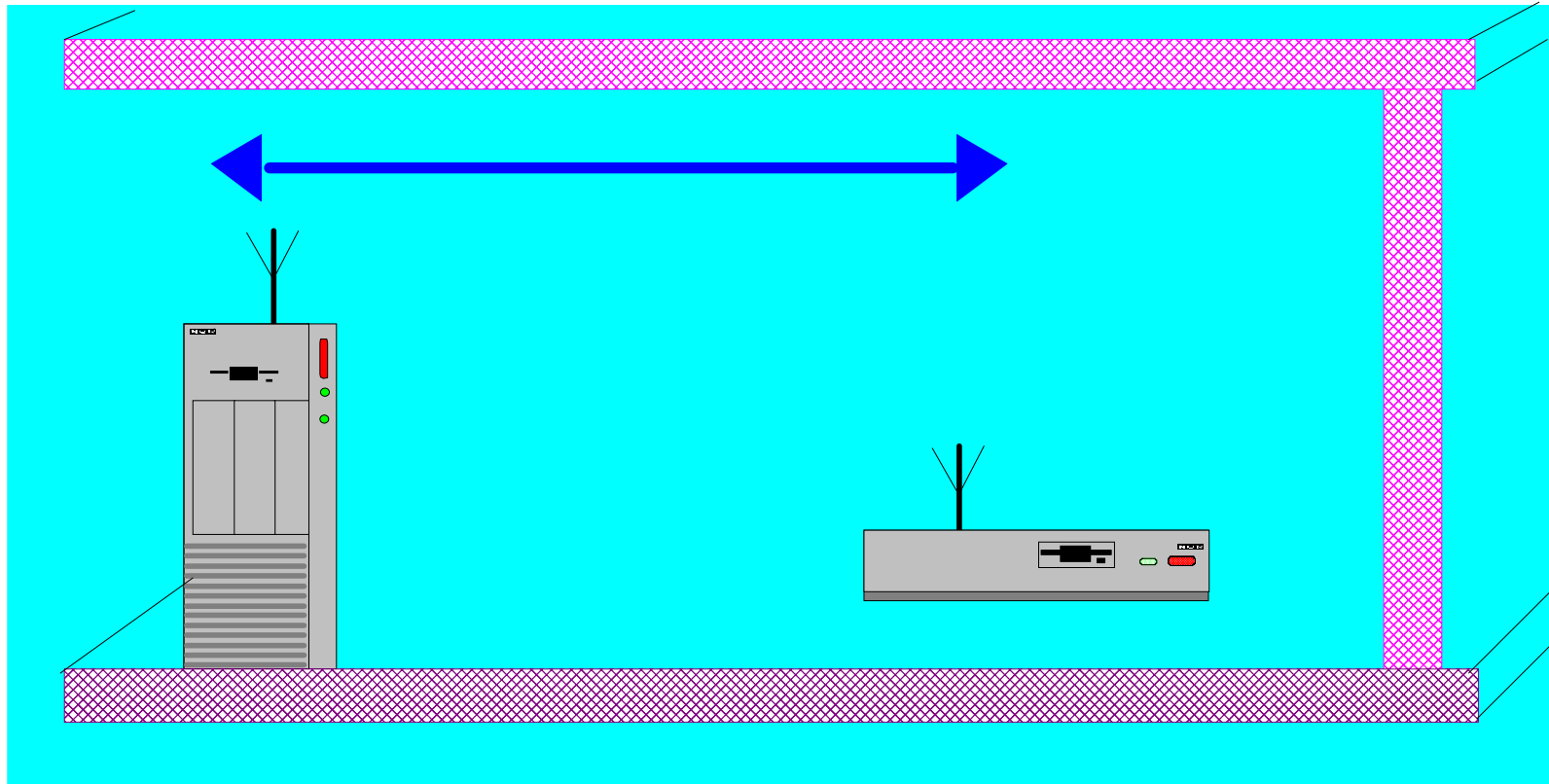




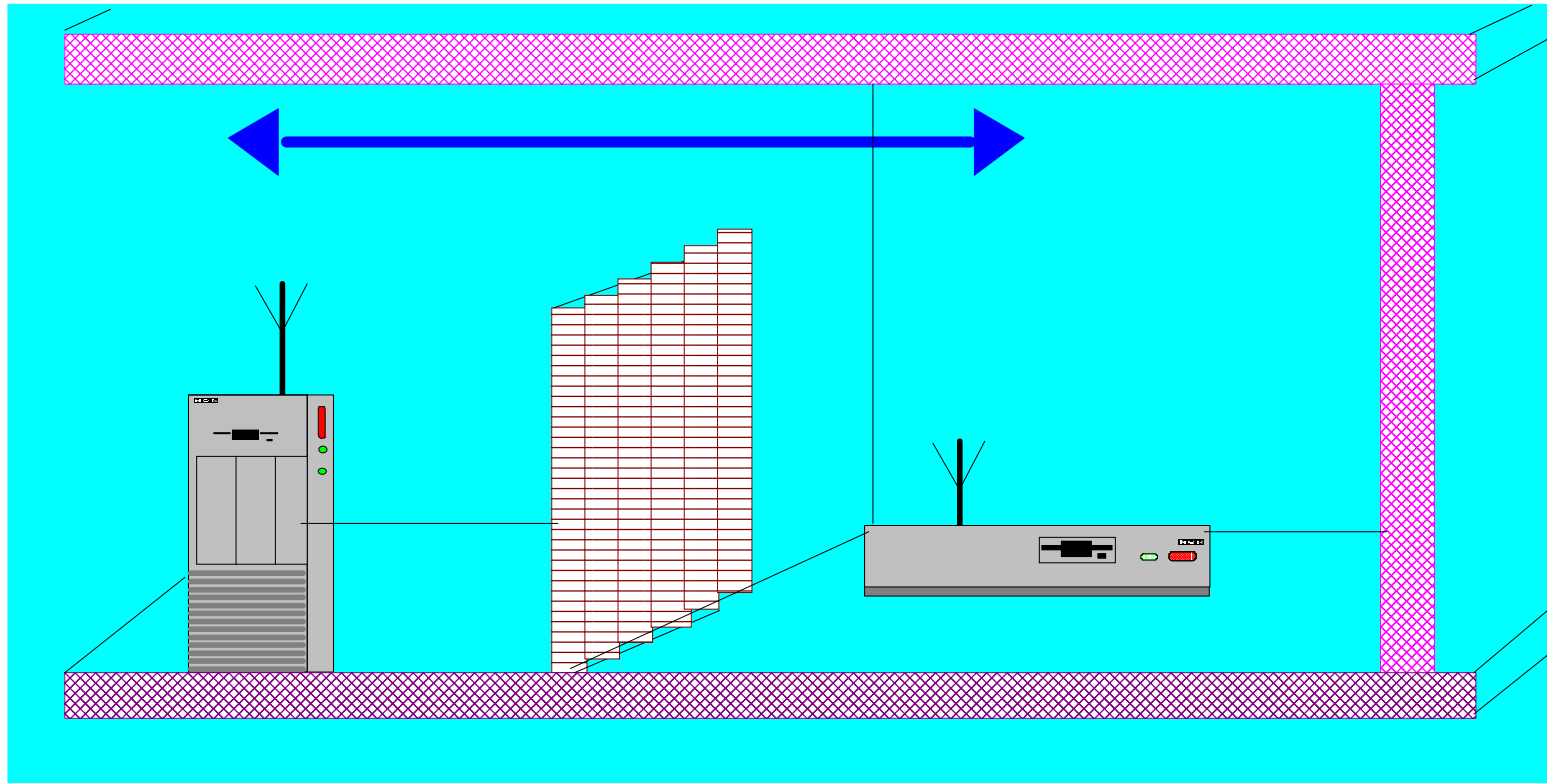
## ***In-building Site Survey***

- ★ determine actual coverage area
- ★ determine number of wireless cells needed
- ★ determine location of access point and/or wireless servers

