# *Enabling You to Go Further!*

You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.

*Buckminster Fuller*

# SAP S/4 HANA

## Digital Business Model Platform
*with*
## Bundling, Subscriptions, Leasing, and Complex Contracting
*built on top of*
## SAP Best Business Practices

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# 1   Solution Information

There are two key components to the overall solution scope: 1) the S/4HANA enabling technology for both **digital business transformation** and **subscription management**, and 2) an **innovation organization** option for developing and supporting new business models. The second contains several proprietary tools and methods which are available during an on-site discovery session.  Those tools and methods are different than other **innovation initiatives** in the market as we demonstrate how to build and maintain an **innovation organization** focused on new revenue channels, new markets, and **new product innovation**, new product introduction, as well as new product development.

## 1.1   The IITRun S/4HANA Pre-Configured Subscription and Business Model Transformation Solution.

The IITRun pre-configured reference solution is a pre-packaged, ready-to-use, end-to-end reference solution, with **subscription management** and **subscription processing** added into an entire S/4HANA ERP platform. It includes state-of-the-art applications and SAP's Best Practices encapsulating the experience from successful, real-life **digital transformation** projects.  This solution is compatible with SAP's transformation road map and delivered as a pre-packaged reference platform to:

- help reduce cost,
- decrease risk,
- and accelerate adoption during discovery, preparation, exploration, and realization activities.



Our reference solution contains the key **subscription** and **X-as-a-Service** processing components all inside the S/4HANA platform.  For e-commerce integration SAP Hybris or SAP's C4C (Hybris commerce in the cloud) is the preferred solution. This reduces time, cost, and complexity for deployments needing e-commerce capabilities.  Other solutions are available for customer UI integration as well. Example middleware interfaces have already been constructed for integration to existing entitlement or usage systems for processing.

Our solution covers the **subscription processing** space but allows for your business to scale beyond the S/4HANA application into other areas as time permits.  For example, you may want to scale to SAP's BRIM (Billing and Revenue Innovation Management), C4HANA, or other components that might be needed in the future as you grow and expand.

> **Note:** *While our reference solution has subscription and complex contracting capabilities, beyond the standard S/4HANA delivered functionality, it also has the SAP Best Business Practice templates applied so that it can be deployed for nearly any industry or business scenario.  This is not just a subscription solution but **a complete business platform**.*

## 1.2 Accelerated Business Model Solution for Digital Transformation

Together with SAP's pre-packaged ERP Best Practices, our **subscription processing** solution contains pre-developed reference configuration, development, data, and processing options for:

- X-as-a-Service processing including software (SaaS), hardware, devices, cloud, etc.
- Subscriptions and Leasing
- Product bundling with or without subscriptions
- Product, service, and maintenance bundle processing
- Third-Party product and service integration
- Supply Fulfillment Subscriptions with Supply Chain Integration
- Promotional offers

- Cloud Subscription and Resale (including compute, storage, and data usage)
- Usage processing (including data, IoT, time, etc.) and rating
- Flexible pricing including tiered, time-based, bundles, pro-rating, renewals, etc.
- Automatic renewal notices with rules-based contract processing (Opt-in, Opt-out, Evergreen).
- Reference middleware for entitlements
- Reference middleware for usage rating
- Reference middleware for usage rule processing

*and much, much more…*

This list represents only a small sampling of the capabilities and functionality available for your **digital transformation**.  The SAP S/4HANA platform is an entire **digital business transformation** suite of tools and applications.

