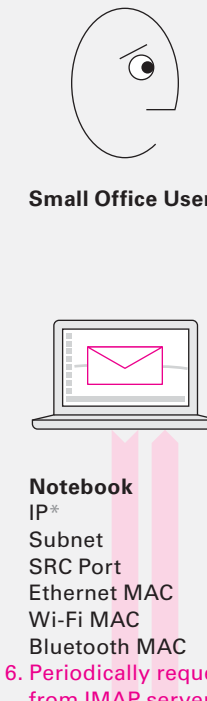


Enterprise Reference Network Email

Small Office

Small Office network with 255 possible addresses (8 bits)
192.168.1.0/24 (24 bits masked)

Network address 192.168.1.0
Host range from 192.168.1.1 to 192.168.1.254
Broadcast address 192.168.1.255



PCs include ARP tables, routing tables, and firewall rules.

Name	IP Address	MAC Address
PC1	192.168.1.1	08:00:2B:24:8A:9D
PC2	192.168.1.2	08:00:2B:24:8A:9E
PC3	192.168.1.3	08:00:2B:24:8A:9F
PC4	192.168.1.4	08:00:2B:24:8A:A0
PC5	192.168.1.5	08:00:2B:24:8A:A1

Routing Table

Destination	Subnet Mask	Next Hop
0.0.0.0	0.0.0.0	192.168.1.1
192.168.1.0	255.255.255.0	192.168.1.1
0.0.0.0	0.0.0.0	192.168.1.1

Firewall Rules

Rule	Direction	Protocol	Source	Destination
1	In	TCP	192.168.1.0/24	192.168.1.1
2	In	TCP	192.168.1.0/24	192.168.1.2
3	In	TCP	192.168.1.0/24	192.168.1.3
4	In	TCP	192.168.1.0/24	192.168.1.4
5	In	TCP	192.168.1.0/24	192.168.1.5



Small Office Router

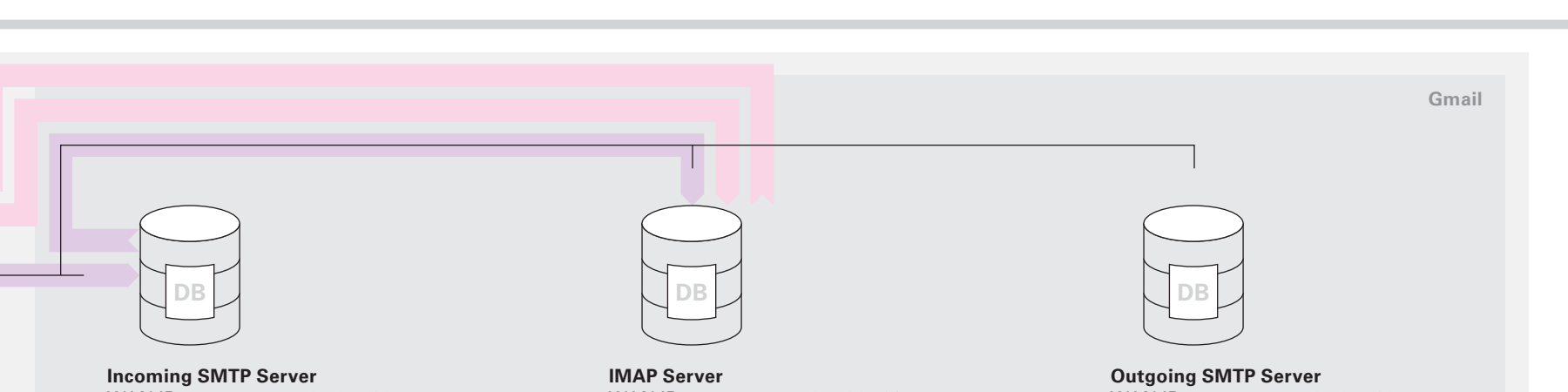
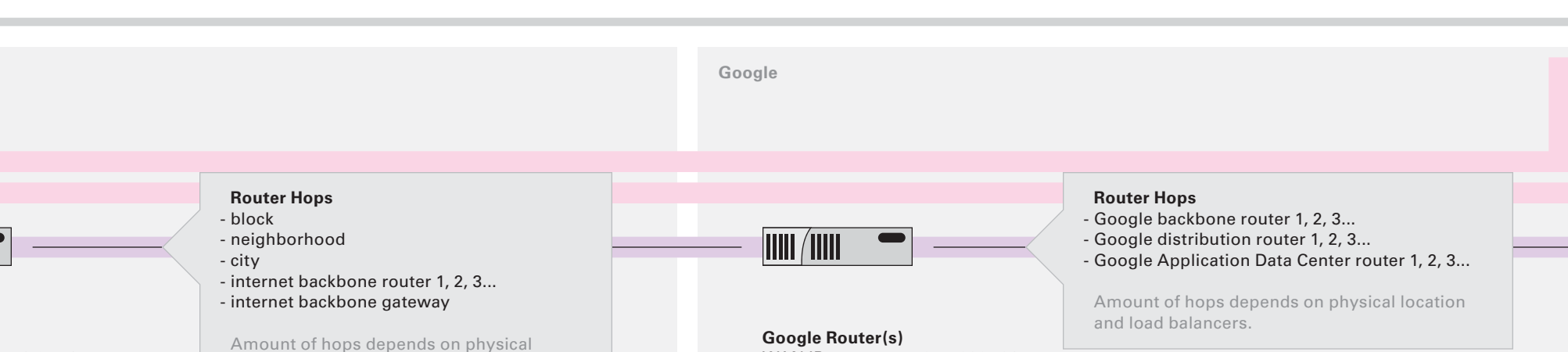
Name	IP Address	MAC Address
Router	192.168.1.1	08:00:2B:24:8A:9D

