



Test Report

VoIP Phone via Wireless AP to Authenticate SIP Server and Voice Communication Capability Test

Test Plan :

VoIP phones via wireless AP transmit data to authentication SIP server. Then test 13pcs VoIP phones communication and add internet radio, internet streaming media and IP cam to see AP link status.

Test Time:

2007/10/19

Test Place:

Engineer Office

Test Team and Member:

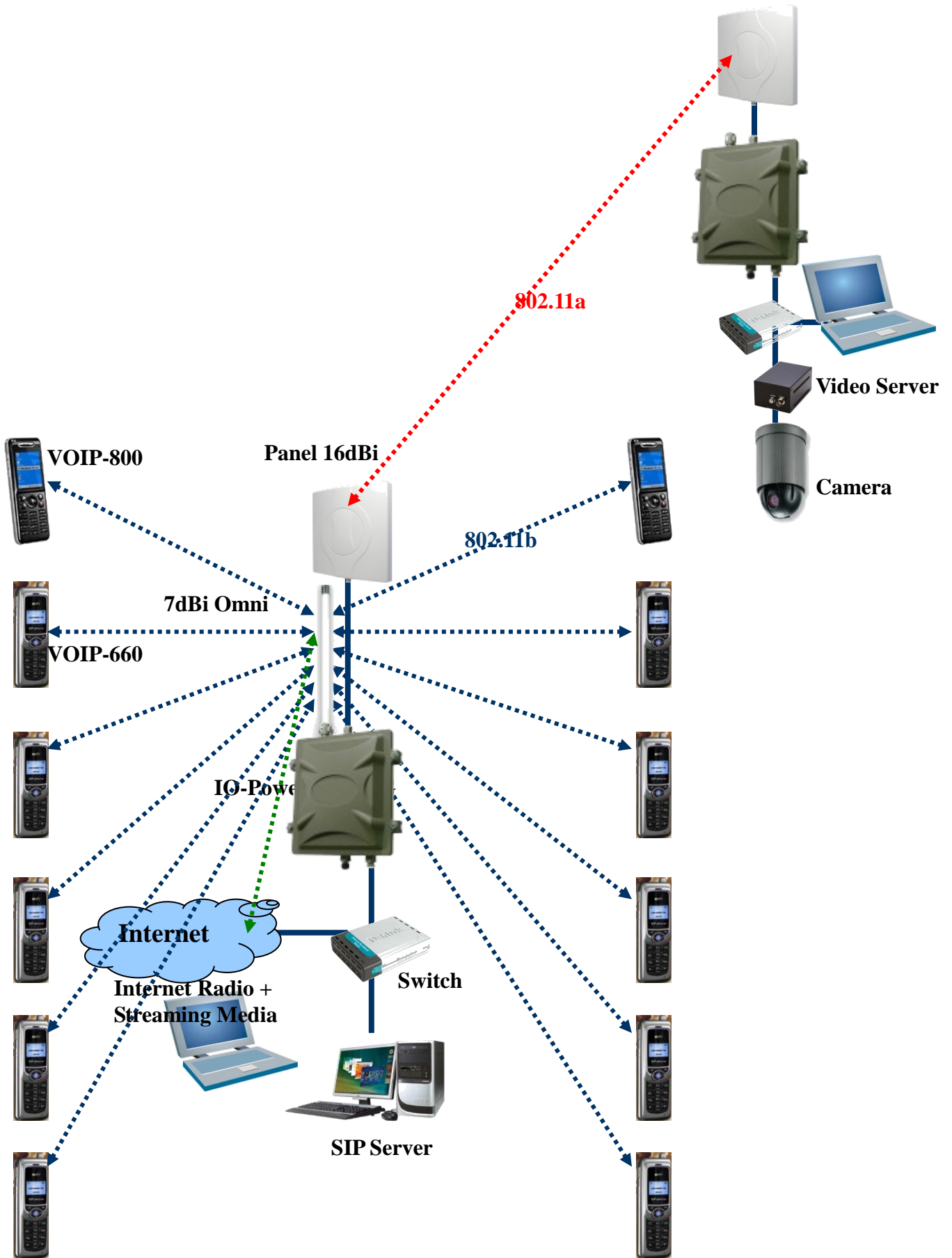
Jacky 、 Jason 、 Ally 、 Jet

CEO :

