

# **RFNet Technologies Pte Ltd**

One Stop Wireless and  
Networking Solution



[www.rfnetech.com](http://www.rfnetech.com)



Wireless • Innovation • Networking

# Overview

- About RFNet.
- SOHO Business Connectivity Solution.
- Outdoor Industrial Wireless Solution.
- Outdoor Concept and Application.
- Outdoor Antenna and Accessories.
- Reference Site



# About RFNet

- We provide SOHO Business Connectivity Needs.
- We focus on Outdoor Ruggedized Wireless Solution Platform.
- We provide consultancy in networking design and radio cell planning.
- We are a One Stop Wireless and Networking Solution Partner.



# SOHO

## Business Connectivity Solution



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# Today Small & Medium Office Needs



- Wired Computer Networking
- Wireless Computer Networking
- Firewall for Network Security
- Router
- File Server
- Fax, Copier, Printer and Scanner
- Mail Server
- Telephone System
- Web server (optional)



Storage & Print  
Server



All in one printer



network USB2.0    
**storage and print** APRT 2801GS sharing\*  
wireless **super g** combo router

- Super G wireless Router extended range and dual antenna diversity
- Network Storing and Print Sharing with 2 USB2.0 ports and user access control of external storage and printer
- Enhanced Security with SPI/NAT firewall, WPA2 wireless security, networking file and print server all-in-one



### Wireless LAN

- Notebook
- PDA

### 4 LAN Ports

- Computer

### WAN

- Modem & Internet

### 2 USB PORTS

- Storage Device
- Printer \*



# The Benefits of APRT-2810GS



- Scan to USB Networked Drive
- Incoming Fax to USB Network Drive (Paperless office)
- Wireless and Wired Network Print and Fax
- SPI Firewall & Enhance Wired and Wireless Security
- Multi Media and VoIP Ready
- Support Multiple current Users



# APRT-2518G/GS

## Wireless Super **G** Router

- Up to 108Mbps and Extended Range (Super G)
- Enhanced Firewall with WPA Security
- Wireless Isolation between Wireless Clients
- MAC Address Access Control
- Disable Wireless SSID Broadcast
- Performance breakthrough
  - WLAN to WAN (802.11g) : 22Mbps
  - LAN to WAN (802.11g) : 69Mbps
  - WLAN to WAN (Super G) : 44Mbps
- Radio Design Award by PC Magazine.



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# Target Market

- SOHO User
- Department Level
- ISP
- Internet Cafe
- Hotspot



APRT-2801GS



APRT-2518G/SG



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# RFNet SIP VoIP Phone

- **Voice Communications via Internet or LAN connection**
- **Open system SIP VoIP architecture for seamless integration into multi-vendor VoIP networks**
- **Router mode to support both voice and data communications via the same broadband connection**
- **Support Port Forward mode**
- **Online firmware upgrade manually or automatically**
- **Plug 'N Play installation**
- **Configurable via Web Browser, Telnet, RS-232 Commands (optional), or Built-in phone menu**
- **Full 128x64 Dot Matrix LCD for both text and graphic display**



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# Outdoor Industrial Wireless Access Point and Customer Premise Equipment



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# AP-1068-HP

- Fixed or Vehicular Wireless Outdoor 500mW Access Point / Repeater
- For On-the-Halt / On-the-Move Network Environment
- Point to Point WLAN Bridge
- Point to Multi-Points WLAN Bridge
- Industrial grade IP67 casing
- Rugged Cast Aluminium casing
- Up to 25Km range
- Power Over Ethernet
- 250 association and 50 con-current users
- Support seamless roaming
- Designed for Backhaul, Carrier Operators and Mobile Environment



# AP-1061-POE

- Fixed Wireless Outdoor Access Point / Repeater
- Point to Point WLAN Bridge
- Point to Multi-Points WLAN Bridge
- Industrial grade IP67 casing
- Up to 15Km range
- Power Over Ethernet
- 250 association and 50 con-current users
- Support seamless roaming
- Provides up to 12Mbps throughput
- Designed for Carrier Operators and ISP Vendors

