# OneDB

**HCL Software Innovation**
to *enable* and *accelerate*
your *digital transformation*

November 2021

**HCL**
Technology for the
new normal, **today**.

**HCL SOFTWARE**

# Content

# OneDB

## Digital Transformation

The 21st Century Enterprise

# Defining Characteristics of the 21st Century Enterprise

## Experience Centric



Contextual, unified experience for customers

## Outcome Based



Business outcome focused (KPI, MBR, Etc.)

## Agile & Lean



Optimized platform built on automation & dynamic rules engine

## Microservice Oriented



Consume "everything" as a service

## Ecosystem Driven



Extended enterprise of customers, suppliers, partners, employees

The 21CE offers a unified experience across different channels. It also uses the context of the usage and the channel to focus on customer experience.

The 21CE applies technology to transform its business model and deliver "outcomes" that cut across value chains.

To ensure a swift response to changing market conditions, a 21CE is optimized in processes and tools for fast maneuverability

Irrespective of the sector in which it operates, a 21CE will change its operating model and become "data-driven"

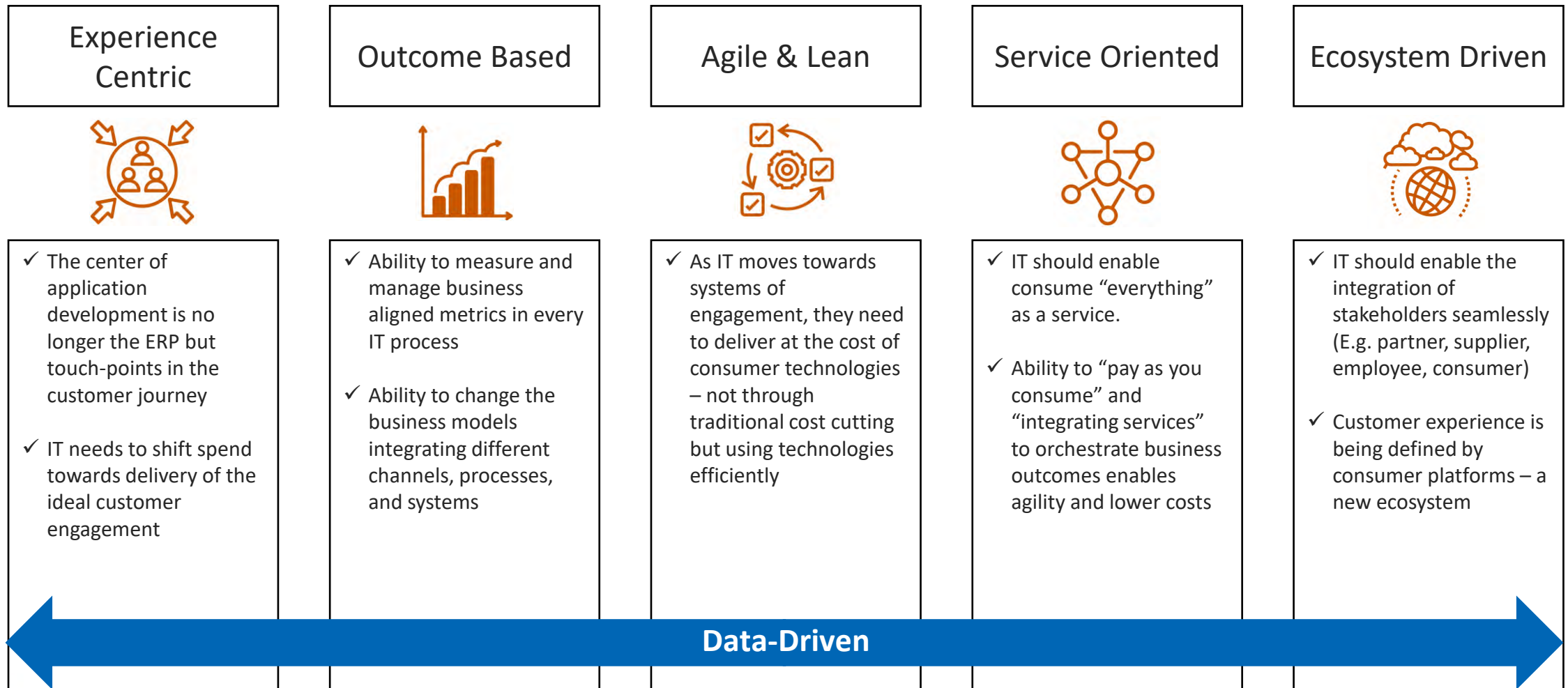These are complex specialized networks wherein stakeholders up & down the value chain collaborate to extend the enterprise beyond traditional boundaries

HCL SOFTWARE

# The Changing Role of Data in Enterprises

**21st Century Enterprises use data as a competitive advantage.**
**They use data as a strategic asset in becoming a more intelligent enterprise.**

| Experience Centric | Outcome Based | Agile & Lean | Service Oriented | Ecosystem Driven |
|---|---|---|---|---|

- ✓ The center of application development is no longer the ERP but touch-points in the customer journey

- ✓ IT needs to shift spend towards delivery of the ideal customer engagement

---

- ✓ Ability to measure and manage business aligned metrics in every IT process

- ✓ Ability to change the business models integrating different channels, processes, and systems

---

- ✓ As IT moves towards systems of engagement, they need to deliver at the cost of consumer technologies – not through traditional cost cutting but using technologies efficiently

---

- ✓ IT should enable consume "everything" as a service.

- ✓ Ability to "pay as you consume" and "integrating services" to orchestrate business outcomes enables agility and lower costs

---

- ✓ IT should enable the integration of stakeholders seamlessly (E.g. partner, supplier, employee, consumer)

- ✓ Customer experience is being defined by consumer platforms – a new ecosystem

**Data-Driven**

# 21st Century IT Builds 21st Century Applications

**21st Century applications require a different approach to architecture, development, and operations**

**Previous Applications**

**21st Century Applications**

| Previous Applications | 21st Century Applications |
|---|---|
| Focus on delivering functionality to support processes | Customer centricity leading the backend optimization with design thinking |
| Delivering to user requirements through SMEs acting as proxy | Evolving an application from MVP by learning from the actual end-users |
| Long release cycles with major feature upgrades | Shorter lifecycles for applications – including shorter release cycles |
| Large monolithic applications that suite majority of users – focus on consolidation of applications | Smaller focused applications for different user segments – focus on differentiated, contextual, value-centric experiences |
| Different silo's – development, deployment, operations | Full stack engineering optimized across dev, deploy and ops |

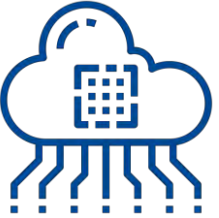# Key Technical Elements of 21ˢᵗ Century Applications

**The HCL Software portfolio brings all these elements together:**

✓ STANDARDIZATION: technology stack, development practices, and operationalization

✓ FOCUS ON BUSINESS VALUE: By moving technology concerns to HCL Software, developers can focus on the business problems and the use cases

## APIs

**1**

- To support different channels and customer experiences on the same back end
- To leverage existing IT assets and capabilities
- To participate in the modern ecosystem of application development up & down the value chain

## DevOps

**2**

- End to end agility in application lifecycle: dev, test, deployment
- Automation for cost effective development and predictability

## Cloud

**3**

- Support for non-functional requirements; High availability, disaster recovery, and scalability
- "Pay as you go" model of consumption of resources

## Operations Ready

**4**

- Standardization of operations – to support large number of small apps (e.g. new data governance policies)
- Support for self-service: discovery, provisioning, and troubleshooting

## Analytics Infused

**5**

- Operational analytics to support application development
- Support for going from MVP to full fledged application

