LESS = MORE

The next generation of Java applications

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www.cloudtran.com

cloudslave.blogspot.com

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Introduction

- MF
- NT/e
- CloudTran
- The architect's equation (pto)

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Less = More

- Less (Risk x Time To Market x

  Capex x Opex)

  ==

  More (Items x Data/Item x Processing x
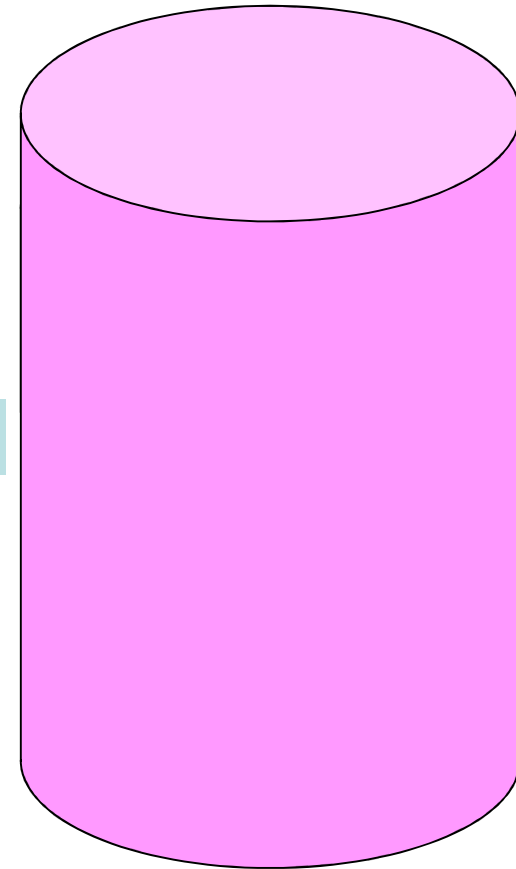
  Reliability x Responsiveness x

  Elasticity)

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Mechanics versus electronics

