

# Citadel

# Overview

# Executive Summary

Last year saw over \$1.7 billion in cryptocurrency theft due to malware, viruses, fraudulent contracts, or hacking, posing significant risks to any Crypto holder. Traditional internet security solutions often prove inadequate in safeguarding digital assets.

Enter Citadel: a Decentralized Physical Infrastructure Network (DePIN) offering cost-effective, user-friendly internet security solutions tailored for Web3 projects and cryptocurrency holders.

Citadel earns revenue through these services, which is automatically converted through our Protocol Smart Contract routed on DEX, by buying Citadel Token from the Liquidity Pool and distributing it as Yield to each Node.

Citadel's DePIN network harnesses professional-grade data center servers, surpassing home computers used in other projects. This ensures superior performance, reliability, and faster load times.

How does it work? On the supply side, nodes come from professional cloud service providers and through Node pools anyone can join to empower the overall network. One Node consists of 100,000 Citadel Tokens staked and can have an unlimited number of participants.

On the demand side, Citadel provides intuitive services enabling users to bypass internet restrictions, stay anonymous, and safeguard their crypto assets from threats, regardless of device or location.

This synergy fuels growth: More nodes remove tokens from circulation, driving price growth. Which gives Increased awareness, attracting users, boosting more revenue. Higher revenue yields greater APY for each node, encouraging the creation of more Nodes and expanding the network.

# Mission and Vision

**Our Vision** At Shieldeum, we envision a world where unrestricted internet is not just a luxury but a fundamental right. Our vision is to pioneer a decentralized physical infrastructure network (DePIN) that fortifies the digital landscape, providing unparalleled security and accessibility for all Crypto Holders.

**Our Mission** Shieldeum is made to revolutionize internet security through our decentralized physical infrastructure network (DePIN). We are dedicated to harnessing the power of cutting-edge technology to build a robust ecosystem that safeguards data and empowers 440 million+ Crypto users worldwide. Through our commitment to innovation, transparency, and community-driven principles, we strive to:

1. **Fortify Digital Boundaries:** Shieldeum is committed to creating a fortress of security around digital assets, ensuring that individuals and businesses can navigate the online world with confidence and peace of mind.
2. **Empower Accessibility:** We believe that internet security should not be a privilege reserved for the few, but a right accessible to all. Shieldeum is dedicated to democratizing access to top-tier security services, bridging the gap between technological advancements and global accessibility.
3. **Drive Sustainable Growth:** Our ecosystem operates on a sustainable model that incentivizes growth while preserving the integrity of our network. By seamlessly integrating revenue generation with tokenomics, we create a self-sustaining cycle of growth that benefits all stakeholders.
4. **Champion Decentralization:** Shieldeum champions the principles of decentralization, empowering individuals to take control of their digital footprint. Through our decentralized exchange (DEX) and protocol smart contracts, we pave the way for a future where users have autonomy over their data and transactions.
5. **Foster Community Collaboration:** Collaboration lies at the heart of our ethos. We foster an inclusive community where ideas are shared, feedback is valued, and collective progress is celebrated. Together, we build a stronger, safer digital ecosystem for generations to come.

By adhering to our mission, Shieldeum is poised to redefine the landscape of internet security, ushering in a new era of trust, accessibility, and innovation. Join



us on our journey as we pave the way towards a safer, more secure digital future for all.

# Citadel EPN

At Citadel, we're proud to introduce Encrypted Private Network (EPN), the next evolution in online security tailored specifically for the Web3 era.

EPN combines the trusted privacy features of a Virtual Private Network (VPN) with cutting-edge protections against the unique threats posed by the decentralized landscape of Web3.

## Why EPN?

- **Enhanced Security:**
  - **Block Web3 Phishing Sites:** Protect yourself from fraudulent attempts to steal your cryptocurrency and personal information by blocking phishing sites specifically targeting Web3 users.
  - **Extensive Malicious Site Blocking:** With over 10,000 malicious sites blocked, our EPN shields you from a wide range of online threats, ensuring safer browsing experiences.
- **Cutting-Edge Technology:**
  - **Web3 Native:** Embrace the future of the internet with our Web3-native EPN, designed to cater to the evolving security needs of decentralized networks.
  - **Partnerships for Superior Security:** Teaming up with top-tier security partners in the industry ensures 24/7 monitoring and live updates, keeping you ahead of emerging threats.
- **Real-time Threat Detection:**
  - **Proactive Threat Monitoring:** Our EPN constantly scans for and identifies potential threats in real-time, allowing you to browse the web with confidence, knowing you're protected against the latest cyber risks.
- **Privacy Assurance:**
  - **Robust Data Encryption:** Your online activities are shielded with advanced encryption protocols, safeguarding your sensitive information from prying eyes and potential cyberattacks.
  - **Professional Servers:** We utilize high-quality, secure servers to ensure reliable connections and steadfast protection for your data.

- **Anonymous Browsing:** By masking your IP address, our EPN ensures your online activities remain private and anonymous, granting you the freedom to explore the web without compromising your privacy.

# Citadel Bare Metal

## Citadel Bare Metal Servers: The Ultimate Solution for Web3 and Crypto Enterprises

Welcome to Citadel, where we specialize in providing top-tier infrastructure tailored for the unique needs of Web3 companies and crypto users. Our flagship product, Bare Metal servers, is designed to deliver unmatched security, flexibility, and performance, ensuring your operations run smoothly and securely.

### **Enterprise-Grade Hosting**

Citadel's Bare Metal servers are enterprise-grade and hosted in professional data centers, ensuring top-tier performance and reliability. We partner with industry leaders such as Google, AWS, Leaseweb, THG, Datapacket, i3D.net, and Worldstream to provide a robust hosting environment. This extensive network of partners ensures that your servers are always running in optimal conditions, backed by the highest standards of service and support.

### **Unrivaled Security**

Our DePIN-produced Bare Metal servers are built with cutting-edge security features to protect your data and operations. With Citadel, you are shielded by state-of-the-art technologies that safeguard against all forms of web3 cyber threats, giving you stability and peace of mind.

### **Superior Web3 Functionality**

Our Bare Metal servers are optimized for Web3 applications, providing the best environment for decentralized operations. Whether you are running a blockchain node, managing a crypto exchange, or developing a new decentralized application (dApp), our servers offer the reliability and efficiency you need to succeed.

### **Ultimate Flexibility**

We understand that every business has unique requirements. Our Bare Metal servers are highly flexible, allowing you to deploy them in a manner that best suits

your needs. From customizable hardware configurations to scalable solutions, Citadel provides the adaptability required to support your evolving business landscape.

## **Marketing Support**

At Citadel, we go beyond just providing top-notch servers. We offer marketing support to help you amplify your presence in the Crypto industry. Every Server purchase comes with a complimentary promotional post on X and Telegram, showcasing your business to a wider audience and driving engagement with potential customers and partners.

