



BTP Development Overview

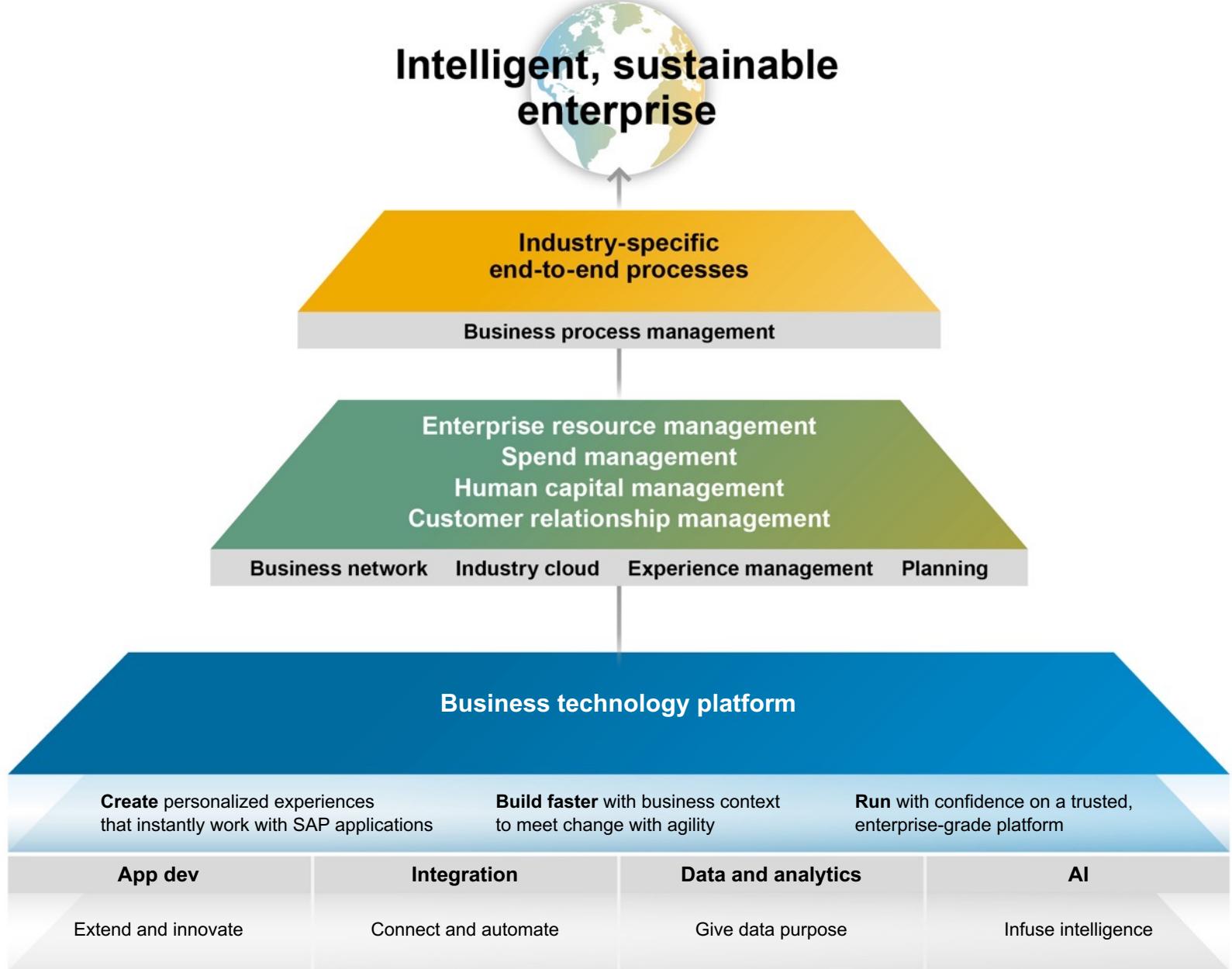
SAP Extension Suite

Makoto Sugishita, SAP

Public

What Is SAP BTP?

SAP BTP is the foundation of the Intelligent Sustainable Enterprise

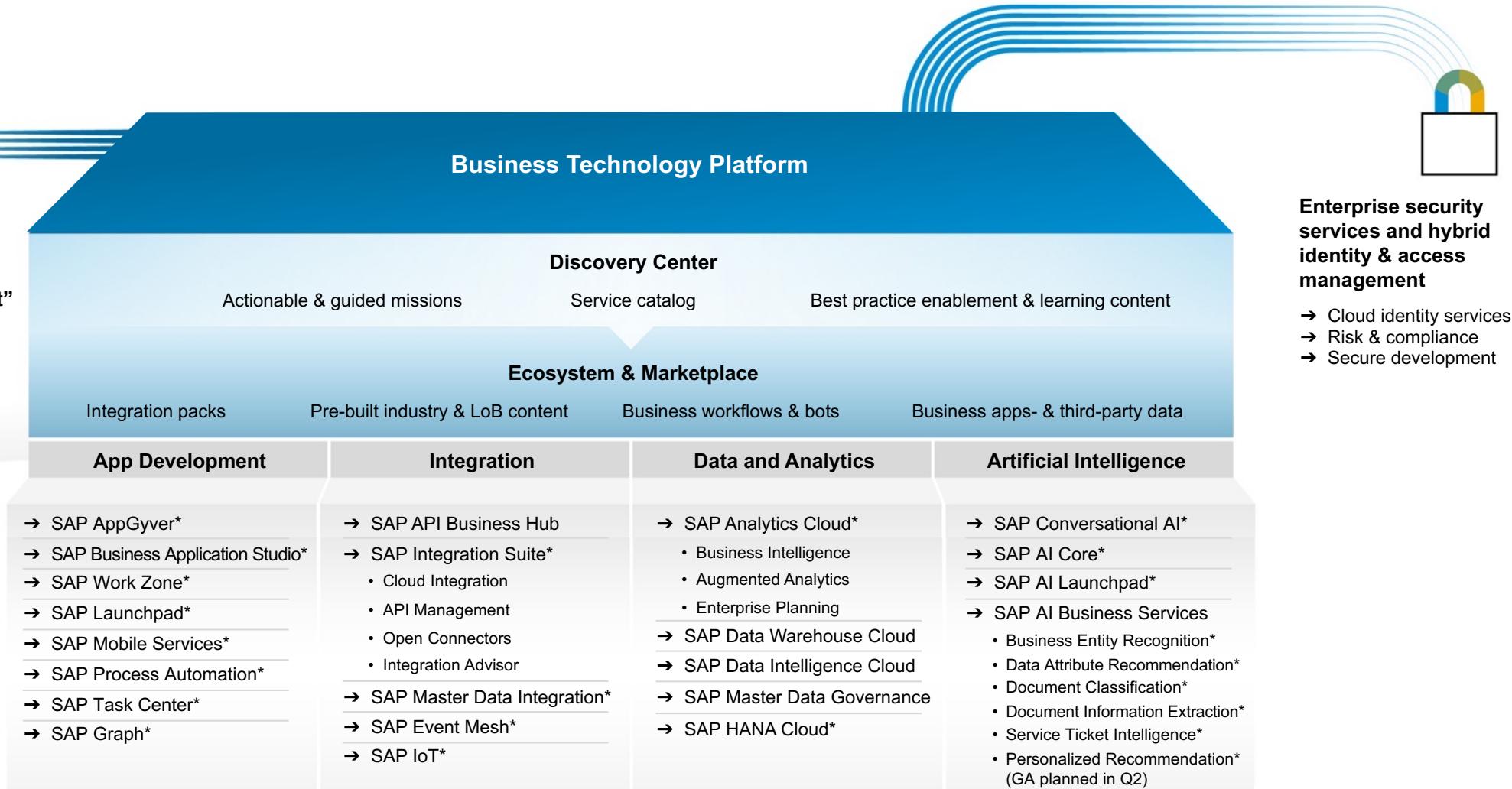


SAP BTP Services



“Enterprise readiness with holistic lifecycle management” with the sub items

- Change and deployment management
- Technical ops automation
- Alerting
- Smooth integration option into existing ALM processes



Enterprise security services and hybrid identity & access management

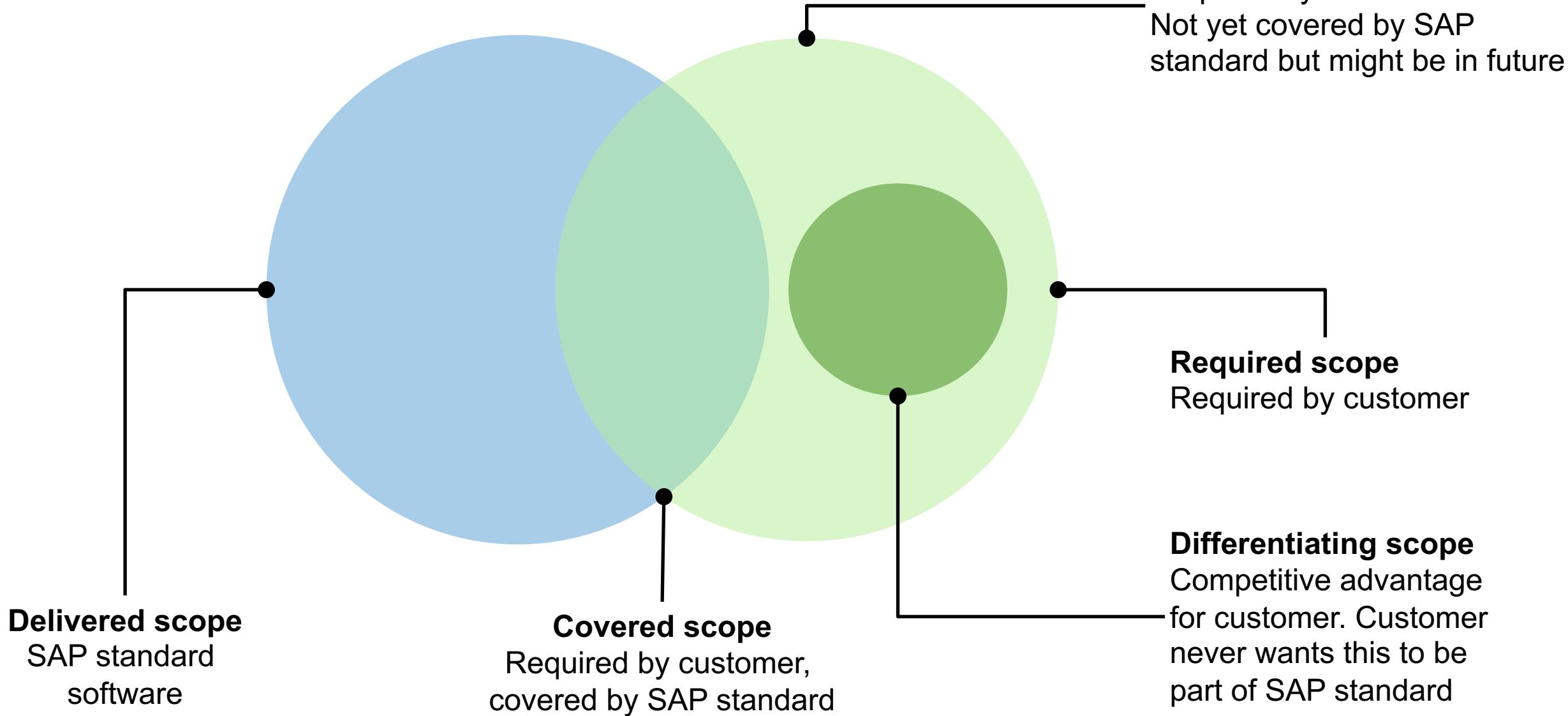
- Cloud identity services
- Risk & compliance
- Secure development

* Included in CPEA/PAYG

Why build extensions?



