

News Marketplace Website – Requirements & System Architecture Analysis Report

Executive Summary

This report provides a comprehensive analysis of the News Marketplace Website requirements based on the provided documentation. The platform is designed as a comprehensive news marketplace that connects content creators, publishers, and agencies while providing AI-assisted content creation capabilities.

1. Project Overview

The News Marketplace Website is a multi-faceted platform that serves as:

- A content submission and management system for journalists and contributors
- A marketplace for news publications and media outlets
- An AI-assisted article writing platform
- A comprehensive directory of news agencies and publications

2. Key Features and Functionality

2.1 Core Platform Features

- **Content Submission System:** Article submission with comprehensive metadata
- **AI-Assisted Writing:** Guided article generation based on publication guidelines
- **Publication Directory:** Comprehensive database of news outlets and publications
- **Agency Registration:** Registration system for news agencies
- **User Management:** Multi-role user system with authentication
- **Content Review Workflow:** Internal review and approval process

2.2 Header Components (Based on Excel Data)

- **Top Navigation:** Agency Name, Social Media Icons, Language Selection
- **Classified Ads Space:** Three slider sections for:
 1. Social Media Recovery

2. Passive income for reporters/Contributors
 3. Affiliate programme
- **User Actions:** Email visibility, Contact icons (phone, WhatsApp, Telegram, Botim)
 - **Authentication:** Sign in/Sign Up functionality
 - **Content Sections:** Blog section, Agency Registration, Submit Publication
 - **Registration Forms:** Editor/Journalist/Reporter/Contributor registration
 - **Partnerships:** Media partnerships for events

2.3 User Roles and Access Control

1. **Super Admin:** Full system access
2. **Content Manager/Editor:** Article review and publication management
3. **Registered User:** Content submission and restricted content access
4. **Agency:** Special user type with additional features

3. Technical Requirements

3.1 Technology Stack (As Specified)

- **Frontend:** React.js + TailwindCSS
- **Backend:** Node.js + Express
- **Database:** PostgreSQL
- **AI Engine:** OpenAI / Gemini
- **Storage:** Firebase / Cloudinary
- **Hosting:** Hostinger VPS with AlmaLinux

3.2 Security Requirements

- **Content Protection:** Disable right-click, screenshot, copy/paste functionality
- **Authentication:** Three-factor sign-up (email, text message, WhatsApp)
- **Session Management:** Single-device login with 30-minute automatic logout
- **Data Security:** Robust validation and sanitization

4. User Experience and Interface Requirements

4.1 Design Principles

- **Consistency:** Uniform look and behavior across all components
- **Clarity:** Clear and unambiguous information presentation

- **Efficiency:** Optimized workflows for quick task completion
- **Accessibility:** WCAG compliant design
- **Responsiveness:** Seamless adaptation across all devices

4.2 Layout Structure

- **Header:** Global navigation, branding, classified ads sliders
- **Main Content:** Dynamic grid/list views for content display
- **Footer:** Legal links, company information, utility links

4.3 Key UI Components

- **Navigation:** Primary and secondary navigation with login-dependent visibility
- **Forms:** Comprehensive forms for content submission and registration
- **Sliders/Carousels:** Classified ads and content carousels
- **Content Display:** Grid and list view options with sort/filter/search
- **Buttons and CTAs:** Clear primary, secondary, and tertiary button styles

5. Content Management System

5.1 Publication Management

- **Comprehensive Fields:** Group information, publication details, pricing, TAT
- **Social Media Integration:** LinkedIn, Instagram, and other social platforms
- **Content Specifications:** Word limits, image requirements, link policies
- **Categorization:** Industry focus, regions, languages, sponsored content
- **Performance Metrics:** DA (Domain Authority), DR (Domain Rating)

5.2 Article Submission Workflow

1. **User Submission:** Comprehensive form with metadata
2. **Automated Confirmation:** Email notification to user
3. **Internal Review:** Queue-based review system
4. **Approval/Rejection:** Clear actions with feedback mechanisms
5. **Publisher Communication:** Direct email integration to publishers