# Delivering on 21st Century Application Development

*The focus on platforms, customer-centric applications, and rapid business model changes requires new delivery models*

| Lab Services | HCL Now | HCL SoFy |
|---|---|---|
| **Innovation Team Model** | **Shared Service Model** | **Factory Development Models** |
| ✓ Integrating cloud-native products into 21st Century ecosystems by working with partners and end-customers to create data-driven solutions for new business models | ✓ Dedicated, secure environments deployed and managed on your public cloud of choice.<br><br>✓ Enterprise–grade availability, unlimited scalability and flexibility built from the ground up as cloud–native. | Deploy HCL Software products to K8s with just a few clicks or single command. Enables deployment to any cloud – public, private, hybrid – in just minutes! SoFy solutions are portable across all Kubernetes environments, so you have complete freedom of choice. |

**Collaboration & Co-Creation** ————————————→ **Governance & Efficiency**

**HCL SOFTWARE**

# Enterprise Platforms: The HCL Software Portfolio



**Enterprise Platforms**

**Orchestration Platforms**
- **Productivity Improvement**
  - Dynamic Decision making
  - Process Automation
- **Efficiency Improvement**
  - Portfolio Consolidation
  - Legacy Modernization

**Experience Platforms**
- **Digital Employee**
  - Knowledge Management
  - Employee Collaboration
- **Digital Customer**
  - Customer Service
  - E-Commerce
  - Digital Marketing

HCL BigFix
HCL Workload Automation

HCL Accelerate
HCL Launch
HCL VersionVault
HCL Compass
HCL OneTest

HCL Domino
HCL Volt MX
HCL Sametime
HCL Connections

HCL Unica
HCL Commerce
HCL Unica Discover

HCL AppScan

HCL Domino Volt

HCL Digital Experience

HCLSoFy

**Platform Components & Tools**

OneDB    HCL Link    HCL Mainframe    HCL Hero    HCL Clara    DRYiCE MyCloud    EXACTO    ACTIAN

HCL SOFTWARE

Product Overview

ABOUT HCL OneDB

HCL SOFTWARE

# OneDB: Vision & Strategy

**Be the best cloud-native database for HCL Software products and enterprise applications**

**1. The de facto cloud-native database for HCL Software products**

When clients move their HCL applications into cloud-native

- High-availability, scalability, and versatility, the Kubernetes way
- Improved usability and management so lack of skills is not an inhibitor
- OneDB v2.0 supports Unica, Commerce, Workload Automation, Link, and Compass
- Solution Factory (SoFy) deploys OneDB for development and production
- 2021-2022: Continue until all HCL Products are supported by OneDB

**2. Support platform modernization efforts - leading with our cloud-native capabilities**

- For companies executing against a cloud first strategy, leading with the database when transitioning to the cloud or to cloud-native practices
- Perfect for new cloud-native application development or when modernizing legacy stacks

# The HCL OneDB Differentiator

*High performance and reliability with cloud native advantage*

**Unmatched for Cloud-Native Solutions**
Deploy & scale on any/multi cloud, on-premise and embedded in apps. Database replication and scalability the Kubernetes way.

**Data Access**
Application developers have fast access to this data through, REST API, Mongo APIs, and SQL APIs.

**Accelerate time-to-market**
Build and deliver cloud native solutions faster and with more flexibility, to address critical business needs.

**Multi-model Data Management**
Power workloads spanning multiple data types (document-store/JSON, SQL, timeseries, spatial) on a single data platform.

**Hybrid Transactions**
Combine and use Time-series, Spatial, NoSQL, and SQL data together in the same query and database.

**Data Volume**
Ingest and store terabytes of data necessary for broad range of enterprise solutions — from edge to cloud.

**Data Security**
Native encryption with all configurations. Data is secure at rest, and in motion.

**Always-on Transactions**
Extremely high data availability, for planned and unplanned outages.

**Simple and cost effective**
Easy to deploy and cost-effective to run. Small footprint, silent installer, self-managing.

## Increased speed, agility and lower cost

- **Speed of Deployment and Ease of Operations**
  - Scalability and high-availability configuration is automated
  - Operational automation and flexibility (roll-outs, updates, roll-backs, backups, etc.
  - Enable developers to do more and develop apps faster without highly refined dba-specific skills

- **Much less database-specific knowledge/experience** is needed to run a cloud native database.

- Kubernetes defines a high-availability and scalability architecture that is common for all applications.

  - Kubernetes provides a standard framework for automation. This framework can be used to automate many database administration tasks

- **Greater workload flexibility**

  - Enhanced portability across a multitude of infrastructures because of container-based infrastructures
  - More efficient use of resources

# OneDB 2.0 Reference Architecture
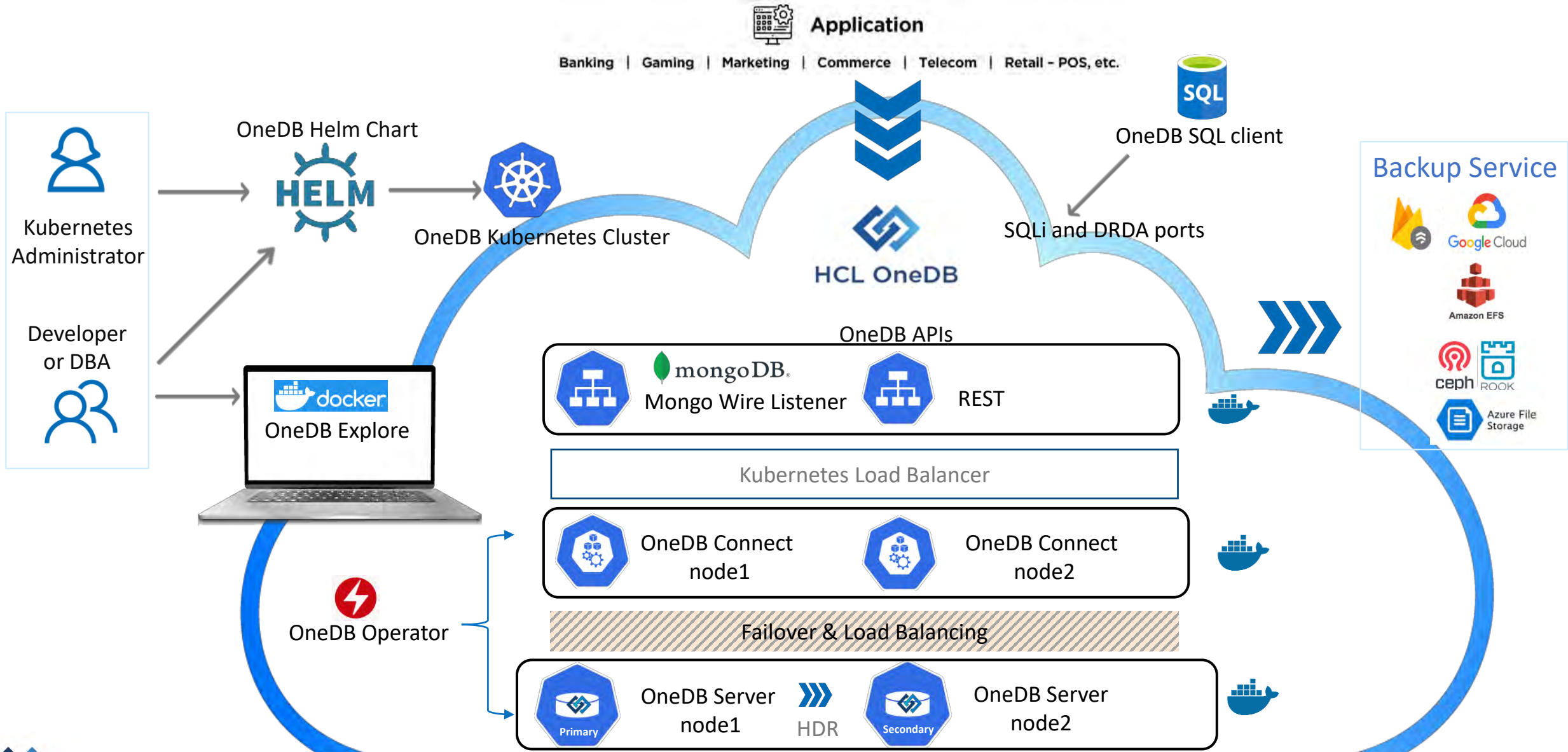


Application

Banking | Gaming | Marketing | Commerce | Telecom | Retail – POS, etc.

