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A Developer's Introduction to Splunk Observability Cloud

Diana Omuoyo, Sr Solutions Architect - Observability
DEVNET-2366

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Diana Omuoyo

Sr Solutions Architect – Observability
Sydney, Australia

Agenda

- Core Concepts
- What is Observability
- What is OpenTelemetry
- Splunk Observability
- Demo Q/A

What is Observability?

“Observability lets us understand a system from the outside, by letting us ask questions about that system without knowing its inner workings and use the resulting data to solve problems in complex systems.”

What is OpenTelemetry?

Let's ask Chat GPT!



You

I am brand new to the concepts of OpenTelemetry. Explain OpenTelemetry to me in as simple a manner as possible.



ChatGPT

Sure, think of OpenTelemetry as a set of tools and standards that help you understand what's happening inside your software applications. Imagine you have a big machine (your application) with lots of moving parts (like code, databases, and servers). OpenTelemetry is like a set of special sensors you can install on each part of your machine. These sensors help you see how everything is working together, where things might be going wrong, and how you can make your machine run smoother.

These sensors collect data about what's happening inside your machine and send it to a central place where you can analyze it. This data might include things like how long it takes for a piece of code to run, how often certain functions are called, or how much memory your machine is using. With this information, you can find and fix problems faster, make your machine run more efficiently, and generally keep everything running smoothly.

Let's ask Chat GPT!



You

Can you explain it to me like I am 5 years old?



ChatGPT

Sure! Imagine you have a big, magical toy castle with lots of hidden rooms and secret passages. OpenTelemetry is like a special map and a group of tiny fairies who fly around your castle and peek into every nook and cranny. They look for clues about what's happening inside the castle - like who's playing where, if something is broken, or if anyone needs help.

Then, they whisper all those secrets to you, so you can understand your castle better and make sure everything stays fun and safe. So, OpenTelemetry helps you be like a super-duper castle owner, always knowing what's going on and fixing any problems quickly!

OpenTelemetry™

The next BIG thing for observability is here!

OpenTelemetry is **second
biggest project** in CNCF portfolio

OpenTelemetry receives regular
contributions from **75+
companies**

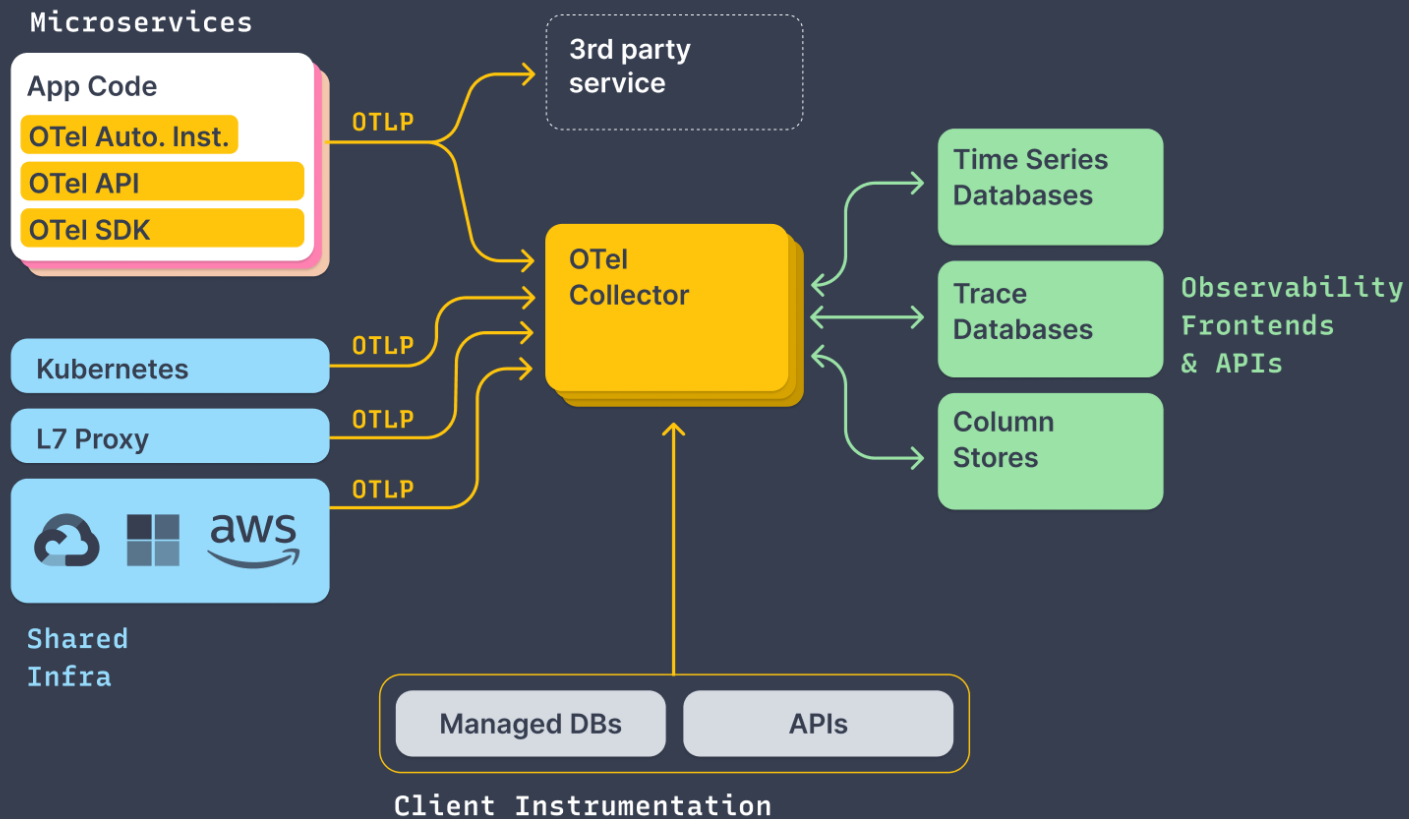
Observability with
OpenTelemetry make it possible
for developers and operators to
gain that visibility into their
complex systems.

