

Unit 1: Introduction

Agenda:

- The SAP Business One SDK
- Components of the SAP Business One SDK
- Introduction to DI API
- Introduction to UI API
- SAP Business One integration framework
- SAP Business One on SAP HANA
- SAP Business One on Mobile
- SAP Business One on Cloud

- This unit is a short outline and will give you an overview on component level.
- In addition it will show how SAP uses the SDK for extensions (i.e. „Add-Ons“) to SAP Business One.

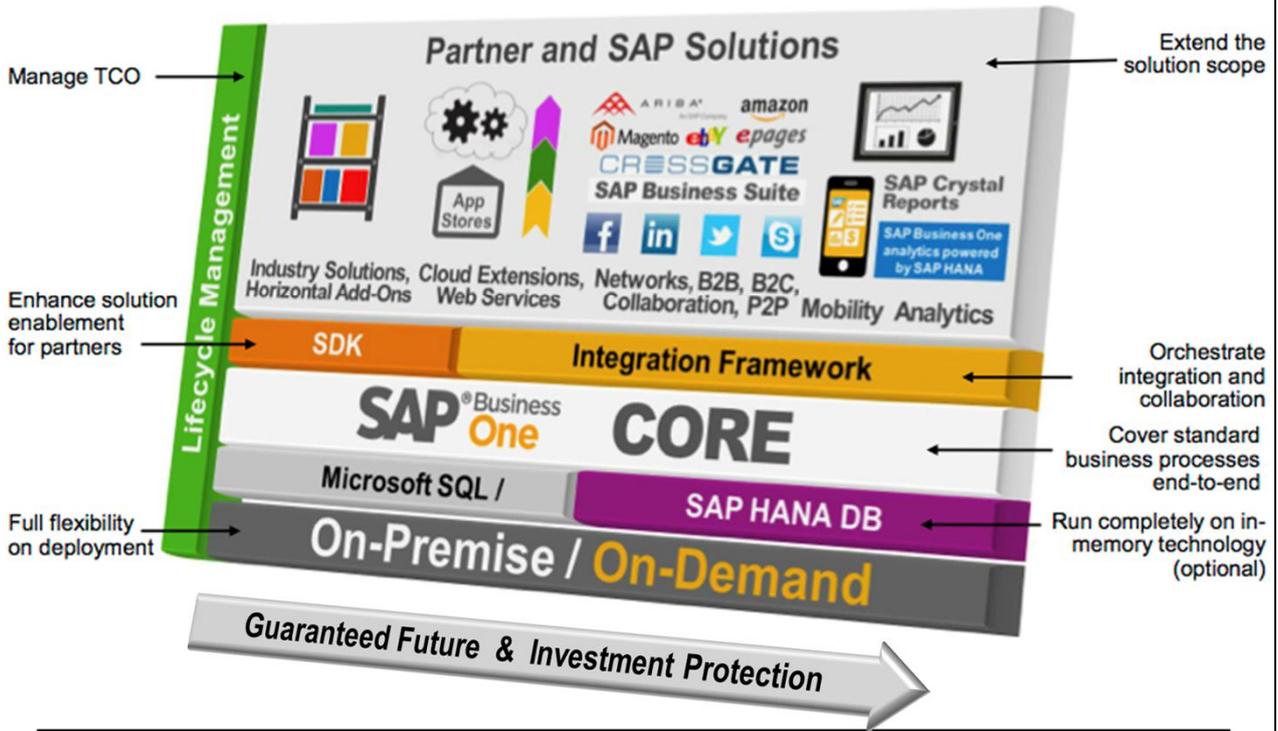
Introduction: Unit Objectives



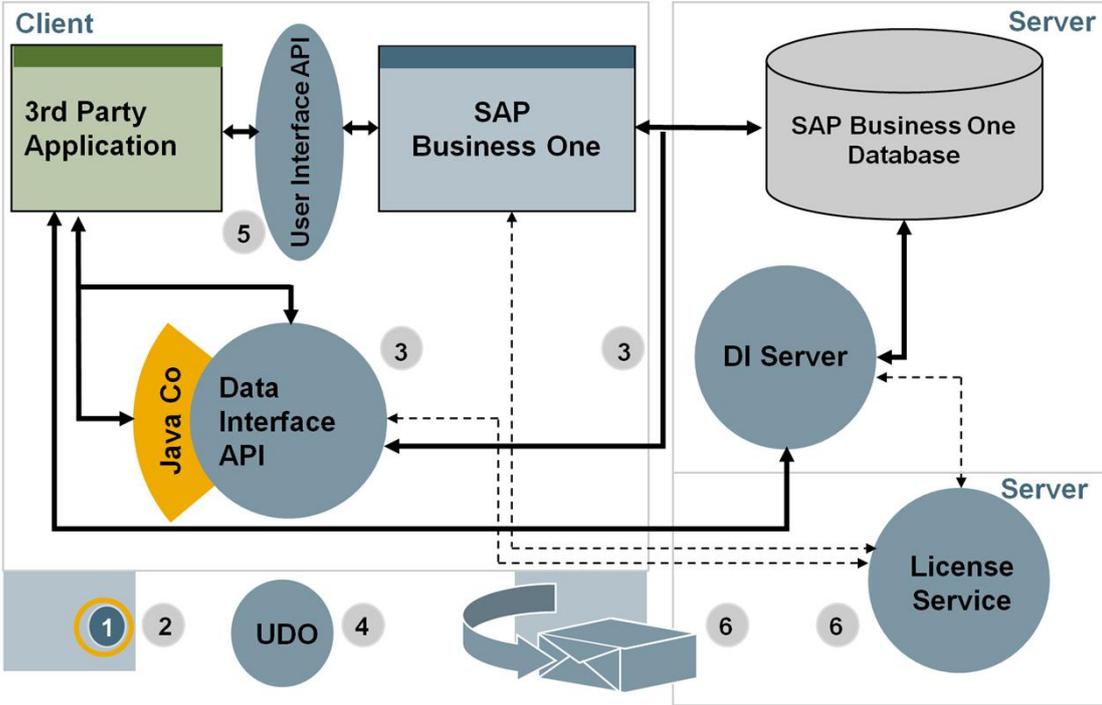
At the conclusion of this unit, you will be able to describe and explain:

- The SAP Business One Software Development Kit
- Data Interface API
- User Interface API
- SAP Business One integration framework
- SAP Business One on SAP HANA
- SAP Business One Mobile
- SAP Business One Cloud

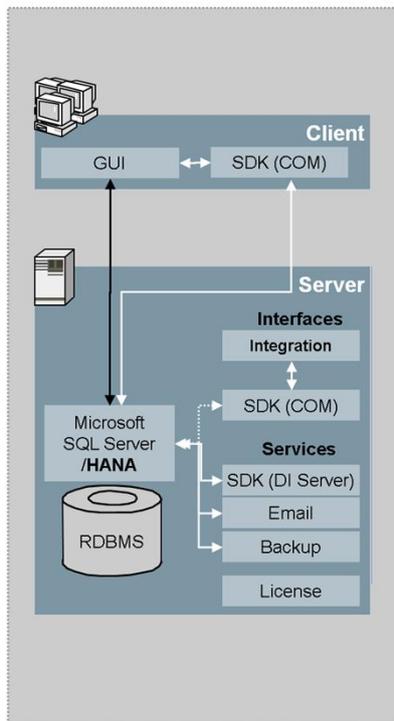
SAP Business One – Business Platform



SAP Business One – SDK Components Diagram



SAP Business One - Technology and Interfacing



Ease of Use	<ul style="list-style-type: none"> Continuous and integrated solution Windows look & feel (SAP style) Simple navigation Ability to drill down to details “Drag and relate” feature
Product Architecture	<ul style="list-style-type: none"> Two-tier client-server architecture (fat client) Microsoft Windows 32 based, 64 Bit supp. Microsoft SQL Server / HANA Server
Adaptations	<ul style="list-style-type: none"> Customizing Form Settings Queries / Reports User-Defined Tables and Fields Linkage of input fields to queries User-Defined Objects (UDOs)
MS Office Integration	<ul style="list-style-type: none"> Microsoft Excel, Word (out) Microsoft Outlook (in / out)
Interfaces	<ul style="list-style-type: none"> File-based (built-in) SOAP (HTTP/XML) APIs (COM, web services (SOA) starting) User-Defined objects (UDOs) Integration (not only) to SAP systems

