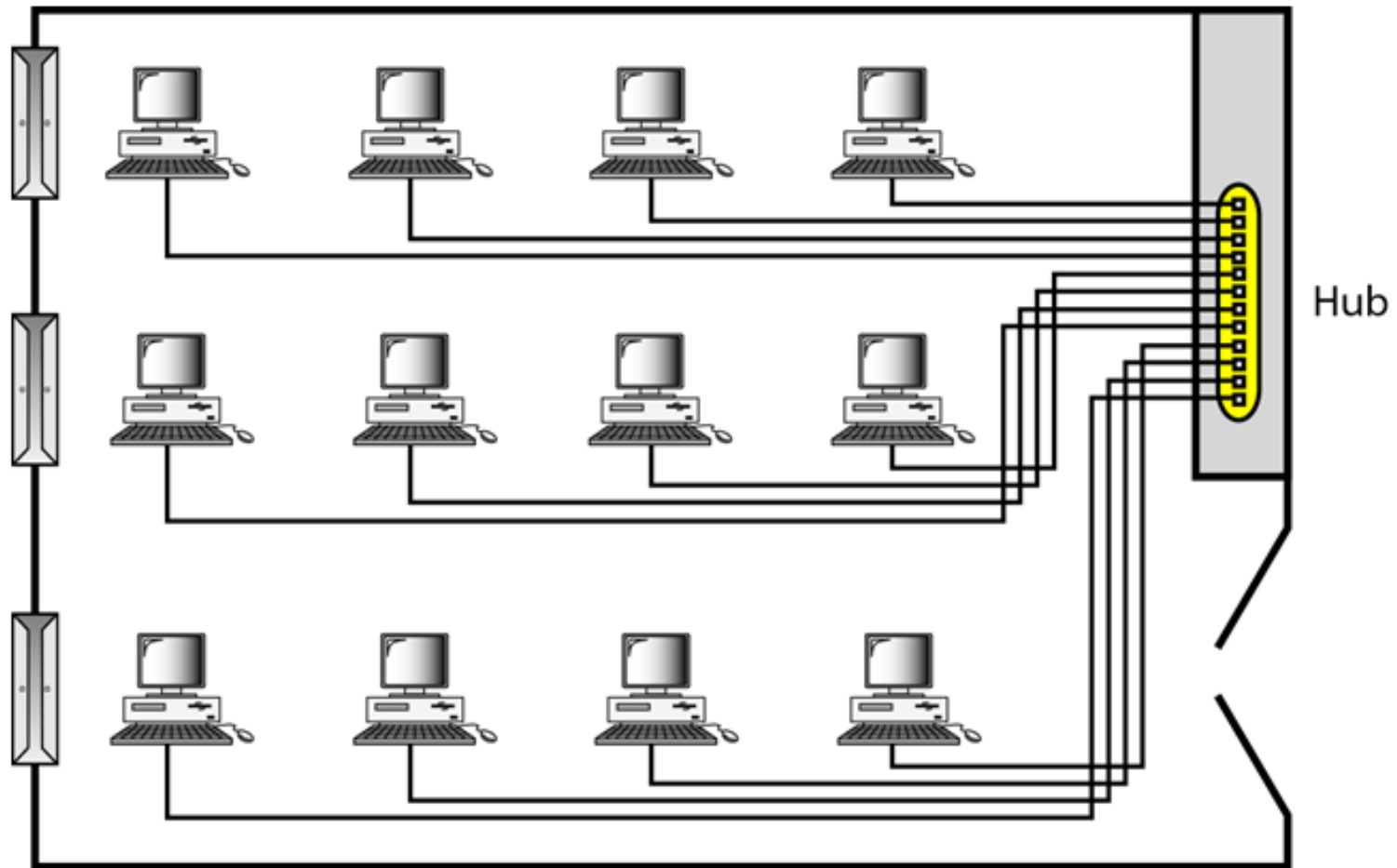# CSE-3215
Data Communication
