
Innovative Transportation Solutions: Uber for Freight (UFF)

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Overview

- Sponsor Company
- Background & Motivation
- Methodology
- Defining the UFF Model
- Interview Results
- Recommendations & Conclusions

1.

SPONSOR COMPANY

Sponsor Company

- Large multinational chemical company
- Wide range of products
 - Hazmat & Non-hazmat
- Wide variety of customers across industries
 - Varying service level requirements

2.

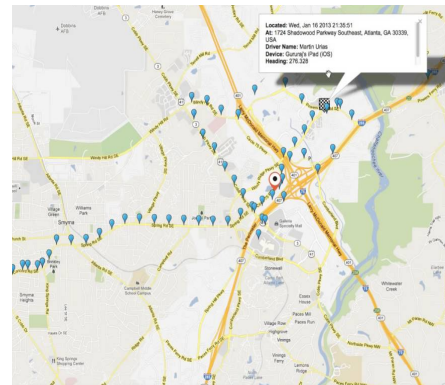
BACKGROUND & MOTIVATION



Underutilized capacity



Inter-plant inefficiencies



Lack of visibility of shipments



Limited info-sharing

- Desired improvement in these four areas
- Several innovative transport concepts on the market claim to address these concerns
 - Ex: Uber for Freight

What is Uber for Freight?



The seamless matching of brokers, carriers, shippers, and receivers to reduce market inefficiencies via an electronic platform

Uber for Freight (UFF)

- Experts have differing opinions on UFF's definition
 - How does Uber for Freight differ from a traditional broker?
- Many companies already in operation
- None are successful on large scale yet

TRANSFIX

FLEXPORT

amazon logistics

cargomatic



UBER



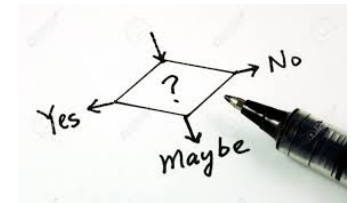
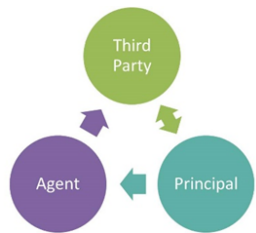
KEYCHAIN
LOGISTICS

Research Goals

1. Define UFF
2. Distinguish UFF from traditional broker
3. Determine applicability of UFF within sponsor company
 - Challenges & benefits
 - Ideal segments for pilot
 - Implementation steps

