They've Got Mail!

The growth of Internet commerce has raised the stakes in the boxing match between UPS and FedEx. You open the front door in your bathrobe and your jaw drops. There on the front porch is that Hewlett-Packard printer you ordered on the Internet last night. Standing right next to it is one of those good-looking guys from FedEx, practically breathless from sprinting across your lawn. A light bulb explodes in your head: The Internet has landed! Retail is dead. Soon, everything from lunch to babies will be delivered express to your door by FedEx. "Quick, Jack, call our stockbroker!" you shout to your husband. "We gotta buy some FedEx!"

Whoa. You might want to slow down just a bit. Yes, FedEx is big and fast and well-wired to the Internet. And yes, the Internet is reshaping the way lots of goods are delivered. But things are not happening quite the way you think. What's going on in the delivery business is not all Internet. It's not all overnight express. And it sure ain't all Federal Express. Agog at the thought of Internet goodies flying at you with the speed of a FedEx cargo jet, you might barely notice those boring brown delivery trucks, with those drivers in boring brown uniforms, rumbling down a nearby street, about as ubiquitous and bland as the asphalt. There's another brown truck. And another...

FedEx is under attack by a huge, slow-moving, decidedly unglamorous foe: United Parcel Service, also known as "Big Brown" and "The Brown Blizzard." UPS handles three times as many packages as the purple and orange company, and
it makes four times as much money. If you ignore the relatively unsophisticated (not to mention relatively unreliable) U.S. Postal Service, UPS practically owns the business of moving packages economically by ground and delivering them to any address in the country. Several years ago it began going after FedEx’s high-margin core business, next-day air express, with surprising success. And just in case it wasn’t big and rich enough already, once-private UPS raised $5.4 billion last November in the largest IPO ever, the better to kick butt here and in Europe. “We are going to involve ourselves in global commerce more deeply and more extensively than ever,” says James Kelly, 56, the burly former truck driver who now runs UPS. “The consumer will have access to goods anywhere in the world.”

FDX, the parent company of FedEx, is counterattacking. Last year it bought a trucking company to wage a turf war against UPS; think of that strategy as racing for lower ground. In mid-January, FDX announced that it would change its name back to FedEx Corp. (the company was originally called Federal Express, then FedEx, then FDX) and apply the FedEx brand to its cheaper, slower delivery arms. RPS, the existing trucking company, will be renamed FedEx Ground; it will make only business-to-business deliveries. A new operation, FedEx Home Delivery, will specialize in deliveries to residences. FDX is gambling that its sterling reputation for service won’t be tarnished by using independent contractors, instead of employees, as carriers at FedEx Ground and FedEx Home.

At the high end of the shipping business, FedEx is investing $100 million in operations that will enable it to deliver packages more quickly and with greater control than it already does. Fred Smith, FDX’s founder and CEO, sees the world’s manufacturing processes going to a build-to-order model, much as Dell Computer has already done. He says his company will be there with sophisticated shipping systems to choreograph the flow of goods anywhere. If FDX can’t succeed at that, warns Smith, 55, an intense ex-Marine, “we won’t succeed at anything.”

Although it may seem that UPS and FDX are locked in a struggle to the death, it’s not as bad as that. Both companies are well run and likely to flourish. They are fighting over shares of a pie that just keeps getting bigger. Why? Very simply, fewer and fewer products today move by cargo pallet—thousands of identical units at a time—to factories or warehouses. They go instead into cardboard boxes to be delivered to specific businesses or to individuals.

The Internet deserves much, but not all, of the credit for changes in the transportation business. The Net makes e-tailing possible, of course. And it has made interconnected information systems—essential to ordering and tracking—cheaper and more widespread than ever. Beyond the Internet, however, corporations looking for ways to cut the cost of shipping and inventories have discovered that moving goods by the boxful instead of the boatload is often cheaper in the long run. With an 80% share between them, UPS (55%) and FDX (25%) practically own the on-time package delivery business. Companies like Airborne and DHL are also-rans. UPS, a $27-billion-a-year colossus, delivers more than 12.4 million packages a day. The Atlanta-based company claims to move goods worth 6% of the nation’s GDP every night. FDX, with headquarters in Memphis, is enormous too. It grossed an estimated $17.5 billion last calendar year. FDX hauled far fewer packages than UPS—about 4.5 million a day—but since 3.2 million went by plane, not truck, FDX’s yield, or revenue per package, was much higher.

Lately UPS has been gaining on FedEx in its core business. UPS noticed a long time ago that air express was a fast-growing and potentially lucrative part of the package delivery business. It began buying airplanes in the early 1980s and built a huge sorting hub at the Louisville airport that nearly rivals FedEx’s in Memphis. But for years the growth of UPS’s air-express business lagged far behind FedEx’s. Big Brown couldn’t match FedEx’s reputation for reliability. FedEx was the first to install elaborate scanning and tracking equipment, which enabled it to tell customers exactly where their package was. In Fred Smith’s memorable phrase, “The information about the package is almost as important as the package itself.”

