

WAP WTAI (IS-136)

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Wireless Application Protocol Wireless Telephony Application Interface Specification

IS-136 Specific Addendum

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1 Scope

Wireless Application Protocol (WAP) is a result of continuous work to define an industry wide specification for developing applications that operate over wireless communication networks. The scope for the WAP Forum is to define a set of specifications to be used by service applications. The wireless market is growing very quickly, and reaching new customers and services. To enable operators and manufacturers to meet the challenges in advanced services, differentiation and fast/flexible service creation WAP defines a set of protocols in transport, session and application layers. For additional information on the WAP architecture, refer to "*Wireless Application Protocol Architecture Specification*" [WAP].

This document is an addendum to the *Wireless Telephony Application Interface* (WTAI). While WTAI defines an API that is valid for all supported types of mobile networks, this document outlines functions that are specific to IS-136 networks.

2 Document Status

This document is available online in the following formats:

- PDF format at <http://www.wapforum.org/>.

2.1 Copyright Notice

© Copyright Wireless Application Protocol Forum Ltd, 1999. Terms and conditions of use are available from the Wireless Application Protocol Forum Ltd. web site at <http://www.wapforum.org/docs/copyright.htm>.

2.2 Errata

Known problems associated with this document are published at <http://www.wapforum.org/>

2.3 Comments

Comments regarding this document can be submitted to the WAP Forum in the manner published at <http://www.wapforum.org/>

3 References

The following section describes references relevant to this document.

3.1 Normative references

- [RFC1630] "Uniform Resource Identifiers (URI)", T. Berners-Lee, et al., June 1994. URL:
<ftp://ds.internic.net/rfc/rfc1630.txt>
- [RFC2119] "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997. URL:
<ftp://ds.internic.net/rfc/rfc2119.txt>
- [WAP] "Wireless Application Protocol Architecture Specification, WAP Forum, 1998. URL:
<http://www.wapforum.org/>
- [WMLScript] "WMLScript Language Specification", WAP Forum, 1999. URL: <http://www.wapforum.org/>
- [WTA] "Wireless Telephony Application Specification", WAP Forum, 1999. URL:
<http://www.wapforum.org/>
- [WTAI] "Wireless Telephony Application Interface Specification", WAP Forum, 1999. URL:
<http://www.wapforum.org/>

4 Definitions and abbreviations

The following section describes definitions and abbreviations common to this document.

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY" and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

4.1 Definitions

The following are terms and conventions used throughout this specification.

WMLScript - a scripting language used to program the mobile device. WMLScript is an extended subset of the JavaScript™ scripting language.

4.2 Abbreviations

For the purposes of this specification, the following abbreviations apply.

API	Application Programming Interface
IS-136	TDMA Cellular/PCS – Radio Interface – Mobile Station – Base Station Compatibility Standard
RFC	Request For Comments
URI	Uniform Resource Identifier [RFC1630]
WAP	Wireless Application Protocol [WAP]
WTA	Wireless Telephony Applications [WTA]
WTAI	Wireless Telephony Applications Interface [WTAI]

5 IS-136 Specific Library

In addition to the WTAI functions defined in [WTAI], IS-136 networks also supports the functions specified in this chapter.

5.1 Network Events

WTAI specifies the names of the WTA events that map to the IS-136 mobile network, native events. These mobile network events convey the state of services in the mobile network. They may be handled by the active context or can be used to start the WTA user-agent with a new context.

Table 1, Predefined call control events

<i>Event</i>	<i>Parameters</i>	<i>Description</i>
is136/ia	aseq	Incoming Alert Info. The device has received an Alert sequence. <aseq>: Alert sequence information
is136/if	fseq	Incoming Flash Info. The device has received a Flash sequence. <fseq>: Flash sequence information

5.2 Network Functions

The functions defined in this chapter follows the same function definition format as the one used in [WTAI]. Technical terms used in this chapter, eg events and error codes, are also explained in [WTAI].

Name:	WTAIS136
Library ID:	517
Description:	This library contains functions that are unique to IS-136 networks.

5.3 Send Flash Code

Description	
Send a flash code sequence through an active voice connection. If the call succeeds the integer value zero is returned. In case of unsuccessful outcome, an error code will be returned.	
URI:	wtai://is136/sf; <flash> [! <result>]
WMLScript:	sendFlash("123");
Function ID:	0
Parameters:	<flash> = String: Any valid sequence of flash codes.
Output:	<result> = String: Integer value below zero indicates unsuccessful execution.
Examples:	URI: wtai://is136/sf;123 WMLScript: WTAIS136.sendFlash ("123");
Associated Events:	-
Notes: -	

5.4 Send Alert Code

Description	
Send an alert code sequence through an active voice connection. If the call succeeds the integer value zero is returned. In case of unsuccessful outcome, an error code will be returned.	
URI:	wtai://is136/sa; <alert> [! <result>]
WMLScript:	sendAlert ("123");
Function ID:	1
Parameters:	<alert> = String: Any valid sequence of alert codes
Output:	<result> = String: The return value is 0 on success or a negative number in case of failure, the WTAI error code.
Examples:	URI: wtai://is136/sa;123 WMLScript: WTAIS136.sendAlert ("123");
Associated Events:	-
Notes: -	

Appendix A. WTAI URI and WMLScript Function Libraries

In the table below, the URI and WMLScript Function Libraries Calls valid for IS-136 networks are summarised. The arguments have been left out in order to increase readability. The figures in the column named "Lib/Func ID" denote the *Library* and *Function IDs*.

Table 2 , URI's and WMLScript Functions

<i>Lib/Func ID</i>	<i>URI</i>	<i>WMLScript call</i>	<i>Description</i>
517.0	wtai://is136/sf	WTAIS136.sendFlash	Send a flash code
517.1	wtai://is136/sa	WTAIS136.sendAlert	Send an alert code

Appendix B. Static Conformance Requirements

This static conformance clause defines a minimum set of features that should be implemented to ensure that WTA could interact with the mobile network. A feature can be optional or mandatory.

B.1 Client features

B.1.1 Network Events

Item	Function	Reference	Status
WTAI_IS136EV_C001	Incoming Alert Info	5.1	M
WTAI_IS136EV_C002	Incoming Flash Info	5.1	M

B.1.2 Network Functions

Item	Function	Reference	Status
WTAI_IS136_C001	Send Flash Code	5.3	M
WTAI_IS136_C002	Send Alert Code	5.4	M

B.1.3 WMLScript Bytecode Interpreter Capabilities

Item	Function	Reference	Status
WTAI_IS136INT_C001	Supports IS-136 Network WTAI library identifier	A	M
WTAI_IS136INT_C002	Supports IS-136 Network WTAI function identifiers	A	M

B.2 Server features

B.2.1 WMLScript Encoder Capabilities

Item	Function	Reference	Status
WTAI_IS136ENC_S001	Supports IS-136 Network WTAI library identifier	A	M
WTAI_IS136ENC_S002	Supports IS-136 Network WTAI function identifiers	A	M