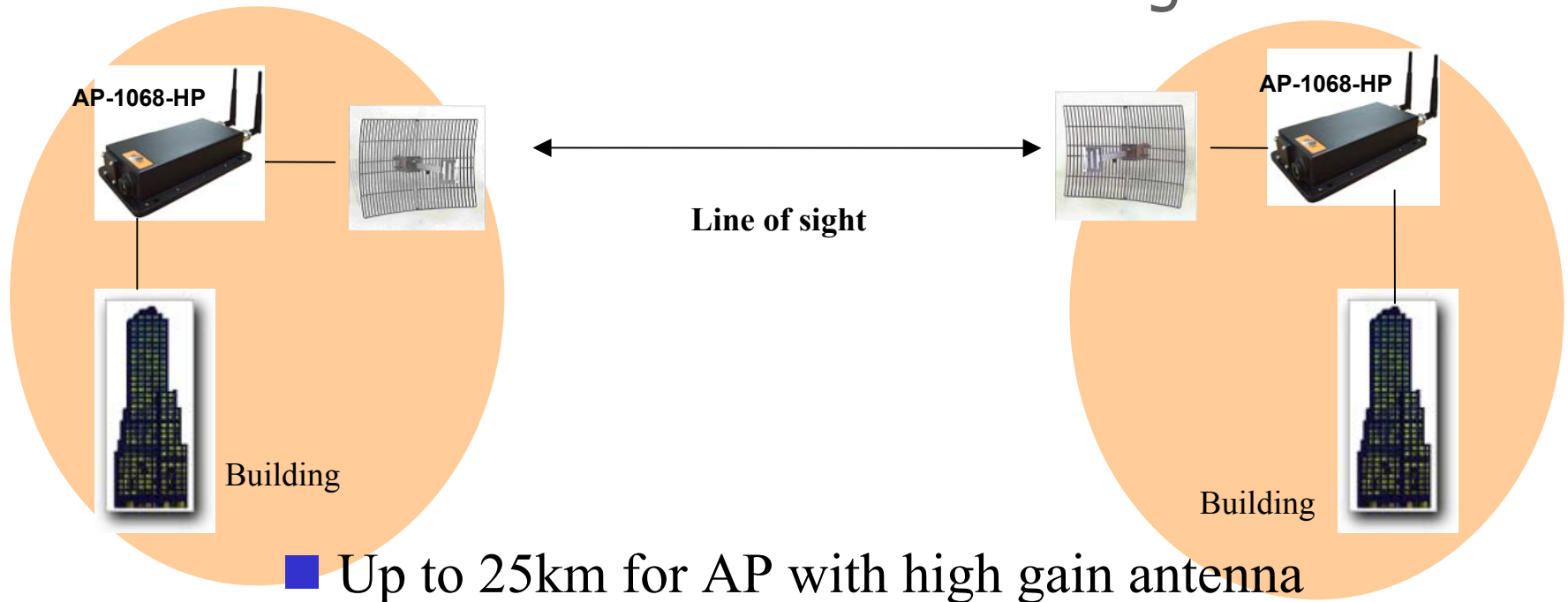


# AP-1010-CPE

- Fixed Wireless Outdoor Customer Premise Equipment
- Built-in 14dBi antenna
- Point to Point WLAN Bridge
- Industrial grade IP66 casing
- Up to 8Km range
- Power Over Ethernet
- Alignment LEDs for RF Link and Power
- Provides up to 18Mbps throughput
- Designed for WISP and Hotspot



