
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

DAT315-R

# Cost optimization for Amazon DynamoDB

Sean Shriver

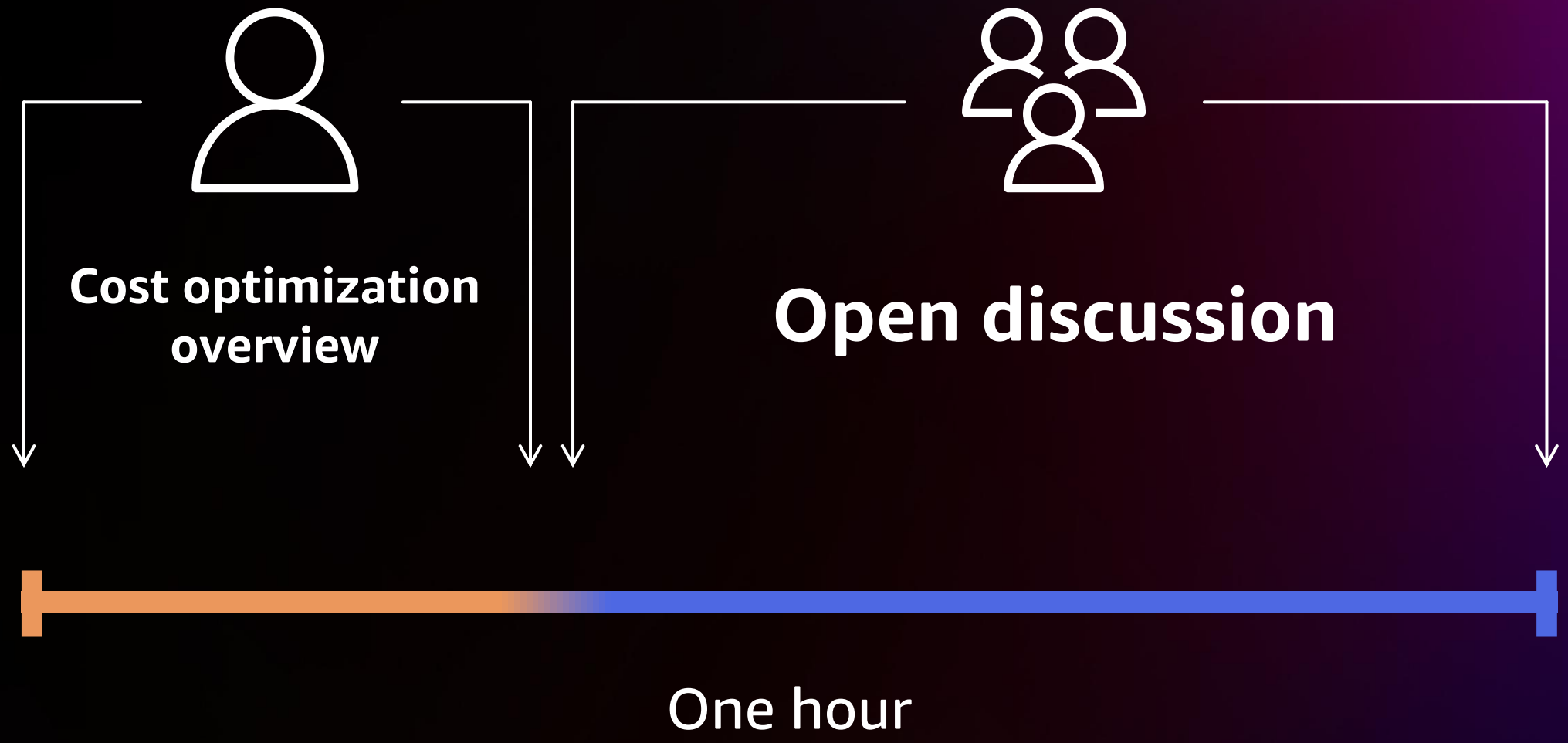
DynamoDB Solutions Architect
AWS

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Principal Database Specialist
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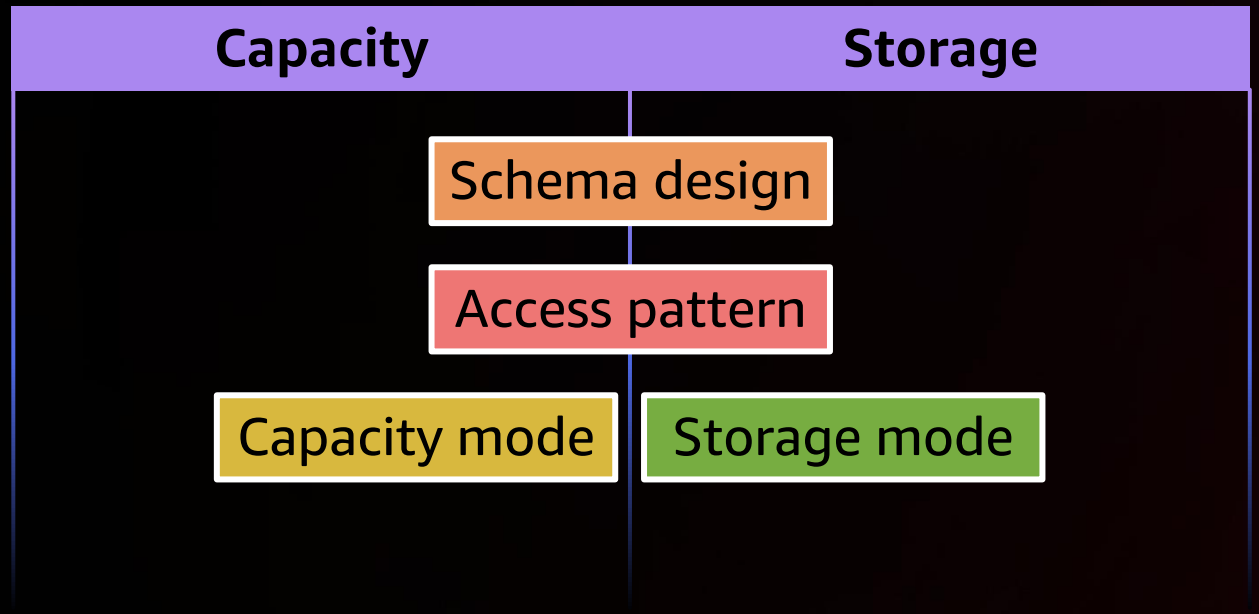
