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**Information technology —
Telecommunications and information
exchange between systems — Using
ECMA-323 (CSTA XML) in a Voice
Browser Environment**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Utilisation de l'ECMA-323 (CSTA XML)
dans un environnement de navigateur de voix*

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
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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.

In exceptional circumstances, the joint technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard (“state of the art”, for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

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.

ISO/IEC TR 18057, which is a Technical Report of type 3, was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

ISO/IEC 18057 was prepared by ECMA (as ECMA TR/85) 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

This Technical Report illustrates how CSTA XML (ECMA-323) can be used in a Voice Browser environment. This TR is part of a suite of ECMA CSTA Phase III Standards and Technical Reports.

All of the Standards and Technical Reports in this Suite are based upon the practical experience of ECMA member companies and each one represents a pragmatic and widely based consensus.

Information technology — Telecommunications and information exchange between systems — Using ECMA-323 (CSTA XML) in a Voice Browser Environment

1 Scope

Services for Computer Supported Telecommunications Applications are defined by Standard ECMA-269 and the XML Protocol for those services are defined by Standard ECMA-323.

In many cases, applications require only a small subset of the features standardized in CSTA. In a voice browser environment, processing speech (not call control) is usually the major focus of the application. For example, from a CSTA feature perspective, an application may simply need to answer an incoming call and then later clear it. As these speech-centric applications evolve they can use additional, more advanced, features standardized by CSTA that are provided by CSTA-conformant communications platforms.

Since ECMA-269 and ECMA-323 are relatively large standards (combined over 1100 pages), it is a challenge for application developers without prior knowledge of the CSTA standards to know where to find basic concepts that they need to understand in order to implement basic CSTA features.

This TR illustrates how ECMA-323 can be used in a Voice Browser environment. These concepts illustrated in this TR can be applied to any Voice Browser environment that provides an XML-based read/write messaging interface (i.e. CSTA Service Boundary) that supports asynchronous events from a CSTA conformant communication platform. SALT enabled browsers that implement a ECMA-323 interface for call control using the SALT smex mechanism is an example of a browser with this capability.

Throughout this TR the term “ECMA-323 enabled voice browser” is used, in a generic sense, to refer to browser implementation that support a CSTA conformant ECMA-323 interface.

Examples are provided that show how ECMA-323 can be used in several different environments such as SALT-enabled browsers and CCXML.

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.

This TR provides informative examples of how to use ECMA-323 in a Voice Browser environment. The following ECMA Standards should be used as the definitive references for CSTA:

ECMA-269:2002, *Services for Computer Supported Telecommunications Applications (CSTA) Phase III (ISO/IEC 18051:2003)*

ECMA-323:2002, *XML Protocol for Computer Supported Telecommunications Applications (CSTA) Phase III (ISO/IEC 18056:2003)*

ECMA CSTA Standards can be used for call control in many different environments. The following references provide additional information on using the ECMA CSTA Standards in different environments:

SALT Speech language Application Language Tags 1.0 Specification (SALT), SALT Forum, 15 July 2002, (<http://www.saltforum.org>).

CCXML Voice Browser Call Control: CCXML Version 1.0 - W3C Working Draft, W3C, 11 October 2002, (<http://www.w3c.org/TR/ccxml/>).