

Hardware and Software

ORACLE®

Engineered to Work Together

Oracle & The Power of Place

Peter Doolan

GVP Oracle Public Sector



The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.



ORACLE®

Technology Is A Resource **LIBERATING** Mechanism

It Can Make The Once **SCARCE** The Now
ABUNDANT



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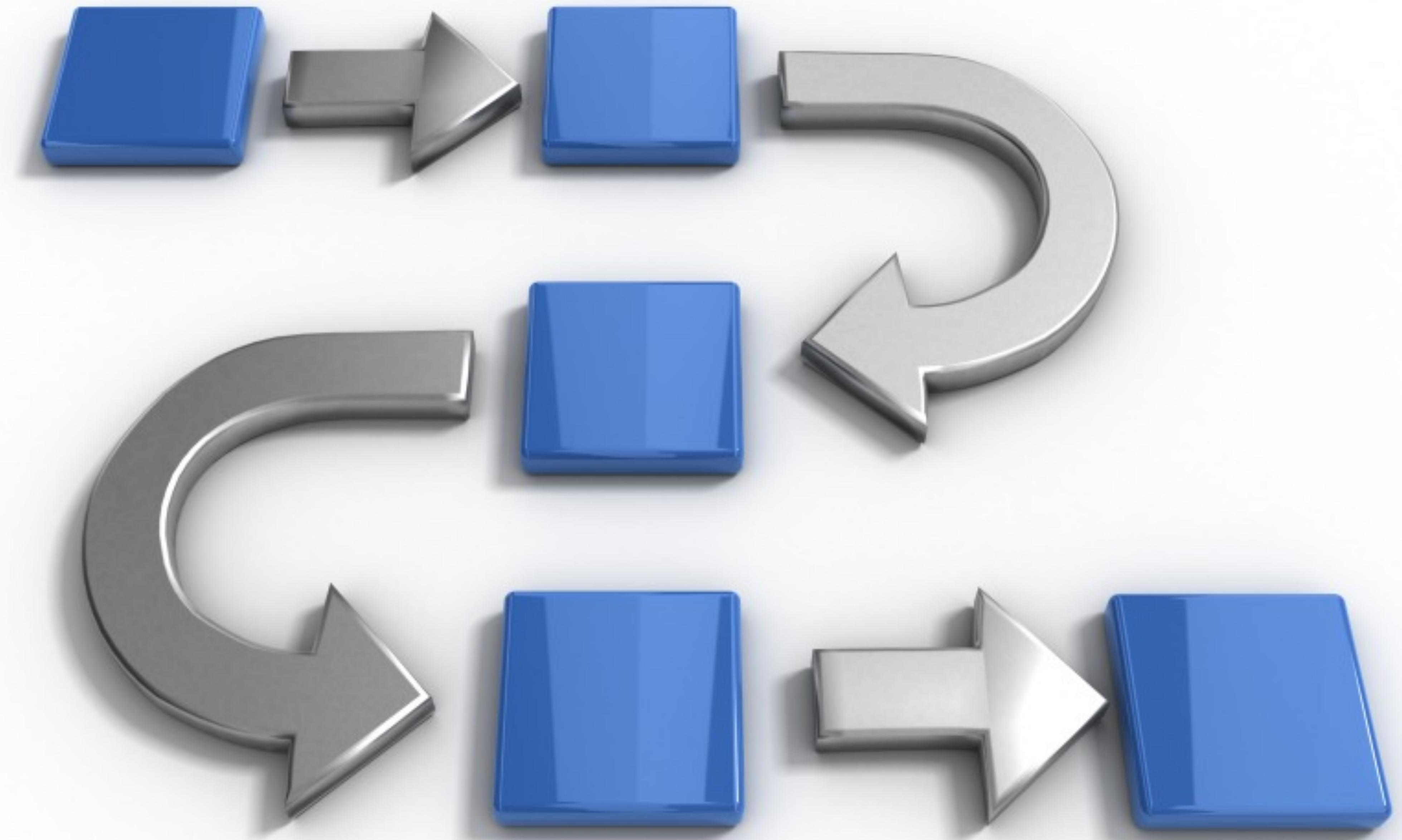
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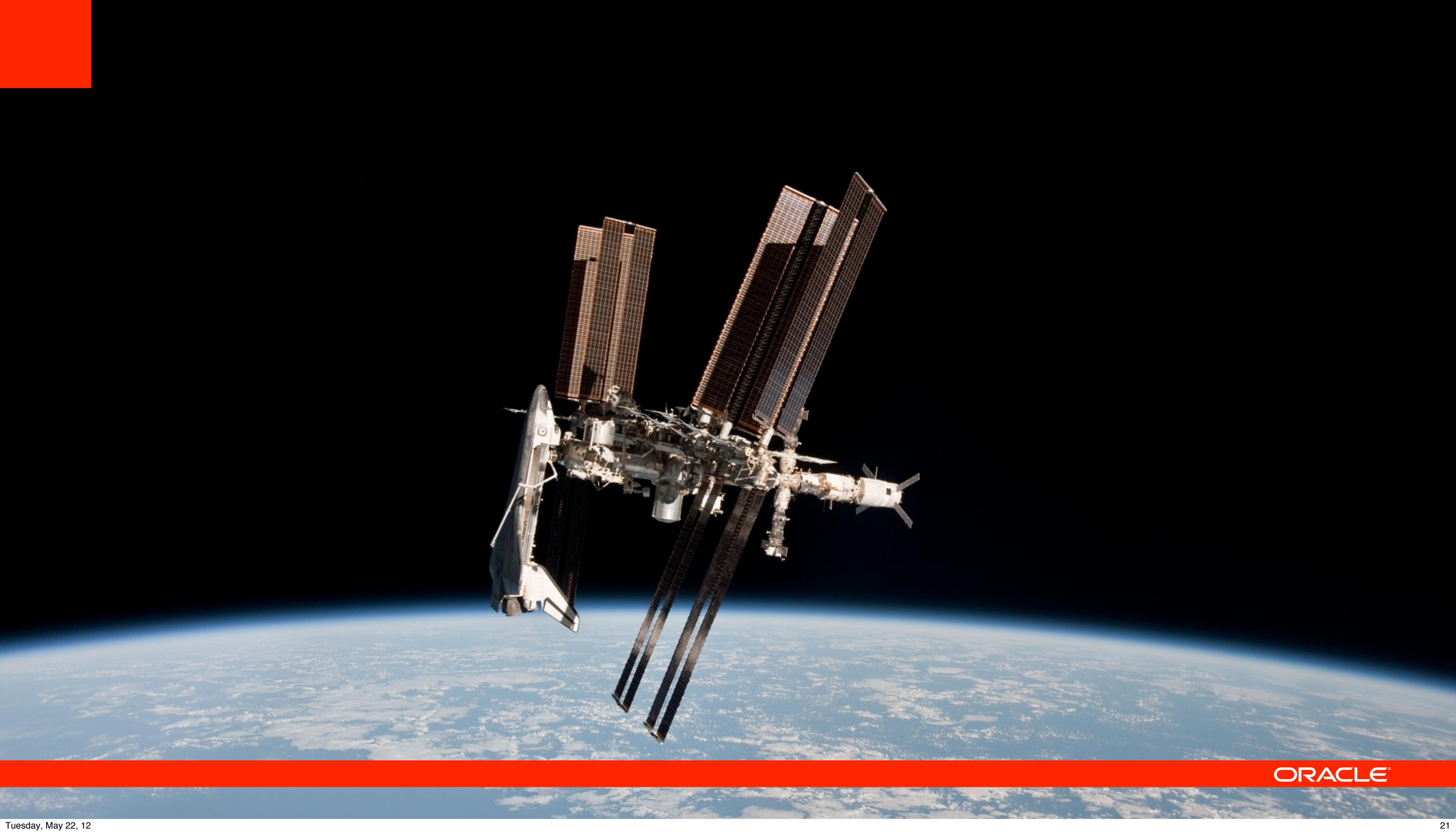
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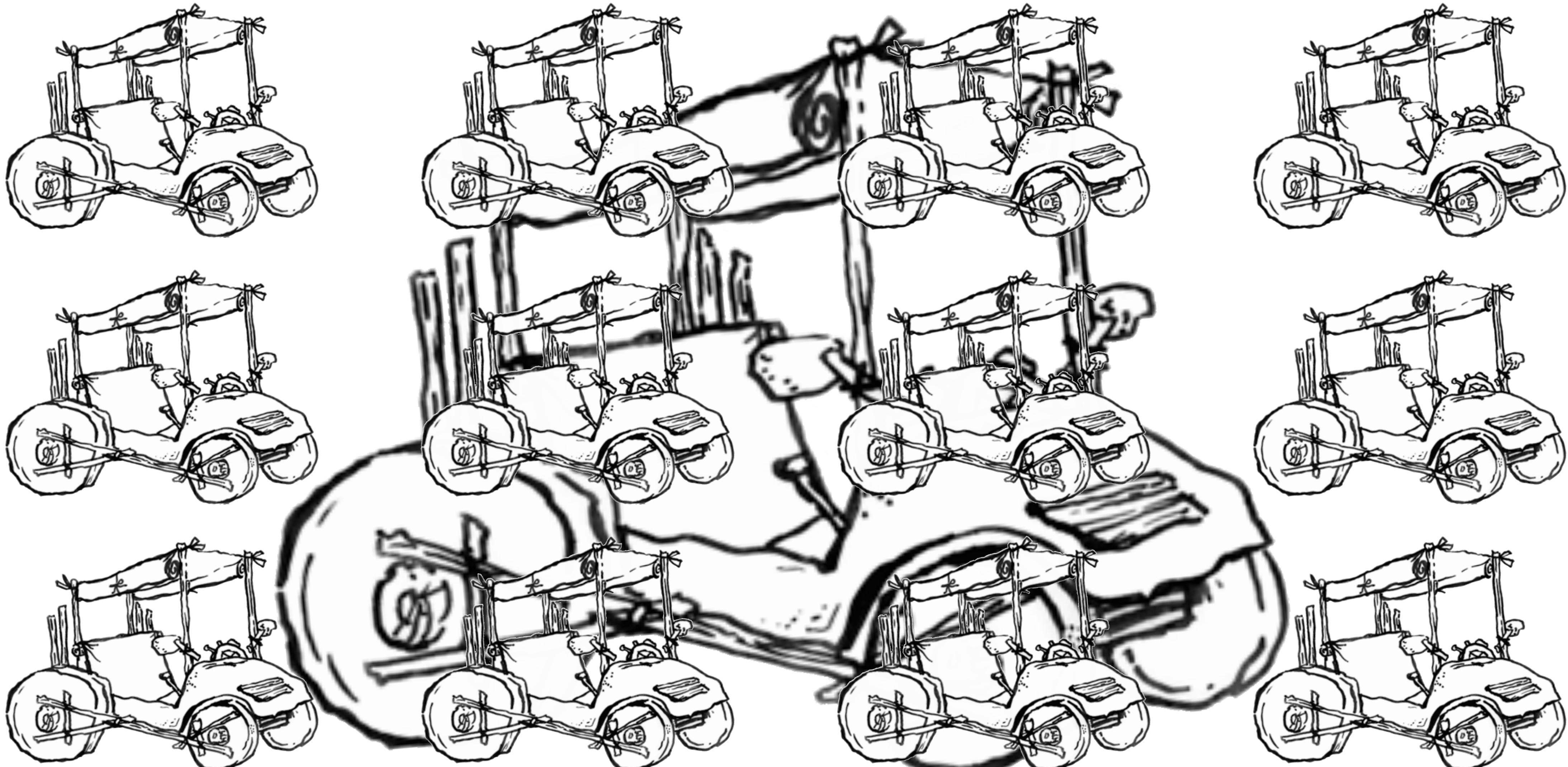
What is Complexity?



More vs. Less Complexity?