# Agenda




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# Cost optimization at a glance

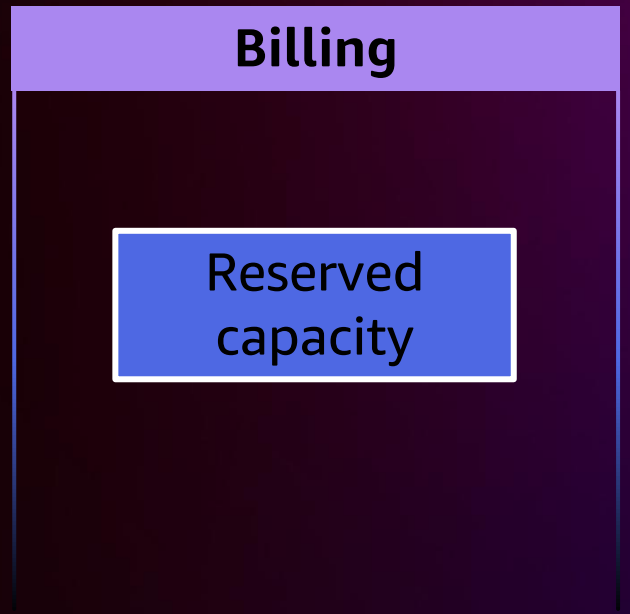
## Usage optimizations




For example:
`WriteCapacityUnit-Hrs`
`ReadRequestUnits`

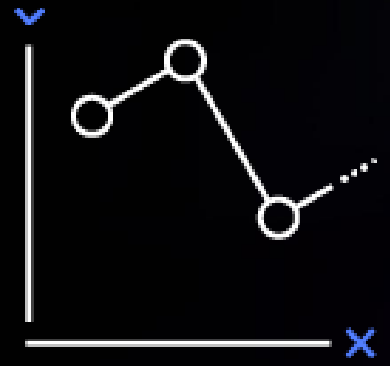
For example:
`TimedStorage-ByteHrs`

## Post-usage optimizations




aws
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# Inputs to your Amazon DynamoDB bill



