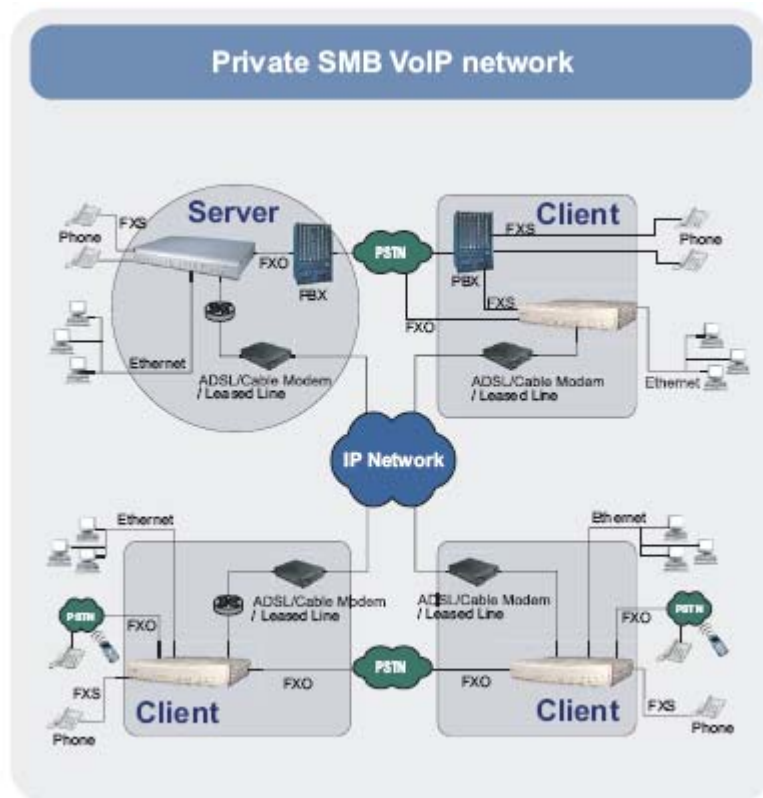


## 符合經濟效益的 VoIP，建置網路通訊系統

- 1、針對擁有多點廠房的中小企業而言，長途電話與國際電話費用是一筆可觀的支出。在以「節費」為前題下，提供評估計畫，為企業導入符合效益的 VoIP 架構，不僅達到企業內部點對點免通話費，還可節省國際與長途通話費，所投資之建置成本並可在短期內回收，達到立竿見影的節省話費成本效果。
- 2、建置 IP PBX VOIP 提昇通訊系統最有效率的應用係將辦公室桌上分機、個人手機、及 WiFi Phone/Soft Phone 整合成一個全方位行動通訊網路；當公司人員離開座位時或出差可將座位分機指定轉接(或交換機設無應答轉接)至 WiFi Phone/Soft Phone/個人手機，不管是在公司內部的 WiFi 環境，甚至出差至全世界 Internet 可到達的 WiFi 環境，皆可輕易使用，同時省了昂貴的通信費用，讓您現有的交換機增加了行動力，並無需改變任何交換機設備。並可連接節費系統，降低整體通訊成本、提昇業務機動性、增加整體營運效益。





## SP4220DX, MG4220DX series IAD

Model : 2FXS, 2FXO, 1FXS1FXO  
 Protocol : SIP or MGCP  
 Ethernet : 1WAN + 4LAN

## SP4220, MG4220 series IAD

Model : 4FXS, 4FXO, 2FXS2FXO, 3FXS1FXO  
 Protocol : SIP or MGCP  
 Ethernet : 1WAN + 4LAN

## SP8440, MG8440 series IAD

Model : 8FXS, 8FXO, 6FXS2FXO, 4FXS4FXO, 4FXS4PSTN  
 Protocol : SIP or MGCP  
 Ethernet : 1WAN + 4LAN