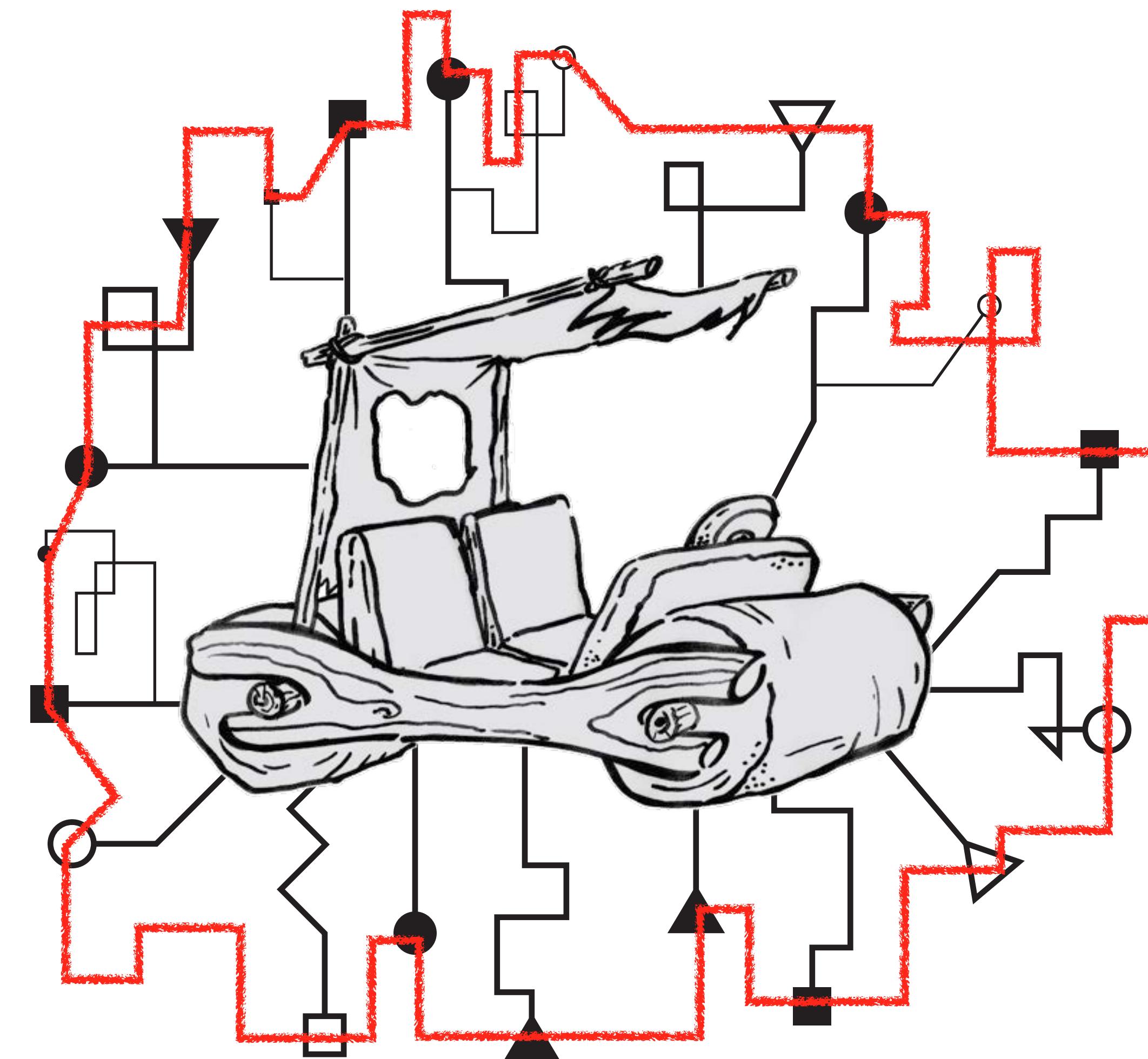
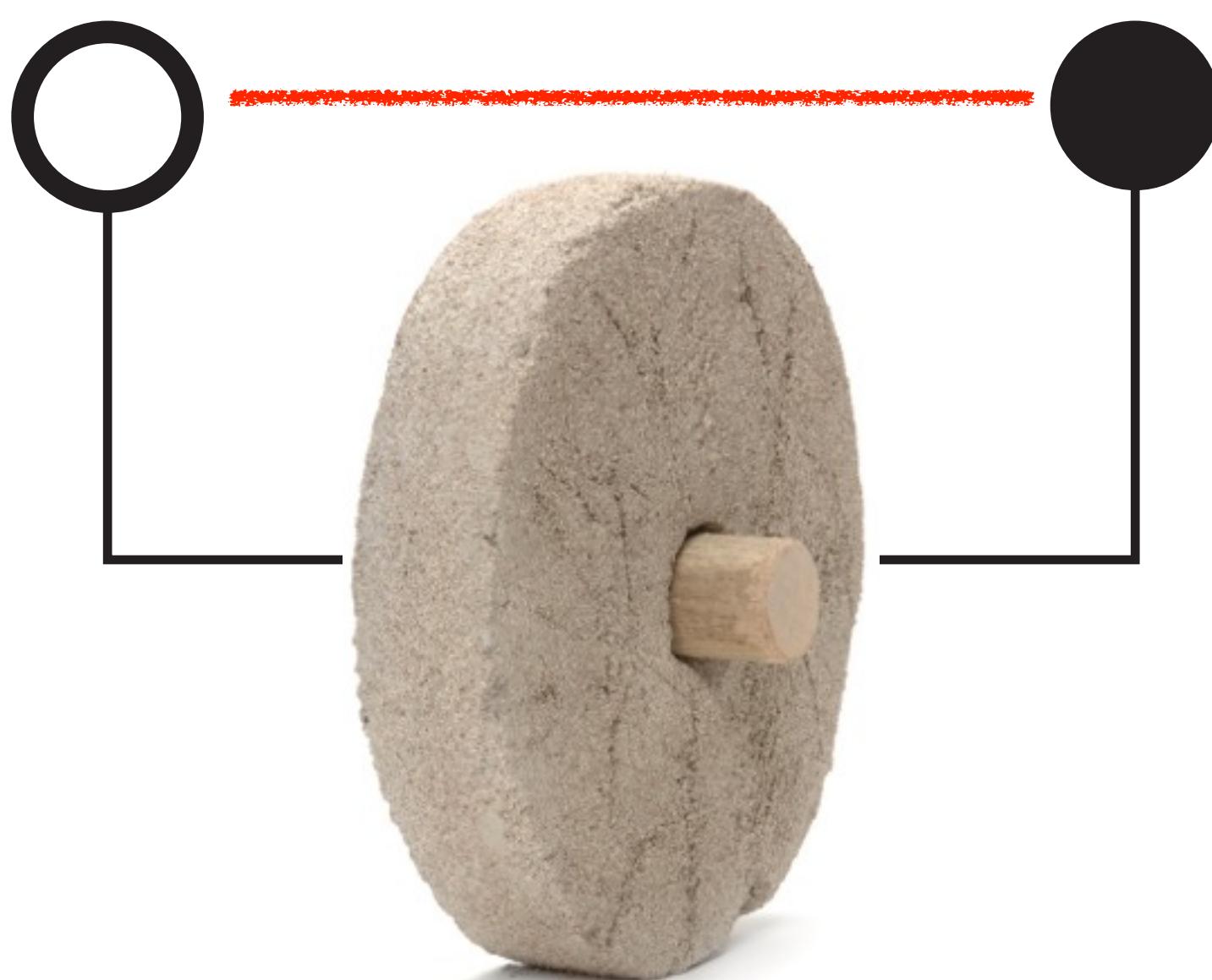


Why Should We Care?

