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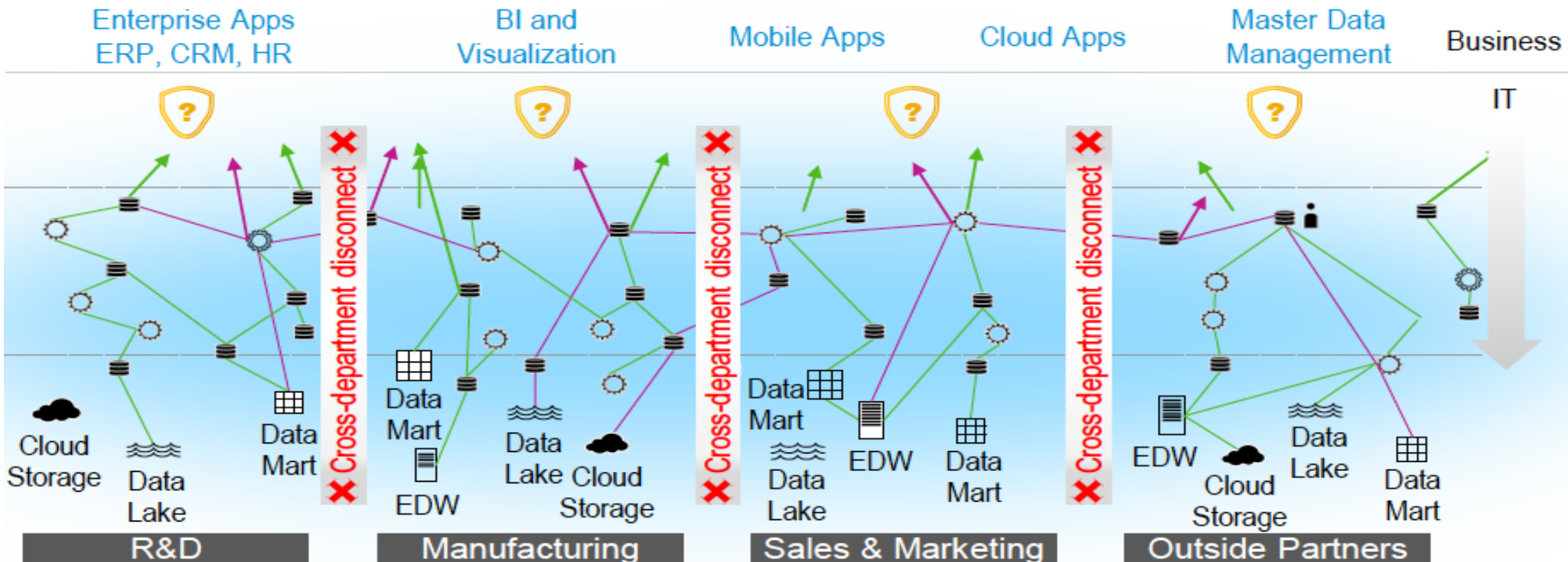
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SAP Data Intelligence

