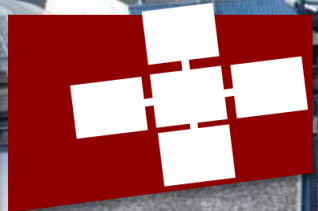


**Marcin Copik**, Alexandru Calotoiu, Michał Podstawski, Laurin Brandner, Larissa Schmid, Nico Graf, Grzegorz Kwaśniewski, Paweł Żuk, Sascha Kehrlı, Torsten Hoefler, and many others

# **Benchmarking Serverless with SeBS: Past, Present, and Future**



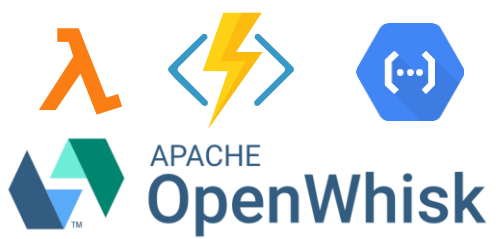


# SeBS: The Serverless Benchmark Suite

 [spcl/serverless-benchmarks](https://github.com/spcl/serverless-benchmarks)

# SeBS: The Serverless Benchmark Suite

Cloud-Agnostic



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# SeBS: The Serverless Benchmark Suite

## Cloud-Agnostic



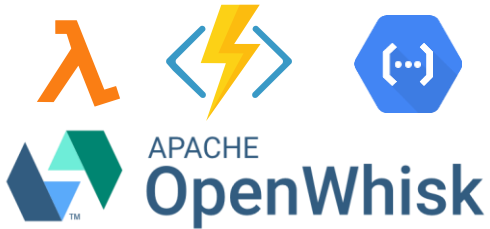
## Representative Benchmarks



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Cloud-Agnostic



Representative  
Benchmarks



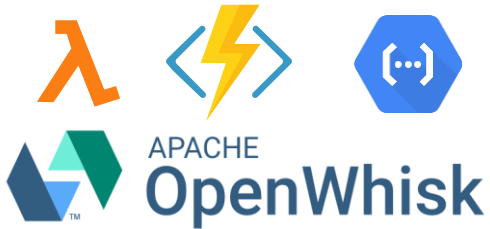
Reproducible  
Experiments

Performance & Cost  
Invocation Overhead  
Container Eviction

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# SeBS: The Serverless Benchmark Suite

Cloud-Agnostic



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Benchmarks




Reproducible  
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Performance & Cost  
Invocation Overhead  
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Adoption & Community

