Fed Ex, The Net and the Virtual Global Warehouse

William J. Conley Jr. explains how Federal Express is using e-commerce to build the virtual global warehouse.

One thing is that I am pleased about is the fact that Federal Express ("Fed Ex") has been known as the airline of the Internet. We have learned many years ago to adopt and to work using new medium. We are a company known as being an early adopter in the marketplace.

Some of the points I will discuss - first of all, a little about Fed Ex, our experiences in using the Internet. The fact that we do use it. We started to use it first as a cost reduction mechanism, and secondly, it became a true opportunity for a new revenue stream, a new distribution channel to reach out and touch our customers.

I'm also going to talk about what I call the cycle of commerce (I'll later refer to it as the wheel of fortune) because that is exactly what e-commerce can do for you, here in Australia.

I'll talk about new channels of distribution and, last but not least, as always, I will show you some results that my attorneys will let me share with you, without compromising confidentiality.

FACTS ABOUT FED EX

A few facts about Fed Ex. One thing about Fed Ex, we keep growing, keep expanding. We have now over 140,000 employees, 620 aircraft flying worldwide to move our customers cargo and over 39,000 vehicles to do pick up and delivery. We do delivery today in over 212 countries, or about 96% of the world's GDP is now served directly by Fed Ex, with over 55 million daily transactions conducted electronically and over 650,000 customers are on-line with Fed Ex every day conducting business with us via the Internet of our Fed Ex private provider network.

Some other facts - of course, we do do over 3 million shipments per day around the world every day. Our clock starts every 24 hours, it's another 3 million plus shipments and we continue to grow.

Our revenues for 1997 were $11.5 billion and we will be closing our fiscal year here

in May 31st this year, as we approach a $13 billion company in annual turnover, and in January 1998 we became a subsidiary of FTX Corporation.

We are known by most of you for our expertise, if you want to call it that, in supply chain leadership, supply chain management. We have our worldwide distribution centres for doing customer value-added services, we have our integrated global ground and air network that completely is integrated and works, to move customers' packages on their behest.

We serve all the countries that are physically possible to serve, with a few that we're still working on, and we are known as a quality leader. You cannot serve customers and provide a value-added service without having a quality momentum.

We were awarded the Malcolm Boldridge award by the United States in 1992 and we have since received worldwide certification. We're the only service company to receive worldwide certification to the ISO organisation.

PHILOSOPHY ON TECHNOLOGY

We are both a package company and a packet company (being bits, or bits of data information). We have consistently been recognised as a company out there on the leading edge, attempting to use technology to improve service to our customers. We don't just do it for the fun, we don't just do it to experiment. We invest a lot of money in R&D, with the total reason for pay-back, either to reduce costs or improve our revenue stream, and in the case of the Internet, we've been able to do both.

Our Chairman of Board said some time ago, very clearly, that the Internet was going to make it difficult for any person in the middle-man position in the future to maintain or stay in business.

We see that the Internet has the power, similar to what WallMart did in the retail

sector, of virtually putting other people out of business, through information and supply chain management capabilities. The Internet provides the connectivity and Fed Ex, with its global network, provides the delivery capability to do that, and we are absolutely convinced that the Internet is going to revolutionise and change how we do business and how we conduct ourselves in business in the future, if not today.

One thing unique about the Internet, using Moore's law - the power of this medium continues to grow, for every time you add a point it grows exponentially. The very first hook-up on the Internet was like the very first telephone, or the very first fax machine. It had nominal value. Once you had the second phone, or the second fax machine, the value of your vehicle, the value of your communications medium grew.

The Internet is so powerful today, it's going to continue to grow, that you need to participate, to become hooked up, to become visible throughout the rest of the world.

WHY FED EX MOVED ONTO THE NET

Now a lot of people say "why does Fed Ex need to be the airline of the Internet?" First, it was an absolutely logical step for us to take. We had been doing business, we have a large proprietary communications network, largest on-line client server network in the world. And again, to move 55 million data transmissions every day, you need a powerful network, and we started out years ago, recognising to get closer to the customer, and to reduce our cost, we had to explore other avenues.

So ten years ago, we started giving customers computers for free, and they use that computer to generate transportation documents which make it easier so when our courier shows up. He just walks in, picks up the packages and leaves. So it's a productivity improvement.

There are now 150,000 computer placements in the world today, placed by Fed Ex that allow us to save time.

We have built the universal network of global transportation. You'll see our aircraft on every ramp around. We actually fly in to 325 airports around the world on a daily basis.

We have a ground network that hooks up with it and definitely the Net builds and gives us another information vehicle to communicate and get closer to our customers.

