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

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

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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).

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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.

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

1 Scope

This International Standard specifies:

- 1) an ID triggered modular access system, the functions of the modules and the messages they exchange, and the sequence of messages, i.e. transitions of the transaction;
- 2) the system responsibility from receiving an access request until sending the result. i.e. a complete transaction;
- 3) the responsibilities of the modules, including time stamping and responding to the requests they received; and
- 4) the sequence and semantics of the messages and their elements.

2 Conformance

Conformant Access Systems progress transactions by evaluating the applicable rules. Conformant modules implement the requests on their interfaces, the corresponding responses and time stamping as specified herein.

3 Normative references

None.

4 Terms, definitions and acronyms

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

4.1

ID

Identifier

4.2

RED

Rule Evaluation and Dispatching

4.3

transaction

request for access

5 Model

Figure 1 illustrates the Access System structure.