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Main applications of RFID along with various stages, software applications and hardware involved

Application- 1	LOGISTICS CHAIN MANAGEMENT SYSTEM IN FOOD AND PHARMA INDUSTRY.	
Place of events	Process involved	Type of S/W & Hardware
1. Airlines and shipping companies 2. Ancillary Suppliers, 3. Cargo Community Networks [CCN] which are made up of some of the other participants, 4. Customs and Quarantine authorities, 5. Freight forwarders, 6. Fresh produce exporters, 7. Fresh produce importers, 8. Government agencies such as freight export information providers, 9. Packer/cool store, 10. Transporters including road haulers and carriers in the importing country.	 Consignment Supplier Transport and Storage 	1. Central database 2. A communication secured network 3. Internet with three interactive databases. 4. Database and applications (data in a range of formats (maxima, minima, averages, graphical etc) 5. Passive tag - RW
Application - 2	GLOBAL SUPPLY CHAIN OF SEMICONDUCTORS.	
Place of events	Process involved	Type of S/W & Hardware
1. International suppliers 2. Airport 3. Customs agency 4. Distributors 5. Shipping dock 6. Manufacturers	 Transport Inventory Shipping Origin of port Transshipment port Destination port and A consignee 	1. Program instructions can be in any appropriate form, such as source code, object code, or scripting code. 2. Computing device: Enterprise servers, Application servers, point of sale terminal etc 3. Passive tag - RW
Application - 3	SUPPLY CHAIN MANAGEMENT OF HIGH-VALUE ELECTRONIC ITEMS & PHARMACEUTICALS.	
Place of events	Process involved	Type of S/W & Hardware
1. Warehouse 2. Truck 3. Freight container 4. Sea vessel 5. Distribution center	1. Shipping 2. Recipient	Central data processor is operable for communication with an internet router. Low frequency tag ? 300 KHz
Application - 4	TRACKING SYSTEM	
Place of events	Process involved	Type of S/W & Hardware
Assembly line Warehouse	Package handling Baggage handling Parts assembly Navigation through marked waypoints Item retrieval and packaging Inventory control	Business applications (cause sorting and loading instructions to appear on the items so that wearer?s of the data acquisition and display device do not have to read each item?s label.) Passive tag



SUPPLY CHAIN MANAGEMENT.

Place of events	Process involved	Type of S/W & Hardware
1. Storage facility 2. Shipping container 3. Shipping vessel 4. Airport 5. Shipyard 6. Military heavy assets 7. Warehouse 8. Factory	Shipping goods Transportation (truck) Retail or wholesale locations Train depot Inventory Outloand transit Inbound transit Advanced shipping notification	Firmware and software to modulate and demodulate the data for the particular protocol Various communication algorithms and command response algorithms UPS Supply Chain Solutions Passive tag ? RW ? Low freq. or 900 MGz
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Application - 6	INVENTORY ALONG A	DISTRIBUTION CHAIN

Application - 6

Place of events	Process involved	Type of S/W & Hardware
Distribution Storing Manufacturer (warehouse)	Transportation Tracking Retailer or consumer	Anti-collision software Program for correlating the environmental condition data with the location data. The data reporting medium is a computer display, a LAN, or a web page. Active or passive tag- RW



ASSET AND MATERIALS MANAGEMENT SYSTEM.

Place of events	Process involved	Type of S/W & Hardware
Lay down yard Warehouse Asset storage	1. Inventory 2. Shipping 3. Asset management 4. Tracking asset material a. Material identification information b. Description of the material c. Purchasing details d. Storage and maintenance details e. Material location and f. Destination information. 5. Receiving	1. Software applications (Web application" TagDetect") files may be in HTML format, XML or other formats. 2. Software applications supporting a client-server system or n-tiered computer system. 3. Internet and Central data repository 4. Active or passive tag - RW



POINT-OF-SALE AND POINT-OF-DELIVERY AND/OR DISTRIBUTION.

Place of events	Process involved	Type of S/W & Hardware
Distribution Micro-warehouse Manufacturing Marketing Customer relation management	1. Point of sale 2. Delivery 3. Inventory 4. Billing	MW (Micro-warehouse) enterprise application XML middleware such as Biz Talk.RTM. software. ERP system, web ordering system Passive tag ? RW - freq 2.45 GHz

Application - 9	REUSABLE TRANSPORTATION MEANS.	
Place of events	Process involved	Type of S/W & Hardware
1. Distribution	1. Tracking: a. Receptacle or b. Container or c. Packing or d. Pallet or e. Trolley car. 2. Wholesale distributor 3. Chain sales store	No Software application Passive tag - RW
Application - 10	MATERIALS HANDLING	
Place of events	Process involved	Type of S/W & Hardware
Express mail Storage	Transport Tracking Delivery	Software modules may include: 1. A database module configured to store data on the storage medium. 2. A decision module configured to determine the presence or absence of stale mail based on information provided by the database module.3. 3. Passive or active tag? read only
Application - 11	COMMERCIAL ENTERPRISE (PERSONNEL AND ASSET RETENTION SYSTEM (PARS))	
Place of events	Process involved	Type of S/W & Hardware
Industrial sites Power plants Refineries and Ports of entry	Tracking Monitoring Inventory Security	1. Company databases are: a. Material management systems b. Procurement systems and c. Time and attendance systems. 2. Applications programming 3. Information access through standard formats such as XML and HTML. 4. Passive tag - RW
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Application - 12	TRACKING CARGO THROUGH CUSTOMS.	
Place of events	Process involved	Type of S/W & Hardware
Airlines Distributor	1. Shipping 2. Receiving 3. Tracking	Central server runs a program which acts as a central host for processing the information communicated between the different computers. Passive tag - RW
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Application - 13	SUPPLY CHAIN MANAGEMENT IN BEEF INDUSTRY.	
Place of events	Process involved	Type of S/W & Hardware
1. Factory	Identifying Tracking	BeefLink.TM. Software (is a collection of components written primarily in VISUAL BASIC® 6.0 programming language and

	4. Livestock production and processing cycle	ACTIVE X® programming methodologies.) 2. Inventory-type report can easily be generated. 3. MicroSoft Excel 4.Passive tag- read only
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