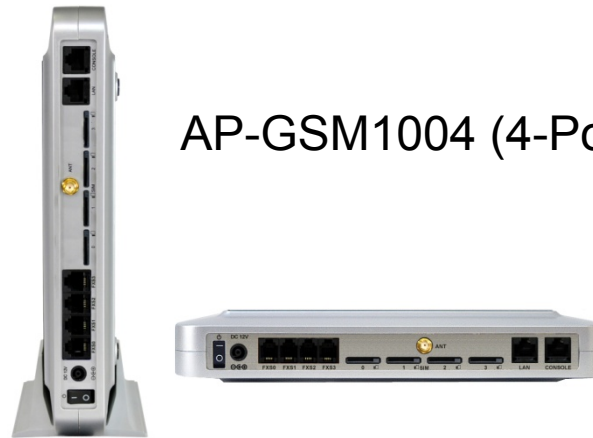


# GSM Gateway Function Overview

AP-GSM1002 (2-Port)



AP-GSM1004 (4-Port)



AP-GSM1001 (1-Port)

**AddPac**

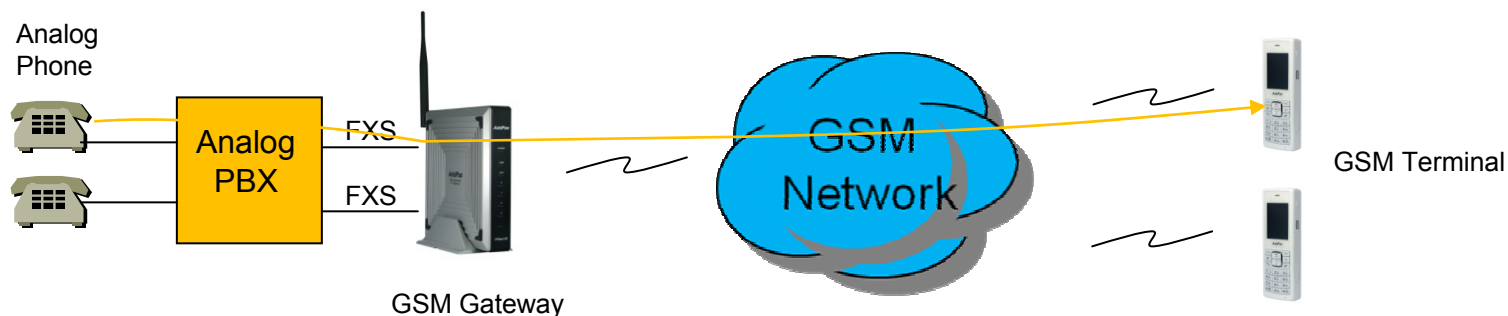
**AddPac Technology**

2010, Sales and Marketing

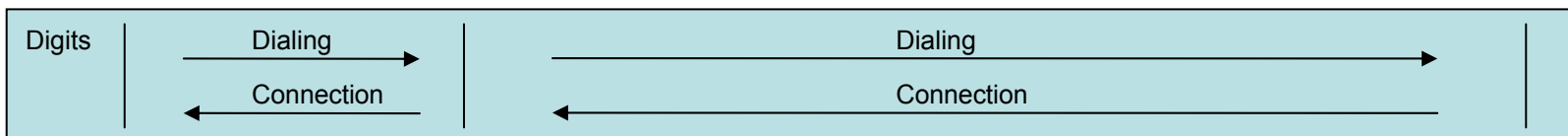
# Contents

- GSM Outbound Call
- GSM Inbound Call
- VoIP to GSM Outbound Call
- VoIP to GSM Inbound Call
- GSM Inbound Black / White list
- VoIP to GSM Black / White list
- WEB Callback Service
- Callback Service
- LCR(Least Cost Routing)
- BTS(Base Terminal Station) Control
- GSM BCCH Cell Monitoring
- GSM Messaging Service
- Radius Server Interoperability
- PIN Code Protection