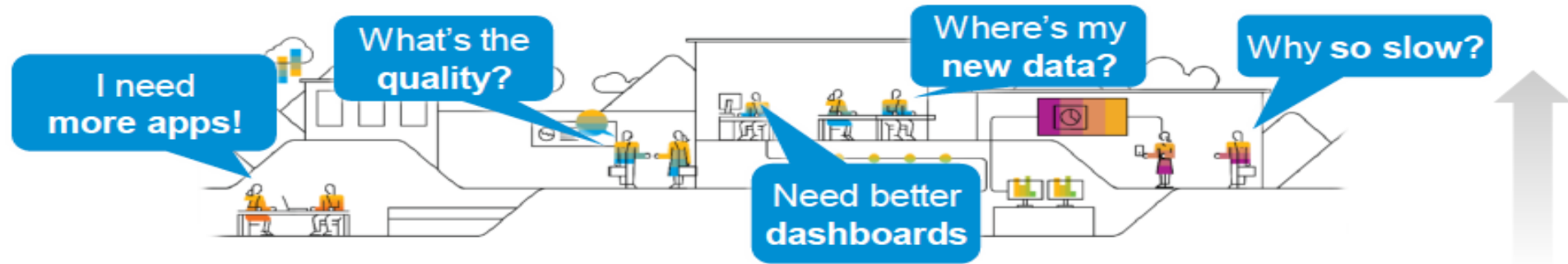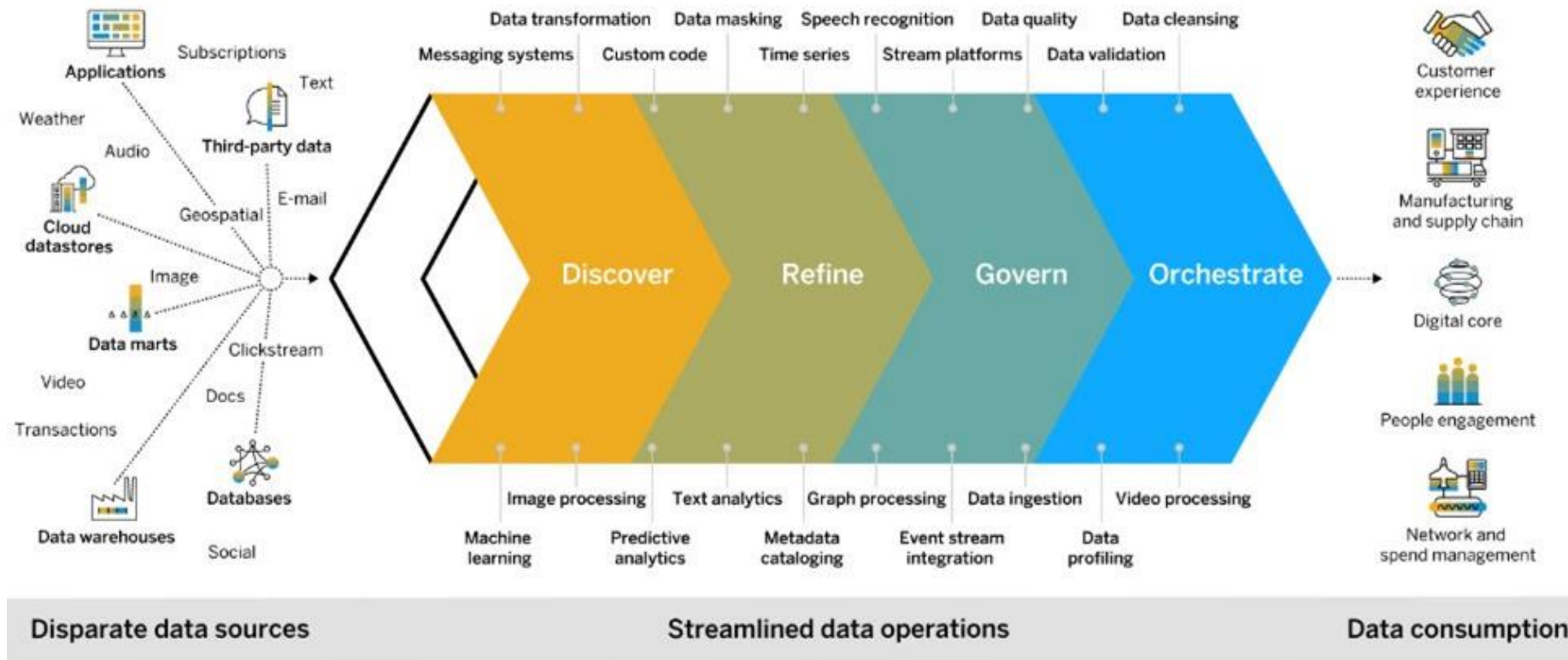# Agenda

SAP Data Intelligence deployed on OpenShift

● Overview of SAP Data Hub / Data Intelligence

● SAP Data Hub Use Cases

● Why Red Hat OpenShift ?

● Red Hat Support and Certifications for Data Hub

Why an enterprise needs this solution?

SAP Data Hub

SAP Data Hub lets you integrate **data**, orchestrate **data** processing, and manage metadata across your enterprise **data** sources and your **data** lakes. It also lets you build powerful pipelines, as well as manage, share and distribute **data**.

Use cases Overview
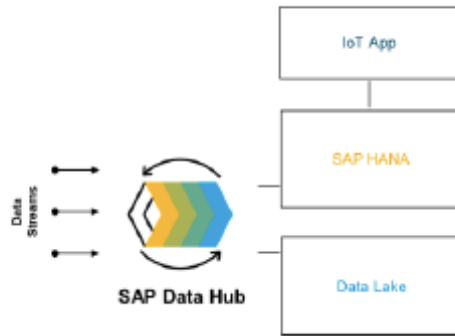
IoT Ingestion & Orchestration
Understand real-world performance
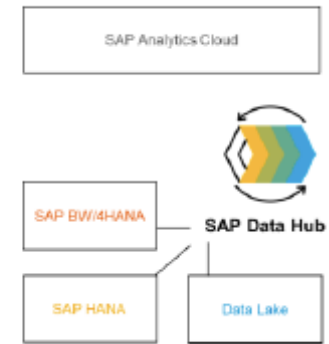
Intelligent Data Warehouse
Rapidly integrate and leverage new data sources

**Data Science &
ML Data Management**
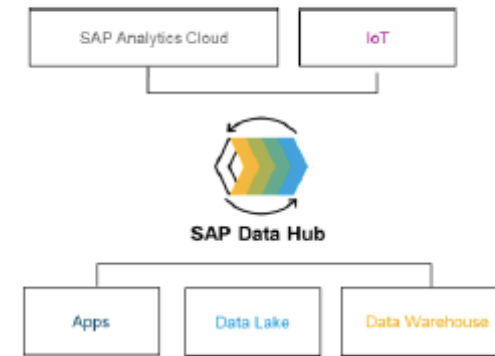
Governance / Data Cataloging
Understand and secure your data

SAP Data Hub Extracts Value from Distributed Data Assets
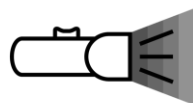
Discover
your data landscape and
its interconnections.