  
122 citations

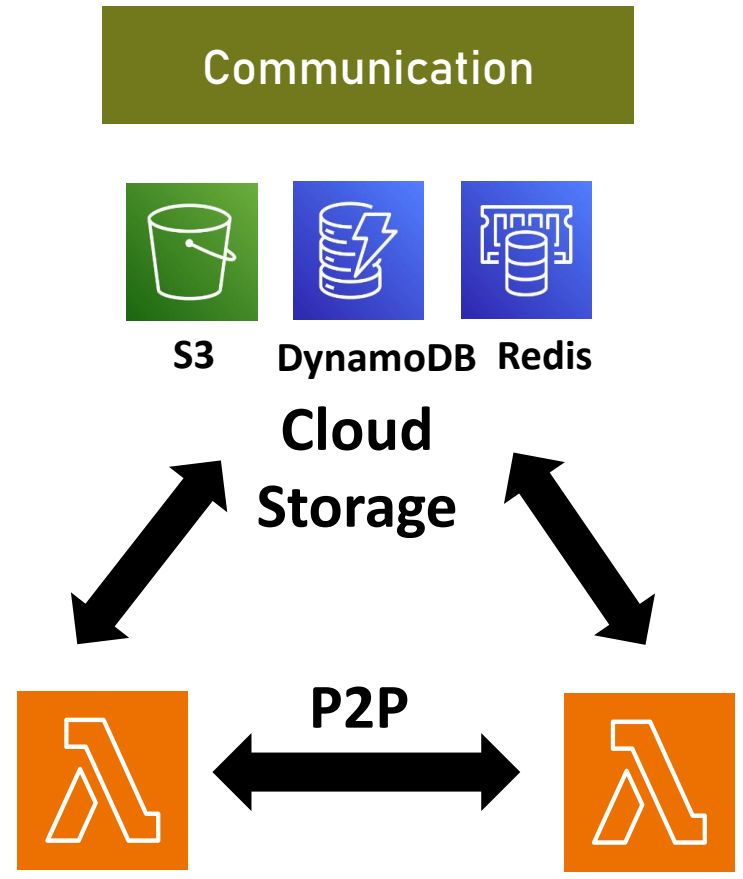
 122 stars  
61 forks  
16 contributors

  
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Summer of Code

