

SAP AG



SAP Integration Certification Guide
for
POS-HW

SAP Point-of-Sale – Hardware Certification

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1. Introduction

The purpose of this document is to outline the requirements of the POS Hardware integration certification (POS-HW), for integration of third-party POS hardware and peripherals with SAP POS, and the certification process that POS hardware vendors can follow to obtain certification from the SAP Integration and Certification Center (SAP ICC).

The target audience of this document is executives, architects and developers of POS hardware vendors who intend to develop or have developed a POS hardware environment that can be submitted to SAP for integration certification.

2. Overview

Designed for general merchandise and multi-format retailers, the SAP Point-of-Sale (SAP POS) application is a highly configurable point-of-sale application that includes an easy-to-use business-rules engine. In addition to point-of-sale functionality, the application includes powerful back-office functionality for store-level management and reporting.

SAP POS is a client/server point-of-sale solution and has long defined the standard of excellence in the POS industry. SAP POS meets the needs of a wide variety of retailers, with extensive point-of-sale functionality and flexible definition and management of point-of-sale business rules and processes via a simple, table-driven configuration process. Retailers include department, c-store, liquor, gas, specialty, apparel, big box, and a number of other retail verticals.

The SAP POS application offers unprecedented flexibility that empowers retailers to quickly and easily configure the application, thanks to its powerful, easy-to-use configuration tool and business-rules engine. When the application was first introduced, it pioneered the concept of a configuration tool for point-of-sale software, and today, the business-rules engine contains more than half a million options. Using

the configuration tool, a retailer's IT staff (and even non-technical personnel) can access the business-rules engine to change the software quickly and easily.

SAP POS includes both front-end point-of-sale and back-office functions, as well as a mobile point-of-sale option. The application integrates easily with existing IT infrastructures, thanks to its open platform and operating system architecture.

Figure 1 illustrates the various SAP POS Components:

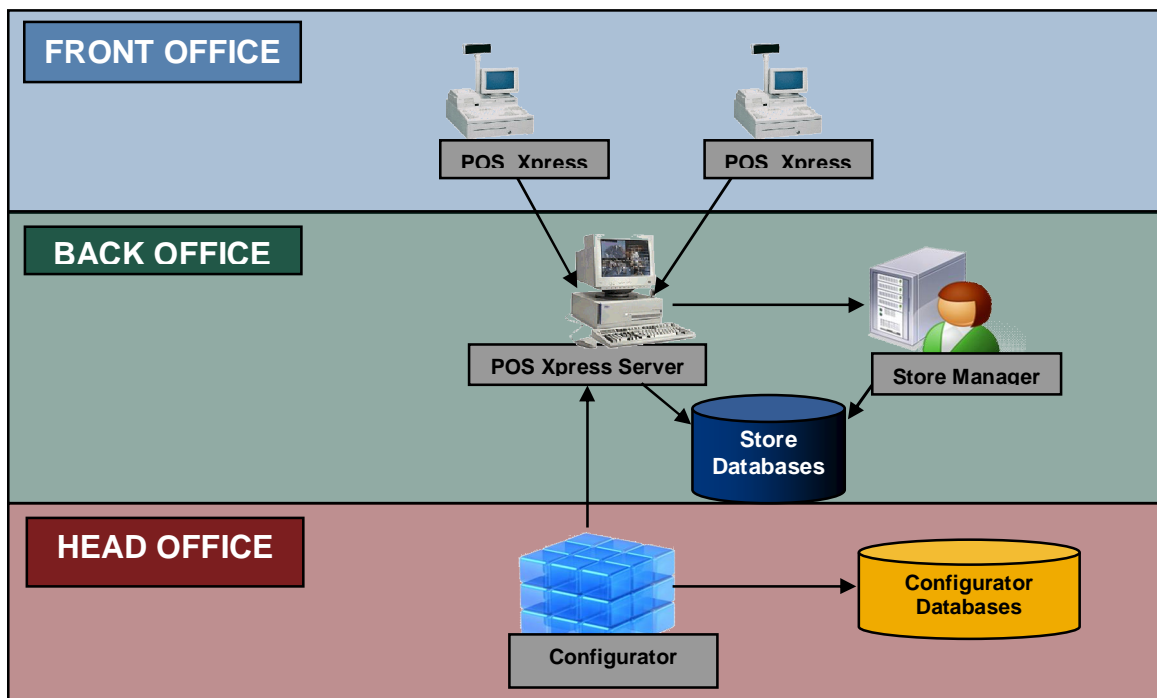


Figure 1. SAP POS Components Diagram

The SAP POS Store Solution Product Suite is composed of what is known as the front office, the back office, and the head office:

- At the Front Office, we have the POS Client which is also known as the POS Xpress.
- The Back Office is made up of an Xpress Server, a Store Manager and all of the store databases.
- At Head Office, the Configurator and its databases are maintained.

