



Achieving Business Agility with SAP Cloud Platform Business Rules

Session 84546

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May 7–9, 2019 Orlando, FL

PUBLIC

THE BEST RUN 

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Agenda

Intelligent Enterprise

Decision Management Overview

SAP Cloud Platform Business Rules Introduction

Key Capabilities

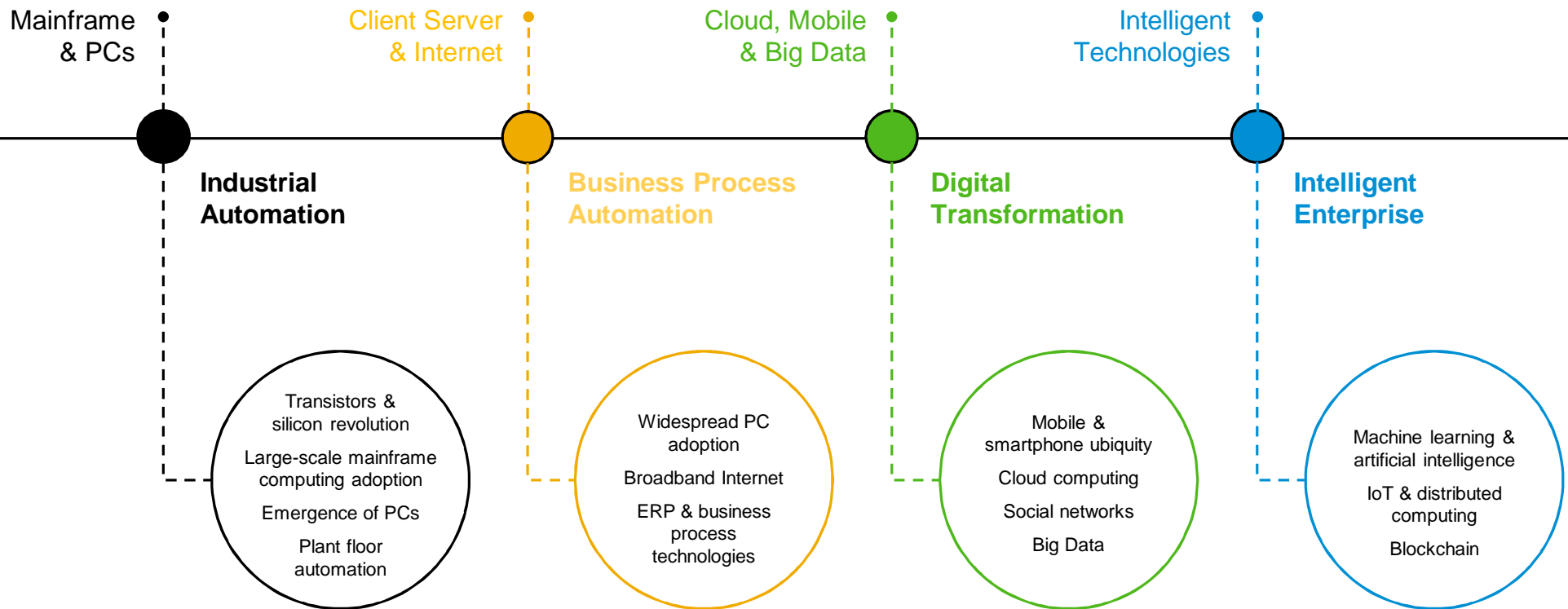
Recipes

Summary

Intelligent Enterprise

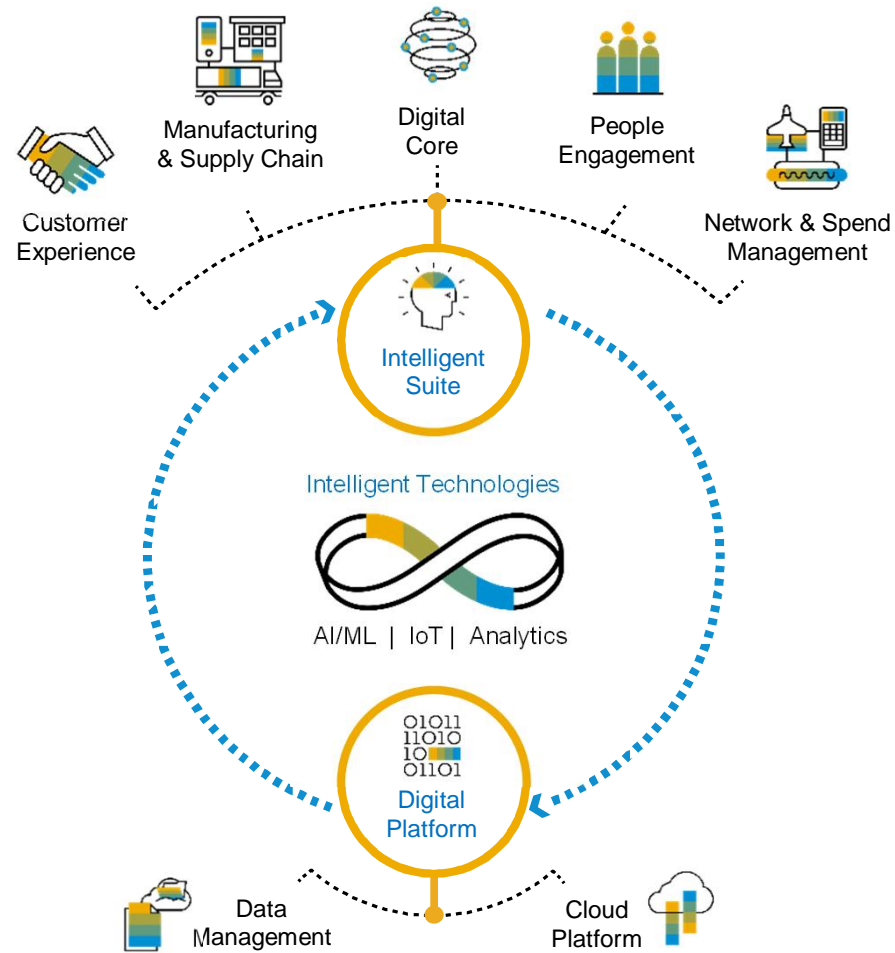


The digital era is evolving into the intelligence era



Deliver the Intelligent Enterprise

THE INTELLIGENT ENTERPRISE features 3 KEY COMPONENTS:



- 1 Intelligent Suite
- 2 Digital Platform
- 3 Intelligent Technologies

Integration & Orchestration services in SAP Cloud Platform

Supported customers scenarios



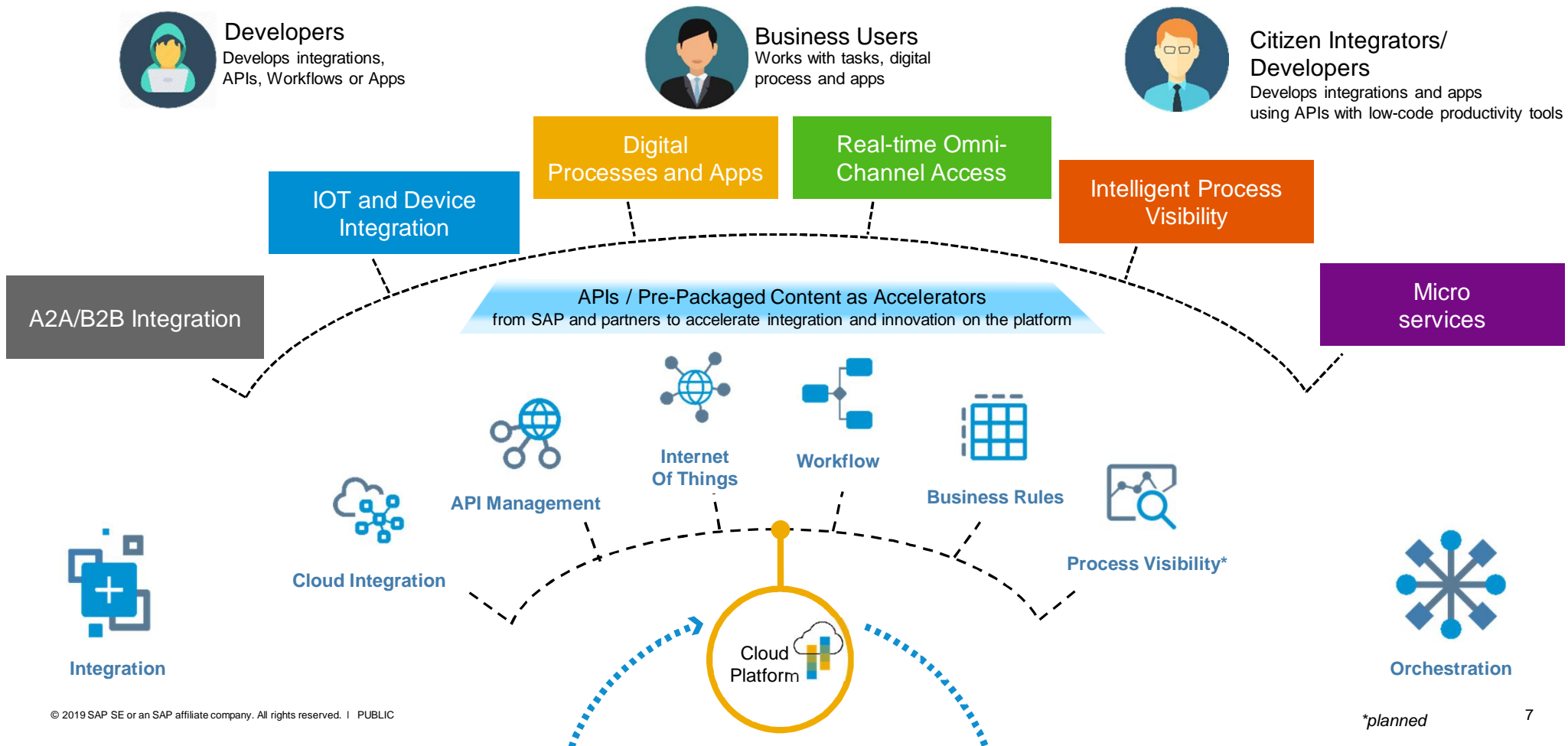
Developers
Develops integrations, APIs, Workflows or Apps



Business Users
Works with tasks, digital process and apps



Citizen Integrators/ Developers
Develops integrations and apps using APIs with low-code productivity tools