SQL

OneDB SQL client

OneDB Helm Chart

HELM

OneDB Kubernetes Cluster

HCL OneDB

SQLi and DRDA ports

Kubernetes Administrator

Developer or DBA

docker

OneDB Explore

OneDB Operator

Backup Service

Google Cloud

Amazon EFS

ceph ROOK

Azure File Storage

## OneDB APIs

mongoDB
Mongo Wire Listener

REST

Kubernetes Load Balancer

OneDB Connect node1

OneDB Connect node2

Failover & Load Balancing

OneDB Server node1
Primary

HDR

OneDB Server node2
Secondary

HCL SOFTWARE

# OneDB: A Proven Platform



| Key | | Description | % weight |
|---|---|---|---|
| ○ | 0 | Not at all | 0% |
| ◔ | 1 | Very basic support | 25% |
| ◑ | 2 | Partial implementation on full on-prem | 50% |
| ◕ | 3 | Good implementation and K8s support | 75% |
| ● | 4 | Fully implemented/supported in cloud native | 100% |

| Cloud Native Capabilities | OneDB v2 | Oracle DB | DB2 on Cloud | MySQL w/ Vitess | MongoDB | PostgreSQL w/ EDB Operator | CockroachDB | Snowflake | YugaByte DB |
|---|---|---|---|---|---|---|---|---|---|
| Kubernetes Orchestration | ◑ | ◔ | ○ | ◑ | ◔ | ◔ | ● | ○ | ◑ |
| HA the Kubernetes Way | ◑ | ◑ | ◑ | ◔ | ◔ | ◑ | ◑ | ○ | ◑ |
| Reliability - Data Integrity | ● | ● | ● | ● | ● | ● | ● | ◕ | ● |
| Cloud Choice | ◕ | ◑ | ◑ | ● | ◕ | ● | ● | ◔ | ● |
| Performance | ◕ | ◕ | ● | ● | ● | ◔ | ● | ○ | ● |
| Security | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Serviceability | ◕ | ◕ | ◕ | ● | ● | ◕ | ◕ | ● | ◕ |
| API Compatibility | ◕ | ◕ | ◕ | ◕ | ● | ◕ | ◑ | ◔ | ◕ |

Evaluated OneDB v2.0 against competitors in the cloud-native DBMS market, comparing over 60 attributes

# OneDB: A Proven Platform

**HCL**

| Cloud Native Capabilities | OneDB v2 | Oracle DB | DB2 on Cloud | MySQL w/ Vitess | MongoDB | PostgreSQL w/ EDB Operator | CockroachDB | Snowflake | YugaByte DB |
|---|---|---|---|---|---|---|---|---|---|
| **Kubernetes Orchestration** | | | | | | | | | |
| Complex Cloud Native Scale Out | | | | | | | | | |
| Region-Aware Replication | | | | | | | | | |
| Pre-built Specialized Conf Defaults | | | | | | | | | |
| **HA the Kubernetes Way** | | | | | | | | | |
| Use K8S to leverage best HA solution for Application | | | | | | | | | |
| Support RTO/RPO configurations | | | | | | | | | |
| **Reliability - Data Integrity** | | | | | | | | | |
| Global ACID Compliant Transactions | | | | | | | | | |
| Local ACID Transactions | | | | | | | | | |
| **Cloud Choice** | | | | | | | | | |
| Cloud Provider Agnostic Availability | | | | | | | | | |
| Interoperability with common cloud services | | | | | | | | | |
| Availability on Public Cloud Marketplace | | | | | | | | | |
| Available Where Customer is (On-prem, Private/Public/Hybrid Cloud, OpenShift) | | | | | | | | | |
| **Performance** | | | | | | | | | |
| Documented Performance | | | | | | | | | |
| High-Speed Data Loader | | | | | | | | | |
| **Security** | | | | | | | | | |
| Access Control Options | | | | | | | | | |
| Auditing Options | | | | | | | | | |
| Encryption | | | | | | | | | |
| Support 3rd party Authentication & auditing services | | | | | | | | | |
| **Serviceability** | | | | | | | | | |
| Support for data storage outside DBMS | | | | | | | | | |
| Automated Backup and Restore | | | | | | | | | |
| Monitoring tools support | | | | | | | | | |
| Migration Support | | | | | | | | | |
| **API Compatibility** | | | | | | | | | |
| Support Multiple API standards | | | | | | | | | |
| Support for multiple data models | | | | | | | | | |
| Programming language drivers supported | | | | | | | | | |

**HCL SOFTWARE**

2.0 What's New?

HCL SOFTWARE

# OneDB is Cloud Native Production Ready

- **Kubernetes High Availability and Scalability support**

  - Specialized containers to help deliver customized cloud native solutions

  - Updated Helm Charts for single click easy deployment
    - via HCL SoFy to use for production deployment of OneDB
    - via any Kubernetes environment (GKS, AKS, EKS, OpenShift)

  - Automated database backup to separate network storage orchestrated by new OneDB Kubernetes operator

- **Architected for nimble CI/CD continuous delivery and integration**

- **Transaction Survivability:** Applications using MongoDB APIs can survive disruption in server availability in case of any node failure

**HELM**

**HCL SOFTWARE**

# Run HCL Commerce with a High Performance Cloud Native Database

- **Run HCL Commerce 9.1.7 in a true cloud native environment with OneDB**

  - Commerce 9.1.7 recommends OneDB 2.0 for all new cloud native customers!

- **HCL Commerce + HCL OneDB delivers the best performance for ecommerce solutions**

  - Sub-second pageload performance with OneDB

- **Easy migration services**

## Client Applications

API Driven Applications

SPA / Angular / React Storefront

Legacy Aurora Storefronts

## Business Services

- Search Business Service
- Aurora Storefront
- Transaction Server
- xC Server
- Utilities Business Service

- Admin Tooling Server
- Next Gen Storefront
- Identity Business Service
- Cart Business Service
- Pricing Business Service
- Data Loading Service

Kafka Event BUS

Current Containers

Future Containers

HCL OneDB

HCL SOFTWARE

# HCL OneDB is the Recommended Database for Unica platform metadata

**Paired for Success by Design:** Unica and OneDB are performance tested and tuned together.   Take advantage of our migration services and automation scripts.

**Easy Configuration**: Single Docker container to manage all metadata (system tables) and can manage Campaign (user/customer data).

