Project Proposal - INFO 5100 Application Engineering & Development

Group : 24

Automotive Supply Chain Management - Customer to Manufacturer

In Today's world, large automobile manufacturers face significant challenges in ensuring seamless coordination and transparency across its supply chain, which includes customers, automobile dealers, manufacturer and delivery services. Car Dealers struggle to effectively communicate with the customer requirements to manufacturers and track their order status. In some cases manufacturers face issues in managing dealer requests, forecasting demand, delivery and stock related problems. Moreover, customers often experience delays in their automobile order shipment, face transparency problems which include minimal visibility into the status of their vehicle purchase. The lack of real-time visibility and technological integration further hampers decision-making, making the supply chain vulnerable to disruptions and inefficiencies.

This Project aims to design and develop a full- fledged digital platform that integrates the stakeholders across the automotive supply chain which includes :
- Customer
- Salesperson
- Marketing
- Dealer
- Distributor
- Manufacturer
- Manufacturer - Body Shop
- Manufacturer - Painting
- Manufacturer - Technical
- Delivery Management (Logistics)

Companies can adopt a few innovations to tackle these issues. You can escape single source threats by diversifying suppliers and nearshoring production to minimize transportation risks. Collaboration across the supply chain, between different organizations helps build a strong, efficient, sustain, and agile ecosystem. Planning ahead and investing in technology reinforce how resilient the network is to disruption.

Enterprises involved :
- Customer Enterprise
- Distributor Enterprise
- Dealer Enterprise
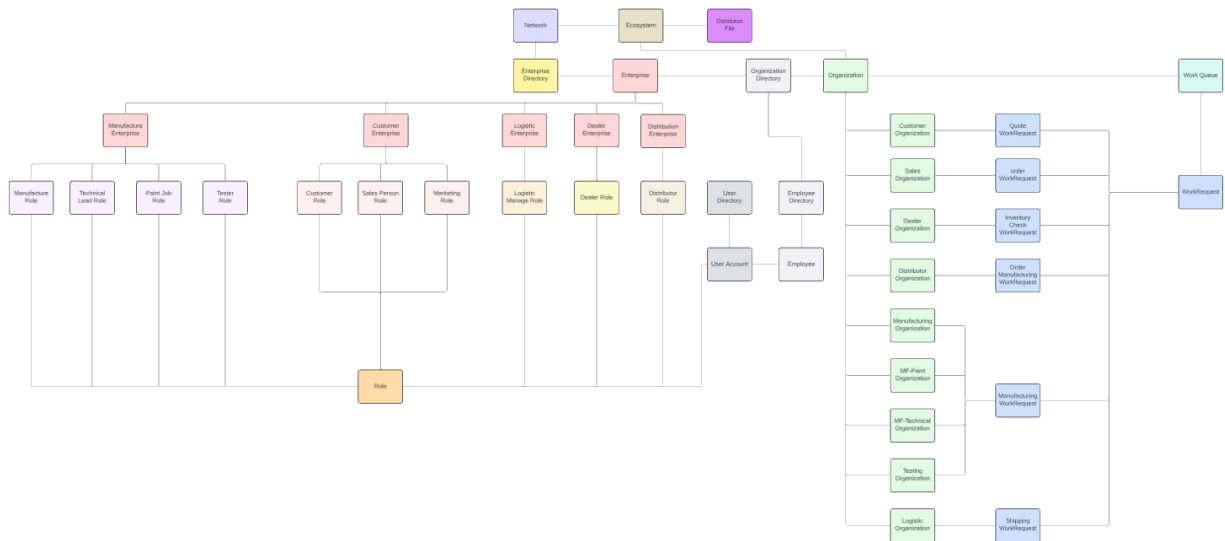- Manufacturer Enterprise
- Logistic Enterprise

Organizations involved :
- Customer
- Sales
- Distributor
- Dealer
- Manufacturer
- Manufacturer - Paint
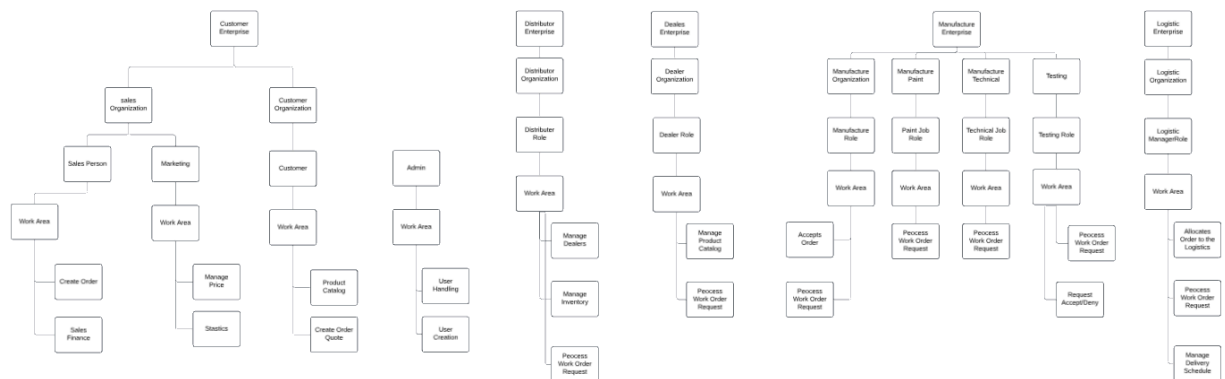- Manufacturer - Technical
- Testing
- Logistics

Roles Involved :
- Customer
- SalesPerson
- Marketing Person
- Dealer
- Distributor
- Manufacturer
- Paint Job
- Technical Head
- Tester
- Logistics Manager

High Level Component Diagram :

UI Level Diagram :

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