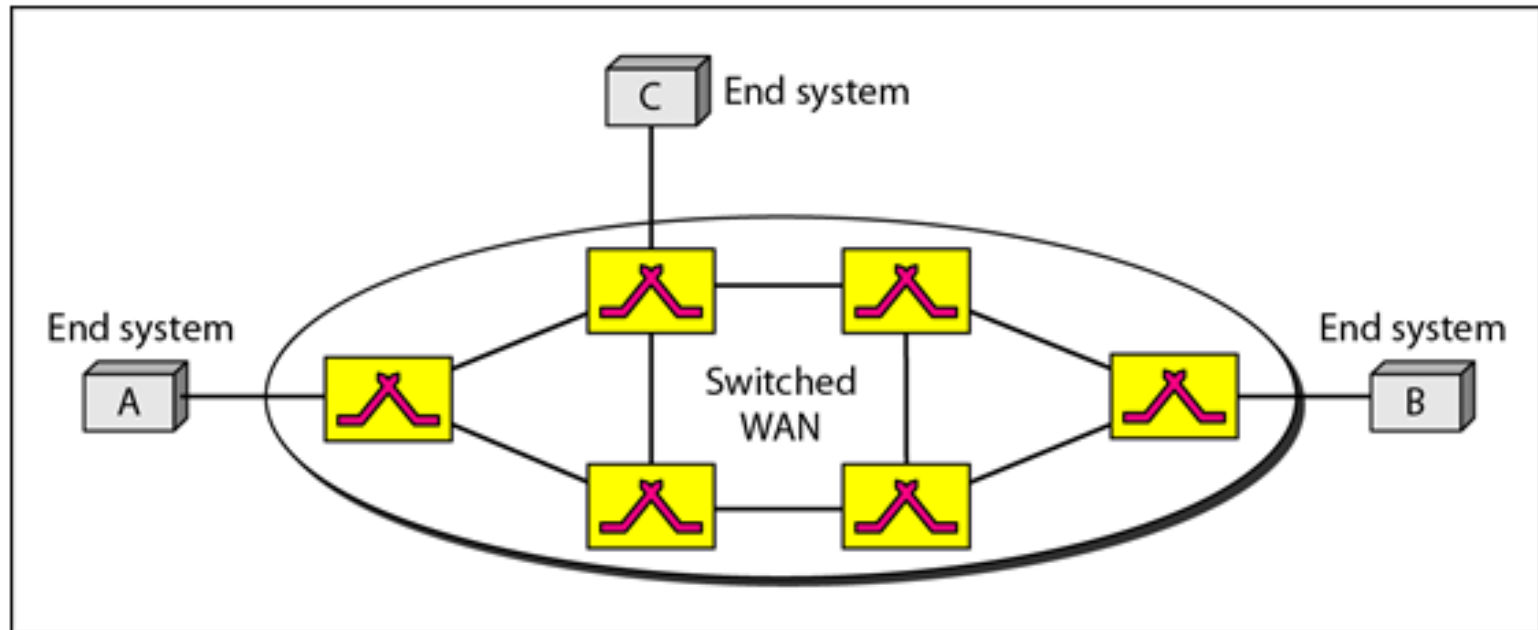
Lecture-03

