

## Oracle Converged Database

# How to Simplify Application Development

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A portrait of a man with short brown hair and a light beard, wearing a grey patterned button-down shirt. He is looking directly at the camera. Behind him is a light-colored wall with a framed world map. The map has a dark background with light-colored landmasses. The frame is black. In the bottom left corner, there is a white rectangular box containing text.

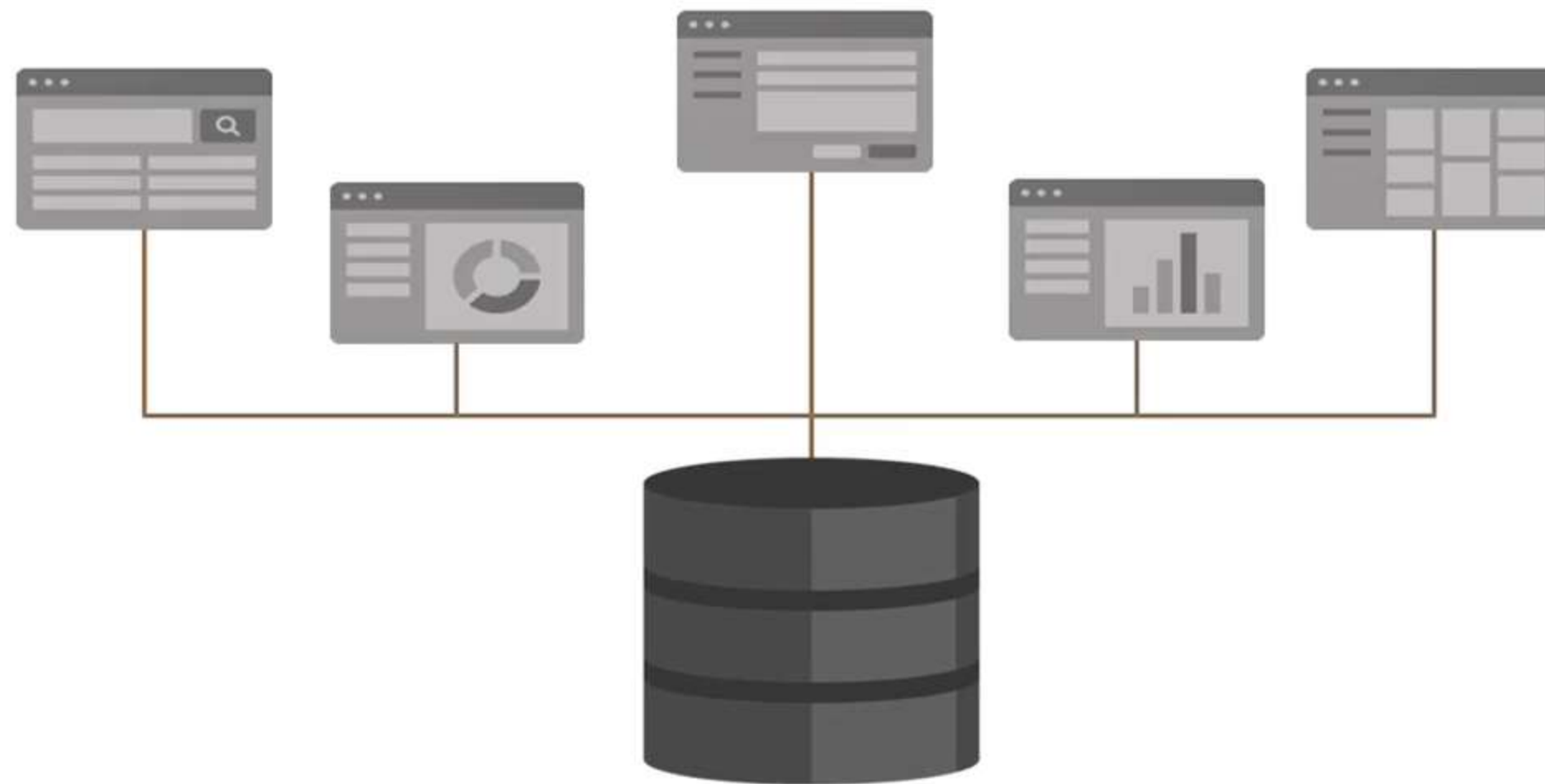
**Zach Shallcross**

ORACLE DATABASE SPECIALIST  
ORACLE



# App Dev for Business

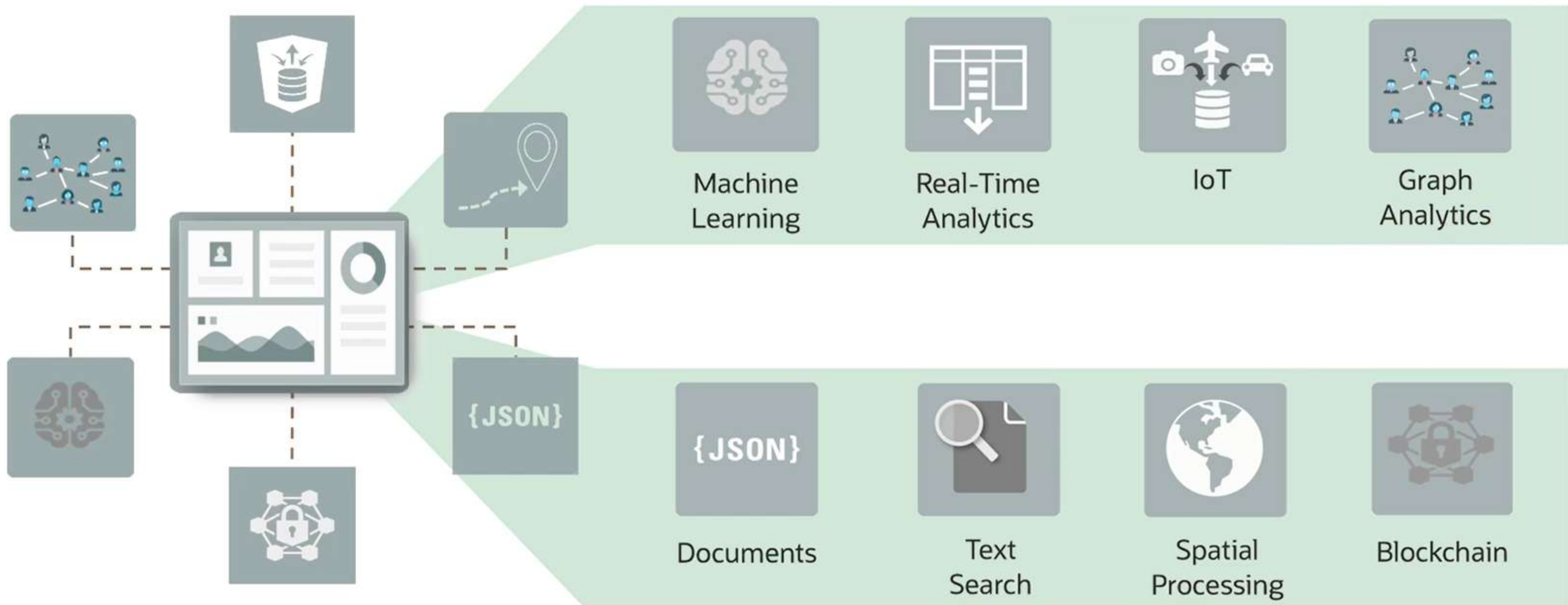
Developers earlier built applications using a single development platform and datastore





