

# STANDARD FOR A RELIABLE POS SYSTEM

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## 1. INTRODUCTION

### 1.1 Purpose

POS systems support the business process of an entrepreneur settling the account with a consumer during the sale of goods or services. The information is used to control the business process, improve the business and draw up the accounts.

The purpose of the document is to describe the standard for POS systems that qualify for the Keurmerk Betrouwbaar Afrekenstelsel (Reliable POS System Quality Mark, hereinafter: 'the Quality Mark').

The Quality Mark promotes the building and installation of POS systems that register the data of transactions correctly and completely in a verifiable manner and store the data reliably. POS systems with the Quality Mark provide a correct, complete and always reliable insight into the registered transactions and actions.

The standard describes the requirements imposed on a POS system.

The document 'Standard for a Reliable POS System' is issued by Stichting Betrouwbare Afrekenstelsel.

## 2 SCOPE OF THE QUALITY MARK

### Scope

The Quality Mark is aimed at the POS system. The POS system, the cash register, supports and registers the sale of goods and services to consumers in exchange for direct payment. A POS system with the Quality Mark serves to reduce the risks that arise as the management of the stock, the sale, the registration of the amount payable and the settlement through direct payment are all in one hand. The POS system is a dynamic combination of hardware and software. Changes in infrastructure, equipment and software used for input, processing, storage and output of data can often be made continuously, according to the user's needs.

The Quality Mark covers the chain of input, processing, storage and output of data of and about the sales process.

The scope of the Quality Mark follows the chain: from the completeness of the first registration of the sales process and its processing with integrity, the storage of information in a reliable manner and delivery with integrity for functions such as stock management, customer management, purchasing and accounting. The system enables the entrepreneur to comply with the legal retention obligation.

Assessing whether the POS system offers the functionality necessary to support the components of the specific business process of a business in a proper manner is beyond the scope of this document.

### Explanation

The sales transaction starts with the initial customer contact. The first registrations in the POS system of the customer relationship and the order come under the control objectives of the Standard as part of the sales process.

Depending on the area of application - retail, catering industry, services - the allocation of a table number, placement of an order, producing, delivery and direct (electronic) payment of the sale of goods and services, as well as the support of the internal audit, come under the scope of the Quality Mark.

The data registered in the sales process form part of the foundation for functions such as stock management, customer management, personnel planning and recording time, accounting, exchange of data with other POS systems or third parties, collecting control information and business intelligence.

The quality of the output is part of the scope of the Quality Mark.

The scope of the Quality Mark is not limited to the traditional retail environment.

POS systems are used in combinations of sales in a traditional shop as well as an online shop.

## 3. STANDARD FOR A RELIABLE POS SYSTEM

The Standard for a Reliable POS system is divided into four control objectives.

The Standard reflects the requirements a reliable POS system must meet in order to achieve the control objectives as concisely as possible.

### 3.1 Register all the events

**Control objective:**

The POS system supports the registration of all events from the start of the sales process.

**Explanation:**

Special events, such as discounts, returns, tips, voids, aborted transactions, withdrawals, and training, will be marked and stored as such. It is consequently possible to determine whether the transactions actually performed have also been registered and settled correctly, completely and promptly.

The data are a source of information for steering the business. The registration has a preventative effect, as it supports the primary purpose of a POS system: the completeness of the recognition of the sales.

**Standard:**

- ▶ The POS system supports the registration of all relevant events (including metadata such as who, what, when and where). These are all the actions and activities that result in the input or output of data in the POS system.
- ▶ The POS system makes the registration possible from the start of the sales process.
- ▶ Corrections are processed without changing the data of the original transaction. Additional changes are registered with an audit trail to the original transaction.

### 3.2 Integrity of the registrations

**Control objective:**

The processing and registering of the data entered is verifiably correct, complete and timely.

The POS system contains measures for safeguarding this integrity and does not contain or support any functionality that break this integrity.

It is clear with regard to each change or deletion of a registration what this was, who is responsible for it and where (which cash register / location) and when this happened.

This applies both to changes processed by the POS system and to any access of the database from outside the system.

**Standards:**

- ▶ The software is protected against unauthorized changes.
- ▶ The registered events are correct and complete and protected against unauthorized changes.
- ▶ Changes in registered events will remain transparent.
- ▶ The audit trail of changes in software and registrations will remain accessible and available.
- ▶ Database breaches from outside the POS system will be detected and registered.

### 3.3 Storing the registrations

**Control objective:**

All transactions, events, permanent and semi-permanent data will be stored during the legal retention period. The authenticity, integrity and verifiability are demonstrably safeguarded. Any breach will be countered and identified.

The non-repudiation of the data safeguards the evidentiary value.

The data can be delivered promptly and properly.

**Standards:**

- ▶ The registered data will be stored during the legal retention period of 7 (seven) years.
- ▶ The registered data are demonstrably authentic, have retained their integrity, are verifiable, and are protected against unauthorized and undocumented changes.
- ▶ The registered data can be made available within a reasonable period of time.
- ▶ The POS system ensures that backups are made regularly.
- ▶ The set of measures for storing the data during the retention period and protecting the data against unauthorized changes is documented.