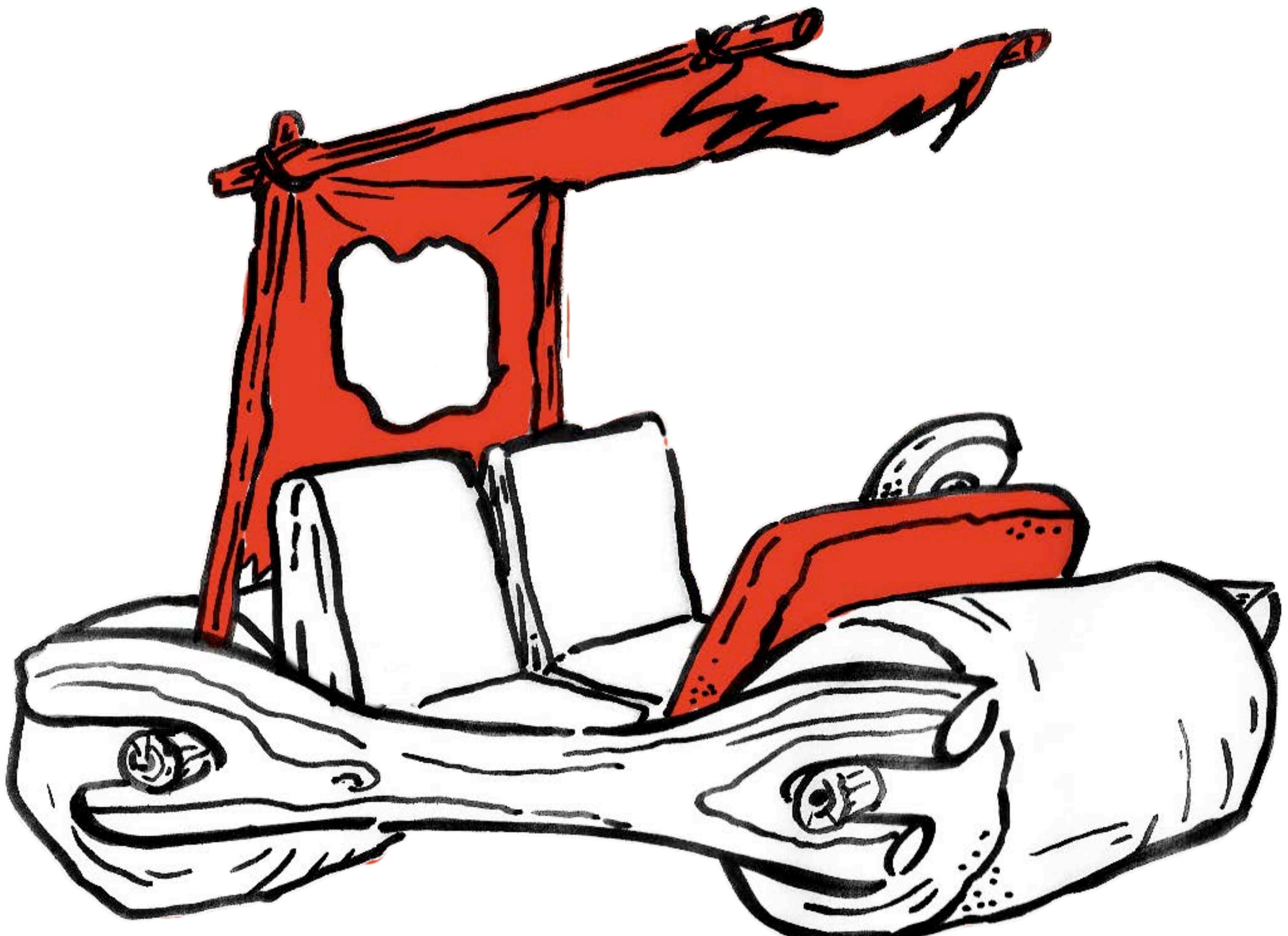


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Measuring Complexity



Key Elements of Complexity

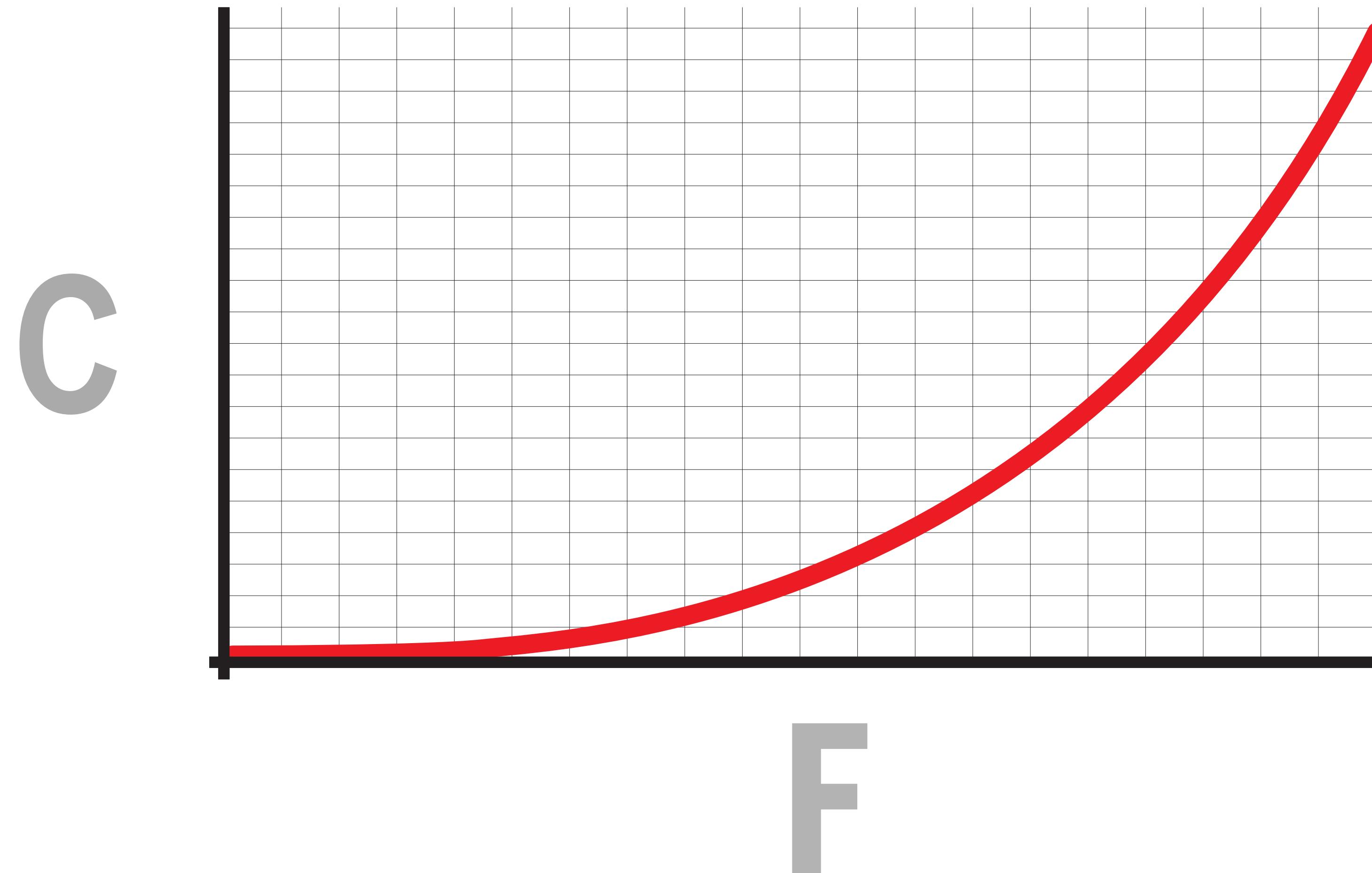


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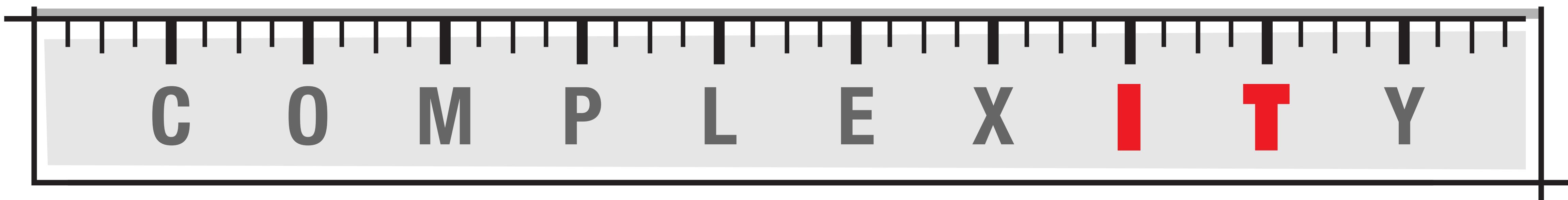
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The Complexity Curve



Measuring Complexity



A Complexity Algorithm

$$C = (F_3 + D_3) * N$$

A Simple Example

Complexity Score =



A Slightly More Complex Example

Complexity Score =

2000000

Relative Complexity

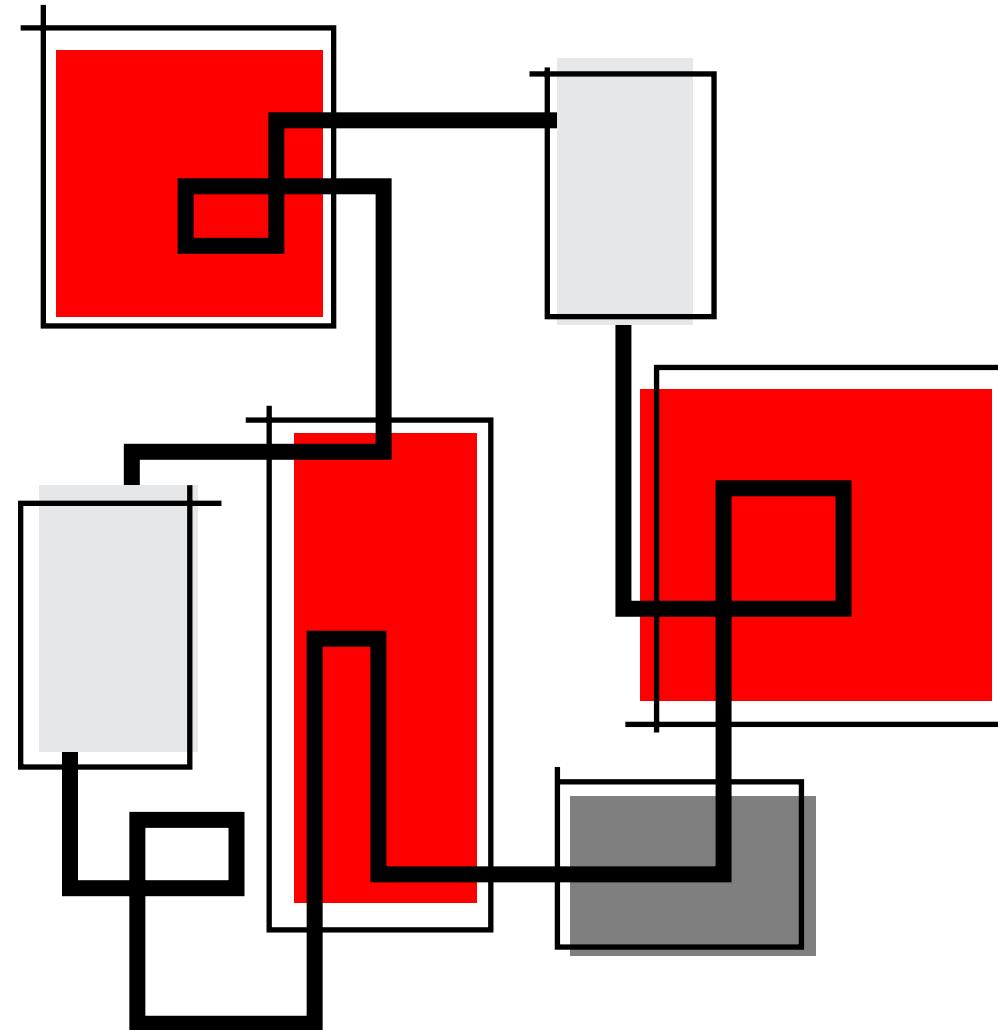


$C = 9$

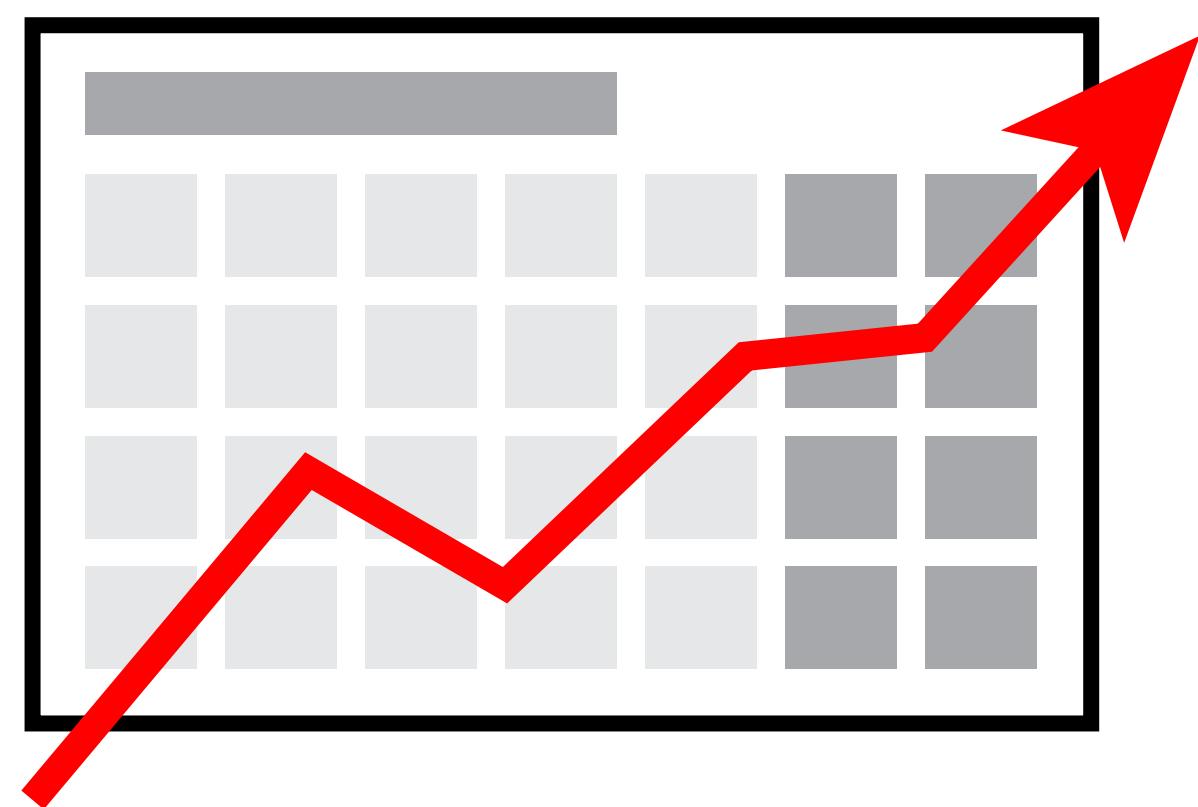


$C = 2,000$

Why Should We Care?