Decision Management Overview



Decisions are needed in every business



Banking

Relationship based pricing,
credit decisioning, scorecards



Public Sector

Tax calculations, customs duties, land
regulations, license fee calculations



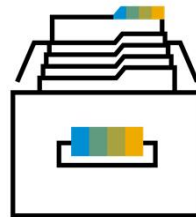
Logistics and Shipping

Parts management, duties
calculations, pricing calculations



Education

Fee calculations,
course selections



Insurance

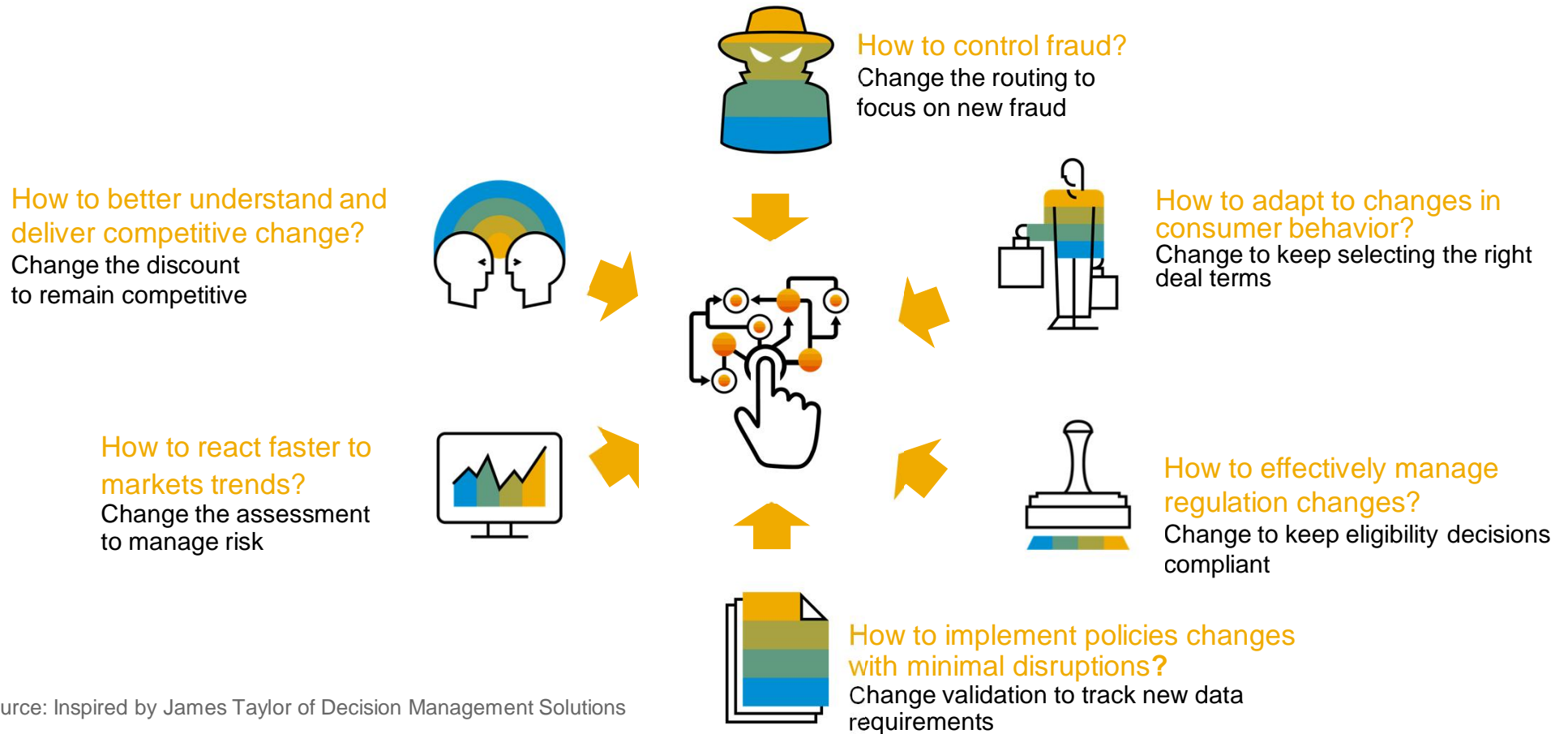
New products, claims
settlement, agent commissions



