

---

---

**Information technology — Distributed  
Application Platforms and Services  
(DAPS) — Access Systems**

*Technologies de l'information — Services et plate-formes d'application  
distribuées — Systèmes d'accès*



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2016

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  
Web www.iso.org

Published in Switzerland

# Contents

Page

Foreword .....	iv
Introduction.....	v
1 Scope .....	1
2 Conformance .....	1
3 Normative references.....	1
4 Terms, definitions and acronyms .....	1
5 Model .....	1
6 Transaction .....	2
7 Time stamping function .....	3
8 Module .....	4
8.1 Common requirements .....	4
8.2 Policy module .....	4
8.3 Access-point module .....	4
8.4 RED module .....	4
8.5 Processing module .....	5
8.6 Storage module .....	5
9 Message definition and Interface.....	5
9.1 General .....	5
9.2 Policy interface .....	6
9.3 Access request .....	6
9.4 Access interface .....	6
9.5 Processing interface .....	6
9.6 Storage interface .....	8
9.7 Final result Notification.....	9
9.8 Time stamp Notification.....	9
Annex A (informative) Service access control system .....	10
Annex B (informative) Share information between different Access Systems.....	11
Annex C (informative) Usage of Time_stamping .....	12

## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 document 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](http://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 and IEC 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](http://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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

ISO/IEC 20933 was prepared by Ecma International (as ECMA-412) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

## Introduction

Technology for real-time access control is widely used for many situations such as entrance gate of facilities and service access control systems. Membership and settlement services also benefit from real-time access control systems connected via networks and using database information.

Sophisticated cloud, virtualisation, database, networking technology and services and the evolution of authentication technology such as biometrics, NFC, QR codes used in distributed and modular access control systems enable previously underserved users and operators to innovate around new use cases.

Taking into account the many technologies, this International Standard specifies the reference model and common control functions. It gives direction for ongoing innovation and development of technology and system integration of distributed real-time access control system.