Hard to Manage

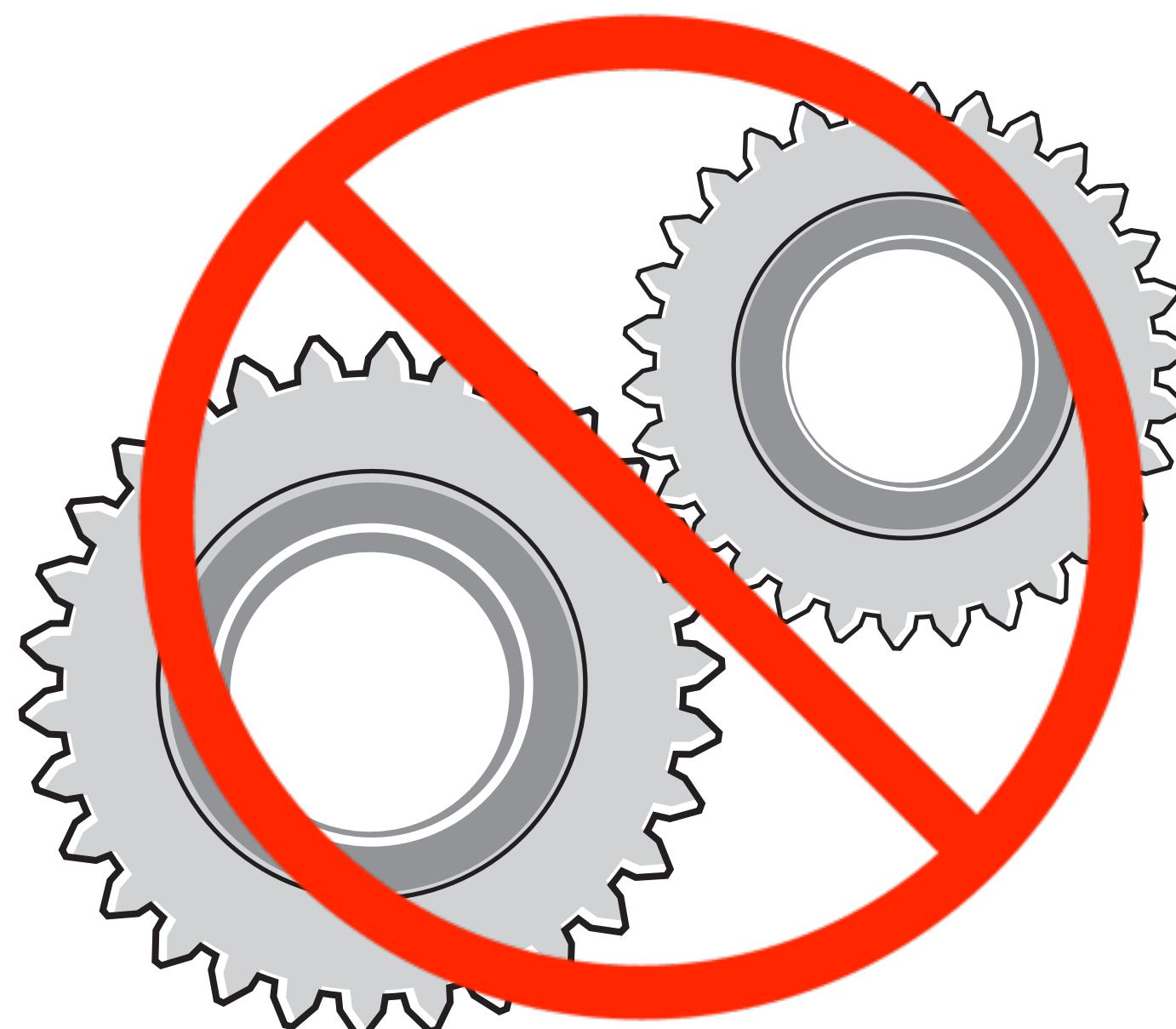


Increase Over Time

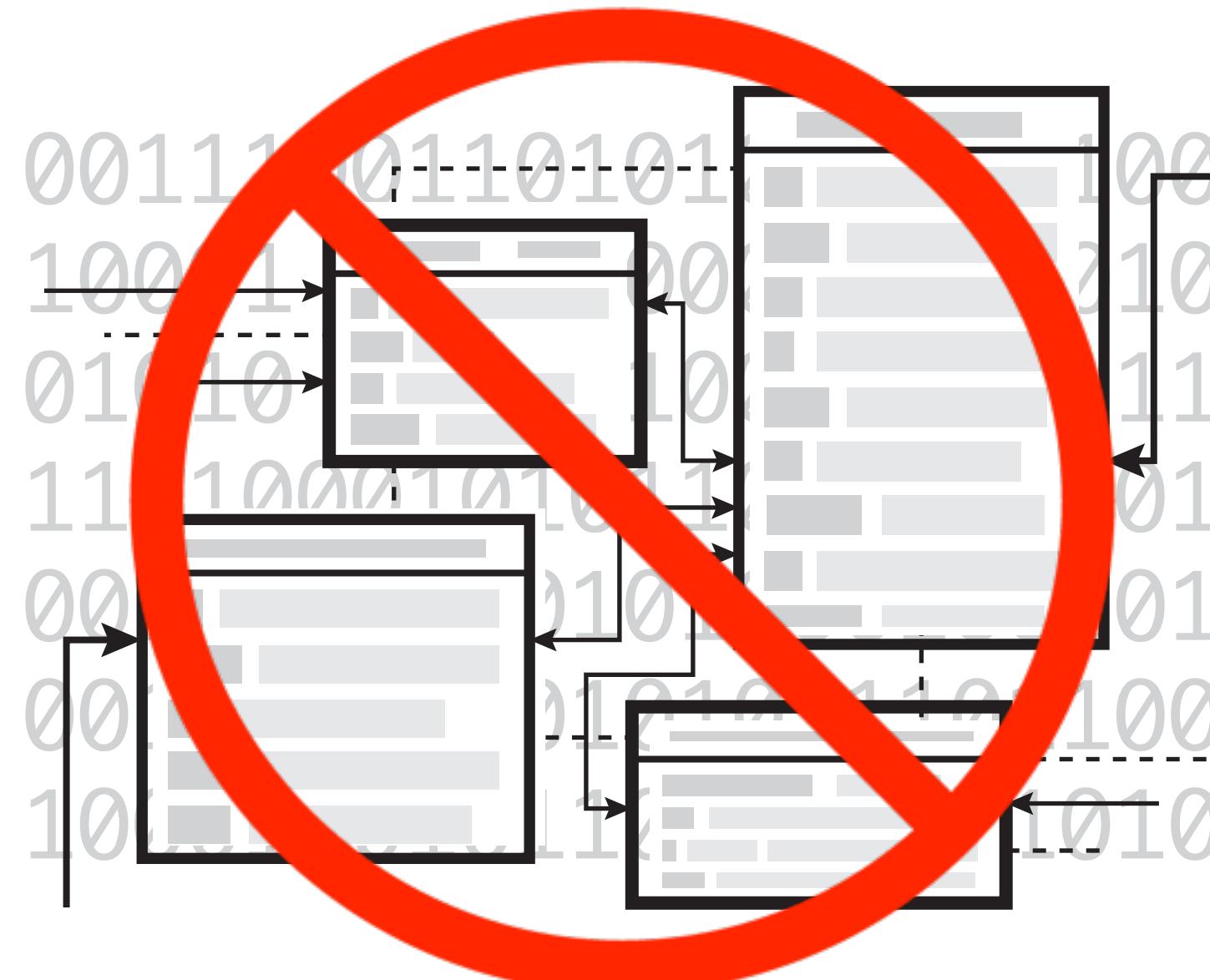


Budget Impact

The Hidden Cost



Functionality

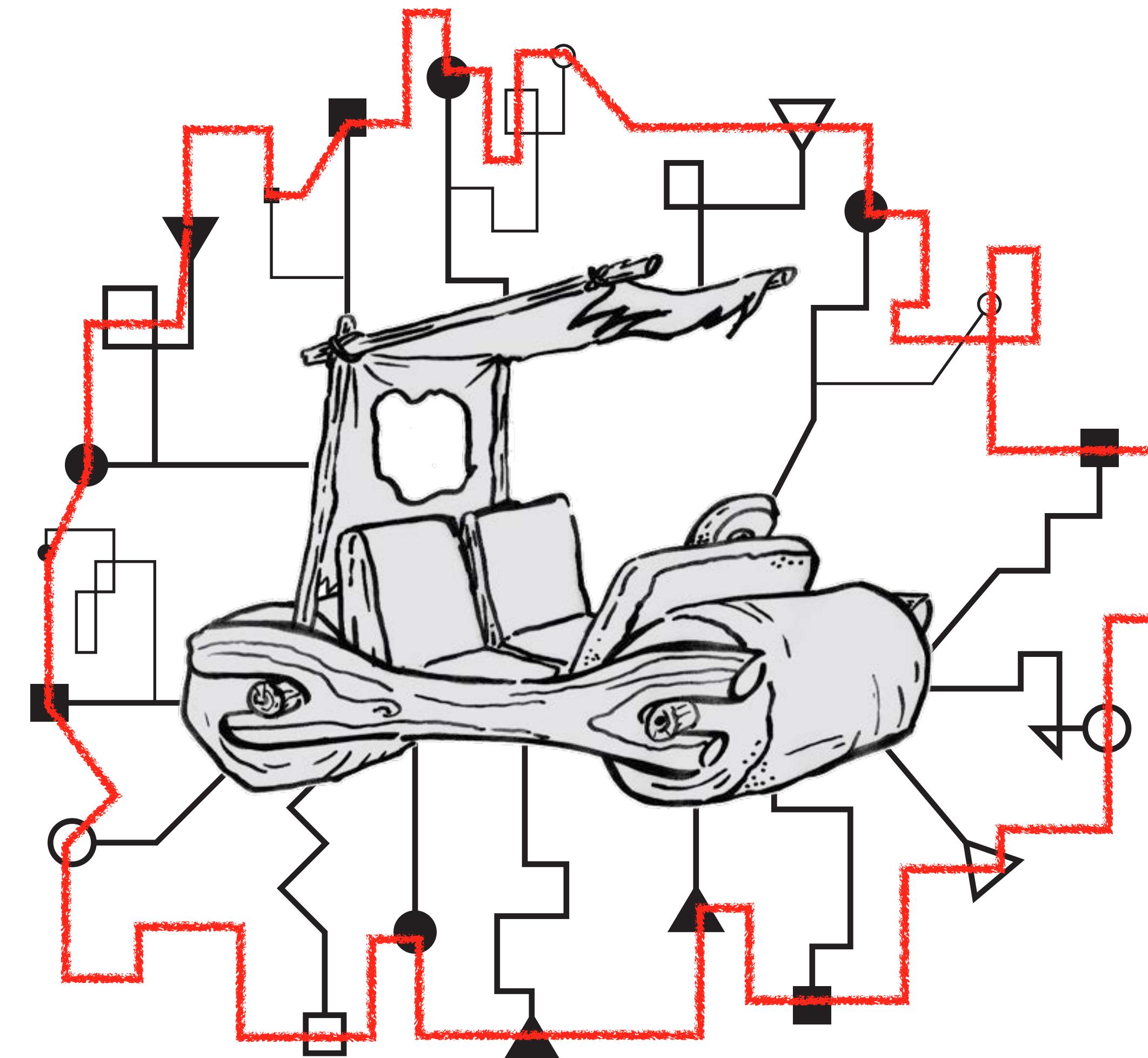
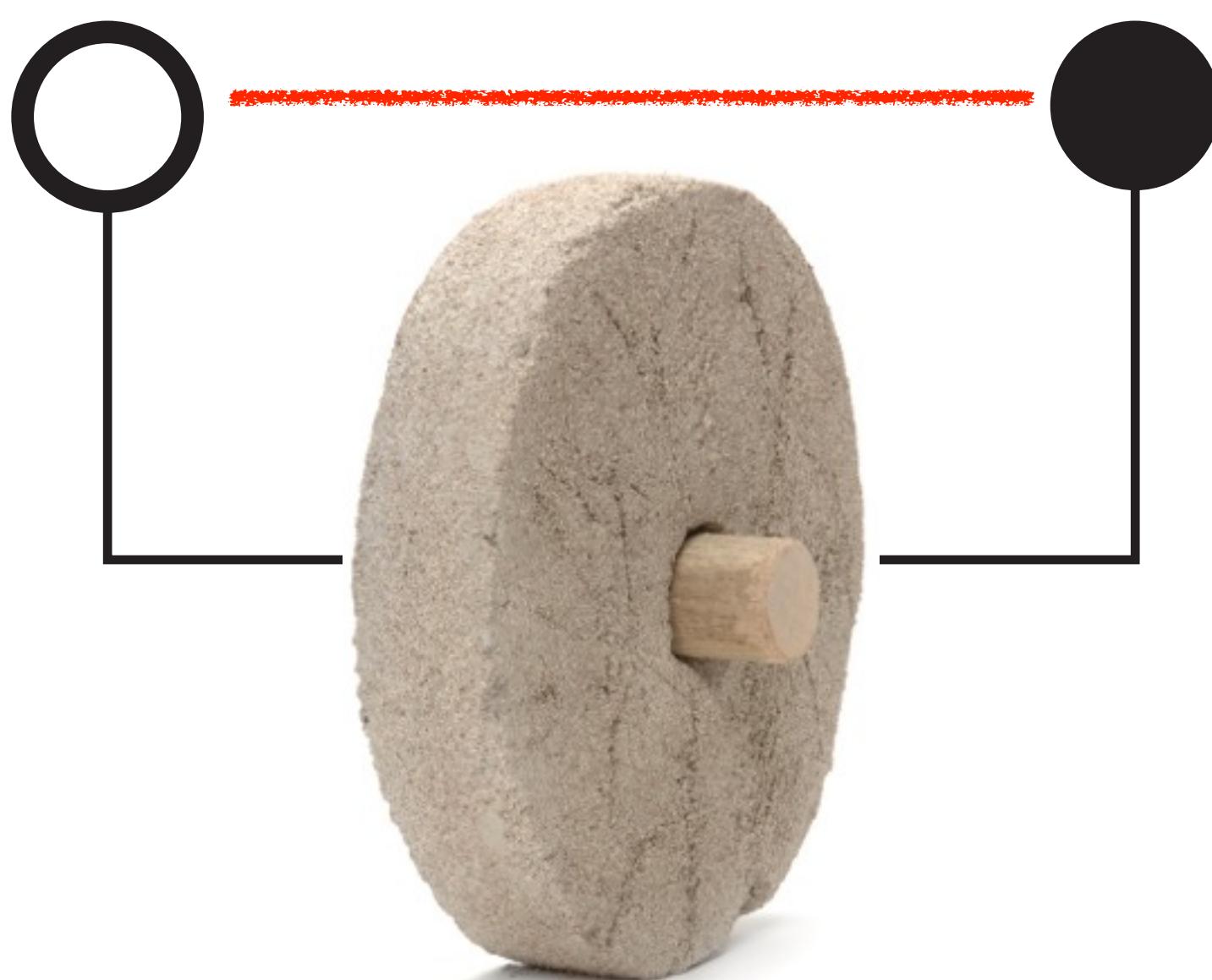