Extending the Scope with SAP BTP



Motivation

“Spend money to save money”

Optimize



Increase efficiency of existing business processes and models.

- Easy migration with low TCD
- Lower TCO than before
- At least same reliability

“Spend money to make money”

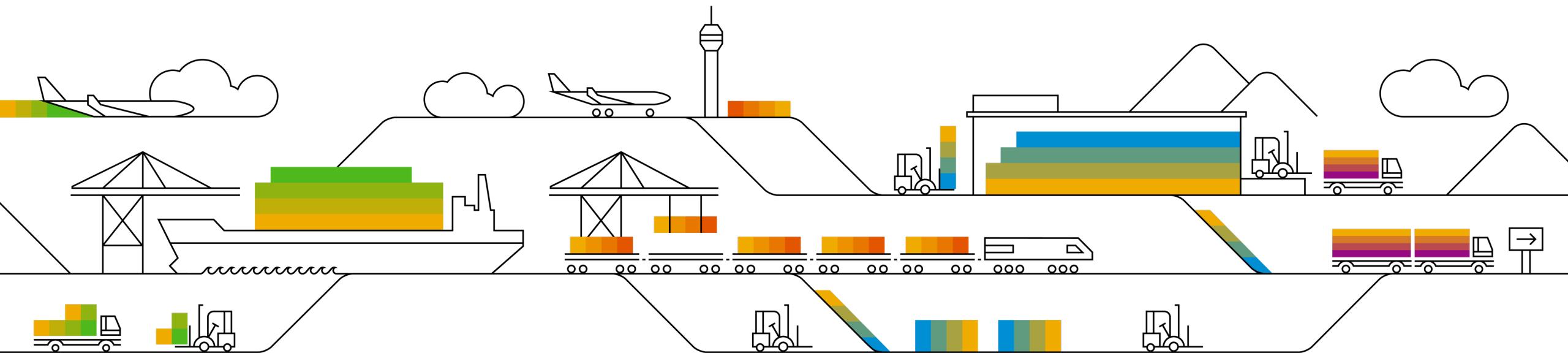
Innovate



Increase revenue with new and differentiating business processes and models.

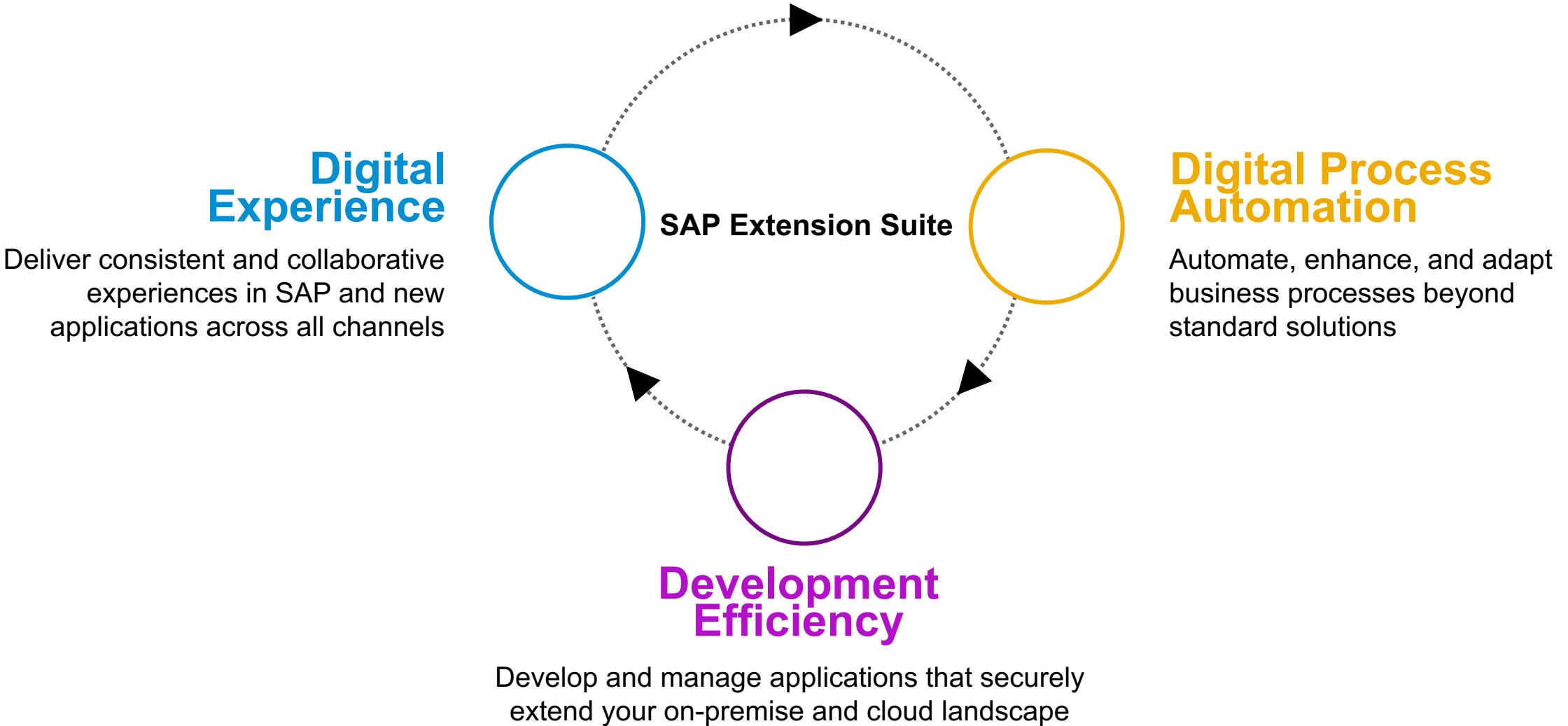
- Agility & flexibility to innovate fast
- Profitability of business case
- Sufficient reliability & scalability

