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Information technology — Notification of RFID — Additional information to be provided by operators

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Information technology - Notification of RFID - Additional information to be provided by operators

Technologies de l'information - Notification d'identification par radiofréquence (RFID) - Informations complémentaires à fournir par les opérateurs

Informationstechnik - Notifizierung von RFID: Zusätzliche vom Betreiber zur Verfügung zu stellende Information

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Foreword

This document (CEN/TR 16684:2014) has been prepared by Technical Committee CEN/TC 225 “AIDC technologies”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This Technical Report is one of a series of related deliverables, which comprise mandate 436 Phase 2.

The other deliverables are:

— EN 16570, *Information technology — Notification of RFID — The information sign and additional information to be provided by operators of RFID application systems*

— EN 16571, *Information technology — RFID privacy impact assessment process*

— EN 16656, *Information technology — Radio frequency identification for item management - RFID Emblem (*ISO/IEC 29160:2012*, modified)*

— CEN/TS 16685, *Information technology — Notification of RFID — The information sign to be displayed in areas where RFID interrogators are deployed*

— CEN/TR 16669, *Information technology — Device interface to support* ISO/IEC 18000-3 *Mode 1*

— CEN/TR 16670, *Information technology — RFID threat and vulnerability analysis*

— CEN/TR 16671, *Information technology — Authorisation of mobile phones when used as RFID interrogators*

— CEN/TR 16672, *Information technology — Privacy capability features of current RFID technologies*

— CEN/TR 16673, *Information technology — RFID privacy impact assessment analysis for specific sectors*

— CEN/TR 16674, *Information technology — Analysis of privacy impact assessment methodologies relevant to RFID*

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0 Introduction

0.1 General

In response to the growing deployment of RFID systems in Europe, the European Commission published in 2007 the Communication COM(2007) 96 'RFID in Europe: steps towards a policy framework'. This Communication proposed steps which needed to be taken to reduce barriers to adoption of RFID whilst respecting the basic legal framework safeguarding fundamental values such as health, environment, data protection, privacy and security.

In December 2008, the European Commission addressed Mandate M/436 to CEN, CENELEC and ETSI in the field of ICT as applied to RFID systems. The Mandate M/436 was accepted by the ESOs in the first months of 2009. The Mandate addresses the data protection, privacy and information aspects of RFID, and is being executed in two phases. Phase 1, completed in May 2011, identified the work needed to produce a complete framework of future RFID standards. The Phase 1 results are contained in the ETSI Technical Report TR 187 020, which was published in May 2011.

Phase 2 is concerned with the execution of the standardization work programme identified in the first phase.

This document will provide the additional information of the RFID application that will need to be provided to a citizen by accessing the source identified on the sign where the RFID application is operating. This information will be aligned with the details set out in the Recommendation, but some of this might not be available at the outset, a TR is the preferred form of initial delivery to establish basic requirements.

0.2 Overview

On March 15th 2007, the European Commission presented to the European Parliament a communication about the steps towards a Policy Framework for Radio Frequency Identification in Europe. Here below is an extract:

"COMMISSION RECOMMENDATION of 2009/05/12 on the implementation of privacy and data protection principles in applications supported by radio-frequency identification {SEC (2009) 585}{SEC (2009) 586}.

Radio frequency identification (RFID) is a technology that allows automatic identification and data capture by using radio frequencies. The salient features of this technology are that they permit the attachment of a unique identifier and other information – using a microchip – to any object, animal or even a person, and to read this information through a wireless device. RFID is not just "electronic tags" or "electronic barcodes". When linked to databases and communications networks, such as the Internet, this technology provides a very powerful way of delivering new services and applications, in potentially any environment.

RFID technology is indeed seen as the gateway to a new phase of development of the Information Society, often referred to as the "internet of things" in which the internet does not only link computers and communications terminals, but potentially any of our daily surrounding objects – be they clothes, consumer goods, etc. It is this prospect that provoked the European Council of December 2006 to ask the European Commission to review the challenges of the next generation of Internet and networks at the 2008 Spring Council.

RFID is of policy concern because of its potential to become a new motor of growth and jobs, and thus a powerful contributor to the Lisbon Strategy, if the barriers to innovation can be overcome. The production price of RFID tags is now approaching a level that permits wide commercial and public sector deployment. With wider use, it becomes essential that the implementation of RFID takes place under a legal framework that affords citizens effective safeguards for fundamental values, health, data protection and privacy.

It is for these reasons that the Commission carried out a public consultation on RFID in 2006, which highlighted the expectations of the technology based on the results of early adopters but also the concerns of citizens about RFID applications that involve identification and/or tracking of persons.

