

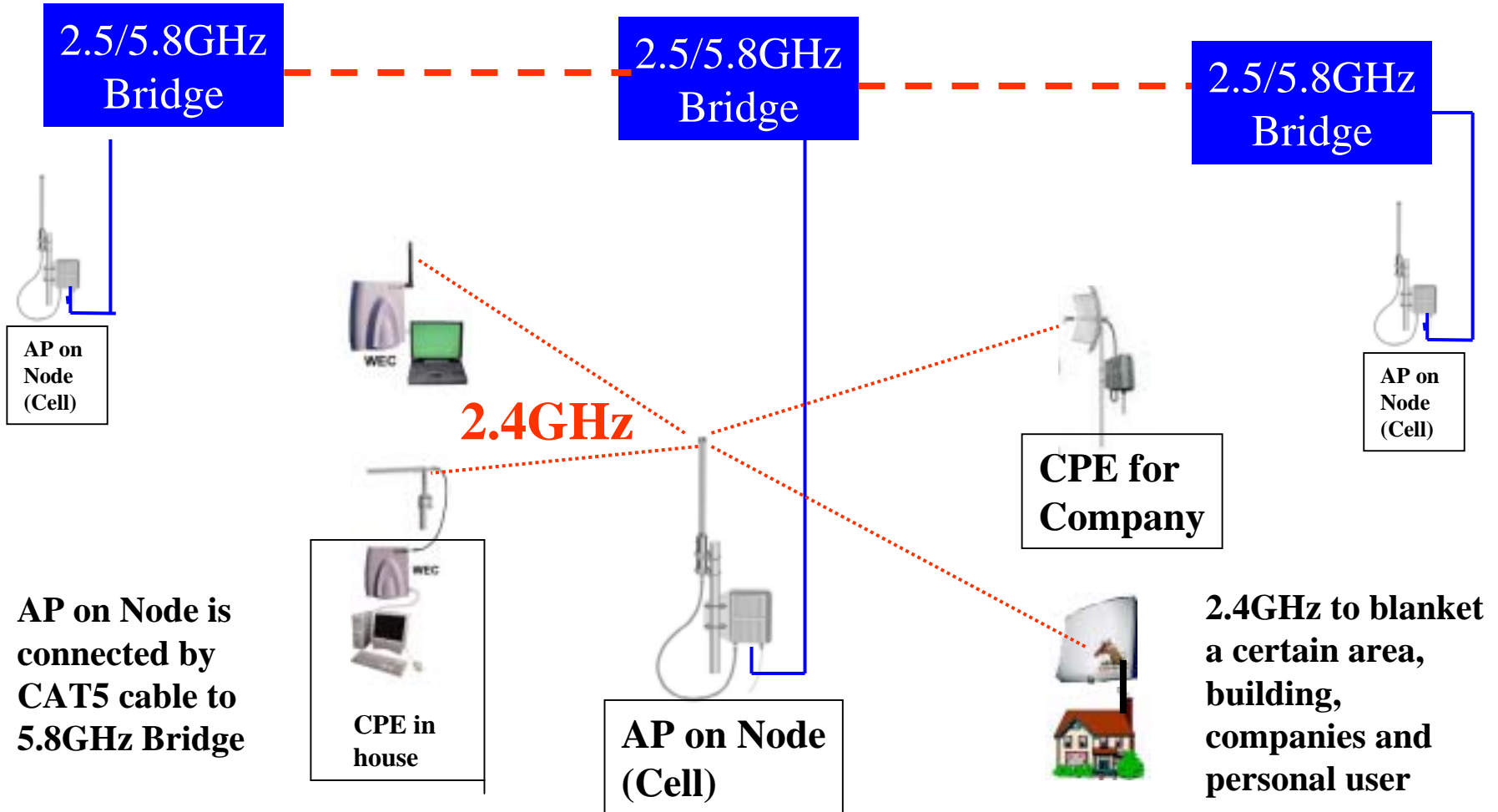
# **X-LIN Long Range Wireless LAN Platform**

