

## Oracle Converged Database

# How to Simplify Application Development

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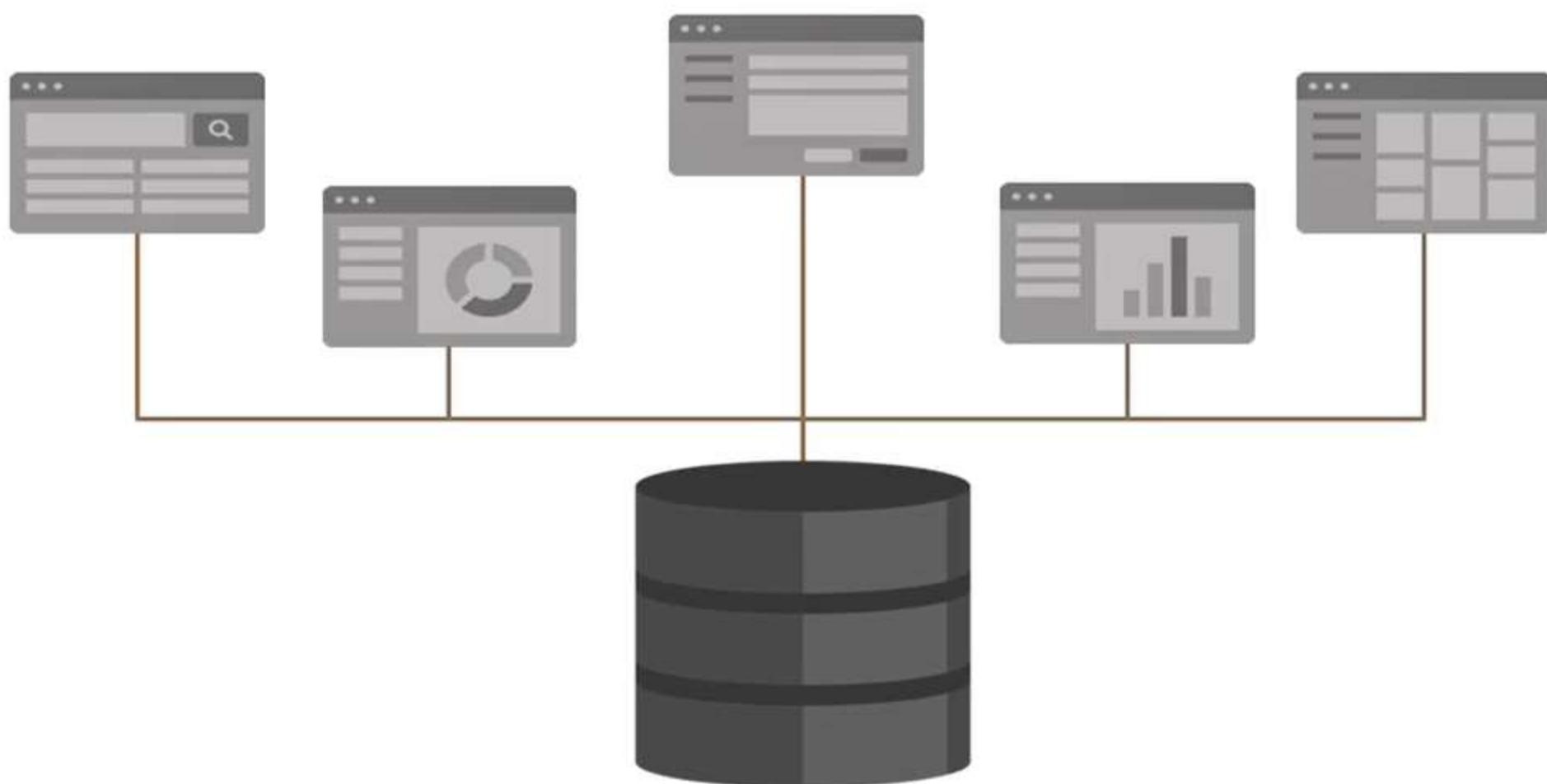


