



Development Strategy & eCom Services Deutsche Post DHL Solutions

Dr. Tassos Vassilopoulos CIO, DHL Express Hellas & Cyprus

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DHL – Deutsche Post World Network



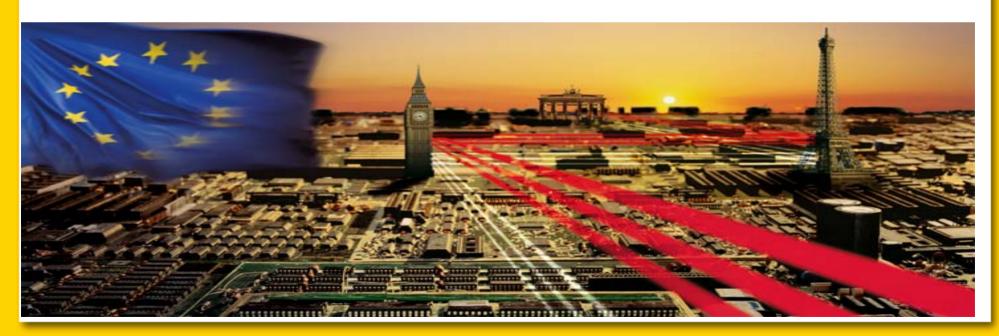
- ■DHL The Logistic Company for the world, is a Deutsche Post World Net brand.
- ■DHL is the global market leader of the international express and logistics industry, specializing in providing innovative and customized solutions from a single source.
- DHL offers expertise in express, air and ocean freight, overland transport, contact logistic solutions as well as international mail services, combined with worldwide coverage and an in-depth understanding of local markets.
- ■DHL is a global Network composed of more than 220 countries and Territories and about 250.000 employees worldwide.
- ■DHL Accepts it social responsibility by supporting climate protection, disaster management and education.
- ■DHL is part of Deutsche Post DHL. The Group generated revenue of more than 51 billion euros in 2010.
- For more information: www.dp-dhl.com

Development Strategy – Methodology



Methodology

- A Look at the World : Global developments
- A Glance at the Customer
- A Look at Logistics



Development Strategy - A look at the world



A Look at the World: Global developments: The world economy grows – New Winners, New Losers

- Energy: Ricing price of OIL, Renewable energies on the upswing, nuclear Energy
- Natural Resources, Row Materials: Still an Important Factor in Power Politics
- Climate: the Big Issue around the World Sparks a "Green" Revolution
- Old and New Players in the Globalized World
- Financial Crisis a Phenomenon That Will Pass, end of protectionism
- Technological Developments "Always On Internet"
- Social Conditions Inequalities Grow
- Security, Terrorism, Violence, and Epidemics No Serious Obstacles to Global Growth
- Values the Spiritual Self

Development Strategy - A Glance at the Customer



New Demands, New Behaviors, New Possibilities

- Climate and Values the Ethics of Consumption and Its Limits
 - Transparency, Ethical Products, Conscience count
 - Price Beats Conscience, price is important criteria, & deciding factor.
 - Integrated comfort
- New Technologies the Relationship between People and Machines,
 - Integrated "smart agents" navigates our lives
 - Everything will be completely individualized marketing will be more personal
 - The more human the better preference for person-to-person communication will still persist
 - individual consultation
 - Internet Commerce the New Culture of Diversity
 - Success in sales will be completely redefined. Definition of a "bestseller" will be reformulated. There will be "instant bestsellers"
 - products and services will constantly be on the testing bed. The power of Bloggers
 - the number of Internet vendors is expected to massively increase



Development Strategy - A Look at Logistics



the New Model Industry

- Climate the Central Challenge
- Values the Ethics of the Logistics Company,
 - Offshoring and outsourcing will create new possibilities
- Technological Developments Radical Changes in the Industry
- A New Understanding of Companies the Age of Cooperative Efforts. "Green Business"
- New Scopes of Responsibilities



Transportation System, Characteristics & Trends



Transportation System

- The ability to move people and goods
 - quickly, efficiently and cheaply,
 - for a dynamic economy and cohesive society.
 - The transport sector generates 10% of EU wealth measured by gross domestic product (GDP), equivalent to about one trillion euro a year. It provides more than ten million jobs
- The removal of barriers to cross-border trade and travel has increased
 - the volume of long-distance goods and passenger transport.