10 second delay

Controller → disk surface

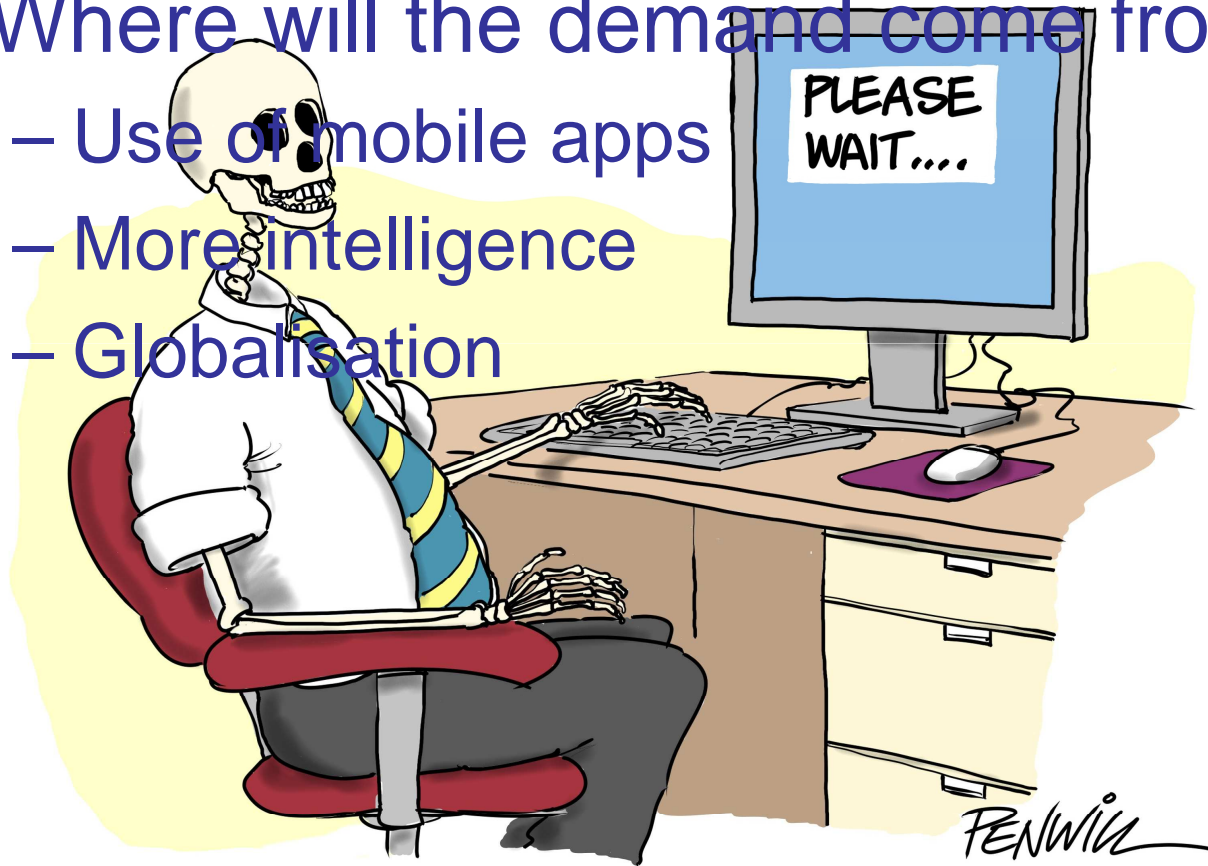# Mainstream In-Memory Data Grids

Responsiveness

- Where will the demand come from?
  - Use of mobile apps
  - More intelligence
  - Globalisation

PLEASE WAIT.....

PENWILL

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The Transportation Business

Currently we mostly shovel data around...

we should be in the information business

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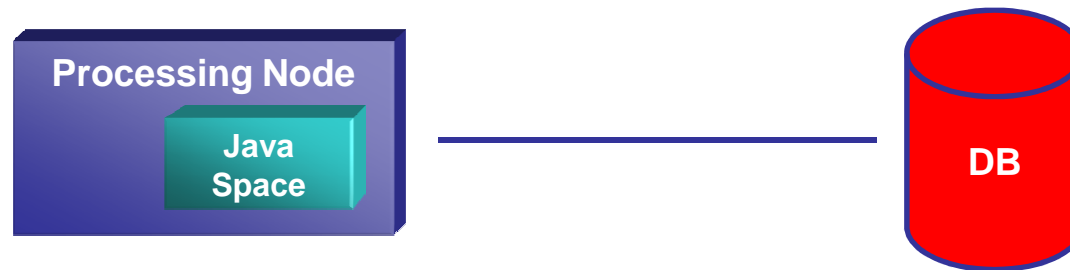# Electronics Real Estate Business

Colocation

Colocation

Colocation

DB versus in-memory accesses

Processing Node

Java Space

DB

- Read 1 Customer, 9 Orders
- All cached- no disk IO

| µs	*In-Memory*		*LAN-DB*
CPU	6	79x Throughput	474
Elapsed	8	185x Reponse time	1480

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Does 80x or 180x matter?

- Not when architecture is static
- Not if I can buy from a big company
- Not when there's enough oil

- Wanna buy my used Accord for $1.8m?

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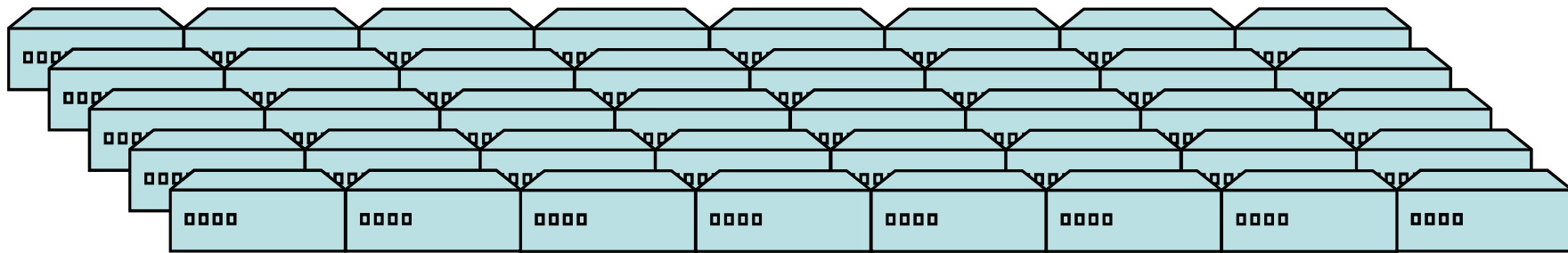
Entity Groups