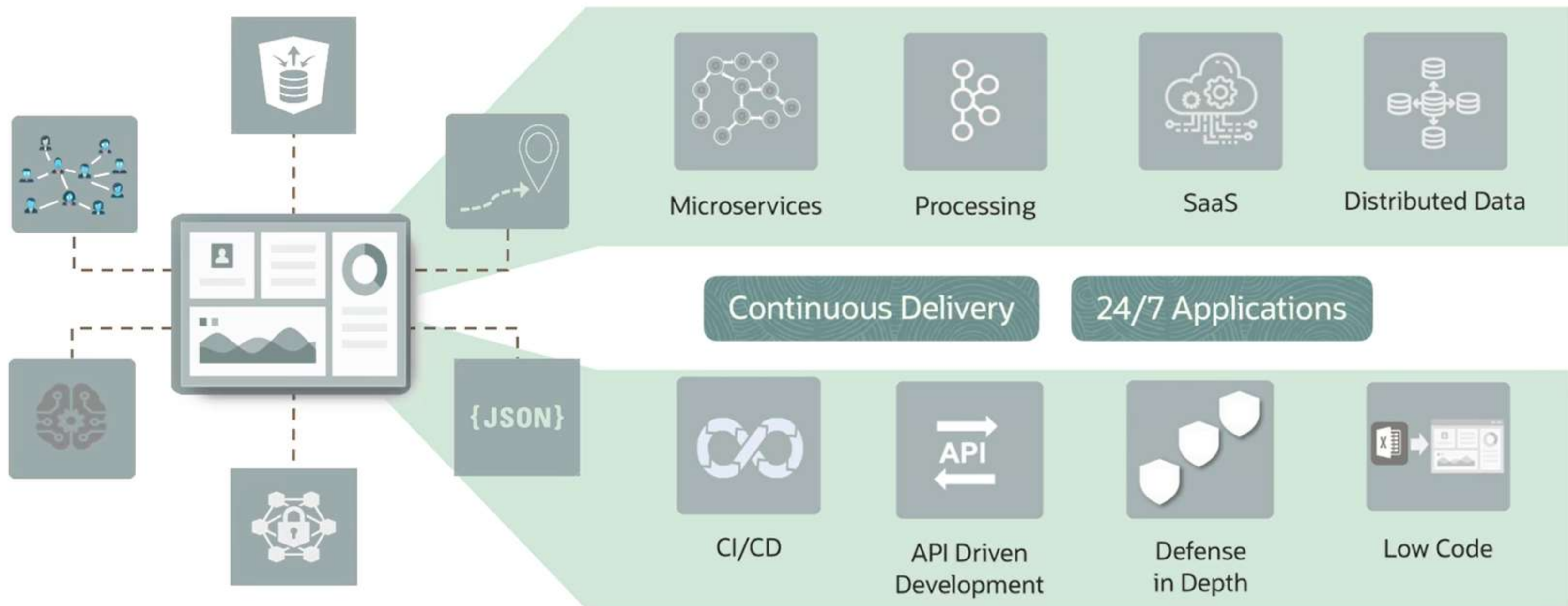
Modern Apps Need to **Generate Value**  
from **Data in New Ways**

# Modern Apps Need to **Generate Value** from Data in New Ways





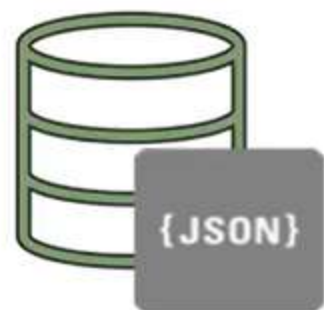
# Modern Apps Are Built Using New Development Methodologies



# Modern App Requirements **Lead to an Alternative Approach**

## Advantage

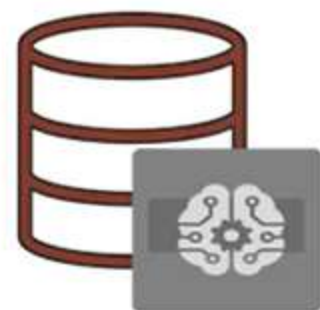
Run **Single-Purpose**, "best-of-breed" database for each data type and workload



