VPMS v2.0 (VoIP PnP Management System) Operation Manual

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1. VPMS (VoIP Plug & Play Management System)

1.1. Introduction

To install VoIP Gateway, the installation experts are asked to visit the place of installation and it is not economical and also time consuming. To overcome such shortcomings, Gateway default configuration, automatic Firmware upgrade and debugging are made possible with VPMS (VoIP Plug & Play Management System).

1.2. Features

Without installation experts or additional installers, VPMS makes possible initial setting of remote VoIP
 Gateway according to customers' service requests.

• VPMS (VoIP Plug & Play Management System) offers automatic initial configuration and real-time monitoring of gateway. Also, easy and convenient Firmware binary file and configuration change are possible via GUI (Graphic User Interface).

• VPMS operators can check real time condition of remote VoIP gateway as a graph and a table. So, easy monitoring and quick actions are possible.

• VPMS offers Firmware binary file and configuration change of a group or an individual VoIP gateway reducing operator's workload. Also, by keeping configuration change history, VPMS clearly shows the list of configuration changes.

• Without additional programs, built-in Telnet and FTP programs are offered. Also, automatic login is supported without knowing Telnet or Ftp ID and Password of each VoIP Gateway.

1.3. Functions

Automatic initial setting

Without installation experts or additional installers, VPMS makes possible initial setting of remote VoIP Gateway depend on customers' service requests.

Gateway monitoring

VPMS operators can easily monitor the registered Gateway via GUI.

Automatic upgrade

VPMS operator conducts File upload and auto-script via GUI with VPMS program by using existing Auto-upgrade (auto upgrade server) function, which makes possible Firmware binary file and configuration change. Also, configuration changes can be searched.

CLI

With built-in Telnet, VPMS automatically accesses to a specific Gateway and conducts configuration change.

Gateway management

VPMS offers Gateway management (registration, modification, inquiry, deletion, search).

Operator management

VPMS offers VPMS operator account management (registration, modification, inquiry, deletion, search). Also, by offering various operator levels, certain VPMS functions can be regulated.

VoIP group management

VoIP management can be done by groups. So registration, modification, inquiry and deletion of gateway groups are possible.

Event log view

VPMS displays Event log of gateways such as initial setting (Only allowed for Admin Users).

Gateway condition statistics

VPMS supports Status Chart function displaying the real-time condition of gateway. Also, the statistical information can be saved and searched by the time.



1.4. Configuration Diagram



• VPMS system consists of VPMS server, VPMS client and End user.

• VPMS Server consists of VPMS server, DB(MS-SQL) server, Auto-upgrade server and VPMS client. VPMS client has the role of Administrator and monitories the gateways. The VPMS, DB and Auto-upgrade server can be formed as one Server.

• There can be more than one "Group" which has different URL of auto upgrade server or auto configuration.



1.5. VPMS Program Specification

Server Hardware Specification (Ex : Gateway 1000 pcs)

CPU	Intel Pentium4 1GHz
MEMORY	1 GB
Hard Disk Drive	40GB
OS	Windows 2000 server

Client Specification

OS	Windows XP, Windows 2000, Windows 9x series
CPU	Intel Pentium series
MEMORY	Over 256 MB recommendable(Min 128MB)

Software

Database	MS-SQL server 2000 (standard)					
Auto-upgrade server	Windows2000 server (IIS, FTP)					
VPMS Server	Java JRE 1.4.1(download), VPMS server					
VPMS Client	VPMS client					
Other	TeraTerm Pro 2.3 (freeware download)					



2. VPMS Function process

2.1. Initial setting and subscription

• Before selling gateways to the customers, initial setting is required. The following describes the process of gateway initial setting.

- 1) Add VPMS server IPAddress(domain) to the gateway.
- 2) Check the MAC address marked on the box and register gateway from VPMS client program.
 - (Initial setting items: MAC address, Password, H323_id, e164, Model name and etc.)
- 3) Ship the gateway.
- Above process is common for any customers. (Note below details regarding purchasing of gateway)
- Below table describes the way of purchasing gateways and setting information.

How to purchase	Details
By phone call	 An individual customer calls to the call center An individual customer talks to Call center and applied for the service. After initial setting and registration of customer information, ship the product
By Internet	 An individual customer requests the product via Internet A customers applies for the service via Internet. The service request is received at the Call center. After initial setting and registration of customer information, ship the product.
At convenient Store	 Purchasing gateway at the Home Shopping and convenient store. Sell the product after the initial setting. The customer request for the service (along with MAC address) via Internet or telephone call. The service request is received at the Call center. The user information is added based on MAC address.
At selling agent	 An individual customer visits a selling agent and requests for the service. A customer visits a selling agent and request for the service. The selling agent adds the user information based on MAC address and sells the product.



2.2. Gateway Initial Setting

- Below figure summarizes gateway initial setting process.



[Figure 2-1] Process of gateway initial setting

① Service subscription : Customers contact to Call center (Phone, Internet, Agent etc) for service subscription.

② Gateway initial setting and subscriber detail registration : MAC address, password, H323 id,e-164 number, model names etc are details on initial gateway setting. And the administrator registers subscriber detail by using VPMS client program.

③ Subscribers install their gateway : Subscribers install and connect cables to gateways.

④ Automatic Interface setting and gateway config tranfser : When the internet cable is connected, Interface is set up automatically, and gateway requires VPMS server to send config information.

(5) After receiving gateway config, automatic config setting : VPMS server receives gateway request signal, collect config information and automatically configure the gateway.

• If the procedure is ok, customer's gateway will be configured normally and ready for internet telephony.



2.3. Auto-Upgrade Server

• Auto-Upgrade Server provides the functionality to **run OS image and script** atutomatically by using the existing auto-upgrade function.



Below diagram explains Auto-Upgrade Server composition.

① Upgrade data registration and transfer : After VPMS program prepares for the data category which is supposed to be upgraded, data is uploaded from Auto_upgrade server to the group.

(2) Upgrade for each group : Gateway which is grouped searches through auto-upgrade list file, If necessary, upgrade will be proceeded automatically.

• Administrator configures Auto-upgrade server URL and other setting for VPMS grouping. Thus, upgrade config can be managed on each group basis. Next chapter provides more details.

3. VPMS Initial Screen

VPMS Initial Screen provides Group Summary and Status chart which show the statistical data of each gateway's status.

₹ ۷	olP PnP	Management	Syste	em v2.0	- [Group \$	Summary]						
% !	ile <u>M</u> an	agement <u>S</u> earch	n <u>V</u> ier	w <u>T</u> ools	St <u>a</u> tistics	<u>H</u> elp						- 8 ×
B	Å 🛒	ි 🔎 😭 🦿) 🖻	🗋 🐻	👔 🐺 📴	Lili.						
A	ddPd	ac						Vo	IP Plug &	Play Mar	nagement Sy AddPac Tec	stem chnology
No	Group Id	Group name		GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam		11	3	0	2	1	15	0	16	16
2	02	Seoul		6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam		1700	21	U	U	U 1707	21	U	21	21
4	04	Seocho		1782	2	ь	/	1797	U	U	1797	1797
Stal	us Chart											close
											UP	9488
	8.000								no	t Provisioning	Down	500
	6 000 8								- Pro	WN	Not provisioning	6
(G	V) 4 000										Total	10002
	2.000 -										Chart Type	Time
	13:27:0	09 13:27:14 13:27:1	19 13:2	7:24 13:27	:29 13:27:34 1	13:27:39 13:27:44 1	13:27:49 13:27:54 1	3:27:59 13:28:04	13:28:09			Minute 💌
	2005 OF 1	10.0 - 1.00.00		D	(Tin	ne : Minute)	the state of the s	-11				
	2005-05-	10 포우 1:28:09		nec	oru count: 5	Aaminis	strator : Jschol (rot	00				11

Figure 3-1 VPMS Initial Screen

3.1. Group Summary

Group summary provides statistical data for gateway status on a group basis and user can search gateways by selecting proper data type.

Each data is distinguished by colors so that user can be easily aware of the group status.

A	ddPd	ac					VolP	Plug & P	lay ^{Mana}	ogement Sys	stem nology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001



Select group ID or group name to see menu and double click to edit properties of the group.

No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group a
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	716
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	179
5	05	kwanak 🛃	1001	0	0	0	1001	0	0	1001	100

New Group	
Group Id Name Description	01 Sungnam kyong ki do
Auto upgrade ser	ver
URL	http://172.16.31.2/Sungnam/paj
ID	(optional)
Password	(optional)
FTP ID	root
FTP Password	router

Figure 3-3 New Group Screen

Select and double click the statistical data of the status to list group gateways on each status basis.

A	ddPd	ac				74	VolP	Plug & P	lay ^{Mana}	gement Sys	stem nology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001

🚼 🗭 New Modify) Delete	Cogin check	S Telnet	Close	~	1	Gatew	ay Man Addr	agement ac technology
MAC address	Group Id	User name	IP address	Model	Version	Status	GK status	GK cause	SIP proxy status Latest report time
000000001C22	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C23	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C24	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C25	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C26	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C27	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C28	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C29	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C2A	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered
000000001C2B	05		1.1.1.1	AP200B		UP	Registered	Unspecified	not registered

Figure 3-4 Select Statistical Data for Group

Next table explains the description of status field of groups.

Status Field	Description
GW UP	The number of gateways which are currently up in the group
GW Down	The number of gateways which are currently down in the group
GW Provisioning	The number of gateways which are Provisioning in the group
GK Register	The number of gateways which are registered on GK
GK not Register	The number of gateways which are not registered on GK
SIP Register	The number of gateways which are registered on SIP server
SIP not Register	The number of gateways which are not registered on SIP server
Group all	The number of every gateway in the group

 \boxplus 3-1 Status field of groups

3.2. Status chart

Status chart helps operators to check the status of gateways as chart type in real time. Basically, operator can find this function on initial screen or choose (View>status) on the pull down menu of the main screen. Operator can also click Status chart button to open as below figure.

۷ 🖉	olP PnP	Management Sys	tem v2.0 -	[Group S	ummary]						
1	Eile <u>M</u> ana	igement <u>S</u> earch <u>V</u> i	ew <u>T</u> ools	St <u>a</u> tistics <u>I</u>	<u>H</u> elp						- 8 ×
B	ቆ 🗳	9 🔎 🖻 🧶		🖷 📴 L	ш						
A	ddPa	ic					VolP	Plug & F	Play Mana	agement Sys AddPac Techn	tem ology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2		15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6		1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
Sta	tus Chart										clos
	4							-		Down	9488
	8,000							– not Pi	ovisioning	Brovisioning	000
	6.000								N	Not provisioning	0
(G	M							— — UP	·	Total	10002
	4,000-									Chart Tupe	Time
	2,000 -									Line	
	15:42:4	6 15:42:51 15:42:57	15:43:03 15:	43:09 15:43	3:15 15:43:21 1	5:43:27 15:43:33	15:43:39 15:43	45		C Pie	Minute 💌
	2005-05-1	6 오후 3:43:46	Recor	d count: 5	Adminis	trator : jschoi (root)					

Figure 3-5 Status chart Screen

Status Chart displays Provision condition and interface condition of the gateway as a chart. Chart type Supported chart types are line and pie.

1) Line chart





 By assigning time interval (Day, 12Hour, Hour, Minute), the gateway information during the time interval can be displayed. X is "Time" and Y is" Gateway".

2) Pie chart





- The above is the Pie chart showing the 4 different status with two graphs. The Legend shows the exact ratio of each status.

4. VPMS Function

4.1. Group Management

Group management makes possible managing the gateways by dividing certain groups. The registration, modification, deletion and search of a certain group are possible. Select [Management]> [Group] from the menu or click the icon as shown below.





Figure 4-1 Group Management running screen



• Group management can be only accessed by Administrator account. .

4.1.1. New Group

A new group can be registered. A new group code, group name and Auto-upgarde server information can be registered. Click "New" icon and "New Group" dialog box will be appeared.

* 🗭 🗂	A.	
New Modify Delete	Close	
No Group Id	Group name	Description
1 01	Sungnam	kyong ki do
2 02	Seoul	Seoul Korea
3 03	Kangnam	Seoul kangnam
4 04	Seocho	seoul city
5 05	kwanak	
6 06	kangdong gu	



New Group		X
Group Id Name		
Description		
- Auto upgrade se URL	erver	
ID	(optional)	
Password	(optional)	
FTP ID FTP Password		
	🖌 Ok 💢 Cancel	

- Id : An uniqe code of a certain group
- Name : Enter the goup name.

• **Description** : Enter description on the group.

• URL : Enter the Auto-upgrade server URL of each group.

(EX: http://172.1.1.10/group1/packing.lst)

• ID : Enter the Web authentication ID.

• **Password** : Enter the Web authentication password.

• FTP ID : Enter FTP authentication ID.

• FTP Password : Enter FTP authentication password.

