

SNAP Lambda 12-2-24

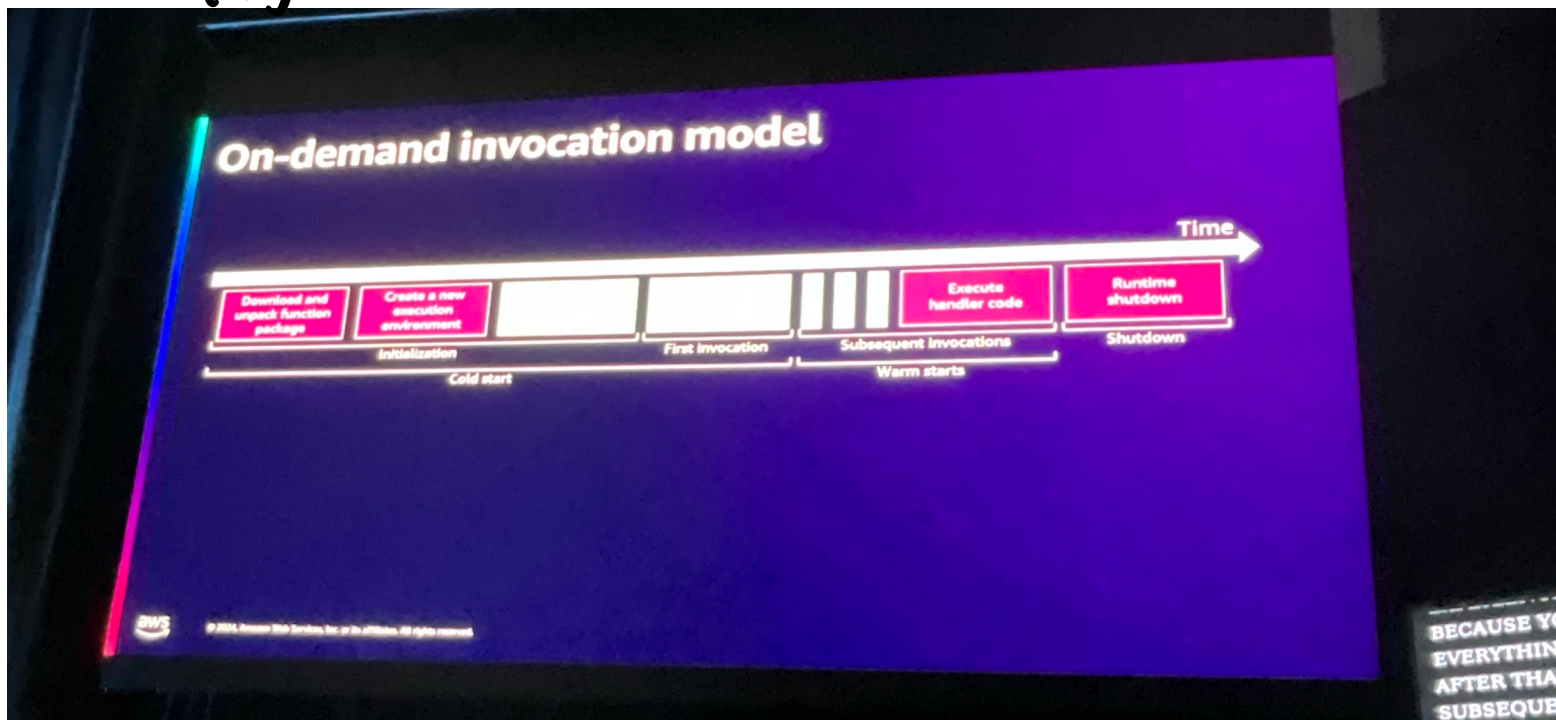
Start

Initialization time is a issue
Can be

Data on
net CIR

Python - Interpreted

any Lambda execution created user destroy

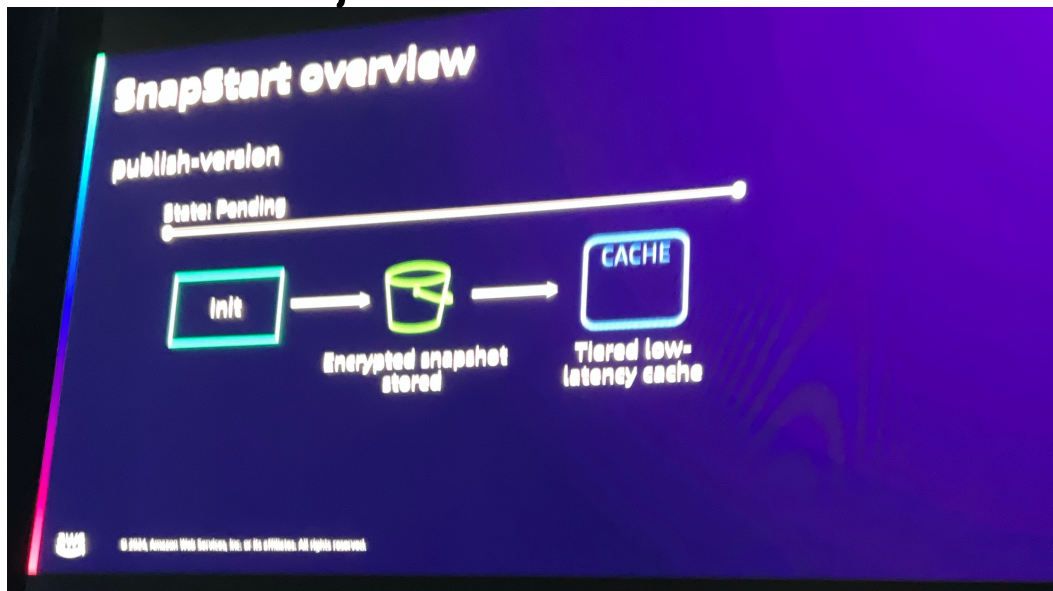


