



Stephen Davis:

All facts and
graphics from
www.ups.com



UNITED PARCEL SERVICE

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* All facts and graphics from www.ups.com unless otherwise noted *





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Presented to

Professor Anna Nagurney

and

FoMgt 341: Logistics and
Transportation

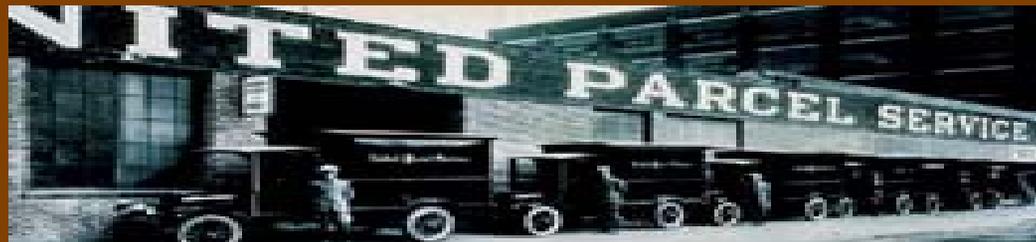




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Brief History

- **1907: Founded by James Casey.**
 - Made most deliveries on foot and used bicycles for longer trips.
- **1913: The company began using consolidated delivery, combining packages addressed to a certain neighborhood onto one delivery vehicle.**
- **1919: Took on the name United Parcel Service.**
- **1924: Built the first conveyor belt system for handling packages.**





UNITED PARCEL SERVICE

Brief History



- **1929: UPS became the first package delivery company to provide air service via privately operated airlines.**
- **1930: UPS expands to east coast. Retail store delivery operations begin in New York.**
- **1975: Becomes first package delivery company to serve every address in the 48 contiguous United States.**
- **1985: Started international air service between U.S. and six European countries.**
- **1988: UPS begins to operate their own airline.**





UNITED PARCEL SERVICE

Brief History

- **1992:** Electronic tracking of all ground packages begins.
- **1994:** UPS.com goes live. Also online tracking software provides a real-time image of receiver's signature.
- **1996:** Added capability to calculate rates and find transit times for shipments on any digital wireless device in the U.S.
- **2002:** Begins *international* hub operations.





UNITED PARCEL SERVICE Executives

- **Michael L. Eskew (Chairman and CEO)**
- **Thomas H. Weidemeyer (COO)**
- **D. Scott Davis (CFO)**
- **Kenneth W. Lacey (CIO)**
- **Chris D. Mahoney (Global Transportation Services)**
- **Joseph M. Pyne (Supply Chain Group Senior VP)**





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Modes of Transportation

- Ships



- Planes



- Trains



- Trucks





UNITED PARCEL SERVICE Companies

- UPS Air Cargo
- UPS Aviation Technologies
- UPS Capital Corporation
- UPS Consulting
- UPS Mail Innovations
- Mail Boxes Etc., Inc.
- UPS Professional Services
- UPS Supply Chain Solutions
- UPS TeleServices





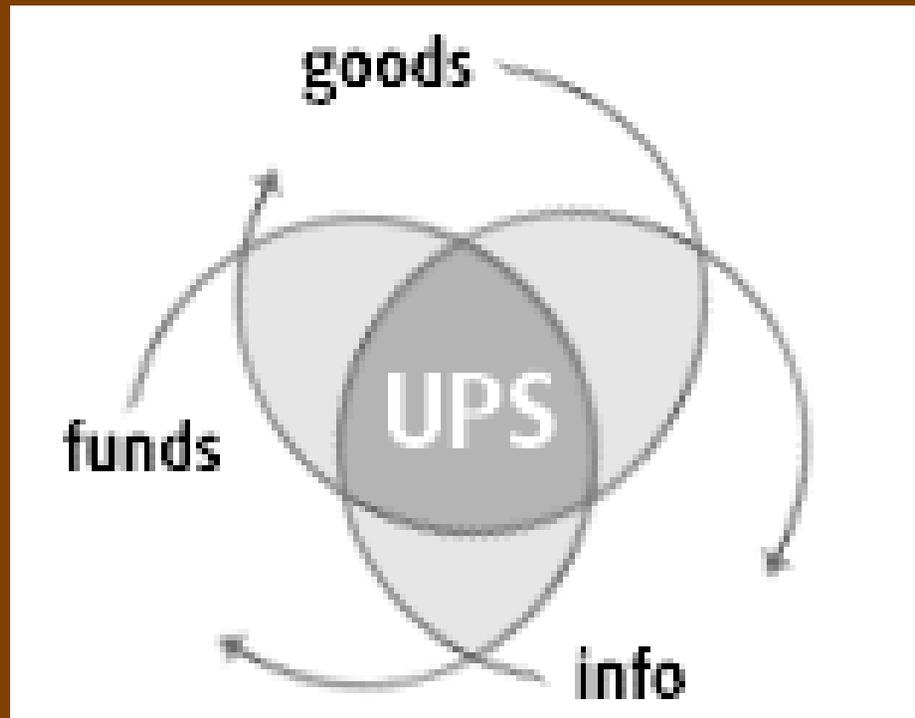
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Movement of Assets

