PD ISO/TR 17522:2015

BSI Standards Publication

Health informatics — Provisions for health applications on mobile/smart devices

bsi.

...making excellence a habit.™

Document Sharing Hub

National foreword

This Published Document is the UK implementation of ISO/TR 17522:2015.

The UK participation in its preparation was entrusted to Technical Committee IST/35, Health informatics.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2015. Published by BSI Standards Limited 2015

ISBN 978 0 580 82179 0

ICS 35.240.80

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 August 2015.

Amendments issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: PD ISO/TR 17522:2015

TECHNICAL REPORT

ISO/TR 17522

First edition
2015-08-01

Health informatics — Provisions for health applications on mobile/smart devices

Informatique de santé — Provisions pour les applications de santé sur les dispositifs smart/mobiles

Reference number
ISO/TR 17522:2015(E)

Documents
Document Sharing Hub

© ISO 2015

Full document details: PD ISO/TR 17522:2015

COPYRIGHT PROTECTED DOCUMENT

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

© ISO 2015 – All rights reserved

Documents
Document Sharing Hub

Full document details: PD ISO/TR 17522:2015

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Symbols and abbreviated terms **3**
5 Mobile health applications based on Registry and Repository (Reg/Rep) **5**
5.1 Transportation of emergency patient 6
5.2 Manage medication 7
5.3 Telehealth 7
5.4 Referenced Standards 7
6 Mobile health applications in a health provider **8**
6.1 Mobile electronic medical record system 8
6.2 Scheduling medical examination 8
6.3 Manage chronic diseases patient 9
6.4 Nursing home 9
6.5 Mobile PACS architecture 9
6.6 Veterans personal electronic health record 10
7 Mobile medical application **10**
7.1 Mobile application for the purpose of processing patient medical device data 11
7.2 Mobile application to function as a medical device 11
8 Analysis of required architectures for mHealth **12**
8.1 IHE MHD 12
8.2 Mobile EMR 12
8.3 Mobile Medical Application 13
Bibliography **16**

© ISO 2015 – All rights reserved

Documents
Document Sharing Hub
Full document details: PD ISO/TR 17522:2015

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 215, *Health informatics.*

© ISO 2015 – All rights reserved
Documents
Document Sharing Hub
Full document details: PD ISO/TR 17522:2015

Introduction

Development and implementation of smart devices are rapidly progressing around world. An appropriate deployment of smart health applications and services on smart device platforms will enhance various aspects of healthcare delivery. Smart devices will also enable health organizations to provide essential care and health information anytime, anywhere through information and telecommunications technologies. This includes a broad spectrum of capabilities including health sensors, devices, manager, server, health information systems, and call centre services of patient information.

Recent development of smart devices such as smart phone, TV, and electronic book where the patients' services are stored and distributed securely whenever necessary (sharing EHR information at point of care) requires a robust architecture to be able to manage the mobile data effectively.

This Technical Report describes the status and requirements of health applications and services on smart devices platforms and suggests the reference architecture for these. The report is not intended to be prescriptive either from a methodological or technological perspective.

© ISO 2015 – All rights reserved

Documents
Document Sharing Hub
Full document details: PD ISO/TR 17522:2015

Documents
Document Sharing Hub

Health informatics — Provisions for health applications on mobile/smart devices

1 Scope

This Technical Report is applicable to the developments of smart health applications available anywhere, anytime and supporting new health businesses based on the smart devices. This Technical Report is to investigate the areas of ongoing developments and analyses of emerging interoperability standards for smart mobile devices.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

There are no normative references.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
accelerometer
device that measures proper acceleration

3.2
access
provision of an opportunity to approach, inspect, review, make use of data, or information

3.3
android
open source operating system for mobile devices developed by a group of organizations led by Google

3.4
application
software program or set of related programs that provide some useful healthcare capability or functionality

3.5
Apple iOS
previously iPhone OS
mobile operating system developed by Apple Inc. and distributed exclusively for Apple hardware

Note 1 to entry: It is the *operating system* (3.12) that powers iPhone, iPad, iPod Touch, and Apple TV.

3.6
BlackBerry
line of wireless handheld devices and *services* (3.20) designed and marketed by BlackBerry Limited, formerly known as Research In Motion Limited

3.7
bluetooth
standard for sending information wirelessly over short distances

© ISO 2015 – All rights reserved

Documents
Document Sharing Hub
Full document details: PD ISO/TR 17522:2015