- SAP Business One is implemented as a two-layer architecture. The system is based on a Microsoft SQL Server/HANA database where data is stored centrally. The business logic is mostly processed on the client software (fat client).
- In detail, the client software consists of a graphical user interface and the business object classes connecting to the database.
- There are several built-in integration capabilities, interfaces and customization features (see “Adaptation”, “MS Office Integration” + “Interfaces”):
 - Besides all the adaptation capabilities accessible for customers, SAP Business One SDK enables partners to implement a solution extending SAP Business One using APIs and other features.
 - DI Server e.g. enables partners to use SAP Business One data in a Browser without the need to install any SAP Business One component on the client or the application server of the web-based application.
 - The UDO feature is a further step to ease creation of additional functionality inside SAP Business One.
- Licenses are also managed centrally. Partners can use the mechanism for own purposes.

Introduction: Unit Overview Diagram

Introduction

Topic 1: Introducing SAP Business One SDK

Topic 2: Introducing Data Interface API

Topic 3: Introducing User Interface API

Topic 4: SAP Business One integration framework

Topic 5: SAP Business One on SAP HANA

Topic 6: SAP Business One Mobile

Topic 7: SAP Business One Cloud

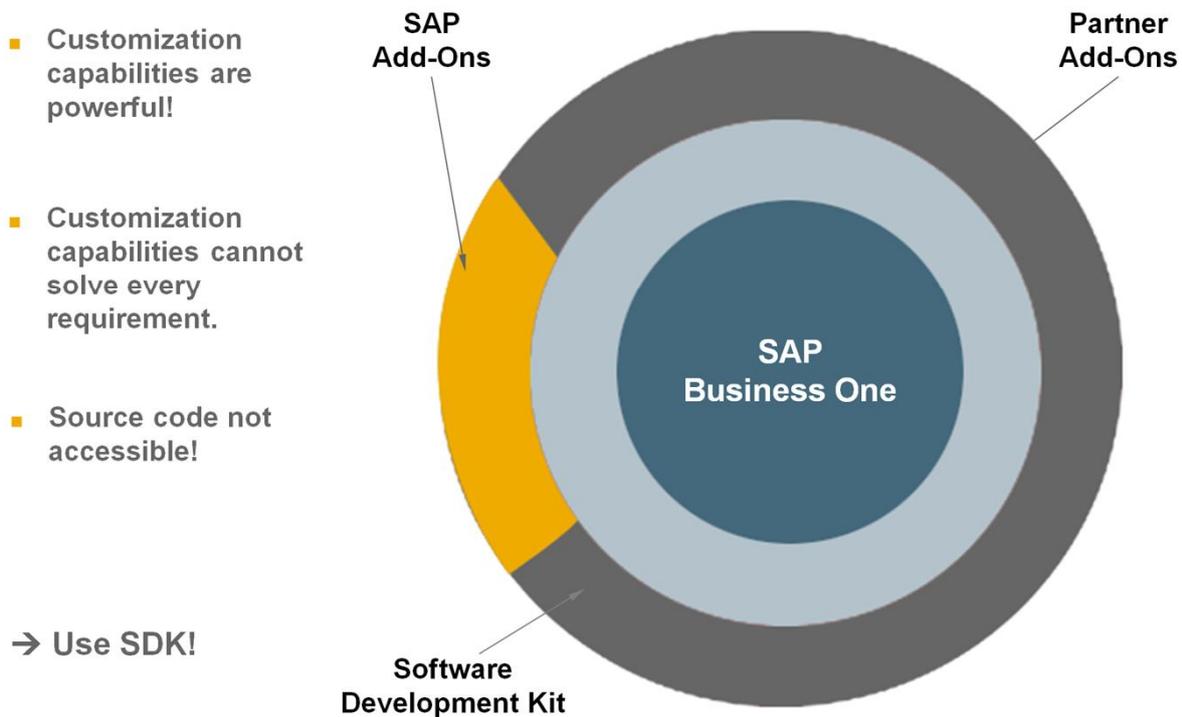
Introducing SAP Business One SDK: Topic Objectives



After completing this topic, you will be able to:

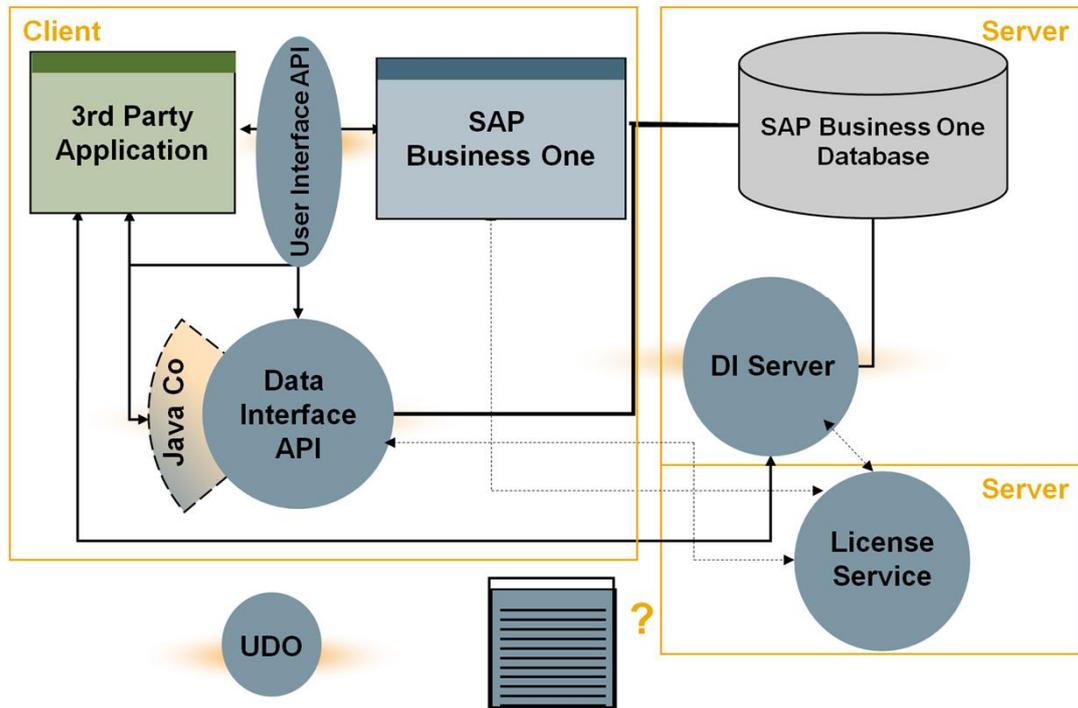
- Describe purpose and components of the SDK
- Explain SDK packages and licenses shortly
- Tell where to find further information or seek help
- Use test tools available on the SAP Community Network

SAP Business One SDK - Motivation



- The SAP Business One client software consists of a graphical user interface and the business object classes connecting to the database.
- The source code of SAP Business One is not accessible by third parties. This guarantees a single version of SAP Business One with approved stability, functionality and upgrade functionality.
- If you want to extend and change the functionality of SAP Business One, you can use the built-in tools for adjustments such as User defined fields and tables, formatted search, etc.). If your enhancements need more, You can use the SAP Business One Software Development Kit.
- With this SDK, you can
 - add industry-specific functions
 - add other functions you deem necessary
 - create interfaces to third-party tools.
- SDK gives access to Business One internals via a set of programmatic interfaces based on COM: every development environment supporting COM can be used
- Many add-ons can be executing together with Business One changing its standard behavior: add-ons live in separate address spaces than Business One
- Nevertheless you should not underestimate the power of the customization tools!
- Check-out the Appendix „More exercises and solutions“ for more information about „formatted search“ „queries“ and „alerts“.