Capacity



Storage



Data transfer

Not mentioned: Backup and restore, change streams, or import/export

aws

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# Schema design

bytes → fewer bytes

```
fullName  => fn
   email  => e
  userId  => uid
```

Shrink item attribute names



Compress item attributes

ProjectionType:

ALL

INCLUDE

KEYS_ONLY

item size (bytes)

Selectively project item attributes

Storage

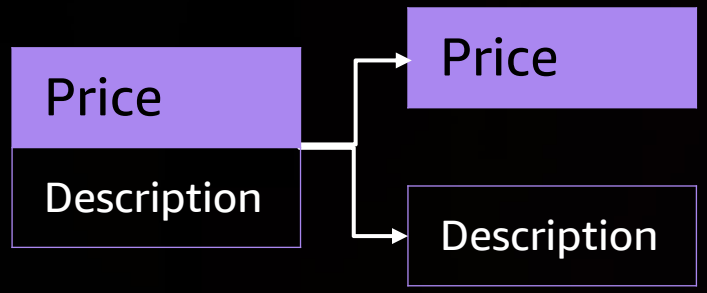
Capacity

aws

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# Access pattern

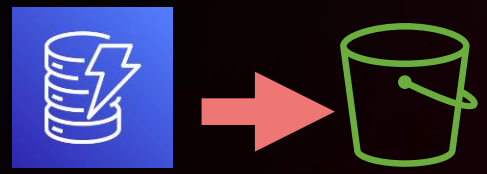
4 WCU → 1 WCU




Break out data that changes infrequently

## Export to Amazon S3

or consider a scan

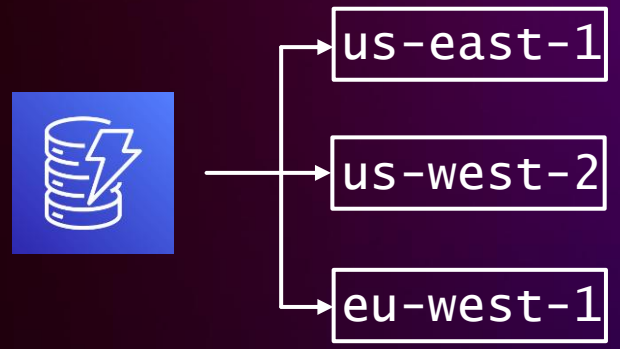


Amazon DynamoDB

Bucket

Don’t make an index for infrequent queries

## Amazon global tables?




Use DynamoDB Time To Live carefully

Storage

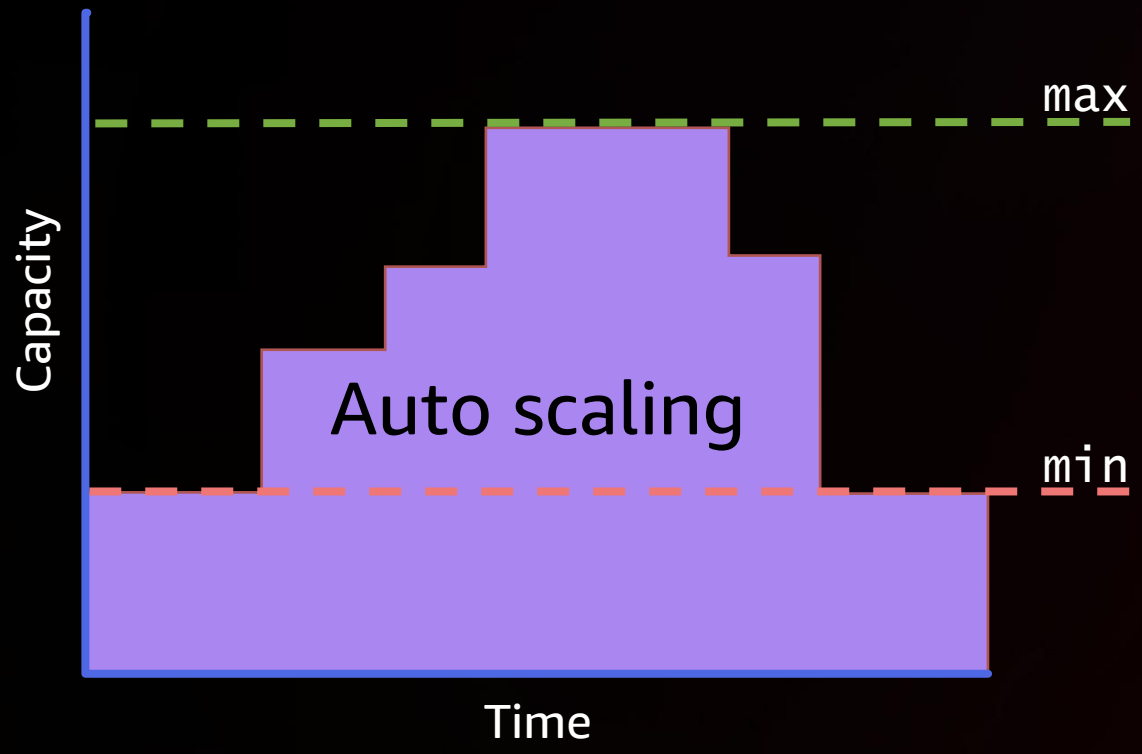
Capacity

