

WebXpressTM: An Effective Tool for Supply Chain Management

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ABSTRACT

Supply chain management (SCM) is the process of planning, implementing, and controlling the operations of the supply chain as efficiently as possible. Supply Chain Management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption.

Supply chain management can be provided through web based tool which is used for creating and approving purchasing requisitions, placing purchase orders and receiving goods and services by using a software system based on Internet technology.

WebXpressTM is a web-based software solution for supply chains. WebXpressTM is an online ERP (Enterprise Resource Planning) developed especially for Logistics and Transportation industries. It is accessible on Internet from anywhere in the world, at anytime.

WebXpressTM is a web based supply change management which integrates all functions from operations to Billing to accounts as well as Centralized and online, like railway booking or airline booking systems. This tool provides benefits in operations, Billing, Finance, octroi, online accounts and security.

Keywords: Supply Chain Management, ERP (Enterprise Resource Planning), Webexpresstm, Physical Level Security, Customer Relationship, Fleet Management, Security & Administration.

Introduction: Supply Chain Management

Supply chain event management (abbreviated as SCEM) is a consideration of all possible occurring events and factors that can cause a disruption in a supply chain. With SCEM possible scenarios can be created and solutions can be planned.

Supply chain management is a cross-functional approach to managing the movement of raw materials into an organization and the movement of finished goods out of the organization toward the end-consumer.

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As corporations strive to focus on core competencies and become more flexible, they have reduced their ownership of raw materials sources and distribution channels. These functions are increasingly being outsourced to other corporations that can perform the activities better or more cost effectively.

The effect has been to increase the number of companies involved in satisfying consumer demand, while reducing management control of daily logistics operations. Less control and more supply chain partners led to the creation of supply chain management concepts. The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving inventory visibility and improving inventory velocity. (Refer Figure 1)

Problems of Supply Chain Management in Transportation Company

This part of paper is highlighting the major hindrance in supply chain management of various transport companies across the country. We are trying to focus on problems of Transport Company in particular.

Here we are studying **ECFY Consultancy Pvt. Ltd** as a part of our research. ECFY Consulting Private Limited is Mumbai, India based firm established in November 2000. ECFY is founded by industry

professionals with experience in E-business and Internet infrastructure industries

ECFY Consulting Private Limited provides technology assisted solutions and services in the areas of Supply Chain Management and Logistics. They help their customer to manage their supply chains better by providing better visibility through use of technology solutions. (Refer Figure 2)

So the major transportation industry problems and issues are:

PROBLEMS

- Outstanding collection from customer-working capital issues.
- Data reentry at every stage- in computers or on paper.
- Managing paper- more than 10 lakh documents a year.
- Truck hire- did my manager pay right freight?
- Tracking- where are my goods and why they have not reached?
- Cash and bank reconciliation- no accounting, no cash projections.
- Profitability- did I really earn?
- Delayed accounting.

ISSUES

The issues regarding Operational are:

- Data reentry at every stage- in computers or on paper
- Managing paper- more than 10 lakh documents a year
- Tracking- where are my goods and why they have not reached?
- What is my Turn Around Time? Is it as per standard?
- How to measure profitability of every booking?

The issues regarding Financial are:

- Same truck journey paid twice
- Was the bill generated? Was it collected? Within credit days?
- How to ensure billing is as per contract?
- Customer pays on account- how to reconcile?
- Octroi payments shatter cash flow
- Accounts are 3 months behind schedule
- Cash and Bank statement- too little, too late (**Refer Figure 3**)

So to overcome these problems ECFY developed specialized products under the umbrella brand name of **WebXpress**, which provide following spaces through ready to deploy solutions:

- Transportation Management
- Fleet Management
- Workshop Management
- Warehouse Management
- Order Management

WHAT and WHY WebXpress™ ?

WebXpress™ provides the following advantage due to which it is suggested to use it in transport management. WebXpress is a range of technology products and services to address needs of various players in the supply chain.