Information



Innovation

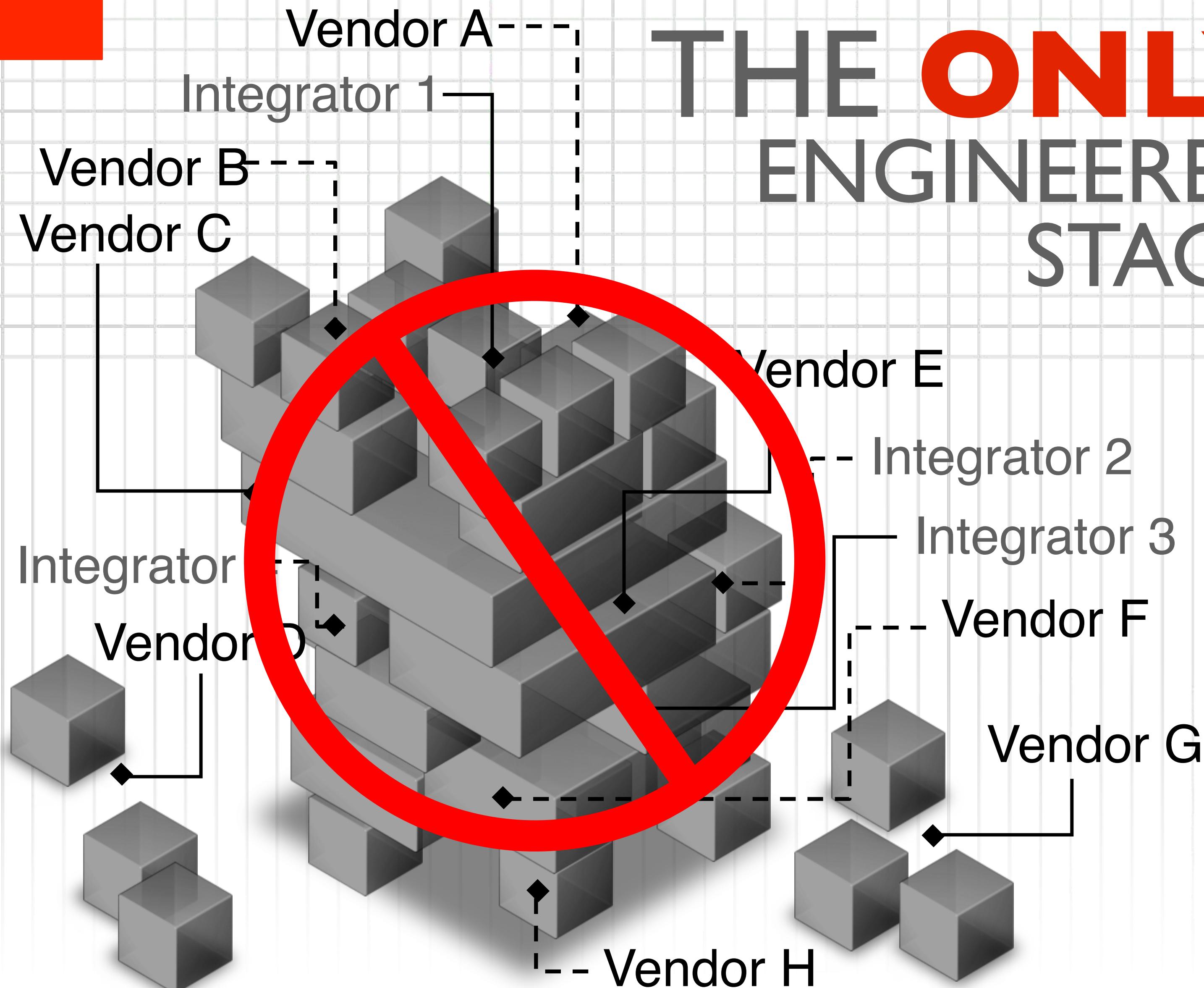
Measuring IT Complexity

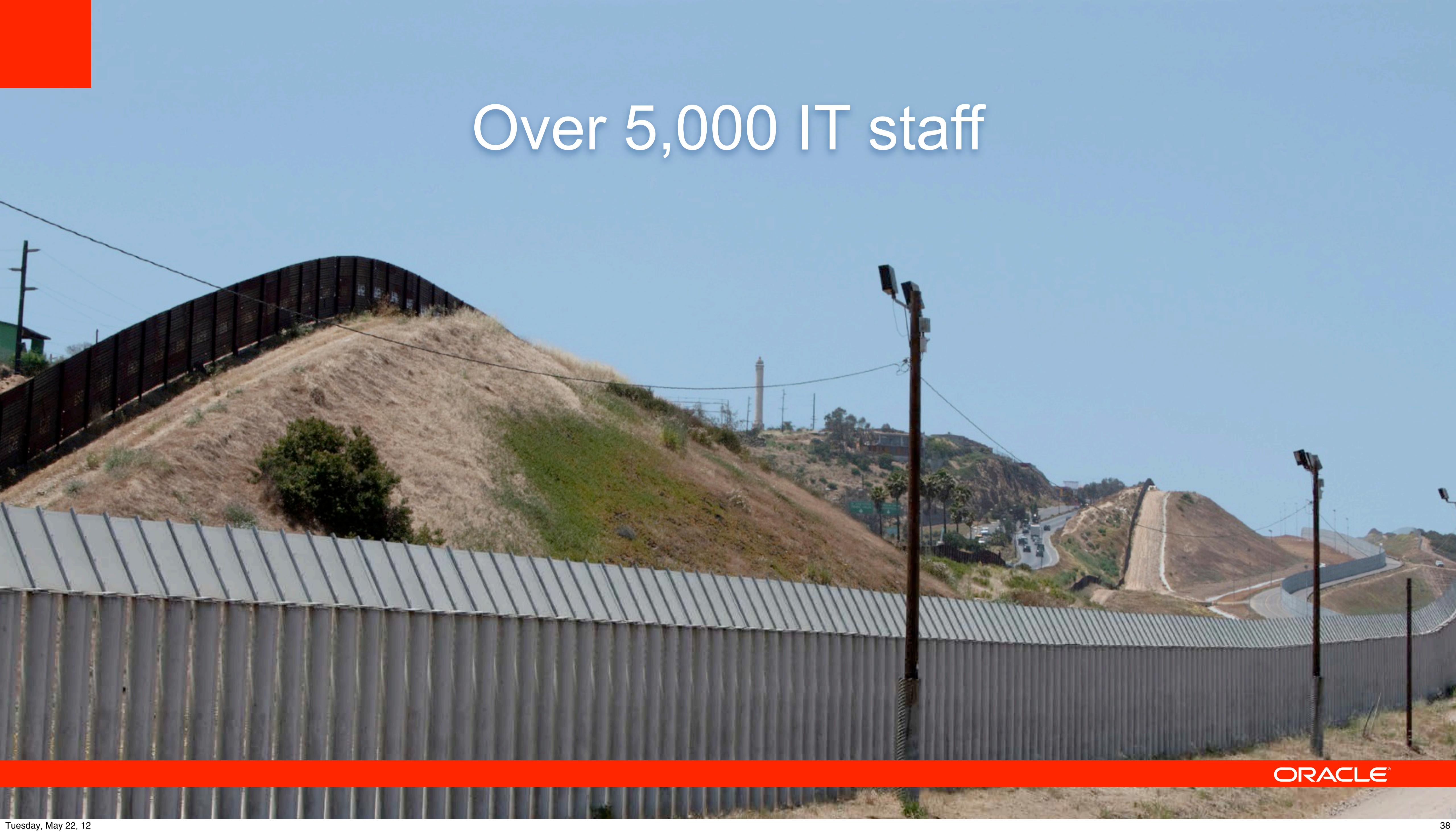




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THE ONLY ENGINEERED STACK





Over 5,000 IT staff

A police officer in uniform stands on the left side of a long, straight road that stretches into the distance. He is looking off to the side with his hands on his hips. The sky is filled with dramatic, dark clouds. The text 'Largest law enforcement organization in the United States' is overlaid in the upper right area of the image.