Our reference solution includes SAP's Best Practices on S/4HANA's **Digital Business Framework**
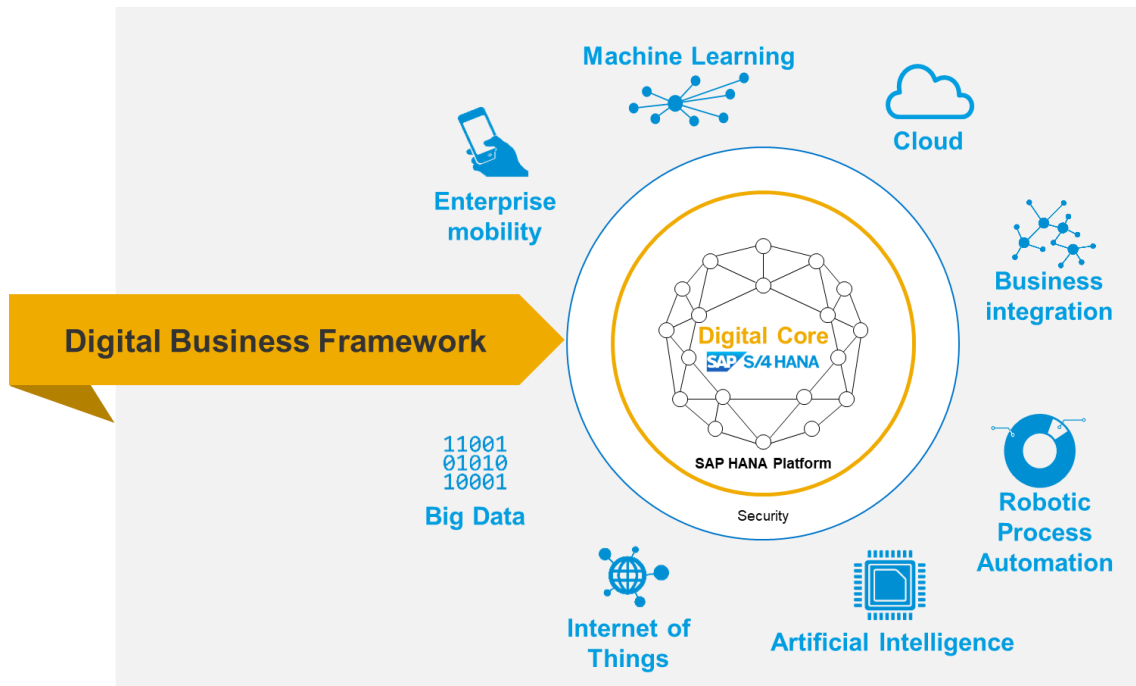


The **entire value chain is digitized, including the digital core** that serves as the foundation for business innovation and optimization.

The digital enterprise **interconnects** all aspects of the value chain to **drive and anticipate business outcomes in real time**.

Enterprises across industries can lead the digital transformation by completely **reimagining business models, business processes, and work**.

Please contact us for a licensed and hosted demo system if you would like to test drive our solution.[1]

# 2 Detailed Solution Scope

There are two key components to the overall solution scope: 1) the S/4HANA enabling technology for both **digital business transformation** and **subscription management**, and 2) an **innovation organization** option for developing and supporting new business models. The second option is beyond the scope of this document because it contains several proprietary tools and methods which are available during an on-site discovery session.  Those tools are methods are different than other **innovation initiatives** in the market as we demonstrate how to build and maintain an **innovation organization** focused on new revenue channels, new markets, and **new product innovation**, new product introduction, as well as new product development.

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[1] SAP software licenses are required for the S/4HANA platform and for any additional products.  We help with license optimization and license requirements as well.