Refine
enrich, transform, reuse, curate

Govern
and secure data assets
transparently with compliance
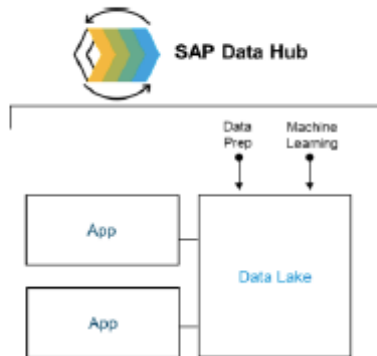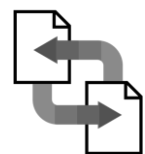
Orchestrate
your data using modular
data pipelines

Enterprise artificial intelligence

Enterprise Applications, Ad-Hoc Reporting, Planning, PRedictive Analytics, Big Data Analytics

Kubernetes Infrastructure

External Connections

Data Governance

| Data Protection | Data Protection | Access Governance |

Integration & Orchestration

| Pipeline Modeling | Data Worflows | API Access |

Pipeline Processing & System Management

Structured Data

Unstructured Data

Streaming Data

Red Hat | IBM | SAP Platinum Partner

SAP Data Intelligence Extends SAP Data Hub
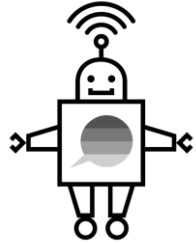
Scale AI
across your landscape

Deliver AI
Manage the models and delivery
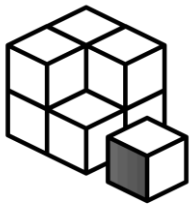
Data science platform
Discovery, explore, experiment

Enterprise artificial intelligence
Enterprise Applications, Ad-Hoc Reporting, Planning, PRedictive Analytics, Big Data Analytics

Kubernetes Infrastructure

Machine Learning Content

ML Scenario Manager

ML Operations Cockpit

Jupyter Lab

Data Governance

Data Protection

Data Protection

Access Governance

Integration & Orchestration

Pipeline Modeling

Data Worflows

API Access

Pipeline Processing & System Management

External Connections

Structured Data

Unstructured Data

Streaming Data

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KUBERNETES DONE RIGHT IS HARD

THE BASE TECHNOLOGY FOR HYBRID CLOUD

INSTALL	DEPLOY	HARDEN	OPERATE

INSTALL
- Templating
- Validation
- OS Setup

DEPLOY
- Identity & Security Access
- App Monitoring & Alerts
- Storage & Persistence
- Egress, Ingress & Integration
- Host Container Images
- Build/Deploy Methodology

HARDEN
- Platform Monitoring & Alerts
- Metering & Chargeback
- Platform Security Hardening
- Image Hardening
- Security Certifications
- Network Policy
- Disaster Recovery
- Resource Segmentation

OPERATE
- OS Upgrade & Patch
- Platform Upgrade & Patch
- Image Upgrade & Patch
- App Upgrade & Patch
- Security Patches
- Continuous Security Scanning
- Multi-environment Rollout
- Enterprise Container Registry
- Cluster & App Elasticity
- Monitor, Alert, Remediate
- Log Aggregation

⚠ **75%** of enterprise users identify complexity of implementation and operations as the top blocker to adoption

Source: The New Stack, The State of the Kubernetes Ecosystem, August 2017

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OpenShift Compute Platform 4

