

# Aligning processes

between trading partners  
on a global basis

Distributors story  
Year 2004

Connectivity centre

**IT4Profit**

Bringing  
You  
Visibility,  
Velocity  
& Value



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OVERVIEW OF  
IT4PROFIT

IT4profit Ltd. is a Distribution Channels Solutions Provider focused on delivering value to participants in the IT distribution channel. Our business consultants and developers have extensive knowledge and experience in the complexities of international IT distribution, RosettaNet and EDI protocols, Supply Chain e-Business solutions.

**Our core competencies are:**

- Connectivity Centre which enables seamless communications and data exchanges between all IT supply chain participants – manufacturers, distributors, their customers and third party service providers such as finance, creditors, logistics and forwarders. IT4profit Connectivity Centre allows companies to make transactions (ERP-to-ERP) such as price lists, purchase orders, advanced shipping notifications, with each others and can translate these transactions seamlessly into their preferred formats such as **CSV, XML, EDI** and **RosettaNet**.

IT4profit's connectors with ERP systems (ERP-to-Web) allow business partners to get all necessary data through the web because our connectors act as software translators that take data from ERP systems and convert it into a format that e-commerce understands; convert information placed online and deliver it to ERP systems.

- Content Factory which maintains and translates product content of over 17,000 products for over 250 IT manufacturers including Seagate, Intel, Maxtor, IBM and HP.
- A sophisticated IT e-Catalog and Order Management with Inventory and Warehouse Management to allow Buyers to easily access product information, see their pricing and availability, purchase online and check their order statuses. In addition Sellers can fulfil orders online.
- An intelligent Online Store suite which is designed for companies who sell simple to complex products and services online to their businesses (B2B) or customers (B2C). This complete solution allows Merchants to improve customer service, to streamline and support sales of highly customizable products across multiple channels.
- e-Dealing engine which helps IT distributors communicate faster with their customer base, get clearer visibility of demand and supply, true market pricing, which can interface to the Order Management module and can be connected to ERP systems as well as all other solutions mentioned above.

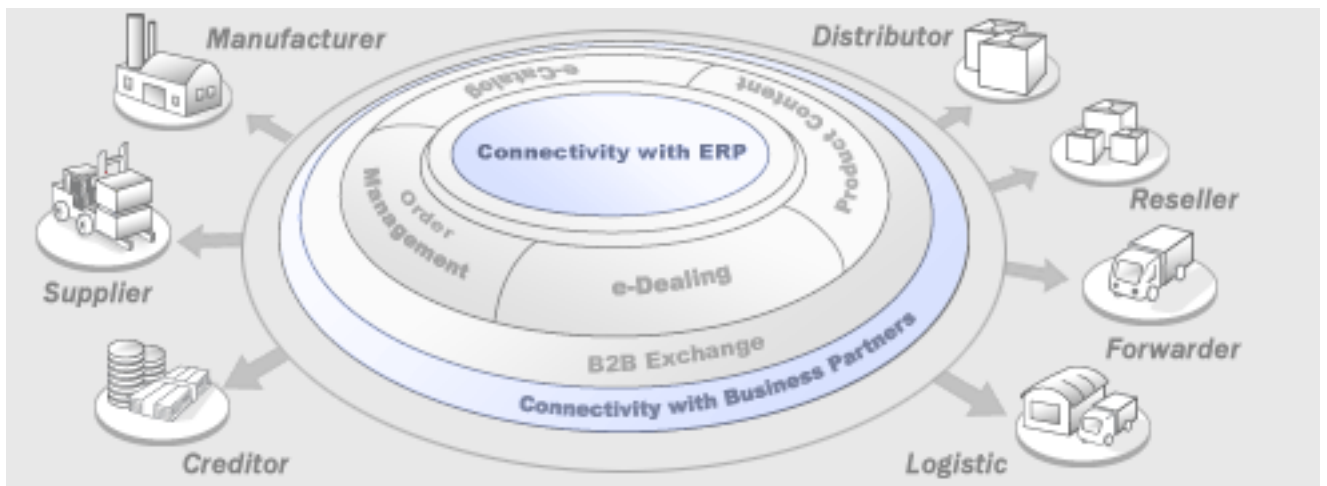
IT4profit delivers services on the base of B2B ASP, delivering software, as a service, over the Internet. ASPs provide a contractual service offering to deploy, host, manage and rent access to an application from a centrally managed facility.

IT4PROFIT  
CONNECTIVITY  
CENTRE

With the business community growth, increases the complexity of managing the dynamic business relations. Manufacturers, Distributors, Resellers must automate and web-enable all commerce processes with their trading partners. Building a successful Internet-based trading community depends in part on ubiquitous connections with all trading partners.

IT4profit Connectivity Centre allows to closely integrate company's processes both online and offline through customizable integration components, which interconnect online processes with companies' ERPs or accounting systems and supports document flow and event-based messaging paradigm.

IT4profit Connectivity Centre provides rapid connectivity for the supply and demand chain solutions and guarantees the consistency and comprehensive integration for the companies with different integration strategies. Within the B2B integration space IT4profit has standardized the RosettaNet, EDI and communication pipelines and standards. This gives the opportunity to exchange business information with trading partners online and realize the full potential of B2B integration within the trading network.



ROSETTANET &  
EDI STANDARDS  
SUPPORTED BY  
IT4PROFIT

### About RosettaNet

Unlike organizations focused on specific business units, elements and/or proprietary solutions, RosettaNet leverages existing open e-business standards, guidelines and specifications for cross-platform, -application and -network communication. RosettaNet takes standards to the next level, creating e-business frameworks that cross the boundaries of individual companies to enhance the interoperability of business processes.

RosettaNet's Partner Interface Processes (PIPs) are specialized system-to-system XML-based dialogs that define business processes between trading partners. PIPs apply to the following core processes: Administration; Partner, Product and Service Review; Product introduction; Order Management; inventory Management; Marketing Information Management; Service and Support; and Manufacturing.

