

Campus Wireless Network Solution Seminar

SWAN

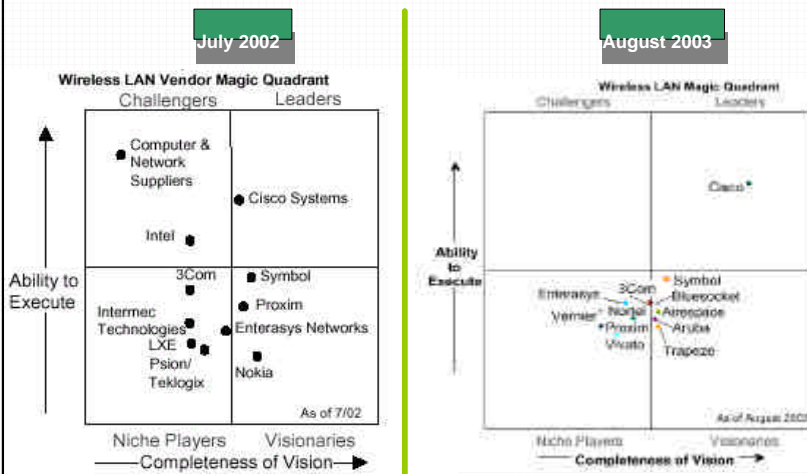


Just Extension,
for your wired network

✉ sklee@AirQuay.com
☎ 82-2-584-3742



Gartner Magic Quadrant: Trends

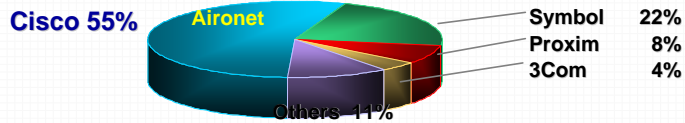


<http://www.airquay.com>

Campus wireless network solution seminar

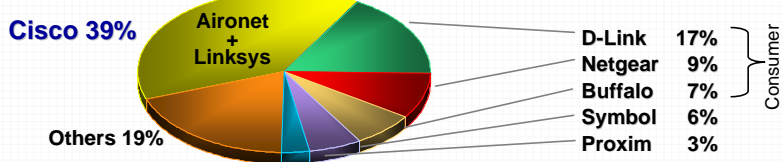
WLAN Enterprise Infrastructure Market

(Enterprise Market, Access Points & Bridges, 802.11a+b+g)



Total WLAN Market

(Consumer + Enterprise, Infrastructure + Clients, 802.11a+b+g)



Source: Dell'Oro, Feb. '04

- 802.11a: 5 GHz, 54 Mbps
- 802.11b: 2.4 GHz, 11 Mbps
- 802.11d: Multiple regulatory domains
- 802.11e: Quality of Service (QoS)
- 802.11f: F* practice
- 802.11f: F* practice
- 802.11g: 2.4 GHz, 54 Mbps
- 802.11h: Dynamic Frequency Selection (DFS) and Tran Power
- 802.11i: Security - Ratified | WPAv2 - Draft 9
- 802.11j: Japan 5 GHz Channels (4.9-5.1 GHz)
- 802.11k: Measurement
- 802.11m: Maintenance
- 802.11n: High Throughput
- 802.11p: Wireless Access for Vehicular Environment
- 802.11r: Fast Roaming
- 802.11s: Mesh Networking



- Wi-Fi Alliance :
 - 200
 - 1,250



- CCX

For WLAN Card



Intel and Cisco, the world's leaders in networking infrastructure, are working together to complete and extend the benefits of wireless mobility.