https://blog.openshift.com/enterprise-kubernetes-with-openshift-part-one/
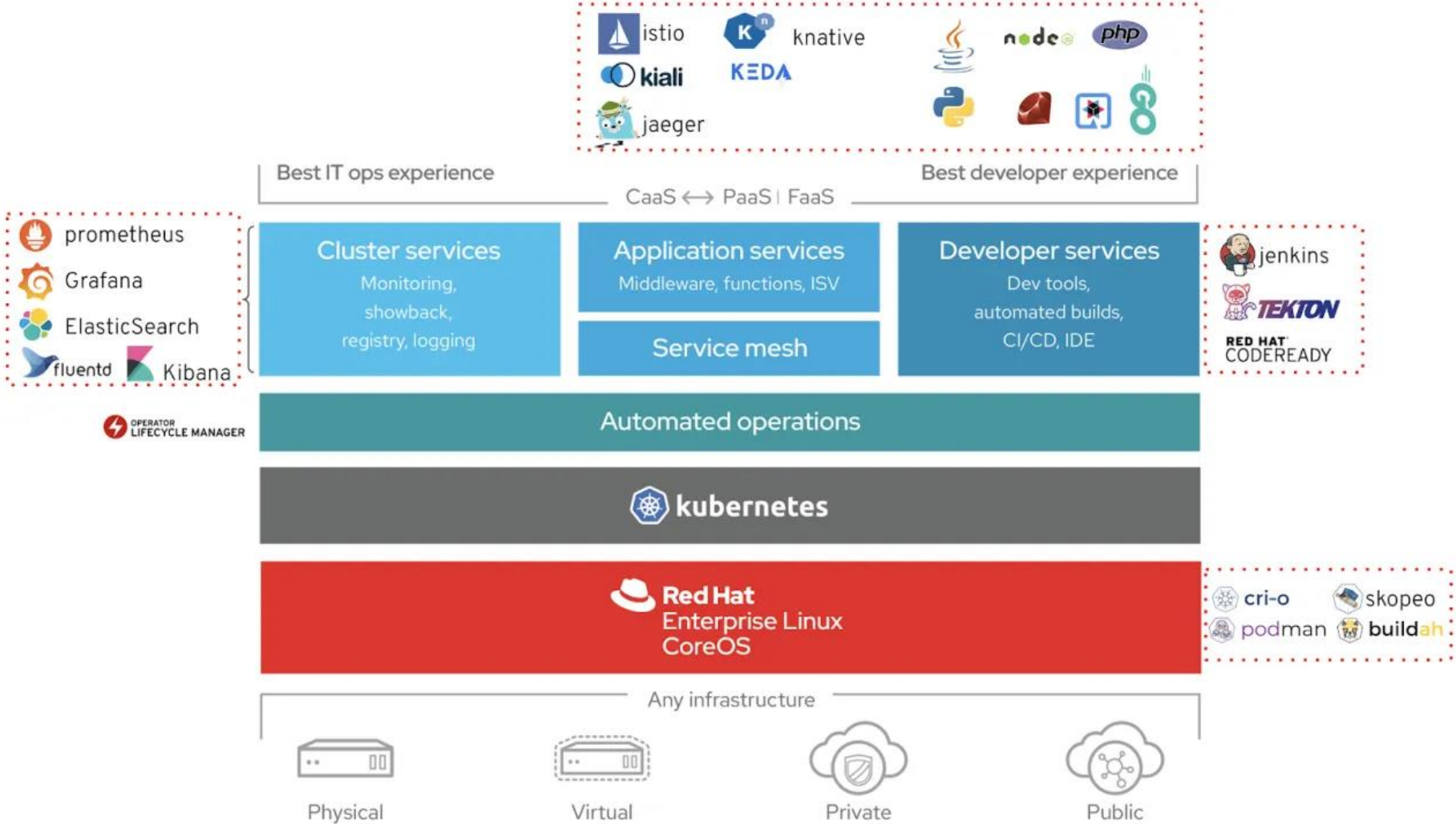
FORRESTER CONFIRMS Red Hat's LEADERSHIP

IN ENTERPRISE CONTAINER PLATFORM SUITES

- **Superior ratings for:**
  - runtime and orchestration
  - image management
  - user experience
  - app lifecycle management
  - integration and APIs
  - vision & roadmap

- **Red Hat's worldwide market share on Container platform is currently ~40%**

- **SAP Data Hub is certified on Red Hat OpenShift**

- **On which platform would you put your business critical applications?**

Strong Performers / Leaders / Challengers / Contenders

Stronger current offering

Weaker current offering

Docker
Red Hat
#1
Pivotal
Mesosphere
Rancher Labs
IBM
Platform9
SUSE

Weaker strategy — Stronger strategy

Market presence

Source: Forrester New Wave, Enterprise Container Platform Software Suites, Q4 2018
https://reprints.forrester.com/#/assets/2/431/RES141562/reports

SAP Data Hub / Red Hat OCP Validation Matrix

SAP Data Hub / Vora	Red Hat OCP	Notes
SAP Data Hub Distributed Runtime 1.3	OCP 3.7	Installation Guide
SAP Data Hub Distributed Runtime 1.4	OCP 3.9	Blog: Install SAP Data Hub on Red Hat Platform
SAP Data Hub 2.3	OCP 3.9/3.10	
SAP Data Hub 2.4	OCP 3.10/3.11	SAP Data Hub 2.X on OpenShift Container Platform 3.Y
SAP Data Hub 2.5	OCP 3.10/3.11	SAP Data Hub 2.6 on OpenShift Container Platform 4
SAP Data Hub 2.6	OCP 3.11 OCP 4.1(AWS only)	
SAP Data Hub 2.7	OCP 4.1	AWS (*EBS*)
SAP Data Hub 2.7 Patch 3	OCP 4.2	Cloud, VMware vSphere (*OCS 4*) or (*vSphere volumes*)
SAP Data Intelligence 3.0	OCP 4.2	June 2020