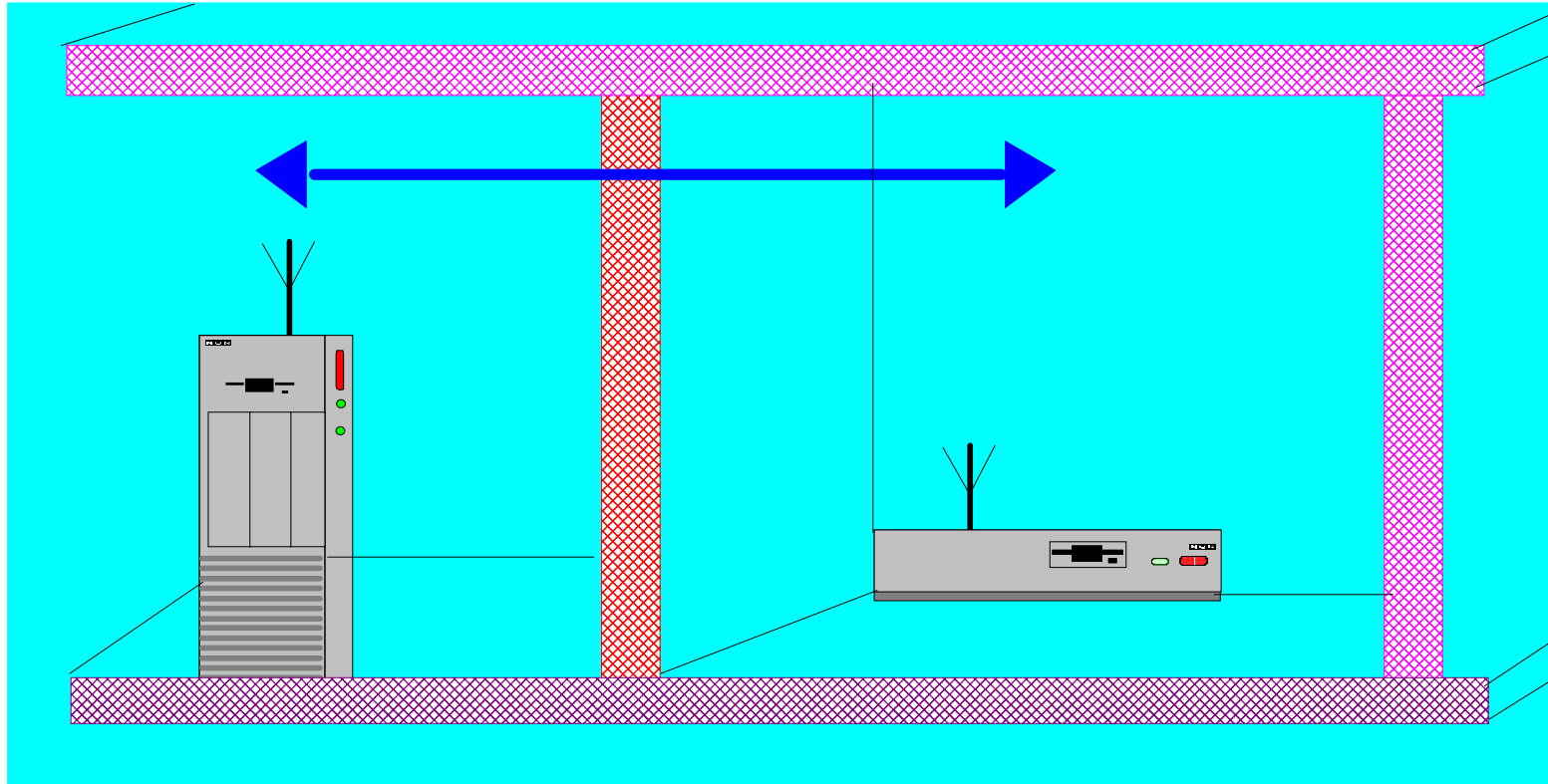
# Open Environment



# Semi-open Environment



# *Closed Environment*





# Coverage

Speed option	Range		
	Open Plan Building	Semi Open Office	Closed Office
Avaya Wireless 11 Mbps			
High	160 m (525 ft)	50 m (165 ft)	25 m (80 ft)
Medium	270 m (855 ft)	70 m (230 ft)	35 m (115 ft)
Standard	400 m (1300 ft)	90 m (300 ft)	40 m (130 ft)
Standard low	550 m (1750 ft)	115 m (375 ft)	50 m (165 ft)



# Barriers

<u>RF Barrier description:</u>	<u>RF Barrier severity:</u>	<u>Examples:</u>
Air	Minimal	
Wood	Low	partitions
Plaster	Low	inner walls
Synthetic material	Low	partitions
Asbestos	Low	ceilings
Glass	Low	windows
Water	Medium	damp wood , aquarium
Bricks	Medium	inner and outer walls
Marble	Medium	inner walls
Paper rolls	High	paper on a roll
Concrete	High	floors, outer walls
Bulletproof glass	High	security booths
Metal	Very high	desks, metal partitions, re-enforced concrete



## *The method*

### ★ Prepare

- ★ get copy of floor plan
- ★ determine suitable locations to measure

### ★ Execute

- ★ use Avaya Wireless Client Manager (link test, history, signal and noise)
- ★ save results on local disk, or record on tally sheet
- ★ Look for noise spikes

