SAP Customer Experience

SAP Commerce Cloud Know-How

SAP Commerce Cloud Developer Training
Part I

Deployment & Maintenance

3rd party compatibility

- 3rd party compatibly matrix can be found on the SAP Commerce Help:

https://help.sap.com/viewer/a74589c3a81a4a95bf51d87258c0ab15/1905/en-US/8c71300f866910149b40c88dfc0de431.html

˅ Application Servers

Software / Platform	Supported Versions
Apache Tomcat	8.5.40, bundled

˅ Operating Systems

Software / Platform	Supported Versions
Microsoft Windows	Any version that supports SapMachine 11.
Linux	Any version that supports SapMachine 11.
mac OS	⚠ For development purposes only.

˅ Search Engines

Category	Software / Platform	Supported Versions
Search Engines	Solr	7.7

˅ Databases

Software / Platform	Supported Versions
MySQL (Single Node, Active/Passive)	5.6, 5.7, 8.0
Percona XtraDB Cluster	5.6, 5.7
SAP HANA	SAP HANA 2.0
Oracle (Single Node, Active/Passive, Active/Active)	11.2, 12.1, 12c Release 2 (12.2)
Microsoft SQL Server (Single Node, Active/Passive)	2014, 2016, 2017
Microsoft Azure SQL	12
HSQLDB (Single Node)	2.3.4
Amazon Aurora on AWS	Certification by Amazon AWS pending.

1811 Deprecation Status

- De-released means a module or extension is removed from the product
- Planned de-release indicates the earliest date to remove a module or extension
- De-released modules continue to be supported for 24 months after removal

Module/Extension	Announced EOL	Planned de-release	De-Released
BTG/Advanced Personalization	6.7	1811	1811
Cockpit Framework	6.6	Q2 2019	
Commerce Search Module	6.7	1811	1811
dynamicwebservices extension	1811	1811	1811
liveeditaddon AddOn	6.4	1811	1811
WCMS Cockpit extensions	6.6	1811	1811
platformwebservices extension	1811	1811	1811

https://help.sap.com/viewer/dc198ac31ba24dce96149c8480be955f/1905/en-US/8bb15ed586691014a948d1553f4947cf.html

Deploying with the SAP Commerce Server

- Call `ant production` in the `${HYBRIS_BIN_DIR}/platform` directory.
  - The system will generate four ZIP files under ${`HYBRIS_TEMP_DIR`}/hybris/hybrisServer:
    - `hybrisServer-Platform.zip`
    - `hybrisServer-AllExtensions.zip`
    - `hybrisServer-Config.zip`
    - `hybrisServer-Licence.zip`
- Copy these files onto the target machine.
- Unzip them and start the SAP Commerce Server
- For subsequent deployments:
  - The same as above

Logging & Debugging

Configuring the Log Environment

- SAP Commerce comes pre-bundled with a version of the Log4J2 logging framework.

- Configure the loggers for your application in project.properties or .xml files.

- Configuration consists of two major Log4J2-related sections:
  - The logger configuration section and
  - The appender configuration section

- Logging Database Statements
  - JDBC logging creates a record of the database statements issued by your application
  - Enable and Disable JDBC Logging
    - In the SAP Commerce Administration Console
    - Using Java code
    - In the configuration properties file

Managing logs in the Rule Engine and Promotion Engine

- In the Rule Engine and Promotion Engine, logging is implemented as an Aspect.

- Rule Engine Logging

  - de.hybris.platform.droolsruleengineservices.aspect.RuleEvaluationLogger

- Promotion Engine Logging

  - de.hybris.platform.promotionengineservices.aspect.ActionLogging

- Custom Logging Aspect

  - Extends de.hybris.platform.ruleengineservices.aspect.AbstractLoggingAspect

SAP Commerce Administration Console

- The Configuration Properties page provides the list of all currently-set Commerce properties and their values

- The System Information page provides detailed information about the running system

- The Logging tab allows you to set logging levels for particular loggers

- The Classpath Analyzer page allows you to search for the same classes loaded from different JAR files

- The JDBC Logging tab enables you to start logging to the configured log file and download it

- The JDBC log analysis tab enables you to identify JDBC statements that are either executed very often or which take a particularly long time to execute

Container Support

Virtual Machines vs. Containers

Docker Components

Client

docker pull

docker build

docker run

Docker Host

Docker Daemon

Images

ybase_os
ybase_jdk
b2cacc_deployment_platform
b2cacc_deployment_hsql
...

Containers

b2caccdockerized_platform_admmin_init_1
b2caccdockerized_hsql_1
b2caccdockerized_solr_1