BTP Extensions Suite Services



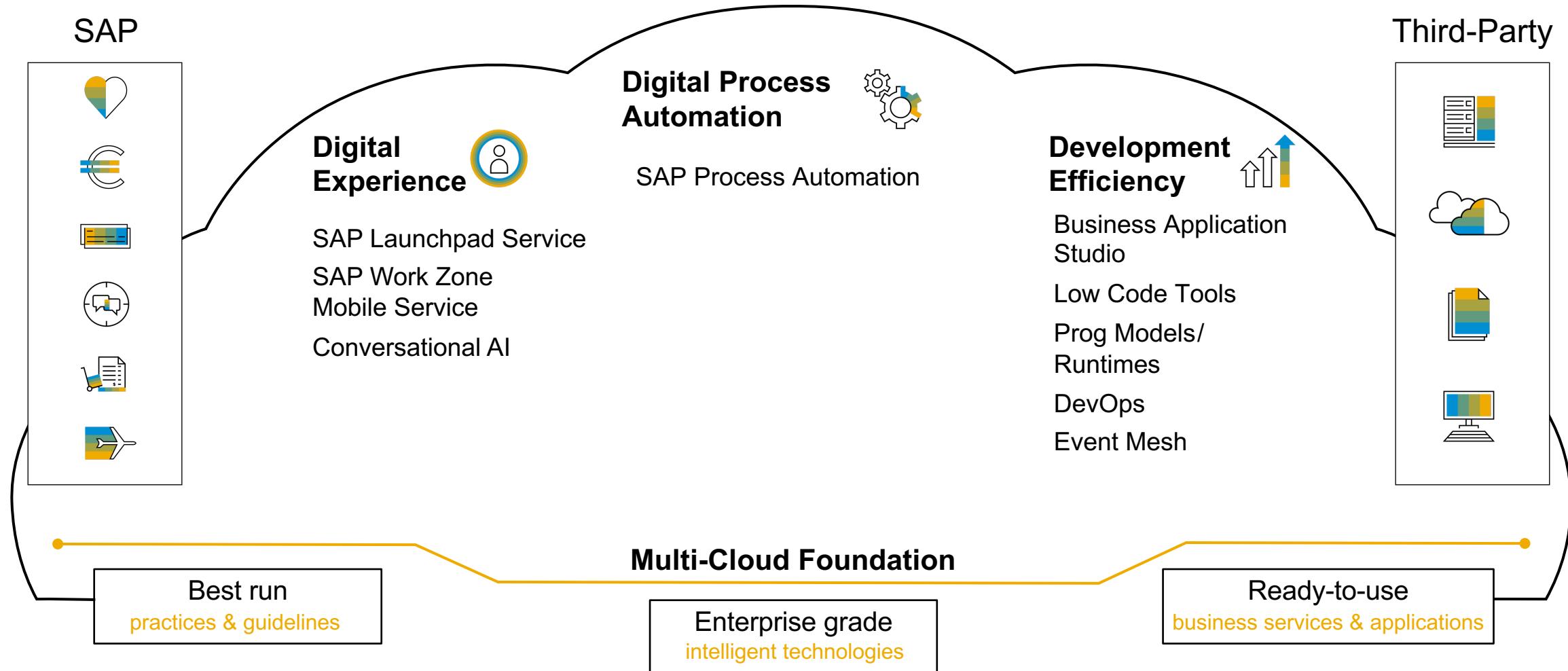
Introduction to SAP Extension Suite

SAP Business Technology Platform



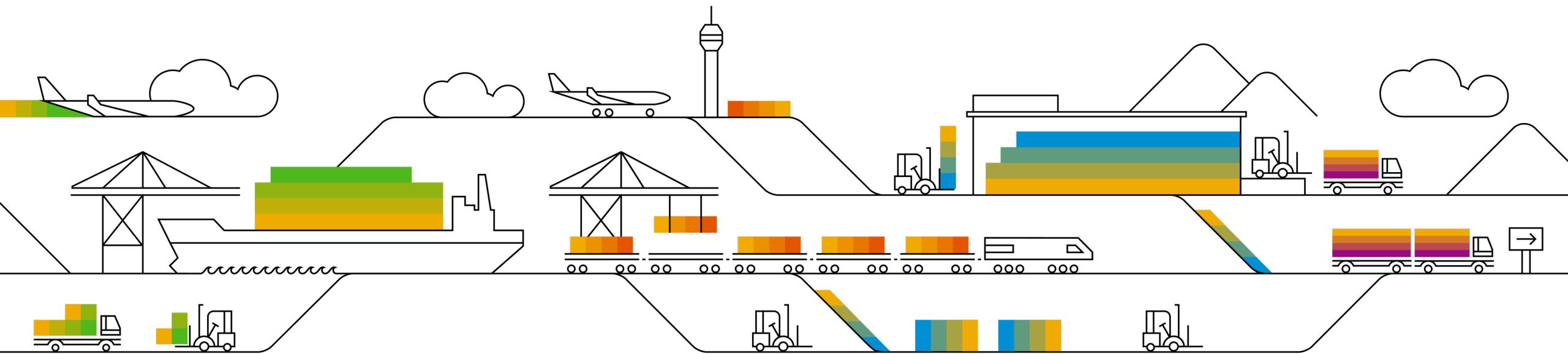
SAP Cloud Platform Extension Suite

Simplify development of your application extensions



BTP Extensions Suite Services

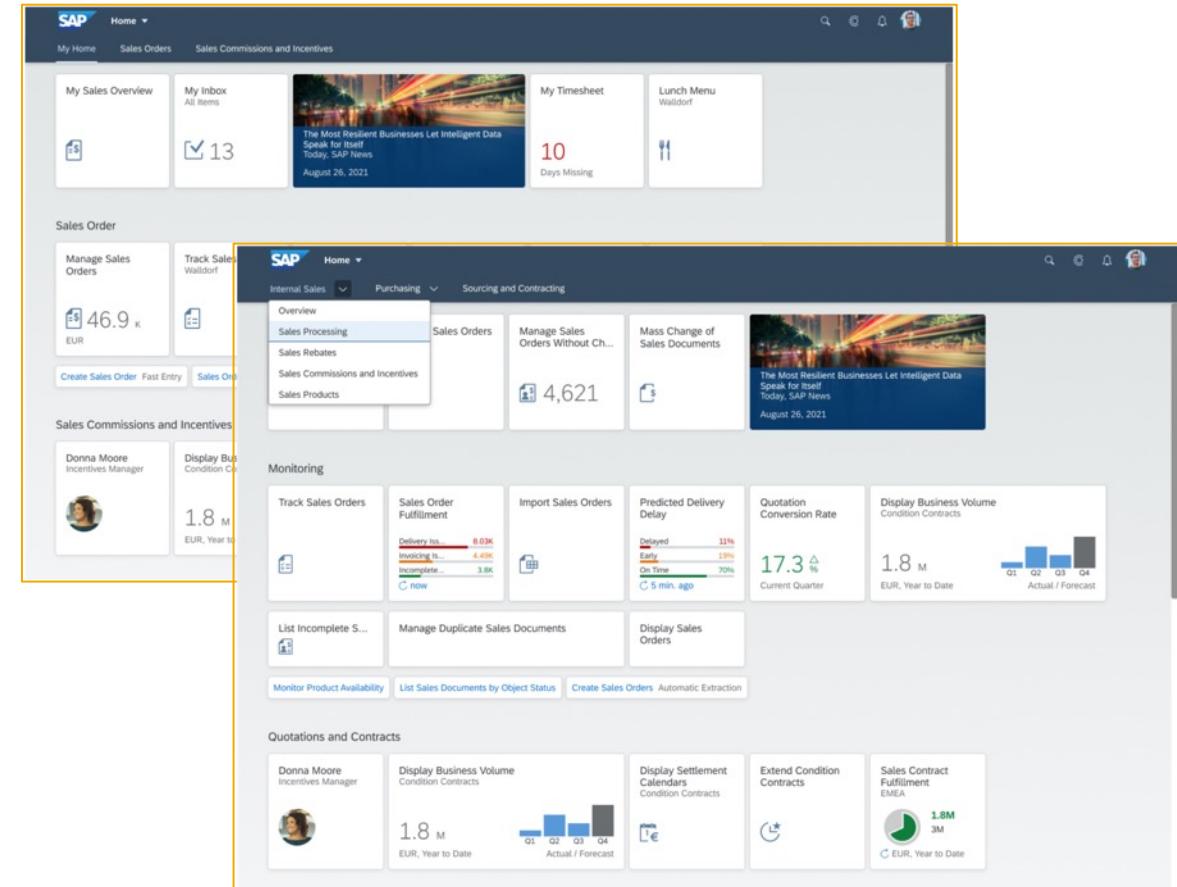
Digital Experience



SAP Launchpad Service

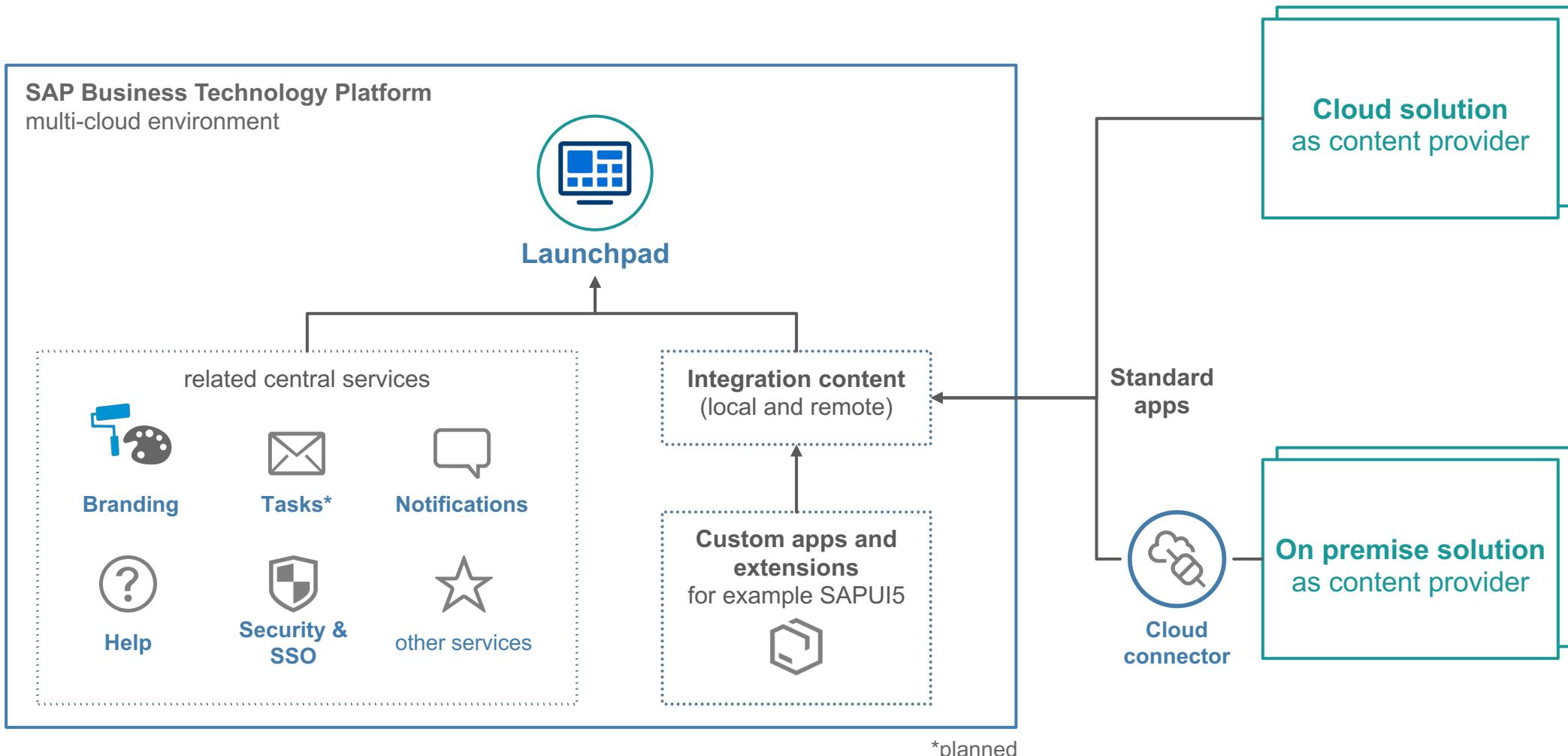
Simplify access to business apps with a role based, personalized launchpad site

- The SAP Fiori launchpad is a shell that hosts SAP Fiori apps, and provides the apps with services such as navigation, personalization, embedded support, and application configuration.
- The launchpad is the entry point to SAP Fiori apps on mobile and desktop devices. The launchpad displays a home page with tiles. Each tile represents a business application that the user can launch. Tiles can also display live status indicators, such as the number of open tasks. The launchpad is role-based



SAP Launchpad Service

Establish a central point of access on SAP Business Technology Platform



SAP Mobile Start

Your native entry point to the intelligent enterprise

Customer Pain Points

Mobile users are confronted with many different native and web applications scattered across their mobile devices: Difficult to find the right one, easy to overlook important alerts.

Critical business decisions are not being made due to users being unaware of them, since they are increasingly away from their desk ensuring business continuity.

Solution

SAP Mobile Start is the native app you need to access your SAP S/4HANA and other SAP Solutions, by leveraging the SAP Business Technology Platform.

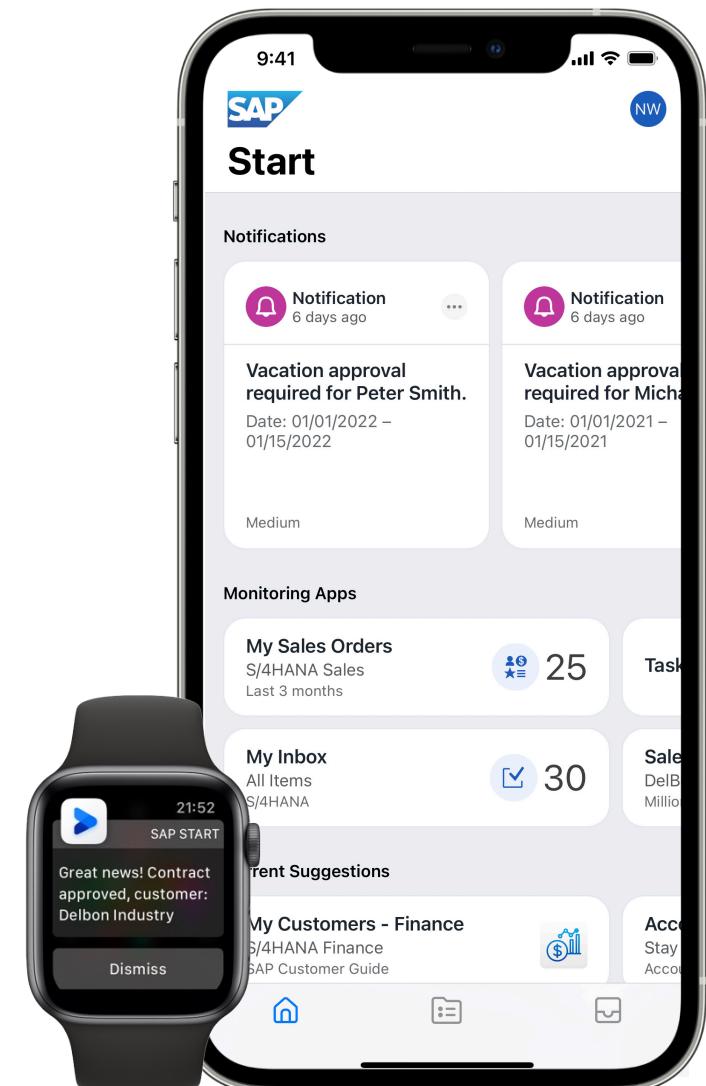
Benefits:

Mobile access to the intelligent enterprise, its applications (Native or Web), Web content, data or SAP S/4HANA notifications to quickly address business issues.

Consumer-grade user experience and superior performance, designed for an intuitive and personalized native user experience, with enterprise-grade capabilities.

Improved productivity, agility and work flexibility thanks to mobile.