## **Protected by Citadel**

Choosing Citadel means choosing unparalleled protection and support. Experience the assurance of industry-leading defense measures and dedicated customer support, allowing you to focus on what you do best—innovating and growing your Web3 enterprise.

## **Key Features:**

- **Ultra Secure:** Advanced security protocols to safeguard your operations.
- **Web3 Optimized:** Enhanced functionality for all Web3 and crypto applications.
- **Flexible Deployment:** Customizable and scalable to meet your specific needs.
- **Marketing Boost:** Free promotional post on our X and Telegram to elevate your brand.

Join the leading edge of Web3 and crypto innovation with Citadel Bare Metal servers. Secure your infrastructure, optimize your performance, and grow your business with confidence. *Citadel Bare Metal product will go live prior to token launch. We are very close to launching it!*

# Citadel Threat Protection

Protect Your Brand with Cutting-Edge AI Technology

In the rapidly evolving world of cryptocurrency, safeguarding your assets from scams and phishing attacks is more crucial than ever. Introducing Citadel **Threat Protection**, our advanced AI solution designed to protect your project from malicious threats.

## What is Citadel Threat Protection?

Citadel Threat Protection is our state-of-the-art AI system that continuously scans the web, similar to how Google does it, but with a specific focus on identifying threats to your project Brand. Here's how it works:

1. **Brand-Specific Monitoring:** Our AI is fed with specific brand name parameters to accurately detect potential impersonators and fraudulent activities targeting your brand.
2. **Threat Detection:** The system scours the internet to find impersonator sites, fake giveaways, fake lotteries, fake airdrops, and any other phishing schemes designed to steal people's crypto.
3. **Immediate Action:** Upon detecting these threats, Citadel Threat Protection swiftly blocks the malicious sites and reports them to our leading cybersecurity partners in the crypto space.

## Why Choose Citadel Threat Protection?

- **Comprehensive Coverage:** We protect against a wide range of scams, ensuring your project is more secure, saving your audience from being scammed and buying your real token instead.
- **Real-Time Monitoring:** Our AI continuously scans the web to provide up-to-date protection against emerging threats.
- **Trusted Reporting:** We collaborate with top cybersecurity firms to ensure that threats are handled swiftly and effectively.

## The Need for Enhanced Security

The rise of cryptocurrency has unfortunately led to a massive surge in scams, particularly targeting new and viral projects. According to Certik reports, scamming is still at an alarming all-time high, making it imperative to have robust protection in place for your brand.

### **Stay Ahead of Scammers**

With Citadel Threat Protection, you can confidently grow in the crypto space, knowing that our AI is tirelessly working to keep your project safe from harm. Protect your brand reputation, reduce your audience from being scammed and maintain peace of mind with Citadel's unparalleled Threat Protection security solution.

# Roadmap

## Completed:

- Windows app
  - Mac app
  - Linux app
  - Android app
  - Iphone app
  - Android TV app
- ## Protocol developments:
- Initial proof-of-concept (Python)
  - Draft: A Routing Layer on the Internet that Enforces Net-Neutrality
  - POC implementation of Routing Layer (GoLang)
  - Draft: A Proportional Share-based Value Transfer Protocol for Distributed Systems
  - POC implementation of Value Transfer Protocol
  - Local TestNet, integration tests, unit tests
  - CI/CD infrastructure, cryptographic signing and checksum hash
  - MVP client, relay, contract, directory, auth, ps examples
  - Software and protocol semantic versioning
  - Contract and Auth double-entry accounting ledgers
  - Live TestNet (private-invite)
  - Relay inline upgrades (manual and unattended)
  - Client multiplexing circuit connections via HTTP/2 transport
  - Client UDP and TUN device support (Linux)
  - Client inline upgrades (manual)
  - Split monolithic source code repository, release under open source license
  - API Consumer-Provider semantic versioning
  - Pilot site for real-world testing and feedback
  - Client UDP and TUN device support (MacOS)
  - Native Windows client support (SOCKSv5)



- Relay network usage metrics and configurable data cap
- Client re-architecture (forwarders, controller, REST API)
- Publicly available network

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\_\_\_\_\_ At Shieldeum, we are committed to delivering continuous innovation to drive the future of Web3 and decentralized infrastructure. Our **2025 roadmap** outlines the key milestones, products, and updates we plan to release throughout the year. Please note that the timelines outlined are estimates and subject to change due to external factors.

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### **Q1 2025: Update Shanghai**

**Key Focus:** Laying the foundation for groundbreaking infrastructure.

- **Bare Metal 1.0 Product Release** The launch of our Bare Metal servers, offering high-performance, enterprise-grade infrastructure optimized for decentralized applications and Web3 solutions.
  - **SDM Crypto Payment - DAPP Integration** Enabling seamless payments with SDM crypto, integrated into decentralized applications for a smoother user experience and enhanced adoption of Shieldeum's ecosystem.
  - **Acquisition of a Crypto Project** Expanding our ecosystem through the strategic acquisition of a promising crypto project, through acquiring technology we are able to fasten development, gain more holders and further enhancing Shieldeum's offerings and capabilities.
  - **AI-Optimized Network Performance** Using AI to predict and manage server loads, optimizing resource allocation across the decentralized network for faster transaction speeds and lower latency.
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### **Q2 2025: Update Miami**

**Key Focus:** Expanding user access and new features.

- **Shieldeum Pad - Product Release** Launching Shieldeum Pad, a platform for incubating and launching the next generation of Web3 projects, providing the

tools and support needed for startups to thrive.

- **VPS Hosting - Product Release** Introducing flexible, secure VPS hosting tailored for Web3 enterprises and decentralized applications, providing high reliability and performance.
  - **Travel Booking - Product Release** Integrating a travel booking feature within our ecosystem, allowing users to book hotels, seamlessly using Shieldeum's platform and crypto payments.
  - **AI-Driven Fraud Detection** Proactively scans and blocks phishing sites, fake giveaways, and other malicious activities, ensuring users can safely navigate the Web3 ecosystem.
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### Q3 2025: Update Amsterdam

**Key Focus:** Powering next-gen infrastructure for scalable solutions.

- **Container Hosting - Product Release** Delivering scalable containerized hosting for decentralized applications, offering enhanced flexibility, performance, and security for developers.
  - **Object Storage - Product Release** Launching a decentralized object storage solution that ensures secure, scalable, and reliable data management across Web3 applications.
  - **Kubernetes Clusters - Product Release** Providing enterprise-level orchestration for containerized applications with Kubernetes, optimizing deployment and management within the Shieldeum ecosystem.
  - **Shield AI Agent** An intelligent, autonomous agent integrated into the Shieldeum ecosystem that works tirelessly behind the scenes to ensure user security, performance optimization, and ecosystem integrity.
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### Q4 2025: Update Paris

**Key Focus:** Enhancing performance, security, and user experience.

- **Anti-Virus - Product Release** Introducing advanced antivirus capabilities to protect Shieldeum's users from malicious threats and ensuring the security of Web3 applications and data.