3. METHODOLOGY

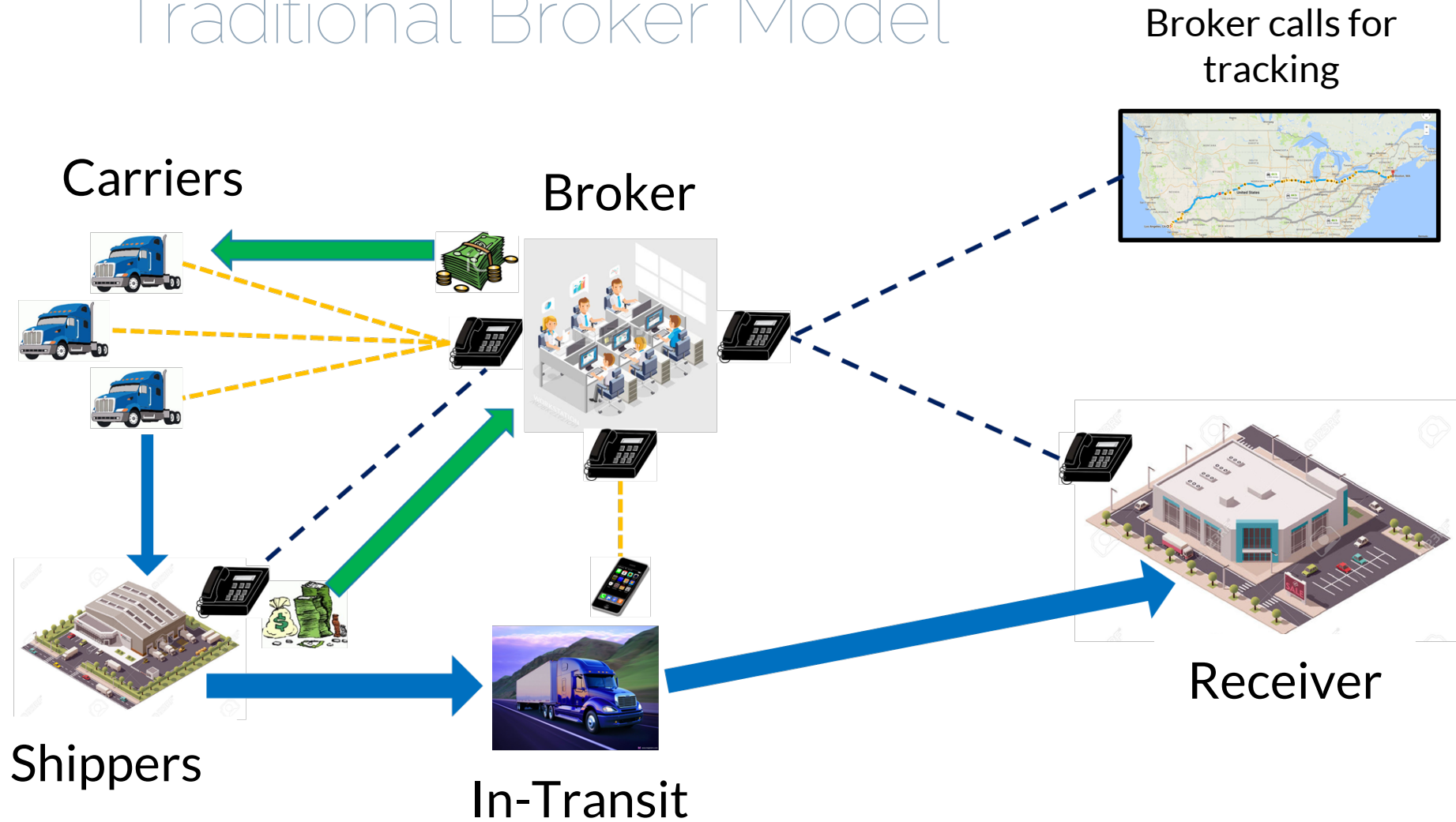
Methodology



4.

