



About WEBMOB

Webmob has emerged as a service delivery pioneer in this dynamic fintech industry, serving a legion of laurelled clients in Europe and the Middle East. With AI/ML-powered, Cloud-native, and Blockchain in our stack, Webmob provides cutting-edge solutions to fulfill the customer's advanced and disruptive requirements.

Particularly for the FINTECH industry, Webmob offers unparalleled robust solutions in Trade Finance, Money Market, Fiduciary, Commercial Real Estate Loan Tokenization, and NFT Marketplaces on top Blockchains. Webmob is, as of today, weaponed with a fully-equipped R&D lab, aka WikiDLT.com, and consulting certified professionals, especially to explore new possibilities for innovative Blockchain implementation.

Overview

Our platform redefines trade finance by fostering trust between financiers and borrowers. It equips investors for Collaborative Trade Finance (CTF), unlocking alternative capital sources. Through effective collaboration and infrastructure for title custody, it transforms CTF, enhancing efficiency and reducing risks. prioritizing inclusivity it benefits smaller commodity companies worldwide.

It recognises commodities' role in sustainable economies and empowers financiers to support transformation. Ultimately, revenue-sharing mechanisms ensure maximum utility, driving decentralization.

With our innovative approach, trade finance evolves into a transparent, efficient, and inclusive ecosystem, empowering participants globally.

The platform is a unified web hub that streamlines the entire financing transaction process, from warehouse to factory, ensuring efficiency and control at every step. It offers a seamless experience, allowing users to originate and manage their financing transactions easily. By partnering with top-tier service providers in the industry, it prioritises the security and integrity of financing collateral.



Business Need

- Streamlining Complex Cross-Border Processes
- Enhancing Trust Mechanisms
- Facilitating SME Access to Trade Finance
- Bridging Trade Finance Gaps in Emerging Markets
- Closing the Global Trade Financial Gap

Our Solution

- Utilised State-of-the-art Blockchain Technology
- Implemented enterprise-grade Corda Platform
- Developed Robust Architecture
- Customised Smart Contract Structure
- Industry-grade encryption mechanism

Benefits

- Digitisation & Automation of Trade Finance
- Tamper-proof transaction
- Simplified Access to Trade Finance
- Transparent & Cost-saving Process
- Expanded Trade Opportunities & Regulatory Compliance



Solution

Robust Architecture and Node Structure:

- Identified parties and defined their respective node structure on the Corda DLT platform.
- A secure vault is associated with each node for storing critical information backed by strong encryption.

Customised Smart Contract Structure:

- We have developed a customised smart contract structure for issuing letters of credit (LC) on the DLT platform.
- Letter of Credit is saved as a draft on the immutable ledger, replicating the traditional paper-based process digitally.

Encapsulation of Business Logic:

- We have implemented the necessary flows to secure trade between Buyer and Trader.
- Our team had standardised tasks to ensure compliance and regulatory standards.

Document Exchange and Authentication:

- Users can upload documents and share a secured hash referencing individual documents.
- Our engineers have implemented a 7-step process representing trade stages, each requiring authentication via digital signatures.

Role of Notary for Authentication:

- The Notary, a node on the Corda network, authenticates digital signatures.
- The notary is responsible for various tasks, including network mapping, to ensure authenticity and prevent fraud.

Trade Financing Feature:

- We have integrated a feature that allows traders to request loans from registered finance providers.
- We have stored loan request details on the Corda ledger to facilitate communication between parties.

Loan Request Scenarios:

- We have developed different scenarios for loan requests: Acceptance, Rejection, or Counteroffer generation from finance providers.
- Our platform had the generation of a PDF containing loan details based on a Mutual agreement shared between parties.



Technology

- We have leveraged Enterprise R3 Corda as our primary technology for transactional data storage and transparency between counterparties. Corda's distributed ledger technology provided a secure and transparent platform for recording and managing transactions, ensuring trust and integrity.
- Additionally, we utilised Amazon Web Services (AWS) for easy storage access and enhanced security measures. AWS offered scalable and reliable storage solutions, allowing us to manage and access data efficiently while ensuring robust security protocols to safeguard sensitive information.
- Furthermore, we employed Java to develop onboarding KYC (Know Your Customer) documents and non-transactional data storage. Java's versatility and robustness made it ideal for handling complex document management tasks and ensuring seamless integration with other project components.