### About EDI

Electronic Data Interchange (EDI) is the electronic exchange of routine business transactions. These transactions include such documents as purchase orders, invoices, inquiries, planning, acknowledgements, pricing, order status, scheduling, test results, shipping and receiving, payments, and financial reporting. Industries currently using EDI include retail, insurance, education, entertainment, mortgage banking, and numerous departments of the U.S. Government.

### Information Exchange Standards Comparison

<b>Process-centric (RosettaNet)</b>	<b>Message-centric (EDI)</b>
Real-time	Batch
100% of B2B process	10% of B2B process
Internet -enabled	VAN-enabled
XML	X.12/ EDIFACT/JECALS
Global	Regional
All Business	Large Businesses
Standard industry dictionaries	Custom industry dictionaries

**EDI and Rosettanet Implementation Options by IT4profit**

- Replacing company’s legacy EDI implementations with RosettaNet implementations
- Leaving existing EDI partnerships in place, and using RosettaNet for business processes for which legacy EDI standards are not as robust as they need to be
- Implementing RosettaNet with trading partners who also have a RosettaNet strategy
- Implementing RosettaNet for trading partners who have not yet invested in legacy EDI standards

<b>OPTION 1</b>	<p><b>Buyer is RosettaNet Compliant:</b></p> <p>IT4profit receives RosettaNet messages from Buyer, validates the content and forward it to Seller. The Return message will be handled in the same way.</p>
<b>OPTION 2</b>	<p><b>Buyer has Import/Export capabilities:</b></p> <p>IT4profit receives customized message (XML, TXT, CSV), create PO, and transmit RosettaNet message to Seller. The Return message will be handled the same way.</p>
<b>OPTION 3</b>	<p><b>Buyer has no e-Commerce capabilities:</b></p> <p>Buyer’s POs are entered manually and are transmitted to Seller. Extracts (XML, TXT, CSV) are available to enable the distributor to integrate in his ERP.</p>
<p><b>At all times Buyer can inquire on the status of his Purchase Order.</b></p>	

**DISTRIBUTOR STORY. ASBIS**

ASBIS Enterprises Ltd. ([www.asbis.com](http://www.asbis.com)) is a multinational distributor for Seagate, Intel and Maxtor with offices throughout Eastern Europe, the Middle East, the Netherlands and Ireland. ASBIS is one of the most dynamic companies in the Central European region. The company serves over 6000 active customers via 3 distribution centres and 21 local warehouses across its regions.

“We have to be a forward thinking company,” said Paul Griffin, ASBIS Executive Vice-President. “Business today is becoming more complex and more dynamic. We must have visibility and velocity in our transactions with suppliers and customers”

CONNECTIVITY  
WITH  
MANUFACTURERS**Intel – ASBIS. RosettaNet**

Like many other companies, ASBIS did not have the RosettaNet expertise to support the PIP implementation with Intel and worked with IT4profit Connectivity Centre. IT4profit helped ASBIS to implement RosettaNet protocols by providing technical support and recommendations for hardware and software required to support the transaction volumes.

Through our Connectivity Centre, ASBIS Enterprises Ltd. became the first Intel ([www.intel.com](http://www.intel.com)) distributor in Europe to become RosettaNet compliant in 2000 and the second in the world after Arrow. In May 2002 E-Vision upgraded ASBIS to RosettaNet version 2, possibly the first in Europe to do so (See Picture 1).

**IT4profit implemented the following RosettaNet messages:**

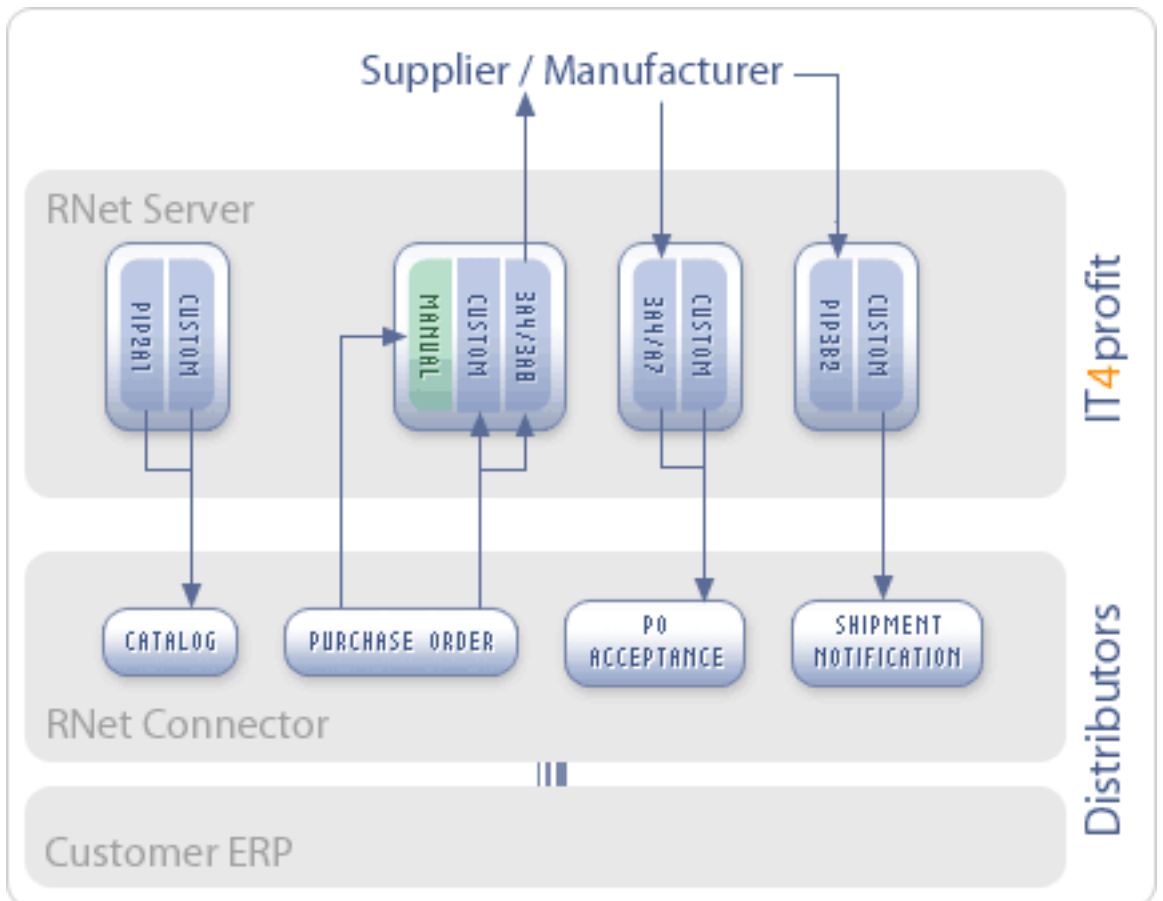
- Catalog Update (PIP 2A1)                   =>   Distribute New Product Information
  