Transportation System, Characteristics & Trends



- Transportation demand and / behavior are growing even more dependent on timely deliveries
- At the same time supply chains have become increasingly globalize,
 - assembly points away from and consumption locations
 - environmental concerns due to global warming and associated security risks regarding energy supplies have drawn the attention of numerous constituencies (cf. Cline (1992), Poterba (1993), and Painuly (2001)).
- Many production units are installed near to transportation network nodes (airport, Freight Terminals, logistics warehouse, ports etc.)



Transportation System, Characteristics & Trends

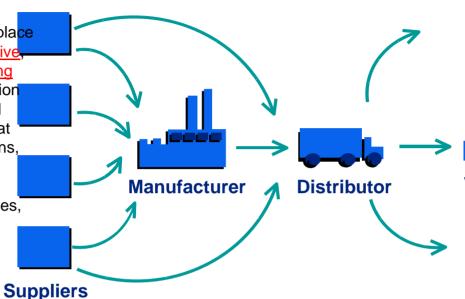


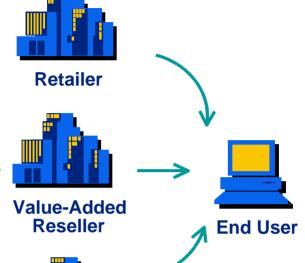
- Models to be used trying to Re Shape the Supply chain from linear to Dynamic
 - Trip Generation, Trip distribution,
 - route choice, Link performance analysis,
 - revenue and cost model.
- Advanced information Technology systems
 - The Fast and secure movement of goods and the continuously change of their status could be managed only
 - by exploiting theirs information for each moments (metadata)
 - The management of this logical model could be realized only by a set of dynamic and advanced information systems and Telecoms
- The Value of information is the same as the value of the transportation itself

Transition from Linear Supply Chain...



Transportation is a highly structured process, it takes place on networks, it is time sensitive and it has issues with queuing and congestion. Transportation requires space to occur, and radically alters spaces both at nodes—the terminals, stations, interchanges, which often become important activity centers—and along links (lines, roads, tracks, etc.).





Corporate Reseller LINK-PERFORMANCE **FUNCTION**

ROUTE CHOICE

 Wardrop's User Equilibrium Principle, travelers choose path with least generalized cost of traveling (s.t. all other travelers also choosing the least cost path) Cases

Where

 $f_a = \sum T_{rs} \cdot \delta_{a,rs}$

 $\delta_{a,rs} = 1 \text{ if } a \in K_{rs}, 0$

to node s.

 K_{-} is a set of links along the

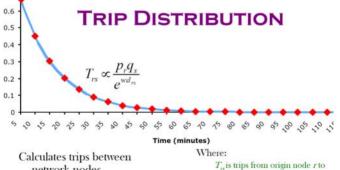
Flow on a link is

· Generalized link travel cost function

VOT•BPR travel time + Toll

I, is length of link v, is speed of link a λ is value of time T is "toll" θ_n , θ_o are coefficients

In No Congestion Case, $\theta_1 = 0$



network nodes

- Gravity model
- Working on agent-based trip distribution

destination node s,

 p_r is trips produced from node r, q_s is trips attracted to node s_s

d, is cost of travel between nodes and s along shortest path

wis "friction factor"