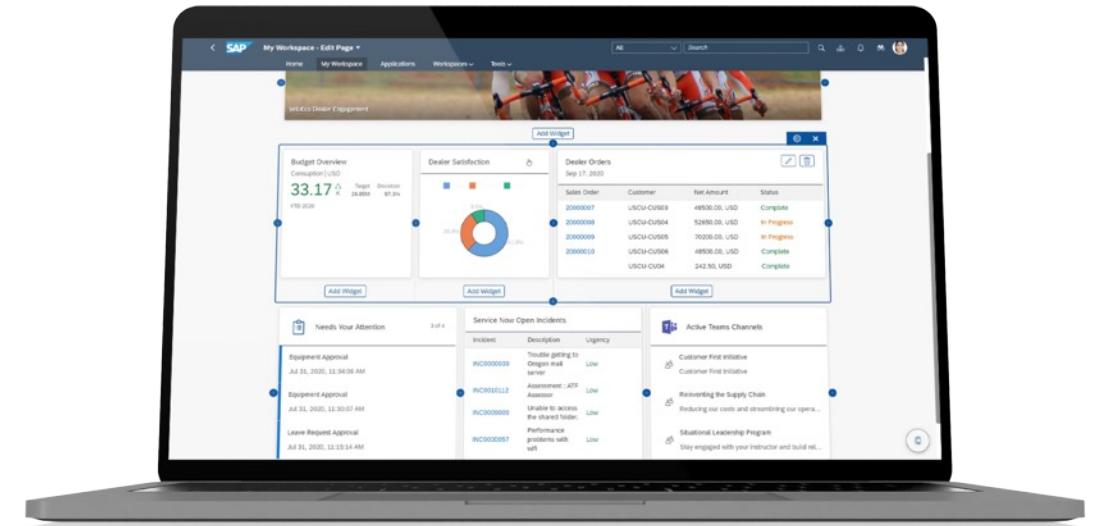
Consolidated view on all tasks to trigger direct actions



SAP Work Zone

Create workplace experiences to drive productivity and business agility

- Enable all employees to use the intranet quickly and easily with drag-and-drop customisation that integrates with SAP applications and services
- Role-based access to information and apps
- Custom, personalised, and engaging workspaces
- Incorporate SAP Business Technology Platform services to streamline and automate business processes



SAP Work Zone at a Glance



SELF SERVICE INTRANET

Easy-to-manage, self-service for the entire organization



EMPLOYEE-FOCUSED

Personalized and easy to use with role-based data



LAUNCHPAD

A centralized location for your SAP business applications, data and processes



COMMUNICATE AND ENGAGE

Self-sufficient, freeform layout and drag-and-drop design to engage employees



TEAM COLLABORATION

Self-service personal, project, topical, departmental and community workspaces



MOBILE READY

Anytime, anywhere access with responsive web and a dedicated mobile app



GUIDED WORKFLOW EXPERIENCE

Guide people through complex processes, providing information, support and content related to the task with workflow integration

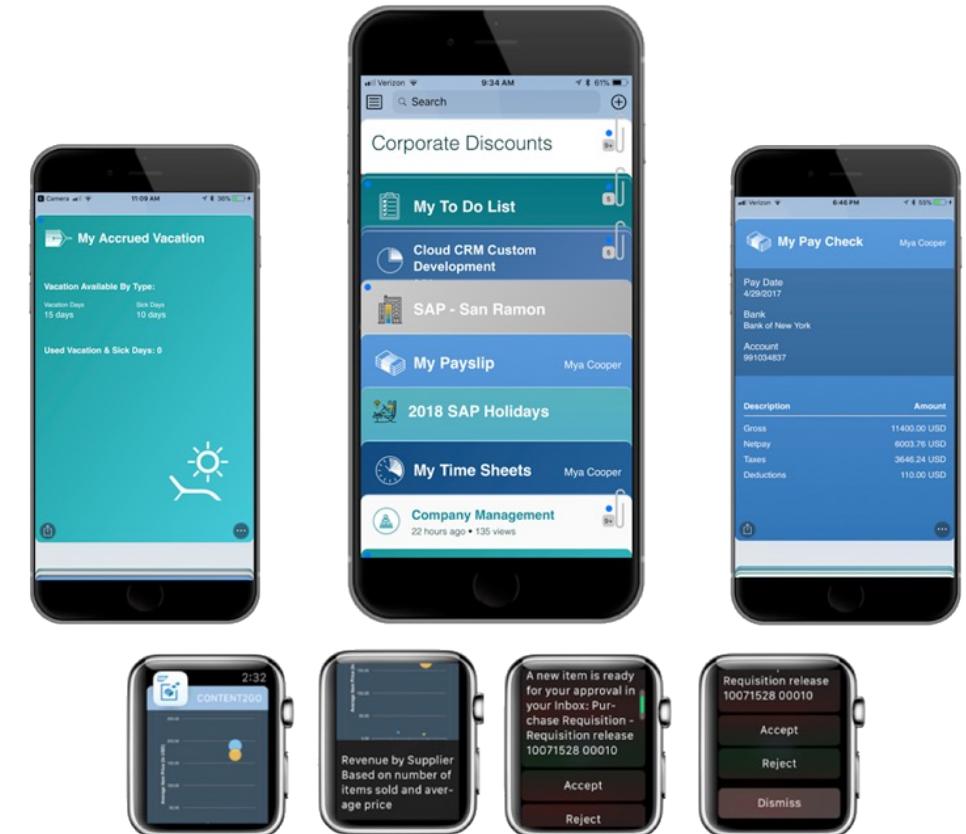
The screenshot displays the SAP Work Zone interface with several key features highlighted:

- MY INBOX**: A notification inbox for workflow and guided experiences.
- SEARCH**: A search bar and search results for content and documents.
- INTEGRATE EXPERIENCE MANAGEMENT**: An integration with Qualtrics for experience management.
- KNOWLEDGE BASE**: A knowledge base with articles and Q&A sections.
- SAP BUSINESS APPS**: Quick access to SAP S/4HANA and other frequently used business apps.
- UI INTEGRATION CARDS**: Embedded cards from third-party business data sources.
- EXTEND AND DEVELOP**: An IDE based on SAP Business Application Studio for extension.
- INTEGRATE CONVERSATIONAL AI**: Development and integration of chatbots.

SAP Mobile Services

Create and run native, cross-platform and micro mobile apps with a mobile app dev platform

- Deliver powerful enterprise apps using powerful features and seamless integration with SAP & non-SAP systems.
- Secure access to on-premise or cloud-based data sources, data-access features and offline OData synchronization.
- Notify your mobile users using push notification mechanisms, like APNS or FCM with a simple to use REST API.



SAP Conversational AI



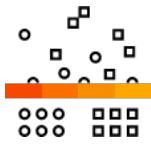
Bots in any language

Leverage the power of our highly performing NLP technology capable of building human-like AI chatbots in any language.



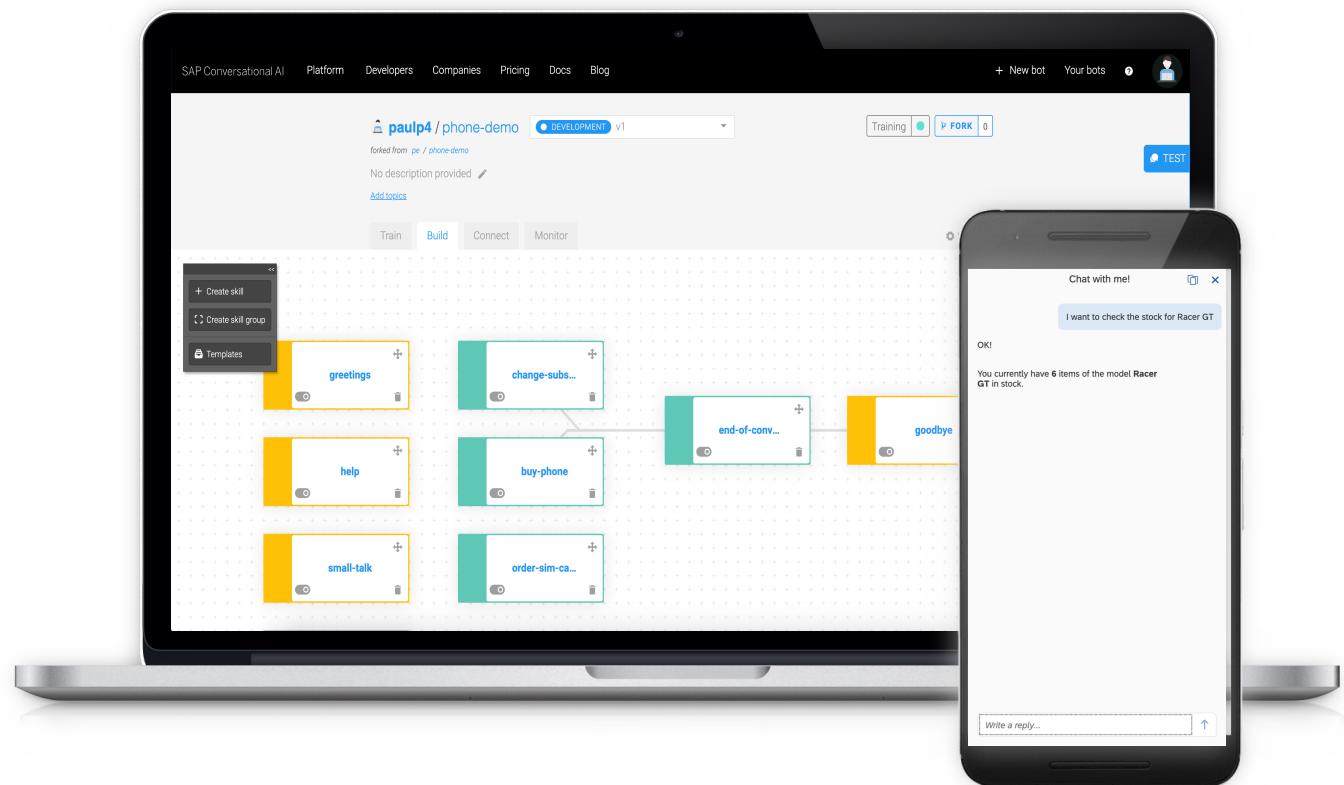
Easy to use

Simple UX, collaboration, organizational accounts, versioning and environments: we've made a bot platform all teams can smoothly use.



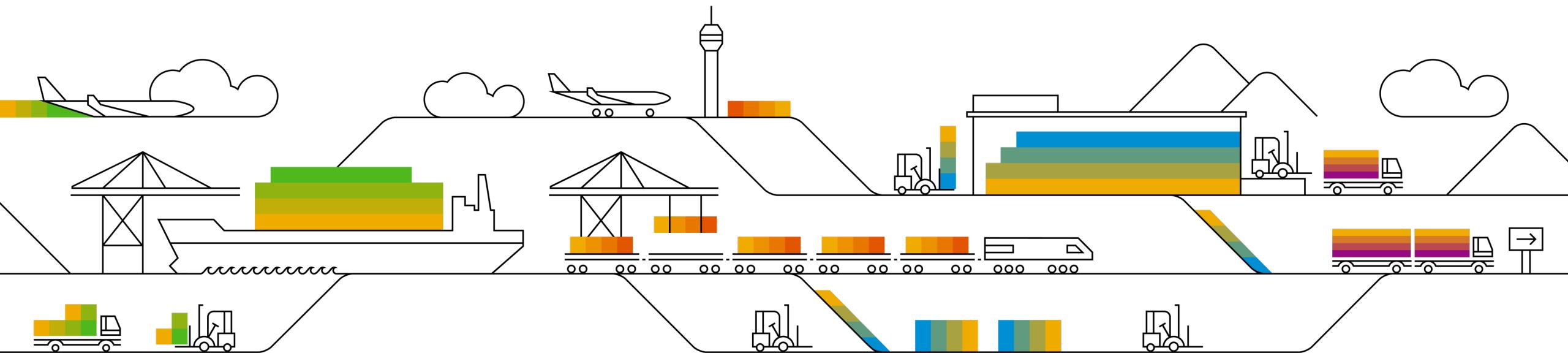
Fastest time to market

Through an efficient bot building process and a full integration to the SAP software suite, you can launch your bot in days.