Largest law enforcement
organization in the
United States

ORACLE®



22,000 Vehicles

290 Aircraft

225 watercraft

280 horse patrols

1,420 canine teams

A Very Big Customer

Traditional Servers

120



VS

Oracle Exadata Racks

12

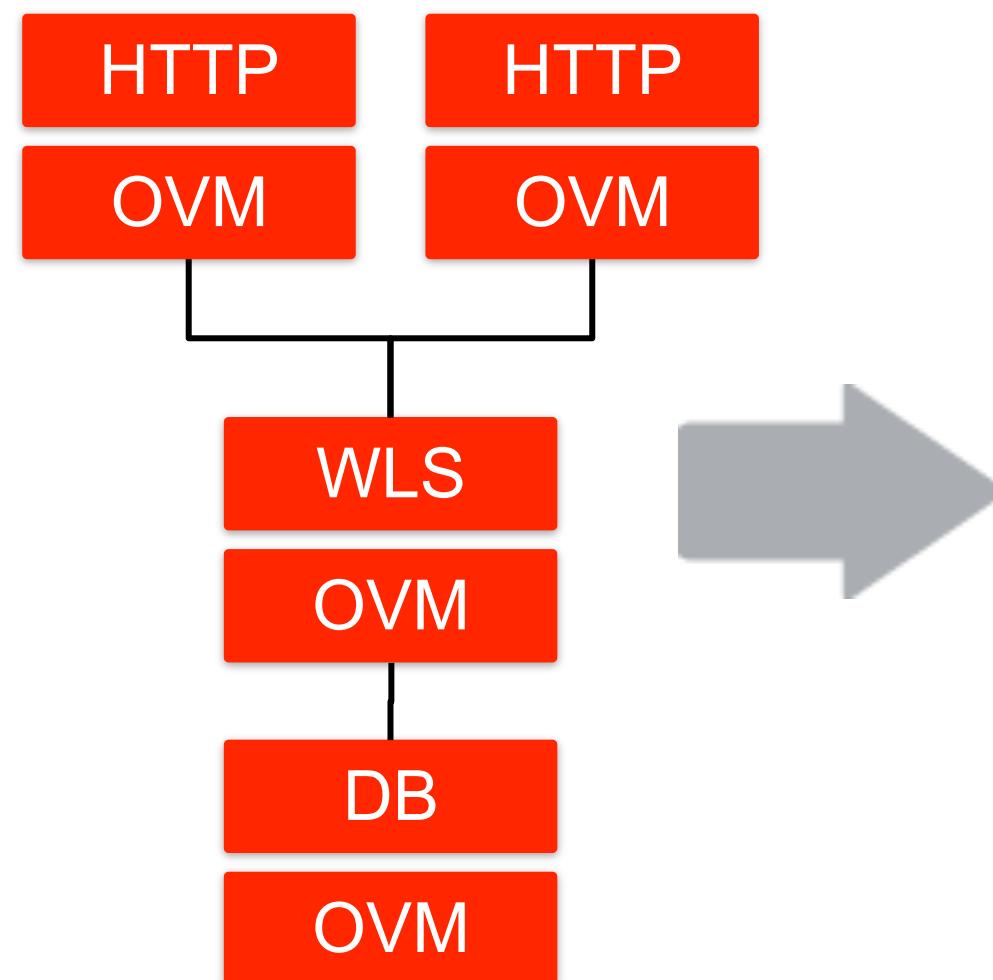


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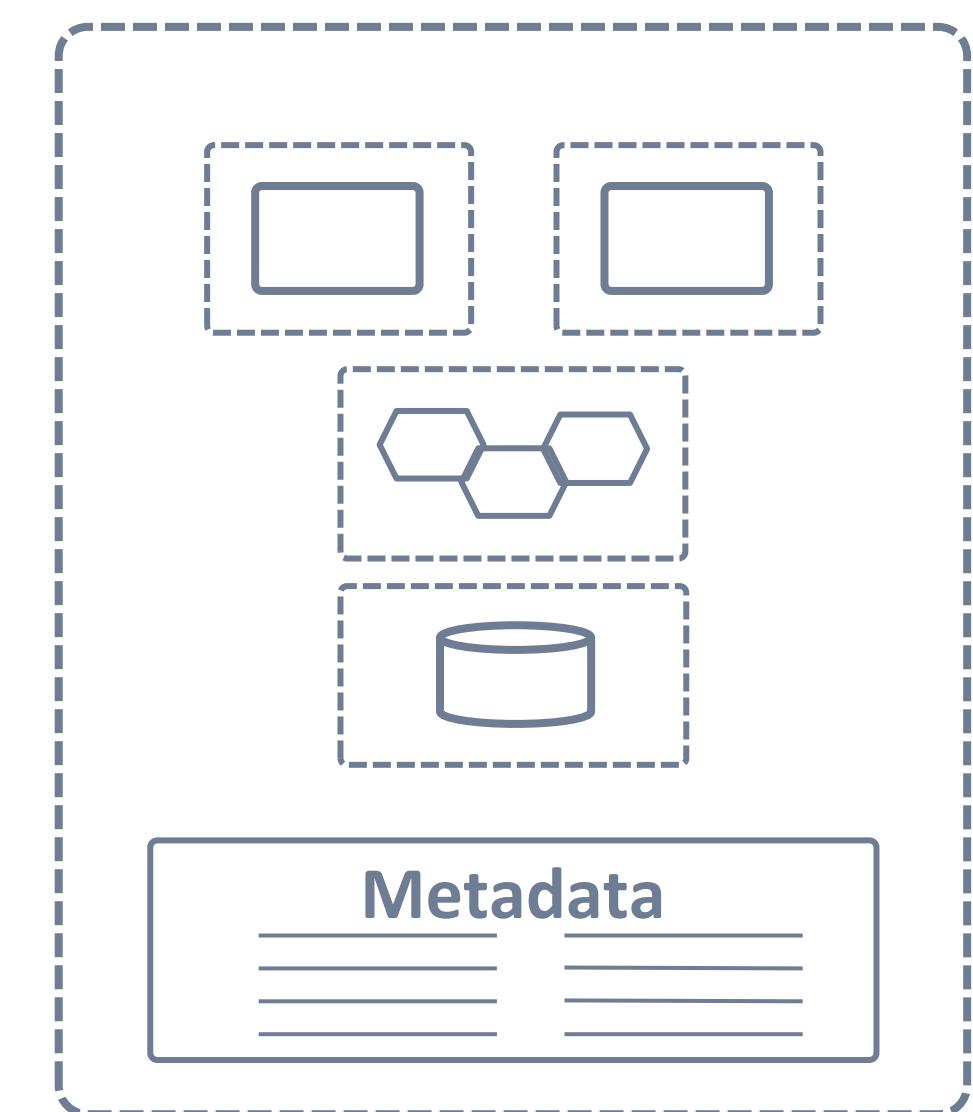
Package Multi-tier Enterprise Applications

Oracle Virtual Assembly Builder

Capture Complete Application Topology



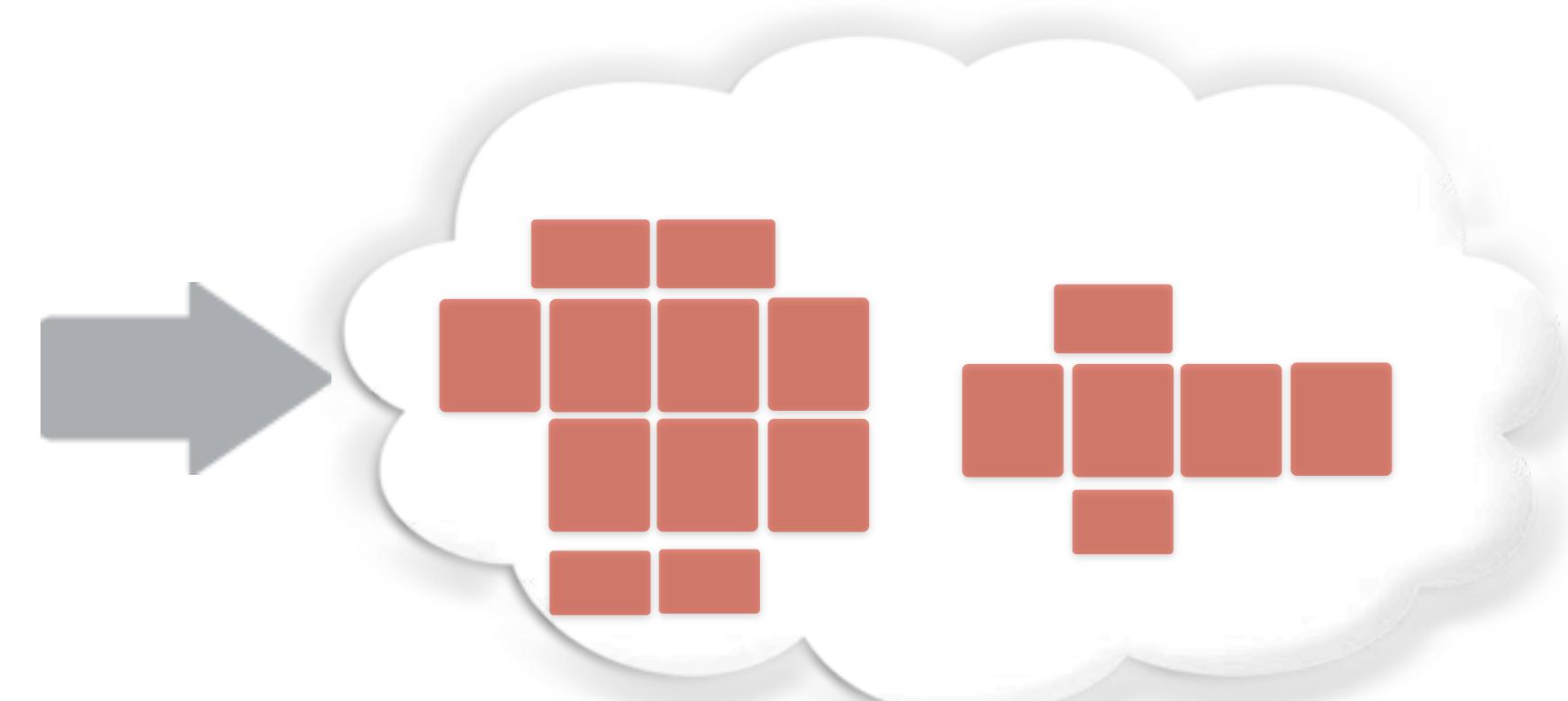
Package Into Single Assembly



Upload to Software Library



Deploy Self-Service



Engineered Systems | What?