Document



Reporting



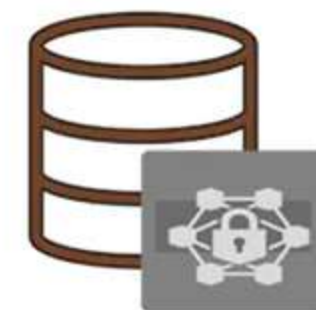
ML



Graph



Spatial



Blockchain

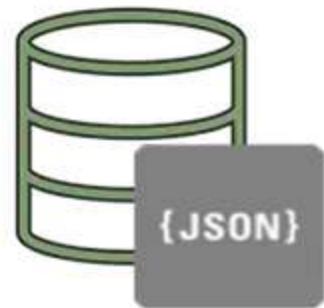


Text Search

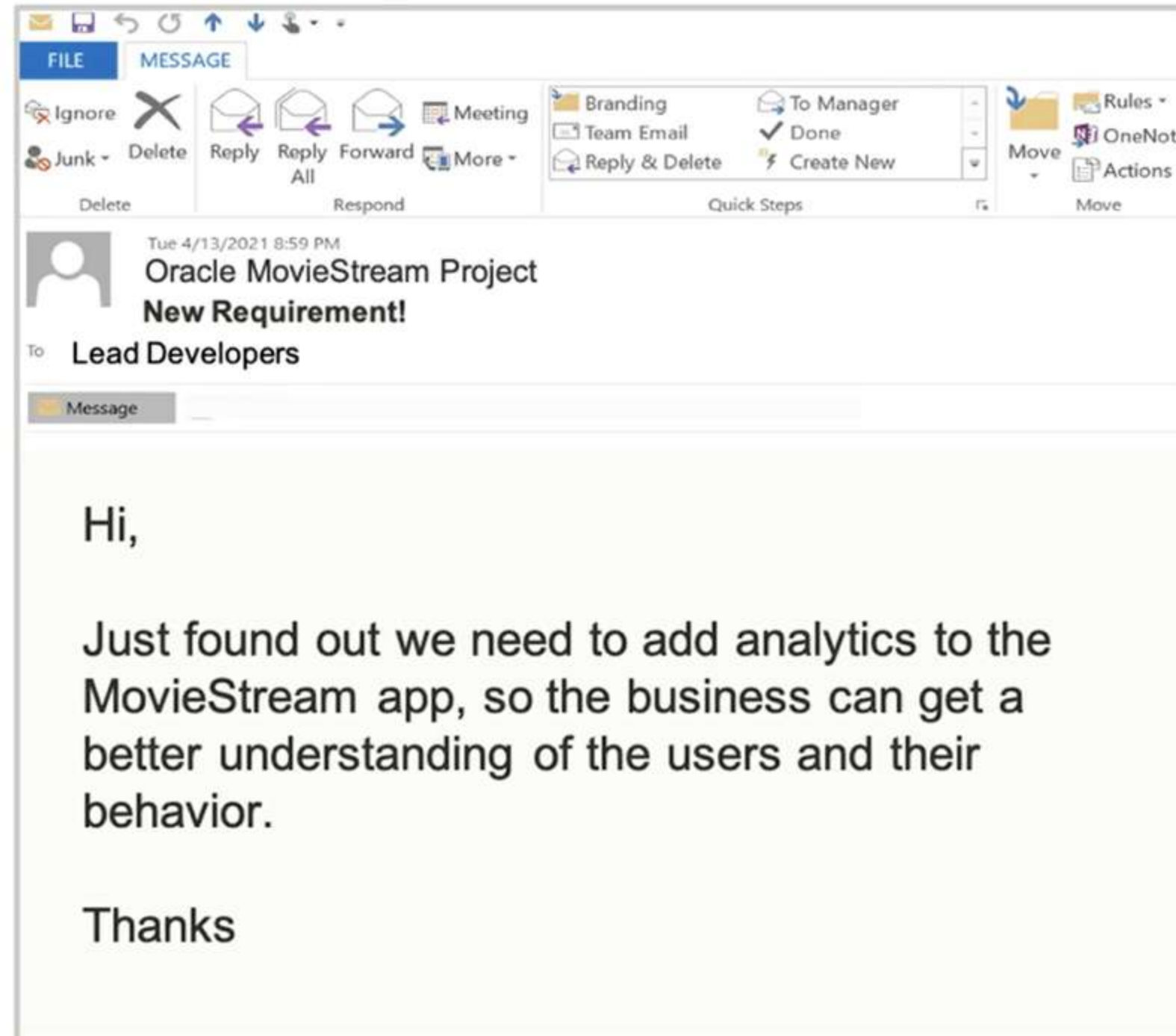
Each database offers a convenient data model that fits the purpose and has easy to adopt APIs for developers that seem natural for that data model