- **CDN - Product Release** Launching a decentralized Content Delivery Network (CDN) that enhances the speed and reliability of content delivery for global decentralized applications.
  - **Optimizer - Product Release** Rolling out an optimization tool that fine-tunes performance across our ecosystem, increasing the efficiency and scalability of Web3 applications hosted on Shieldeum.
  - **AI-Powered Data Encryption Optimization** Uses machine learning to enhance encryption protocols, ensuring faster, more secure data protection against evolving cyber threats.
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## Conclusion

Shieldeum's 2025 roadmap is filled with exciting innovations that will transform the Web3 and decentralized infrastructure landscape. We are committed to delivering on these milestones and will continue to evolve our ecosystem in response to community needs and market trends. Stay tuned for updates, and thank you for being part of the Shieldeum journey!

# Q4 2024 - Tokyo update

## Tokyo update Q2 2024 Summary:

In Q2 2024, Citadel embarked on a journey of technological innovation and growth. We introduced Citadel Encrypted Private Network Apps, providing unparalleled privacy and security for our users. Our launch of Citadel Containerized Applications revolutionized how applications are deployed and managed, ensuring flexibility and efficiency.

We relentlessly pursued product development, scaling, and growth, focusing on enhancing our offerings and expanding our capabilities. This period also saw us achieve a significant milestone: an organic growth of a 50K user base, reflecting our commitment to delivering exceptional products and services.

These updates underscore Citadel's dedication to pioneering advanced security solutions and fostering a robust, engaged community. We continue to build on this momentum, setting the stage for even greater achievements in the future.

## Q2 2024 Highlights:

- **High growth on X/Twitter:** Our journey commenced with a vision for innovation and a commitment to achieving excellence in DePIN leveraging AI. We now have well over 140,000+ followers.
- **Citadel Encrypted Private Network Apps:** Enhanced internet security, ensuring anonymity and effortlessly by passing geographic restrictions
- **Citadel Containerized Applications:** Our DePIN-produced Bare Metal servers are built with cutting-edge security features to protect your data and operations. With Citadel, you are shielded by state-of-the-art technologies that safeguard against all forms of web3 cyber threats, giving you stability and peace of mind.
- **Continued product development, scaling, and growth:** We are committed to launch 3 products prior to our Token launch, providing sufficient Token utility and revenue opportunities for growth.
- **Achieving an organic growth of a 50K user base:** The amount of support and interest has been overwhelming, we have seen a meteoric rise of users and

website traffic even before any Airdrop or giveaway. Most users like the product to save money and report fantastic feedback.

# Q1 2025 - New York update

## New York update Q3 2024 Summary:

As we wrap up Q3, we're thrilled to share the major milestones we've accomplished. This quarter has been pivotal in expanding the Shieldeum ecosystem, enhancing our infrastructure, and driving organic growth across multiple fronts. Here's a recap of our key achievements:

## Q3 2024 Highlights:

- **AWS Bridge Integration Completed:**

We successfully launched the AWS Bridge, which integrates our platform with the robust cloud infrastructure provided by Amazon Web Services. This strategic move enhances our computing power, enabling better scalability, security, and performance for our services. The AWS Bridge ensures a seamless connection between our decentralized network and AWS, unlocking higher efficiency for our users while maintaining the flexibility of Web3 solutions.

- **Telegram Node Reward App Launched:**

Our much-anticipated Telegram Node Reward App is now live! This launch introduces a unique way for our community to earn rewards by participating in the Shieldeum ecosystem through Telegram. With over 600,000 active users, this app strengthens our community engagement and creates an easy, accessible way for users to be part of the Shieldeum Node ecosystem. The feedback has been overwhelmingly positive, and we are excited to continue building on this success.

- **Bare Metal Product Launch:**

We are proud to announce the launch of Shieldeum Bare Metal Servers, a product tailored for Web3 and crypto enterprises. This service offers enterprise-grade hosting with unrivaled security, Web3 optimization, and high-performance infrastructure. Our Bare Metal Servers are designed to meet the growing demand for secure, reliable hosting solutions, providing the ideal environment for crypto enterprises to scale their operations with confidence.

- **Achieved 68K Organic User Growth:** We're excited to report that we achieved **organic growth of over 68,000+ users** in Q3! This growth is a testament to the

strength of our community and the increasing demand for Shieldeum's services. Through focused marketing efforts, enhanced product offerings, and continuous user engagement, we've been able to foster a loyal and rapidly expanding user base.

These milestones reflect our commitment to continuous improvement and innovation, helping us lay the groundwork for an even bigger Q4 with our Token Launch! We look forward to delivering more groundbreaking updates in the months ahead as we continue to build a secure and scalable infrastructure for the future of Web3.

# Q4 2025 - Bangkok update

## Bangkok update Q4 2024 Summary:

The final quarter of 2024 marked a pivotal moment for Citadel as we turned our vision into reality. With the successful **Token Launch (TGE)**, we introduced our token to the world, laying the foundation for a thriving ecosystem. Following this, we achieved major milestones by securing **listings on KuCoin, Gate, MEXC, Bitpanda, and PancakeSwap**, bringing accessibility and liquidity to users worldwide.

## Q4 2024 Highlights:

- **Token Launch TGE**

In Q4 2024, Citadel made history with one of the most successful token launches of the year on the ChainGPT Launchpad. Achieving an incredible **27x return**, our launch stood as a testament to the strength of our vision and community support. With virtually **0 refunds**, the overwhelming trust and enthusiasm from participants underscored the confidence in Citadel's potential to revolutionize the DePIN ecosystem.

- **Exchange Listing** Following the success of our token launch, Citadel made its mark on the world stage with **listings on KuCoin, Gate.io, MEXC, Bitpanda, and PancakeSwap**. These strategic listings provided our community with broad access to trade and invest in the Citadel token across top-tier centralized and decentralized exchanges.

Each platform was chosen to ensure a balance of liquidity, global reach, and accessibility for our rapidly growing user base. With these partnerships, Citadel has not only strengthened its position as a key player in the Web3 ecosystem but also opened doors for crypto enthusiasts worldwide to join our mission of revolutionizing decentralized infrastructure, more listings to come!

- **Achieving an organic growth of a 100K user base** Citadel's growth trajectory has been nothing short of impressive. As we continue to build momentum, we've reached a milestone of **84,000+ active users**, marking a significant step toward our goal of 100,000. This organic growth is a direct result of our community's trust and engagement, reflecting the genuine interest and demand for Citadel's innovative DePIN solutions.



What sets us apart is the authentic, grassroots expansion of our user base—no gimmicks, just real people who believe in our vision. As we keep delivering groundbreaking products and fostering deeper connections with our users, we're confident that reaching 100,000 is just the beginning. Our community-driven approach is paving the way for Citadel to become a leader in the Web3 space

# Citadel Ecosystem

# CTL Token Utility

CTL holds a crucial function in motivating users to engage with the Citadel network and guaranteeing its seamless functioning. An important highlight of our tokenomics is that CTL is a deflationary token, there is **no inflation** of any kind given for any reward or for any of the Utility cases described below.