Our solutions are designed for fleet owners, transporters, warehouse operators and users of logistics services. The WebXpress is popular because of:

- All data available in real time.
- Sharing of information.
- Simple to use.
- Simple maintenance.
- Lower cost.
- Anytime, anywhere availability.
- No data transfer required as all information is in the server and online.
- Thus, no need for trained IT manpower at locations to maintain databases, transfers and version changes.
- No need to distribute and install new versions of software. A change carried out at central server reflects across all locations.
- User PCs can be repaired locally by vendors with basic maintenance skills, thus lowering costs and increasing availability.
- Round the clock availability of power, Internet, technical support etc. at an affordable monthly cost.

- Standard technology ensures future availability of support manpower.

WebXpress is more than a technology solution. WebXpress offer all ingredient required to make a project successful- technology, training, infrastructure and support. **(Refer Figure 4)**

- A software solution that works on Internet.
- Online, like railway booking or airline booking.
- Accessible on Internet, from anywhere in the world.
- Available 24 hrs X 7 days a week X 365 days a year.
- Takes care of all enterprise functions
- Data entered once- shared across locations instantly

WebXpress also provides some Security Levels so as to make supply management more efficiently and effectively.

Physical Level Security

- WebXpress server is hosted in a high security Internet Data Center.
- Only authorized personnel with valid identity cards can enter the data center.
- They are accompanied through secured entry points by a security person and never left alone.
- Additional security features include locked Server Racks, CCTV monitoring, bio-metrics scanners etc.

Network Level Security

- A state of the art Firewall protects WebXpress servers from any unauthorized access.
- Only pre-identified IP addresses are allowed to access operating system, file folders and database.
- Thus, only select machines at pre-defined offices can access WebXpress server for maintenance

Data Level Security

- No user of WebXpress is provided a direct access to Database.
- The IP address of server, database username and password are shared only with CIO/ CEO of the company.
- They can in turn decide who should be allowed to access database.
- Database backup is encrypted to ensure safety even in case of theft.

Location Level Security

- Every location is assigned specific rights.
- Thus, a branch can not see data of a region or another branch. A region can not check activities of another region and so on.

Hierarchy wise security

- It is possible to define what activities a particular type of location can carry out.
- For example, we can define that branches can not carry out Bill Generation.

- Once this rule is applied, no user at any branch can carry out bill generation.

USER LEVEL SECURITY

The tool provides the following kind of securities at user level:

Passwords

- Every user is assigned a separate password. There are no “branch” passwords. Thus, users at any location need not share his passwords with colleagues.
- Every company can define a customized password policy as per their threat perception.
- Thus, you can define that a password should never be equal to username; password should be at least 8 characters etc.

Module Access Rights

- Users are assigned rights to various modules on a “need to know” basis.
- Thus, an accounts person is not given rights to access operations, a marketing person can not carry out billing and so on.
- In case, a user is carrying out multiple functions, say at a small branch, he can be given rights to multiple modules

Privilege Level

- Within users, some users can be given special rights called “Privileges”.

- Only privileged users can carry out sensitive activities or access special reports

Signatures

- Every transaction in WebXpress is stamped with user id, location code, time and date of access.
- Thus, a user can not deny having carried out a certain transaction.
- Also, in case of disputes/ frauds/ mistakes, it is easy to find out responsible person.
- As users are aware a mechanism to establish accountability exists, they are more careful thus improving quality of transactions.

WebXpress PRODUCTS and MODULES in Supply Chain

The Business Models Covered by WebXpress™ are: **(Refer Figure 5)**

WebXpress™ helps to integrate various functions from operations to billing to accounts to sales. It is possible to deploy WebXpress™ in phases. Modular structure also helps in ensuring segregation of duties of employees at different locations.

