

How do fallen trees check for errors?





Developer Steve Coochin

Lumigo Senior Developer Advocate

Dev/Maker/Geek/Speaker/streamer/ruralite



Building and Deploying Apps for Many Years

```
C:\DOCUME~1\Tim\MYDOCU~1\qbasic\QBASIC.EXE
File Edit View Search Run Debug Options Help
WHATIS.BAS
PRINT " /-----\ "
PRINT "  @   @   @  "
PRINT " / \ / \ / \  "
PRINT " /-----\ "
DO
PLAY "T500 D# F# L1 G# L4 D# E D# L2 F# L1 D# L4 D# L2 F# L1 D# L4 D# L1 C#"
LOOP
-----
Immediate
```

When the client wants to combine options 1 and 2



For Scale, Build you Must



Python Versatility

- Installable game/app dev
- API's
- Data Science
- Web (Django, Flask)
- IOT

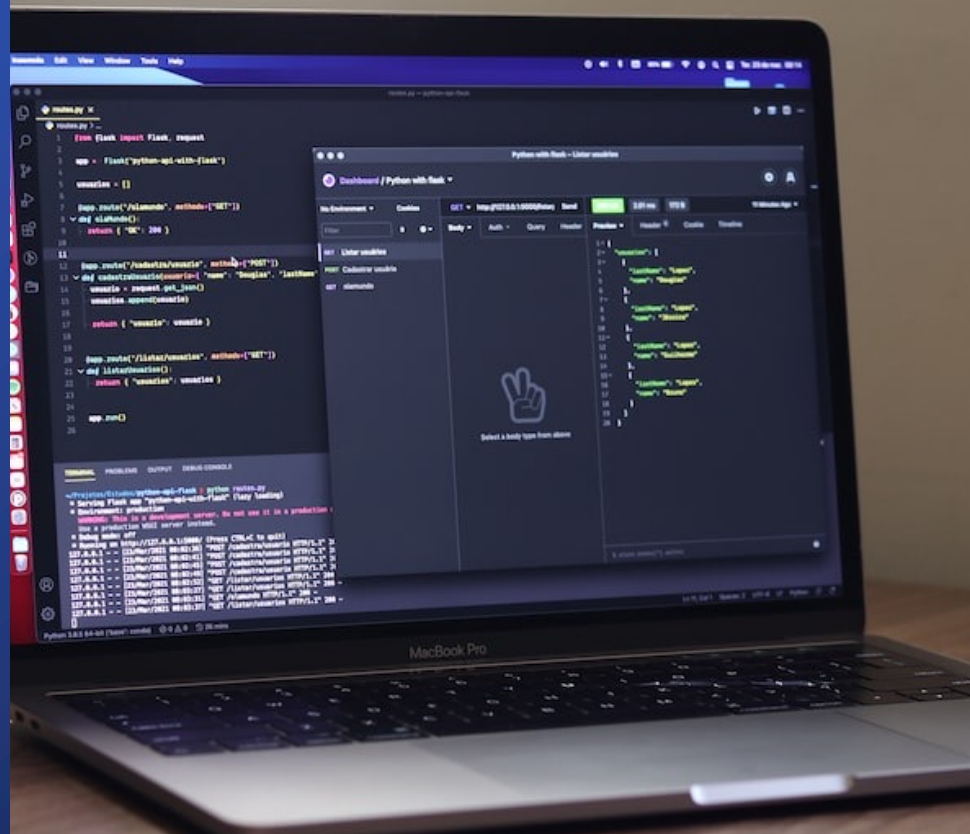


Schrodinger's Rules of Observability



Python local Debugging

- Core debugging
 - `print()`
 - `logging.warning()`
 - `Pdb`
- Library debugging IE
 - `pprint()`
- IDE (and plugins)
 - VSCode
 - Eclipse



Schrödinger's App

Schrödinger's App

"If a tree falls in the forest and no one hears it, then it is both standing and not standing."

Task Title

Add

Task #1 | What do you call 8 bits in Python?