## 2.1 Accelerated Subscription Business Model Solution for Digital Transformation
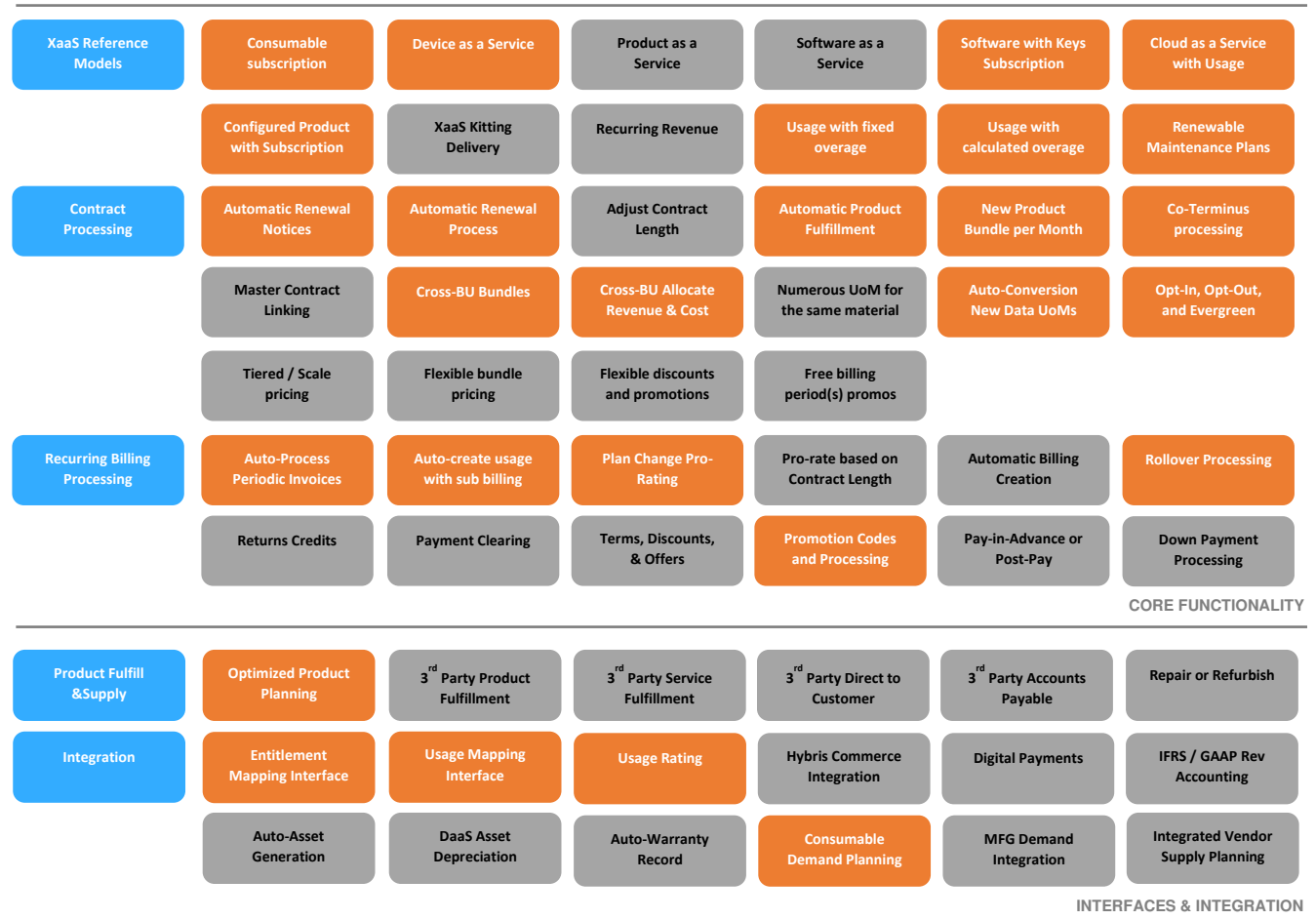
This is the **subscription management** solution scope for our S/4HANA pre-configured **subscription billing** platform.  The SAP delivered Best Practices foundation processes which our **subscription models** are developed on are laid out in more detail below.

| | |
|---|---|
| 🟦 | Subscription Processing Capability Area |
| 🟧 | Specially Developed Subscription Solution |
| ⬜ | SAP Delivered Core Functionality |

### S/4HANA Subscription Management Reference Solution Scope

| | | | | | | |
|---|---|---|---|---|---|---|
| **XaaS Reference Models** | Consumable subscription | Device as a Service | Product as a Service | Software as a Service | Software with Keys Subscription | Cloud as a Service with Usage |
| | Configured Product with Subscription | XaaS Kitting Delivery | Recurring Revenue | Usage with fixed overage | Usage with calculated overage | Renewable Maintenance Plans |
| **Contract Processing** | Automatic Renewal Notices | Automatic Renewal Process | Adjust Contract Length | Automatic Product Fulfillment | New Product Bundle per Month | Co-Terminus processing |
| | Master Contract Linking | Cross-BU Bundles | Cross-BU Allocate Revenue & Cost | Numerous UoM for the same material | Auto-Conversion New Data UoMs | Opt-In, Opt-Out, and Evergreen |
| | Tiered / Scale pricing | Flexible bundle pricing | Flexible discounts and promotions | Free billing period(s) promos | | |
| **Recurring Billing Processing** | Auto-Process Periodic Invoices | Auto-create usage with sub billing | Plan Change Pro-Rating | Pro-rate based on Contract Length | Automatic Billing Creation | Rollover Processing |
| | Returns Credits | Payment Clearing | Terms, Discounts, & Offers | Promotion Codes and Processing | Pay-in-Advance or Post-Pay | Down Payment Processing |

**CORE FUNCTIONALITY**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Product Fulfill &Supply** | Optimized Product Planning | 3rd Party Product Fulfillment | 3rd Party Service Fulfillment | 3rd Party Direct to Customer | 3rd Party Accounts Payable | Repair or Refurbish |
| **Integration** | Entitlement Mapping Interface | Usage Mapping Interface | Usage Rating | Hybris Commerce Integration | Digital Payments | IFRS / GAAP Rev Accounting |
| | Auto-Asset Generation | DaaS Asset Depreciation | Auto-Warranty Record | Consumable Demand Planning | MFG Demand Integration | Integrated Vendor Supply Planning |

**INTERFACES & INTEGRATION**

## 2.2 Subscription Solution

Our **subscription processing Digital Business Model Platform** includes several processes built on top of SAP's Best Practices. The following end-to-end subscription scenarios are related to our solution scope. This list of scenarios does not include the various SAP Best Practices that are also included in the S/4HANA application. This is just the subscription related functionality and solution options.