Snapshot

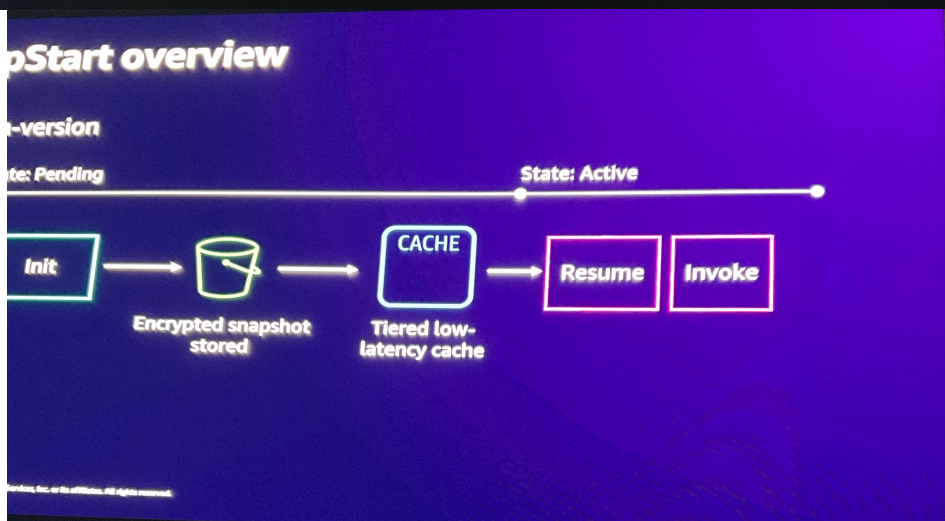
Py 3.1 L and later

Net 8+ Java 11+

Py typically faster - Some frameworks
faster, ~~Flask Django~~, Namby Py
546 second Interfirst
Python is faster at starting, Math the
other two