4.1.2. Group Modify

The group information and Auto-upgrade server of a certain group can be modified.

	e 🗈 🗂	A.	
Ne	w Modify Delete	Close	
Noll	Group Id	Group name	Description
1	01	Sungnam	kyong ki do
2	02	Seoul	Seoul Korea
3	03	Kangnam	Seoul kangnam
4	04	Seocho	seoul city
5	05	kwanak	
6	06	kangdong gu	

New Group	
Group Id Name	01 Sungnam
Description	kyong ki do
Auto upgrade ser URL ID	ver http://172.16.31.2/Sungnam/paj (optional)
Password	(optional)
FTP ID FTP Password	root router
	🖊 Ok 🗙 Cancel

Figure 4-3 Modify Group Screen

4.1.3. Group Delete

It deletes a group code. Selects a group and click "Delete" button.

😴 Va	olP PnP Ma	nagemer	it System v2.0 - [(Group Man	agement]						X
🧏 E	lle <u>M</u> anagerr	ient <u>S</u> ear	ch <u>V</u> iew <u>T</u> ools St	atistics <u>H</u> elp							_ 8 ×
D	* 5 3	R 😰 🛔	🗢 🕑 🗋 🎛 🖻 4	8 💁 🖬							
* Nev) 🚑 v Modify) Delete	S. Close					-	Group Manag AddPac	gement Technology	
No	Group Id	*****	Group name			Des	ription				
1	01		Sungnam	-		kun	na ki do				
2	02		Seoul	C	onfirm		E	× .			
3	03		Kangnam								
4	04		Seocho		2 Do	you want to	delete group?				
5	05		kwanak		\checkmark						
6	06		kangdong gu		(TTTT)		Cancel				
Statu	ıs Chart										close
								10.0		UP	9488
	:								— not Provisioning	Down	500
	8,000								- Provisioning	Provisioning	6
	6,000								- DOWN	Not provisioning	9
(GV	⁰ 4,000-								- UP	Total	10003
	2.000									Chart Type	Time
		¢.			į					• Line	Minuto
	16:26:37 16	:26:42 16:	26:48 16:26:54 16:27	:00 16:27:06 (Time : Mir	16:27:12 iute)	16:27:18 16	27:24 16:27:30	16:27:36		C Pie	
	2005-05-16 오:	章 4:27:37	Record o	count: 5	Adminis	strator : jscho	i (root)				

Figure 4-4 Group Delete Screen 1

• There is possibility that every gateway which is contained in Group can be deleted. Operator must be careful with this function.

🦪 V	olP	PnP Ma	nageme	ent System v2	2.0 - [Group	Manage	ement]						
🕵 E	ile	Managen	nent <u>S</u> ea	arch <u>V</u> iew <u>T</u> o	ols St <u>a</u> tistics	Help							_ 6 x
B	8	1 🖻 😪	🔎 😭	🥑 🖻 🗋 🛛	🖲 🖳 🔁 🗗	LLLL							
Ne	*	(+) Modify	Delete	S. Close							Group Mana AddPa	gement Technology	
No	Grou	upld		Group name		1		Desc	ription			- A Laborary Contractor	
1	01			Sungnam				kyor	ng kido				
2	02			Seoul	Confirm								
3	03			Kangnam	Committee		-	947A		40.00			
4	04			Seocho	GI GI	oup alread	dy included	in a gatev	/ay, Do yo	u want to delete	e group?		
5	05			kwanak	\checkmark								
6	06			kangdong gu			<u>Ок</u>		Cancel				
Stat	us C	hart											close
												UP	9488
		:									— not Provisioning	Down	500
	8,0	000 -									 Provisioning 	Provisioning	6
	6,0	000 -									- DOWN	Not provisioning	9
(GV	^{V)} 4,c	000										Total	10003
	2,0		30:08 1	6:30:14 16:30:20	n 16:30:26 16	:30:32 1E	30:38 16	30:44 16:	30.51 16:3	0:56 16:31:02		Chart Type C Line C Pie	Time Minute 💌
					(Tit	ne : Minute)							
	200	5-05-16 오	享 4:31:03		Record count: 5		Administra	tor : jscho	i (root)				

Figure 4-5 Group Delete Screen 2

4.2. Gateway management

Gateway management offers registration, modification, deletion and search of gateway users.

• User can enter each group's gateway management screen is provided by Group summary.

4.2.1. New Gateway

A new user can be registred. The necessary information includes brief user informatin,
 MAC address of gateway and other related infrmation.

Click New gateway button in initial screen or choose New gateway in main menu to register Gateways. Operator can register new gateways by by selecting New button in Gateway management of group management.



Figure 4-6 Gateway Registration

VPMS V2.0 Operation manual

New Gateway			
End user information			
Group Id	-	Aux. script	
Group name			
User name			
Address			
Telephone		Email	
IP address MAC address GW user name PPPoE Username		Gateway Model Virtual MAC addre GW password PPPoE Password	SS
Sniffer None Automatic Manual	Manual C DHCP C PPPoE	DHCP MAC address Mostname	PPPoE ✓ login/password ✓ service-name
			V OK X Close

Figure 4-7 Gateway Registration Screen

Field	Description	Option
Group ID	Choose Group Code	Required
Aux.script	Choose Aux.script	Optional
User name	Enter user name	Required
Telephone	Enter telephone number	Optional
Address	Enter address	Optional
Email	Enter e-mail address	Optional
Model	Choose gateway model (Modify the number of slot/port according to model)	Required
MAC address	Enter MAC address	Required
Virtual Mac address	Enter virtual MAC address	Optional
GW username, password	Set gateway's alias	Optional
PPPoE username, password	Configure gateway PPPoE setting	Optional
Sniffer	Set gateway sniffer (none, automatic, manual)	Optional
H.323ld, password	Set H.323 info for subscriber	Optional
SIP username, password	Set SIP info for subscriber	Optional
Dial-peer configuration	Set dial-peer info for subscriber (destination-pattern, username, password)	Optional

 \boxplus 4-1 Description of gateway registration fields



4.2.2. Modify Gateway

🚿 VolP PnP M	lanagement S	ystem v	2.0 - [Gat	eway is O	aroup all]						
<u> F</u> ile <u>M</u> anag	ement <u>S</u> earch	<u>V</u> iew <u>⊺</u>	ools St <u>a</u> tist	ics <u>H</u> elp						-	Ξ×
10 🖧 🛒 🤇	è 🔎 😭 🕙	🦻 🗋 🛛	🖷 👔 🖳]> іш							
New Modify	Delete	ूर्? Login check	J Telnet	Close			Gatev	ay Man Addr	agement ac Technolog		
MAC address	Group Id 👘 User	r name	IP address	Model	Version	Status	GK status	GK cause	SIP proxy status	Latest report ti	1
00000000001D	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	^
00000000001E	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000001F	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000020	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000021	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000022	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	=
00000000023	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000024	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000025	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000026	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000027	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	_
00000000028	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000029	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000002A	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
0000000002B	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	~
Status Chart											close
,		1			1				UP	948	8
							—	not Provisionin	g Down	500)
8,000-							–	Provisioning	Provisioning	6	
6,000 -								DOWN	Not provision	ning 9	
(GVV) 4,000								UP	Total	1000)3
2.000									Chart Typ	e Time Time	
						_			💿 Line	Minuto	_
17:20:34	17:20:40 17:20:46	17:20:52	17:20:58 17:2	1:04 17:21:10	0 17:21:16 17	:21:22 17:2	21:28 17:21:34		C Pie	Immute	<u> </u>
			(Time : I	vlinute)							
2005-05-16	오후 5:21:34		Record coun	t: 21	Administr	ator : jsch	oi (root)				1

The user and gateway information can be modified.

Figure 4-8 Modify Gateway

Select the gateway to be modified, click Modify button or choose Modify on pull down menu.

Modify Gateway	j		
Group Id Group name User name	<mark>03 _</mark> Kangnam	Aux. script	
Address Telephone] Email	
Gateway information IP address MAC address GW user name PPPoE Username	VoIP configuration Gatewa 172.16.1.31 0000000001E	y status Gateway Model Virtual MAC addre GW password PPPoE Password	AP200B
Sniffer None Automatic Manual	Manual © DHCP © PPPoE	DHCP MAC address hostname	PPPoE ✓ login/password ✓ service-name
			V OK X Close

Figure 4-9 Modify Gateway Setting

If the status of registered gateaway is "UP", When modified, new setting can be transmitted to the gateway. If the gateway is not accessible, setting cannot be modified.

• Warning: Before using VPMS, operator configures gateway setting with CLI, the setting(ex. voice-port) is revised with the VPMS setting.

4.2.3. Gateway Delete

Select a user and click "Delete" button to delete the user.

😽 VolP Pi	nP M	lanagemo	ent System	v2.0 - [Gat	eway is I	Group all]						
🔏 Elle 🛛	lanage	ement <u>S</u> e	arch <u>V</u> iew	<u>T</u> ools St <u>a</u> tist	ics <u>H</u> elp							a ×
0 8	9	3 🔎 🖻	00	📑 🛐 🖳	🦻 🔟							
*	A	〇〇〇	<u>.</u>				/	Gatew	ay Man	agemen		
New	Modify	Delete	Login che	ck Telnet	Close		1	0	AddF	ac Technolog	Comman V	
MAC address		Group L4	Liser name	IP address	Model	Version	Statue	GK status	GK cause	SIP provu status	Latest report ti	-
00000000000	1D	03	o do name	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	~
00000000000	1E	03		172 16 1.31	AP2008	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
0000000000	1F	03		172 16 1 31	AP200B	8 1 2 6	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000000	20	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
0000000000	21	03		172.16.1.31	AP200B	8,126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000000	22	03		172.16.1.31	Confirm			ered	ConfigAsNo	not registered	2005-05-11	
0000000000	23	03		172.16.1.31	GOTINI			ered	ConfigAsNo	not registered	2005-05-11	
0000000000	24	03		172.16.1.31	2	Do you want	t to delete ga	ateway? _{ered}	ConfigAsNo	not registered	2005-05-11	
0000000000	25	03		172.16.1.31	\checkmark			ered	ConfigAsNo	not registered	2005-05-11	
0000000000	26	03		172.16.1.31				ered	ConfigAsNo	not registered	2005-05-11	
0000000000	27	03		172.16.1.31		0K	Cancel	ered	ConfigAsNo	not registered	2005-05-11	_
00000000002	28	03		172.16.1.31		0.120	Ponn	ered	ConfigAsNo	not registered	2005-05-11	
00000000002	29	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000000	2A	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
0000000000	2B	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	~
Status Cha	rt										- 25	close
				4				v		UP	948	38
	-							-	not Provisionin	g Down	50	0
8,000	-								Provisioning	Provisioning	6	
6,000								-	DOWN	Not provisio	ning 9	
(GVV) 4,000									UP	Total	100	03
2.000	-									Chart Ty	be Time	
	-		6			in the second				💽 Line	Minute	-1
17:2	27:56	17:28:02 17	28:08 17:28:14	17:28:20 17:2 (Time : I	8:26 17:28:3 Minute)	2 17:28:38 17	7:28:44 17:28	:50 17:28:56		C Pie		
2005-0	15-16	오 <u>호 5:28:5</u> ₽	;	Becord coun	t: 21	Administr	rator : ischo	i (root)				-
2000 0			23			1 with 100						11

Figure 4-10 Delete Gateway

4.2.4. login Check

Through this function, operator can check if there is no problem with login to a gateway and subscriber' username and passwod. Click Login check button to use.

😻 VolP PnP	Manageme	nt System v	2.0 - [Gat	eway is G	iroup all]						×
🚿 <u>F</u> ile <u>M</u> ana	igement <u>S</u> ear	rch <u>V</u> iew <u>T</u>	ools St <u>a</u> tist	tics <u>H</u> elp						- 8	×
👌 🎄 🚅	9 🔎 😭	* <u>* * * * * * * * * * * * * * * * * * </u>	📑 🛐 🐺	🦻 Ш							
	1 🖾	10				/	Cate	av Man	agemen		۲.
		[™]	3	শ্বদ			0	AddP	ag Technolog	Common State	
New Mod	ity Delete	Login check	k Teinet	Close		1		Co Thursday			1
MAC address	Group Id	User name	P address	Model	Version	Status	GK status	GK cause	SIP proxy status	Latest report ti	
00000000001D	03		172.16.1.31	AP2008	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
0000000001E	03		172.16.1.31	AP2008	8.126	DOWN DOW/N	not registered	ConfigAsNo	not registered	2005-05-11	1
00000000000000	03		172.10.1.31	AF2000	0.120	DOWN	not registered	ConfigAsNo	not registered	2003-03-11	
0000000000020	03		172.16.1.31	AP2008	0.120 8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000021	03		172.16.1.31	AP2008	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	_
000000000023	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	=
00000000024	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000025	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000026	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000027	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	_
000000000028	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000029	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000002A	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000002B	03		172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	~
Status Chart										clo	se
									UP	9488	
e 000 j								not Provisionin	g Down	500	
0,000								Provisioning	Provisioning	6	
6,000- (GVN :								UP	Not provisio	ning 9	
4,000 -							·			10003	
2,000									Chart Typ	be lime	
		<u> (an an an (an a</u>		(in the second second			(and the second s		C Pie	Minute 💌	
17:31:0	5 17:31:11 17:3	1:17 17:31:23	17:31:29 17:3 (Time :	1:35 17:31:41 Minute)	17:31:47 17	:31:53 17:3	31:59 17:32:05				
2005-05-1	6 오후 5:32:05		Record coun	it: 21	Administr	ator : jscho	oi (root)				
		1									-111

Figure 4-11 Gateway Login Check

• Only gateways of which status is up can be checked by login check function.

