

# WAP Specification Information Note

## WTA-169\_101-WTA

Version 07-Nov-2000

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**A Wireless Application Protocol  
Specification Information Note for:**

**Wireless Telephony Application Specification  
WAP-169-WTA  
Version 07-Jul-2000**

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# 1. Scope

This Specification Information Note (SIN) covers changes against the 07-Jul-2000 version of the WTA specification. These changes specifically address two recommendations given at the Architecture Consistency review of the most recent WTA SIN, WAP-169\_100-WTA-20000601-A. The two recommendations are:

1. For all the WTA related content types, specify a versioning mechanism that can be used during content negotiation (e.g., in the HTTP Accept header) similar or identical to the way WML does it (i.e., using a parameter of the media type).
2. The trust for the WTA server must be provisioned in some way and not inferred from the Certifying Authority that issued the WTA Server's certificate.

The changes included in this SIN are:

- Removed references to WPKI specification since there is no approved version of the WPKI specification for the June 2000 Conformance Release.
- Added normative reference to RFC2046 for the definition of the `charset` parameter
- Added informative reference to RFC2376 for the encoding of the `text / media` types
- Specified the negotiation mechanism for WTA-WML content type
- Specified the negotiation mechanism for the WTA Channel content type

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## 2. Document Status

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

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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. Change 1 Modifications to Section 3

### 3.1 Change Classification

<b>1 – New Feature, Major Change or Market Effecting Change</b>	<b>[ ]</b>
<b>2 – Bug Fixes</b>	<b>[ X]</b>
<b>3 – Clerical Corrections</b>	<b>[ ]</b>

### 3.2 Change Summary

The following changes are made in section 3 of the specification:

- The reference to WAP WPKI specification is removed.
- A reference to RFC2046 is added.
- An informative reference section is added with a reference to RFC2376.

### 3.3 Change

## 3. References

### 3.1 Normative references

[CACHE]	"WAP Caching Model Specification", WAP Forum, 11-Feb-1999. URL: <a href="http://www.wapforum.org/">http://www.wapforum.org/</a>
[RFC2046]	<a href="http://www.ietf.org/rfc/rfc2046.txt">"Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types", N. Freed, et al., November 1996. URL: http://www.ietf.org/rfc/rfc2046.txt</a>
[RFC2396]	"Uniform Resource Identifiers (URI): Generic Syntax." T. Berners-Lee, R. Fielding, L. Masinter, et al., August 1998. URL: <a href="http://www.ietf.org/rfc/rfc2396.txt">http://www.ietf.org/rfc/rfc2396.txt</a>
[RFC2616]	"Hypertext Transfer Protocol - HTTP/1.1". R. Fielding, et al. June 1999. URL: <a href="http://www.ietf.org/rfc/rfc2616.txt">http://www.ietf.org/rfc/rfc2616.txt</a>
[RFC2119]	"Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997. URL: <a href="http://www.ietf.org/rfc/rfc2119.txt">http://www.ietf.org/rfc/rfc2119.txt</a>
[SI]	"WAP Service Indication Specification", WAP Forum, 08-Nov-1999. URL: <a href="http://www.wapforum.org/">http://www.wapforum.org/</a>
[WAE]	"Wireless Application Environment Specification", WAP Forum, 24-May-1999. URL: <a href="http://www.wapforum.org/">http://www.wapforum.org/</a>
[WAP]	"Wireless Application Protocol Architecture Specification", WAP Forum, 30-April-1998. URL: <a href="http://www.wapforum.org/">http://www.wapforum.org/</a>
[WBXML]	WAP-192, "Binary XML Content Format Specification", WAP Forum. URL: <a href="http://www.wapforum.org/">http://www.wapforum.org/</a>
[WDP]	"Wireless Datagram Protocol Specification", WAP Forum, 05-Nov-1999. URL: <a href="http://www.wapforum.org/">http://www.wapforum.org/</a>

- [WML] “Wireless Markup Language Specification”, WAP Forum, 04-Nov-1999. URL: <http://www.wapforum.org/>
- [WMLScript] “WMLScript Language Specification”, WAP Forum, 17-Jun-1999. URL: <http://www.wapforum.org/>
- ~~[WPKI] “Wireless Application Protocol Public Key Infrastructure Definition”, WAP Forum, DRAFT version 03 Mar 2000. URL: <http://www.wapforum.org/>~~
- [WSP] “Wireless Session Protocol Specification”, WAP Forum, 05-Nov-1999. URL: <http://www.wapforum.org/>
- [WTAI] WAP-170, “Wireless Telephony Application Interface Specification”, WAP Forum. URL: <http://www.wapforum.org/>
- [WTLS] “Wireless Transport Layer Security Specification”, WAP Forum, 05-Nov-1999. URL: <http://www.wapforum.org/>
- [XML] “Extensible Markup Language (XML), W3C Recommendation 10-February-1998, REC-xml-19980210”, T. Bray, et al, February 10, 1998. URL: <http://www.w3.org/TR/REC-xml>