Because its airplanes and tracking equipment were expensive and required large capital investments, FedEx’s return on equity for the past ten years has been a fairly pedestrian 8%—far below UPS’s 20% return. UPS, it turns out, had a big advantage over FedEx. Because it already had an army of 150,000 trucks and drivers making ground-based shipments to virtually every address in the country, it was easy to simply take air-express packages off UPS planes and ferry them to one of the company’s 1,700 truck depots. Then the packages could travel the last few miles at little additional cost.

UPS has gradually eroded FedEx’s share of the air-express business, until it now carries two million overnight and next-day air packages, vs. FedEx’s three million. Overall growth for the air-express business has slowed considerably in recent years, from 20% or more annually a decade ago to roughly 7% last year. But while FedEx’s air-express business grew just 3.6% in the first three quarters of last year, according to Bear Stearns, UPS’s grew an astounding 9.3%.

For most of the past decade, UPS spent $1 billion a year on information systems that gradually improved its ability to
track packages and its on-time performance. Although executives at UPS and FedEx each crow that their company has the best overnight-air reliability, outsiders say it's a wash. "There's no difference," says James Tompkins, head of a logistics consulting firm in Raleigh. "It's hype and image. If you ship 100 boxes with FedEx and 100 with UPS and repeat it ten times, it comes out the same. UPS used to be bad. They've improved." The thing that makes the most difference on any given night, says Tompkins, is the weather over the companies' airport hubs in Memphis and Louisville.

UPS hasn't just made inroads into FedEx's air express business. It has also engineered the shift of a lot of packages away from expensive airplanes and onto cheaper trucks. The company accomplished that by greatly boosting the tracking and on-time performance of its ground fleet, so that when UPS says a package will arrive somewhere by midafternoon three days from now, it does so better than 90% of the time. To publicize and back up its claim, UPS announced a money-back guarantee for its ground deliveries last April. "That was a very big deal for us and our customers," says Joseph Pyne, the senior vice president for marketing. "It really changed perceptions about the usefulness of ground."

FDX, it seems, didn't have much choice but to get into the trucking business too. In January 1999 it bought Caliber Systems, a Pittsburgh company whose trucking operations included a package delivery division called RPS. With $2 billion a year in revenues, RPS is not even one-tenth the size of Big Brown. Nor does it deliver to homes. But because its drivers are independent contractors who serve a franchise area and supply their own trucks, RPS's labor costs are low, and its operating income--12% of revenues--is considerably better than the 6% at FedEx.

The on-time delivery performance of RPS--the outfit soon to be renamed FedEx Ground--is mixed. "We shipped RPS for a while," says Ding Kalis, who runs a drill bit manufacturer in California. "It was horrible. If the driver had to make a delivery in some suburban part of his franchise area, he didn't go until he was good and ready. Things would be days late." Customers were so frustrated, says Kalis, "that we still get purchase orders saying 'Do not ship RPS.' " On the other hand, Debra Phillips, head of a lobbying group for companies that make numerous small-package deliveries, notes that RPS is much improved; her group named it "shipper of the year" in 1999. FedEx says it has remedied many of RPS's service problems and will continue to upgrade technology and improve training at the company.

The most intriguing of FDX's recent announcements was its plan to create a new operation solely dedicated to home deliveries. Like RPS, FedEx Home Delivery will hire independent contractors to serve defined areas. The drivers will use smaller, more economical vans (decorated with the image of a friendly dog), and will make deliveries in evenings and on Saturdays, when residents are most likely to be home. "They will be like the milkman of the old days," says a company spokesman. "They'll know the neighborhoods and know the people. But instead of delivering milk, they'll deliver just about anything else." FedEx plans to have its new drivers serving half the U.S. population by later this year, but it declined to say how many trucks and drivers it would actually engage.

Shippers and customers using FedEx Home Delivery and FedEx Ground (business-to-business) will be able to call up the same Website that FedEx's air-express customers use to track the whereabouts of a package. But the truckers won't share the express group's hubs or sorting centers, and none of the divisions will deliver packages for the other. "We think that will be an important difference between us and UPS," says William Margaritas, a FedEx vice president. Because UPS has combined its express and ground businesses, its flexibility is limited, he says. For instance, the UPS pickup schedules are built around the needs of the ground operation, so its drop-off locations close before FedEx's.