Registry

Public

Private

Personal
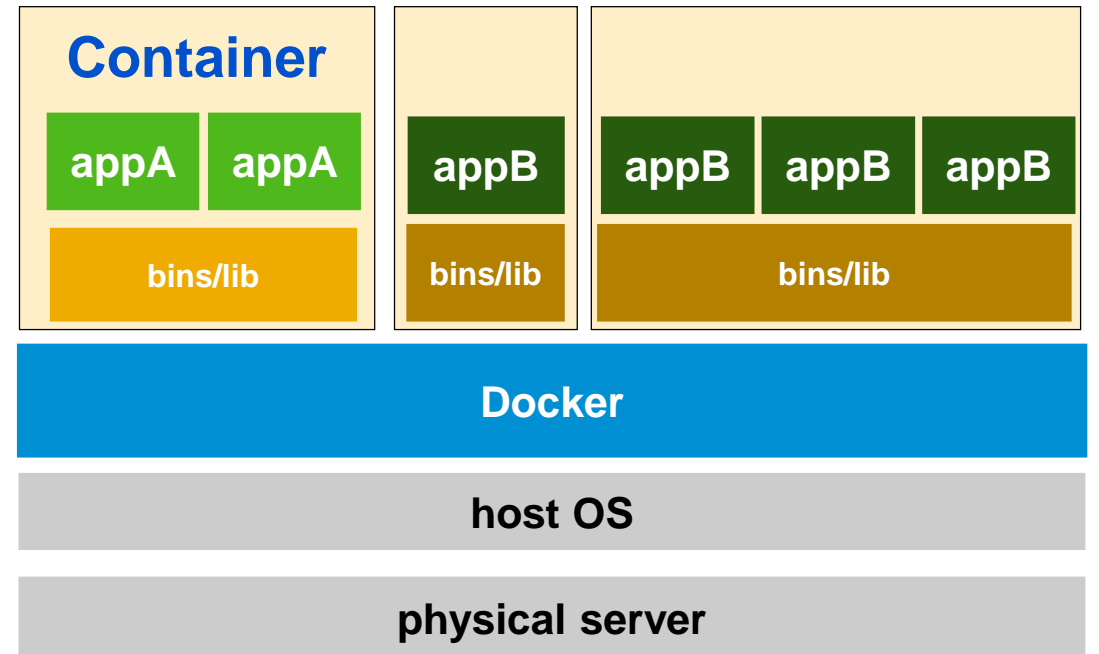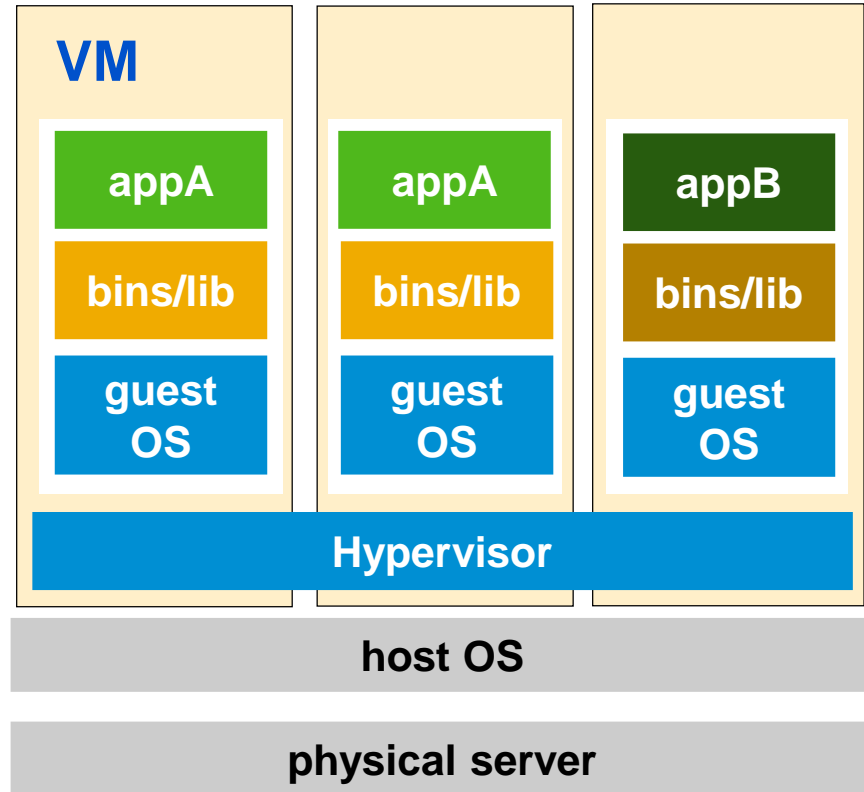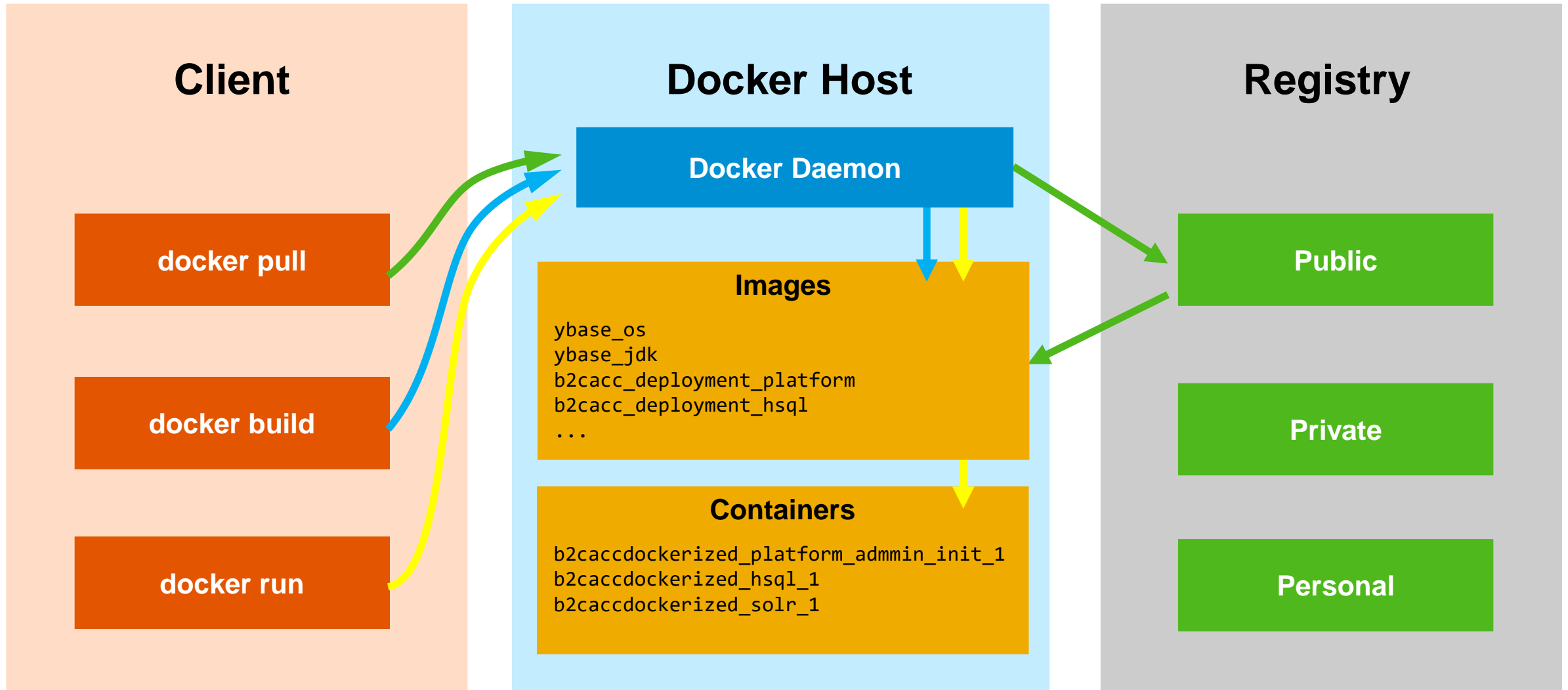
Container Support

Containerization enables you to deploy and run the same SAP Commerce setup in a different environment without compatibility issues.

Containerizing SAP Commerce

- You can build Docker images for all the SAP Commerce components that require separate deployment:
  - SAP Commerce Platform
  - Data Hub
  - Solr
  - Other mandatory part of a SAP Commerce clusters:
    - Load balancer and Web Server (Apache)
    - Database (mainly for testing)
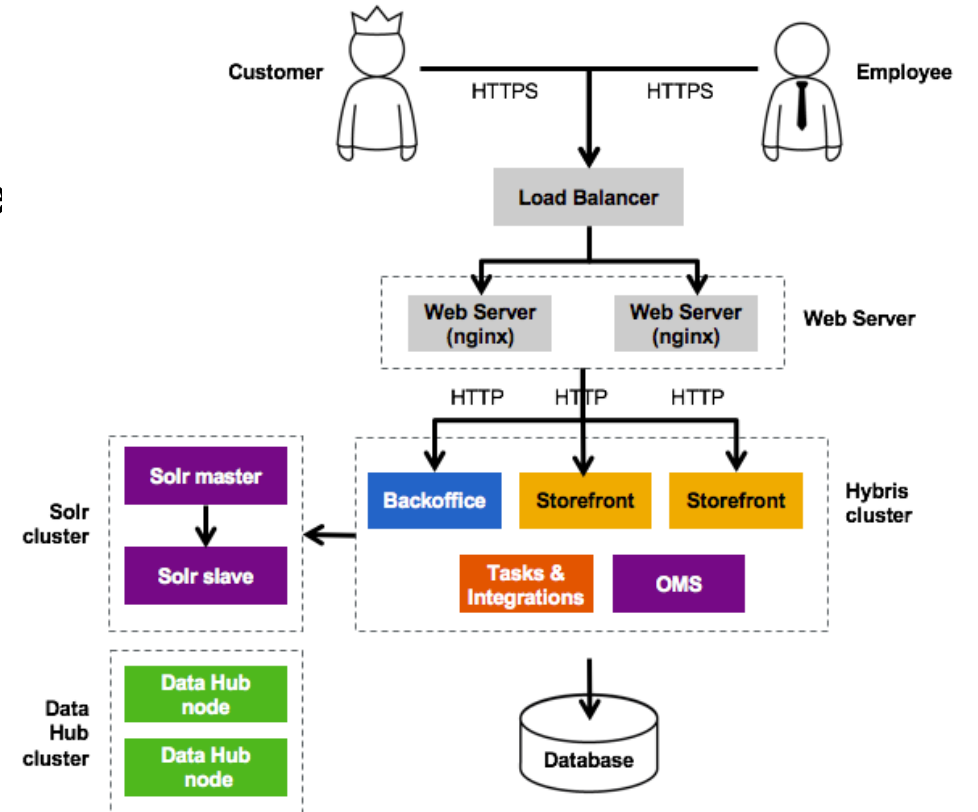
Integration Scenarios

Integrations are at the Heart of SAP Commerce (some examples below)