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OPERATIONS

- Document series control and allocation
- Docket Booking, edit and cancellation
- Docket Quick entry, financial completion
- Loading sheet & manifest generation
- Trip Hire Contract for market, attached, own
- Pickup and Delivery Run sheets
- Unloading sheet and vehicle unloading sheet
- Consignment detention
- Short and Extra shipment management
- Hopping routes and transshipment

TRACK & TRACE

- Docket tracking- quick and detailed
- Docket life cycle progress
- Customer invoice/PO number based tracking
- Drill down tracking: THC to Manifest to Docket
- Tracking of past transactions
- GPS based tracking
- Mobile based tracking
- POD scanning

FLEET MANAGEMENT

- Centralized fleet master
- Online vehicle requests
- Vehicle availability status
- Vehicle issue and trip sheet
- Vehicle tracking

BILLING

- Customer contract management
- Customer group wise billing
- Bill types: Freight, Demurrage, Octroi
- Bill cycle management: generation, submission and collection
- Multiple locations billing: generate at location A, submit at B and collect at C
- Accounts Receivable age analysis
- Credit limit enforcement

OCTROI MANAGEMENT

- Octroi agent contracts
- Agent as well as direct Octroi payment
- Octroi agents bill entry and payment
- Multi location Octroi billing and collection
- Octroi receipt tracking
- Octroi outstanding analysis

CUSTOMER RELATIONSHIP

- Customer support: Tracking, rates, billing, service information
- Customer call registration and assignment
- Enquiry to business generation tracking and analysis

SALES FORCE MANAGEMENT

- Sales target assignment
- Prospect funnel reports
- Sales call register
- Multi-level customer registration process

INFORMATION CAPTURE DEVICES

- Integration with Mobile gateway
- Data capture from GPS devices
- Data capture from bar code devices

ASSET MANAGEMENT

- Purchase order generation
- Fixed Asset acquisition, sale/ disposal
- Asset issue and transfer
- Depreciation calculations
- Asset register

FINANCE

- Vendor contract management
- Vendor bill entry and payments
- Accounts payable age analysis
- Expense Register
- On account receipts management
- Cheque management
- Funds Transfer
- Credit and Debit Notes
- Bank reconciliation

ACCOUNTS

- Centralized Chart of Accounts
- Automatic accounts entries posting
- Voucher preparation, approval and payments
- Online location wise profit & loss
- Cash flow statements
- General ledger- vendor, customer wise ledgers
- Trial balance and balance sheet

CUSTOMER SELF SERVICES PORTAL

- Group and customer wise secure login
- Any to any location, past document tracking
- Business summary, delivery performance
- Billing information, duplicate bills
- Scanned documents: POD, Octroi receipt

CUSTOMER APPLICATION INTEGRATION

- Application to application data exchanges
- XML/ Text/ XLS based integration
- Electronic bill submission

SECURITY & ADMINISTRATION

- User access rights management
- Location rights management
- Master tables: customer, vendor, employee, vehicle, route, rate, transit time

Benefits of using WebXpress:

[A] WebXpress Benefits- Operations

Before WebXpress

- Multiple entry at every hub
- Every truck is a surprise

After WebXpress

- No Data Entry at Hub (Docket / POD/DMRV)
- Advance information of what is coming at least 4 hours in advance
- Customer priority can be known in advance

- Optimal utilization of truck load by pre-planning
- Market vehicle planning
- From data entry to Information Analysis: No docket entry, register and foxpro entry
- Pro-active Planning at Hub
 - Use of Unloading Sheet, Special comments, ACM
 - Pre-alerts about incoming trucks
- End to end tracking of THC and Vehicles
- Hub as Quality Control Center
 - Example of production line
 - Random check of consignments and documents
 - Packing quality control
 - Control of short and extra
- System Dependent Operations: Shifts can change, information will not

Direct benefits in Operations

- **No data re-entry:** In WebXpress™ information is entered only once and updated thereafter. This improves productivity manifolds and reduces errors in data.
- **No data transfer:** Data entered at any locations is automatically available to related locations. Thus, there is no need to manually transfer data across locations.
- **Discipline in workflow:** All transactions in WebXpress™ are dependent on completion of previous steps. This ensures that a process set by company is always followed

- **Easy to use:** WebXpress™ offers only those options and menus that a user needs to use. Combined with intuitive language and uncluttered screens, using WebXpress™ is easy even for high-school educated staff.