Department Manager :

Project Manager :

Test Structures:





Testing Equipment :

Hardware				
Main Items	No.1	No.2	No.3	No.4
NB/PC	PC-SIP Server	ASUS NB	ASUS NB	
CPU	1.2GHz	1.66GHz	1.66GHz	
RAM	512M	1G	512M	
OS	Win XP	Win XP	Win XP	
Ethernet IP	192.168.1.50	192.168.1.54	192.168.1.176	
WLAN IP		192.168.1.55		
AP Model	N600AG	N600AG		
AP Mode	Bridge	Bridge		
Type	AP/AP	AC/Disable		
Output power	1dBm/8dBm	8dBm		
Frequency	2.4/5GHz	5GHz		
Channel Number	5ch/36ch	36ch		
Wireless Mode	802.11b(/g) / 11a	802.11a		
Antenna Gain	Omni 7/Panel 16	Panel 16dBi		
Switch	D-LINK	D-LINK		
Camera	Analog (V.S)			
Cam Video Type	D1-1~2Mbps			
Ethernet IP (V.S)	192.168.1.170			
VoIP Phone Model	660*11	800*2		
WLAN	802.11b	802.11b/g		
Output power	14dBm	14dBm		
Software				
AP	IO-Power	Ver.988R1		
SIP Server	Brekeke	Ver.2.0.4.1		
VOIP Phone Number				
Talking1	104	777	30*2=60 Kbps	
Talking2	103	222	30*2=60 Kbps	
Talking3	111	105	30*2=60 Kbps	
Talking4	100	124	30*2=60 Kbps	
Talking5	102	125	30*2=60 Kbps	
Talking6	101	106	30*2=60 Kbps	
Connected	123		60*6=360Kbps	

Ps: Internet Radio = 14~30Kbps, Internet Streaming Media = 0.6~1.2Mbps



Test Result :



Testing Device



Brekeke SIP Server Administration tool - Avant Browser

http://127.0.0.1:18080/proxy/gate?bean=sipadmin.web.SvUsersList&act=false

Brekeke SIP Server Administration tool

brekeke SIP Server

Dial Plan | **User Authentication** | Registered Clients | Active Sessions

View Users | New User | Import Users | Export Users

User Authentication > View Users

Filter
 Pattern:
 On Field: User
 Maximum Rows: 100

User	Name		
100	100		
101	101		
103	103		
104	104		
105	105		
106	106		
111	111		
123	123		
124	124		
125	125		
222	222		
333	333		
777	777		

Telnet 192.168.1.50

```

Connecting Client List

Associated stations number : 014

[001] Wireless - 1 00:12:9e:70:0b:5b
[002] Wireless - 1 00:02:6b:07:43:97
[003] Wireless - 1 00:16:b6:4d:e0:a8
[004] Wireless - 1 00:02:6b:05:de:b0
[005] Wireless - 1 00:0a:e9:09:c8:57
[006] Wireless - 1 00:02:6b:07:43:a3
[007] Wireless - 1 00:02:6b:07:43:c1
[008] Wireless - 1 00:02:6b:07:43:94
[009] Wireless - 1 00:02:6b:07:43:bb
[010] Wireless - 1 00:02:6b:07:43:c0
[011] Wireless - 1 00:02:6b:07:43:ea
[012] Wireless - 1 00:02:6b:07:43:8c

Press 'P', 'N' Previous / Next Page, Press 'R' Refresh Associated List.
  