Healthcare

Patient monitoring, fraud
detection, claims

Across different business landscapes, leaders are asking challenging questions



Source: Inspired by James Taylor of Decision Management Solutions

SAP Cloud Platform Business Rules

Introduction



SAP Cloud Platform Business Rules

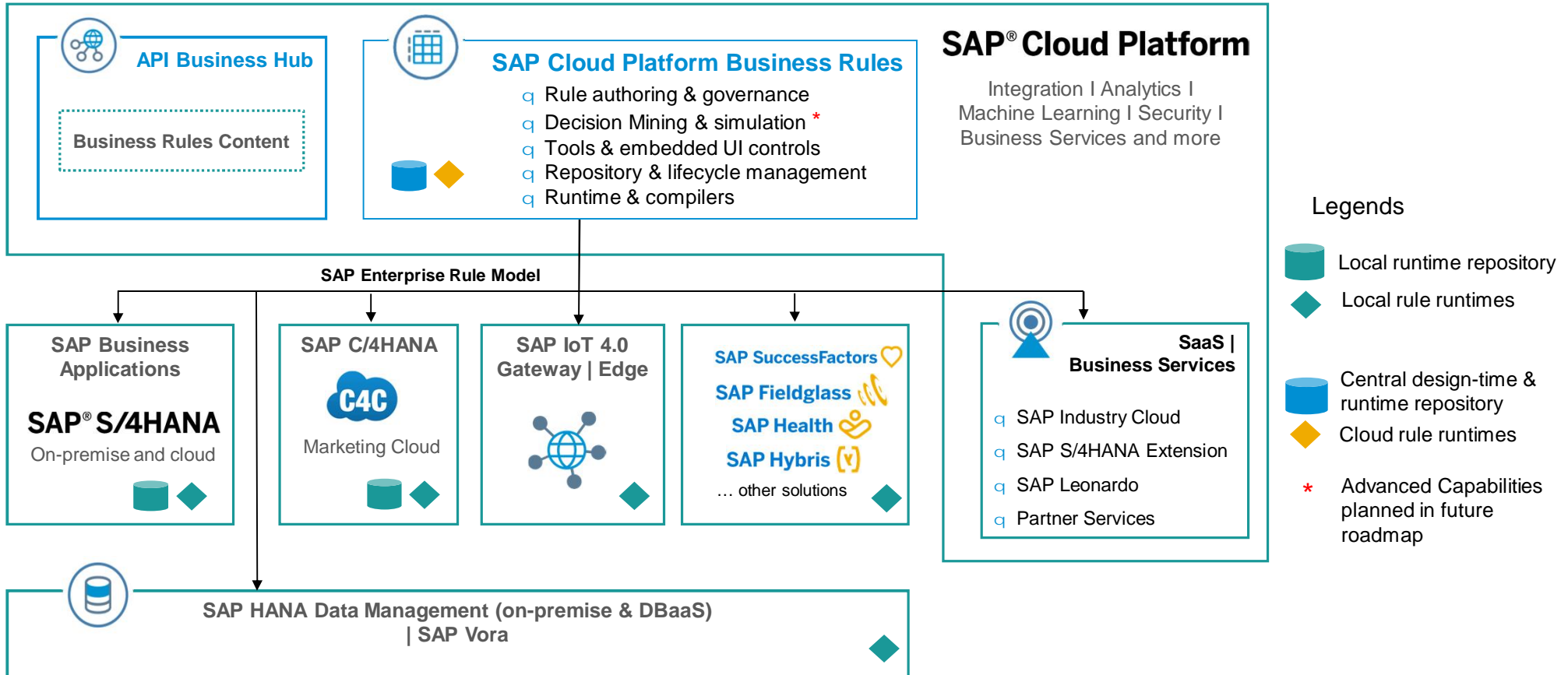
Platform reuse service that encapsulates high change decision logic from application logic

Digitize and automate decision making with business rules

Enable **centralized decision management** across the Intelligent Enterprise Suite



Enterprise Business Rules – our vision



Simplify management of decision logic across SAP Solutions

Capabilities



Agility

Encapsulate business logic from application logic and make business changes without the need to redevelop the application.



Reuse

Consistent and flexible decision management with *reuse* of business rules across different business processes



Transparency

Reduce manual intervention and dependency on the IT expert to apply changes to business logic across applications

Outcomes



Automate decision logic

with web-based tool and common lifecycle management approach with central repository and governance



Enterprise rule model and central decision management

to manage rules centrally across different platforms generating low operation and maintenance cost



Open APIs

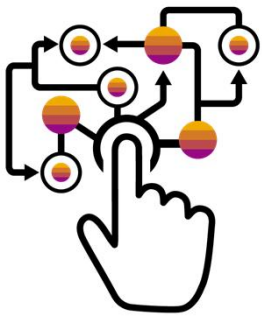
to integrate and extend business logic with processes across various SAP and non-SAP applications

SAP Cloud Platform Business Rules

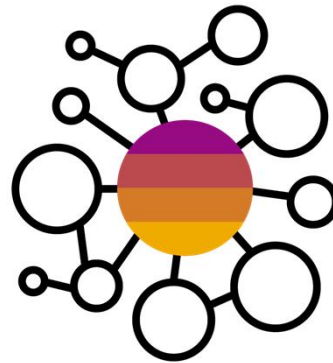
Key Capabilities



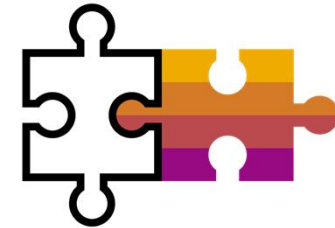
Enabling decision management across Intelligent Enterprise



Empower users to automate and manage decision logic independently from application development



Centrally build and manage decision logic across different solutions and landscapes



Rapidly build and extend decision logic for SAP and non-SAP applications with managed APIs



Enabling decision management across Intelligent Enterprise

Empower users to manage decision logic independently from application development

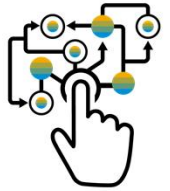
- § Model business rules and formulas in tabular spreadsheet-like decision tables
- § Provide an easy-to-use web-based business rules editor for managing business rule changes
- § Embed UI5 controls for decision tables into configuration apps for business users
- § Implement policy changes in applications without requiring application development

Centrally build and manage decision logic across different solutions and landscapes

- § Reduce code and management effort for developers by externalizing business policy
- § SAP Enterprise Rules Model to standardize modelling notations
- § Central rule authoring and governance with web-based tool and common repository
- § Direct deployment to different systems and platforms like SAP HANA, SAP S/4HANA

Rapidly build and extend decision logic for SAP and non-SAP applications with managed APIs

- § Build, manage and invoke business rules from code by using APIs
- § Create rules to control process extensions for S/4HANA Cloud
- § Model rules to control custom workflows for SAP Cloud applications such as SAP Hybris Cloud for Customer, SAP SuccessFactors, Concur, or SAP Ariba



Empower users to manage decision logic independently from application development

- Model business rules and formulas in tabular spreadsheet-like decision tables and text rule
- Provide an easy-to-use Web-based business rules editor for managing business rule changes
- Embed UI5 controls for decision tables into configuration apps for business users
- Implement policy changes in applications without requiring application development

The screenshot displays the SAP Cloud Platform Business Rules interface. The top section shows a 'Manage Projects' table with columns for Project Name, Description, Status, and Created On. Below this, a detailed view of a decision table is shown for the rule 'ELIGIBLE_BONUS_PERCENTAGE'. The decision table is structured as follows:

If			Then
VALIDITY_START_DATE of the BO...	VALIDITY_END_DATE of the BON...	LOW_BONUS_ASSIGN_FACTOR ...	PERCENTAGE_VALUE
'01/01/2018'	'01/12/2018'	1 to 10	'15'
'01/01/2018'	'01/12/2018'	11 to 14	'20'
'01/01/2018'	'01/12/2018'	15 to 17	'25'
'01/01/2019'	'01/12/2019'	1 to 100	'18'

Centrally build and manage decision logic across different solutions and landscapes



- SAP Enterprise Rules Model to standardize modelling notations based on DMN 1.1
- Central rule authoring and governance capabilities with web-based tool and common repository
- Direct deployment to different platforms like SAP HANA and S/4HANA
- Enable effective use of data assets to achieve desired outcome with less risk
- Flexible and consistent decision automation and management for different platforms



Supply Chain Management



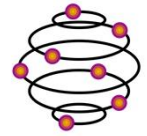
People Management



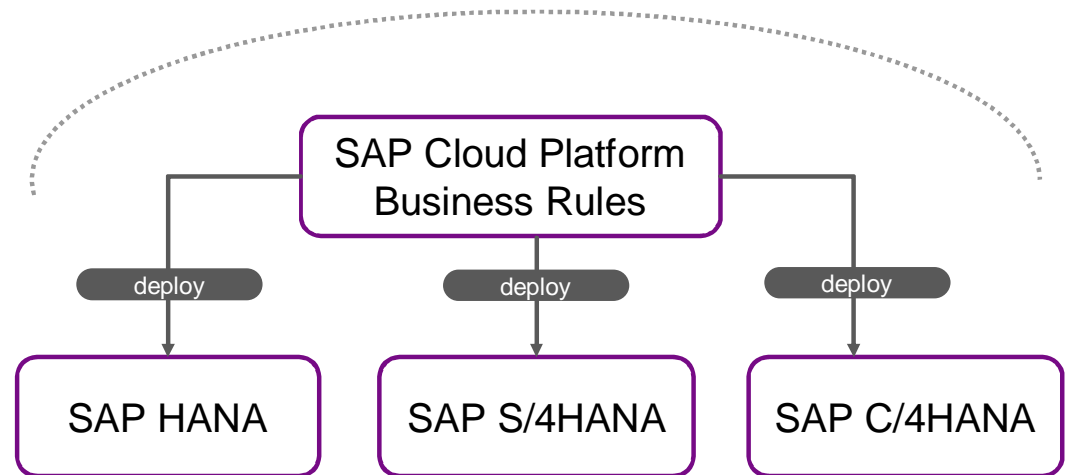
Transport Management



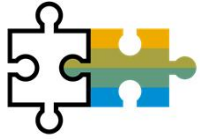
Sourcing and Procurement



Digital Core



Ease developers use and management of rules with managed APIs



The screenshot shows the 'Rule Authoring API for Neo' interface. At the top, there is a share icon and the title 'Rule Authoring API for Neo' with the subtitle 'Author and Manage Business Rules for your organization'. Below this are two buttons: 'Show API Key' and 'Download SDK'. A navigation bar shows 'API References' (active) and 'Details'. The main content area features an 'API Environment' dropdown menu with the text 'API Sandbox is not available' and a 'Configure Environments' link. Below the dropdown is a list of API endpoints with their methods and paths:

Endpoint	Method	Path
Projects	POST	/projects
Activation	GET	/projects
Data Objects	GET	/projects/{id}
Rules	PUT	/projects/{id}
Rule Services	DELETE	/projects/{id}
Rulesets		
Export/Import		
XSRF Handling		

- Build and manage decision tables from code by using APIs
- Invoke the rules engine via APIs published in SAP API Business Hub
- Reduce code and management effort for developers by externalizing business policy

Rapidly build decision logic for SAP and non-SAP applications



Create business rules to encapsulate decision logic of extension applications of SAP S/4HANA Cloud, SAP SuccessFactors, etc.

SAP® S/4HANA Cloud
SAP® S/4HANA

Model business rules to control custom workflows for SAP Cloud applications such as

- SAP C/4HANA Cloud for Customer
- SAP SuccessFactors
- SAP Concur
- SAP Ariba

SAP® C/4HANA

SAP Ariba 

SAP Concur 

SAP Health 

SAP SuccessFactors 

SAP Cloud Platform Business Rules

Recipes



Business Rules Usage Patterns

Recipes



Extension Applications

that require business logic to vary and remain outside the application lifecycle

- A cloud native application built side by side to an SAP Solution e.g. SAP S/4HANA
- Invokes the Rule Service via API



Human Centric or System Centric Processes

that require decision logic to be isolated from the process flow logic

- A cloud **Workflow** or **Integration** flow process that extends or integrates an SAP Solution
- Workflow or Integration Flow Service Task invokes the Rule Service via API



Core Business Processes for In App Extensions

that require rule based field calculations & derivations and controlled environment

- SAP back office core processes e.g. Availability to Promise, Financial Reporting in S/4HANA
- SAP front office customer facing processes like Marketing Campaign Score Recommendation in C/4HANA