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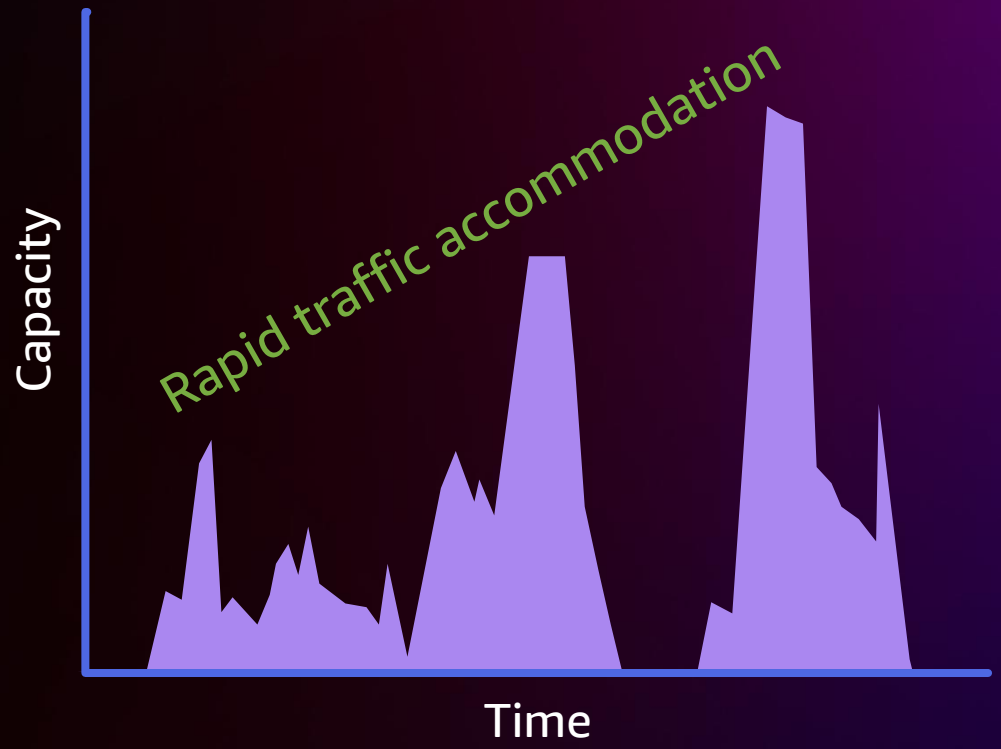
# Capacity mode

## Provisioned




**Pay for every hour, whether you use it or not**

## On-demand




**Pay-per-request**

Capacity

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# “When storage is more than 42% of throughput costs, consider Standard-IA.”

**Sean (the presenter)**

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Storage

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# DynamoDB reserved capacity

- ✓ One or three-year term
- ✓ Lowers the cost per provisioned capacity unit
- ✓ A billing concept only, only found on bill



New: Reserved capacity recommendation tool

**Not compatible with global table replicated write capacity units or the Standard-IA table class**

Billing

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# Open discussion

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# Thank you!

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