Click Check button to proceed login check for registered user gateway.

😻 Gateway login che	eck		
Check Lose			
MAC address	IP address	User name	Fail status

If there are gateways which users cannot log in to, connection status and user information are displayed.



4.2.5. Telnet

.

With Telenet, the operator can access to the user's gateway and dignosis the gateway condition.

After seletcing a user and click "Telnet" button to access to the gateway. If the user status is "Down", the remote access is impossible. Also, Tera term program should be installed at the gateway for the remote access.

🚿 VolP PnP M	lanagement Sy	stem v2.0 - [Gate	way is G	iroup all]						
🚿 <u>F</u> ile <u>M</u> anag	ement <u>S</u> earch <u>V</u>	<u>∕</u> iew <u>T</u> ools St <u>a</u> tistio	cs <u>H</u> elp						-	u X
] 🖪 🎄 🚅 S	2 🔎 😭 🔍	» 📄 📑 🛐 🖳 🖗	h آآ							
* 	Ä	😵 🗊	<u> </u>			Gatew	ay Man	agemen		
New Modify	Delete Lo	ogin check Telnet	Close		6	0	AddP	ac Technolog	Constant Con	
MAC address	Group Id User n	ame IP der	Model	Version	Status	GK status	GK cause	SIP proxy status	Latest report ti	
00000000001D	03	172.16.1.31	AP2008	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	~
00000000001E	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000001F	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000020	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000021	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
000000000022	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	=
00000000023	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000024	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000025	03	172.16.1.31	AP2008	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000026	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000027	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	_
00000000028	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000029	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
00000000002A	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	
0000000002B	03	172.16.1.31	AP200B	8.126	DOWN	not registered	ConfigAsNo	not registered	2005-05-11	~
Status Chart										close
						I I		UP	948	8
						-	not Provisionin	g Down	500)
8,000-							Provisioning	Provisioning	6	
6,000 -							DOWN	Not provisio	ning 9	
4,000							01	Total	1000	03
2,000								Chart Typ	e Time	
			(.			· · · · · ·		• Line	Minute	-
17:56:20	17:56:26 17:56:32 1	7:56:38 17:56:44 17:56	50 17:56:56	17:57:02 17	:57:08 17:5	7:14 17:57:20		U Pie	1	
		(Time : M	inute)	_						
2005-05-16	오후 5:57:20	Record count:	21	Administra	ator : jscho	oi (root)				11

Figure 4-12 Telnet connection screen

🚿 VolP PnP	Manageme	nt System	v2.0 - [Gat	eway is G	iroup all]						
🔏 <u>F</u> ile <u>M</u> ana	gement <u>S</u> ea	rch <u>V</u> iew]	Eools St <u>a</u> tisti	ics <u>H</u> elp						1	l d' X
D 🖧 🗳 🕯	3 🔎 😭	👏 🖻 칠	🎬 🖹 🖷 🕻	<u>} ы</u>							
🚼 🚰 New Modi	fy Delete	Cogin chec	🗊 k Telnet	لي Close		K	Gaits	way Man Addr	agemen ac Technolog		
MAC address	Group Id	User name	IP address	Model	Version	Status	GK status	GK cause	SIP proxy status	Latest report ti	
00000000001D	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	^
00000000001E	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	
00000000001F	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	
000000000020	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	
000000000021	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	
000000000022	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	
00000000023	03		172.16. Teli	net			🔀 ster	ed ConfigAsNo	not registered	2005-05-11	
00000000024	03		172.16.				ster	ed ConfigAsNo	not registered	2005-05-11	
000000000025	03		172.16.	Set 3	Teraterm nr	naram direc	tory nath	ed ConfigAsNo	not registered	2005-05-11	
00000000026	03		172.16.	2 000	reraterni pro	sgrann anoc	ster	ed ConfigAsNo	not registered	2005-05-11	
000000000027	03		172.16.				ster	ed ConfigAsNo	not registered	2005-05-11	-
000000000028	03		172.16.		확인		ster	ed ConfigAsNo	not registered	2005-05-11	
000000000029	03		172.16.	AI 2000	0.120	Down	nocrogister	ed ConfigAsNo	not registered	2005-05-11	
00000000002A	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	
0000000002B	03		172.16.1.31	AP200B	8.126	DOWN	not register	ed ConfigAsNo	not registered	2005-05-11	×
Status Chart								1.21			close
	13	i i		1 - 13		1	4		UP	948	38
· · · · · ·								— not Provisionin	Down	50	0
8,000-								 Provisioning 	Provisioning	6	
6,000 -								- DOWN	Not provisio	ning 9	
(GVV) 4,000								- UP	Total	100	03
2.000									Chart Ty	pe Time	
						į.			• Line	Minuto	
18:00:26	6 18:00:32 18:0	0:38 18:00:44	18:00:50 18:00 (Time : N):56 18:01:02 /linute)	18:01:08 18	3:01:14 18:0	1:20 18:01:26		C Pie	Immace	
2005-05-16	6 오후 6:01:26		Record count	: 21	Administr	rator : ischo	ii (root)				

At the initial access, set Teraterm program directory.

S Configuration		
Server Server MAX connection Gateway status interval Gateway FTP port	Client Gateway interval Gateway Telnet port 21 Teraterm pro MACRO d select 'ttpmacro.es	sec 23 irectory xe' file .

Figure 4-13 Teraterm macro path configuration

The above shows the section to set Tera term macro program path. Click "..." button and select the path where the program (**ttpmacro.exe**) is located.

Select Macro file and the path will be added as shown below.

S Configuration	
Server Server MAX connection 30 Gateway status interval 30000 Gateway FTP port 21	Client Gateway interval 5000 ms Gateway Telnet port 23 Teraterm pro MACRO directory C:\Program Files\TTERMPRO\ttpl select 'ttpmacro.exe' file. Cancel

Figure 4-14 Teraterm macro path configuration 2

After the configuration, Click "Telnet" button. The login and gateway running config will be displayed automatically.

💻 Tera Term - 61.33.161.75 VT	
<u>F</u> ile <u>E</u> dit <u>S</u> etup C <u>o</u> ntrol <u>W</u> indow <u>H</u> elp	
auto-upgrade authentication login root password router auto-upgrade auto-reboot auto-upgrade url http://61.3.161.123/a.lst auto-upgrade action auto ! deen-list 1 type server	
dhcp-list 1 address server 10.1.1.2 10.1.1.254 255.255.255.0	
ip-share interface net-side ether0.0 ip-share interface local-side ether1.0 !	
interface ether0.0 ip address 61.33.161.75 255.255.255.0 !	
interface ether1.0 no ip address !	
snmp name AP1100-FXS4 ! po aro reset	
auto-script auto.inf	
ems-server host 61.33.161.65 31646 ems-server key 100 ems-server retransmit 3 ems-server timenut 5	
ems-server status-interval 30 ems-server provisioning-required	
YoIP configuration.	
! Voice service voip configuration. more	*

Figure 4-15 Remote telnet connection using Teraterm

4.3. Operator Management

Operator management makes possible registration, modification and deletion of VPMS operators. Select [Management]> [Operator] from the menu or click the icon.

- 	olP PnP	Management S	vstem v2.0 - [Group S	ummarv]					
	File Mana	agement Search	View Tools S	tatistics I	Heln					
j 🗘	🖧 📑	<u>) 6 // 🖭 🤝</u>	12 📔 🔡	명 🏱 🛛	dL					
A	ddPd	ic				VolP	Plug &	Play Manag	gement Sy: AddPac Tech	stem hnology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register
1	01	Sungnam	11	3	0	2	1	15	0	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168
3	03	Kangnam	0	21	0	0	0	21	0	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001
<										>
Sta	us Chart									close
									UP	9488
	:						— — not	Provisioning	Down	500
	8,000 -						— Pro	visioning	Provisioning	6
101	6,000							WN	Not provisioning	9
(G)	^{V)} 4,000 -								Total	10003
	2,000								Chart Type	Time
							-		• Line	Minute 👻
	18:08:0	9 18:08:15 18:08:21	18:08:27 18:08:33 (Ti	18:08:39-1) ine : Minute)	8:08:45 18:08:51 1	18:08:57 18:09:03 18	8:09:09		10 Pie	
	2005-05-1	6 오후 6:09:09	Record	count: 5	Adminis	trator : jschoi (root))			

VolP	PnP Ma	nageme	ent Syste	m v2.0	- [Operat	tor Man	адел	nent]						
🚿 <u>F</u> ile	<u>M</u> anagem	ient <u>S</u> ea	arch <u>V</u> iev	/ <u>T</u> ools	St <u>a</u> tistics	<u>H</u> elp								- 8 ×
) <mark>B</mark> &	. 🧾 😪	🔎 😭	🤭 🖻 🛛	à 🔡 I	🗿 🖷 📴	<u>d</u>								
New	👍 Modify	🛗 Delete	S. Clos							Оре	rator	Manag AddPac	ement Technology	1.2
No	ID		Nar	ne	G	irant		Last	connect ti	me	Connect		IP address	
1	root		jscł	ioi	Admi	nistrator		2005-05-	16 오후 3	3:00:00	OK		172.16.1.19	
Status C	h art													deep
Status C	ridit												LIP	0400
										<u> </u>	not	Provisionina	Down	500
8,0	00										- Prov	isioning	Provisioning	6
6,0	00										- DOV	VN	Not provisioning	9
4,0	00										- UP		Total	10003
2,0	00												Chart Type	Time
1	18:08:21 18	:08:27 18:	08:33 18:08	:39 18:08:	45 18:08:51 (Time : Minut	18:08:57 te)	18:09:1	03 18:09:	09 18:09	:15 18:09:2	1		C Pie	Minute -
200	5-05-16 오:	‡ 6:09:21		Reco	ord count: 5		Adm	inistrator	; jschoi	i (root)				



4.3.1. New Operator



- A new VPMS operator can be registered. The operator ID, password and grant level are configured. Click "New" incon to disaplay "New Operator" window.

😴 VolP	PnP Ma	nageme	ent Sys	stem v2.	0 - [Operate	or Mana	gement]					
🚿 <u>F</u> ile	<u>M</u> anagem	ent <u>S</u> ea	arch <u>V</u>	iew <u>T</u> oo	ls St <u>a</u> tistics	<u>H</u> elp						_ 8 ×
] <mark>15</mark> "%	. 🚅 省	🔎 😭	1 🔿 🖻) 🗋 🛃	8 🖳 💀 🚺	Ш						
🚼 New	(† Modify	🛗 Delete		2). Close					Operato	or Manag AddPac	ement Technology	1
	ID			Name	Gr	ant	Last	connect time	Conr	nect	IP address	
1	root			jschoi	Admir	istrator	2005-05	16 오후 3:00:	:00 0	к	172.16.1.19	
Status Cl	bart											close
Status C											UP	9488
			_	_				<u> </u>	(;	not Provisioning	Down	500
8,00	00-									Provisioning	Provisioning	6
6,00	00								—	DOWN	Not provisioning	9
^(GVV) 4,0(00-									UP J	Total	10003
2,00	00-	14:27 18:	14:33 18	3:14:39 18	:14:45 18:14:51 (Time : Minute	18:14:57 1)	8:15:03 18:15	:09 18:15:15	18:15:21		Chart Type C Line C Pie	Time Minute
2005	5-05-16 오:	≩ 6:15:21		R	ecord count: 5		Administrato	r∶jschoi (ra	pot)			

New Operator	
Operatorid Password Name Grant	
Last connect time	Cancel

- Operator ID : Enter the unique VPMS operator
- ID.
 - Password : Ente the operator password.
 - Name : Enter the operator name.
 - Grant : Enter the operator level.
 - Last connect time: operator last connect time.

Level Functions	Administrator	Power User	General User
Gateway	0	0	riangle (only view)
Group	0	Х	Х
Operator	0	Х	Х
Upgrade info	0	0	0
Event log info	0	Х	Х
Search	0	0	0
Search user define	0	0	0
FTP upload	0	0	Х
Auto script	0	0	Х
Gateway Status	0	0	0
Gateway Statistics	0	0	0

The below chart shows the operator grant level and granted functions.

• Administrator is the operator permitted with all the functions and only one Administrator can accesse at a time. Operators of other levels can access at the same time.

4.3.2. Operator Modification

The operator infomraiton and grant level can be modified.

VolP	🖏 VolP PnP Management System v2.0 - [Operator Management]										
😴 File Management Search View Tools Statistics Help 🛛 🛛 🖓											
J 🖰 🎖	🔁 🕺 🏂 😫 🗢 🖻 🗋 🐻 📴 🔮 🔛 💷										
New	Modify Delete	Close		Operator Management AddPac Technology							
No		Name	Grant	Last connect time	Connect	IP address					
1	root	administrator	Administrator	2005-05-16 오후 3:00:00	OK	172.16.1.19					
2	jschoi	jin suk choi	Administrator	2005-05-16 오후 6:41:00							

Figure 4-17 Modify Operator

Modify Operat	tor 🔳 🗖 🔀				
Operator id	jschoi				
Password	*****				
Name	jin suk choi				
Grant	Administrator 🗨				
Last connect time	2005-05-16 오후 6:41:00				
🗸 ок	X Cancel				

Figure 4-18 Modify Operator

Click "Modifiy" button from the Operator management window. Then, above "Modify Operator" dialog box will be appeared.

