LEVERAGING SAP BTP FOR HIGH-SPEED DIGITAL TRANSFORMATION

Abstract

Large enterprises that have implemented SAP S/4HANA and other business applications need a way to rapidly design, customize, and implement solutions to ensure the smooth and synchronized functioning of the entire ecosystem. SAP Business Technology Platform (BTP) is designed to work seamlessly with SAP S/4HANA, SAP ERP, and other enterprise platforms to build new apps, extend the UI, and connect multiple SAP systems for efficient operations.

Infosys has delivered several large-scale transformation projects involving SAP BTP implementations. With multiple frameworks, innovations, and solutions implemented across various industry verticals, Infosys brings the advantage of experience, expertise, and rapid implementation.

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Introduction

SAP BTP is a cloud-based, high-performance, scalable, and secured platform that enables enterprises to achieve their digital transformation goals. SAP BTP is the foundational platform for all innovations and extensions of SAP S/4HANA and other SAP business applications.

The platform serves as a foundation for the "Intelligent Enterprise" and is an integral part of SAP S/4HANA implementations. Built on a large, hyperscaler infrastructure and open-source foundations like Cloud Foundry, it offers several services that organizations can use to rapidly develop applications.

Services

Portal SAP Fiori launchpad	**Business Application Studio**	**HTML5 app repository**	**Document center**	**Document service**	**Mobile service**	**Workflow**
API management	**SAP S/4HANA**	**SAP ASE**	**PostgreSQL**	**Blockchain enablement**	**IoT**	**ML**	**Open connectors**

Runtime environments

Cloud Foundry	ABAP	Kyma

Infrastructure-as-a-Service

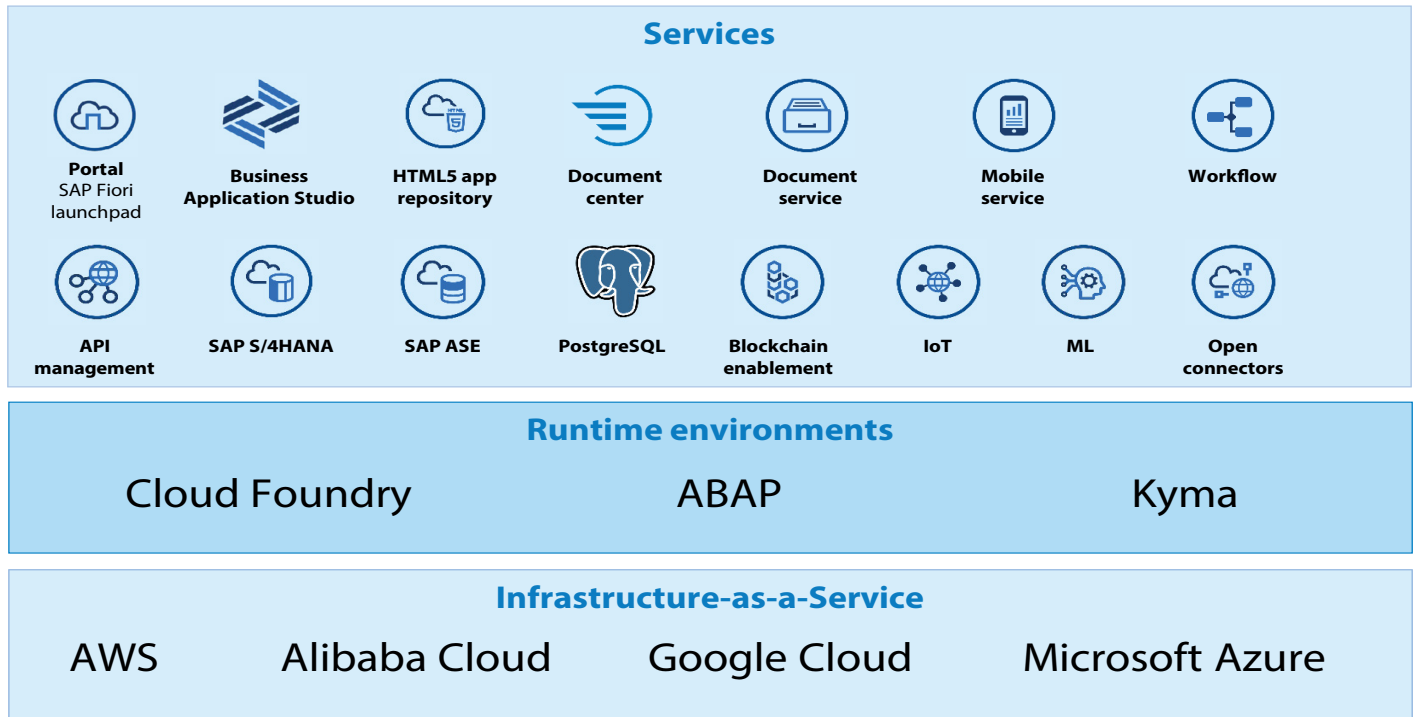| AWS	Alibaba Cloud	Google Cloud	Microsoft Azure

