CLAIMS:

1. An information technology system, comprising:

a cloud-based management platform with a micro-services architecture, the platform having:

a set of interfaces that are configured to access and configure features of the platform;

a set of network connectivity facilities that are configured to direct a set of value chain network entities to connect to the features of the platform;

a set of adaptive intelligence facilities that are configured to automate a set of capabilities of the platform related to at least one of the value chain network entities and the features of the platform;

a set of data storage facilities that are configured to store data collected and handled by the platform, wherein the data is related to at least one of the value chain network entities and the features of the platform; and

a set of monitoring facilities that are configured to monitor the value chain network entities;

wherein the platform is configured to host a set of applications for directing an enterprise to manage the value chain network entities from a point of origin of a product of the enterprise to a point of customer use.

2. The system of claim 1, wherein the set of interfaces includes at least one of a demand management interface and a supply chain management interface.

3. The system of claim 1, wherein the set of network connectivity facilities includes at least one of:

- a 5G network system deployed in a supply chain infrastructure facility operated by the enterprise.

- an Internet of Things system deployed in a supply chain infrastructure 25 facility operated by the enterprise,

- a cognitive networking system deployed in a supply chain infrastructure facility operated by the enterprise, and

- a peer- to-peer network system deployed in a supply chain infrastructure facility operated by the enterprise.

4. The system of claim 1, wherein the set of adaptive intelligence facilities includes at least one of:

- an edge intelligence system deployed in a supply chain infrastructure facility operated by the enterprise,

- a robotic process automation system,

- a self configuring data collection system deployed in a supply chain 15 infrastructure facility operated by the enterprise,

- a digital twin system representing attributes of at least one value chain network entity of the value chain network entities controlled by the enterprise, and

- a smart contract system that is configured to automate a set of interactions among the value chain network entities.

5. The system of claim 1, wherein the set of data storage facilities uses at least one of:

- a distributed data architecture, and

- a graph database representing a set of hierarchical relationships of the value chain network entitie.

6. The system of claim 1, wherein the set of data storage facilities uses a blockchain.

7. The system of claim 1, wherein the set of data storage facilities uses a distributed ledger.

8. The system of claim 1, wherein the set of monitoring facilities includes at least one of:

- an Internet of Things monitoring system, and

- a sensor system deployed in an infrastructure facility operated by the enterprise.

9. The system of claim 1, wherein the set of applications includes at least one of:

- a set of applications of at least two types from among a set of supply chain management applications, demand management applications, intelligent product applications, and enterprise resource management applications, and

- an asset management application.

10. The system of claim 1, wherein the value chain network entities are selected from the group consisting of products, suppliers, producers, manufacturers, retailers, businesses, owners, operators, operating facilities, customers, consumers, workers, mobile devices, wearable devices, distributors, resellers, supply chain infrastructure facilities, supply chain processes, logistics processes, reverse logistics processes, demand prediction processes, demand management processes, demand aggregation processes, machines, ships, barges, warehouses, maritime ports, airports, airways, waterways, roadways, railways, bridges, tunnels, online retailers, ecommerce sites, demand factors, supply factors, delivery systems, floating assets, points of origin, points of destination, points of storage, points of use,

networks, information technology systems, software platforms, distribution centers, fulfillment centers, containers, container handling facilities, customs, export control, border control, drones, robots, autonomous vehicles, hauling facilities, drones/robots/AVs, waterways, and port infrastructure facilities.

11. The system of claim 1, wherein the platform manages a set of demand factors, a set of supply factors, and a set of supply chain infrastructure facilities.

12. The system of claim 11, wherein the supply factors are factors selected from the group consisting of Component availability, material availability, component location, material location, component pricing, material pricing, taxation, tariff, impost, duty, import regulation, export regulation, border control, trade regulation, customs, navigation, traffic, congestion, vehicle capacity, ship capacity, container capacity, package capacity, vehicle availability, ship availability, container availability, package availability, vehicle location, ship location, container location, port location, port availability, port capacity, storage availability, storage capacity, warehouse availability, warehouse capacity, fulfillment center location, fulfillment center availability, fulfillment center capacity, asset owner identity, system compatibility, worker availability, worker competency, worker location, goods pricing, fuel pricing, energy pricing, route availability, route distance, route cost, and route safety factors.

13. The system of claim 11, wherein the demand factors are factors selected from the group consisting of product availability, product pricing, delivery timing, need for refill, need for replacement, manufacturer recall, need for upgrade, need for maintenance, need for update, need for repair, need for consumable, taste, preference, inferred need, inferred want, group demand, individual demand, family demand, business demand, need for workflow, need for process, need for procedure, need for treatment, need for improvement, need for diagnosis, compatibility to system, compatibility to product, compatibility to style, compatibility to brand, demographic, psychographic, geolocation, indoor location, destination, route, home location, visit location, workplace location, business location, personality, mood, emotion, customer behavior, business type, business activity, personal activity, wealth, income, purchasing history, shopping history, search history, engagement history, clickstream history, website history, online navigation history, group behavior, family behavior, family membership, customer identity, group identity, business identity, customer profile, business profile, group profile, family profile, declared interest, and inferred interest factors.

14. The system of claim 11, wherein the supply chain infrastructure facilities are facilities selected from the group consisting of ship, container ship, boat, barge, maritime port, crane, container, container handling, shipyard, maritime dock, warehouse, distribution, fulfillment, fueling, refueling, nuclear refueling, waste removal, food supply, beverage supply, drone, robot, autonomous vehicle, aircraft, automotive, truck, train, lift, forklift, hauling facilities, conveyor, loading dock, waterway, bridge, tunnel, airport, depot, vehicle station, train station, weigh station, inspection, roadway, railway, highway, customs house, and border control facilities.

15. The system of claim 1, wherein the set of applications involves a set selected from the group consisting of supply chain, asset management, risk management, inventory management, demand management, demand prediction, demand aggregation, pricing, positioning, placement, promotion, blockchain, smart contract, infrastructure management, facility management, analytics, finance, trading, tax, regulatory, identity management, commerce, ecommerce, payments, security, safety, vendor management, process management, compatibility testing, compatibility management, infrastructure testing, incident management, predictive maintenance, logistics, monitoring, remote control, automation, self-configuration, self-healing, self-organization, logistics, reverse logistics, waste reduction, augmented reality, virtual reality, mixed reality, demand customer profiling, entity profiling, enterprise profiling, worker profiling, workforce profiling, component supply policy management, product design, product configuration, product updating, product maintenance, product support, product testing, warehousing, distribution, fulfillment, kit configuration, kit deployment, kit support, kit updating, kit maintenance, kit modification, kit management, shipping fleet management, vehicle fleet management, workforce management, maritime fleet management, navigation, routing, shipping management, opportunity matching, search, advertisement, entity discovery, entity search, distribution, delivery, and enterprise resource planning applications.