DEFINING THE UFF MODEL

Traditional Broker Model



Questions for Understanding Business Models

Perceived needs

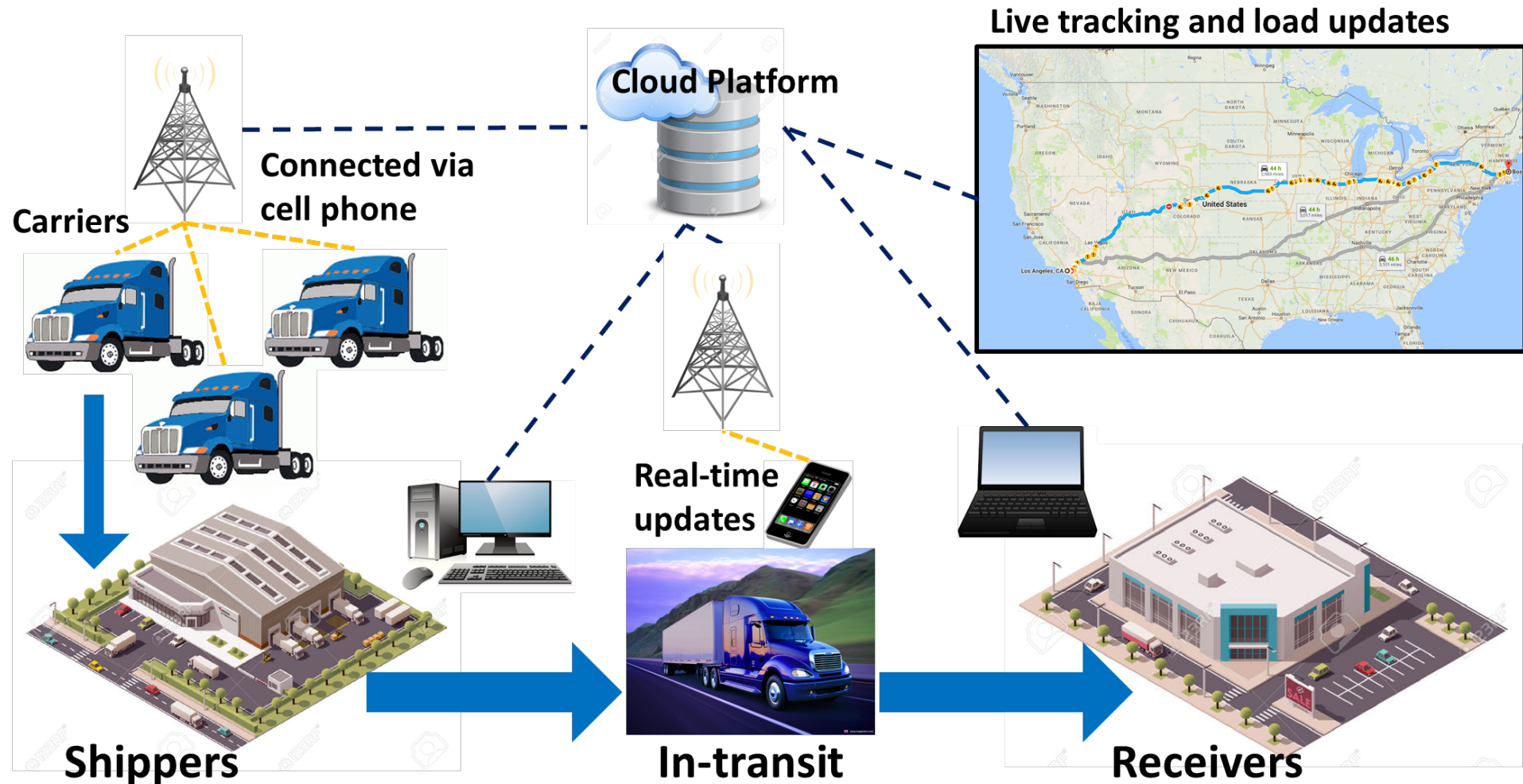
Innovation needed

Structuring the model

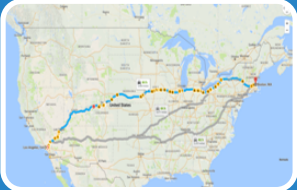
Key players and stakeholders

What is the value added

Uber for Freight



UFF as a Service



Live tracking of shipments

- Streamline the shipping and receiving process
- Accident avoidance, routing updates & alerts to stakeholders
- Higher service levels



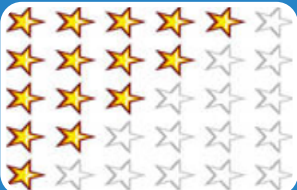
Certifications and matching

- Algorithm designed to match the right carrier for shippers specific needs (i.e. hazardous cargo)
- Algorithm does matching without the need for dispatcher