**E2E** = End-to-End Process
**PRC** = Process Area or SubProcess
**INT** = Integration Capability

| Functional Processing Area | Business Process Area |
|---|---|
| **End-to-end order to invoicing (any process can be done as PostPaid or PrePaid)** | **E2E_USG** - Data Usage Processing (including IoT) with Overage and Variable Scaled Pricing<br>**E2E_SAS** - Software as a Service<br>**E2E_CLD** - Cloud Subscription and Resale (Including Compute, Storage, and Data Usage)<br>**E2E_DAS** - Device as a Service<br>**E2E_BOX** - Supply Fulfillment Subscriptions (like variable monthly boxes)<br>**E2E_3RD** - Third-Party product and service integration (with or without subscriptions)<br>**E2E_BND** - Software, Service, Hardware, and Data Bundle Processing (mixed bag)<br>**E2E_FLX** - Flexible Product Bundle Subscriptions (including Software Keys)<br>**E2E_MNT** - Maintenance Plans and Warranties<br>**E2E_SET** - Asset Management and Monitoring Own Product at Customer Location with Monthly Billing<br>**PRC_HIS** - Quantity, Price, Pro-Rate, Add and Remove with Item Change History Audit<br>**PRC_PRI** - Pricing: Flat, Quantity, Volume, Tiered, Time-based, Mixed (apply any method to the base agreement and mix any additional method to usage overages)<br>**PRC_CTM** – Co-terminus agreement processing<br>**PRC_RNW** - Automatic and Manual Renewal Processing with Automatic Notices and Promo Price<br>**PRC_FIO** – Fiori User Experience processing for Sales |
| **End-to-end finance and supply integration** | **PRC_PLN** - Planning Variable Monthly Product Fulfillment (like monthly boxes)<br>**E2E_VND** - Purchased Item Shipping, Receipt, and Accounts Payable<br>**PRC_MFG** - Plan Internally Manufactured Product for Device-as-a-Service |
| **Solution integration with rating and entitlements** | **INT_ENT** - Example Middleware for Entitlements including change updates<br>**INT_RAT** - Example Middleware for Usage Rating including change updates<br>**INT_USG** - Example Middleware for Usage Processing |

Each business process contains detailed use case examples, including the fully integrated processing and financial data. Our **subscription solution** platform is a fully integrated Enterprise Resource Planning platform for **subscription processing** capable of handling all of the key business function integrations.

The detailed use cases are listed below:

| Business Process Area | Business Process Details |
|---|---|
| **E2E_USG** - Data Usage Processing (including IoT) with Overage and Variable Scaled Pricing | Create a new customer and contract for IoT data sales to the customer. Simulate incoming data on the contract for the month, with overage data, and different pricing with scaled amounts just for the overage. |
| **E2E_SAS** - Software as a Service **PRC_HIS** - Quantity, Price, Pro-Rate, Add and Remove with Item Change History Audit | Enter a three (3) year software agreement with renewal rule processing assigned and a promotional discount. The software agreement uses seats as the unit of measure and 10 seats are purchased. After the agreement is entered, the customer requests 5 more user licenses to be active five (5) days into the next month for the remaining term of the contract. The customer later asks for another 3 licenses, to be active on the tenth (10th) of the following month after the 5 so that there is now a total of eighteen (18) licenses. Full pro-rating and proper invoice processing showing the changes is required. Review document and item change history. |
| **E2E_CLD** - Cloud Subscription and Resale (Including Compute, Storage, and Data Usage) | Resell Amazon AWS Cloud hosting services with a 2-year monthly payment agreement, with usage-based processing. Purchase Amazon services as the vendor, re-sell their service on a monthly agreement. Additional usage for compute and data overages at a separate scaled price. |
| **E2E_DAS** - Device as a Service **E2E_3RD** - Third-Party product and service integration (with or without subscriptions) **E2E_VND** - Purchased Item Shipping, Receipt, and Accounts Payable **E2E_FLX** - Flexible Product Bundle Subscriptions (including Software Keys) | 3-year contract on Device provisioning with software for the device and data services. Include software keys that have data analytics as one of the options. Device solution includes a Dell Laptop, sent to the customer, as part of the overall IoT device solution attached to the customer's equipment. Dell Rugged Laptops are procured directly from Dell to ship to the customer with the rest of the Device setup. Shipping, fulfillment, inventory, and IoT data analytics, data usage, and Cloud Services are included. |
| **PRC_CTM** - Coterminous agreement processing | Adjust two (2) agreements for the same customer but with different billing dates to have the same billing date, including proper pro-rating and combining the billing documents together on the same statement. |
| **E2E_BOX** - Supply Fulfillment Subscriptions (like variable monthly boxes) **PRC_PLN** - Planning Variable Monthly Product Fulfillment (like monthly boxes) | Monthly variable box subscription for pet toys / goods / treats / etc. The mix changes each month. Planning for products is carried out with leftover product items used up for new customers (no aging inventory) and new product mix forecasting is carried out each month. Supply is completed each month, and supply planning is done with third party vendor products shipped to a warehouse for each month's box fulfillment need. |
| **PRC_MFG** - Plan Internally Manufactured Product for Device-as-a-Service | Carry out internal MRP run, manufacturing planning, and production processing. Evaluate cost variance and accounting for the manufactured Device as a Service product. |
| **E2E_BND** - Software, Service, Hardware, and Data Bundle Processing (mixed bag) | Agreement for Device as a Service with maintenance, software, data, Cloud, and a third party item shipped directly to the end customer. |

| | |
|---|---|
| **E2E_SET** - Asset Management and Monitoring Own Product at Customer Location with Monthly Billing | Device as a service with inventory visibility of the item at the customer location. Monthly billing for the device with asset management and depreciation of the company owned asset at the customer location. |
| **PRC_PRI** - Pricing: Flat, Quantity, Volume, Tiered, Time-based, Mixed (apply any method to the base agreement and mix any additional method to usage overages) | Enter an agreement with various pricing options, process a usage requirement that exceeds the allocation amount and uses a different pricing method for the overage (e.g. flat monthly pricing but tiered pricing for the overage amount, etc.) |
| **PRC_FIO** – Fiori User Experience processing for Sales | Evaluate Overdue receivables, Days Sales Outstanding, Receivable forecast, Sales Order items confirmed as customer requested (expected on time fulfillment), predicted fulfillment delivery delays, Customer 360 degree view, etc. |
| **E2E_MNT** - Maintenance Plans and Warranties<br>**PRC_RNW** - Automatic and Manual Renewal Processing with Automatic Notices and Promo Price | Enter a maintenance agreement and process automatic notices.  Renew the Opt-in agreement manually with a promo price at renewal.  Process a separate Opt-out renewal agreement with automatic notice to the customer of the renewal. |
| **INT_USG** - Example Middleware for Usage Processing<br>**INT_RAT** - Example Middleware for Usage Rating including change updates | Process example interface data for usage and perform rating and remediation for charges and overages. |
| **INT_ENT** - Example Middleware for Entitlements including change updates | Process bi-directional entitlement changes for software products with user quantities. Allow for updates from the external entitlement system to update and re-price, as well as pro-rate, the existing contract.  Also, enter and change a contract, including pro-rating, and feed the changes to the entitlement system. |

# 3   Solution Deployment Overview

Our pre-configured S/4HANA reference solution for **subscription management** is a complete reference system available for cross-industry processing. The **recurring payment subscription reference solution** is based on a common set of SAP Best Practice process options, and then has the **subscription processing** components layered on top of SAP's Best Practice options. The **subscription solution** is licensed separately through IITRun.com and is available on SAP's S/4HANA ERP platform. We maintain the solution on the latest S/4HANA release, after the first update package for

| Methodology | Tools |
|---|---|
| A modular agile methodology | Pre-Configured reference system<br><br>Templates and Resources |

| SAP Best Practices | | |
|---|---|---|
| Ready to run scenarios | Data migration content | Integration content<br>Test cases |