### 3.2 Informative references

- ~~[RFC2376] “XML Media Types”, E Whitehead, et al., July 1998. URL: <http://www.ietf.org/rfc/rfc2376.txt>~~

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## 4. Change 2 Modifications to section 6

### 4.1 Change Classification

1 – New Feature, Major Change or Market Effecting Change	[ ]
2 – Bug Fixes	[ X]
3 – Clerical Corrections	[ ]

### 4.2 Change Summary

In section 6.5 - Available security framework, the reference to Telephony Service Provider Root certificate and the WPKI specification is removed.

### 4.3 Change

## 6. WTA security requirements

### 6.5 Available security framework

A security mechanism is mandatory for WTA. Until a signed content model is available, the security between the client and the WTLS connection end point is ensured using WTLS class 2 with mandatory use of server certificate authentication. The use of a WTLS session is mandatory for WTA services (non-public). For a description of WTLS, see [WTLS].

Using WTLS, any WTA service can be delivered by the trusted telephony service provider (or an entity delegated by the trusted telephony service provider) through a secure pipe from the gateway to the client. WAP gateway to WTA server security is left up to the implementation. For connections over the Internet, SSL/TLS may be used.

The client MUST only allow connections for WTA services to specified (trusted) gateways. ~~This is achieved by using Telephony Service Provider Root certificates. These certificates and their use are described in [WPKI].~~

## 5. Change 3 Modifications to section 8

### 5.1 Change Classification

1 – New Feature, Major Change or Market Effecting Change	[ ]
2 – Bug Fixes	[X]
3 – Clerical Corrections	[ ]

### 5.2 Change Summary

In section 8.1.1.2, a definition for the negotiation mechanism for the WTA-WML content type is added.

### 5.3 Change

## 8. WTA-WML Content

All WTA services must be written in the WTA-WML language. This markup language is a superset of WML.

### 8.1 WTA-WML Content Format

This section defines the content format used to represent wta-wml content.

WTA-WML is an application of [XML] version 1.0.

#### 8.1.1 Document Identifiers

**Editor's note:** These identifiers have not yet been registered with the IANA or ISO 9070 Registrar

##### 8.1.1.1 SGML Public Identifier

-//WAPFORUM//DTD WTA-WML 1.2//EN

##### 8.1.1.2 WTA-WML Media Type

Textual form: text/x-wap-wta-wml

Tokenised form: application/x-wap-wta-wmlc

Required parameters: none

Optional parameters: charset and version

The version parameter indicates the WTA-WML version. The value has the format: <major>.<minor> - where major and minor are integers. For example, version=1.2 indicates version 1.2. Should the version parameter not be available, the default version 1.2 applies.

The charset parameter is the same as specified in [RFC2046].

Encoding of the text/x-wap-wta-wml media type follows the same principles as specified for the XML media types in [RFC2376]. Encoding of the application/x-wap-wta-wmlc media type follows the same principles as specified for WBXML in [WBXML], section 5.2.

The media type may be used by WSP/HTTP for content negotiation between the WTA client and server. See [RFC2616].



## 6. Change 4 - Modifications to section 9

### 6.1 Change Classification

1 – New Feature, Major Change or Market Effecting Change	[ ]
2 – Bug Fixes	[X]
3 – Clerical Corrections	[ ]

### 6.2 Change Summary

In section 9.4.1.1.2, a definition for the negotiation mechanism for the WTA Channel content type is added.

### 6.3 Change

## 9 Repository

### 9.4 Programming the Repository

#### 9.4.1 The Channel Content Format

This section defines the content format used to represent the channel content format.

Channel is an application of [XML] version 1.0.

##### 9.4.1.1 Document Identifiers

**Editor's note:** These identifiers have not yet been registered with the IANA or ISO 9070 Registrar

##### 9.4.1.1.1 SGML Public Identifier

--//WAPFORUM//DTD CHANNEL 1.2//EN

##### 9.4.1.1.2 Channel Media Type

Textual form: text/vnd.wap.channel

Tokenised form: application/vnd.wap.channelc

Required parameters: none

Optional parameters: charset and version

The version parameter indicates the Channel version. The value has the format: <major>.<minor> - where major and minor are integers. For example, version=1.2 indicates version 1.2. Should the version parameter not be available, the default version 1.2 applies.

The charset parameter is the same as specified in [RFC2046].

Encoding of the text/vnd.wap.channel media type follows the same principles as specified for the XML media types in [RFC2376]. Encoding of the application/vnd.wap.channelc media type follows the same principles as specified for WBXML in [WBXML], section 5.2.

The media type may be used by WSP/HTTP for content negotiation between the WTA client and server. See [RFC2616].