Payment

- Instant transactions



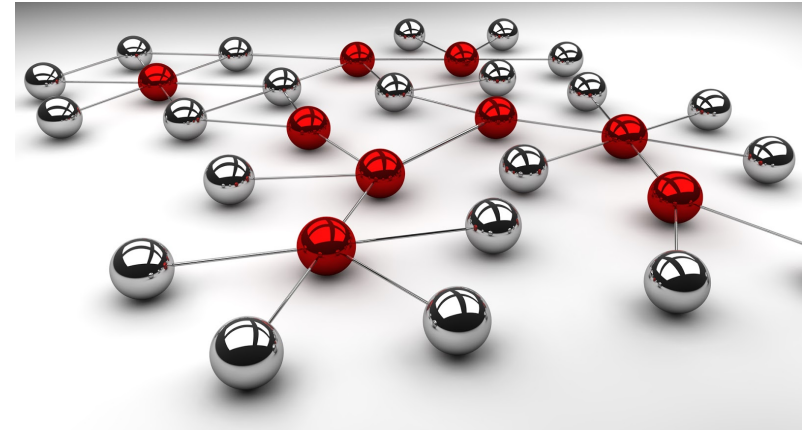
Rating system – Shippers, carriers, and receivers

- Multi-tiered to provide a detailed analysis of the end to end process
- Many factors including, quality, timeliness, condition of freight
- Define potential hotspots

UFF Drawbacks

Network Density

- Need a vast source of carriers and shippers
- Poor pricing and options without density



Data Security

- Data breaches releasing sensitive business data
- Possible target for terrorist attacks



5. INTERVIEW RESULTS

Interview Process

- Semi-structured
- Formal interview guide for consistency
- Brief overview of UFF model
- Eight interviews across geographies and functions

Interview Guide for Uber for Freight

Sponsor Company only

A priori guidelines

Thank you for being part of our research project! The project is an investigation regarding the application of 'Uber for Freight' concepts to the chemical industry as part of a Thesis towards the Master in Supply Chain Management at MIT. The research team consists of two Master Candidates – Leah Davis & Joe Lucido. Our thesis advisors is Dr. Jarrod Goentzel from MIT's Center for Transportation and Logistics.

Within the past years, a range of companies (most prominently Uber) have successfully launched new business models which use open networks to provide high service levels to customers at low cost. Given the low asset utilization in the poorly interconnected and very fragmented transportation sector it can be argued that disruptive technologies such as the Uber concept may be applicable to optimize the freight transportation industry. Accordingly, an increasing number of logistics forwarders are investigating the potential of the 'Uber for Freight' concept. As many of these companies are already moving freight, the purpose of our project is to research and evaluate the applicability of these innovative transportation technology concepts in the chemical industry.

Although the 'Uber for freight' concept is explained in detail in other attached documents, we will provide a brief overview of the model at the start of the call. In the interview, you will primarily be asked about your opinions regarding various hypotheses around potential applications of this concept to Sponsor Company's chemical logistics. As we have limited experience to Sponsor Company's specific operations and the nuances of chemical transportation, we are seeking critical feedback around the benefits and/or feasibility of this model. Please feel free to share your honest opinions so that we can adjust and improve the model.

The interview will last no more than 45 minutes. Your contribution is entirely voluntary. All data collected from the interview will be kept confidential and under no condition your name or personal data will be disclosed or shared outside of the research team.

In order for us to review and analyze our conversation, we would like to ask for your kind permission to record the interview. The recording file will be securely stored on devices owned by the research team and at no point in time, the recording will be shared outside of the research team consisting of the two students only. The advisors will not have access to the recording. You have the right to revoke this permission at any time.