The POS Hardware certification is mainly based around the POS Xpress, the Front Office component. The POS Xpress is:

- An 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
 - Manages payroll entries
 - Loyalty programs

The POS Hardware integration certification program involves testing of successful functioning of each part of the hardware with the SAP POS solution, with emphasis on interaction between the (vendor POS) hardware and the (SAP POS) software.

Promoting the vision of an efficient and automated store, SAP has delivered software solutions that enable enterprise level management of retail stores of all sizes. To help customers identify the best of point-of-sale hardware for their SAP POS software, SAP has developed the POS Hardware integration certification program, through which a POS Hardware Vendor may apply for certification of POS hardware from SAP ICC subject to the criteria set forth in this certification guide.

2.1 What Is Being Certified?

The following hardware components, which combined are called as “point-of-sale equipment” in this document, are within the scope of the certification and this guide. These components may include (not the complete list):

- Video Card
- Network Card
- Operator Display
- Report Printer
- POS Receipt Printer
- Keyboard
- Keylock
- Slip Printer
- MSR
- Scanner
- Line Display
- Signature Capture
- Cash Drawer

- MICR

The Point-of-Sale equipment, commonly referred to as hardware, that a customer may use in their system landscape is in the scope of the certification guide.

Sometimes a wireless POS device is also used in retail store operations for “line busting” and inventory. Certification of mobile POS devices is also part of the certification scope under this certification guide.

The certification is not for individual hardware components but for a POS hardware environment comprising of various components. The certification is awarded to a particular combination of these components, represented by their individual model number or release version.

Any 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. SAP reserves the right to perform re-certification as per any criteria it deems appropriate.

2.2 What Does Integration Certification Mean?

During integration certification the SAP ICC tests that the SAP POS solution can function successfully on the POS hardware components.

Integration Certification means that the hardware environment has passed the certification test criteria – broadly outlined in Chapter 4 of this document and detailed in the certification test plan. SAP ICC certifies the hardware from the user interaction level only, since all test cases relate to user functions: display transaction data, print receipts, read charge cards, scan tags, input commands, etc. The scope of the integration certification only covers the interaction of the various components with SAP POS application and with other components in the hardware environment.



The quality measures (performance, scalability, etc.) of the environment are neither measured nor considered in this certification. The functioning of the hardware environment and components (and their internal parts) is not in the certification scope and is not tested. SAP ICC will not test video cards, network cards, modems, and other devices at the electronic or functional level.

Integration Certification is valid only if all the components/peripherals as specified in the certification test report are used as part of the hardware environment.

3. Certification Process

Upon a Vendor's inquiry of integration certification for POS hardware environment, SAP ICC provides this certification guide to the Vendor. The Vendor's hardware should follow the SAP guidelines outlined in this document. Once the Vendor is familiar with the certification guidelines and is ready to start the certification process, he should contact SAP ICC (mailto: icc@sap.com) to formally register for SAP Point-of-Sale – Hardware Integration Certification (POS-HW).

The SAP ICC will provide the “Technical Product Profile Document” requesting the vendor to list all hardware and software components. On receipt of the filled in document, SAP ICC will review the information and send the SAP Point-of-Sale – Hardware Integration Certification (POS-HW) certification contracts.

Once the certification agreement is signed, SAP ICC will assign an Integration Consultant to work on the certification project. The integration consultant will schedule an assessment meeting (face to face or online conference) with the representatives of the vendor. In the assessment meeting, SAP ICC will educate the Vendor about the certification and how the certification process will be carried out. The integration consultant will also provide the certification test case document to the vendor in the same meeting.

The certification test is conducted onsite at SAP ICC facilities at Bangalore India, Walldorf, Germany or Palo Alto, USA. The vendor must ship all hardware (including



all cables, mouse, keyboard, power supplies, as well as test materials such as bar codes, sample credit- or sales- cards etc.), related hardware and programming documentation, including the pre-installed software components (with appropriate license documentation) to the certification facilities. Vendor shall bear all costs related to shipment, customs duties etc. No work will begin until all components are on site. A Vendor representative may or may not be present during the certification test upon Vendor's choice. Alternatively, the certification test can be conducted at a location specified by the Vendor, if agreed to by SAP ICC. In such a case, Vendor shall pay for all travel and subsistence costs for the SAP personnel involved.

The integration consultant will assemble the hardware and ensure that all components are operational. The vendor will be notified of faulty components and arrangements will be made with the vendor to secure replacement parts. The integration consultant will start the certification and notify the vendor of the start date. The integration consultant will provide status updates on a weekly basis to the vendor. The vendor will also be notified of any complications and/or delays throughout the certification process.

The certification will be carried out as per the certification test case document provided to the vendor earlier in the process. A broad guideline on the certification test requirements is also mentioned in section 4 of this certification guide. All software enhancements will be included within the most current release of SAP software and will be delivered to the requester in accordance with the release cycle.

Upon successful completion of the certification test, the POS hardware will achieve "SAP Certified Integration" status, implying in this case that the SAP POS application can function properly on the hardware.