- How much in-memory - depends on app

- Entity Groups for locality of reference

- Transactions span entity groups
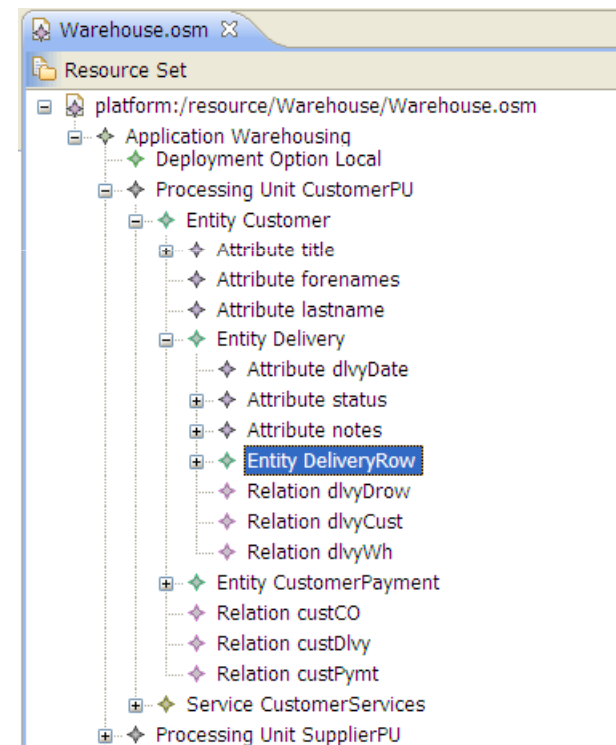
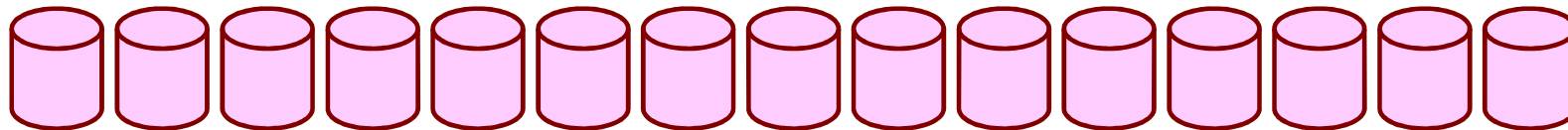# Problems with the cloud

- **Data hierarchy and transactions**
- **SQL / NoSQL**
- **Distributed programming**
- **New platforms and concepts**
- **For enterprises**
  - Back end persistence
  - In grid

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Explaining it to your Mom / Boss

IMDG - SOR

Persistent Storage

CloudTran

How does CloudTran work ?