4.3.3. Operator Delete

An operator can be deleted. Select an operator and click "Delete" button.

😻 VolP	PnP Man		ent System v2.0	- [Operator Mana	agement]				_ 🗆 🗙
🔏 Eile	Managema	ent <u>S</u> ea	arch ⊻iew <u>T</u> ools	St <u>a</u> tistics <u>H</u> elp					- 8 x
B	6 🖉 😤	<i>P</i> 😭	🗢 🖻 🎽 🐻	🛐 🕂 🧖 👘					
New	(+ Modify	E Delete	Close			Operator	Manage AddPac 7	ement Technology	1.2
No	ID		Name	Grant	Last connect	time Connec	st 🛛	IP address	
1	root		administrator	Administrator	2005-05-16 오후	3:00:00 OK		172.16.1.19	
2	jschoi		jin suk choi	Administrator	2005-05-16 오후	6:41:00			
				Confirm					
					Cancel				
Status C	Chart								
	. <u>+</u>						Drovicioning	Down	9488
8,0	000					- Pro	visioning	Provisioning	6
6,0	- 000					- DC	WN	Not provisioning	9
(600) 4,0	000-					0.		Total	10003
2,0	000							Chart Type	Time
	18:39:03 18:3	39:09 18:	39:15 18:39:21 18:39	:27 18:39:33 18:39:39 (Time : Minute)	18:39:45 18:39:51 18:3	39:57 18:40:03		C Pie	Minute 💌
200)5-05-16 오후	£ 6:40:03	Rec	ord count: 5	Administrator : jsch	oi (root)			1

Figure 4-19 Delete Operator

4.4. Model Management

Operator can register gateway model and manage through VPMS with Model Management function. Choose Management>Gateway Model in initial screen or Click the button for Model Management to proceed.

ا ⊛	olP PnP	Management Sys	tem v2.0 -	[Group Sur	nmary]						
1	<u>-</u> ile <u>M</u> ana	<u>ge</u> ment <u>S</u> earch <u>V</u> i	ew <u>T</u> ools	St <u>a</u> tistics <u>H</u> e	lp						- a ×
B	🖧 💆 ⁽	e 🎾 🖉 🕙 🕬	🗋 📑 🖺) 🖷 🖗 🖬							
A	AddPac VoIP Plug & Play Management System										
No	Group Id	Group name	GW UP	GW Down 🗌 🕻	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
Sel	ect manage	ment Gateway	•								close
1	Search Define 1. MAC address = 0002a4ffff56 1 2 3 4 5 Image: Solution of the second ing indication of the second indicatio										
	2005-05-17	7 오후 1:45:50	Recor	d count: 5	Administ	rator : jschoi (root)					

-	/olP PnP	Management Sys	stem v2.0 ·	- [Group Summary]				_ 🗆 🗙		
-	<u>F</u> ile <u>M</u> ana	igement <u>S</u> earch <u>V</u>	(iew <u>T</u> ools	St <u>a</u> tistics <u>H</u> elp				- 6 ×		
C	& 🛃	9 🔎 😭 🔿 🖻) 🗋 📅 [🗿 🔫 🦻 🔟						
A	ddPo	ic		🖉 Gatawan Model Manan		& Play Mana	agement Sys AddPac Techi	tem ology		
No	Group Id	Group name	GW UP	S Cateway Model Mailag		ster SIP Register	SIP not Register	Group all		
1	01	Sungnam	11	Gateway Model		.0	16	16		
2	02	Seoul	6694	AP1100 S404	Model name	0	7168	7168		
3	03	Kangnam	0	AP2008		0	21	21		
4	04	Seocho	1782	AP2000		0	1797	1797		
5	05	kwanak	1001	1. 2000	Slot / Port count	0	1001	1001		
Sel	ect manage	ment Gateway	-					close		
1	Search Define 1. MAC address Image: Clear interval inte									
	2005-05-1	7 오후 1:46:11	Reco	ord count: 5 Administra	ator : jschoi (root)			1		


4.4.1. Register Gateway Model

Two models, AP1100_S4O4, AP200B are registered as a default setting. Operator can register other models. Choose new button and register data(model name, number of slots, number of ports) in the field.

2	🖇 Gateway Model Mar	ag	ement		
	Gateway Model AP1100_S404 AP200B AP200C	>	Model name Slot count Slot / Port count	AP200D 1 2]
	🖉 New 🛛 💥 Delete			/ Ok	<u>I</u> <u>C</u> lose

2	🖁 Gateway Model Manag	ement 📃 🗖 🔀
	Gateway Model AP1100_S404 AP200B AP200C AP200D	Model name Slot count Slot / Port count
	Vew 🔀 Delete	

Figure 4-21 Gateway model register screen

4.4.2. Model Modification

Choose a gateway model which is needed to be modified, modify information and click OK.

	Z	Gateway Model Manag	em	ent		
÷.	4 4 4	Gateway Model AP1100_S404 AP200B AP200C AP200D		Model name Slot count Slot / Port count	AP200D 1 2	
		✔ New X Delete			/ Ok	<u>C</u> lose

Z	🖇 Gateway Model Manag	ement 📃 🗖 🔀
	Gateway Model AP1100_S404 AP200B AP200C AP200D	Model name AP200D Slot count 1 Slot / Port count 8
	Vew X Delete	🗸 Ok 🔔 👖 Close

Figure 4-22 Gateway Model Modification

4.4.3. Delete Gateway Model

Choose model which is needed to be deleted. Click Delete button to delete model.

2	🖁 Gatev	vay Model Manag	ement	
	G	ateway Model		
	AP1100_	6404	Model name	AP200D
	AP2008		Slot count	1
	AP2000	Confirm		
		🔹 Do you v	vant to delete gatev	vay model?
	<	<u> </u>	Cancel	
	🗸 N	ew 🚺 🗙 Delete		🗸 Ok 🛛 <u> I</u> Close

Gateway Model Manag	ement 📃 🗖 🔀
Gateway Model AP1100_S404 AP200B AP200C	Model name
🖌 New 🕺 Delete	V Ok

Figure 4-23 Delete Gateway Model

4.5. Search

A desired item of each function can be searched. Click "Search" button as shown below and Gateway Search window is appeared.

	olP PnP Ma	anagement S	ystem v2.0	- [Group	Summary]					
🧏 [File <u>M</u> anager	ment <u>S</u> earch	View Tools	St <u>a</u> tistics	<u>H</u> elp					_ 8 ×
<u> </u>	68 🖻 🚡									-
A	ddPac					VolP	Plug & I	Play Manag	Jement Sys AddPac Tech	stem hnology
No 1	Group Id 0	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register
2	02 :	Seoul	6694	474	0	0	6688	480	0	7168
3	03 1	Kangnam Sacaba	0	21	0	0	0	21	0	21
5	05 1	seocno kwanak	1001	0	0	, 0	1001	0	0	1001
< Charles	ua Chart									
514								u	P	9488
	8,000						— not F — Prov	Provisioning	own rovisioning	500 6
	6,000							VN N	ot provisioning	9
(GV	4,000							T	otal	10003
	2,000						_		 Line 	Minute -
	10:11:50 1	0:11:56 10:12:02	10:12:08 10:12	14 10:12:20 (Time : Minute	10:12:26 10:12:32	10:12:38 10:12:44 10	:12:50		C Pie	
	2005-05-17 오	전 10:12:50	Rec	ord count: 5	Adminis	trator : jschoi (root)	1			
SV SV	DIP PnP Man ile Manageme	agement Syst ent Search Vie	t em v2.U - L 0 ew Tools Sta	tistics Help	naryj					
B	& <u>\$</u> 8	🔎 😭 🕙 😥	🗋 🔡 😰 🖣	9 🖗 🛄						
A	ddPac					V	olP Plug	& Play Man	agement S	ystem
No	Group Id Gro	oup name	GW UP G	w Down ∣ GW	Provisioning 🗌 GW N	ot provision 👘 GK Regis	ster 🕴 GK not Reg	gister SIP Register	SIP not Regist	er Group all
1	01 Su 02 Se	ingnam :oul	11	3 474	0	2 1	15 8 480	0	16 7168	16 7168
3	03 Ka	angnam	0	21	0	0 0	21	0	21	21
4 5	04 Se 05 kw	eocho vanak	1782 1001	2	6	7 179	7 O 1 O	0	1797	1797 1001
Sele	ct management	Gateway	•							close
s	earch Define	1.	•	= 💌		•	Sort Typ	e		
1	2 3 4 5	2.	•	= 💌			Asco	ending C Descendi	ng	\bigcirc
0	7 0 3 10	4.	•	= •			Group Id		- Se	arch
	m poicie	5.	•	=		% Clear				
Stat	us Chart									close
									UP	9488
	. (not Provisioning	Down	500
	8,000							not Provisioning Provisioning	Down Provisioning	500
(GV	8,000 6,000 94,000							not Provisioning Provisioning DOWN UP	Down Provisioning Not provisioning Total	500 6 9 10003
(GV	8,000 6,000 4,000 2,000							not Provisioning Provisioning DOWN UP	Down Provisioning Not provisioning Total Chart Type © Line	500 6 9 10003
(GV	8,000 6,000 2,000 10:13:35 10:1		0:13:51 10:13:5	7 10:14:03 10 (Tirne : Minu	:14:08 10:14:14 1 te)	0:14:20 10:14:27 10:1	4:31	not Provisioning Provisioning DOWN UP	Down Provisioning Not provisioning Total Chart Type Chine Pie	500 6 9 10003 Time Minute 💌





4.5.1. Enter Search Keyword

Functions can be searched separately(gateway, upgrade info, event log). Also. Max. 5 search terms can be used.

The first field shows each function. The second field shows conditional sentences such as "=, >, <, >=, <= ". The third filed is enterd by the user. The forth field consisits of "OR and AND" showing whether all the search terms should be satisfied or only one search terms is required.

Opearator can initialize search terms by using Clear button. Next chapter(Operator Define query) provides details on Search Define function.

Select management	Gateway	
Search Define	Gateway Upgrade Infomation Event Log	
1 2 3 4 5	2.	<u> </u>
678910	3.	•
<u> </u> Delete		
		%™ Llear

Figure 4-25 Set Search Terms

Select management	Gateway	-						close
Search Define 1 2 3 4 5 6 7 8 9 10 10 Delete	1. 2. 3. 4. 5.	Group Id GW status		04 UP	¥ ¥	OR V V V V Clear	Sort Type Sort Asccending Descending Group Id Search	********

Figure 4-26 Search Screen

Search type shows how to sort the data. Select the field to be sorted and select the sorting type of either ascending or decending.

4.5.2. Examples of Search Terms

This chapter provies explanation on how to search with examples of actual operation..

Select management	Gateway	-						
Search Define	1.	Group Id GW status	•	=	-	02 UP	<u> </u>	AND -
678910	3.			=	-			
∭ Delete	4. 5.			=	•			No Clear

Term 1) Search Gateway : Group ID is '02' and GW status is UP

Figure 4-27 Gateway Search

2) Search Upgrade Information : Group ID is '05' and upgrade Type is 'BIN' upgrade(APOS image)

Select management	Upgrade I	nfomatior 💌						
Search Define	1.	Group Id	•	=	•	05	•	AND 💌
12345 678910	2.	lype		=	-	BIN	<u> </u>	
🗑 Delete	4.		-	=	-			
	5.		_	=	-	1		% Clear

Figure 4-28 업그레이드 이력 검색

Term 3) Search Event Log : Time of Event is from '2005-05-16 11:20:47' to '2005-05-17 14:42:00'

Select management	Event Log	
Search Define 1 2 3 4 5 6 7 8 9 10 ∭ Delete	1. Datetime > 2005-05-16 11:20:47 A 2. Datetime < 2005-05-17 14:42:00 A 3. = A 4. = A 5. = A	AND AND



4.6. Operator Defined Query

The frequently used search terms of a operator can be saved by 'Operator Defined Query' function. Click "Operator defined query" button and frequently used search term list is displayed. If "Operator defined query" is not saved, there is no data displayed.