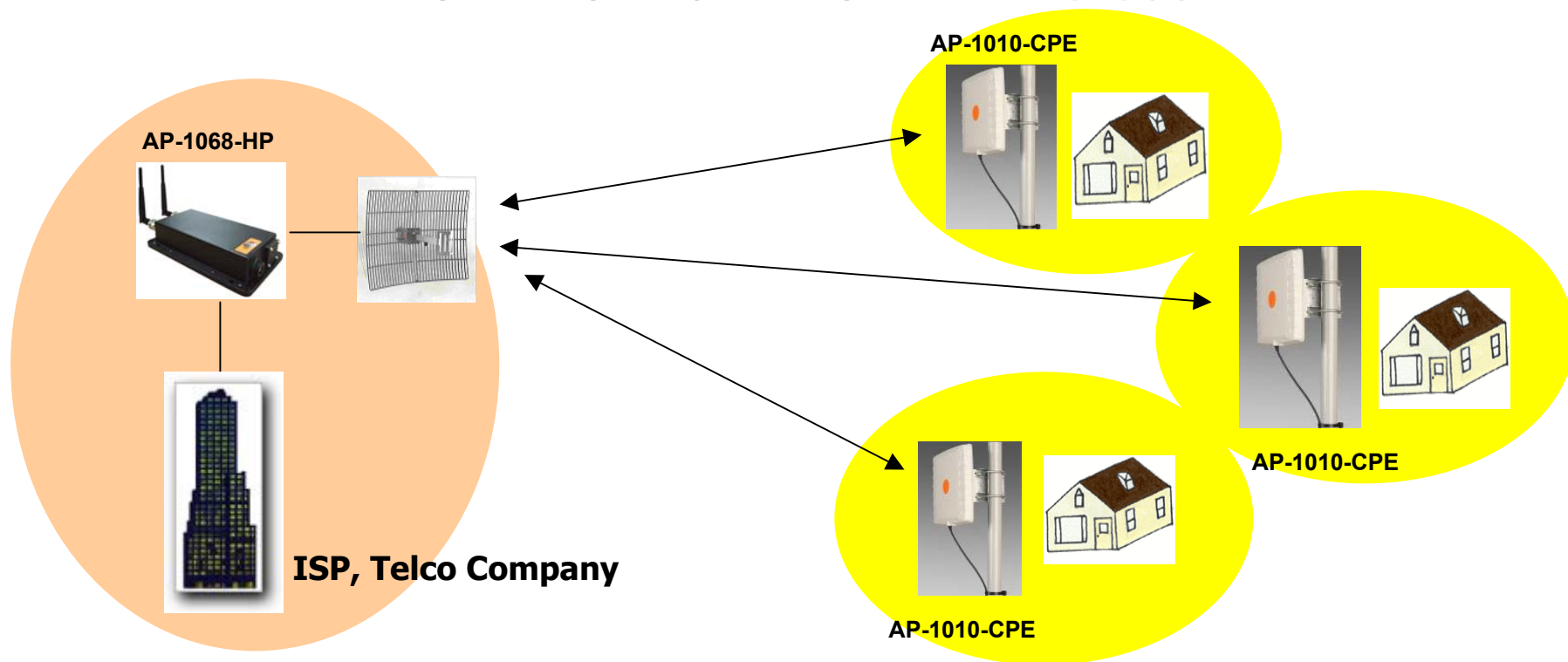
# Point to Point Wireless Bridge



- Up to 25km for AP with high gain antenna
- Carrier Class Reliability
- Up to 43 Mbps through put
- Up to 26 Mbps through put @ 4km