- SAP Note 2686169 - Prerequisites for installing SAP Data Hub 2
- SAP Note 2693555 - SAP Data Hub 2: Supported Remote Systems and Data Sources
- The following matrix has been validated by Red Hat (version March 2020)

Complete coverage provided by Red Hat Platforms for SAP Solutions

SAP Data Hub

Monitoring

Orchestration

Data Management & Preparation

Data Driven App

Data Driven App

Data Driven App

SAP HANA

SAP Vora

Hadoop

Cloud Storage

Machine Learning

Existing Systems

Distributed Data Systems

RHEL for SAP Solutions

Red Hat OpenShift Container Platform (OCP)

Red Hat Enterprise Linux

ON-PREMISE | CLOUD | HYBRID
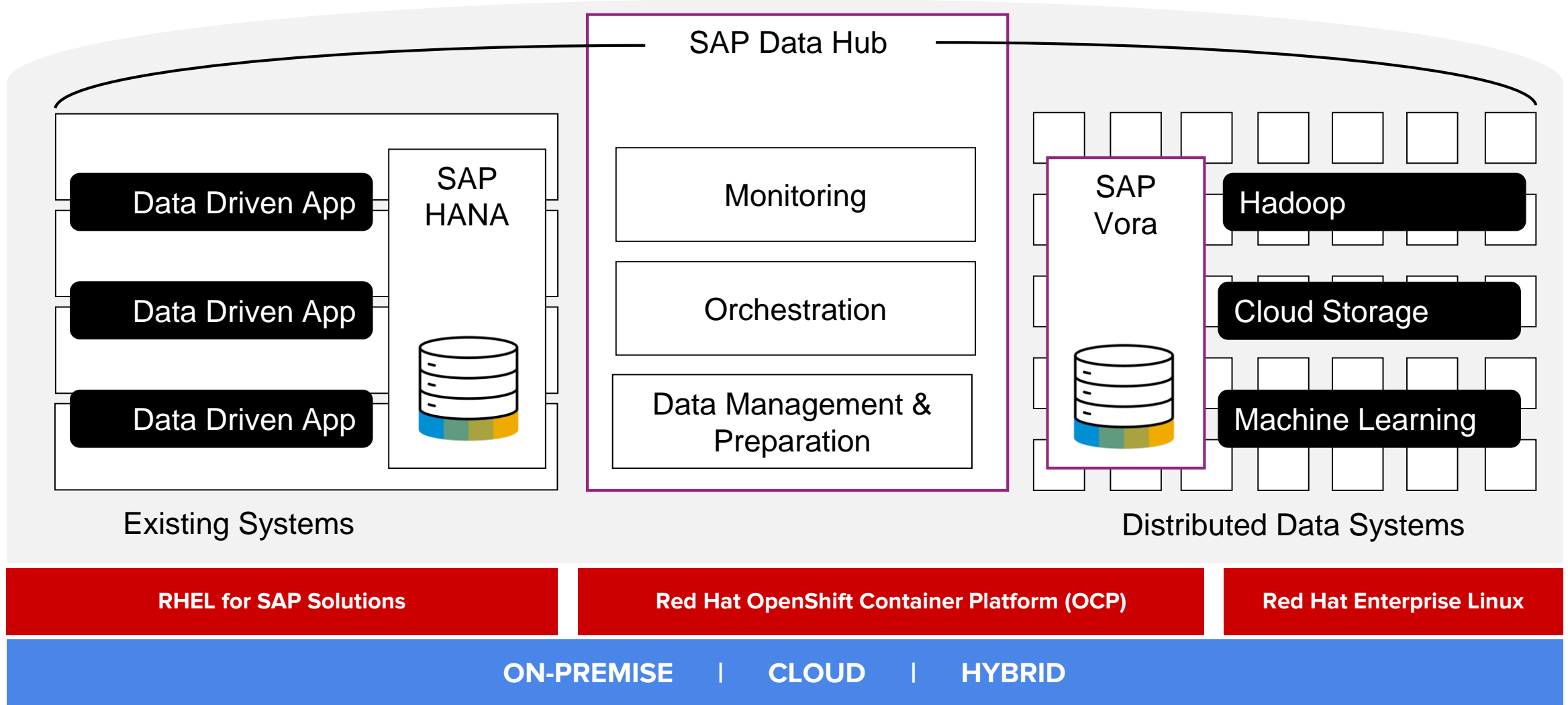
Get started with SAP Data Hub and Red Hat OpenShift