### IP network features

- WAN :
  - \* One 10/100Mbps auto-negotiation, auto-crossover Ethernet port
  - \* Support static IP, PPPoE and DHCP address assignment
  - \* QoS : IP TOS (IP Precedence), DiffServ, Port Priority
  - \* NAT traversal : STUN, UPnP, OUTBOUND PROXY
  - \* Pass Through NAT
  - \* NTP : 3 configurable Time Servers. Time Zone support
  - \* DDNS : DynDns.org, TZO, PeanutHull, 3322.org
  - \* RTP Packet Summary : packet sent, packet received, packet loss
  - \* MAC Address Clone
  - \* RJ-45 connector
- LAN :
  - \* Four 10/100Mbps auto-negotiation, auto-crossover Ethernet ports
  - NAT / PAT -
    - DHCP Server, DMZ, Virtual Server, Filtering (MAC, IP, PORT)
  - \* QoS : Port based priority (Hi / Low) with rate limit
  - \* Router or Bridge mode
  - \* RJ-45 connector
- DoS prevention :
  - \* Prevents attacks based on TCP, UDP, IP and ICMP protocols
  - \* Prevents attacks such as SYN Flood, IP Spoofing, Ping of Death, Tear Drop, etc.

### Operation & Maintenance

- Front Panel LED : voice ports, WAN, LAN1~4, Run, Power, Alarm
- WEB & Telnet user interface with password authentication
- Ping test
- Configuration, port status, registration status, hardware / software information in WEB and Telnet UI
- IVR configuration engine
- Reset button (with restore factory default function)
- Optional Gateway Manager software for managing/monitoring bulk number of IAD in central office
- Optional Auto Provisioning Server (APS) to enable mass deployment with less dispatch
- SNMP V1 / V2c

### General Specifications

- Adapter : AC 100V~240V 50/60Hz input, DC 12V output
- Temperature : Operation 0 °C ~ 45 °C  
 Storage -25 °C ~ 75 °C
- Humidity : up to 90% RH, non-condensing
- Dimension (W/D/H)
  - 4220DX, 4220 : 202 x 172 x 35 mm
  - 8440 : 302 x 179 x 45 mm
- Weight
  - 4220DX, 4220 : 0.43Kg
  - 8440 : 1.2 Kg

### Voice features

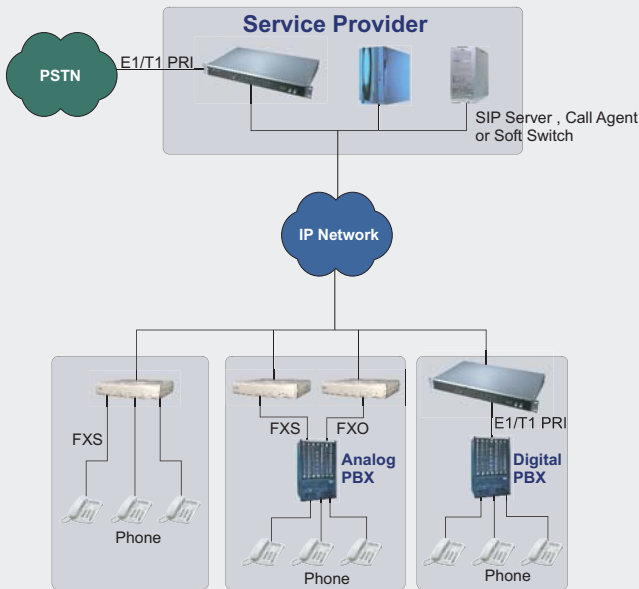
- SIP (RFC3261), MGCP 1.0 (RFC2705) compatible
- Voice codecs : G.711 a /  $\mu$ law, G.726, G.729A, G.723.1
- CNG (Comfort Noise Generation)
- VAD (Voice Activity Detection)
- G.165/G.168 echo cancellation
- Adjustable Jitter Buffer and programmable Gain Control
- In-Band DTMF, Out-Of-Band DTMF relay (RFC2833, SIP INFO)
- Multiple SIP Proxy server entries with failover mechanism
- Polarity reversal detection (FXO) and generation (FXS)
- T.30 (G.III) / Real time T.38 / Secured T.38 FAX relay
- DTMF, FSK (Bellcore & ETSI) Caller ID detection and generation.
- Support Caller ID Restriction (CLIR)
- FXO hang up detection : Busy Tone candence auto learning / detection
- Call features :
  - Call Hold, Call Waiting, Call Pickup
  - Call Forward - Unconditional, Busy, No Answer
  - Call Transfer - Unattended, Attended
  - Speed Dialing, Repeat Dialing, Three Way Calling (Media Server required)
- Failsafe mechanism (FXS relay to PSTN) :
  - Network failure
  - Service unavailable
  - Power loss
- Single Number / Account for multiple ports
- Group Hunting function
- Digit Map
- Recordable greeting message
- Support special applications as shown in the network diagram
- Hot-Line, Warm-Line support
- Optional server software pack to upgrade an IAD to become a private VoIP network server (registrar)
- Analogue interface
  - Connector : RJ-11
  - Signaling protocol : Loop Start