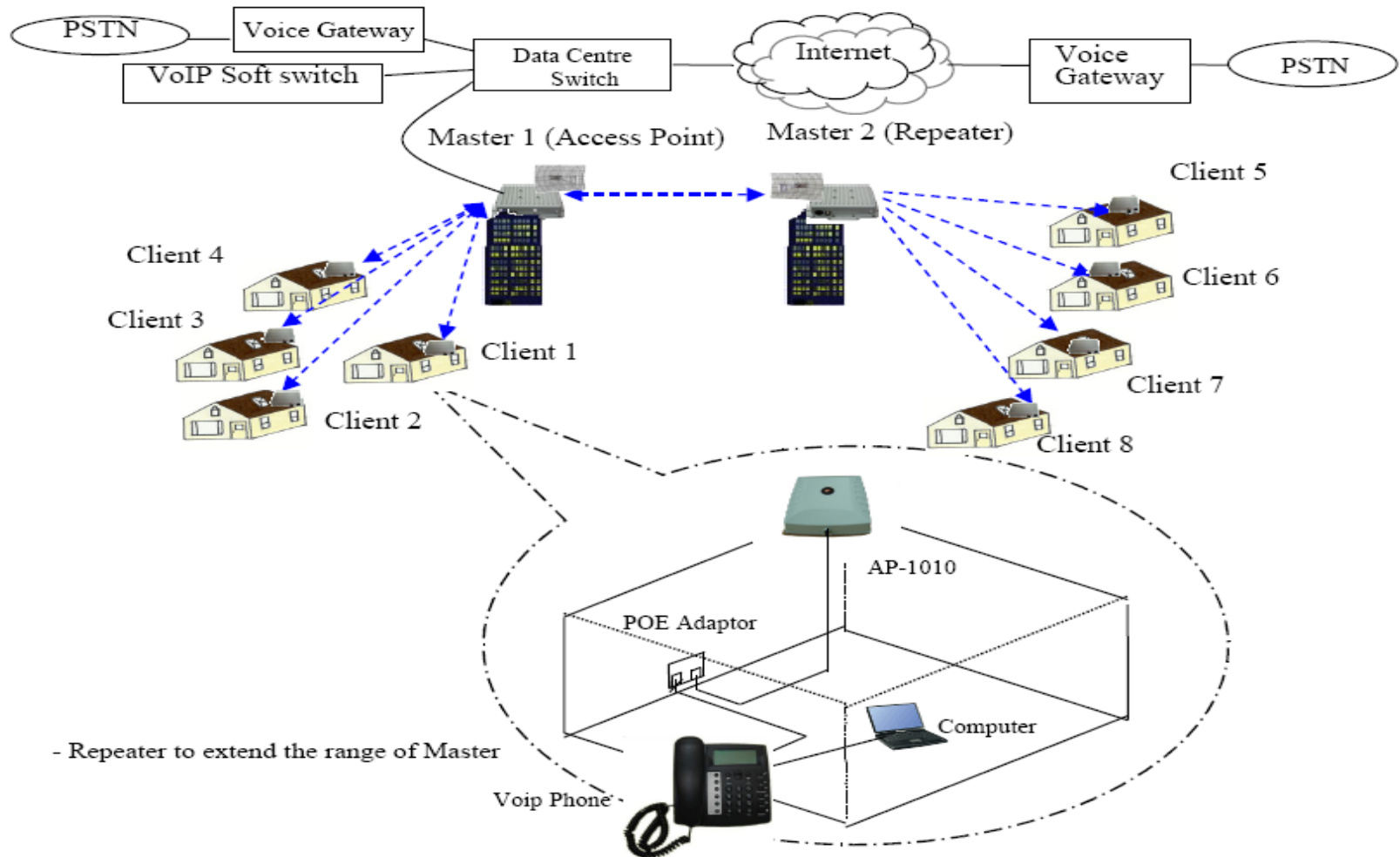
# Point to Multi-Point Wireless



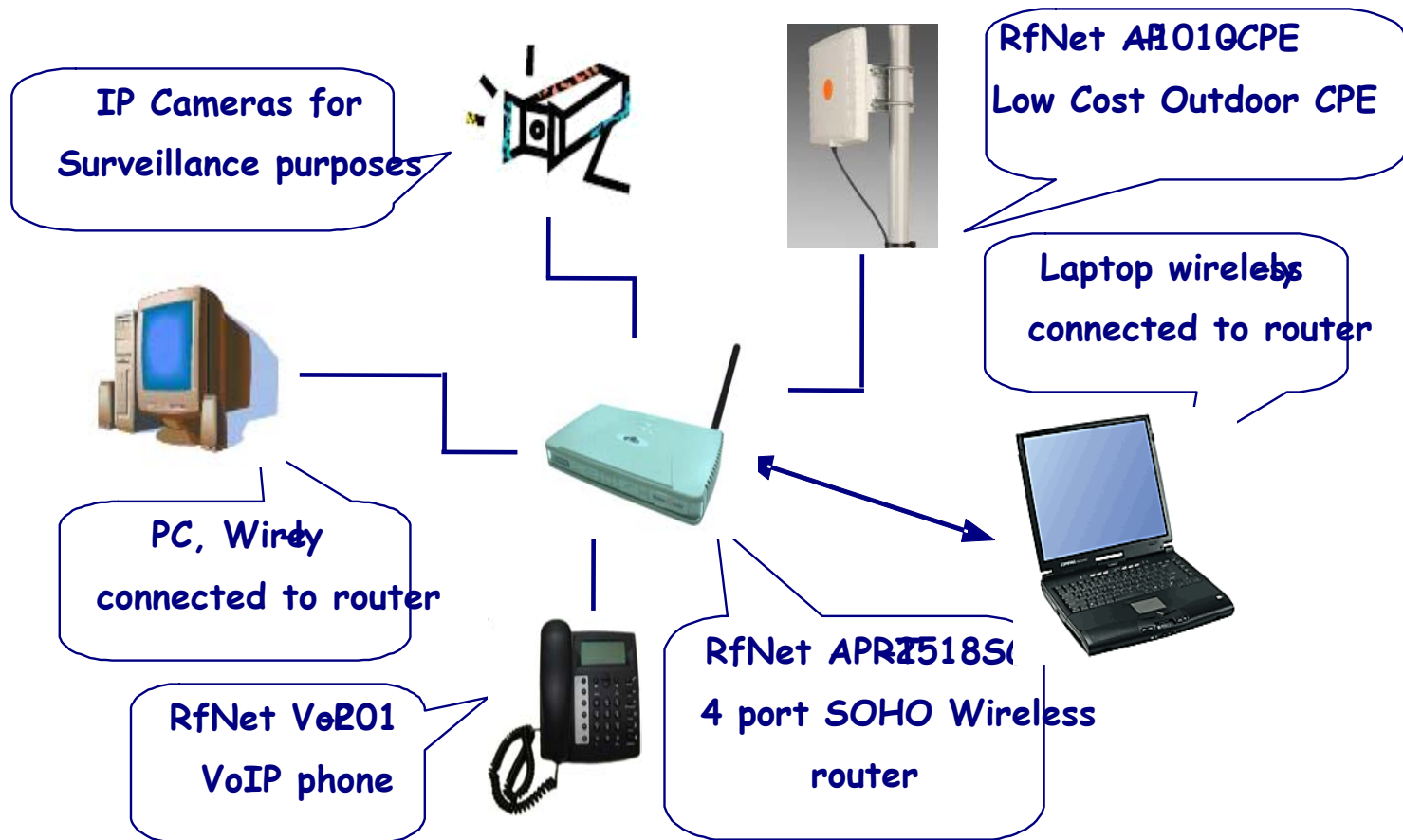
- One master support up to 50 con-current Slave
- 6km to 8km for AP with external antenna
- 4km to 6km for CPE with built-in antenna
- Carrier Class Reliability