VolP PnP Ma	anagement Syst	tem v2.0 - [Gr	oup Summary	J					
🚿 <u>F</u> ile Manager	nent Search <u>V</u> ie	ew <u>T</u> ools St <u>a</u> ti	stics <u>H</u> elp						- 8 ×
			тря I ш			0		1	0
AddPac					Vol	P Plug & P	lay Manage	ment Sys	tem hology
No Group Id 0	Group name	GW UP GW	/ Down 🗏 GW Provi	sioning GW Not provi	ision GK Register	GK not Register	SIP Register SI	IP not Register	Group all
1 01 2 02	Sungnam Seoul	11 6694	3 U 474 0	2		15 480	0	16 7168	16 7168
3 03	Kangnam	0	21 0	0	0	21	0	21	21
4 04 5 05	seocno kwanak	1782	0 0	· 0	1797	0	0	1797	1/9/
Select managemen	nt Gateway	•							Close
Search Define	1	-				0.17		1	
12345	2.	-	= •			 Sort Type Asccending 	C Descending		
678910	3.	-	= •					Searc	h
🗑 Delete	4.	<u> </u>			Na Clear	Group Id	•		
					av cicai				
2005-05-17 오	전 11:31:08	Record co	unt: 5 A	dministrator : jschoi	(root)				11
/// u-in n-n tu-			Defen	0					
S VOIP PHIP Ma	ment Search Vie	ew Tools Stati	stics Help	Guery					
<u> </u>	P 😭 🧆 🖻		 P						
	1					Diamior	Search D	efine	
Delete Clo	Dse					Sprinter	AddPac red	hnology	
Preset num	Operator				Query				
1	root root	select * from APEMS select * from APEMS	5_EVENT where EV 5_GATEWAY where	GROUP_ID = '01' order	G_DATETIME DESC by GROUP_ID ASC				
Select manageme	nt Gateway	_							close
Search Define	1.	<u> </u>	= •			Sort Type			
678910	3.	<u> </u>				Asccending	C Descending	P	
🗊 Delete	4.	•				Group Id	-	Searc	h
	5.	•	= 💌		S Clear				

Figure 4-30 Operator defined query

Administrator : jschoi (root)

Up to 10 search terms can be assigned for each operator. Preset num, operator ID and Query are included at the list.

2005-05-17 오전 11:31:48

Record count: 5

4.6.1. Define Search Terms

To save search terms, open the Search window by clicking "Search" button first.

🚿 V	olP PnP I	vlanagement Syst	tem v2.0 - [Group	Summary]						
% !	Eile <u>M</u> anag	jem <u>eet S</u> earch <u>V</u> ie	ew <u>T</u> ools St <u>a</u> tistics	<u>H</u> elp						-
ß	A 🛒 🤇	3 🔎 🖻 🗢 🖻	🗋 📑 🖹 🖳 🦻	Ш						
A	ddPa	c				VolF	Plug & F	Play Mana	gement Sys AddPac Techn	tem pology
No	Group Id	Group name	GW UP GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11 3	0	2	1	15	0	16	16
2	02	Seoul	6694 474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0 21	0	0	0	21		21	21
4	05	Seocho	1/82 2	ь	/	1797	U	U	1/9/	1/9/
Sele	ect manager	nent Gateway	•							Close
1 6	Search Define 2 3 4 7 8 9 Toelete	1. 5 2. 10 3. 4. 5.	V V V V V			▼ ▼ ▼ © Clear	Sort Type Scending Group Id	C Descending	Searc	'n
	2005-05-17	오전 11:31:08	Record count: 5	Administ	rator : jschoi (root)					

Figure 4-31 Define Search Terms

The numbers on the left side are the buttons for defining and saving search terms. If the number is in red, it menas query is saved. If not, there is no saved query.

When the mouse is placed on the number, the search terms are diaplyed.

Select management	iateway 🔽	
Search Define		-
1 2 3 4 5 6 7 8 9 <mark>10</mark>		- -
🗊 Delete _sele	4 t * from APEMS_GATEWAY where GROUP_ID = '01' order by GROUP_ID ASC 3. So Clear	-

Figure 4-32 Display search define terms

By clicking red numbers, the preassigned search terms are entered at the search window automatically and the number is highlighted.

Select management	Event Log	•					
Search Define 1 2 3 4 5 6 7 8 9 10 ÎDelete	1. 2. 3. 4. 5.	Event	• • •	= = = =	 Gateway REQUEST	-	▼ ▼ ▼ ♥ © Clear

Figure 4-33 Choose Search Terms

After entering search terms and then click unassigned numbers. Then the search terms are saved at the number. The search terms are saved at the Database depend on the operator. It can be check at Operator Define window.

S 1	olP PnP	Management Sys	tem v2.0 -	[Group Su	mmary]						_ 🗆 🗙
-	<u>File M</u> ana	gement <u>S</u> earch ⊻i	ew <u>T</u> ools	Statistics He	elp						_ 8 ×
B	& 🗳	9 🔎 😭 🗢 🖻		1 😬 📴 🔟							
A	ddPa	ic (VolP	Plug & F	Play Mana	agement Sys AddPac Tech	tem nology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	47 6 00	firm			480	0	7168	7168
3	03	Kangnam	0	21				21	0	21	21
4	04	Seocho	1782	2	Do you w	ant to store search	condition?	0	0	1797	1797
5	05	kwanak	1001	0 🤇				0	0	1001	1001
Sel	ect manage	ment Gateway	•		<u> </u>	Cancel					close
1	Search Defin 2 3 4 7 8 9 ÎDelete	e 1. MAC a 5 2. 10 10 3. 4. 5.	address		0002a4ffff58		▼ ▼ ▼ ▼	Sort Type Asccending Group Id) C Descending	a ▼ Searc	h
-	2005-05-17	7 오전 11:50:36	Recor	d count: 5	Adminis	trator : jschoi (root)					1

Figure 4-34 Define Search Terms

4.6.2. Query Deletion

The query can be deleted at Search window and also at Operator define window. The below shows how to deleted query by selecting the number and "Delete" button.

1 N	olP PnP	Management Syst	em v2.0 -	[Group S	ummary]						
-	Elle <u>M</u> ana	gement <u>S</u> earch <u>V</u> ie	w <u>T</u> ools	Statistics	Help						_ 8 ×
B	🖧 🚅 °	3 🔎 😭 🗇 👂		9 🖳 🖓 🛛	цL						
A	ddPa	c					VolP	Plug & P	Play Mana	agement Sys AddPac Techi	tem iology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21 🦰	Ω	0	0	21	0	21	21
4	04	Seocho	1782	2 0	Confirm			0	0	1797	1797
5	05	kwanak	1001	0	Do you	want to define que	ry delete?	0	0	1001	1001
Sel	ect manage	ment Gateway	-								close
1 6	Search Define 2 3 4 8 3 Î Delete	1. MAC at 1. MAC	ddress		0002a4ffff56		▼ ▼ ▼ ▼ € Clear	Sort Type • Asccending Group Id) C Descendin	g 🔊 Searc	h
	2005-05-17	7 오후 1:33:40	Recor	rd count: 5	Administ	rator : jschoi (root)					11.

Figure 4-35 Delete Query in Search window

The below shows how to deleted query from Operator define window.

😴 VolP PnP Manager	nent System v2.0 - [Operator Define Query]	
🔏 Eile Management S	Search <u>V</u> iew Tools St <u>a</u> tistics <u>H</u> elp	_ 8 ×
🛛 🖧 🚅 😪 🔎 🖆	8 🧇 😢 🗋 🐻 🖷 🦻 📖	
Delete Close		Operator Search Define
Preset num Oper	ator Query	
1 roo	ot select * from APEMS_EVENT where EVENT = '300' order by REG_DATETIME DES	SC .
2 10	ot select * from APEMS_GATEWAY where MAC_ADDR = '0002a4fff56' order by GR0	UP_ID_ASC
	or select "from APEMS_GATEWAY where GRUUP_ID = UT order by GRUUP_ID AS	
	Do you want to define query delete?	
Select management Gate	eway 🔽	close
Search Define 1 2 3 4 5 6 7 8 9 10 1000 Delete	1. MAC address = 0002a4fff56 2. • = 3. • = 4. • = 5. • =	Sort Type Asccending C Descending Group Id
2005-05-17 오후 1:35:	:16 Record count: 5 Administrator : jschoi (root)	

Figure 4-36 Delete query in Operator query define window

4.7. Upgrade Information

Gateway function change or image upgrade history (operator, upgrade data and upgrade details can be displayed. Select [View]> [Upgrade information] or "Upgrade info" button to diaply upgrade information. The latest upgrade information is displayed on the top.

~ ~	/oIP PnP	⁹ Management Sy	stem v2.0 - [6	aroup Summ	nary]						
🧏 I	<u>F</u> ile <u>M</u> an	agement <u>S</u> earch	√iew <u>T</u> ools St <u>a</u>	itistics <u>H</u> elp							_ 8 ×
] <mark>B</mark>	(🕺 🛒	8 🔎 🗗 🔮) 📑 🛃 🦞	🖣 📴 🛄							
A	ddPo	ac					Vol	P Plug &	Play Ma	nagement Sy AddPac Tec	stem chnology
No	Group Id	Group name	GW UP G	W Down 🗏 GW	Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	KWaflak	1001	U	U	U	1001	U	U	1001	1001
Stal	tus Chart										close
	4				1					UP Dave	9488
	8,000							- not	Provisioning	Down Provisioning	500
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	14:38:	41 14:38:46 14:38:51 1	4:38:56 14:39:01 1	4:39:06 14:39:11	14:39:16 1-	4:39:21 14:39:26 14:3	39:31 14:39:36	14:39:41		C Pie	Minute 💌
	2005.05	17.0 ÷ 9:90:41	Peeerd a	eust: E	Administ	katar Ladesisiatata	v (va at)				
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٧ 🕲	VolP Pnl	P Management S	System v2.0 -	[Upgrade	Informatio	on]					
₩.	<u>F</u> ile <u>M</u> ai	nagement <u>S</u> earch	View Tools								
B	(🕺 💆		TIC: 10012	Statistics <u>He</u>	elp						
Ś		3 😪 🔎 😭 🔵		St <u>a</u> tistics <u>H</u> e 🖳 📴 🚺	elp						_ 7 ×
CI	aj. Iose	}		St <u>a</u> tistics <u>H</u> e	elp			Upgrad	e Infori AddPac	mation Technology	- # ×
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CI No 1 2 3 4 5 6 7 7 Sta	Lose Grou kc kc kc kc kc kc kc kc kc kc kc kc kc	P Type x_02 BIN x_02 INF x_02 BIN	Image: Constraint of the second se			Operator root root root root root root root		Upgrade time 2003-06-09 오후 4: 2003-06-09 오후 4:	e Infor AddPac 41:56 FTP 36:23 test 35:27 z 34:48 FTP 29:13 dir te 29:13 dir te 29:13 dir te 29:13 control 20:1 FTP	IP Down Provisioning Not provisioning Total Chart Type Chart Type	Comment

Figure 4-37 Upgrade Information Screen

4.8. Event Log Information

Event Log Info saves the Event between gateway and VPMS Server as a Databse. Select [Event Log Information] from the menu or click "Event log" button. The time, type of the Event and IP address are saved at the Database

٧ 🖉	/olP Pn	P Management	System v	2.0 - [Group	Summary]						
- 15	<u>F</u> ile <u>M</u> a	anagement <u>S</u> earch	<u>V</u> iew <u>T</u>	ools St <u>a</u> tistics	<u>H</u> elp						- 8 ×
	8	🛿 🔍 🖉 📭 🦛	. p. • * * •	🎫 🛐 💷 🧼	- La						
_ _											
A	ddF	Pac					VolP	Plug & Pl	ay Mana	gement Syst	em ology
No	Group Ic	d Group name	GW	UP GW Dow	n 🗏 GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam		11 3	0	2	1	15	0	16	16
2	02	Seoul	6	694 474	0	0	6688	480	0	7168	7168
3	03	Kangnam		0 21	0	0	0	21	0	21	21
4	04	Seocho	1	782 2	6	7	1797	0	0	1797	1797
5	05	kwanak	1	001 0	0	0	1001	0	0	1001	1001
Sta	tus Charl	t									close
										UP	9488
		:						– not Pro	/isioning	Down	500
	8,000-							- Provisio	oning	Provisioning	6
(0	6,000-									Not provisioning	9
(0	4,000									Total	10003
	2,000						n far na f			Chart Type	Time Minute 💌
	14:5	2:48 14:52:53 14:52:	59 14:53:0	5 14:53:11 14: (Tim	53:17 14:53:23 1 e : Minute)	4:53:29 14:53:35	14:53:41 14:53:	4/			
	2005-05	5-17 오후 2:53:48		Record count: 5	Admini	strator : administrat	or (root)				//







4.9. FTP Upload

A specific gateway can be upgraded or Scrip (INF) or Image (BIN) file can be uploaded to the auto-upgrade server with FTP upload function.