Introduction: This diagram shows two computer networks to a small office network and parts of a large enterprise network...

Subnet Masks: Subnet masks enable network administrators to divide up a range of IP addresses...

Internet Services

Internet



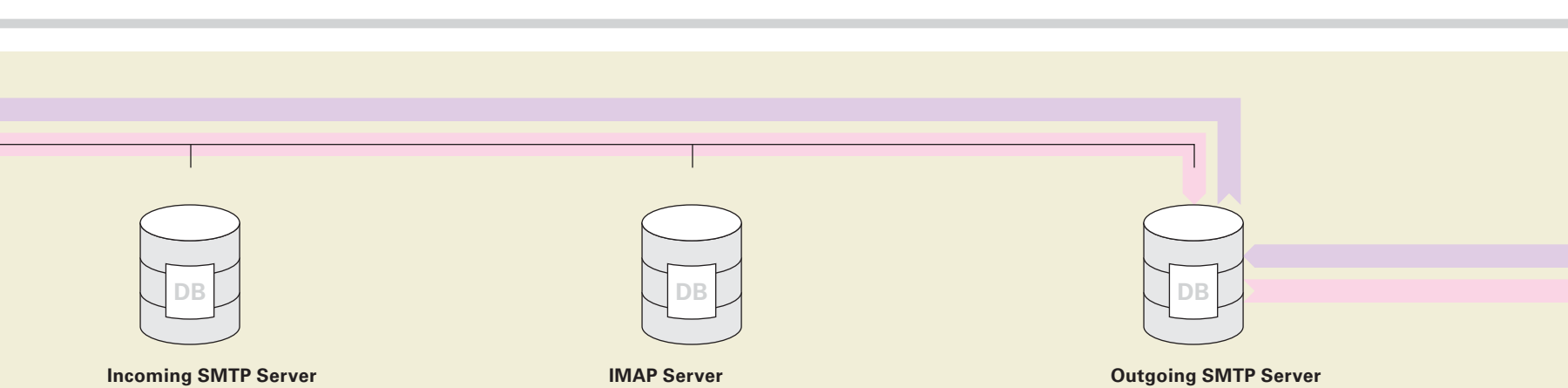
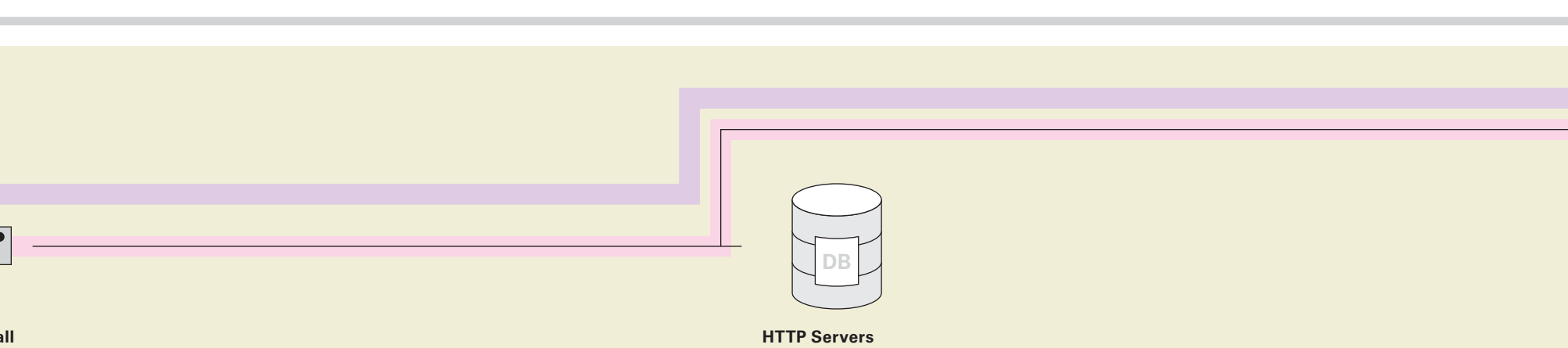
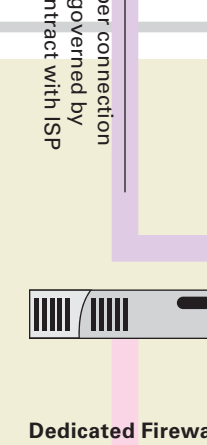
Active Connections Table: Shows a list of active connections with columns for IP address, port, and state.

DNS Server: Translates domain names to IP addresses and connects to the world-wide DNS system.

Enterprise

Corporate network with 16,777,216 possible addresses (24 bits)
10.0.0.0/8 (8 bits masked)

Network address 10.0.0.0
Host range from 10.0.0.1 to 10.255.255.254
Broadcast address 10.255.255.255