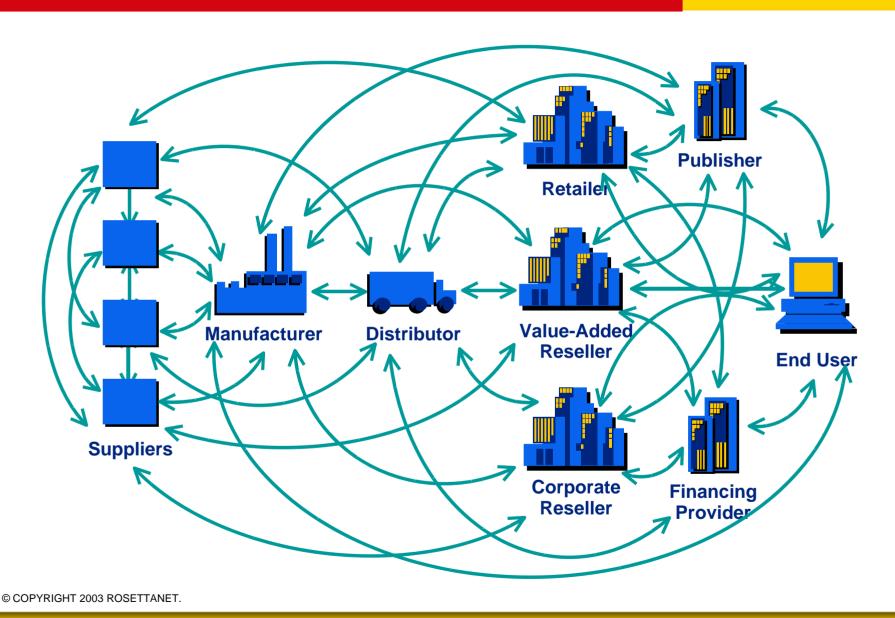
- No Congestion · Diikstras Algorithm

- With Congestion
 - · Origin Based Assignment (Boyce
 - & Bar-Gera) · Stochastic User Equilibrium (Dial)
 - Agent-based Assignment (Zhang) and Levinson, Zhu and Levinson

shortest path from node r

Dynamic Supply Chain Networks







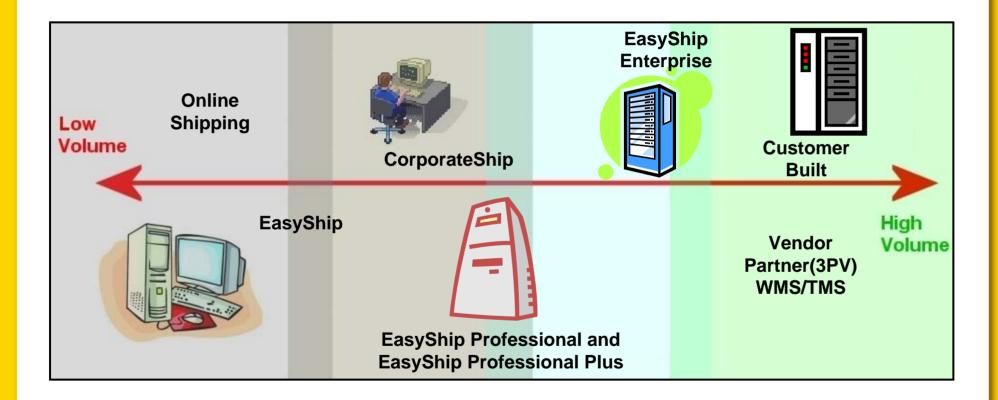
Network Integration



- Data Networks and transportation networks are integrated in to the production structure of a company
- Transportation system is transparent to the production line, optimizing process
- Customers access to Transportation services & Information
 - Interconnection of ERP Systems
 - Electronic Ordering
 - predefine deliveries Proactive Delivery Notification
 - Electronic auctions offers
 - electronic invoices
 - electronic payment
 - electronic management of warehouses



DHL offers many shipping solutions based on customer needs



DHL Shipping Solutions



DHL Web-Based Solutions



- On Line Shipping (WebShip)
- Intraship
- ProView
- Import Express Online
- Online Billing

Vendor Partner (3PV) Solutions



- Warehouse Management Systems (WMS)
- Transportation Management Systems (TMS)
- Variety of integration and deployment options, including hosted/Web, PC-based, campus-based and enterprise (client/server) solutions

DHL PC-Based Solutions



EasyShip®

Customer Built with DHL Developer Tools



- Shipment Automation Specifications (SAS)
- EasyShip Enterprise Server
- XML Pls: Ship, Track, Return, etc.
- Electronic Data Interchange Web Services (EDI)
 - Invoicing, Shipment Status, Remittance and Reporting

Web Transactional Portal





Technical Approach Transactional Portal

The transactional portal will leverage existing solutions from the Paket Division* and build on this

Username

Existing front-end solution from Deutsche Post Paket Division*

















Register Customer COMET Create shipment WSI, Intraship, IEO Tracking ProView SME specific content DHL.com eBilling Image Repository