## **Wireless ISP Networking Scenario**

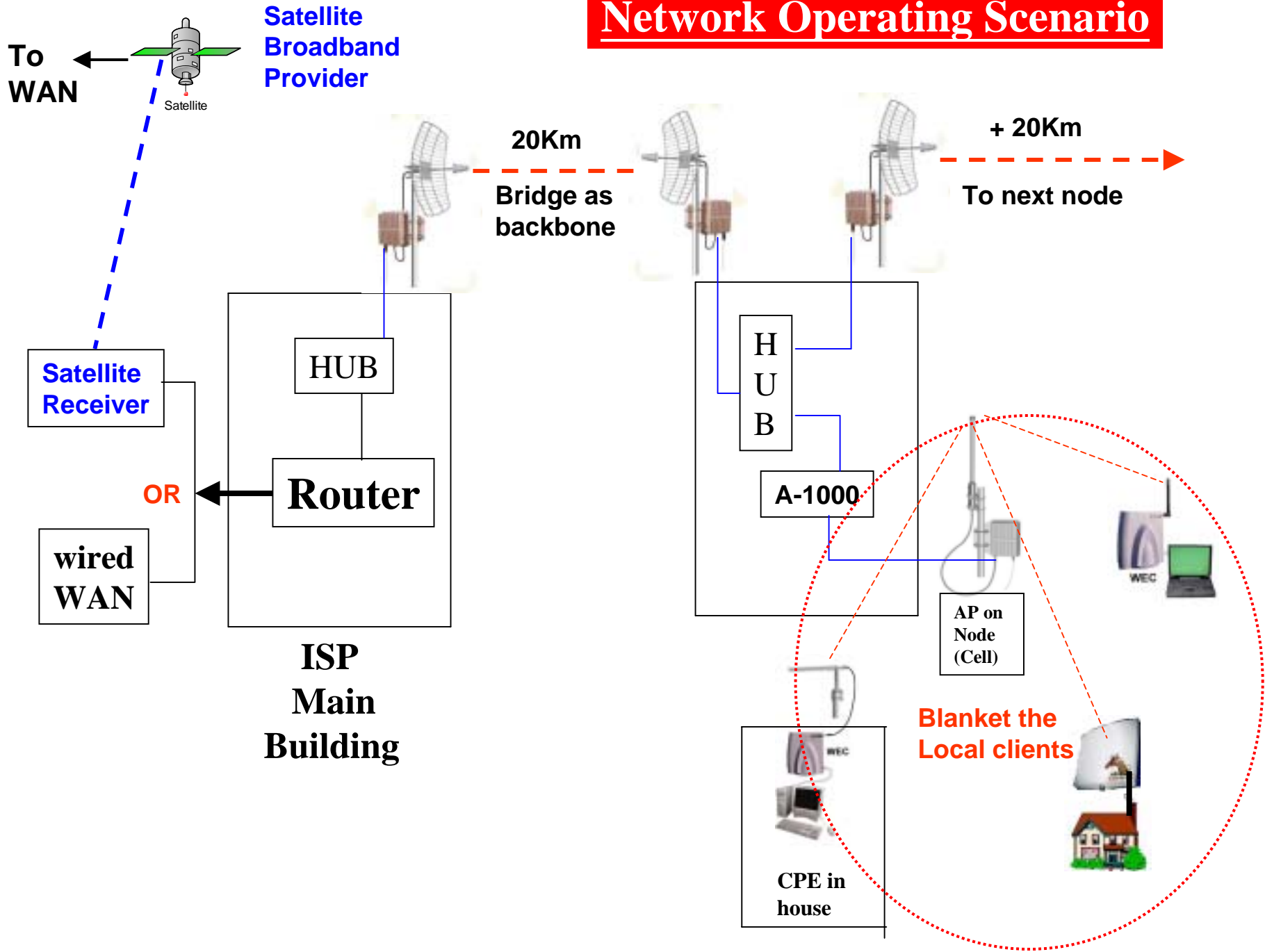
Ver. F; Oct. 2005

**2.4/3.4/3.5/5~ 5.8GHz Bridge unit as backhaul for upper level transmission**  
**2.4GHz AP & WEC/CPE (PCMCIA, PCI, USB, Centrino) for blanketing the local area**