Object View

O R M

Entity groups

Grid View

| IMDG | IMDG | IMDG | IMDG | IMDG | IMDG |

TxLog ↔ **Transaction Buffer**

Plugin

RDB View RDB

NoSQL... *Store View*

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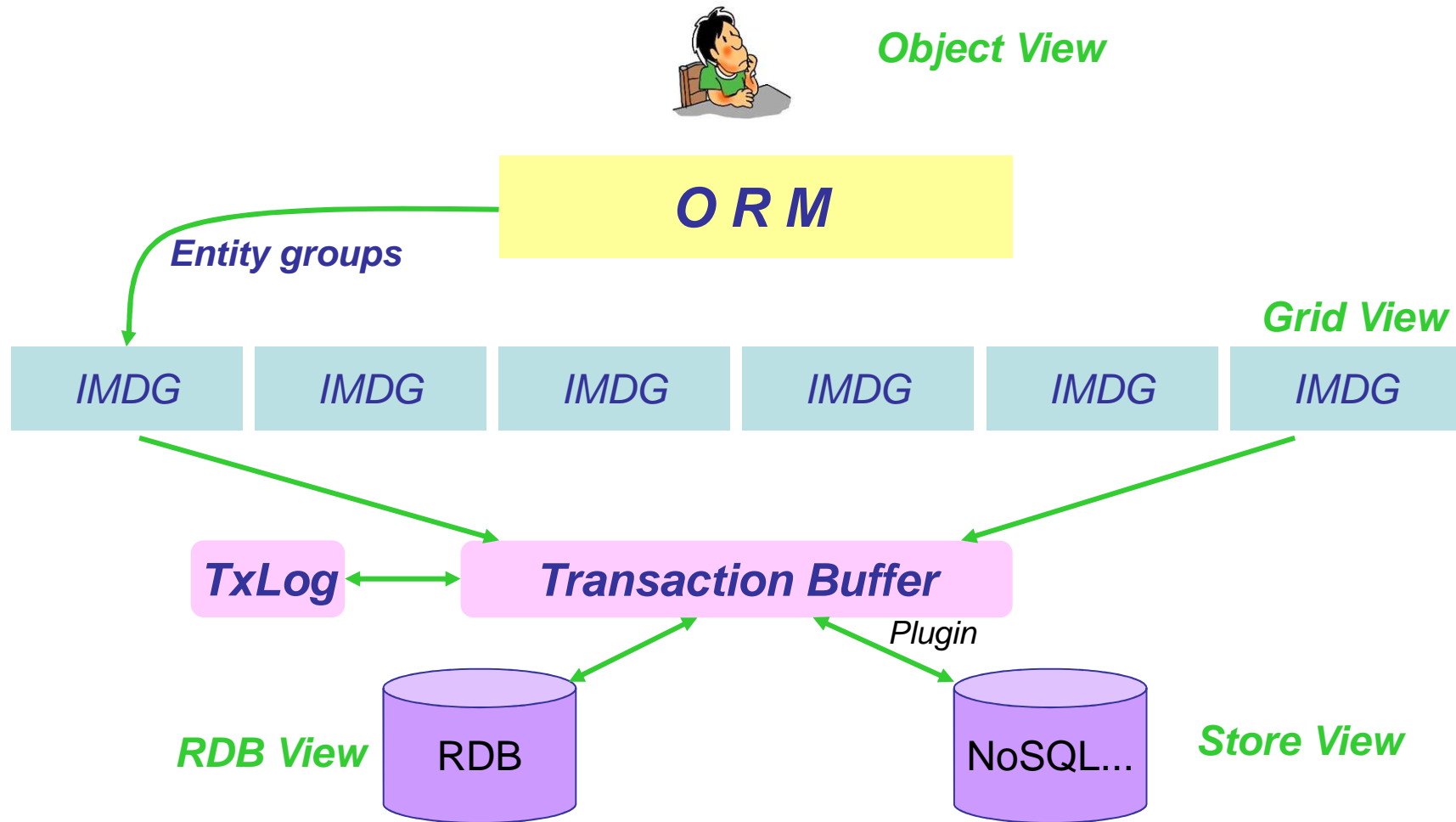
~~Distributed~~ Cloud Transactions
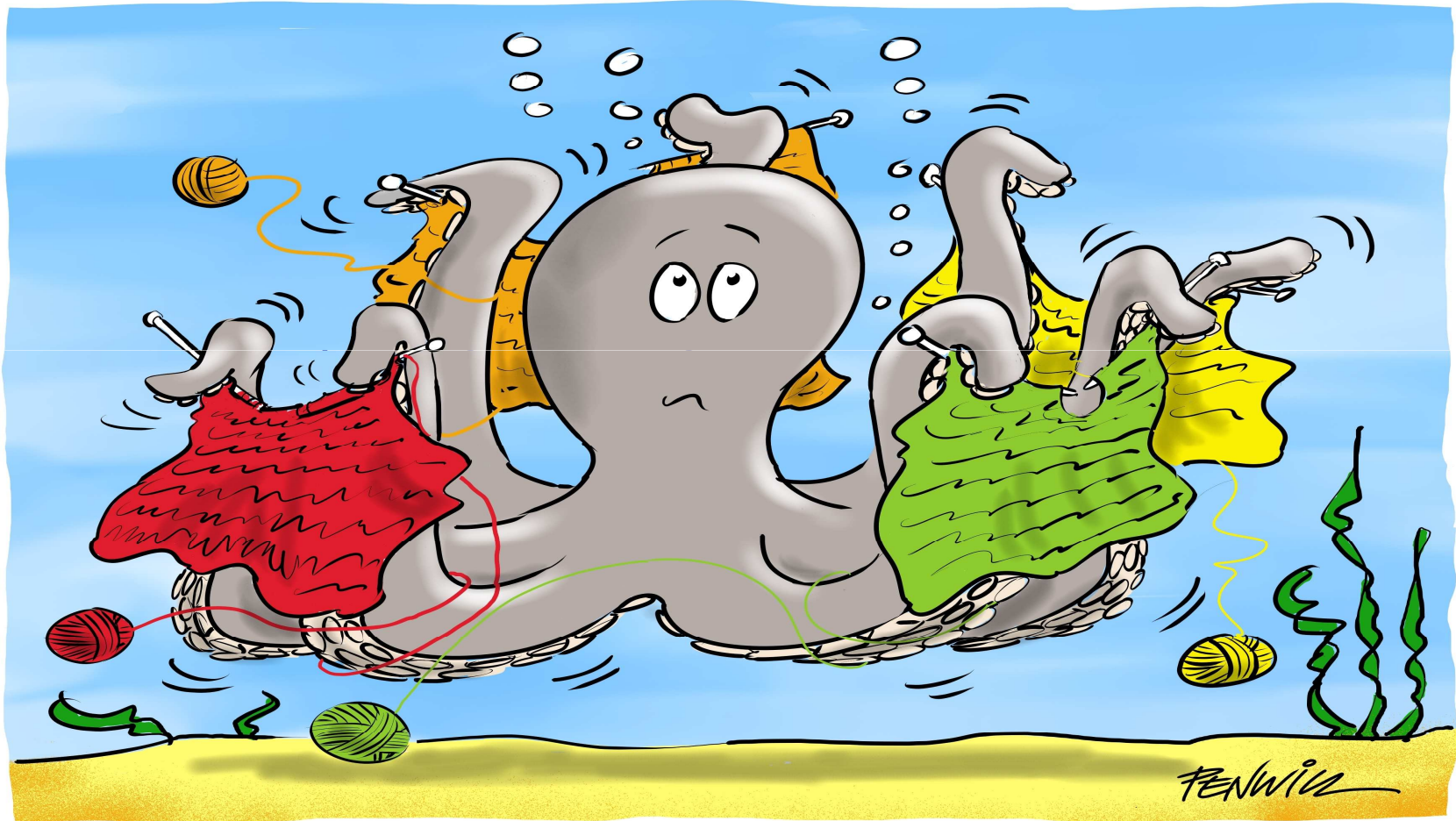
What the reviewers said