stability. However, the solution can be backported to previous versions of ECC or to other S/4HANA versions beginning with S/4HANA 1610 and subsequent versions.
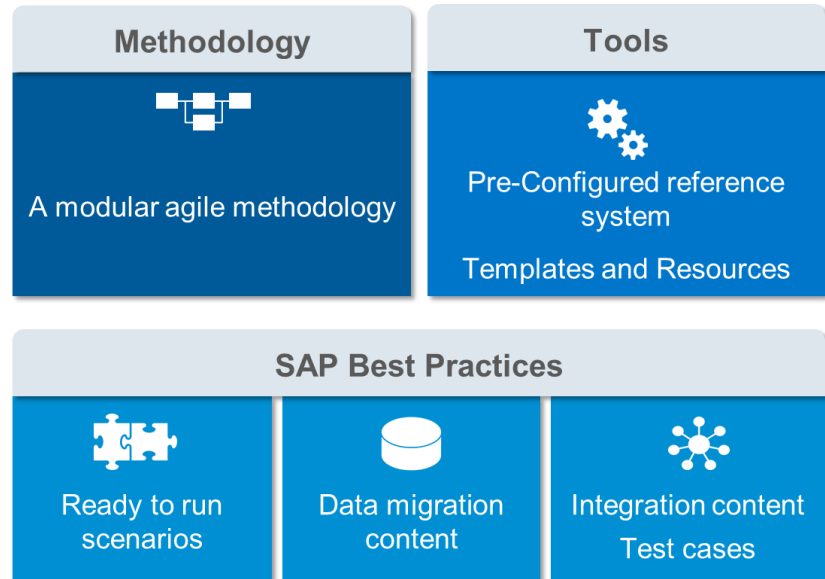
## 3.1   Rapid Prototyping & Modeling – RPM<sup>SM</sup> *(part of our DigitalOps approach to delivery)*

With our RPM<sup>SM</sup> Method we quickly move past the old ways of delivering value while driving **Digital Operations**. This hybrid approach of Agile, Lean, and Waterfall delivers the best of all worlds with solutions that don't need to wait for white-boarding sessions, process flow diagrams, or building design documents before starting to build the solution. The design and the solution are integrated together for a higher quality result including knowledge transfer. In other words, we work with a live system from day one, and then begin immediately prototyping the solution together with you as part of capturing design requirements. By the time you finish with design we have a working prototype!

Together with SAP's Best Practices standard solutions, we help layer in automation with a focus on exception processing to gain efficiencies. Our RPM<sup>SM</sup> solutioning transition then provides the foundation for an accelerated deployment with re-use methods to get to your new future state.

## 3.2  SAP Best Practices Platform for S/4HANA and our Subscription Billing

Our pre-configured **subscription billing platform** is built on top of SAP's Best Practices.  The following detailed SAP Best Business Practice list includes the available standard and pre-delivered options for business processes.  We use a rapid scoping method to determine your Best Practice needs.  Our **subscription management** processes can easily be transferred to your own specially scoped S/4HANA environment, with your specific SAP Best Practice reference scope.  Except for the processes required to support our **subscription processes** you have a tailored reference solution for your **digital transformation** efforts.

Our capabilities include not just subscription processing but the entire S/4HANA application.  We are able to help you through the greenfield, brownfield, or blue-sky deployment processes.
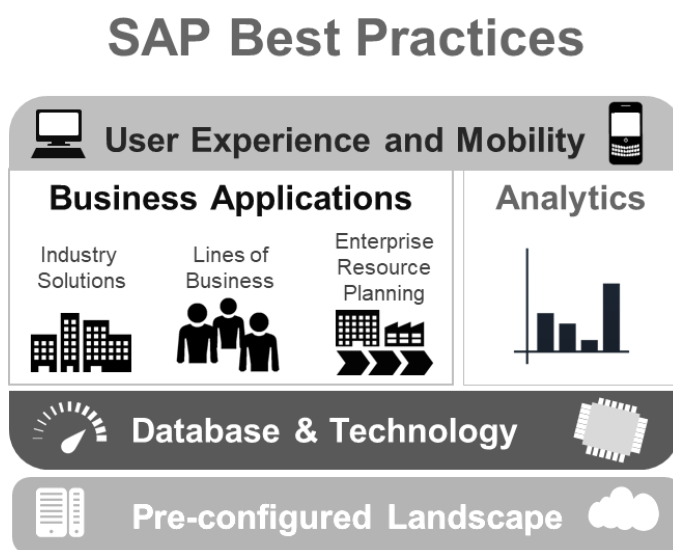


**SAP Best Practices Overview [2]**

The SAP Best Practices for SAP S/4HANA (on premise) package is tailored specifically to accelerate and simplify the adoption of SAP S/4HANA for faster time to value, by providing preconfigured content for core business processes with a role-specific, responsive, and simple user experience.