Cisco Compatible

<http://www.selling-wireless.com/>

- Cisco Compatible Extension

-
-
-

- Beyond Wi-Fi Standard

-
-
-

+2771



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



CCX



IBM,



zd7000
zt3000
nx5000
Nx7000/7010
nc4000
nc6000
nc8000
x1000
tc1100
nc4000 Centrino
nc6000 Centrino
nc8000 Centrino
tc1100 Centrino



R40
R50
T40/40p
T41/41p
X31



IBM 11 a/b/g
WLAN Card



Inspiron Notebooks

500M, 600M, 1100,
5100, 5150, 8500

Latitude Notebooks

D400, D500, 600,
D800

True Mobile 1300
PC Card



IBM,



Dynabook

C4120, C9 Centrino,
G9 a/b, J11, SS1600,
SS2110/M200/S9/SX
Centrino, V9 Centrino

Portégé Notebooks

3500a/b, 3505a/b,
A100/105,
M100/105/200/205,
R100/105

Satellite Notebooks

A10/20/25/30/33/35
Pro A30/33, A40,
P10, P15, P20, P25,
M20/25/30/35,
Pro M10 a/b,

Tecra Notebooks

TE2300,
A1, M1, M2, S1



FMV-BIBLO
MG13D, MG55E,
MG75E, FMV
-7130MG4
FMV-
7090MT4
FMV-
7140MR4/5

FMV-BIBLO
LOOX

T90D, T90DN

LifeBook

C1110/2230
S2020/6120/6130