Not Complete

Finished

Delete

A SNAKE BYTE

Schrödinger's App Routes



Flask

[get] todo

[post] todo

[update] todo

[delete] todo



Demo time



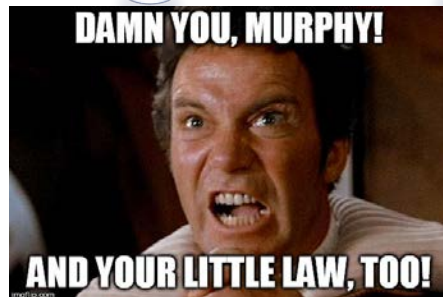
Cloud Deployed Debugging



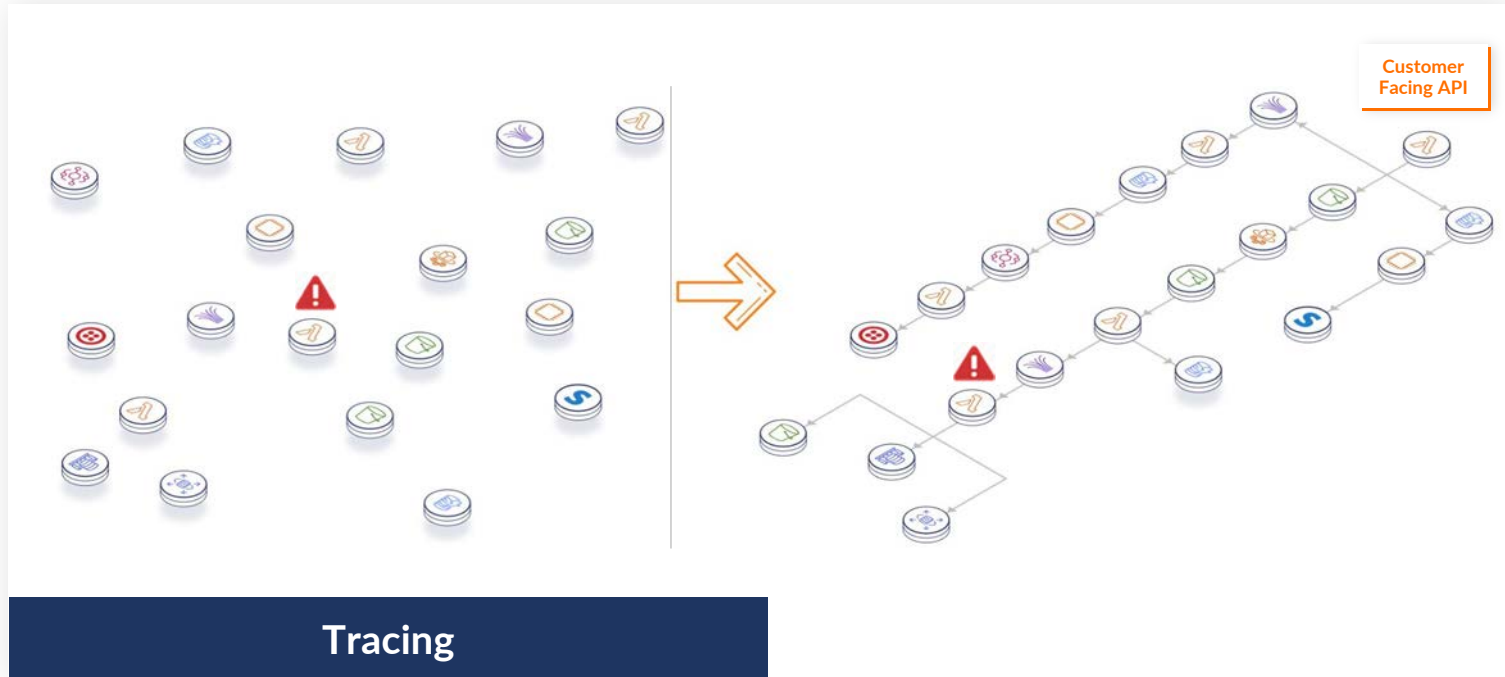
Cloud Native Applications are highly distributed with hundreds of ever-changing components



