

# SAP Point Of Sales Hardware Certification



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**SAP Integration and Certification Center (ICC)**

**SAP Labs Canada, Montreal**



## 1. Introduction

## 2. SAP Integration and Certification Center

## 3. SAP POS

3.1. What is SAP POS?

3.2. SAP POS Suite

3.3. Some key facts

## 4. OPOS

4.1. What is OPOS?

## 5. POS Hardware Certification

5.1 What is Hardware integration certification and scope of certification?

5.2 What can be certified?

5.3 Certification process

5.4 Certification cost

## 6. Certification Benefits

## Srinivas Chintaginjal

- Working in SAP for over 6 years
- Worked in NetWeaver Business Warehouse development
  - Developed Portal based administrator tools to monitor BW Systems in the system landscape
- Worked in Trade Industries – Retail development
  - Developed Retail Analytics
- Working in Integration and Certification Center as Integration Consultant
  - Since October 2008
  - Responsible for certifying POS Hardware, all BW Interfaces, ABAP Add-On, Java deployment



# Agenda



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- Established in 1996
- 15 - 20 consultants worldwide in 5 locations
- > 1850 valid certifications
- > 800 companies
- > 130 defined integration scenarios and additional integration options
- Supports SSPs and all companies interested in joining SAP PartnerEdge



# Integration Certification within the SAP Ecosystem



## Trusted and Relevant Partner Solutions and Services

## Communities of Innovation

### Software Solution Partners

**SAP Certified**  
Integration with SAP Applications

**SAP Certified**  
Powered by SAP NetWeaver

**SAP Certified**  
Integration with SAP NetWeaver

**SAP Certified**  
Integration with BusinessObjects

**SAP Certified**  
Integration via Enterprise Services

### Channel Partners

**SAP Certified**  
SAP Business One Integration

### Business Process Expert Community



### Industry Value Networks

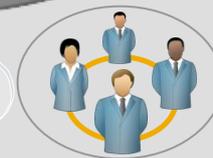


### Technology Partners

### Service Partners



### Technical Communities Diamond, SDN

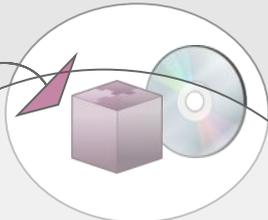


### Enterprise Services Community

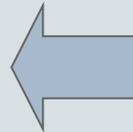


## Communities of Innovation

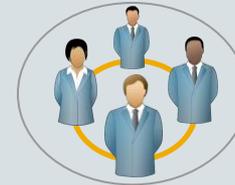
### Software Solution Partners



- SAP Certified**  
Integration with SAP Applications
- SAP Certified**  
Powered by SAP NetWeaver
- SAP Certified**  
Integration with SAP NetWeaver
- SAP Certified**  
Integration with BusinessObjects
- SAP Certified**  
Integration via Enterprise Services



### SDN Documentation



### Integration Consulting and Assessments



### Test System Access

Get the support you need for a successful integration project with SAP solutions

# SAP Integration and Certification Center Services



### Consulting Services

Integration Consulting and Integration Assessment by experienced integration consultants

### Integration Certification

Certification against standard and custom integration scenarios

Online Listing, Logo



### Hosted Test System Access

Hosted test systems of several SAP solutions (ERP, CRM, etc.) for integration testing

### SDN Homepage ICC

Dedicated ICC website on SDN, with integration documentation, forums and blogs to foster information exchange among the ISV technical community



