Interconnection and Long Distance Competition

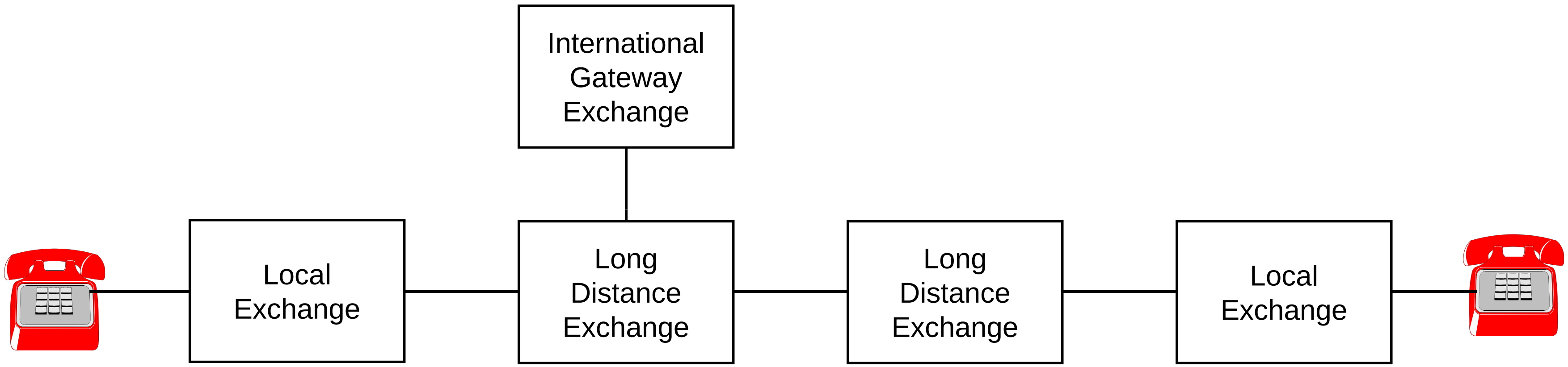
Contents

Introduction

- Microwave provided bulk service between specific service without interconnection: supplied with AT&T’s volume discount
- MCI’s plan depended on collecting the traffic of smaller users through the existing telephone facilities carrying it over a distance on the MCI microwave network, and then distributing the traffic to smaller users through the existing telephone network
- Competition started in 70’s with MCI’s aggressive and innovative use of private line and interconnection right to create a substitute for MTS service (Execunet)

