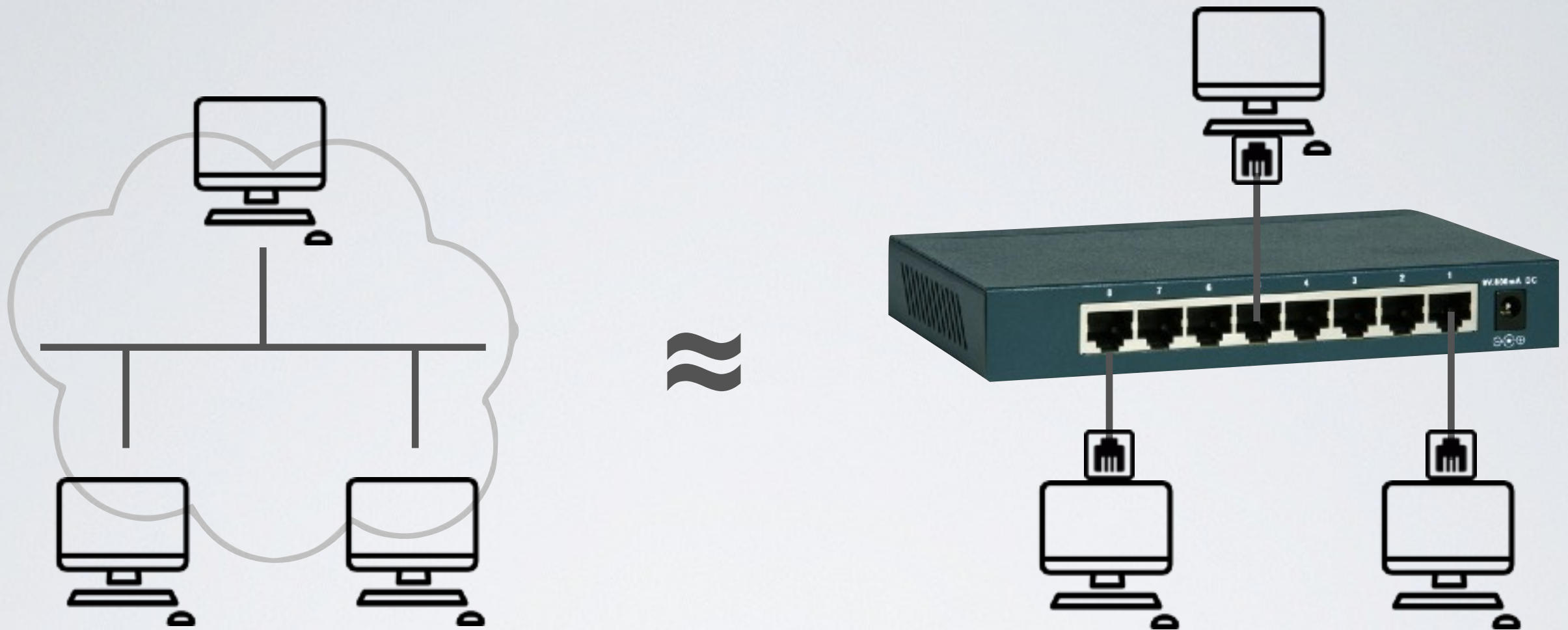# Preventing packet sniffing over Ethernet

Hub : broadcast all messages on all ports

Switch : (smart HUB) forward messages on specific port based on their MAC addresses

➡ isolate Ethernet traffics (no straightforward packet sniffing)

Packet sniffing over a wireless network

➡ Encrypt message before sending them over the air

Wireless Security	WEP	WPA	WPA2		WPA3
			Personal	Enterprise	
Authentication	Shared Key	Shared Key	Shared Key	RADIUS Server	Pre-Shared Key
Encryption	RC4	RC4	AES-CCMP		AES-GCM
Security	Broken	Broken	External attackers only	Good	Better