Ahmed Salman Tariq
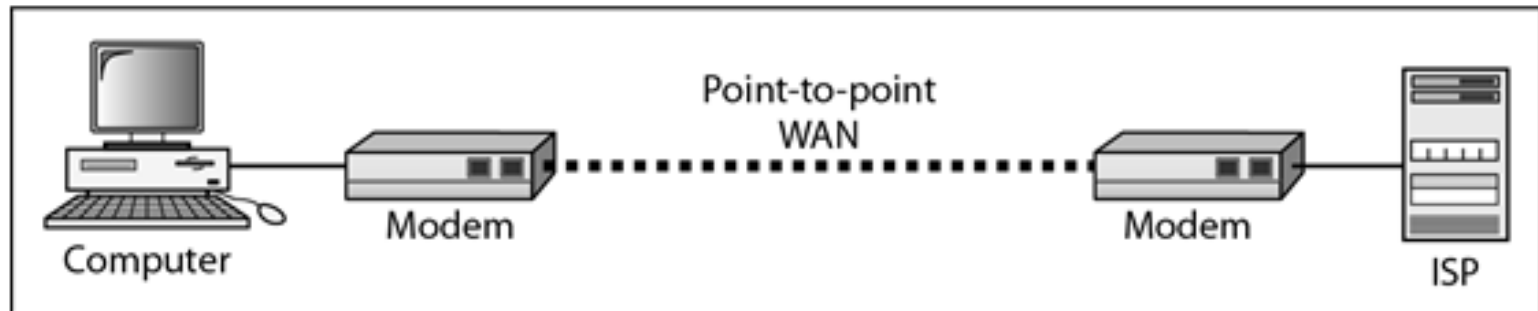Lecturer
Dept. of CSE

An isolated LAN connecting 12 computers to a hub in a closet

Hub

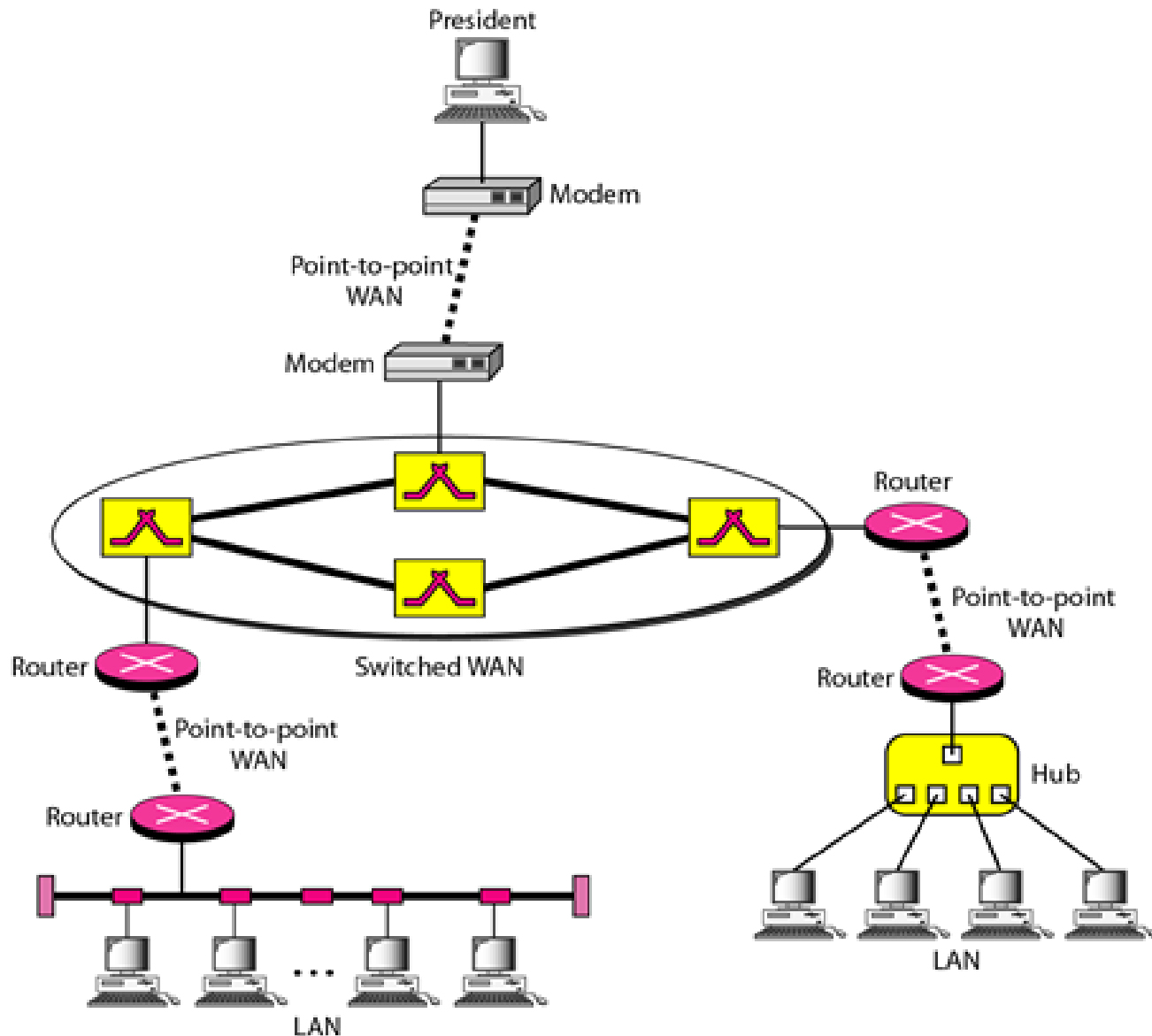# A switched WAN and a point-to-point WAN