Goods

Funds

Information





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Movement of Goods

- Transport packages for the average consumer.
 - Takes on Business's supply chain needs in more than 200 countries.
 - The UPS small package network transports 13.3 million packages and documents every day.
 - UPS Airlines is the 11th largest airline in the world
 - 1700 small package facilities (750 Distribution Centers).
- “Utilizing ships, planes, trains and trucks. The goal is to optimize loads, minimize costs and enhance reliability.”





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Movement of Information

- **Technology allows business's to retrieve information vital to their supply chains because of UPS's Tracking Systems.**
 - **Monitors performance.**
 - **UPS Consulting, a subsidiary, provides strategic advice to help businesses design the most efficient supply chains using the best technology systems available for their specific needs.**
 - **UPS's databases and systems connect seamlessly with appropriate third parties to speed international trade.**
 - **UPS information technology tracks and forecasts the movement of goods to ensure customers can monitor each step of the journey.**





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Movement of Funds

- **UPS Transportation Services provide the following financial benefits:**
 - Products offered by UPS Capital include C.O.D. accelerated payment services, working capital, commercial financing and insurance.
 - Improved supply chains, when combined with financing from UPS, can lead to improved cash flow, lower capital requirements, minimized duties and taxes and quicker cash receipts.
 - Providing Business's with immediate shipping information allows accounting functions, to bill and receive payments more quickly.
 - UPS Consulting redesign supply chains to strengthen a company's balance sheet.

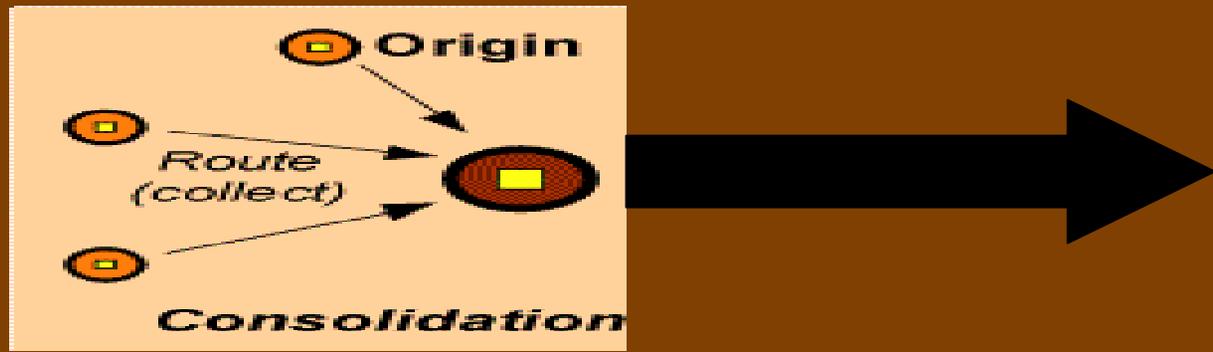
“The solution is only as good as the diagnosis.”



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Hub and Spoke System

- Consolidation:
 - Collection of Parcels.
 - Traffic trends and road conditions are continuously monitored to insure that the optimal path is taken.
 - From his/her truck, the driver has access to a hand-held computer device (DIAD) that captures information about each packages and delivery.
- The parcels are then assembled at the closest distribution center.



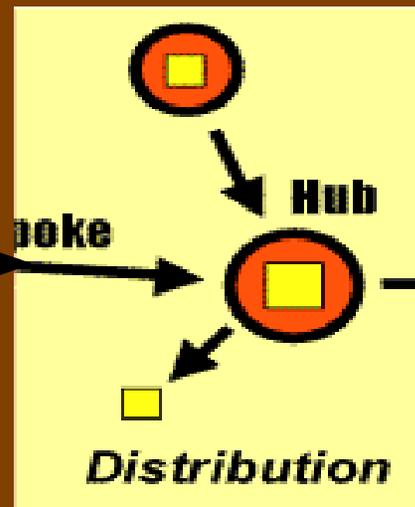


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Hub and Spoke System

- Distribution

- On a hub to hub basis, depending on the distance involved, the mode used between hubs will either be by trucking or air.
- Commonly, trucks are dominantly used for distances less than 400 miles (600 km).
- The main air hub is Louisville, Kentucky, which handles over 100 flights a day.

