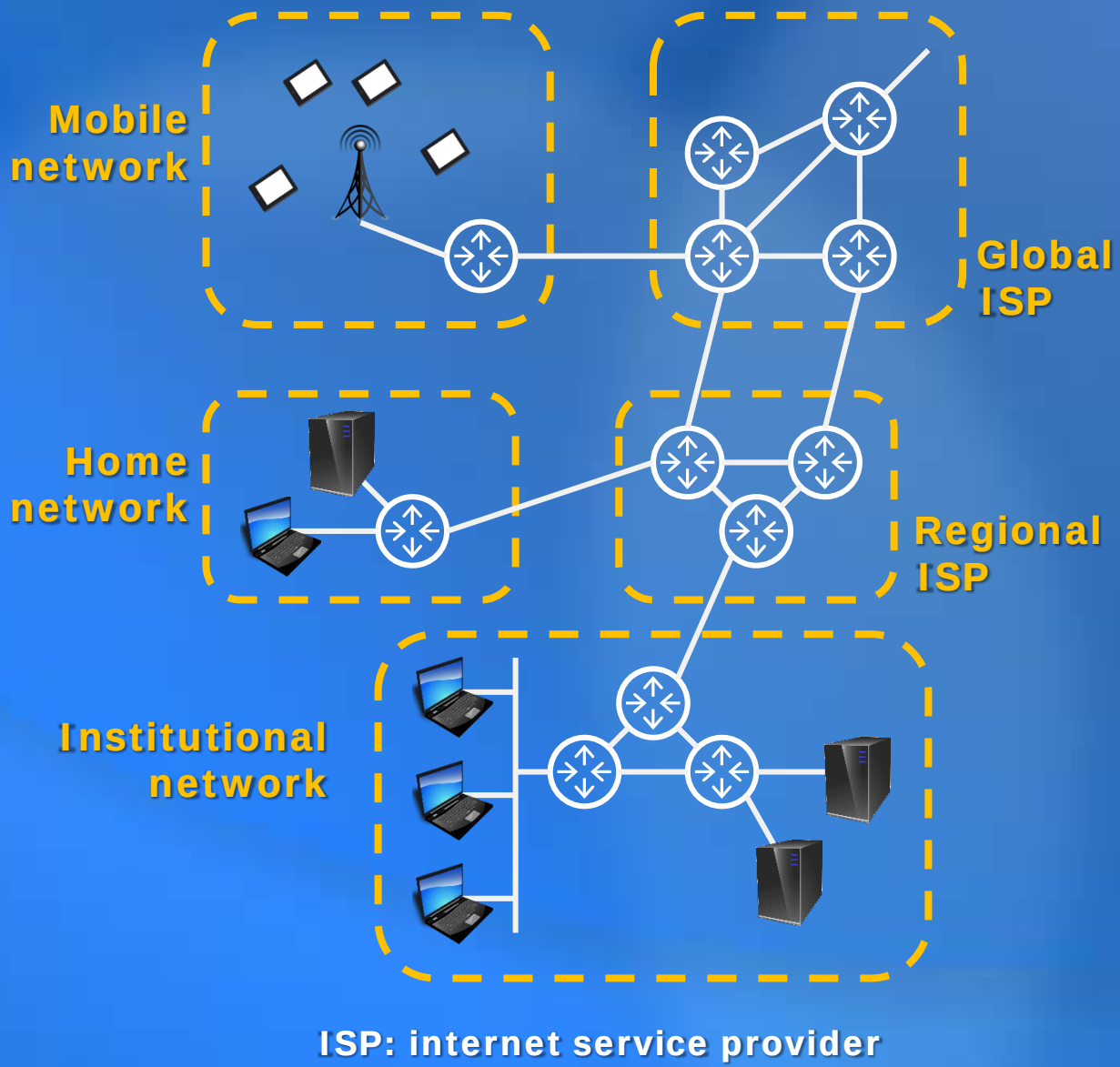
Internet Hierarchy

Internet



ISP: internet service provider

- The internet is a network of networks
- Nodes may be
  - routers, which forward data
  - hosts or end systems
    - PC, server, mobile device
- Nodes are connected by communication links
  - fiber, copper, radio, satellite

