

Winwap Technologies Oy

Client WAP Stack Library

WAP Gateway Compatibility and Interoperability Charts



WAP stack version 2.6
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Revision history

Date	Author	Description
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19-May-2004	S Markelov	New section: "Negotiated secure parameters".
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08-Dec-2005	S Markelov	New version of Kannel WAP/SMS Gateway.

Introduction

The aim of this document is to provide the reader with a list of WAP Gateways that the WAP Stack Library has been certified or tested to work with.



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1 Definitions

WAP Stack Library is a part of the WinWAP Software Development Kit (SDK). It is used for connecting to WAP Gateways and retrieving data through them. The WAP Stack Library is available for all Windows versions and many Unix/Linux versions.

WAP Gateway Converts the hypermedia transfer service between the datagram-based protocols (WSP, WTP, WTLS, WDP) and connection-oriented protocols commonly used on the Internet (HTTP, SSL, TCP).

HTTP Hypertext Transfer Protocol

SSL Secure Sockets Layer.

TCP Transmission Control Protocol.

WDP Wireless Datagram Protocol.

WSP Wireless Session Protocol.

WTLS Wireless Transport Layer Security Protocol.

WTP Wireless Transaction Protocol Specification.

2 WAP Gateways

2.1 List of WAP Gateways

#	WAP Gateway	Version	Official homepage
1	WapServ Pro	1.0.5	http://www.wap-serv.com
2	Nokia Activ Server	2.1.3411A	http://www.nokia.com
3	Kannel WAP/SMS Gateway	1.2.1	http://kannel.org
4	Atinav aveAccess WAP Gateway	2.0	http://www.atinav.com
5	Infinite WAP Gateway	2.02	http://www.captaris.com/infinite_wap_gateway/
6	Jinny WAP Gateway	1.1-4	http://www.jinny.ie/wapgateway.html
7	Mobile Gateway	3.0	http://www.realwow.com
8	Openwave WAP Gateway	5.1	http://developer.openwave.com
9	Kannel WAP/SMS Gateway	1.4.0	http://kannel.org

2.2 Summary of the WAP Gateways

2.2.1 WapServ Pro 1.0.5

- The most compact implementation of the WAP 1.1 specifications.
- Supports only Connectionless and Connection-oriented session services.

- Does not support WTP Segmentation and Re-assembly (SAR). It does not validate WAP Invoke PDU using SAR or send WAP Abort PDU with error NOTIMPLEMENTEDSAR.
- The gateway crashes on receipt of a request for a larger resource than 170 Kilobytes.

2.2.2 Nokia Activ Server 2.1

- Compatible with WAP 1.2.
- Supports Connectionless, Connection-oriented, Connectionless Secure and Connection-oriented secure session services.
- Supports WTP Segmentation and Re-assembly (SAR).

2.2.3 Kannel WAP/SMS Gateway 1.2.1

- Compatible with WAP 1.2.1.
- Supports only Connectionless and Connection-oriented session services.
- Does not support WTP Segmentation and Re-assembly (SAR). It can optionally accept WAP Invoke PDU using SAR and not send WAP Abort PDU with error NOTIMPLEMENTEDSAR.

2.2.4 Atinav aveAccess WAP Gateway 2.0

- Publicly available on IP: 205.242.250.72.
- Compatible with WAP 1.2.1.
- Supports Connectionless, Connection-oriented, Connectionless Secure and Connection-oriented secure session services.
- Supports WTP Segmentation and Re-assembly (SAR).

2.2.5 Infinite WAP Gateway 2.02

- Includes a WAP v1.1/v1.2 compatible stack.
- Supports Connectionless, Connection-oriented, Connectionless Secure and Connection-oriented secure session services.
- Does not support WTP Segmentation and Re-assembly (SAR).

2.2.6 Jinny WAP Gateway 1.1-4

- Fully compliant with the WAP 1.2 standard as specified by the WAP Forum.
- Supports Connectionless, Connection-oriented, Connectionless Secure and Connection-oriented secure session services.
- Supports WTP Segmentation and Re-assembly (SAR).

2.2.7 Mobile Gateway 3.0

- Compatible with WAP 1.2.1.
- Supports only Connectionless and Connection-oriented session services.
- Does not support WTP Segmentation and Re-assembly (SAR). Does not validate WAP Invoke PDU using SAR or send WAP Abort PDU with error NOTIMPLEMENTEDSAR.

2.2.8 Openwave WAP Gateway 5.1

- Publicly available on IP: 12.25.203.11.
- Compatible with WAP 1.2.1.
- Supports only Connection-oriented and Connection-oriented secure session services.
- Supports WTP Segmentation and Re-assembly (SAR).

2.2.9 Kannel WAP/SMS Gateway 1.4.0

- Compatible with WAP 2.0.
- Supports Connectionless, Connection-oriented, Connectionless Secure and Connection-oriented secure session services.
- The gateway crashes on receipt of a request for a secure session.

3 Tested WAP Gateway features

3.1 Summary

Below is a list of some features, supported by the WAP Stack Library. These features have been tested with the different WAP Gateways. The features have been enabled during session establishment and requests for resources.

CL WSP Connectionless session service.

CO WSP Connection-oriented session service.

SCL WTLS and WSP Connectionless session service.

SCO WTLS and WSP Connection-oriented session service.

SAR WTP Segmentation and Re-assembly.

The table below summarizes the outcome of the tests.

✓ The WAP Stack works successfully with the corresponding WAP Gateway feature.

n/a The corresponding feature should be available according to written specifications but no successful tests have been carried out as the feature has not been found in the available product version.

WAP Gateway	CL	CO	SCL	SCO	SAR
WapServ Pro 1.0.5	✓	✓			
Nokia Activ Server 2.1	✓	✓	n/a	n/a	✓
Kannel WAP/SMS Gateway 1.2.1	✓	✓			
Atinav aveAccess WAP Gateway 2.0	✓	✓			✓
Infinite WAP Gateway 2.02	✓	✓	✓	✓	
Jinny WAP Gateway 1.1-4	✓	✓	✓	✓	✓
Mobile Gateway 3.0	✓	✓			
Openwave WAP Gateway 5.1		✓		✓	✓
Kannel WAP/SMS Gateway 1.4.0	✓	✓			✓

3.2 Negotiated secure parameters

This section describes the selected secure algorithms used during negotiation for establishment of a secure session. The current version of the WAP Stack Library does not provide an API for retrieving information about the selected, session dependent and secure parameters used. Such API is planned but now it is important to give information about used secure algorithms. The parameters can be taken from WAP Stack Library’s log files after parsing WTLS PDUs.

3.2.1 Infinite WAP Gateway

The Infinite WAP Gateway chose:

- 768 bit Diffie-Hellman key exchange without authentication.
- 168 bit 3DES-CBC-EDE encryption algorithm.
- 20 byte SHA MAC algorithm.

3.2.2 Jinny WAP Gateway

The Jinny WAP Gateway chose:

- 768 bit Diffie-Hellman key exchange without authentication.
- 168 bit 3DES-CBC-EDE encryption algorithm.
- 20 byte SHA MAC algorithm.

3.2.3 Openwave WAP Gateway

The Openwave WAP Gateway chose a transfer method without encryption. using message signs only.

- 768 bit Diffie-Hellman key exchange without authentication.
- NULL encryption algorithm.
- 20 byte SHA MAC algorithm.