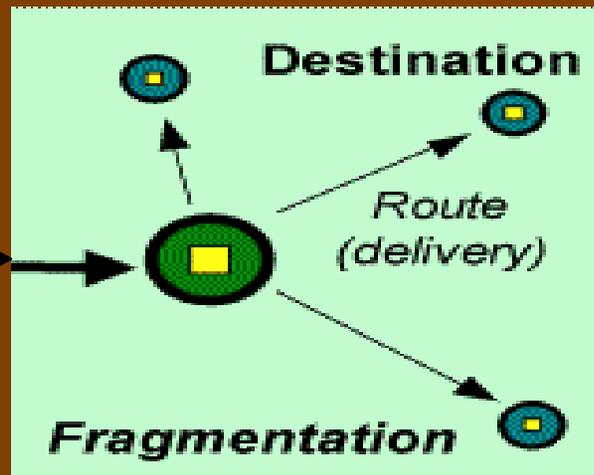


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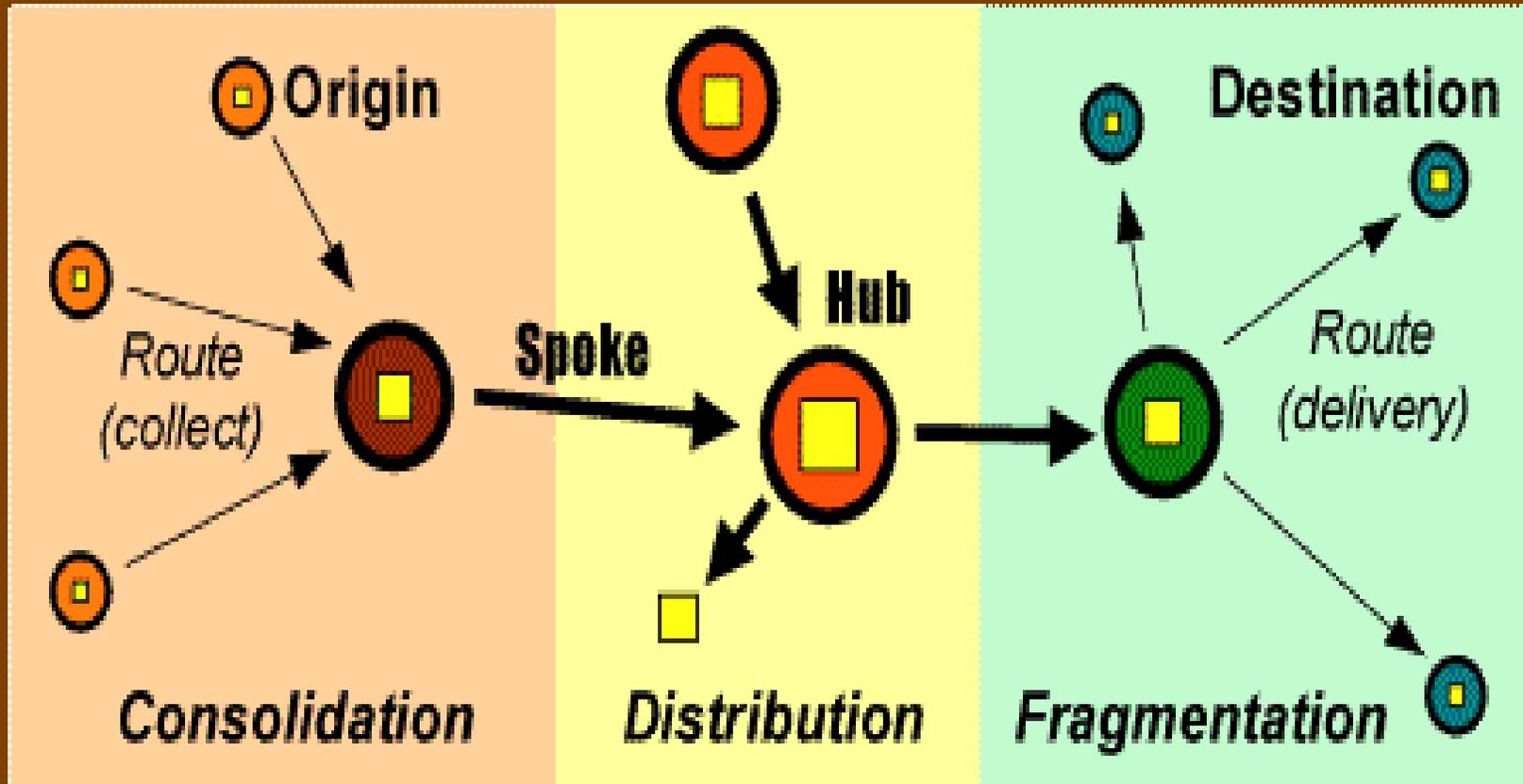
Hub and Spoke System