### 3.4 Adequate disclosure and reliability of the reports

**Control objective:**

In order for the entrepreneur to be able to manage the business and ensure adequate accountability, the reports must provide a reliable and transparent picture of the registrations in the POS system. This means that all events must be registered and stored correctly, completely and promptly (control objectives 1 to 3).

The reports must be generated correctly, completely and promptly, and the correct relationships between registrations must be made, so the structure of the report can be verified.

The POS system ensures that the reports are consistent with the data and provides insight into this consistency.

Completeness and correctness means that it must be possible to ensure that the reports are consistent with the data.

**Standards:**

- ▶ The reports are accurate, prompt and complete and show how the report is structured.
- ▶ The POS system supports regular cashing up/daily closing.
- ▶ The POS system supports exporting to common formats, preferably the XML Audit File Afrekenystemen. The dataset to be delivered meets the requirements for the XML Audit File.

## 4. DEFINITIONS

It is important that the definitions of the terms used in this document are clear.

<b>POS system</b>	A system that registers the activities and results of a sales process.
<b>Sales process</b>	All the transactions and events forming part of the process of supplying products or services in exchange for payment.
<b>Event</b>	An event is an action or activity resulting in an input or output in the POS system. Examples include but are not limited to: keystrokes, opening the cash drawer, creating a table as a logical location indicator for the registration of orders in the catering industry, an electronic scales signal, selecting a product from a product list and entering the small change.
<b>Registration</b>	Registering events and actions within a POS system, either manually or automatically.
<b>Transaction</b>	A representation of part of the sales process, at the very least consisting of an amount, a description (article/service/discount, etc.), quantity, VAT rate, etc. The characteristic feature is its financial nature.
<b>Values</b>	Money, goods or services.
<b>Audit Trail</b>	The audit trail is a succession of documented steps by means of which the actual events can be reconstructed afterwards. The registration of who-what-where-when is an important basis for the audit trail.
<b>Reliability</b>	The degree of continuous availability of the POS system, the uninterrupted continuation of the data processing and the availability of registrations during the retention period.
<b>Availability</b>	The degree to which the object (the transactions) is in accordance with the reality shown (information in the POS system). Integrity consists of the quality aspects correctness, completeness and timeliness.
<b>Integrity</b>	The degree to which the POS system correctly processes the input and transactions according to the specifications into consistent data.
<b>Correctness</b>	The certainty that the POS system processes all the input and transactions, so there will be no duplications or shortages. The information must constitute a complete representation of reality.
<b>Completeness</b>	The degree to which the information is made available in time for the measures to be taken for which this information was intended and to obtain a picture of the current situation. This results in information that reflects the actual situation at the time the information is produced.
<b>Timeliness</b>	The degree to which the POS system supports an adequate delegation of the powers.
<b>Authorization</b>	The possibility of establishing how the provision of information and its components are structured and verifying this within a reasonable period of time.
<b>Verifiability</b>	The degree to which the data are represented correctly and true to their original state in terms of form and contents.
<b>Authenticity</b>	A representation of a selection from the registrations in the form of a database, text report, table report or otherwise, in total or in detail.
<b>Reporting</b>	The degree of continuous availability of the POS system, the uninterrupted continuation of the data processing and the availability of registrations during the retention period.
<b>Producer</b>	The producer is the business offering the configuration of hardware, software and data files to the supplier or user as a POS system or component thereof, under a unique name and version.
<b>Supplier</b>	The supplier is the business selling a POS system to an installer or user.
<b>Installer</b>	The installer is the business installing the POS system at the user's place of business.

<b>User</b>	The user is the person or organization using the POS system in the sales process.
<b>Retention period</b>	The retention period applied in this document is a period of 7 (seven) years after expiry of the financial year in which the registration takes place.
<b>Permanent and semi-permanent data</b>	Permanent and semi-permanent data are data entered in tables which, by means of codes, are used during a certain period in the registration of the sales process.
<b>Correction</b>	A correction is an addition to a previously made, incorrect registration to correct the error. The previously made, incorrect registration together with the correction give a reliable picture of the actual sales process.
<b>ITIL</b>	Information Technology Infrastructure Library, which is a reference framework for structuring the management processes within an ICT organization.
<b>COBIT</b>	Control Objectives for Information and Related Technologies. COBIT is a framework with which an IT organization can be structured effectively and efficiently or an existing IT organization can be reviewed.
<b>Cloud provider</b>	A company that makes hardware, software and/or data available through a network, often the internet. The cloud is a technology by means of which scalable online IT services are provided.
<b>ISAE 3402</b>	A standard framework for obtaining an opinion about the reliability of outsourced IT services. The control objectives, standard to be applied and manner of assessment are determined for each report. No ISAE 3402 is the same.
<b>SLA</b>	A Service Level Agreement is an agreement between a supplier and a buyer of IT or other services. An SLA contains a description of the quality level of the services to be supplied and the rights and obligations of the supplier as well as the buyer.
<b>Regular cashing up/ daily closing</b>	Reconciling the actual cash counted with the theoretically existing cash according to the POS system and analysing the difference.