- Purchase Order (PIP 3A4)
- PO Acknowledgement (PIP3A7)   =>   Reduce dual data entry, errors
- Purchase Order Change (PIP 3A8)   =>   Increase auto-scheduling of orders
  
- Shipping Notification (PIP 3B2)   =>   Automate heavily-manual process
- Receipts/Claim (PIP 4B2)           =>   Help to better manage inventory

**Intel Corporation** ([www.intel.com](http://www.intel.com)) is a world's largest chip maker, also a leading manufacturer of computer, networking and communications products. Today, Intel supplies the computing and communications industries with chips, boards, systems, and software building blocks that are the "ingredients" of computers, servers and networking and communications products. Intel's mission is to be a worldwide, 100 percent e-Corporation that maximizes profitability, responsiveness and innovation.

**Seagate – ASBIS. RosettaNet**

For the purchase order process automation between Seagate and ASBIS, IT4profit implemented RosettaNet product information and order management messages: New Product Information Distribution (PIP 2A1), Purchase Order (PIP 3A4), Purchase Order Acknowledgement (PIP3A7) and Purchase Order Change (PIP 3A8). (See Picture 1). Seagate and ASBIS agreed on RosettaNet because procurement process would be flexible and reusable with other trading partners.

“It is now a lot easier and more cost effective to do business with Seagate by integrating systems and automating manual processes,” said Paul Griffin. “Our previous experience with RosettaNet with Intel gave us confidence that we could improve our purchasing process by moving it over to RosettaNet standards.”



**Picture 1**

ASBIS has been a Seagate distributor since 1992. For many years ASBIS was Seagate’s leading distributor in the challenging markets of Eastern Europe, and recently has become Seagate’s second largest distributor throughout the EMEA region.

**Seagate** ([www.seagate.com](http://www.seagate.com)) is the worldwide leader in the design, manufacturing and marketing of hard disc drives for Enterprise, PC and Consumer Electronics applications.



## Hitachi – ASBIS. UN/EDIFACT

The Connectivity Centre provides also UN/EDIFACT connectivity for Hitachi and ASBIS. The business partners entrust IT4profit the support of such important EDI messages as:

- Inventory Report (INVRPT)
- Sales Data Report (SLSRPT)

**Hitachi** ([www.hitachi.com](http://www.hitachi.com)) is one of the leaders among world manufacturers of the equipment in the IT industry. The company develops and offers over 20 000 names of goods, including computers, semiconductors and home appliances.

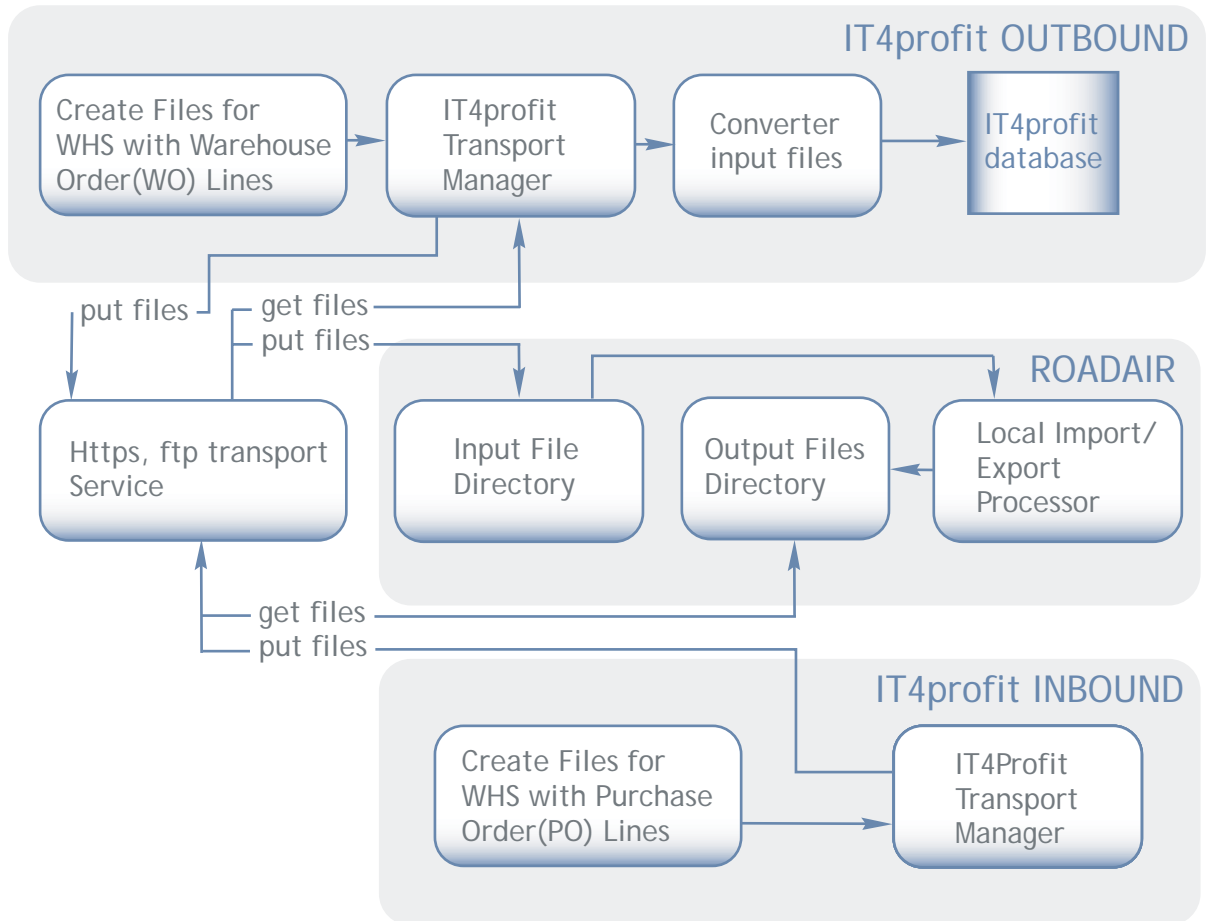
Maintenance of connections with Intel, Seagate and Hitachi opens additional potential costs-savings areas for ASBIS. These resources could be shifted to providing better services to ASBIS customers and getting other benefits:

- Quick order response – decreasing of number of transactions in queue, order queue wait time and total order lead time.
- Reduced operational costs due to decreasing number of manual operations and reduced errors, and communication costs.
- Improved inventory management reduction in inventory safety stock and savings in inventory carrying costs.
- Improved visibility across entire supply chain- improved forecast, order and material planning.
- 24x7 & real time ordering capability and quick order response.
- Increased customer satisfaction.

CONNECTIVITY  
WITH THIRD  
PARTY SERVICE  
PROVIDERS

**Logistics**

IT4profit provides connectivity solutions for ASBIS and Road Air, a logistics service provider. This allows ASBIS logistics managers to organize and optimize work with the Road Air warehouses, control the movement and storage of products within the operation.



**Picture 2.**

Due to connectivity provided the partners can exchange logistics documents between ASBIS on IT4profit and the Road Air warehouses. The process goes through several stages until the delivery of shipment is confirmed. Each stage on the Road Air WHS is followed by an automated report of status change letting ASBIS and its customers to be in control of the situation. A notification of every transaction status goes through network messaging and through standard web-based interface with reporting order status change online.

This gives ASBIS the accurate picture of the expected workload in the warehouses and allows ASBIS customers to track and trace order statuses online, including statuses from the warehouses such as "Sent to Warehouse," "Picking," "Packing," "Shipped," etc (See the screenshot from IT4profit test server).

USER: John Smith    ENTITY: Demo Distributor Company    REQUEST SUPPORT    Logout

IT4profit    MODULES    E-DEALING    PERSONAL SETTINGS

50	Open	BX80526C10002565 LSFO	SKU	--- Any ---	Brand New	15	63.00	27/03/2003 15:00		
						15	63.00	27/03/2003 12:36		
60	Open	BX80526U933256E S L47Q	SKU	--- Any ---	Brand New	2	77.00	27/03/2003 15:00		
						2	77.00	27/03/2003 12:36		
70	Open	BX80530C1133512 SL5LV	SKU	--- Any ---	Brand New	20	125.00	27/03/2003 15:00		
						20	125.00	27/03/2003 12:36		
80	Open	KG-20	SKU	Taiwan	Brand New	10	74.00	27/03/2003 15:00		
						10	74.00	27/03/2003 12:36		
90	Open	KG7	SKU	Taiwan	Brand New	20	56.00	27/03/2003 15:00		
						20	56.00	27/03/2003 12:36		
100	Open	KG7-LITE	SKU	Taiwan	Brand New	5	89.00	27/03/2003 15:00		
						5	89.00	27/03/2003 12:36		
110	Open	6LQ2011	SKU	Singapore	Brand New	1	45.00	27/03/2003 15:00		
						1	45.00	27/03/2003 12:36		