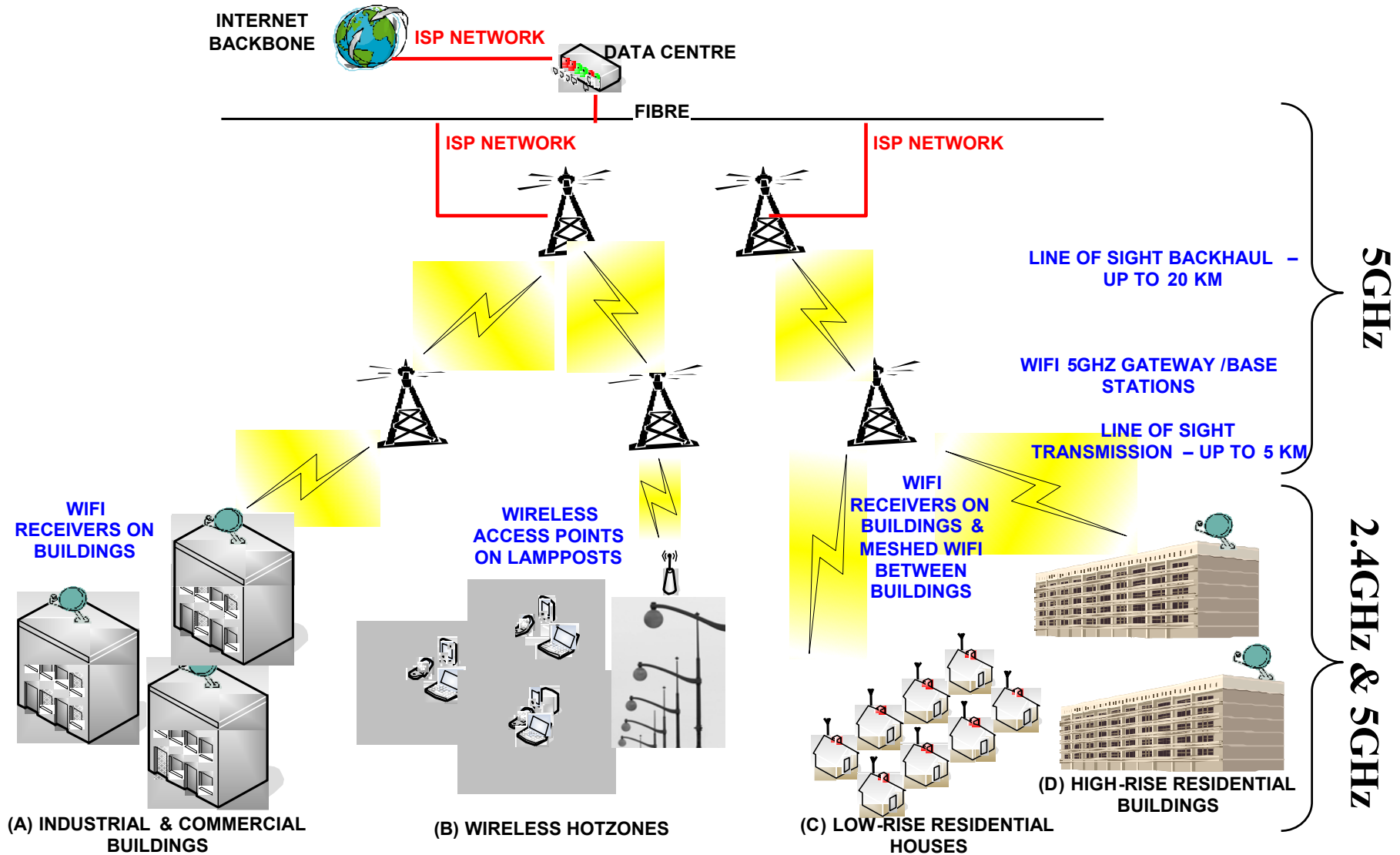
# VoIP and Fixed Wireless Solution



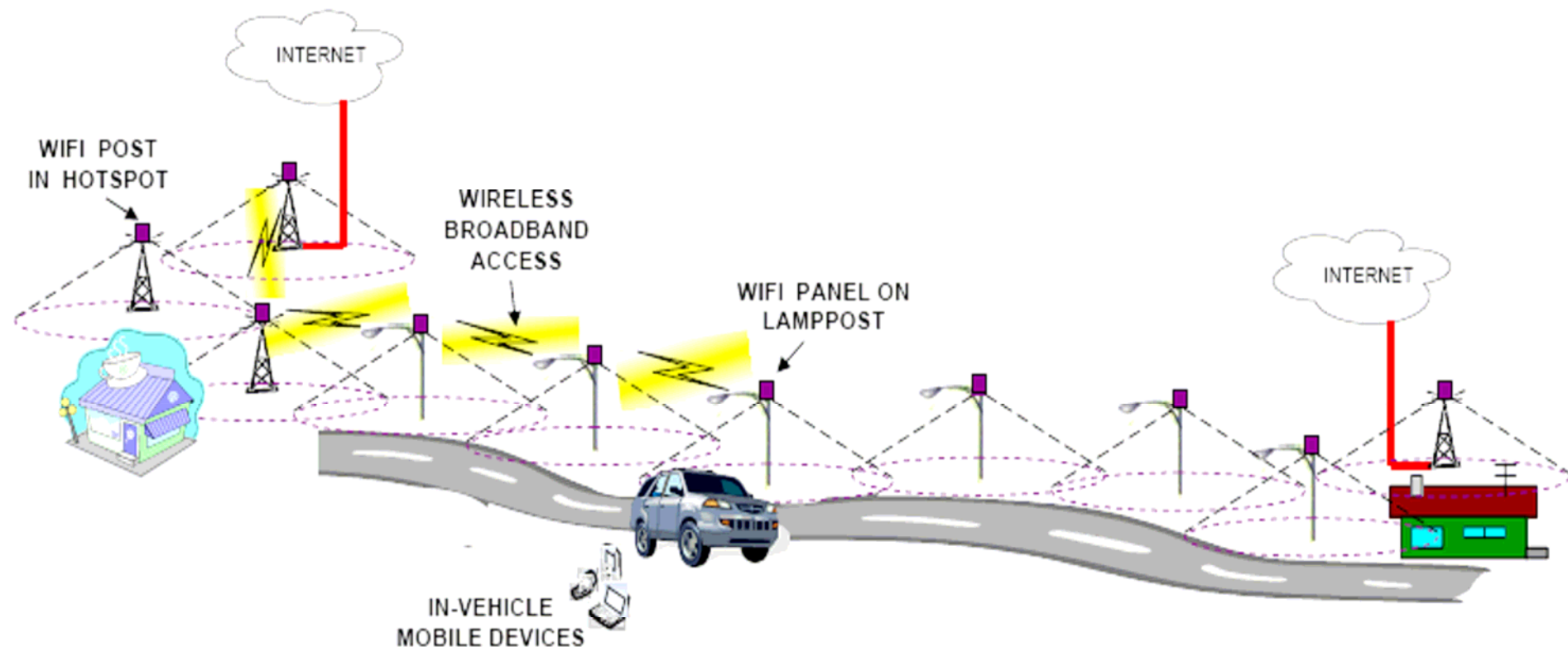
# Deployment for Home Surveillance



# ISP Deployment Solution



# Wireless Hot Zone Roaming Deployment



# Target Market











- **Metro Wi-Fi**
- **City Wi-Fi**
- **Hot zones**



- **Hospitality**
  - Hotels
  - Resorts
- **Transportation**
  - Airports
  - Railway stations
  - Ports
- **Campuses**
  - Education
  - Healthcare
  - Sport Arenas



# Outdoor Fixed & Wireless Platform

Product Type	2.2 GHz Built To Order	2.4GHz Current	5~5.9GHz Available Nov 2006
500mW Base Station or Vehicle unit	AP-2268 	AP-1068 	AP-5068 
100 mW AP, client	AP-2261 	AP-1061 	
AP+CPE With Direction Antenna		AP-1010 Gold 	AP-5010 Gold 
CPE With Directional Antenna		AP-1010 Lite 	AP-5010 Lite 
Application & Target Market	Fixed Wireless Backhaul Link Public Safety Surveillance	Fixed Wireless Backhaul Link Public Safety Wifi Hotspot Logistic Warehouse Surveillance	Fixed Wireless Backhaul Link Public Safety Surveillance