**Find out more about
SAP Data Hub
sap.com/datahub**

**Subscribe to
SAP Data Hub videos
YouTube channel**

**Take free
SAP Data Hub Course**

**Try SAP Data Hub,
Developer edition**

**Try SAP Data Hub,
Trial edition**

**Find out more about
Red Hat Openshift
learn.openshift.com/**

**Try Red Hat Openshift,
Developer subscription**

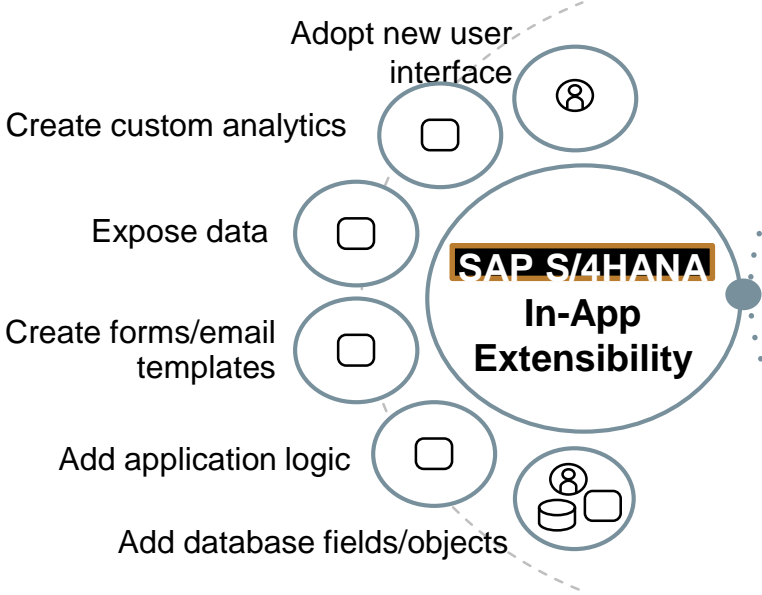**Try Red Hat Openshift,
Eval subscription**

OPENSHIFT

Agenda

- SAP Side-by-Side Extensions with SCP

- SAP Side-by-Side Extensions with SCP and OpenShift

- SAP & IBM Collaboration with SCP and OpenShift

**SAP Cloud Platform
with
Red Hat OpenShift**
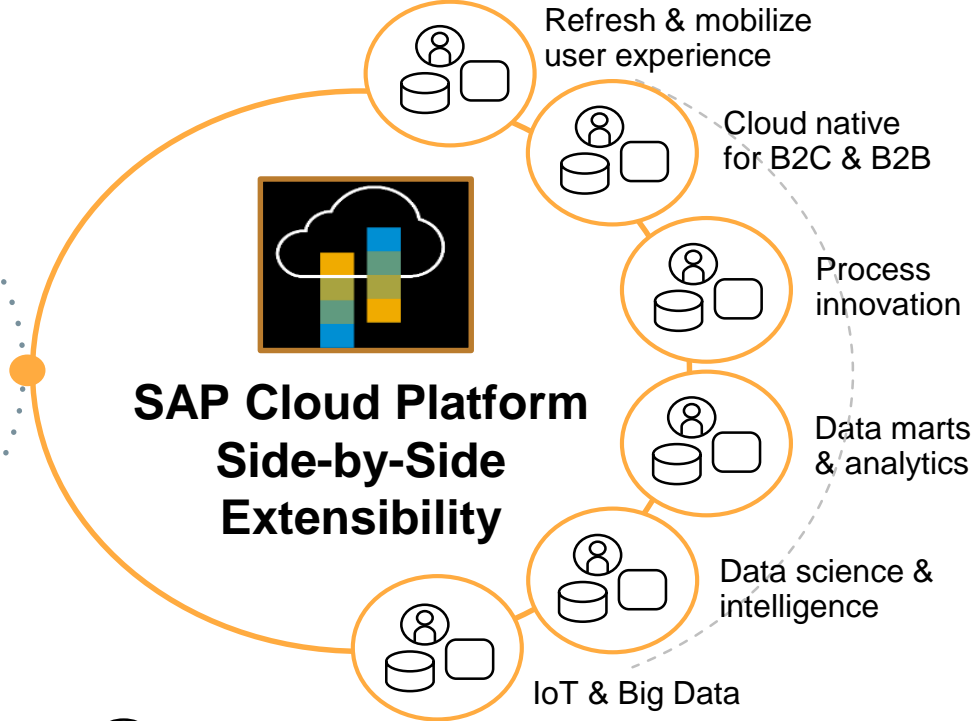
SAP Side-by-Side Extensions with SCP