# GSM Outbound Call



## One(1) Stage Call



## Two(2) Stage Call



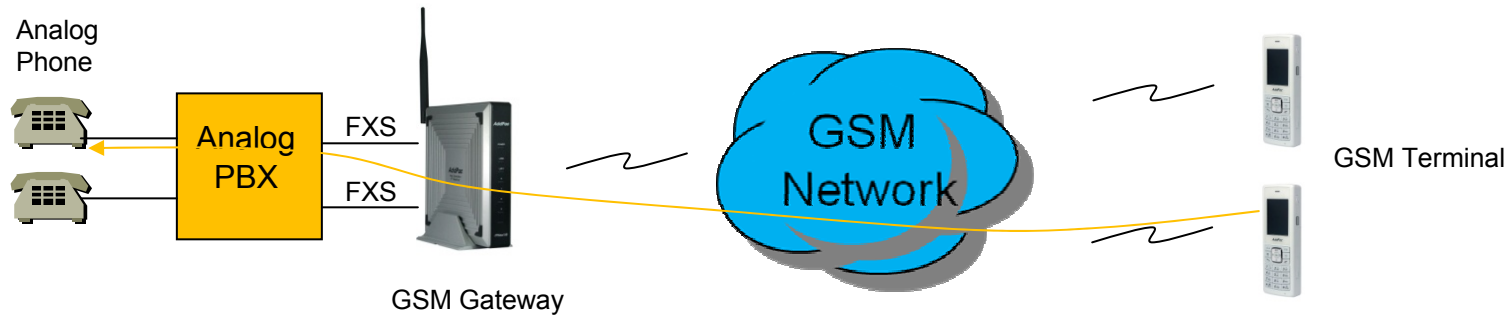
### Outbound Call (1 Stage)

: Making call to mobile phone from analog phone connected to FXS directly.

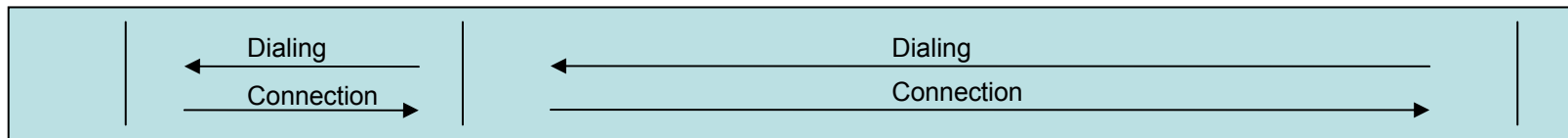
### Outbound Call (2 Stage)

: Making call to mobile phone from analog phone connected to FXS after hearing of 2<sup>nd</sup> dial tone from AddPac GSM Gateway