SAP Marketing

SAP Back-End

SAP ERP
SAP S/4HANA
SAP CRM
Integration Package for SAP for Retail

SAP Billing/Revenue

SAP CPQ for Product Configuration

SAP Cloud for Customer

SAP Service Engagement Center
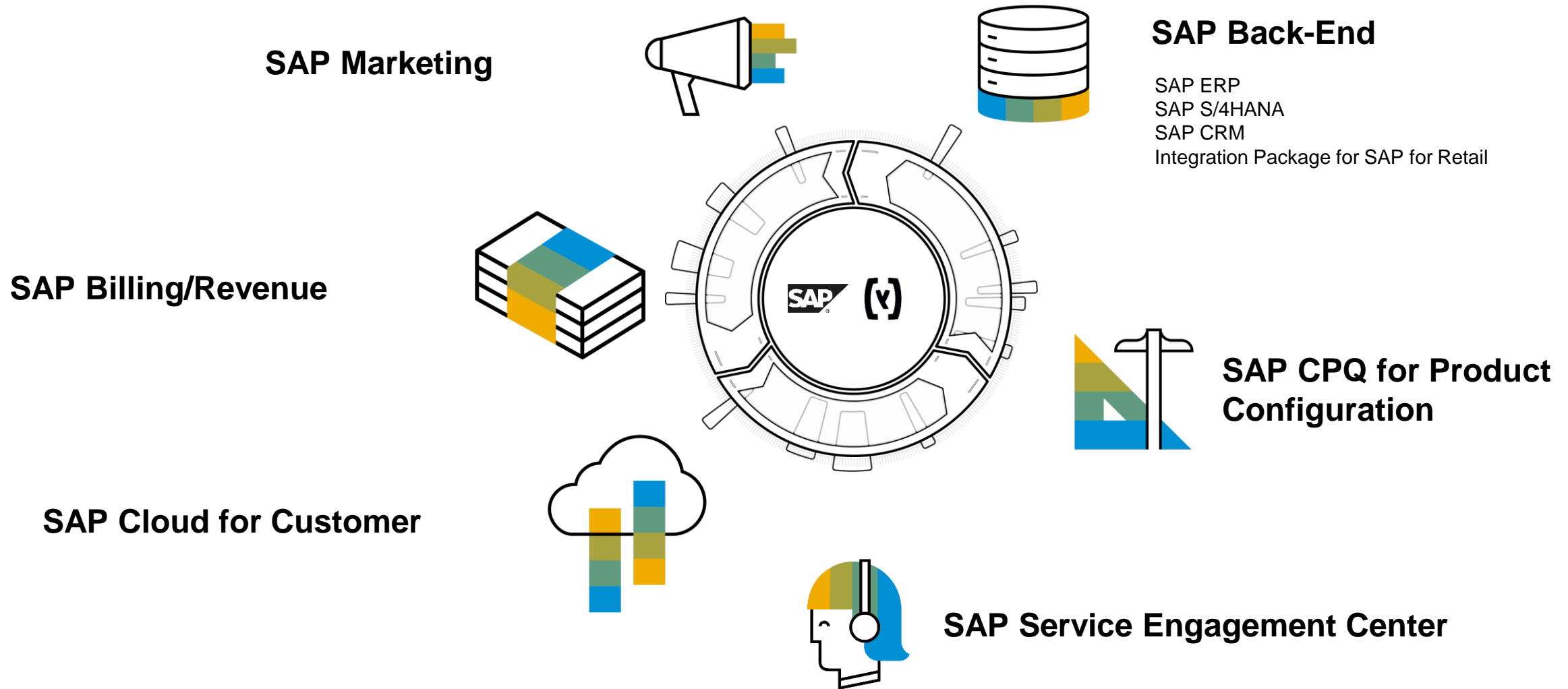
The three Pillars of SAP Commerce Integration

MASTER DATA

- Products
- Prices
- Stock Levels
- Customer
- Order

PROCESSES

- Order Management
- Return Management
- Ticket Processing
- Customer Service

FEATURES

- Price calculation with SAP
- ATP information from SAP
- Credit Check with SAP
- Personalization with SAP Marketing Segmentation
- Product Recommendations with SAP Marketing Recommendation
- Self Service using SAP CRM
- Configure, Price and Quote with SAP
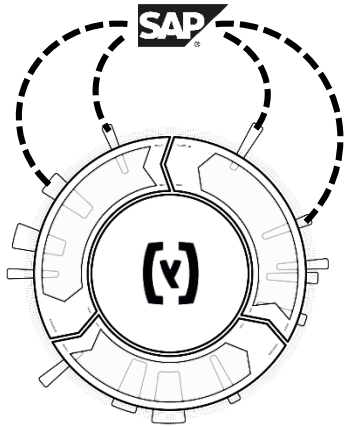
SAP Commerce Integration Touchpoints

- SAP Commerce provides developers with a rich integration environment.

- Some of the principal tools in its armory:

    - ImpEx

    - Hotfolder

    - Data Hub

    - OCC Webservices

    - Integration API

    - Cloud Platform

    - Extension Factory (powered by project "Kyma")

    - SAP App Center

ImpEx • Hot Folders

- Regular/Ongoing updates? Hot Folders make the task easy.

  - Specify a Hot Folder on your server's filesystem

  - Place a simple CSV data file in the folder

  - The folder gets polled by SAP Commerce

  - The data will be visible on your product page at once

  - Processed files are archived automatically

Data Hub Basic Architecture

- A data integration and mastering solution for the SAP Commerce domain, serving as the key connection point between multiple sources and targets.
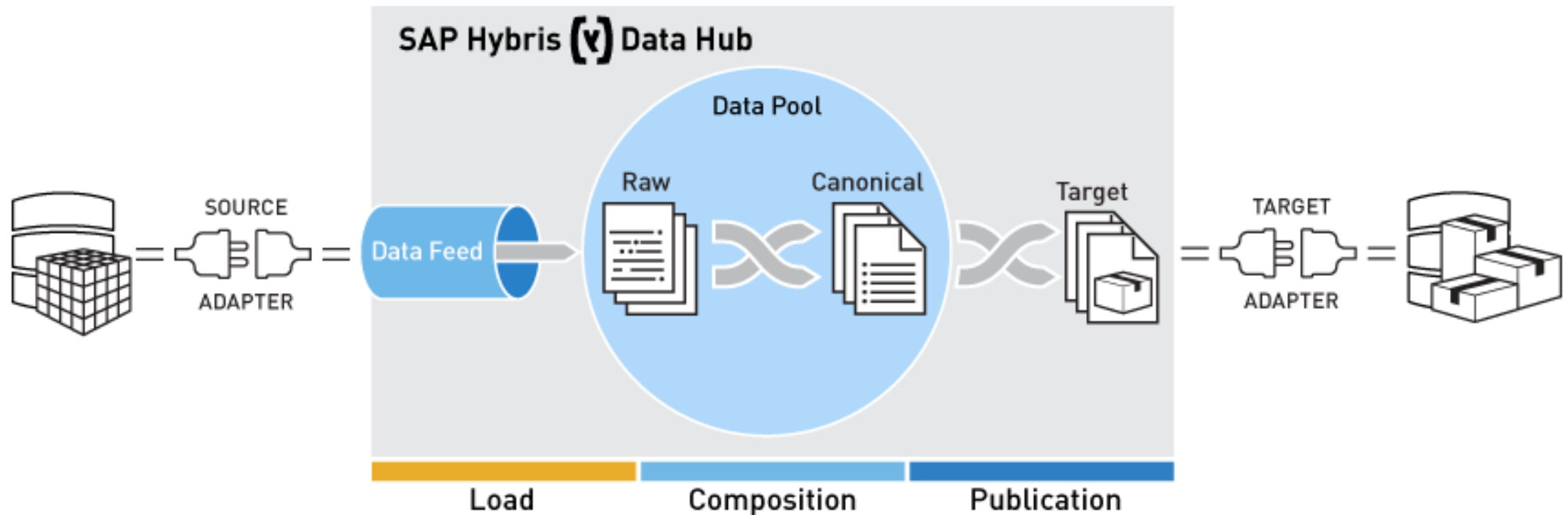
SAP Integration APIs
Key Features

