

AddPac Mobile Solution



Mobile Solution




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Bluetooth VoIP Gateway Solution

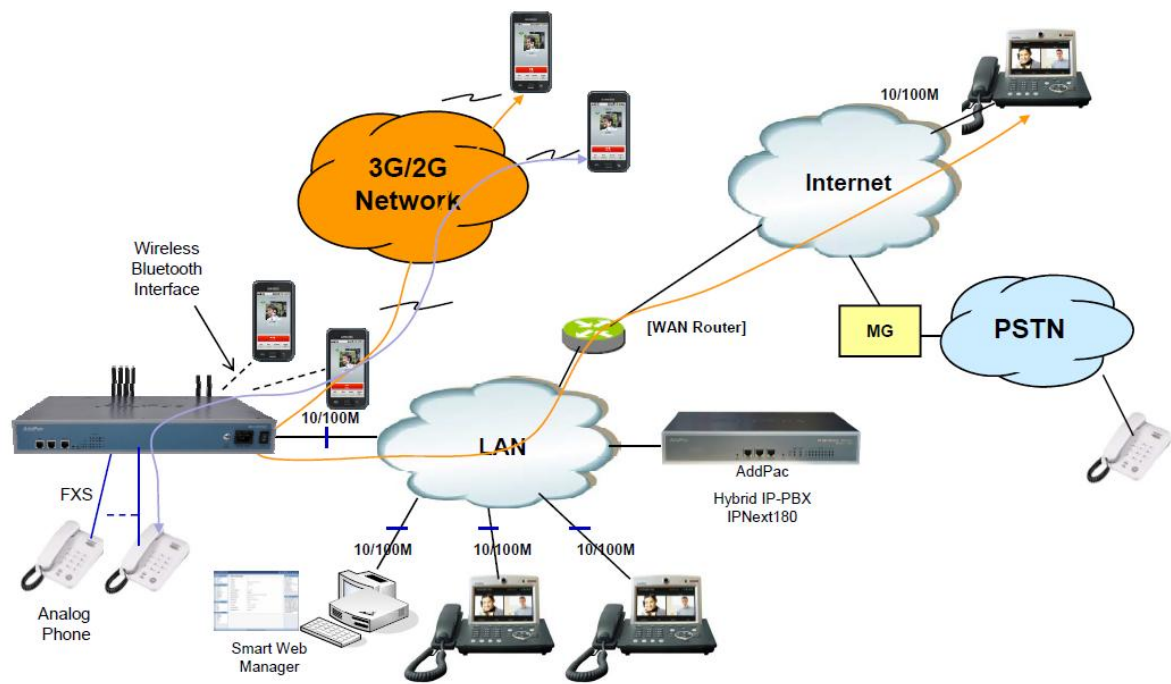


AddPac Bluetooth VoIP Gateway are a device that can support both mobile station gateway service (FXS->Bluetooth->cellular phone->2G or or 3G, Internet->Bluetooth->cellular phone->2G or 3G) and VoIP gateway service (FXS->Internet) simultaneously. This Bluetooth VoIP Gateway provides high-performance Analog or IP to Mobile Station(cellular phone) gateway solution including IP-routing services for call termination service provider, and medium size enterprise. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. Bluetooth VoIP gateway combining IP-PBX is now suggesting a new model for a main voice communication solution. In order to be a part of advanced VoIP communications naturally in the future, making an excellent choice of choosing Bluetooth VoIP gateway is essential. In some mobile operator, they use unique 3G or LTE frequency band often. In this case, this bluetooth technology based VoIP gateway can be another choice instead of 3G or 4G mobile chip built-in VoIP gateway system.

Bluetooth VoIP Gateway Comparison Table

Model	AP-LMS1001		AP-LMS1500	AP-LMS2500
				
Available Modules	Type	VoIP	AP-N1-LMS4 (4ch bluetooth module) AP-N1-3G4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-LMS4 (4ch bluetooth module) AP-N1-3G4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
	A	None		
	B	1FXS		
	C	1FXO		
Bluetooth Channel	1 Channel		Up to 8 Ch.	Up to 16 Ch.
Module Slot	N/A		Two(2) Module Slots for 4ch Bluetooth module	Four(4) Module Slots for 4ch Bluetooth module
LAN Port	2		2	2
Console	N/A		1	1
Power	External Power Adaptor		Single PSU	Single PSU

Network Diagram



Bluetooth VoIP Gateway Solution for Non-RUIM Type CDMA Network

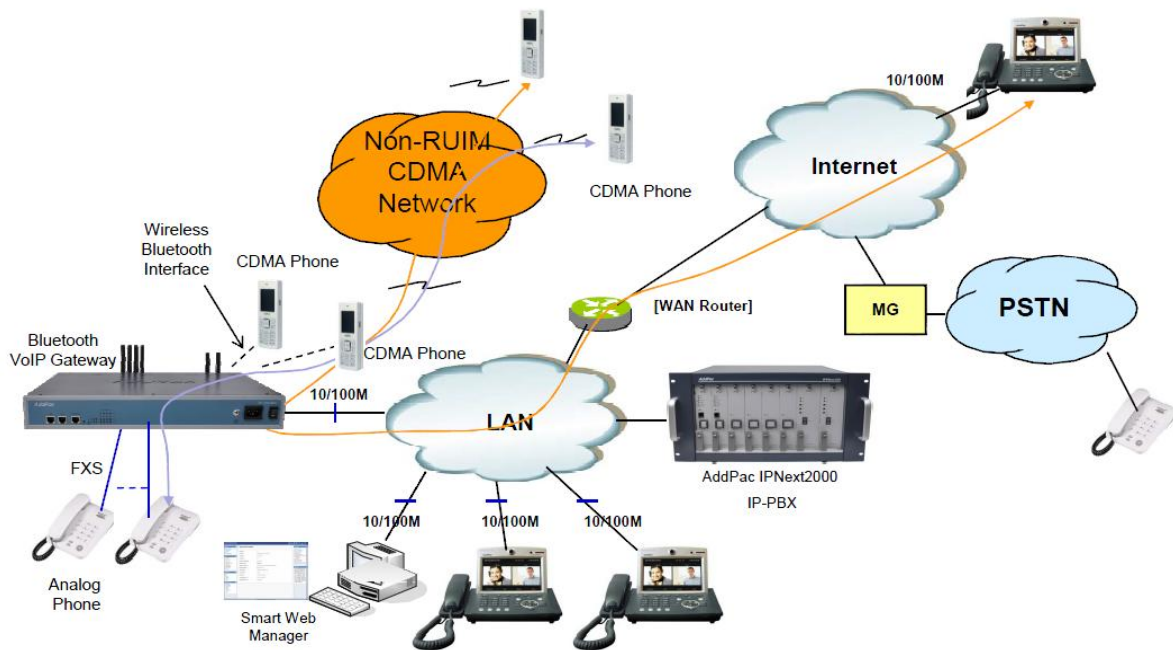


AddPac Bluetooth VoIP Gateway support Non-RUIM CDMA voip gateway service (VoIP?Bluetooth->cellular phone->Non-RUIM CDMA Network). This Bluetooth VoIP Gateway provides high-performance Analog or VoIP to Mobile Station (cellular phone) gateway solution including IP-routing services for call termination service provider, and medium size enterprise. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. Bluetooth VoIP gateway combining softswitch is now suggesting a new model for a main voice communication solution. In order to be a part of advanced VoIP communications naturally in the future, making an excellent choice of choosing Bluetooth VoIP gateway is essential. In some mobile operator, they use unique Non-RUIM CDMA, 3G or LTE frequency band often. In this case, this bluetooth technology based VoIP gateway can be another choice instead of CDMA or 3G mobile chip built-in VoIP gateway system.

Bluetooth VoIP Gateway Comparison Table

Model	AP-LMS1001		AP-LMS1500	AP-LMS2500
				
Available Modules	Type	VoIP	AP-N1-LMS4 (4ch bluetooth module) AP-N1-3G4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-LMS4 (4ch bluetooth module) AP-N1-3G4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
	A	None		
	B	1FXS		
	C	1FXO		
Bluetooth Channel	1 Channel		Up to 8 Ch.	Up to 16 Ch.
Module Slot	N/A		Two(2) Module Slots for 4ch Bluetooth module	Four(4) Module Slots for 4ch Bluetooth module
LAN Port	2		2	2
Console	N/A		1	1
Power	External Power Adaptor		Single PSU	Single PSU

Network Diagram (Non-RUIM type CDMA Network)






GSM Gateway Solution



AddPac GSM Gateway solution provides GSM VoIP gateway function from 1 Port up to 80 Ports. AddPac GSM gateway lineup provides analog phone (FXS), IP-Phone (IP-PBX environment), PSTN (FXO), and Legacy PBX. With analog phone/IP Phone, it provides GSM voice communication concurrently. AddPac GSM gateway solution is designed on the basis of hardware architecture to provide GSM and VoIP voice communication concurrently. It is a device that provides GSM voice communication and internet voice communication concurrently. It also provides various voice codec such as G.711, G.726, G.729, G.723.1 along with SIP, and H.323 multiple VoIP signaling protocol. AddPac GSM VoIP gateway devices are all programmable RISC CPU + DSP structure so that constant software development/additional feature upgrades is possible to cope with customer requirements/environments.

GSM Gateway Comparison Table (1~4 Port)

	AP-GS1001		AP-GS1002		AP-GS1004	
						
Model	Type	VoIP	Type	VoIP	Type	VoIP
	A	None	A	None	A	None
	B	1FXS	B	2FXS	B	4FXS
	C	1FXO	C	2FXO	C	4FXO
GSM Channel	1		2		4	
GSM Antenna	1		2		1 (4ch Combiner)	
Module Slot	N/A		N/A		N/A	
LAN Port	2		2		1	
Console	N/A		1		1	

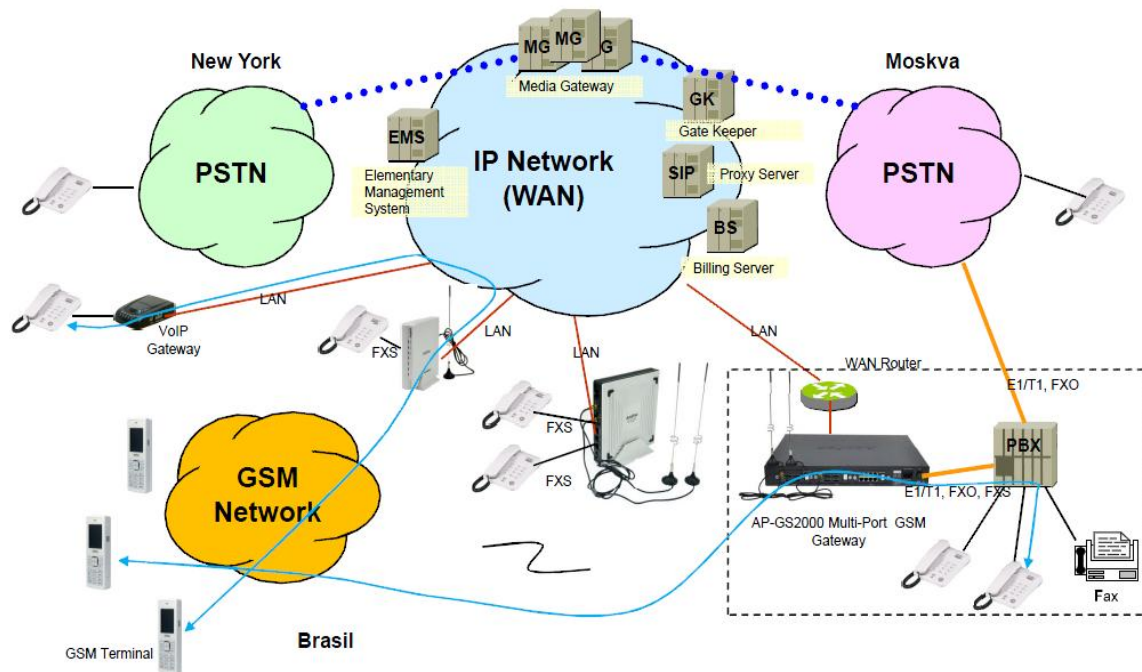
GSM Gateway Comparison Table (4~28 Port)

Model	AP-GS1200	AP-GS1500	AP-GS2000	AP-GS2500	AP-GS2700	AP-GS2800
Available Modules	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
GSM Channel	Up to 4 Ch.	Up to 8 Ch.	Up to 12 Ch.	Up to 16 Ch.	Up to 24 Ch.	Up to 28 Ch.
GSM Antenna	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)
Module Slot	One(1) Module Slots for GSM	Two(2) Module Slots for GSM	Three(3) Module Slots for GSM	Four(4) Module Slots for GSM	Six(6) Module Slots for GSM, E1/T1 Module Slot	Seven(7) Module Slots for GSM, E1/T1 Module Slot
LAN Port	2	2	2	2	2	2
Console	1	1	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU	Single PSU	Single PSU

GSM Gateway Comparison Table (32Port~)

Model	AP-GS3000	AP-GS3500	AP-GS3800	AP-GS4500	AP-GS5000
Available Modules	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1
GSM Channel	Up to 36 Channel	Up to 36 Channel	Up to 44 Channel	Up to 64 Channel	Up to 80 Channel
GSM Antenna	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	Two(2) / 8 Channel GSM Module (AP-N3-GSM8)	Two(2) / 8 Channel GSM Module (AP-N1-GSM8)
Module Slot	Nine(9) Module Slots for GSM, E1/T1 Module Slot	Nine(9) Module Slots for GSM, E1/T1 Module Slot	Eleven(11) Module Slots for GSM	Eight(8) Module Slots for GSM, E1/T1 Module Slot	Ten(10) Module Slots for GSM, E1/T1 Module Slot
LAN Port	2	2	2	2	2
Console	1	1	1	1	1
Power	Single PSU	Dual PSU(Module)	Single PSU	Single PSU	Dual PSU (module)

Network Diagram







GSM VoIP Gateway Solution



AddPac GSM VoIP Gateway solution provides multi-port (24~48Port) GSM VoIP gateway for GSM call termination service. AddPac GSM VoIP gateway solution is designed on the basis of hardware architecture to provide GSM VoIP service. It also provides various voice codec such as G.711, G.726, G.729, G.723.1 along with SIP, and H.323 multiple VoIP signaling protocol. AddPac GSM VoIP gateway devices are all programmable RISC CPU + DSP structure so that constant software development/additional feature upgrades is possible to cope with customer requirements/environments.