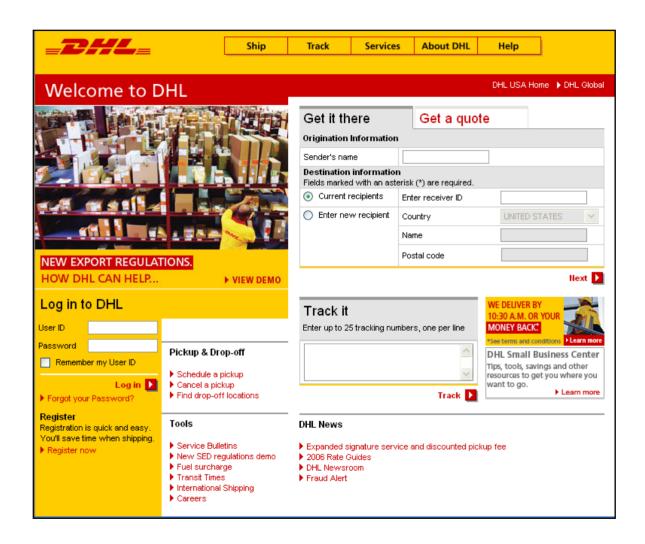
Existing DHL Express solutions provide required functionality

* Cross BU initiative "Simplify"



Web-Based Solutions: www.dhl.com





- Schedule pickups
- Track shipments
- Order supplies
- View rates
- Find DHL locations
- Check transit times
- Review trade regulations
- Learn about DHL services



Web-Based Solutions: Tracking



- Obtain real-time shipment tracking information
- Track up to 50 waybills at a time
- Track by
 - Waybill number
 - Reference
- Receive shipment tracking details by e-mail
- View, print or e-mail signature P.O.D. (Proof of Delivery) for up to twelve months

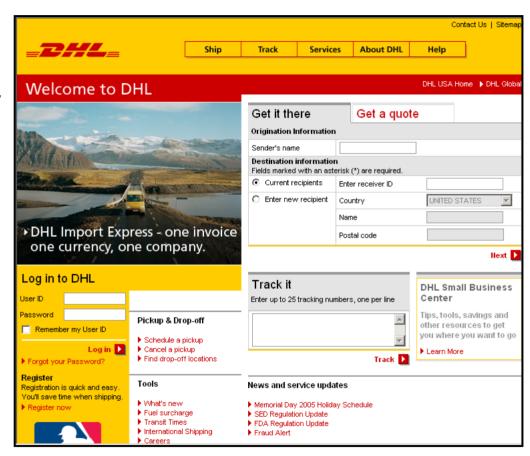
Web-Based Solutions: On Line Shipping (WebShip)



 Web-based desktop application enables shipment preparation, tracking and reporting

Features

- No need to install software on your PC
- No special training required
- No need for a centralized mailroom
- Available free of charge
- Register and ship immediately without an account number
- Bill shipments to a credit card
- Supports multi-piece International shipping
- Prints laser and thermal labels



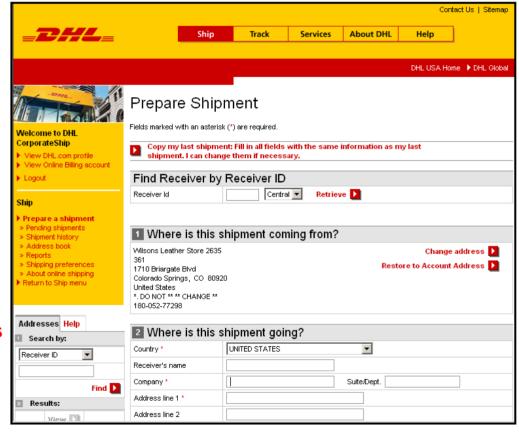
Web-Based Solutions: CorporateShip



 Web-based desktop application with administrative features provides control and flexible data handling in addition to the features available in WebShip

Features (Administrative)

- Control employee access to shipping and billing options
- Administer multiple account numbers
- Validate reference fields against lists
- Available free of charge
- Create a centralized address book
- Customize reports
- Download data to your internal systems
- Receive discounted rates for all users registered under an account
- Prints laser and thermal labels