BTP Extensions Suite Services

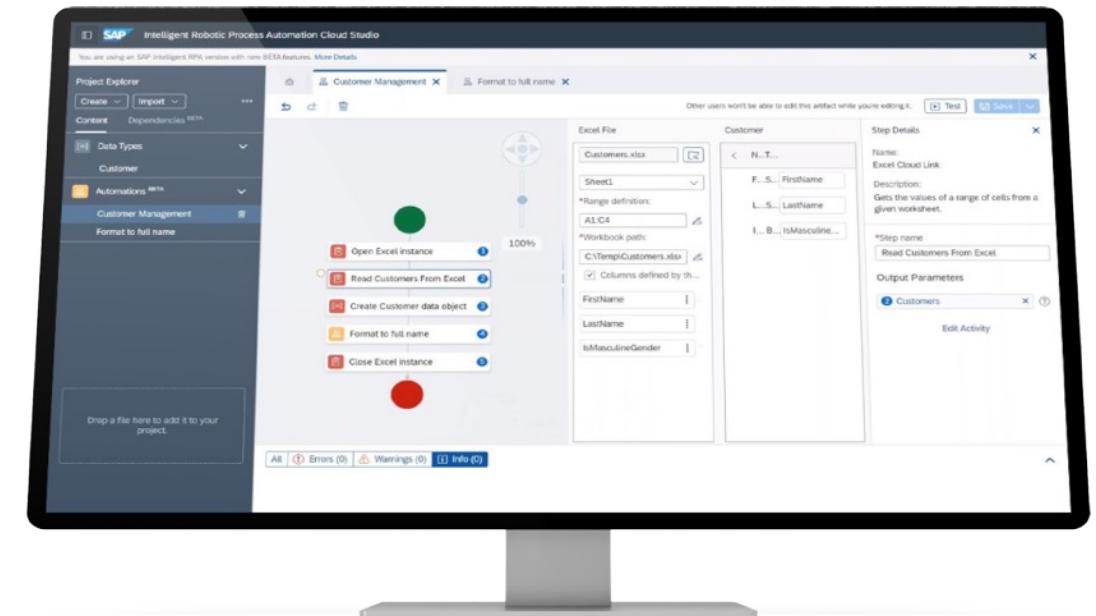
Process Automation



SAP Process Automation

AI-powered, intuitive, and no-code solution for workflow management and RPA

- Accelerate automation with a modern no-code experience
- Build with simplicity, automate faster, and operate with confidence. With visual drag-and-drop tools and prebuilt, industry-specific content, you can simplify business process automation, improve process efficiency, and enhance business agility.
- Simplify automation with visual drag-and-drop tools and industry specific content
- Automate faster with business context in a unified AI-powered workflow management and robotic process automation solution
- Manage processes and automations with confidence on a trusted, enterprise grade, multi-cloud platform



Introducing SAP Process Automation

Combining workflow management and RPA capabilities with a no-code citizen developer experience



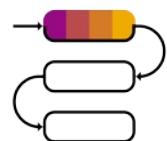
Combined **capabilities** from SAP **Workflow Management** and SAP **Intelligent Robotic Process Automation** services.



Intuitive citizen developer experience to **automate workflows and processes** using visual features that require no coding expertise.



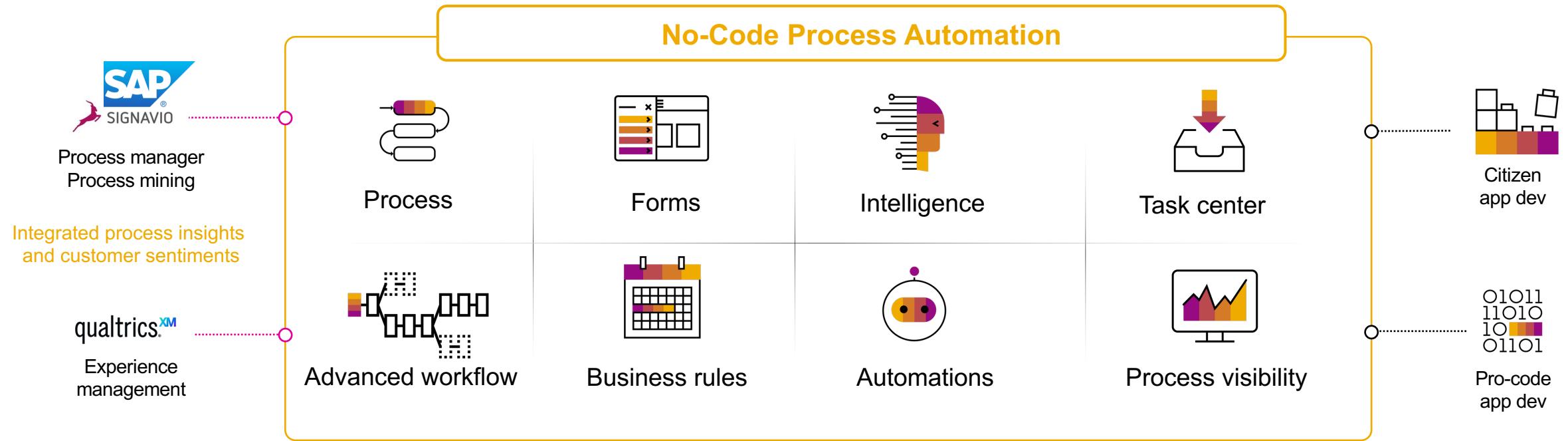
Increased capacity to drive process automation by **empowering business experts to become citizen developers**.



Leveraging the power of no-code, citizen developers can build, adapt, improve, and innovate business processes with minimum assistance from scarce IT resources.

SAP Process Automation

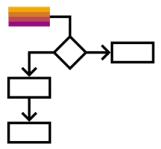
Capabilities: Citizen automation for line-of-business builders



- New **citizen automation user experience** (process builder, forms builder)
- All **advanced workflow management** capabilities available (rules, process visibility, process flexibility, AI)
- Embedded **RPA capabilities** to readily combine bot automations with workflows
- Content and **reusable artifacts** (such as bots, workflow components, process steps, actions)
- **Unified launchpad and task center** for citizen developer applications and automations
- **Integrated** with SAP applications, leveraging **SAP application development tools for extensions** (LCNC to pro-code)

The Path to SAP Process Automation

Move to process automation at your own speed or make a fresh start



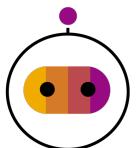
SAP Workflow Management

Starting from

- All workflow management capabilities, same runtime – no migration
- Workflow components, process steps, and business rules as reusable artifacts
- Side-by-side usage with reuse of existing content and workflow editor (LCAP)

Looking for

- Additional **citizen developer user experience** including native RPA/process builder
- **Live process content** plus growing new content artifacts (templates, skills)



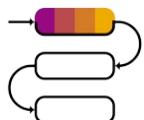
SAP Intelligent Robotic Process Automation

Starting from

- All automation capabilities, same runtime – no migration efforts
- Automation components, application, data, automations as reusable components
- Side-by-side usage with reuse of existing bot content

Looking for

- Additional **citizen developer experience** for automating **E2E business processes**
- **Additional artifacts** such as forms, business decision rules, and process visibility
- **RPA content** plus growing new content artifacts (templates, skills)



New customers

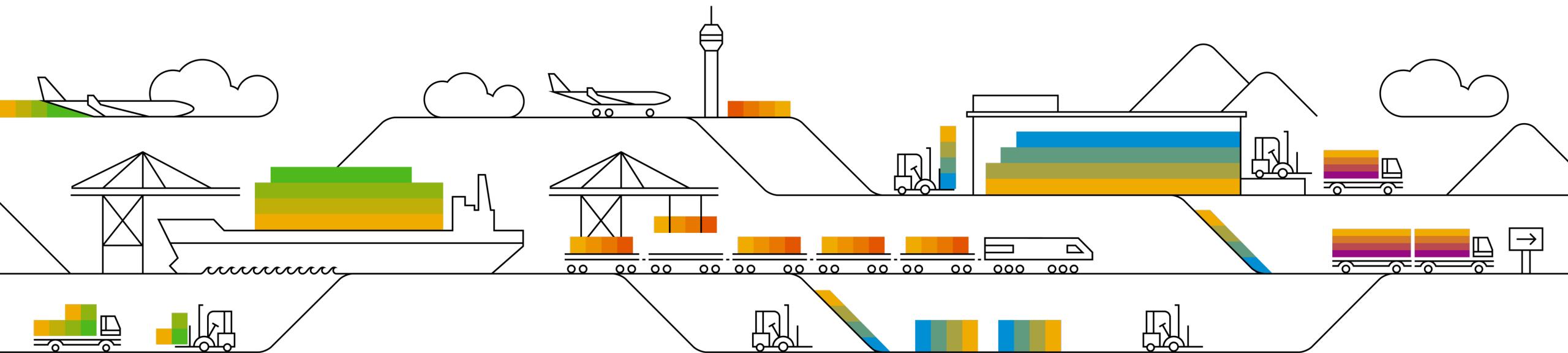
- Explore **no-code process automations** with a **citizen developer experience**
- Build simple forms and **departmental process improvements**
- Benefit from a growing list of **prebuilt business content** and new skills



