

# UNIT 1: ONLINE SAFETY- WHAT IS IT?

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# UNIT OBJECTIVES

- TO RECOGNIZE THE STEPS FOLLOWED TO CONNECT TO THE INTERNET.
- TO DESCRIBE THE CONCEPT OF ONLINE SAFETY.
- TO IDENTIFY THE CONSEQUENCES OF CYBER/VIRTUAL ATTACKS.

# UNDERSTANDING ONLINE SAFETY

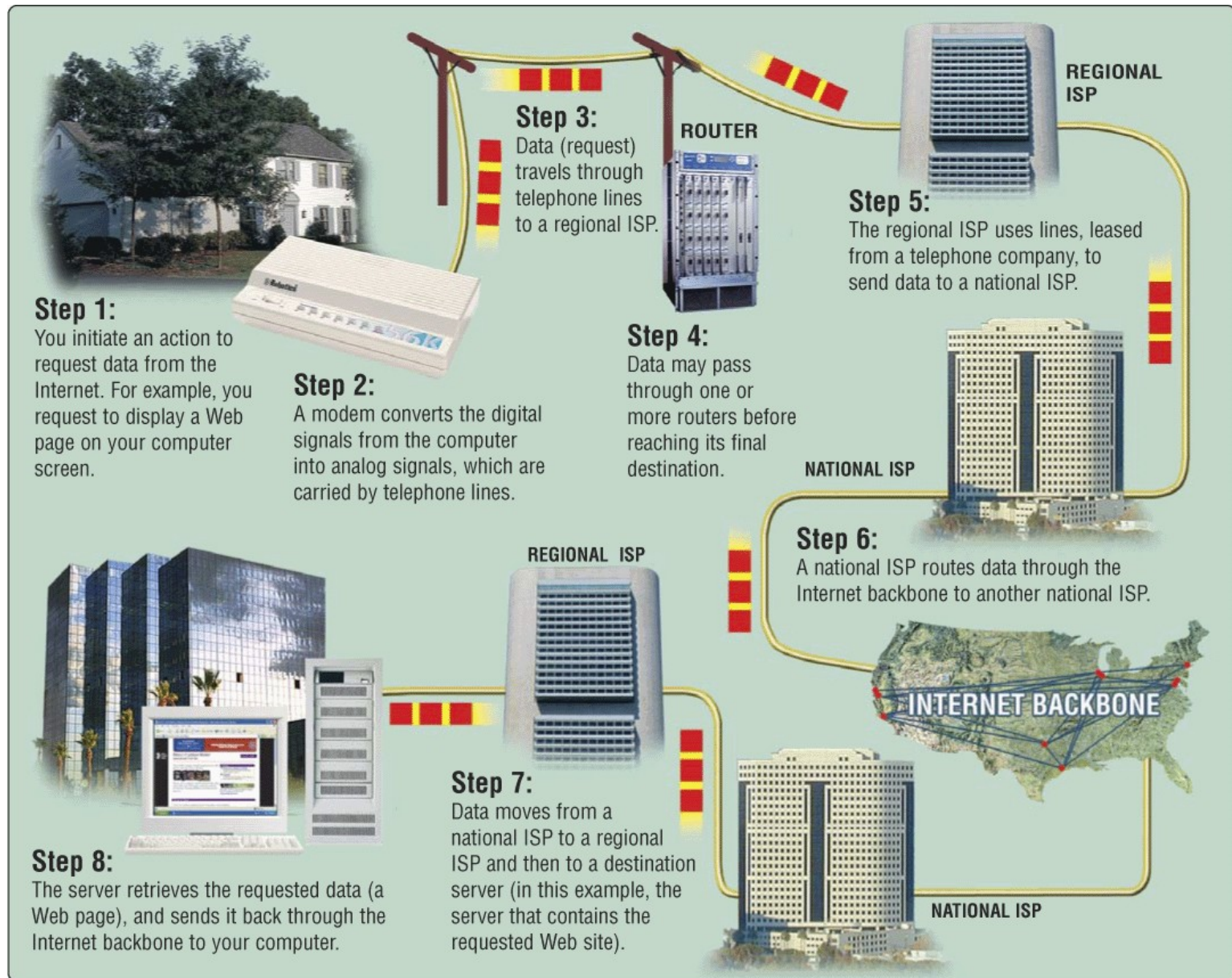
- ONLINE SAFETY ...

- ALSO CALLED AS INTERNET SAFETY IS ABOUT USING CAUTION AND COMMON KNOWLEDGE TO KEEP AWAY FROM THE DANGERS AND THREATS OF ONLINE.
- PRECAUTIONS NEED TO BE TAKEN TO ENSURE PROTECTION WHILE USING THE INTERNET.
- SECURITY IS DEFINED AS PROTECTION OF PERSONAL RESOURCES FROM UNAUTHORIZED ACCESS, USE, MODIFICATION, OR DESTRUCTION

- THE NEED TO SECURE..

- INTERNET USERS NEED SECURE THEIR COMPUTERS, WITH ADEQUATE SAFEGUARDS AGAINST STEALTH OF DATA AND PERSONAL INFORMATION.
- THERE ARE POTENTIAL SECURITY AND PRIVACY THREATS WHILE USING A WEB BROWSER AND AN EMAIL PROGRAM.

# HOW DOES THE INTERNET WORK?



# COMPUTERS CONNECTED TO THE INTERNET ARE SUSCEPTIBLE TO CYBER/VIRTUAL ATTACKS.

- MANY NETWORKS ARE **shared**: MEANING MULTIPLE COMPUTERS ARE ATTACHED TO THE NETWORKS.
  - A RANDOM COMPUTER ON THE NETWORK CAN SNOOP ON TRANSMISSIONS ACROSS THE NETWORK.
  - SUCH NETWORKS ARE **unsecure networks**.
- BECAUSE MANY OF THE NETWORKS THAT COMPRISE THE INTERNET ARE SHARED, AS A WHOLE, THE INTERNET IS UNSECURE.

# PRIVACY

- THE SPECIFIC SECURITY PROBLEM DESCRIBED IS KNOWN AS THE ***privacy problem.***
- THE TERM ***privacy*** REFERS TO KEEPING DATA CONFIDENTIAL.
- COMMUNICATION IS PRIVATE IF ONLY THE SENDER AND INTENDED RECIPIENT CAN READ THE MESSAGE.

# OTHER PROBLEMS

## EXAMPLE: CHANGED DATA

- YOU SEND AN ORDER OVER THE INTERNET TO A STORE'S WEB SITE.
- A THIEF INTERCEPTS YOUR ORDER AND STEALS THE SHIPMENT BY REPLACING THE SHIPPING ADDRESS WITH HIS OWN ADDRESS.
- ONE PROBLEM IS THE POSSIBILITY THAT DATA TRANSMITTED OVER THE INTERNET MIGHT BE CHANGED.
- ALTHOUGH MOST ISPs ARE REPUTABLE AND DATA IS SELDOM CHANGED AS IT PASSES THROUGH THE INTERNET, THE POTENTIAL EXISTS.

# CONSEQUENCES

- LACK OF INTERNET SECURITY CAN POSE A SERIOUS RISK.
  - BUSINESS OR TRADE SECRETS COULD BE REVEALED.
  - PERSONAL DETAILS COULD BE DISCOVERED LEADING TO IDENTITY THEFT.
  - PERSONAL FINANCIAL INFORMATION LIKE CREDIT CARD NUMBERS COULD BE STOLEN.