## Zach Shallcross

ORACLE DATABASE SPECIALIST  
ORACLE

# App Dev for Business

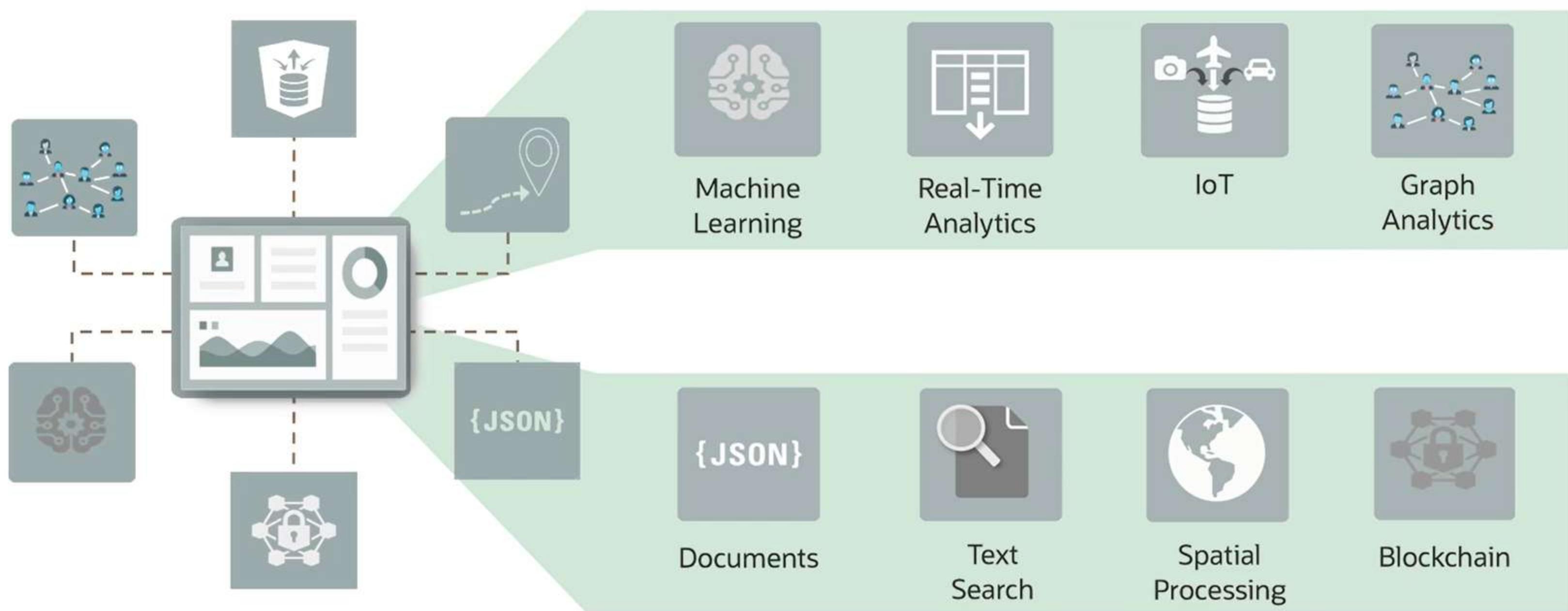
Developers earlier built applications using a single development platform and datastore