FED EX INTERACTIVE WEBSITE

So we have taken a leadership role in e-commerce. We believe that we had to, becoming a worldwide Web pioneer. Our Web page is interactive, you can do things with it. It's not a dead Website - it's a real live medium that allows you to do things and adds value to your life and adds value to your transactions with us as a company.

We've got over 5,000 IT professionals around the world that keep that running and we continue to work and deploy more and more assets to make it easier for our customers to do business with us.

Our Web page was launched in 1994. We have been doing business prior to that time through other mediums, fax/phone and whatever. We recognised in 1994 that we had to get into the Web page and we became one of the first people in our industry to launch the Web page. But we started simple. The first Web page was real easy; it coupled very simple functions that you could just order, pick up or delivery information.

EXPANSION TO OTHER LANGUAGES

Then we expanded it to a much more complex Web page and then we started going international. So today our Web page is in German, Spanish, soon to be Japanese, French. It's in multiple countries and it even has an Australian Web page and it speaks Australian, so it's a wonderful Web page.

So it allows you to reach out to your customers. If you want to know about Fed Ex worldwide, you can go to the worldwide Web page for Fed Ex, and from there you can tick whatever country you want to talk to, and you can click to your country, so that it will immediately link you to the French page, German page,

Spanish page or whatever country you may be in, and if there's a specific language for that page, it also allows you to tune in and read in your local language as necessary.

So again, what are we doing? We're taking data and bringing it to our customers, and allowing them to use us and for us to share information with each other.

FED EX INTRANET

One of the interesting things that's happened as we developed the Web page, we've also developed besides the Internet, a very large intra-Net, internal company network, which allows us to share data. We have over 5,000 pages on our Web page. All of our corporate policies, our sales presentations. We have a learning lab so that you, as a customer, can go in and learn case studies about other customers that use. So we have built actually a learning centre within our US Web page and you can also access from other countries.

To view this has allowed us to lower our costs. We no longer distribute Policy and Procedure - those are now on the Web page. We have saved the distribution costs - huge, huge opportunities to save money.

WEB HELP PAGES

And then for those who are not quite as Web inclined, we've even built very simple pop-up pages, help pages, on our Web page, that you can come up and click, point, click - it pops-up and tells you what is the next step. So if you get lost, there's kind of a road map to get you back to where you need to go.

So we're again not only helping our customers but we're helping them help themselves to use technology.

RESULTS

And here's some of our results to date, to talk about using the Web. First of all, it's been a very steady growth. Once we launched it in '94, for the first several months, it just kept growing and more and more hits kept coming on board.

From about January '97 on, it slowed down to a little bit below 10% growth per month. Last month 8.6 million hits - 8.6 million people went shopping on our Web page. They wanted to find out what's on there.

Now, not all of those were phone calls. Not all those people were real buyers but potentially some of those people were going in there to find information about us who previously had to call us. So that was 8.6 million people who now could get instant information about our service, without having to place a phone call, and as a CEO or a COO you're saying, well, gee, that's 8.6 million phone calls you don't have to answer. You've just saved a whole bunch of cost.

TRACKING & TRACING

The second point is traces. Now in our business, I'm sorry, in the real world of transportation things tend not to always work perfectly. So you get a lot of what we call whismo's - where is my order - whismo calls - where is my order, what happened to it.

We had 2.1 million calls last month. The average phone call for a trace is 300 seconds. So with that 2.1 million traces that were done on-line, we eliminated the need for 630 million man seconds last month. So for those who want to take their calculators out, calculate how many people we saved by allowing the customers to get their own information and with this movement to self-help, as people want to help themselves, they want to find out themselves, we've saved that manpower.

Now we've never laid off anybody in Federal Express. What this has allowed us to do is to grow.

Because we have to keep hiring. Every time you get more phone calls, you've got to hire more people but if you could get some of the customers to take off some of the routine, mundane activities, as you can with "Track and Trace", that's something else the employees can now do. Higher value-add selling or other type of activities to help your company, and that's exactly what we're trying to do.

Another thing we've done, of course, is allowed people to download software off our Web page. And on average, about 10,000 per month download software that allowed them to ship and use Fed Ex services.