### Expert Access

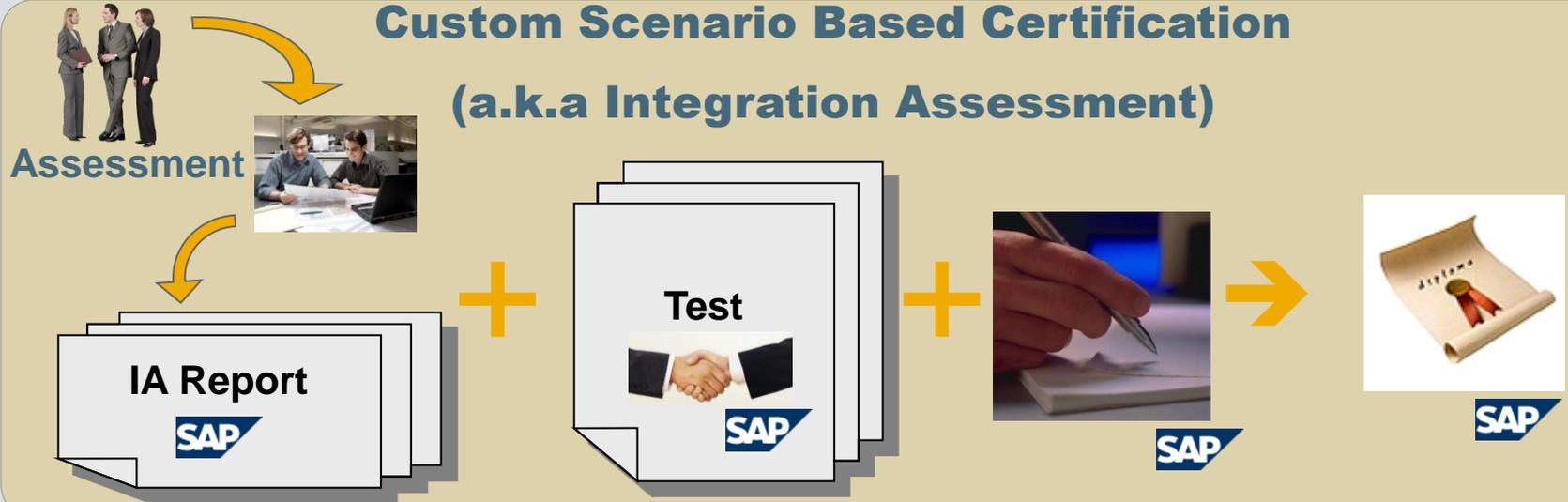
Dedicated project support



## SAP Pre-defined Scenario Based Certifications



## Custom Scenario Based Certification (a.k.a Integration Assessment)





## Accelerated Innovation

Deployed Partner Applications and Content

CE 7.1

SAP NetWeaver

PI 7.1

...