SAP Business One SDK – Components Overview



- The different application programming interfaces (APIs) included in the Software Development Kit use open Microsoft standards that allow access to a lot of business objects provided by SAP Business One.
- API runtimes are installed with the SAP Business One client application – except DI Server which is part of the SAP Business One Server Tools installation
- You can access SAP Business One
 - on business data level through the Data Interface API (DI API). Most SAP Business One business objects are exposed in this API. They can be accessed by external programs. If you prefer using Java, use “Java Connector” to access DI API.
 - on business data level through DI Server (Data Interface). DI Server is a DCOM service that runs on the SAP Business One server and accepts XML data packed in SOAP (Simple Object Access Protocol) “envelopes”.
 - on user interface level: The User Interface API (UI API) provides access to a running application where you can add or modify forms, and provide your own event handlers to actively influence the existing business logic.
- In addition to that you can define your own business objects (User-Defined Objects (UDO)) that are joined to the SAP Business One business object collection.
- The SDK ships with
 - Sample Code
 - Documentation
 - Utilities

SAP Business One SDK – Terminology and Packaging

The SDK consists of 2 major packages:

- The Runtimes (i.e. the APIs)
 - The runtimes (DI API + UI API) are installed together with the SAP Business One client application
 - DI API can be installed stand-alone (separate installer package available)
- The documentation (samples, helpfiles, utilities) named „SDK Installation“

“SDK” Installation

- Development package for partners – includes SDK help, samples, tools

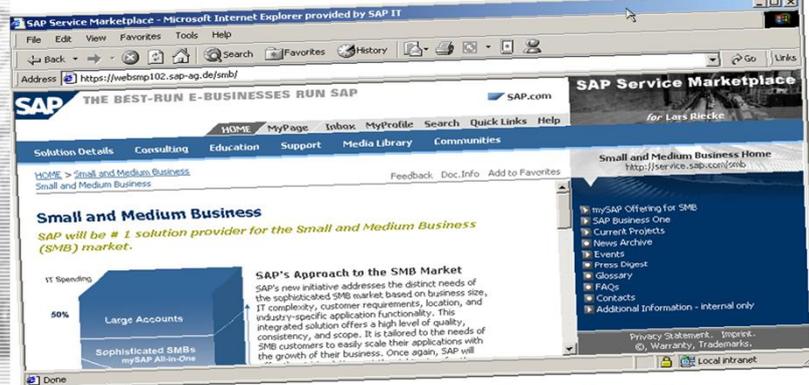
Note:

See Appendix 1 for more details on SDK Installation.

See AddOn packaging, Administration and Licensing for more details on Licensing.

- There's only one set of APIs – no debug / release...
- According to the remark above you could see the SAP Business One Software Development Kit to be available in three “versions”:
 - The SDK Installation is a full version suitable for development of additional components by partners or customers. It contains documentation and examples.
 - The SDK Implementation Version basically is just the general authorization to use UI API, if at least a Professional User license has been installed.
 - The SDK DI API / Runtime Installation is required if customers want to run additional functions provided by a partner using DI API. It is installed with the client.
 - In the past „Compatibility License for Add-Ons“ existed – to allow partners to work without using the SAP license mechanism for some time. While this is still possible – there's no license for this purpose yet, but the users need any payable SAP license to connect to SAP Business One's SDK starting with version 8.8.

SAP Business One SDK - More Information



Visit us at:

<http://www.sap.com/smb>

<http://service.sap.com/smb>

The most important source of information for developers:

The SAP Community Network (aka SAP Developer Network):

<http://www.sdn.sap.com>

- You can get more information on the service marketplace via <http://service.sap.com/smb>.
- Another valuable source of information about the SAP Business One SDK is currently the SAP Developer's Network. You can access it under <http://www.sdn.sap.com>. There is a Discussion forum where hot topics regarding the SAP Business One SDK are discussed.
- Please note:
You can find additional information in Appendix 3 of this course material.

What you can find on SDN: People like you...

Address: <https://www.sdn.sap.com/irj/sdn/forum?forumID=56>

SAP COMMUNITY NETWORK
Welcome Frank Moebius

SDN Community | BPX Community | Forums | Wiki | Blogs | Articles | Downloads | eLearning | Events | Premium Access Zone | Subscriptions

Search: All

Advanced Search

- Business Process Expert
- Enterprise SOA
- SAP Solutions
- Industry Solutions
- SAP NetWeaver
- Database and OS Platforms
- Portal
- Business Intelligence
- Application Server
- ABAP Development
- SAP Business One
- Emerging Technologies
- Scripting Languages
- Integration and Certification Center
- Community Discussions
- Moderators
- Community Guidelines
- Contributors Corner

Expert Forums > SAP Business One > SAP Business One SDK

Forum: SAP Business One SDK

If you're using the SAP Business One SDK to develop applications for SAP Business One, this is your discussion forum. Here you can post your questions, solutions, and ideas as well as collaborate with your peers on technical topics relating to SAP Business One. [\[Wiki:FAQ\]](#)

Welcome, **Frank Moebius**

- Your Control Panel
- Your Reward Points
- Your Questions

Search Forum:

Top 3 Contributors, last 30 days: 1. Owen Slater (172); 2. Ad Kerremans (170); 3. Suresh Gupta (66) [Complete List >](#)

[Post New Thread](#) [Watch Forum](#) [Mark All Threads as Read](#) [Back to Forum List](#)

Messages: 44,288 - Threads: 11,759 - Filter: [All Threads](#) - Pages: 471 - [1 2 3 4 5 | Next]

Thread	Author	Views	Replies	Last Post
Please use the SBO_SP_TransactionNotification correctly	Rasmus Jensen	312	2	Sep 7, 2007 3:32 PM by: Rasmus Jensen >
Important Note on B1 7.0 SP152	Trinidad Martinez	422	1	Sep 4, 2007 5:49 PM by: Sébastien Danober >
SAP Business One 2007 A... is in Ramp Up!	Trinidad Martinez	2,354	10	Aug 30, 2007 11:26 AM by: Frank Moebius >
Welcome and Rules of Engagement	Craig Cmeihil	2,357	0	Nov 15, 2006 6:05 PM by: Frank Moebius >
DI API doesn't validate negative stocks	Misael Reséndiz	4	0	Sep 29, 2007 5:03 PM by: Misael Reséndiz >
Using PHP to access the SAP Business One DI API	Martin Ivens	1	0	Sep 29, 2007 4:36 PM by: Martin Ivens >
Null record storing while save	Venkatesan Govi...	10	2	Sep 29, 2007 2:25 PM by: suresh guru >
Adding New Row in Matrix Using RightClick Menu	ani nazir	8	1	Sep 29, 2007 2:13 PM by: Frank Moebius >

What you can find on SDN: Technical information...

The screenshot shows the SAP Business One FAQ page on the SDN website. The page is titled "Business One FAQ" and includes a search bar, navigation links, and a list of frequently asked questions. A large white box with a black border is overlaid on the page, containing the text: "Developer Area - includes: Links to tools, articles, FAQ etc".

Address: <https://www.sdn.sap.com/irj/sdn/wiki/path=/display/B1/FAQ>

Business One FAQ

Added by [Matti Hietala](#), last edited by [Frank Meibius](#) on Sep 17, 2007 (User: [chassa](#))

Labels: [B1_Faq_EDIT](#)

Frequently Asked Questions

This is the SAP Business One - SDK FAQ. Feel free to contribute. To add new entries or (alpha order recommended by SDN team; 1: SDK) case!