🛒 v	alP PnP	Management Svs	tem v2.0 -	[Group S	Summarvl						
W. F	File Mana	gement Search Vi	ew Tools	Statistics	Heln						
j 🖸	· 🐴 📑 '] 🖷 🌽 I	ult.						
	-										
A	aara	C X					VOIP	Plug & P	ay Manag	jement Syst	em
	MX	X X / T	Chillip.	01.40			OK D. 11			Adopac Techno	nogy
NO I	Group Id	Group name	GW OP	GW Down	GW Provisioning	GW Not provision	GK Hegister	GK not Hegister	SIP Register	SIP not Register	Group all
'	02	Sungnam	000	3	0		I 0000	10	0	7100	7100
2	02	Seoul Kananan	0034	979	0	0	0000	400	0	7100	21
4	03	Seacha	1792	21	9	7	1797	<u>د</u>	0	1797	1797
5	04	kwanak	1001		0	, 	1001	0	0	1001	1001
Ĭ	05	KWallak	1001	· · · · ·	•	·	1001			1001	1001
Stal	tus Chart										close
	4									P	9488
	8 000 -							– not Pro	visioning	own	500
	e 000								oning	rovisioning	6
(G)	M							— — UP	T T	ot provisioning	9
	4,000 -									otal	10003
	2,000									Chart Type	Time
	F			den en en de		6		-		C Pio	Minute 👻
	14:55:2	1 14:55:26 14:55:32	14:55:38 14:	55:44 14:55	8:50 14:55:56 14	1:56:02 14:56:08 1	14:56:14 14:56:	20			
				(Time.	windle)						
	2005-05-1	7 오후 2:56:21 👘 👘	Recor	/d count: 5	Adminis	trator : administrato	or (root)				1

FTP Upload		
Upload file		🤌 Open
Remote type	Auto upgrade serv	ver
Auto-upgrade Server	Group Id	•
C Gateway	Version (bin)	ex) 6.067
URL Host name		
ID Password		
	2	Upload 🗙 Cancel

Figure 4-39 FTP upload Screen

멸기					? 🛛
찾는 위치(!):	 ➢ AP_image ➢ ems ➢ v6,067 		•	← 🗈 💣 💷•	
내 최근 문서 টি 바탕 화면	ap 1100rom, bin ap 2520rom, bin ap 3120rom, bin ap 3120rom V6_071, b	in			
내 문서					
내 컴퓨터					
95 내 네트워크 환경					
	파일 이름(<u>N</u>): ap 파일 형식(<u>T</u>):	1100rom, bin		•	열기(<u>0</u>) 취소

To open a file, click "Open" button and the below dialog box is appeared.

Auto-upgrade server or gateway can be selected for FTP Upload function. In case of selecting gateway, enter the Host ID and password. In case of selecting Auto-Upgrade Server, the URL, Host ID and password are automatically entered by selecting Group code. However, the version should be entered manually.

In case of file upload, the URL shows the upload path. According to below, the URL is "http://61.33.161.79/0001/packing.lst". So Auto-upgrade sever of the group "0001" and "packing.lst" is upgraded. (If "packing.lst" does not exist, the file is created).

	Ø	FTP Uploa	d			
		Upload file ap	1100rom.bin			🤔 Open
	مع	- Remote type -	*****	– Auto upgrade ser	ver	
-		Auto-upgra	de Server 🚺	Group code	0001	-
	••••	C Gateway		Version (bin,inf)	6.000 ex) 6.067, 2	20030410
		URL	http://61.33.10	61.79/0001/packin	g.lst	
		Host name	61.33.161.79			
		ID Password	root			
			L			
				۵	Upload	🗙 Cancel

When FTP upload is completed, the below dilog box is appeared.



♣ Only Script (INF) file or Image (BIN) file can be uploaded.

4.10. Auto script

To upgrade the functions of gateways, creat a script (INF) and execute the script with Auto upgrade server.

🕵 v	olP PnP	Management Sy	stem v2.0 -	[Group S	Gummary]						
- 10	<u>F</u> ile <u>M</u> ana	gement <u>S</u> earch <u>V</u>	<u>/</u> iew <u>T</u> ools	St <u>a</u> tistics	<u>H</u> elp						- 8 ×
ß	- A 🖻 (R 🔎 😭 🕙 🖗	» 🗋 🖥 🗉	1 🗏 🖗 1	di.						
A	AddPac VoIP Plug & Play Management System										
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Registe	r Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
	Ch at										
31a	ius chait									IP	9488
						_		— not Prov	icioninal D	Jown	500
	8,000 -							- Provisio	ning F	Provisioning	6
	6,000							- DOWN	N	lot provisioning	9
(G	^(V) 4,000 -							— UP	T	otal	10003
	2,000									Chart Type Chart Type	Time
	15:11:2	5 15:11:30 15:11:36	15:11:42 15:	11:48 15:11 (Time	:54 15:12:00 15 Minute)	5:12:06 15:12:12	15:12:18 15:12:2	4		© Pie	
	2005-05-1	7 오후 3:12:25	Reco	rd count: 5	Adminis	trator : administrat	or (root)				

🖏 Auto Script	
	IP address Upload file name
	Version ex) 20030410
	🕞 Open 🕞 Save
V	Hoload <u>I</u> <u>C</u> lose

Figure 4-40 Auto-script Screen

Auto script function creats a script of configuration information of gateway and makes possible number of configuration changes as a bundle. Refer to the gateway manual for detailed information on how to creat the script.



When a group code is assigned, the auto upgrade server and the script file are displayed. Also, the IP address and the file name are diaplyed automatically.

- The upload file name can be changed. However, it should be matched with the setting of auto-script. So keep the defulat file name.
- Version is uploaded to auto upgrade server and updates "packing.lst" file. So to upload, the version of the script should be entered. The script version is marked as a date (20030415).
- Comment describes the details of upgrade. It is added to the Database and can be checked from Upgrade Information.

After changing the script, click "Upload" button to upload the script to Auto upgrade server. When "packing.lst" is updated, the gateways at the group download the script and executes it.

4.11. Auxiliary script

Operator can make out a Aux script and run selectively different from auto-script. Choose Tools>Auxiliary script or click Auxiliary script button to display the screen.

🕵 V	olP PnP I	Management Syst	em v2.0 -	[Group Statistics	ummary]						
S I	ne <u>M</u> anag	jement <u>s</u> earch <u>v</u> ie 2 🔎 😭 🔵 🕬	w <u>r</u> oois		ureib Teib						
A	ddPa	¢					VolP	Plug & Pl	ay ^{Manag}	gement Syst	em ology
No 1 2 3 4 5	Group Id 01 02 03 04 05	Group name Sungnam Seoul Kangnam Seocho kwanak	GW UP 11 6694 0 1782 1001	GW Down 3 474 21 2 0	GW Provisioning 0 0 0 0 6 0	GW Not provision 2 0 7 0	CK Register 1 6638 0 1737 1001	6K not Register 15 480 21 0 0	SIP Register 0 0 0 0	SIP not Register 16 7168 21 1797 1001	Group all 16 7168 21 1797 1001
Stal	tus Chart										close
(01	8,000 6,000 4,000 2,000	15/8:44 15:18:50 1		19:02 15:15	08 15:19:14 15	19:20 15:19:26	15:19:32 15:19	- not Pro - Provisic - DOWN - UP	visioning oning T	JP Down Provisioning Not provisioning Total Chart Type Chart Type Chare	9488 500 6 9 10003 Time Minute
	0005.05.13	0.7.040.00		(Time	Minute)		(*		· · ·	
2	🖁 Auxil	iary script			, 						
		Aux, script			Script descript	ion	Aux. sci	r ipt aux_C)2		
	aux_01		Test	aux script			Script				
	aux_02		dem	o script			gateway gkip 172: register exit host AP1*	16.19.12			
							Script d	escription			
	<					>	demo scri	pt			
	.	lew 🛛 🗙 De	lete		Ok _	<u>Close</u>	,				

Figure 4-41 Aux.script Screen

Right part of window displays a list of Aux script. Operator can see the details by mouse clicking.

Details on each category are as below.

- Aux script : Enter the name of Aux script.
- script : Make out a script to be run.
- script description : Write brief description on script.

Prepared script can be **registered**, **modified** and **deleted** by buttons.

After operator modify the gateway details to register Aux script, Entered Aux script can be applied.

Initial gateway registration

End user information -			
Group Id	02	Aux, script	
Group name	Seoul		aux_01
User name			
Address			
Telephone		Email	

- Gateway info modification

End user information			
Group Id	01 💌	Aux. script	•
Group name	Sungnam		aux_01
User name	jschoi		
Address	seoul korea		
Telephone	02-568-3848	Email	jschoi@addpac.com

4.12. Configuration

Configuration configures VPMS server and Client program environment. Select [Tools]> [Configuration] from the menu or click "configuration" button as shown below.

	😴 VolP PnP Management System v2.0 - [Group Summary]										
🧏 E	ile <u>M</u> ana	igement <u>S</u> earch <u>V</u>	<u>/</u> iew <u>T</u> ools	St <u>a</u> tistics	<u>H</u> elp						- 8 ×
ß	Å 💆	9 🔎 😭 💙 🖻) 🗋 🛛 🐯 🖻) 🦞 🕑	Ш.						
AddPac VolP Plug & Play Management System											
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
Stat	us Chart		_							ID	
	4							4		JF	9488
	8,000							— not Provide	visioning	Provisioning	500
	6.000								ning N	lot provisioning	0
(GV	V 4 000							— — UP		otal	10003
	2,000									Chart Type	Time
	2,000									Eine	
	15:32:4	6 15:32:51 15:32:57	15:33:03 15:	33:09 15:33 (Time	3:15 15:33:21 1: : Minute)	5:33:27 15:33:33	15:33:39 15:33	:45		C Pie	Minute –
	2005-05-1	7 오후 3:33:46	Reco	rd count: 5	Adminis	strator : administrat	or (root)				
					1						
									_		

Client
Gateway interval 5 sec
Gateway Telnet port 23
C:\Program Files\TTERMPRO\ttpi
🗸 OK 🛛 🗶 Cancel

- Server MAX connection means the max. number of gateway can access to VPMS.
 Also, Gateway FTP port and Gateway status update interval can be configured.
- Client menas Gateway, Event log update interval of VPMS client.
- Teraterm Pro Directory sets the Teraterm program (ttpmacro.exe) path.
- After change the Server information, restart VPMS server program. Then the changed configuration is applied.

4.13. Print

Print function offers previw and printing of each function. Select [File]> [Print] from the menu or click "Print" button.

File & P		jement c	System v	2.0 - [G	roup Si	ummary]								
	Menogement	<u>S</u> earch	<u>V</u> iew <u>T</u> o	ools St <u>a</u> t	istics <u>H</u>	lelp								- ć
100	rinter Utrl+P		1	3 🔁 🖳	P 📴 🛛 🖬	L								
Signe E	xit Ctrl+X										Upgra	de Info AddPa	ormation	Transa Contra
0	Group code	Tune	DId	version		New version		Operator	ID	Upgrade	time		Com	ment
_	0003	INF	Apr 11 20	003 1:18PM	Apr	11 2003 3:1	2PM	root	10	2003-04-11 오	章 3:12:06	sdsad	0011	norit
	0002	INF	Apr 11 20	03 12:56PM	1 Apr	11 2003 3:0	04PM	root		2003-04-11 오	章 3:04:25	sdsad		
	0003	INF			Apr	11 2003 1:1	8PM	root		2003-04-11 오	章 1:18:19	jong ro pac	king lst	
	0002	INF	Apr 10 20	003 4:22PM	Apr 1	1 2003 12:5	56PM	root		2003-04-11 오:	章 12:56:04	test		
	0002	INF	Apr 10 20	003 4:19PM	Apr 1	10 2003 4:2	2PM	root		2003-04-10 오	享 4:22:22			
	0002	INF	Apr 10 20	003 4:14PM	Apr	10 2003 4:1	9PM	root		2003-04-10 오	享 4:19:15			
	0002	INF	Aprilli 20	JU3 4:12PM	Apr	10/2003/411	4PM 2DM	toot		2003-04-10 -	우 4:14:22 국 4:13:14			
	0002	INF	Apr 10.20	103 4.11FM	Apr Apr	10 2003 4.1	1PM	root		2003-04-10 ±	우 4.12.14 ㅎ 4.11.54			
	0002	INF	Apr 10 20	003 4:09PM	Apr 1	10 2003 4:1	1PM	root		2003-04-10 오	享 4:11:40			
tus	Chart													
													UP	9488
											— not Pri	ovisionina	Down	500
8	,000										— Provis	ioning	Provisioning	6
6	,000 -										- DOWN	1	Not provisioning	9
^{VV)} 4	.000												Total	10003
2	000												Chart Type	Time
	· · · · · · · ·	(.			· · · · /			(• Line	Minute
	15:38:45 15:38:50	0 15:38:5	6 15:39:02	2 15:39:08	15:39:1	14 15:39:2	20 15:39:2	26 15:39:	32 15:39:3	8 15:39:44			C Ple	
					(time.)	winnute)								
200	05-05-17 조루 5~	33,43		necora co	uniti 5	A	unninstratu	ir - aurinin	strator (roo	0				
		@ ◄	••	► d				e Derester D 350 ind 450 ind 450 ind	Skygen dia later 2 000 641 1 2 4 3 4 10 at 2 000 641 1 2 4 3 4 10 at 2 000 641 1 2 4 3 4 0 at	AddPac	,]			
		(•••	N ₫						AddPoc turr real dat may seeing 11	I			
		™ №	•	N ₫						excellence of the second of th				
		E	•	N ₫				Control of Contro		AddPect Version dist managed a de conclusion protection distances protection distances protection distances protection distances protection distances protection distances protection distances dist				
			•	N ₫				Control of the second sec		AddPool Veneral dist grant and a second a protein protein a second a protein protein a second a protein protein a second a protein a second a prot				

The below shows the Print Preview of Upgrade Information.