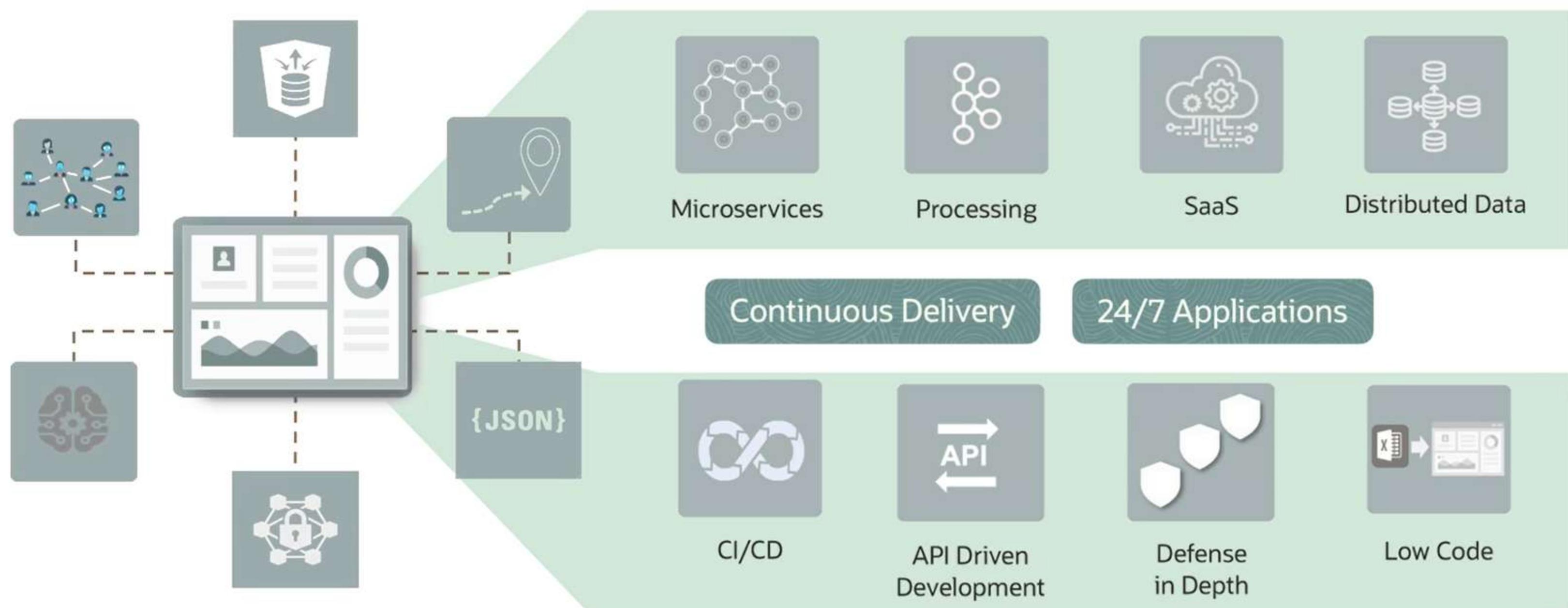


# Modern Apps Need to Generate Value from Data in New Ways

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



# Modern Apps Are Built Using New Development Methodologies



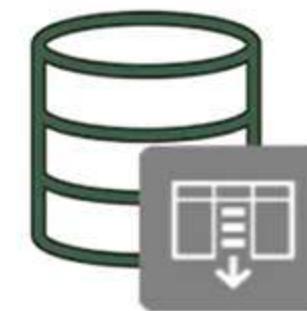
# Modern App Requirements Lead to an Alternative Approach

## Advantage

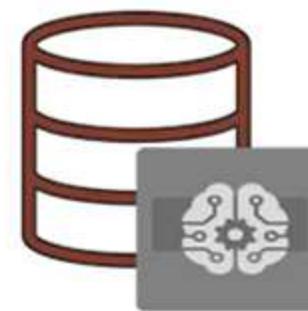
Run **Single-Purpose**, "best-of-breed" database for each data type and workload