Specifications:

**Token Name:** Citadel Token

**Ticker Symbol:** \$CTL

**Supply:** 1,000,000,000 (1 Billion) **Issuing Network:** Binance Smart Chain / Ethereum

**Token Standard:** BEP-20 / ERC-20 **Archetype:** Utility **Economic Model:**

**Deflationary Supply Policy:** Burning Below are several methods through which CTL is employed within the Citadel network:

## Utilities

Market Demand:



1. Application Service Fees 2. Protocol Usage Fees 3. PPU SDK Deployment/API call fees 4. Hold for Free Access 5. Node Launchpad

Market Lockup:



5. Node Usage & Idle Time Profits 6. Node Pool Staking

Growth:



8. Whitelabel Partner Integration 9. Protocol Market Buyback 10. Liquidity farming  
11. Burn Mechanism

DAO:



## 12. Governance 13. Voting

Citadel specializes in providing streamlined Internet security solutions tailored for both crypto users and Web3 projects.

**1.Application Service Fees:** Within our ecosystem, CTL serves as the ultimate mode of payment. This enables consumers and businesses to seamlessly pay for service deployments, ensuring a smooth and efficient process. Each service deployed on the Citadel network triggers an SDM transaction, visible in real-time on our live dashboard.

**2.Protocol Usage Fees:** The Citadel protocol defines the framework for forming Internet tunnels and transmitting data. It establishes encryption, authentication, and data encapsulation methods. Any company can integrate this protocol into its applications. For instance, Brave Browser may wish to incorporate native VPN functionality. Protocol usage fees are paid in crypto or fiat and automatically converted into CTL through the Protocol Smart Contract.

**3.SDK Development with CTLToken:** Access to powerful SDK development tools is facilitated through CTL Token. Users pay API call fees on a Pay-Per-Use basis, ensuring flexibility and transparency in the creative process.

**4.Free Access with CTL Holding:** Holding \$100 or more worth of CTL grants users complimentary access to our Encrypted Private Network (EPN) service.

**5.Node Launchpad:** Inclusion into a Tier level for Citadel Node Pad. In order to unlock complete access to the benefits provided by the Citadel Node Pad and access all of the potential projects, users must stake their \$CTL to accumulate tier points. Deduced from a combination of the amount of tokens staked and the duration they are staked for, users gain different tiers, each with its own degree of unique benefits.

**6.Node Usage and Idle Time Profits:** Nodes receive CTL token payments for both active usage and idle time. Even when not actively engaged, nodes contribute to the network by inferring hosted models, earning rewards for their participation.

**7.Node Pool Staking:** Accessibility to the Citadel Ecosystem is ensured through Node Pool Staking, allowing individuals to participate regardless of their CTL holdings. Proceeds are distributed proportionally based on percentage ownership, fostering inclusivity.

**8.Whitelabel Partnership Integration:** Companies integrating CTL payment into their services receive percentage-based discounts. This encourages widespread adoption across various sectors, from VPN and hosting to antivirus and dedicated server providers.

**9.Protocol Market Buyback:** Settlements in currencies other than CTL are automatically converted into SDM through market buyback mechanisms. This ensures liquidity and incentivizes transactions within the ecosystem.

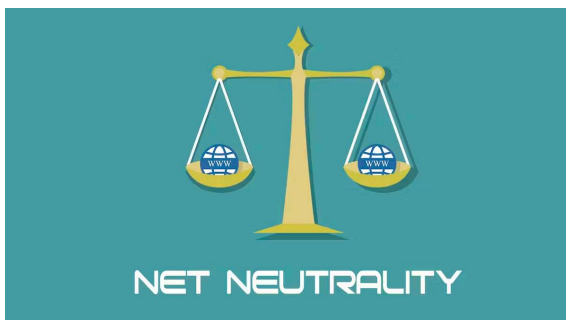
**10.Liquidity Farming:** Users can earn CTL and USDT by staking liquidity provider tokens (LP Tokens). This allows them to earn from trading fees while providing liquidity for the SDM/USDT pair.

**11. Burn Mechanism:** 10% of revenue is used to burn CTL token. CTL will be automatically sent to the publicly trackable 'dead wallet.' The percentage of revenue used for the Burn is controlled by the DAO.

**12.Network Governance with CTL:** CTLholders play a pivotal role in network governance, proposing changes that influence pricing, development, and the overall direction of the network

**13.DAO Voting Rights:** By joining the Decentralized Autonomous Organization (DAO), members gain voting rights, enabling them to influence project development and safeguard against malicious activities. Through collaboration within the DAO, members contribute to the growth and sustainability of the ecosystem.

# Citadel Protocol: Net Neutrality Routing layer



A truly net-neutral Internet would refrain from censoring, shaping, or selectively manipulating traffic. The realization of such a vision requires a robust, scalable routing layer that upholds net neutrality principles. This would pave the way for unhindered global Internet access, particularly crucial for individuals in oppressive environments.

While an onion-encrypted routing network offers some solutions, its effectiveness diminishes if it can be easily censored. Moreover, barriers to participation can hamper its adoption.

Our proposal addresses these challenges by employing encapsulated traffic that mirrors ordinary data, making it indistinguishable and resistant to censorship. We also implement multiple anti-censorship strategies anchored on the principle of collateral freedom. Additionally, by defining clear roles that mitigate potential abuses and legal liabilities, we enhance the network's appeal for participation.

Furthermore, to ensure broad adoption, scalability, and sustainability of the routing layer, we advocate for a free and open competitive marketplace. This ecosystem fosters strong network effects, preserves consumer freedoms, and offers sensible economic incentives in the form of compensation for participants' services.

## INTRODUCTION

Net neutrality, anti-censorship measures, and privacy on the Internet have predominantly relied on centralized trusted third parties like consumer VPN providers and distributed systems such as Tor. While effective for many users, these solutions are not without flaws. They entail inherent risks associated with



trust-based models, identifiable traits susceptible to filtering and blocking, and various limitations that impede widespread adoption, sustainability, and efficacy.

Recent developments underscore the urgency of addressing these challenges. A significant portion of the global population still grapples with a censored Internet, exacerbated by the repeal of net neutrality protections in the US and governmental crackdowns on personal VPN usage. Moreover, systems employing end-to-end encryption face active blocking measures.

Access to information and privacy are fundamental rights, yet organizations, institutions, ISPs, and governments employ technical measures to restrict access, manipulate traffic, and invade user privacy.

In this paper, we present a decentralized and sustainable solution for an Internet routing layer that upholds net neutrality principles. Grounded in collateral freedom, compartmentalized liability, enhanced privacy measures, and a robust economic model incentivizing network participation, our proposal aims to address these pressing concerns effectively.