ORACLE®
EXADATA
Database Machine



ORACLE®
EXALOGIC
Elastic Cloud



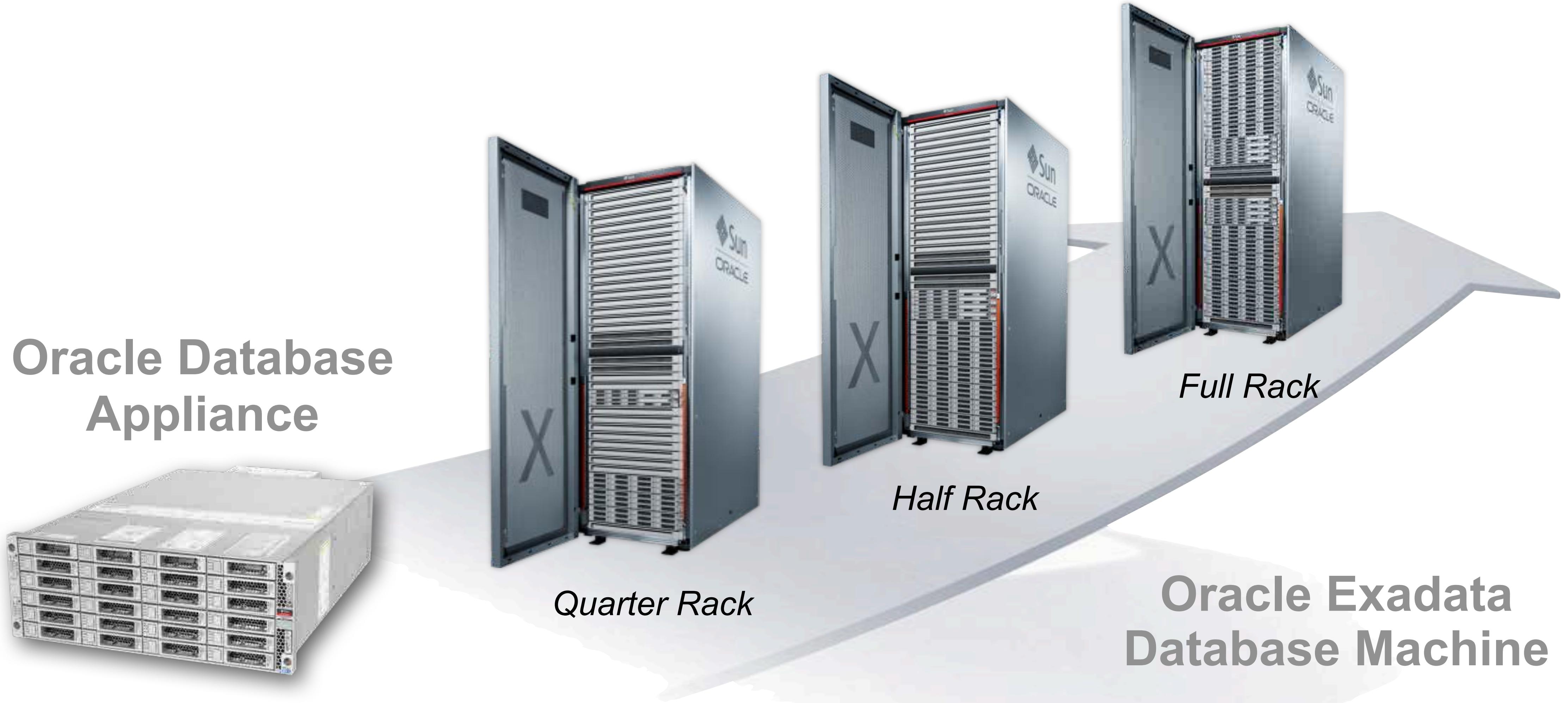
ORACLE®
SPARC SUPERCLUSTER
Solaris 11



ORACLE®
EXALYTICS
**Business Intelligence
Machine**

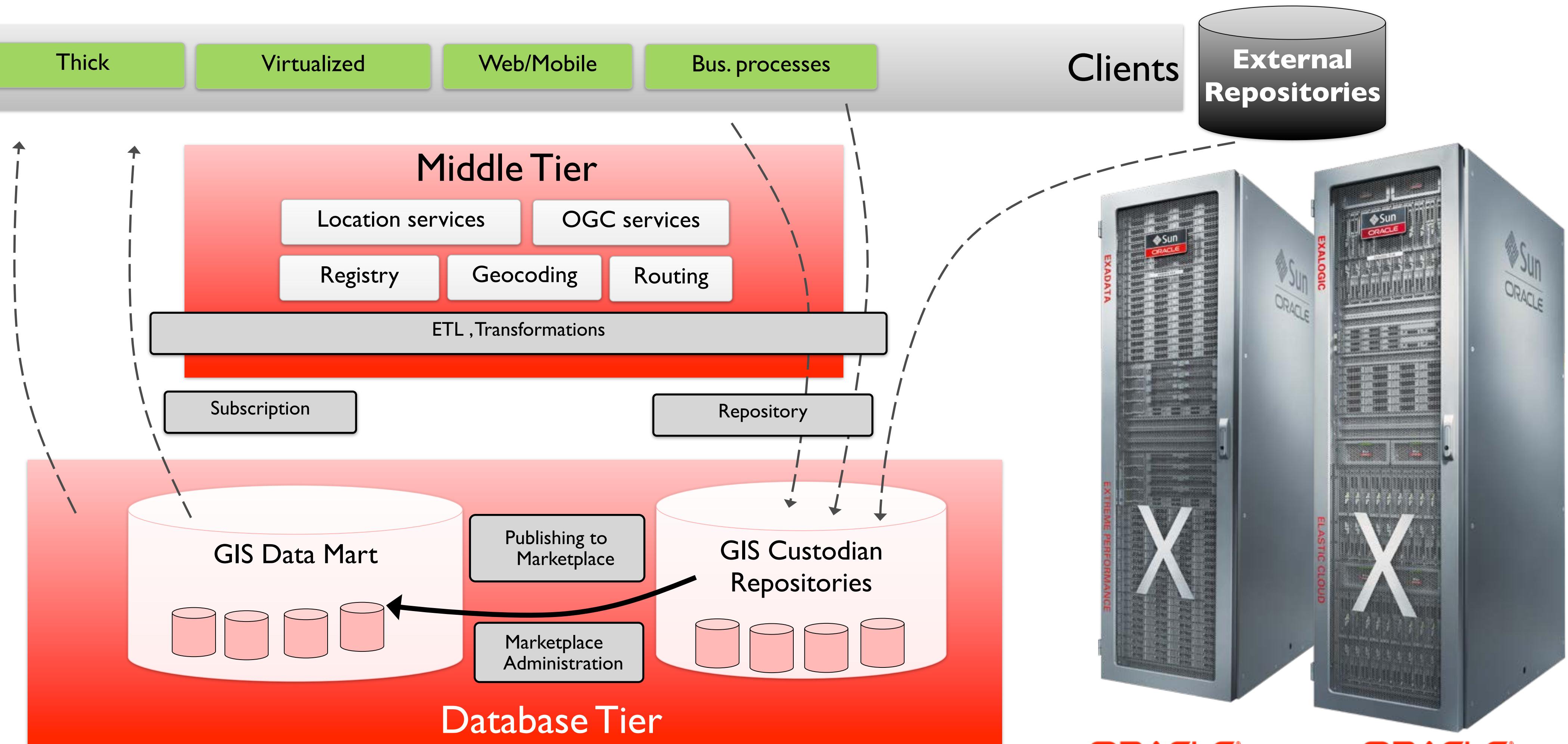
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Engineered Systems for Oracle Database



