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LAN notes

Ongoing Project

# Identify Potential Users

Week 2

- On-site staff
- Remote workers
- Sales
- Vendors, suppliers, partners
- Board members
- Consultants & contractors
- Customers

## Adding User Access

- Potential New User groups or overlooked user groups
- Type of access required
- Where the access is allowed
- Overall impact of security

\* Including this info in the identification phase helps to ensure an accurate & successful new design

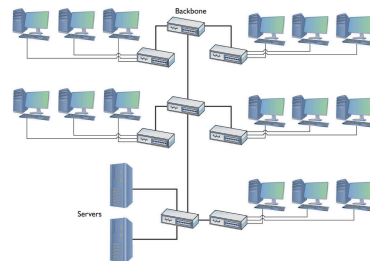


Figure 4-11 Typical network configuration showing backbone (not intended)

Normal Users

Administrator

User groups:

1. Art & Design
2. Programming

- IT

125 Total employees

3. Sales
4. Management
5. Quality assurance

Employees work from work + home  
No shared devices, most use laptops

	Art & Design	Programming	Sales	Management	Quality assurance	IT
Current # of Servers	2	10	1	0	1	
Current # of Computers	25	75	4	6	10	5?
Current # of game consoles	0	20	0	0	10	
# of employees	25	75	4	6	10	5

Total # of Computers: ~~120~~ ~~125?~~ 125  
 Which means everyone should have access to a computer.

Each group needs its own server.

connect all groups so admins can have access

Set up some file sharing IT dept only

Need logins hosted online for remote access.

2/22/22

IP 192.168.0.0 / 16

IP 11000000 10101000 00000000 00000000

mask 11111111 11111111 00000000 00000000  
 111 00000

Subnet mask 255.255.224.0 or /19

$2^3 = 8$  8 subnets from moving over 3 bits

Art & Design  
Subnet 255.255.128.0

11111111 11111111 10000000 00000000

Programming  
Subnet 255.255.64.0

11111111 11111111 01000000 00000000

Sales  
Subnet 255.255.32.0

11111111 11111111 00100000 00000000

Management  
Subnet 255.255.192.0

11111111 11111111 11000000 00000000

Quality Assurance  
Subnet 255.255.96.0

11111111 11111111 01100000 00000000

IT  
Subnet 255.255.224.0

11111111 11111111 11100000 00000000

You'll want to make sure that you leave room for IPv6, as we'll be covering that in a future chapter and you'll need to add it into this project. Once you have the cut sheet created, you'll then use Packet Tracer and begin IP'ing all your devices. Anything that you plan on getting an IP address automatically, label the devices with - DHCP in the device name field. This will make them easier to identify later when testing.

#### Assignment Requirements:

Start with 192.168.0.0/16 and Subnet down from there.

.PKT file with your network and IP Addresses added to devices.

.DOCX or .XLSX file with your cutsheet.

Device	Interface	IPv4 Address	Subnet Mask	IPv4 Default Gateway
		IPv6 Address		IPv6 Default Gateway
Floor_1	G0/0			N/A
				N/A
	S0/0/0	10.0.0.1	255.255.255.252	N/A
		2001:DB8:ACAD:D::1/64		N/A
Floor1_SW	VLAN 1			192.168.1.57
PC1	ETH			

Try to separate & segment  
blocks of IP address

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