Consultant / Implementation

- [Add-On Setup](#)
- [Database Issues](#)
- [Historic BI data](#)
- [Licenses](#)
- [SBO Mailer](#)

UI API

- [UI General](#)
- [UI User defined Fields/Tables](#)
- [UI Forms](#)
- [UI Matrix or Grid](#)
- [UI other Items](#)
- [UI Issues](#)

DI API

- [Memory consumption](#)
- [Other Issues](#)

DI Server

- [Getting Started blog](#)

UDO

- [UDO Tutorial](#)

Search

Advanced Search

Getting Started

- [SAP Newsletter](#)
- [Platform and Operations](#)
- [Security](#)
- [Portal](#)
- [Knowledge Management](#)
- [Business Intelligence](#)
- [Process Integration](#)
- [Application Server](#)
- [Mobile](#)
- [Master Data Management](#)
- [Composition Engine](#)
- [IT Practices](#)
- [Events](#)

Important note on SAP Business One

As a result of the change to using wrong code practices on any object will fail 2. If you add an object added is the last one).

04 Sep 2007

Turbo Command Host

As a result of the change to using wrong code practices on any object will fail 2. If you add an object added is the last one).

04 Sep 2007

A is Now in Ramp

As a result of the change to using wrong code practices on any object will fail 2. If you add an object added is the last one).

05 Apr 2007

Business One Knowledge Center

Getting Started

Key Topics

- [SAP Business One and SDK General](#)
- [SAP Business One SDK](#)

Related Areas

- [SAP Integration and Certification Center](#)

SAP NEWSLETTER SUBSCRIPTIONS ARE HERE! Buy Yours Today

SAP ORGANIZATIONAL CHANGE MANAGEMENT TOOLKIT Check it out today!

Register Now. It's Free!

Join SDN or the BPC Community for access to exclusive content. If you're already a member of one community, simply add your profile to include the other. Please remember to save your changes.

SAP Business One Podcast Survey

Tell us what you think of Podcasts for educational purposes. Participating is anonymous and only takes about five minutes. [Take a look!](#)

Articles

- [Recent SAP Business One articles](#)
- [All SAP Business One articles](#)

Code Samples

- [SDK Code Samples](#)

What you can find on SDN: Development tools

The image displays four screenshots of SAP development tools, each with a large diagonal watermark:

- B1 DB Browser:** A screenshot of a database browser window showing a table with columns: Name, Description, Type, Len, Length, Null, Values, and DChange.
- B1 Test Composer:** A screenshot of a test script editor showing a list of test steps with columns: Line, Text, and a 'Compare' column.
- B1 Form Checker:** A screenshot of a tool window displaying a list of checks and errors for a form, with columns for Check, Gravity, Where, and Info.
- B1 Code Generator:** A screenshot of a code generation dialog box with various input fields and options.

Introducing SAP Business One SDK: Topic Summary



You should now be able to:

- Describe purpose and components of the SDK
- Explain SDK packages and licenses shortly
- Tell where to find further information or seek help
- Use test tools available on the SAP Community Network

Introduction: Unit Overview Diagram

Introduction

Topic 1: Introducing SAP Business One SDK

Topic 2: Introducing Data Interface API

Topic 3: Introducing User Interface API

Topic 4: SAP Business One integration framework

Topic 5: SAP Business One on SAP HANA

Topic 6: SAP Business One Mobile

Topic 7: SAP Business One Cloud

Introducing Data Interface API (DI API): Topic Objectives



After completing this topic, you will be able to:

- Explain what DI API is high-level
- Tell how DI API is used
- Know about DI Server
- Explain the User-Defined Objects concept high-level

SAP Business One SDK – Data Interface API / DI Server

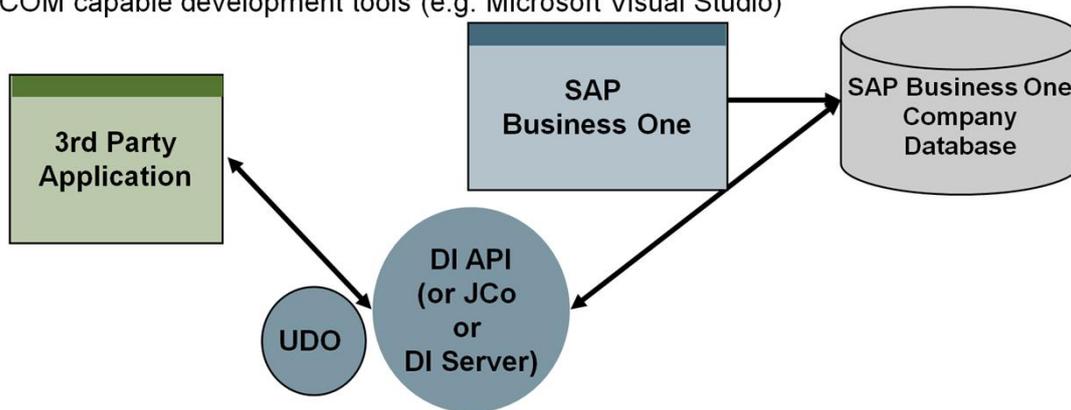
Provides objects and methods (add, update etc.) to work on data level – installing the SAP Business One client application is not required

Provides access to business objects (e.g. master data and transactional data) and cross functionalities (services)

Performs the same checks as the SAP Business One client application

Links existing third-party solutions “as-is”

Use COM capable development tools (e.g. Microsoft Visual Studio)



- DI API is meant to be used by partners only!
- To use the DI API, you must either use a development environment and programming language that support Microsoft COM (component object model) technology and is released by SAP.
- Alternatively – just using JavaConnector (JCo) – you can use a Java development environment like Eclipse
- The following development environments are released by SAP:
 - Microsoft Visual Basic .NET (or Microsoft Visual Studio 6.0)
 - Microsoft Visual C++ .NET (or Microsoft Visual Studio 6.0 for C++)
 - Microsoft C# .NET
- Other development environments supporting COM technology might work but SAP does not provide support for them. See SAP Note 615987 for a complete list of development environments released by SAP.
- Note: SDK does not contain a development environment or source code editors. This is to give you the flexibility to choose the environment you prefer.
- Supported platforms: <https://websmp209.sap-ag.de/~sapidb/011000358700001241092005/>
- Note: SAP highly recommends that you install the latest Support Packages for the supported platforms. See SAP Note 628155 for a complete overview of supported platforms.
- The UDO feature is supported by DI API as far as meta data are concerned.

Data Interface API – Use cases

There are a couple of scenarios where Data Interface API is engaged:

- Data level integration of existing applications:
 - Easily read or write data from / to SAP Business One – when needed
- Data Import / Export scenarios – which are not covered through SAP tools – and where the capabilities of the SAP Business One application are not sufficient.
 - Depending on the architecture of the overall solution you might consider to use DI Server though.
- Handling data in an Add-On that uses UI API (see next unit) beyond UI API 's capabilities.
 - Essentially writing data to the SAP Business One database by default requires usage of DI API
 - Even though other techniques may be faster when it comes to reading data from the database – usage of DI API is often a good choice regarding usability (no need to request additional credentials etc) and data coherence (imagine that the required data might be stored in various tables).

- Sometimes partners ask for: an option to integrate SAP Business One „screens“ into their applications; such functionality is unfortunately not available...

SAP Business One SDK – Special: DI Server

The DI Server is designed to run on a server machine and supplies a light-weight SOAP-based access layer

- Based on the DI API technology but acts as a “Server” (as a service)
- Supports all business objects that are exposed by the DI API
- Enables to develop SOAP-based solutions
- Potential Solution to heavy duty operations (e.g. batch)
- Can support larger number of clients working at the same time.

The DI Server implements a connection pooling mechanism to enhance performance and scalability of the server.

As DI Server is a SOAP-based interface it does not limit the client to a COM interface, but allows a wide range of possible client technologies.

Limitations:

Meta data operations not supported

Different support for transaction handling than plain DI API

- DI Server uses the same XML format as DI API – just wrapped in a SOAP „envelope“.
- In addition it gets a SOAP response.
- Check-out the DI Server helpfile for more details!