**SAP Certified**  
Powered by SAP NetWeaver

## Continuous Innovation

EHP

EHP

EHP

EHP

EHP

EHP

ERP

CRM

SCM

SAP Business Suite

SRM

PLM

SAP NetWeaver 7.0

EHP

EHP



Integrated Partner Applications

**SAP Certified**  
Integration via Enterprise Services

**SAP Certified**  
Integration with SAP Applications

**SAP Certified**  
Integration with SAP NetWeaver

EHP = Enhancement Packages

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# Introduction

## What is SAP POS?



### What is SAP Point-Of-Sales (POS)?

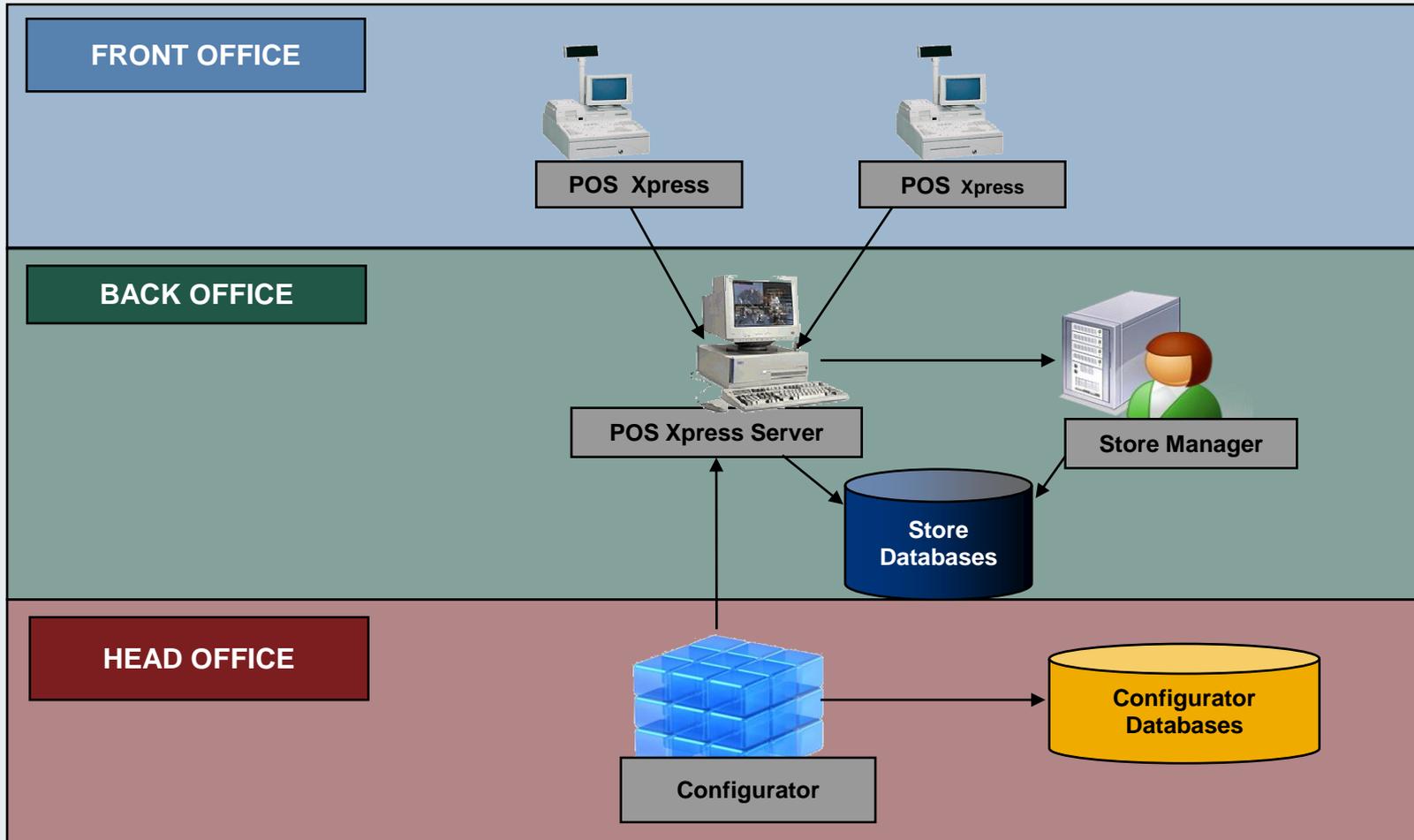
- Designed for general merchandise & multi-format retailers
- Flexible and easy-to-use
- Easily configured for specific business requirements without the need for additional custom development
- Powerful store-level management application that handles in-store and back-office functions such as:
  - Pricing, discounts, promotions
  - Tender types
  - Returns
  - Reporting
  - Time and attendance tracking
  - File maintenance
  - Cash management
  - Label and sign printing
  - Store-level inventory control

# Introduction

## SAP POS Suite



### SAP POS Suite



### Front office

- POS Client known as POS Xpress
  - Advanced point-of-sale transaction processing application, providing low to high volume capabilities
  - Scalable to growing business and evolves to encompass changing technologies
  - Common functions:
    - Scans items
    - Processes payments
    - Check price
    - Handling returns
    - Reporting
      - Daily sales summary at the terminal
    - Loyalty programs
    - Time recording
- Hardware components of POS Xpress (POS Terminal) are main focus of certification



**POS Xpress**

### Back office

#### ■ Xpress Server

- Back-office tool which communicates between the POS Xpress terminals and the databases
- Some functionality of Xpress Server are also in the scope of certification as it relates to the POS hardware



**Xpress Server**



**Store Manager**

### Back office

#### ■ Store Manager

- Administers file maintenance, prices, cash management, reporting, and employee maintenance among many other functions at the store level
- Some functionality of Store Manager are also in the scope of certification as it relates to the POS hardware

### Back office

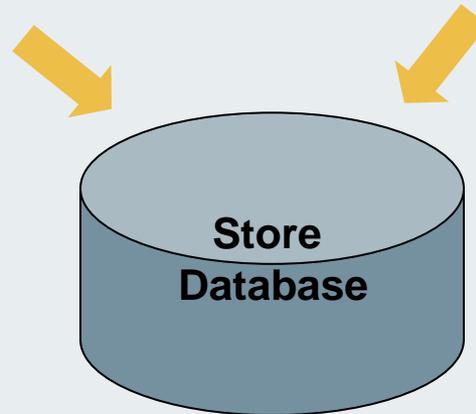
- Store Databases
  - Maintains and saves all the store operations and transactions