"*"you're solving the biggest problem in Cloud computing: persistence and performance haven't been pushed close together"* UBS Architect

"Data management is shaping up to be a significant problem in the cloud, and I think you have a workable solution" Industry Commentator

"no-SQL may be all well and good for developers trying out cloud for the first time, or for a brand new application, but for production applications you need to use existing IT skills and technologies" Industry Commentator

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4. Quick and Simple

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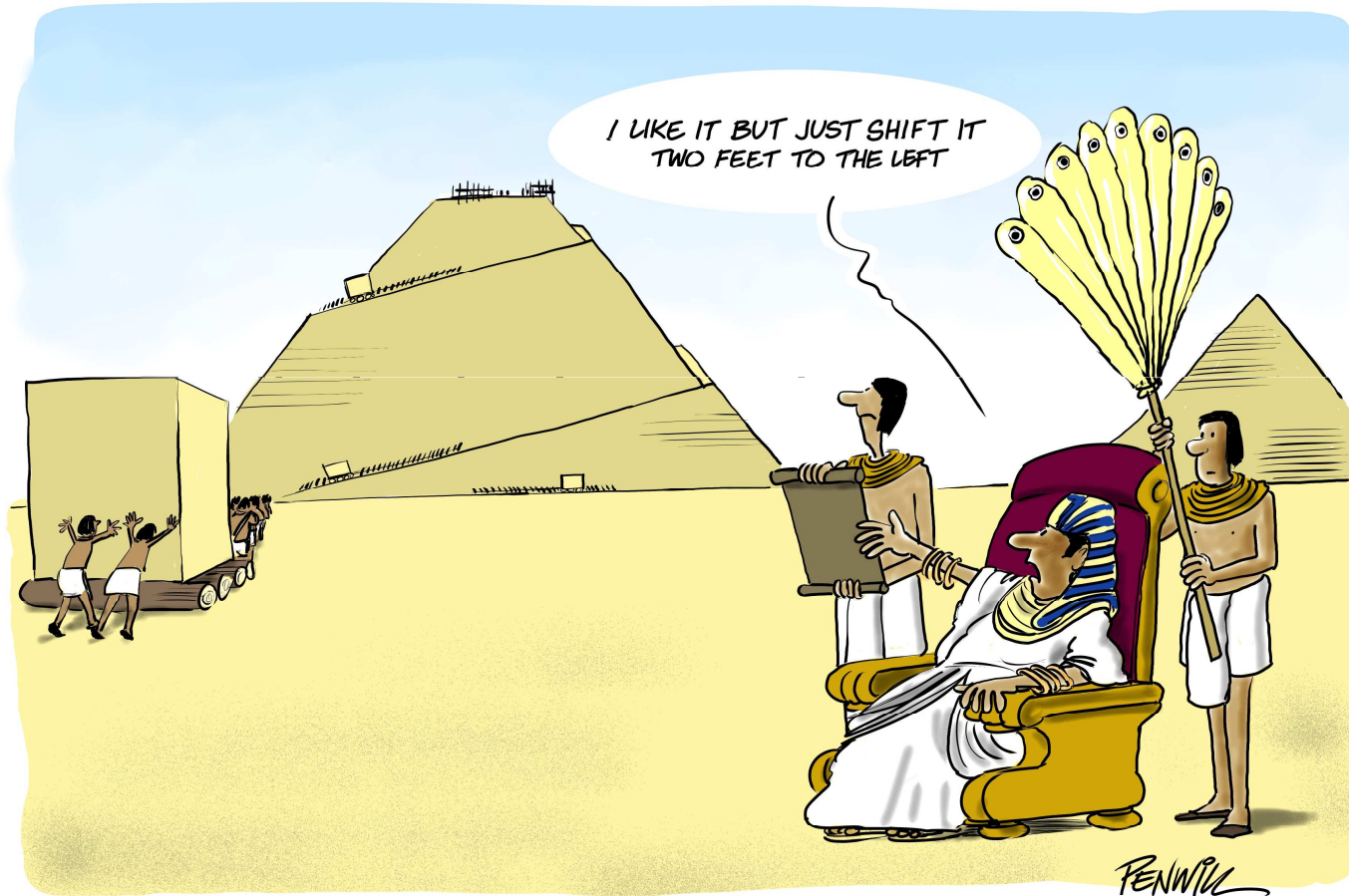
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Amazon Test Setup

- One hour
  - 2x High CPU Extra Large: $6.60
  - 20x High CPU Medium: 10.40
  - RDS Double Extra Large: 1.55

    Total $18.55

- 10 million transactions

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CloudTran Summary

Platform for mainstream Java developers

- to use IMDG

- for scalable, commercial applications

- without worry and minimal hassle

- for commercial advantage

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Questions, comments, vicious attacks ?

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