- Fragmentation:

- Parcels have to be delivered to each individual destination.
- Fragmentation is combined with consolidation as a delivery truck route can be integrated with a pickup route.
 - This can be achieved only with a high level of control on the logistical chain.



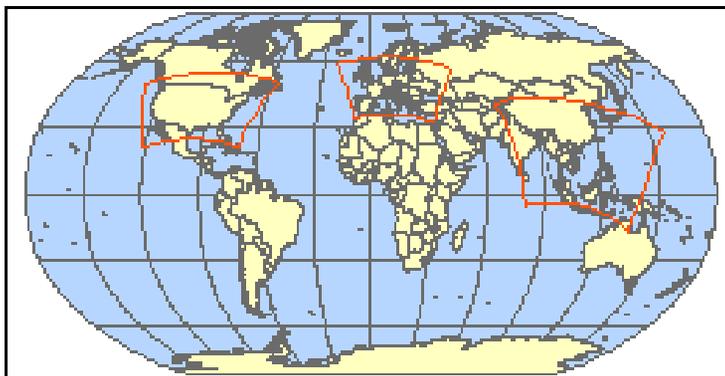
UNITED PARCEL SERVICE Hub and Spoke System





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Major Hubs





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Central Problems/Solutions

Consumer Confidence in UPS's Delivery Times

- **UPS is the first shipping company to offer a money back guarantee on shipments.**
- **UPS has recently improved delivery times in, Atlanta, Baltimore, Boston, Dallas, Houston, Indianapolis, Kansas City, Los Angeles, Miami, Minneapolis, New York, Philadelphia, Pittsburgh, San Francisco and Washington, D.C.**
- **They did this by altering railroad schedules while improvements also came through modifications of UPS's hub-and-spoke interstate trucking network. Other improvements resulted from changing package sorting times or locations**





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Central Problems/Solutions

Speed of Package Delivery

- **Solution: Delivery Information Acquisition Device (Diad) Diad** enabled drivers to scan package barcodes, capture signatures and then up-load this data onto our mainframe from any telephone.
- **UPS is basing the package-flow system on so-called smart labels that contain bar-coded delivery information and are already used by more than 90% of its customers.**





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Central Problems\Solutions

Unstable Fuel Prices

- As of 2003 a new software system, being written in a combination of C and C++ will generate preloading labels for packages to aid in the loading of delivery vans. In addition, it will also include built-in geographic information system software to help planners map out routes. and will run on UPS's existing back-end systems, with end users accessing it via PCs.
- Implementation of Transportation computer software system should reduce the mileage of the company's delivery fleet by more than 100 million miles per year, saving about 14 million gallons of fuel.
- Breaks down a massive operation by individual hub.





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Central Problems/Solutions

Pilots dependent on ground control to decide their every maneuver.

- Implemented Automatic Dependent Surveillance-Broadcast, or ADS-B in planes cockpit.
- ADS-B transmits speed, heading, altitude, and GPS coordinates, to all other planes similar equipped allowing each to map traffic around them. As a result pilots become aware of other planes operations, and can act upon those to create their own path flows which minimizes time and fuel usage.
- Specifically used in bad weather and at night, where air traffic is most highly volatile.
- Goal for Louisville KT to go from 304,000 to 500,000 an hour, if this strategy is implemented as desired.





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Conclusion

UPS has remained the leading shipping/logistics firm for a long time. Their integration of the latest technology has kept them differentiated as well as the cost leader. Consumers and business's both rely and trust UPS with their shipping and consulting services





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THE END





UNITED PARCEL SERVICE REFERENCES

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- *Forbes, Feb 3, 2003 v171 i3 p074*

