Extensibility Concept in SAP S/4HANA Cloud

PUBLIC

SAP Run Simple

SAP S/4HANA

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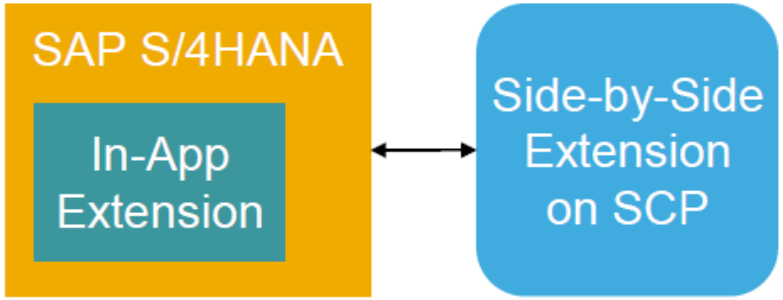
ERP extensibility then and now

Then

- Highly-coupled extension code
- Breaking updates
- Homogeneous technology setup
- Not scalable
- Reduced time-to-value

Now



- Well-defined extension model
- Loosely coupled side-by-side extensions
- Stable contract of SAP S/4HANA interfaces
- Free choice of technologies
- Individually scalable
- Quick time-to-value

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Motivation for a New Extensibility Concept in SAP S/4HANA

"Classical" Extensibility

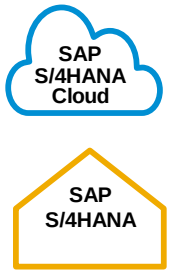
Custom Code Development and Extensions today

- Modifications of SAP code
- Extensions calling SAP code (no APIs available)
- Software updates require major adoption effort in customer / partner code.

SAP S/4HANA Extensibility Concept

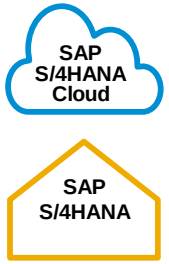
Side-by-Side Extensibility based on SAP Cloud Platform

- Full-fledged development platform to build extension applications (Java, JavaScript, SAP HANA native development)
- Based on stable external (web service) APIs



In-app Extensibility with Key User Tools

- Custom fields and tables, custom analytics and forms, business logic (cloud ABAP Web editor), …
- Web-based key user tools
- Based on stable extension points and APIs



Custom Code Development and Extensions (on premise only)

- Full access to ABAP development objects and tools
- Reduce TCO and speed up cycles of innovations by using loosely-coupled extensions and stable APIs where possible

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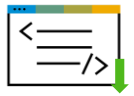
SAP Cloud SDK

Leverage SAP solutions in your Cloud-native application to quickly achieve business requirements

SAP Cloud SDK …

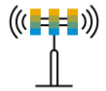


reduces development effort,

improves quality, and

helps adopting Cloud-native best practices.

Use the SAP Cloud SDK to …



consume services and messages* of many SAP solutions from Java and JavaScript,

access services of SAP Cloud Platform, and

continuously deliver Cloud-native applications on SAP Cloud Platform.

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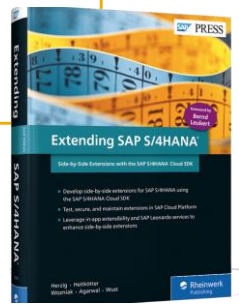
Simplify an Extension Project End-to-End with the SAP Cloud SDK