The specifications are subject to change without notice. All other products or trademarks are the property of their respective owners.

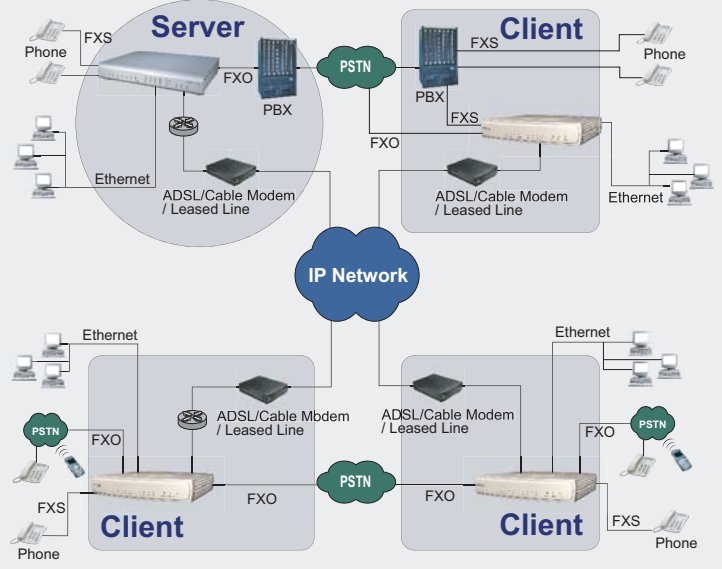


## APPLICATIONS

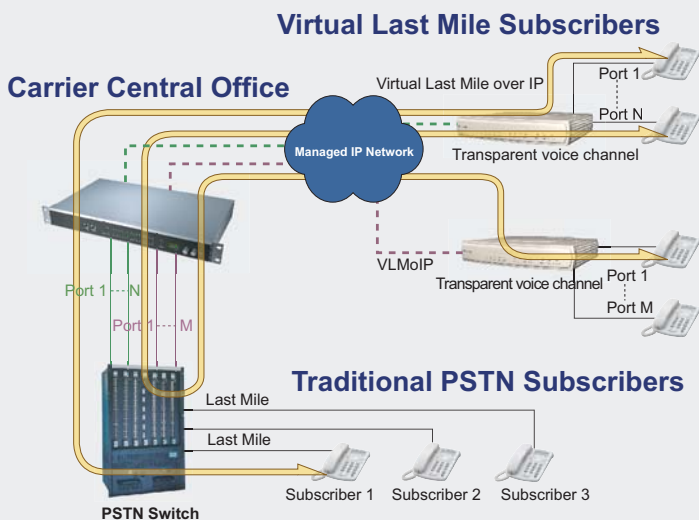
### ITSP/ISR VoIP network



### Private SMB VoIP network



### Line extension over IP



### Dual network VoIP - ITSP + Private