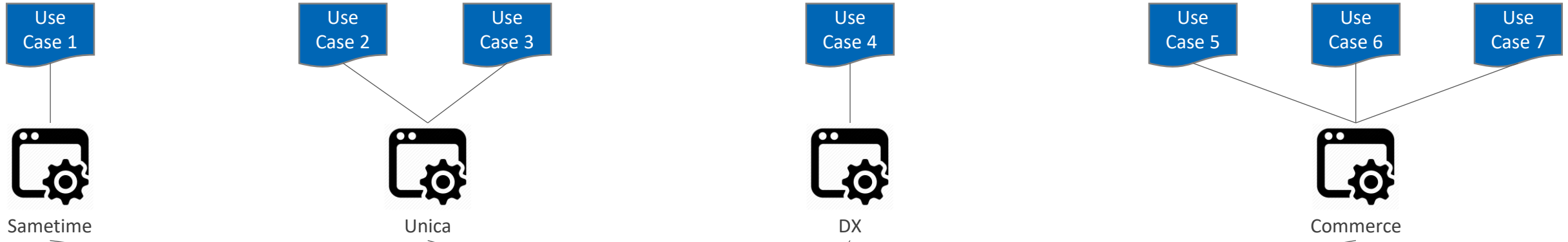**Speedy Deployment:** Via SoFy and Unica on HCL Now offering,  can be deployed in minutes!

**Low TCO, Scale to meet your Demands**: OneDB is embedded for system tables, and expandable to handle your demands.  Multi-model capabilities make OneDB an excellent platform choice to power additional cloud-native applications within your enterprise martech ecosystem.

**HCL SOFTWARE**

# Unica On HCL Now Reference Architecture

Use of 3rd party names is illustrative and denotes the context in which Unica operates. Logos and trademarks are copyrights of respective owners.
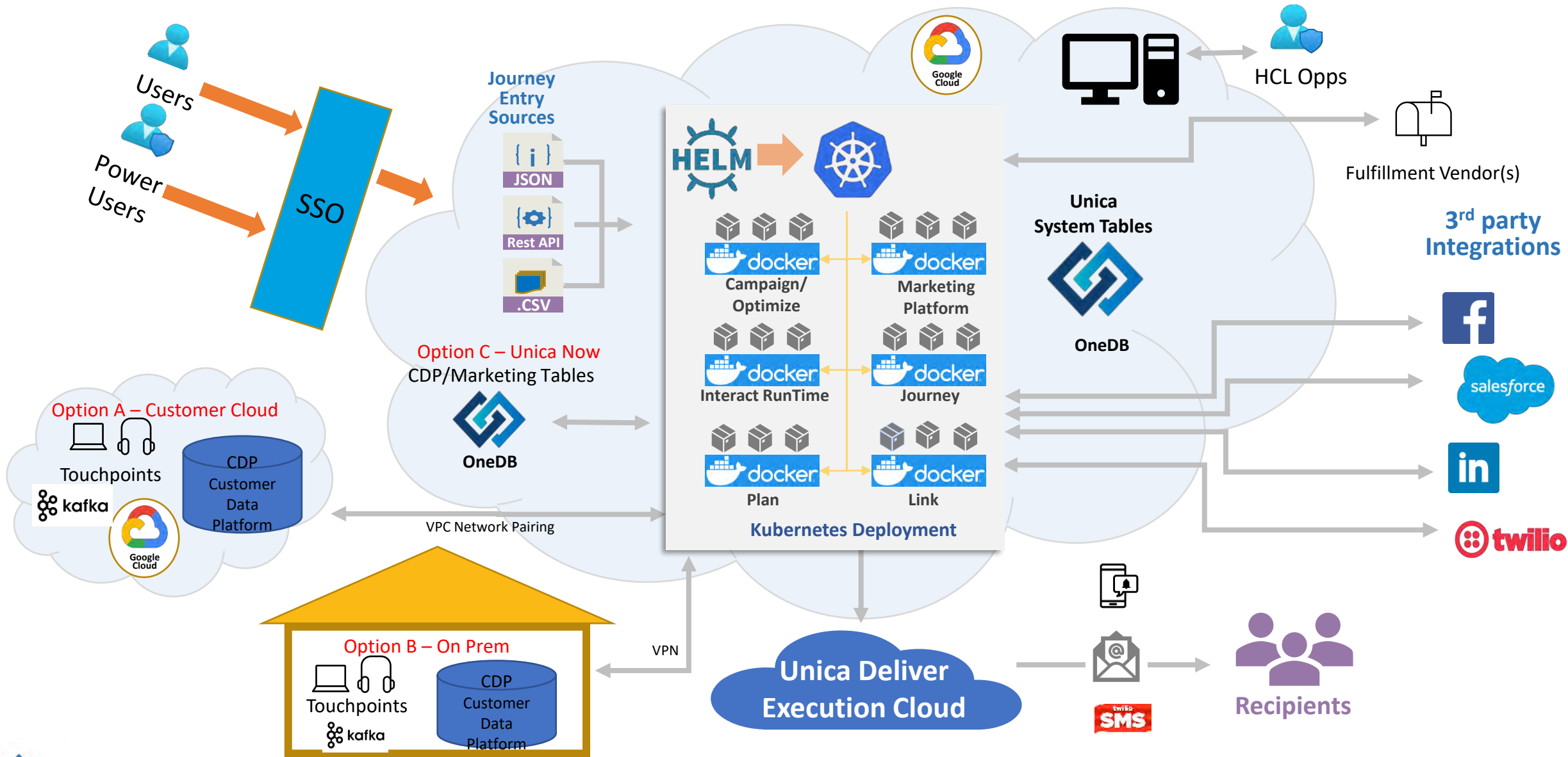
# Simplify with OneDB's extensibility to power addtn'l enterprise apps

| Use Case 1 | | Use Case 2 | Use Case 3 | | Use Case 4 | | Use Case 5 | Use Case 6 | Use Case 7 |

**Sametime**

**Unica**

**DX**

**Commerce**

*A multi-model database is designed to support multiple data models against a single, integrated backend. It combines different data types of database models into one integrated database engine / backend.*

## OneDB
Multi-model Flexibility

Graph — Key Value
Time-Series — OneDB — Document
Spatial — Column
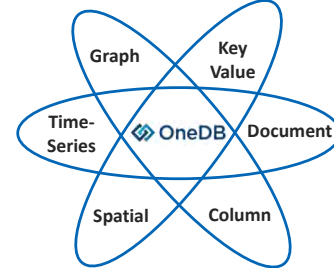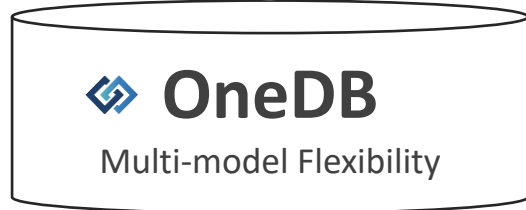
*Companies no longer need to buy, configure, and maintain multiple databases for multiple data store models.*

| Structured Financial Data | Unstructured Media Data | Structured Historical Data | Structured CRM Data | Unstructured Comm Data | Unstructured Mobile Data | Structured Inventory Data | Unstructured Social Data | Unstructured Sensor Data |