Integration via public APIs
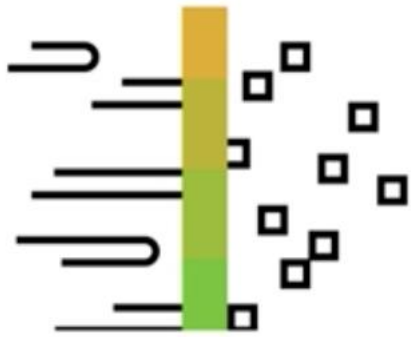
Inbound Odata Services
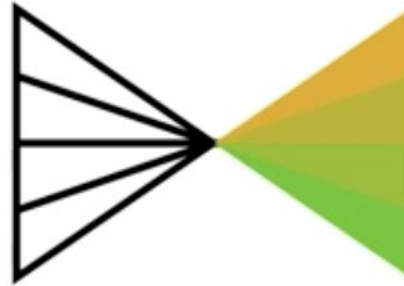
Outbound OData Services
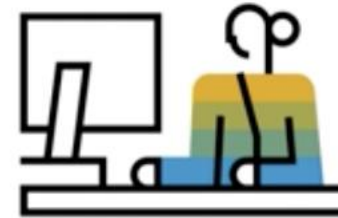
Backoffice – Modeling and Monitoring

Integrating SAP Applications in Cloud and Hybrid Environments

Integration Backoffice
UI Tool

New Backoffice perspective/cockpit for Modeling and Monitoring of integration data

- Model the transformation between Integration Objects and the Type System

- Edit and view the structure of the Integration Objects (services and payloads)

- View the EDMX metadata generated for easy SCPI mapping

- Monitor the incoming data to identify any errors or inconsistencies
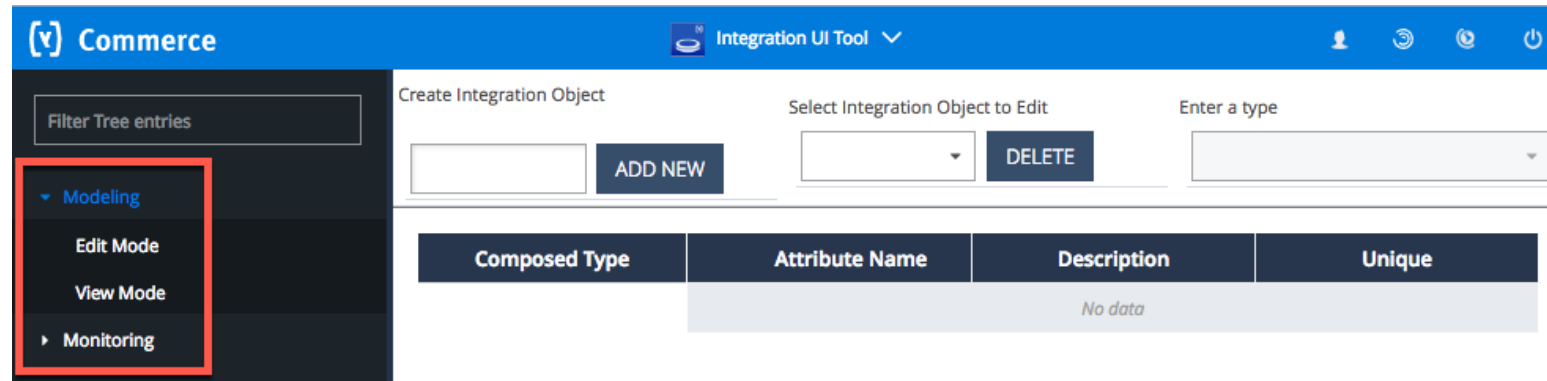
SAP Integration APIs
Key Benefits

✓ Provide a "real world" view and encapsulation of platform types

✓ Runtime configurable services in the Backoffice or Impex

✓ No restart or re-compilation of the platform necessary

✓ Define payloads for both inbound and outbound requests for easy mapping in SCPI

✓ Monitor inbound data in the Backoffice

✓ Align with Vision for Integrating SAP Applications in Cloud and Hybrid Environments
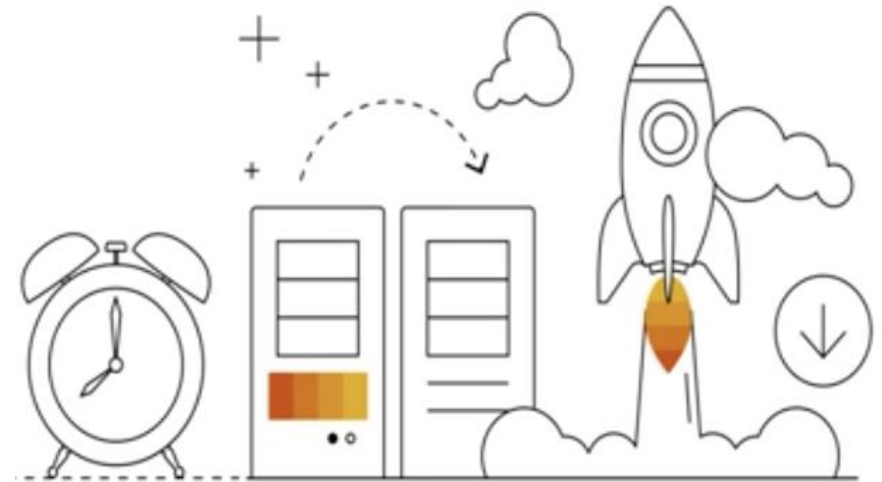
Introducing SAP C/4HANA Designed for the New Customer Experience

SAP C/4HANA

Unified Intelligent User Experience
Conversational, Contextual and Intelligent UX

SAP Marketing Cloud

Market with Intelligence in the Moment

SAP Commerce Cloud

Personalized Shopping Experience across Touchpoints

Built-in Intelligence

SAP Sales Cloud

Build Relationships and guide Customers throughout their journey

SAP Service Cloud

Make Customers happy

SAP Customer Data Cloud
Build Customer Trust and Loyalty

SAP Cloud Platform Extension Factory
Cloud-native Microservice based universal Extension Framework.

Microservices

Extensions

Internet of Things

Machine Learning

SAP® Cloud Platform

Integration

Blockchain

SAP S/4HANA®

SAP Cloud Platform Extension Factory - Challenges Addressed
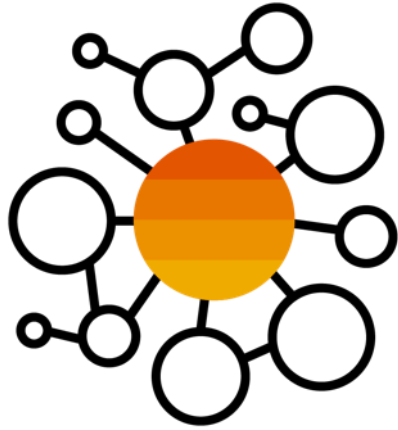
Heterogeneous
Product Portfolio

Monolithic
Deployments

Cloud Native
Development
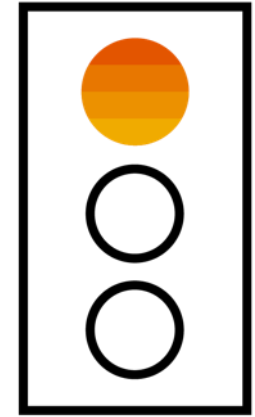
Need for Speed

SAP Cloud Platform Extension Factory - Vision
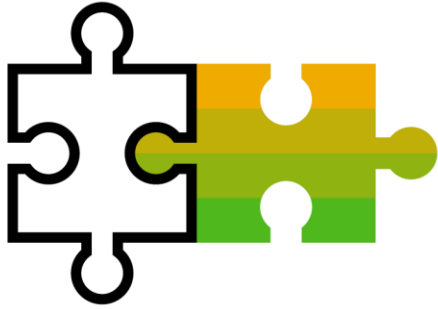
Integration