Challenges

Trade finance is a complex process and bringing it onto a digital platform was a tough task. It requires great insight into the financial domain as well as expertise in the Trade Finance process. We have a background in developing robust financial applications which allowed us to excel in this venture.

There are several parties involved in this process such as importers, exporters, banks, financiers, insurers, export credit agencies and service providers. All these parties need separate and robust contract structure to enable trust in their agreements and trades. Bringing all this on Corda and leveraging the features of Corda to achieve a more optimized process along with rich expertise is what makes us adept in this domain.



QA Process

Our QA process involves a systematic approach encompassing various stages to thoroughly assess the trade finance platform's functionality, security, and user experience.

01 Test Planning:

We defined the scope of testing, identified objectives, allocated resources, and developed a comprehensive test plan outlining our approach, timelines, and deliverables.

02 Requirement Analysis:

We reviewed the requirements documentation to understand the expected behaviour of the trade finance platform and ensured our team accurately captured all functional and non-functional requirements

03 Test Environment Setup:

We established testing environments mirroring the production environment, installed the necessary software, configured databases, and ensured the availability of test data representing various trade finance scenarios.

04 Test Case Design:

We developed detailed test scenarios and cases covering functional workflows, boundary conditions, error handling, and exception scenarios, prioritising based on criticality and risk.

05 Functional Testing:

We executed test cases to verify the functionality of different modules and features, including various trade finance workflows, integration with external systems, and compliance with regulatory standards.

06 User Interface Testing:

We evaluated the user interface for usability, accessibility, and responsiveness, ensuring consistency in design elements, layouts, and navigation across different screens.

07 Security Testing:

We performed security assessments, testing authentication and authorisation mechanisms, data encryption, and secure communication protocols, and conducted penetration testing to assess resilience to security breaches.



08 Regression Testing:

We had rerun previously executed test cases to ensure new changes have not introduced any regressions, automating regression test cases where feasible and validating backward compatibility.

09 Integration Testing:

We tested data exchange mechanisms and validated data consistency and integrity across integrated systems, including file uploads, API calls, and message queues.

10 Documentation and Reporting:

We maintained a detailed documentation of test cases, results, and defects, generated test reports summarising test coverage and provided stakeholders with regular updates on testing progress and identified issues.

11 User Acceptance Testing (UAT):

We collaborated with end-users and stakeholders to conduct UAT, obtaining feedback on the platform's functionality, usability, and performance, ensuring alignment with user expectations.



Security Testing of the Trade Finance Platform:

1. API Testing:

Objective: Evaluate the functionality, reliability, security, and performance of APIs used in the trade finance platform.

Tools:

- **Postman:** Automated testing tool for API automation testing, enabling comprehensive testing of API endpoints and payloads.
- **SoapUI:** Another automated testing tool suitable for API testing, providing features for functional testing, load testing, and security testing.

2. Penetration Testing (PenTesting):

Objective: Identify and exploit vulnerabilities in the trade finance platform to assess its security posture.

Tools:

- **Burp Suite:** A comprehensive toolkit for web application security testing, including manual and automated vulnerability scanning, request interception, and exploitation of security flaws.
- **Metasploit:** A penetration testing framework offering various exploits and payloads for testing network and application security.

3. Patch Testing:

Objective: Verify the effectiveness of security patches applied to the trade finance platform.

Process:

- Testing patches on a sandbox or staging environment ensures they do not introduce regressions or new vulnerabilities.
- Automated and manually tested critical functionalities affected by the patch to ensure they operated as expected.

4. Third-Party Testing:

Objective: Gain independent verification and validation of the trade finance platform's security measures.

Process:

- Engaging external security firms or independent security researchers to conduct thorough security assessments, including penetration testing, code review, and vulnerability scanning.
- Utilising bug bounty programs to incentivise external security researchers to discover and responsibly disclose security vulnerabilities in the platform.

5. Source Code Testing:

Objective: Evaluate the security of the trade finance platform's



source code to identify and remediate vulnerabilities and ensure robust protection against potential threats.

Process:

- The source code testing process for the trade finance platform begins with configuring and integrating tools like SonarQube and Checkmarx into the development environment.

Tools:

- **SonarQube:** Analyzes the trade finance platform's source code for bugs, vulnerabilities, and code smells, providing insights into code quality and security.
- **Checkmarx:** A static application security testing (SAST) tool that identifies security vulnerabilities in the source code, helping developers remediate potential issues before deployment.