```

SERVER STATUS | LOG OUT

Feedback | Help

Refresh

完成 | X-Lite | Telnet 192.168.1.50 | VOIP PHONE TEST ... | 新增Microsoft Word ... | Avant Browser | 100% | 4:16 PM

VOIP Phone 13pcs Link to AP ; SMT-42 Clients List



Brekeke SIP Server Administration tool - Avant Browser

http://127.0.0.1:18080/proxy/gate?bean=sipadmin.web.SVUsersList&act=false

Brekeke SIP Server Administration tool

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RESTART/SHUTDOWN SERVER STATUS LOG OUT

Dial Plan **User Authentication** Registered Clients Active Sessions Call Logs Configuration

View Users New User Import Users Export Users Refresh

User Authentication > View Users

Filter
 Pattern:
 On Field: User
 Maximum Rows: 100

User	Name	
100	100	
101	101	
103	103	
104	104	
105	105	
106	106	
111	111	
123	123	
124	124	
125	125	
222	222	
333	333	
777	777	

Telnet 192.168.1.50

```

Interface Link Status

System UpTime : 000 Days 00:51:05      Temperature : + 42.0 C
Ethernet Status : ENABLE                Connect Status : UP
RX kbps : 2      errors : 0      dropped : 0      frame : 0
TX kbps : 1      errors : 0      dropped : 0      carrier : 0

Wireless - 1      Status : ENABLE      Type : Access Point
Tx-Power : 1 dBm  Data Link Rate(Mbps) : 54 Mbps
Noise Level : N/A Link Quality : N/A      Channel : 5 - 2432MHz
Signal Level : N/A RX kbps : 180      TX kbps : 211

Wireless - 2      Status : ENABLE      Type : Access Point
Tx-Power : 8 dBm  Data Link Rate(Mbps) : 54 Mbps
Noise Level : N/A Link Quality : N/A      Channel : 36 - 5180MHz
Signal Level : N/A RX kbps : 0      TX kbps : 3

Press ESC exit menu.

```

完成 X-Lite Telnet 192.168.1.50 VOIP PHONE TEST ... 新增 Microsoft Word ... Avant Browser 4:18 PM

VOIP Phone 13pcs Link to AP; SMT-41 Interface Link Status



Brekeke SIP Server Administration tool - Avant Browser

http://127.0.0.1:18080/proxy/gate?bean=sipadmin.web.SessionList&act=false

Brekeke SIP Server Administration tool

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Dial Plan | User Authentication | Registered Clients | **Active Session**

Active Sessions

Filter
 From:
 To:
 Time Range: 00:00 to 24:00
 Status: All

1-6 of 6
 Pages: 1

Session ID	From	To	Time	Status	
80	sip:104@192.168.1.40 (192.168.1.198:5060)	sip:777@192.168.1.40:5060 (192.168.1.188)	2007-10-19 16:09:11.546	Talking	
87	sip:103@192.168.1.40 (192.168.1.97:5060)	sip:222@192.168.1.40:5060 (192.168.1.187)	2007-10-19 16:09:37.171	Talking	
94	sip:111@192.168.1.40 (192.168.1.195:5060)	sip:105@192.168.1.40:5060 (192.168.1.96)	2007-10-19 16:10:37.109	Talking	
196	sip:100@192.168.1.40 (192.168.1.193:5060)	sip:124@192.168.1.40:5060 (192.168.1.186)	2007-10-19 16:32:43.359	Talking	
199	sip:102@192.168.1.40 (192.168.1.196:5060)	sip:125@192.168.1.40:5060 (192.168.1.177)	2007-10-19 16:32:50.640	Ringing	
200	sip:101@192.168.1.40 (192.168.1.194:5060)	sip:106@192.168.1.40:5060 (192.168.1.199)	2007-10-19 16:32:51.593	Inviting	

Brekeke SIP Server, Version 2.0.4.1 Personal
 ID: 00037225
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完成