## CENSORSHIP TECHNIQUES

Internet censorship involves three main processes: prescription, identification, and interference. Prescription dictates what content should be censored, identification determines how censorship is implemented, and interference refers to the actual blocking or impairing of communication. Censors employ various methods to identify content for censorship, which can be broadly categorized into two groups: by address and by content.

**Address-based identification** involves blocking or impairing communication with specific IP addresses or domain names, either individually or within certain ranges. To counter this, strategies like keeping certain addresses secret, as seen in Tor's use of bridge relay nodes, can be effective.

**Content-based identification** entails blocking entire protocols or specific traffic based on predefined criteria. Deep packet inspection (DPI) is a common technique where payload data, flow behavior, packet sizes, and timing are analyzed.

Countermeasures include crafting traffic to appear different from the censored content and camouflaging communication to resemble allowed traffic.

Moreover, censors may utilize real-time heuristic assessment, machine learning, and active probing to refine their identification processes. For instance, active probing involves scanning addresses either proactively or on-demand, updating censorship criteria based on successful identifications.

To circumvent these processes and mitigate the technological arms race, it's essential to address both identification and prescription. By appealing to the censors' self-interests, they may opt not to block certain addresses or suspected circumvention traffic, recognizing the potential economic and social value loss associated with such actions.

#### COLLATERAL FREEDOM

Our proposed solution hinges on the principle of collateral freedom, a countermeasure rooted in the notion of collateral damage. This refers to the unintended or incidental harm caused by censoring a particular resource. Such harm is particularly detrimental to the censor if the blocked resource holds significant economic, political, or social value.

The effectiveness of the collateral freedom approach relies on three key conditions: First, the censor must opt to permit traffic to and from the resource in question. Second, the resource itself must be capable of handling circumvention traffic. Lastly, the circumvention traffic must be indistinguishable from regular traffic to evade detection.

To effectively execute this strategy, we propose a technique akin to domain fronting. However, instead of relying on traditional methods like Server Name Indication (SNI) and the Host Header, alongside existing fronting-capable web services, our approach involves the deployment of custom software on cooperative TLS terminating relays. These relays would be specifically configured to provide the necessary functionality for seamless circumvention.

Utilizing TLS encryption for encapsulated traffic and employing TLS terminating relays are integral components of our strategy. Given the widespread use of web services and HTTPS across the internet, leveraging TLS as the encryption layer is a

logical choice. Furthermore, the custom software should enable encapsulated payloads that are protocol-agnostic, catering to a diverse range of use cases.

A TLS terminating relay can take various forms, including a standard web server such as Apache or Nginx, a load balancer like HAProxy or Nginx, or a service specializing in SSL termination such as Cloudflare, Akamai, or Netlify. For instance, in the case of a web server, it would continue to handle incoming traffic as usual while also incorporating functionality to manage circumvention traffic through an additional module. Once the TLS handshake for a session is negotiated and the initial layer of encryption is removed, this module would identify the session payload as circumvention traffic and process it accordingly.

# Checker Node

# Why Join the Citadel Node Sale?

Citadel is a rapidly growing project in the Decentralized Physical Infrastructure Network (DePIN) space, with a unique value proposition for both crypto enthusiasts and Web3 enterprises. By owning a Shildeum Checker Node, you gain direct access to the backbone of Citadel's secure and decentralized infrastructure, while also benefiting from token rewards, free hosting, and a fast break-even period. Here's a few reasons why you should consider joining the sale:

## Why Join the Citadel Node Sale?

**1. Access to Tokens at a Discount** The Citadel token (\$CTL) is already trading on major exchanges, which means its Fully Diluted Valuation (FDV) is market-validated. By participating in the Checker Node sale, you will receive CTL tokens at a cheaper rate than their current market price. The tokens are distributed over a three-year period, offering long-term value and stability for your investment.

**2. Tremendous Growth Potential** Citadel is the fastest-growing project in the DePIN space, yet its market cap is still small compared to giants like Filecoin, Render, and Aethir, whose valuations are up to 79 times higher. This represents a huge upside potential for CTL tokens as the project continues to grow, making now the ideal time to join before the market fully catches up.

**3. Token Buyback Program** Citadel will be using part of the proceeds from the Node sale and its network revenue to acquire 50 million CTL tokens from the market over a three year period. This strategy will reduce circulating token supply, potentially driving up demand and price, benefiting all CTL holders.

**4. Faster Break-Even Period** Unlike other projects where reward periods can stretch up to four years, Citadel offers a three-year reward period for Checker Node owners. This means rewards are distributed faster, shortening your break-even time and allowing you to be in profit more rapidly.

**5. Free Checker Node Hosting** While other DePIN projects use Node as a Service providers that charges monthly hosting fees, or requires you to run it locally on your home computer. Citadel allows you to host your Checker Node on the Citadel network for free, simply stake your Node NFT and we take care of the rest! This

eliminates hidden costs and ensures you don't need to delegate your node to a third party, giving you full control over your operations.

# Node Sale Tier overview

The Shieldeum Node Sale is a public sale offering 50,000 Checker Node NFTs. This sale is designed to ensure fairness and accessibility to all participants, with no private sales or preferential treatment given to venture capitalists (VCs) or any other entities. Everyone has the same opportunity to join the sale at the same price.

## Sale Structure

The sale is divided into 11 tiers. As the sale progresses, the discount offered on each Checker Node NFT gradually decreases, encouraging early participation. Each tier will:

- Run for a maximum of **7 days**.
- Transition to the next tier as soon as the current tier sells out.

This structured approach ensures a transparent and orderly sale process.

## Timeline

The sale starts **December 12th 2024**, given the tier structure, the sale is completed no later than **February 27, 2025**. This timeline accommodates the maximum duration for all 11 tiers.

## Post-Sale Activities

Once the node sale concludes:

1. **Checker Node NFT Claiming:** Participants can claim their Checker Node NFTs.
2. **Staking in Shieldeum DApp:** The claimed Checker Node NFTs can be staked in the Shieldeum DApp. By staking, participants will gain access to **free hosting for their nodes**, ensuring a seamless and cost-effective setup.

## Key Features of the Sale

- **Fairness and Inclusivity:** No private sales or favoritism towards VCs; the sale is open to everyone.
- **Dynamic Discounts:** Early participants benefit from higher discounts.
- **Transparent Progression:** Each tier automatically starts when the previous tier is sold out.
- **Guaranteed Completion:** The sale will be completed by February 27, 2025, at the latest.



# How do Citadel Checker Nodes work?

## Functionality of Checker Nodes

In the Citadel network, Checker Nodes play a crucial role in upholding the security and reliability of hosted services. These nodes monitor key performance metrics such as system uptime, resource capacity, and overall service quality. By using methods like Heartbeat monitoring, performance benchmarking, and data analysis, Checker Nodes ensure that the decentralized infrastructure remains stable and efficient.

The primary responsibility of Checker Nodes is to validate that all components of the network, including containers and dedicated servers, are functioning properly. This helps guarantee a seamless and secure experience for crypto users and Web3 enterprises utilizing Citadel's computing power.