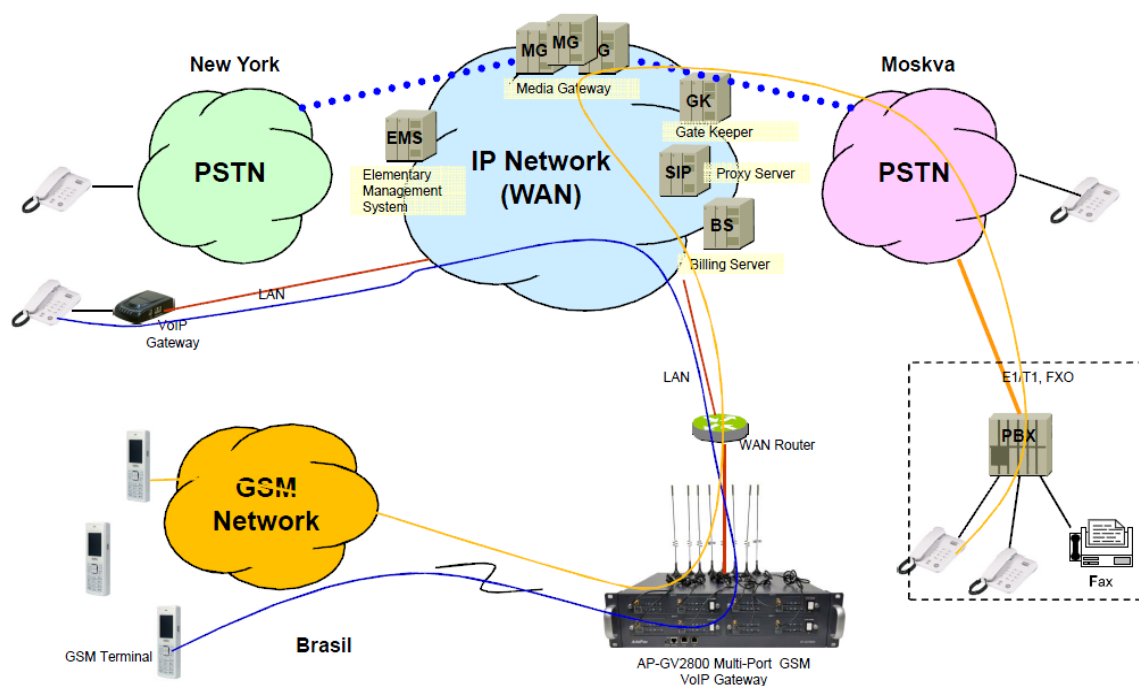
GSM VoIP Gateway Comparison Table (24~48 Port)

Model	AP-GV3300	AP-GV3200	AP-GV3100	AP-GV2000
				
Available Modules	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1 AP-N5-2E1/T1	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1 AP-N5-2E1/T1	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1
GSM Channel	Up to 48 Channel	Up to 40 Channel	Up to 32 Channel	Up to 24 Channel
Module Slot	Six(6) Module Slots for GSM, E1/T1 Module, etc	Five(5) Module Slots for GSM, E1/T1 Module, etc	Four(4) Module Slots for GSM Module, etc	Three(3) Module Slots for GSM, E1/T1 Module, etc
LAN Port	2	2	2	2
Console	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU

GSM VoIP Gateway Comparison Table (32Port)

Model	AP-GV2800	AP-GV3000
Available Modules	AP-N2-GSM8	AP-N2-GSM8
GSM Channel	Up to 32 Channel	Up to 32 Channel
GSM Antenna	Two(2) / 8 Channel GSM Module(AP-N2-GSM8)	Two(2) / 8 Channel GSM Module(AP-N2-GSM8)
Module Slot	Four(4) Module Slots for GSM	Four(4) Module Slots for GSM
LAN Port	2	2
Console	1	1
Power	Single PSU	Dual PSU (module)

Network Diagram






GSM SIM Server Solution










AddPac GSM SIM Server solution provides various GSM based Remote SIM Servers like as AP-GSS5000, AP-GSS3000, AP-GSS2000, AP-GSS1500. This Remote GSM SIM Servers can be installed or operated with AddPac GSM SIM Clients like as AddPac GSM Gateway AP-GS3000, etc. AddPac GSM SIM server combining GSM gateways is now suggesting a new model for a main mobile voice communication solution. In order to be a part of advanced mobile voice communications naturally in the future, making an excellent choice of choosing SIM server with GSM gateway is essential. AddPac AP-GSS5000 is a new cutting edge Tower Type GSM SIM server supporting maximum 512 channel SIM slots. AP-GSS5000 provides an optimized remote SIM bank solution when it interoperates with AddPac GSM gateways. Front SIM card slot design and system architecture of AP-GSS5000 provides customer satisfaction in high quality, performance and system reliance. AddPac AP-GSS5000 is a device that can support remote SIM bank application for centralized management. It also supports sixteen (16) module slots for GSM SIM bank, one(1) module slot for CPU board, two(2) gigabit ethernet ports, 1-port RS232C console, and state-of-art technologies and services. AddPac AP-GSS5000 is a high-end GSM SIM server providing total 512 SIM interfaces slots.(sixteen(16) module x 32 = 512 channel). A SIM bank module supports 32 front panel type SIM slots. It is suitable for call termination service provider, general enterprises, and large public offices. AddPac AP-GSS3000 is a legacy H/W type Remote SIM server supporting maximum 512 channel SIM slots. AddPac AP-GSS3000 is a mid-range SIM server providing total 512 SIM interfaces slots (sixteen(16) module x 32 = 512 channel). A SIM bank module supports 32 channel SIM slots. It is suitable for general enterprises, medium and large public offices. AddPac AP-GSS2000 is a legacy H/W type Remote SIM server supporting maximum 256 channel SIM slots. AddPac AP-GSS2000 is a mid-range SIM server providing total 256 SIM interfaces slots (octal(8) module x 32 = 256 channel). A SIM bank module supports 32 channel SIM slots. It is suitable for general enterprises, medium and large public offices. AddPac AP-GSS1500 is a legacy H/W type Remote SIM server supporting maximum 256 channel SIM slots. AP-GSS1500 is a mid-range SIM server providing total 256 SIM interfaces slots (octal(8) module x 32 SIM = 256 SIM). A SIM bank module supports 32 channel SIM slots. It is suitable for general enterprises, medium and large public offices.





AddPac GSM SIM Servers

Model	AP-GSS5000	AP-GSS3000	AP-GSS2000	AP-GSS1500
				
Available Modules	AP-GSC32F AP-CPU AP-POWER	AP-GSC32 AP-CPU AP-POWER	AP-GSC32 AP-CPU	AP-N1-SIM32 AP-CPU
SIM Bank Module	AP-GSC32F : 32 SIM, Front Insertion Type, Single SIM base exchange, Hot-Swap	AP-GSC32 : 32 SIM, Hot-Swap	AP-GSC32 : 32 SIM, Hot-Swap	AP-N1-SIM32: 32 SIM, Hot-Swap
Total SIM Cards	Up to 512 SIM	Up to 512 SIM	Up to 256 SIM	Up to 256 SIM
SIM Bank Module Slot	Sixteen(16) Module Slots for AP-GSC32F	Sixteen(16) Module Slots for AP-GSC32	Octal(8) Module Slots for AP-GSC32	Octal(8) Module Slots for AP-N1-SIM32
LAN Port	2	2	2	2
Console	1	1	1	1
Power	Module Type Single PSU	Module Type Dual PSU	Single PSU	Single PSU

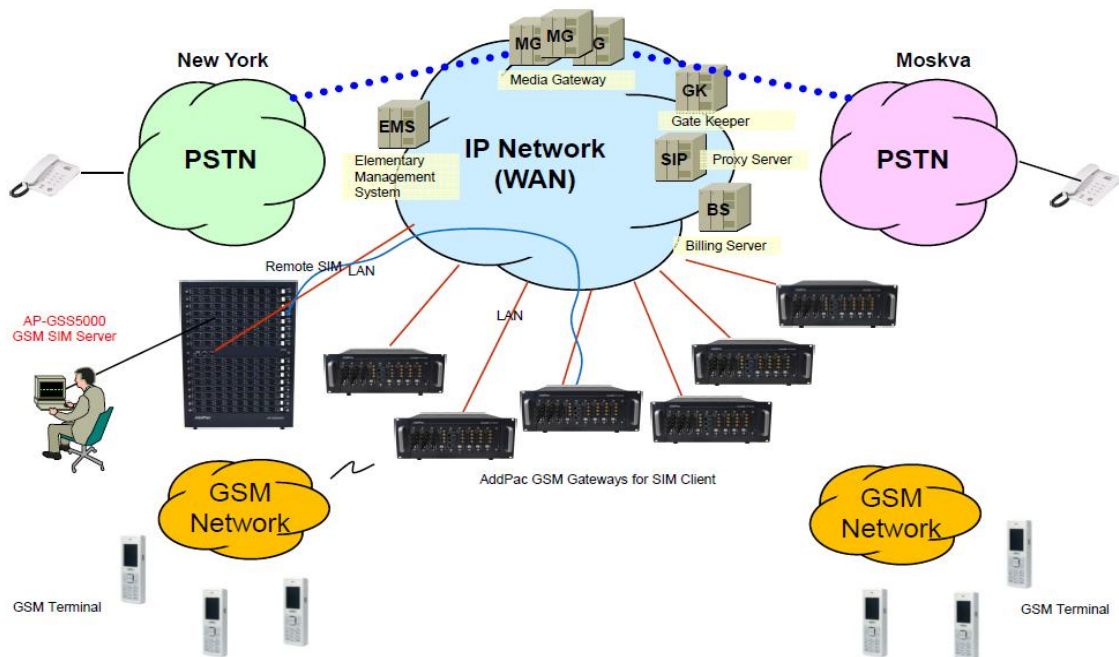
AddPac GSM SIM Clients

Model	AP-GS3000	AP-GS3500	AP-GS3800	AP-GS4500	AP-GS5000
					
Available Modules	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1
GSM Channel	Up to 36 Channel	Up to 36 Channel	Up to 44 Channel	Up to 64 Channel	Up to 80 Channel
GSM Antenna	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	Two(2) / 8 Channel GSM Module(AP-N3-GSM8)	Two(2) / 8 Channel GSM Module(AP-N1-GSM8)
Module Slot	Nine(9) Module Slots for GSM, E1/T1 Module Slot	Nine(9) Module Slots for GSM, E1/T1 Module Slot	Eleven(11) Module Slots for GSM	Eight(8) Module Slots for GSM, E1/T1 Module Slot	Ten(10) Module Slots for GSM, E1/T1 Module Slot
LAN Port	2	2	2	2	2
Console	1	1	1	1	1
Power	Single PSU	Dual PSU(Module)	Single PSU	Single PSU	Dual PSU (module)

Model	AP-GV2800	AP-GV3000
		
Available Modules	AP-N2-GSM8	AP-N2-GSM8
GSM Channel	Up to 32 Channel	Up to 32 Channel
GSM Antenna	Two(2) / 8 Channel GSM Module(AP-N2-GSM8)	Two(2) / 8 Channel GSM Module(AP-N2-GSM8)
Module Slot	Four(4) Module Slots for GSM	Four(4) Module Slots for GSM
LAN Port	2	2
Console	1	1
Power	Single PSU	Dual PSU (module)

Model	AP-GV3300	AP-GV3200	AP-GV3100	AP-GV2000
				
Available Modules	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1 AP-N5-2E1/T1	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1 AP-N5-2E1/T1	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1
GSM Channel	Up to 48 Channel	Up to 40 Channel	Up to 32 Channel	Up to 24 Channel
Module Slot	Six(6) Module Slots for GSM,E1/T1 Module, etc	Five(5) Module Slots for GSM,E1/T1 Module, etc	Four(4) Module Slots for GSM Module, etc	Three(3) Module Slots for GSM, E1/T1 Module, etc
LAN Port	2	2	2	2
Console	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU

Network Diagram

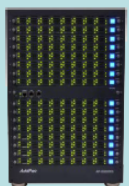



Front SIM Type GSM SIM Server Solution









AddPac Front SIM Type GSM SIM Server solution provides various GSM based Remote SIM Servers like as AP-GSS5000, AP-GSS1800, and AP-GSS1200. This Remote GSM SIM Servers can be installed or operated with AddPac GSM SIM Clients like as AddPac GSM Gateway AP-GS3000, etc. AddPac GSM SIM server combining GSM gateways is now suggesting a new model for a main mobile voice communication solution. In order to be a part of advanced mobile voice communications naturally in the future, making an excellent choice of choosing SIM server with GSM gateway is essential. AddPac AP-GSS5000 is a new cutting edge Tower Type GSM SIM server supporting maximum 512 channel SIM slots. AP-GSS5000 provides an optimized remote SIM bank solution when it interoperates with AddPac GSM gateways. Front SIM card slot design and system architecture of AP-GSS5000 provides customer satisfaction in high quality, performance and system reliance. AddPac AP-GSS5000 is a device that can support remote SIM bank application for centralized management. It also supports sixteen (16) module slots for GSM SIM bank, one(1) module slot for CPU board, two(2) gigabit ethernet ports, 1-port RS232C console, and state-of-art technologies and services. AddPac AP-GSS5000 is a high-end GSM SIM server providing total 512 SIM interfaces slots.(sixteen(16) module x 32 = 512 channel). A SIM bank module supports 32 front panel type SIM slots. It is suitable for call termination service provider, general enterprises, and large public offices. AddPac AP-GSS1800 and AP-GSS1200 also are new cutting edge Tower Type GSM SIM servers supporting maximum 256 channel SIM slots and 128 channel SIM slots each. AP-GSS1800 supports octal(8) module slots for GSM SIM bank, one(1) module slot for CPU board, two(2) gigabit ethernet ports, 1-port RS232C console, and state-of-art technologies and services. AP-GSS1200 supports Quad(4) module slots for GSM SIM bank, one(1) module slot for CPU board, two(2) gigabit ethernet ports, 1-port RS232C console, and state-of-art technologies and services. A SIM bank module for AP-GSS1800 and AP-GS1200 supports 32 front panel type SIM slots.





Front SIM Type GSM SIM Servers

Model	AP-GSS5000	AP-GSS1800	AP-GSS1200
			
Available Modules	AP-GSC32F AP-CPU AP-POWER	AP-GSC32F AP-CPU	AP-GSC32F AP-CPU
SIM Bank Module	AP-GSC32F : 32 SIM, Front Insertion Type, Single SIM base exchange, Hot-Swap	AP-GSC32F : 32 SIM, Front Insertion Type, Single SIM base exchange, Hot-Swap	AP-GSC32 F: 32 SIM, Front Insertion Type, Single SIM base exchange, Hot-Swap
Total SIM Cards	Up to 512 SIM	Up to 256 SIM	Up to 128 SIM
SIM Bank Module Slot	Sixteen(16) Module Slots for AP-GSC32F	Octal(8) Module Slots for AP-GSC32F	Quad(4) Module Slots for AP-GSC32F
LAN Port	2	2	2
Console	1	1	1
Power	Module Type Single PSU	Single PSU	Single PSU

AddPac GSM SIM Clients

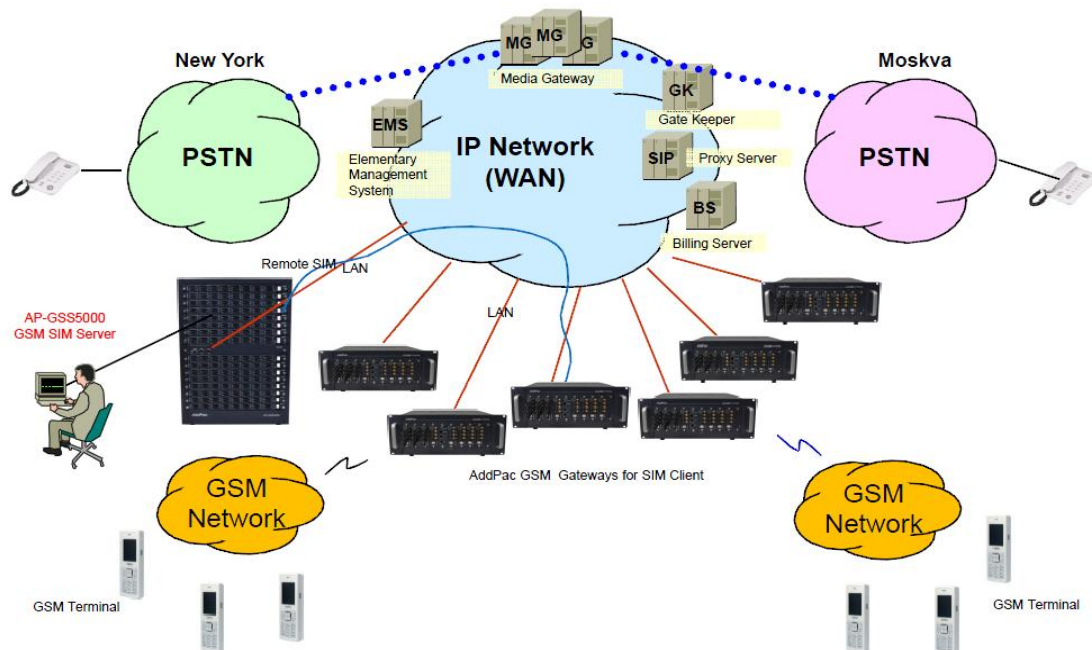
Model	AP-GS3000	AP-GS3500	AP-GS3800	AP-GS4500	AP-GS5000
					
Available Modules	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1
GSM Channel	Up to 36 Channel	Up to 36 Channel	Up to 44 Channel	Up to 64 Channel	Up to 80 Channel
GSM Antenna	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	Two(2) / 8 Channel GSM Module(AP-N3-GSM8)	Two(2) / 8 Channel GSM Module(AP-N1-GSM8)
Module Slot	Nine(9) Module Slots for GSM, E1/T1 Module Slot	Nine(9) Module Slots for GSM, E1/T1 Module Slot	Eleven(11) Module Slots for GSM	Eight(8) Module Slots for GSM, E1/T1 Module Slot	Ten(10) Module Slots for GSM, E1/T1 Module Slot
LAN Port	2	2	2	2	2
Console	1	1	1	1	1
Power	Single PSU	Dual PSU(Module)	Single PSU	Single PSU	Dual PSU (module)

Model	AP-GV2800	AP-GV3000
		
Available Modules	AP-N2-GSM8	AP-N2-GSM8
GSM Channel	Up to 32 Channel	Up to 32 Channel
GSM Antenna	Two(2) / 8 Channel GSM Module(AP-N2-GSM8)	Two(2) / 8 Channel GSM Module(AP-N2-GSM8)
Module Slot	Four(4) Module Slots for GSM	Four(4) Module Slots for GSM
LAN Port	2	2
Console	1	1
Power	Single PSU	Dual PSU (module)

Model	AP-GV3300	AP-GV3200	AP-GV3100	AP-GV2000
				
Available Modules	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1 AP-N5-2E1/T1	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1 AP-N5-2E1/T1	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI AP-N5-1E1/T1
GSM Channel	Up to 48 Channel	Up to 40 Channel	Up to 32 Channel	Up to 24 Channel
Module Slot	Six(6) Module Slots for GSM, E1/T1 Module, etc	Five(5) Module Slots for GSM, E1/T1 Module, etc	Four(4) Module Slots for GSM Module, etc	Three(3) Module Slots for GSM, E1/T1 Module, etc
LAN Port	2	2	2	2
Console	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU

Model	AP-GS916	AP-GS1016
Available Modules	AP-N1-GSM4I	AP-N5-GSM8I
GSM Channel	Up to 16 Channel	Up to 16 Channel
GSM Antenna	Quad(4)	Octal(8)
Module Slot	Four(4) Module Slots for 4-Port GSM VoIP Interface Module	Two(2) Module Slots for 8-Port GSM VoIP Interface Module
LAN Port	2	2
Console	1	1
Power	Single PSU	Single PSU

Network Diagram







Multi-SIM GSM Gateway Solution







AddPac Multi-SIM GSM Gateway solution provides various Multi-SIM GSM VoIP Modules like as AP-N1-GSM2S4, AP-N1-GSM4S4, AP-N1-GSM4S8. This GSM Multi-SIM VoIP Modules can be installed in next generation AddPac GSM Gateway N1 Hardware Platform such as AP-GS3800, AP-GS3000, AP-GS2800, AP-GS2700, AP-GS25000, etc. AP-N1-GSM4S8 GSM VoIP Module is a new 4-Port GSM Module (8 SIM card slots per GSM Port) for GSM Call Termination Service. This GSM VoIP Module supports Quad-Band (850/900/1800/1900MHz) GSM frequency, Eight(8) SIM card slots per GSM port, Hot-Swap Switch Button, One(1) GSM Antenna Interface. This GSM module has thirty-two(32) GSM SIM card slots internally. Also this module supports the Voice DSP for GSM call termination service based on VoIP Technology. AP-N1-GSM4S4 GSM VoIP Module is a new 4-Port GSM Module (4 SIM card slots per a GSM Port) for GSM Call Termination Service. This GSM VoIP Module supports Quad-Band (850/900/1800/1900MHz) GSM frequency, Four(4) SIM card slots per a GSM port, Hot-Swap Switch Button, one(1) GSM Antenna Interface. This GSM module has sixteen(16 = 4x4) GSM SIM card slots internally. Also this module supports the Voice DSP for GSM call termination service based on VoIP Technology. AP-N1-GSM2S4 GSM VoIP Module is a new 2-Port GSM Module (4 SIM card slots per a GSM Port) for GSM Call Termination Service. This GSM VoIP Module supports Quad-Band (850/900/1800/1900MHz) GSM frequency, Four(4) SIM card slots per a GSM port, Hot-Swap Switch Button, two(2) GSM Antenna Interface. This GSM module has sixteen(8 = 2x4) GSM SIM card slots internally. Also this module supports the Voice DSP for GSM call termination service based on VoIP Technology.

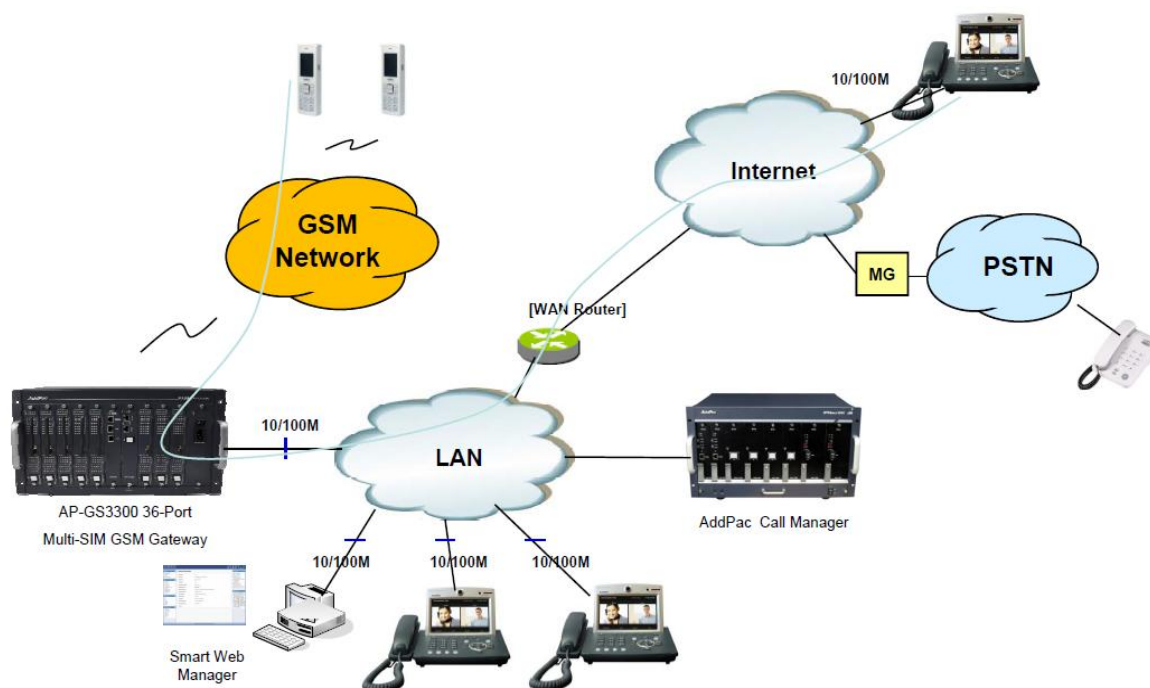
Multi-SIM GSM VoIP Modules

Model	AP-N1-GSM2S4	AP-N1-GSM4S4	AP-N1-GSM4S8	AP-N1-GSM4S16	AP-N1-GSM8S4
					
Available Target	AP-GS3800 AP-GS3000 AP-GS2800 AP-GS2700 AP-GS2500 AP-GS916	AP-GS3800 AP-GS3000 AP-GS2800 AP-GS2700 AP-GS2500 AP-GS916	AP-GS3800 AP-GS3000 AP-GS2800 AP-GS2700 AP-GS2500 AP-GS916	AP-GS3300	AP-GS5000
GSM Channel	2-Port	4-Port	4-Port	4-Port	8-Port
SIM Card Slots	4 SIM Card Slots/a GSM Port Total = 4 x 2 = 8	4 SIM Card Slots/a GSM Port Total = 4 x 4 = 16	8 SIM Card Slots/a GSM Port Total = 8 x 4 = 32	16 SIM Card Slots/a GSM Port Total = 16 x 4 = 64	4SIM Card Slots/a GSM Port Total = 4 x 8 = 32
External Antenna	2	1 (Internal Antenna Combiner)	1 (Internal Antenna Combiner)	1 (Internal Antenna Combiner)	2 (Internal Antenna Combiner)
Hot-Swap	Support	Support	Support	Support	Support
VoIP Codec	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc

Multi-SIM GSM Gateway Comparison Table (Recommended Model)

Model	AP-GS916	AP-GS3000	AP-GS3300	AP-GS5000
				
Available Modules	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-GSM4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-E1	AP-N1-GSM8 AP-N1-FXS8 AP-N1-FXO8 AP-N1-E1 AP-N1-2E1
Multi-SIM GSM Modules	AP-N1-GSM4S4 AP-N1-GSM4S8	AP-N1-GSM4S4 AP-N1-GSM4S8	AP-N1-GSM4S16	AP-N1-GSM8S4
GSM Channel	Up to 16 Ch.	Up to 36 Ch.	Up to 36 Ch.	Up to 80 Channel
GSM Antenna	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module (AP-N1-GSM4S16)	Two(2) / 8 Channel GSM Module (AP-N1-GSM8)
Module Slot	Four(4) Module Slots for GSM	Nine(9) Module Slots for GSM	Nine(9) Module Slots for GSM	Ten(10) Module Slots for GSM, E1/T1 Module Slot
LAN Port	2	2	2	2
Console	1	1	1	1
Power	Single PSU	Single PSU	Single PSU(Module)	Dual PSU (module)

Network Diagram



SOHO GSM Gateway Solution







AddPac GSM SOHO gateway solution provides GSM VoIP gateway function from 1 Port up to 16 Ports. AddPac GSM SOHO gateway provides high-performance IP to GSM gateway solution including IP-routing services for small enterprise, and other public offices. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. This product is designed based on high performance RISC CPU + DSP structure; supports upgraded speed, the best quality product, offers various user-friendly functions, manufactured at low cost and this product gives high performance for its price. AddPac GSM SOHO gateway also supports SIP, H.323 dual VoIP signaling protocol, various voice codec(G.711, G.726, G.729, G723.1).

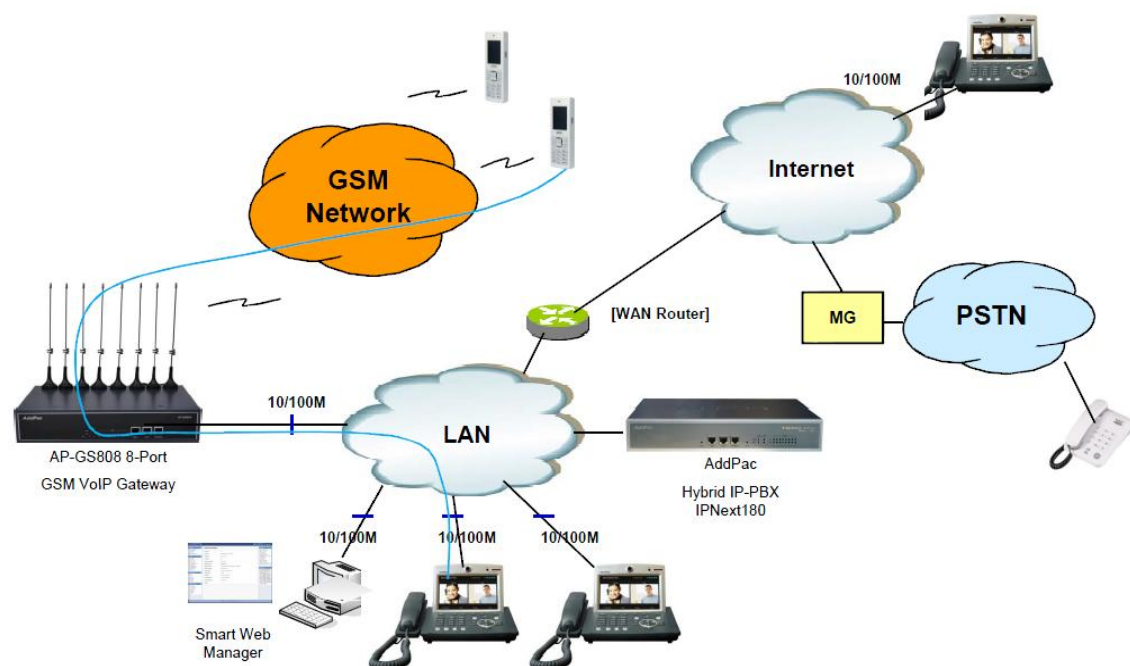
GSM SOHO Gateway Comparison Table (1~2 Port)

	AP-GS501		AP-GS701		AP-GS702		AP-GS802	
								
Model	Type	Analog	Type	Analog	Type	Analog	Type	Analog
	B	1FXS	A	None	A	None	A	None
			B	1FXS	B	2FXS	B	2FXS
GSM Channel	1		1		2		2	
GSM Antenna	1		1		2		2	
SIM Card Slot	1		1		2		2	
LAN Port 10/100Mbps	1		2		1		2	
Console(RJ45)	N/A		N/A		N/A		1	

GSM SOHO Gateway Comparison Table (4~16 Port)

	AP-GS804	AP-GS708	AP-GS808	AP-GS816
				
Model	Type	Analog	None	None
	A	None		
	B	4-Port FXS		
	C	4-Port FXO		
GSM Channel	4	8	8	16
GSM Antenna	4	8	8	16
SIM Card Slot	4	8	8	16
LAN Port 10/100Mbps	1	2	2	2
Console(RJ45)	1	1	1	1
Power	External Power Adaptor	External Power Adaptor	Internal Power	Internal Power

Network Diagram



16-Port GSM VoIP Gateway Solution

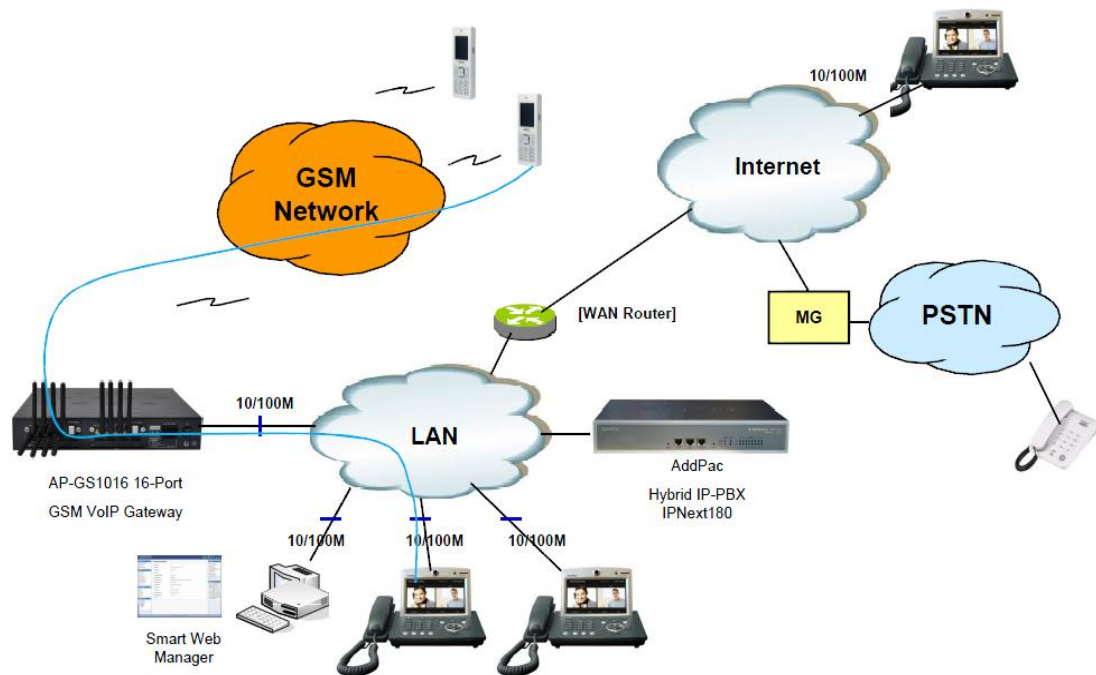


AddPac Compact Size 16-port GSM VoIP Gateways provide high-performance VoIP to GSM gateway solution including IP-routing services for small enterprise, public offices and small & medium call termination service provider. AddPac Compact Size 16-port GSM VoIP Gateways consist of three (3) product line up like as AP-GS1016, AP-GS716, AP-GS516. AP-GS1016 GSM VoIP Gateway provides two(2) module slots for 8-Port GSM VoIP Module. The other products provide Fixed Type 16-Port GSM Interface. This products use the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. This product is designed based on high performance RISC CPU + DSP structure; supports upgraded speed, the best quality product, offers various user-friendly functions, manufactured at low cost and this product gives high performance for its price. AddPac Compact Size 16-port GSM VoIP Gateway also supports SIP, H.323 dual VoIP signaling protocol, various voice codec(G.711, G.726, G.729, G723.1).

16-Port GSM VoIP Gateway Comparison Table

Model	AP-GS1016	AP-GS716	AP-GS516
Module Type : Available Modules	AP-N5-GSM8UI AP-N5-GSM8I AP-N5-GSM8SI	N/A	N/A
GSM Module Vendor	Wavecom (Sierra)	Wavecom(Sierra)	UBlox
GSM Channel	16-Port	16-Port	16-Port
IMEI change	Support : Multiple Change	Support : Multiple Change	Support : One Time Change
Auto BTS	Support	N/A	N/A
SIM Client for Remote GSM SIM Server	Support	N/A	N/A
External Antenna	16 ea	16 ea	16 ea
VoIP Codec	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc

Network Diagram






8-Port GSM Gateway Solution

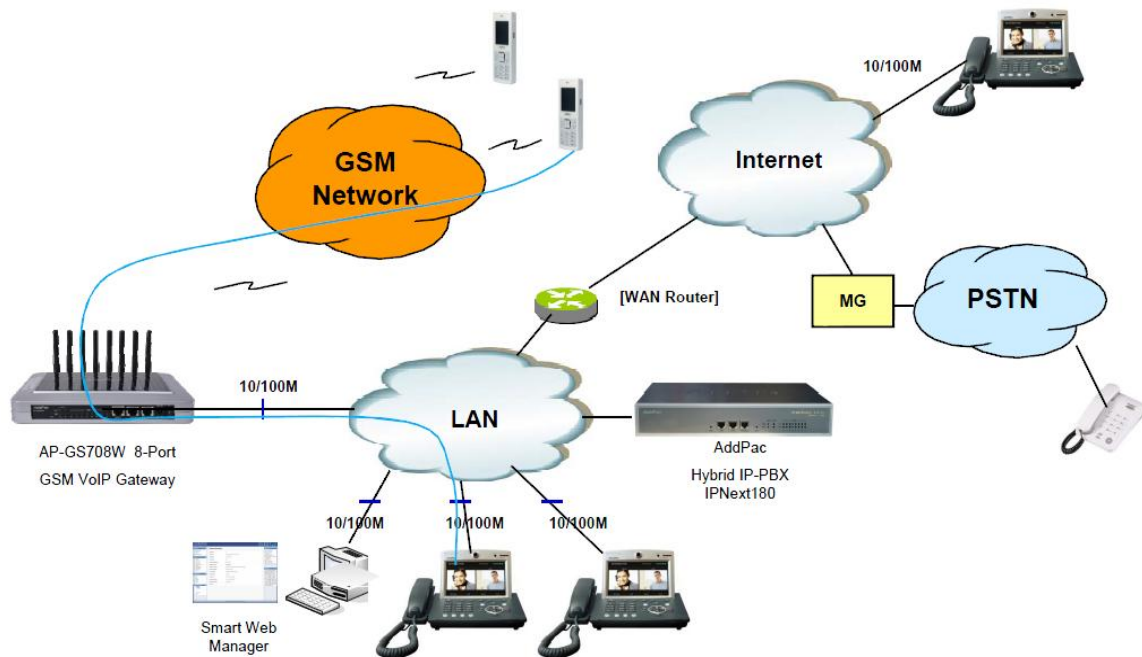


AddPac small size 8-port GSM VoIP Gateways provide high-performance VoIP to GSM gateway solution including IP-routing services for small enterprise, public offices and small & medium call termination service provider. AddPac small size 8-port GSM VoIP Gateways consist of three (3) product line up like as AP-GS708W, AP-GS708S, AP-GS708. AP-GS708 8-Port GSM VoIP gateway series provide high-performance IP to GSM gateway solution including IP-routing services for small enterprise, public offices and small scale call termination service provider. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. This product is designed based on high performance RISC CPU + DSP structure; supports upgraded speed, the best quality product, offers various user-friendly functions, manufactured at low cost and this product gives high performance for its price. AP-GS708 series also support SIP, H.323 dual VoIP signaling protocol, various voice codec support(G.711, G.726, G.729, G.723.1), Eight(8) channel GSM interface (antenna, SIM Card), two(2) fast Ethernet ports, 1-port RS232C console and state-of-art technologies and services.