[B] WebXpress Benefits- Quality control

Before WebXpress

- No on the way record of wrong weight/ CFT/ lack of documents
- No system of finding where things went wrong

After WebXpress

- No documentation responsibility of Branch Manager
- Random checking of consignments and entry of status in WebXpress
- Rejection of consignments without documents/ wrong weight/ CFT

Savings

- LOSS if 1 bad docket stopped at Booking hub = Rs. 600
- LOSS if 1 truck stopped because of 1 bad docket at DELIVERY LOCATION = Rs. 18000
- Assuming 20 incidents a year, LOSS = Rs. 3.6 lakh a year

[C] WebXpress Benefits- Customer Support & Tracking

Before WebXpress

- Tracking info available only when HO sends the same
- No Information on other related documents
- No Data on actual movement, only end data available

After WebXpress

- Track transactions AS THEY HAPPEN at ALL LOCATIONS
- Entire history of every transaction can be found
 - Drill down from Docket to all THC to all TC to all PDC to all Bills
- Uniform information across locations
- Customer Self-service

Savings

- Number of requests a day at HO, AO, Hub & Branch = 300
- Assuming saving of 10 min per query resolution
Saving of 6.25 man yrs or Rs. 3.75 Lac @ Rs. 60 K per man year

Benefits in Trace and Track

- **Anytime-anywhere tracking:** Tracking information to customers can be provided by all locations, even from a home PC or a mobile. Customers like to work with companies who can tell them what is going on.
- **On the way tracking:** Using GPS and WebXpress™, it is possible to know exact

whereabouts of a consignment. Thus, there are no blind spots left.

- **Comprehensive tracking:** WebXpress™ offers all possible information from a single screen. Thus, it is possible to view a docket or a manifest, check vehicle details, confirm delivery attempts etc.

[D] WebXpress Benefits- Credit Control

- Reduction in billing cycle: From 20 days plus to less than 5 days
- Follow up system on Bill
 - Bill follow up more important than generation
 - Central information gives a central view to CCD
- Automatic Re-conciliation of Bills and Collections
 - Complete linkage of Docket - Bill No - Cheque No.
- Explanation of every rupee of bill amount within
 - Collection, Supplementary, Write-off
- Deduction details in EVERY BILL
- Day to day view of outstanding
 - Customer wise, branch wise, executive wise

Benefits in Billing

- **Faster billing:** Online nature of WebXpress™ allows bill generation, submission and collection to happen from anywhere.

- **Lower working capital:** A tighter control on billing cycle improves money flow and reduces need for external funding. Also, timely action helps to avoid or reduce bad debts.
- **Outstanding reconciliation:** WebXpress™ maintains full details of all payments made by a customer across locations, for every docket. This helps to reconcile outstanding with customer and avoid disputes.

[E] WebXpress Benefits- Accounts

- **Uniform Chart of Accounts:** All users across location use same set of ledgers, this brings in uniformity of reporting costs
- **Online accounts:** All transactions are posted automatically into relevant ledgers. Thus, accounts are always updated.
- **No synchronization:** As all accounts are stored centrally, there is no data transfer and merging required
- **Daily P&L:** As there is no lag between business and accounts, it is possible to generate location wise Profit & loss on a daily basis

[F] Benefits in Finance

- **Track profitability:** WebXpress™ calculates profitability of every single docket the minute it is delivered. Thus, managers can immediately decide whether a customer or a location is profitable enough.

- **Cash and Bank Management:** WebXpress™ makes it possible to get daily cash and bank transactions of all locations. Thus, funds can be managed and deployed better.
- **Cost control:** It is possible to view various cost heads across locations on a daily basis. This helps to control costs before they balloon.