## Rewards for Checker Nodes

To motivate Checker Nodes to maintain high standards, Citadel offers Checker Rewards:

- **Checker Rewards:** These are given to Checker Nodes that successfully complete their assigned tasks. The rewards are drawn from a pool that constitutes up to 15% of the platform's total token supply, distributed over three years. The amount each node receives depends on the number of tasks it completes in relation to the total tasks completed across the network. Rewards are calculated on a daily basis. Reward Calculation:

$$\text{Checker Reward} = \frac{\text{Daily reward pool} \times \text{Tasks completed by Checker}}{\text{Total tasks completed network-wide}}$$

## Responsibilities of Checker Nodes

Checker Nodes in the Citadel network are tasked with overseeing the health and performance of various hosted services. They are responsible for several key checks:

- **Service Availability Monitoring:** Checker Nodes continuously monitor the network to ensure all services remain active and responsive. This occurs on a

minute-by-minute basis, ensuring real-time updates.

- **Performance Evaluation (QOS):** During the use of hosted services, Checker Nodes evaluate the overall quality and performance, ensuring that services meet Citadel's standards. This is performed consistently throughout the duration of the active service sessions.
- **Capacity Verification:** Daily assessments are conducted by Checker Nodes to confirm that resources are operating within their designated specifications and limits. This ensures that no resource bottlenecks or misallocations occur.

Should a Checker Node fail to perform its assigned tasks or become unreachable, the task will be reassigned to a different node. If the original Checker Node completes a task before going offline, such as a capacity verification, the task result will be voided and redone by the newly assigned node.

### **Penalties for Misconduct**

To maintain the integrity of the network, Checker Nodes must adhere to strict performance guidelines. Repeated mistakes or failures trigger the following penalties:

- If a node makes two or more errors within a single week, it will be disqualified from receiving rewards for one month.
- If a node commits five or more errors in a month, it will be banned from rewards for six months.
- Accumulating ten or more errors results in a permanent ban from the Checker Node program.

### **Checker Node Operational States**

Each Checker Node can have one of several distinct statuses, indicating its current role and readiness in the Citadel network:

1. **Active:** The node is currently engaged in performing verification tasks.
2. **Standby:** The node is available and ready to receive tasks but not currently engaged.
3. **Inactive:** The node is offline or unavailable due to technical issues or scheduled downtime.

4. Suspended: The node is temporarily barred from performing tasks and earning rewards due to violations or repeated errors.
5. Awaiting Activation: The node is awaiting final approval to begin performing tasks.

By clearly understanding these operational states, network administrators and participants can efficiently manage the health and performance of Checker Nodes, ensuring that the Citadel network continues to provide secure, high-quality decentralized services.

# Why does Citadel use Checker Nodes?

Checker Nodes are particularly crucial for Citadel's services, which rely on CPU and bandwidth computing power to deliver internet encryption and application hosting.

## 1. Guaranteeing Secure Internet Encryption

Citadel's focus on internet encryption is vital for protecting data transmitted across the network, especially for crypto users and Web3 enterprises. Checker Nodes verify that encryption processes are functioning as intended by continuously monitoring server uptime and performance. This helps detect any vulnerabilities or failures that could compromise the encryption services.

By ensuring encryption nodes are properly performing their tasks, Checker Nodes prevent data breaches, man-in-the-middle attacks, and other security risks. This is especially important for Citadel, as secure data transmission is a foundational requirement for users relying on the network to protect sensitive crypto transactions and Web3 applications.

## 2. Ensuring Reliable Application Hosting

Citadel provides high-performance application hosting, both through dedicated servers and container-based (VPS) hosting. These services depend heavily on consistent CPU and bandwidth availability. Checker Nodes monitor the performance of these hosted applications, ensuring they are running efficiently, with sufficient processing power and network bandwidth to handle the load.

In the context of application hosting, Checker Nodes help maintain service availability and prevent performance degradation. This is essential for enterprise-level applications where downtime or slow response times can lead to user frustration, revenue loss, or even security issues.

## 3. Maintaining High-Quality Bandwidth for Application Delivery

Bandwidth is a critical resource in delivering hosted applications and encrypted internet services smoothly. Checker Nodes help monitor the bandwidth consumption and ensure that each hosted application is getting the required network capacity to function optimally. This ensures users experience minimal latency and high responsiveness, which is especially important for Web3 applications that rely on real-time data exchange.

By keeping tabs on bandwidth usage, Checker Nodes ensure that Citadel's infrastructure can meet the high demands of Web3 applications, such as decentralized finance (DeFi) platforms, which require rapid data processing and secure network transactions.

#### **4. Protecting Against Overload or Resource Misallocation**

Without proper monitoring, CPU and bandwidth resources could become strained, leading to service slowdowns or outages. Checker Nodes help balance the load across the network by monitoring resource usage and identifying potential bottlenecks before they affect performance. This is vital for maintaining the smooth operation of Citadel's encryption and hosting services, where even small delays could impact security or application functionality.

#### **5. Enhancing Trust and Reliability for Users**

For users relying on Citadel's services for encrypted communications and application hosting, trust and reliability are paramount. Checker Nodes actively monitor the integrity of the infrastructure, ensuring that users receive the expected level of security and performance. This is especially important for crypto users, who need to be confident that their data and transactions are being handled securely.

In summary, Checker Nodes serve as the network's watchdogs, ensuring that Citadel remains secure, efficient, and reliable. They safeguard against malicious actors, optimize resource use, maintain high service quality, and ensure the fairness of the reward system, all of which are essential to the success and trustworthiness of the Citadel ecosystem.

# Checker Node License (NFT) Terms

Upon acquiring a Citadel Checker Node License NFT during the Node Sale, the holder gains the following rights and responsibilities:

- Permission to deploy and manage a Checker Node, actively contributing to the network by validating services and ensuring optimal performance.
- Eligibility to earn Citadel's native CTL token as rewards, with distributions based on the node's performance and productivity over time.
- Eligibility to earn bonus tokens from Partnered projects as rewards, with distributions based on the node's performance and productivity over time.
- Ownership of the License NFT, which grants the operator the perpetual right to manage a Checker Node, as long as the holder continues to participate in the network.
- By holding a license, the owner agrees to comply to let the node be automatically updated with any necessary software updates required to ensure continued compliance with Citadel's operational standards.
- Holder agrees to the Terms and conditions, privacy policy and KYC verification to be eligible for use of the Checker Node NFT license.

This framework clearly defines the rights and obligations of license holders, fostering a transparent and cooperative environment for all participants in the Citadel ecosystem.

# NFT Smart Contract

This documentation page will be updated with the specific smart contract addresses associated with the Citadel Checker Node License NFT after the sale has been concluded and the NFT Smart contract has been deployed and verified here by Citadel.

At present, the contract is not live nor minted yet, this will occur after the Node Sale has been completed. Any Smart Contract claiming to be Citadel NFT is not us and an impersonator trying to scam you. The official smart contract address will be made public prior to the minting and will be posted here for you to be able to verify its authenticity.