8-Port GSM VoIP Gateway Comparison Table

Model	AP-GS708W 	AP-GS708S 	AP-GS708 
GSM Module Vendor	Wavecom (Sierra)	Wavecom(Sierra)	UBlox
GSM Channel	8-Port	8-Port	8-Port
IMEI change	Support : Multiple Change	Support : Multiple Change	Support : One Time Change
Auto BTS	Support	N/A	N/A
SIM Client for Remote GSM SIM Server	Support	N/A	N/A
External Antenna	8 ea	8 ea	8 ea
VoIP Codec	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc

Network Diagram




Still Body 8-Port GSM Gateway Solution

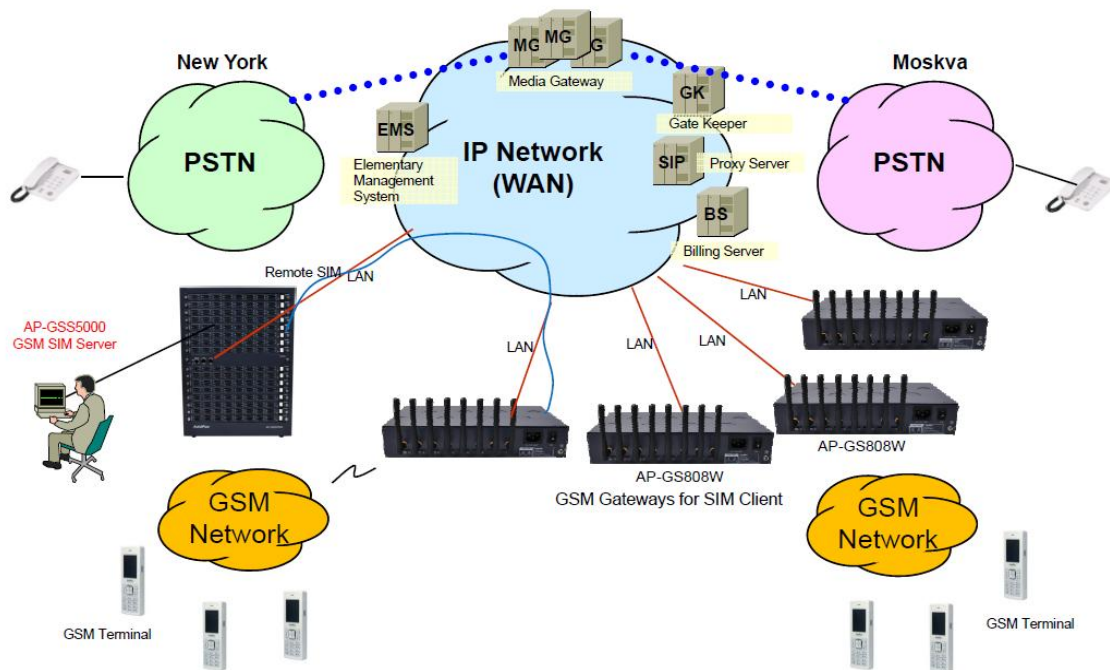


AddPac AP-GS808 8-port GSM VoIP gateway series provide high-performance VoIP to GSM gateway solution including IP-routing services for small enterprise, public offices and small call termination service provider. AddPac AP-GS808 8-port GSM VoIP gateways consist of three (3) product line up like as AP-GS808W, AP-GS808S, AP-GS808. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. This product is designed based on high performance RISC CPU + DSP structure; still body chassis, supports firmware upgrade, the best quality product, offers various user-friendly functions, and this product gives high performance for its price. AP-GS808 series also support SIP, H.323 dual VoIP signaling protocol, various voice codec support (G.711, G.726, G.729, G.723.1), eight(8) channel GSM interface (antenna, SIM Card), two(2) fast ethernet ports, 1-port RS232C console and state-of-art technologies and services.

8-Port GSM VoIP Gateway Comparison Table

Model	AP-GS808W	AP-GS808S	AP-GS808
			
GSM Module Vendor	Wavecom (Sierra)	Wavecom (Sierra)	UBlox
GSM Channel	8-Port	8-Port	8-Port
IMEI change	Support : Multiple Change	Support : Multiple Change	Support : One Time Change
Auto BTS	Support	N/A	N/A
SIM Client for Remote GSM SIM Server	Support	N/A	N/A
External Antenna	8 ea	8 ea	8 ea
VoIP Codec	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc	G.711, G.729, G.723.1,etc
Power Supply	Internal Power	Internal Power	Internal Power

Network Diagram



CDMA Gateway Solution



AddPac CDMA Gateways are new cutting edge Analog or IP to CDMA gateways supporting multi-ports of CDMA Voice interface. CDMA, GSM and analog/digital interface of AddPac CDMA gateways provide an optimized call scenario when it interoperates with legacy PBX. Compact cost effective design and system architecture of AddPac CDMA gateway solution provides customer satisfaction in high quality, performance and system reliance. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well.

CDMA, GSM and VoIP Gateway Service Both Support

For example, AddPac AP-GS3000 is a device that can support both GSM gateway service (Digital E1/T1?GSM or Internet?GSM) and CDMA gateway service (Digital E1/T1?CDMA or Internet->CDMA) simultaneously. It also supports SIP, H.323 Multiple VoIP signaling protocol, various voice codec support(G.711, G.726, G.729, G723.1), nine(9) module slots for CDMA, GSM and VoIP module, one(1) module slot for CPU board, two(2) fast ethernet ports, 1-port RS232C console, and state-of-art technologies and services.

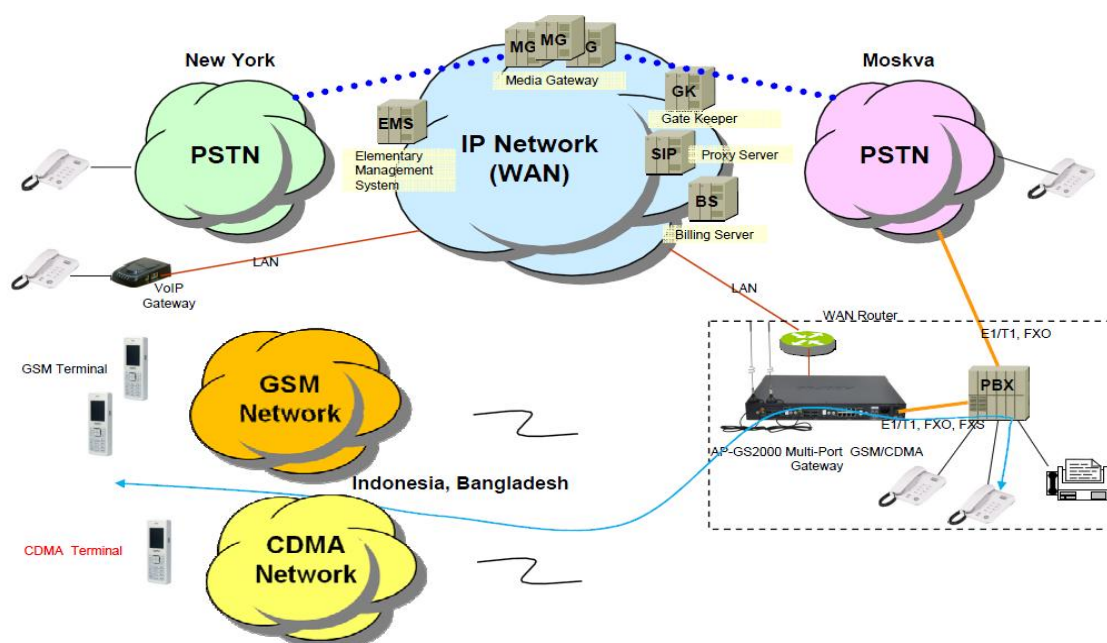
Multi-port CDMA interface Support

CDMA gateway combining IP-PBX(or legacy PBX) is now suggesting a new model for a main voice communication solution. In order to be a part of advanced VoIP communications naturally in the future, making an excellent choice of choosing CDMA/GSM gateway is essential. For example, VoiceFinder AP-GS3000 is a mid-range CDMA/GSM gateway providing total 32 CDMA interface ports + one(1) Digital E1/T1 ports or 32GSM interface ports + one(1) Digital E1/T1 port or 16 CDMA Interface ports + 16 GSM interface ports + one(1) Digital E1/T1 interface ports. It is suitable for general enterprises, medium and large public offices. It has functions as a media gateway which interoperates with IP-PBX or legacy PBX. Especially AP-GS3000 provides an optimal solution of VoIP and CDMA communications in telephony environments that using telephone lines and PBX to get connect with a head office.

CDMA Gateway Comparison Table

Model	AP-GS1500	AP-GS2000	AP-GS2500	AP-GS3000	AP-GS3500
Available Modules	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
GSM/CDMA Channel	Up to 8 Channel	Up to 12 Channel	Up to 16 Channel	Up to 36 Channel	Up to 36 Channel
GSM/CDMA Antenna	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module
Module Slot	Two(2) Module Slots for GSM/CDMA	Three(3) Module Slots for GSM/CDMA	Four(4) Module Slots for GSM/CDMA	Nine(9) Module Slots for GSM/CDMA, E1/T1 Module Slot	Nine(9) Module Slots for GSM/CDMA, E1/T1 Module Slot
LAN Port	2	2	2	2	2
Console	1	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU	Dual PSU (module)

Network Diagram



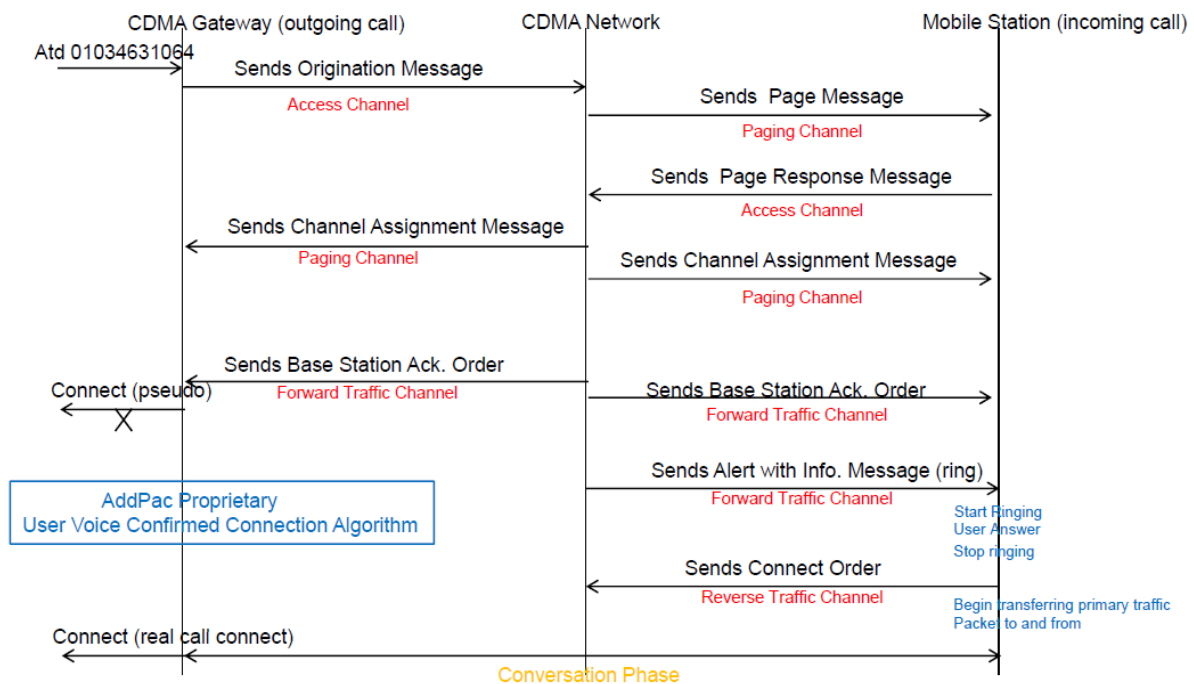
Voice Confirmed Call Connection CDMA VoIP Gateway Solution



Generally, CDMA call connection is established immediately in calling party after outgoing call is initiated without called party's off hook because CDMA network (BS, MS, etc) does not send the call connection information to call originate party shown as following CDMA call flow diagram.

This CDMA call connection scheme is no problem between CDMA mobile terminals, but in CDMA VoIP GSM gateway equipment for call termination service provider this scheme gives inaccurate real call connection timing information to VoIP Softswitch. This means that there is time difference between CDMA call connect time and real call connect time. For solving call connection time mismatching problem, AddPac CDMA VoIP gateway support proprietary voice confirmed call connection algorithm. This algorithm is field proven and well applicable in several regions like as Pakistan, Bangladesh, Indonesia, Nepal, etc.