Figure 1 – Services hosted on SAP Business Transformation Platform

As depicted in Fig. 1 above, SAP BTP provides multiple features and flexibility to customers on their digital transformation journey.

SAP Extension Suite Capabilities

SAP Extension Suite powers SAP BTP and provides a path for enterprises to build and enhance enterprise applications, processes, and experiences.

SAP Extension Suite has toolsets, frameworks, and guidelines to:

- Build loosely coupled extension applications on top of line of business solutions such SAP S/4HANA, SAP ERP, SuccessFactors, and Ariba. Typical use cases include:

  - Extending the UI of an SAP solution with an improved UI or new Fiori screen with minimal coding

  - Enhancing the functionality of an SAP solution by connecting it with one or more SAP systems

  - Amplifying application capabilities with intelligent technologies such as machine learning, IOT, and analytics

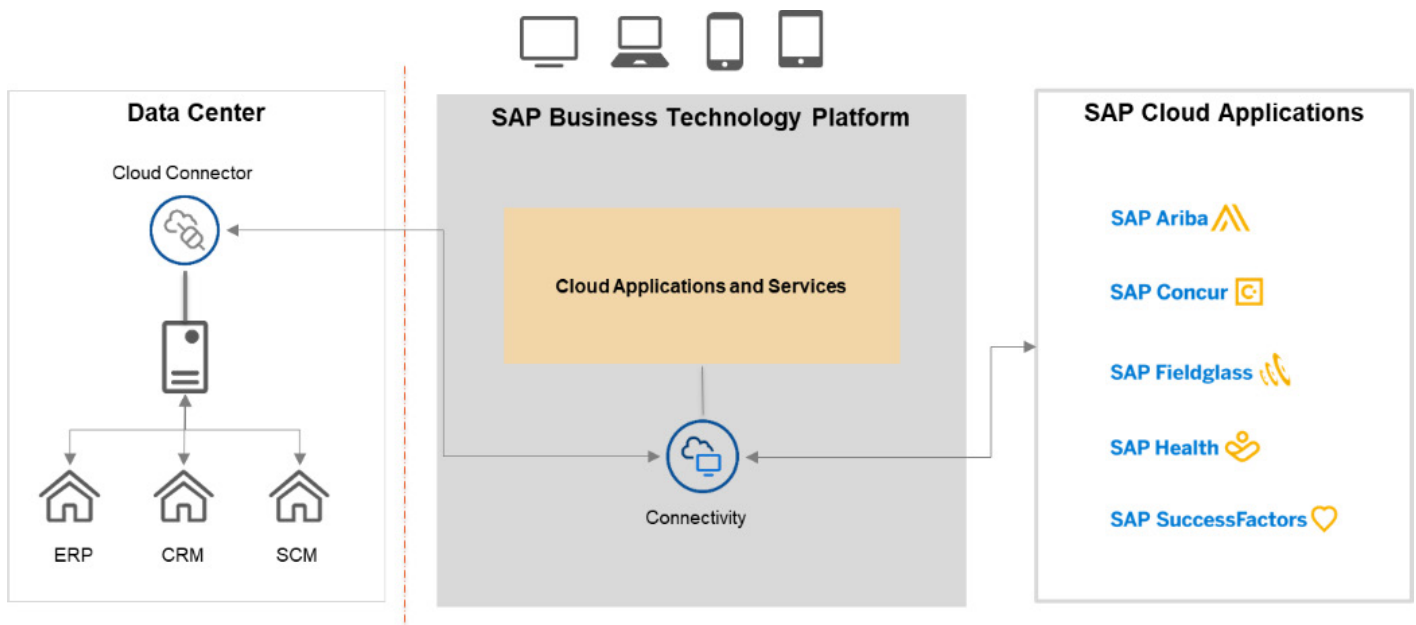- Build new apps to implement specific customer requirements for SAP or non-SAP systems