OpenTelemetry is **3rd most
active project** in CNCF portfolio



OpenTelemetry

Open Standard - Community - Adoption - Neutral - Traces, Metrics, Logs ... +



Signal types supported by OpenTelemetry



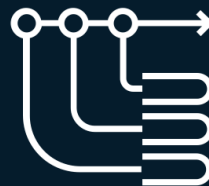
Metrics



Logs



Traces



Baggage



Profiling*

Monitor
(Detect)

Metrics
“What?”

Explore
(Troubleshoot)

Traces & Events
“Where?”

Discover
(Root Cause)

Logs
“Why?”

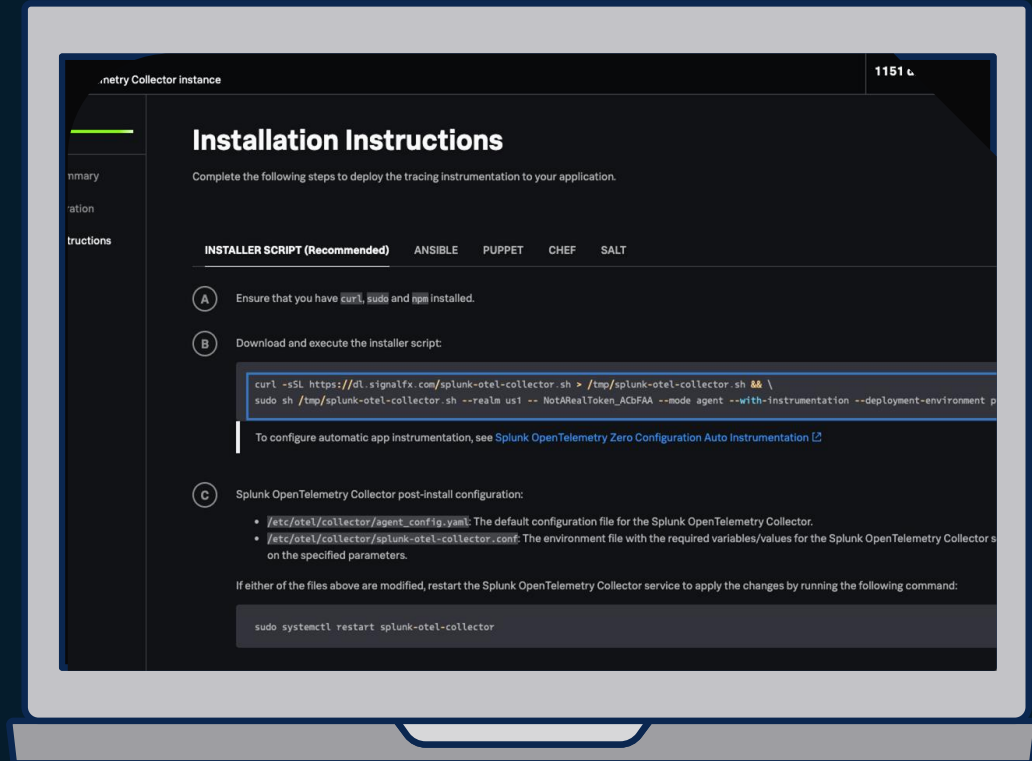
From Zero to O11y: Automatic Discovery & Config



Use the Wizards!

Provides steps for most popular frameworks

Option for enabling profiling and auto instrumentation



Install the Collector...

```
curl -sSL https://dl.signalfx.com/splunk-otel-collector.sh > /tmp/splunk-otel-collector.sh && \
```

```
sudo sh /tmp/splunk-otel-collector.sh --realm <realm> --mode agent --<token>
```

... Enable auto discovery and config...

```
curl -sSL https://dl.signalfx.com/splunk-otel-collector.sh > /tmp/splunk-otel-collector.sh && \
```

```
sudo sh /tmp/splunk-otel-collector.sh --realm <realm> --mode agent --  
discovery --with-instrumentation --deployment-environment prod -- <token>
```

And add config info as necessary to `/etc/otel/collector/config.d/properties.discovery.yaml`

...Enable Always On Profiling

```
curl -sSL https://dl.signalfx.com/splunk-otel-collector.sh > /tmp/splunk-otel-collector.sh && \
```

```
sudo sh /tmp/splunk-otel-collector.sh --realm <realm> --mode agent --  
discovery --with-instrumentation --enable-profiler --enable-profiler-memory --  
enable-metrics --deployment-environment prod -- <token>
```

Demo



Questions



Keynote Deep Dives

Wednesday
10:30am – 11:30am



Experiences Amplified:
How AI Can Fuel Better Employee and Customer Experiences

Level 1
Room 106



Smart, Secure, Seamless:
Transforming Experiences with Next-Generation Networking

Level 2
Room 204



Harness a Bold New Era:
Transform Data Centre and Service Provider Connectivity

Level 2
Room 203



Securing User to Application and Everything in Between

Level 2
Melbourne Room 2



Unlocking Digital Resilience through Unified Observability

The HUB
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Thank you



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