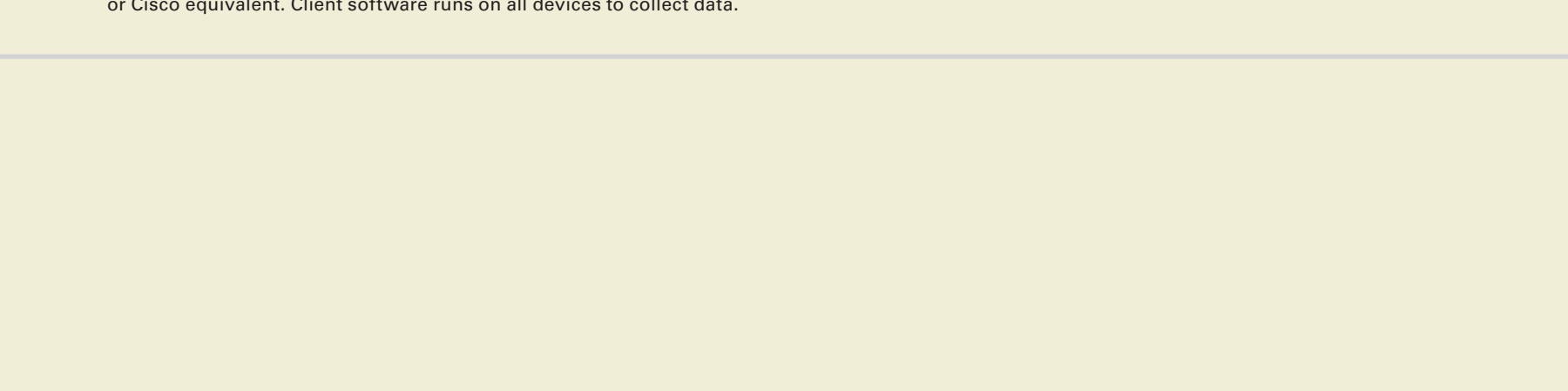
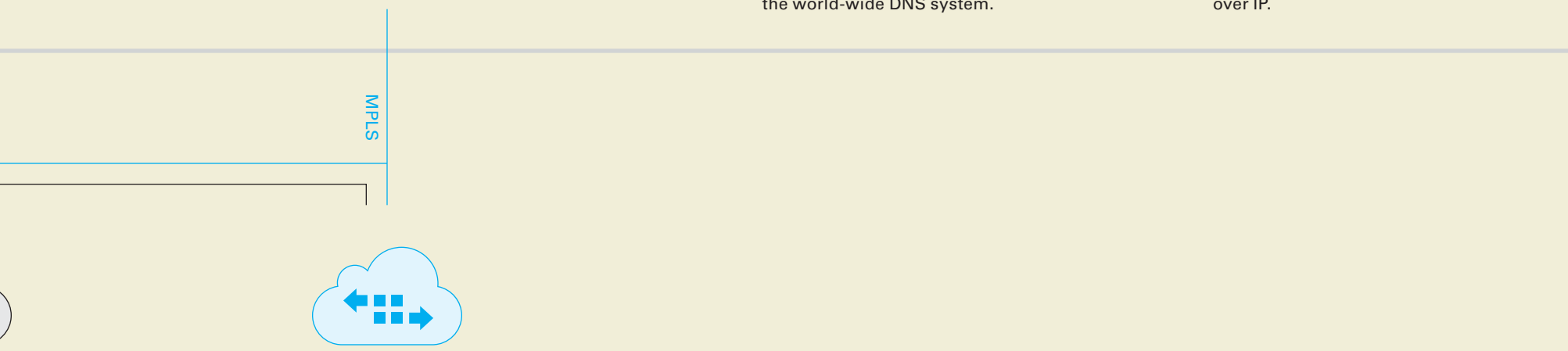
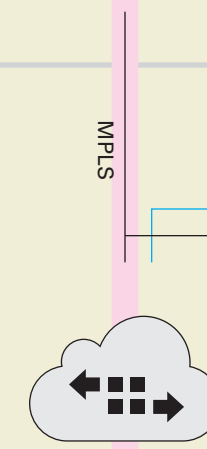
Core Router 1: Host range from 10.0.0.1 to 10.255.255.254

Core Router 2: Host range from 10.0.0.1 to 10.255.255.254

Region

Building A network with 65,536 possible addresses (16 bits)
10.1.0.0/16 (16 bits masked)

Network address 10.1.0.0
Host range from 10.1.0.1 to 10.1.255.254
Broadcast address 10.1.255.255