**HCL SOFTWARE**

# HCL OneDB on SOFY



**Available on SoFy, the OneDB solution includes 4 Modules**

- Document Data Store, RESTful Data Store, SQL Datastore, and Explore

- **Demo Pack** Partners can learn to and deploy in minutes
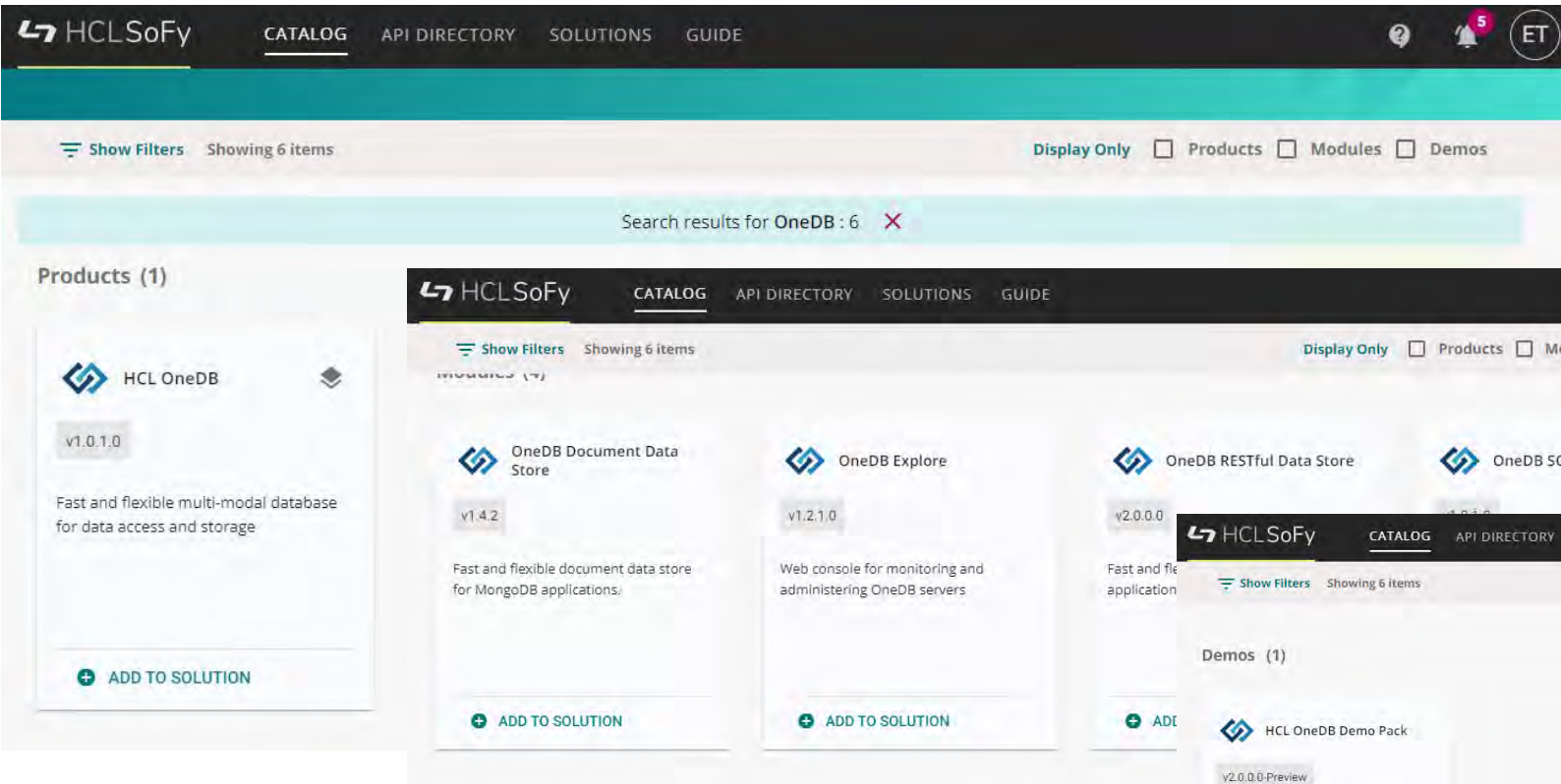
**URL:** HCL SoFy – Home:
The easy way to get started with running HCL Software products in Kubernetes. SoFy uses Helm technology to combine HCL Products and APIs as cloud-ready building blocks into portable, deployable packages.
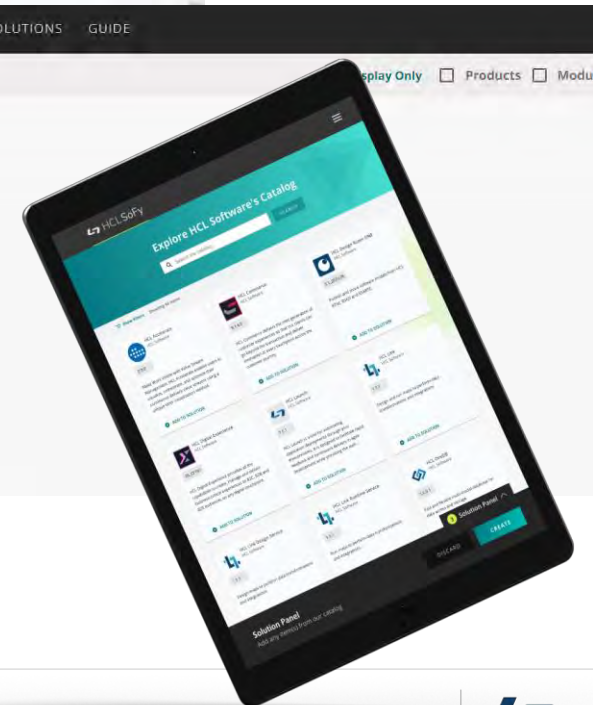
2.0 Release

FEATURE REVIEW

HCL SOFTWARE

# 2.0: Orchestrated Cloud Native High-Availability & Scalability

- **With OneDB v2.0, your solutions will meet your high-availability and scalability demands, the Kubernetes cloud native way.**

    - HDR (High-Availability Data Replication) node

    - RSS (Remote Standalone Secondary server) node(s)

    - Specialized containers to help deliver customized cloud native solutions

    - Auto-scaling to optimize and adjust to your seasonal business requirements helps recognize cost savings

    - Business continuity is guaranteed with high availability uptime and resiliency

    - All your data where you need –when you need it, fast and accurate!