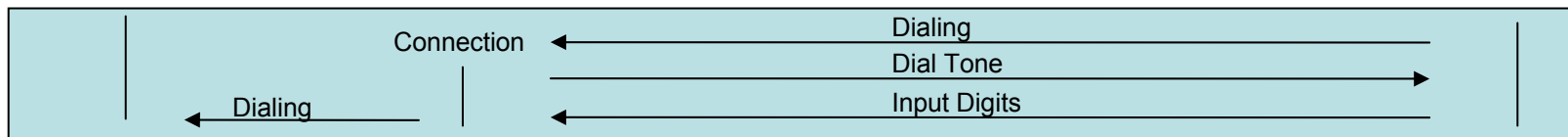
# GSM Inbound Call



## 1 Stage Call (Baby Call)



## 2 Stage Call



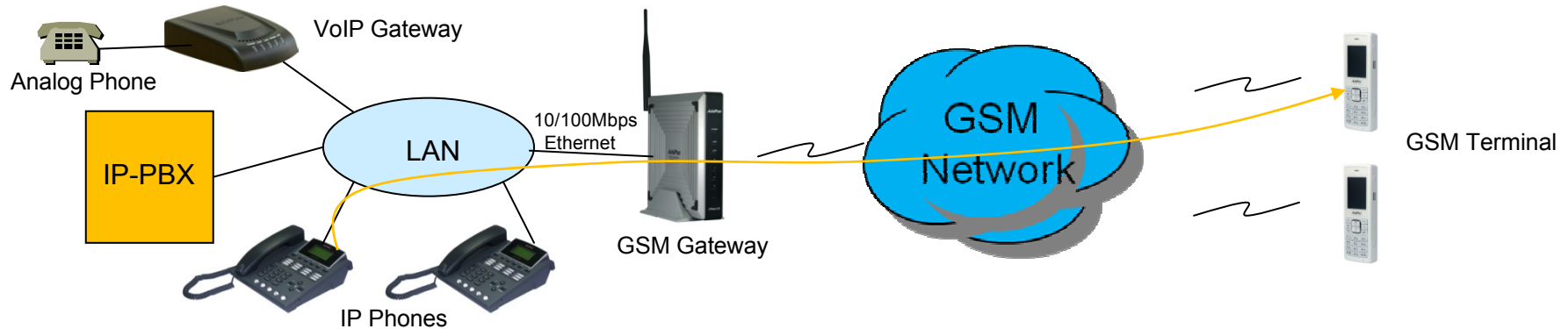
Inbound Call (1 Stage) – Baby Call

: Making call to analog phone connected to FXS directly

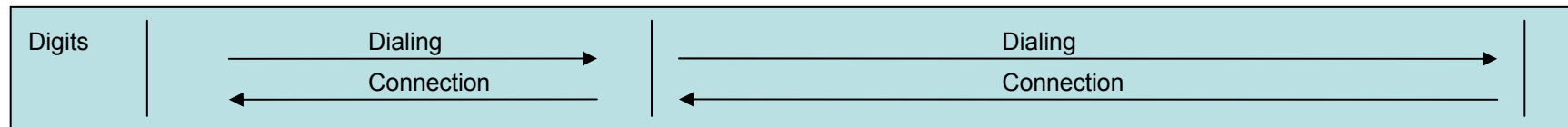
Inbound Call (2 Stage)

: Making call to analog phone connected to FXS after hearing of 2<sup>nd</sup> dial tone from AP-GS1002

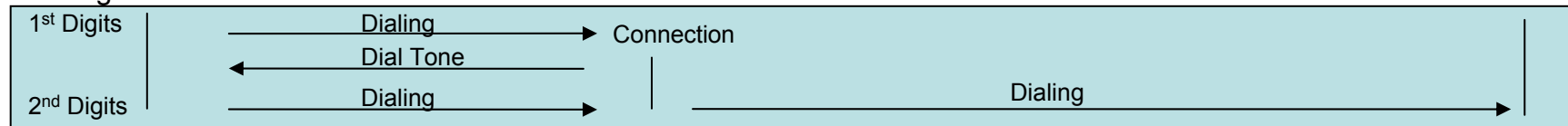
# VoIP to GSM Outbound Call



## 1 Stage Call



## 2 Stage Call



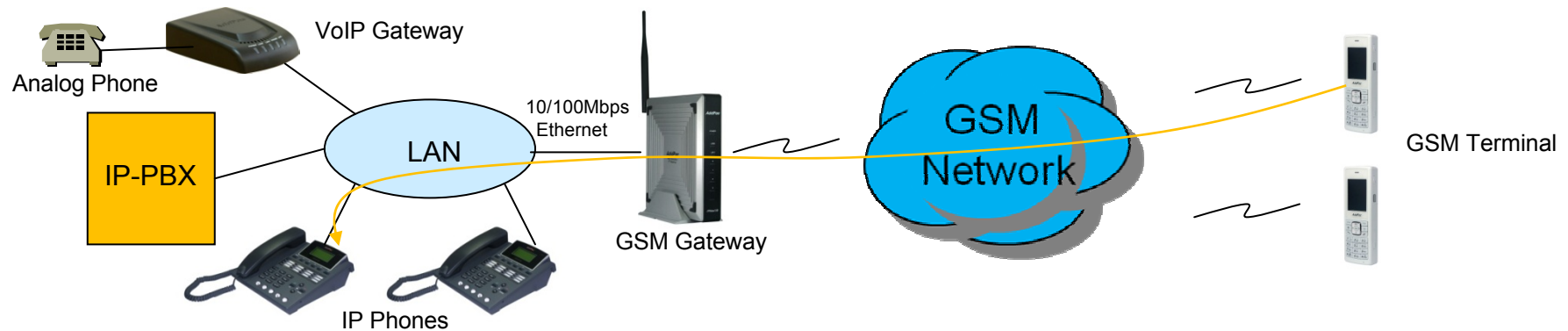
### Outbound Call (1 Stage)

: Making call to mobile phone from analog phone connected to VoIP gateway or IP Phone directly

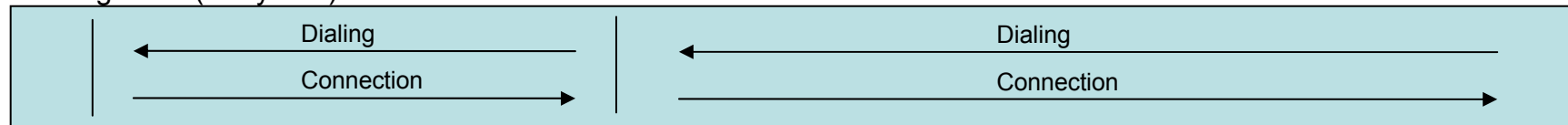
### Outbound Call (2 Stage)