PC

base station or access point

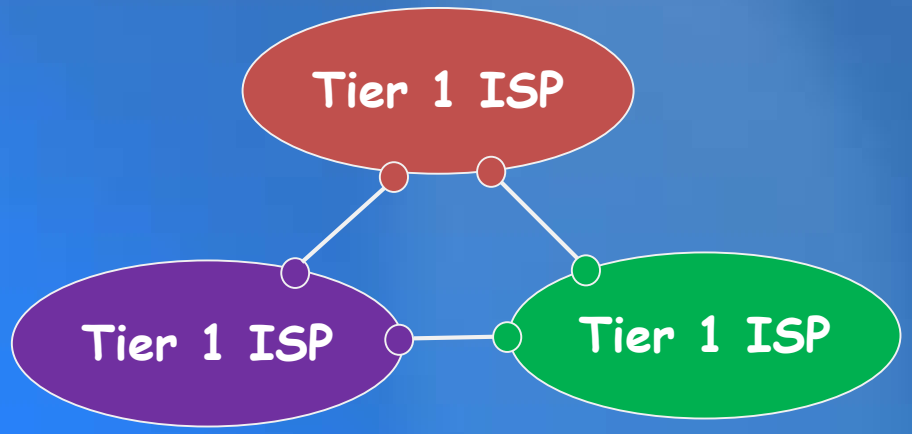
server

wired link

mobile device

router

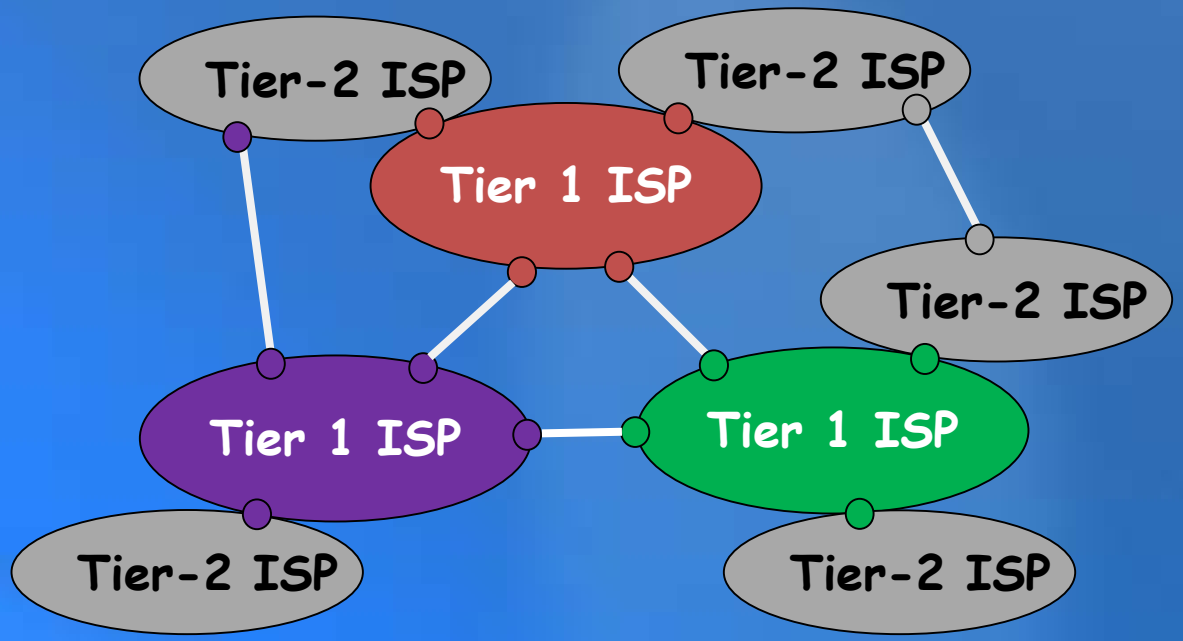
Rough Hierarchy



Tier-1 ISPs

- provide global/national coverage
- e.g., Verizon, Sprint, AT&T, China Telecom
- treat each other as equals