P5020, T3010,
E4010, B5010
FMV-JW481
PC Card a/g

+140 Products

<http://www.cisco.com/go/ciscocompatible/wireless>



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



SENS

CCX

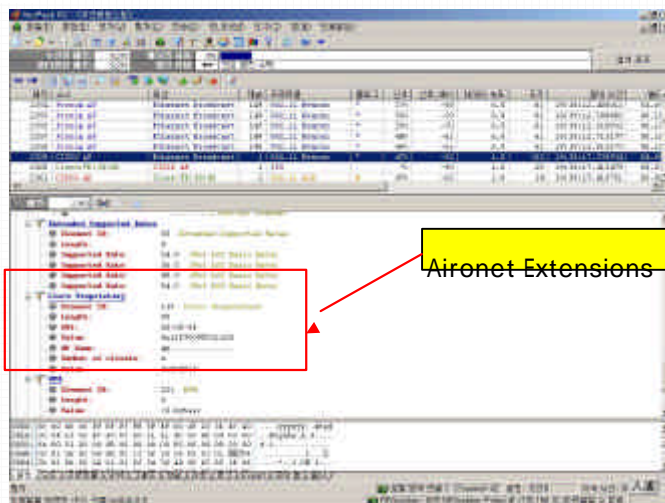


<http://www.airquay.com>

Campus Wireless Network Solution Seminar



Cisco Aironet Extensions

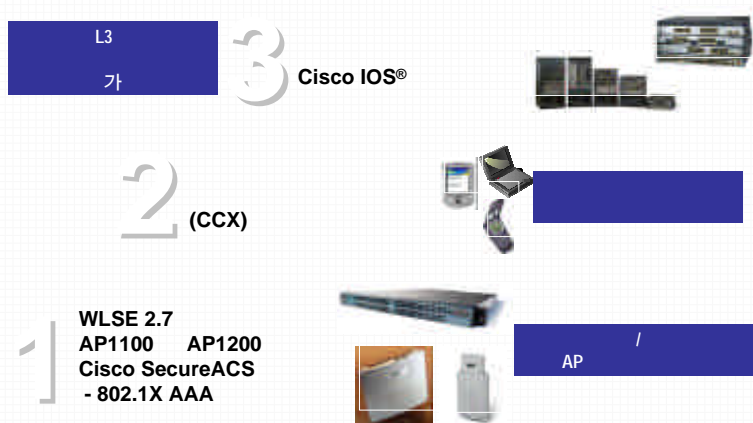


<http://www.airquay.com>

Campus Wireless Network Solution Seminar

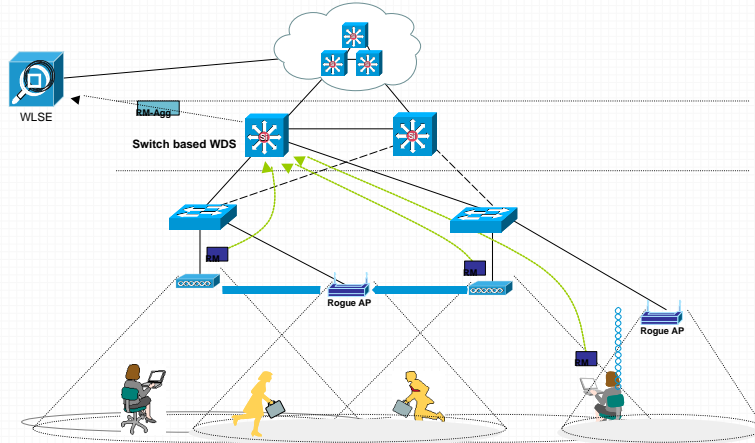
- Security – IDS/IPS, WPA, 802.11i
- ROI
 -
 - Voice = QoS, Mobility = L3 Roaming
 - ~
- TCO
 - RF
 - Unified GUI, CLI, NMS
 -
 - PoE, Plenum-rate
 -

Sturctured Wireless-Aware Network





SWAN



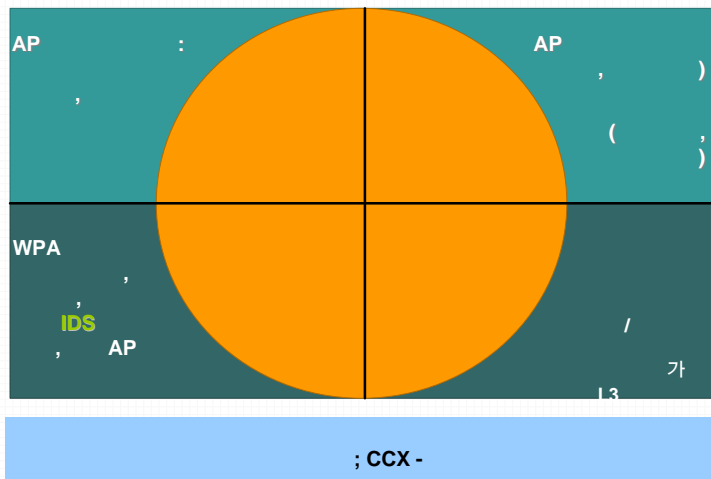
<http://www.airquay.com>

Campus Wireless Network Solution Seminar



TCO

SWAN



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



Assisted Site Survey



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



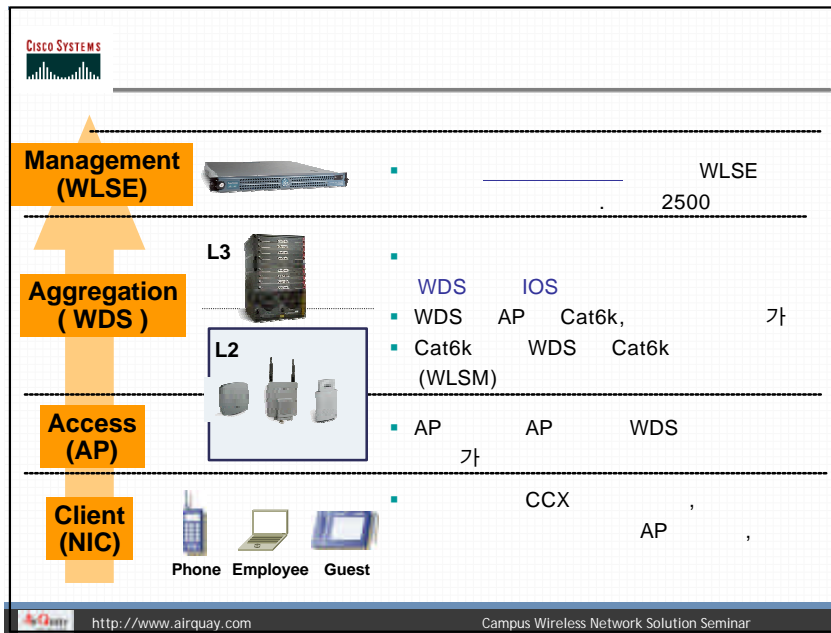
WDS ?