**Xpress Server**



**Store Manager**



**Store  
Database**

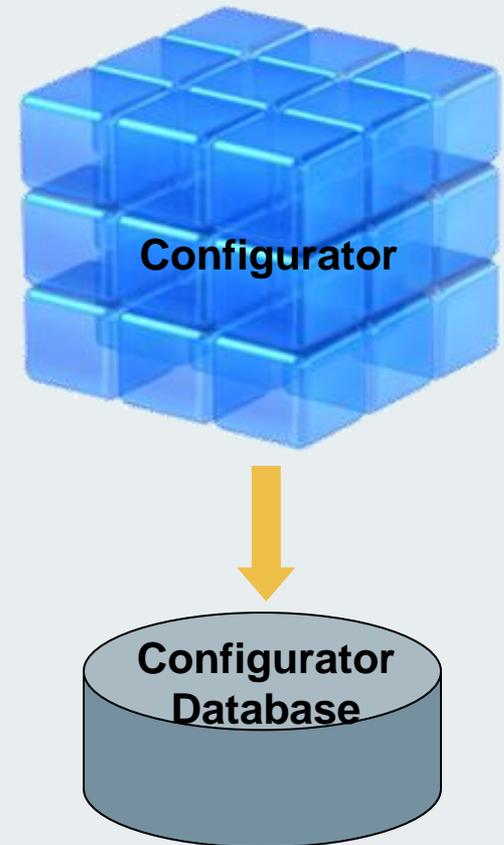
### Head office

#### ■ Configurator

- Powerful parameter definition tool
- Allows for configuration of POS Xpress terminals with business rules
  - Tender and Transaction types
  - Tax settings
  - Promotions
  - Keyboard layouts
  - Terminal menus
  - Cashier prompts
  - Customer records
- Parameters are defined and converted to POS Xpress during regular system polling

#### ■ Configurator Databases

- Maintains and saves configurator data



### Other related SAP POS Components

- Mobile POS
  - Wireless POS device that is used for “line busting” and inventory
  
- Electronic Journal Viewer
  - Journal of the register for the sales day
  
- DBTools
  - Used for upgrading the SAP POS databases
  - Can also be used for purging



### Some key facts

- SAP POS solution is independent of hardware
  - SAP POS can be implemented on any POS hardware, can be integrated with any hardware
  - A POS terminal can have hardware from multiple vendors
    - e.g. IBM Cash drawer, HP POS Receipt Printer, EPSON bar code scanner, Dell MICR etc.
- Uses OPOS for interfacing with POS peripherals
- Integrates with all databases
- Over 265 Customers worldwide



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# OPOS

## What is OPOS?



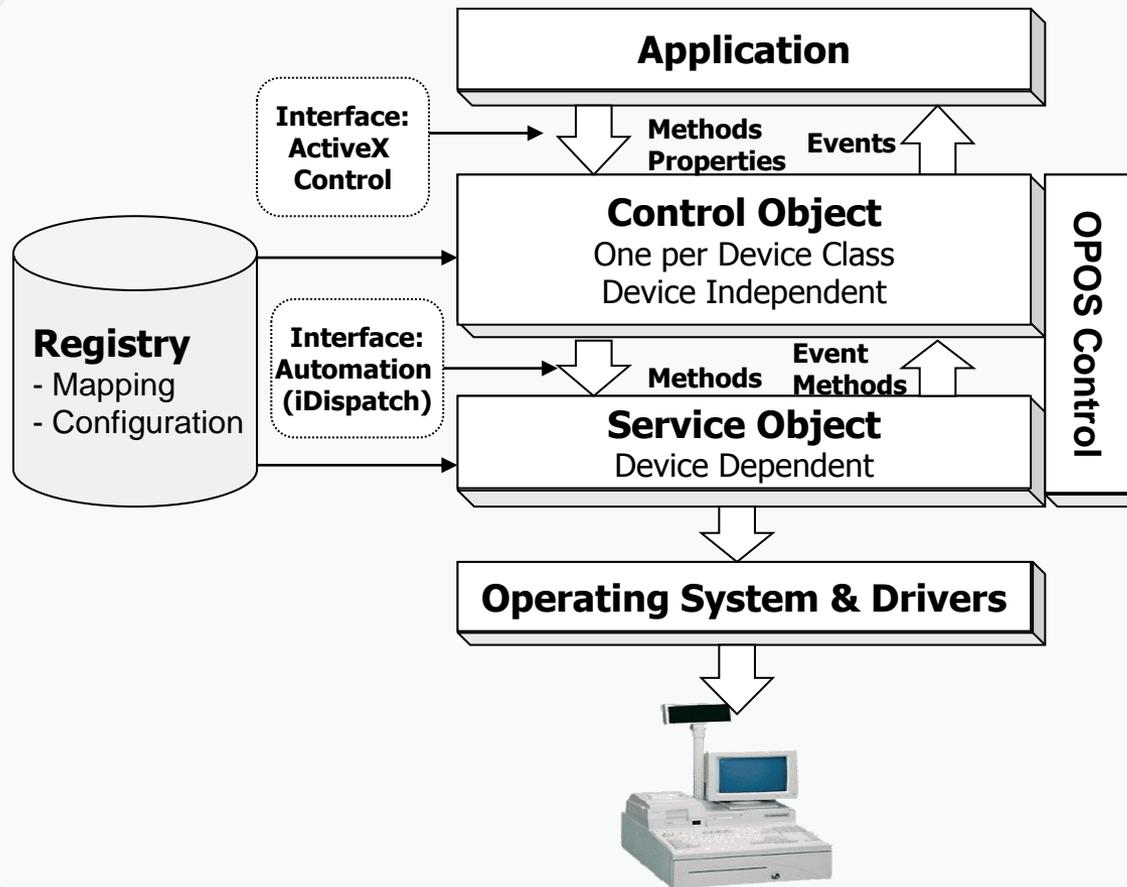
### What is OPOS?