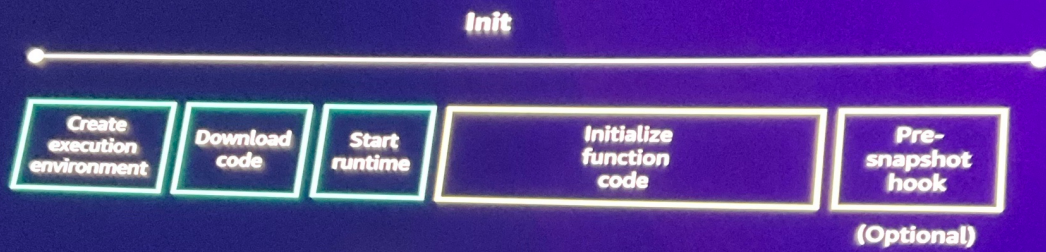


Cap the
of memory
chunks
to get
load times



Resume
Invoke
/ /

Invocation model



Firecracker

microVM snapshot technology

AWS

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Resume Post ! Launch
Hook (Virtio)

Lang Chain Library 0.5 sec
VS 3.5 sec

Data analysis

```
import duckdb
import pandas as pd
from fastapi import FastAPI, Request
from mangum import Mangum

app = FastAPI(title="AppWithDuckDB")

conn = duckdb.connect('your_database.db')

@app.api_route("/{path_name:path}", methods=["POST"])
async def catch_all(request: Request, path_name: str):
    return {"request_method": request.method, "path_name": path_name}

lambda_handler = Mangum(app)
```

duck db is no SQL
SnapStart 1 second

8500 to Start

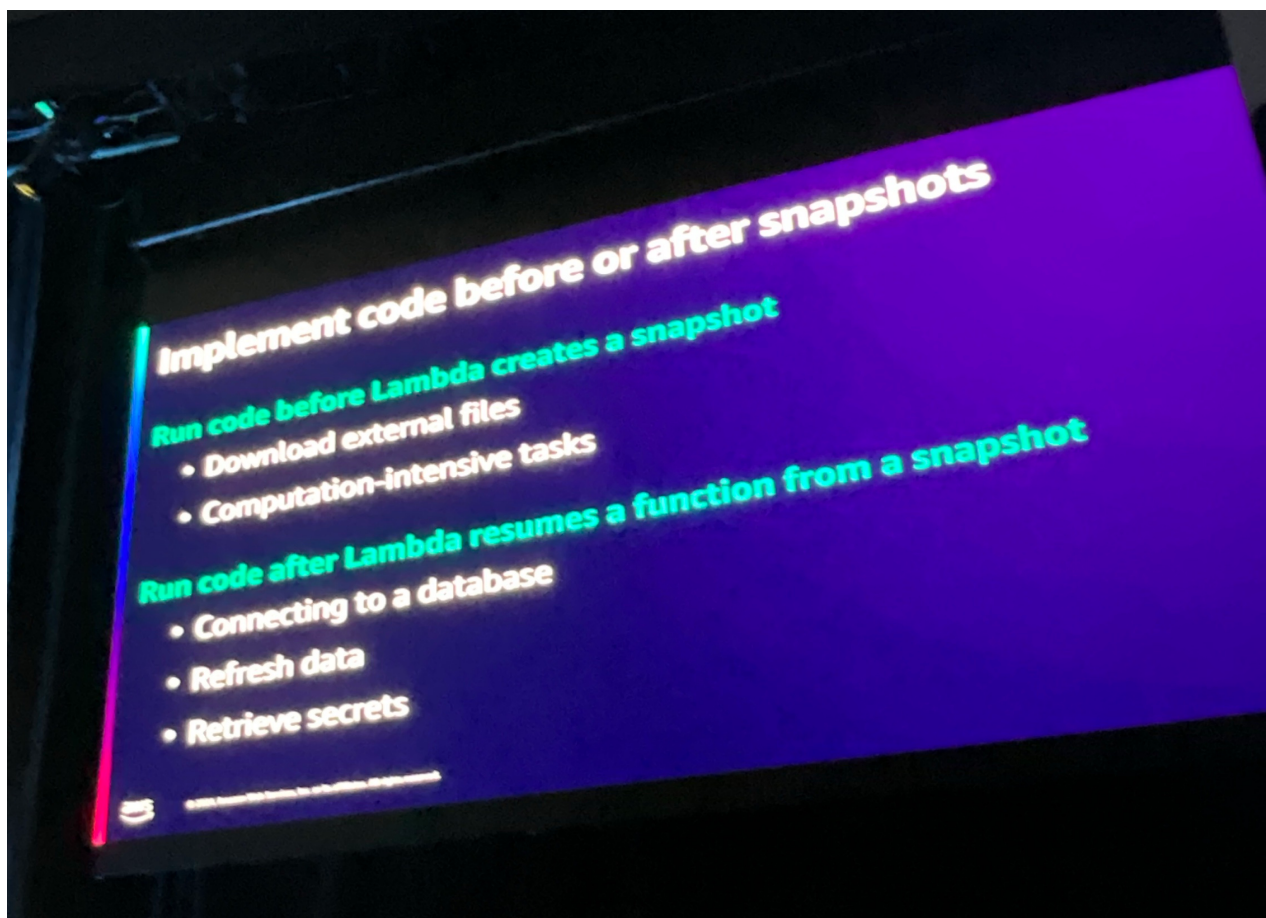
On 11 published versions
of Lambda functions