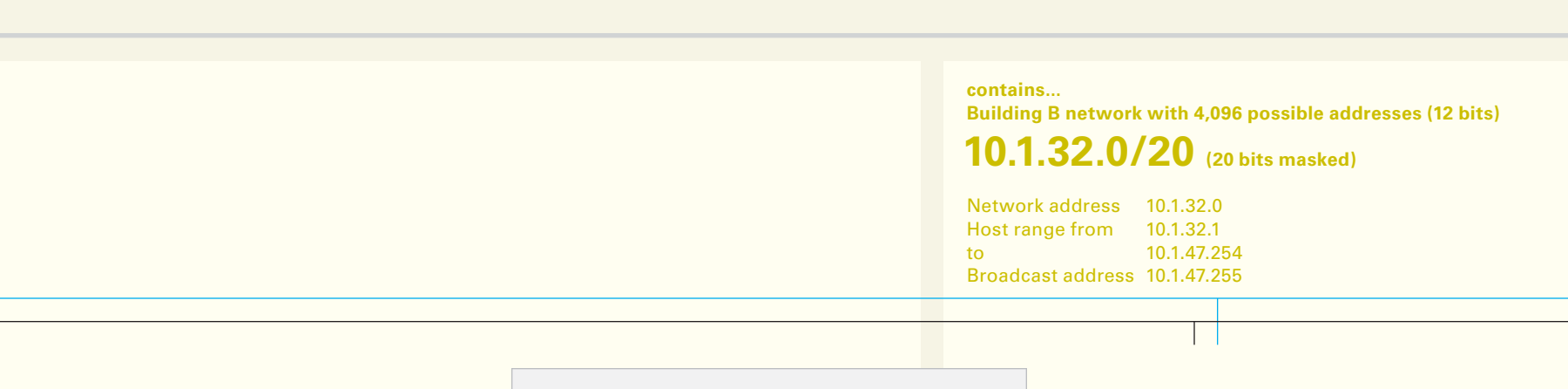
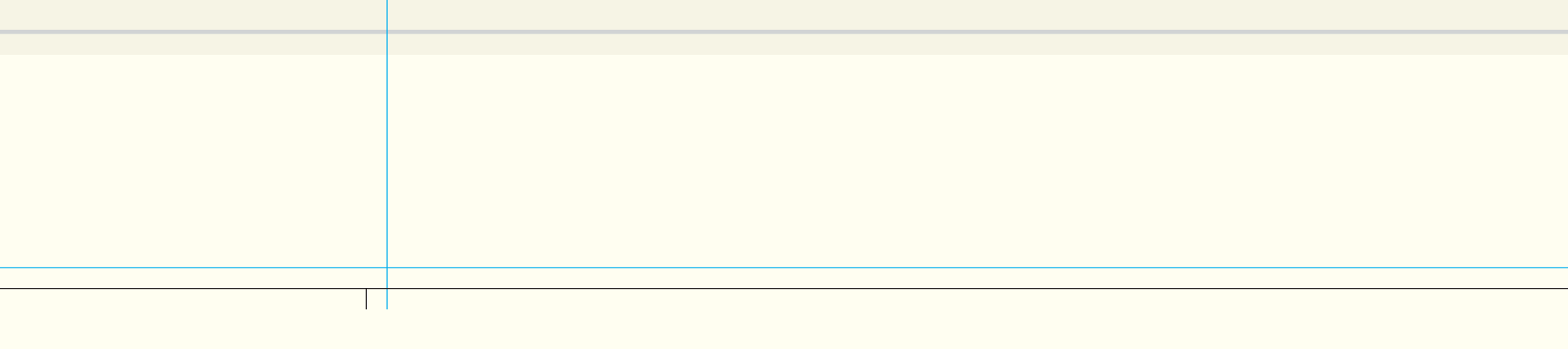
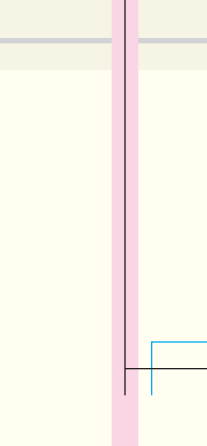
Building A Router 1: IP 10.1.0.1

Building A Router 2: IP 10.1.255.250

Building

Building A network with 65,536 possible addresses (16 bits)
10.1.0.0/16 (16 bits masked)

Network address 10.1.0.0
Host range from 10.1.0.1 to 10.1.255.254
Broadcast address 10.1.255.255