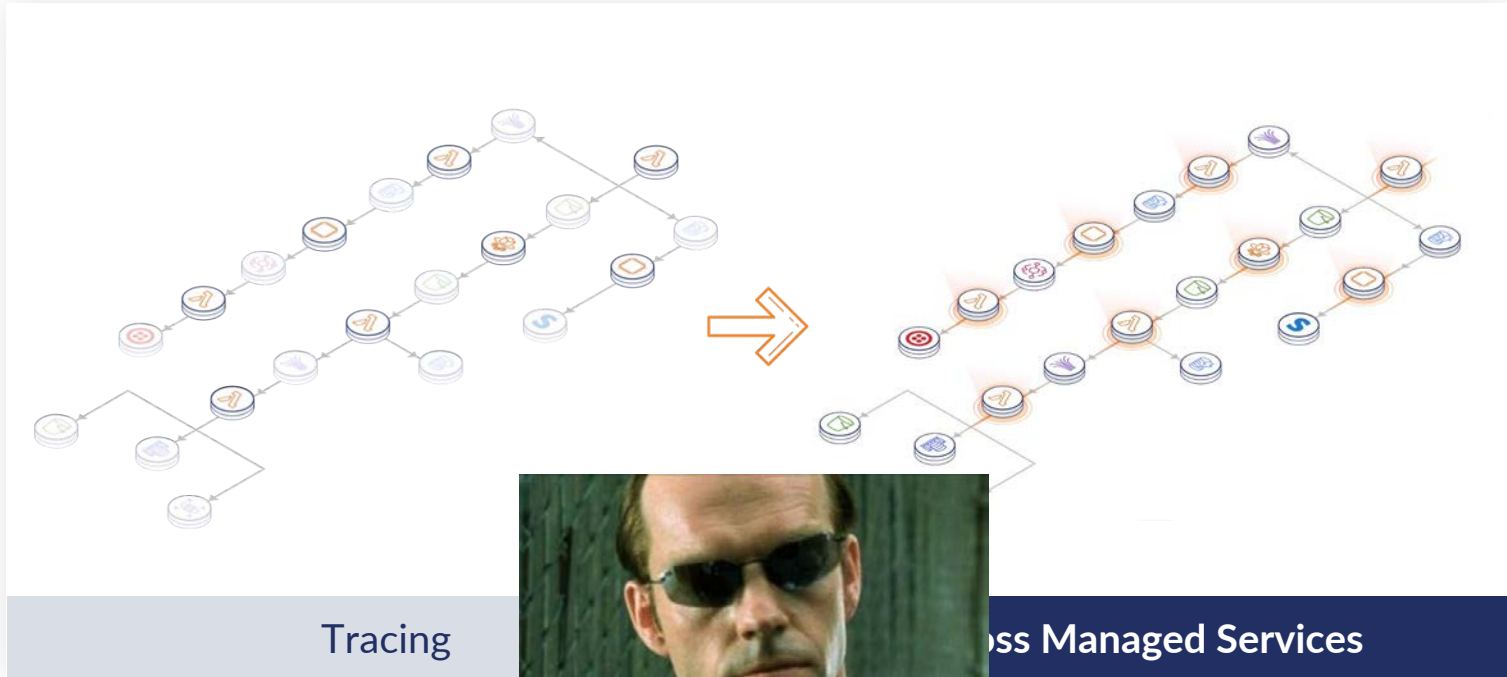
Hard to zoom-out and understand overall application health without understanding the context and connections between them



Distributed Tracing



Agentless Observability



Open Telemetry (OTEL)



High-quality, ubiquitous, and portable telemetry to enable effective observability

[Learn more](#)

[Mission, vision, and values](#)

Get started!

[Collector](#)