- Leverage **out-of-the-box integration** to C/4HANA cloud solutions
- Connect other SAP or non-SAP applications

Openness

- Built on top of widely adopted **Open Source Technologies**
- Usage of **standard services** built by
  - SAP
  - Partners
  - 3rd party
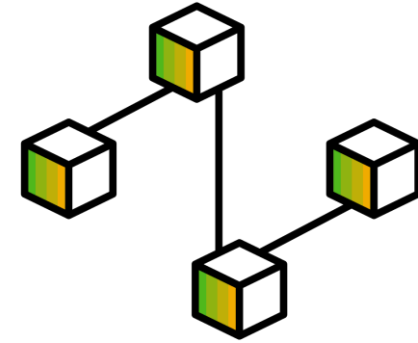
De-couple & Extend

- **Manage cloud-native extensions in one central place**
  - Microservices
  - Serverless Functions
  - Apps
- **Extensions overview** via dashboards enables improvements

SAP Cloud Platform Extension Factory - Vision
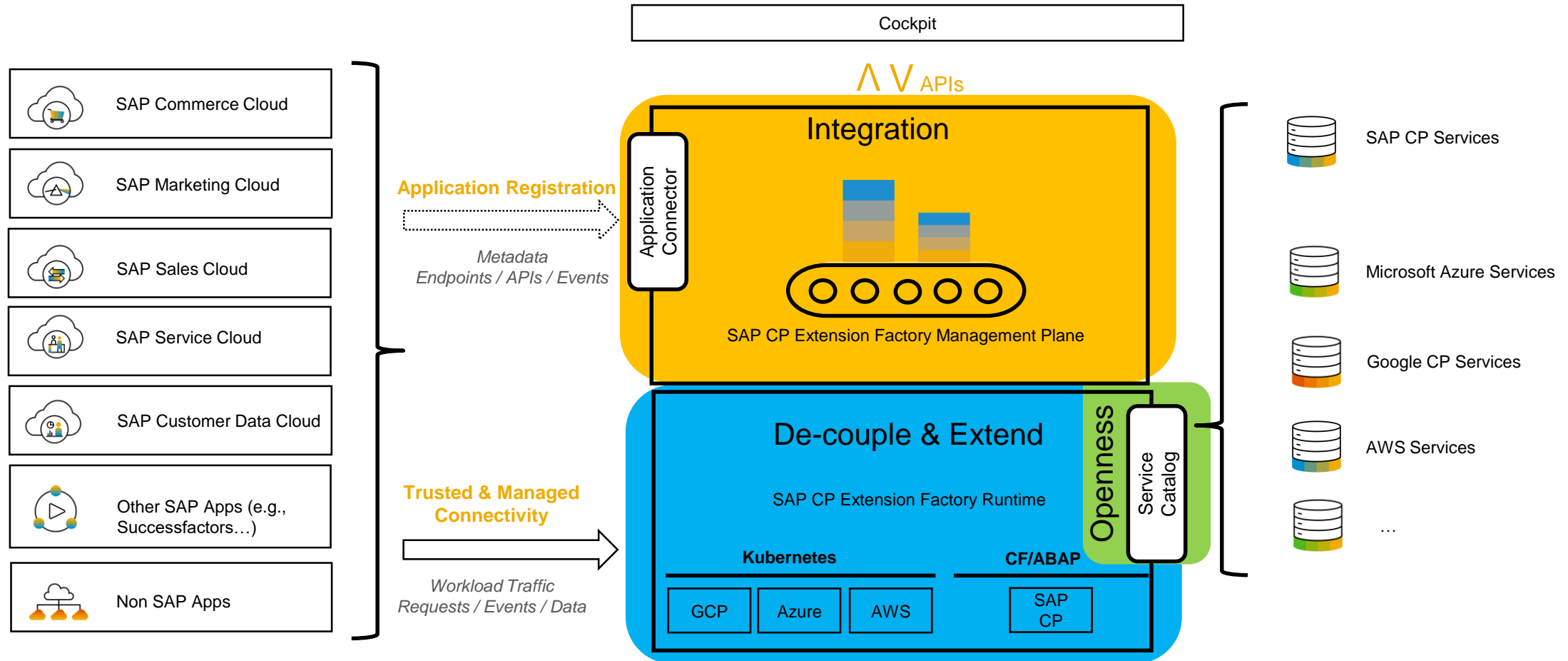
How does SAP Commerce handle
GDPR?

What is the General Data Protection Regulation (GDPR)?

Data Collected

Connections

Profile Data

Social Data

Likes & Interests

Location Data

Behavioral Data

Registration Data

Device Data

VS.

Individual Rights

The right to **rectification**

The right to **erasure**

The right to **restrict processing**

The right of **access**

The right to **data portability**

The right to **be informed**

The right to **object**

Rights in relation to **automated decision making and profiling**
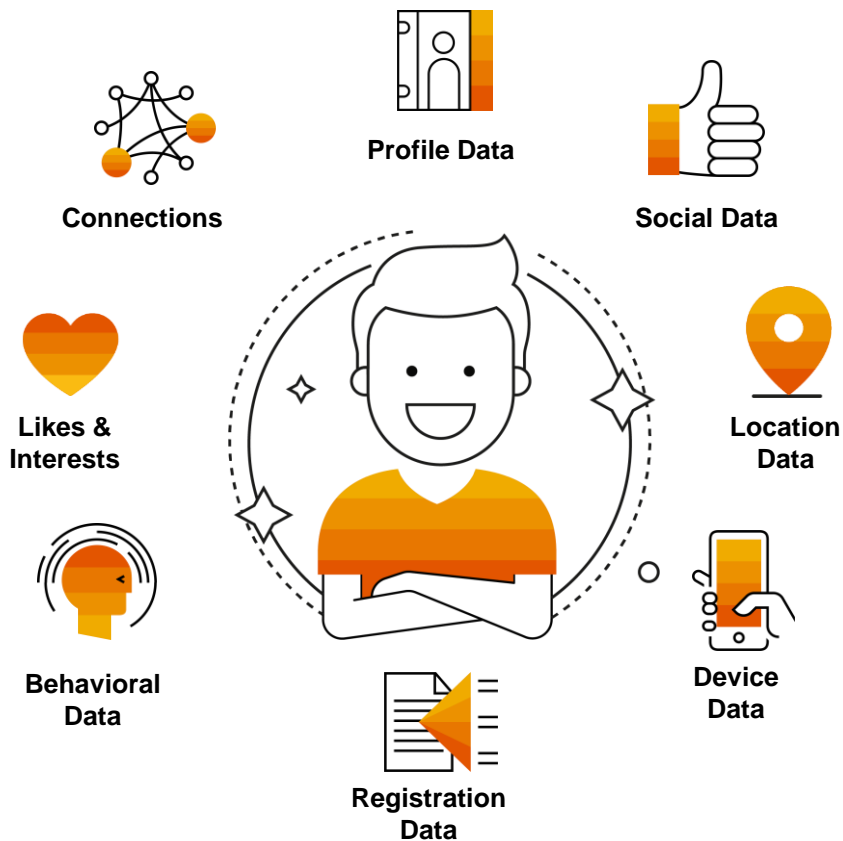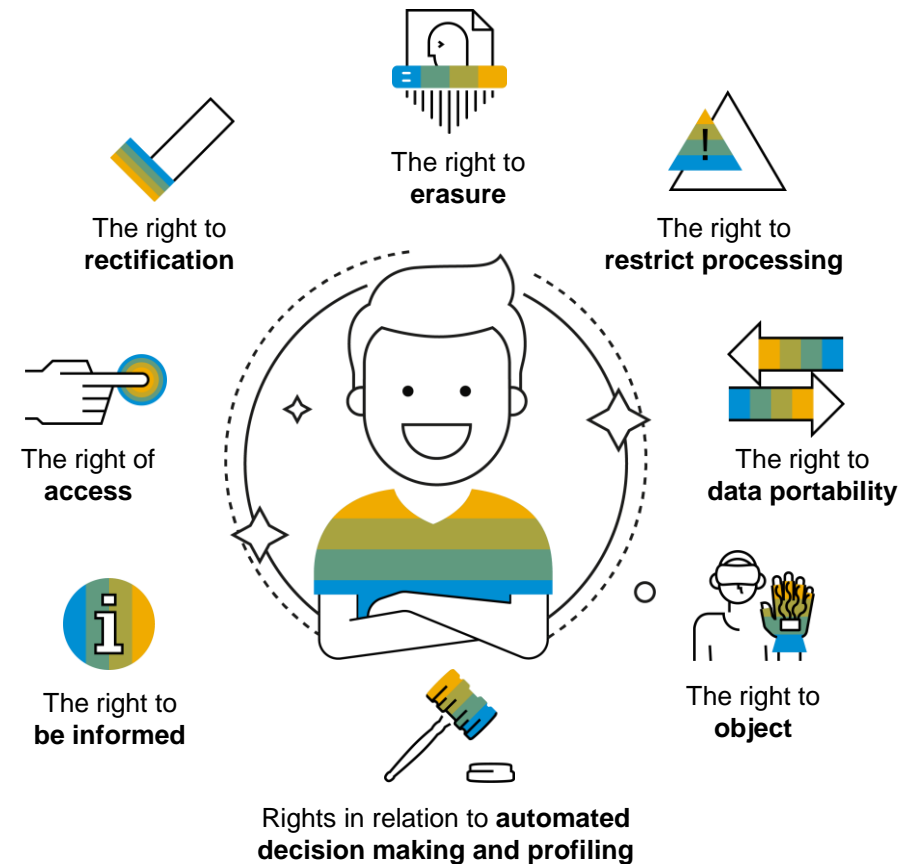
Putting The Customer In Control Of Their Data

