

All About Integration

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Agenda

Introduction

Integration Framework Today

Next Generation Integration Framework

Integration Framework for IoT

General Enhancements



Introduction





What is **integration**?



Baby



Mother (Integration System)



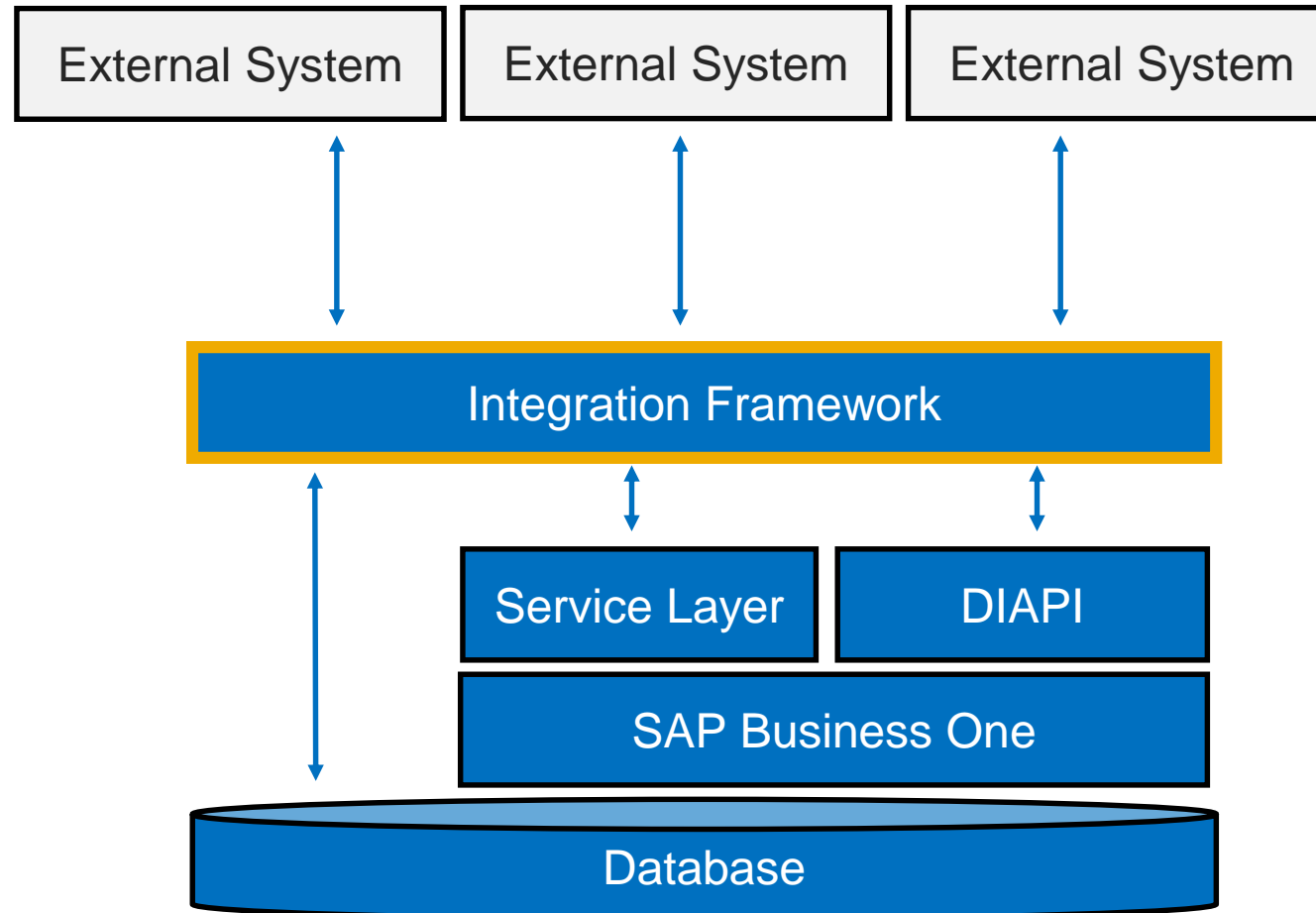
Self-Service Checkout



Doctor



What is the **Integration Framework** for SAP Business One?