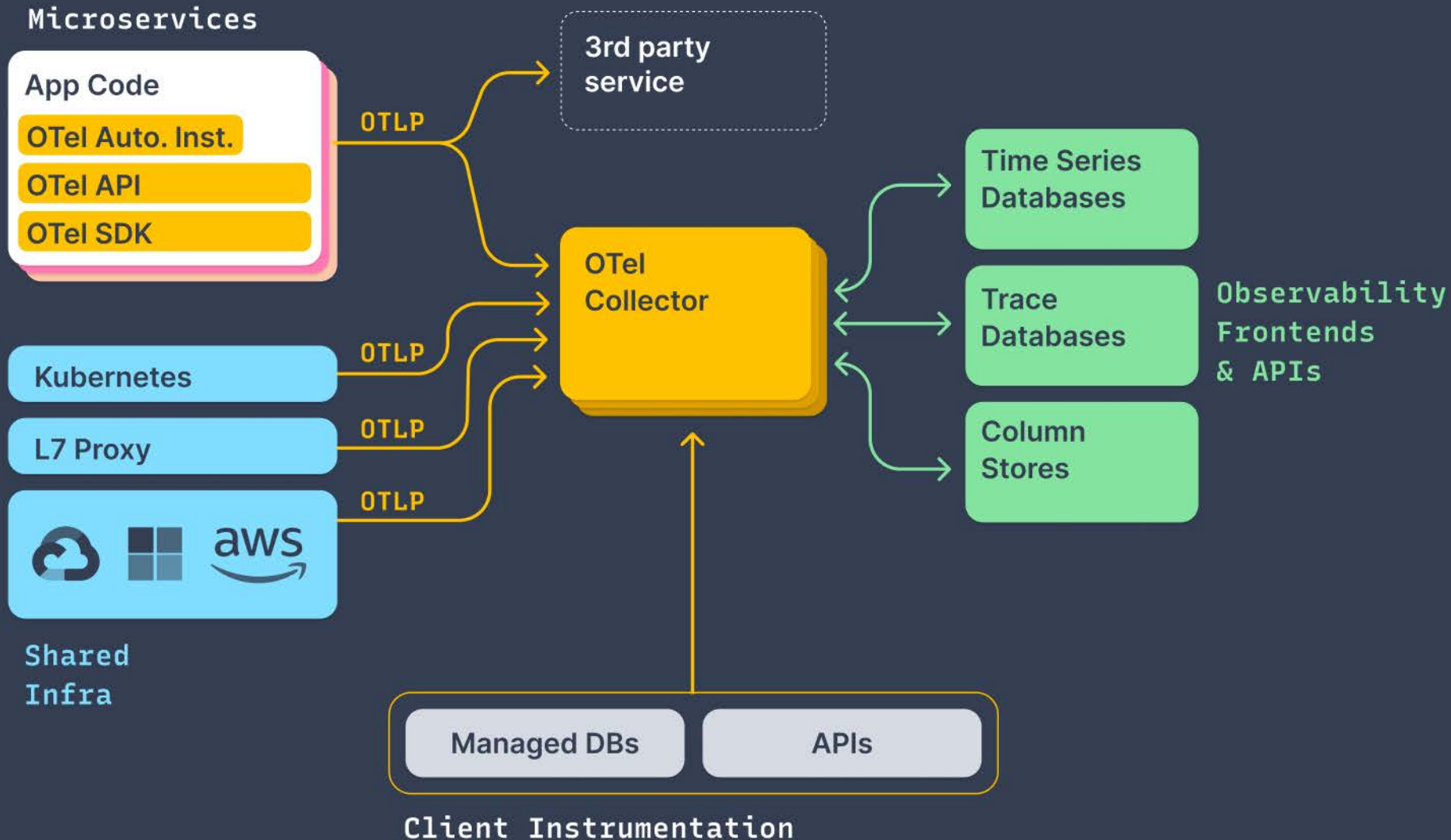
[Java](#)

[Go](#)

[.NET](#)

[JavaScript](#)

[...](#)



opentelemetry.io/docs/instrumentation

Docs

- ▶ Concepts
- ▼ Instrumentation
 - C++
 - ▶ .NET
 - ▶ Erlang/Elixir
 - ▶ Go
 - ▶ Java
 - ▶ JavaScript
 - ▶ PHP
 - ▶ Python
 - ▶ Ruby
 - Rust
 - Swift
- ▶ Collector
- ▶ Migration
- ▶ Reference
- Acknowledgements

C++



A language-specific implementation of OpenTelemetry in C++.

.NET



A language-specific implementation of OpenTelemetry in .NET.

Erlang/Elixir



A language-specific implementation of OpenTelemetry in Erlang/Elixir.

Go



A language-specific implementation of OpenTelemetry in Go.

Java



A language-specific implementation of OpenTelemetry in Java.

JavaScript



A language-specific implementation of OpenTelemetry in JavaScript (for Node.js & the browser).

PHP

A language-specific implementation of OpenTelemetry in PHP.

Python



A language-specific implementation of OpenTelemetry in Python.

Ruby



A language-specific implementation of OpenTelemetry in Ruby.

[View page source](#)

[Edit this page](#)


[Create documentation issue](#)



Lumigo Open Telemetry Tracer

- Python
github.com/lumigo-io/opentelemetry-python-distro
- NodeJS
github.com/lumigo-io/opentelemetry-js-distro



 PASSED  semantic-release

This is the source repository of [@lumigo/opentelemetry](#) intended for use with containerized applications.


The Lumigo OpenTelemetry Distribution for Node.js provides additional automated quality-assurance and continuous integration. You should need to update exactly zero lines of code to use the Lumigo OpenTelemetry Distribution. (See the [No-code](#) section for more details.)

Note: If you are looking for the Lumigo Node.js Tracer, you should use [@lumigo/tracer](#) instead.