GDPR: What is it and what's at stake…

GDPR ENFORCEMENT BEGINS

MAY 25, 2018

APPLIES TO:

ANY ENTITY PROCESSING EU PERSONAL DATA

Severe Penalties

€20M or **4%**

Annual turnover

GDPR Features in SAP Commerce

1. Data Annotation

2. Consent Management

3. Customer Account Closure

4. Personal Data Reporting

5. Data Retention/Deletion
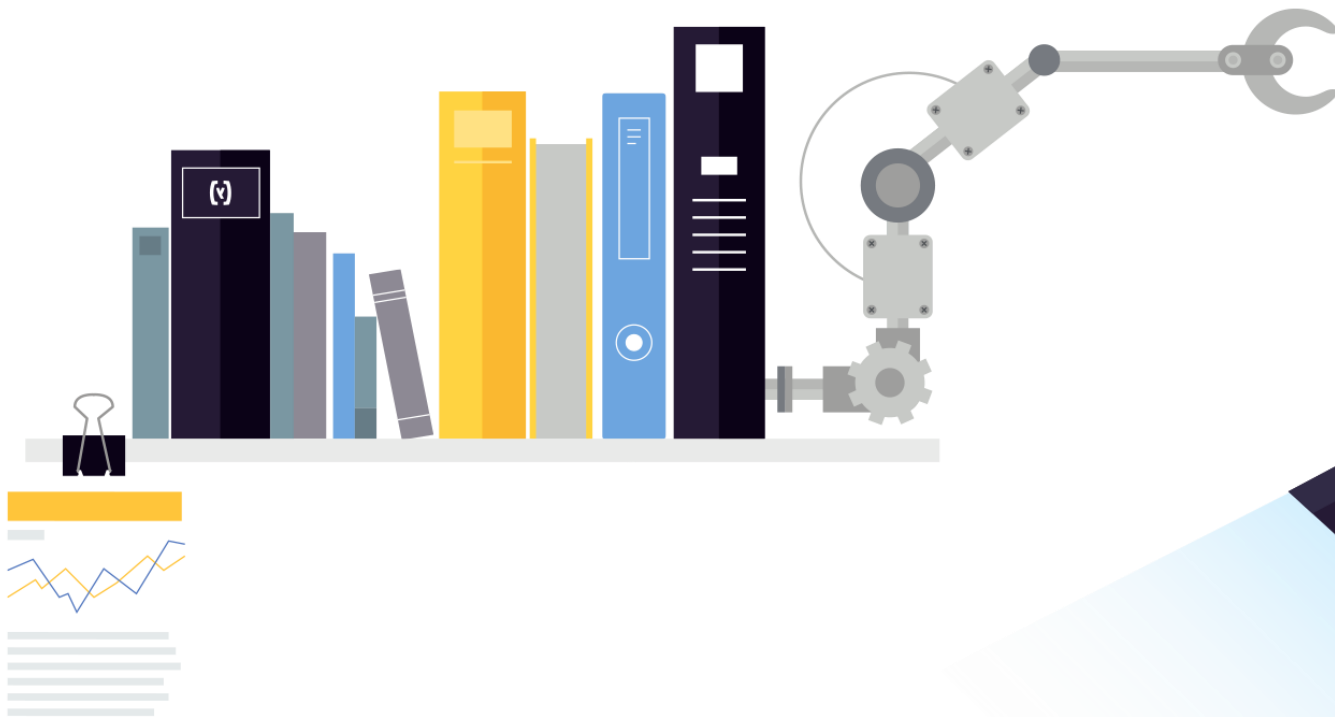
Demo
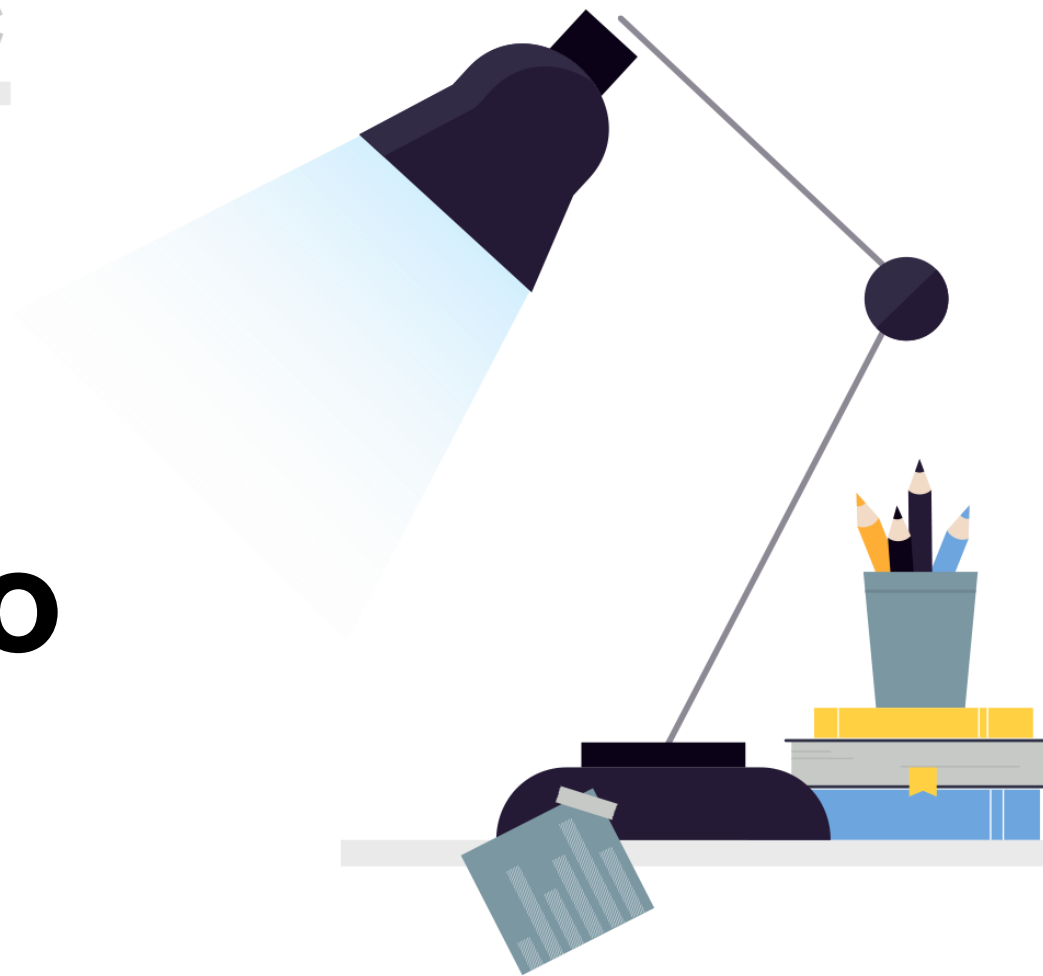
Knowledge Webography