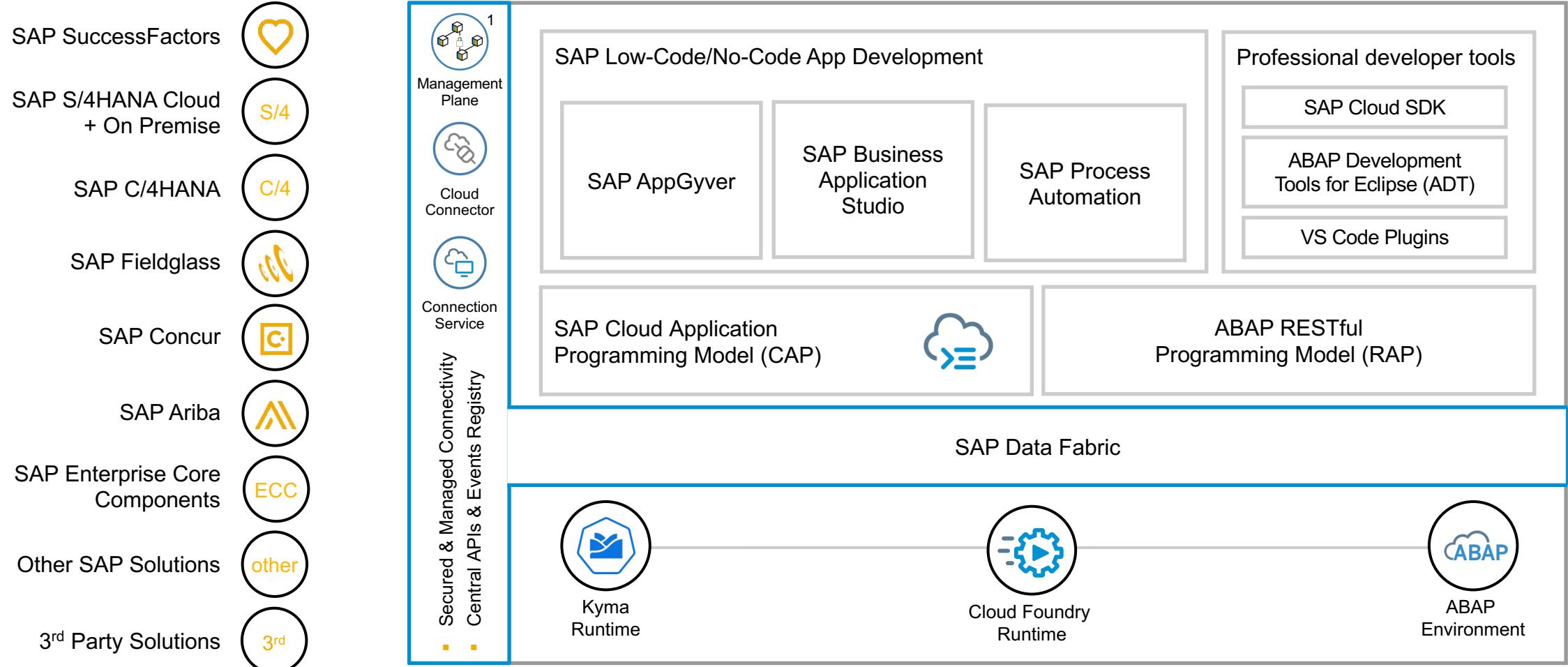
SAP Process Automation

BTP Extensions Suite Services

Development Efficiency



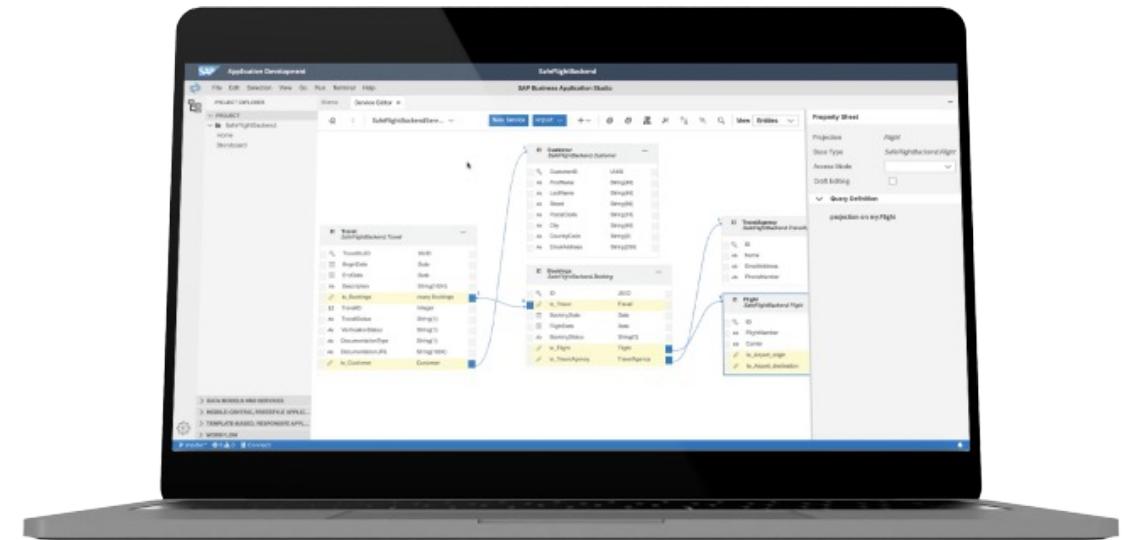
Building Extensions for the Intelligent Enterprise on SAP BTP



SAP Business Application Studio

Speed-up development of enterprise-ready applications

- Build and manage business processes with low-code application development.
- Reduce time-intensive coding using sophisticated visual programming and unified developer experience.
- Deliver enterprise-ready applications with built-in governance, security, DevOps, and scalability on a trusted enterprise platform.

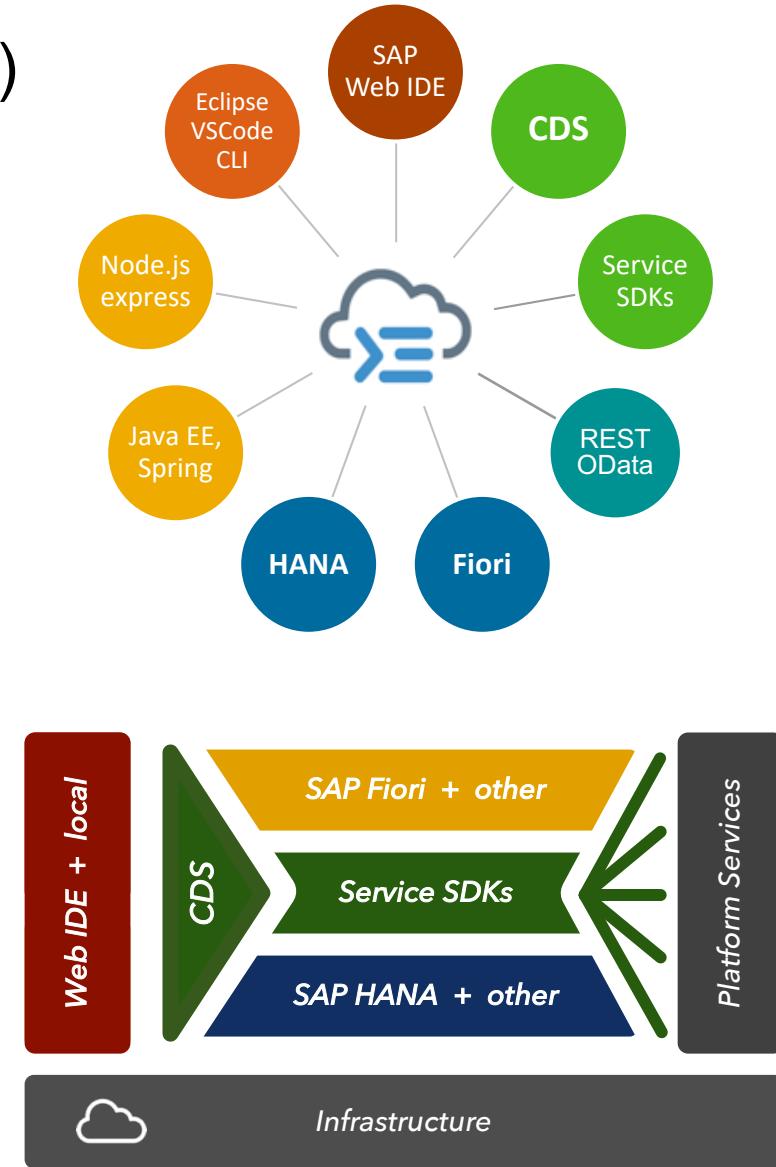


Development with SAP Cloud Application Programming Model (CAP)

The SAP Cloud Application Programming Model is an opinionated, yet open framework of tools, languages and libraries to efficiently build enterprise-grade services and applications.

It guides developers along a ‘golden path’ of proven best practices, while minimizing boilerplate so they can focus on their domain problems at hand.

The framework features a mix of broadly adopted open-source and SAP tools and technologies.

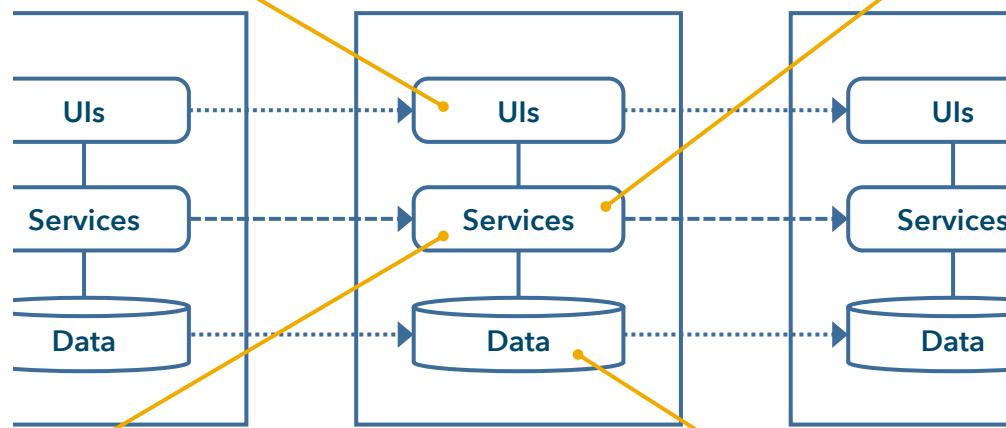


Focus topics



Serving Fiori UIs

- OData v2 + v4
- Draft support
- \$batch support, ...



Providing Services

- Service Definitions in CDS
- Service Providers
- Event Handlers → generic + custom
- Emitting Events

Consuming Services

- Import Service Definitions from OData, ...
- Mash-ups with local services
- Service Client APIs
- Connectivity & Resilience by SDKs
- Subscribing to & Handling Events

Database Support

- Out-of-the-box: HANA Cloud, sqlite
- Dynamic Data Access layers (cds.ql)
- Schema evolution

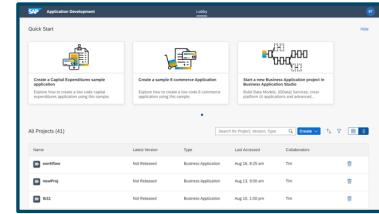
Low Code Capabilities of SAP Business Application Studio

Use a Modern, Integrated Development Environment for Today's Developers

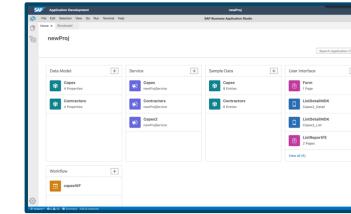
SAP Business Application Studio increases developer productivity and provides a simplified development experience tailored to the needs of citizen developers. Capabilities include:

- A simplified view of the integrated development environment
- Application lifecycle management
- A simplified application modeling experience based on graphical editors
- Wizards for adding new application components
- Ability to test-run the application with sample data
- Workflow enhancements to leverage Fiori Elements, Mobile MDK & CAP integration

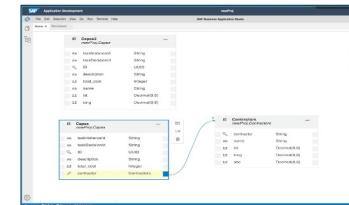
Single project studio for citizen developer projects



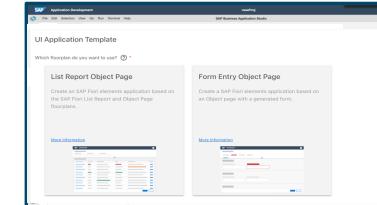
Simplified project artifact structure and dependencies



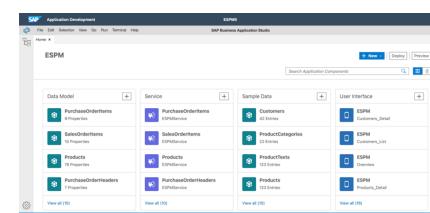
Visual data and service modeling



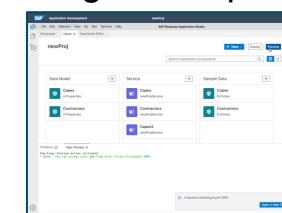
Low-code template based and freestyle UI development