Oracle Enterprise Architecture

GIS-aaaS Logical Model

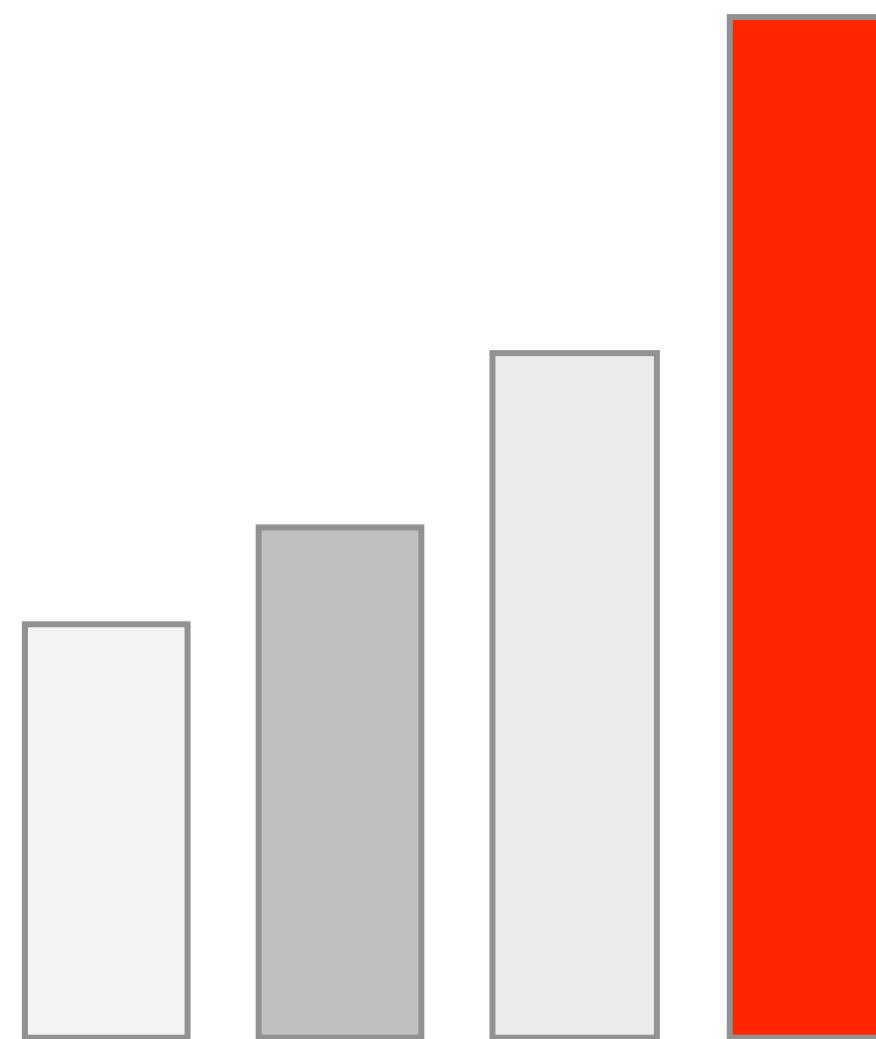


ORACLE
EXADATA
Database Machine

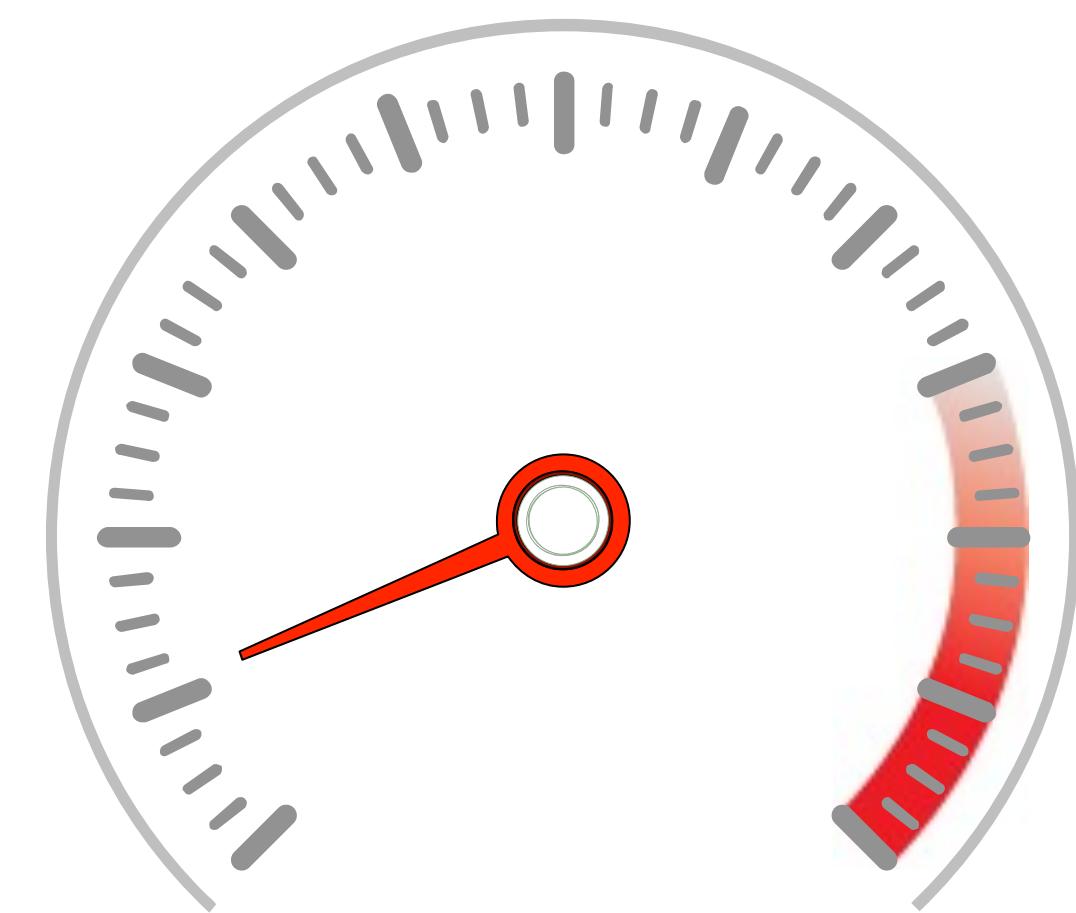
ORACLE
EXALOGIC
Elastic Cloud

ORACLE

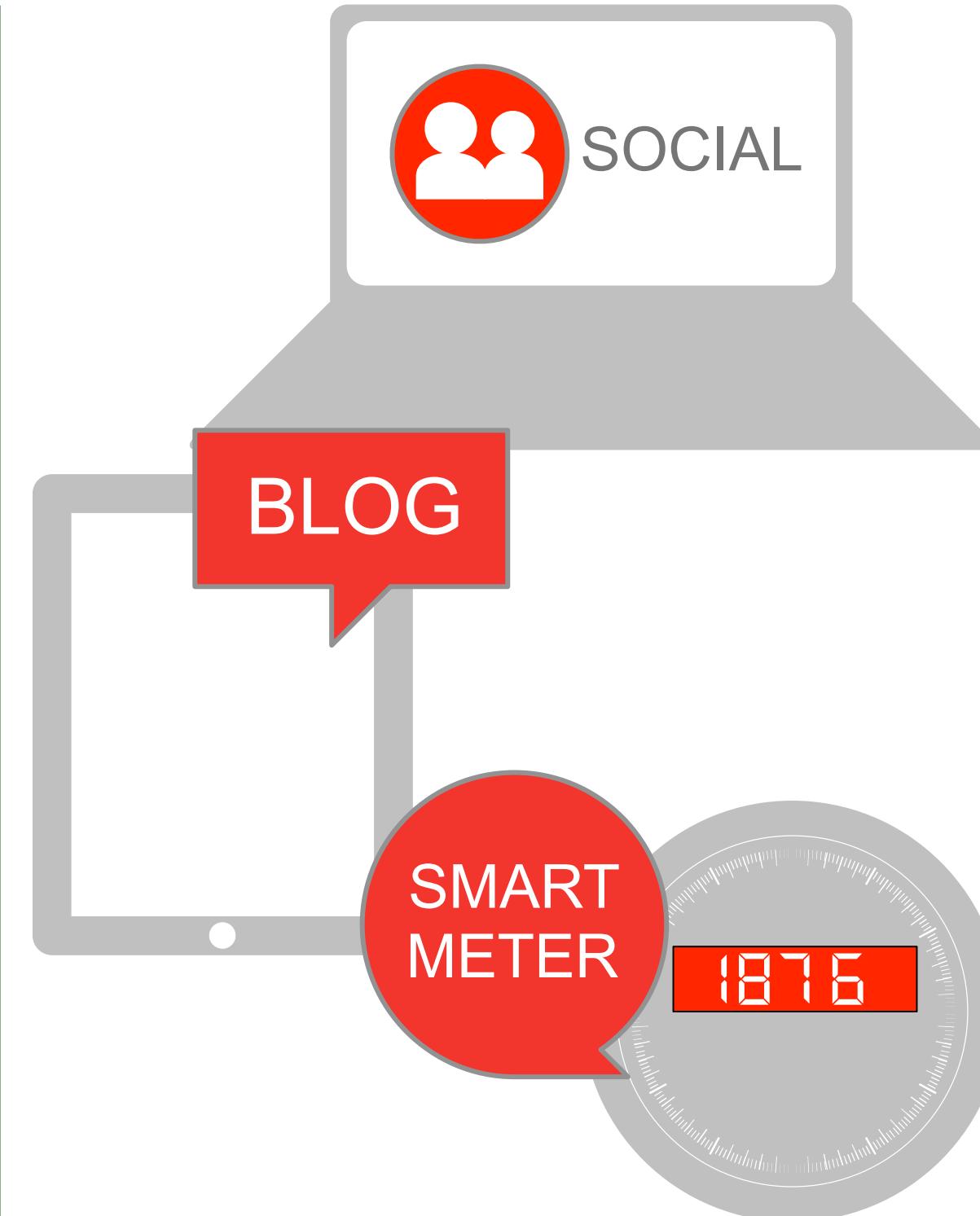
What about “Big” Data?



VOLUME



VELOCITY

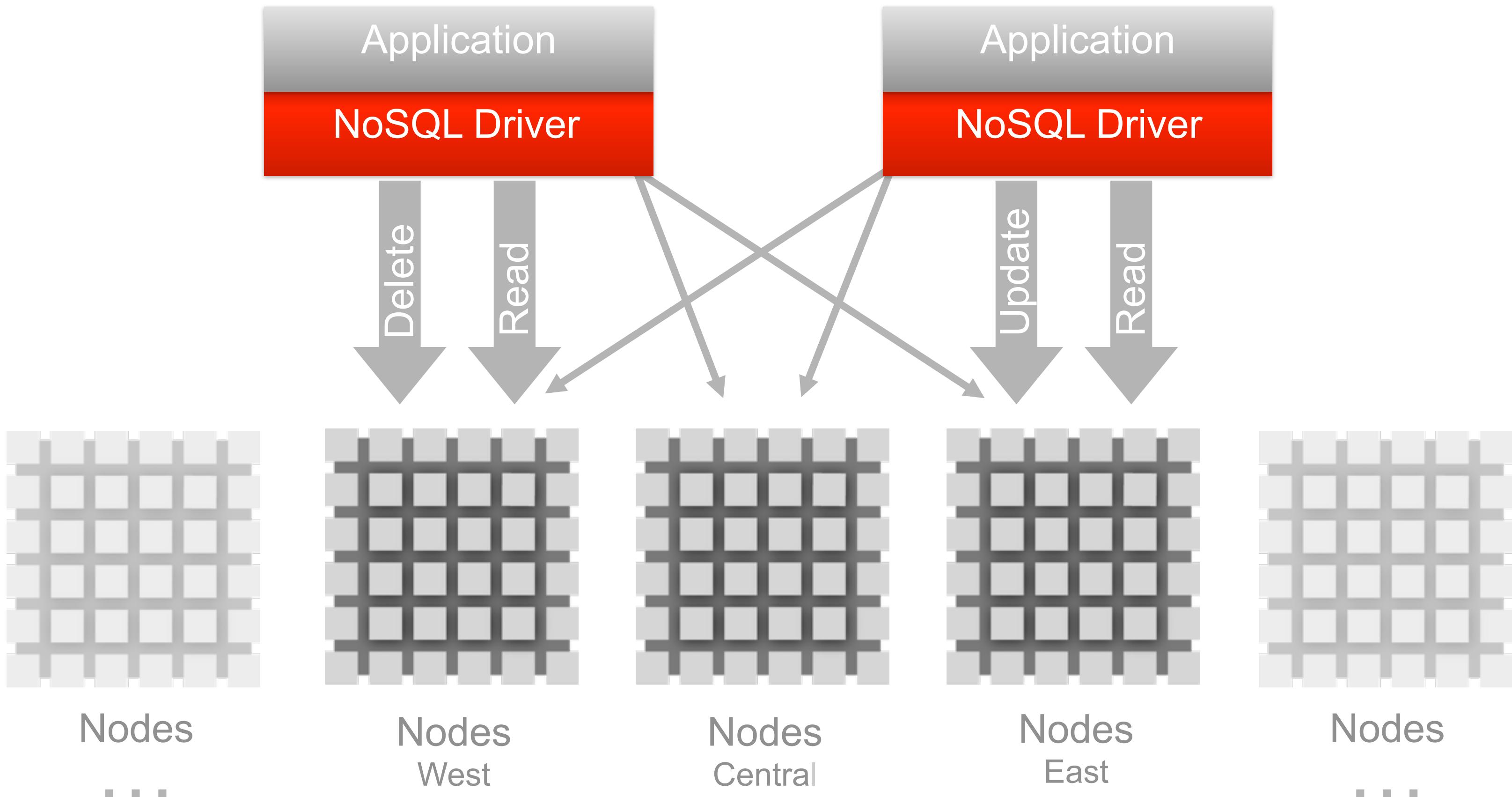


VARIETY



VALUE

Oracle NoSQL Database



Key value pair database

Dynamic data model

Highly scalable, available

Transparent load balancing

Built using BerkeleyDB

Oracle Big Data Appliance Hardware

- 18 Sun X4270 M2 Servers
 - 48 GB memory per node = 864 GB memory
 - Optional 144 GB memory per node = 2.5 TB memory
 - 12 Intel cores per node = 216 cores
 - 36 TB storage per node = 648 TB storage
- 40 Gb p/sec InfiniBand
- 10 Gb p/sec Ethernet



Oracle Big Data Appliance Software

- Oracle Enterprise Linux
- Oracle Hotspot Java Virtual Machine
- Cloudera's Distribution Including Apache Hadoop
- R Distribution (CDH)
- Cloudera Manager
- Open Source Distribution of R
- Oracle NoSQL Database Community Edition
- Oracle Big Data Connectors (licensed separately)



What The Analysts Are Saying: Ovum

“Clearly, Oracle's release of Oracle Big Data Appliance signifies a full commitment to Hadoop as a first-class citizen of the Oracle data platform. Its price, \$450,000 for 216 CPU cores backed by 648TB of storage and the same Infiniband backplane used by Oracle Exadata and Oracle's other engineered systems, is definitely competitive.”

— Ovum (1)

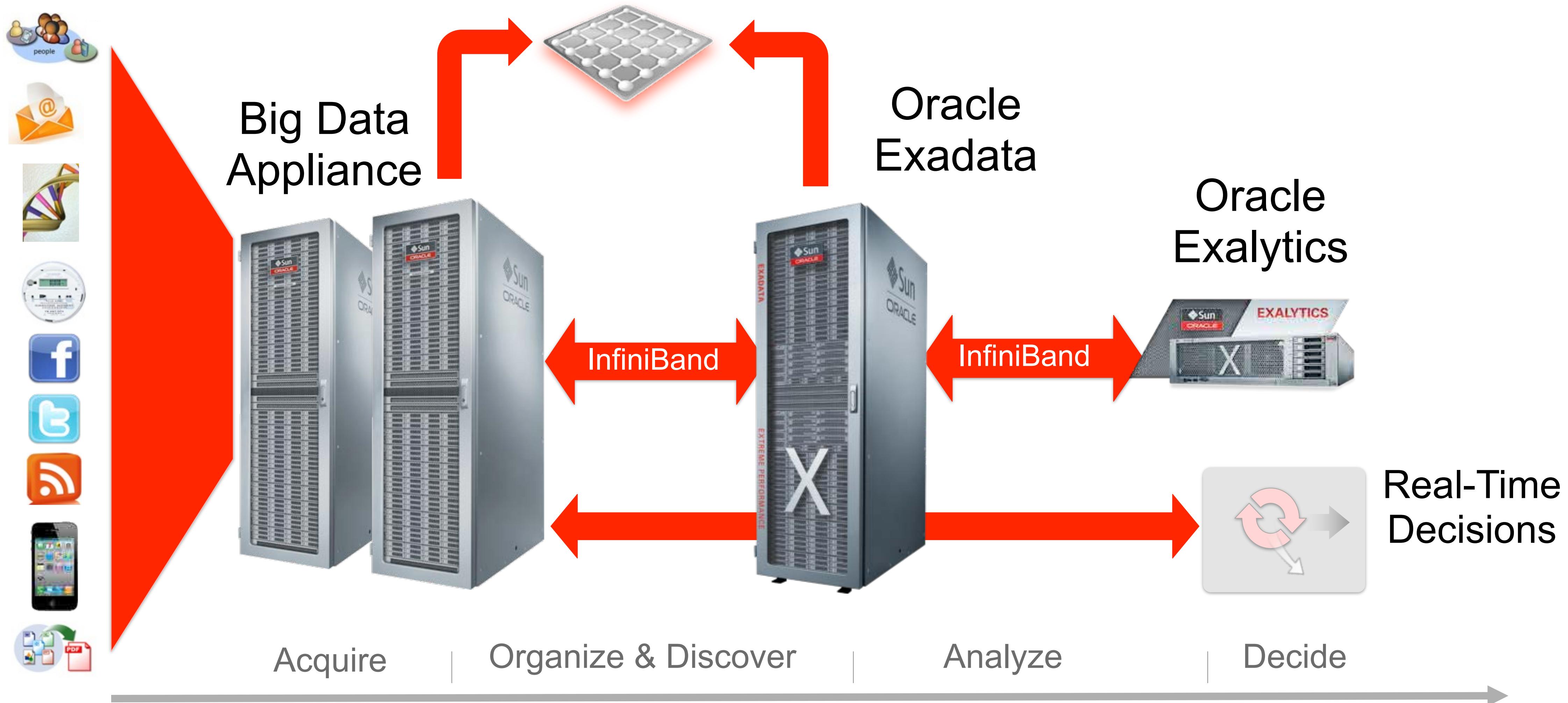
(1) Oracle mainstreams its Hadoop platform with Cloudera OEM deal, January 2012, Tony Baer



ORACLE®

Oracle's Big Data solution

Endeca Information Discovery



ORACLE®

To Deliver The Power of Place Drive Complexity Out of Your IT Equation



ORACLE®

Hardware and Software

ORACLE®

Engineered to Work Together

Oracle & The Power of Place

Peter Doolan

GVP Oracle Public Sector



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