Prospective participants are encouraged to follow Citadel's official announcement channels for confirmation of the Node sale's launch and publication of the relevant smart contract addresses.

In the meantime, please refer to the rest of this documentation for further details on the structure of the NFT sale and the terms of license ownership facilitated by the smart contracts.

# Legal Docs



# Privacy Policy

1.

## **GENERAL**

We know that your privacy is important to you, and we work hard to earn and keep your trust. Citadel, LLC (collectively with its subsidiaries and affiliates, "Company," "we," "us," and "our"), respects your privacy and is committed to protecting your privacy through our compliance with this Privacy Policy (the "Policy"). The words "you" and "your" refer to you as a user of the Website (defined below), either as a visitor, registered customer, or employee of a Company customer.

This Policy applies to information we collect on the Website or in emails and other electronic messages between you and the Website, and information gathered when you interact with our advertising on third-party websites if such advertisements include links to this Policy.

This Policy does not apply to information collected by us offline or through any other means, including on any other website operated by the Company or any third party, or information collected by any third party through any application or content (including advertising) that may link to or be accessible from the Website (for further information, see below, "Third-party Websites"). For the avoidance of doubt, the Company does not control the blockchain protocol on which the various digital assets are deployed or used on and cannot control use of, activity on, or data on those protocols.

Please read this Policy carefully to understand our practices regarding your information and how we will treat it. If you do not agree with our policies and practices, then please do not use our Website. By using our Website, you agree to the terms of this Policy. This Policy may change from time to time (see below, "Changes to this Policy"). Your continued use of our Website after we make changes is deemed to be acceptance of those changes, so please check the Policy periodically for updates.

## **1. TERMS OF USE**

This Policy is incorporated by reference and should be read in conjunction with the Company's Terms of Use.

## 1. THE INFORMATION WE COLLECT

*Personal Information.* To ensure that we provide you with the best possible experience, we will store, use, and disclose personal information about you in accordance with this Policy. Personal information is information that identifies, relates to, describes, references, is reasonably capable of being associated with, or could reasonably be linked, directly or indirectly, with a particular user, household or device ("Personal Information"). The Personal Information that we may receive and collect depends on what you do when you visit our Website.

*Aggregated and De-Identified Data.* We may also collect, use and disclose aggregated and de-identified data such as statistical or demographic data for any purpose. Aggregated and de-identified data could be derived from your Personal Information but is not considered Personal Information under applicable law as this data will not directly or indirectly reveal your identity. However, if we combine or connect aggregated or de-identified data with your Personal Information so that it can directly or indirectly identify you, we treat the combined data as Personal Information which will be used in accordance with this Policy.

*Free-Text Boxes.* The information that you provide in each case will vary. In some cases, you may be able to provide Personal Information via email or free text boxes, such as contacting the Company to request further information. When providing your Personal Information, please provide only relevant information and do not provide unnecessary sensitive information, such as Social Security numbers, credit card information or other sensitive personal data, unless required for our services.

*Information of Other Individuals.* You may have the opportunity to provide information about other individuals. When providing such information, you are solely responsible for obtaining the necessary consents and authorizations from any individuals in accordance with applicable data security laws and regulations, and the Company shall not be responsible or held liable for your failure to obtain the necessary consents.

*Credit Card Information.* Please note that for any credit card information provided on the Website, we utilize a trusted third-party PCI-DSS compliant payment processor to process all of your transactions and it collects and maintains the necessary Personal Information needed to necessitate such transactions.

*Recording Use of the Website.* We partner with trusted third-party vendors to analyze performance and traffic of our Website. This may include things like buttons you click, mouse movements and other behavior on the Website, date and time of access, pages visited, web beacons, and cookie or pixel tag information. Please see our Automatic Information Collection section below to learn more about cookies, pixels tags, and analytic technologies.

#### 1. Information We May Collect on the Website

You may have the opportunity to provide Personal Information on our Website, including but not limited to:

CollectedDisclosedExamplesA real name, postal address, unique personal identifier, online identifier, Internet Protocol Address, email address, account name.YES - See Section 6YESYESYES - See Section 6A name, signature, Social Security number, physical characteristics or description, address, telephone number, passport number, driver's license or state identification card number, education, employment, employment history, bank account number, credit card number, debit card number, wallet information, or any other financial information.Internet or other similar network activity.YES - See Section 6YESBrowsing history, search history, information on a consumer's interaction with a website, application, or advertisement.Personal information categories listed in the California Customer Records statute (Cal. Civ. Code § 1798.80(e)).Identifiers.Category

We may obtain the Personal Information listed above from the following categories of sources:

*Directly from you.* For example, when you:

- register yourself with the Website;
- place an online order;
- subscribe to one of our e-newsletters;

- review or comment on one of our products;
- submit a job application; or
- otherwise communicate with us, such as contacting us for more information.

*Indirectly from you.* For example, through information we collect from you in the course of providing our services to you.

*Directly and indirectly from activity on our Website.* For example, from Website usage details that are collected automatically. For more information on automatic information collection, please review the “Automated Information Collection” section below.

## 1. **AUTOMATED INFORMATION COLLECTION**

*Website.* In addition to the information that you provide to us, we may also collect information about you during your visit to our Website. We collect this information using automated tools that are detailed below. These tools may collect information about your behavior and your computer system, such as your internet address (IP Address), the pages you have viewed, and the actions you have taken while using the Website. Some of the tools we use to automatically collect information about you may include:

1. Cookies. A “cookie” is a small data file transmitted from a website to your device’s hard drive. Cookies are usually defined in one of two ways, and we may use either (or both) of them:
2. session cookies, which do not stay on your device after you close your browser, and
3. persistent cookies, which remain on your device until you delete them or they expire.

We may use the following categories of cookies on our Website.

1. **Strictly Necessary Cookies.** These cookies are essential in order to enable you to move around the Website and use its features. Without these cookies, services you have requested cannot be provided.
2. **Performance Cookies.** These cookies collect anonymous information on how you use our Website to help us understand how you arrive at our Website,

browse or use our Website and highlight areas where we can improve, such as navigation. The data stored by these cookies never shows personal details from which your individual identity can be established.

3. **Functionality Cookies.** These cookies remember choices you make such as the country from which you visit our Website, your preferred language, and your search parameters. This information can then be used to provide you with an experience more appropriate to your selections and to make your visits to our Website more tailored to your preferences. The information in these cookies may be anonymized. These cookies cannot track your browsing activity on other websites.
4. **Targeting Cookies or Advertising Cookies.** These cookies collect information about your browsing habits in order to make advertising more relevant to you and your interests. They are also used to limit the number of times you see an advertisement as well as help measure the effectiveness of an advertising campaign. The cookies are usually placed by third-party advertising networks. These cookies remember the websites you visit and that information is shared with other parties, such as advertisers.