Service center



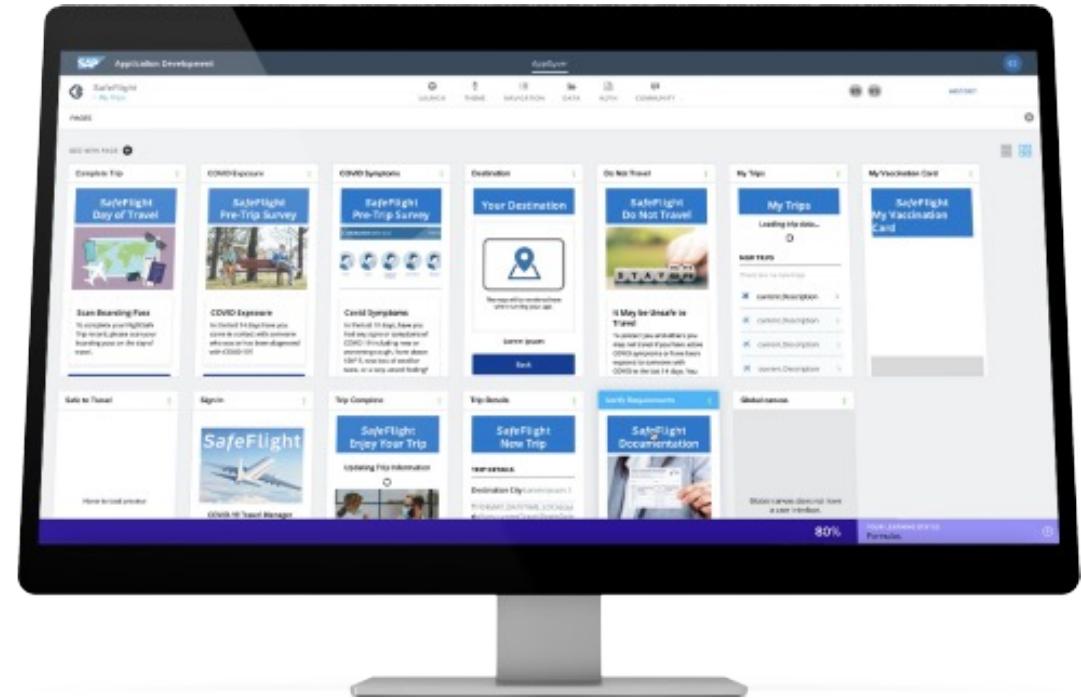
Single-click preview and deployment



SAP AppGyver

Empower everyone to build with clicks not code

- SAP AppGyver empowers professional and citizen developers to build sophisticated, enterprise-ready applications with no-code needed, using an intuitive drag-and-drop interface and hundreds of prebuilt components and formula functions.
 - Build your app once. Run it on all platforms – even the TV.
 - Build Quality Apps Without Compromise



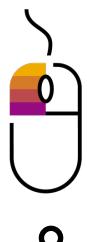
You will never go back to coding. Seriously.

Application Development: SAP AppGyver

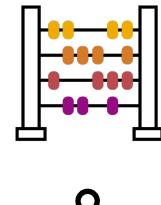
Build Quality Apps Without Compromise



The world's first professional no-code platform, enabling you to build apps for all form factors, including mobile, desktop, browser, TV and others



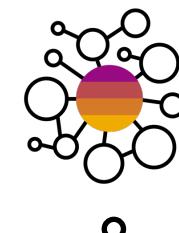
Drag-and-drop the user interface design



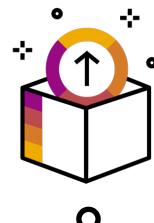
Use over 400 built-in formula functions



Create any logic visually

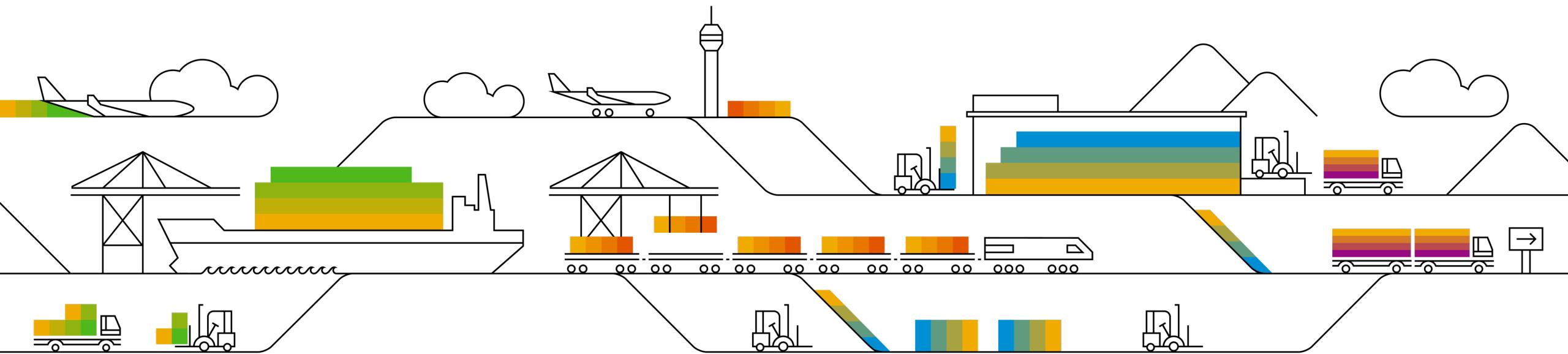


Bring your own data with pre-defined integrations



Deploy apps to various platforms

BTP App Development Patterns and required skills



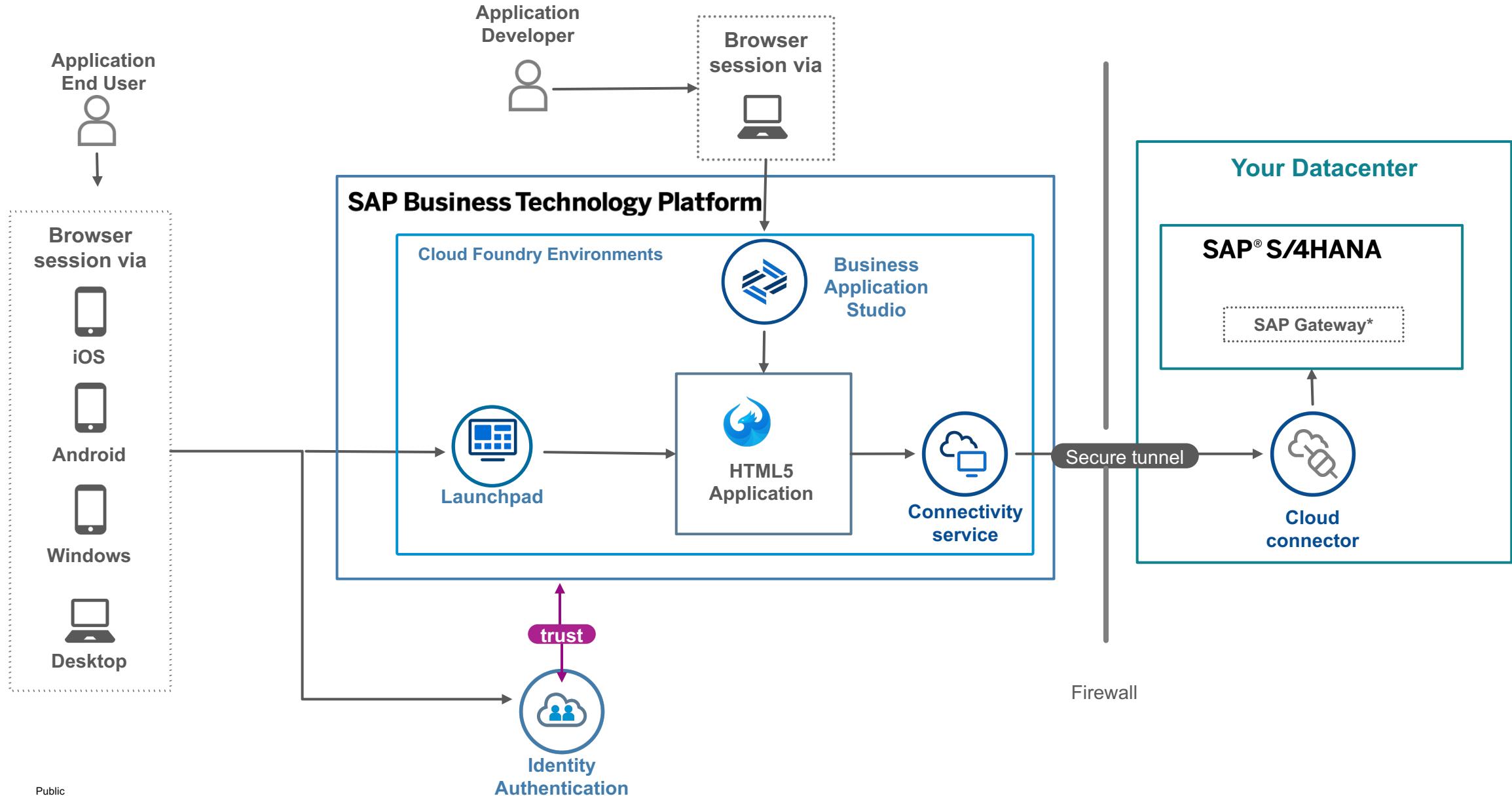
BTP App Development major patterns

1. SAP Launchpad Service + Fiori UI + S/4HANA API

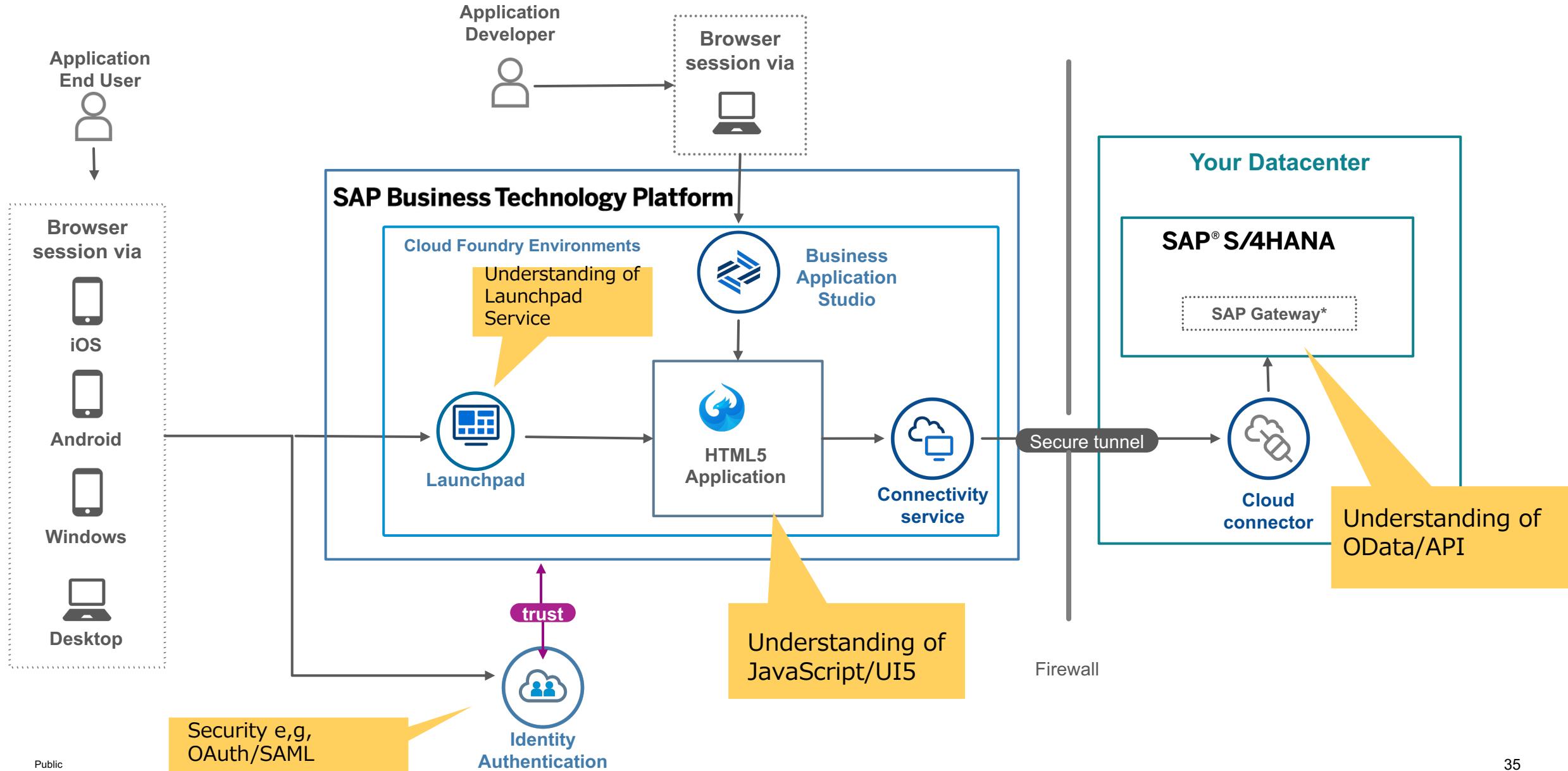
**2. SAP Launchpad Service + Fiori UI + REST Service(Server Side Logic)
+ S/4HANA API Consumption**