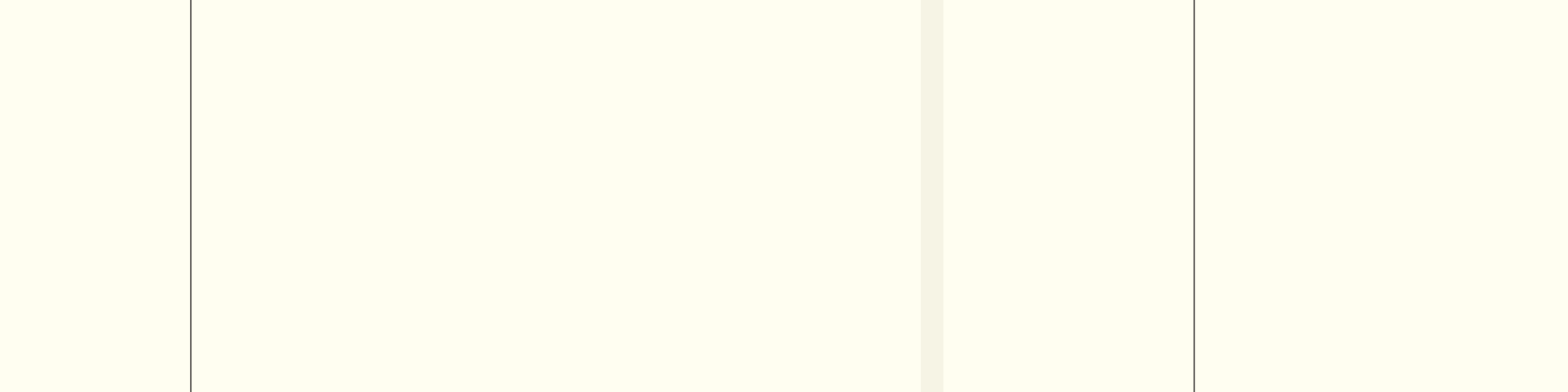
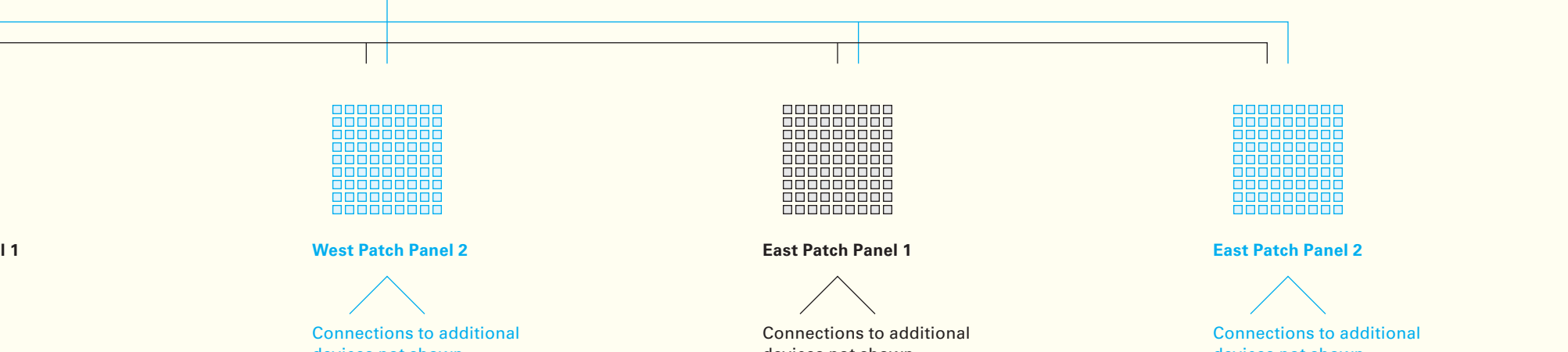
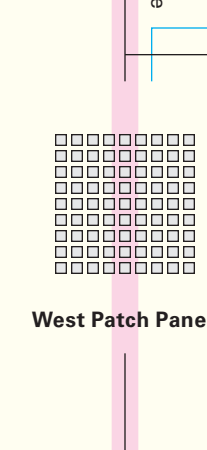
Building A Router 1: IP 10.1.0.1