Document



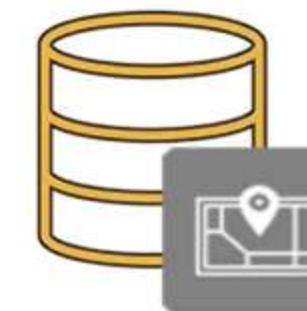
Reporting



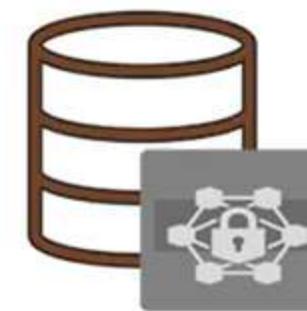
ML



Graph



Spatial



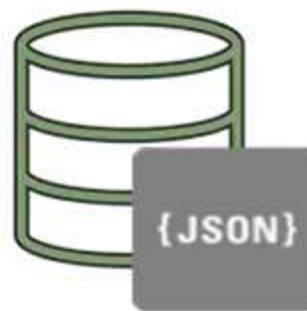
Blockchain



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

The screenshot shows an email interface with the following details:

- From:** Oracle MovieStream Project
- Subject:** New Requirement!
- To:** Lead Developers
- Date:** Tue 4/13/2021 8:59 PM
- Message Content:**

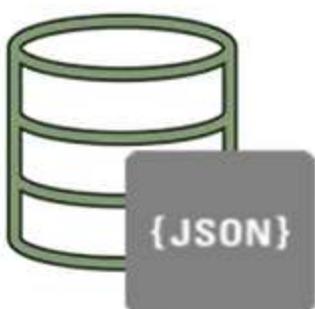
Hi,  
  
Just found out we need to add analytics to the MovieStream app, so the business can get a better understanding of the users and their behavior.  
  