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Data protection, privacy and security

In the public debate on RFID, there are serious concerns that this pervasive and enabling technology might endanger privacy: RFID technology may be used to collect information that is directly or indirectly linked to an identifiable or identified person and is therefore deemed to be personal data; RFID tags may store personal data such as on passports or medical records; RFID technology could be used to track/trace people's movements or to profile people's behaviour (e.g., in public places or at the workplace). Indeed, the Commission's public consultation underlined the concern of citizens about the potential of RFID to be an intrusive technology. Adequate privacy safeguards are called for as a condition for wide public acceptance of RFID. Respondents to the online consultation expect these safeguards to emerge from privacy enhancing technologies (70%) and awareness raising (67%); specific legislation on RFID was seen as the best solution by 55%. In addition, views are evenly balanced on whether societal applications are really positive, with about 40% of responses on each side. Stakeholders have raised concerns about potential infringements of fundamental values, privacy and greater surveillance, especially in the workplace resulting in discrimination, exclusion victimisation and possible job loss.

It is clear that the application of RFID must be socially and politically acceptable, ethically admissible and legally allowable. RFID will only be able to deliver its numerous economic and societal benefits if effective guarantees are in place on data protection, privacy and the associated ethical dimensions that lie at the heart of the debate on the public acceptance of RFID.

The protection of personal data is an important principle in the EU. Article 6 of the Treaty on the European Union states that the Union is founded on the principles of liberty, democracy, respect for human rights and fundamental freedoms; Article 30 requires appropriate provisions on the protection of personal data for the collection, storage, processing, analysis and exchange of information in the field of police co-operation. The protection of personal data is set as one of the freedoms in Article 8 of the Charter of Fundamental Rights.

The Community legislation framework on data protection and privacy in Europe was designed to be robust in the face of innovation. The protection of personal data is covered by the general Data Protection Directive regardless of the means and procedures used for data processing. The Directive is applicable to all technologies, including RFID. It defines the principles of data protection and requires that a data controller implements these principles and ensure the security of the processing of personal data. The general Data Protection Directive is complemented by the ePrivacy Directive which applies these principles to the processing of personal data in connection with the provision of publicly available electronic communications services in public communications networks. Due to this limitation, many RFID applications fall only under the general Data Protection Directive and are not directly covered by the ePrivacy Directive.

Pursuant to these Directives, public authorities in Member States are charged with the monitoring whether the provisions adopted by Member States are correctly applied. They will have to ensure that the introduction of RFID applications complies with privacy and data protection legislation. It may therefore be necessary to provide detailed guidance on practical implementation of new technologies, such as RFID. For these purposes both directives foresee the drawing up of specific codes of conduct. This process implies a review of these codes at national level by the competent data protection authority, and a review at European level through the "Article 29 Working Party". "

One of the action items contained in the communication was the creation of a Stakeholders Group with the task to provide an open platform allowing a dialogue between consumers associations, market actors and National and European authorities in order to support the European Commission in its effort to promote awareness campaigns at Member state and citizen level about the opportunities and challenges of RFID. The outcome of the work performed by this Group was the publication of a PIA Framework that was endorsed by Article 29 Working Party on February 11th 2010.

In parallel, on May 12th 2009, the European Commission published a Recommendation on the implementation of Privacy and Data protection principles supported by Radio frequency Identification (RFID) . This document provides:

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— guidance to Member States on the design and operation of RFID applications in a lawful, ethical and socially and politically acceptable way, respecting the right to privacy and ensuring protection of personal data,

— guidance on measures to be taken for the deployment of RFID applications to ensure that national legislation implementing Directives 95/46/EC, 99/5/EC and 2002/58/EC is, where applicable, respected when such applications are deployed, and

— defines the scope of this Technical Report (see Clause 1).

The RFID Recommendation underlines the risks linked with the RFID technology and the obligations of the RFID operators to deal with the associated risks in its introduction through the bullet points (4), (5), (6), (8) and (13):

"*(4) RFID technology enables the processing of data, including personal data, over short distances without physical contact or visible interaction between the reader or writer and the tag, such that this interaction can happen without the individual concerned being aware of it.*

(5) *RFID applications hold the potential to process data relating to an identified or identifiable natural person, a natural person being identified directly or indirectly. They can process personal data stored on the tag such as a person's name, birth date or address or biometric data or data connecting a specific RFID item number to personal data stored elsewhere in the system. Furthermore, the potential exists for this technology to be used to monitor individuals through their possession of one or more items that contain an RFID item number.*

(6) Because of its potential to be both ubiquitous and practically invisible, particular attention to privacy and data protection issues is required in the deployment of RFID. Consequently, privacy and information security features should be built into RFID applications before their widespread use (principle of 'security and privacy by design').