# Outdoor & Fixed Wireless Roadmap

Now

Q2/07

End/07 onwards

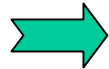
**IEEE 802.11 b/g**

**IEEE 802.11a**

2.2 GHz

2.4 GHz

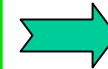
5~5.9GHz



**MIMO**

2~6 GHz

depends  
on Demand



**WiMax**

CPE/Client  
Platform



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# Antenna And Accessories

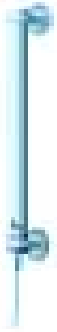


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# Antenna



**ANT-OD5**  
**Omni-directional**  
**(5 dBi)**



**ANT-OD8**  
**Omni-directional**  
**(8 dBi)**

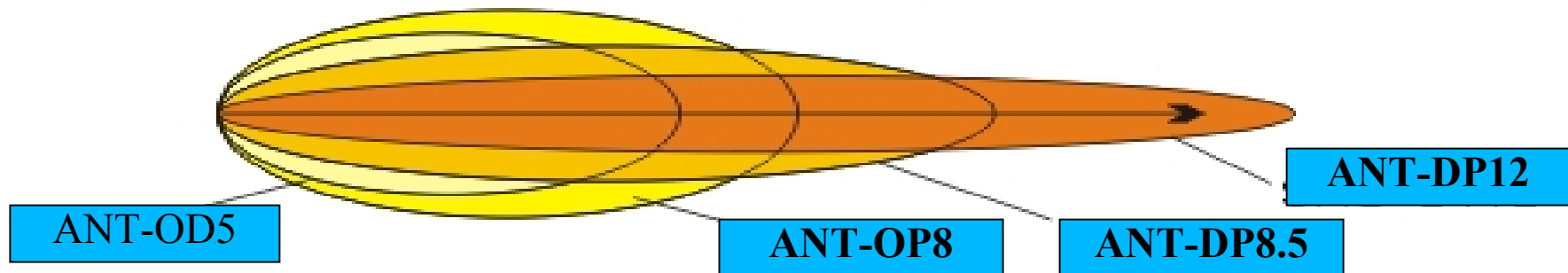


**ANT-DP8.5**  
**Directional Panel**  
**(8.5 dBi)**

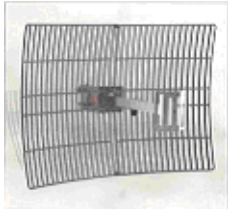


**ANT-DP12**  
**Directional Patch**  
**(12 dBi)**

## Comparison of Antenna Widths and Ranges



# Antenna

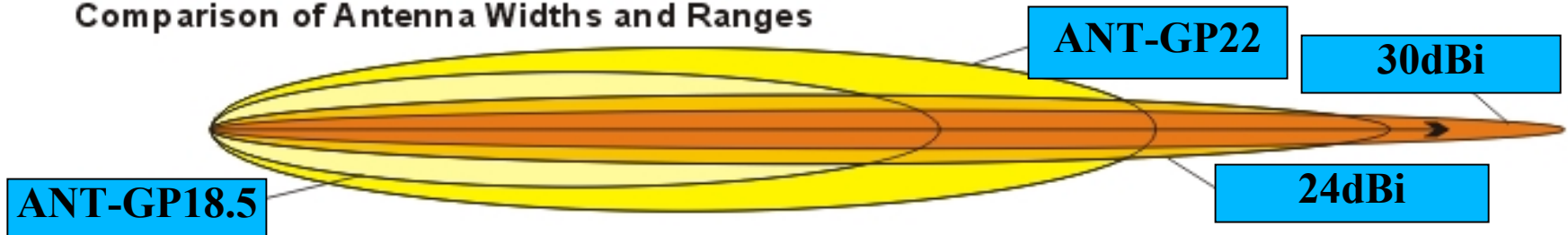


**ANT-GP18.5**  
**Grid Parabolic**  
**(18.5dBi)**

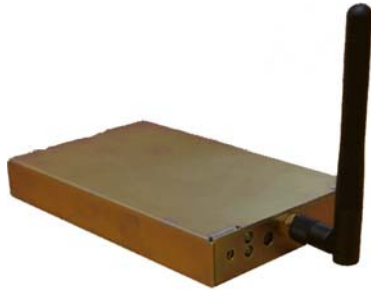


**ANT-GP22**  
**Grid Parabolic**  
**(22dBi)**

**Comparison of Antenna Widths and Ranges**



# Modula and Accessories



- Industrial Wireless Modula
  - Function as AP or Ethernet Bridge
  - Compact size design
  - Accept 6 – 15V D.D. Directly
  - For incorporated into other products



- Power Over Ethernet with DC adaptor



- Power Over UTP Splitter



# Accessories



- Lightning Arrestor



- RF Adapter (SMA to N)



- RF Adapter (SMA to SMA)



# RF Cable



**50 OHM RF Cable**

**<SMA Type (Male) to N Type (Male)>**

**3m and 5m length**

**RFC-030-SMN**

**RFC-050-SMN**



**50 OHM RF Cable**

**<SMA Type (Male) to SMA Type (Male)>**

**1m, 3m and 5m length**

**RFC-010-SMSM**

**RFC-030-SMSM**

**RFC-050-SMSM**



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# Reference Site



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# Reference Sites

## United Square Shopping Mall

- 30 APs over 5 floors
- WLAN access for tenants, public.



# Reference Sites

## Hanoi, Vietnam

- Across a lake
- Provide Internet access to a resort.



