

Introduction to OpenTelemetry in .NET

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Peter Nylander

- Software developer for more than 20 years
- Wrote my first C# application 2002
- Head of Development @ Qinshift Sweden
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OpenTelemetry

<https://opentelemetry.io/>



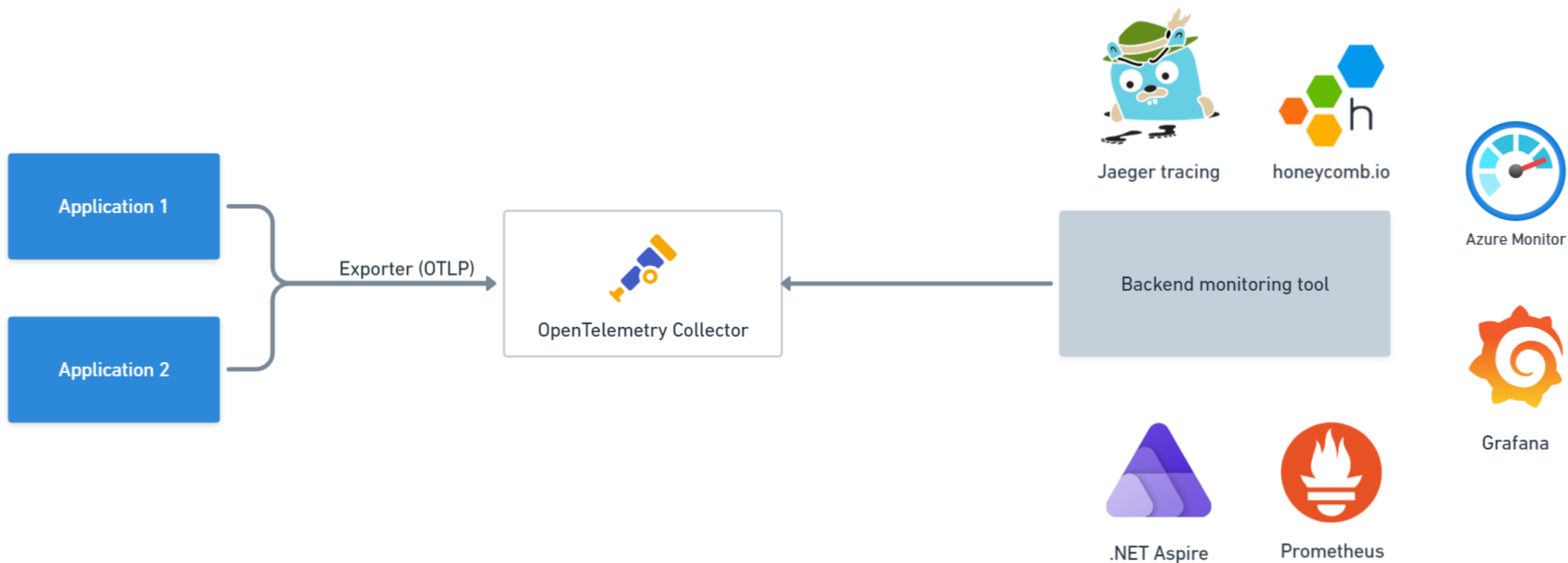
OpenTelemetry

- Is a CNCF incubation project
- Formed through a merger of the OpenTracing and OpenSensus projects
- Is vendor neutral open source Observability framework for instrumenting, generating, collecting and exporting telemetry data.

Observability?

- Observability lets us understand a system from the outside by letting us ask questions about that system without knowing it's inner workings

Typical monitoring solution



Three pillars of observability

- Logs
- Traces
- Metrics

Definitions

Log	A timestamped message
Span	Represents a single operation with a name and start and stop timestamps.
Activity	Is analogous to a Span.
Trace	A trace is made of one or more spans.
Root span	The first span in a trace. Represents the beginning and the end of an operation.
ActivitySource	Is used to create activities.
Metric	A measurement captured at runtime

What we will do?

- ASP.NET Core Web API
- Build and run it
- Configure OpenTelemetry
- Logging
- Traces
- Metrics

Questions? Discussion

- Have you used OpenTelemetry yet?
- What are you using?

Thank you!

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