Actions for selected lines    Confirm by entered # and Pending the rest

Statuses

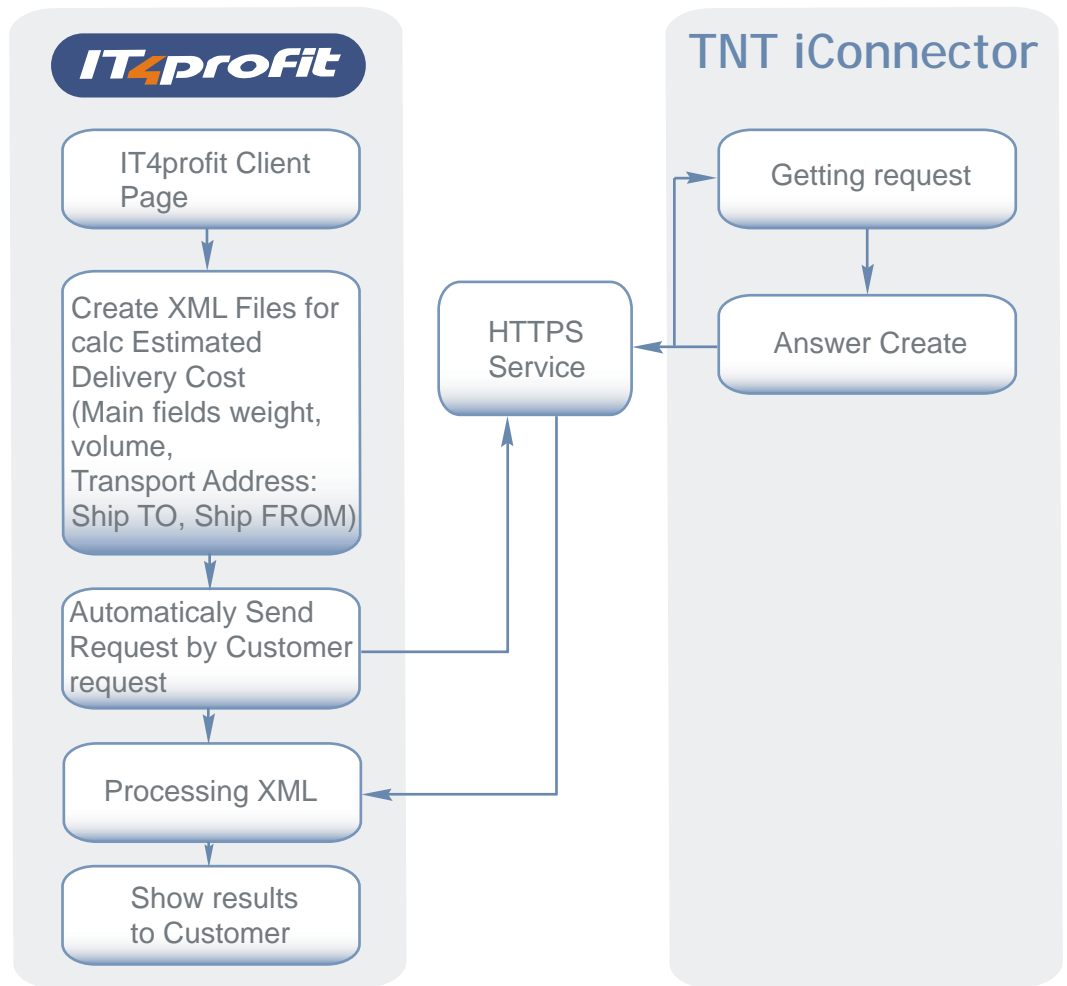
<ul style="list-style-type: none"> <li>Constructing</li> <li>CaR Revised</li> <li>Con Constructing</li> </ul>	<ul style="list-style-type: none"> <li>Requested</li> <li>IP In Progress</li> <li>P Pending</li> <li>A Acknowledgment</li> <li>W Waiting</li> </ul>	<ul style="list-style-type: none"> <li>Requested With Changes</li> <li>IP In Progress</li> <li>P Pending</li> <li>A Acknowledgment</li> <li>W Waiting</li> </ul>	<ul style="list-style-type: none"> <li>Accepted</li> <li>SExp Supply Expected</li> <li>Chain Supply On Stock</li> <li>SO Reserved</li> <li>toERP To Be Sent To ERP</li> <li>inERP Sent to ERP</li> <li>2Whs Sent to warehouse</li> <li>Interbranch Confirmed</li> <li>Interbranch Transferring</li> <li>Pick Picking</li> <li>Pack Packing</li> </ul>	<ul style="list-style-type: none"> <li>Accepted With Changes</li> <li>SExp Supply Expected</li> <li>Chain Supply On Stock</li> <li>SO Reserved</li> <li>toERP To Be Sent To ERP</li> <li>inERP Sent to ERP</li> <li>2Whs Sent to warehouse</li> <li>Pick Picking</li> <li>Pack Packing</li> </ul>	<ul style="list-style-type: none"> <li>Pending</li> <li>Price Pricing Issue</li> <li>CH Credit Hold</li> <li>Open Open Demand</li> <li>Supply Expected</li> <li>SOrd Supply Ordered</li> <li>PR Partially Reserved</li> <li>SAcc Supply Accepted</li> </ul>
<ul style="list-style-type: none"> <li>Rejected</li> <li>Ex Expired</li> <li>C Canceled</li> <li>Price Pricing Issue</li> <li>CH Credit Hold</li> </ul>	<ul style="list-style-type: none"> <li>Shipped by truck</li> <li>Shipped by TNT</li> <li>Shipped by sea</li> <li>Shipped by air</li> <li>Shipped multimodal</li> <li>Shipped by train</li> <li>Shipped</li> </ul>	<ul style="list-style-type: none"> <li>Received</li> <li>Rc Received</li> </ul>	<ul style="list-style-type: none"> <li>Received With Changes</li> <li>NO Not Ordered</li> <li>DOA Dead On Arrival</li> <li>Miss Missing</li> <li>Price Pricing Issue</li> </ul>	<ul style="list-style-type: none"> <li>In Stock</li> <li>Stock In Stock</li> </ul>	<ul style="list-style-type: none"> <li>Canceled</li> <li>Cn Canceled</li> <li>Notification Of Failure</li> <li>NoF Notification Of Failure</li> </ul>

Picture 3. Backlog of open Purchase Orders and the list of order statuses

Road Air (www.roadair.com) is part of Transport Management International Holding (TMI), the Dutch holding company of a large group of companies specialised in logistical services. With a consolidated turnover of approximately €550 million and approximately 1,350 employees the TMI Group is an important player in the Benelux. Road Air offers integrated logistical services: air- and sea-freight, road transport, storage and distribution in the Benelux.

## Forwarders

ASBIS uses our Connectivity Centre to cooperate with the TNT forwarder to identify opportunities to reduce transportation and delivery costs. ASBIS requests TNT to calculate estimated delivery costs based on weight and volume of expected freight, destination and transport.