Web-Based Solutions: ProViewTM



- Web-based suite of shipment visibility and event notification tools providing realtime access to comprehensive shipment status information
- Shipment visibility
 - Snapshot view of shipment activity by account number in one convenient location...customer's desktop
 - Detailed and summary views, including dates and times of updates
- Event notification
 - Provides real-time updates or time-specific notification, e-mail or text messages
 - Create flexible contact lists according to user needs
- Monitor multiple shipments by account number, no waybill numbers needed



Web-Based Solutions: Import Express Online



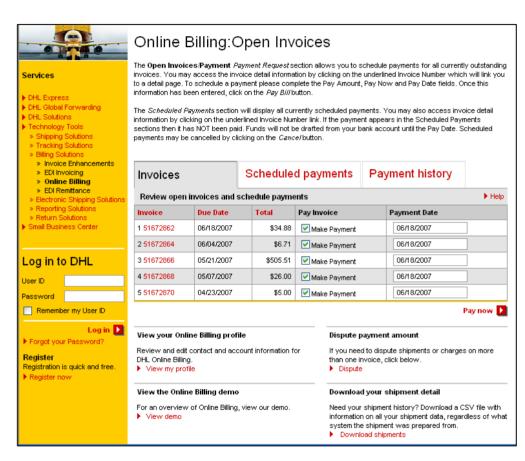
- Web-based tool created to support the Import Express product.
- Allows users to arrange direct or third-party imports quickly and efficiently from the convenience of their desktops.
- Benefits of Import Express Online include
 - More efficient communication between importers, shippers and third parties
 - Save time and money by arranging shipments online rather than manually
 - No additional costs or software required
 - Timely notification of shipments entering the DHL network



Web-Based Solutions: Online Billing



- Secure, fast and easy way to receive and pay DHL invoices from the convenience of your PC.
- Features of Online Billing
 - Receive e-mail notification of new invoices, including key details such as invoice amount and due date
 - View invoice and shipment details
 - Review payment history online
 - Choose payment via credit card or bank funds transfer
 - Select individual line items on your invoice for further research
 - Pay invoices from any PC



Web-Based Solutions: Further topics



ePOD

Possibility to store and retrieve prove of delivery electronically (e.g. via tracking sites)

Web portal

Capability to offer online services tailored to customer needs

Deliver Now

Online handling of the delivery and re-delivery process.



PC-Based Solutions: EasyShip – The Equipment

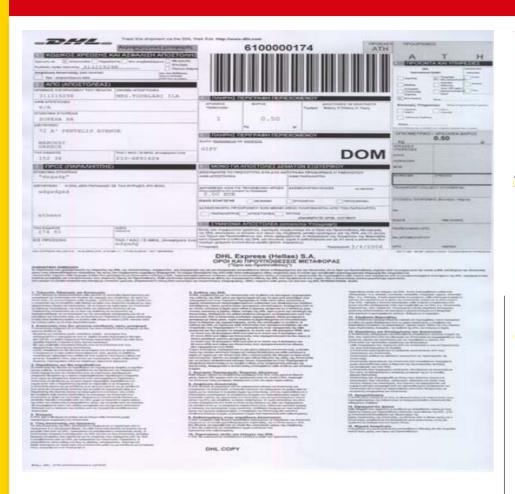


- CPU
- Monitor
- Keyboard & mouse
- Scale
- Scanner
- LaserJet printer & cable
- Thermal label printer & cable
- Surge protector
- Supplies Labels, diskettes, | paper, network cable, modem cable