: Making call to mobile phone from analog phone connected to VoIP gateway after hearing of 2<sup>nd</sup> dial tone from GSM Gateway

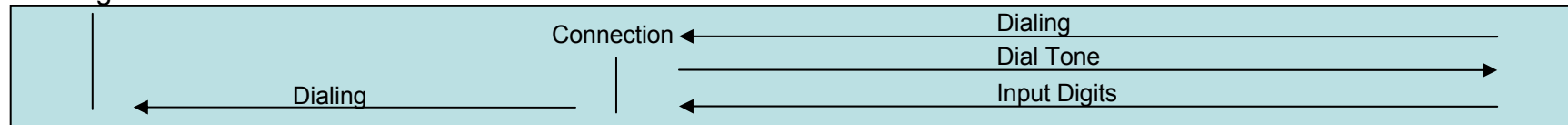
# VoIP to GSM Inbound Call



## 1 Stage Call (Baby Call)



## 2 Stage Call



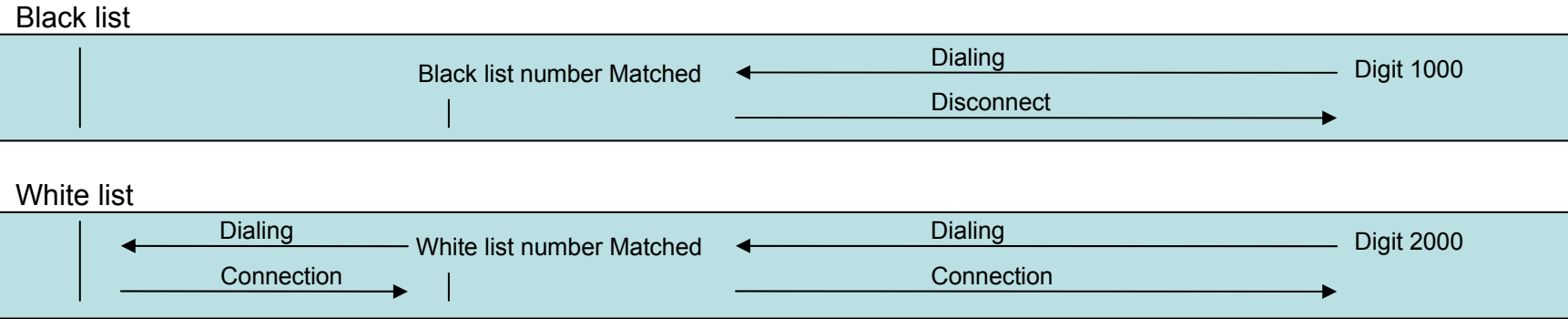
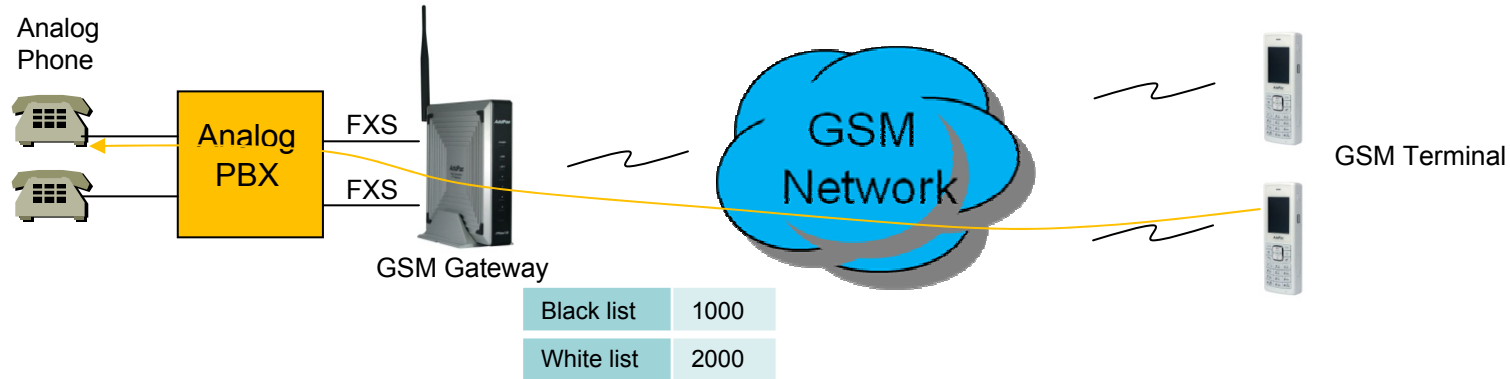
Inbound Call (1 Stage) – Baby Call

: Making call to IP phone in VoIP network directly.