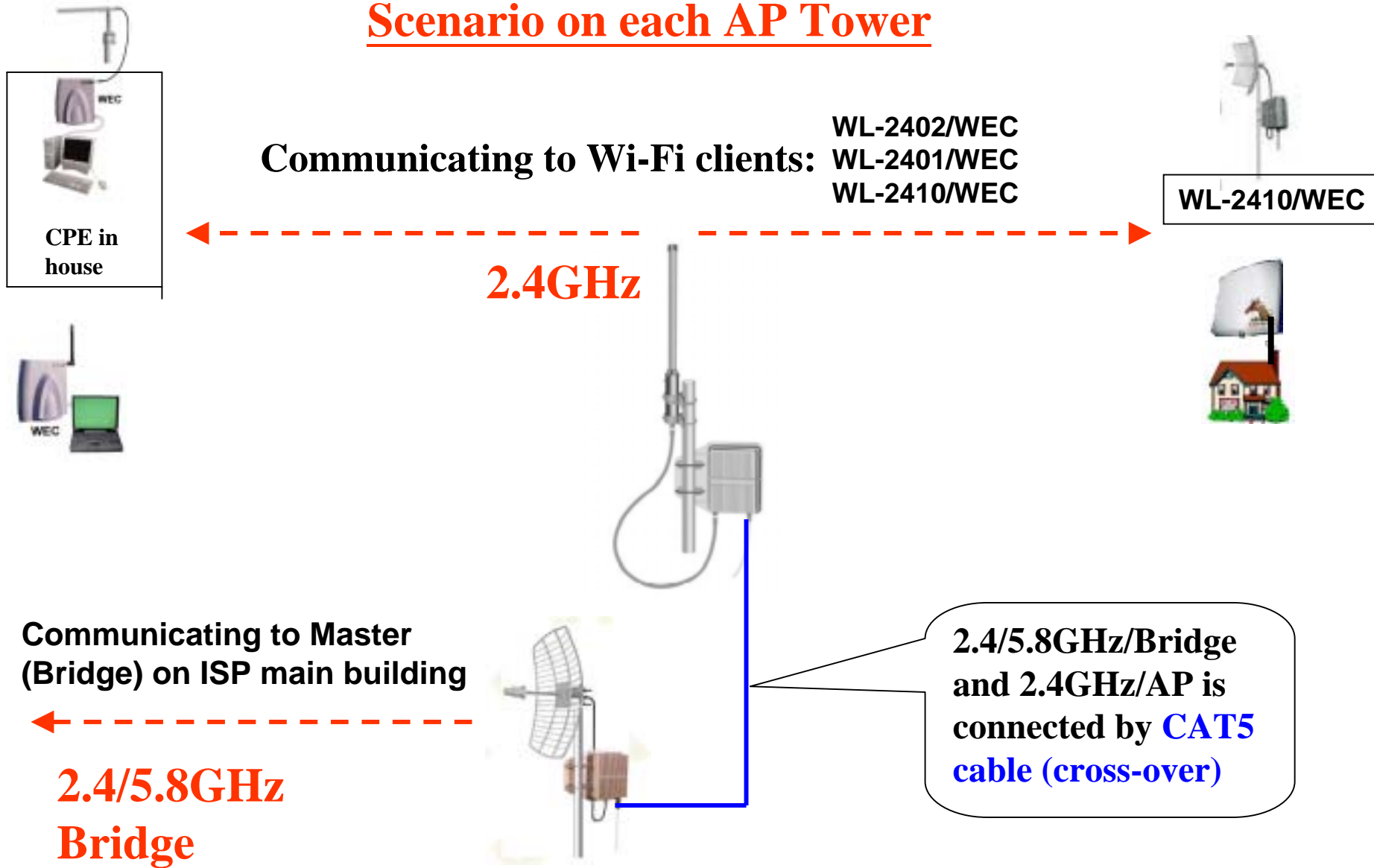
**Bridge as back-bone for connecting areas/nodes every 15~25Km**



# Network Operating Scenario



# Scenario on each AP Tower



Communicating to Wi-Fi clients:

WL-2402/WEC  
WL-2401/WEC  
WL-2410/WEC

WL-2410/WEC

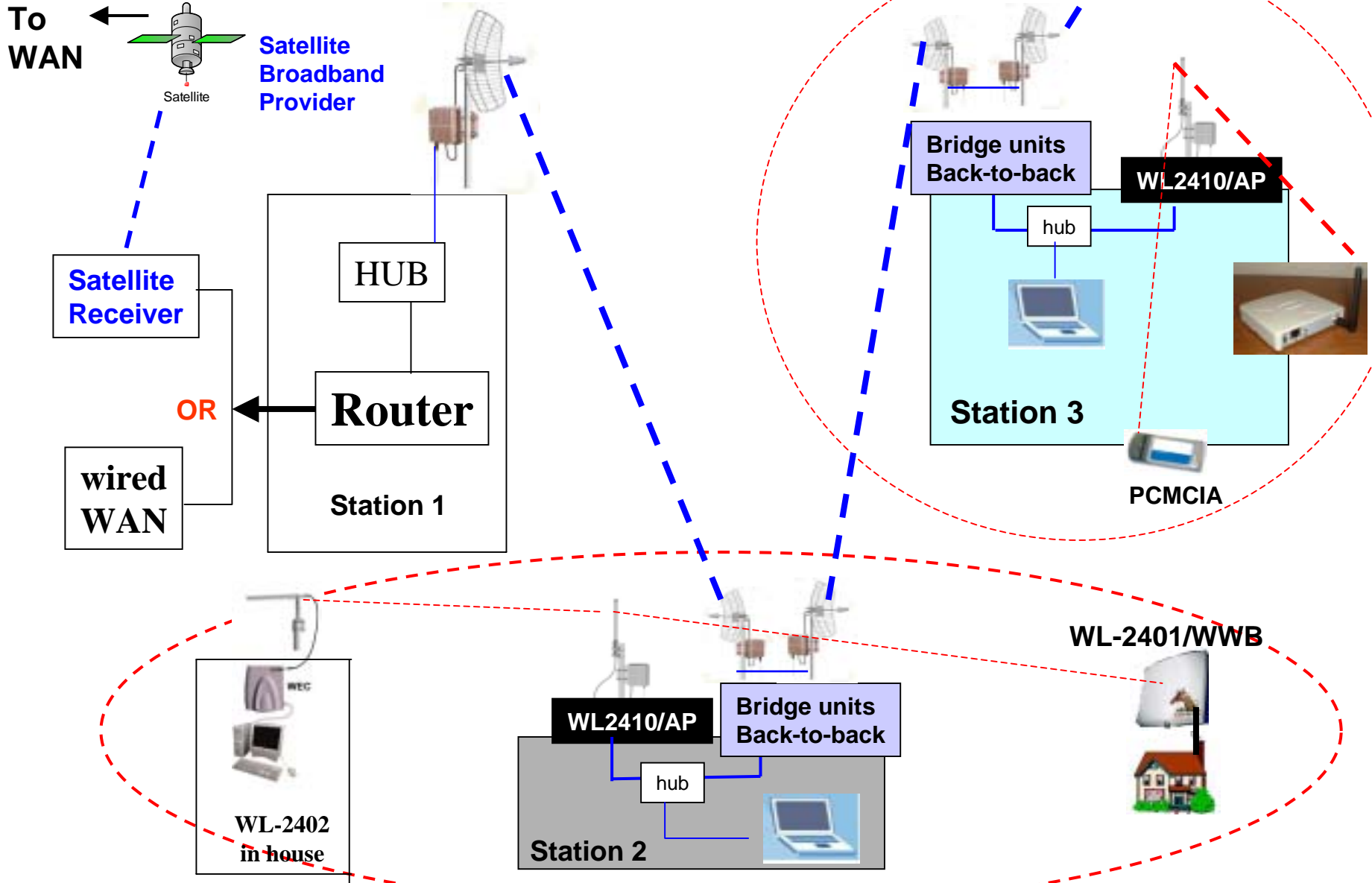
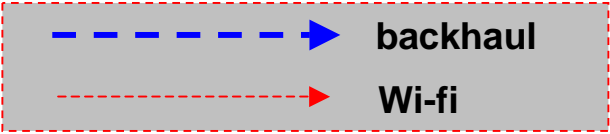
2.4GHz

Communicating to Master (Bridge) on ISP main building

2.4/5.8GHz  
Bridge

2.4/5.8GHz/Bridge and 2.4GHz/AP is connected by CAT5 cable (cross-over)

