A Language-Based Serverless Function Accelerator

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Outline

Serverless Computing

Containerless

JavaScript to Rust Putting It All Together

Containerless

JavaScript to Rust Putting It All Together

What is serverless computing?



What is serverless computing?

- ▶ Diagram of programmer sending code to AWS, etc.
- ► Events sent to AWS, etc.

What is a serverless function?

Serverless functions are typically:

- 1. Short-lived
- 2. Idempotent

- ► Login example
- ► Cite the shared paper

Container-Based Isolation

- 1. Docker
- 2. etc

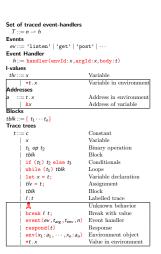
- Plot of using JS natively versus using it within a Container
- Cite the Shared paper

Containerless
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Putting It All Together

The Language of Trace Trees

Key features:

- 1. Functions
- 2. Unknown behavior (2)
- events, responds, and handlers



The Trace Compiler

Key features:

1. Something

figure of trace compiler.Not to be read

The Trace Runtime System

Key features:

1. Something

figure of trace runtime system. Not to be read

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"in-action" diagram from previous talk

Containerless

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Latency

► Latency plots

Utilization

► Utilization plots

Questions?

► Compilation of plots or something