Thanks

Development Requires Change

Unforeseen Business  
Requirement Crops Up

# Modern App Requirements Lead to an Alternative Approach

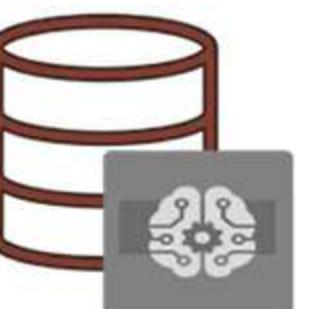
## Disadvantage



Document



Reporting



ML



Graph

Multiple Data Types and Workloads

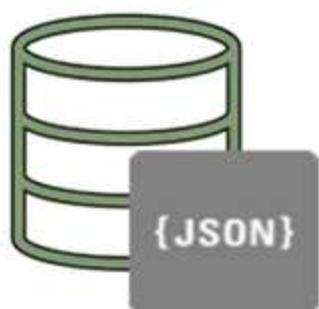
Multiple Single-Purpose Database

Increases Complexity

Fragments the Data

# Modern App Requirements Lead to an Alternative Approach

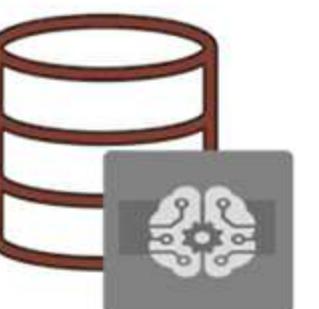
## Disadvantage



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

Knowledgeable Personnel Needed

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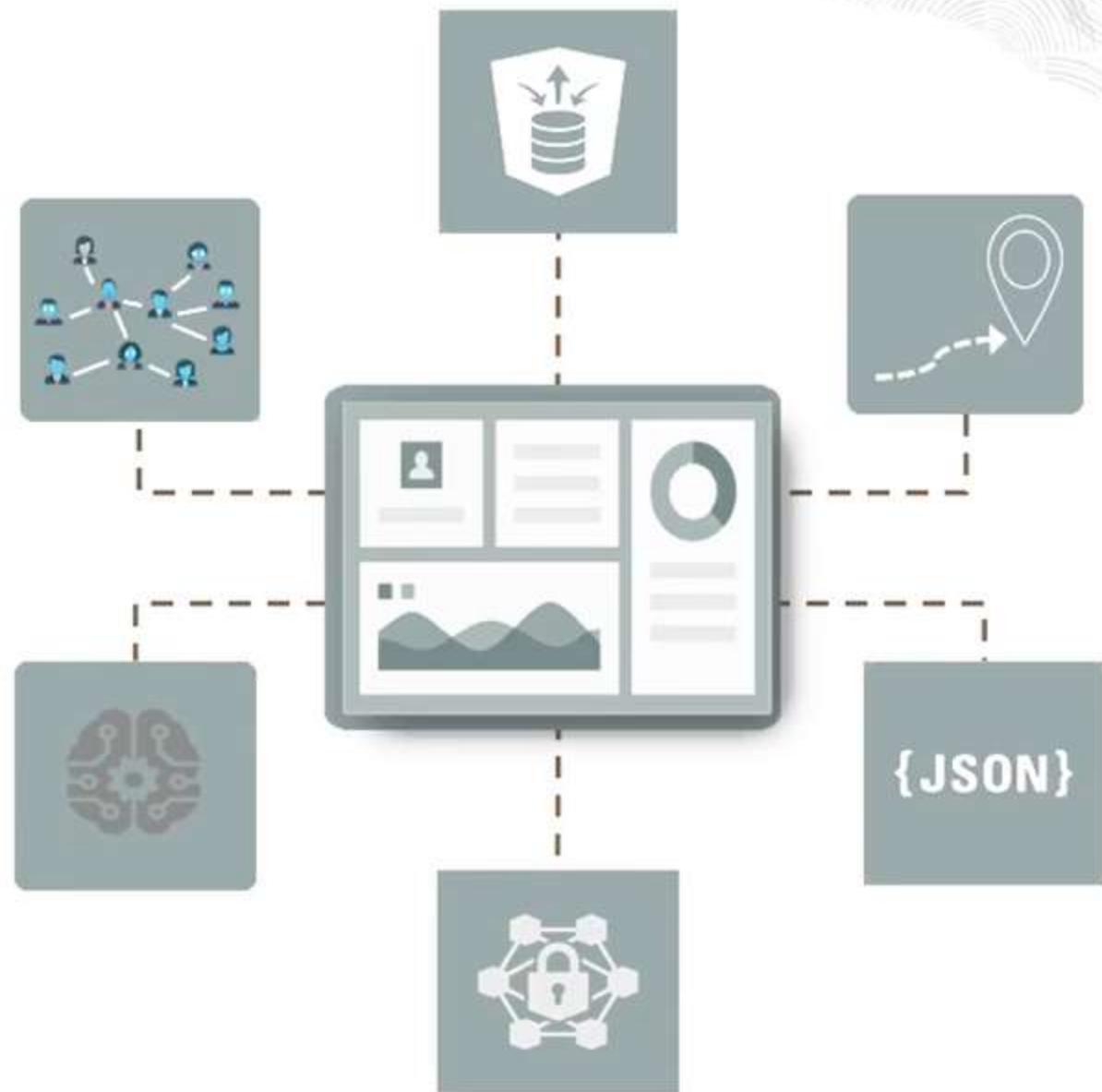
# Easier Way