# OneDB 2.0: Scale Out



OneDB Kubernetes Cluster

HCL OneDB

OneDB APIs

OneDB Explore

mongoDB
Mongo Wire Listener

REST

Kubernetes Load Balancer

OneDB Connect node1

OneDB Connect node2

Failover & Load Balancing

OneDB Server node1    Primary    HDR    OneDB Server node2    Secondary    HDR

OneDB Server Node3, 4, 5…    RSS

OneDB Operator

Backup Service

Google Cloud

Amazon EFS

ceph    ROOK

Azure File Storage

HCL SOFTWARE
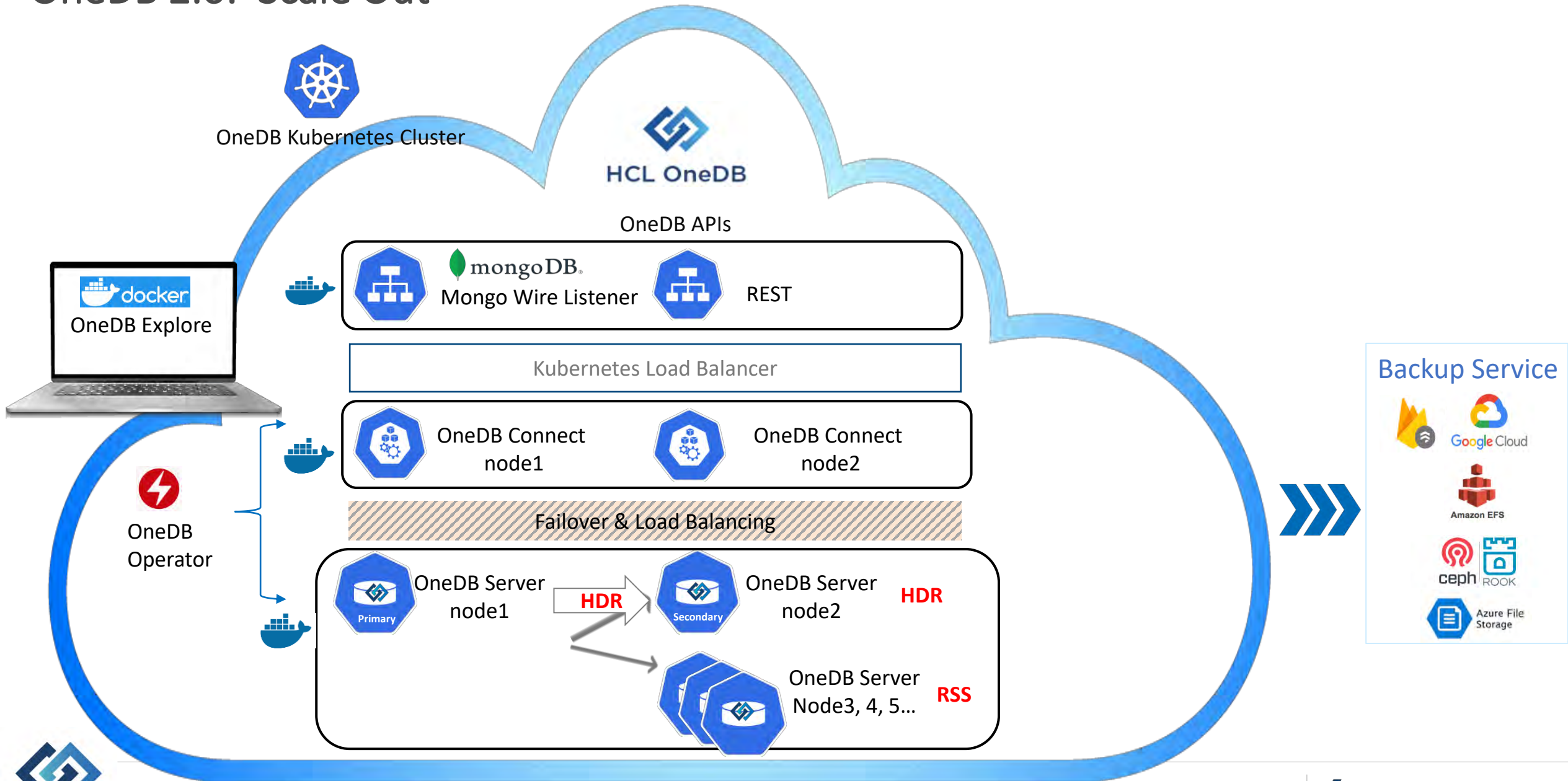
# 2.0: Cloud Native Orchestrated Backup in Kubernetes

- Kubernetes Operator-enabled Backup & Restore solution using K8s managed persistent storage or cloud provider managed storage

- Database backups to persistent volume using an NFS operator or cloud provider's native storage, with the last three backups retained

- Ability to restore the database from backup via configuration

- Backup to Amazon, Google Cloud, or Azure object storage

- Ability to recover your cloud native solution with data integrity, reliability in event of disaster

# 2.0: Easy Deployment & Orchestration via Helm Charts

- **Updated Helm Charts for single click easy deployment**
  - via HCL SoFy to use for production deployment of OneDB
  - via any Kubernetes environment (GKS, AKS, EKS, OpenShift)

**HCL SOFTWARE**

# 2.0:  Enhanced Enterprise Replication performance
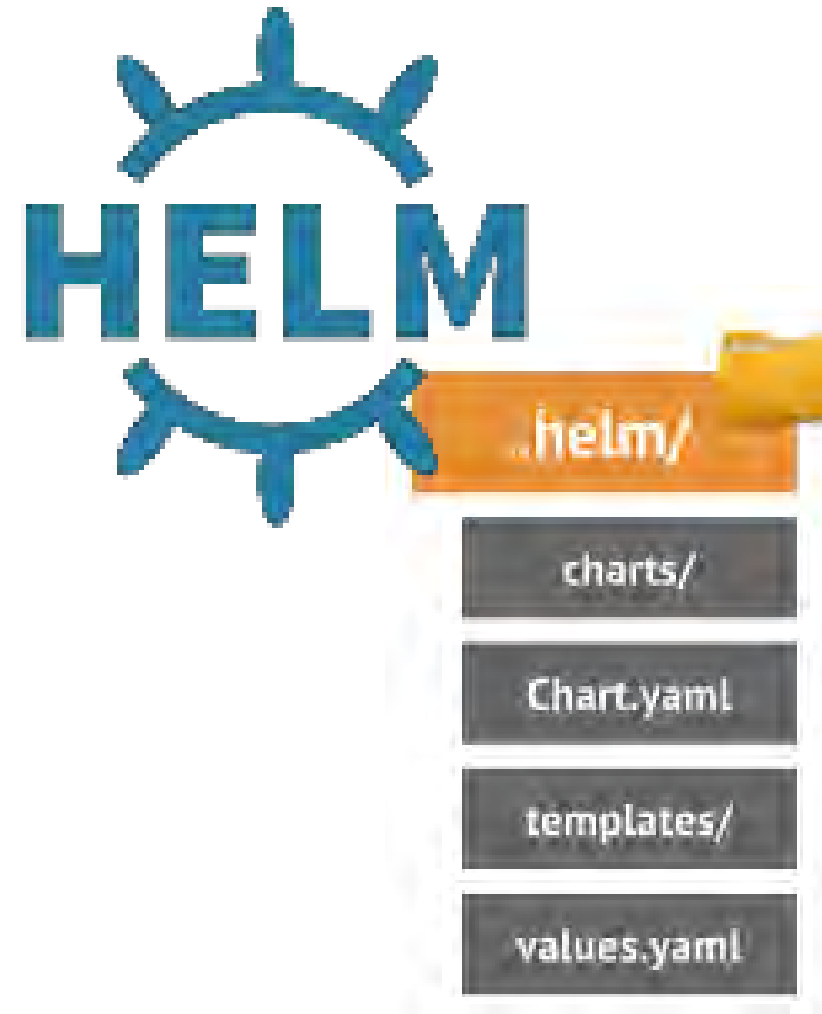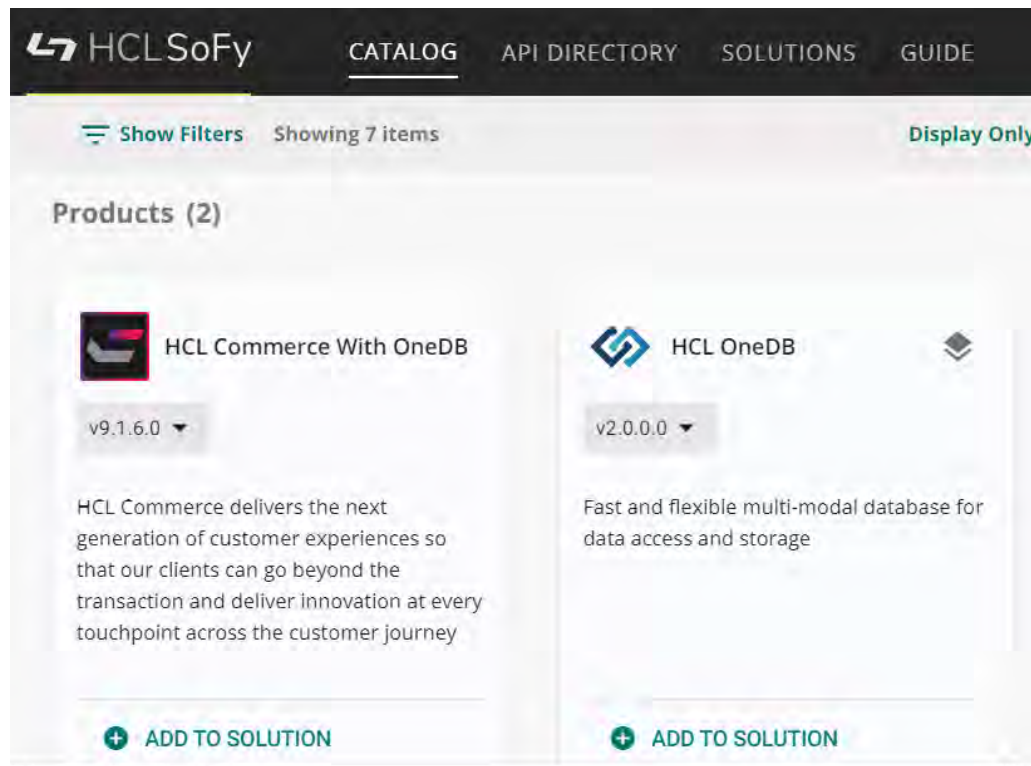
- **Significant enhancements to OneDB Enterprise Replication capabilities**

