



White Paper: Transforming the Cannabis Supply Chain with ACE Engine

9 August 2024

Executive Summary

The cannabis industry in the United States is on the brink of a technological revolution. As the market matures, the need for a more efficient, transparent, and secure supply chain becomes paramount. ACE Engine is at the forefront of this transformation, offering a blockchain-based platform designed to streamline transactions, enhance operational efficiency, and bring stability to pricing and supply chains. This white paper outlines the challenges faced by the cannabis industry, our innovative solution, and how ACE Engine positions itself against current market competitors.

Problem Statement

In the rapidly evolving cannabis industry, businesses are hindered by outdated and inefficient supply chain processes. Growers, processors, and retailers must navigate a complex landscape of state and federal regulations, resulting in a fragmented system with minimal innovation.

Transactions involving harvested cannabis, processed products, and ready-for-sale inventory are typically managed through manual processes, leading to a myriad of inefficiencies, including:

- **Extensive Paperwork:** The reliance on physical documentation leads to delays, errors, and increased administrative costs.
- **Numerous Manual Steps:** Executing agreements, distributing cash, and reporting to state agencies require manual intervention at every step.
- **Disjointed Methods:** Quality and quantity checks, as well as financial security measures, are not integrated, resulting in unpredictable supply chains, fluctuating pricing, and limited liquidity.



Diagram 1: Current Cannabis Supply Chain Process.

This diagram illustrates the manual and fragmented processes currently used in the cannabis supply chain, highlighting inefficiencies and areas prone to error.

These challenges impede growth, reduce profitability, and create unnecessary risks for businesses in the cannabis industry.

Solution Overview

ACE Engine introduces a revolutionary platform designed to address these challenges by leveraging the power of blockchain technology and automation. Our solution offers a comprehensive, secure, and user-friendly experience for managing transactions within the cannabis supply chain.

Key Features

- **Blockchain Security:** Transactions are secured on the blockchain, ensuring transparency and immutability. This protects all parties involved and reduces the risk of fraud.
- **Intuitive Interface:** Our platform features an immersive app and desktop interface that simplifies the user experience, making it accessible for users of all technical backgrounds.
- **Smart Contracts:** ACE Engine automates the execution of agreements, cash distribution, and regulatory reporting through smart contracts. This eliminates manual errors and ensures compliance with relevant laws.
- **Financial Security:** Verified reporting and robust financial security features safeguard both buyers and sellers, fostering trust and confidence in the transaction process.
- **Advanced Sales Structures:** The platform supports futures transactions, options, forward purchases, and other complex sales structures, providing businesses with the tools they need to manage liquidity and stabilize pricing.

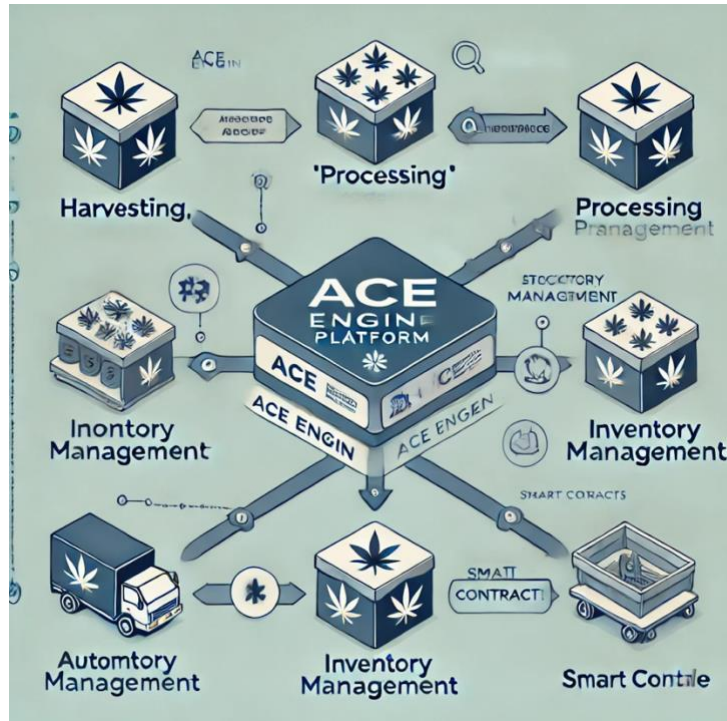


Diagram 2: ACE Engine Platform Overview. An overview of the ACE Engine platform, showing how blockchain technology and automation streamline the supply chain, from harvest to sale.

Benefits of ACE Engine

ACE Engine is not just another platform; it's a transformative tool designed to elevate the entire cannabis supply chain. The benefits of implementing ACE Engine include:

- **Increased Revenue:** By reducing inefficiencies and minimizing missed opportunities, ACE Engine has the potential to increase revenue by 10-15%.
- **Time Savings:** Automation of administrative tasks can reduce time spent on manual processes by 50-75%, leading to significant time savings annually.