[G] Benefits in Customer Relationship

- **Anytime-anywhere support:** Customer query can be answered from any location of company and even from a cyber café.
- **Beyond tracking:** Customer can be provided business summary, billing summary, duplicate bills, Octroi receipts and PODs by customer support executives.
- **Lead generation:** WebXpress™ helps customer support people to register, assign and track enquiries

[H] Sales Management Benefits

- **Sales funnel tracking:** WebXpress™ tracks projections made by salespersons across locations. This helps to project future revenues and also track performance.
- **Projected Vs. actual business:** By comparing actual business with projections, WebXpress™ helps to determine credibility and productivity of salesperson.

- **Daily sales activity monitoring:** WebXpress™ provides online information on customer calls and visits, daily activity, sales performance etc. This helps to fine tune sales efforts and improve productivity.

[I] Benefits in Security & Administration

- **Secure data and masters:** No individual can access all data in WebXpress™. Also, master tables can be changed only centrally by authorized personnel. This results in highly secure and reliable data.
- **Accountability:** WebXpress™ remembers who did what and when. Thus, it is easy to track a transaction to an employee.
- **Need to know:** WebXpress™ offers only those transactions and data to users that they need to know. This makes life simple for users and improves security.

CONCLUSION

The conclusion can be drawn that WebXpress Solutions provide Visibility for Supply Chains. WebXpress helps to bring in a level of standardization across processes and people a big must for rapid growth. We look forward to new products from WebXpress stable. WebXpress is a set of solutions to address various blind spots in the supply chain. It aims to make a supply chain more efficient and responsive through use of technology and common-

sense. WebXpress intends to leverage growing focus on IT in logistics and develop intellectual property across supply chain areas. As WebXpress is integrated with world wide mobile networks so that it can talk to CDMA as well as GSM mobile networks. Users can track consignments by sending docket numbers to a specific mobile number and they can also be sent auto-alert messages on their mobile devices.

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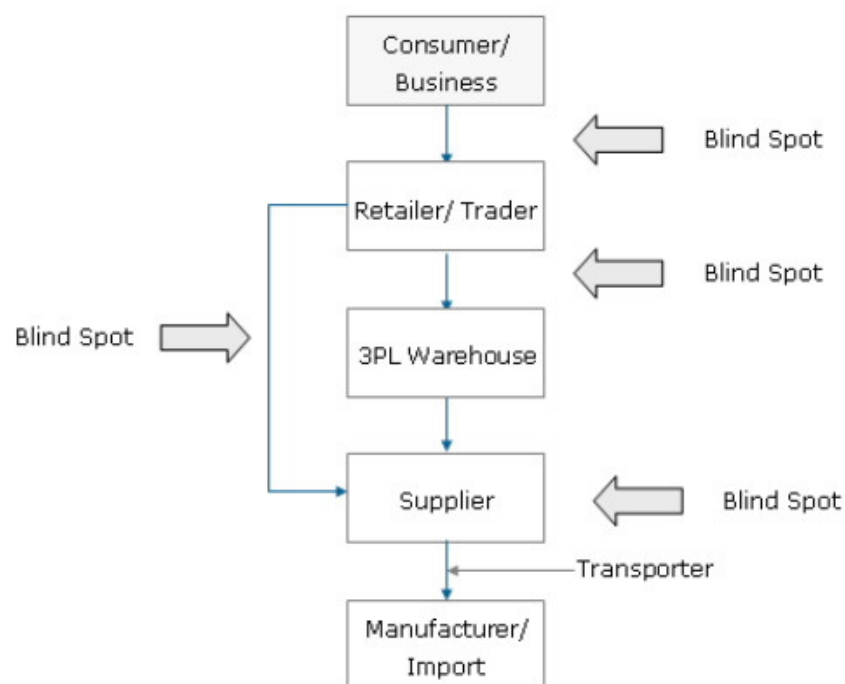