# Modern App Requirements Lead to an Alternative Approach



Document



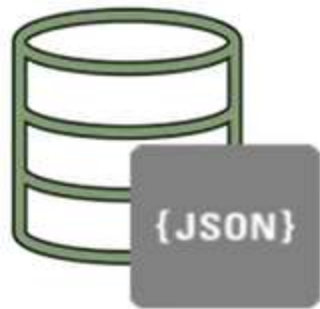
Development Requires Change

Unforeseen Business Requirement Crops Up



# Modern App Requirements Lead to an Alternative Approach

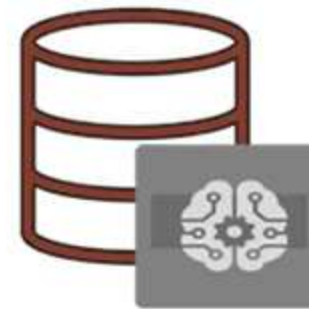
## Disadvantage



Document



Reporting



ML



Graph

Multiple Data Types and Workloads

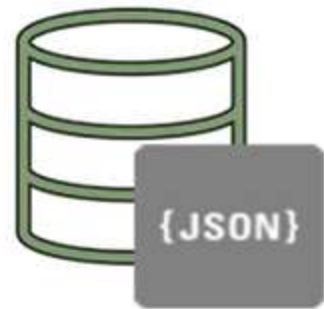
Multiple Single-Purpose Database

Increases Complexity

Fragments the Data

# Modern App Requirements Lead to an Alternative Approach

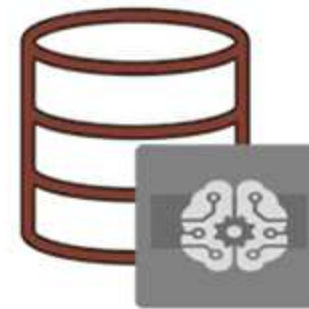
## Disadvantage



Document



Reporting



ML



Graph