Integration Use Cases





Integration Framework **Today**





Integration Framework **Market Penetration**

- First edition released in **2005**
- ~ **33,000** SAP Business One customers using Integration Framework
- Over **300** large accounts for subsidiary integration
- Partners in **124** countries
- openSAP course with over **5,000** registrations



Integration Framework **Technical Snapshot**

Cross-Platform Support

- Windows 64, Linux, Raspbian Linux
- MS SQL Server, MySQL, SAP HANA, Apache Derby
- Cloud Foundry, Docker
- Google Chrome, Internet Explorer, Firefox

Features

- On premise installation in 5 minutes (~ 1.2 GB)
- Docker instance deployed in 20 seconds
- 100% browser-based
- Versioning for software and content
- Easy upgrade and content transport through zip



Integration Content in the SAP Space



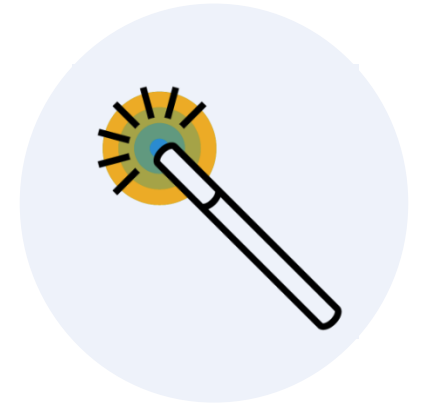


Integration Content **Project Accelerators**

> 90% of integration content is customized

Design **Philosophy:**

- Layer 2 building blocks
- Configure instead of code
- Modular content – code stubs, boilerplate frameworks
- Powerful IDE – modify process flows visually
- Plug-in pre-built modules such as **authentication mechanisms**
- Leverage pre-built **transformation mappings**
 - SAP Business One to SAP Business ByDesign, for example
 - SAP Business One DI API to Service Layer
- Libraries for **XSL templates** and **JavaScript functions**
- Reuse **integration contents** from previous scenarios





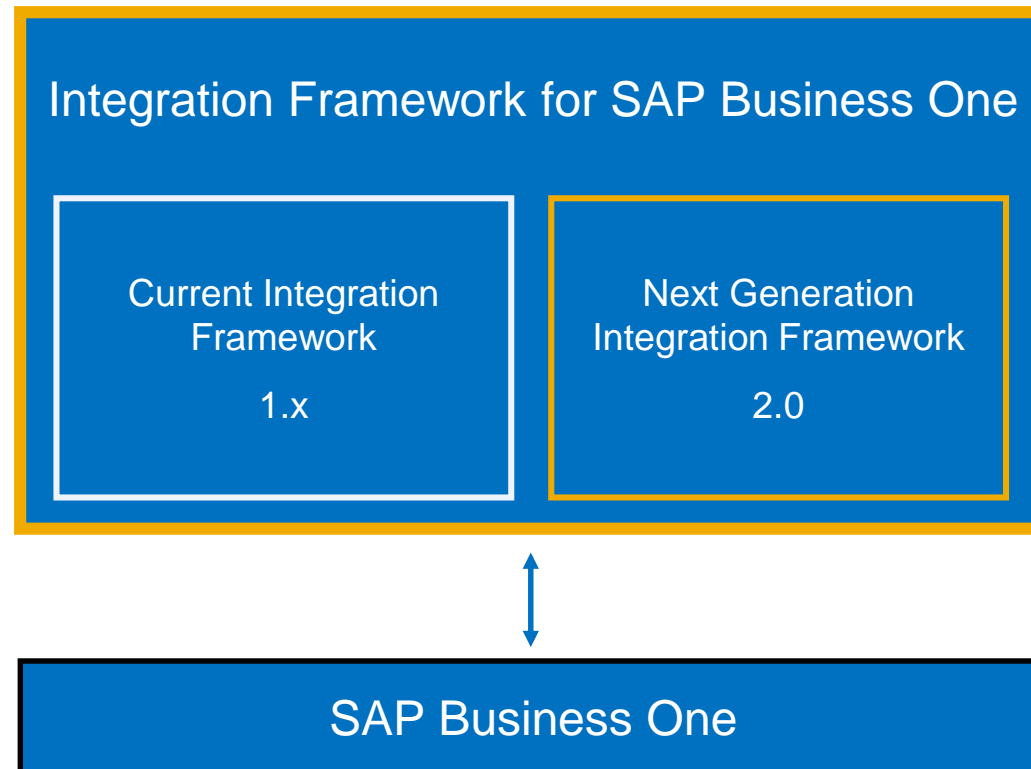
Next Generation Integration Framework





Next Generation Integration Framework

- ✦ Both frameworks installed
- ✦ Frameworks independent
 - ✦ No runtime conflicts
 - ✦ Can run 1.x & 2.x packages simultaneously
- ✦ Current 1.x framework will continue to be supported and maintained