a. Switched WAN

b. Point-to-point WAN

A heterogeneous network made of four WANs and two LANs

Internet

'**Internet**' is the shortened form of 'INTERnational-NETwork' which is the interconnected network of all the Web Servers worldwide. It is a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols. In short, it is a network of networks.
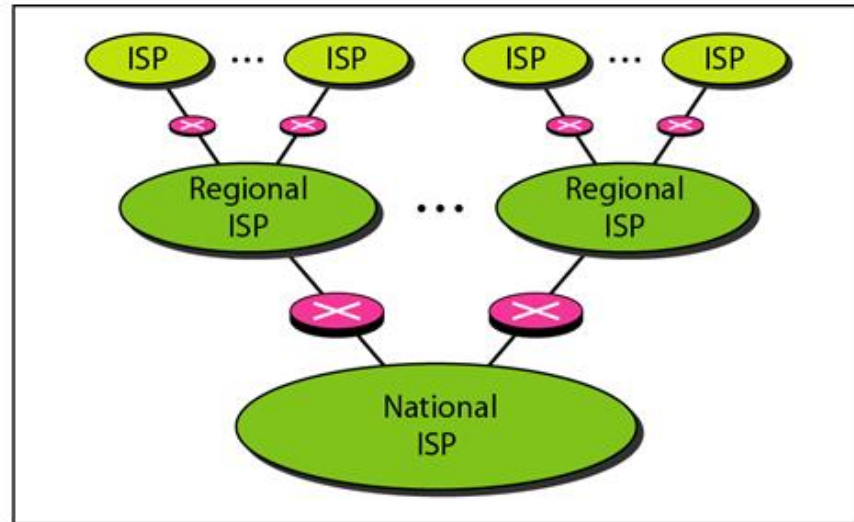
The Internet has revolutionized many aspects of our daily lives. It has affected the way we do business as well as the way we spend our leisure time. The Internet is a communication system that has brought a wealth of information to our fingertips and organized it for our use.
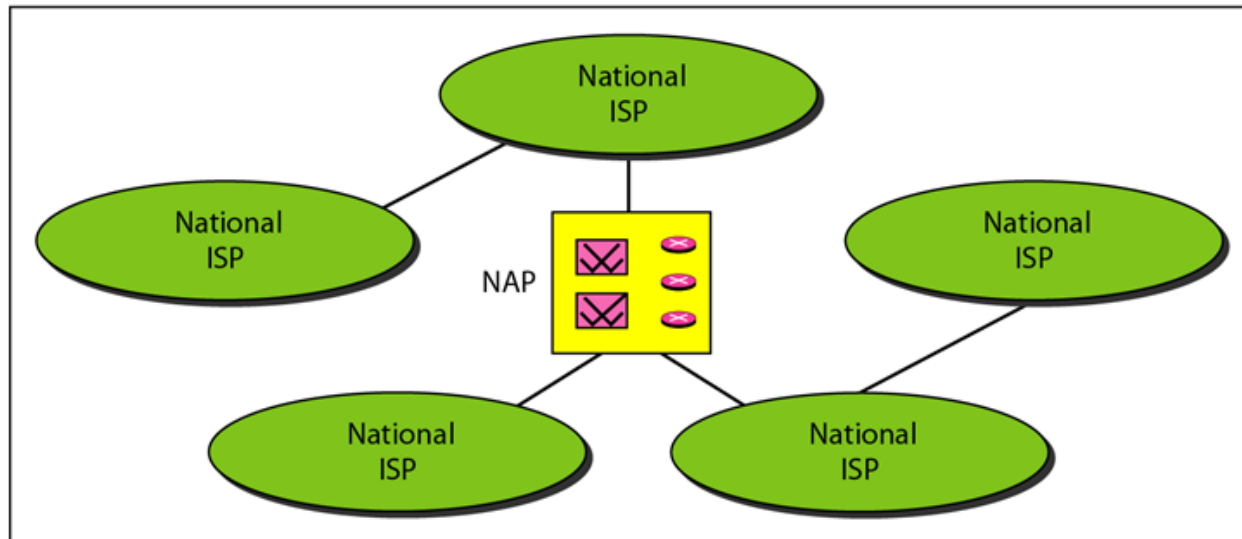
Topics discussed in this section:

A Brief History
The Internet Today (ISPs)

Hierarchical Organization of the Internet

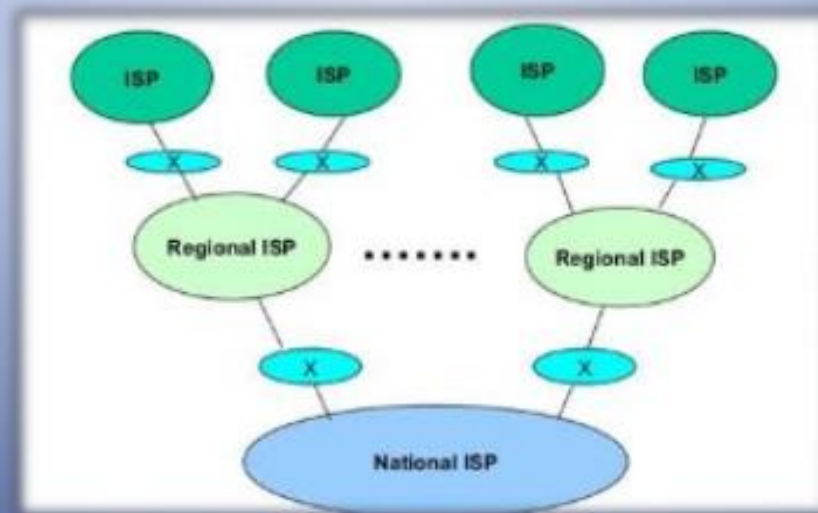a. Structure of a national ISP

b. Interconnection of national ISPs

What is ISP ?

An **Internet Service Provider (ISP)** is a company such as BTCL, Link3 Technologies Ltd., Amber IT or Bangla Trac Communications Ltd.; that provides internet access to companies, families, and even mobile users. **ISPs** use fiber-optics, satellite, copper wire, and other forms to provide Internet access to its customers.

National ISP

A national ISP is a business that provides Internet access in cities and towns nationwide and have a much larger technical support team.

Regional ISP

A regional ISP usually provides Internet access to a specific geographic area and usually has a smaller technical support team

PROTOCOLS AND STANDARDS

In this section, we define two widely used terms: protocols and standards. First, we define protocol, which is synonymous with rule. Then we discuss standards, which are agreed-upon rules.

Topics discussed in this section:

Protocols
Standards
Standards Organizations

Home Work

- Which ISP do you get your internet service from? Is it national ISP or regional ISP? Justify your answer.

- What is the function of NAP?

- Differentiate between standard and protocol.

Thank You