## Brunei Airport

- Not feasible to lay cables.
- Link 5 buildings by Wireless

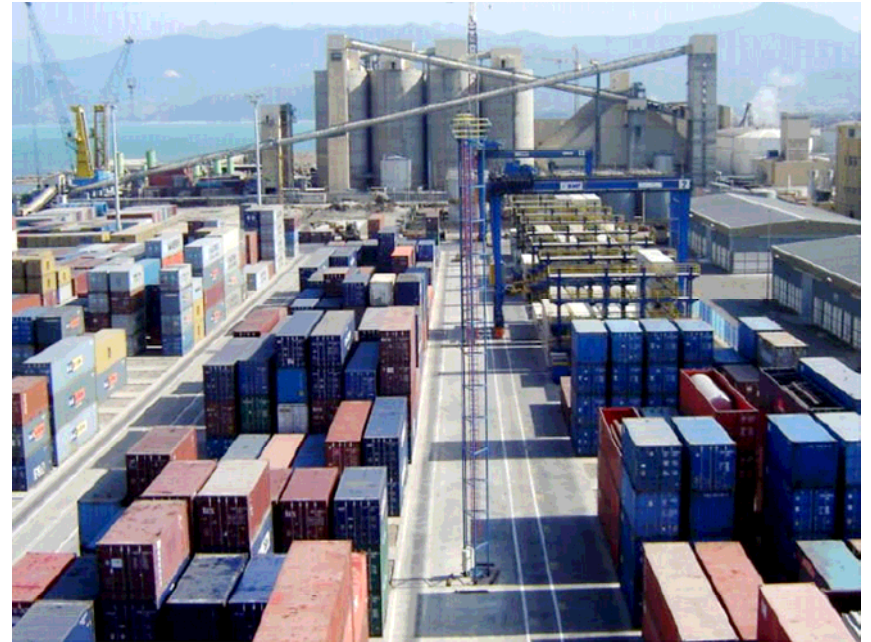


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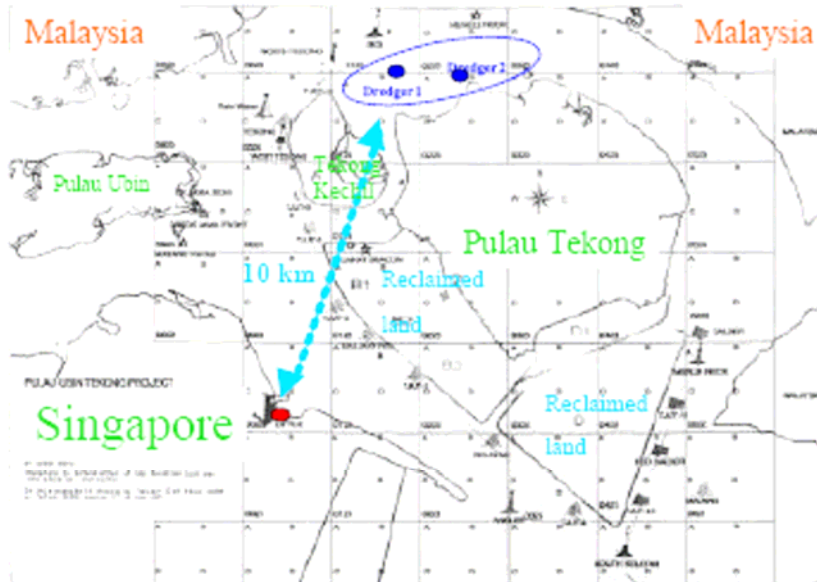
RDS installation in BMT Algeria Port, Africa



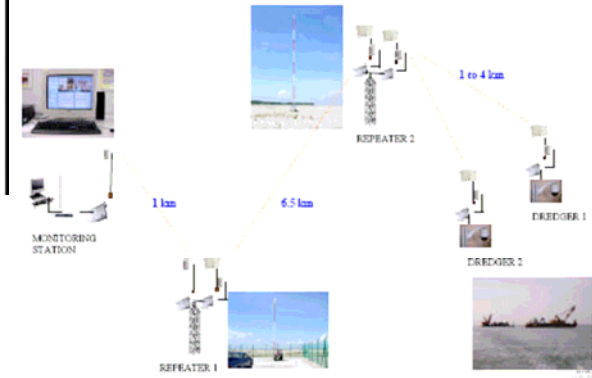
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# Reference Site

## The Requirement



## RF Signal Site Survey



## Wireless Video Surveillance for Offshore Dredging in Tekong



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# Reference Site



Site Installation at a Warehouse in Johor, Malaysia



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# Reference Site



Installation at a Jurong Shipyard, Singapore



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# Contact Us

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