- OPOS = OLE (Object Linking and Embedding) for Point Of Sales
- An architecture for Win32-based POS device access.
- Widely used POS device standard initiated by Microsoft, NCR, Epson, and Fujitsu-ICL to help integrate POS hardware into POS applications for the Microsoft Windows family of operating systems.
- Uses Component Object Model (COM) technology, and thus is language independent
  - OPOS interacts with SAP POS through TMXOPOS.DLL
  - TMXOPOS.DLL holds SAP POS code to communicate with OPOS, so OPOS peripherals work
- TMXOPOS.DLL uses Monroe Control Objects standards
  - Monroe Control Objects commonly referred as Common Control Objects
    - These are set of control objects that support all POS devices
    - Supports event firing logic
    - Backward compatible with all releases of service objects. This means that they check for older service objects, and return the proper errors to the app if it accesses unsupported properties or methods.
    - A set of debug CCOs provides enhanced tracing of method calls, property gets/sets, and event firing

# OPOS

## What is OPOS?

### General OPOS Model





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# POS Hardware Certification

## What is Hardware certification and scope? 1/2



### What is POS Hardware integration certification and scope of certification?

- POS Hardware integration certification program was developed to help SAP POS Customers to identify appropriate hardware.
- Two different flavors of integration certification are possible
  - Entire hardware landscape
    - consisting of cash register, scanners, card reader, display and different components that make a POS terminal
  - Individual hardware
    - Certify only one or more hardware component
    - e.g. certifying only printer or scanner or card reader individually



# POS Hardware Certification

## What is Hardware certification and scope? 2/2



- POS Hardware integration certification is mainly based around the POS Xpress, the Front Office component
- Focus of hardware integration certification is to test the interaction between the (vendor POS) hardware and the (SAP POS) software
- Integration certification tests whether the SAP POS solution can run successfully on Vendor POS hardware components.
- Integration certification focuses on the interaction of the various components with SAP POS application and with other components in the hardware environment
- Integration certification is focused on the functionality of the peripheral rather than the technology of the hardware
- Integration certification is valid for the configuration of the components/peripherals as documented in the associated test report
- Since all test cases relate to user functions, integration certification tests the hardware integration from the user interaction level only, such as: display transaction data, print receipts, read charge cards, scan tags, input commands, etc
- The quality measures (performance, scalability, etc.) are not in the scope this certification

# POS Hardware Certification

## What can be certified?



### What can be certified?

- The Point-of-Sale equipment (commonly referred as hardware) that a customer may use in their system landscape is in the scope of certification
- The following hardware can be certified:
  - Cash Drawer
  - POS Receipt Printer
  - Keyboard
  - Keylock
  - Slip Printer
  - MSR
  - Scanner
  - Line Display
  - Signature Capture
  - MICR
  - Mobile POS/Handheld device
  - Server
  - Video Card
  - Network Card
  - Operator Display
  - Report Printer
  - Modem
  - Terminal
  - Video Card
  - Network Card
- Model or version change of any of the components in a certified POS hardware environment will require a re-certification of the entire hardware environment
- Integration certification will not test video cards, network cards, modems, and other devices at the electronic or functional level.
  - All these component can ONLY be tested when vendor signs up for whole hardware landscape certification, but not individually