Classic Extensions ⟷ **Modern Extensions**

Adopt new user interface

Create custom analytics

Expose data

Create forms/email templates

Add application logic

Add database fields/objects

SAP S/4HANA
In-App Extensibility

Integration

User Interface

Rules / Workflow

Process / Events

Data Replication

SAP Cloud Platform Side-by-Side Extensibility

Refresh & mobilize user experience

Cloud native for B2C & B2B

Process innovation

Data marts & analytics

Data science & intelligence

IoT & Big Data

User Interface Layer   Application Layer   Database Layer

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SAP Side-by-Side Extensibility with SCP and Red Hat OpenShift Provides on-premise and Cloud Independence

- The future of extending SAP is to minimize modification of the Digital Core using "side car" Cloud-native platforms, such as SAP Cloud Platform and OpenShift

- Modification of Core application source code breaks the ability to perform functional upgrades of SAP cost effectively

- Key efficiency objective: *Develop once, deploy anywhere.*

SAP Core Applications
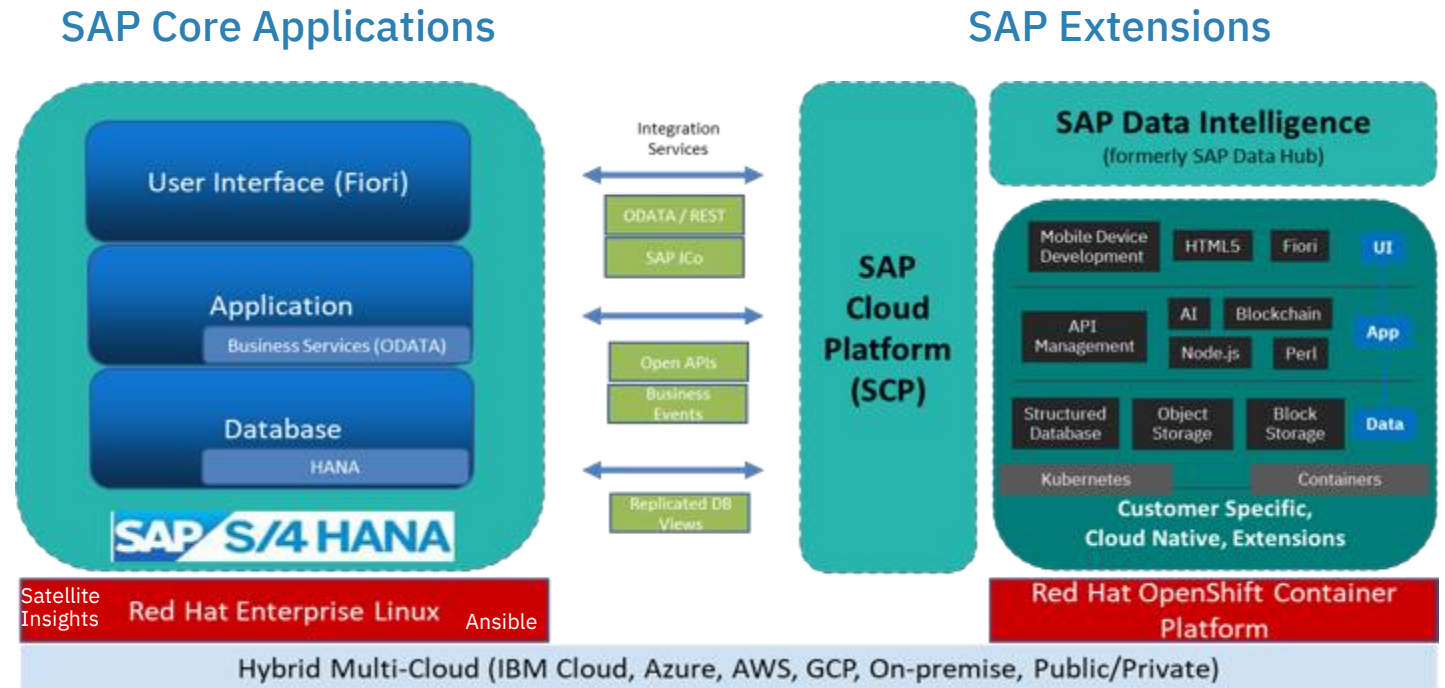
SAP Extensions

- OpenShift is an on-prem/Cloud, application-independent, Cloud-native development and runtime environment used by half of the Fortune 500

- Red Hat OpenShift ensures SAP extensions/customizations can be run on-premise or on any major Cloud provider, and are reliable and scalable

- SAP and IBM have plans to run SCP on OpenShift, SAP Data Intelligence already runs on OpenShift

SAP Cloud Platform - Private Edition & OpenShift

Mitigate risk on your journey to cloud - hybrid is the new data center!
Containers & Kubernetes > the technology to make it happen.

New announced - May 2020!