1

Perceived Challenges of UFF

Equipment
Requirements

Driver
Requirements

Language
Barriers

Safety

Insurance &
Liability

Regulatory

Service Level
Guarantees

Data
Integration

Scale

Perceived Benefits of UFF

Capacity Gaps

Increased
Flexibility

Filling of
Backhauls

Reduced Costs

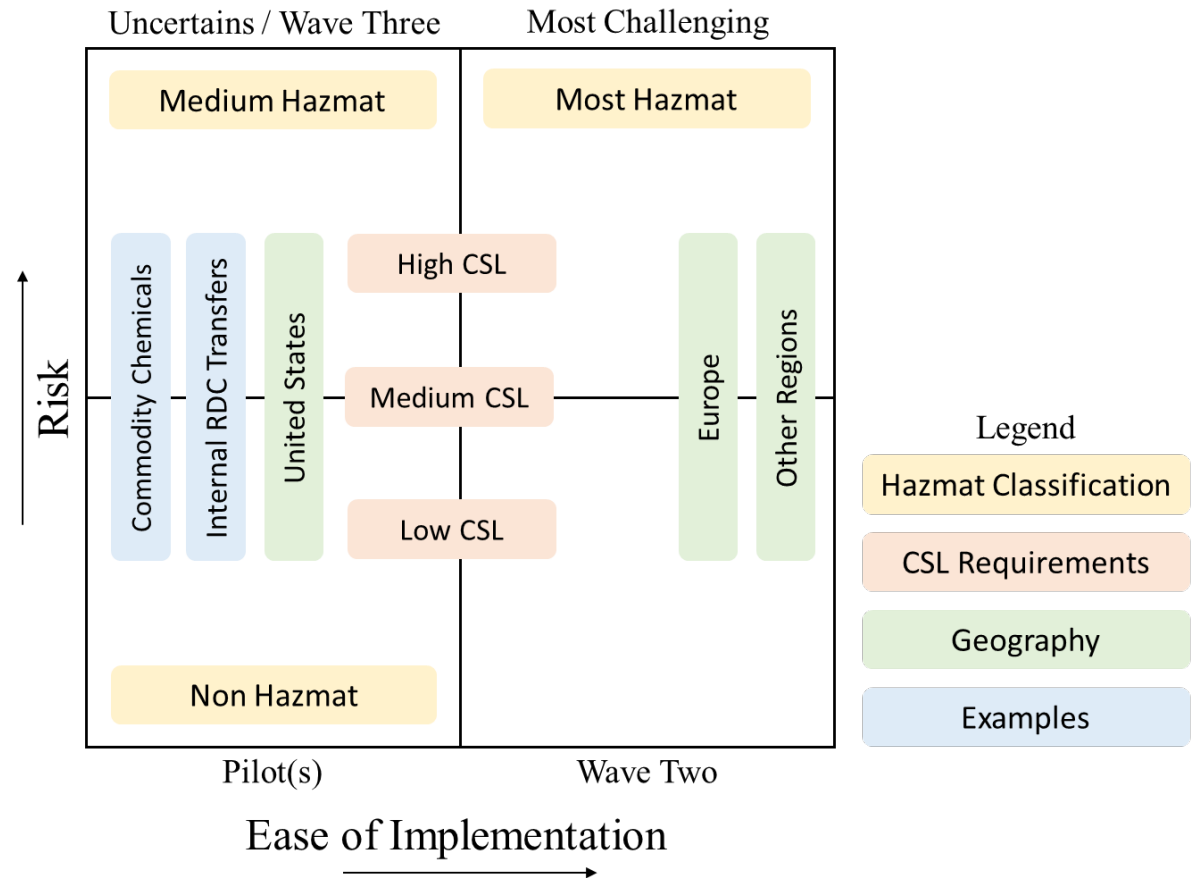
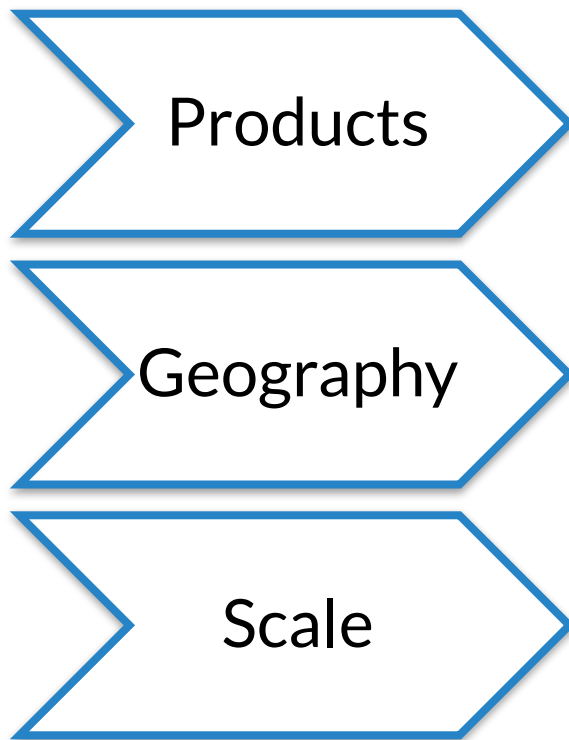
Increased
Visibility

