**Business Requirement Document   
Project Name**: Opsiana *– Digital Platform for Vessel & Fuel Support*  
**Prepared By**: Mr. Siddhant Kadus *Business Analyst***Stakeholder**: Fernando Alvarez *(Founder, Opsiana)***Date**:   
**Version**: 1.0

**1.EXECUTIVE SUMMARY**

Opsiana is a SaaS-based digital platform designed to modernize and streamline the fuel procurement and support process for vessel operating companies and fuel suppliers. In the current maritime industry, most fuel procurement activities are still managed manually through emails, calls, and fragmented systems, leading to inefficiencies, delays, and lack of transparency. Opsiana aims to solve these challenges by providing a centralized hub where vessel operators can raise fuel requests, suppliers can submit competitive quotations, and both parties can seamlessly finalize contracts. The platform will not only simplify the procurement workflow but also ensure greater visibility, traceability, and cost optimization in fuel management.

By digitizing these operations, Opsiana positions itself as a strategic enabler for the maritime sector, enhancing decision-making with real-time data, analytics, and secure communication channels. Vessel operators will benefit from faster procurement cycles, streamlined supplier evaluation, and improved compliance with industry standards. Fuel suppliers, in turn, gain access to a larger customer base with structured and transparent demand visibility. Ultimately, the platform will drive operational efficiency, reduce manual errors, and strengthen trust between stakeholders, creating long-term value for the maritime supply chain.

**2. BUSINESS OBJECTIVES**

1. Provide a **digital marketplace** for vessel operators and fuel suppliers.
2. Streamline the **fuel request, quotation, and approval process.**
3. Ensure **real-time visibility** into vessel fuel needs, supplier availability, and contract status.
4. Enhance **decision-making** with analytics and reporting dashboards.
5. Establish **secure communication & compliance tracking** between stakeholders.

## **3.** **SCOPE**

## In-Scope (MVP)

1. Vessel registration & profile management.
2. Fuel request creation & submission.
3. Supplier registration & quote submission.
4. Quote comparison dashboard for vessel operators.
5. Contract generation & approval workflow.
6. Basic reporting (fuel request history, supplier performance).

## Out-of-Scope (Future Releases)

1. Integration with external **fuel pricing APIs.**
2. Automated invoicing & payment modules.
3. AI-driven fuel demand forecasting.
4. Mobile app (Phase 2).

### **4.KEY STAKEHOLDERS**

|  |  |  |
| --- | --- | --- |
| **Role** | **Name/ Type** | **Responsibility** |
| Founder | Mr. Fernando Alvarez | Vision, Funding, Business goals |
| Vessel Operator | External Users | Submit requests, compare quotes, finalize contracts |
| Fuel Suppliers | External Users | Respond to requests, provide quotes, finalize deals |
| Team Lead (Development) | Internal | System development team |

**5. BUSINESS REQUIREMENTS**  
  
Opsiana aims to develop a SaaS-based platform designed to provide **digital support for vessel and fuel supply companies.** The primary objective is to streamline operations, improve transparency, and enable efficient communication between fuel suppliers, vessel operators, and associated stakeholders. Below are the detailed business requirements:

#### **1. User Management**

1. The system should allow **registration and authentication** for multiple user roles:
   1. **Admin (Opsiana Team)** – Full system access and configuration.
   2. **Fuel Supplier** – Manage fuel inventory, pricing, and order fulfilment.
   3. **Vessel Operator/Owner** – Request fuel, track orders, and manage invoices.
2. Provide **role-based access control** to ensure security and proper data segregation.

#### **2. Digital Fuel Ordering**

1. Vessel operators must be able to **browse available fuel suppliers** based on location, fuel type, and price.
2. Enable **fuel order placement** with details like quantity, delivery location, and expected time of delivery.
3. Provide **real-time order tracking** from request to delivery completion.

#### **3. Quotation & Price Management**

1. Suppliers should be able to **send digital quotations** to vessel operators.
2. Enable **price comparison feature** for vessel operators to select the most suitable supplier.
3. Implement **dynamic pricing rules** based on market conditions, availability, and delivery location.

#### **4. Document Management**

1. Support **uploading and storing mandatory compliance documents**, invoices, and fuel certificates.
2. Allow **digital signatures** for contract approvals.

#### **5. Communication & Notifications**

1. In-app **chat or messaging system** for real-time communication between suppliers and vessel operators.
2. **Push notifications and email alerts** for order updates, quotations, and approvals.

#### **6. Analytics & Reporting**

1. Provide **dashboard for vessel operators** to view past fuel consumption, costs, and supplier performance.
2. Enable suppliers to access **sales reports, pending orders, and revenue trends**.

#### **7. Integration & Scalability**

1. The platform should integrate with **existing ERP systems** used by suppliers and operators.
2. Support **API-based integration** for third-party logistics and compliance systems.
3. Scalable architecture to handle **increasing users and transactions** as the platform grows.