Integration Framework Ready for Cloud

Partners

PaaS Tenant



Partner 1



Partner 2

SaaS Tenants

Customer A



Customer B



Customer C



SaaS Tenants

Customer D



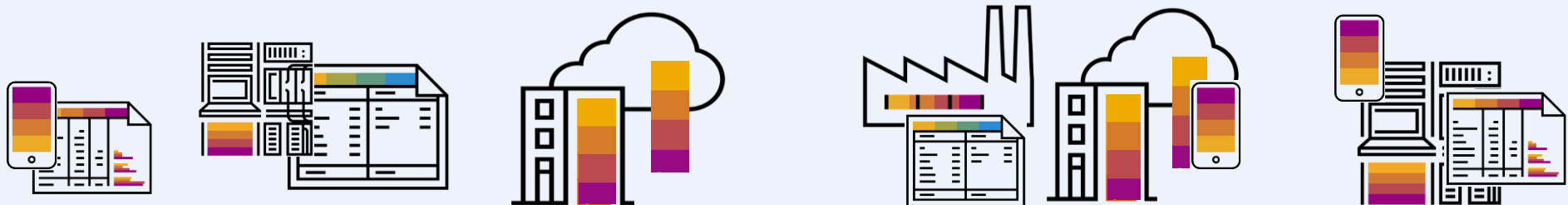
Customer E



SAP Business One
Customers

Integration Framework

Ecosystem





Major Enhancement: Integrated Development Environment

The screenshot displays the SAP Integration Framework Step Modeler interface. On the left is a **Navigation Tree** showing a project structure with packages like 'sap.devTestSuite' and 'sap.B1ifHelper.Tests'. The main workspace is the **Design Area**, which contains a workflow diagram with steps such as 'B1ifHelperIN', 'InitializeB1ifMsg', 'atom1', 'SQLCall', 'atom3', 'Branch Branch1', 'Persist1', 'SQLCall', 'Unbranch', 'atom6', and 'VoidOut'. A toolbar above the design area includes icons for navigation and step management. On the right, the **Details Area with Zoom** provides configuration for the selected 'SQLCall' step, including 'General Step Information', 'Error Handling' (with 'Consider Soft Exceptions' checked), and 'Adapter Call in BizFlow' settings (JDBC, Outbound). A **Notification Area** is visible at the bottom left.

Navigation Tree

Multiple Tabs

Design Elements

Error Handling

Design Area

Details Area with Zoom

Notification Area



Major Enhancement: System Landscape Directory

The screenshot displays the SAP Integration Framework (IF) System Landscape Directory (SLD) interface. The top navigation bar includes 'SLD', 'SETTINGS', 'MONITORING', 'DEVELOPMENT', and 'TOOLS/HELP'. The user is logged in as 'User: B1iadmin' on host '127.0.0.1:8080'. The main area is divided into a left sidebar for 'System Categories' and a main workspace for 'MX-WS-EDICOM'.

System Categories: The left sidebar shows a tree view of system categories, including 'B1i Server', 'Legal Package Systems', 'SAP Business One Systems', 'SAP Systems', and 'Web Services'. The 'B1i Server' category is expanded, showing sub-categories like 'Custom', 'File and', 'File', 'File', 'FTP', 'FTP', 'FTP', 'Settings', 'XML', and 'HTTP'.

Context Menu: A context menu is open over the 'B1i Server' category, listing actions: 'Create Category', 'Create System', 'Import', 'Export', 'SysType Properties', 'Settings', and 'Help'. A blue box labeled 'Context Menu' highlights this menu.

MX-WS-EDICOM System Details: The main workspace displays details for the 'MX-WS-EDICOM' system. It includes a 'Description' field with the value 'HTTP Access Active and Passive', a 'Name' field with 'MX-WS-EDICOM', and an 'ID' field with '001sapMX01'. Below this is a 'Connectivity List (Active)' section for 'HTTA' (HTTP) with a 'Test Connection' button. The connectivity list includes fields for 'destProtocol' (https), 'destHost' (cfdiws.sedeb2b.com), 'destPort' (443), 'destPath' (/EdiwinWS/services/CFDI), 'query', 'proxyHost', 'proxyPort', 'method' (POST), 'authentication' (basic), and 'user'.

