

WAP WTAI (GSM)

Version 30-Apr-1998

Wireless Application Protocol Wireless Telephony Application Interface Specification

GSM 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 networks using GSM technology. In this specification, the following networks are supported GSM, DCS1800 and PCS1900.

2 Document Status

This document is available online in the following formats:

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

2.1 Copyright Notice

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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, version 0.9", WAP Forum, 1997. URL:
<http://www.wapforum.org/>
- [WMLScript] "WMLScript Language Specification", WAP Forum, 1998. URL: <http://www.wapforum.org/>
- [WTA] "Wireless Telephony Application Specification", WAP Forum, 1998. URL:
<http://www.wapforum.org/>
- [WTAI] "Wireless Telephony Application Interface Specification", WAP Forum, 1997. 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
DCS	Digital Communications System
GSM	Global System for Mobile Communication
PCS	Personal Communications System
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 GSM Specific Library

In addition to the WTA functions defined in [WTAI], GSM networks also supports the functions specified in this chapter. Since GSM is the predecessor, the function library is named using that abbreviation.

5.1 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, e.g. events and error codes, are also explained in [WTAI].

Name:	WTAGSM
Library ID:	518
Description:	This library contains functions that are unique to GSM networks.

5.2 Call Reject

Description	
Rejects an unanswered call.	
URI:	wtai://gsm/cr;<id> [! <result>]
WMLScript:	reject(id);
Function ID:	0
Parameters:	<id> = String: The identity of the call to be rejected.
Output:	<result> = String: The return value is the identity of the rejected call or a negative number in case of failure, the WTAI error code.
Examples:	URI: wtai://gsm/cr; 1 WMLScript: WTAGSM.reject ("1");
Associated Events:	-
Notes: -	

5.3 Call Hold

Description	
Puts an answered call on hold.	
URI:	wtai://gsm/ch;<id> [! <result>]
WMLScript:	hold(id);
Function ID:	1
Parameters:	<id> = String: The identity of the call to be put on hold.
Output:	<result> = String: The return value is the identity of the held call or a negative number in case of failure, the WTAI error code.
Examples:	URI: wtai://gsm/ch; 1 WMLScript: WTAGSM.hold ("1");
Associated Events:	-
Notes: The call can be retrieved using the <i>Accept Call</i> function (wtai://cc/ac) or released using the <i>Release Call</i> function (wtai://cc/rc).	

5.4 Call Transfer

Description	
Transfers an unanswered call to another party.	
URI:	wtai://gsm/ct; <id> ; <dest> [! <result>]
WMLScript:	transfer(id);
Function ID:	2
Parameters:	<p><id> = String: The identity of the call to be transferred.</p> <p><dest> = String: The destination to where the call should be transferred (any valid phone number).</p>
Output:	<p><result> = String: The return value is the identity of the transferred call or a negative number in case of failure, the WTAI error code.</p>
Examples:	<p>URI: wtai://gsm/ct; 1;" +1 555 1234"</p> <p>WMLScript: WTAGSM. transfer ("1" ,"+1 555 1234");</p>
Associated Events:	-
Notes: -	

5.5 Join Multiparty

Description	
<p>This function is partly used for establishing a multiparty call, and partly for joining new parties to an existing multiparty.</p> <p>Establish a multiparty: Joins an active call with a call on hold. A multiparty call (with a unique “id”) is established.</p> <p>Add new party: Joins an active call with a multiparty on hold.</p> <p>How a call is put on hold is described in [WTAI].</p>	
URI:	wtai://gsm/jm [! <result>]
WMLScript:	Multiparty;
Function ID:	3
Parameters:	-
Output:	<p><result> = String:</p> <p>The return value is the identity of the multiparty call or a negative number in case of failure, the WTAI error code.</p>
Examples:	<p>URI: wtai://gsm/jm</p> <p>WMLScript: WTAGSM.multiparty;</p>
Associated Events:	-
Notes: -	

5.6 Retrieve from Multiparty

Description	
Separates a certain party from a multiparty call for a private conversation. The rest of the multiparty is put on hold.	
URI:	wtai://gsm/rm;<id> [! <result>]
WMLScript:	retrieve("1");
Function ID:	4
Parameters:	<id> = String: The identity of the call to be retrieved from the multiparty.
Output:	<result> = String: The return value is the identity of the retrieved call or in case of failure, a negative number and the WTAI error code.
Examples:	URI: wtai://gsm/rm;1 WMLScript: WTAGSM.retrieve ("1");
Associated Events:	-
Notes: -	

Appendix A. WTA URI and WMLScript Function Libraries

In the table below, the URI and WMLScript Function Libraries Calls valid for GSM 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 1 , URI's and WMLScript Functions

<i>Lib/Func ID</i>	<i>URI</i>	<i>WMLScript call</i>	<i>Description</i>
518.0	wtai://gsm/cr	WTAGSM.reject	Reject an incoming call
518.1	wtai://gsm/ch	WTAGSM.hold	Put a call on hold
518.2	wtai://gsm/ct	WTAGSM.transfer	Transfer an unanswered call
518.3	wtai://gsm/jm	WTAGSM.multiparty	Join/create a multiparty call
518.4	wtai://gsm/rm	WTAGSM.retrieve	Retrieves a party from a multiparty call