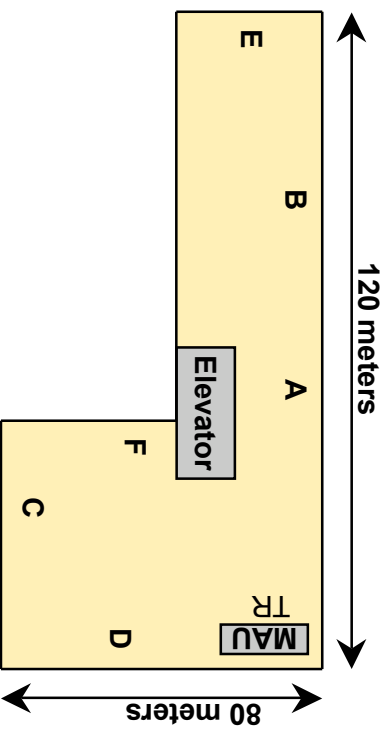


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## Site survey (hands-on)

# Configuration 1

## A financial institution (part 1 - Headquarters)



Position - 1	Position - 2	Link Quality	Comments
A	C	No Communications	A = possibility for WP
A	F	Acceptable	
A	E	Poor	
A	B	Acceptable	
D	C	Acceptable	D = possibility for WP
D	F	Acceptable	
D	E	Poor	
B	E	Acceptable	B = possibility for WP
B	F	No Communications	

Customer is a bank with a multi-story headquarters building and several branches. A support department is present and operational at headquarters. They install and support pre-configured LANs in the branches. The branches are connected to the headquarters using X.25 over leased lines (T1).

To save cost for frequent floor plan changes, and to support a fast roll out in the branches, the bank wants to install wireless LANs in both branches and headquarters. Headquarters has a Token Ring backbone (with a MAU on each floor) and the branches have Ethernet backbones.

Task:

Design and propose a network solution for HQ for two scenarios:

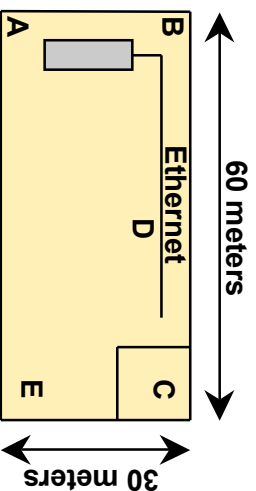
1. Only wireless stationary users
2. Both wireless stationary and mobile users

Proposal needs to include:

1. Wireless network design (location of the equipment)
2. Required components
3. Risks / issues

# Configuration 1

## A financial institution (part 2 - The branches)



Position - 1	Position - 2	Link Quality	Comments
A	C	Poor	A = possibility for WP
A	E	Acceptable	
A	B	Acceptable	
D	C	Acceptable	D = possibility for WP
D	E	Acceptable	
B	E	Poor	B = possibility for WP

Customer is a bank with a multi-story headquarters building and two branches. A support department is present and operational at headquarters. They install and support pre-configured LANs in the branches. The branches are connected to the headquarters using X.25 over leased lines (T1).

To save cost for frequent floor plan changes, and to support a fast roll out in the branches, the bank wants to install wireless LANs in both branches and headquarters. Headquarters has a Token Ring backbone (with a MAU on each floor) and the branches have Ethernet backbones.

Task:

Design and propose a network solution for HQ for two scenarios:

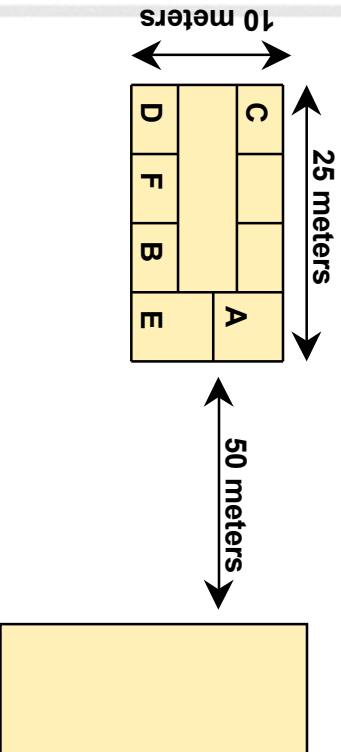
1. Only wireless stationary users
2. Both wireless stationary and mobile users

Proposal needs to include:

1. Wireless network design (location of the equipment)
2. Required components
3. Risks / issues

# Configuration 2

## A law firm



Position - 1	Position - 2	Link Quality	Comments
A	C	Acceptable	A = possibility for W/P
A	F	Acceptable	
A	E	Good	
A	B	Acceptable	
D	C	Acceptable	D = possibility for W/P
D	F	Good	
D	E	Acceptable	
B	E	Good	

Customer is an attorney firm holding office in two buildings. The main building (original) has an Ethernet installation (with a Windows NT server). A new building across the street has no networking infrastructure and will host 10 people (working in a work group) to be networked. The customer wants to install wireless between the two buildings (saving cost for a leased link) and in the new building (to save cost on installing cable and to have a fast roll out).