**Picture 4. Process flow**

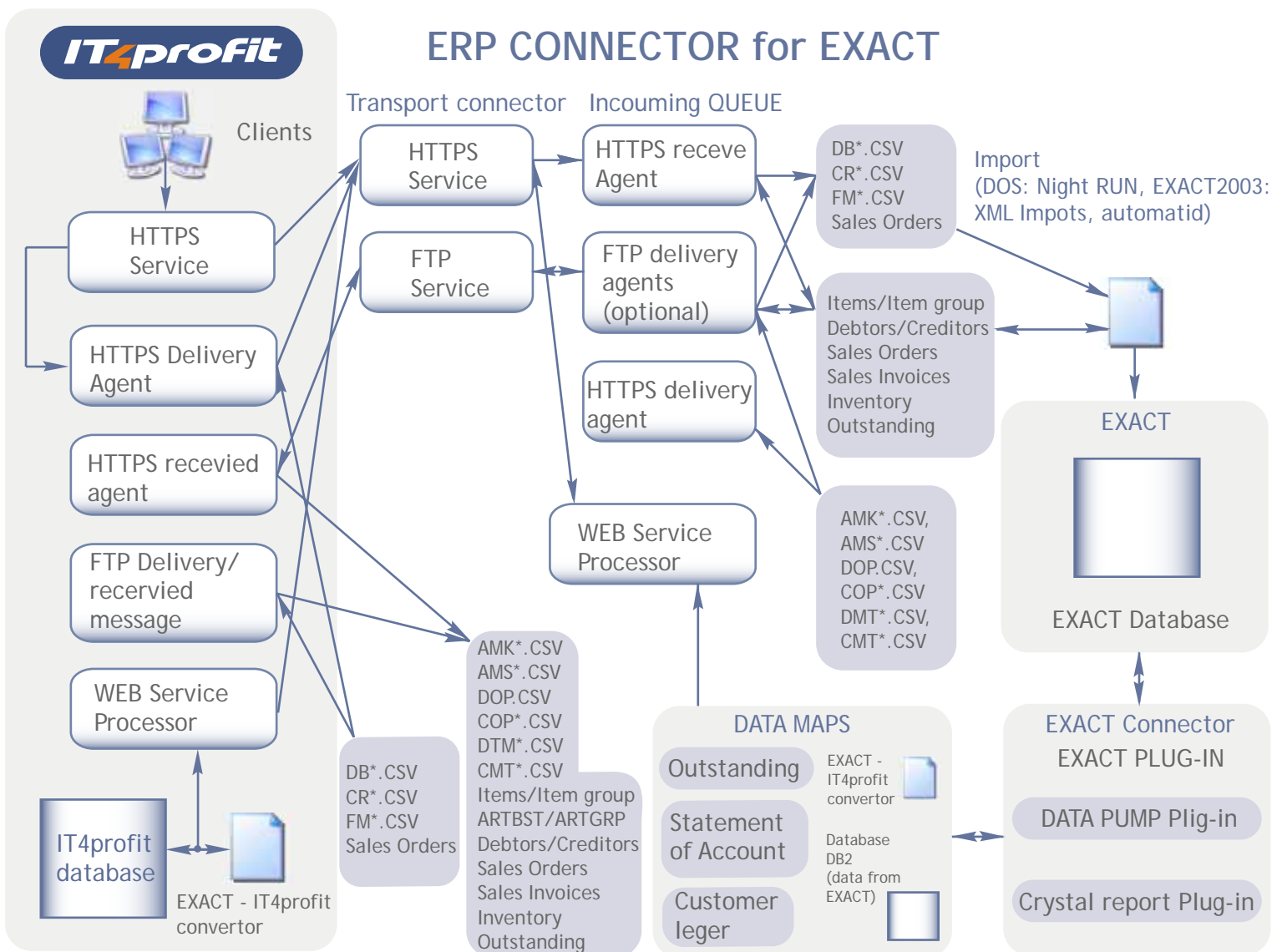
**TNT** ([www.tnt.com](http://www.tnt.com)) is a world leading provider of business to business express delivery services and logistics supply chain solutions. TNT provides on-demand time-definite international delivery services for documents, parcels and freight between more than two hundred countries.

**CONNECTIVITY WITH ERP** **Asbis central and local offices**

ASBIS operates on IT4profit ASP platform within the framework of our Connectivity Centre. IT4profit platform is 100 percent internet enabled, thus users require only a standard web browser to participate. The platform houses all IT4profit B2B applications and connectivity solutions and allows integrate the business processes at ASBIS both online and offline.

To connect ASBIS central office with all local offices and plug their back-end systems to IT4profit applications, IT4profit provides application integration components and add new transports to extend existing functionality.

Developed by IT4profit connectors support various data formats and industry communication standards and logically connect IT4profit Web applications and ERP or accounting systems such as JD Edwards, EXACT® DOS and EXACT® 2003 running at ASBIS central and local offices. (See Picture 5).