(8) Member States and stakeholders should, especially in this initial phase of RFID implementation, make further efforts to ensure that RFID applications are monitored and the rights and freedoms of individuals are respected.

(13) RFID application operators should take all reasonable steps to ensure that data does not relate to an identified or identifiable natural person through any means likely to be used by either the RFID application operator or any other person, unless such data is processed in compliance with the applicable principles and legal rules on data protection."

It also gives clear instruction linked with Public awareness of RFID applications in paragraph 8:

"*Member States should ensure that operators take steps to inform individuals of the presence of readers on the basis of a common European sign, developed by European Standardisation Organisations, with the support of concerned stakeholders. The sign should include the identity of the operator and a point of contact for individuals to obtain the information policy for the application.*"

On December 8th 2008 the European Commission Enterprise & industry Directorate-General issued a Standardization Mandate to the European Standardization Organizations CEN/CENELEC and ETSI applied to RFID, which was divided in two phases.

— Phase 1 consisting in a gap analysis in terms of standardization started in 2009 and ended on 31st May 2011. The deliverable was the ETSI/TR 187020.

— This deliverable has been accepted by the European Commission (Directorate General Information and Society, and Directorate General Enterprises) in 2011, and Phase 2 was initiated on January 2nd 2012 with the signature of a contract with CEN Technical Committee 225 to develop a Standardization programme as set for in the ETSI/TR 187020.

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1 Scope

This Technical Report is to assist operators of applications in areas where radio frequency interrogators are deployed, to identify the types of information that are called for in the recommendation.

The Technical Report provides all the current information to assist operators to develop and publish a concise accurate and easy to understand information policy for each of their applications.

The policy should at least include:

— the identity and address of the operators;

— the purpose of the application;

— what data are to be processed by the application, in particular if personal data will be processed, and whether the location of tags will be monitored;

— a summary of the privacy and data protection impact assessment;

— the likely privacy risks, if any, relating to the use of tags in the application and the measures that individuals can take to mitigate these risks.

2 Terms and definitions

For the purposes of this document the terms and definitions given in CEN/TS 16685:2014 apply.

3 CCTV as an Exemplar

This Technical Report points to the practicality of using the well established, and publicly accepted, practice of signage in Europe relating to the use of CCTV cameras in both public and private (but accessible to the public) spaces to capture still and moving images for protection of public safety and private property as a model for RFID notification signage

Although not standardized, CCTV signs are already in widespread use in public places across Europe, relating to the use of cameras in both public and private (but accessible to the public) spaces to capture still and moving images for protection of public safety and private property.

Typical locations are airports, train and bus stations and retail shops. This signage displays three elements: an emblem, the purpose of the application, and an address where to get additional information. This signage appears to be acceptable to the general public and to the operators, and its full logo/text implementation also appears to satisfy the concerns of the privacy lobby.

Some examples of CCTV signage of UK/Ireland are shown below:

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NOTE

1) CCTV logo with text reinforcement ‘CCTV’;

2) Statement of system intent;

3) Operator of system;

4) Contact details;

5) Operator logo separate from CCTV logo.

Figure 1 — CCTV logo, Bus Station Northern Ireland

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NOTE

1) CCTV logo with text reinforcement ‘CCTV in operation’;

2) Statement of system intent (automatic number palate recognition) and warning;

3) Operator of system NOT indicated: where this is indicated, often it says contact station manager, reflecting that many filling stations are franchised. So signage maybe standard Texaco format, but station is run by Malthurst;

4) Signage in stack with disability assistance, handling information and credit card information.

Figure 2 — CCTV logo, Filling Station in Scotland

NOTE A commonly seen warning sign, which is on a white background, is the Speed Safety Camera sign used in the UK and Eire and some other European countries.

Figure 3 — Speed Safety Camera signs

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NOTE Speed camera logo: seen in Scotland. No operator declared. 1930's design of camera.

Figure 4 — Speed Safety Camera signs

4 The RFID European Emblem

4.1 General

The concept of the easily recognizable Emblem used by the CCTC signage is applied for the selection of a RFID emblem, and it can be seen that the emblem can be highly stylised yet be instantly recognizable, especially if a text 'prompt' such as RFID is included in the emblem.

Such an emblem has already been developed and standardized as ISO/IEC 29160:2012. This standard has been published on May 30th 2012.

The ISO/IEC 29160 Standard has been adopted as a European Standard and will be published as EN 16656:2014 with specific informative content to this signage requirement within Europe. In particular it provides clarification regarding the minimum size of the emblem in relation to legibility as opposed to physical size.

Figure 5 — RFID Emblem

It is therefore recommended that the generic version be adopted as the **Common European RFID Notification Emblem** as it combines the simple strong graphic with the reinforcing text "RFID" which will greatly assist in educating the citizen during the rollout period.

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