Improvement of
Infrastructure
Issues

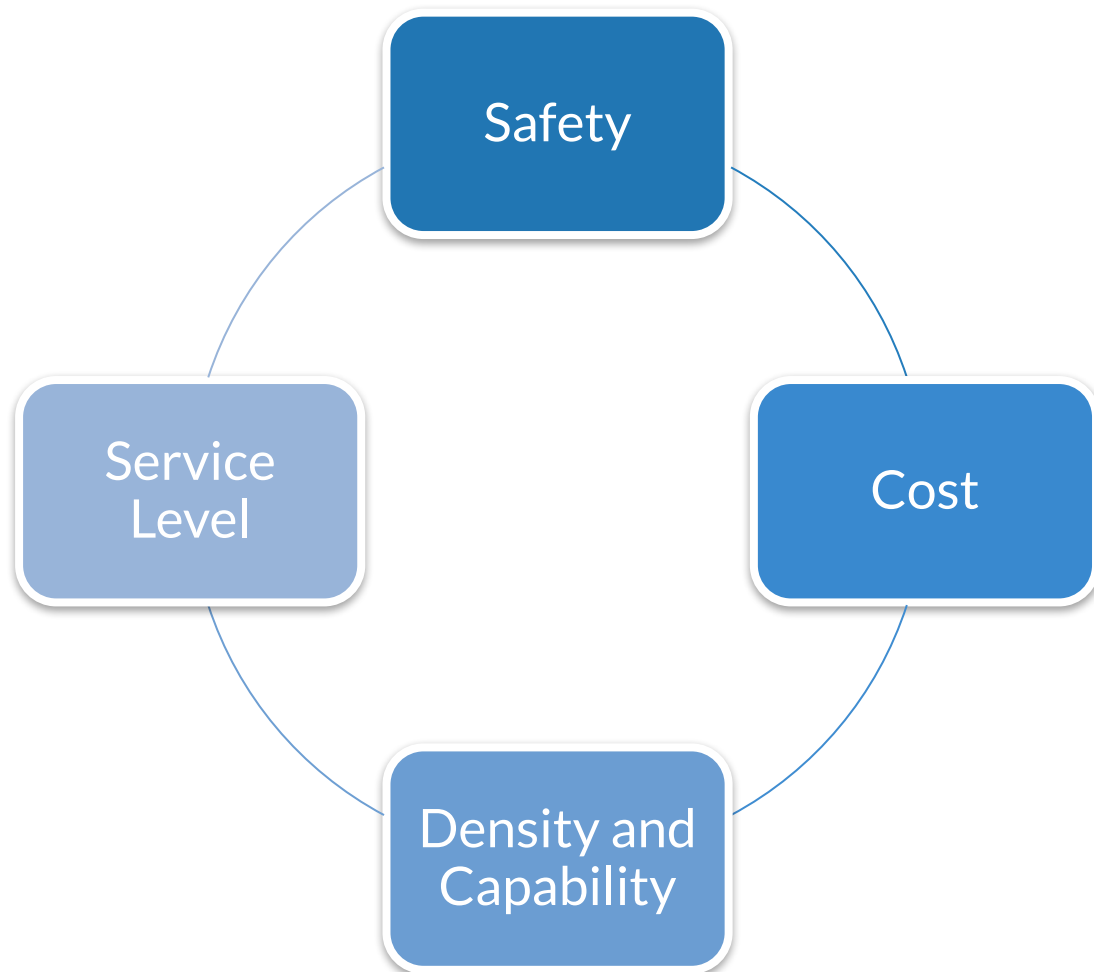
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RECOMMENDATIONS & CONCLUSIONS