ONBOARDING → **CONCEPTION / DESIGN** ⟳ **DEVELOPMENT** ⟳ **TESTING & RELEASE** → **DEPLOYMENT & AVAILABILITY**

Build up knowledge

- Tutorials, deep dives
- Book
- openSAP



Benefit out-of-the-box

- Project templates
- Continuous Delivery toolkit

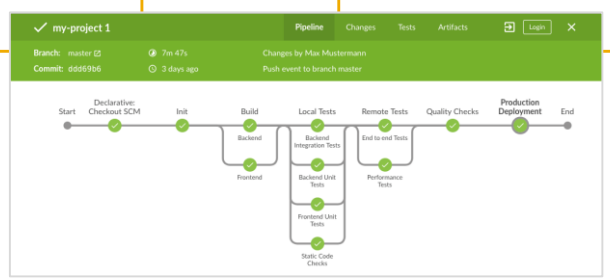
Benefit as you develop

- Java libraries
- JavaScript modules

SAP CLOUD SDK

Testing made easy

- Continuous Delivery pipeline
- Quality checks



Keep updating

- Continuous Delivery pipeline

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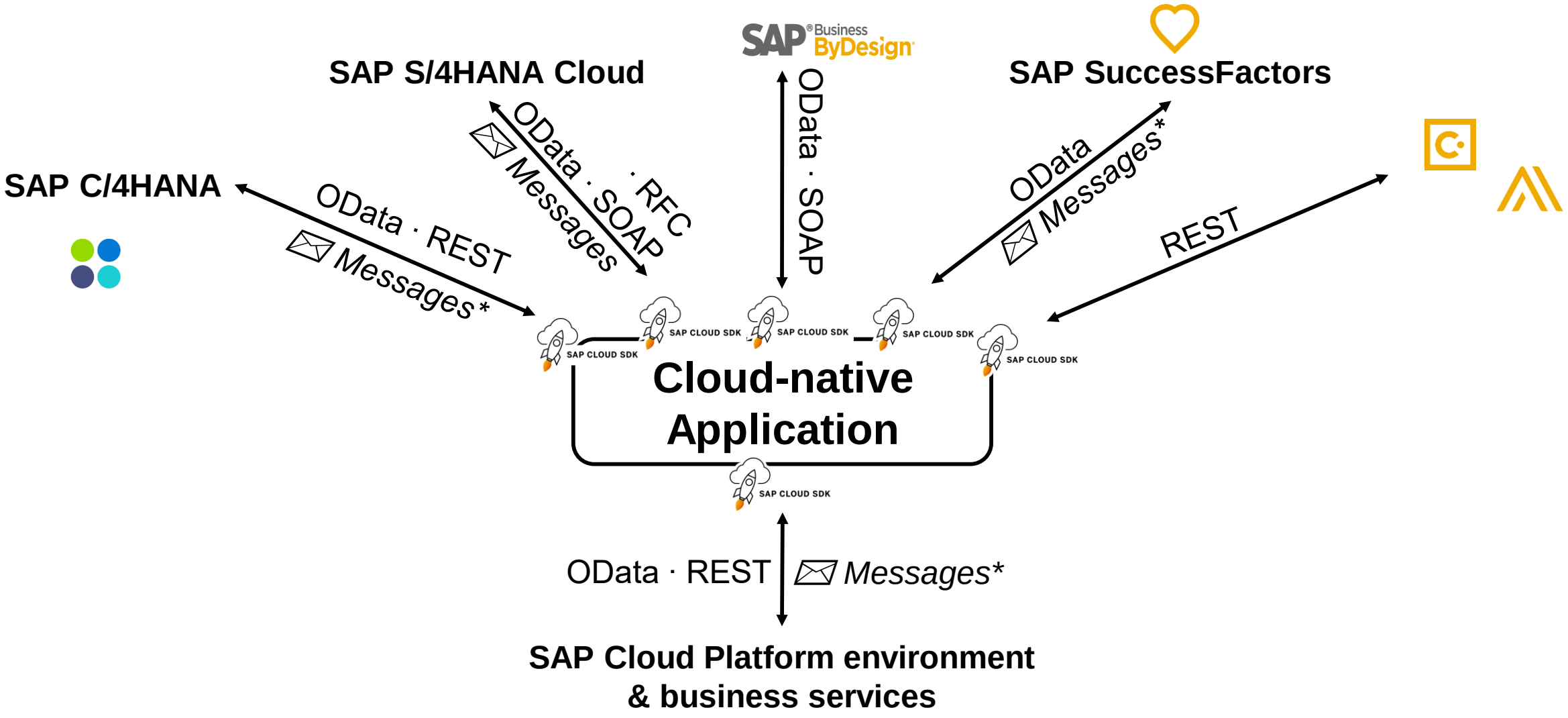
How do you talk to SAP?



Non-exhaustive examples
* not available today

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SAP S/4HANA In-App and Side-by-Side – Overview