Inbound Call (2 Stage)

: Making call to IP phone in VoIP network after hearing of 2<sup>nd</sup> dial tone from GSM Gateway

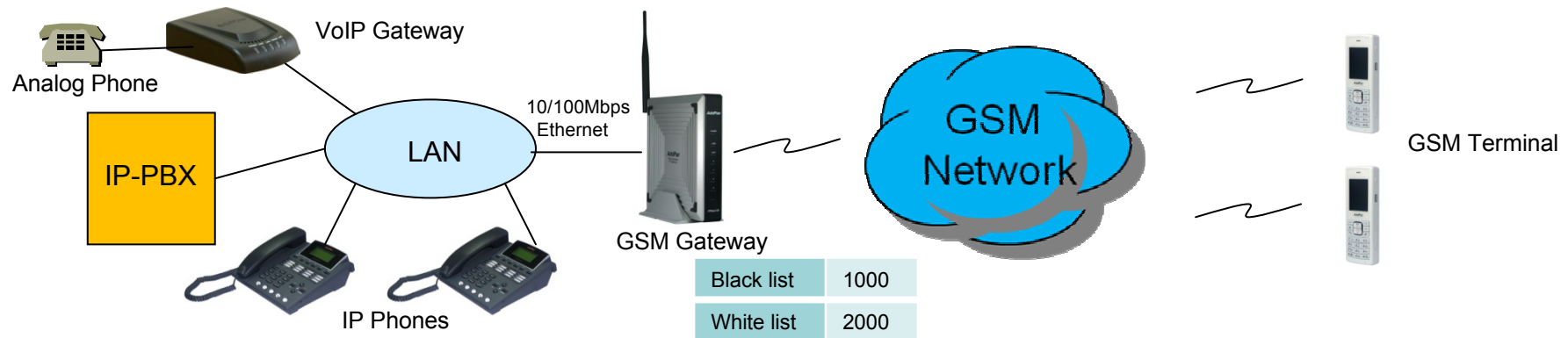
# GSM Inbound Call Black / White list



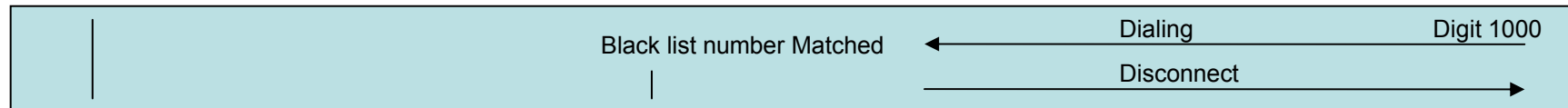
**Black list**  
 : The number on black list is restricted to receive call.