 [spcl/serverless-benchmarks](https://github.com/spcl/serverless-benchmarks)

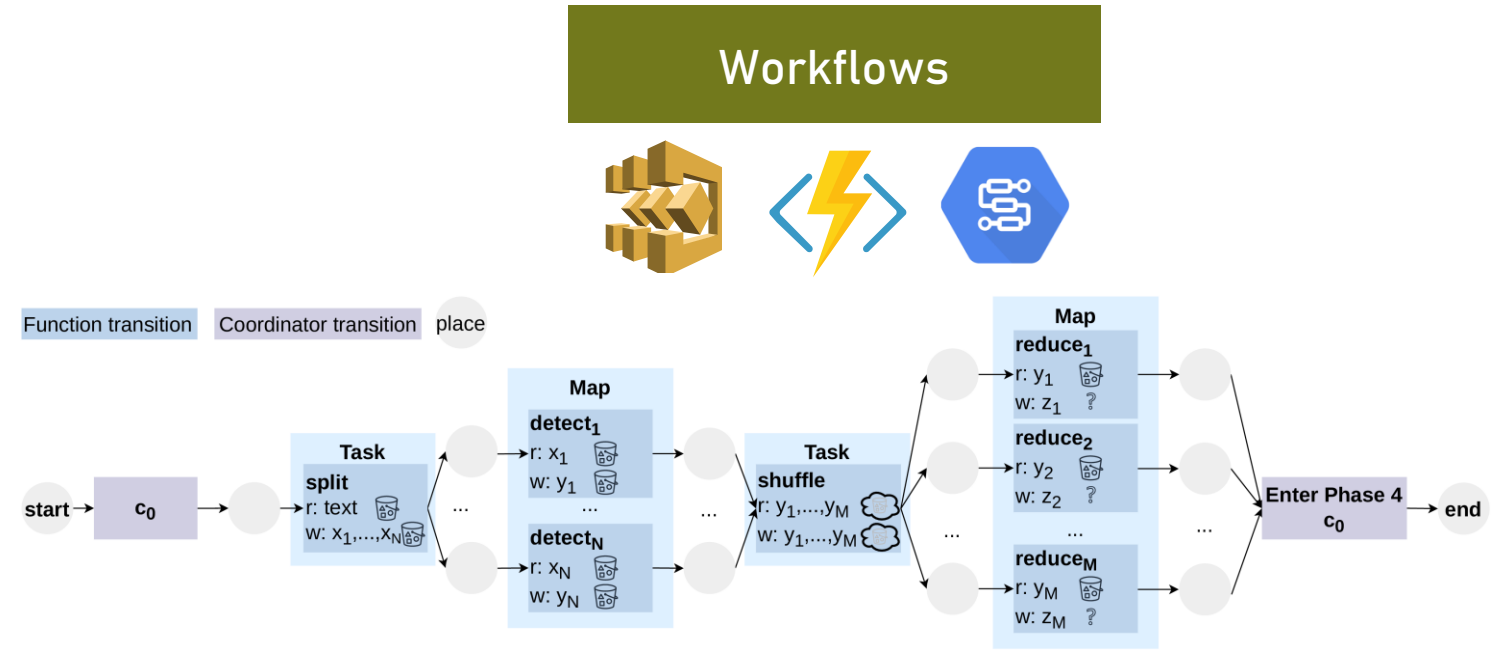
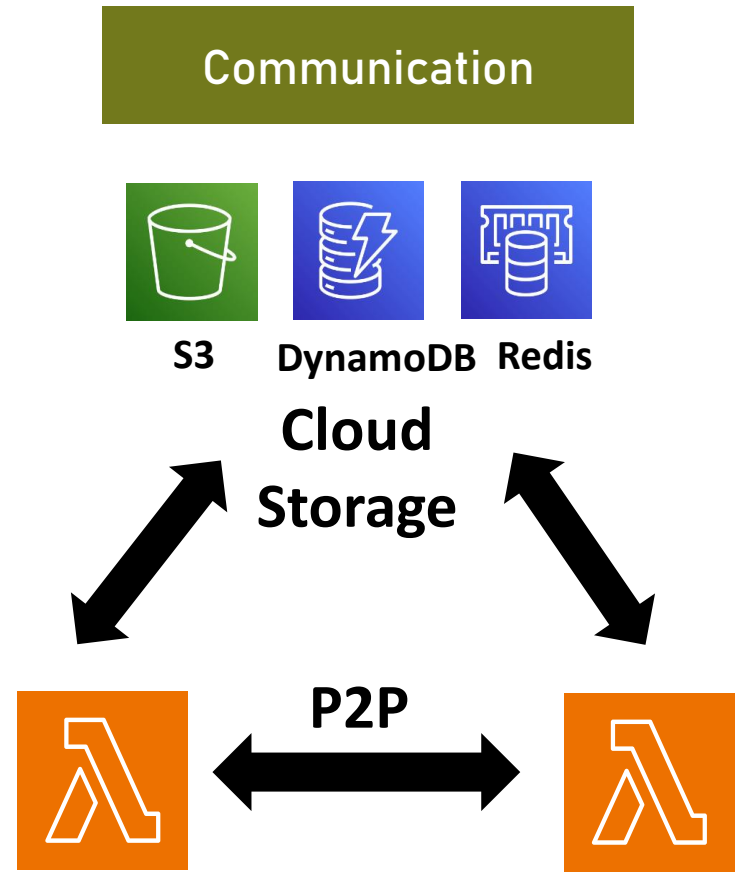
# Serverless has been changing – and so did we!