Figure 1: Flowchart shows supply chain management

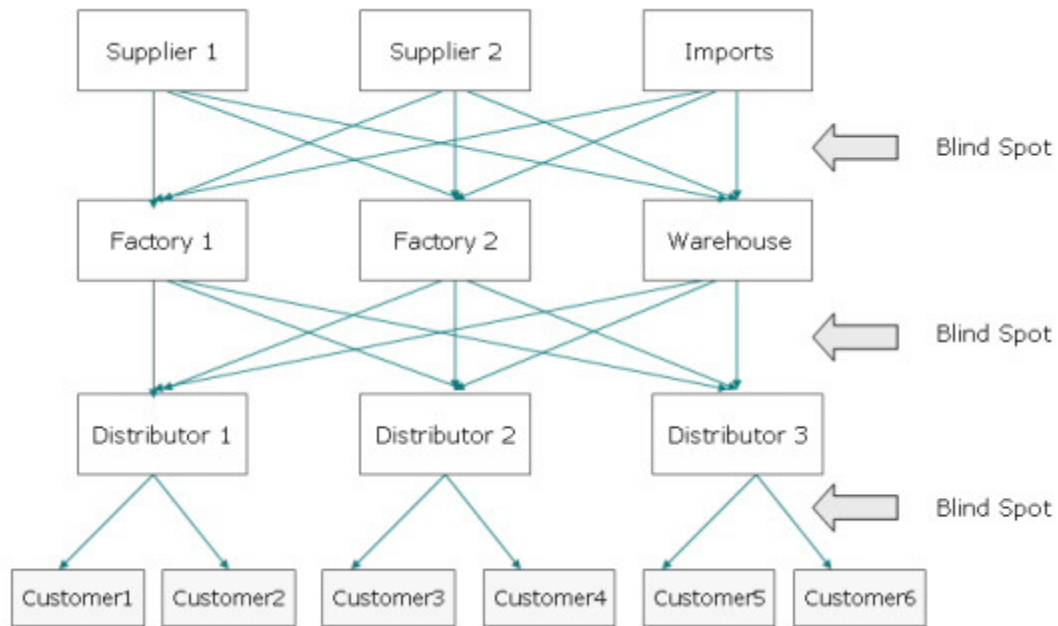


Figure 2: Depicts the supply chain network

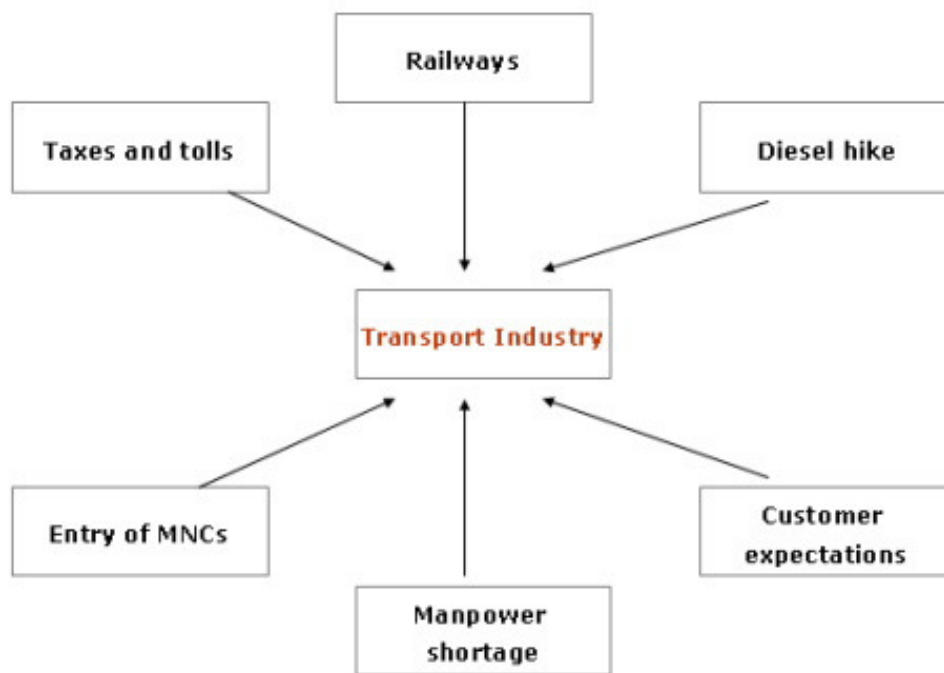