**White list**  
 : The only number on white list is allowed to receive call

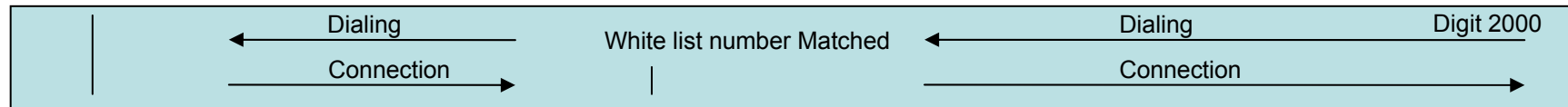
# VoIP to GSM Black / White list



## Black list



## White list



## Black list

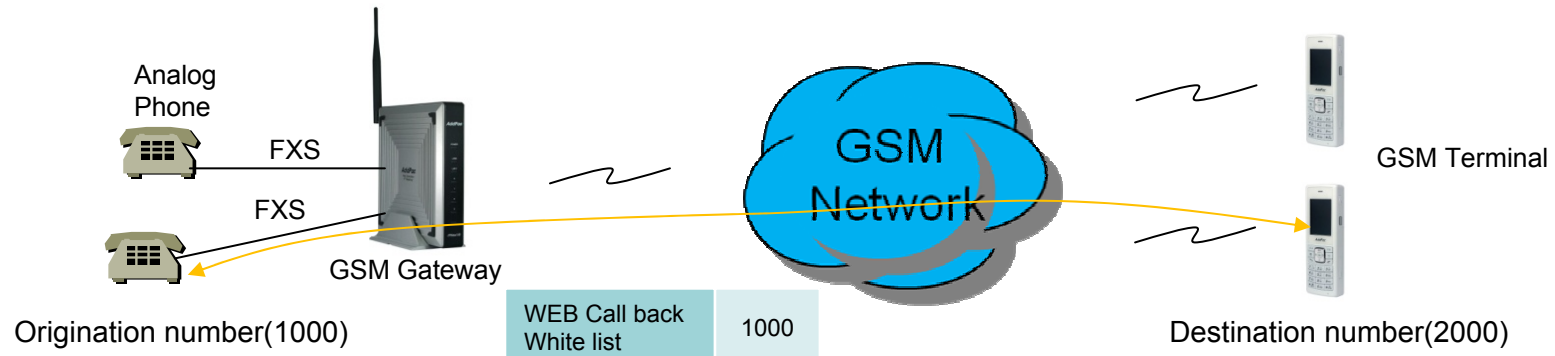
: The number on black list is restricted to receive call.

## White list

: The only number on white list is allowed to receive call



# WEB Callback Service



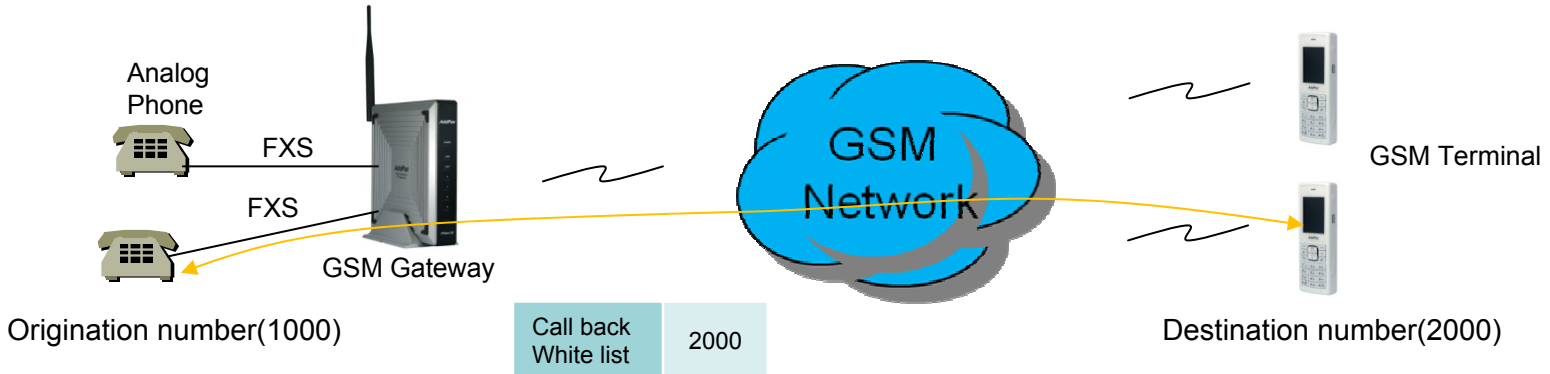
## WEB Callback Service



## WEB Callback Service

- : The remote call is made by user's control by WEB Interface.
- The WEB callback number on white list must be the same of source number.