- Wireless Domain Service
- IOS
- (RF) , Roaming
- – WDS AP
 - 30 (AP) ~ 300 (Cat6500)
- 2003 : AP1100/1200
- 2004 : Cat6500 WDS !
- : Catalyst



<http://www.airquay.com>

Campus wireless network solution seminar



CISCO SYSTEMS

Catalyst 6500 Switch with the Wireless LAN Solutions Module (WLSM)

- SWAN
- 2 : (WLSM)
 - New software release for Sup720
- (WDS) /
 - WLSM 300 AP 6000
 - 40 Gbps 3
- 3
 - GRE 3
 - (802.1X³ 50)
- Availability: Summer 2004

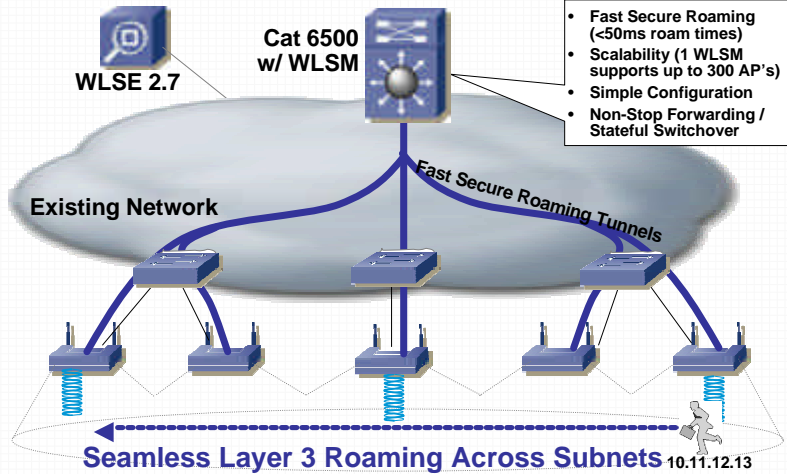
New! Catalyst 6500

WLSM Blade

<http://www.airquay.com> Campus Wireless Network Solution Seminar

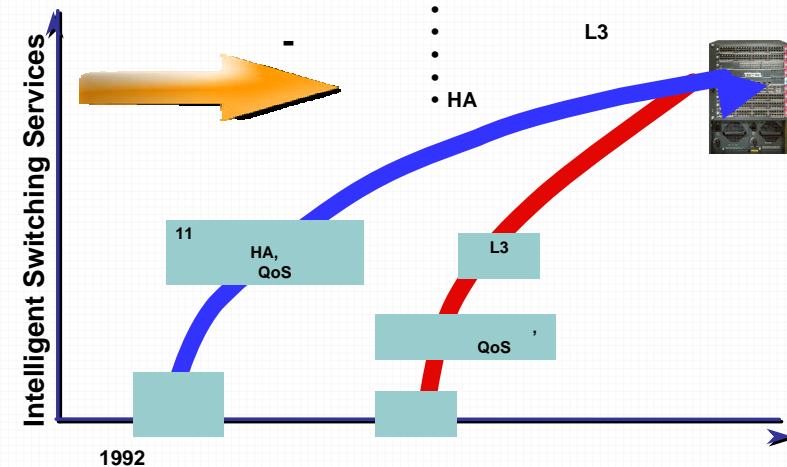


SWAN Mobility: Fast Secure Layer 3 Roaming



<http://www.airquay.com>

Campus Wireless Network Solution Seminar

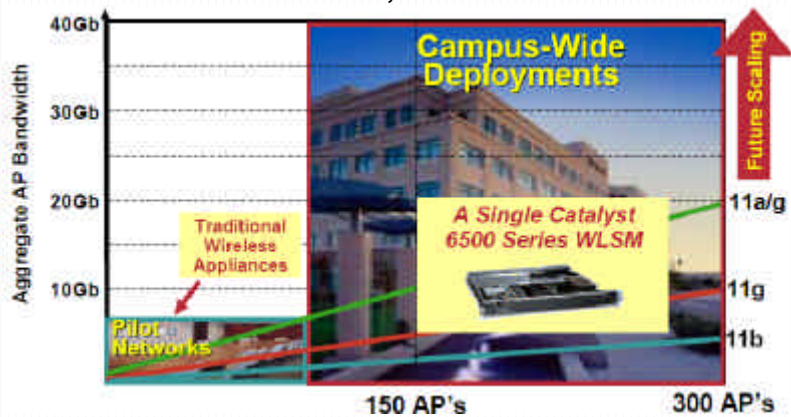


<http://www.airquay.com>

Campus Wireless Network Solution Seminar



AP 108Mbps (54Mbps x 2)



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



CiscoWorks WLSE 2.7-

- 1 2500 AP
- 802.11a/b/g
- -
- AP
- AP
- -
- AP
- 가 (Self Healing)
-



New!