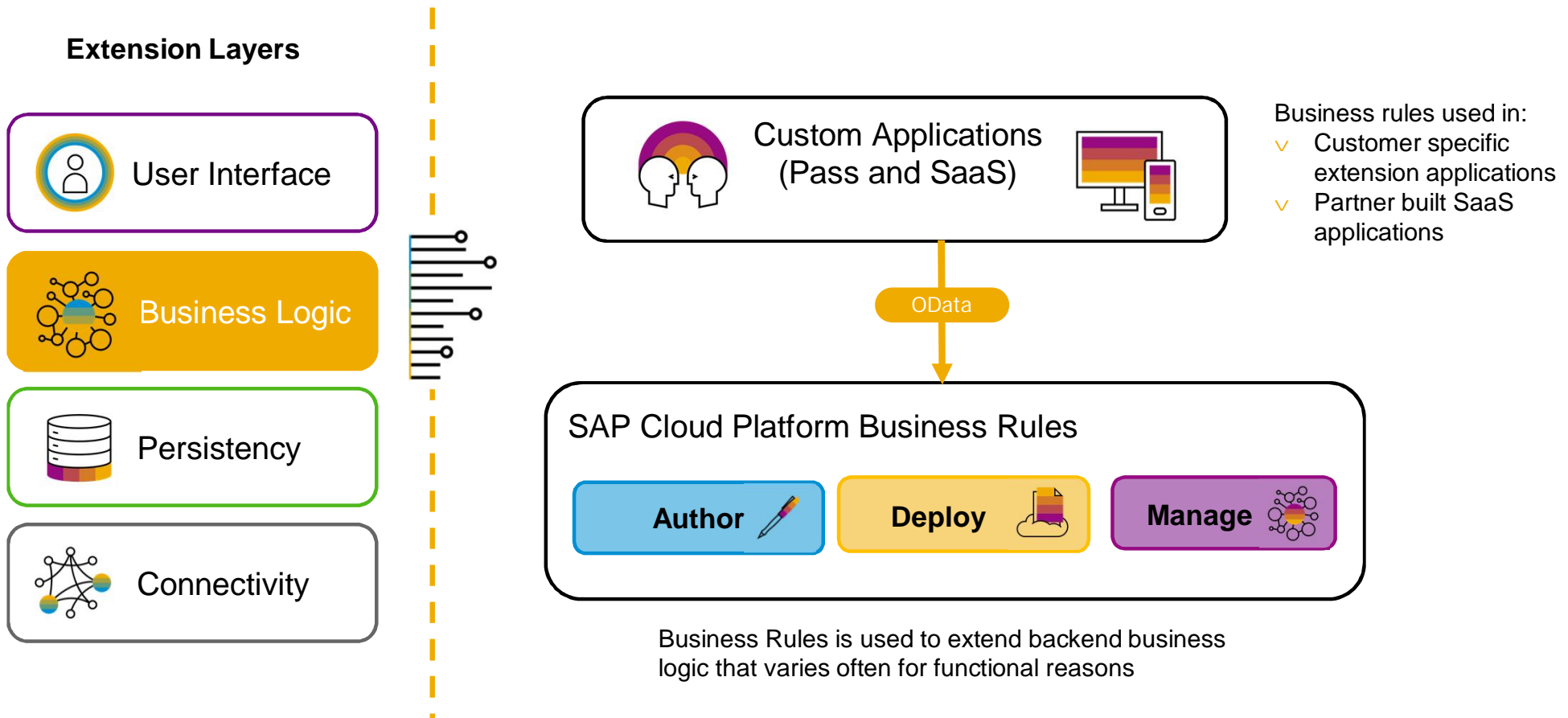


Analytical Decisions

that require executions on mass data typically stored in Agile Data Mart

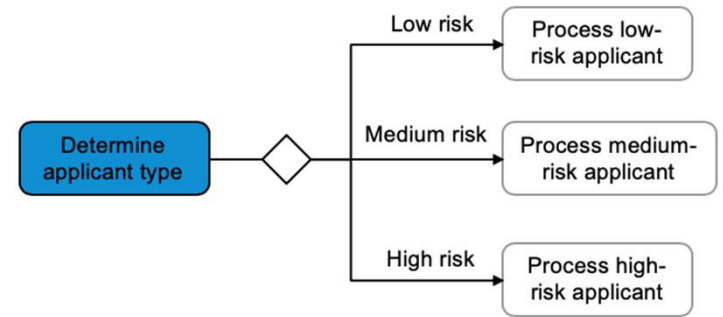
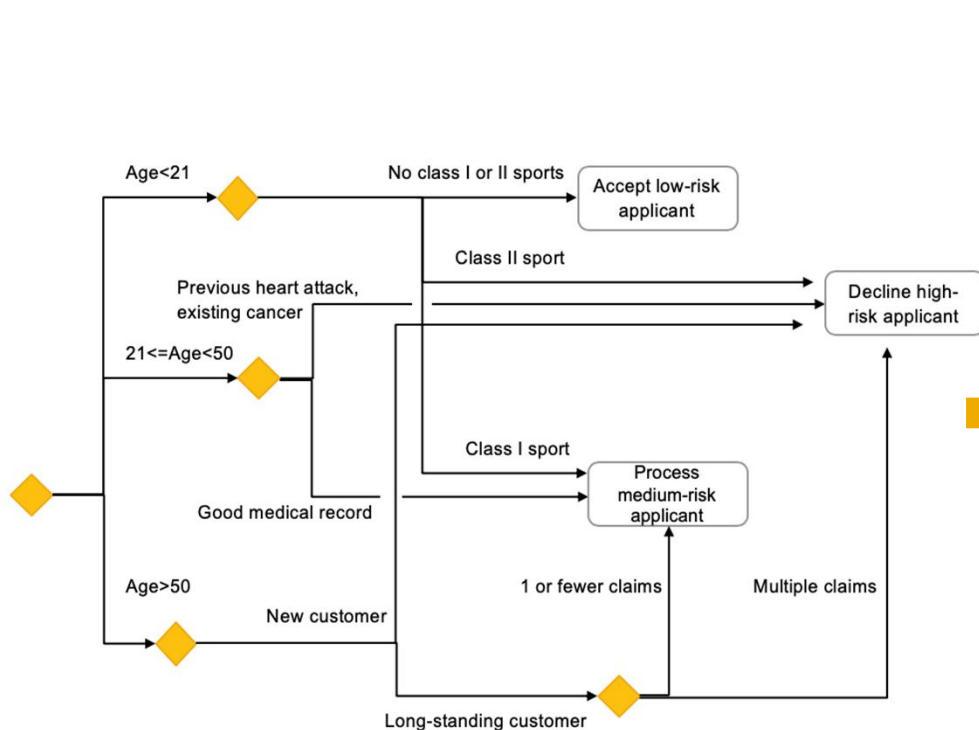
- Agile data marts refers to repository of data gathered from operational data originating from transactional systems and other sources.
- Business rules are push down to HANA to leverage faster execution of analytical rules on mass data