# GSM Callback Service

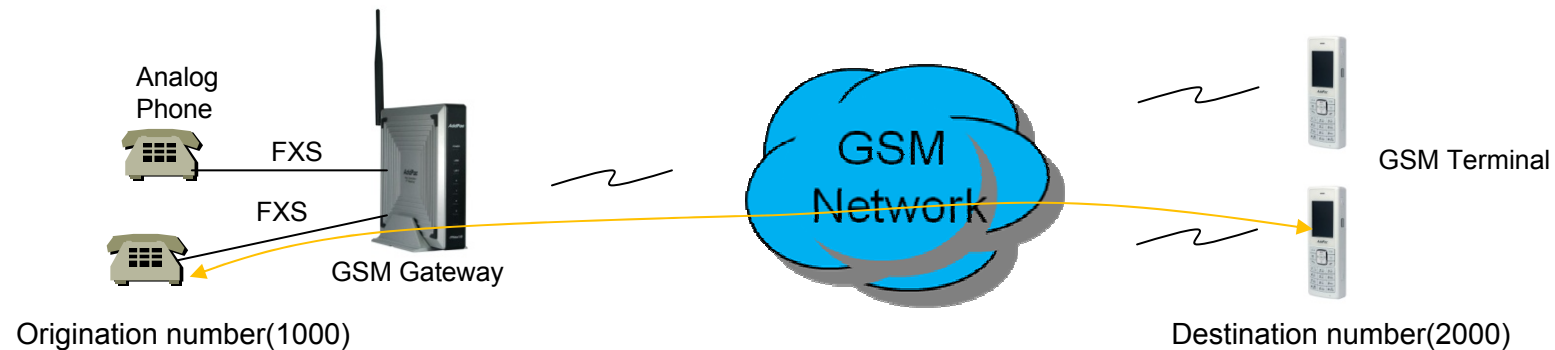


## GSM Callback Service

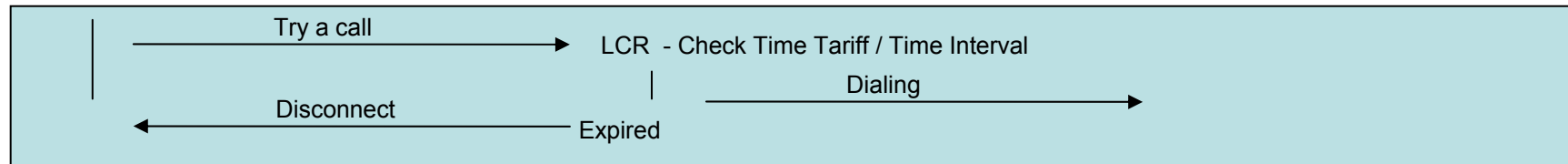


GSM Callback Service : When the user on the callback white list makes call, GSM Gateway disconnects it and makes call back to the user

# LCR(Least Cost Routing)



LCR(Least Cost Routing)



GSM LCR Time Interval

: The only registered user is allowed to use GSM call in the rule of date, week, and time

GSM LCR Time Tariff

: User is able to check remained time, used time listed on LCR, etc

GSM LCR Simulator

: GSM Gateway supports virtual call simulation used on WEB

# BTS(Base Terminal Station) Control

**Smart Web Manager**  
www.addpac.com

### GSM / BTS Control

Port	BTS Selection Mode	BCCH	RSSI & Timer
P0:0	Auto	72EA	-25B -1(sec)
P0:1	Auto	72EA	-25B -1(sec)

P0:0 [Auto] [72EA] [-10 dB] [0 sec] [Apply]

**BTS control**  
Configure BTS selection option

- \* Auto mode
- \* forced BCCH
- \* forced RSSI level

**Information**  
AddPac Technology  
Model : GS1002\_G2  
H/W Version : 2.0  
S/W Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address : 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**  
Configure BTS selection mode

BTS(Base Terminal Station)

: User is able to choose Cell ID or RSSI of cell by GSM Gateway.

- (1)The most powerful signal of cell is chosen.
- (2)User selects BTS through Cell ID in cell.
- (3)The cell listed is found periodically by user

# GSM BCCH Information

Smart Web Manager

www.addpac.com

**System**

- Network Setup
- Language
- NAT
- PPTP
- NTP

**Basic**

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

**Advanced**

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

**Miscellaneous**

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

## GSM BCCH Cell Information

PORT 0:0

PORT 0:1

**Information**

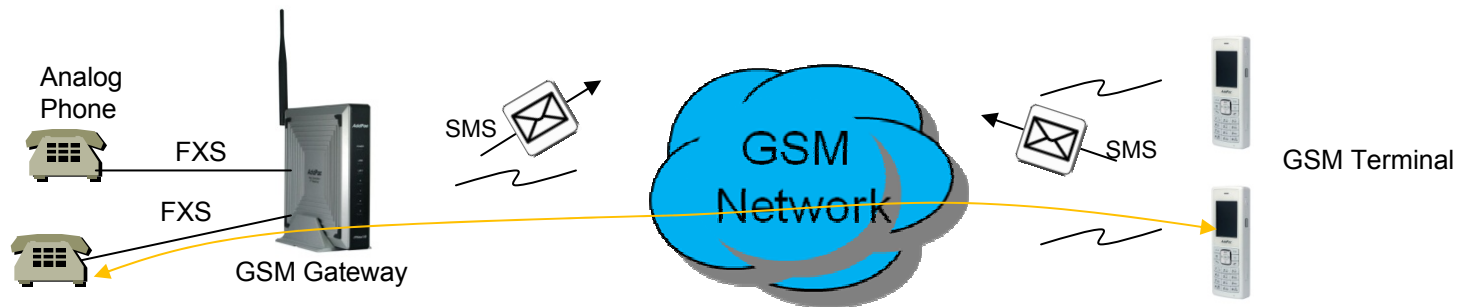
AddPac Technology  
Model : GS1002\_G2  
HW Version : 2.0  
SW Version : 8.00d  
Smart Web Version : 0.4  
Smart Web Build : Mar 24 2010  
Voice Interface  
G(2)S(2)  
Protocol : SIP  
Status : Unregistered  
CurrentCalls : 0 Call  
Network : Static 172.16.9.16  
Mac Address: 0002.a400.0000  
Unread Message:  
P0:0(0)  
P0:1(0)