Proprietary APIs and/or Languages



# Modern App Requirements Lead to an Alternative Approach

## Disadvantage



Might need Specialized App Code and/or Skills

Secure

Scalable

Highly Available



# How do you manage this level of complexity?



Organizations have to Bare the Brunt  
of Integration Work

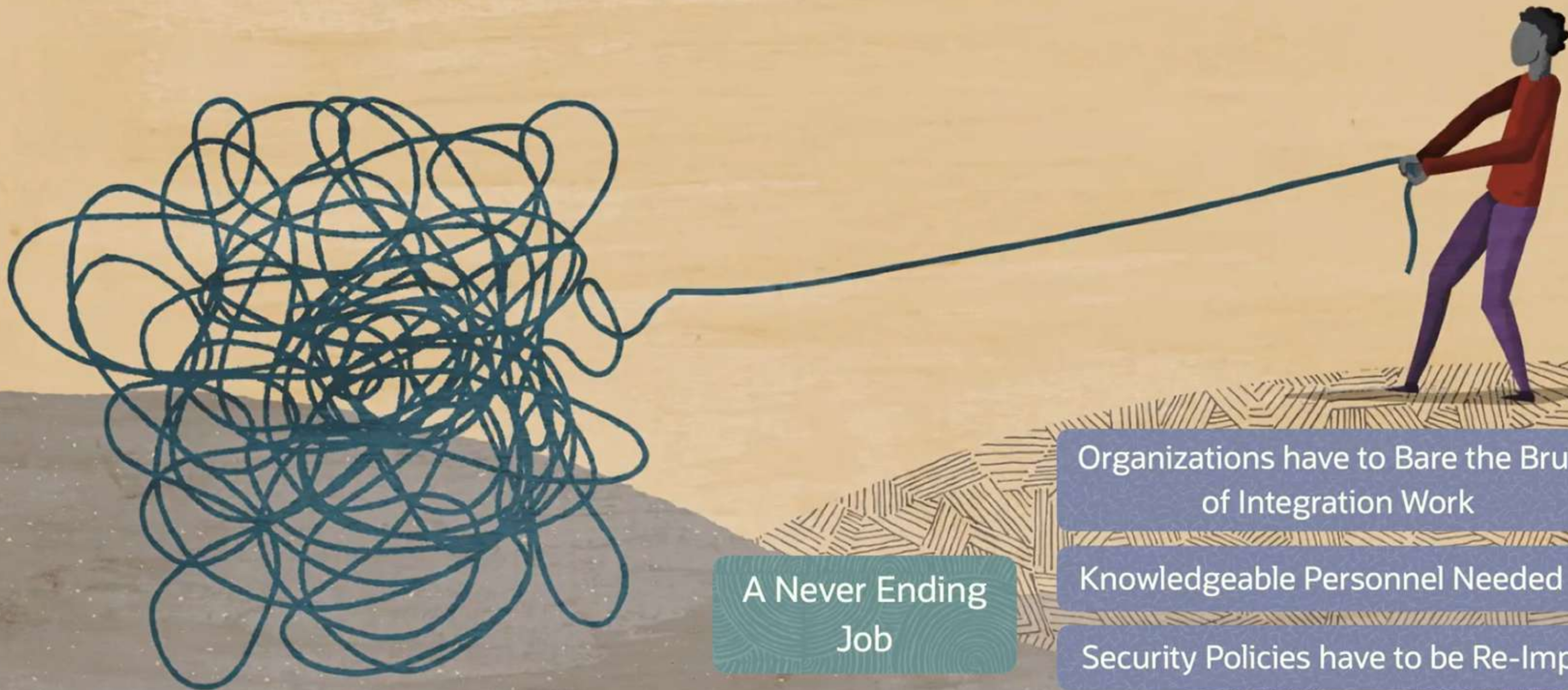
Knowledgeable Personnel Needed

Security Policies have to be Re-Implemented

Apps will become More Complex



# How do you manage this level of complexity?



A Never Ending  
Job

Organizations have to Bare the Brunt  
of Integration Work

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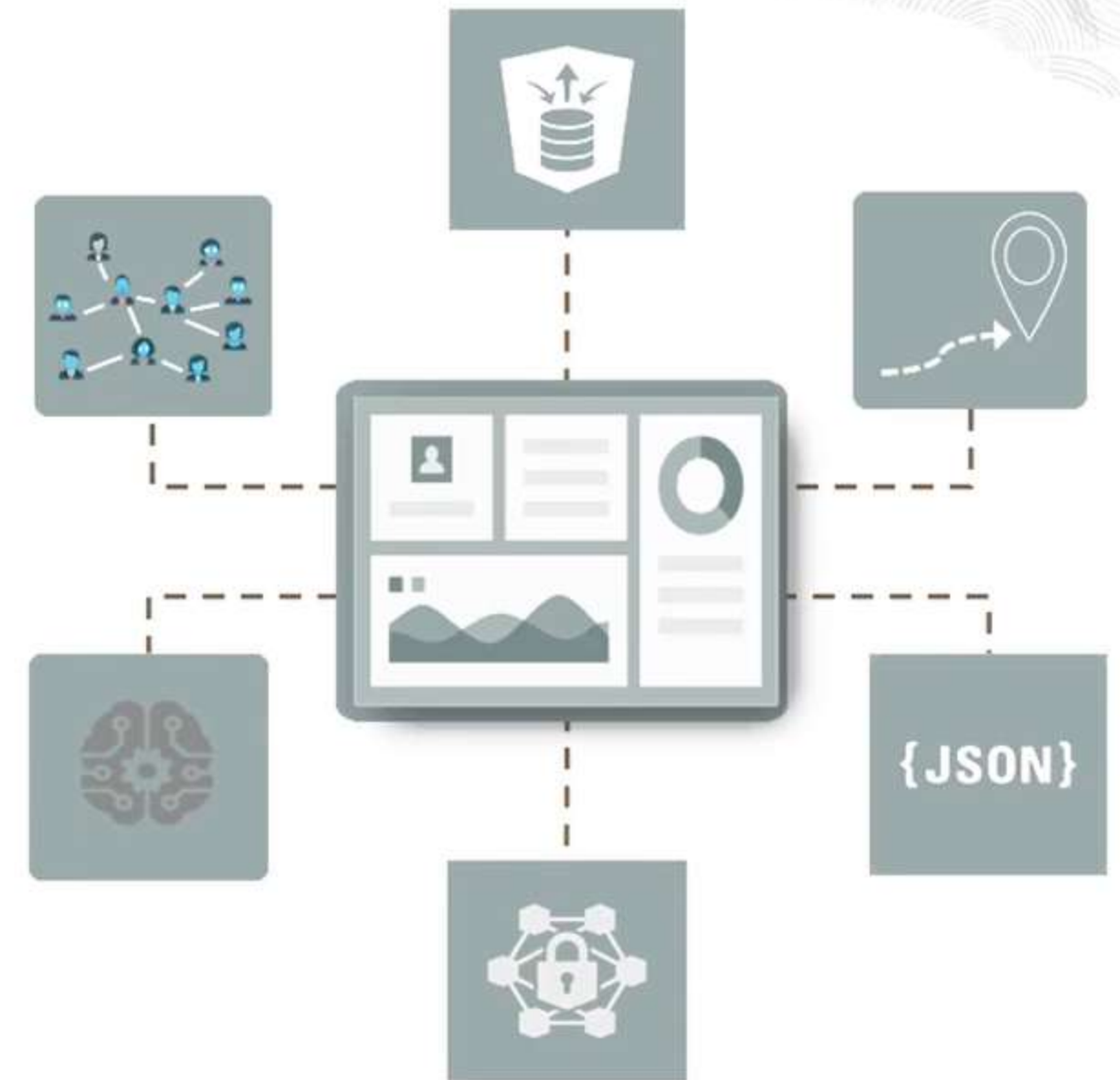