SAP Commerce Help

https://help.sap.com/viewer/product/SAP_COMMERCE/1905/en-US

- Everything about latest SAP Commerce versions (version 6.0 and later)
- Contents:
  - Documentation for current SAP Commerce releases
  - SAP Commerce Accelerator documentation
  - Current versions of Developer Trails
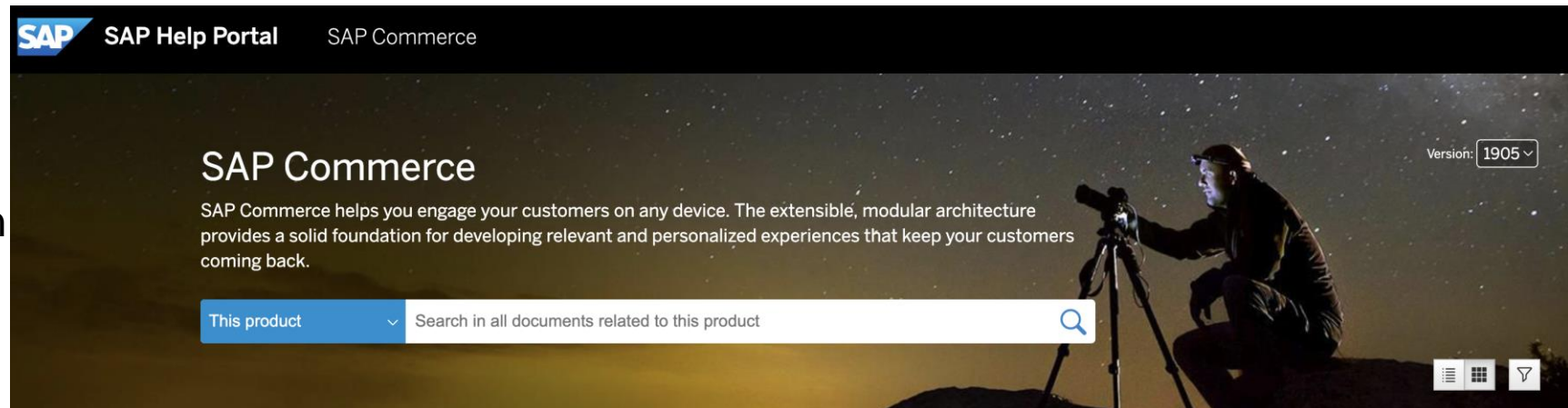
SAP Commerce Cloud Help

https://help.hybris.com/scc/pcd/ab9cf3c375a8407f8a5f548b8a379311.html

- Everything about newest SAP Commerce Cloud versions (Public Cloud & SAP Infra)
- Contents:
  - Documentation for current Commerce Cloud releases
  - Commerce Cloud Portal
  - Commerce Cloud Setup
  - Commerce Cloud Support

The SAP Commerce Wiki

wiki.hybris.com (Knowledge Space)

- Everything you wanted to know about previous versions of SAP Commerce (version 5.7 and before)

- Contents:
  - Documentation for previous SAP Commerce releases
  - Accelerator documentation
  - Previous versions Developer Trails
  - Training and Certification
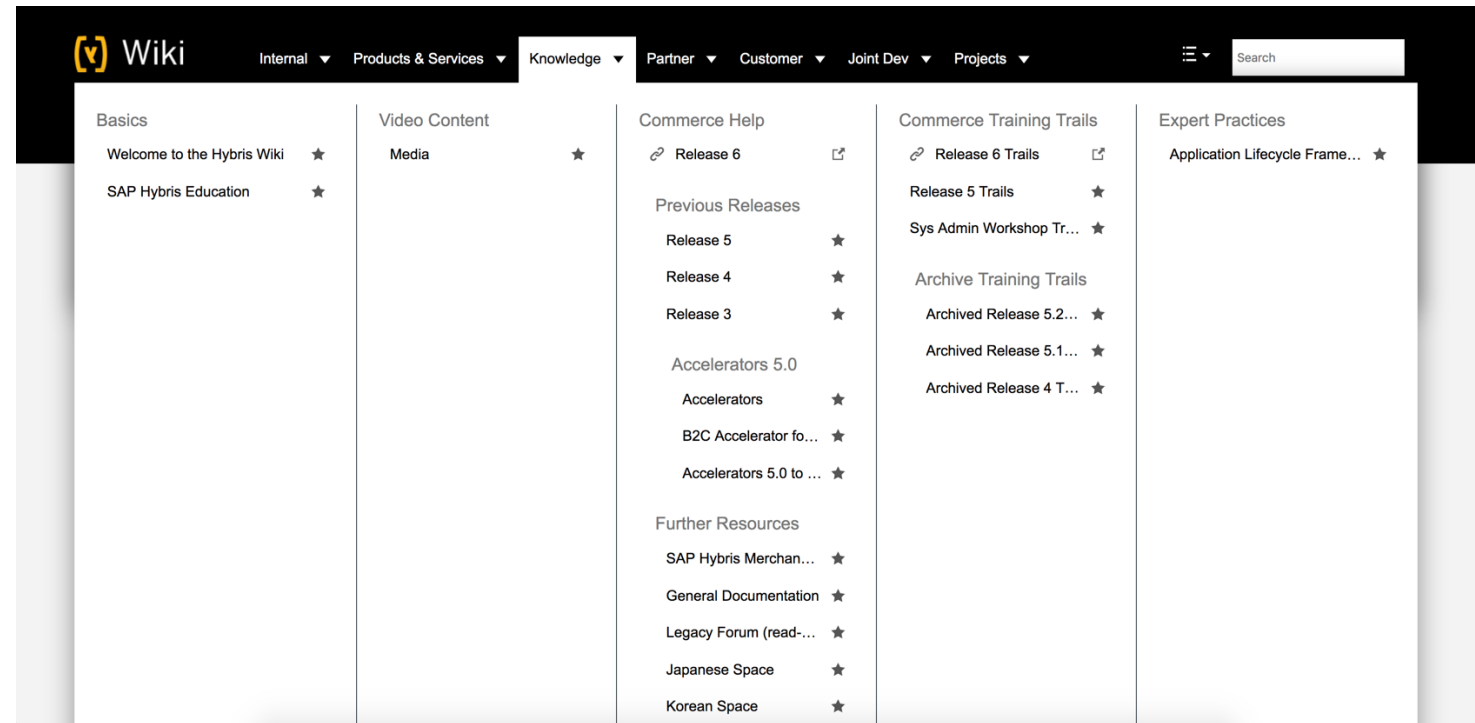
CX Works

www.sap.com/cxworks (Expert Knowledge Portal)

- The source of curated, field-tested and SAP-verified expertise, accessible all in one place!
- Contents:
  - Expert Recommendations
  - Project Frameworks
  - Strategic Guidance

Enablement Portal

enable.cx.sap.com

- The SAP Customer Experience Enablement Portal is our new platform for all enablement video content for customers and also partners.