"With FedEx, you can still drop off an air express package at 7:30 in the evening," says Margaritas. But until FedEx gets its trucking act on the road, it will continue to be vulnerable to UPS. Not only is UPS luring some air-express business back to the ground, but it offers one-stop shopping to companies that need both air and ground transportation--and volume discounts to boot. Tompkins, the logistics consultant, says UPS sales reps seem more aggressive than ever in taking business away from FedEx. "It used to be that when you'd go to UPS and tell them your client was pretty big, they'd give you the standard 10% discount. But now if you tell UPS that your client has been using FedEx for the last three years, their pencils come out in a hurry."

In reality, the price difference between UPS and FedEx for the same services may be as little as 2%; careful cost analysis is difficult because volume discounts differ sharply from list and are kept secret. Some companies that ship lots of packages have learned they can profit from widespread public misconceptions that FedEx is quicker and more reliable than UPS. Although both companies charge shippers similar prices for similar services, many consumers willingly pay a few dollars more to get something via FedEx. "We love it when customers ask us to ship on Federal Express," says an executive at one New Jersey company. "We can charge more, even though our cost is about the same." His company, naturally, pockets the difference.
FedEx deliberately pursues that tony image, says Tompkins. "It sponsors golf tournaments and even had the Orange Bowl renamed the FedEx Orange Bowl. You wouldn't see UPS do that in a million years. There's far less pizzazz in UPS's marketing." The different histories of the two companies help explain why. FedEx was founded by Smith, a Yale graduate with a background in economics. At UPS, on the other hand, virtually every executive--including CEO Kelly--began by driving a truck. "The UPS guys get ahead by scrambling all the time," says Tompkins. "They get promoted and hustle like mad and yell at the drivers to make their section profitable and get their bonus. They don't care about image. They're tough. Their attitude is, 'Whaddaya mean, I can't drive through that brick wall?'"

Even as the two companies invade each other's turf, they have different visions of where the package delivery business is going and where they want to be. United Parcel is eager to capture the traffic to homes that the Internet will generate. Federal Express thinks the Internet will drive demand for high-end shipping services for corporations; it is intent on capturing that so-called supply-chain management.

Although both companies claim to be capable of matching any service the other provides, United Parcel clearly has a leg up on FedEx in delivering to homes. According to Forrester Research, a Cambridge, Mass., consulting firm, UPS delivered 55% of the items ordered over the Web and shipped to homes during Christmas a year ago; it estimates UPS handled at least that proportion during Christmas 1999. The U.S. Postal Service made about 30% of e-tail deliveries. FedEx, with its less-developed ground-based system, handled about 10%. "United Parcel is much more focused on the movement of goods from business to consumer," says Stacie McCullough, a Forrester analyst. "That's not a big part of their overall business now [about 80% of UPS's deliveries are business to business]. But deliveries to consumers are expected to grow exponentially in the next few years."

The value of goods ordered over the Net and shipped to homes was a fairly modest $20 billion in 1999, about 1% of traditional retail sales, says McCullough. That is expected to rise to $180 billion by 2004. During the same time, McCullough predicts, the volume of homeward-bound parcels should rise from three million to eight million a day.

Delivering to homes is less profitable than delivering to businesses because homes are more scattered. (UPS charges an extra dollar for residential delivery to help cover the additional cost.) But margins should rise as the Internet boosts the flow of boxes to apartments and suburbs. "Business-to-residential adds to profit," says Michael Eskew, UPS's senior vice president for planning. "It fills in the network. The delivery person can do air express in the early morning, business deliveries in the late morning, and residential in the afternoon. Density and scale are a big part of this."

The looming rival to UPS in the home-delivery business is more likely to be the U.S. Postal Service than Federal Express. The merry mailmen are not much of a threat now, because the post office lacks the sophisticated computer systems that would enable it and its customers to track packages. Customers of both UPS and FedEx can check the status of shipments themselves on the Internet to learn exactly when a package was received and who signed for it. The post office has hired Lockheed Martin to devise just such a tracking system, which should be ready in about two years. Tompkins, who has seen it, says he is impressed: "It will be as good or better than what UPS and FedEx have now."

Because the post office already delivers letters to virtually every address in the country, the added cost of packages will be low. FedEx and UPS executives rail at the intrusion of the post office, noting that it can subsidize its package delivery operations with money from its monopoly on mail and that the post office doesn't even pay taxes. Most galling, federal law requires FedEx and UPS to set their package list prices twice as high as those of the post office. Tompkins predicts that the post office's share of Internet-driven package deliveries to homes will rise from about 30% now to 50% in a few years.

Over the long term, FedEx is placing its biggest bets on the build-to-order revolution under way in manufacturing, epitomized by Dell Computer. Dell doesn't build a zillion identical computers, flood them out to retailers, and hope you like what you see. It waits until it has your custom order (and your money), then orders components from suppliers and assembles the parts. Some components, like the monitor or speakers, may be sent directly from the supplier to your home (never passing through Dell) and arrive on your doorstep at the same time as everything else.