5.3 AI-Assisted Content Creation

- **Guided Questions:** Publication-specific question sets
- **Instant Generation:** Real-time article creation

- **Review and Edit:** User approval and minor editing capabilities
- **Seamless Integration:** Direct submission to review workflow

6. Data Structure and Management

6.1 Publication Database Fields

- **Group Information:** SN, Name, Location, Website, Social Media
- **Publication Details:** Grade, Name, Website, Price, Agreement/Practical TAT
- **Content Requirements:** Word limits, image count, link policies
- **Categorization:** Region, industry focus, excluding categories
- **Metadata:** Tags, live status, sponsored indicators

6.2 User Data Management

- **Registration Data:** Multi-factor verification information
- **Profile Management:** Role-based access and permissions
- **Content History:** Submission tracking and status updates
- **Communication Logs:** Email and notification history

7. Workflow Requirements

7.1 User Registration and Authentication

- **Multi-Factor Sign-up:** Email, SMS, and WhatsApp verification
- **Security Measures:** Single-device login, session timeout
- **Role Assignment:** Automatic role assignment based on registration type

7.2 Content Creation and Review

- **Submission Process:** Guided form with validation and confirmation
- **Review Queue:** Efficient reviewer interface with all necessary information
- **Communication:** Automated notifications and publisher email integration
- **Status Tracking:** Real-time status updates for all stakeholders

8. Integration Requirements

8.1 Third-Party Integrations

- **AI Services:** OpenAI/Gemini for content generation
- **Communication:** SMS and WhatsApp API integration
- **Storage:** Firebase/Cloudinary for media management
- **Email Services:** Automated email notifications and communications

8.2 Database Integration

- **PostgreSQL:** Primary database for all structured data
- **Data Validation:** Server-side and client-side validation
- **Backup and Recovery:** Regular backup procedures
- **Performance Optimization:** Indexing and query optimization

9. Content Security and Protection

9.1 Content Protection Measures

- **Technical Restrictions:** Disable right-click, screenshot, copy/paste
- **Access Control:** Login-dependent content visibility
- **Session Management:** Automatic logout and session invalidation

9.2 Data Security

- **Input Validation:** Comprehensive sanitization and validation
- **User Authentication:** Secure multi-factor authentication
- **Role-Based Access:** Granular permission system

10. Performance and Scalability

10.1 Performance Requirements

- **Fast Loading:** Optimized images and assets
- **Responsive Design:** Mobile-first approach with defined breakpoints
- **Efficient Workflows:** Minimized steps for common tasks

10.2 Scalability Considerations

- **Growing Content:** Handle increasing publications and submissions
- **User Base Growth:** Scalable user management system
- **Performance Monitoring:** Regular performance assessment and optimization

11. Recommended System Architecture Components

Based on the requirements analysis, the following architectural components are recommended:

11.1 Required Diagrams and Documentation

1. **High-Level System Architecture**
2. **Workflow Diagrams**
3. **Sequence Diagrams**
4. **ER Diagram**
5. **Database Schema**
6. **UI Workflow Diagram**
7. **File & Folder Structure** (Frontend + Backend)
8. **CRUD Mapping Table**
9. **Use Case Diagram**
10. **Data Flow Diagram** (Level 0 & 1)
11. **Component Diagram**
12. **Deployment Diagram**

11.2 Implementation Priorities

1. **Phase 1:** Core user management and authentication
2. **Phase 2:** Publication database and content submission
3. **Phase 3:** Review workflow and publisher communication
4. **Phase 4:** AI-assisted content creation
5. **Phase 5:** Advanced features and optimizations

12. Conclusion

The News Marketplace Website represents a comprehensive platform that requires careful architectural planning and implementation. The system must balance user experience, security, scalability, and functionality while maintaining high performance standards. The multi-role user system, comprehensive content management capabilities, and AI integration make this a complex but valuable platform for the news and media industry.