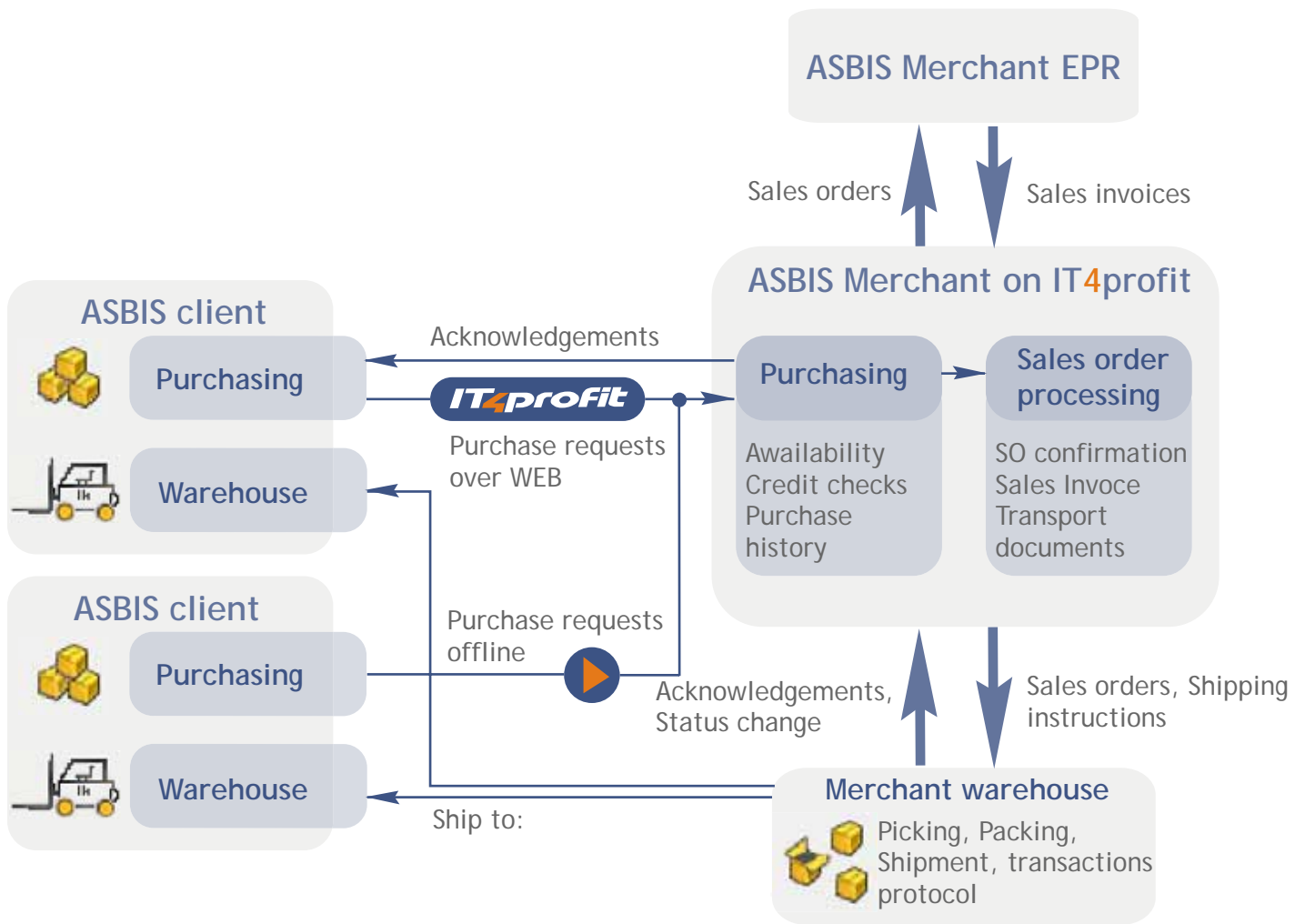


**Picture 5. Connectivity solutions between IT4profit and EXACT® software (EXACT® DOS and EXACT® 2003)**

The two-way connectivity allows tracking and execution of orders and logistic documents, update and synchronization of inventory, customer information and payment performance. Incoming and outgoing transactions from ERP systems to the Web and back are tracked and matched. The Web transactions are executed in the ERP via the adjusting the file and document queue processing connector through the ASBIS specially organized interfaces. The connector is called on a periodic basis or whenever the event system requires the connector to update orders, change order statuses or create items and item groups. The interconnection is based on two key integration principles – the event-based document messaging and document delivery tracking, control and error reporting through the IT4profit exchange system.

CONNECTIVITY WITH CUSTOMERS

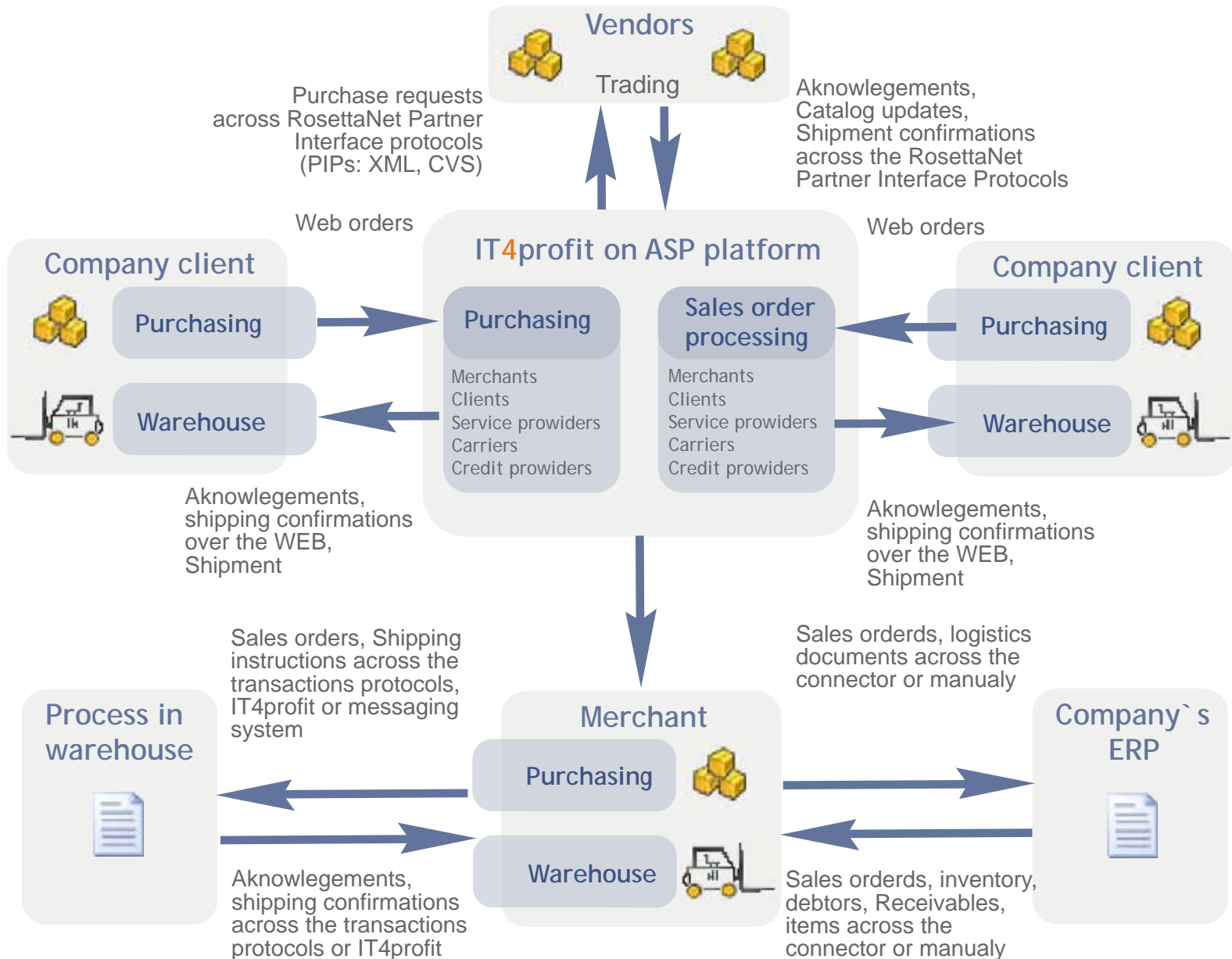
To link customers and start transactions with them on IT4profit platform, ASBIS offices (Merchants) established trading agreements (TPA) with their customers. The customers provide sales and finance details so that transactions are correctly assigned to their accounts. Linking goes through the affiliation process commanding the tight linking and recognition of a company within its particular business group. The setup also involves the ERP specific connectivity patterns .