X-Lite | ex Telenet 192.168.1.50 | 新增Microsoft Word ... | Avant Browser

CF | 100% | 網路網路 | 4:33 PM

```

ex Telenet 192.168.1.50

Interface Link Status

System UpTime : 000 Days 01:06:21      Temperature : + 42.0 C
Ethernet Status : ENABLE                Connect Status : UP
RX kbps : 1103      errors : 0          dropped : 0      frame : 0
TX kbps : 26        errors : 0          dropped : 0      carrier : 0

Wireless - 1      Status : ENABLE      Type : Access Point
Tx-Power : 1 dBm  Data Link Rate(Mbps) : 54 Mbps
Noise Level : N/A Link Quality : N/A      Channel : 5 - 2432MHz
Signal Level : N/A RX kbps : 175      TX kbps : 1296

Wireless - 2      Status : ENABLE      Type : Access Point
Tx-Power : 8 dBm  Data Link Rate(Mbps) : 54 Mbps
Noise Level : N/A Link Quality : N/A      Channel : 36 - 5180MHz
Signal Level : N/A RX kbps : 0        TX kbps : 14

Press ESC exit menu.
  
```

VOIP Phone 13pcs Link to AP + Internet Radio + Streaming Media; SMT-41 Interface Link Status



The screenshot shows the HiNet hiChannel website interface. At the top, there's a navigation bar with various service icons like '免費影視', '免費廣播', '音樂新碟', '計次收視', '月費收視', '收視紀錄', and '客服中心'. Below this is a search bar with the text '熱門關鍵字: 你來自哪顆星 幻想情侶'. The main content area features a large video player for '楊永琳 任意門' with a '免費特區' sidebar listing categories like 'KuMovie', 'KuDrama', '美國職棒', etc. To the right, there's a '精選戀愛日記' section with a user profile for '草莓公主' and a list of diary entries. At the bottom, there's a '今日熱門 HOT' section.

Internet Radio + Streaming Media via Hinet-hiChannel paly



The screenshot shows a Microsoft Internet Explorer browser window displaying the ZAVIG camera web interface. The browser address bar shows `http://192.168.1.170/`. The ZAVIG interface includes a video feed of a server room, control buttons (Snapshot, Setting, Brightness, Contrast, Saturation, Hue), and a Telnet terminal window. The Telnet window displays the following interface link status:

```

Interface Link Status

System UpTime : 000 Days 01:36:22      Temperature : + 42.5 C
Ethernet Status : ENABLE                Connect Status : UP
RX kbps : 77      errors : 0             dropped : 0      frame : 0
TX kbps : 148     errors : 0             dropped : 0      carrier : 0

Wireless - 1      Status : ENABLE      Type : Access Point
Tx-Power : 1 dBm  Data Link Rate(Mbps) : 54 Mbps
Noise Level : N/A Link Quality : N/A      Channel : 5 - 2432MHz
Signal Level : N/A RX kbps : 1177     TX kbps : 1153

Wireless - 2      Status : ENABLE      Type : Access Point
Tx-Power : 8 dBm  Data Link Rate(Mbps) : 54 Mbps
Noise Level : N/A Link Quality : N/A      Channel : 36 - 5180MHz
Signal Level : N/A RX kbps : 0         TX kbps : 4

Press ESC exit menu.
  
```

The Windows taskbar at the bottom shows the time as 5:03 PM and includes icons for X-Lite, Telnet, and other applications.

VOIP Phone 13pcs Link to AP + Internet Radio + Streaming Media + Camera ; SMT-41 Interface Link Status (TX:0.8M~3.2Mbps, RX:0.9M~3.3Mbps)



Brekeke SIP Server Administration tool - Avant Browser

http://127.0.0.1:18080/proxy/gate?bean=sipadmin.web.SvUsersList&act=false

brekeke SIP Server

RESTART/SHUTDOWN SERVER STATUS LOG OUT

Dial Plan **User Authentication** Registered Clients Active Sessions Call Logs Configuration