Assign Systems with Drag&Drop: A blue box labeled 'Assign Systems with Drag&Drop' is positioned at the bottom of the interface, indicating the capability to assign systems to categories.



Major Enhancement: BizStore UI Editor

Explorer

- vBIU.sap.GetExtensionList
- vBIU.sap.GetExtensionList2
- vBIU.sap.GetHomeExtensionList
- vBIU.sap.GetItemCount
- vBIU.sap.GetItemDetail
- vBIU.sap.GetItemDetail
- vBIU.sap.GetItemDetail
- vBIU.sap.GetItemPicture
- vBIU.sap.GetMessageList
- vBIU.sap.GetMessageListLegacy
- vBIU.sap.GetOpprDetailByld
- vBIU.sap.GetOpprList
- vBIU.sap.GetPermission
- vBIU.sap.GetPermission2
- vBIU.sap.GetPriceList
 - atom0.xml
 - atom2.xml
 - atom4.xml
 - vBIU.bfd
 - vBIU.xml
 - vVar.xml
- vBIU.sap.GetPriceList1
- vBIU.sap.GetPriceListByType
- vBIU.sap.GetPriceListCount
- vBIU.sap.GetPriceListDetails

atom2.xml

```
<?bpc.pltype.out bpm.pltype=xm1?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" xmlns:b1e="urn:com.sap.bli.sim:b1event" xmlns:b1ie="
xmlns:jdbc="urn:com.sap.bli.adapter:jdbcadapter" xmlns:rfc="urn:sap-com:document:sap:rfc:functions" xmlns:sim="u
version="1.0" bfa:force="" vpf:force="" jdbc:force="" rfc:force="" b1e:force="" b1ie:force="" xci:force="" sim:f
<xsl:output method="xml" encoding="UTF-8" indent="yes" />
<xsl:param name="atom" />
<xsl:param name="sessionid" />
<xsl:variable name="msg" select="/vpf:Msg/vpf:Body/vpf:Payload[./@Role='S']" />
<xsl:variable name="vptsDoc" select="document('/com.sap.bli.internal/xml/timestamp')" />
<xsl:variable name="vpts" select="concat($vptsDoc/*/year,'/', $vptsDoc/*/month,'/', $vptsDoc/*/date, ' ', $vptsDoc
<xsl:variable name="vpSender" select="/vpf:Msg/vpf:Header/vpf:Sender/@Id" />
<xsl:variable name="vpObject" select="/vpf:Msg/vpf:Header/vpf:Sender/@ObjId" />
<xsl:variable name="vpReceiver" select="/vpf:Msg/vpf:Header/vpf:ReceiverList/vpf:Receiver[./@handover='P']/@Id"
<xsl:variable name="vpActionCode" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='ActionCode']/@val
<xsl:variable name="vpAddonType" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='AddonType']/@value" />
<xsl:variable name="vpAlertID" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='AlertID']/@value" />
<xsl:variable name="vpAttachmentEntry" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='AttachmentEntry'
Variables/vpf:var[./@id='AttachmentLine']/
Variables/vpf:var[./@id='AttachmentPath']/
s/vpf:var[./@id='bpCode']/@value" />
s/vpf:var[./@id='callID']/@value" />
<xsl:variable name="vpCardCode" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='CardCode']/@value" />
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name="vpContactPerson" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='ContactPerson']/@v
name="vpContractID" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='ContractID']/@value"
name="vpCount" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='Count']/@value" />
name="vpDeviceToken" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='DeviceToken']/@value
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name="vpItemCode" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='ItemCode']/@value" />
name="vpItemCode" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='itemCode']/@value" />
name="vpKeyword" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='Keyword']/@value" />
name="vpListNum" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='listNum']/@value" />
name="vpLogin" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='Login']/@value" />
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name="vpPageIndex" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='PageIndex']/@value" />
name="vpPageSize" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='PageSize']/@value" />
name="vpPageTop" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='PageTop']/@value" />
name="vpServiceCallID" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='ServiceCallID']/@v
name="vpsql" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='sql']/@value" />
name="vptablekeynames" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='tablekeynames']/@v
name="vptablekeyvalues" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='tablekeyvalues']/
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name="vpViewMode" select="/vpf:Msg/vpf:Header/vpf:Variables/vpf:var[./@id='ViewMode']/@value" />
```

