

Concept Solutions for Indoor Coverage in buildings with WiFi needs

Commercial businesses such as warehouses, hospitals, hotels, conference and exhibition centres, shopping malls, cruise ships or universities have very specified needs for Wireless Indoor Solutions (WINS). In addition to improved coverage and reduced interference, increased staff productivity and therefore coverage adapted to place and application usage is often a requirement of a WINS solution in this segment. Here WiFi deployment is a must when related to Data services, but increasingly being ready for dual-mode phones (3G/Wifi/Wimax) with future proof infrastructures 2G/3G services is required.

Offer: enterprises with Wifi needs

Solution	Applications	Solution type
Coverage for 100x25 m corridor	Upto 3 Wifi access points 30 users	
Better Wifi deployment in specific areas	High ceiling, low number of users large volume/metallic structure Nice antenna in hotel lobby Robust cable in mine	
Wifi/3G dual mode phones	1 infrastructure for Wifi + 2G/3G	

Enterprise solutions: improve WiFi coverage

ClearFill®Line:

- Radiating cable replaces in-built AP antenna
- T-cell structure extends AP coverage
- Cluster up to 3 AP to increase capacity

Benefits

- Increased AP coverage area up to 140%
- Less AP needed
- Better coverage contour
- Higher average data rate
- Security: no emission outside, lock AP
- Future-proof for 3G/WiFi voice

Typical environments

- All buildings: homogeneous data rate, 3G ready
- Warehouse: high ceiling, low number of users
- Hospital: avoid interferences
- Corporate: avoid WiFi hacking from outdoor
- Mine: robust, easy to install



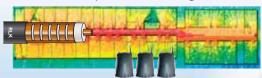
The Clear Choice™

RADIO FREQUENCY SYSTEMS



Enterprise solutions: Real case corridor 100m x 25m improved coverage

With RFS: improve coverage
 3 Wifi access points + radiating cable



Traditional without RFS
 9 Wifi access points + ethernet cable



Upto 20% Deployment Saving

+ Better coverage, aesthetic, security, 3G readiness

Costs / Euro	With RFS	Traditional	Savings using RFS
Material incl. AP's	1.880	3.225	+ 1.345
Installation	1.100	300	- 800
Maintenance 1yr	105	315	+ 210
Total	3.085 (=1.23 /m ²	3.840 (=1.53 /m²)	+ 755

Enterprise solutions: deployment ROI in specific environments

ClearFill®Line:

Relocate AP with easy to install cabling

Features / Benefits

- Save ethernet and power cabling
- Better aesthetic
- Ready for 3G
- Option to improve coverage contour with radiating cable

Typical environments

- Hotel: nice antenna needed in lobby
- Warehouse: hard to bring power to ceiling
- Mine: robust, easy to install



Max. relocation distance	Aesthetic antenna	Robust, Easy to Install cable
1 AP 15dBm	80 m	50 m
3 AP 15dBm (cluster)	45 m	25m
1 AP 30 dBm	200 m	150 m
3 AP 30 dBm (cluster)	165 m	125 m

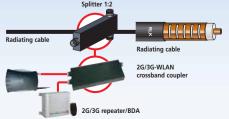
Enterprise solutions: facilitate end-user technology adoption

ClearFill®Line:

 1 Infrastructure & Design for Dual-Mode Phones (Wifi/3G)

Benefits

- Converged solution 2G/3G/WiFi
- Avoids 2 radio design
- Own infra & negotiate traffic cost with operator



- Flexibility
- Switch/add access point easily
- Switch carrier easily
- Choice between WiFi voice & 3G still possible
- Easy to upgrade to WIMAX
- Aesthetic



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