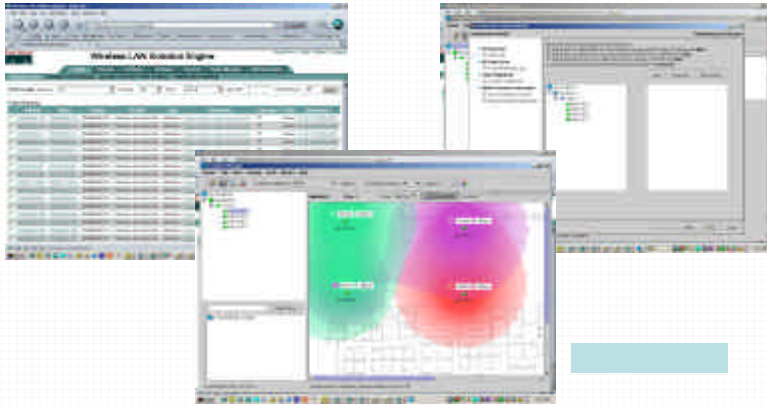
**WLSE v2.7
Software
Release**



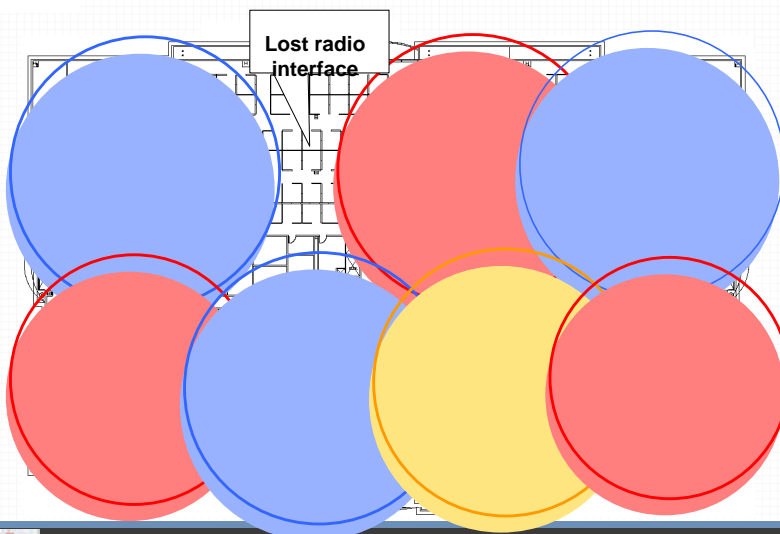
<http://www.airquay.com>