### **6.ASSUMPTIONS AND CONSTRAINTS**

ASSUMPTIONS:

These are conditions assumed to be true for the successful implementation of the Opsiana platform:

1. **Internet Connectivity:**  
   Users (fuel suppliers, vessel operators, and admin) will have a stable internet connection to access the SaaS platform.
2. **Device Compatibility:**  
   Users will access the platform via modern web browsers or mobile devices with updated operating systems.
3. **User Adoption:**  
   All stakeholders will actively adopt the digital platform for their daily operations instead of using legacy/manual processes.
4. **Third-party Integrations:**  
   APIs for ERP systems, payment gateways, and compliance systems will be available and functional during integration.
5. **Data Accuracy:**  
   Fuel suppliers and vessel operators will provide accurate and up-to-date data such as pricing, inventory levels, and delivery timelines.
6. **Regulatory Compliance:**  
   Regulatory requirements related to maritime fuel transactions and environmental laws will remain stable during development and deployment.
7. **Training & On boarding:**  
   Opsiana will provide adequate training and support material for smooth on boarding of suppliers and operators.

### CONSTRAINTS:

These are limitations that the Opsiana project must operate within:

1. **Budget Constraint:**  
   The project must be delivered within the allocated **budget limit provided by the founder**.
2. **Timeline Constraint:**  
   The platform must be developed, tested, and launched within the **agreed timeline** (e.g., 6–8 months).
3. **Technology Stack Limitation:**  
   The solution must be developed using **approved technologies** (e.g., AWS for hosting, React for frontend, Node.js for backend) to ensure scalability and security.
4. **Regulatory Constraint:**  
   The platform must comply with **international maritime regulations** and **GDPR data protection laws** for European clients.
5. **Resource Constraint:**  
   The team size and expertise are fixed; hiring additional resources may not be possible during development.
6. **Integration Constraint:**  
   The platform should integrate with limited third-party systems (only those approved by the founder) and must work with **standard API protocols**.
7. **Performance Constraint:**  
   The system should support **at least 500 concurrent users** in the initial phase without downtime.
8. **Language & Currency Support:**  
   The first release will only support **English language** and **EUR currency**, with multi-language and multi-currency planned for future phases.

### **7. SUCCESS METRICS**

To evaluate the success of the Opsiana platform after implementation, the following metrics will be tracked:

#### **1. User Adoption**

1. **Definition:** Percentage of intended users actively using the system after launch.
2. **Target:** At least **70% adoption within the first 3 months’** post-deployment.
3. **Measurement Method:** Track user registration and active login data from the platform’s analytics dashboard.

#### **2. Order Processing Efficiency**

1. **Definition:** Reduction in the time required to place and confirm bunker fuel orders compared to current manual or semi-manual processes.
2. **Target:** **50% reduction** in average order processing time within 6 months of go-live.
3. **Measurement Method:** Compare system-generated timestamps for order initiation and confirmation versus baseline historical data.

#### **3. System Uptime and Performance**

1. **Definition:** Availability of the platform for users without unplanned downtime.
2. **Target:** **99.9% system uptime** excluding planned maintenance.
3. **Measurement Method:** Monitoring using server and cloud infrastructure logs.

#### **4. Customer Satisfaction**

1. **Definition:** Average score based on customer feedback surveys.
2. **Target:** Achieve a **minimum score of 4 out of 5** within 6 months’ post-implementation.
3. **Measurement Method:** Conduct periodic customer satisfaction (CSAT) surveys and Net Promoter Score (NPS) analysis.

#### **5. Support Response and Resolution Time**

1. **Definition:** Time taken to acknowledge and resolve user issues reported to the support team.
2. **Target:** **90% of issues resolved within 24 hours**, and all critical issues resolved within 4 hours.
3. **Measurement Method:** Track tickets and response times using the support ticketing system.

#### **6. Data Security and Compliance**

1. **Definition:** Incidents of security breaches or non-compliance with data protection regulations.
2. **Target:** **Zero major data breaches** and full compliance with GDPR and maritime industry standards.
3. **Measurement Method:** Conduct regular security audits and compliance checks.

### **8.PROJECT RISK**

1. **Scope Creep** – Uncontrolled feature additions; **Mitigation:** Strict change control.
2. **Integration Issues** – Problems connecting with third-party systems; **Mitigation:** Early API testing.
3. **Data Security Risk** – GDPR/non-compliance issues; **Mitigation:** Encryption & security audits.
4. **Low User Adoption** – Users resisting new system; **Mitigation:** Training & user-friendly UI.
5. **Budget Overruns** – Extra costs due to added requirements; **Mitigation:** Cost monitoring & contingency fund.
6. **Timeline Delays** – Delays from approvals or dependencies; **Mitigation:** Agile process & regular tracking.
7. **Technical Downtime** – System outages; **Mitigation:** Auto-scaling & backup servers.
8. **Data Inaccuracy** – Wrong pricing/fuel details; **Mitigation:** Data validation rules.

### **9.Approval & Sign-Off**

The undersigned confirm that they have reviewed and approved the contents of this Business Requirements Document (BRD) for the **Opsiana Vessel & Fuel Management Platform**. This approval indicates agreement with the documented business objectives, requirements, assumptions, and constraints. Any future changes to these requirements will follow the agreed change control process.

| **Name** | **Designation** | **Organization** | **Signature** | **Date** |
| --- | --- | --- | --- | --- |
| Mr. Fernando Alvarez | Founder & Stakeholder | Opsiana |  |  |
| Mr. Siddhant Kadus | Business Analyst | [Your Company] |  |  |
| [Project Manager] | Project Manager | [Your Company] |  |  |