- **Improved Transaction Speed:** Our platform can cut transaction times by 70-90%, improving cash flow and operational speed.
- **Enhanced Efficiency:** Overall operational efficiency can improve by 20-30% with our integrated automation and blockchain features.

Competitor Analysis

The cannabis industry has seen the emergence of several platforms aimed at facilitating B2B transactions. However, none match the comprehensive and innovative approach offered by ACE Engine.

Leaflink

- **Functionality:** Operates as a buy/sell board for cannabis products, similar to eBay. It focuses on facilitating basic transactions but lacks advanced features for automation and blockchain integration.
- **Market Share:** Controls approximately 40% of the digital transactions market within the cannabis industry.
- **Revenue Model:** Charges a 3% fee on transactions and a 6% fee for sales involving credit facilities. Also generates revenue from subscription fees.

Weedmaps

- **Functionality:** Primarily a consumer-facing platform, Weedmaps also offers a B2B marketplace but lacks comprehensive transaction management features.

CannaBusiness

- **Functionality:** Provides a B2B marketplace for cannabis businesses but does not offer advanced automation or blockchain integration.

Akerna (formerly MJ Freeway)

- **Functionality:** Offers enterprise software solutions including compliance and inventory management, with some B2B transaction capabilities.

Leafly Business Solutions

- **Functionality:** Offers a B2B marketplace as part of its broader business solutions but is geared towards consumer engagement.

Tradecraft

- **Functionality:** A B2B cannabis marketplace that connects industry players but may lack advanced features found in newer platforms.

ACE Engine vs. Competitors

Feature	ACE Engine	Leaflink	Weedmaps	Akerna	Tradecraft
Blockchain Security	✓	X	X	X	X
Automation	✓	X	X	✓	X
Smart Contracts (Auto Multi-Party Settlement incl Taxes)	✓	X	X	X	X
Regulatory Reporting	✓	X	X	✓	X
Transaction Speed	✓	X	X	X	X
Payment Integration	✓	✓	✓	✓	✓
Automated KYC	✓	X	X	X	X
Ability to Pay with Crypto	✓	X	X	X	X
Automatic Adherence to State-by-State Laws	✓	X	X	✓	X

Diagram 3: Competitor Comparison Matrix. A matrix comparing ACE Engine's features against those of key competitors, illustrating the advanced capabilities of our platform. ACE Engine sets itself apart in several critical areas.

ACE Engine Highlights

Functionality: Unlike competitors such as Leaflink and Weedmaps, which offer basic buy/sell interfaces or limited additional features, ACE Engine provides a comprehensive solution with advanced automation, blockchain security, and smart contracts.

Automation: While competitors focus on basic transaction management, ACE Engine automates contract execution, cash distribution, and regulatory reporting, directly addressing key pain points in the transaction process.

Efficiency: Our platform enhances efficiency significantly compared to the one-dimensional buy/sell boards of competitors, offering liquidity, predictability, and stability in pricing.

Market Position: ACE Engine stands out by offering a more integrated and sophisticated approach, addressing the complexities of the cannabis supply chain with cutting-edge technology and comprehensive transaction management features.

Conclusion

ACE Engine is poised to revolutionize the cannabis supply chain, providing a level of automation, transparency, and security that is unparalleled in the industry. As the market continues to grow, the need for a sophisticated, reliable, and efficient platform like ACE Engine will only become more critical. By adopting ACE Engine, cannabis businesses can achieve greater efficiency, reduced costs, and increased profitability, ensuring their place at the forefront of this burgeoning industry.

References

New Frontier Data. (2023). *The Cannabis Industry Annual Report: 2023 U.S. Market Update*. New Frontier Data. <https://newfrontierdata.com/reports/cannabis-industry-annual-report-2023-us-market-update/>

Marijuana Business Daily. (2023). *2023 Marijuana Business Factbook*. MJBizDaily. <https://mjbizdaily.com/2023-marijuana-business-factbook/>

University of California, Davis. (2022). *Challenges in Cannabis Supply Chain Management*. *Journal of Cannabis Research*. <https://jcannabisresearch.biomedcentral.com/articles/10.1186/s42238-022-00072-8>

Forbes. (2023, January 15). *The Cannabis Industry's Supply Chain Problem*. *Forbes*. <https://www.forbes.com/sites/forbesbusinesscouncil/2023/01/15/the-cannabis-industrys-supply-chain-problem/>

Bloomberg. (2023, March 10). *Why the Cannabis Industry Needs a Blockchain Revolution*. *Bloomberg*. <https://www.bloomberg.com/news/articles/2023-03-10/why-the-cannabis-industry-needs-a-blockchain-revolution>