PC-Based Solutions: Quality of Information







Start Date 1/13/2006 End Date 4/13/2006

RECEIVER CODE	SHIPMENT NUMBER	RECEIVER NAME	SHIPMENT CONTENTS LINE#1	DST SHPMT TYPE	PCS	SHPMT VEIGHT	TOTAL CHARGE
934409	6100000056	APOSTOLOPULU URANIA		ATH DOM	1	0.50	30.14
**SubTota	ls Far: 93440	9 - With Percentages for 1 of 9 Item(s)	11.11%		1.00 11.11%	0.50 11.11%	30.14 10.35%
*SENDER O	DDE: 1 - With	Percentages for 1 of 9 Item(s) 11.11% APOSIDIOPHILI HRANIA		ATH DOM	1.00 11.11%	0.50 11.11% 0.50	30.14 10.35% 30.14
		7 - With Percentages for 1 of 9 Item(s)	11.11%	HIII LOII	1.00 11.11%	0.50	30.14 10.35%
934409 934409	6100000012 6100000045	APOSTOIOPULU URANIA asgasg APOSTOIOPULU URANIA	sag	BRU TOK ATH DOM	1 1	0.50	105.19 30.14
** SubTota.	ls For: 93440	9 - With Percentages for 2 of 9 Item(s)	22.22%		2.00 22.22%	1.00	135.33 46.48%
934410 934410 934410	6100000001 6100000023 6100000071	DASKALAKIS EMMANUIL DASKALAKIS EMMANUIL asgas DASKALAKIS EMMANUIL		ATH DOM WTC TDT ATH DOM	1 1 1	0.50 0.50 0.50	15.14 0.00 35.14
**SubTota:	ls Far: 93441	0 - With Percentages for 3 of 9 Item(s) DASKATAKIS PAMANIIII.	33.33%	MOOT HTTA	3.00 33.33% 1	1.50 33.33% 0.50	50.28 17.27% 30.14
JO2-111	010000000	DILLUMINATE LANGUAGE			_	0.00	00.14

DHL.

Vendor Partner (3PV) Solutions



Features and Functionality

- Fully integrated shipping solution
- Usually more features than DHL PC-Based systems
- Customization capabilities include business rules based on destination, weight categories, products, profiles, users, service level, and user interface and screen content
- Custom reporting
- Label customizations, such as addition of logo, custom return address, etc.
- Customized user interface screen content
- Built-in address correction
- Ability to compare carrier rates
- Reasonable cost



Customer Built Solutions



- A Customer Built system is a shipping, tracking or billing solution that meets DHL specifications, but is developed and maintained by the customer within their own technical environment
- DHL offers a wide range of developer tools and services to help customers build their own solutions
- High-quality, limited technical support available for
 - Recommendations
 - Deployment coordination
 - Ongoing support
 - Testing, development and certification assistance

Customer Built Solutions: XML



XML Toolkit

- XML programming interfaces for rate, route, label, shipment processing and tracking services available from DHL servers via the Internet
- Includes development documentation
- Ship, Track, Return, International (XML-PI), XML@home API, Rate

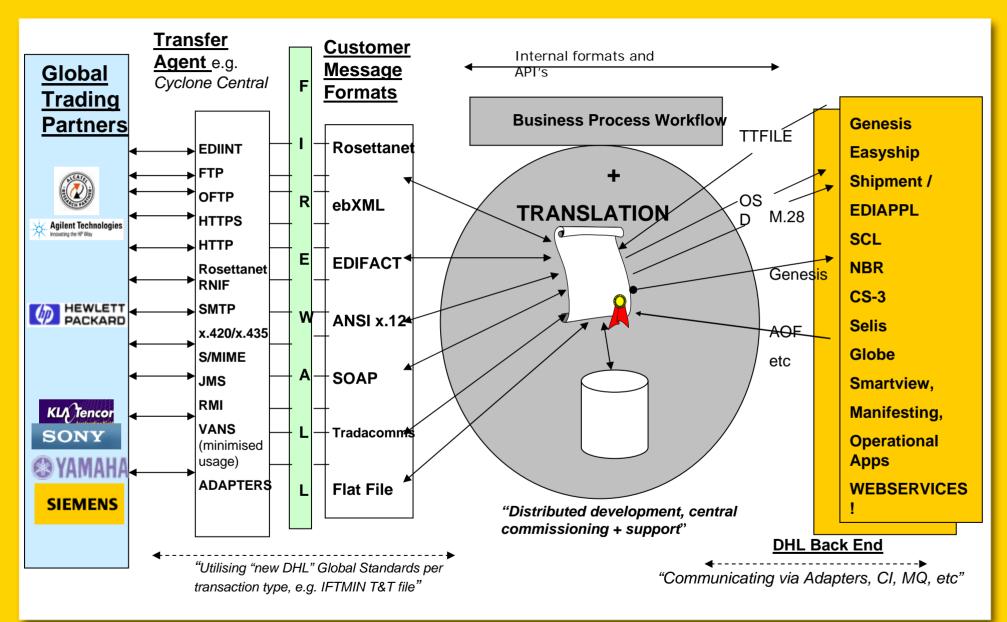
Benefits

- Reduced customer development time
- Less local processing



New DHL Global EDI & XML Gateway Environment







■ By introducing the E-Postbrief on July 14, Deutsche Post DHL brought postal confidentiality into the Internet age.

