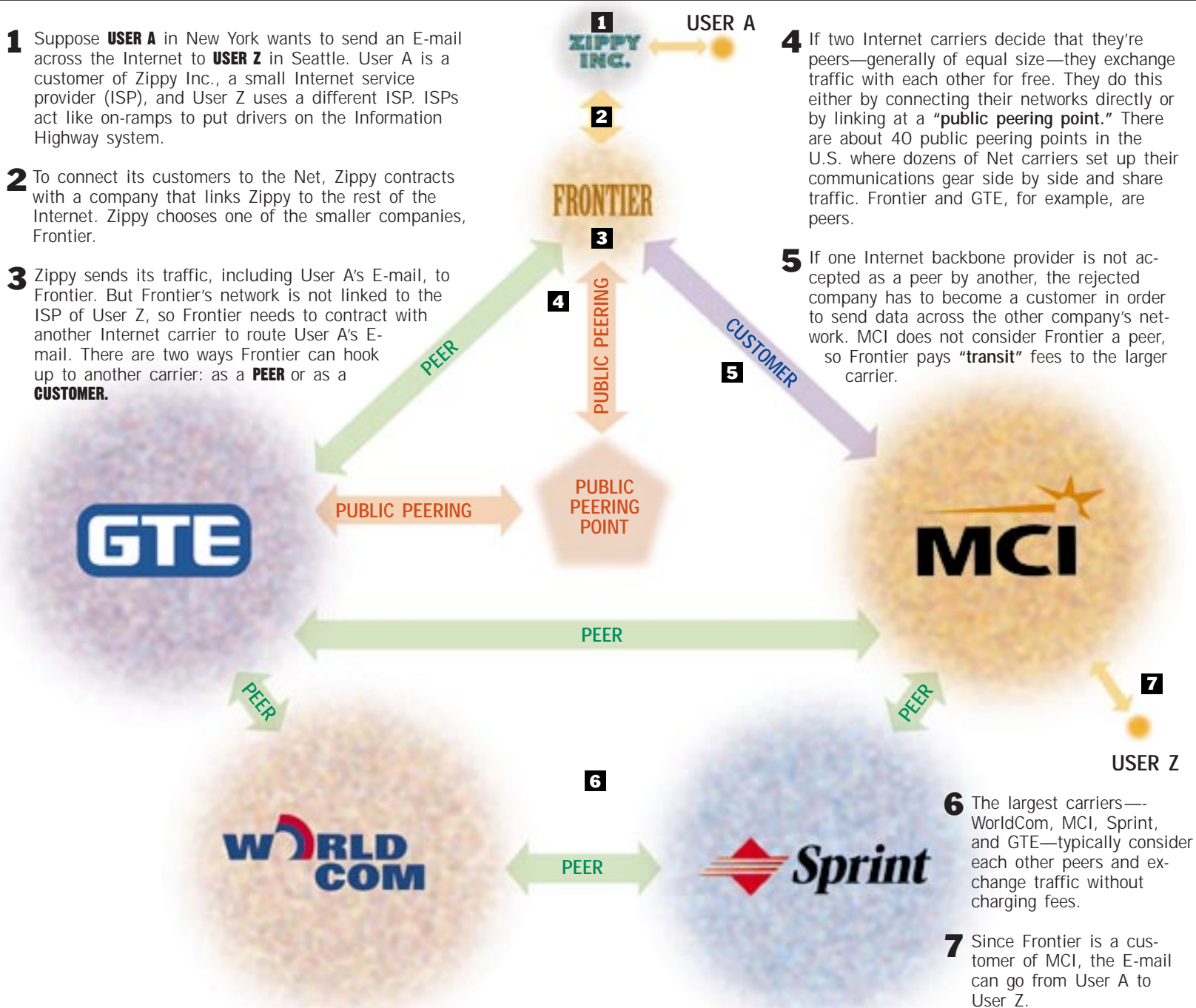


WHAT WORRIES THE FEDS

In order to provide the ubiquity that lies at the heart of the Internet, a company that wants to carry Net traffic has to connect with other Net carriers. What concerns government regulators is that if one carrier gets much bigger than the others, the giant will be able to exert control over the fees and terms of inter-connection. Already, three Internet backbone carriers—MCI Communications, Sprint, and WorldCom—provide connections to roughly 75% of Internet destinations, according to *Boardwatch Magazine*. Smaller companies attract the remaining traffic by offering lower prices or better customer service.

- 1 Suppose **USER A** in New York wants to send an E-mail across the Internet to **USER Z** in Seattle. User A is a customer of Zippy Inc., a small Internet service provider (ISP), and User Z uses a different ISP. ISPs act like on-ramps to put drivers on the Information Highway system.
- 2 To connect its customers to the Net, Zippy contracts with a company that links Zippy to the rest of the Internet. Zippy chooses one of the smaller companies, Frontier.
- 3 Zippy sends its traffic, including User A's E-mail, to Frontier. But Frontier's network is not linked to the ISP of User Z, so Frontier needs to contract with another Internet carrier to route User A's E-mail. There are two ways Frontier can hook up to another carrier: as a **PEER** or as a **CUSTOMER**.



- 4 If two Internet carriers decide that they're peers—generally of equal size—they exchange traffic with each other for free. They do this either by connecting their networks directly or by linking at a "public peering point." There are about 40 public peering points in the U.S. where dozens of Net carriers set up their communications gear side by side and share traffic. Frontier and GTE, for example, are peers.
- 5 If one Internet backbone provider is not accepted as a peer by another, the rejected company has to become a customer in order to send data across the other company's network. MCI does not consider Frontier a peer, so Frontier pays "transit" fees to the larger carrier.
- 6 The largest carriers—WorldCom, MCI, Sprint, and GTE—typically consider each other peers and exchange traffic without charging fees.
- 7 Since Frontier is a customer of MCI, the E-mail can go from User A to User Z.