Picture 6. Asbis clients on IT4profit. Typical business process.

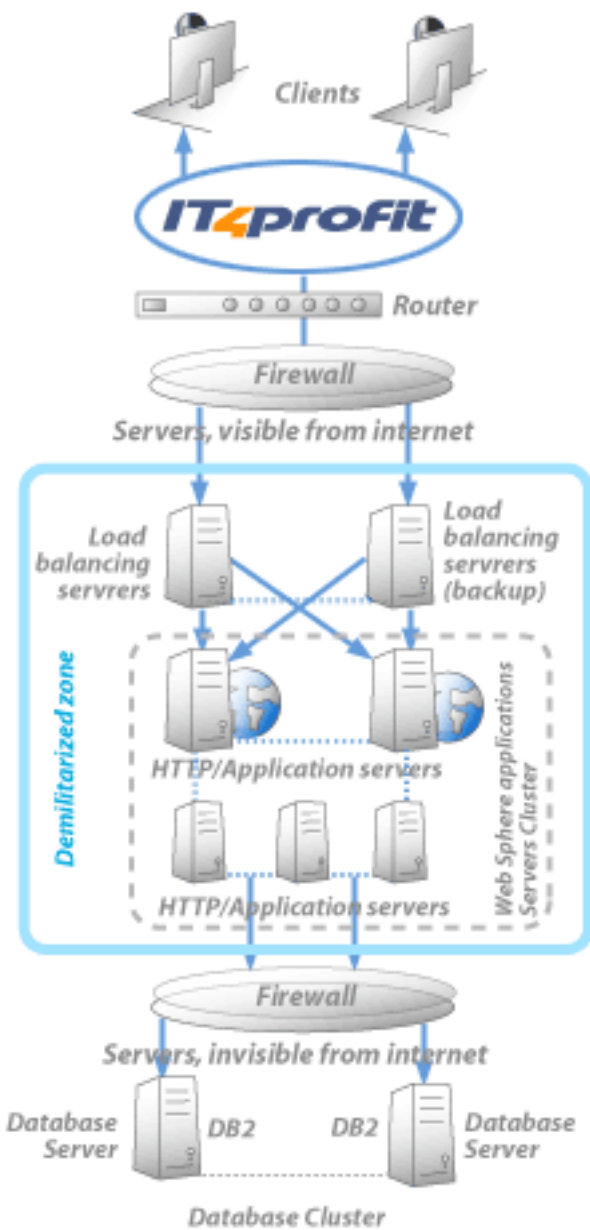
**Summing Up**

IT4profit Connectivity Centre enables seamless communications and data exchanges between various ASBIS partners – manufacturers, suppliers, customers and third party service providers and guarantees the consistency and comprehensive integration for the companies with different integration strategies.



**Picture 7. Business flows and interchanging pipelines**

## SECURITY MODEL USED



**Picture 8.**

Firewalls are used in multimachine systems to protect back-end resources such as databases. They can also be used to protect application servers and even Web servers from unauthorized outside access. A demilitarized zone (DMZ) configuration involves multiple firewalls that add layers of security between the Internet and a company's critical data and business logic. The best solution for security model we need is DMZ configuration.

A DMZ is a glowing example of the Defense-in-Depth principle. The Defense-in-Depth principle states that no one thing, no two things, will ever provide total security. It states that the only way for a system to be reasonably secured is to consider every aspect of the systems existence and secure them all. A DMZ is a step towards defense in depth because it adds an extra layer of security beyond that of a single perimeter.

A DMZ separates an external network from directly referencing an internal network. It does this by isolating the server that is being directly accessed from internet clients. In DMZ terminology, an internal connection is generally thought of as having more secret or valuable information than an external network.

We are using system with separated applications. This acts as system of checks and balances to make sure that if any one area goes bad that it cannot corrupt the whole. It is important to separate information so an attacker can't get to all the systems. It would be bad enough for the attacker to get to the application server but if that attacker can get through the web server to your database then that's even worse. This is the type of problem that a DMZ is designed to prevent.

A DMZ greatly increases the security of a network. A DMZ, if properly configured, can quickly increase the security. This is because there are twice as many machines for an attacker to compromise to get to anything valuable. This greatly increases the skill required of an external hacker to compromise the internal network and thus lowers the threat of the internal network being compromised.