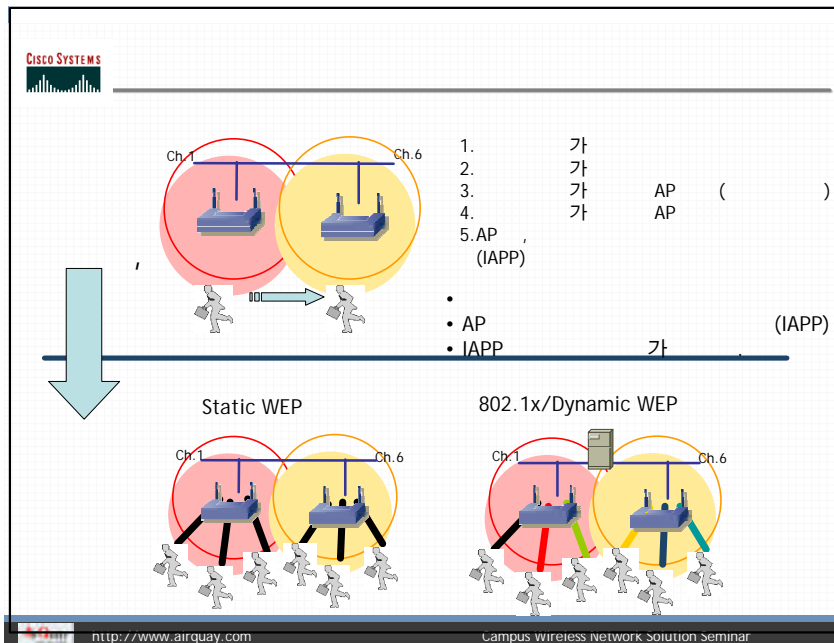
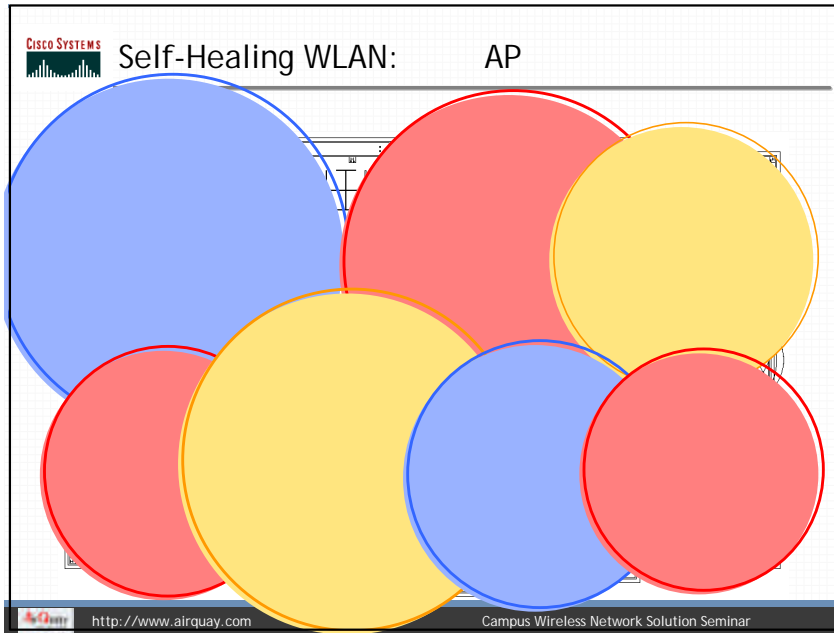
Campus Wireless Network Solution Seminar