CHANGING CUSTOMER RELATIONS

And it's definitely changing the way we do business with our customers. One of the things we're exploring is a "hot-link", that if you want to talk to somebody after you've gone through your own search of

CUTTING OUT THE
MIDDLE MEN
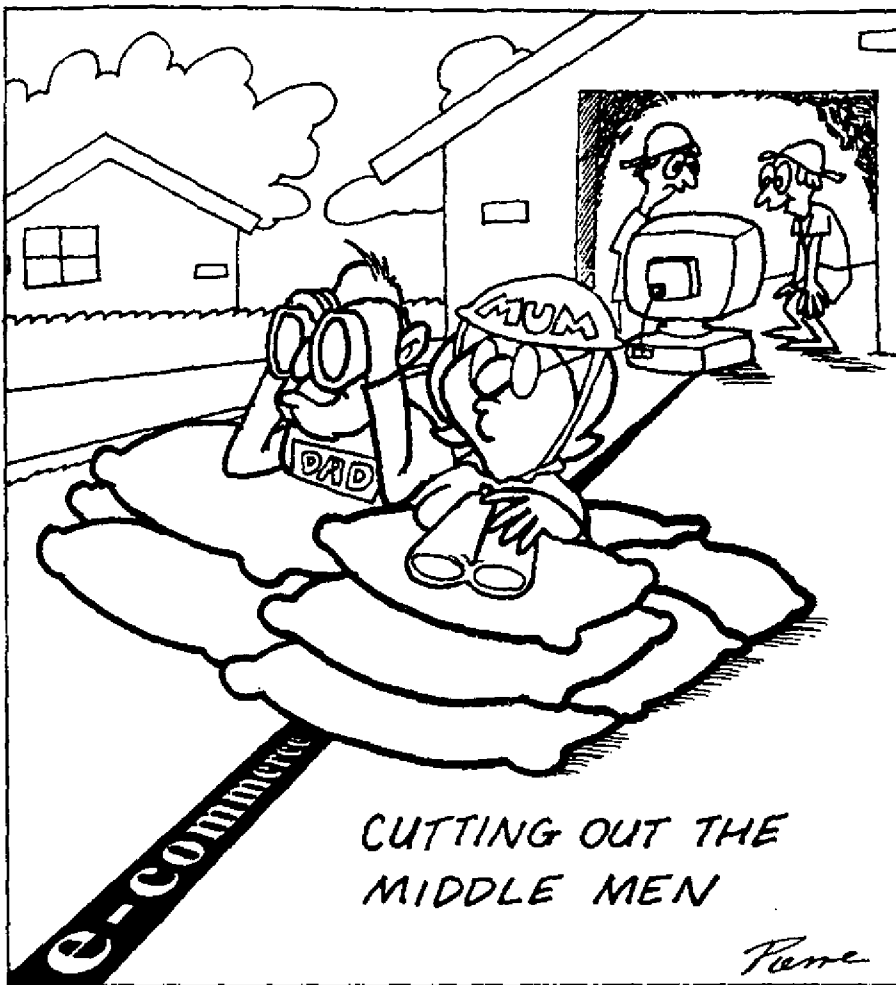
the web page, you can hit the Hot-Link button and it immediately dials the phone for you and links you to a Fed Ex customer service person. So that's the direction in which we're taking it.

The Internet is altering and changing the way people are doing business, specifically in the marketing arena, it is changing the direction to mass advertising to direct marketing and getting down to a one on one virtual marketing capability, something that no-one else has been doing.

And you're seeing all mediums, in print, TV, media, radio - the real pay-off of the Internet is it stops interrupting commerce. The power of the Internet today is that:

- you can place an order;

- that order can then go to a fulfilment centre where the pick/pack/ships transmission is completed;

- tied to a documentation that shows its transportation, which then completes and goes to the proof of delivery form;

- it's delivered to the customer, with the electronic transmission coming

back in to your purchasing department, closing out the purchase order;

- electronically triggering a transaction to send a bill payment to your bank;

all without having to touch anything, without a break at all in the movement in the information about your shipment.

HOTLINKS TO SUPPLIERS AND CUSTOMERS

Best practices on the Web are continuing to evolve, but the real key today on the Web is not necessarily what's on your page, but what your page is connected to. As you develop your Web pages, I strongly encourage you to make sure you're hot-linked to your other suppliers and your customers because that's the value of the Internet. It allows you to connect all the players through this very powerful medium.

PROMISE & EXPERIENCE

Just a few more thoughts on this before I get into how can you play in this game. First of all, it's definitely changing the brand, the line between the promise and the customer's experience.

Customers today want instant gratification, so the moment you order a book, you want the book there tomorrow, so what the Web is allowing you to do is close that gap between the buying moment and the receiving moment of the transaction.

The Internet, you've heard today, is a global medium. It's going to continue to expand. It levels the playing field. It makes small and new organisations look big and established. On the Web page, you don't know if this is a big company or a small company - you don't care. You want the quality of the transaction, not necessarily the size of the company.

NEW CHANNELS OF DISTRIBUTION

The Web is going to change the way we do distribution and it truly gives you a new channel. Don't look at it as a competing channel of distribution. Look at it as a new or alternate way to reach out and find new customers.

Best practices, as I said, are being established but the key thing about the Internet, it's not just technology that's making it successful. It's business practices, it's a medium that allows you to communicate with your customers more effectively than you've ever had a chance to do before.