Building A Router 2: IP 10.1.255.250

Building

Building B network with 4,096 possible addresses (12 bits)
10.1.16.0/20 (20 bits masked)

Network address 10.1.16.0
Host range from 10.1.16.1 to 10.1.31.254
Broadcast address 10.1.31.255



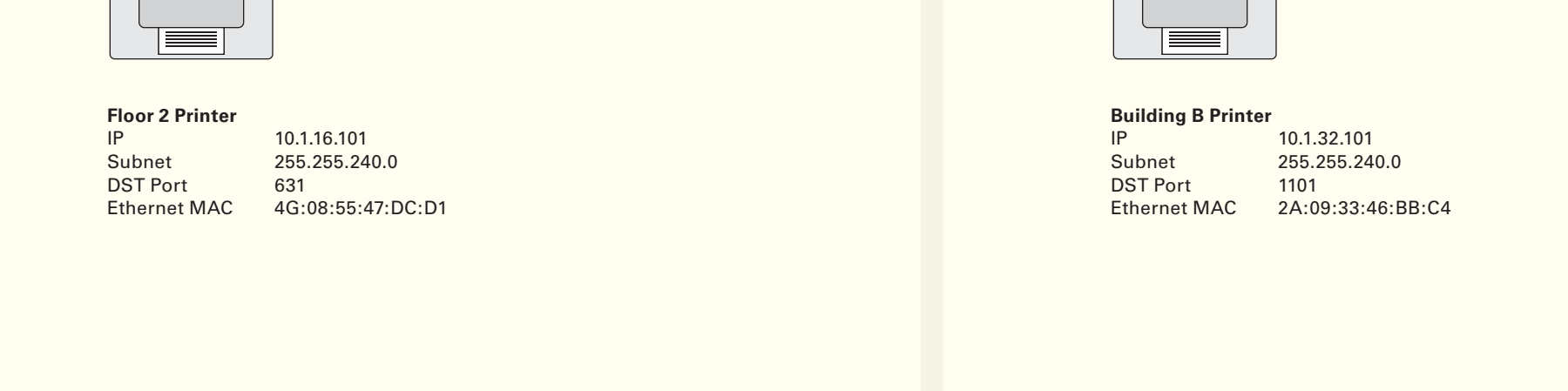
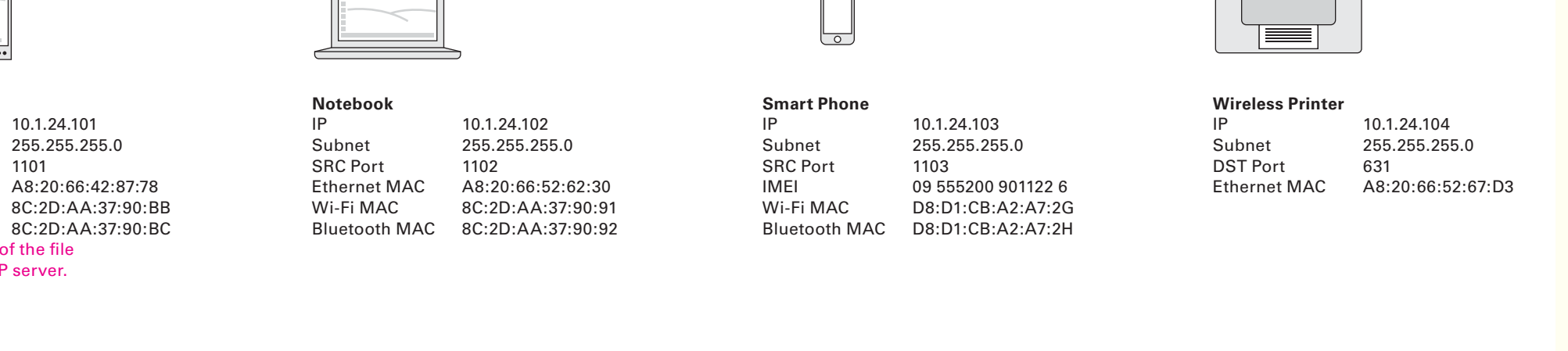
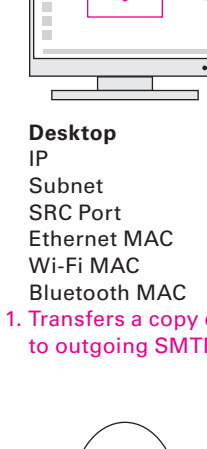
Building B Router 1: IP 10.1.16.1