SAP Business One SDK – User Defined Object (UDO)

The User Defined Object offers partners the ability to:

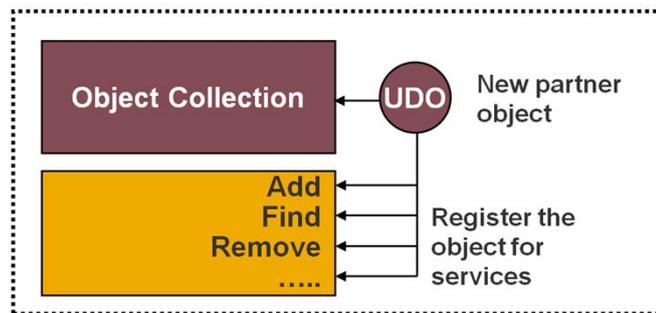
- Add own Business Objects to the application's object collection.
- Use the set of services that the application offers, such as:

Connect a Form to the Object; use Find, Add, and Update modes and other predefined services.

- Optionally the predefined behavior of the services can be modified and extended through implementing a class that inherits (C++) from a business object base class in a DLL and overriding virtual methods.

SAP Business One supports two types of main Objects:

- Master Data Object
- Document Object



- The SAP Business One architecture now allows to add own Business Objects for your own purposes to the applications object collection.
- As a consequence you can register your objects to participate in some most important functionalities („Services“) offered by the SAP Business One application as stated above. Thus you don't have to reimplement the functionality in your application needed for supplying the Search function or adding data to the database (with some preconditions).
- A lot more details will be covered in the unit dedicated to the User Defined Object feature.
- We would like to emphasize that this already brings a lot of benefit to you – even without using the Implementation DLL feature!

Introducing Data Interface API (DI API): Topic Summary



You should now be able to:

- Explain what DI API is high-level
- Tell how DI API is used
- Know about DI Server
- Explain the User-Defined Objects concept high-level

Introduction: Unit Overview Diagram

Introduction

Topic 1: Introducing SAP Business One SDK

Topic 2: Introducing Data Interface API

Topic 3: Introducing User Interface API

Topic 4: SAP Business One integration framework

Topic 5: SAP Business One on SAP HANA

Topic 6: SAP Business One Mobile

Topic 7: SAP Business One Cloud

Introducing User Interface API (UI API): Topic Objectives



After completing this topic, you will be able to:

- Explain what UI API is high-level
- Tell how UI API is used

SAP Business One SDK – User Interface API

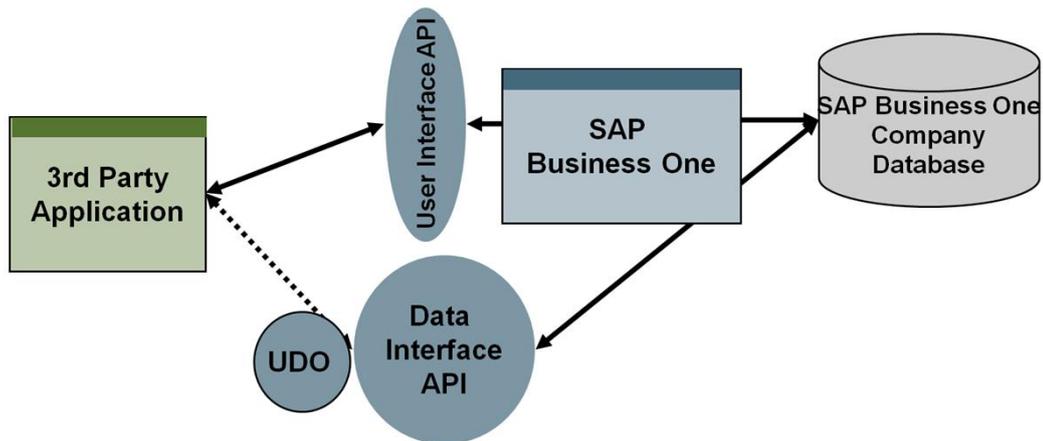
Provides objects and methods to access screen objects of the User Interface

Provides access to internal system events of the user interface

Provides ability to modify or add menus, windows, or fields

Provides one integrated user interface

Use COM capable development tools (Microsoft Visual ...)



- To use UI API, you must either use a development environment and programming language that support Microsoft COM (component object model) technology and is released by SAP.
- UI API has no Java libraries
- Often you also use DI API and UI API in the same Add-On / 3rd party application
- The UDO feature is supported by UI API
- The following development environments are released by SAP:
 - Microsoft Visual Studio 6.0 for Visual Basic (VB) and Microsoft Visual Basic .NET
 - Microsoft Visual Studio 6.0 for C or C++ and Microsoft Visual C++ .NET
 - Microsoft C# .NET
- Other development environments supporting COM technology might work but SAP does not provide support for them. See SAP Note 615987 for a complete list of development environments released by SAP.
- Note: SDK does not contain a development environment or source code editors. This is to give you the flexibility to choose the environment you prefer.

User Interface API – Use Cases

User Interface API is usually used to:

- Reach a „seamless“ integration of additional functionality with SAP Business One (usually requested by customers)
 - ...including hooking on SAP Business One standard processes
 - ...including adding own GUI elements into SAP Business One standard forms
 - ...including adding own forms and plugging the corresponding data behind
- Manipulate SAP Business One standard functionality (when standard options do not apply to the customer 's processes (or the branch the customer works in))
 - ...including hiding SAP Business One GUI elements
 - ...including blocking SAP Business One events

Introducing User Interface API (UI API): Topic Summary



You should now be able to:

- Explain what UI API is high-level
- Tell how UI API is used

Introduction: Unit Overview Diagram

Introduction

Topic 1: Introducing SAP Business One SDK

Topic 2: Introducing Data Interface API

Topic 3: Introducing User Interface API

Topic 4: SAP Business One integration framework

Topic 5: SAP Business One on SAP HANA

Topic 6: SAP Business One Mobile

Topic 7: SAP Business One Cloud

Introducing SAP Business One integration Framework: Topic Objectives



After completing this topic, you will be able to:

- Explain the purpose of B1iF
- Out of the Box scenarios included in B1iC
- What are the B1if components and model

SAP Business One Integration



B1i as the platform for integration & collaboration

- Integrates business partners, employees across system environments
- Unifies business processes, and automates operations across the ecosystem



SAP Business One out-of-the-box integration scenarios

Dashboards, mobile, EDI*, BI OnDemand, outsourced payroll, automated request for quotation (RFQ) process, generic interface for Web-based POS solution SAP's CashDesk Plus, Ariba Integration (purchase order and invoice automation)

Subsidiary integration (SAP Business Suite/NetWeaver to SAP Business One)



Various scenarios for master data, sales, purchasing, HQ reporting, and finance



Ecosystem integration

Non-SAP, cloud-based extensions, social networks, collaboration (B2B, B2C), Web shop, Web service

SAP Business One to SAP Business One



Full synchronization, financial consolidation, distributed operations



Network of Solutions Supporting Network of Business and People

B1if Overview

Is not

Is not a Tool.

Is

The strategy for SAP B1 to enable the evolution from a Business Application to a Business Platform.

Main task

Enable SAP B1 to publish/send data to external systems and to allow SAP B1 to consume/access data from external data provider.

B1if: Key Aspects



Operational Efficiency

- Standardized and automated operations
- Full transparency and real-time insight
- Improved collaboration
- Consistent data and tight integration



Fast Implementation

- Easy customization and extensibility
- Structured framework and tools
- Fully aligned with SAP overall technologies (PI, SOA, RFC, ...)