# Zone spot Scenario



# Long Range Outdoor Scenario

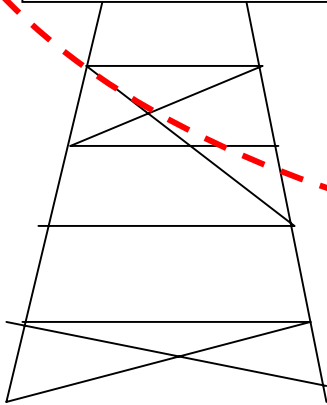
Up to 4 Km



**WL-2410/AP  
On ISP Tower**



**ASU-24005G**  
Plastic outdoor  
0c ~ 65c  
Up to 5 Km



# Long Range Outdoor Scenario

Up to 8 ~ 12Km



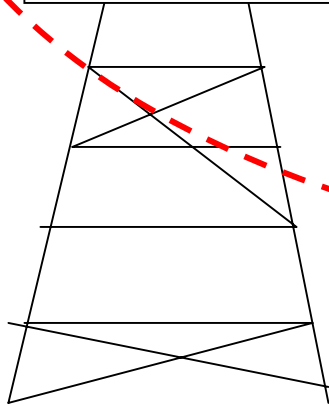
**WL-2410/AP  
On ISP Tower**



**CPE-2402b**  
Plastic outdoor  
0c ~ 65c  
Up to 8~10Km



**WL-2401**  
True outdoor  
-35 c ~ 70 c  
Up to 10 ~ 12Km



# Component for ISP outdoor long range Bridge as Back-bone - 1



**WL-5805 + PG-5822, 22-dbi  
parabolic antenna**

**Under Bridge Mode : as the  
data 'backbone' for  
connecting node to node.**

**Via the CAT5 cable, it is  
connected to the node Access  
Point (AP), WL-2410/AP**

**And then the WL-2410/AP  
will blanket the clients  
(WEC/CPE) in this node/area.**



# Component for ISP outdoor long range Bridge as Back-bone - 2

xLink-5801a

5.15~5.8GHz, 3 bands programmable

802.11a Backhaul



# Component for ISP outdoor long range Bridge as Back-bone - 3

3.4GHz/3.5GHz backhaul



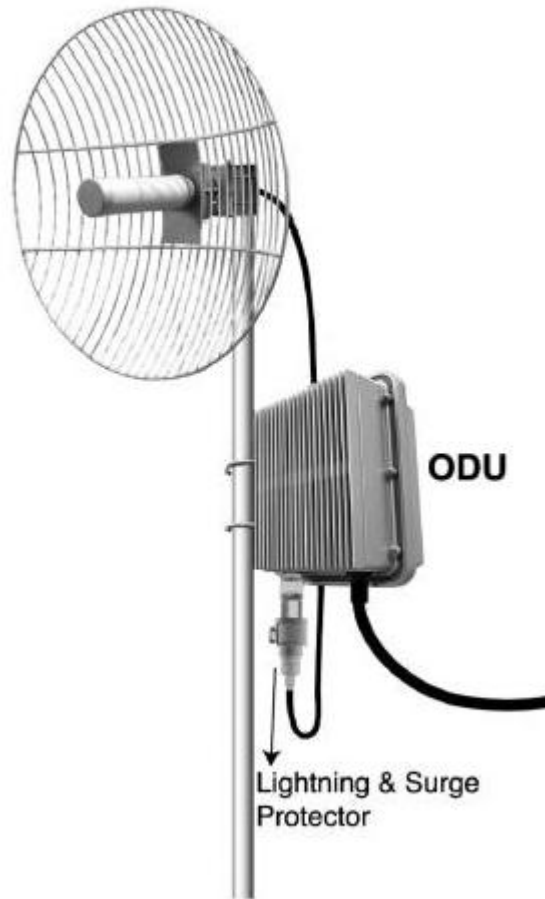
# Component for ISP outdoor long range Access Point

WL-2410/AP

1 Watt, Outdoor unit  
with Omni-antenna, 15-dbi



# Component for ISP outdoor long range WEC/CPE 1



WL-2410/CPE

1 Watt, Outdoor unit  
with Grid-antenna, 24-dbi

## Component for ISP outdoor long range WEC/CPE 2



WL-2401/CPE

200 mW, Outdoor unit  
with 18-dbi flat-panel  
antenna integrated

## Component for ISP outdoor long range WEC/CPE 3



CPE-2402b

200 mW, Plastic Outdoor unit, cost-effective entry level.

with 15-dbi flat-panel antenna integrated

## Component for ISP outdoor long range WEC/CPE 4



ASU-24005G

802.11g, 50 mW

Plastic Outdoor unit, cost-effective entry level.

with 12-dbi flat-panel antenna integrated

# Component 5

**W-1300 Network Administrator for client authentication and management.**



1200 subscriber account  
DHCP server  
User Management  
Current Status Monitoring  
Route re-Direction and Extension  
Bandwidth management

500 users on-line simultaneously  
Authentication  
Traffic Report  
Firewall  
Service Expansion  
Billing.....

# Coverage Organization











**X-LIN**  
**Innovation**  
**Thank you !**

Hotware International Co., Ltd.

[www.hotware.com.tw](http://www.hotware.com.tw)

[business@hotware.com.tw](mailto:business@hotware.com.tw)

Tel : +886-3-4639125

Fax ; +886-3-4639367

**Integration Center**

[integrate@hotware.com.tw](mailto:integrate@hotware.com.tw)