Setup

Add [@lumigo/opentelemetry](#) as a dependency using your preferred package manager:

Add [@lumigo/opentelemetry](#) as a dependency using your preferred package manager:

on 

es no-code distributed tracing for

eam OpenTelemetry packages, with
r no-code injection, meaning that you
to make use of the Lumigo
uto-instrumentation instructions)

ions, `lumigo-tracer` is the package

three-step process:



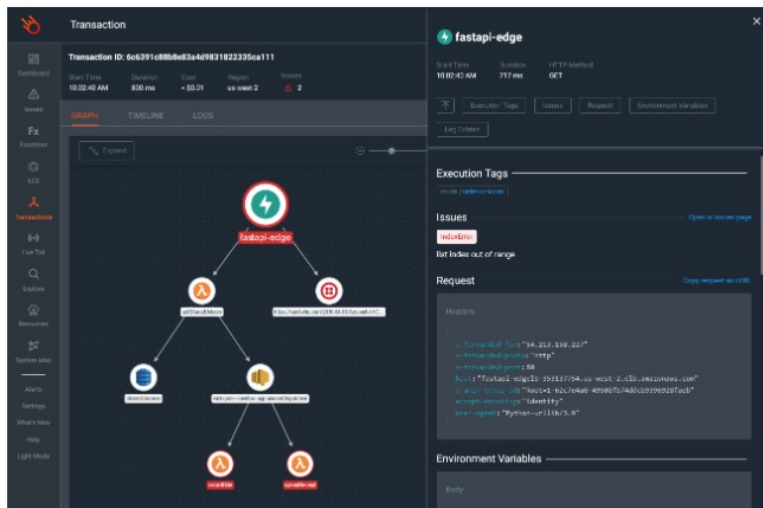
Install and configure the Lumigo tracers

- Install tracers
- Reference in the code
- Configure env vars
 - OTEL_SERVICE_NAME
 - LUMIGO_TRACER_TOKEN

Containerized applications

Documentation to get you started monitoring containerized applications with Lumigo and OpenTelemetry.

Containers are integrated in transactions alongside Lambda functions, DynamoDB, SQS, third-party services and everything else Lumigo supports.



A transaction shown in Lumigo that spans an ECS task running a FastAPI application, several Lambda functions, DynamoDB, SNS and Twilio

 You can try it today, for free!

This screenshot is taken from [Lumigo's Sandbox](#), feel free to go try it for yourself!

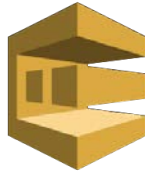
Deploying Schrödinger's App



Flask



AWS ECS



Amazon
SQS



Demo time v2.0



Just one more thing... Execution Tags

Issues & Alerts (5)		Alerts Configuration				
<input type="checkbox"/>	Issue	Occurrences	Last Occurrence ↑	Assignee	Muted	
<input type="checkbox"/>	Programmatic Error wild-rydes-app-purchaseNewUnicorn us-west-2	8	11 minutes ago	—		
<input type="checkbox"/>	Timed out wild-rydes-app-purchaseNewUnicorn us-west-2 Task timed out after 6.01 seconds	3	5 minutes ago	—		
<input type="checkbox"/>	TypeError wild-rydes-app-postToSocial us-west-2 details.rideID cannot be an empty string	8	3 minutes ago	—		
<input type="checkbox"/>	400 Client error response wild-rydes-app-sumRides us-west-2 {'Error': 'Cannot read property 'M' of undefined'}	17	2 minutes ago	—		
<input type="checkbox"/>	TypeError wild-rydes-app-uploadReceipt us-west-2 Cannot read property 'Name' of undefined	33	2 minutes ago	—		

docs.lumigo.io/docs/execution-tags

Take Aways

- Always Build for Scale
- Rinse, Repeat and Refine
- Monitor and Trace Everything
 - APIs
 - SDKs
 - Especially Deployed Apps



Take it for a spin

github.com/developersteve/Schrodingers-Python-App

main ▾

1 branch

0 tags

Go to file

Add file ▾

<> Code ▾

DeveloperSteve Coochin and DeveloperSteve Coochin added Lumigo token env vars in... 8221df1 on Oct 17 8 commits

db	added httpstat command	last month
images	added screenshot	2 months ago
templates	initial	2 months ago
Dockerfile	initial	2 months ago
LICENSE	initial	2 months ago
README.md	added Lumigo token env vars in readme	last month
app.py	added httpstat command	last month
requirements.txt	initial	2 months ago



USE YOUR
TECH SUPER
POWERS
FOR GOOD



"Be excellent to each other"



Thank You