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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO/IEC 23004 may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

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ISO/IEC 23004 consists of the following parts, under the general title *Information technology — Multimedia Middleware*:

— *Part 1: Architecture*

— *Part 2: Multimedia application programming interface (API)*

— *Part 3: Component model*

— *Part 4: Resource and quality management*

— *Part 5: Component download*

— *Part 6: Fault management*

— *Part 7: System integrity management*

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Introduction

Software systems continuously evolve; both during their development and during deployment. To cater for an increasing demand for flexibility, the M3W architecture provides means for the dynamic replacement, removal and addition of components in a deployed system. This facility enables a number of new usage scenarios which can increase the value of a terminal. However, this facility also endangers the software integrity of the system and creates the need for terminal management activities that aim to maintain and (if necessary) restore software integrity. Ideally, a terminal is managed automatically, implying little or no human intervention.

System Integrity management techniques aim to maintain/restore a consistent software configuration that is sufficient for a specific terminal. These techniques verify that component configurations "fit" with a device, where the following fits have been identified.

— Business fit: This depends for example on whether or not a user has paid for certain components.

— Technical fit: This deals with whether or not components are for the "right" platform, all required dependencies can be fulfilled, and design guidelines are obeyed.

— Resource fit: This deals with verifying that the resource demands of applications are in line with the capabilities of the terminal.

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Information technology — Multimedia Middleware —

Part 7:
System integrity management

1 Scope

This part of ISO/IEC 23004 defines the MPEG Multimedia Middleware (M3W) technology Integrity Management Architecture. It contains the specification of the part of the M3W application programming interface (API) related to Integrity Management as well as the realization. The M3W API specification provides a uniform view of the Integrity Management functionality provided by M3W. The specification of the realization is relevant for those who are making an implementation of an Integrity Management framework for M3W.

2 Normative references

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

ISO/IEC 23004-1, *Information technology — Multimedia Middleware — Part 1: Architecture*

ISO/IEC 23004-3, *Information technology — Multimedia Middleware — Part 3: Component model*

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