Figure 2 – SAP BTP integrates multiple on-premise and cloud systems

Advantages of SAP BTP over other platforms

While there are several platform options for customers to choose from, SAP BTP is the recommended platform for SAP-based extensions and custom development. SAP BTP provides several advantages over other platforms. These include:

- High speed development: Rapid application development for mobile and web usage using SAP AppGyver, SAP MDK, and Business Application Studio

- End-to-end application capabilities: SAP BTP provides a platform for end-to-end application development from the interface to the database, with clearly defined guidelines, toolsets, and libraries such as cloud application programming model and RESTful ABAP programming model

- Leveraging open-source technologies: Built on Cloud Foundry, Kubernetes, and Kyma, SAP BTP provides the flexibility to choose any technology for application development

- Reuse of existing assets: Customers can migrate their existing assets to ABAP engine on BTP or reuse their ABAP objects by service-enabling them in the new API-based architecture

- Innovation using intelligent technologies: Seamless adoption and integration of innovations with new or existing applications using out-of-the-box (OOTB) content and services such as iRPA and conversational AI

- OOTB integration: SAP BTP provides OOTB content for seamless integration of processes, applications, and data across heterogeneous technologies and enterprises. The availability of over 2000 pre-built integration packages and more than 170 open connectors makes it easy for 360-degree integration in a heterogeneous system landscape. Integration services include multiple components such as API management, cloud integration, data intelligence, data services, API business hub, and Event Mesh for different scenarios.
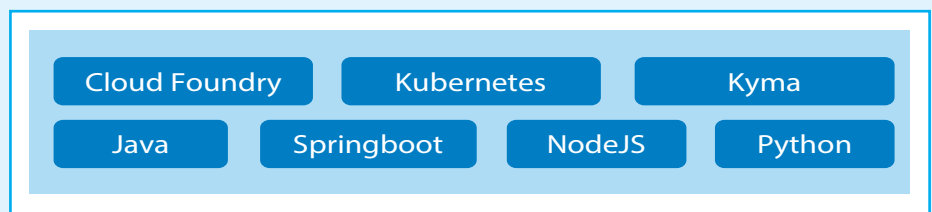

Figure 3 – Open-source technologies for application development on SAP BTP

Application development and extensions

Gartner has named SAP a Leader in the 2021 Magic Quadrant for Multiexperience Development Platforms (MXDP). SAP BTP extension suite offers technology and framework options to develop applications for different use cases and scenarios. MXDP offerings include the new AppGyver tool, SAP Business Application Studio, SAP conversational AI services, mobile development kit, IOS and Android SDKs, and the SAP Fiori design system.

SAP BTP is the strategic development platform for customers implementing SAP S/4HANA. The platform is positioned as integral to SAP S/4HANA landscape for extensions and custom application development. With side-by-side extension capabilities of the BTP platform, customers can keep their SAP S/4HANA system, the digital core, lean. SAP BTP is used for all extensions and custom development.