A new era has now begun following more than 500 years of traditional mail communications.

The E-Postbrief represents a milestone in the development of digital communications.

For the first time, it provides confidential and reliable electronic communications, just as fast as an e-mail.

July 2010 Deutsche Post offers

confidential letters on the Internet



- E-Postbrief, is an attractive product that makes our most successful product, the letter, even faster and more future proof
- Businesses and government agencies can save up to 60 % of their postal-processing costs by using the E-Postbrief and improve their customer service at the same time.
- Software integration with e-Postbrief, Payroll, Payment systems
- Just like a normal letter, the E-Postbrief costs EUR 0.55 in both its electronic and hybrid forms
- Users can choose whether their letter will be delivered electronically to another "E-Postbrief" account or be printed out by Deutsche Post and delivered by the mail carrier with same price







- At www.epost.de users can reserve their personal "E-Postbrief" address free of charge. The address consists of a first name and a surname and the ending @epost.de
- All users must identify themselves by using the Postident procedure with their personal identity cards or their passports in a Deutsche Post retail outlet only then the "E-Postbrief" account will be activated.
- Thus the identity of the users can be confirmed beyond all doubt and anonymous e-mails, spam or address theft are impossible with the "E-Postbrief".
- In the initial phase after the name reservation, users will have an activation code sent to them by letter.



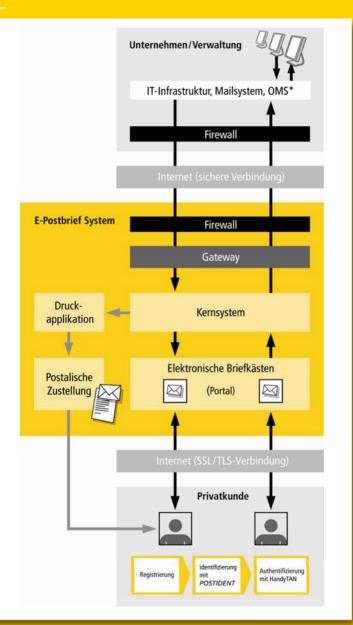


- On initial registration, users must only once identify themselves by presenting their ID card or passport user's residence is in Germany Internet-enabled PC mobile phone in the DE network over 18 years old
- E-Postbrief" combines state-of-the-art security and encryption technologies in order to ensure the confidentiality and integrity of messages.

- A transaction number (HandyTAN) similar to online banking must also be entered when an "E-Postbrief" item is sent. The big difference to the normal TAN process is: The HandyTAN is only created in the exact moment when it is needed and then sent directly to the user's cell phone.
- user name and personal password plus HandyTAN are entered via separate channels;
- Every "E-Postbrief" item has an electronic signature of Deutsche Post which enables an integrity check of the data contained in it.



- Companies and public authorities are connected to the system of "E-Postbrief" via a secure gateway.
- Authentication process
- Protection of confidential information. All "E-Postbrief" items are encrypted on their electronic communication paths between sender and recipient.
- The "E-Postbrief" items are also stored on the portal in an encrypted form. In addition, every user can add a personal encryption (issued by the Signtrust Trust Center of Deutsche Post).
- The private key is only accessible to the user. For the hybrid option of "E-Postbrief", the data to be printed is sent to the printer interface in an encrypted form.
- All systems of the "E-Postbrief" run in an ISO 27001 certified data center based on the 'IT Basic Security' as defined by the German Federal Office for Information Security (BSI). This ensures the highest possible level of technical as well as physical security.



DHL The Logistic Company for the world



Customer Proposition: Anything, Anytime, Anywhere.



...Thank you!