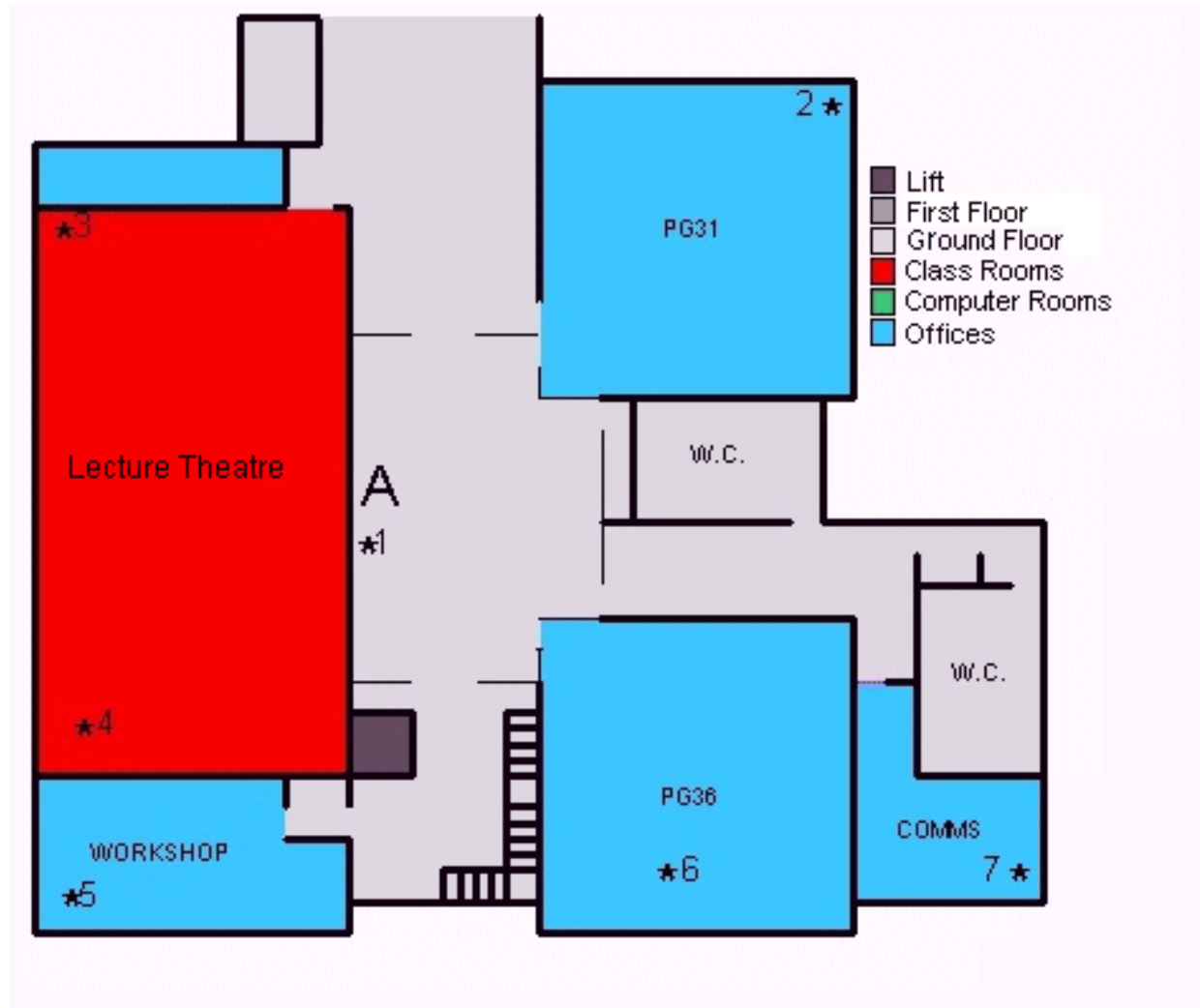
### ★ Analyze

- ★ examine returned Link Quality Assessment
- ★ determine best location Servers and/or APs, determine floor coverage

### ★ Document results

# Floor plan

Example







# Tally sheet

## Example

Position - 1	Position - 2	Link Quality	Comments
1	2		
1	3		
1	5		
1	6		
1	7		
5	7		
3	2		
3	5		
7	2		



# Tally sheet

## Example

Position - 1	Position - 2	Link Quality	Comments
1	2	good	
1	3	good	
1	5	acceptable	
1	6	acceptable	
1	7	poor	Noise spikes noticed
5	7	poor	
3	2	acceptable	
3	5	acceptable	
7	2	poor	Signal outage noticed



# *What you need*

## ★ Avaya Wireless Client Manager

### ★ Link test

- 1x AP + 1x Notebook/PC Card or desktop
- purpose: Achievable distances
- For Point to Point links

### ★ Site Monitor

- two or more APs + 1x Notebook/PC Card
- purpose: verify overlap APs

## ★ Avaya Wireless AP Manager

- ★ Analyze function (remote link test)



## ***Things to remember***

### *Tips*

- ★ Take enough loaded batteries for the Notebook
- ★ Take building owner on site analysis tour
- ★ Inform building personal of site analysis
- ★ If possible (allowed) take digital photo's
- ★ Ask for future plans
- ★ Perform site analysis, taking filled building into account.