SAP Customer Experience — Enablement Portal

SAP C/4HANA | Marketing | Commerce | Sales | Service | Customer Data | Explore | Playlist Special

Commerce

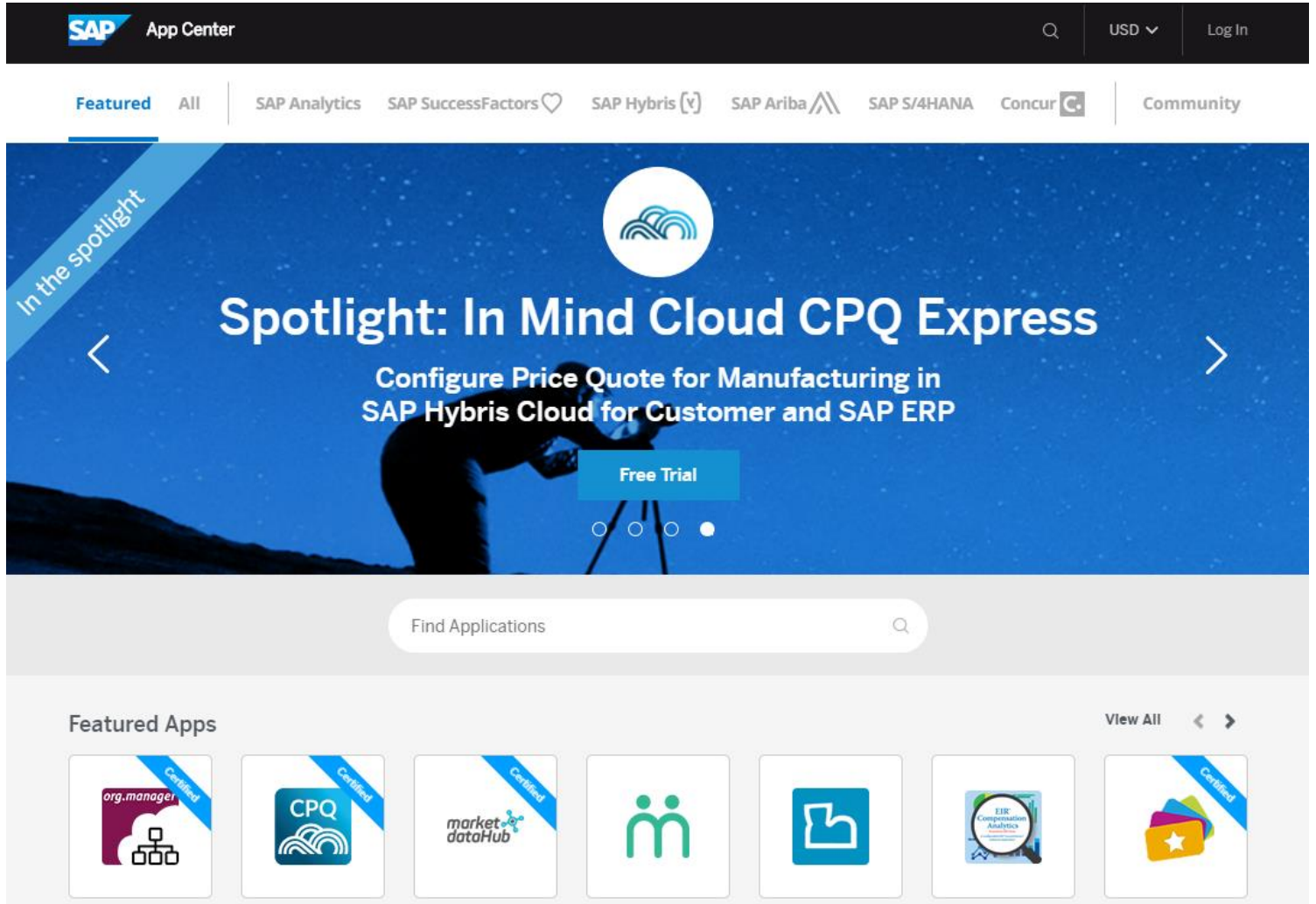SAP Commerce Cloud – one of the five SAP C/4HANA cloud solutions – enables organizations to deliver personalized digital commerce experiences. It includes:

- Product content management.
- Experience management.
- Personalization.
- Order management.

Browse to any of the channels shown below and click on 'Subscribe' to receive notifications when new media is added.

SAP App Center

sapappcenter.com

- Enterprise marketplace to try, buy, manage, and deploy trusted partner applications that **extend your existing SAP technology and solutions**

The SAP Community (https://answers.sap.com/index.html)

https://answers.sap.com/tags/73555000100800001224

Support Packages

- Contact support : support.sap.com

- Support Packages come in different Service Level Agreements (SLA):
  - Pricing
  - Response time
  - Number of annual incidents etc.
- All information on SAP Commerce Cloud project support and how to raise a ticket:

　　　　On-prem:　　https://help.sap.com/viewer/e8fc78fc0a3f4b209202be818e252865/SHIP/en-US/d7f8dd3c7c0b4c38abbd4399589a2711.html

　　　　Cloud:　　　https://help.sap.com/viewer/265a2902eb8d41a3bf79c5e5320785fa/SHIP/en-US/a118beceb4c3429bbc7c5cf46c6256a5.html

Where do you go from here?

Additional Functional Offerings:

- C4H**320** – SAP Commerce Cloud **Business Use**r Training(3 days)

Additional Technical Offerings:

- HY**300** – SAP Commerce Cloud **System Administrator Workshop** (2 days)
- C4H**340** – SAP Commerce Cloud **Developer** Training **Part I** - Core Platform (4 days)
- C4H**341** – SAP Commerce Cloud **Developer** Training **Part II** – Commerce (3 days)
- HY**430** – SAP Commerce **Data Hub** Training (3 days)
- **C4H365** – SAP Commerce **Backoffice Developer** Training– Commerce (3 days)
- HY**600** – SAP Commerce **SAP Solution Integration** (3 days)
- HY**630E** – **Solution Architect** Training Online: SAP Commerce and SAP Commerce Cloud for Service Integration
- HY**730E** – SAP **Marketing Functional Analyst** Online
- C4H**260** – SAP **Marketing Cloud Key Features & Extensibility** Training (3 days)
- C4H**260(E)** – SAP **Marketing Cloud Key Features & Extensibility** Online
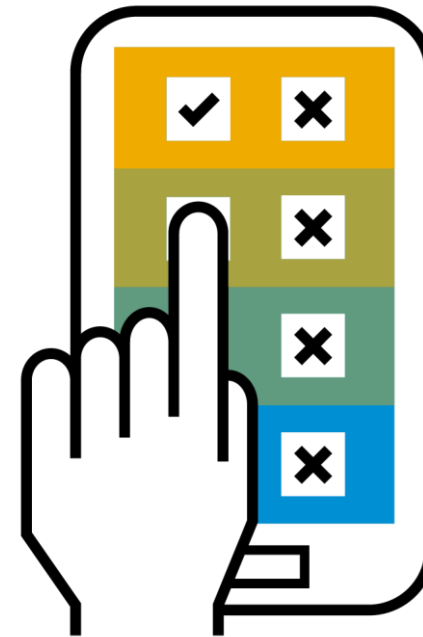
(for more information, see https://wiki.hybris.com/display/education/SAP+CX+Education+Home)

Expert Services:

www.hybris.com/en/services/expert-services

Your feedback is appreciated!

- Please provide feedback at

  https://survey.education.sap.com

SAP Customer Experience

Thank you.

THE BEST RUN **SAP**