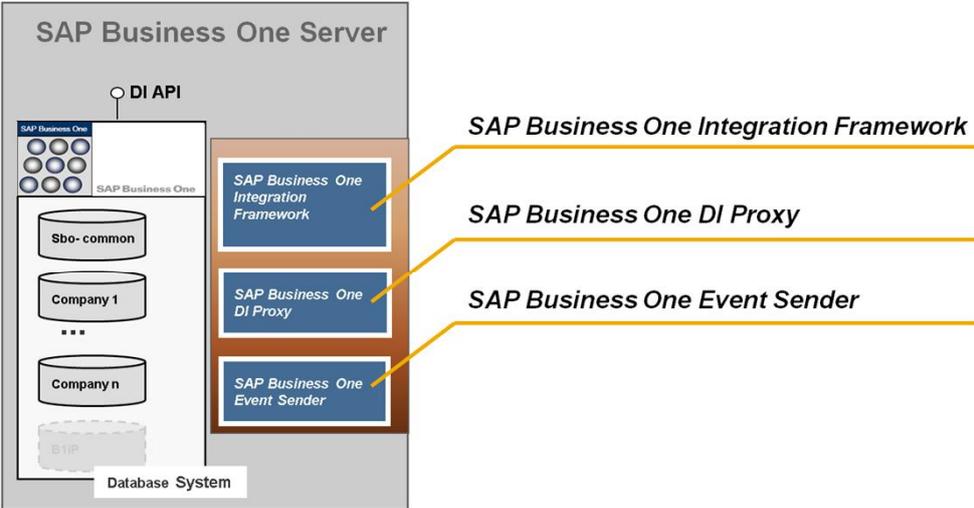
Low TCO

- Lightweight architecture: requires minimal skill set and reduces maintenance (runs on a laptop and has a low processing overhead)
- Investment protection as B1if follows established integration standards (XML, XSLT, HTTP)
- Reduced administrative burden

B1if and B1iSN

	B1iSN (SAP Business One Integration for SAP NetWeaver)	B1if (SAP Business One Integration framework)
Marketing Positioning	Mainly focus on connecting SAP Business One in Subsidiaries to SAP Business Suite in Head Office for Subsidiary Integration.	The integration framework for SAP Business One, connecting to ecosystem for business network integration, such as SAP Business One, Database, File, EDI, ALE/iDoc, Web Services, Http etc...
Availability	Stand-alone product, available since 2005. B1iSN 2007 and 8.8 version.	Officially available in SAP Business One 8.81 since April 2011, as part of SAP Business One
Predefined Scenarios	Subsidiary Integration for SAP Business Suite and SAP Business One eg. <ul style="list-style-type: none"> - Master Data Synchronization - Intercompany Purchasing - Sales Analysis -(B1toBW) - Liquidity Forecast, In-House Cash... 	Mobile Dashboard Datev HR Extended core business functions (eg. Request for quotation, campaign Management)
Development Capability	Four design and run-time tools.	One single and simplified tool, Highly productive design and run-time proprietary environment <ul style="list-style-type: none"> - Simple and straight-forward, easier implementation - Strong Process Modeling and Debugging - Comprehensive Web Services Support - Scenarios developed in B1iSN can be easily migrated to B1if.

B1if Components



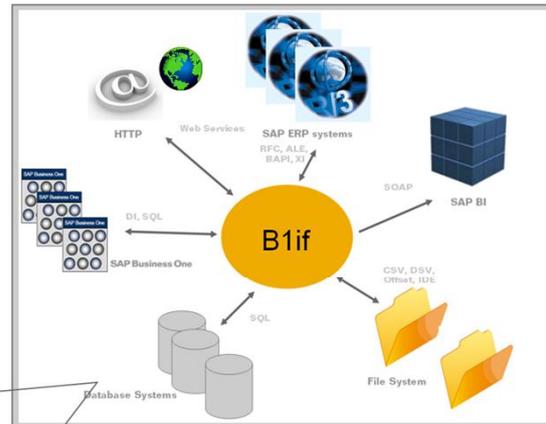
B1if Connectivity Types

B1iSN 2007 provides many of out-of-the-box connectivity types

- SAP Business One (DI, SQL)
- SAP ERP (RFC / ALE/XI-PI)
- SAP NetWeaver BW (RFC / SOAP)
- Database systems (SQL)
- HTTP any
- File (CSV, Offset)
- Web Services (In/Out, Sync/Async)
- FTP

For each connectivity type multiple systems can be set up (many to many)

Connectivity types are represented in B1if via System Types



- BW = Business Warehouse
- Many connectivity types available

B1BC: Intercompany Solution

Small businesses, which use SAP Business One, often consists of more than one legal entity. These groups of companies need to

- Share common business data
- Run standardized and transparent business processes across companies
- Have an overview over operations across the group
- Improve control and collaboration beyond company borders



B1BC

- Enables businesses running SAP Business One to manage intercompany transactions for more than one company.
- Automatically replicates corresponding transactions across multiple company databases. Automating the replication of such transactions significantly reduces the amount of end-user effort and manual rekeying of data to maintain intercompany trading financial statements.

B1BC: Subsidiary & Intercompany integration

SAP Business Suite ↔ SAP Business One

SAP Business One Integration for SAP NetWeaver



Highlights:

- Integrates SAP Business One running in subsidiaries* with SAP Business Suite components in headquarters location
- Data harmonization, financial consolidation, business process standardization, and supply chain optimization
- Pre-configured scenarios and customer-specific content

SAP Business One ↔ SAP Business One

Intercompany Integration Solution for SAP Business One



Highlights:

- Manages intercompany transactions between partner companies, running different SAP Business One installations
- Financial transactions and consolidation across SAP Business One systems, delivered out-of-the-box
- Automated complex business processes

B1BC: tackles these needs

Market Need	Solution Features	Globality	Technology
Data sharing	Master Data Replication	Supported SAP Business One localizations: Australia, Austria, Brazil, Canada, France, Germany, Ireland, Italy, New Zealand, Singapore, South Africa, Spain, Switzerland, UK, USA New in 1.1 Belgium, Chile, China, Costa Rica, Guatemala, Israel, Mexico, Netherlands, Panama, Russia Multi-Currency Transactions in foreign as well as local currencies are supported Cross Localization New in 1.1 Integration and consolidation of subsidiaries which use different country localizations is possible. Bi-directional Text Support New in 1.1 Foundation for Israel localization	Based on the integration framework of SAP Business One
	Service Contract and Customer Equipment Replication		
	UDFs and UDTs Replication		
Standardized business processes across companies	Intercompany Trade		
	G/L Allocations		
	A/P Service Invoice Allocations		
	Centralized Payments		
Overview over operations across the group	Multi-Level Financial Consolidation		
	Intercompany Reports: <ul style="list-style-type: none"> ▪ Branch Inventory in Warehouse Report ▪ Consolidated Balances by Business Partner Report ▪ Consolidated Sales Analysis Report ▪ Branch Balances Report ▪ Un-posted Transaction Report 		
	Remote Query Execution		
Improve control & collaboration beyond company borders	Consolidated Credit Limit Check		
	Intercompany Message Log		
	Business Transaction Notifications (Alerts)		
	Intercompany Workflow		

B1BC: Delivered Components

The intercompany solution scenario package:

This content package runs the intercompany replication using the integration framework of SAP Business One. It is the backbone of the application.