Post-certification, it is the responsibility of the Vendor to take possession of the hardware from SAP at the certification location. SAP will not be responsible for shipment and return of the hardware.

4. Integration Certification Test Criteria

To achieve certification, as part of SAP Point-of-Sale – Hardware Certification scenario, the following basic requirements (details are outlined in the SAP ICC certification test plan) apply to any type of POS hardware environment:

- Successful functioning of the **Xpress Server**: To validate basic functionality of Xpress server like Xpress Server log is created in the specified directory, correct trickle level is written to the Xpress Server Console and Correct Application level information is written to the Xpress Server Console.
- Successful functioning of the **Configurator**: To validate basic functionality of Configurator like add customer database and Download all files to XPS/Parm directory using 'Send Entire File'.
- Successful functioning of the **Store Manager** role: To validate basic functionality of Store Manager like Access Store Manager with valid employee sign-on and password, Verify 'Configurator Parameters', Add new PLU and Add new employee.
- Successful functioning of the **Electronic Journal**: To validate basic functionality of the Electronic Journal like Launch E.J. from Store Manager, Perform Setup and Perform Process.
- Successful functioning of the **POS client**: To validate basic functionality of POS Client like Define Terminal, Open Store, Open Terminal, Sign on to POS, Copy Parm Files, Run Sales Report and Run Tender Report
- Successful functioning of the **Database Tools**: To validate basic functionality of database tools like connect to backoff.db, connect to journal.db and connect to customer's database.
- Successful functioning of the **POS Receipt Printer**: To validate basic printer functionality like printing graphic logo, printing bar code (see test plan for details)
- Successful functioning of the **POS Scanner**: To validate basic scanner functionality, like programming with the appropriate Bar Codes for Cable Configuration and Programming.
- Successful functioning of the MSR (**Magnetic Stripe Reader**): To validate basic MSR functionality, like MSR function with DIAG Menu, MSR in Sale with Visa

- card, MSR in Sale with expired Visa card and MSR in Sale with unknown card type.
- Successful functioning of the **Keyboard**: To validate basic keyboard functionality like Standard Keys respond properly, Key can be mapped to POS function, Key can be mapped to MGR Function, Key can be mapped to Tender Key and Key can be mapped as TOTAL Key.
 - Successful functioning of the **Customer Line Display**: To validate basic Customer Display functionality like Scroll/display default message at SCAN/ENTER ITEM prompt, Display message with regular sale, Display message when terminal is closed and Display message when terminal is opened.
 - Successful functioning of the **Cash Drawer**: To validate basic cash drawer functionality like Cash Drawer locked close message, Cash Drawer locked open message, Cash Drawer unlocked close message and Cash Drawer unlocked open message.
 - Successful functioning of the **POS Slip Printer**: To validate basic slip printing functionality like Validation Slip, Slip Jam Recovery, No Slip, Slip wait (2 Min.) and Alignment correct etc.
 - Successful functioning of the **Keylock**: To validate customer installation and peripheral configuration of POS Device.

Please note above is only an indicative set of test criteria and meant as a guideline only. For details of the test steps and criteria, please refer to the standard SAP test plan provided by SAP ICC. SAP reserves the right to modify the test criteria at any time, as needed.

5. Additional Terms on the Certification

5.1 Quality Measures

Only the architectural and functional aspects discussed above are considered in the POS Hardware environment certification process. The quality measures (performance, fault tolerance, high availability, scalability, etc.) of the environment are neither measured nor considered in this certification.

5.2 Future Changes

SAP defined the certification in a way that the future evolution of SAP POS solution, such as the introduction of the next version of SAP POS, should not make it necessary to conduct a complete re-architect of Vendor POS hardware.

However, SAP is free to revise the SAP technologies and the POS Hardware certification requirements at its sole discretion and to terminate formerly offered certification scenario.

5.3 Validity of Integration Certification

Due to the nature of the integration certification and dependencies on hardware specifications, the certification is performed for a combination of the particular releases of the Operating System, OPOS, hardware components, and peripheral firmware software levels as mentioned in the certification test report. This combination, in general, is referred as the hardware environment in the document and otherwise. Change in any of the components/peripherals or their release would require the hardware environment to be re-certified. Per certification program rules, any certification expires three (3) years after the certification tests have been completed, or when any of the certified components are no longer in maintenance by vendor, whichever comes first.

Using a hardware environment that has achieved POS Hardware Integration Certification, will make it easier for SAP POS customers to have their specific in-store hardware platform further tested and evaluated, and its support confirmed under the life of their software maintenance agreement as long as the installed Operating System, OPOS, hardware components, and peripheral firmware software levels do not change.

5.4 Disclaimer

The information contained in this document is subject to change or revision without prior notice. Receipt of this document does not entitle the recipient to receive SAP Software. Participation in the SAP certification program does not entitle participants to receive SAP Software.

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