RECAP/

Network boundaries

Every host on a network must use router as a gateway to other networks

**Therefore, each host must know the IPv4 address of the router interface connected to the network where the host is attached**

**This is known as the default gateway address** (static or dynamic by DHCP)

Wireless router acts as a DHCP server fo all local hosts attached to it (LAN/WAN)

These local hosts are referred to as being located on an internal, or inside, network

When wireless router is connected to the ISP, it acts like a DHCP client to receive the correct external network IPv4 address for the internet interface

ISPs usually provide an internet-routable address, which enables hosts connected to the wireless router to have access to the internet the wireless router serves as the boundary between the local internal network and external network

NAT operation

The wireless router receives a public address from the ISP, which allows it to send and receive packets on the internet

It, in turn, provides private addresses to local network clients.

The process used to convert private addresses to internet-routable addresses is called NAT

With NAT, a private source IPv4 address is translated to a public address

**The process is reversed for incoming packets**

Only packets destined for other networks need to be translated. These packets must pass through the gateway, where the wireless router replaces the private IPv4 address of the source host with its own public IPv4 address