



## **WiMAX Forum<sup>®</sup> Network Architecture**

(Stage 2: Architecture Tenets, Reference Model and Reference Points)

[Stage 2 and Stage 3 Abbreviations]

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# 1. Abbreviations/Acronyms, Definitions, and Conventions

## 1.1 Abbreviations/Acronyms

The following table lists several abbreviations and acronyms used throughout NWG Stage 2 and Stage 3 documents.

Abbreviation	Expansion of Abbreviation
3GPP	Third Generation Partnership Project
3GPP2	Third Generation Partnership Project 2
AA	Anchor Authenticator also called Network Authenticator Server (NAS)
AAA	Authentication, Authorization, and Accounting
AAA Proxy	An intermediary for transparently routing and/or processing AAA messages sent between a AAA client and a AAA server
AAA Server	Computer system performing AAA services (authentication, authorization, accounting)
AAA-V	AAA proxy server located within the visited network
AASN	Anchor ASN. Refers to the ASN that holds the Anchor Data Path Functions for a given MS
AC	Admission Control
ADPF	Anchor Data Path Function
AF	Application Function
AK	Authorization Key
AKA	Authentication and Key Agreement
AK SN	- Derivation from PMK and PMK2 SN
AM	Authorization Module
APC	Anchor paging Controller
APCF	Anchor paging controller function
API	Application Program Interface
AR	Access Router
ARQ	Automatic Retransmission Request
AS	Authentication Server
ASN	Access Service Network
ASP	Application Service Provider
BCE	Binding Cache Entry
BE	Best Effort
BRAS	Broadband Remote Access Server
BS	Base Station
BSID	Base Station Identifier
BU	Binding Update
CAC	Connection Admission Control
CCoA	Collocated Care of Address
CDMA2000	3rd Generation Code Division Multiple Access Radio Technology
CID	Connection Identifier
CMAC	Cipher-based Message Authentication Code
CMIP	Client Mobile IP
COA	Change of Authority

Abbreviation	Expansion of Abbreviation
CoA	Care of Address
COS	Class of Service
CS	Convergence Sublayer
CSN	Connectivity Service Network
CUI	Chargeable User Identity
DAD	Duplicate Address Detection
DHCP	Dynamic Host Configuration Protocol
DL	Down Link
diffserv	Differentiated services
DNS	Domain Name Service
DoS	Denial of Service
DP	Decision Point Data Path
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Link Access Multiplexer
E2E	End-to-End
E911	US Emergency Services
EAP	Extensible Authentication Protocol
EAP-AKA	EAP Authentication and Key Agreement to be used with USIM
EAP-MD5	Extensible Authentication Protocol - Message Digest 5
EAP-MSCHAPv2	EAP Microsoft Challenge Handshake Authentication Protocol version 2
EAP-PSK	Extensible Authentication Protocol - Pre Shared Key
EAP-SIM	EAP Subscriber Identity Module to be used with SIM
EAP-TLS	EAP with TLS
EMSK	Extended Master Session Key
ertPS	Extended Real-Time Polling Service
EUI-64	Extended Unique Identifier (64-bit)
FA	Foreign Agent
FBSS	Fast Base Station Switching
FCAPS	Fault Configuration Accounting Performance and Security
FQDN	Fully Qualified Domain Name
FRD	Fast Router Discovery
FWA	fixed wireless access
GPRS	General Packet Radio Services
GRE	Generic Routing Encapsulation
GSA	Group Security Association
GSM	Global System for Mobile communication
GW	Gateway
HA	Home Agent
HLA	Hot-Line Application Hot-Lining Application
HLD	Hot-Line Device

Abbreviation	Expansion of Abbreviation
	Hot-lining Device
HMAC	Keyed-Hashing for Message Authentication Code
HO	Handoff
HO ID	Handoff Identifier
HoA	MS Home Address
Hotspot	Public location such as an airport or hotel where WLAN services have been deployed
HSDPA	High Speed Downlink Packet Access
HTTP	HyperText Transfer Protocol
I-WLAN	Interworking with Wireless LANs
IANA	Internet Assigned Numbers Authority
IBS	Integrated Base Stations. Refers to a BS that can instantiate all the ASN functions for a given MS. Such an Integrated BS can also be labeled a Profile B ASN
ICMPv6	Internet Control Message Protocol for (IPv6) Specification [RFC 2463]
IE	information elements
IEEE	Institute of Electrical and Electronics Engineers
IEEE 802.3	IEEE standard specification for Ethernet
IETF	Internet Engineering Task Force
IID	Interface Identifier
IK	Integrity Key
IKEv2	Internet Key Exchange protocol version 2
IMS	IP Multimedia Subsystem
IMSI	International Mobile Subscriber Identity
IP	Internet Protocol
IPsec	IP Security
IPv4	Internet Protocol Version 4
IPv6	Internet Protocol Version 6
ISF	Initial Service flow
IWF	Internetworking Function
IWG	Inter-working Gateway
IWU	Internetworking Unit
LBS	Location Based Services
LE	License-Exempt deployments
LPF	Local Policy Function
LR	Location Register MSID, BSID
LSB	Least Significant Byte
MAC	Medium Access Control
MBMS	Multimedia Broadcast/Multicast Service
MCC	Mobile Country Code
MDHO	Macro Diversity handoff
MIP	Mobile IP (Refers to both Mobile IPv4 and Mobile IPv6)
MIP6	Mobile IP version 6
MM	Mobility Management
MMS	Multimedia Messaging Service