View Users New User Import Users Export Users Refresh

User Authentication > View Users

Filter
 Pattern:
 On Field: User
 Maximum Rows: 100
 Search

User	Name	Email Address	Description	
100	100			✎ ✕
101	101			✎ ✕
103	103			✎ ✕
104	104			✎ ✕
105	105			✎ ✕
106	106			✎ ✕
111	111			✎ ✕
123	123			✎ ✕
124	124			✎ ✕
125	125			✎ ✕
222	222			✎ ✕
333	333			✎ ✕
777	777			✎ ✕

開始 X-Lite Telnet 192.168.1.50 VOIP PHONE TEST ... 新增Microsoft Word ... Avant Browser 4:15 PM

VOIP Phone 13pcs SIP Server User Registered Clients List (SIP Server 15 User)



Brekeke SIP Server Administration tool - Avant Browser

http://127.0.0.1:18080/proxy/gate?bean=sipadmin.web.RegisterList&act=false

brekeke SIP Server

RESTART/SHUTDOWN SERVER STATUS LOG OUT

Dial Plan User Authentication **Registered Clients** Active Sessions Call Logs Configuration

View Clients New Client Refresh

Registered Clients > View Clients

Filter
 Pattern:
 On Field: User

1-10 of 15
 Pages: 1

User	Contact URI	Detail	
106	sip:106@192.168.1.199:5060	Expires : 3600 Priority : 1000 Accept Pattern : Requester : 192.168.1.199:5060 Time Update : Fri Oct 19 15:53:32 CST 2007	✕
111	sip:111@192.168.1.195:5060	Expires : 3600 Priority : 1000 Accept Pattern : Requester : 192.168.1.195:5060 Time Update : Fri Oct 19 15:53:34 CST 2007	✕
101	sip:101@192.168.1.194:5060	Expires : 3600 Priority : 1000 Accept Pattern : Requester : 192.168.1.194:5060 Time Update : Fri Oct 19 15:53:40 CST 2007	✕
100	sip:100@192.168.1.193:5060	Expires : 3600 Priority : 1000 Accept Pattern : Requester : 192.168.1.193:5060 Time Update : Fri Oct 19 15:53:43 CST 2007	✕
222	sip:222@192.168.1.187:5060	Expires : 3600 Priority : 1000 Accept Pattern : Requester : 192.168.1.187:5060 Time Update : Fri Oct 19 15:53:49 CST 2007	✕
102	sip:102@192.168.1.196:5060	Expires : 3600 Priority : 1000 Accept Pattern : Requester : 192.168.1.196:5060 Time Update : Fri Oct 19 15:56:35 CST 2007	✕
105	sip:105@192.168.1.181:5060	Expires : 3600 Priority : 1000	✕

完成 X-Lite on Telnet 192.168.1.50 VOIP PHONE TEST ... 新增 Microsoft Word ... Avant Browser 4:14 PM

VOIP Phone 13pcs SIP Server User Authentication List



Brekeke SIP Server Administration tool - Avant Browser

http://127.0.0.1:18080/proxy/gate?bean=sipadmin.web.SessionList&act=false

brekeke SIP Server

RESTART/SHUTDOWN SERVER STATUS LOG OUT

Dial Plan User Authentication Registered Clients **Active Sessions** Call Logs Configuration

Feedback | Help Refresh

Active Sessions

Filter

From:

To:

Time Range: 00:00 to 24:00

Status: All

Search

1-6 of 6
Pages : 1

Session ID	From	To	Time	Status	
56	sip:101@192.168.1.40 (192.168.1.194:5060)	sip:124@192.168.1.40:5060 (192.168.1.186)	2007-10-19 16:06:14.281	Talking	
64	sip:106@192.168.1.40 (192.168.1.199:5060)	sip:100@192.168.1.40:5060 (192.168.1.193)	2007-10-19 16:07:09.875	Talking	
80	sip:104@192.168.1.40 (192.168.1.198:5060)	sip:777@192.168.1.40:5060 (192.168.1.188)	2007-10-19 16:09:11.546	Talking	
83	sip:102@192.168.1.40 (192.168.1.196:5060)	sip:125@192.168.1.40:5060 (192.168.1.177)	2007-10-19 16:09:33.781	Talking	
87	sip:103@192.168.1.40 (192.168.1.97:5060)	sip:222@192.168.1.40:5060 (192.168.1.187)	2007-10-19 16:09:37.171	Talking	
94	sip:111@192.168.1.40 (192.168.1.195:5060)	sip:105@192.168.1.40:5060 (192.168.1.96)	2007-10-19 16:10:37.109	Talking	

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完成 X-Lite 命令提示字元 3-小畫家 新增Microsoft Word... Avant Browser 4:10 PM

VOIP Phone 13pcs SIP Server User Active Sessions List



Brekeke SIP Server Administration tool - Avant Browser

http://127.0.0.1:18080/proxy/gate?bean=sipadmin.web.SessionInfo&id=80

Brekeke SIP Server Administration tool

brekeke SIP Server

RESTART/SHUTDOWN SERVER STATUS LOG OUT

Dial Plan User Authentication Registered Clients **Active Sessions** Call Logs Configuration Feedback Help Refresh

Active Sessions > Details
 Session ID : 80

Session Details	
From-uri	sip:104@192.168.1.40
From-ip	192.168.1.198:5060
From-if	192.168.1.40:5060
To-uri	sip:777@192.168.1.40:5060
To-ip	192.168.1.188
To-if	192.168.1.40:5060
Call-ID	28263-D1B9-12D7-BB65-6CA79EB83DFA@192.168.1.198
rule	registered=sip:777(sip:777@192.168.1.188:5060)
plug-in	InviteSession
sip-packet-total	5
listen-port	5060
sip-packet-stacked	0
session-status	Talking
time-inviting	Fri Oct 19 16:09:11 CST 2007
time-talking	Fri Oct 19 16:09:16 CST 2007
length-talking	00:28:59
rtp-relay	off