	_					
	2	3	4			
Upgrade	Info	rmation Rep	ort			AddPad
Area code	Туре	Old version	Newversion	Operator ID	Upgradetime	comment
02	BN	ap1100rombin	ap1100rombin	root	2003-04-01 오전 10:12:47	FTPupload
02	BN	03 20 2003 2:03 PM	ap1100rombin	root	2003-04-01 오전 10:06:37	FTPupload
02	BN	03 20 2003 2:00 PM	03 20 2003 2 03 PM	daw ndew	2003-03-20 🕾 🛱 2:03:26	bin upgrade
area_id	part	ver_1	ver_2	operator_id	2003-03-20 오후 2:03:26	comment
02	INF		03 20 2003 1:12 PM	root	2003-03-20 오 🛱 2:03:26	rule 수 정
02	INF		03 20 2003 2 00 PM	daw ndew	2003-03-20 오 🛱 2:03:26	file upload test
02	INF	03 20 2003 2:03 PM	03 27 2003 3 04PM	root	2003-03-20 오 🕈 2:03:26	
02	BN		ap1100rombin	root	2003-03-20 오 🕈 2:03:26	
02	BN	ap1100rombin	ap3120rom\/6_071.bin	root	2003-03-20 오 🗣 2:03:26	
02	INF	03 27 2003 3:04PM	03 27 2003 4:16 PM	root	2003-03-20 오 🛱 2:03:26	test
02	INF	03 27 2003 4:16 PM	03 27 2003 5:53 PM	root	2003-03-20 오 🕈 2:03:26	
02	INF	03 27 2003 5:53 PM	03 27 2003 5:54PM	root	2003-03-20 오 🕈 2:03:26	Area code test 입니
02-01	INF		03 28 2003 4:52 PM	root	2003-03-20 오 🛱 2:03:26	
02-01	INF	03 28 2003 4:52 PM	03 28 2003 4:52 PM	root	2003-03-20 오 후 2:03:26	
02-01	INF	03 28 2003 4:52 PM	03 28 2003 4:53 PM	root	2003-03-20 오 🛱 2:03:26	
02-01	BN		ap1100rombin	root	2003-03-20 오 🕈 2:03:26	
02-01	BN	ap1100rombin	ap1100rombin	root	2003-03-20 오 🛱 2:03:26	
02-01	BN	ap1100rombin	ap1100rombin	root	2003-03-20 오 🛱 2:03:26	
02	INF		03 20 2003 2 00 PM	daw ndew	2003-03-20 오 🕈 2:00:10	file upload test
02	INF		03 20 2003 1:12 PM	root	2003-03-20 오 후 1:12:29	rule 수 정
02-01	INF	03 28 2003 4:53 PM	03 28 2003 6 02 PM	root		BvtS client autoscri
02-01	INF	03 28 2003 6:02 PM	03 28 2003 6 04PM	root		
02-01	INF	03 28 2003 6:04PM	03 28 2003 6 08 PM	root		
02-01	INF	03 28 2003 6:08 PM	03 28 2003 6 08 PM	root		
02-01	INF	03 28 2003 6:08 PM	03 28 2003 6 09 PM	root		
02-01	INF	03 28 2003 6:09 PM	03 28 2003 6 09 PM	root		BvtS client test
02	INF	03 28 2003 7:07 PM	03 28 2003 7 09 PM	root		upgrade 2
02-01	BN	ap2520rombin	ap3120rom\/6_071.bin	root		FTPupload
02	INF	03 27 2003 5:54PM	03 28 2003 7 07 PM	root		upgrade 1
02	INF	03 28 2003 7:09 PM	03 28 2003 7:13 PM	root		

- ① Zoom function. Select how to display the data on the screen.
- ② The buttons for page control.
- ③ Printer setting and printing button.
- ④ Save and open a Report file.

4.14. Gateway Statistics

The gateway status can be saved as Log. Then the log can be searched according to the date and displayed as a list or graph. Select [Statistics]> [Gateway Statistics] from the menu or click "Gateway Statistics" button.



Figure 4-42 Gateway Statistics Running Screen

Date_Time	not Provisioning	Provisioning	Down	Up
2005-05-12 오후 8:40:00	9	6	515	9473
2005-05-12 오후 8:39:00	9	6	514	9474
2005-05-12 오후 8:34:00	9	6	521	9467
2005-05-12 오후 8:29:00	9	6	522	9466
2005-05-12 오후 8:28:00	9	6	520	9468
2005-05-12 오후 8:16:00	9	6	521	9467
2005-05-12 오후 5:32:00	9	6	522	9466
2005-05-11 오후 5:44:00	9	6	493	9495
2005-05-11 오후 5:43:00	9	6	496	9492
2005-05-11 오후 5:42:00	9	6	494	9494
2005-05-11 오후 5:41:00	9	6	493	9495
2005-05-11 오후 5:40:00	9	6	493	9495
2005-05-11 오후 5:39:00	9	6	494	9494

Figure 4-43 Gateway Status Statistics Screen

The above shows the 4 different status (not Provision, Provision, DOWN, UP) of gateway. The latest data is displayed on the top and the number of gateway in east status is displayed.

- The below chart describes 4 different status of gateway.

Status	Contents
Not Provision	Gateway is in standby mode before VPMS registration
Provision	Gateway is registered at VPMS
DOWN	Gateway Interface is disconnected
UP	Gateway Interface is connected

표 4-2 Gateway Status

- As shown below Gateway status information can be searched.

Search	Search
Datetime Setting	Datetime Setting
2003-04-12 💌 오후 2:25:46 🛨 ~	2003-04-12 💌 오후 2:25:46 🕂 ~
2003-04-12 💌 오후 2:25:46 🗧	2003-04-12 🗸 오후 2:25:46 ÷
all 🔎 search	Ⅰ 2003년 4월 ▶ 일 월 화 수 목 금 토 arch 30 31 1 2 3 4 5
Gateway state	Ga 6 7 8 9 10 11 42 Ga 13 14 75 16 17 18 19
UP: 13	20 21 22 23 24 25 26
TOTAL: 20	27 28 29 30 1 2 3 4 5 6 7 8 9 10 ご 오늘: 2003-04-15

Figure 4-44 Gateway Statistics Data Search Screen

- Datetime Setting sets starting and ending time of searching.
- All button searches all the data.
- Gateway state shows the number of gateways in "UP / DOWN" status.



Figure 4-45 Gateway Statistics Data Graph

- Chart shows the graphical information with 4 different status data.
- "X" is "Time" and "Y" means "number of gateway.

5. An Example of VPMS Operation Scenario

5.1. An Example Configuration



Figure 5-1 An Example of VPMS Configuration

Above configuration shows that there are two groups divided by area code and the different area code made different configuration. So, the group A and the group B have their own configuration that is a unit of management in VPMS.

Assumptions of above configuration are described as follows.

- When a gateway in group A calls a gateway in group B or PSTN user in Busan via backbone gateway, he has to digit full E.164 number which includes area code.
- When a gateway calls a gateway in same group or same area, he can digit without area code.
- To meet above scenario, below configuration script is build up for each group.

[Group A (Seoul) configuration script]

dial-peer voice 1000 voip destination T session target ras translation out-going called-number 0	translation-rule 0 is applied to all outgoing call.
translation-rule 0	
rule 0 [1-9] 02%01%07	attach area code when user digits local call.
gateway gkip 211.200.12.3 1719 128 gkip 211.200.12.4 1719 254	
register	register Gatekeeper address.
voice service voip announcement language english announcement	voice announcement language setting(default Korean)

[Group B (Busan) 설정 script]

dial-peer voice 1000 voip destination T session target ras	
translation out-going called-number 0 !	translation-rule 0 is applied to all outgoing call.
translation-rule 0 rule 0 [1-9] 051%01%07 !	attach area code when user digits local call.
gateway gkip 211.200.12.3 1719 128 gkip 211.200.12.4 1719 254	
register	register Gatekeeper address.
voice service voip announcement language english announcement	voice announcement language setting(default Korean)

• On above script, Group A and Group B have **the different area codes**. When Operator make out the script as above and run the auto-script, gateways included in group will be modified as above setting.

• The explanation for how to configure VPMS is provided at next chapter.

5.2. Group A Gateway Initial Setting

Gateway initial setting must be done before being sent to customers. Group A and B in Chapter 4.1 has no difference except the area code. The explanation Group A(Seoul) shall be proceeded.

1) Enter gateway VPMS setting and the host.



- 2) Connect a serial port of computer to gateway console using Tera Term.
- After logging in, Operator enters configure mode(con) and set shared key(ems key "string"), VPMS server address(ems host xxx.xxx.xxx), toggle to provisioning is required (ems provisioning-required).

4) Confirm VPMS setting with "show running-config" command.



5.3. Gateway Group Registration

Group should be registered before operator registering subscribers. Next procedure is to register Group A (Seoul) in 4.1 chapter.

1)	Run	Group	Manad	aement	in ۱	VPMS	Client.
• /	1.011	Croup	manag	301110110			Onorit.

ا ڰ	/olP PnP	Management S	ystem v2.0 -	[Group S	ummary]						
1	<u>F</u> ile <u>M</u> ana	gement <u>S</u> earch	<u>V</u> iew <u>T</u> ools	St <u>a</u> tistics	<u>H</u> elp						_ 8 ×
B	(&) ^g	ର୍ବ 🔎 😭 🔵 ।	> 🗋 🔡 🗉) 🖫 💋 1	ш						
A	ddPa	IC					VolP	Plug & Pl	ay ^{Manag}	jement Syst	em ology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
Sta	tus Chart										close
	4									P	9488
	8 000 -							— not Pro	visioning	own	500
	6,000								oning P	rovisioning	6
G	w)							— — UP		otal	9
	4,000-									Chart Turne	Time
	2,000									Line	rime
	40.40.4	4 4 9 4 9 4 9 4 9 4 9 4 9 4 9 4 9	404204							C Pie	Minute 💌
	10:12:4	4 10:12:49 10:12:55	10.13.01	(Time :	Minute)						
	2005-05-1	7 오후 6:13:05	Reco	rd count: 5	Adminis	trator : administrato	r (root)				

2) Click New button to generate new Group.

	olP PnP Man	agement	System	v2.0 -	[Group	Mana	gement]							
🧏 <u>E</u>	ile <u>M</u> anageme	ent <u>S</u> earch	n <u>V</u> iew j	<u>T</u> ools (St <u>a</u> tistics	<u>H</u> elp									- 8 ×
B	A 🗾 🕞	🔎 😭 🍳) 🖻 🗋	**	먶 📴	LLL.									
Ne	K Modify	🛗 Delete I	S. Close									Group	Mana AddPa	gement Technology	
No	Group Id		Group name						Descriptio	on					
1	01		Sungnam						kyong ki	i do					
2	02		Seoul						Seoul Ko	orea					
3	03		Kangnam						Seoul kan	gnam					
4	04		Seocho						seoul ci	ity					
5	05		kwanak												
Stat	us Chart														close
	4													UP	9488
	8 000											- not P	rovisioning	Down	500
	e 000												sioning N	Provisioning	6
rGV	vi :											- UP		Takal	9
	4,000														10003
	2,000													Chart Type	Time
	18:13:01 18:1	7 [°] 7 3:06 18:13	:12 18:13:	 18 18:1	3:24 18:1	í 3:30 í	18:13:36	18:13:42	18:13:48	18:13:54	18:14:01			C Pie	Minute 💌
					(Time	e : Minute	e)								
	2005-05-17 오후	£ 6:14:01		Record	count: 5		Admir	histrator :	administr	rator (root))				11

1) Group can be registered in new group screen.

New Group	
Group Id Name Description	
Auto upgrade se URL ID Password FTP ID	(optional)
FTP Password	🖊 Ok 🗙 Cancel

2) Enter group info which comes under Group A, and click OK to add it to Group.

Ø	New Group		
	Group		
	Id	02	
	Name	Seoul	
	Description	korea Seoul	
	– Auto upgrade ser	ver	
	URL	p://172.16.19.1/apos	/packing.lst
	ID		(optional)
	Password		(optional)
	FTP ID	root	
	FTP Password	router	
	•	🖊 Ok 🛛 🗶 Cance	1

• Enter Group info, auto upgrade server inputs auto upgrade server info which comes under the group. If the info is wrong, Auto-upgrade function cannot be run..



5.4. Input Gateway Initial Data

Before delivering, gateway initial data has to be inputted into VPMS database.

- 1) Note the MAC address of the gateway.
- 2) Add the new gateway from VPMS client program. Click "New" button.

	olP PnP	Management Sys	stem v2.0 -	[Group S	ummary]						
🧏 F	File <u>M</u> ana	gement <u>S</u> earch <u>V</u>	iew <u>T</u> ools	St <u>a</u> tistics	<u>H</u> elp						×
ß	አ 🛒 '	2 🔎 😭 🧆 🖻	· 🗋 🔡 🗄) 🖳 🖗 🛛	ш						
A	ddPa	C					VolP	Plug & Pl	ay ^{Manag}	Jement Sys AddPac Techn	tem ology
No	Group Id	Group name	GW UP	GW Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Registe	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797		U	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
Stal	tus Chart									B	close
	4							(9488
	8,000							 not Provi Brovicio 	isioning E	tovisioning	000
	6 000							– DOWN	ning i	lot provisioning	0
(Gl	M							– UP	T	otal	10003
	4,000									Chart Tupe	Time
	2,000							_		Line	
	18:14:5	18:15:02 18:15:08	18:15:14 18:	15:20 18:15	:26 18:15:32 1	3:15:38 18:15:44 1	18:15:50 18:15:5	7		C Pie	Minute 💌
	0005 05 43			(unite)			6 13				
	2005-05-1	/오후 6:15:57	Reco	rd count: 5	Adminis	trator : administrato	or (root)				11

3) The dialog box to enter gateway information is appeared.