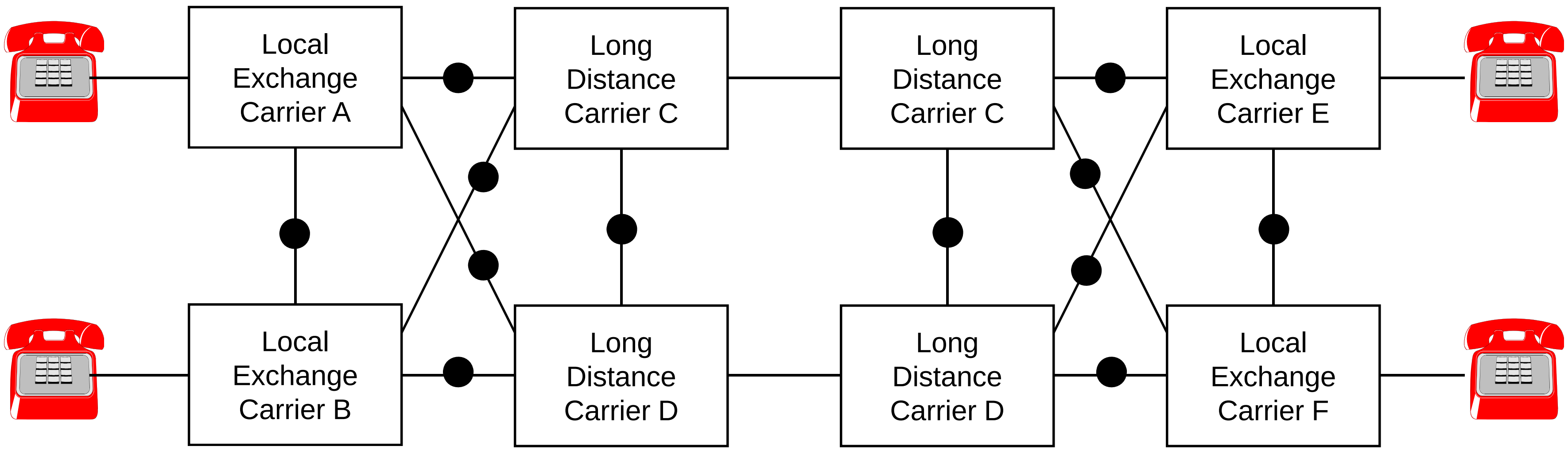
Network Access and Interconnection

Single Carrier

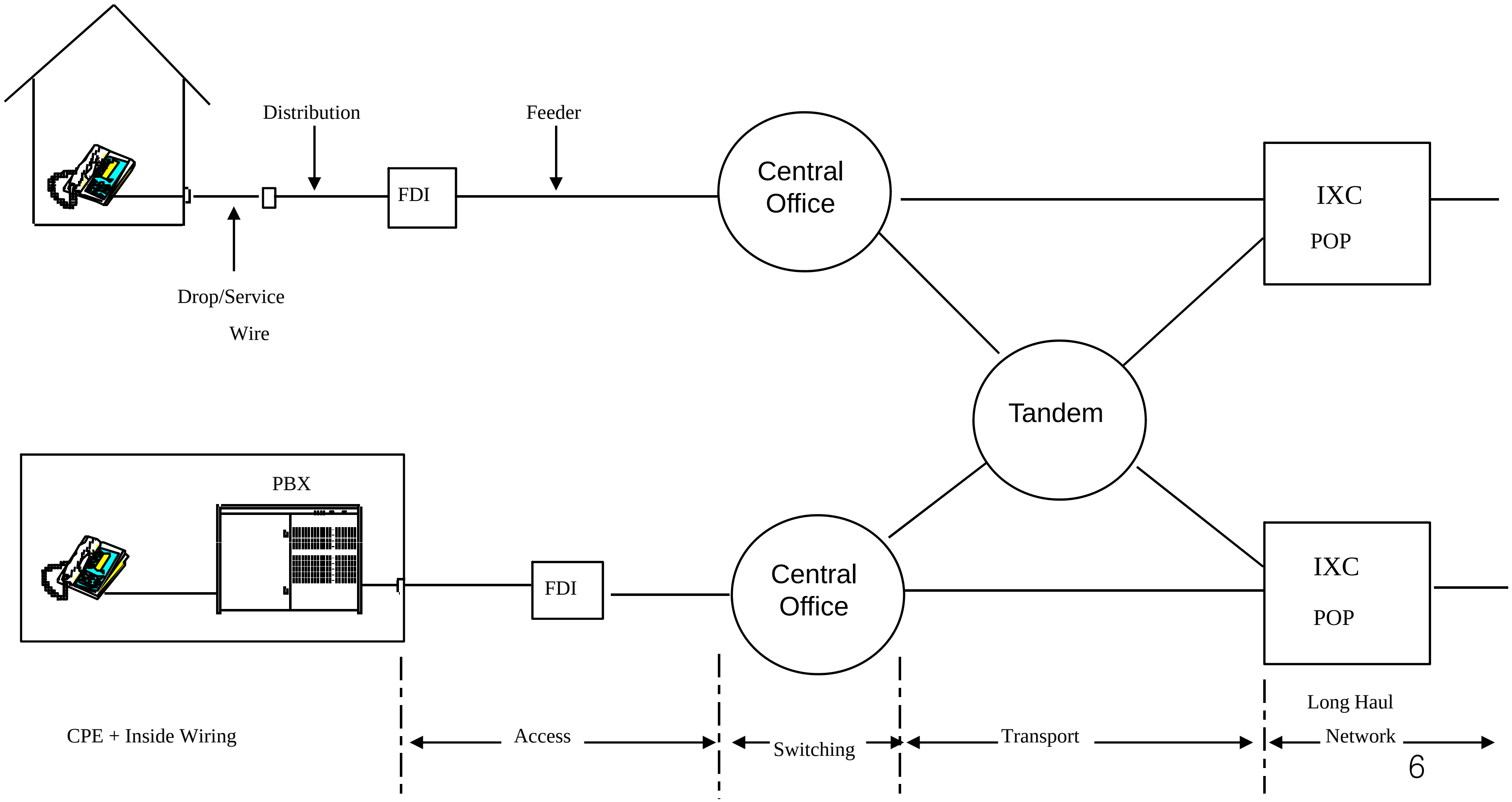


Network Access and Interconnection

Multiple Carriers



Local to Long Distance Interconnection



AT&T's Long Distance Service

AT&T's three types of connection between long and local facilities:

- MTS/WATS
- Private line services
- FX/CCSA

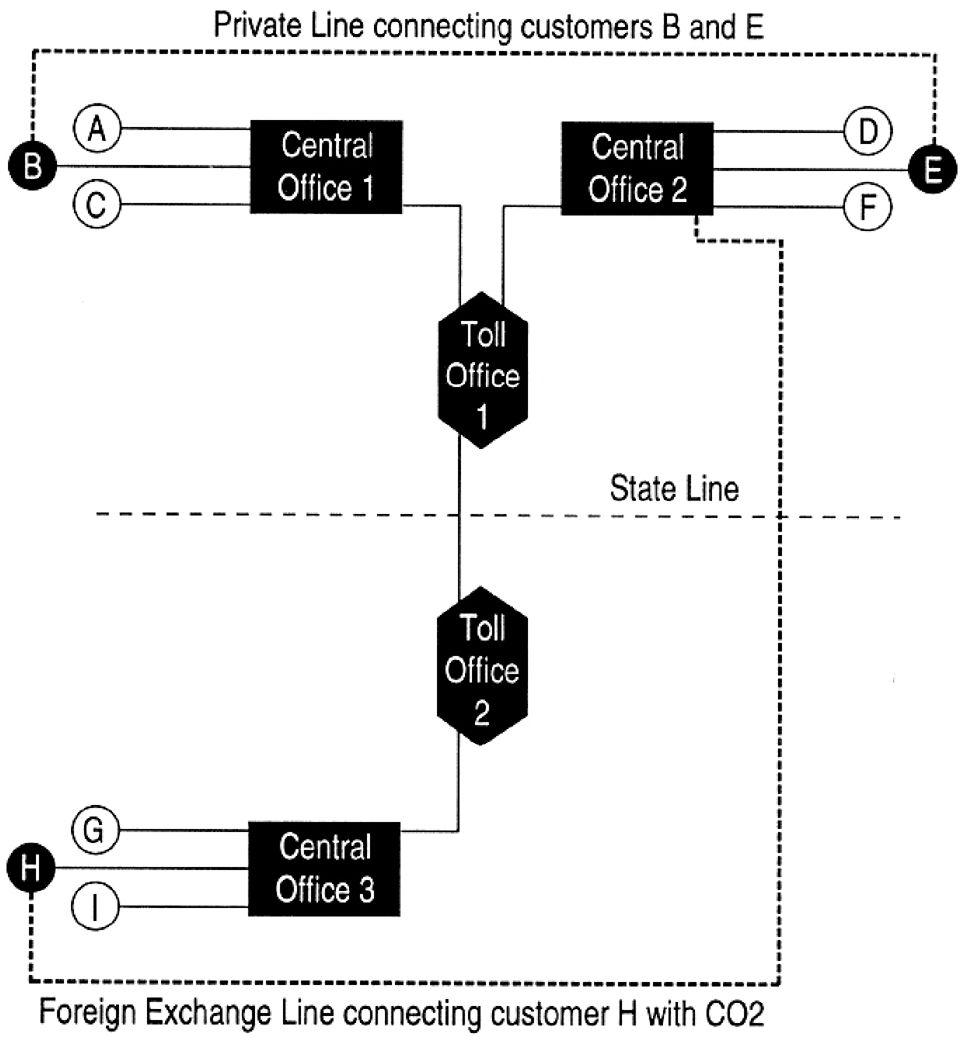


Figure 3. Network Services

AT&T's Long Distance Service

MTS/WATS:

- Ordinary long distance call
- Charged by time and distance, not by actual location
- Revenue division was based on recovering specific % of each local telephone company's cost from toll revenue

AT&T's Long Distance Service

Private line service

- Physically routed along with other switched facilities
- From a customer perspective, a separate line directly connecting two customers (large business customers)
- Charged according to distance and capacity at a fixed rate per month, independent of the number of calls made
- Revenue was shared with the local companies based on the portion of their cost that was allocated to private line service

AT&T's Long Distance Service

FX (Foreign Exchange):

- Hybrid of switched and simple private line
- Private line between a large business customer H (closed end) and a CO2
- Access to all customers (open end) in the CO2
- Private line charge + local exchange charge

Revenue Share and Cost Allocation Formula

All three services used combination of local and long distance facilities

Revenue was shared among the various components of local and long distance components

Revenue share was based on Cost Allocation Formula

Revenue Share and Cost Allocation Formula

Private line was designed to recover the **fully allocated cost** share of the local equipment used for the service

MTS service was designed to recover much more than the fully allocated cost share of the local equipment used to originate or terminate long distance service: State regulators sought greater share of long distance revenue in order to hold down local prices, i.e., increased fraction of local costs are recovered from the MTS revenue

Revenue Share and Cost Allocation Formula

FX service paid less than its fully allocated cost share because the open end received service at the local rate that was held below full cost by the revenue from MTS service

The Private Line Interconnection Controversy

- Controversy between MCI and AT&T
- The type of services for which AT&T was required to provide interconnection and the rates to be charged for connecting service

Execunet (1975) and Switched Service

The originating private line in FX service was shared among customers (G and I)

A customer of Execunet called the MCI office as an ordinary local call and was connected to the private line through the MCI switch

It allowed a far lower cost per minute for long distance call between H and customers in exchange 2 than through MTS

It allowed customers an MTS equivalent service at FX rates

The massive payments to local companies from long distance revenue flows (by high MTS rates) could not be sustained in Executenet