SAP BTP is recommended as the entry point for users to access SAP S/4HANA and other business applications. The central launchpad provided on the platform can be quickly configured to provide authorized users with secure and intuitive access to all applications.
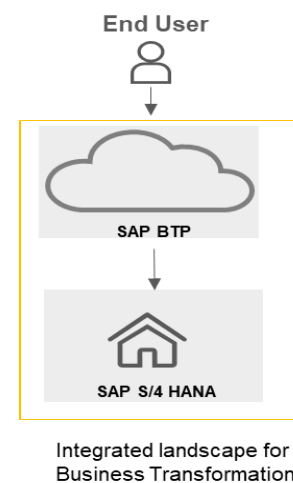

Figure 4 – SAP S/4HANA and SAP BTP provide an integrated landscape for business transformation

Accelerating the SAP BTP Journey with Infosys

Infosys has driven several large-scale digital transformation programs leveraging the SAP BTP platform. Our expertise and differentiated offerings coupled with SAP BTP capabilities have helped customers accelerate their cloud journey. Some of our large BTP engagements include:

- SAP BTP implementation along with apps development and support for a large American technology company

- SAP BTP-based extensions and mobile apps development for an apparel major based in the US

- SAP BTP consulting and application development and support for a personalized medicine supply chain platform for a pharma major based in Switzerland

In addition to such projects, Infosys has leveraged SAP BTP for multiple innovations and solutions development.

SAP Industry Cloud Solution	SAP Co-innovation	Infosys Centers of Excellence
• 10 industry cloud solutions being developed across various industry verticals • 12 BTP-based solutions developed as part of Medallion initiative. Several solutions have been SAP certified.	• Project-based co-innovation enhancing the capabilities of SAP's partner and customer ecosystem • Identification of solutions to build on a partnership basis with SAP or customers	• Design of industry solutions using multiple cutting-edge technologies • Collaboration with our engineering, blockchain, and product teams to design industry solutions • Partnership with OEMs

Many of our solutions and technical frameworks built on SAP BTP are proven to accelerate implementation and reduced total cost of ownership for customers. Table 1 lists solutions built by Infosys on SAP BTP.

Extension solutions on SAP Business Technology Platform	Business solutions and Medallion program
Policy Portal Extension (Manage employee policies)	Smart Warehouse Management Solution
E-Docket Extension (Reliable document management)	Smart Supply Chain Management (Farm-to-fork) – IOT
Subscription Notification (On-premises extension)	Smart Supply Chain Management (Farm-to-fork) – BC
Infosys Catalyst for OFS (On-premises extension)	Clinical Trial Supply Chain Management (CTSM)
Infosys ValuePLUS KPI-Dashboards (On-premises extension)	Organizational Review for CPG (big data + analytics)
Approval Center (Single-stop approval management)	Talent Search (analytics + machine learning)
Side-by-Side Comparison (Display and compare records)	Cold Chain Management in Life Sciences - BC / IOT
HR Analytics Extension (Real-time data visualization)	Personalized Medicine for Pharma
Vacation Bidding (Submission and approval of vacation bids)	Promotional Effectiveness (analytics + machine learning)
Frameworks on SAP Business Technology Platform	Smart Enterprise Asset Management
Business Documents Manager Solution Framework (ML)	Smart Warranty Management and Claims
Conversational AI Framework (Recast)	**Smart Data Management Suite**
Partner 360 – Self-service Portal	Smart Data Governance Solution
Material Track and Trace (MS Teams collaboration)	Smart Data Quality Solution
ABAP Code Migration to SAP Cloud Platform	Smart Data Migration Solution