1	New Gateway			
Г	End user information			
	Group Id	•	Aux. script	_
	Group name			
	User name			
	Address			
	Telephone		Email	
ſ	Gateway information	-ID	atatus I	
		ore configuration Gateway	status	1
	IP address		Gateway Model	•
	MAC address		Virtual MAC addre	155
	GW user name		GW password	
	PPPoE Username		PPPoE Password	
	- 0-:			
	None	Manual	DHCP	PPPoE
	C Automatic	C DHCP	MAC address	login/password
	C Manual	C PPPoE	I∕∕ hostname	IM service-name
-				
				🗸 OK 🕺 🗶 Close

4) Enter the user information.



😴 New Gateway			
End user information	<u> </u>		
Group Id	02 💌	Aux. script	•
Group name	Seoul		
User name			
Address		1	
Telephone		Email	
IP address MAC address GW user name PPPoE Username	2000a4567643	Gateway Model Virtual MAC addres GW password PPPoE Password	AP2008
Sniffer None Automatic Manual	Manual © DHCP © PPPoE	DHCP MAC address Mostname	PPPoE ✓ login/password ✓ service-name
			V OK X Close

😻 New Gateway					
End user information					
Group Id	02	•	Aux. script		•
Group name	Seoul				
User name					
Address					
Telephone			Email		
Gateway information H.323 SIP User Ag	VoIP configura	ition Gateway :	status		
		dial-peer co	onfiguration		
H.323 id		Slot/Port	e164	User name	User password
jschoi02		0/0	8225681234		
Password		0/1			
					>
				🗸 ок	🗶 Close

- Enter Group code, MAC address, password, H323id, e164 and Model.
- Set code "02" and e164 "8225681234" which comes under Group-A.
- The other user information can be added when the user is requested for the servicing by matching the MAC address.
- After registering user information, you can ship the product to the user.

5.5. End-customer Gateway Setting

- 1) After receiving the gateway, the customer installs the gateway.
- If the customer does not apply for the service, they should applied for the service (via telephone or Internet) first. The user information and MAC address of the gateway are required to apply for the service.
- Connect existing Internet line to the WAN (LAN0) port of the gateway. Then connect the LAN (LAN1) port to PC LAN port with the supplied LAN cable.
- 4) Refer to the Voice Finder user manual for more detailed information.
- 5) When the power is supplied to the gateway connected to the Internet, the gateway connects to VPMS with the gateway information (MAC address and IP address). If there is no reply from the VPMS, the gateway regularly tries to access VPMS.

5.6. Gateway Info generation and Installation

- VPMS server waits for the gateway requesting for the basic information of the gateway. When the request is received, VPMS looks up for the gateway information from VPMS Database based on MAC address.
- VPMS server monitors the IP address and condition of the gateway. Also, it saves the data at the Database.
- 3) The below chart shows the gateway status displayed on VPMS before and after installation.

No	Group code	User name	IP address	H323 ID	GW status	GK status	GK Cause
1	0001	James Dean	61.33.161.76	James75	UP	not registered	ConfigAsNoRegistration
2	0001	Tom cruise		Tom_cruisei	Not provisioning	not registered	Unspecified
3	0003	John lenon		voip.23.23.23.23	Provisioning	not registered	Unspecified
4	0002	Bon Jovi		voip.88.221.39.8	Not provisioning	not registered	Unspecified
5	0001	marlen		voip1281	Not provisioning	not registered	Unspecified

< Before installation - GW status : Not provisioning>

< After installation – GW status : Provisioning \rightarrow UP>

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No	Group code	User name	IP address	H323 ID	GW status	GK status	GK Cause
1	0001	James Dean	61.33.161.76	James75	UP	not registered	ConfigAsNoRegistration
2	0001	Tom cruise		Tom_cruisei	Not provisioning	not registered	Unspecified
3	0003	John lenon		voip.23.23.23.23	Provisioning	not registered	Unspecified
4	0002	Bon Jovi		voip.88.221.39.8	Not provisioning	not registered	Unspecified
5	0001	marlen	61.33.161.75	voip1281	Provisioning	not registered	Unspecified
1	_						
No	Group code	User name	IP address	H323 ID	GW status	GK status	GK Cause
1	0001	marlen	61.33.161.75	voip1281	UP	not registered	ConfigAsNoRegistration
2	0001	James Dean	61.33.161.76	James75	UP	not registered	ConfigAsNoRegistration
3	0001	Tom cruise		Tom_cruisei	Not provisioning	not registered	Unspecified
4	0003	John lenon		voip.23.23.23.23	Provisioning	not registered	Unspecified
5	0002	Bon Jovi		voip.88.221.39.8	Not provisioning	not registered	Unspecified

- 4) After registering the initial gateway information, VPMS server creates the necessary data for the gateway. Then configures the gateway with auto-script function.
- The below is the example script of setting for the gateway.

(H323id, password, Auto-upgrade server setting, Auto-script setting and etc.)



5) When the auto-script is completed properly, the gateway does not ask for Provisioning signal and regularly sends gateway information to VPMS server.

(The interval of sending gateway information can be configured "configure>ems>status-interval. The default interval is 5 min. So to change the interval, all the gateways should be changed (with auto-script function), and change the gateway status interval with VPMS client program configuration.



- status-interval configuration (300 sec)

AP1100(config)# ems ?	
key	set shared key (secret key)
host	set EMS server address
provisioning-required	set when provisioning is required from EMS
retransmit	set retransmit counter value (default 3 times)
status-interval	set status report interval (default 5 min.)
timeout	set retransmit timeout value (default 3 seconds)
AP1100(config)# ems stat	tus-interval ?
<10 - 86400> time	eout value (second)
AP1100(config)# ems stat	tus-interval 300

- Gateway status interval configuration (300 sec)

S Configuration	
Server Server MAX connection Gateway status interval Gateway FTP port 21	Client Gateway interval 5 sec Gateway Telnet port 23 Teraterm pro MACRO directory C:\Program Files\TTERMPRO\ttpl select 'ttpmacro.exe' file.
	🗸 OK 🛛 🗶 Cancel

The latest gateway update time is displayed. The gateway status can be checked from Gateway management or status chart showing real time gateway status as a graph.

VolP PnP Management Syste	m v2.0 - [Gateway is DOV	wn]		
🚿 <u>F</u> ile <u>M</u> anagement <u>S</u> earch <u>V</u> iew	/ <u>T</u> ools St <u>a</u> tistics <u>H</u> elp			- 8 ×
] 🖔 🛸 🚅 😤 🔎 😭 🍮 🖻 [) 🔡 😫 🖳 🎶 💷			
😧 许 🎽 🥳 New Modify Delete Login o	k 🧊 🚮 sheck Telnet Close		Gateway Management AddRac Technology	Ø
MAC address Group Id User name	IP address Model	Version Status GK status (GK cause SIP proxy staty Latest report time	
00000000008 01	172.16.1.31 AP200B	jschoi77 DOWN not registered	ConfigAsNo not registered 2005-05-12 오후 8:39:00	
0002a4ffff58 01	172.16.19.1 AP1100_S4	8.126 DOWN not registered	ConfigAsNo not registered 2005-05-02 오후 5:39:00	
Status Chart				close
4				9488
8,000-			not Provisioning Provisioning Provisioning	000 C
6,000-			- DOWN Not provisioning	9
(GW) 4,000			- UP Total 1	10003
2 000-			Chart Type Time	e
18:28:14 18:28:20 18:28:25 18	:28:32 18:28:37 18:28:43 18:28	8.49 18:28:55 18:29:02 18:29:08 18:2	9:13	ute 💌
2005-05-17 오늘 6:29:14	Becord count: 3	Administrator ' administrator (root)		
5.7. Group A Gateway Upgrade

5.7.1. Auto script upgrade

1) Start Auto-script of Client program.

😻 VolP PnP Management System v2.0 - [Group Summary]											
- 🕵 1	- ile <u>M</u> ana	gement <u>S</u> earch <u>V</u>	/iew <u>T</u> ools_Sta	<u>a</u> tistics <u>H</u> e	lp						- 8 ×
- T	🛛 🖧 🚅 🤅	R 🖉 🖉		u 🔂 🛛							
AddPac VolP Plug & Play Management System											
No	Group Id	Group name	GW UP G	iW Down 👘 🕻	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Register	Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6		1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
Status Chart close											
	4							,		IP	9488
	8 000							– not Prov	isioning 🛛)own	500
	6,000							- Provisio - DOMAN	ning F	rovisioning	6
(G	M							- UP		lot provisioning	9
	4,000-							:		Chart	10003 Time
	2,000									Line	Time
	18:36:0	3 18:36:08 18:36:14	18:36:20 18:36:	26 18:36:32	: 18:36:38 18	:36:44 18:36:50	18:36:56 18:37:0	02		C Pie	Minute 💌
(Inne initiale)											
2005-05-17 오후 6:37:03 Record count: 5 Administrator : administrator (root)					11						

2) Below window will be shown.

Auto Script	
	Group
	Auto Upgrade Server
	Upload file name
	Version
	Comment
	Open Save Image: Open Description Image: Open Description Image: Open Description Image: Open Description
	li.

4) Make a script of Group A (Seoul) by editing directly or open it from file.



- Select group code.
- Do not change upload file name. Leave Upload file name as it is, " Group code.inf" .
- Set version information. For example, it could be date and time.
- Set comment. This can be seen as log.
- Script can be saved and restored.
- 5) Push ' Upload' button then upload this script to the Auto upgrade server' s URL address.
- 6) Since the URL of Group code "02" is "/apos/packing.lst", 02.inf file is uploaded to /apos directory and automatically create packing.lst file which stores below information.
 - If packing.lst exists, the specific item has to be updated.
 - · Contents of packing.lst file is as below. .

./02.inf 20030520 20 Mar 2003 18:34:09

7) Gateway refers to packing.lst from auto upgrade server and run " 02.inf" script.

8) After the gateways of Group A (Seoul : 02) set as initial configuration, the gateway will download this script.

 The gateway which comes under Group A (Seoul : 02) is registered to Gatekeeper automatically, and a subscriber which has the gateway dial "5681111", PSTN number in same Seoul area, area code(02) is automatically inputted to call. in Seoul area PSTN network phone number "5681111".

5.7.2. APOS Image upgrade

1) Execute FTP upload.

🛿 VolP PnP Management System v2.0 - [Group Summary]											
🔏 Eile Management Search View Tools Statistics Help 🛛 🗕 🖉 🗙											
B	Т <u>ж</u> я Я р в • р р в • р в • н										
AddPac VolP Plug & Play Management System											
No	Group Id	Group name	GW UP G	W Down	GW Provisioning	GW Not provision	GK Register	GK not Register	SIP Register	SIP not Registe	r Group all
1	01	Sungnam	11	3	0	2	1	15	0	16	16
2	02	Seoul	6694	474	0	0	6688	480	0	7168	7168
3	03	Kangnam	0	21	0	0	0	21	0	21	21
4	04	Seocho	1782	2	6	7	1797	0	0	1797	1797
5	05	kwanak	1001	0	0	0	1001	0	0	1001	1001
Status Chart Close											
									L	IP	9488
								– not Prov	risioning)own	500
	8,000-							- Provisio	ining F	Provisioning	6
	6,000-							- DOWN	N	lot provisioning	9
(6)	4,000								т	otal	10003
	2,000									Chart Type	Time
	20:31:5	0 20:31:55 20:32:01 2	20:32:07 20:32:1	13 20:32: (Time	19 20:32:25 20 Minute)	:32:31 20:32:37 2	20:32:43 20:32:4	1 9		€ Line C Pie	Minute 💌
	2005-05-17 오후 8:32:50 Record count: 5 Administrator : administrator (root)										

2) Choose Group code to be upgraded, and Group info can be entered automatically.

🚿 FTP Upload 📃 🗖							
Upload file		🤔 Open					
Remote type	Auto upgrade server						
Auto-upgrade Server	Group Id	-					
C Gateway	Version (bin) 01 02 03 04						
URL Host name							
ID Password							
	🌛 Upload	🗙 Cancel					

3) Click Open button, Choose APOS image to upgrade and enter Version information.

FTP Upload	
Upload file ap200rom_v6	_12.bin
Remote type	Auto upgrade server
Auto-upgrade Server	Group Id 02
C Gateway	Version (bin) 6.12 ex) 6.067
URL http://172 Host name 172.16.31	.16.31.2/seoul/packing.lst .2
ID root Password *****	
L	🎯 Upload 🗙 Cancel

- 4) Push **Upload** button then, the APOS image will be uploaded to the Auto upgrade server by FTP.
- 5) Since URL for Group code "02" is "/apos/packing.lst", "ap200rom_v6_12.bin" is uploaded into APOS directory, packing.lst is automatically generated.

• The contents of packing.lst file is as below.

```
./ap200rom_v6_12.bin 6.12 23 May 2003 21:08:37
```

 Gateway refers to packing.lst from auto upgrade server and download "ap200rom_v6_12.bin" image.