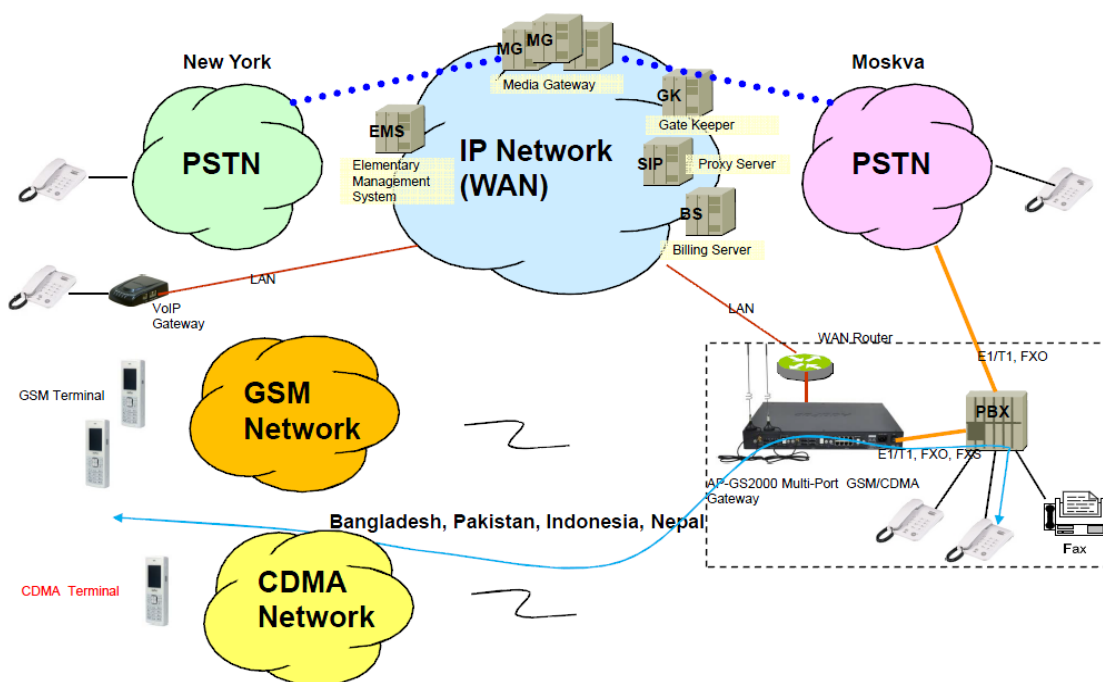
CDMA VoIP Gateway Call Flow Diagram (CDMA Gateway - BS - MS)



CDMA VoIP Gateway Comparison Table

Model	AP-GS1500	AP-GS2000	AP-GS2500	AP-GS3000	AP-GS3500
Available Modules	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
GSM/CDMA Channel	Up to 8 Channel	Up to 12 Channel	Up to 16 Channel	Up to 36 Channel	Up to 36 Channel
GSM/CDMA Antenna	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module	One(1) / 4 Channel GSM/CDMA Module
Module Slot	Two(2) Module Slots for GSM/CDMA	Three(3) Module Slots for GSM/CDMA	Four(4) Module Slots for GSM/CDMA	Nine(9) Module Slots for GSM/CDMA, E1/T1 Module Slot	Nine(9) Module Slots for GSM/CDMA, E1/T1 Module Slot
LAN Port	2	2	2	2	2
Console	1	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU	Dual PSU (module)

Network Diagram


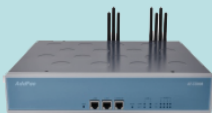



SOHO CDMA VoIP Gateway Solution

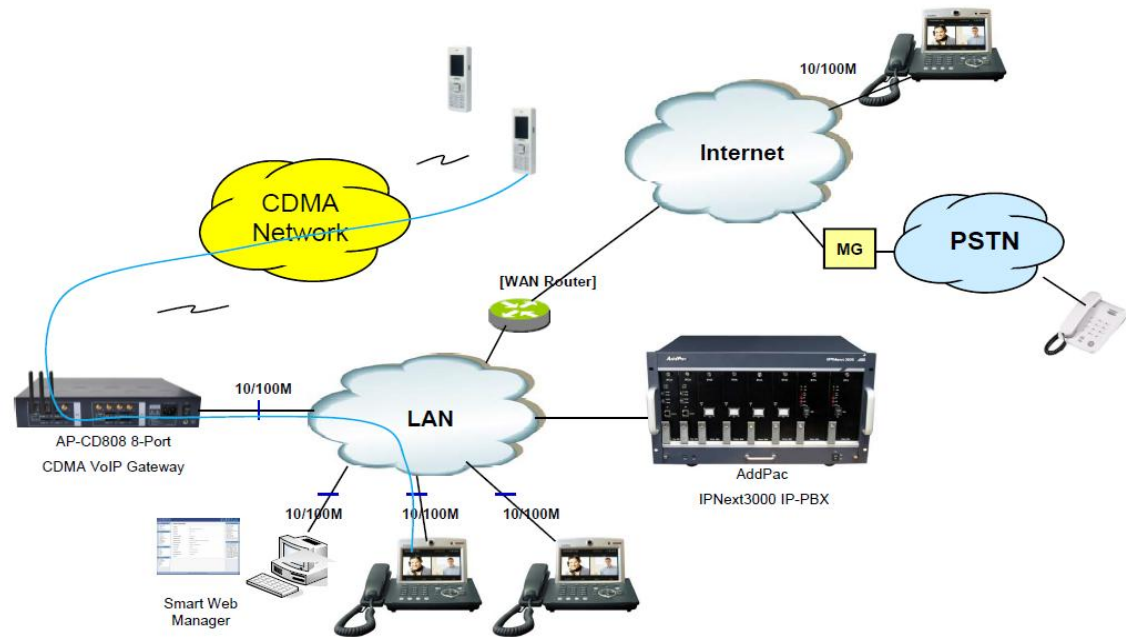


AddPac SOHO CDMA VoIP gateway solution provides CDMA VoIP gateway function from 1-Port up to 16-Ports. AddPac SOHO CDMA VoIP gateway provides high-performance IP to CDMA VoIP gateway solution for call termination service provider, general enterprise, and other public offices. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. This product is designed based on high performance RISC CPU + DSP structure; supports upgraded speed, the best quality product, offers various user-friendly functions, manufactured at low cost and this product gives high performance for its price. AddPac CDMA gateway supports CDMA2000 1xRTT(IS-2000) dual band frequency like as band class0 (TX : 824~849 MHz / RX : 869~894MHz), band class1 (TX : 1850~1910 MHz / RX : 1930~1990MHz) and IS-637 SMS(Short Message Service). Also AddPac SOHO CDMA VoIP gateway supports SIP, H.323 dual VoIP signaling protocol, various voice codec(G.711, G.726, G.729, G723.1).

SOHO CDMA VoIP Gateway Comparison Table

	AP-CD816	AP-CD808	AP-CD701
			
Model	None	None	Type
			Analog
			A
			None
			B
			1FXS
			C
			1FXO
			D
			1FXS,1FXO
CDMA Channel	16	8	1
CDMA Service	CDMA2000 1xRTT (IS-2000)- (Dual Band)	CDMA2000 1xRTT (IS-2000)- (Dual Band)	CDMA2000 1xRTT (IS-2000)- (Dual Band)
CDMA Band	Band Class0 (TX : 824~849 MHz / RX : 869~894MHz), Band class1 (TX : 1850~1910 MHz / RX : 1930~1990MHz)	Band Class0 (TX : 824~849 MHz / RX : 869~894MHz), Band class1 (TX : 1850~1910 MHz / RX : 1930~1990MHz)	Band Class0 (TX : 824~849 MHz / RX : 869~894MHz), Band class1 (TX : 1850~1910 MHz / RX : 1930~1990MHz)
SMS Service	IS-637 SMS	IS-637 SMS	IS-637 SMS
RUIM Card Slot	16	8	1
10/100Mbps LAN Ports	2	2	1
Console(RJ45)	1	1	None

Network Diagram



3G Gateway Solution



AddPac 3G Gateways is new cutting edge Analog/Digital or IP to 3G gateways supporting multi-ports of 3G WCDMA Voice interface. 3G, CDMA, GSM and analog/digital interface of AddPac 3G gateways provide an optimized call scenario when it interoperates with legacy PBX. Compact cost effective design and system architecture of AddPac 3G gateway solution provides customer satisfaction in high quality, performance and system reliance. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well.

3G, CDMA, GSM and VoIP Gateway Service Both Support

For example, AddPac AP-GS3000 is a device that can support triple mobile network such as 3G gateway service(Digital E1/T1->3G/WCDMA, Internet->3G/WCDMA), GSM gateway service (Digital E1/T1?GSM or Internet?GSM) and CDMA gateway service (Digital E1/T1?CDMA or Internet->CDMA) simultaneously. It also supports SIP, H.323 Multiple VoIP signaling protocol, various voice codec support(G.711, G.726, G.729, G723.1), nine(9) module slots for 3G, CDMA, GSM and VoIP module, one(1) module slot for CPU board, two(2) fast ethernet ports, 1-port RS232C console, and state-of-art technologies and services.

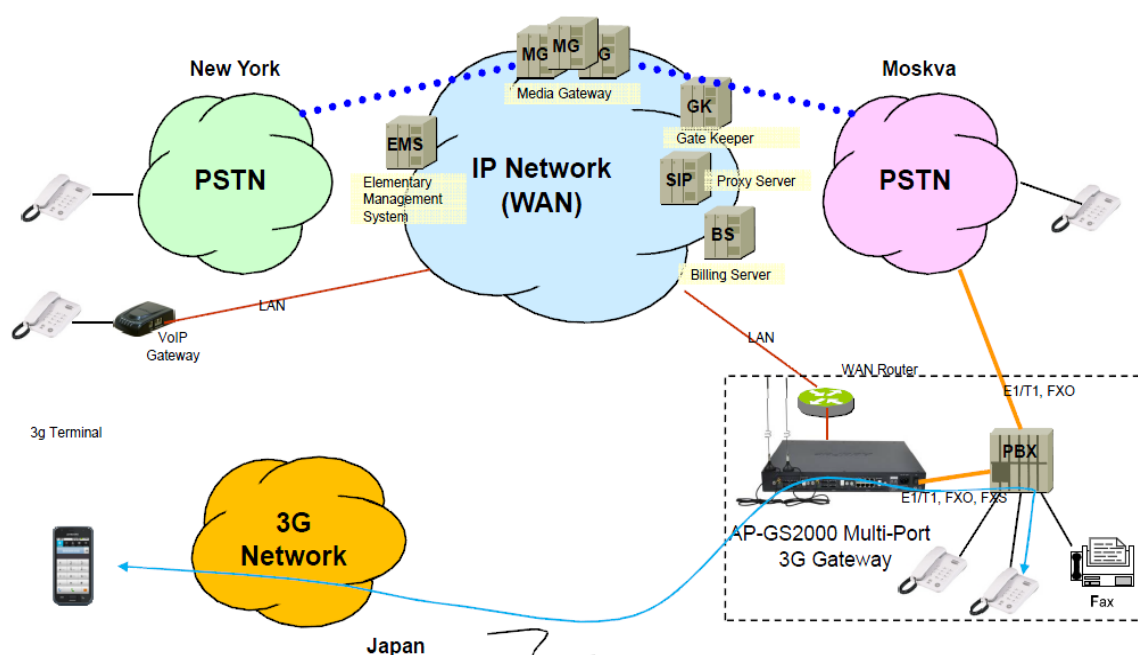
Multi-port 3G/WCDMA interface Support

3G gateway combining IP-PBX(or legacy PBX) is now suggesting a new model for a main voice communication solution. In order to be a part of advanced VoIP communications naturally in the future, making an excellent choice of choosing 3G/CDMA/GSM gateway is essential. For example, VoiceFinder AP-GS3000 is a mid-range 3G/CDMA/GSM gateway providing total 32 3G/WCDMA network interface ports + one(1) Digital E1/T1 ports or 16 3G/WCDMA Interface ports + 16 GSM interface ports + one(1) Digital E1/T1 interface ports. It is suitable for general enterprises, medium and large public offices. It has functions as a media gateway which interoperates with IP-PBX or legacy PBX. Especially AP-GS3000 provides an optimal solution of VoIP and 3G communications in telephony environments that using telephone lines and PBX to get connect with a head office.