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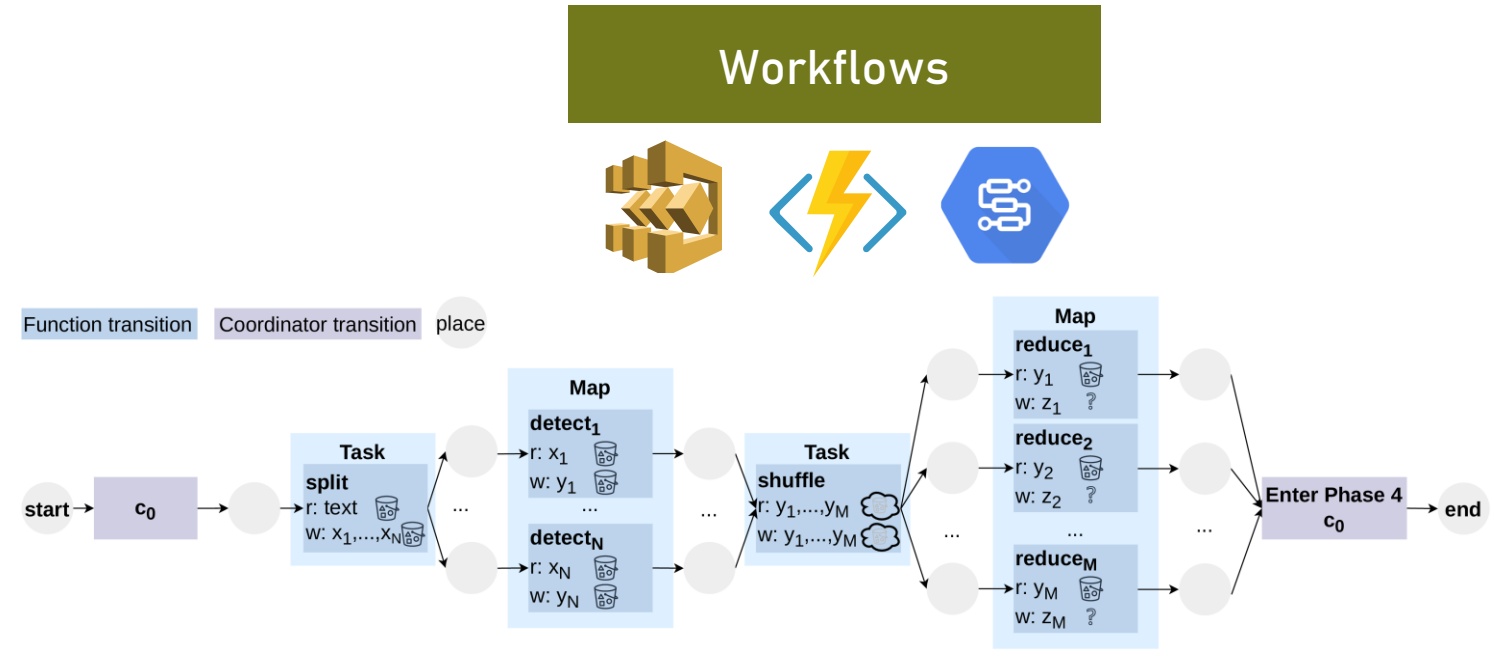
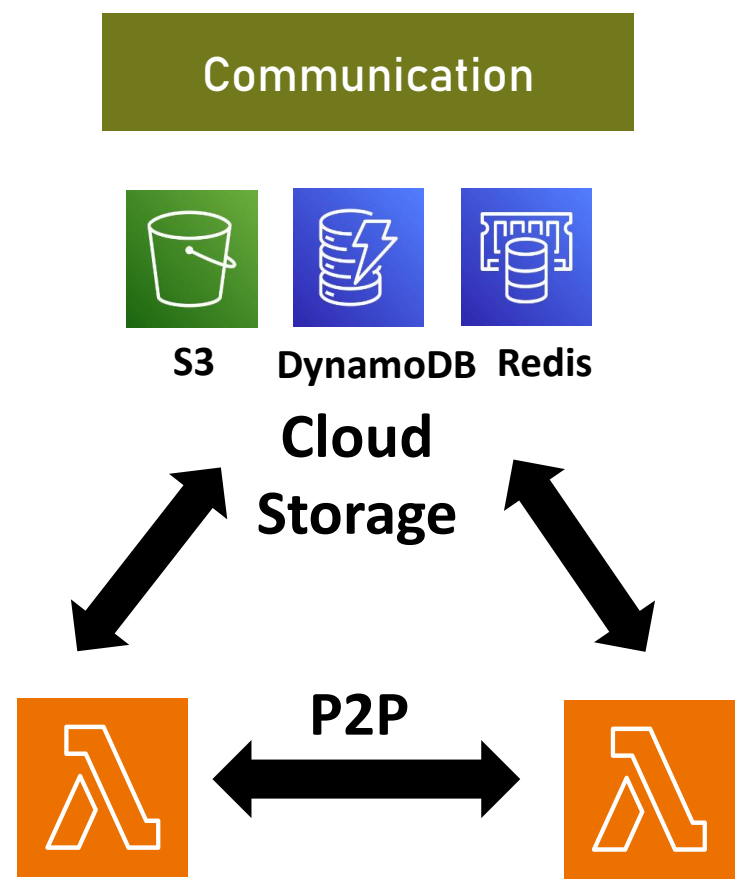




# Serverless has been changing – and so did we!



# Serverless has been changing – and so did we!



## Profiling Multi-function Applications

```

import faas_profiler_python as fp

@fp.profile()
def serverless_handler(*args, **kwargs):
    pass
  
```

# Serverless is changing – and so are we!

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New Benchmarks

New Serverless Applications

Storage & Queue Triggers

Large Applications

# Serverless is changing – and so are we!

New Benchmarks

New Serverless Applications

Storage & Queue Triggers

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New Platforms





# Serverless is changing – and so are we!

## New Benchmarks

New Serverless Applications

Storage & Queue Triggers

Large Applications

## Heterogeneous Serverless

AI/ML is Difficult Without GPUs

Trade-offs of GPU Sharing

## New Platforms



fission



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## New Benchmarks

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## Long-Term Stability

How Does Serverless Performance Change Over Time?


What Causes High Tail Latency and Outliers?

# What Comes Next for Serverless?

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**SeBS  
Paper**



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## Serverless Needs Open Standard for Benchmarking!

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