Configuring SnapStart – AWS CDK

```
from aws_cdk import (
    Stack,
    aws_lambda,
)
from constructs import Construct

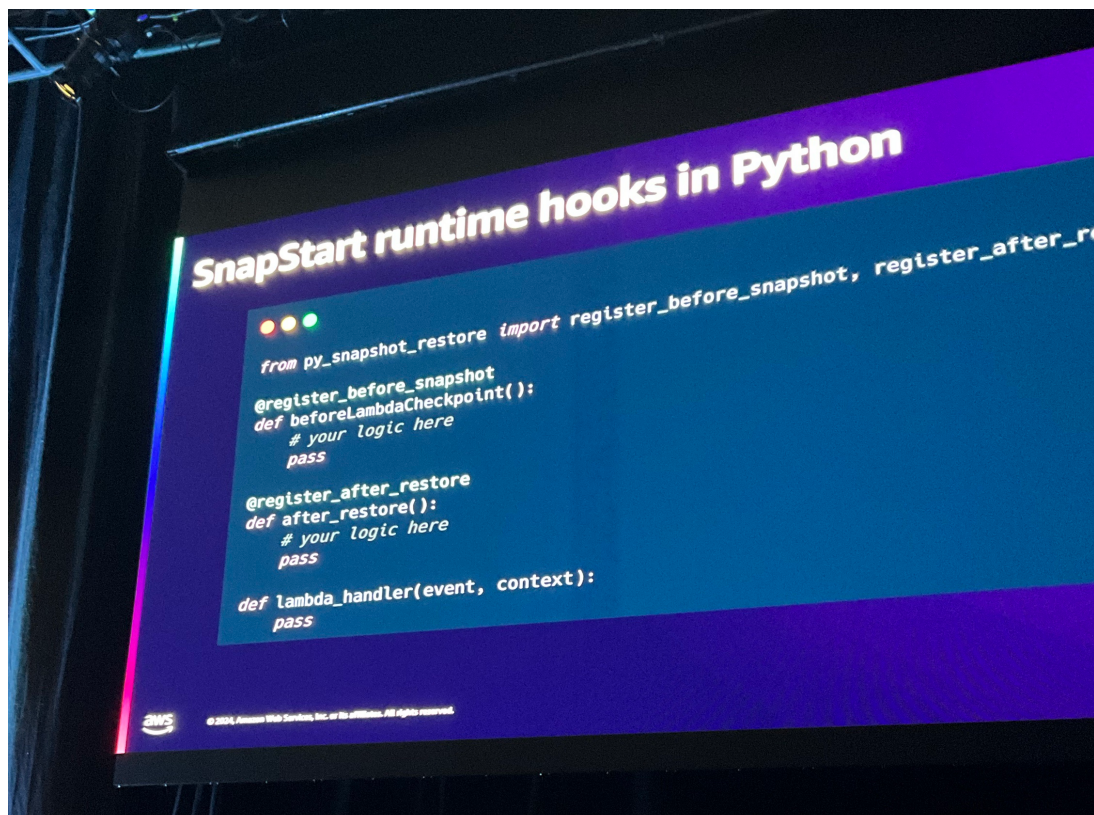
class SnapStartStack(Stack):
    def __init__(self, scope: Construct, construct_id: str, **kwargs) -> None:
        super().__init__(scope, construct_id, **kwargs)

        aws_lambda.Function(self, id="SnapStartFunction",
                             code=aws_lambda.Code.from_asset(path="src/"),
                             handler="MY_HANDLER",
                             runtime=aws_lambda.Runtime.PYTHON_3_12,
                             snap_start=aws_lambda.SnapStartConf.ON_PUBLISHED_VERSIONS)
```