Among the numerous new features covered by this package are International Trade Management, Portfolio and Lease Management, and enhancements in Operational Procurement and Product Compliance.

SAP S/4HANA (on-premise and on-premise AWS, Azure, or Google Cloud hosted version) also leverages machine learning (ML), and predictive analytics to deliver a solution that is capable of learning from exceptions and adapting to business rules. This allows you to discover insights, better predict and plan for outcomes, recommend the best next steps, and automate processes to enable higher effectiveness across the entire organization.

Analytical content such as operational reporting is included as well as SAP Fiori content, providing the infrastructure for the deployment, testing, and extension of SAP S/4HANA user interface components.

SAP Best Practices offers integration to cloud solutions from SAP such as SAP SuccessFactors Employee Central and SAP Ariba.  The Best Practices have been fully activated in our S/4HANA **subscription business platform**, however, there may be areas that require additional configuration to be completely tailored to your organization.

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[2] This is SAP an SAP provided overview of their Best Practices.

# SAP Best Practices for S/4HANA

## Business Area in Line of Business / Technology Area



For thorough list of S/4HANA ERP features and functionality please see the 704 page guidebook from SAP: https://help.sap.com/doc/e2048712f0ab45e791e6d15ba5e20c68/2020/en-US/FSD_OP2020_latest.pdf

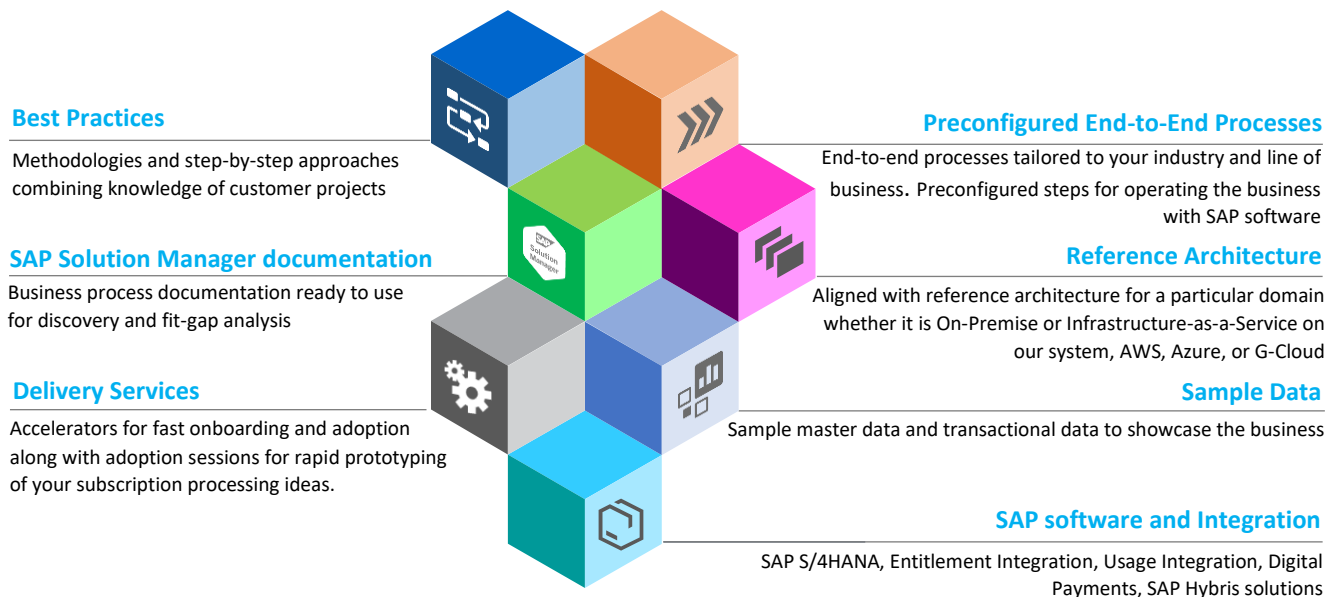# SAP Best Practices Business Benefits

- Reduce cost of operations by using standardized processes delivered by SAP Best Practices
- Manage multiple geographies, divisions, subsidiaries, and ledgers with global and country-specific content
- Drive operational efficiencies
- Comply with regulations
- Allow a first-hand experience of SAP S/4HANA with instant guided trials

## 3.3   S/4HANA Pre-configured Subscription Management Supporting Tools

Because the SAP license portfolio is constantly changing with new cloud options and license metrics please contact us for the latest license requirements.  We are also able to provide licensed and hosted demo systems if you would like to test drive this or another S/4HANA based solution.