Recipe 1: Extension Applications that require flexible business logic





Recipe 2: Isolate Decision Logic from Process Logic

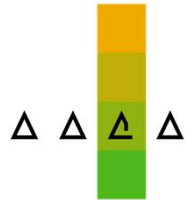


Separate decision, simpler process

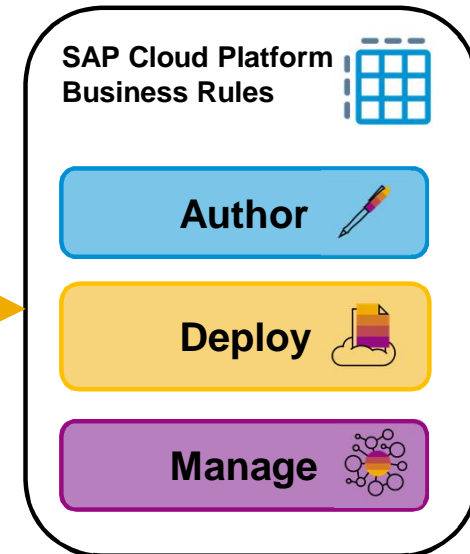
Decision Table Rule

Age	Class I sports	Class II sports	Heart Attack	Cancer	New Customer	# Claims	Action
<21	N	N					Low Risk
<21		Y					High Risk
<21	Y	N					Medium Risk
21 - 50			Y				High Risk
21 - 50				Y			High Risk
21 - 50			N	N			Medium Risk
>50					Y		High Risk
>50					N	<2	Medium Risk
>50					N	>1	High Risk

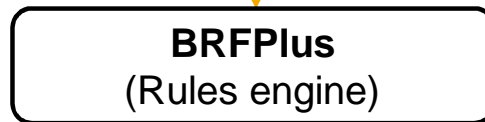
Recipe 3: Operational Decisions in Core Business Processes



- Operational Decision:
- ✓ daily repeatable business decisions
 - ✓ done in high-volume
 - ✓ rely on transactional data
 - ✓ database lookup needed



need decision logic



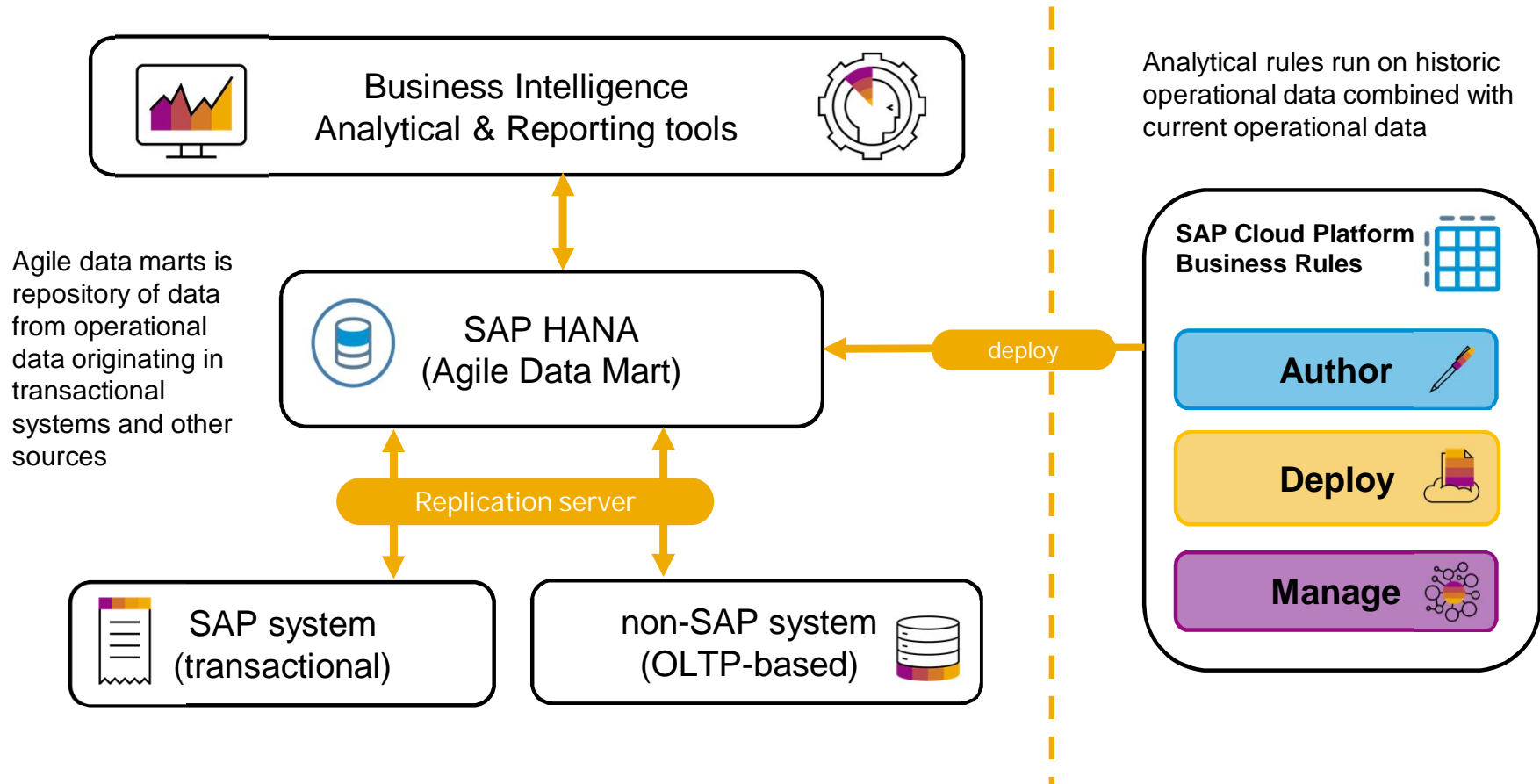
Example: Does the **new** account have invalid zip?