  1. Improved end to end ER replication performance of ~6 -12 X

  2. Improved transaction apply parallelism

  3. Eliminated blocking conditions in critical code paths

  4. Minimized latch overhead and thread dependency

  5. Utilized multiple network pipes to improve network throughput

- **Use cases where applications can benefit**:

  1. Rolling upgrade scenario to migrate database server from one version to another

  2.  Migrating on premises servers to the Cloud

  3.  Schema upgrades, large table reorgs and database codeset migration using loopback replication to the same server

  4.  Geo replication to keep data closer to the customer

  5.  Scenarios where high replication throughput and low replication latency are important

HCL SOFTWARE

# 2.0: Backups from Secondary Servers

- OneDB v2 users can now take backups from secondary servers, as well as the primary server

- **Use cases where applications can benefit:**

  - Primary server is heavily loaded, and so taking backups from a secondary eases the load on the primary

  - Many secondary servers are read-only.  Backups can be created from these nodes

HCL SOFTWARE

- **OneDB REST API – V2**

  - Better platform to build REST based applications

  - Greater flexibility, more secure (SCRAM authentication model)

- **REST for TimeSeries data**

  - New REST API for TimeSeries data to help address developer difficulties learning to work with time-based data

  - Decreases learning curve for developers adopting OneDB and will lend itself to building new application design patterns (IoT, financial, utilities, healthcare/medical, etc.)

**HCL SOFTWARE**

# 2.0: Transaction Survivability for Applications using MongoDB APIs

- OneDB can automatically restart failed transactions established by applications using MongoDB connectivity.

- Applications can now survive disruption in server availability in case of a node failure.

  - Apps may not even know that the connection was restarted once OneDB server is available.

  - Designed to support a rolling upgrade of the OneDB pods in a Kubernetes cluster.

## Digital Transactions: A Matter of Business Survival

in Daily Dose, Featured, Market Studies, News    November 4, 2020

In the midst of the pandemic and economic turmoil, seamless digital transactions will be at the epicenter of business survival, according to a study by the Economist Intelligence and Transunion.

Whether companies thrive or fold will hang on providing consumers friction-right digital transactions, the study overwhelmingly found. In fact, almost 85% of global executives surveyed as part of the study said they believe smooth digital transactions are "essential to business survival" rather than merely a competitive edge.

A total of 1,610 executives in places like Brazil, Canada, Chile, China, Colombia, the Dominican Republic, Hong Kong and the U.S. responded

# 2.0: OneDB Explore

Administration Automation and Optimization
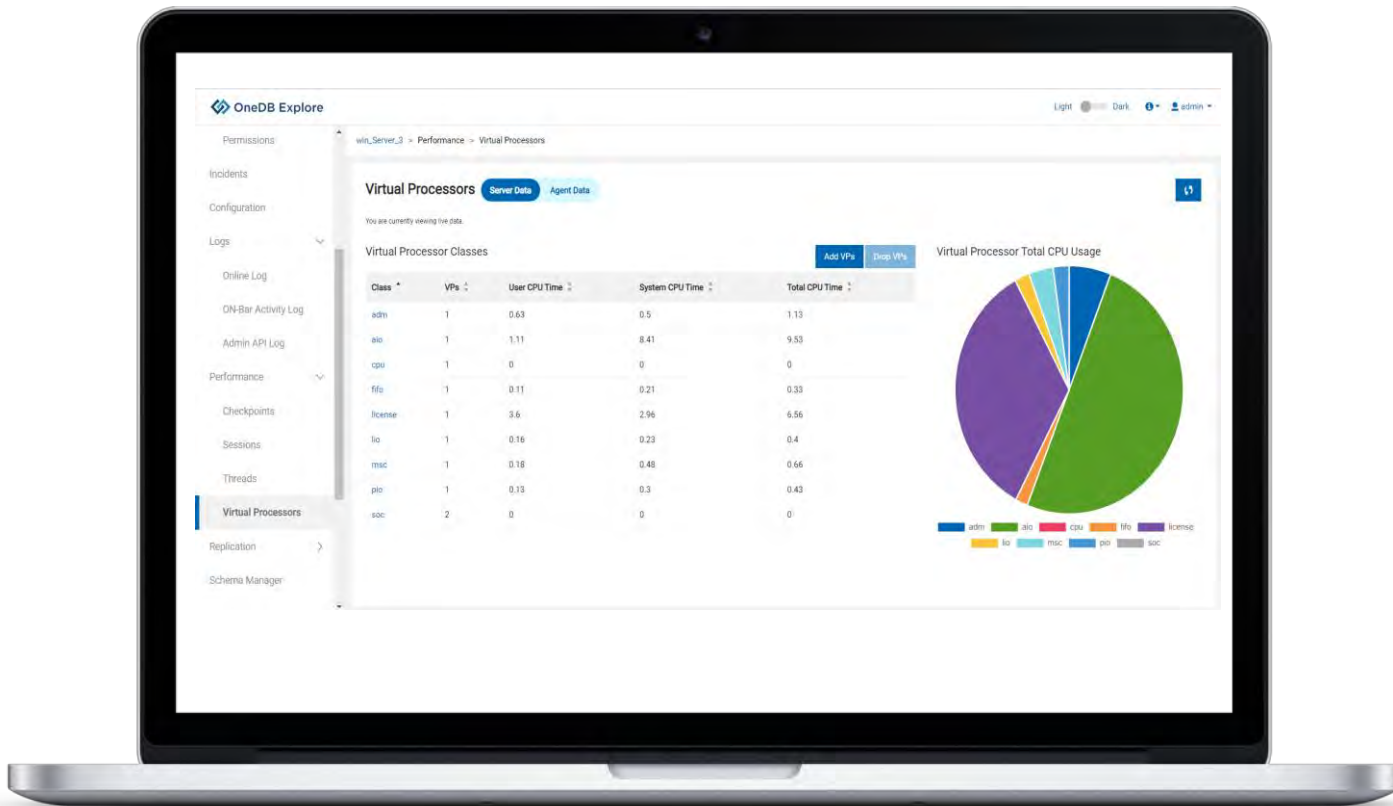


- **OneDB Explore is a web console for visualizing, monitoring, and managing your OneDB server instances, and more...**
  - Enhanced Schema Manager supports more SQL schema operations
  - Customization of Explore server and agent logging behaviour
  - Explore agent connection properties can be configured separately
  - Swagger documentation for Explore APIs

# 2.0: OneDB 2.0 Cloud offering on AWS Marketplace

Hosted on Amazon, managed by YOU.

Cloud-delivered, **ready to run**, fast, resilient and scalable database management system

- OneDB on AWS Marketplace offers the complete features of OneDB on-premise deployments without the complexity and risk of managing your own infrastructure.

- AWS provides the infrastructure to run OneDB in a flexible, scalable, and cost-effective manner in the cloud.

- Purchase directly on AWS marketplace or BYOL option.