Task:

Design and propose a network solution for :

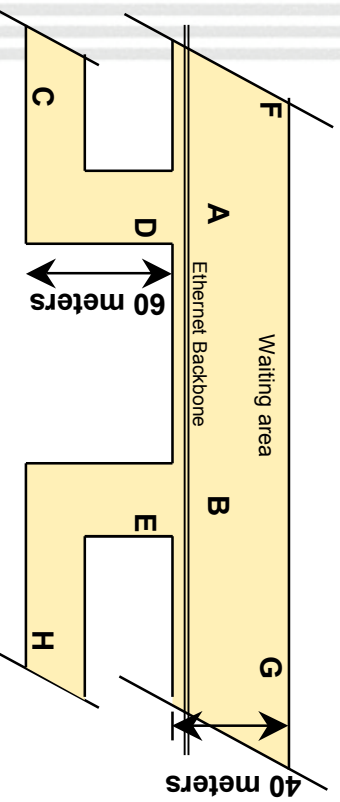
1. The new office
2. The connection between the two offices.

Proposal needs to include:

1. Wireless network design (location of the equipment)
2. Required components
3. Risks / issues

# Configuration 3

## An airport



Position - 1	Position - 2	Link Quality	Comments
A	C	Poor	A = possibility for WP
A	F	Acceptable	
A	G	Poor	
A	B	Acceptable	
D	C	Acceptable	D = possibility for WP
D	F	Acceptable	
D	G	Poor	
B	H	Poor	B = possibility for WP
B	G	Acceptable	
B	F	Poor	
E	H	Acceptable	E = possibility for WP
E	G	Acceptable	
E	F	Poor	
D	E	Poor	

Customer is a service provider on an airport. Space is rented on the terminals. The service provider provides wireless access to travelers with notebook computers to allow them access to Internet and email. Network adapters are provided on rental basis. The airport authority (owner of the terminals) offers an Ethernet backbone that needs to be shared with other service providers. A network server with access facilities to remote hosts is connected to the Ethernet backbone.

Task:

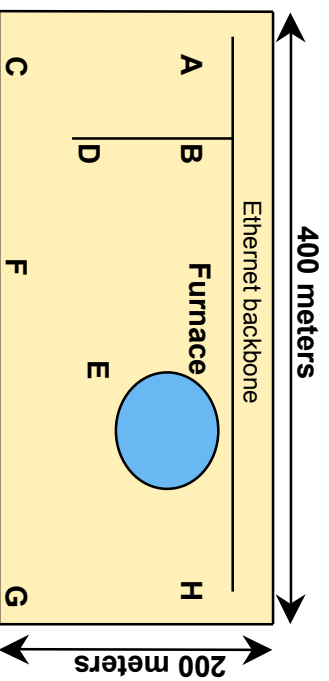
1. Design and propose a network solution for this service provider to give maximum coverage and bandwidth to its travelers. Area to cover includes the waiting area, and the first portions of the "fingers" that go the the gates.
2. Determine a process to protect theft of the network adapters
3. Determine at least three useful applications that the service provider could offer to its customers

Proposal needs to include:

1. Wireless network design (location of the equipment)
2. Required components
3. Risks / issues

# Configuration 3

## A steel plant



Position - 1	Position - 2	Link Quality	Comments
A	C	Poor	A = possibility for W/P
A	D	Acceptable	
A	G	Poor	
A	B	Acceptable	
D	C	Acceptable	D = possibility for W/P
D	F	Acceptable	
D	G	Poor	
B	H	Poor	B = possibility for W/P
B	G	Poor	
B	F	Poor	
E	H	Acceptable	E = possibility for W/P
E	G	Acceptable	
E	F	Acceptable	
D	E	Poor	

Customer is a metal piping manufacturer. In a large factory hall metal is melted and re-shaped into steel tubes. The metal is heated by strong electrical currents. Mobile terminals in the factory hall need access to a mainframe in a central office location to report the progress of the production. The height of the hall is about 15 meters. At one side of the hall an Ethernet backbone is installed and operational allowing connection to the mainframe.

### Task:

Design and propose a network solution for this customer and observing the restrictions that the environment introduce

Proposal needs to include:

1. Wireless network design (location of the equipment)
2. Required components
3. Risks / issues