Figure 3: Diagram shows the affected area of transport industry

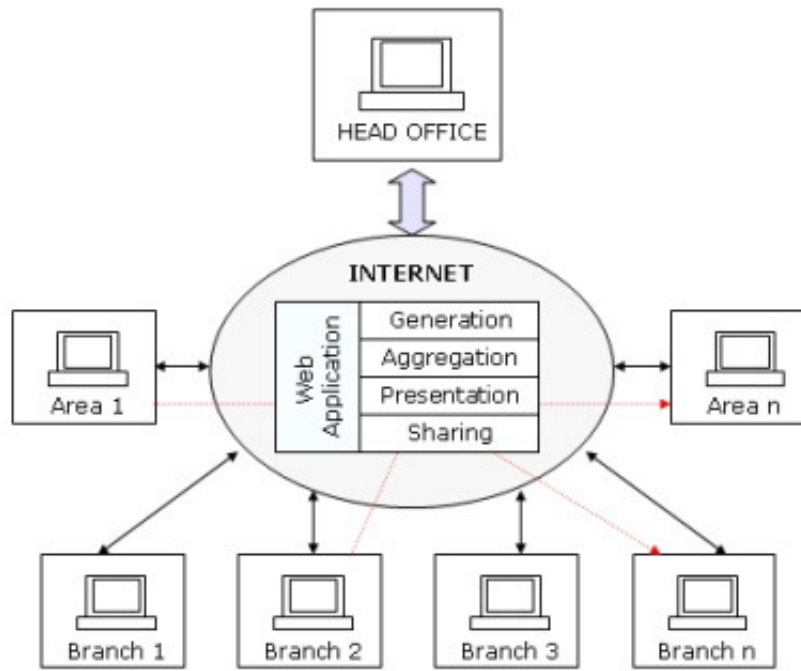


Figure 4: How WebXpress™ Works