AP



Self-Healing WLAN: AP



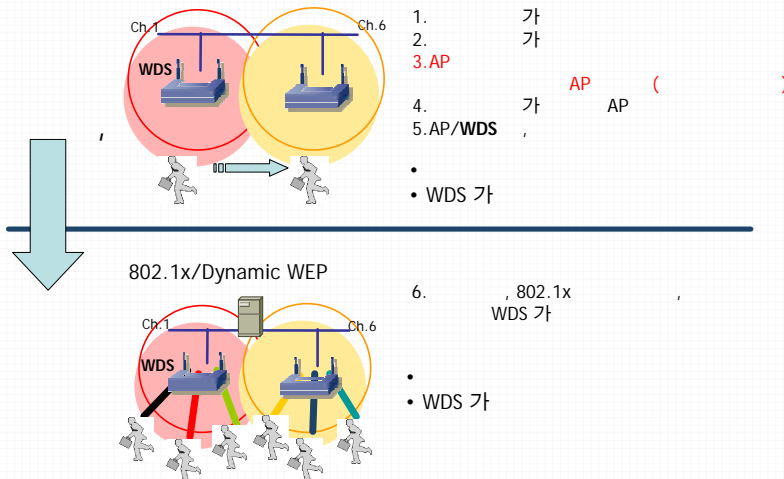


*2.4 GHz Only

		802.1x	Total
	200 ~ 700 msec	100 ~ 600 msec	300 ~ 1300 msec

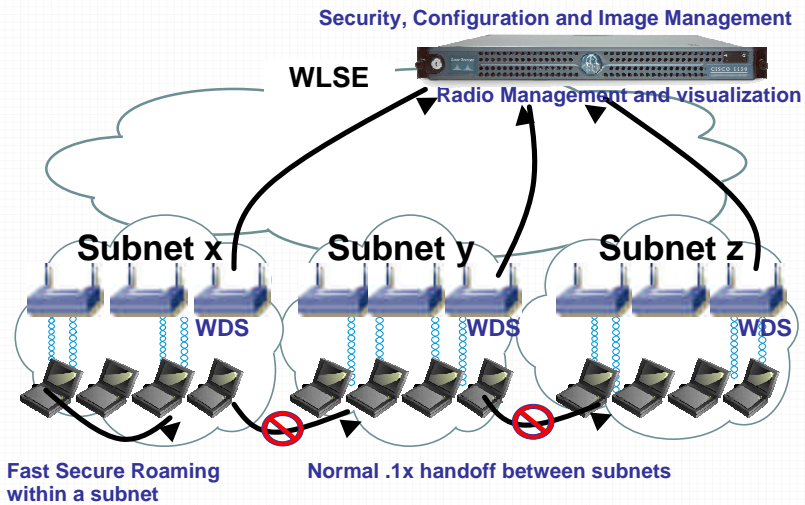
- 가
- 가
- 가
- 802.1x 가
- 802.1x TCP Timeout 가
- Voice 가 - 150msec
- 3

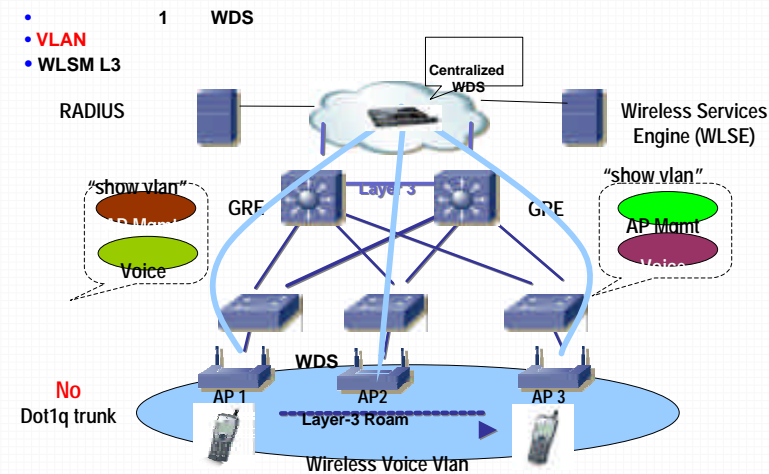
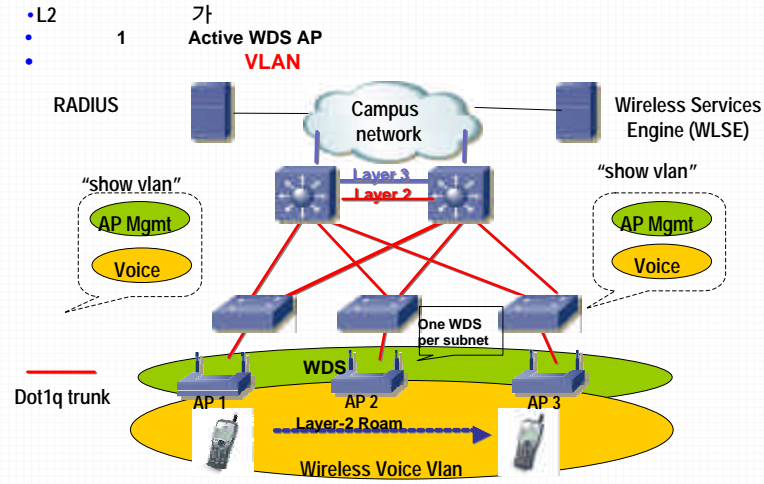
2