all registered hooks are properly registered

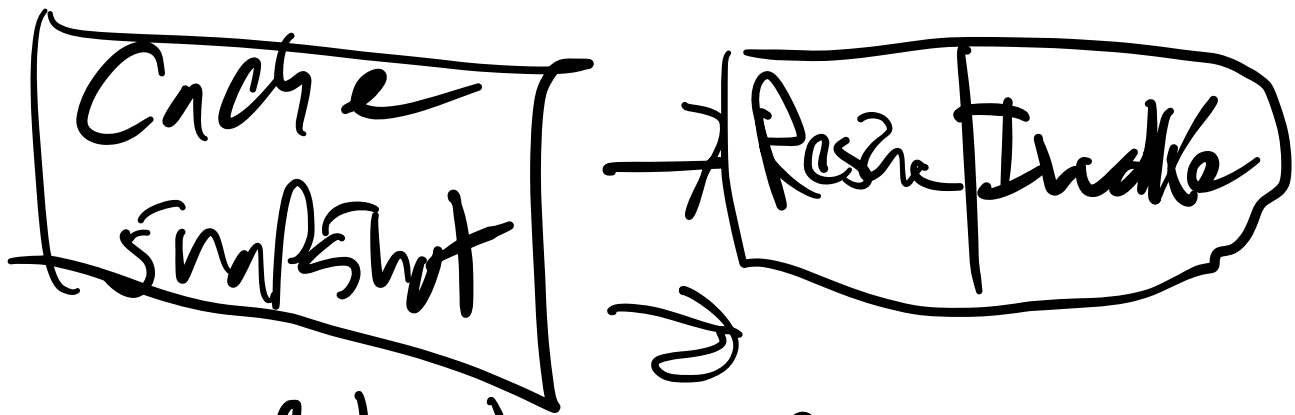
<https://github.com/aws/snapshot-restore-py>



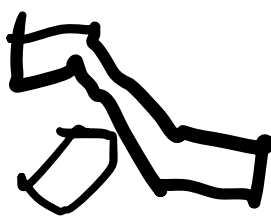
.net ↓

<https://www.nuget.org/packages/Amazon.Lambda.Core>

Considerations:



Need to be careful with unique code so it don't get captured in snapshot

 Latest cr/lib?

be mindful of DNS calling
good for sudden traffic spikes

Keep an eye on Your Referrer X-Ray

Best Practices

Cartel

with
Network
CNS

Extensive
data

Creds

from
Santitas

~~\$~~ DB comms!

Pricing

~~\$~~ 3.9 per
GB

~~\$~~ 1.4 per GB
restored
10K Restores