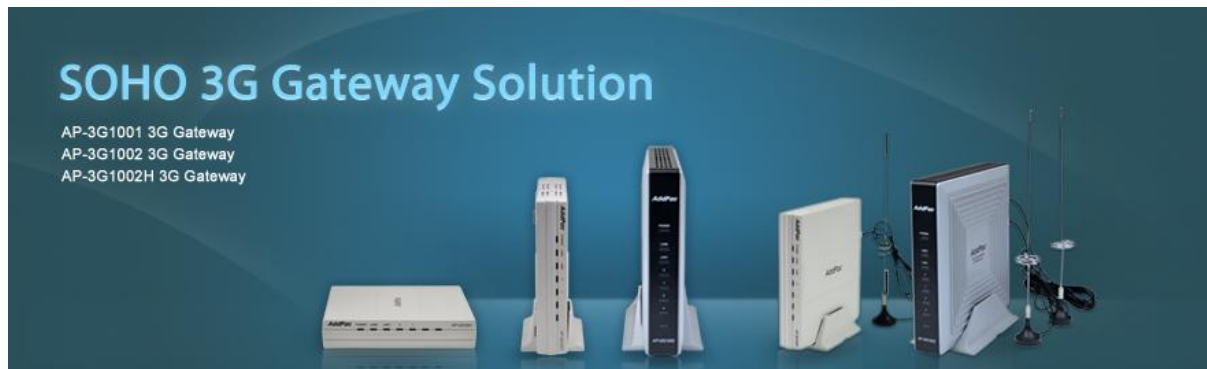
3G Gateway Comparison Table

Model	AP-GS1500	AP-GS2000	AP-GS2500	AP-GS3000	AP-GS3500
Available Modules	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
3G Channel	Up to 8 Channel	Up to 12 Channel	Up to 16 Channel	Up to 36 Channel	Up to 36 Channel
3G Antenna	One(1) / 4 Channel 3G Module	One(1) / 4 Channel 3G Module	One(1) / 4 Channel 3G Module	One(1) / 4 Channel 3G Module	One(1) / 4 Channel 3G Module
Module Slot	Two(2) Module Slots for 3G	Three(3) Module Slots for 3G	Four(4) Module Slots for 3G	Nine(9) Module Slots for 3G, E1/T1 Module Slot	Nine(9) Module Slots for 3G, E1/T1 Module Slot
LAN Port	2	2	2	2	2
Console	1	1	1	1	1
Power	Single PSU	Single PSU	Single PSU	Single PSU	Dual PSU (module)

Network Diagram






SOHO 3G Gateway Solution

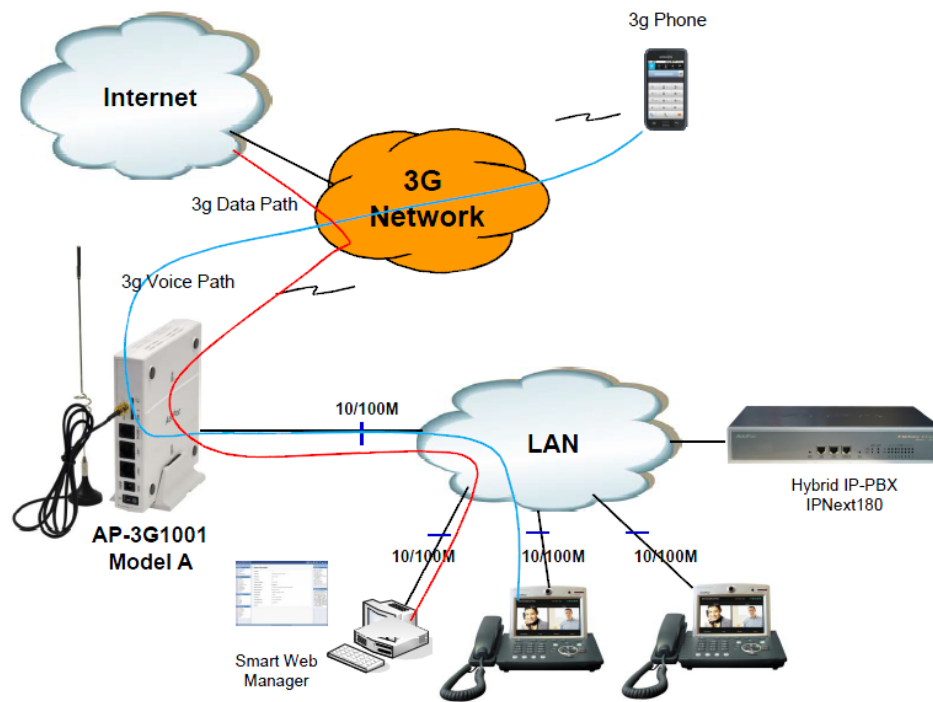


AddPac 3G SOHO gateway solution provides 3G VoIP gateway function from 1-Port up to 2-Ports. AddPac 3G SOHO gateway provides high-performance IP to 3G gateway solution including 3G data IP-routing services for small enterprise, and other public offices. This product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well. This product is designed based on high performance RISC CPU + DSP structure; supports upgraded speed, the best quality product, offers various user-friendly functions, manufactured at low cost and this product gives high performance for its price. AddPac 3G SOHO gateway also supports SIP, H.323 dual VoIP signaling protocol, various voice codec(G.711, G.726, G.729, G723.1).

3G SOHO Gateway Comparison Table

	AP-3G1001 		AP-3G1002H Combo. 		AP-3G1002 	
Model	Type	Analog	Type	Analog	Type	Analog
	A	None	A	None	A	None
	B	1FXS	B	2FXS	B	2FXS
	C	1FXO	C	2FXO	C	2FXO
3G Channel	1		1		2	
3G Band	Dual-band* :Band I (2100MHz),Band VIII (900MHz) Dual-band* :Band II (1900MHz),Band V (850MHz)		Dual-band* :Band I (2100MHz),Band VIII (900MHz) Dual-band* :Band II (1900MHz),Band V (850MHz)		Dual-band* :Band I (2100MHz),Band VIII (900MHz) Dual-band* :Band II (1900MHz),Band V (850MHz)	
2G GSM Channel	N/A		1		N/A	
2G Band	Quad-Band		Quad-Band		Quad-Band	
3G Data Service via LAN	Support		Support (0 th 3G Port)		Support (0 th 3G Port)	
USIM, SIM Card Slot	1		2		2	
10/100Mbps LAN Ports	2		2		2	
Console(RJ45)	N/A		1		1	

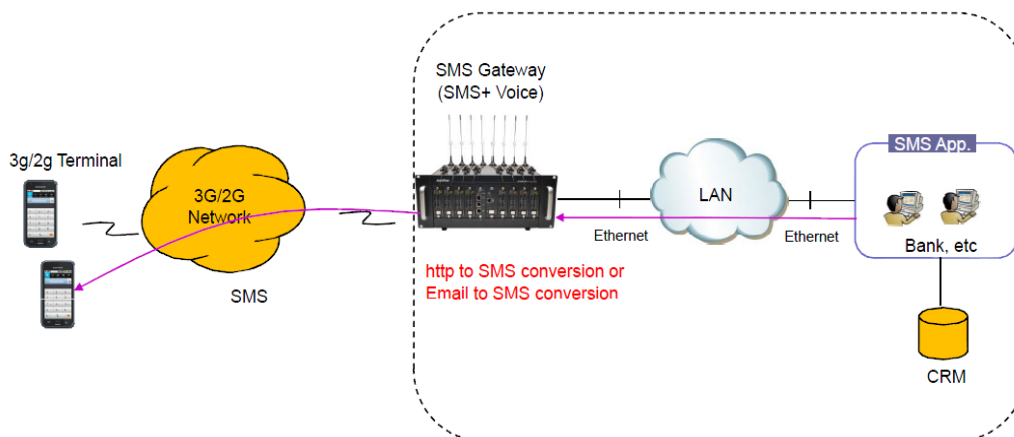
Network Diagram



SMS Gateway Solution



AddPac SMS Gateways are new cutting edge http or email to SMS gateways supporting multi-ports of mobile interface. A GSM/CDMA/3G mobile network interface of AddPac SMS gateway provide an optimized SMS service when it interoperates with various SMS application. Compact cost effective design and system architecture of AddPac SMS gateway solution provides customer satisfaction in high quality, performance and system reliance. Also, in addition to SMS service, this product supports mobile to VoIP service concurrently. For mobile VoIP service, this product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well.\



SMS gateway and Mobile VoIP gateway service Both Support

AddPac SMS gateways can support SMS gateway service and mobile voice service concurrently. For example, AddPac AP-GS3500 is a device that can support triple mobile network such as 3G gateway service(Digital E1/T1->3G/WCDMA, Internet->3G/WCDMA), GSM gateway service (Digital E1/T1?GSM or Internet?GSM) and CDMA gateway service (Digital E1/T1?CDMA or Internet->CDMA) simultaneously. It also supports SIP, H.323 Multiple VoIP signaling protocol, various voice codec support(G.711, G.726, G.729, G723.1), nine(9) module slots for 3G, CDMA, GSM and VoIP module, one(1) module slot for CPU board, two(2) fast ethernet ports, 1-port RS232C console, and state-of-art technologies and services.

Multi-port 3G/WCDMA interface Support

SMS gateway combining IP-PBX(or legacy PBX) is now suggesting a new model for SMS and voice communication solution. In order to be a part of advanced VoIP communications naturally in the future, making an excellent choice of choosing SMS gateway is essential. For example, VoiceFinder AP-GS3500 is a mid-range SMS gateway providing total 32 3G/WCDMA network interface ports + one(1) Digital E1/T1 ports or 16 3G/WCDMA Interface ports + 16 GSM interface ports + one(1) Digital E1/T1 interface ports. It is suitable for general enterprises, medium and large public offices. It has functions as a media gateway which interoperates with IP-PBX or legacy PBX. Especially AP-GS3500 provides an optimal solution of SMS, VoIP and 3G communications in telephony environments that using telephone lines and PBX to get connect with a head office.

Powerful networking protocols

VoiceFinder AddPac SMS Gateway supports two(1) 10/100 Base-T fast Ethernet Interface ports and provides stabilized leased line environment, ADSL environment, cable modem environment, fixed IP Address, supports all flow IP environment so that it can be selected in accordance with user environments.

Adapt to the Future Environment : Firmware Upgradeable Technology

Designed on programmable high performance RISC Integrated DSP Technology, AddPac SMS gateway products are capable of adopting new capabilities and improvement by downloading firmware from website or with its auto-upgrade option as the customers' needs grow. Moreover, operators can download the latest protocol or service improvements as well as update firmware by checking the version and activating the auto-upgrade via AP-NMS (Network Management System) or AP-VPMS(VoIP Plug &Play Management System) system of AddPac Technologies.

AddPac IP Telephony Total Solution

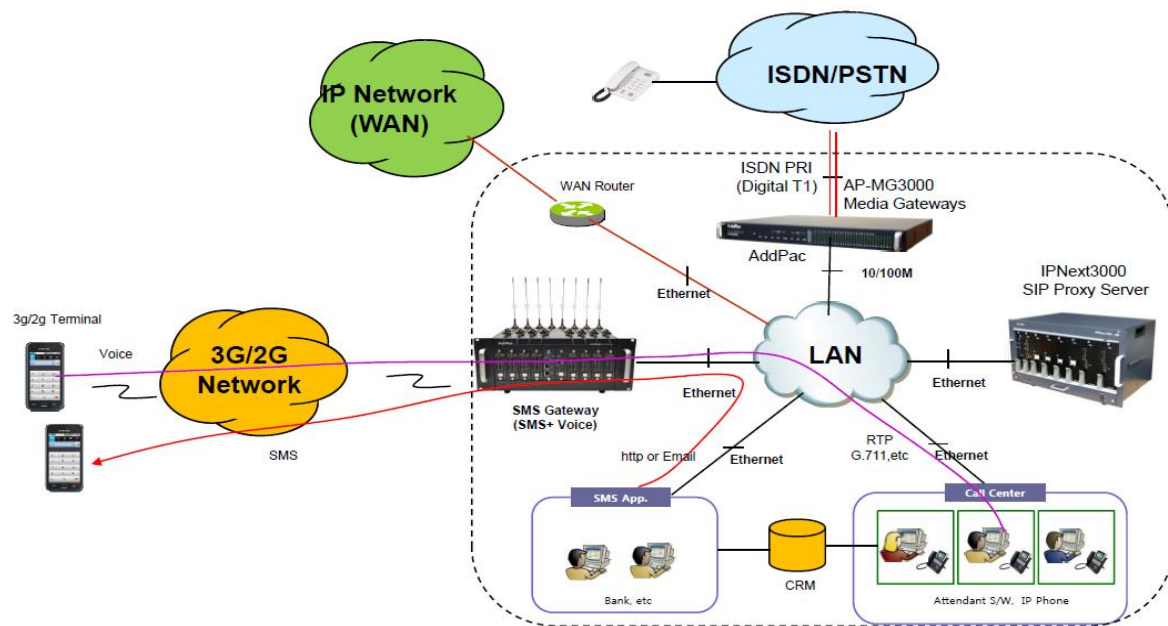
AddPac technology is not just a vendor of SMS Gateway Box for the customer satisfaction, but it provides various products for appropriate network environment for VoIP, Media Gateway, audio/video terminals, audio/video MCU, IP audio/video broadcast, VoD solutions, network DVR solution, audio/video recording solutions, and traffic controller QoS device solutions. In the future, All IP based multimedia telephony environment, various audio/video resources should be shared on an IP Network; thus, the integration of solutions for each area and entire solutions are considered as top priority. AddPac IP telephony solution is designed to consider the integrated multimedia solution so that it can satisfy the various needs of customer.