Intercompany Administration Console :

Landscape :

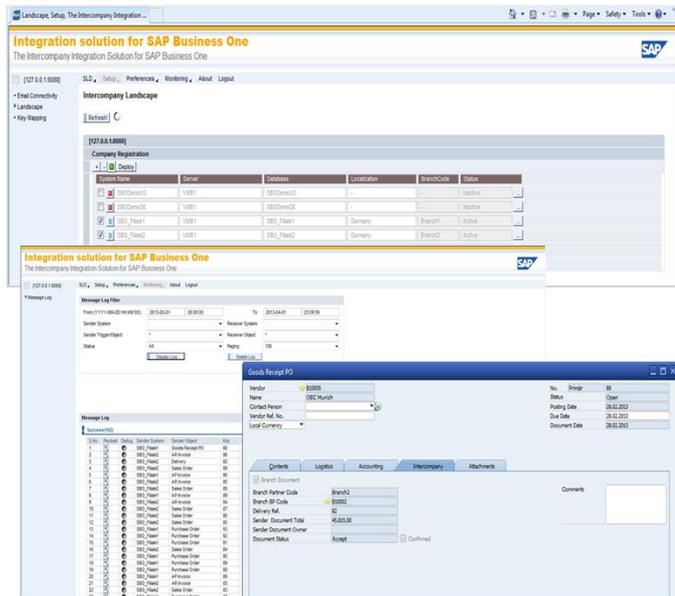
central interface for configuring and managing the intercompany landscape

Message Log :

used for monitoring the replication of data between companies

Intercompany Add-on:

the add-on enhances the SAP Business One screens and functionalities for end users to perform intercompany transactions



Introducing SAP Business One integration Framework: Topic Summary



You should now be able to:

- Explain the purpose of B1iF
- Out of the Box scenarios included in B1iC
- What are the B1iF components and model

Introduction: Unit Overview Diagram

Introduction

Topic 1: Introducing SAP Business One SDK

Topic 2: Introducing Data Interface API

Topic 3: Introducing User Interface API

Topic 4: SAP Business One integration framework

Topic 5: SAP Business One on SAP HANA

Topic 6: SAP Business One Mobile

Topic 7: SAP Business One Cloud

Introducing SAP Business One on SAP HANA: Topic Objectives



After completing this topic, you will be able to:

- Explain the general architecture of SAP Business One analytics powered by SAP HANA
- Explain the general architecture of SAP Business One, version for SAP HANA

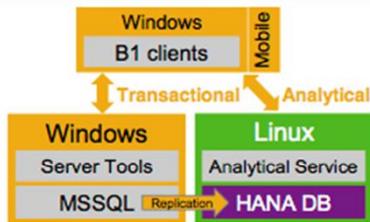
Why SAP Business One on SAP HANA

- As more customers require Business Intelligence (BI), SAP introduced the SAP High-Performance Analytical Appliance (HANA) technology to SAP Business One.
- SAP HANA technology relies on main memory for computer data storage, providing faster and more predictable performance than database management systems that employ a disk storage mechanism.
- You can do the following in SAP Business One, after incorporating the analytical features powered by SAP HANA:
 - Perform enterprise searches based on the SAP HANA database.
 - Access dashboards based on the SAP HANA database.
 - Generate pre-defined and customized Crystal reports based on SAP HANA.
 - Perform Microsoft Excel interactive analysis.
 - Import and deploy customized SAP HANA models.

- After enabling the analytical features powered by SAP HANA, you can do the following in SAP Business One:
 - Perform enterprise searches based on the SAP HANA database using the SAP Business One search function.
 - Access dashboards based on the SAP HANA database. Dashboards based on the original SAP Business One database are no longer available.
 - Generate pre-defined and customized Crystal reports based on the SAP HANA database. Crystal reports based on the original SAP Business One database are still available.
 - Perform Microsoft Excel interactive analysis using the new menu command Interactive Analysis from the SAP Business One client menu.
 - Import and deploy customized SAP HANA models.

Why SAP Business One on SAP HANA

SAP Business One analytics powered by SAP HANA



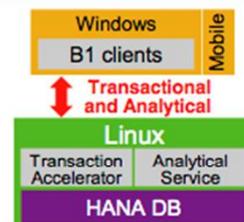
Key features

- Enterprise Search
- Dashboards and analysis
- Ad-hoc interactive reporting

Key benefits

Speed and flexibility with analytics based on an in-memory database side-by-side with a transactional server

SAP Business One, version for SAP HANA



Key features

- Enterprise Search
- Dashboards and analysis
- Ad-hoc interactive reporting
- Pervasive analytics
- Extreme apps (advanced ATP and cash flow forecasting)

Key benefits

Performance and innovation with a transactional system running on an in-memory database on one appliance

- After enabling the analytical features powered by SAP HANA, you can do the following in SAP Business One:
 - Perform enterprise searches based on the SAP HANA database using the SAP Business One search function.
 - Access dashboards based on the SAP HANA database. Dashboards based on the original SAP Business One database are no longer available.
 - Generate pre-defined and customized Crystal reports based on the SAP HANA database. Crystal reports based on the original SAP Business One database are still available.
 - Perform Microsoft Excel interactive analysis using the new menu command Interactive Analysis from the SAP Business One client menu.
 - Import and deploy customized SAP HANA models.

What is SAP Business One analytics powered for SAP HANA

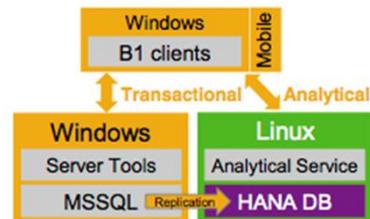
- SAP Business One, analytics powered by SAP HANA provides Analytical capabilities on top of SAP HANA while SAP Business One client/server transactional features are still running in top of Microsoft SQL Server.

Scope

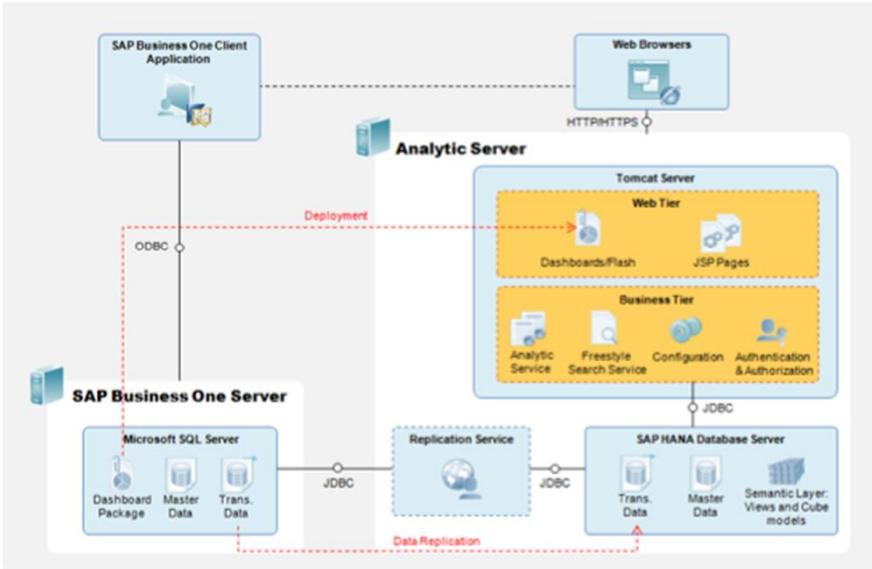
- Analytics offering powered by SAP HANA for the large customer and partner base of SAP Business One on MSSQL
- Key features:
 - Side-by-side real-time data replication
 - Full text Enterprise Search for all business objects and navigation among business objects
 - Selected reports and dashboards acceleration
 - Pre-defined SAP HANA models called semantic layer covering financials, sales, inventory modules
 - Ad-hoc interactive analysis

Key benefits

- Plug-n-Play data warehouse for SAP Business One installed base customers without disruption
- Empower casual users to explore business data
- Real-time analytical insight
- Reduce development barrier and reinforce consistency through pre-defined SAP HANA models



SAP Business One analytics powered by HANA: Architecture



What is SAP Business One, version for SAP HANA

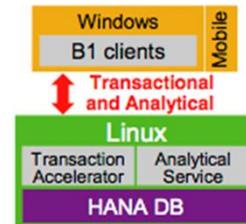
- With SAP Business One, version for SAP HANA SAP Business one is fully running in top of SAP HANA (no Microsoft SQL Server is used anymore).