That may sound like old news. "Just in time" inventory and delivery systems were popularized by the Japanese in the 1970s and adopted by Western corporations in the 1980s. But they required private data networks that were expensive and difficult to use. Even the automakers got only about 20% of their suppliers to connect to their systems. The Internet, vastly cheaper and easier to use, promises to make it possible for a small widget maker in Sri Lanka to receive an order and ship parts to an assembly plant in San Jose or even directly to a customer. Because transportation and
warehousing account for about 10% of the price of all goods, cutting costs with sophisticated Internet-based logistics and supply-chain management tools has become a minor obsession for many corporations.

Both FedEx and UPS have seen the opportunities here. Both are working to tie their tracking systems to warehouse and inventory software from the likes of Oracle, SAP, and PeopleSoft. Both do sophisticated warehousing for hundreds of big and small companies; UPS boxes and ships sneakers for Nike, while FedEx does the same with computer peripherals for Hewlett-Packard. FedEx, however, seems hungrier. When Cisco Systems wanted a more precisely timed way of delivering routers to customers, it approached both FedEx and UPS. UPS's response was rather ho-hum, says one Cisco executive. "It was: 'Cisco has an itch. Give us a few million and we'll scratch it for you.' " FedEx, by contrast, jumped: "They pulled out their wallets and said they'd do whatever it takes."

The problem for Cisco was that a big client might order 100 routers at a time. (Routers control the flow of information on computer networks.) Some might be shipped from San Jose, others from Mexico, the rest from Asia. Unfortunately for Cisco, customers want all the routers to arrive at the same time. FedEx can easily coordinate shipments when Cisco's factories are running smoothly. But suppose Cisco discovers that a bunch of routers at the San Jose plant have a problem and will be delayed for two days? Meanwhile, the routers made in Asia and Mexico are already on their way to the customer. How does Cisco keep them from arriving ahead of the California routers?

It's not a trivial matter. Items arriving in dribs and drabs cause all sorts of frustration. If the routers from Mexico get to the customer before the ones from California, the guy who signs for them on the receiving dock may think the order is botched. He won't know whether to send along what he's gotten to the tech center or hold everything in storage until the entire order arrives. Maybe the customer has hired a group of technicians to install the routers, but now they're standing around doing nothing because the full shipment isn't in.

In the old days, the way to guarantee coordinated shipments was to keep plenty of routers in a warehouse and put them all on one truck. But Cisco wants to avoid the cost of keeping millions of dollars' worth of routers in inventory. FedEx agreed to install systems for Cisco that would enable the company to accelerate or retard parts of an order on short notice, thus ensuring coordinated deliveries.

One shipping expert familiar with the deal says Cisco was impressed with FedEx's enthusiasm for the proposal: "FedEx told Cisco, 'The way you're looking at this is very much the way we see the world going, and we'd like to develop this product for you.' " He estimates that Fed-Ex will spend $100 million on the project. "It means system changes and ripping up the physical plant and changing how drivers do things," he explains.

All this is just beginning, but if it works, it will make a big difference for Cisco: "It will blow away warehouses. The cost of doing this with warehouses looks like it would be twice the cost of doing it the new way. And it will give Cisco so much flexibility about where it puts its factories around the world."

Whether FedEx will benefit from the improvements as much as Cisco remains to be seen. Certainly FedEx will have many admirers if it can become the brains and brawn of a global, Internet-based system that moves and tracks goods around the world with the precision of a master chess player--and that wipes out trillions of dollars in costly inventories. But will this new system pay? Paul Schlesinger, a securities analyst for Donaldson Lufkin Jenrette, has covered FedEx for nearly 20 years. He worries that the company is infatuated with technology at the expense of earnings. "At some point you begin to question if it's such a great company," says Schlesinger. "It's got great morale, great service, and all that. But how great a company can it be when its returns are so poor? FedEx has a tendency to over-engineer. In the basic operations where FedEx does something that UPS doesn't, it's not clear that FedEx makes money."

FedEx officials say they aren't concerned. United Parcel may have taken the early lead in capturing what the Internet has to offer, observes Dennis Jones, the chief information officer at FedEx, "but that's like Russia bragging that it launched Sputnik. Russia didn't put a man on the moon."

You get the sense, though, that UPS isn't chasing the moon right now. It seems content with its wheels on the ground and 12 million boxes a day passing through its trucks. The battle between Big Brown on the ground and FedEx in the air seems certain to get more heated. And it won't be over anytime soon.

Total daily deliveries
UPS: 12.4 million vs. FedEx: 4.5 million

### Big bundles

1999 revenue (FORTUNE estimates)

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### Fleets

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<td>1999 Air express growth rate*</td>
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* First three quarters.