**3. SAP Launchpad Service + Fiori UI + REST Service(Server Side Logic)
+ DB Access and/or S/4HANA API Consumption**

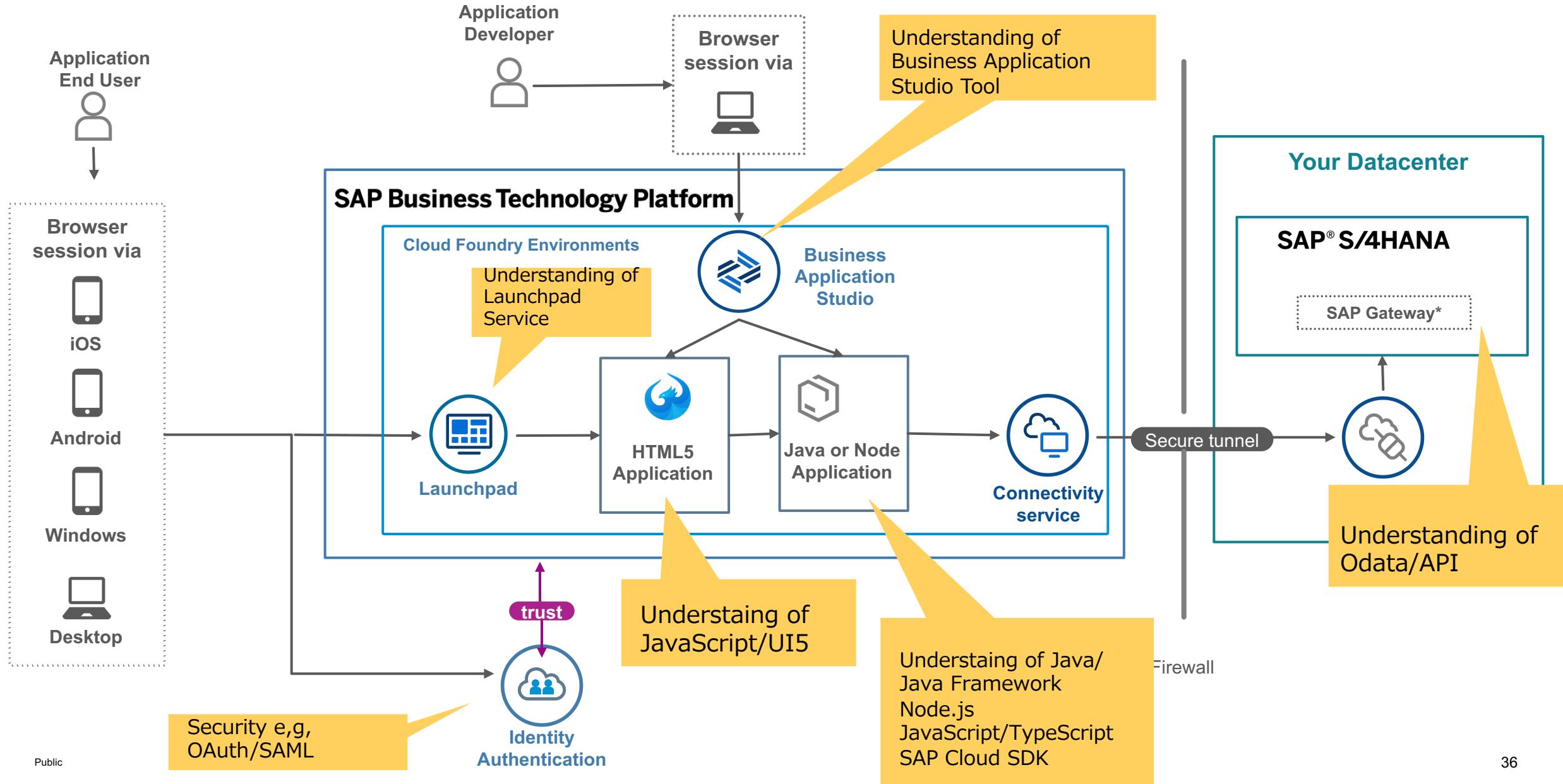
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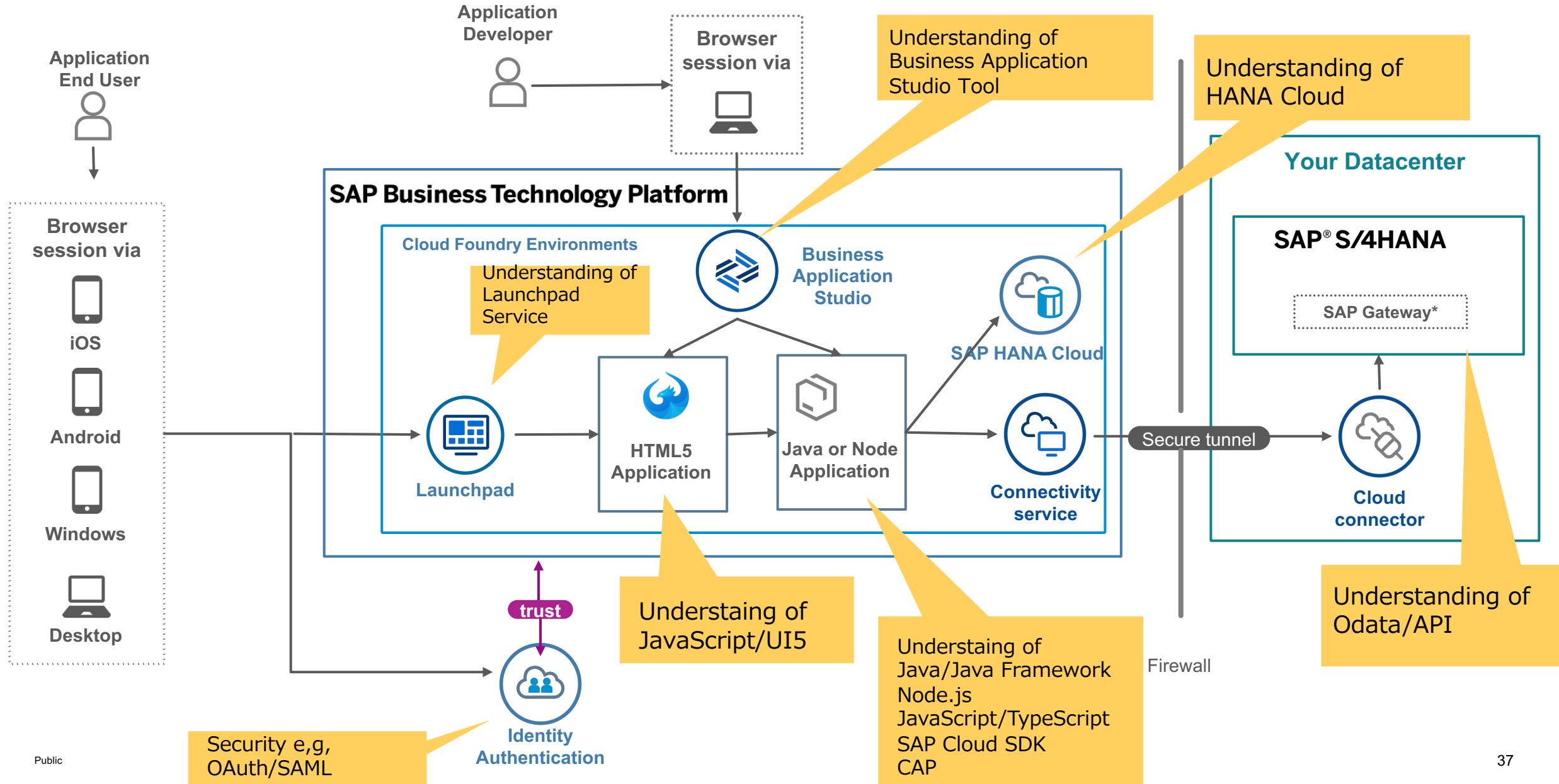
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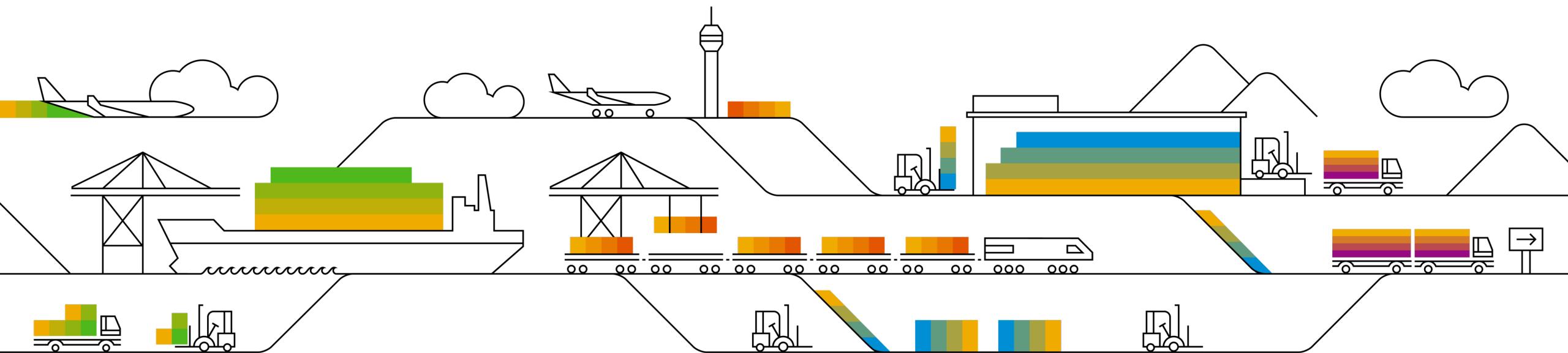
2.Launchpad Service + Fiori UI + REST Service(Server Side Logic) + S/4HANA API



3.Launchpad Service + Fiori UI + REST Service(Server Side Logic) + DB Access and/or S/4HANA API



Why Extension with BTP?



Benefit of developing in an open cloud environment

- Continuous feature enhancements
- Reduced maintenance costs
- Elasticity
- Scalability
- Accessible from the Internet
- Strong OSS community and rich external libraries (Node.js, Java, Python, etc.)

**→ Enables development of applications that
create new value, not just replacing legacy apps**

Why BTP?

- Cloud Services for SAP applications Connectivity (SSO possible)
 - Destination Service
 - Connectivity Service + Cloud Connector
- Java/JavaScript Libraries to connect to SAP Applications
 - SAP Cloud SDK(this works in conjunction with the services above)
- The service integrates applications UI
 - SAP Launchpad
 - SAP Work Zone
- The out of the box contents
 - Integration Suite, SAP Process Automation etc.
- Low Code No Code Tools to boost the productivity
- Integration with SAP Application Event

**→Seamless Integration
between Extensions and SAP Apps**

Thank you.

Contact information:

Makoto Sugishita