Building B Router 2: IP 10.1.31.250

Building

Wireless network with 256 possible addresses (8 bits)
10.1.24.0/24 (24 bits masked)

Network address 10.1.24.0
Host range from 10.1.24.1 to 10.1.31.254
Broadcast address 10.1.31.255

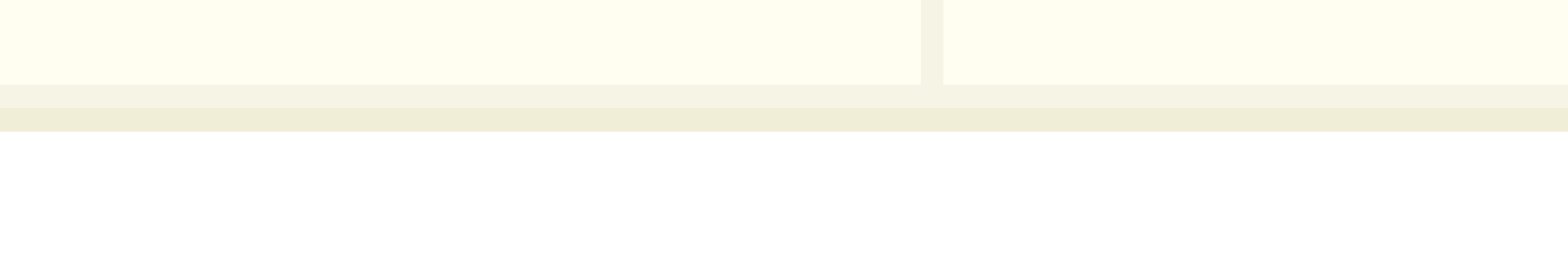
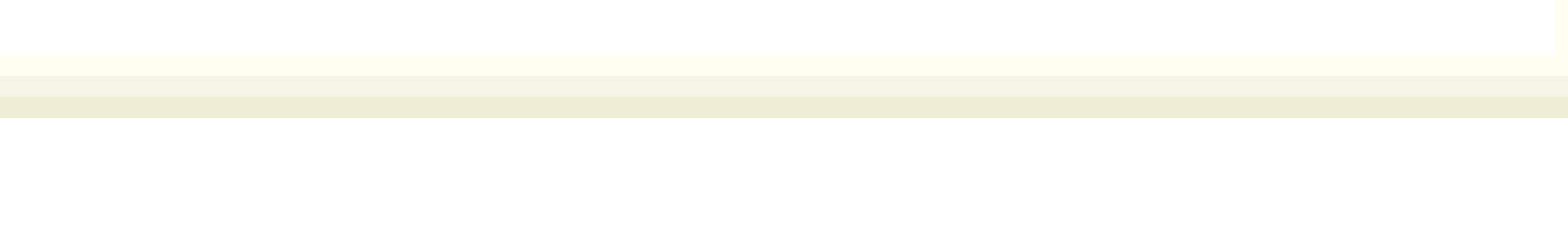
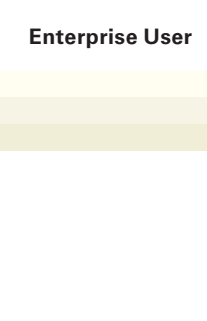


Wireless Router: IP 10.1.24.1

Wireless Printer: IP 10.1.24.104

Enterprise User

Enterprise User: Includes Desktop, Notebook, Smart Phone, and Wireless Printer.



Enterprise User: IP 10.1.24.101

Enterprise User: IP 10.1.24.102