# OneDB Components

- Docker Containers

  - OneDB server

  - Explore

  - REST Listener, JSON [MongoDB] Listener

  - Connection Manager: part of separate component *OneDB Connect*

- Helm Charts

- Kubernetes operator to coordinate high availability and backup & restore

**User personas now include Kubernetes admins, in addition to DBAs**

**Hosted on SoFy and containers are also supported in all public K8S marketplaces (Google, Amazon, Azure and OpenShift)**

**Release Components**
HCL OneDB Enterprise Server - 2.0.0.0
HCL OneDB Standard Server - 2.0.0.0
HCL OneDB Embedded - 2.0.0.0
HCL OneDB Client SDK - 2.0.0.0
HCL OneDB JDBC - 8.1.0.0
HCL OneDB Explore - 2.0.0.0
HCL OneDB Connect - 2.0.0.0 (Connection Manager)
HCL OneDB APIs - 2.0.0.0 (Connectivity Drivers: REST and Mongo Wire Listener)
HCL OneDB Operator - 2.0.0.0 (Server Component / Feature)

**FNO Components (On-Prem)**
HCL OneDB Enterprise Server
HCL OneDB Standard Server
HCL OneDB Explore (Java Based)
HCL OneDB APIs
HCL OneDB Client SDK
HCL OneDB JDBC

**Download Containers (Harbor) (HCL Now)**
HCL OneDB Embedded
HCL OneDB Explore
HCL OneDB APIs (2 Separate Containers)
    Mongo Wire Listener (onedb-mongo)
    REST (onedb-rest)
HCL OneDB Connect
HCL OneDB Operator

**SoFy Components (Services)**
HCL OneDB SQL Data Store
    HCL OneDB Standard Server, Operator, Connect
HCL OneDB REST Data Store
    HCL OneDB Data Store + REST
HCL OneDB Document Data Store
    HCL OneDB Data Store + Mongo Wire Listener
HCL OneDB Explore Service
    HCL OneDB Explore
HCL OneDB Product
    All of the Above

# Product Direction

BUSINESS & TECHNOLOGY

OneDB

# HCL OneDB Strategic Imperatives

## Cloud Native Advantage

- Fully automated orchestration and scaling through Kubernetes

- Competitive advantage: Location agnostic – Any/Multi-Cloud, On-prem, Embedded

## Zero OneDB-specific skills needed

Automated database management

## Accelerate Adoption

Support for HCL products, targeted external APIs, database models and developer productivity needed for enterprise adoption

- High-availability and scalability the Kubernetes way

- Easy to Deploy (SoFy)

- Aligned with HCL Software products and Partner Solutions

- Zero administration backup (scheduled)

- Administration automation/optimization

- Developer aids

- HCL Product support roadmap

- MongoDB API compatibility

- Multi-model (SQL/OLTP, OLAP, JSON/BSON, Time Series, Spatial) and Hybrid Transactions

- Developer productivity

HCL SOFTWARE

# Product Direction

HCL

## CURRENT FOCUS

### OneDB

Provide the cloud **portability, scalability, resiliency and performance** enterprise customers demand at the heart of their **cloud native applications**.

**Recommended database for HCL Software portfolio**, including Unica, Commerce, Workload Automation, LINK, SoFy, Sametime, Compass, and more!

Preferred DBMS solution for developers, Kubernetes administrators, and DBAs looking for the best database to **power** their **cloud native apps**.

### Cloud Native Core

- OneDB V2.0 Demo Pack on SoFy
- OpenShift Certification
- SoFy App support
- Remove Root User dependency
- OpenLDAP
- Support for NFS
- Token based authentication
- Rolling Upgrade
- Interoperability with cloud services
- Operator orchestrated Enterprise Replication
- Expand cloud compatibility and cloud presence

### Unica

- Unica on HCL Now customer engagements
- Performance enhancements
- Document performance benchmarks
- Unica w/ OneDB 2.0 support re-validation
- Refine configuration defaults

### Commerce

- Commerce Migration Experience
- CFIUS Compliance
- Performance enhancements
- SQL enhancements – CLOBS handling and Mode ansi
- Commerce validation on Kubernetes
- Commerce on HCL Now with OneDB
- Enterprise Replication enhancements
  - Regional Cluster for disaster recovery
  - Active-active
  - Region-aware replication

Technology for the new normal, today.

HCL SOFTWARE

# Resources & Contacts

| SITE RESOURCE | URL |
|---|---|
| Partner Portal Signup | HERE |
| Product Catalogue Search | HERE |
| Customer Service Portal | HERE |
| FlexNet License and Delivery Portal | HERE |
| Deal Registration | HERE |
| Partner Pack Signup | HERE |
| OneDB Documentation | HERE |

| AREA | SPOC | EMAIL |
|---|---|---|
| Sales Support | Doug Acker | douglas.acker@hcl.com |
| Marketing Support | Amanda | arlene.kim@hcl.com |
| Technical Enablement | Doug Acker | douglas.acker@hcl.com |
| Product Development | Pradeep Muthalpuredathe | mpradeep@hcl.com |
| Trial Licenses | Doug Acker | douglas.acker@hcl.com |
| OneDB Product Demo | Doug Acker | douglas.acker@hcl.com |
| Product Management | Emily Taylor | emily.taylor@hcl.com |
| Regional Sales Support | -------------------- | -------------------- |
|     OneDB Global | Doug Acker | douglas.acker@hcl.com |
|     NORAM | Doug Acker | douglas.acker@hcl.com |
|     EMEA | Chris Worgan | chris.worgan@hcl.com |
|     DACH | Beatrix Saul-Tiquet | beatrix.saultiquet@hcl.com |
|     LATAM | Katia Pinzon Aranguren | katia.pinzo@hcl.com |
|     JAPAC | Simon Pollard | simon.pollard@hcl.com |

# HCL

www.hcltech.com

$9.95 BILLION | 153,000+ IDEAPRENEURS | 50 COUNTRIES

# Appendix A

Supporting Materials

# HCL Software Disclaimers

**TIMING**
The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

**WARRANTIES**
Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from HCL or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of HCL products.

**PERFORMANCE**
Performance is based on measurements and projections using standard HCL benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.

**CONFIDENTIAL INFORMATION**
The contents of this presentation may contain information which is confidential, reflects product strategies, pricing and other information related to HCL Software products which should be treated a confidential and not circulated without prior approval from an HCL representative.

**FUTURE PRODUCTS**
Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract.
https://www.hcltechsw.com/wps/portal/legal/hcl-software-disclaimer

# HCL Software Overview

**$1B enterprise software business** with presence in 50 countries

**50+ products** with **15,000+** enterprise customers

**4200+ employees** in Americas, Europe, India, South-east Asia, Japan, Australia and a specialized R&D center in Israel focused on security products

**India's largest**; **Asia's fastest growing independent software vendor**. A key player in HCL's growth strategy

Canada
USA
Mexico
UK
Poland
Italy
Israel
India
Hong Kong
Philippines
Australia

**HCL Software Labs**

## Journey so far…

### 2016 – 2018

**Signed 15-year IP Partnership deal with IBM**

HCL P&P launched with 15-year partnership between IBM & HCL

Over the next 2.5 years, HCL signed 17 deals to manage 50+ Products

Software labs were established in 4 continents at 16 different locations

### 2019

**HCL Software introduced to operate HCL's enterprise software product business**

In Jul'2019, HCL closed acquisition of 8 enterprise products – AppScan, BigFix, Unica, Domino, DX, Commerce, & Connections

HCL's Enterprise Software business is now moved to a new business unit "HCL Software"

### 2020

**Released major product version for all 7 acquired products (2H-19 to 1H-20)**

DX V9.5, Domino V11, Connections V6.5, AppScan V10, BigFix V10, Unica V12 &. V12.1, Commerce V9.1

Exclusive agreement with Temenos to market Quantum multi-experience development platform – "Phoenix" (July-20)

**HCL SOFTWARE**