Fundamental Principle III: Service Integration

Integrated Transport Network (RIT or *Rede Integrada de Transporte*)

- Interdistrict (circumferential) routes introduced
  - transfer stations and terminals
  - fare integration: feeder, interdistrict, busway services
Integration Terminal
Fundamental Principle IV: Ongoing (Affordable) Innovation

By 1990: “Victim of its own success”

- Articulated Buses on busways
  - 170 pass./bus
  - 40 second headways
  - 10,000 - 14,000 pass./lane/hour

- 1991: Express (“Direct”) Buses (*Linha Directa*)
  - Limited-stop buses
  - Boarding tubes:
    - Pre-Board Payment; Same-level Boarding
Express ("Direct") Buses

Running primarily on high-speed one-way streets parallel to busways
Express (“Direct”) Buses

- 110 Passenger capacity
- 3.2 times as many passengers per hour as standard bus route
- US$200,000 per km to build
- 9,000 passengers per direction per hour
1992: Bi-articulated Buses

Bi-articulated buses introduced on busways

- 270 passenger capacity per vehicle
- Built for Curitiba at local Volvo factory
- Utilizing Tube Stops
- Lower-cost alternative to Light Rail
Bi-articulated Bus: Affordable Innovation

18 km North-South Corridor

<table>
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<tr>
<th></th>
<th>US$ millions</th>
<th>US$/km</th>
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