need database lookup



Example: What **persisted** accounts have invalid zip?

Recipe 4: Analytical Rules for Agile Data Mart



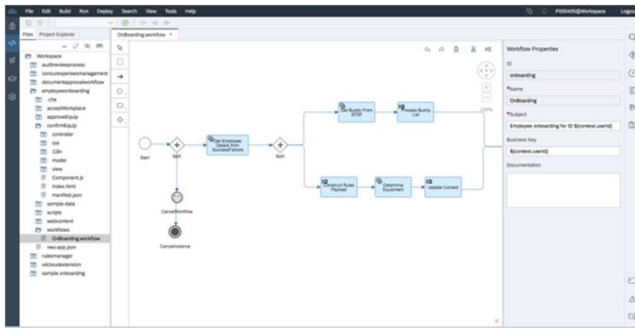
Summary





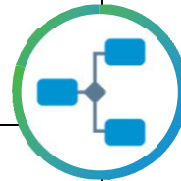
Orchestration

Rapidly build and modify workflow applications while managing business logic



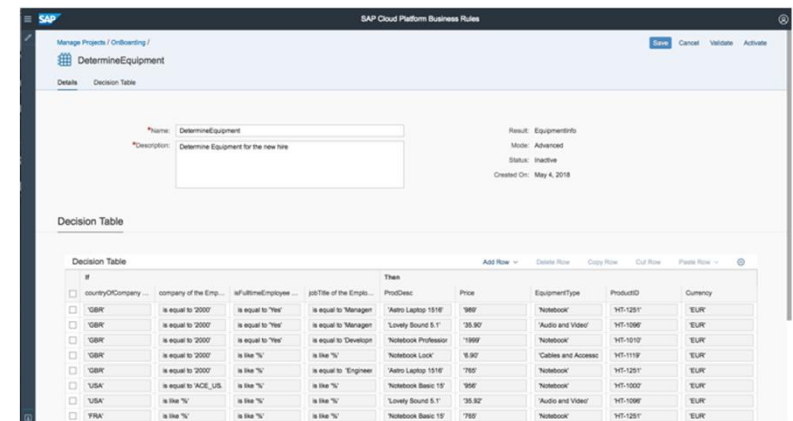
Orchestrate and extend workflows with SAP Cloud Platform Workflow

- Rapidly build and modify workflow applications with web-based tooling
- Create and adapt value-adding processes in your company
- Increase efficiency and transparency
- Users can manage their workflow tasks using the My Inbox Fiori application



Quickly automate flexible decision with SAP Cloud Platform Business Rules

- Empower users to manage business logic independently from application development
- Create application specific business vocabulary independent of the runtime container
- Integrate Rules as a service into your applications using the REST API



More Information



- Ø [SAP Cloud Platform Business Rules – Product Page](#)
- Ø [Solution Brief](#)
- Ø [SAP Help](#)
- Ø [SAP Cloud Platform Business Rules API](#)
- Ø [SAP Cloud Platform Business Rules Roadmap](#)
- Ø [SAP Cloud Platform regions](#)



- Ø [Product Overview on YouTube](#)
- Ø [Product Expert Video on YouTube](#)
- Ø [SAP Cloud Platform Podcast #Episode 47](#)
- Ø [Webinar: What's new in SAP Cloud Platform Business Rules](#)
- Ø [SAP Code Talk with DJ Adams](#)
- Ø [Quick Demo by Midhun VP](#)
- Ø [Authoring & Testing series by Antonio](#)



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- Ø [Lecture: Business Rules Usage Patterns](#)
- Ø [Lecture: BPM Services in the Cloud](#)
- Ø [Discovery Center: Automate Service Order Creation](#)



Blueprints:

- Ø [Automating Employee Onboarding Processes](#)
- Ø [Automate the Business Partner Creation Process Using SAP Cloud Platform Workflow and Business Rules](#)
- Ø [Automate the Document Review Process with SAP Cloud Platform Workflow and SAP Jam Collaboration](#)

Sample Content:

- Ø [Shopping Cart Rules](#) : consumption of rules in custom application
- Ø [Offer Management Rules](#) : integration with SAP HANA
- Ø [Flight Booking Rules](#): integration with SAP S/4HANA
- Ø [Rules Manager App](#): how to embed business rules in custom app

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