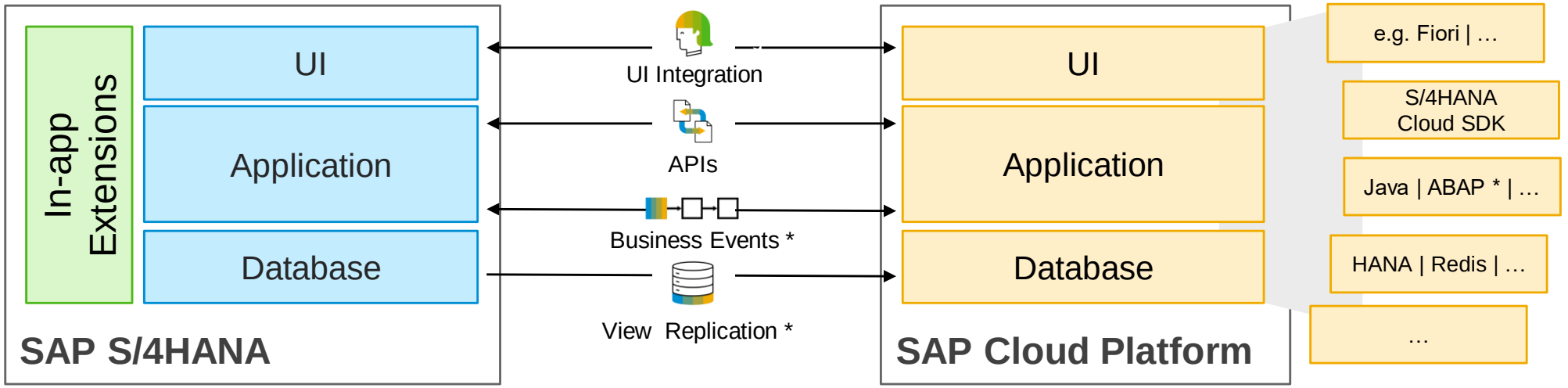
Custom extension applications

In-app extensions

Decoupled extensions within SAP S/4HANA system

Side-by-side extensions

Decoupled extensions on SAP Cloud Platform



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* Outlook / this is the current state of planning, and can be changed at anytime

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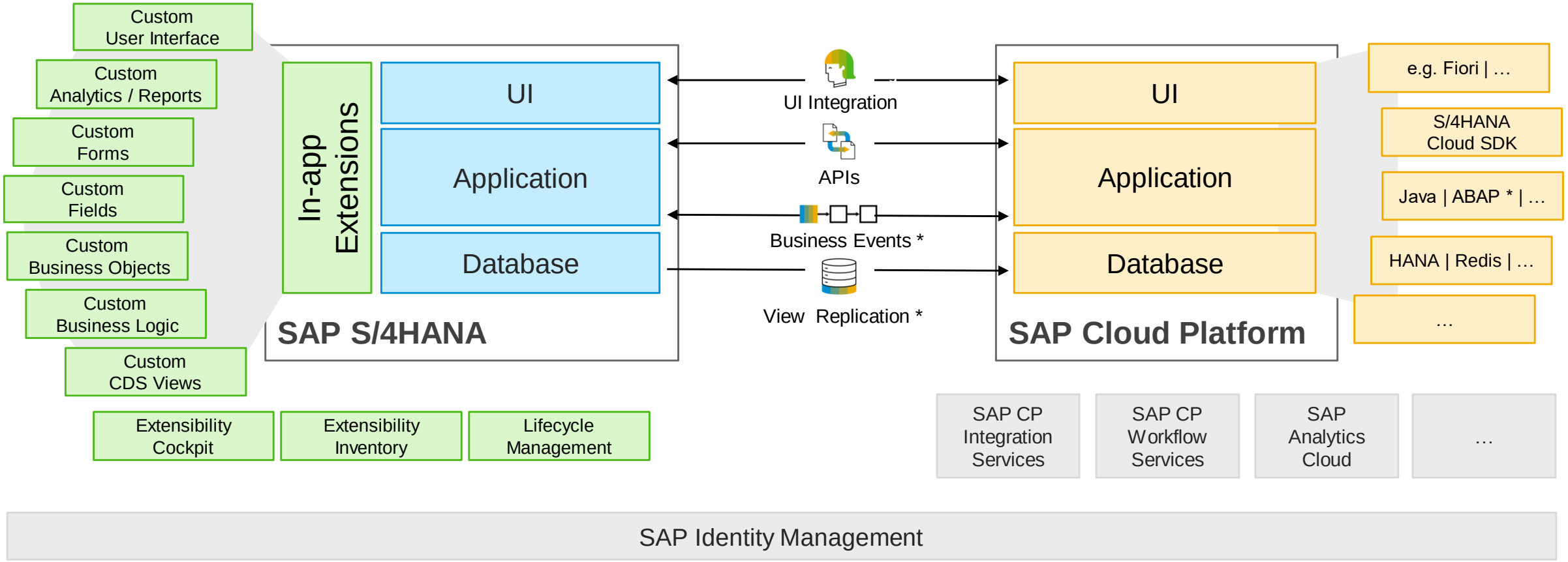