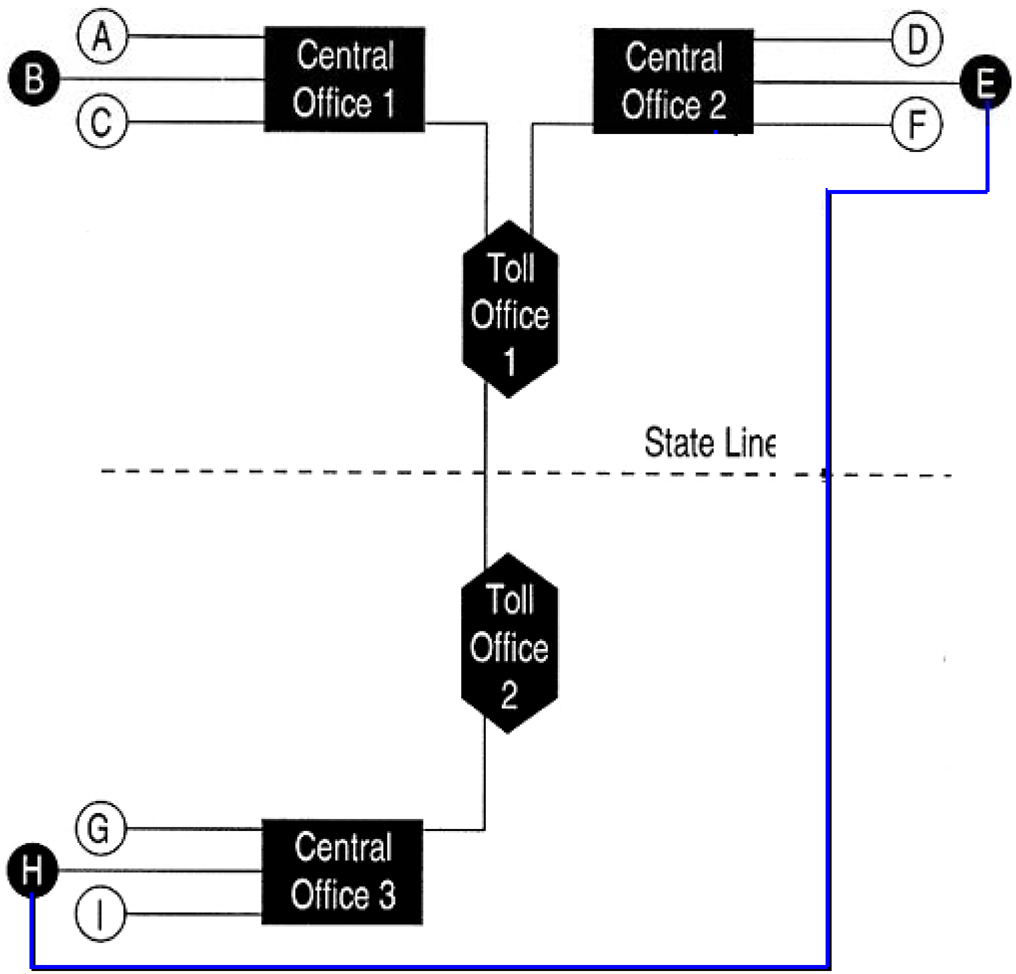


Figure MCI Execunet

Execunet and Switched Service Competition

AT&T announced not to provide interconnection arrangements for MCI Execunet service

AT&T was obligated to provide interconnection for the service by the Appeals Court

Interconnection Charges: ENFIA

For Execunet service MCI expected to connect its switch and local telephone office at the established local business rate

AT&T claimed that MCI could not obtain interconnection facilities under the state-regulated local business rates but must obtain them from the far higher federally-regulated ENFIA tariff

The First Plan: Pre-Divestiture Agreement

ENFIA (Exchange Network Facilities for Interstate Access) rate:

- Switched (at H) access lines provided to competitive long distance companies
- Interconnection of MCI to local network
- Physically identical to FX with **two open ends**
- But charged at higher rate than FX

The First Plan: Pre-Divestiture Agreement

ENFIA rate:

- If a person made a call to the local MCI office that was then relayed over the MCI network, the local call was charged at the much higher ENFIA rate
- Much higher ENFIA rate than the local rate is charged to competitive long distance companies, MCI
- It allows local companies to share in the long distance revenue

Interconnection Charges: ENFIA

A legal distinction between two physically identical services:

- A call to any local business not providing long distance service was charged at the local tariff rate (often at a zero usage charge)
- A call to the local MCI office that was then relayed over the MCI network, was charged at the much higher ENFIA rate

Summary

- Three types of connection between long and local facilities:
  - MTS/WATS
  - Private line services
  - FX/CCSA
- Revenue share between local and long line facilities was based on different cost allocation formula of each service
- Competition in Private Line and Execunet vs. switched service