Customer Choice & Benefits

"To support customers on their journey towards hybrid cloud adoption, **SAP & Red Hat** collaborate to enable **SAP Cloud Platform - Private Edition** and related backing services **to run on Red Hat OpenShift Container Platform.**"
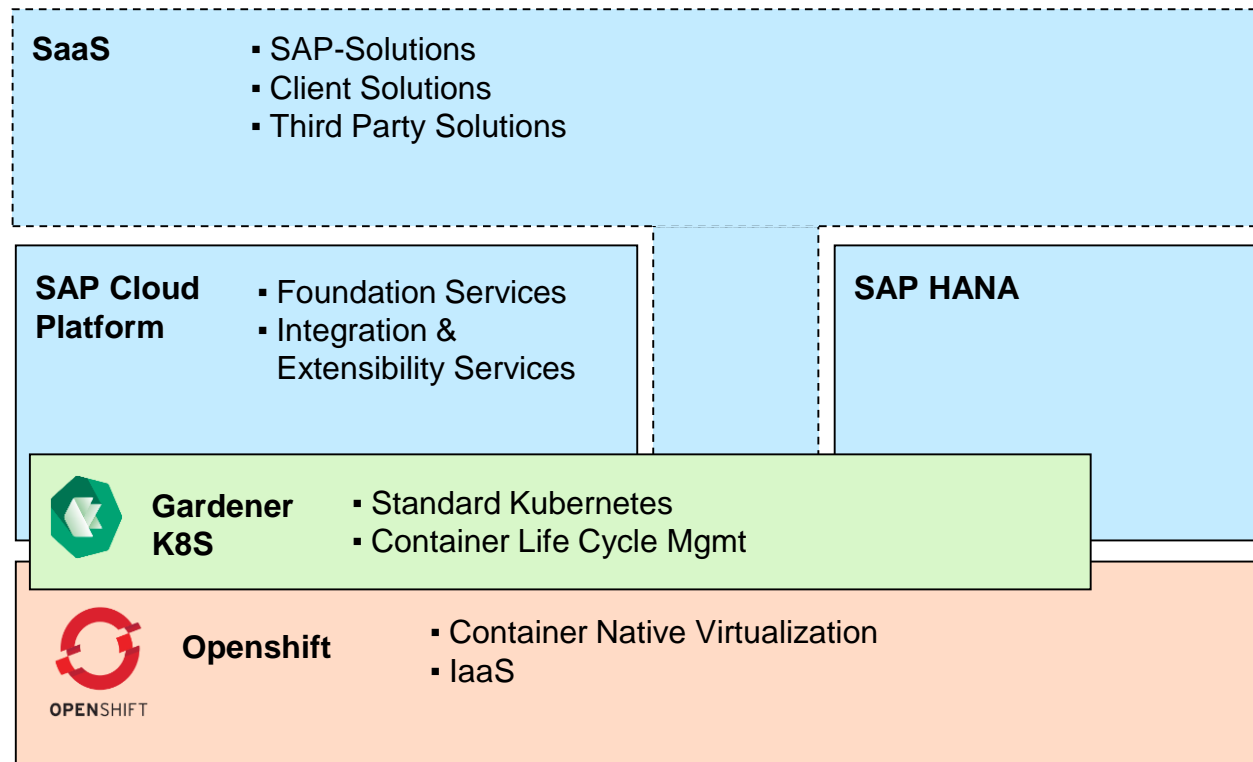
Bringing the strength of a commercial distribution of Kubernetes to the microservice architectures, containerization and DevOps model of SAP's future digital enterprise.

- ❏ App. Developm.: "Develop once & deploy anywhere"
- ❏ Installation: "Automated install across platforms"
- ❏ Customization: "Customize Apps & apply anywhere"
- ❏ Migration: "Migrate to platforms with reduced effort"
- ❏ Integration: "Integrate your Apps across multi-clouds"
- ❏ Maintenance: "Maintain Apps platform agnostic"
- ❏ Time to market: "Gain a strategic competitive advantage"
- ❏ Agility: "Be able to disrupt & generate new biz"

SAP & Non-SAP architecture can get together!

IBM & RED HAT | SAP Cloud Platform, private edition

Overview

SaaS
- SAP-Solutions
- Client Solutions
- Third Party Solutions

SAP Cloud Platform
- Foundation Services
- Integration & Extensibility Services

SAP HANA

Gardener K8S
- Standard Kubernetes
- Container Life Cycle Mgmt

Openshift
- Container Native Virtualization
- IaaS

OPENSHIFT

Details

- Intelligent Enterprise use cases, delivered in stages
- Enables a first step towards cloud-based extensions to core SAP system
- Running in customer data center as cloud solution
- Gain benefits of cloud solutions in the area of speed and agility without leaving your data center
- Based on OpenShift Kubernetes distribution with enterprise grade security and robustness capabilities

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