Scope

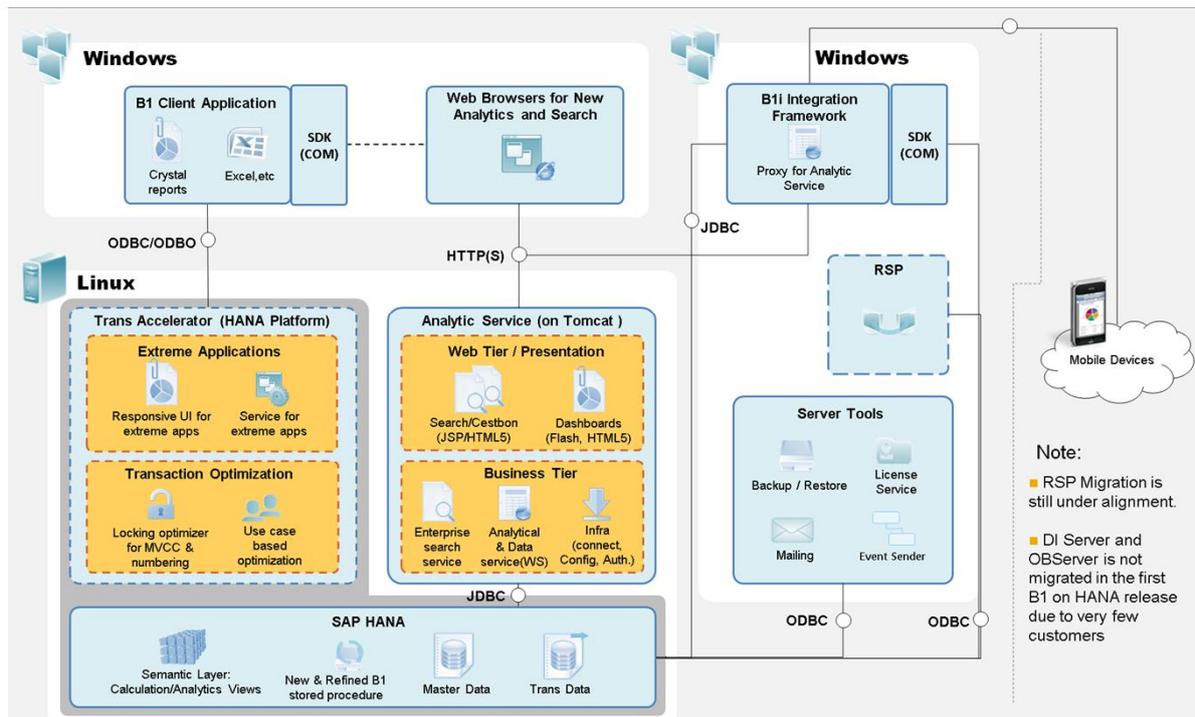
- Offering highly competitive ERP and analytics on SAP HANA to new customers and installed base
- Key features:
 - In an OLTP context, SAP HANA DB behaves like any other existing RDBMS in the stack underneath SAP Business One
 - Selected transactions and reports are optimized for SAP HANA
 - Pervasive analytics (embedded analytics and lightweight dashboard designer)
 - All capabilities of SAP Business One analytics powered by SAP HANA
 - Extreme apps: advanced available-to-promise (ATP) and real-time cash flow forecast
- Enable partner add-on migration from MSSQL to SAP HANA

Key benefits

- Real-time enterprise with the first ERP that combines both OLAP and OLTP in one SAP HANA system
- Faster business insight for improved decision making without leaving the context of business processes
- Tackle previously “unsolvable” problems by introducing two extreme apps powered by SAP HANA
- Unmatched scalability and performance gains as more users access the system concurrently
- Reduced IT ownership costs and simplified landscape by removing the data warehouse



SAP Business One 8.82, version for HANA: Architecture



- This is the main architecture of SAP Business One 8.82, version for SAP HANA.
- On the bottom left of the graphic we see the SAP HANA server on the Linux box. Inside SAP HANA there is one database server holding all company databases and the SBOCOMMON database. The company database stores all business data and transactional data. Customers can create several company databases. SBOCOMMON is the central database that holds system data, SAP Business One, version for SAP HANA version information and upgrade information. SBOCOMMON does not store any business data.
- Also in the Linux box we have the transaction accelerator and the analytic server. The transaction accelerator contains extreme applications and transaction optimization. The Analytic server on the Tomcat Server has the web tier for presentation and the business tier services.
- The SAP Business One client applications are run in the windows environment as before. The connection to the Linux server is by ODBC/OBDO connection. The Tomcat server connects to the web browsers for analytics and search.
- Previously the SAP Business One analytics was separate, now it is embedded in the product. It is installed and combined with the SAP Business One 8.82, version for SAP HANA. Once the analytics installation is complete, you can see the analytics services.
- We also have mobile applications that can connect via the B1i integration framework. Server tools are installed in windows platform and can connect to HANA server. SAP Business One, version for SAP HANA can run on Windows Terminal Services or Citrix Server and can run multiple instances for different sessions. The license server can be on a different computer from the main server.

Introduction: Unit Overview Diagram

Introduction

Topic 1: Introducing SAP Business One SDK

Topic 2: Introducing Data Interface API

Topic 3: Introducing User Interface API

Topic 4: SAP Business One integration framework

Topic 5: SAP Business One on SAP HANA

Topic 6: SAP Business One Mobile

Topic 7: SAP Business One Cloud

SAP Business One Mobile

Scope

- **SAP Business One for iPhone and iPad** covers all important business processes, as well as supports ease in extensibility
- **Software Solution Partners** co-innovate and distribute apps for Industries, business processes or specific technical approaches on various platforms



Key benefits

- Better informed employees with access to the most relevant data
- Managers, executives, sales reps, and service techs stay informed about their business, view reports, manage contacts, and handle sales and service activities
- Real time business decisions anytime, anywhere
- Higher productivity

More information:

[Introduction of SAP Business One for iPhone and iPad \(scope, details, and free trial\)](#)

[SAP Store - Business mobile apps from SAP and partners](#)



Introduction: Unit Overview Diagram

Introduction

Topic 1: Introducing SAP Business One SDK

Topic 2: Introducing Data Interface API

Topic 3: Introducing User Interface API

Topic 4: SAP Business One integration framework

Topic 5: SAP Business One on SAP HANA

Topic 6: SAP Business One Mobile

Topic 7: SAP Business One Cloud

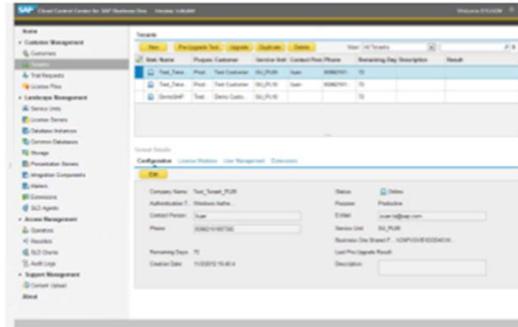
SAP Business One Cloud

Scope

- On-demand consumption of SAP Business One core functions
- Available globally, sold, delivered, and operated exclusively by trusted SAP partners at a competitive price
- An ERP solution operated on-demand by local and certified SAP partners who understand the SE segment

Key benefits

- Easy and affordable consumption
- Certified partners operate the solution
- Additional choice of consumption for customers
- The solution scales according to business needs
- Easy to operate via compelling lifecycle management tools that reduce the TCO for partners



Useful Links

SAP Business One 9.0 Central Information

<http://sappartneredge.com/B1/90>

B1 Innovations

<https://service.sap.com/smb/sbo/innovations>

SAP Business One Integration Capabilities

<http://sappartneredge.com/B1/b1i>

SDN B1if key topic page

<http://scn.sap.com/community/business-one-integration-technology>

SAP Business One on SAP HANA Products

<http://sappartneredge.com/B1/hana>

Introduction: Unit Summary



You should now be able to describe and explain:

- The SAP Business One Software Development Kit
- The components of the SAP Business One Software Development Kit
- How to use SDK in general
- Data Interface API
- User Interface API
- How SAP Add-Ons and applications use SDK
- SAP Business One integration framework
- SAP Business One on HANA
- SAP Business One Mobile
- SAP Business One Cloud