		802.1x	Total
	20 ~ 50 msec	5 msec	25 ~ 55 msec

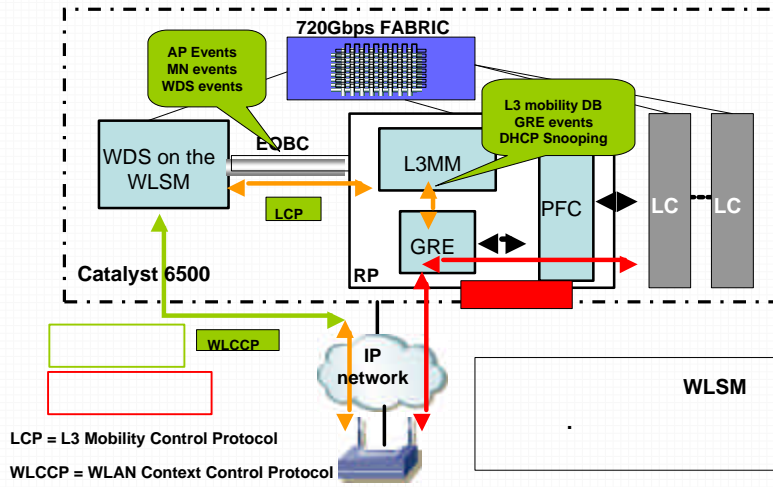
- - by CCX
- 가
- 가
- WDS 802.1x
- Zero 가 802.1x
- 802.1x , (, WAN)
- Voice - 150msec







WLSM



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



Why Catalyst 6500?



- - 72.1 % (: 2004.Q1 IDC)
- - 3
- - IP , Direct
- - DDoS, Warm
- - Stateful Switch Over / Non-Stop Forwarding
- - 6000
- -



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



Indoor Access Points



1200 Series

- Cisco's Flagship Access Point line
- 802.11a/b/g; Field-upgradeable radios
- Choice of antennas
- Rugged metal housing
- Power-over-Ethernet



1100 Series

- Same software features as 1200 Series
- 802.11b/g
- Internal omni-directional antenna
- Plenum-rated plastic housing
- Power-over-Ethernet



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



Secure ACS v3.3 & ACS Solutions Engine

- RADIUS/TACACS+
- EAP-FAST, LEAP, PEAP, EAP-TLS
802.1X
- Cisco NAC (Network Admission Control)
-
- Downloadable IP ACL, Network Access Filtering
-
- Windows 2000/2003



- Cisco ACS Solution Engine
- Cisco Secure ACS v3.3
- : ACS Solutions Engine
(Cisco CSA)
-
- - -



<http://www.airquay.com>

Campus Wireless Network Solution Seminar



IP Phone 7920

-
- IP
- GUI,
- 6 ()
-
- Dynamic WEP/802.1x
- 100mW
-
- 2



Cisco Wireless IP Phone 7920



<http://www.airquay.com>

Campus wireless network solution seminar



3






<http://www.airquay.com>

Campus Wireless Network Solution Seminar



Cisco Wireless LAN Solution Partner



-

- : (017-390-6317, 02-584-3716, tony@AirQuay.com)
- : (011-673-9713, 02-584-3742, sklee@AirQuay.com)