AddPac's various SMS Gateway series and multimedia network devices have been fully recognized in terms of its performances and stability throughout the world. AP-GS3500, with our accumulated experiences and know-how in the enterprise and service provider markets, will provide full satisfactions for customers who ask for a next-generation SMS Gateway.

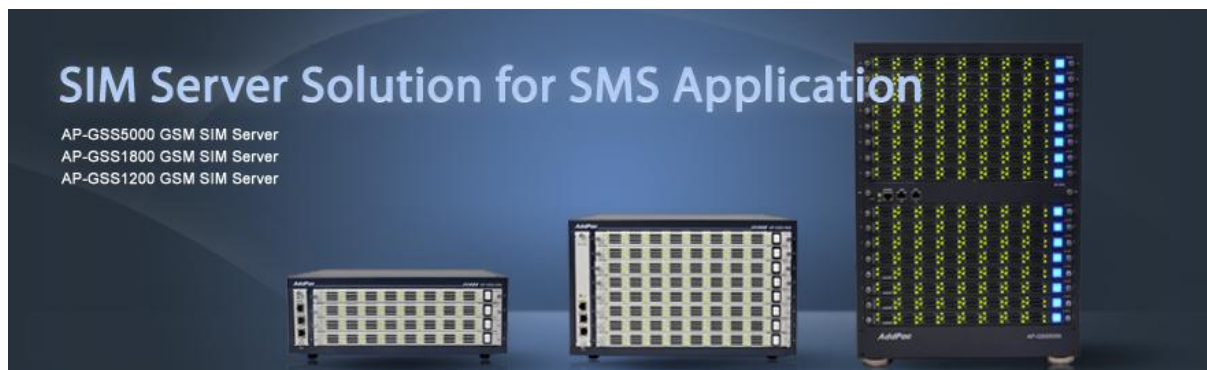
SMS Gateway Comparison Table

Model	AP-GS2500	AP-GS3500
		
Available Modules	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
Mobile Channel	Up to 16 Channel	Up to 36 Channel
Antenna	One(1) / 4 Channel Module	One(1) / 4 Channel Module
Module Slot	Four(4) Module Slots for 3G/2G, E1/T1 Modules	Nine(9) Module Slots for 3G/2G, E1/T1 Modules
LAN Port	2	2
Console	1	1
Power	Single PSU	Dual PSU (module)

Network Diagram



SIM Server Solution for SMS Application



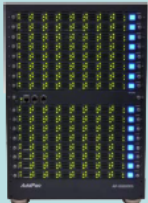


AddPac SIM Server solution for SMS application provides various GSM based Remote SIM Servers like as AP-GSS5000, AP-GSS1800, and AP-GSS1200. This Remote GSM SIM Servers can be installed or operated with AddPac GSM SMS Gateway SIM Clients like as AddPac AP-GS3500, AP-GS2500, etc. AddPac SIM server combining GSM SMS gateways is now suggesting a new model for a main mobile SMS and voice communication solution. In order to be a part of advanced mobile SMS and voice communications naturally in the future, making an excellent choice of choosing SIM server with GSM SMS gateway is essential. AddPac SMS Gateways supporting Remote SIM Client Features are new cutting edge http or email to SMS gateways supporting multi-ports of mobile interface. A GSM/3G mobile network interface of AddPac SMS gateway provide an optimized SMS service when it interoperates with various SMS application. Compact cost effective design and system architecture of AddPac SMS gateway solution provides customer satisfaction in high quality, performance and system reliance. Also, in addition to SMS service, this product supports mobile VoIP service concurrently. For mobile VoIP service, this product uses the state-of-art technology voice compressed algorithm and unique QoS algorithm of AddPac to maintain the maximum voice quality under fast internet line and slow internet line as well.

Advantage of using SIM Server

	Without SIM Server	With SIM Server
Maximum number of SMS per day	Fixed Depends on Number of Ports of 3G Gateway For example, • Condition: - 16 port gateway - 100 SMS day quota per SIM • Result - $16 \times 100 =$ 1600 SMS/day	Expandable Depends on Number of SIM Cards of SIM Server For example, • Condition: - 16 port gateway - 100 SMS day quota per SIM - 512 SIM Cards Server • Result - $512 \times 100 =$ 51200 SMS/day • <i>More Advantage</i> - <i>SIMs are simply extended by stacking of SIM server.</i>
Service Reliability	Bad 3G port block and SIM block makes unreliable service	Good Blocked SIM card can be replaced by others.
Quota Management	Difficult 3 rd Party SMS Server should manage SMS quota.	Easy SIM server can manage SMS quota efficiently.

AddPac AP-GSS5000 is a new cutting edge Tower Type GSM SIM server supporting maximum 512 channel SIM slots. AP-GSS5000 provides an optimized remote SIM bank solution when it interoperates with AddPac GSM gateways. Front SIM card slot design and system architecture of AP-GSS5000 provides customer satisfaction in high quality, performance and system reliance. AddPac AP-GSS5000 is a device that can support remote SIM bank application for centralized management. It also supports sixteen (16) module slots for GSM SIM bank, one(1) module slot for CPU board, two(2) gigabit ethernet ports, 1-port RS232C console, and state-of-art technologies and services. AddPac AP-GSS5000 is a high-end GSM SIM server providing total 512 SIM interfaces slots.(sixteen(16) module x 32 = 512 channel). A SIM bank module supports 32 front panel type SIM slots. It is suitable for SMS & call termination service provider, general enterprises, and large public offices. AddPac AP-GSS1800 and AP-GSS1200 also are new cutting edge Tower Type GSM SIM server supporting maximum 256 channel SIM slots and 128 channel SIM slots each. AP-GSS1800 supports octal(8) module slots for GSM SIM bank, one(1) module slot for CPU board, two(2) gigabit ethernet ports, 1-port RS232C console, and state-of-art technologies and services. AP-GSS1200 supports Quad(4) module slots for GSM SIM bank, one(1) module slot for CPU board, two(2) gigabit ethernet ports, 1-port RS232C console, and state-of-art technologies and services. A SIM bank module for AP-GSS1800 and AP-GS1200 supports 32 front panel type SIM slots.

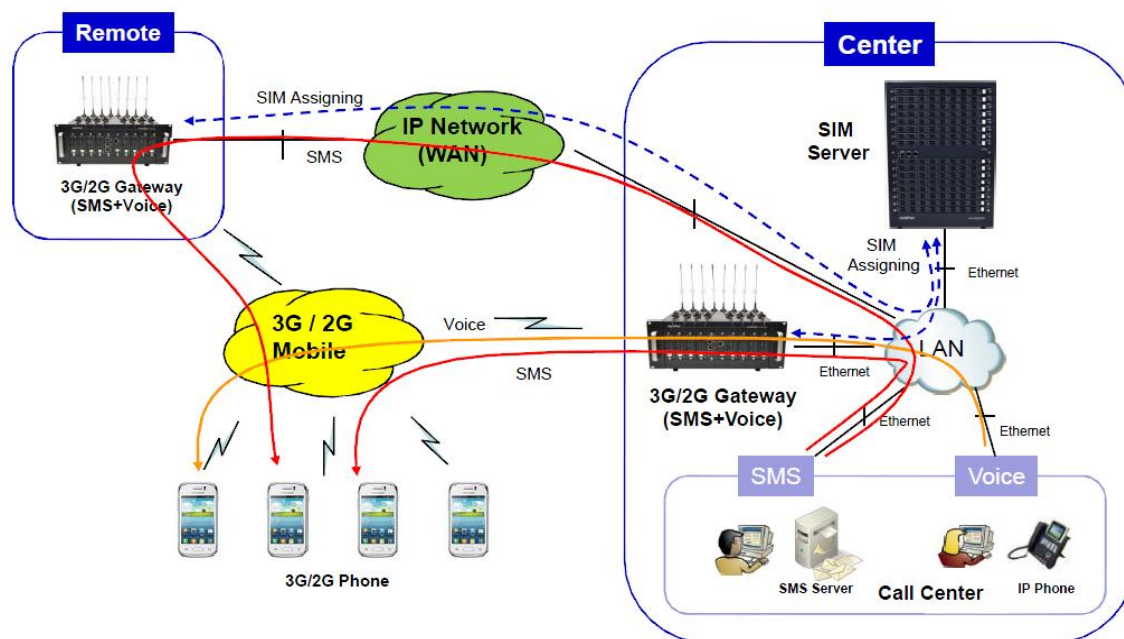
SIM Servers for SMS Application

Model	AP-GSS5000	AP-GSS1800	AP-GSS1200
			
Available Modules	AP-GSC32F AP-CPU AP-POWER	AP-GSC32F AP-CPU	AP-GSC32F AP-CPU
SIM Bank Module	AP-GSC32F : 32 SIM, Front Insertion Type, Single SIM base exchange, Hot-Swap	AP-GSC32F : 32 SIM, Front Insertion Type, Single SIM base exchange, Hot-Swap	AP-GSC32 F: 32 SIM, Front Insertion Type, Single SIM base exchange, Hot-Swap
Total SIM Cards	Up to 512 SIM	Up to 256 SIM	Up to 128 SIM
SIM Bank Module Slot	Sixteen(16) Module Slots for AP-GSC32F	Octal(8) Module Slots for AP-GSC32F	Quad(4) Module Slots for AP-GSC32F
LAN Port	2	2	2
Console	1	1	1
Power	Module Type Single PSU	Single PSU	Single PSU

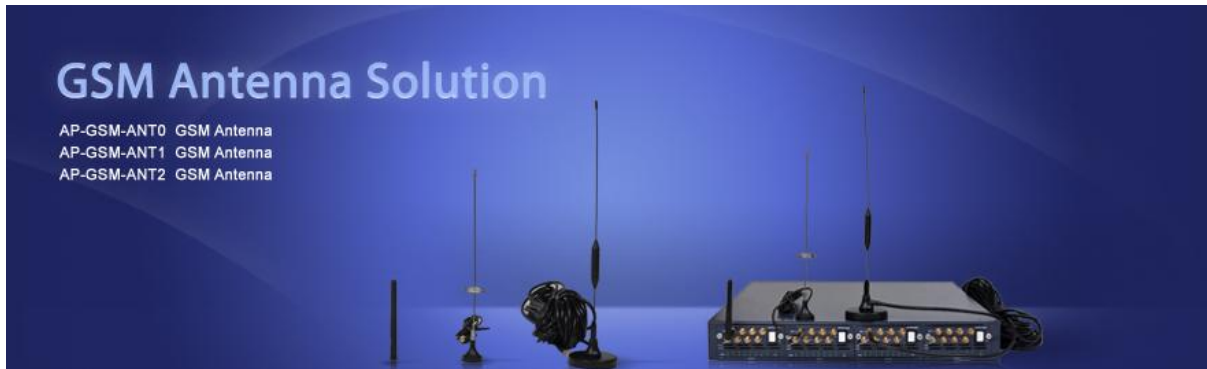
SMS Gateways

Model	AP-GS2500	AP-GS3500
Available Modules	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1	AP-N1-3G4 AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1
Mobile Channel	Up to 16 Channel	Up to 36 Channel
Antenna	One(1) / 4 Channel Module	One(1) / 4 Channel Module
Module Slot	Four(4) Module Slots for 3G/2G, E1/T1 Modules	Nine(9) Module Slots for 3G/2G, E1/T1 Modules
LAN Port	2	2
Console	1	1
Power	Single PSU	Dual PSU (module)

Network Diagram






Long Cable GSM Antenna Solution for Underground Installation



AddPac GSM Antenna Solution provides high-performance GSM gateway antenna solution for small enterprise, public offices and small & medium call termination service provider. AddPac GSM Antenna Solution consist of three (3) product line up like as AP-GSM-ANT0, AP-GSM-ANT1, and AP-GSM-ANT2. AP-GSM-ANT0 is small & short antenna style and is directly connected on antenna interface connector of AddPac GSM gateway. AP-GSM-ANT0 has no cable and very easy to handle and manage in case of multi-port gsm gateway. This antenna is very comfortable when GSM gateway is installed in Open Space and very close to window side in office building. AP-GSM-ANT1 gsm antenna has 2m cable length. So this antenna is comfortable when GSM gateway is Rack-Mount installed. This antenna provides reasonable performance when GSM gateway installation location is also close to window side in office building. But it is little bit difficult to handle and manage because this antenna also has 2m cable length. In case of multi-port gsm gateway, we recommend antenna combiner (4:1) gsm module should be used for easy handling. AP-GSM-ANT2 gsm antenna has 20m cable length and big antenna height comparing with previous one. This antenna is special ordering item and expensive. Normally long distance cable antenna length means antenna performance degradation due to resistance characteristic. To compensate performance degradation due to cable length, we increase the antenna height and cable diameter. This antenna is very useful for underground installation when gsm gateway installation location is too far to window side in office building especially. In case of multi-port gsm gateway, we recommend antenna combiner (4:1) gsm module should be used for biggest antenna easy handling.

GSM Antenna Solution Comparison Table

Model	AP-GSM-ANT0	AP-GSM-ANT1	AP-GSM-ANT2
			
Antenna Signal Level (REG state)	-87db	-81db	-73db
Antenna Cable Length	N/A	2M	20M
Antenna Height	108mm	250mm	345mm
Antenna Weight	70g	0.04Kg	0.80Kg

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