### Certification Process

- POS Hardware certification guide is sent to Hardware vendor upon an enquiry
- Signing off certification service offer
- ICC Consultant will be assigned
- Completing Technical Product Profile document
  - List the certifiable hardware components
  - Review the list with ICC Consultant
- Assessment meeting with the vendor
  - Can be face to face or online
  - Educate the vendor on the certification
  - Review of test plans
- Certification
  - Onsite at SAP location
  - Vendor has to ship all the hardware (cables, mouse power supply etc.)
  - Related hardware and programming documentation, including pre-installed software components with appropriate license
  - Vendor shall bear all the shipping expenses!!!
  - Alternatively certification can be completed at vendor site, provided all the travel expenses are paid by the vendor

### Certification Cost

- Vendor can certify the whole hardware landscape
  - Each certificate day cost \$1900 (in Americas and Japan), €1360 (for all other locations)
  - On an average takes about 10 days for entire landscape certification, depending upon the hardware components included in the test
- Vendor can certify only one or more POS Hardware device
  - E.g. Printers, Cash registers
  - Offered at \$5000 (in Americas and Japan), €4000 (for all other locations) for initial certification and 50% discount for subsequent peripheral certification, provided service offers are signed together
  - Cost is for each peripheral
- Cost include testing at SAP facility

### Certification validity

- Valid for 3 years
- Re-certification is possible for a higher version



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## ... to CUSTOMERS

### Enhance Return on Investment

- Reduce integration costs with pre-certified solutions for SAP applications
- Decrease deployment risks for solutions running on SAP NetWeaver with SAP endorsed technologies
- Aim for minimal interruption during software upgrades

### Offer Choice

- of 3rd party solutions which either extend SAP functionality **and/or run on SAP NetWeaver**

### Reduce Downtime

- SAP Solution Manager Ready integration testing
- Regular re-certifications

### Provide Transparency

- New logos clearly document technical integration area

### Accelerate Innovation

- Upgrade to new technologies together with your partners



## ... to PARTNERS and ISVs

### Opportunity for Growth and Participation

- Entry point to participate in **SAP PartnerEdge**
- Faster sales cycles with proven SAP integration