- 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

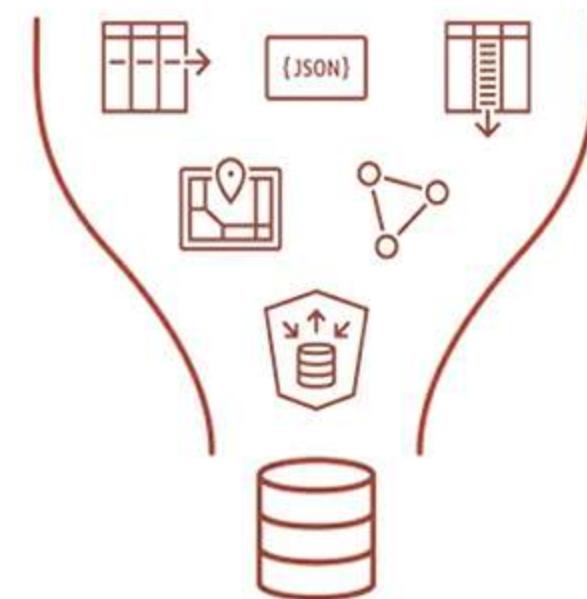
SQL

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

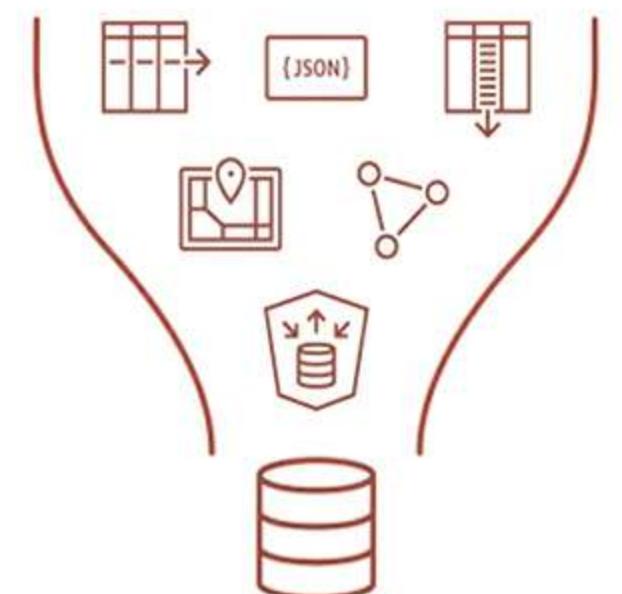
## Engineered to work together

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

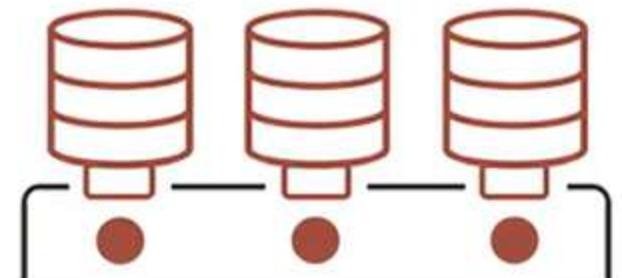
Seamlessly Mix and Match Data Types & Models

# 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



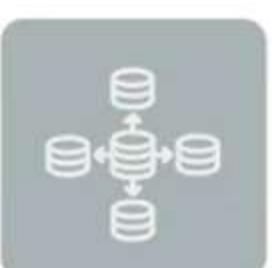
API Driven Dev



SaaS



Low Code



Distributed Data



Defense in Depth

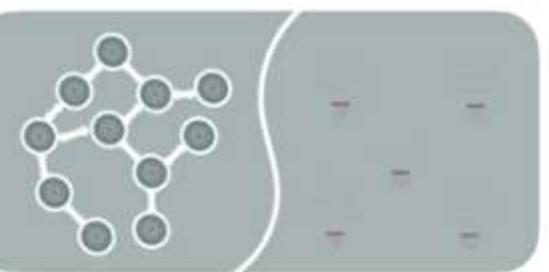


CI/CD

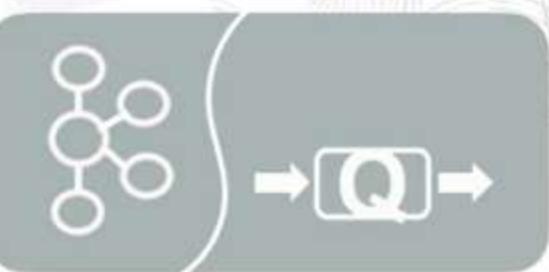
# Built-In Dev Tech

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



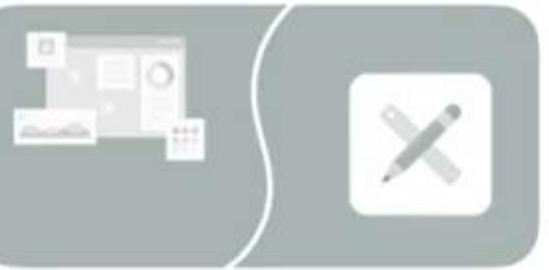
SaaS – Multitenant DB



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.