# Easier Way

- Simplifying new development methodologies with **Synergistic Data Technologies**
- Eliminating data fragmentation with a single **Converged Database** for all data types and uses
- Providing easy to use **Declarative Implementations** of the new data uses and types in the core database

Uniform API

SQL

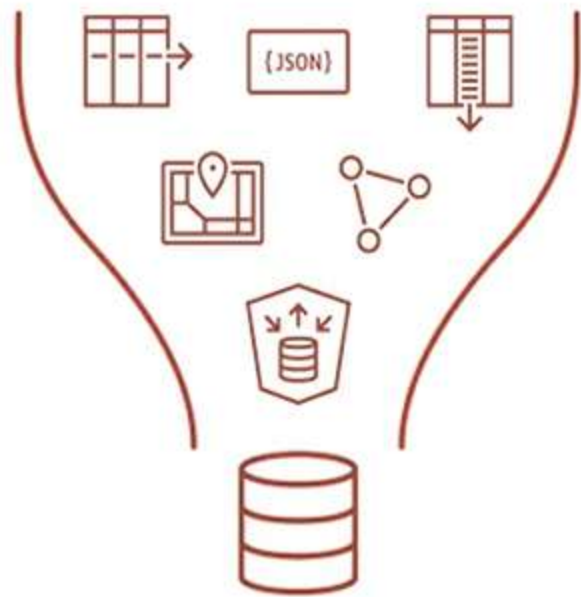
Rest





# What is a Converged Database?

## A Converged, Open SQL Database



**Converged Database**

### Multi-Model

Best-of-Breed Relational, JSON, Spatial, Graph, Cube, Text, Blockchain Cross-Model operations enables you to easily create value across all your data