The **subscription billing** and **recurring payment processing** solution, along with the SAP Best Practices, includes:

1. A preconfigured solution combining standard SAP Applications with preconfigured processes and sample data.
2. Business content including end-to-end process models with sample workflows, reports, enhancements and forms, where applicable.
3. Accelerators like configuration and how-to guides, test/demo scripts and implementation tools. Additional detail on the accelerators and tools is available as part of a solution demonstration for customers interested in deploying subscription processes.
4. A design and development service is available for additional subscription models, or other business model ideas, as part of our customer enablement and jump-start program for discovery, exploration and realization.

**Best Practices**

Methodologies and step-by-step approaches combining knowledge of customer projects

**Preconfigured End-to-End Processes**

End-to-end processes tailored to your industry and line of business. Preconfigured steps for operating the business with SAP software

**SAP Solution Manager documentation**

Business process documentation ready to use for discovery and fit-gap analysis

**Reference Architecture**

Aligned with reference architecture for a particular domain whether it is On-Premise or Infrastructure-as-a-Service on our system, AWS, Azure, or G-Cloud

**Delivery Services**

Accelerators for fast onboarding and adoption along with adoption sessions for rapid prototyping of your subscription processing ideas.

**Sample Data**

Sample master data and transactional data to showcase the business

**SAP software and Integration**

SAP S/4HANA, Entitlement Integration, Usage Integration, Digital Payments, SAP Hybris solutions

# 4 Landscape

## 4.1 Hardware Requirement

The S/4HANA subscription solution and Digital Business Model Platform consists of two (2) instances.

- SAP S/4HANA On-Premise 1809 or later with SAP HANA 2.0 or later
- SAP NetWeaver 7.50 application server JAVA (SAP ASE 16.0 as database) or greater
- OPTIONAL: Hybris Commerce for e-commerce or C4HANA for commerce and CPQ integration.

Minimum requirements for the **Digital Business Model Platform** depend on the installed SAP Products. The hardware requirements below are the minimum hardware requirement for a reference system / sandbox system or a development system on a hosted solution like Amazon AWS, Google Cloud, or Microsoft Azure. There are on-premise options available as well for hosting in your own data center if you desire.

The sizing recommendation is not for productive use, for productive use, you need to follow the SAP sizing guidelines which includes the expected productive data volume. The following sizing information is for reference only and may differ depending on your chosen hosting environment, any additional solutions, or number of users.

| Cloud Provider | Virtual Machine | Size |
|---|---|---|
| Amazon Web Services | *Hybris Commerce\** | r4.xlarge (4 cores, 30.5GB memory, HDD) |
| | Gateway | r4.xlarge (4 cores, 30.5GB memory, HDD) |
| | ERP | r4.8xlarge (32 cores, 244GB memory, SSD) |
| | Solution Manager | r4.xlarge (4 cores, 30.5 memory, HDD) |
| Microsoft Azure | *Hybris Commerce\** | E4_v3 (4 cores, 32GB memory, HDD) |
| | Gateway | E4_v3 (4 cores, 32GB memory, HDD) |
| | ERP | E32S_v3 (32 cores, 256GB memory, SSD) |
| | Solution Manager | E4_v3 (4 cores, 32GB memory, HDD) |
| Google Cloud Platform | *Hybris Commerce\** | n1-highmem-4 (4 cores, 26GB memory, HDD) |
| | Gateway | n1-highmem-4 (4 cores, 26GB memory, HDD) |
| | ERP | n1-highmem-32 (32 cores, 208GB memory, SSD) |
| | Solution Manager | n1-highmem-4 (4 cores, 26GB memory, HDD) |

*\* Hybris is an optional component and used for e-commerce. Other e-commerce platforms are available for integration to S/4HANA and our solution.*

Competitive pressure has never been greater with market disrupting technology available everywhere.

Change your existing culture to address the marketplace through new innovation capabilities with technology that enables new business models, new revenue channels, and improving speed to market. We leverage SAP's S/4HANA computing power, artificial intelligence, and real-time business capabilities for Digital Business Transformation.  But this isn't just about the technology, our innovation organizational development process helps build an enterprise innovation incubator, then enables that innovation incubator with the technology. As that capability matures, we help integrate that capability into the broader enterprise. This way we enable better time-to-market development, and  can improved customer adoption curve, to different areas throughout the enterprise.