GENERATING NEW REVENUE STREAMS

At Fed Ex, we also recognised it became an opportunity because of our internal drive to reduce costs we also found out we could actually generate additional revenue.

We have a service today called "Virtual Order" where we literally work with our customers to develop their Web page, to develop an electronic catalogue for them, and to process orders for them including fulfilment, with electronic medium over the Internet, so this is just one of the services we offer to our small and medium customers.

Large customers don't need that. What large customers need is visibility to everything that's moving in the supply chain and we developed a product called "Full View" to where from the moment the purchase order is placed by the purchasing department, from the vendor, it tracks it all the way through, processes the order all the way through including box content.

VIRTUAL WAREHOUSING

Now let me tell you an example why this started. It started with a company in Memphis, Tennessee called Auto Zone. Auto Zone had 300 auto parts stores and 3,000 vendors. They never knew from one day to the next what orders were going to what stores, what was in each order when it showed up. Now with Full View capabilities hooked up with the Internet they place an order, they can track an order from their headquarters in Memphis to all their vendors, to all their stores. They know exactly what's inside each box that's moving in that purchase order, and if necessary, can re-direct the order by communicating to Fed Ex to redirect that shipment for them. This allows them to virtually manage their business - and this is about the closest you're going to get to a virtual warehouse where you're going directly from the supplier, directly to the end destination, with no warehousing in between.

So it was a breakthrough that we're making, and we're very proud about that.

William J. Conley Jr. is Vice President, Logistics and e-commerce for the Asia-Pacific Region, Federal Express. This article is based on his paper presented to the E-commerce "Enabling Australia" Summit in Canberra on 16-17 April 1998.

The Government's Proposals for Copyright Reform and the Digital Agenda

David Rees of the Attorney-General's Department explains the latest proposals for reform of the Copyright Act.

INTRODUCTION

On 30 April 1998 the Attorney-General, the Hon Daryl Williams AM QC MP, and the Hon Senator Richard Alston, the Minister for Communications, the Information Economy and the Arts, announced the Government's decision to reform the *Copyright Act* to improve the protection of copyright material to meet the challenge posed by new technologies. These reforms, referred to as the 'Digital Agenda Copyright reforms', largely implement the proposals contained in the Discussion Paper, *Copyright Reform and the Digital Agenda*, which was released in July 1997. The Digital Agenda copyright reforms are an important part of fulfilling the Government's commitment to encouraging the growth of the new information economy.

Advances in communications technology, in particular, have overtaken many of the existing provisions in the *Copyright Act* which are technology specific. For example, the right to authorise or prohibit the broadcasting of copyright protected material is limited to "wireless telegraphy" to the public. This definition takes no account of developments such as the Internet or cable pay TV. Therefore, owners of copyright are not able to comprehensively control the use of their work on these systems.

The need for copyright reform has also been recognised internationally. In late 1996, two new World Intellectual Property Organisation (WIPO) treaties were agreed to, and the Digital Agenda reforms are in part a response to these treaties. The new treaties updated international copyright standards in relation to the on-line environment.

The Government has decided that the new rights in the *Copyright Act* will be "technology-neutral", so that new developments such as "web TV" or "Internet broadcasting" will not require repeated technology-specific changes to the Act.

KEY ELEMENTS

There are four key elements in the Digital Agenda copyright reforms, and they are as follows:

*   a new right of communication to the public;
*   a package of exceptions;
*   two new enforcement remedies; and
*   limitation on liability of carriers and ISPs.

COMMUNICATION RIGHT

The centrepiece of the Digital Agenda copyright reforms is a new technology-neutral right of communication to the public, which will replace and extend the existing broadcasting right, and which will also replace the limited cable diffusion right. This new right will remove the uncertainty surrounding the operation of the existing transmission-type rights in the new communications environment, as recently demonstrated by the various judgments in the *APRA v Telstra* litigation.

This new right of communication to the public will address current deficiencies in legislation by substantially improving copyright protection for books, computer software, art, film, sound recordings and broadcasts on the Internet and on cable pay TV.

EXTENSION OF EXCEPTIONS

At the same time, the reforms ensure that users of copyright material, including libraries and educational institutions, continue to have reasonable access to copyright material in the on-line environment. As far as possible, existing exceptions for libraries, archives and educational institutions have been extended to the on-line environment. The conditions regarding these exceptions will be similar to those applicable to hardcopy copyright materials. The exceptions include fair dealing for the purposes of research and study.

The Government has decided that there should be exceptions for certain temporary copies made in the course of the technical processes of transmission and browsing on the Internet.

The Government is concerned to replicate, as far as appropriate, the