BizStore Datasets and Groups with Export Function

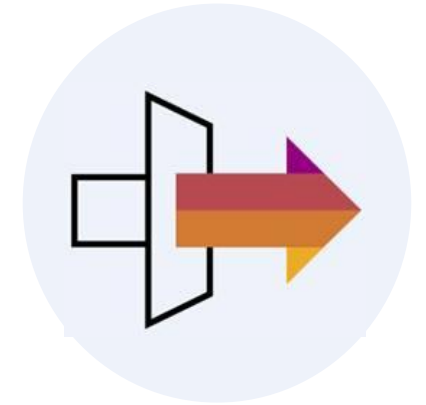
Open and Edit Documents

Drag & Drop Content to BizStore





Next Generation Integration Framework: **Why Migrate?**



Why migrate from current 1.x to Next Gen 2.0 Framework:

- **Cloud Ready** Scenario Packages on PaaS
- Leverage optimized IDE
- Integration Logic **~10x performance** increase

- Migration tools available!



Integration Framework for IoT

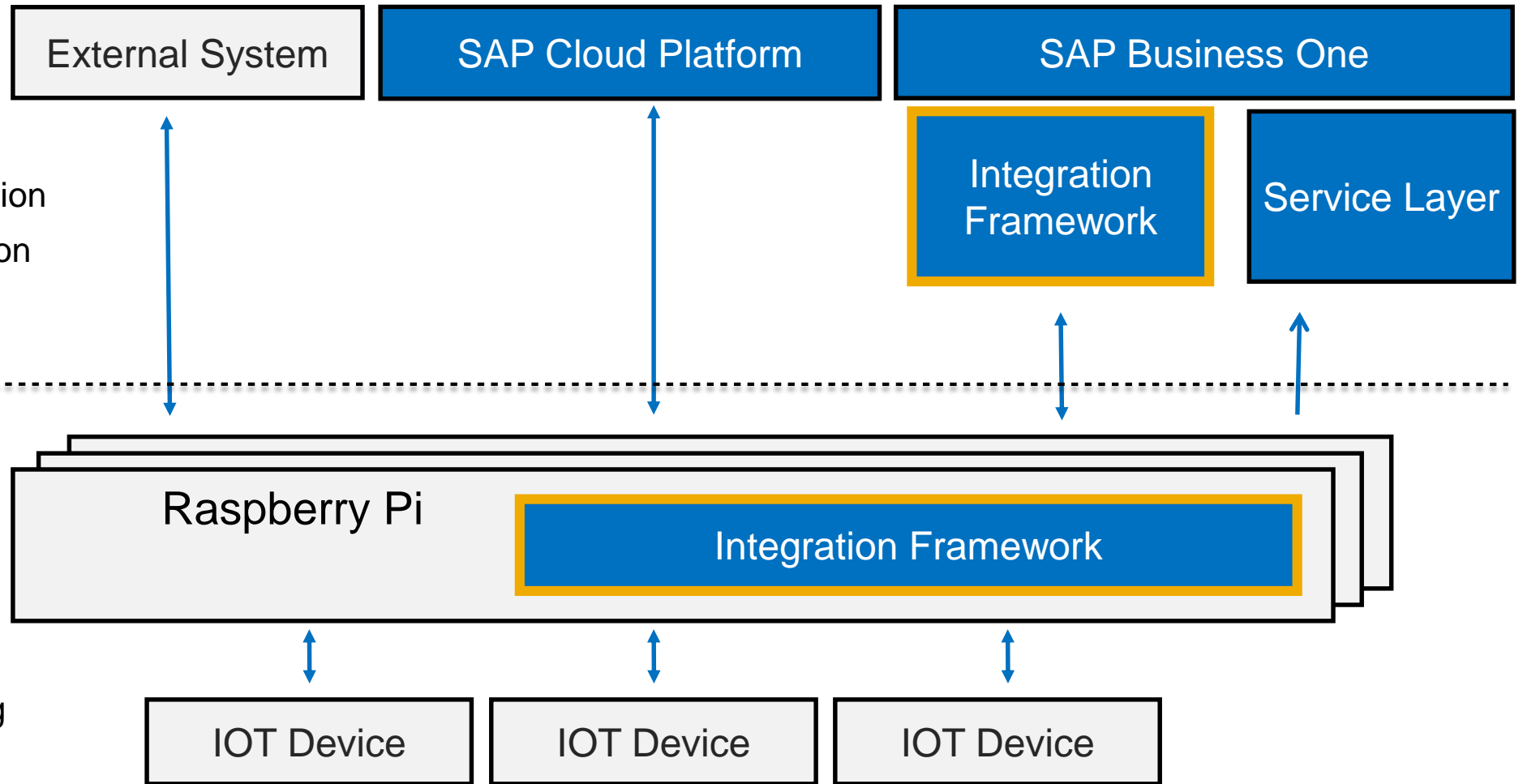




Integration Framework for IoT

Cloud

- ✦ Analytics
- ✦ Production Automation
- ✦ Inventory Control Automation
- ✦ Automated User Notification
- ✦ Exception Handling