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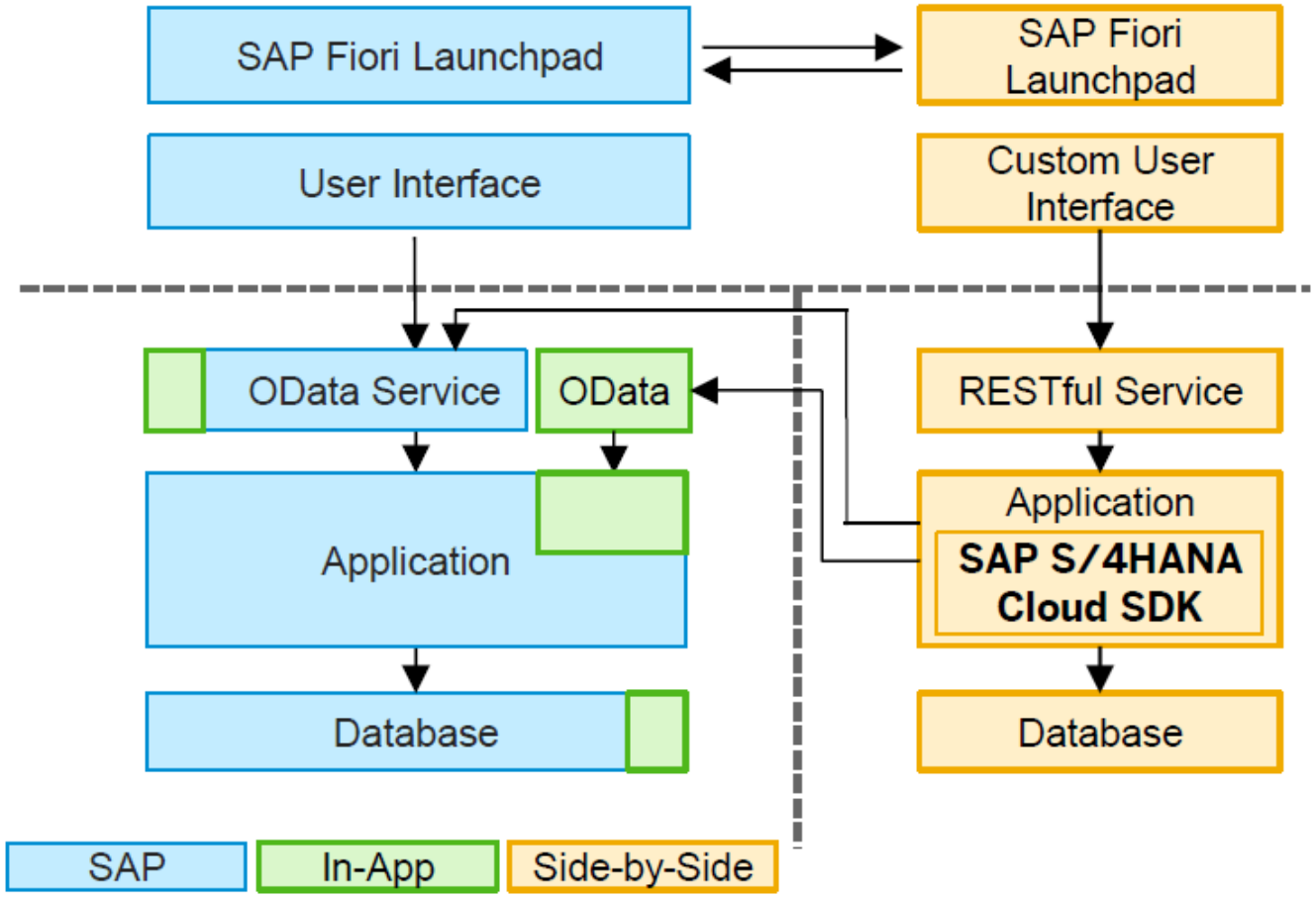
SAP S/4HANA and Extensibility

Side-by-side extensions instead of modifications

- Modification: changes to SAP-delivered source code
  - Not available in SAP S/4HANA Cloud, and discouraged for SAP S/4HANA
- Decoupled extensions with in-app & side-by-side
  - Cleaner contract, independent lifecycle
  - Continue to work after upgrade
  - Work with SAP S/4HANA and SAP S/4HANA Cloud
- Side-by-side extensions offer full power
  - Cloud-native applications with cloud qualities
  - Possibly as Software-as-a-Service



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Questions & answers

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