### Marketing Benefits

- Logo
- Online listings
- PR Reviews and basic awareness tools

Join **SAP PartnerEdge** to augment the benefits you can gain from certification



# What Partners and Customers are saying about Integration Certification



## Voice of Partners

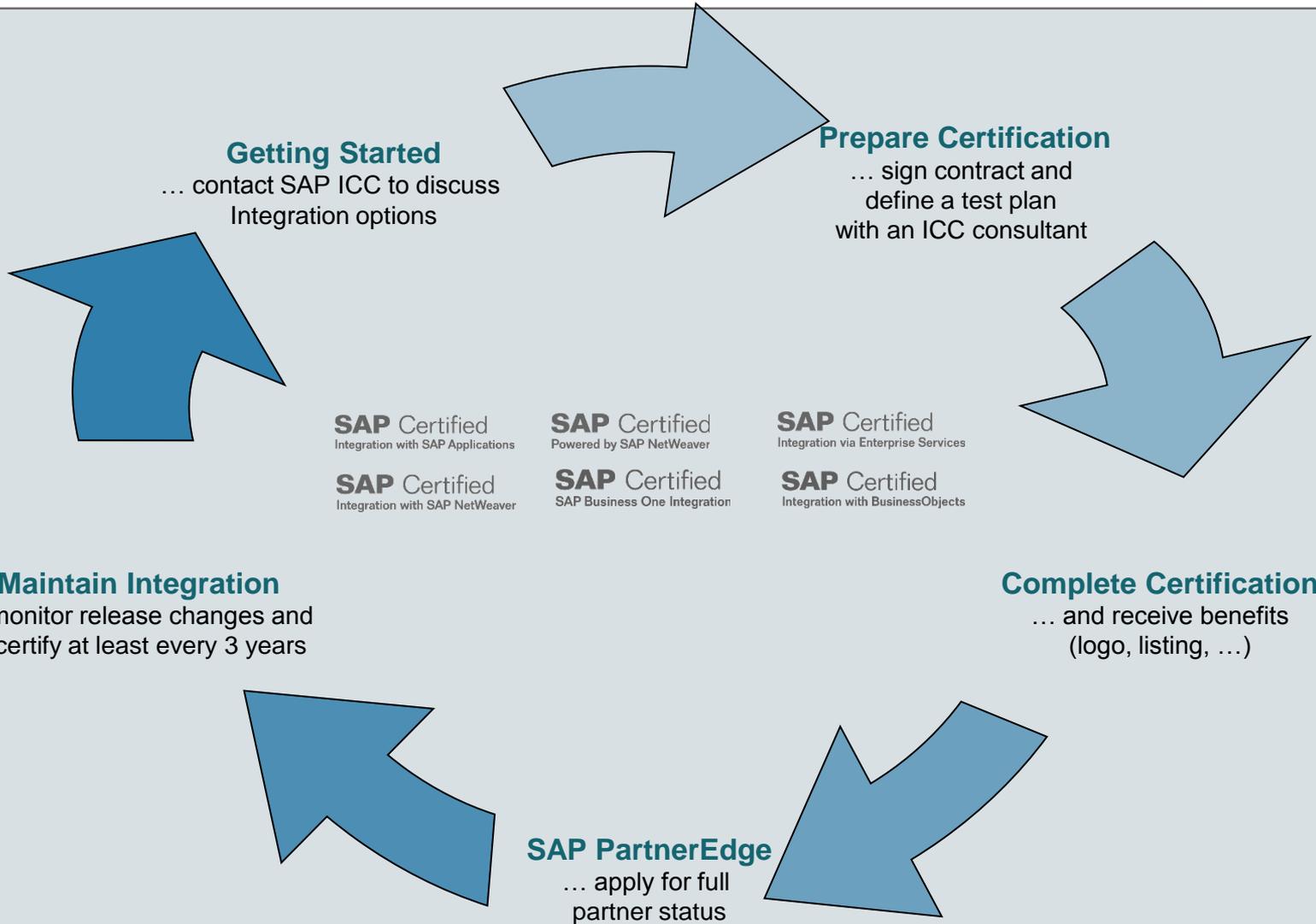
### ■ Reason for certification

- SAP Brand / Affiliation with SAP → 31%
- Customer demand → 24%
- Awareness within SAP customer base / Lead Generation / to target SAP Customers → 23%
- Quality assurance → 22%

## Voice of Customers

### ■ The main advantages customers expect:

- Passed a rigorous SAP evaluation, so integration must be of fine quality and based on SAP-endorsed technologies
- Will work well with SAP solutions, since the solution provider and SAP already resolved integration issues and other problems
- Will match up to and operate with the most recent SAP releases due to regular re-certifications



# POS Hardware Certification

## Certification Benefits

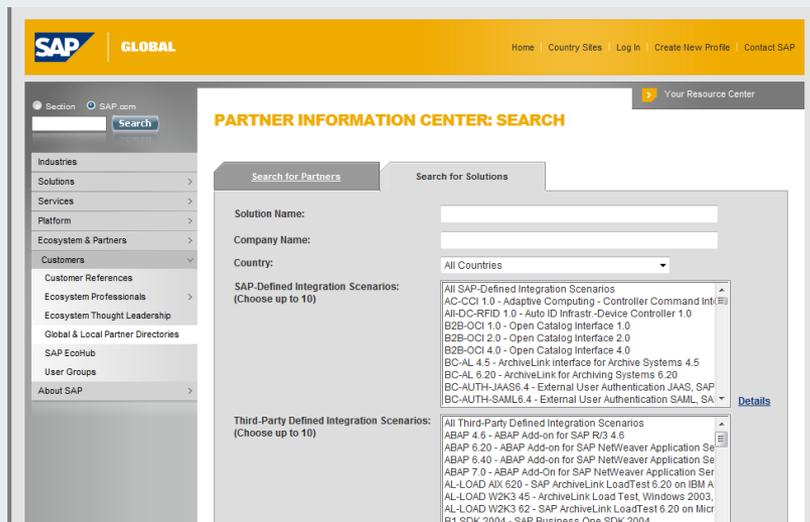


After successful certification

- Hardware vendors receives “SAP Certified - Integration with SAP Applications” logo



- Hardware vendors receives written test report and certificate
  - Test report will detail the test carried out during certification
  - Paper Certificate
- Certification is listed on [SAP Product Information Center](#)





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