**Description**

Verify GSM wireless signal status

**BCCH Cell Information**  
Shows serving cell information ( center circle) and neighboring cell information.  
\* LAC : Location Area Code  
\* CI : Cell ID  
\* BSIC : Basic Station ID Code  
\* BCCH : Broadcast Control Channel  
\* RSSI : Receiver Signal Strength

# GSM Messaging Service



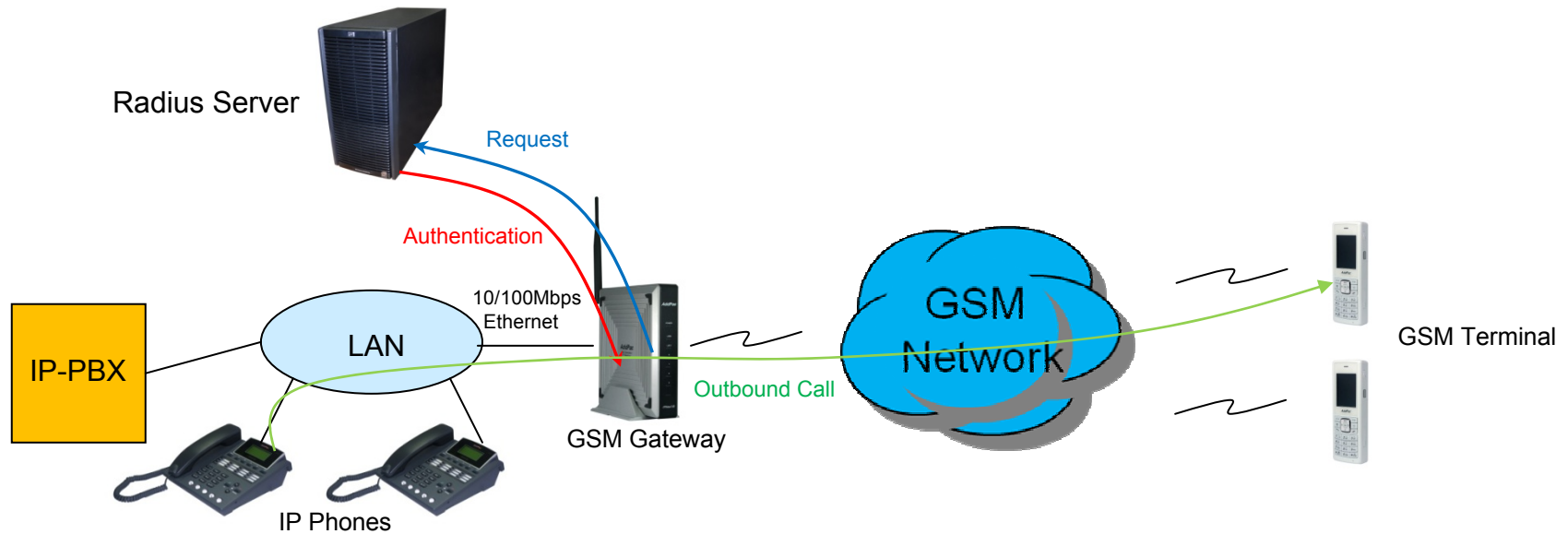
## GSM Messaging Service

- : SMS is able to send and receive by GSM Gateway's WEB Interface
- : English, Korean, Spanish, Russian, Portuguese

## USSD

- : In case of using Pre-paid SIM card, checking and recharging is allowed by GSM Gateway

# Radius Server Interoperability



Radius Server Interoperability

: When billing system is required, GSM gateway supports radius server interoperability

# GSM Gateway Series

# Thank you!

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