### Multi-Workload

High Performance Transactions, DW, Analytics, ML, IoT, Streaming, Multitenant

Deep optimizations deliver exceptional price-performance across all workloads

### Engineered to work together

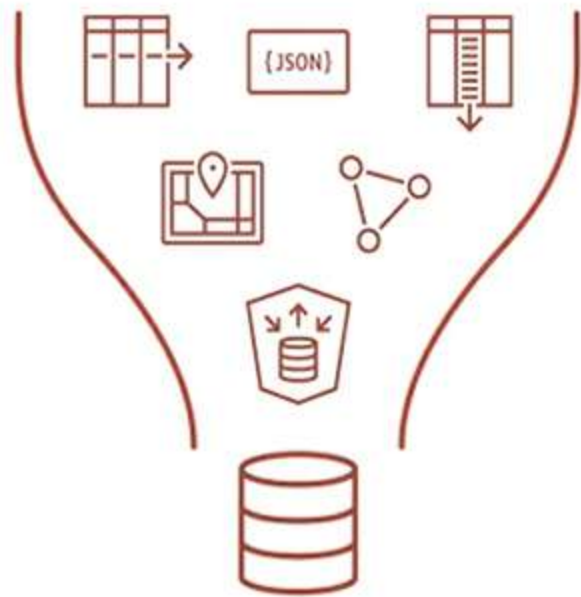
Oracle Database is a Converged Database where all data types and models are engineered to work together, enabling Cross Data Synergy

Seamlessly Mix and Match Data Types & Models

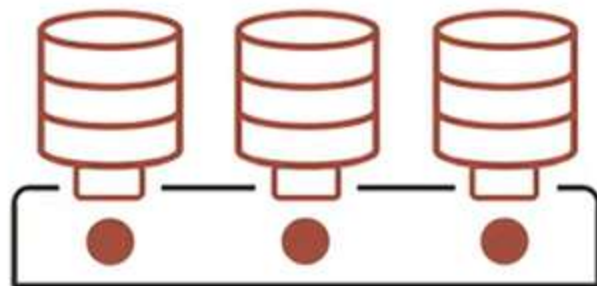


# What is a Converged Database?

## A Converged, Open SQL Database



**Converged Database**



**Database Container  
per Service**

### Multi-Model

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### Multi-Workload

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### Modularize and Containerize by App Service

Low-Level data types and workloads should not dictate your architecture



# Built-In Dev Tech

Each Modern Development Methodology

Accelerates Data Driven Apps Development

Complicates Data Architecture



Microservices



Events



API Driven Dev



SaaS



Low Code



Distributed Data



Defense in Depth



CI/CD

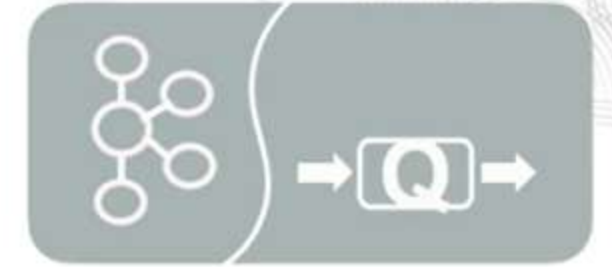
# Built-In Dev Tech

Converged Oracle Database  
Eliminates this Complexity

Pairing a Synergistic Data Technology  
with each new Development Methodology



Microservices – DB Containers



Events – Database Queues



CI/CD – SQLcl Liquibase



SaaS – Multitenant DB



Distributed Data - Sharding



API Driven – REST Data Svcs



Low Code - APEX



Defense in Depth –  
Declarative Security



# Summary



Oracle makes it simple to build Data Driven Apps by providing **Synergistic Data Technologies** for each modern Development Methodologies.

One Converged Database for all data types and models engineered so they all work together to enable **Cross Data Synergy**.

One Converged Database **greatly simplifies** Developments and Operations.