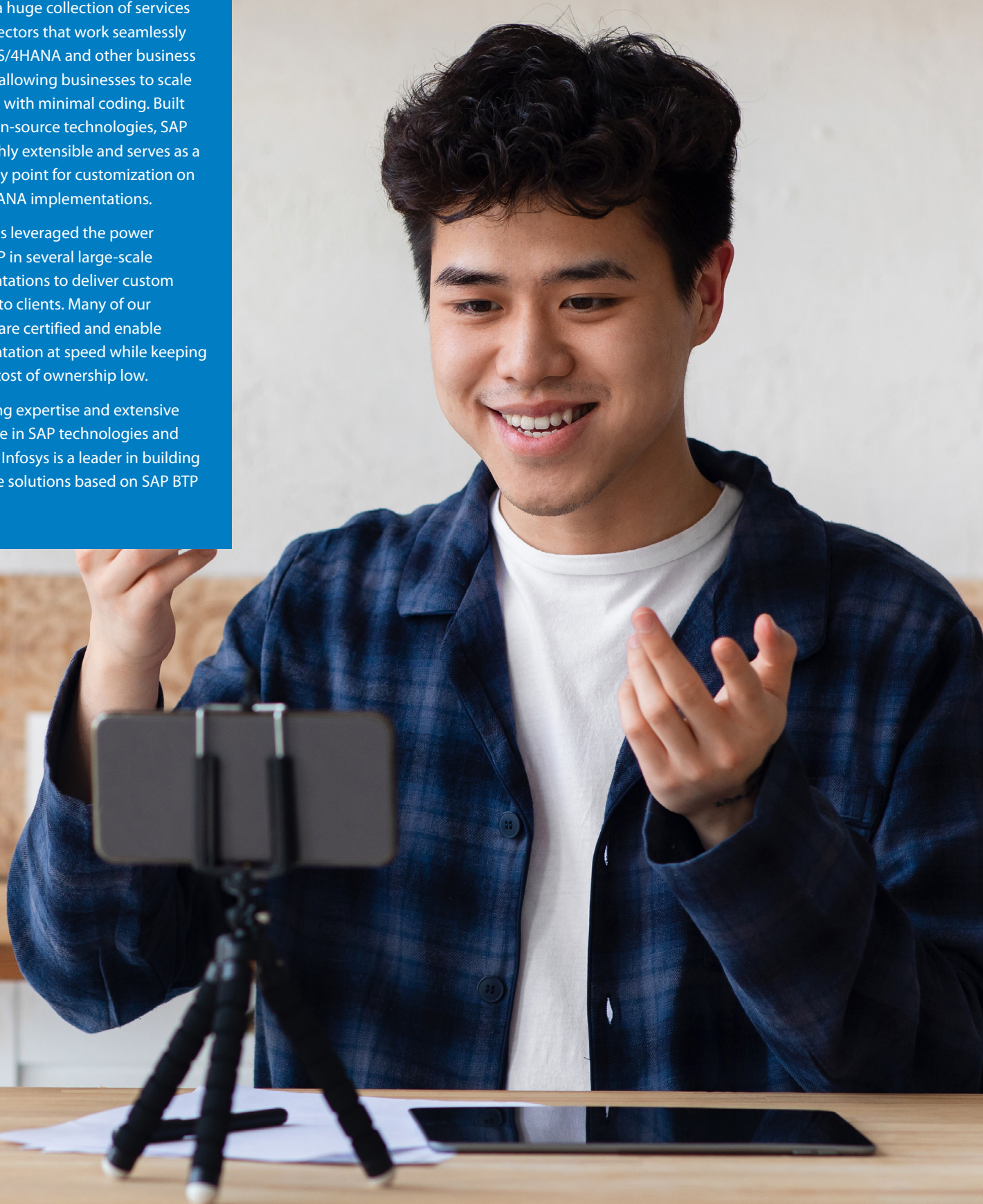Table 1 – Solutions built by Infosys based on SAP BTP

Conclusion

Enterprises on the path to digital transformation are looking for speedy implementation coupled with low total cost of ownership. SAP BTP provides a huge collection of services and connectors that work seamlessly with SAP S/4HANA and other business solutions allowing businesses to scale easily and with minimal coding. Built using open-source technologies, SAP BTP is highly extensible and serves as a great entry point for customization on SAP S/4HANA implementations.

Infosys has leveraged the power of SAP BTP in several large-scale implementations to deliver custom solutions to clients. Many of our solutions are certified and enable implementation at speed while keeping the total cost of ownership low.

With strong expertise and extensive experience in SAP technologies and solutions, Infosys is a leader in building innovative solutions based on SAP BTP

About the Author

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Sujesh is a Senior Technology Architect with over 20 years of experience in SAP technologies. His focus areas include SAP Business Technology Platform (BTP), SAP Mobility, UX transformation with Fiori/UI5 and intelligent technologies. Currently, he leads SAP BTP COE and delivery for Infosys.

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