Abbreviation	Expansion of Abbreviation
MNC	Mobile Network operator Code
MN_HOA	Allow-MN-HA=Assignment
MPLS	Multi Protocol Label Switching
MS	Mobile Station
MSID	Mobile Station Identifier
MSK	Master Session Key
NA	Neighbor Advertisements
NAI	Network Access Identifier
NAP	Network Access Provider
NAPT	Network Address Port Translation
NAS	Network Access Server
NAT	Network Address Translation
NMS	Network Management System
NRM	Network Reference Model
nrtPS	Non-real-time Polling Service
NS	Neighbor Solicitation
NSP	Network Service Provider
NUD	Neighbor Unreachability Detection
OAM	Operations and Maintenance
OTA	Over-The-Air
OUI	Organization Unique Identifier
P-CSCF	Proxy-Call Session Control Function
PA	Paging Agent
PC	Paging Controller
PDFID	packet data flow ID
PDG	Packet Data Gateway
PDU	Packet Data Unit
PEAP	Protected EAP
PF	Policy Function
PG	Paging Group
PG ID	Paging Group Identifier
PHS	Packet header suppression (PHS)
PKM	Privacy Key Management
PMIP	Proxy-Mobile IP
PMK	Pairwise Master Key
PMK2	Pairwise Master Key
PMN	Proxy Mobile Node
PoA	Point of Attachment
PPAC	prepaid accounting capability
PPC	Prepaid Client
PPS	Prepaid Server
Proxy-ARP	Proxy Address Resolution Protocol
PSK	PreShared Key

Abbreviation	Expansion of Abbreviation
PSTN	Public Switched Telephone Network
PtP	Peer to Peer
QoS	Quality of Service
RADIUS	Remote Access Dial In User Service
RA	Router Advertisement
RO	route optimization
RR	Resource-Reservation
RP	Reference Point
RRA	Radio Resource Agent
RRC	Radio Resource Controller
RRM	Radio Resource Management
RS	Router Solicitation
RSVP	Resource Reservation Protocol
rtPS	Real-time Polling Service
RUIM	Removable User Identity Module
SA	Security Association
SAE	system architecture evolution
SCI	Spare capacity indicator
S-CSCF	Serving-Call Session Control Function
SDFID	service data flow ID
SDU	Service Data Unit
SFA	Service Flow Authorization
SFID	Service Flow ID
SFM	Service Flow Management
SHO	Soft Hand Off
SI	Subscriber Identity
SII	System Information Identity or Service Identity Information
SIM	Subscriber Identity Module. Smart cards used by GSM operators.
SLA	Service Level Agreement
SMTP	Simple Mail Transport Protocol
SNMP	Simple Network Management Protocol
SS7	Signaling System 7
SSL	Secure Sockets Layer
SS	Subscriber Station
SUBC	Subscriber Credentials
TBS	Target BS
TCP	Transmission Control Protocol
TE	Terminal Equipment
TLS	Transport Layer Security, a variant of SSL
TLV	Type Length Value
TTLS	Tunneled TLS
UDP	User Datagram Protocol
UDR	Usage Data Record

Abbreviation	Expansion of Abbreviation
UE	User Equipment
UGS	Unsolicited Grant Service
UICC	Universal Integrated Circuit Card
UID	user-identity
UMTS	Universal Mobile Telecommunications System
USIM	Universal Subscriber Identity Module. Smart cards used by UMTS operators
VLAN	Virtual LAN
VoIP	Voice over IP
VPN	Virtual Private Network
VSA	Vendor Specific Attributes
WAG	WLAN Access Gateway
WATSP	WiMAX ASN Transport Signaling Protocols
WCDMA	Wideband Code-Division Multiple Access
WEP	Wired Equivalent Privacy
WPA	Wi-Fi Protected Access
Wi-Fi	Wireless Fidelity, refers to 802.11 standards, including 802.11b, 802.11a, and 802.11g
WLAN	Wireless local area network based on IEEE 802.11 and related standards
WWAN	Wireless Wide Area Network
X.509	ITU standard for digital public-key certificate issued by a CA

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