TECHNICAL REFERENCE

Guidelines for RFID systems for laundry and linen management

Singapore Standards Council

TR 72 : 2020
(ICS 03.080.30; 35.040.50)

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Guidelines for RFID systems for laundry and linen management

The content of this Technical Reference was approved on 2 March 2020 by the Services Standards Committee (SvSC) under the purview of the Singapore Standards Council.

First published, 2020

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The Technical Committee sets up the Working Group on RFID Systems to prepare this standard. The Working Group consists of the following experts who contribute in their *individual capacity*:

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The organisations in which the experts of the Working Group are involved are:

Far East Hospitality Management (S) Pte. Ltd.
Four Seasons Hotel & Resorts
Invengo Technology Pte. Ltd.
Laundry Network Pte Ltd
Orchid Laundry
Park Hotel Alexandra
SIMTech A*STAR
Singapore Hotel Association
Suntec Singapore International Convention & Exhibition Centre

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Foreword

This Technical Reference (TR) was prepared by the Working Group on RFID Systems set up by the Technical Committee on Hotel Services under the purview of SvSC.

The hospitality industry is facing manpower shortage, particularly in operations which are traditionally labour-intensive. Linen management is one such example where organisations traditionally relied on manual stocktaking to keep track of linen movements, which plays an important role in service standards in the hospitality industry. The practice of manual stocktaking is not only labour-intensive and time consuming, but also presents problems in count accuracy, as workers may be prone to fatigue. To address these issues, there is a need for organisations to adopt innovative technological solutions to enhance productivity while reducing reliance on manpower. Radio-Frequency Identification (RFID) technology has been identified as a viable solution in the area of linen management, which would augment digital capabilities across the industry and allow workers the opportunities to upskill.

This standard is developed as a set of guidelines for end-users and RFID system vendors to consider the aspect of interoperability and best practices for high system accuracy. It is expected to be used by but not limited to hospitality service providers and RFID system vendors.

This TR is a provisional standard made available for application over a period of three years. The aim is to use the experience gained to update the TR so that it can be adopted as a Singapore Standard. Users of this TR are invited to provide feedback on its technical content, clarity and ease of use. Feedback can be submitted using the form provided in this TR. At the end of the three years, the TR will be reviewed, taking into account any feedback or other considerations, to further its development into a Singapore Standard if found suitable.

Attention is drawn to the possibility that some of the elements of this TR may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "Mature Standards". Mature Standards will not be subject to further review, unless there are requests to review such standards.*

2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*

3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

Guidelines for RFID systems for laundry and linen management

0   Introduction

This standard aims to address the interoperability of RFID systems for use in hotel laundry and linen management and recommend best practices to improve system accuracy. Shortage of labour and the practice of manual sorting and counting of linen have resulted in the hospitality industry and laundry service providers to seek a more efficient industrywide solution to improve the housekeeping productivity. It is important that such solution is applicable across the industry to address interoperability and accuracy consistency concerns. The hoteliers provided feedback that they had faced the dilemma of selecting a suitable RFID system and ensuring its interoperability with the laundry service providers, as there were no common guidelines to standardise the interoperability. This could result in non-scalable and inextensible systems, ultimately leading to wasted investment.

1   Scope

This standard provides guidance on interoperability to facilitate seamless information exchange through standardised information fields across RFID systems and recommendations on best practices for achieving count accuracy based on the current state of development in RFID technology.

In this standard, different aspects of interoperability and accuracy are covered in various clauses:

a)   Frequency and standards of RFID technology, encoding scheme and article association;
b)   Inventory management software;
c)   Count accuracy;
d)   Software interoperability between RFID systems;
e)   Laundry and linen management workflows.

2   Normative references

There are no normative references in this standard.