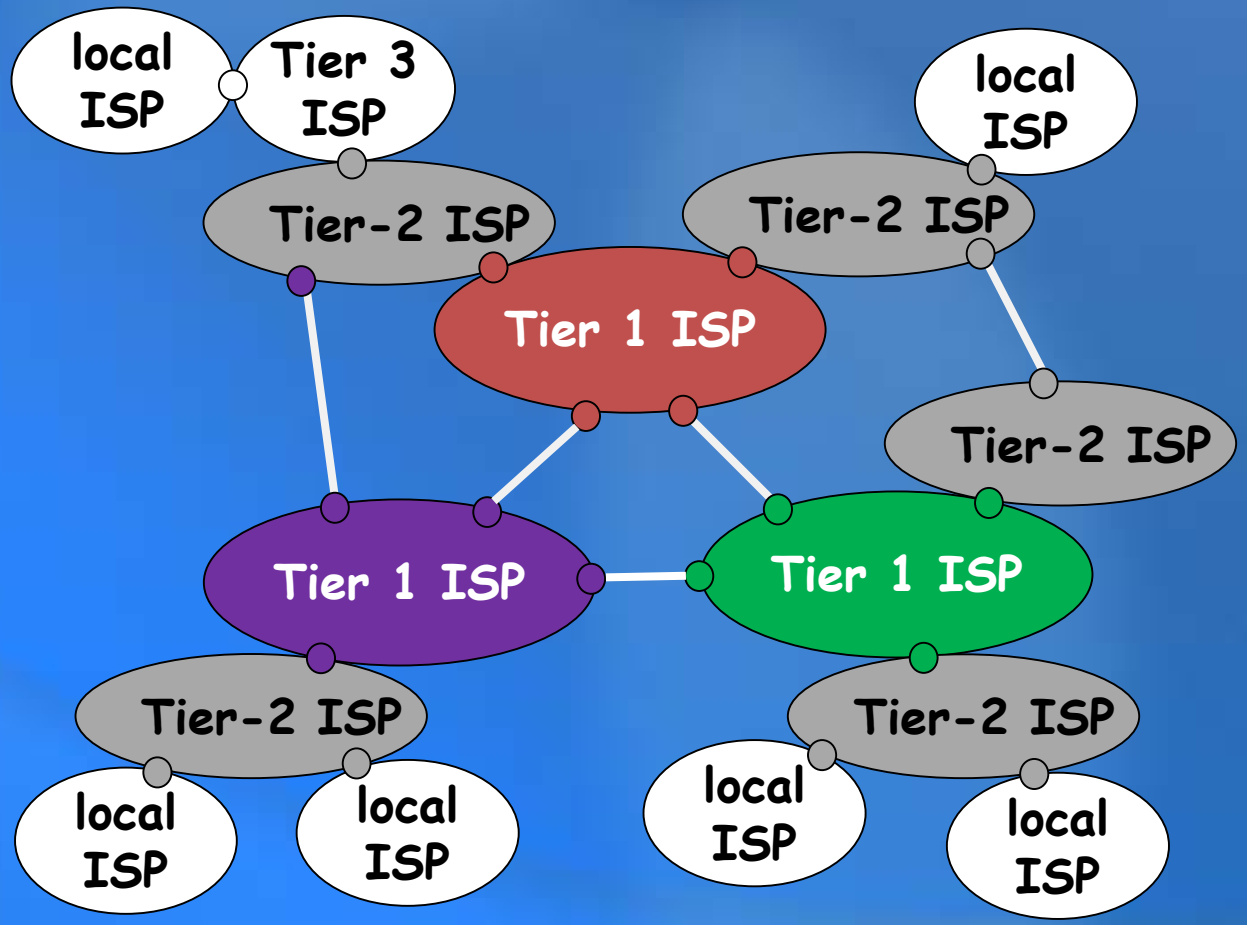
Rough Hierarchy



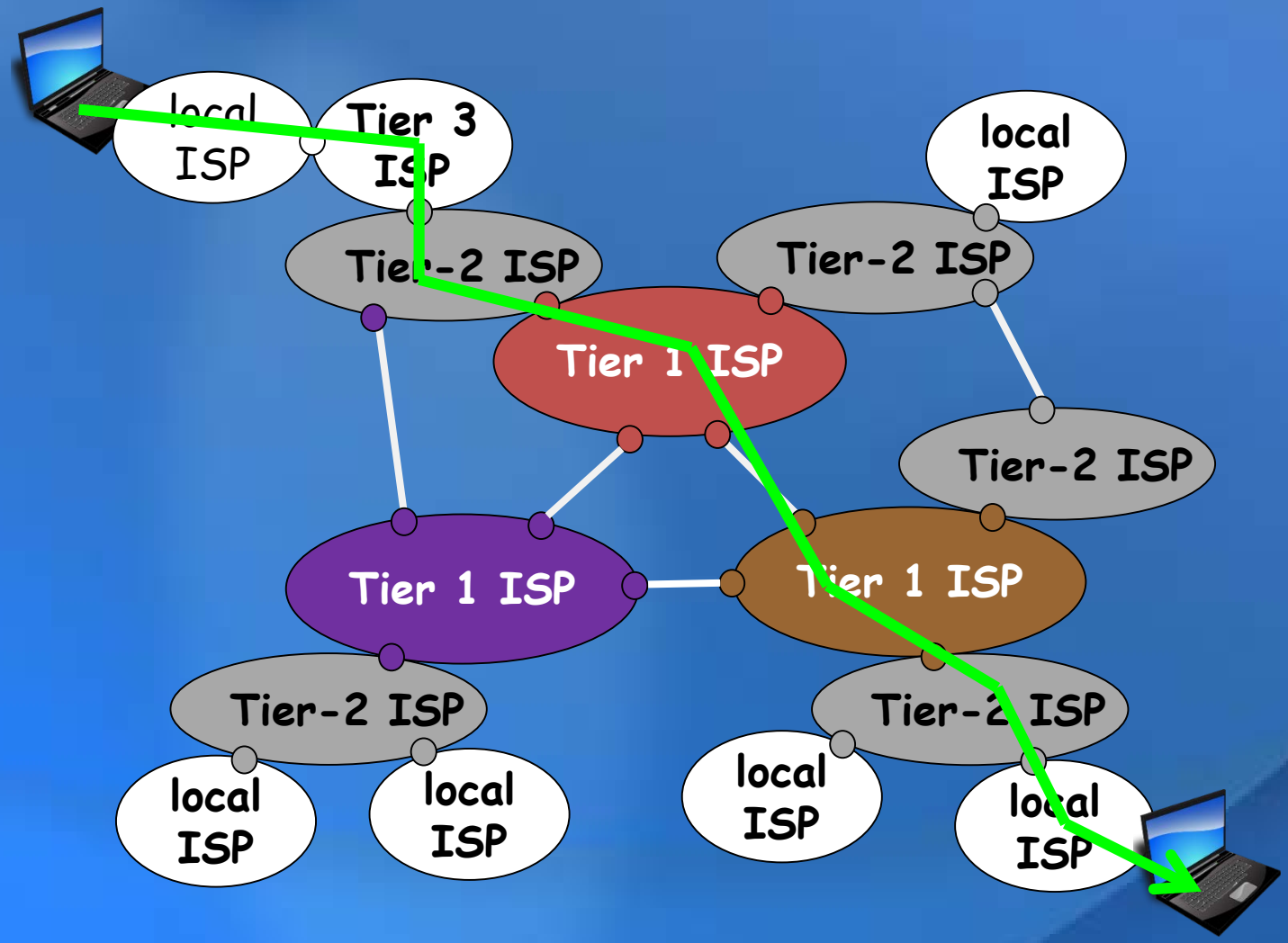
Tier-2 ISPs

- provide regional coverage
- customers of Tier-1 ISPs
- may also link privately with each other

Rough Hierarchy



Tier-3 and local ISPs

- provide “last-hop” connection
- closest to end systems
- customers of higher tier ISPs to get internet access

Data flows through many networks