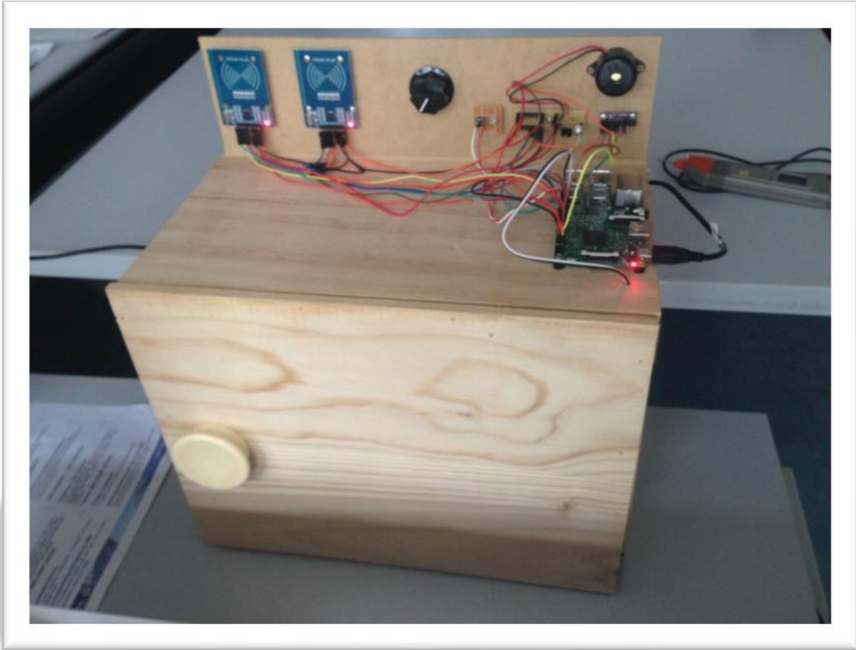


Edge

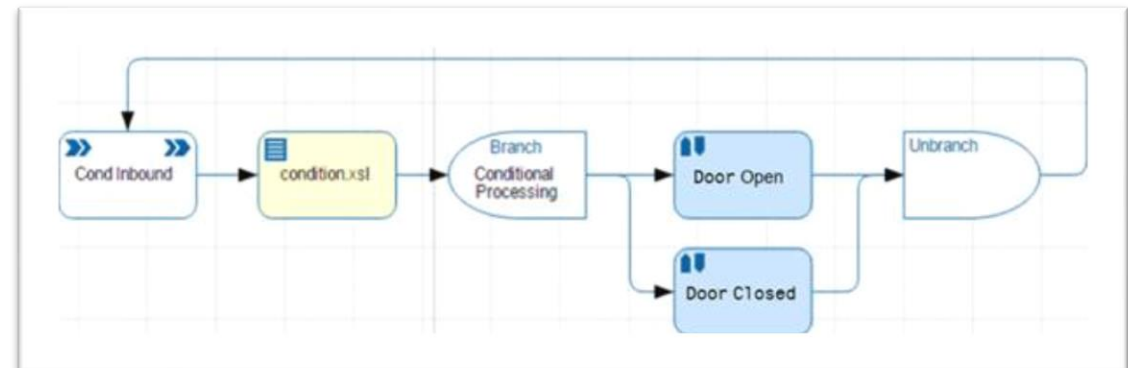
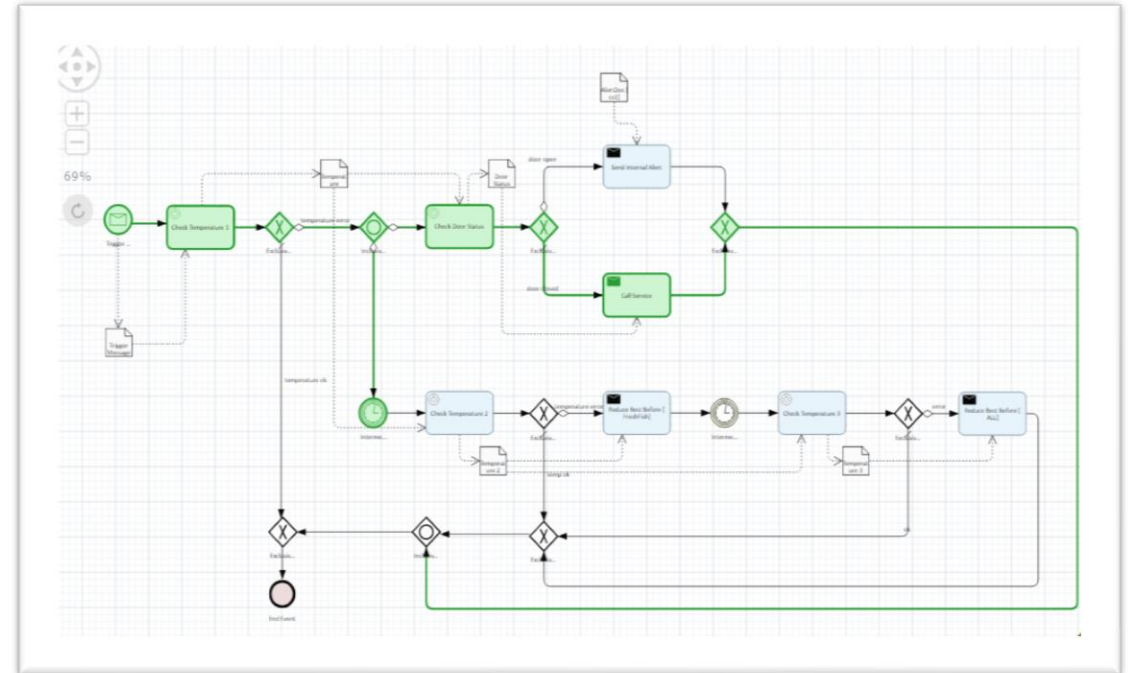
- ✦ Process Logic
- ✦ Data Transformation
- ✦ Data Filtering
- ✦ Offline Cache
- ✦ Data aggregation/batching



Example: Coldstore Demo



- Edge based integration framework processes RFID scans for warehouse events
- Temperature exceptions trigger door check logic. Door open status triggers user notification
- Business process logic calculates new product best before date based on temperature exception event





Example: Factory





General Enhancements





Integration Framework **Enhancements**

Around SAP Business One APIs

- Multiple DI proxy support
- Proxy analysis tool
- SAP Business One DI Single Transaction
- Allowing additional parallel processing
- SAP Business One batch atom with variables support

Around Service Layer

- Service layer inbound, outbound and atom in processing
- Service layer metadata support
- Support for service layer scripts

System Landscape Directory

- System import and export functions
- Usability enhancement, introduce groups, drag& drop *

Development Model for Cloud

- Integrated Development Environment
- Inbuilt multi-tenancy
- Supports smart or freestyle messaging

Miscellaneous

- Metadata generation in call RFC atom
- New atom for copying of large file
- BizStore access from integration framework with drag&drop, delete, etc.*



More Information





Find more information about **integration**

- To learn more, visit the **Integration Deep Dive** session today, Room Hoi An, 15:45-17:30
- SAP PartnerEdge
[Integration Products for SAP Business One](#) (login required)
- openSAP course
[In Action: Integration Framework for SAP Business One](#) (registration required)
- SAP Help Portal
[Integration Framework for SAP Business One](#), [SAP Business One integration for SAP NetWeaver](#)
- Integration framework product documentation in the integration framework
- Integration framework administration is part of the SAP Business One Administrator's Guides



Thank you.

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