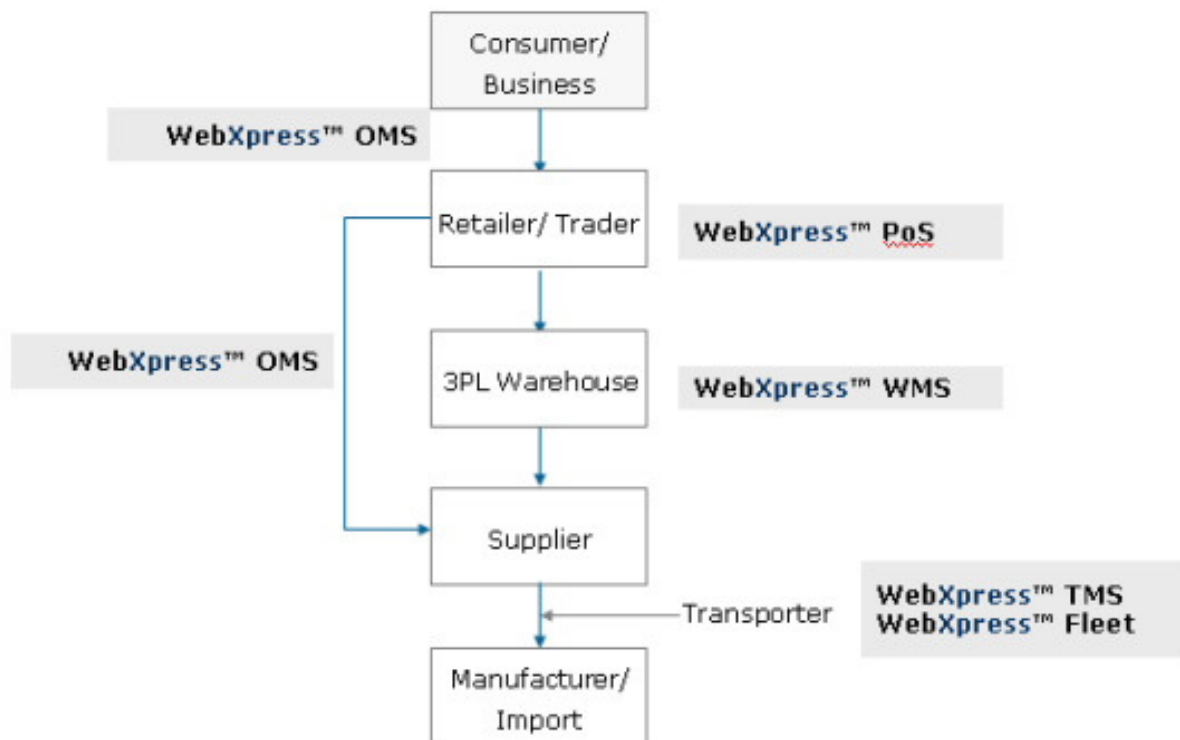


Figure 5: WebXpress products in Supply Chain Management

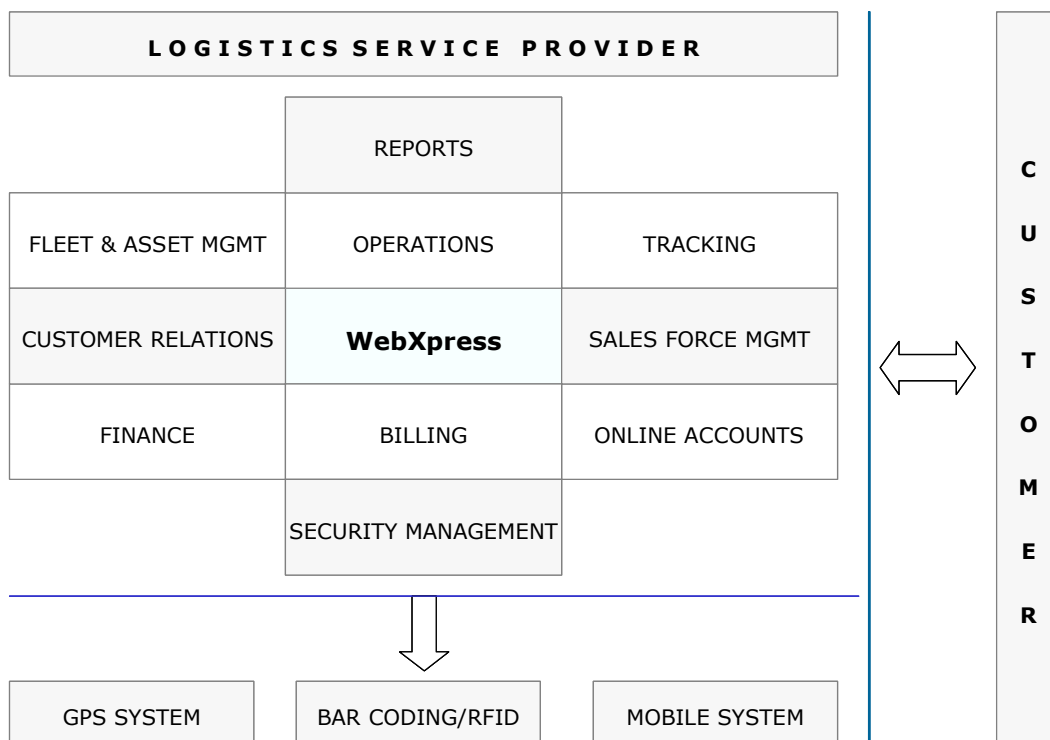


Figure 6: Modules of WebXpress