6. Network Testing

Objective: The primary objective of network testing is to assess the security and resilience of the trade finance platform's network infrastructure, ensuring protection against potential threats and vulnerabilities.

Process:

- Network testing begins by examining the network infrastructure's configuration and setup to identify any potential weaknesses or misconfigurations.
- Comprehensive scans are conducted using specialised tools to analyse server ports, configurations, versions, and subdomains within the network.

Tools:

- **Nessus:** A powerful scanning tool utilised for comprehensive network scans, providing detailed insights into potential security risks and vulnerabilities within the network infrastructure.
- **Nmap:** Another widely used scanning tool that enables thorough examination of network configurations and identifies potential security loopholes and weaknesses.



Development Phase

- 01 Requirement Gathering**
Requirements were gathered through meetings and discussions to understand trade finance's functional and non-functional aspects.
- 02 System Design**
Based on the gathered requirements, system architecture and design were finalised. It included defining the database schema, application modules, and integrations with external systems.
- 03 Coding**
Our developers wrote code according to the design specifications using programming languages & frameworks suitable for the platform's requirements.
- 04 Quality Assurance**
Our QA engineers conducted comprehensive testing of the trade finance platform, including source code, functional, security, and performance testing that helped us.
- 05 Review & Integration**
The trade finance platform has undergone thorough code reviews to ensure the platform's stability and performance. Our team addressed any feedback or issues identified during testing and made necessary integrations.



Deployment Phase

- 01 Preparation**
The necessary infrastructure and environments were set up, including development, staging and production.
- 02 Deployment Planning:**
We have created a pitch-perfect deployment plan outlining the steps and procedures for deploying the trade finance platform to the production environment.
- 03 Release Management:**
Our team deployed the platform to the product environment following the deployment plan. It involved deploying code, configuring servers, and ensuring all dependencies were met.
- 04 Monitoring and Optimisation**
After deployment, our team continuously monitored the platform for performance, security & stability. We promptly addressed any issues or anomalies and made necessary changes.
- 05 Post-Deployment Review**
We conducted a post-deployment review to assess the deployment process's success and gather user feedback. Additionally, our team documented any lessons learned for future deployments.



Trade Finance



Unlocking Global Trade: Simple, Innovative Solutions at Your Fingertips.

Webmob Software Solutions

📍 BESTECH BUSINESS TOWER,
SUITE NO 829, SECTOR - 66,
MOHALI, PUNJAB 160066

☎ +91 9914919091
✉ info@webmobinfo.ch

Project Methodology

During this project, our team adhered to an Agile methodology, fostering efficient and iterative development. We structured our workflow around sprints, each lasting two weeks, allowing us to focus on specific features and functionalities. Regular feedback sessions with the client, occurring after every sprint, were integral to our process. It ensured our work aligned with the client's evolving requirements and expectations.

Additionally, we employed project management tools such as Trello and Jira to streamline collaboration and task management, facilitating transparent communication and real-time progress tracking.

These practices enabled us to maintain a dynamic and responsive development approach, ultimately leading to the successful delivery of a high-quality solution that effectively met the client's needs.

Name	Price	24h %	7d %	Market Cap	Volume	Change
Bitcoin BTC	\$46,869.65	-0.69%	-3.32%	\$881,308,264,834	\$19,345,216,998	↓
Ethereum ETH	\$3,942.38	-1.88%	-2.02%	\$464,878,847,345	\$18,379,885,398	↓
Binance Coin BNB	\$532.75	-0.48%	-4.12%	\$88,477,265,358	\$1,844,394,071	↓
Tether USDT	\$1.00	-0.02%	-0.02%	\$78,295,798,867	\$73,507,078	↓
Solana SOL	\$179.52	-1.16%	-4.41%	\$14,869,768,547	\$1,801,844,021	↓
Cardano ADA	\$1.26	-0.88%	-1.81%	\$42,945,568,462	\$1,200,844,021	↓
USD Coin USDC	\$1.00	-0.07%	-0.08%	\$41,945,967,172	\$1,200,844,021	↓

Timeline

- 01 Total months: 4 months
- 02 No. of Resources: 5 Resources
- 03 Experience of Resources: Frontend: 4 Years
Backend: 5.5 Years
Blockchain: 1.5 Years