Disconnect Back

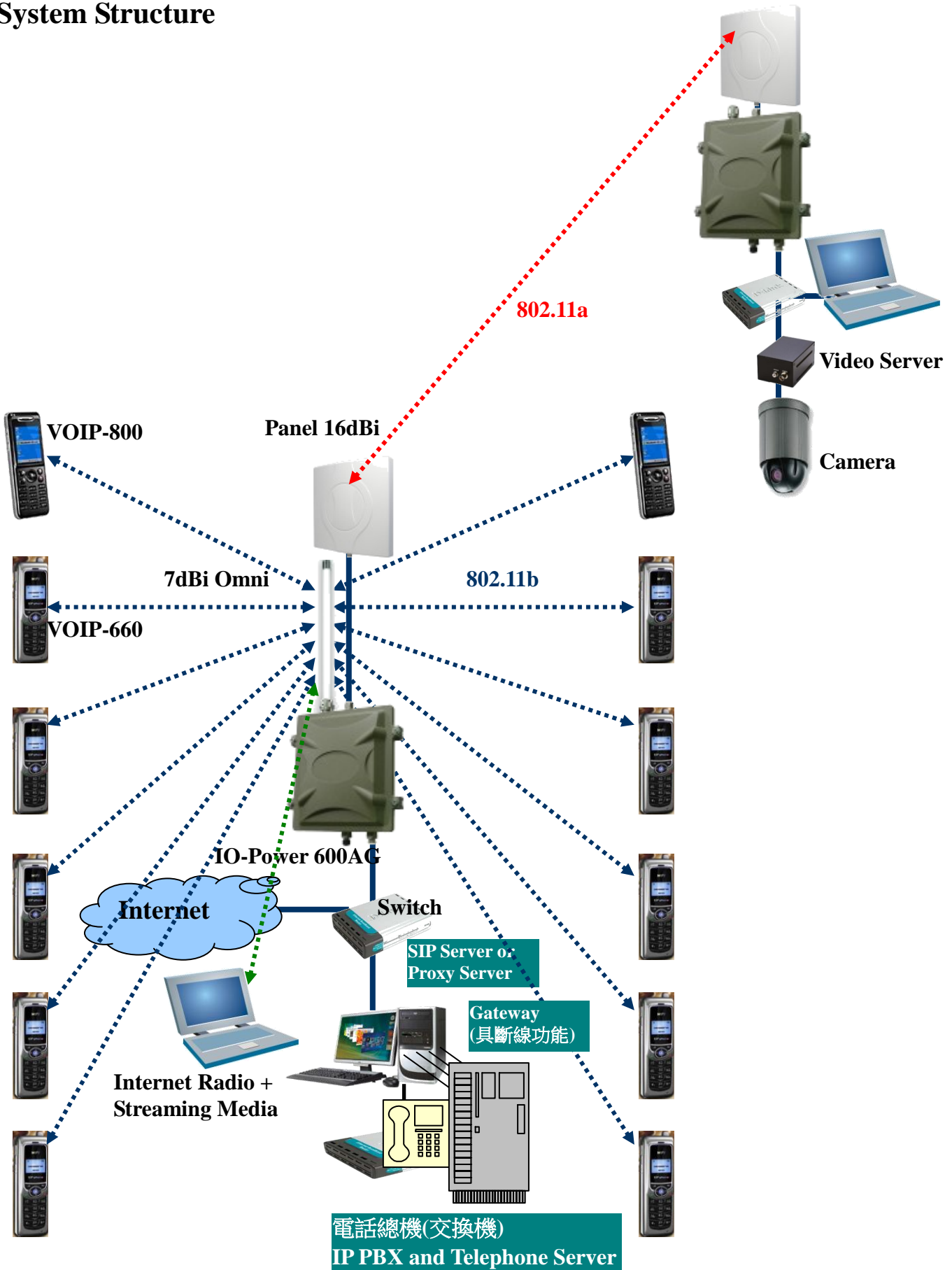
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 ID: 00037225
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完成 X-Lite Telnet 192.168... 新增Microsoft... Avant Browser IP CAMERA Vi... 未命名 - 小畫家 Cf 100% 網際網路 4:38 PM

VOIP Phone 13pcs SIP Server User Active Sessions Detail Contents



System Structure





客戶使用訪談:

1. 設備清單:

- 1-1.AP: IO-Power (勁電科技)*13 台 + Asus*6 台
- 1-2.WiFi VoIP Phone:台灣 38 台+蘇州 4 台
- 1-3.Proxy Server:一台 1100 美金—認證'註冊'帳號管理'連線配對
- 1-4.Gateway:一台 1300 美金—16 外網 Port
- 1-5.電話總機(交換機):一台,原公司電話總機—對外網線路 12 條

2. 使用狀況:

- 2-1.同一時間使用人數:4-5 人
- 2-2.大部份使用於內網 98%
- 2-3.於勁電科技 AP 無線覆蓋範圍通話,漫遊不會有問題
- 2-4.於 ASUS AP 的無線覆蓋範圍通話,漫遊會斷線或不穩問題
- 2-5.Proxy Server 會當機,目前採用每天凌晨 4 點重開機方式解決
- 2-6.Proxy Server 與 Gateway 間的斷線溝通'常出問題'造成佔用線路問題

3. 客戶建議:

- 3-1.WiFi 無線覆蓋訊號不好區域,會造成 WiFi Phone 手機耗電量增加(搜尋次數與輸出功率加大問題造成),因此計畫增設勁電科技 AP 約 6 台
- 3-2.Gateway 與電話總機以內線對接 16 條'不要採用外線 16 條方式
- 3-3.對外門號線路 12 條'需做分配規畫
- 3-4.外線電信公司哪一家都沒關係'因此找便宜的(就是只有內網系統問題)