Implementation

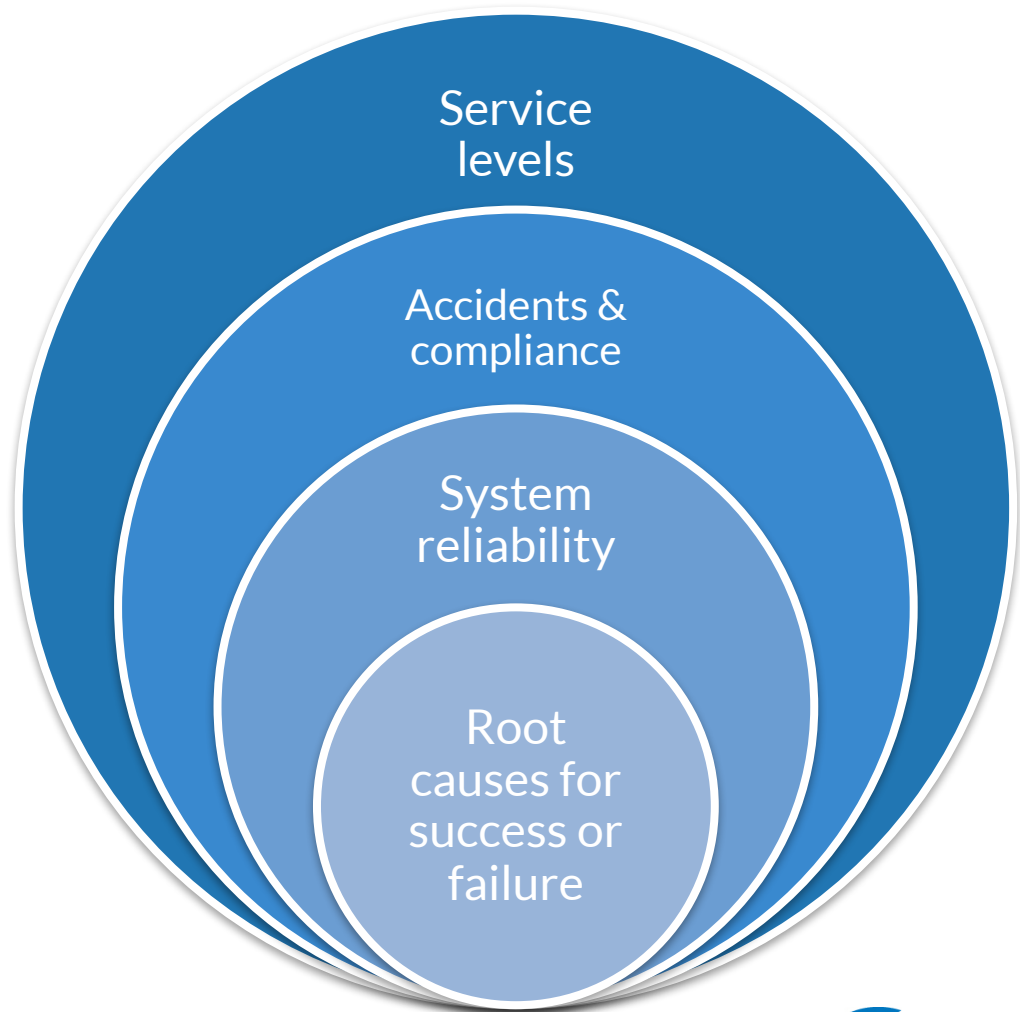


Choosing a UFF Provider



Post-Implementation

- Monitor for trends
- Collect and analyze data
- Scale up or Down?



Opportunities for Further Research

- Other complex product categories
 - Perishables, defense or medical
- Quantifying impacts to shippers and carriers once UFF is operational
- Confirm or alter researchers' hypotheses of UFF's challenges

Thanks!

Any questions?

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