Of course, if you do not wish to have cookies on your devices, you may turn them off at any time by modifying your internet browser's settings. However, by disabling cookies on your device, you may be prohibited from full use of the Website's features or lose access to some functionality.

1. **Google Analytics.** The Website sends aggregated non-Personal Information to Google Analytics for the purpose of providing us with the ability to conduct technical and statistical analysis on the Website's performance. For more information on how Google Analytics supports the Website and uses information sent from the Website, please review Google's policy available at <https://policies.google.com/technologies/partner-sites>.
2. **Web Beacons.** A Web Beacon is an electronic image. Web Beacons can track certain things from your computer and can report activity back to a web server allowing us to understand some of your behavior. If you choose to receive emails from us, we may use Web Beacons to track your reaction to our emails. We may also use them to track if you click on the links and at what time and date you do so. Some of the third-party marketers we engage with may use Web Beacons to track your interaction with online advertising banners on our Website. This information is only collected in aggregate form and will not be

linked to your Personal Information. Please note that any image file on a webpage can act as a Web Beacon.

3. **Embedded Web Links.** Links provided in our emails and, in some cases, on third-party websites may include tracking technology embedded in the link. The tracking is accomplished through a redirection system. The redirection system allows us to understand how the link is being used by email recipients. Some of these links will enable us to identify that you have personally clicked on the link and this may be attached to the Personal Information that we hold about you. This data is used to improve our service to you and to help us understand the performance of our marketing campaigns.
4. **Third-party Websites and Services.** We work with a number of service providers of marketing communications technology. These service providers may use various data collection methods to improve the performance of the marketing campaigns we are contracting them to provide. The information collected can be gathered on our Website and also on the websites where our marketing communications are appearing. For example, we may collect data where our banner advertisements are displayed on third-party websites.

## **5. HOW WE USE YOUR INFORMATION**

The information we gather and that you provide is collected to provide you information and the services you request, in addition to various other purposes, including, but not limited to:

- security, credit or fraud prevention purposes;
- providing you with effective customer service, including monitoring, managing and updating your machines and products;
- providing you with a personalized experience when you use the Website;
- developing new products and services;
- contacting you with special offers and other information we believe will be of interest to you (in accordance with any privacy preferences you have expressed to us);
- contacting you with information and notices related to your use of the Website;
- inviting you to participate in surveys and providing feedback to us (in accordance with any privacy preferences you have expressed to us);
- better understanding your needs and interests;

- improving the content, functionality and usability of the Website;
- improving our products and services;
- improving our marketing and promotional efforts; and
- any other purpose identified at the point of data collection, in an applicable privacy notice, in a click-through agreement or in any other agreement between you and us.

Duration. The length of time Company intends to retain Personal Information, including sensitive personal information, if any, is for as long as reasonably necessary to carry out Company's intended business purpose for such information.

## 6. HOW WE DISCLOSE YOUR INFORMATION

We do not sell or lease your Personal Information to any third party. We may disclose your Personal Information to a third party for a business purpose, including the following categories of third parties:

- *Our Affiliates.* We may disclose the information collected through the Website with our Affiliates in order to provide our products, services and effective customer support.
- *Third-party Service Providers.* We disclose Personal Information collected through the Website with third-party Service Providers who act for or on behalf of the Company. These third parties may need information about you to perform their functions. "Service Providers" may include suppliers, dealers, distributors, companies and consultants that provide website hosting, software development, payment processing, website and data analytics, order fulfillment, information technology and related infrastructure support, customer service, email delivery, and auditing.
- *With Other Carefully Selected Business Partners.* From time to time, we may disclose your Personal Information with selected third parties (other than our service providers). For example, we partner with third parties to sponsor contests or other promotions, and we may disclose with these third parties the Personal Information you submit to us to participate in the contest or take advantage of the promotion. Before doing so, however, we may offer you the opportunity to "opt out" or "opt in" as required by applicable law."
- *Businesses.* We may disclose your information with your applicable Business, such as, but not limited to, when managing all active accounts under the

Business' subscription with us. The Company is not responsible or liable for any uses of your information or your content by your applicable Business.

- *In Aggregate or De-Identified Form.* We may aggregate or otherwise anonymize the data we collect for purposes of analytics, research, marketing and other business interests of the Company. Such use shall not include Personal Information or information that can identify you as an individual or reasonably be used to identify you.

Except as described in this Policy, we will not share your information with third parties without your notice and consent, unless it is under one of the following circumstances:

- *Legal Reasons.*
- We believe that disclosure is reasonably necessary to comply with any applicable law, regulation, subpoena, or court order;
- To respond to duly authorized information requests from law enforcement or other governmental authorities;
- To enforce our agreements or policies;
- To investigate and prevent security threats, fraud, or other malicious activity; or
- To respond to an emergency that we believe in good faith requires us to disclose such information to assist in preventing the death or serious bodily injury of any person or Company employee.



# Terms of Service

**TERMS OF SERVICE** These Terms of Service (the "Terms") are a binding agreement between you and Citadel, LLC ("Citadel" or "us/our/we") or our affiliates. These Terms govern your use of Citadel's website, web app, application programming interface, software, tools, developer services, data, documentation, and websites (the "Services"). These Terms include our Cookies Policy and Privacy Policy and any applicable usage policies, and other documentation, guidelines or policies we may provide in writing. Services are licensed, not sold to you, subject to your acceptance without modification of the terms, conditions, and notices contained herein. YOU INDICATE ACCEPTANCE OF THESE TERMS THROUGH YOUR CONTINUED USE OF THE SERVICES. YOU (A) ACKNOWLEDGE THAT YOU HAVE READ AND UNDERSTOOD THESE TERMS; (B) REPRESENT THAT YOU ARE OF LEGAL AGE TO ENTER INTO A BINDING AGREEMENT; AND (C) ACCEPT THESE TERMS AND AGREE THAT YOU ARE LEGALLY BOUND BY THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS, CEASE USE OF THE SERVICES. SECTIONS BELOW INCLUDE AN ARBITRATION PROVISION AS WELL AS A CLASS ACTION WAIVER. YOU AGREE TO SETTLE ALL DISPUTES BY BINDING INDIVIDUAL ARBITRATION THROUGH AGREEING TO THESE TERMS OF USE, WHICH ENSURES YOU FORFEIT YOUR RIGHT TO HAVE THE CASE RESOLVED BY A JUDGE OR JURY, AS WELL AS ANY RIGHT TO ENGAGE IN COLLECTIVE ACTION, SUCH AS A CLASS ACTION, CLASS ARBITRATION, OR REPRESENTATIVE ACTION. **1. Registration and Access** You will access the Services from your wallet. You will not be able to engage in any transactions or Services other than through authorized digital wallets. You understand and accept that access to your Citadel account is restricted to the wallet owner only. You agree not to sell, rent, lease, or give access to your Citadel account to anyone. You must provide accurate and complete information to register for an account. It is important that you keep your account password confidential and that you do not disclose it to any third party. If you know or suspect that any third party knows your password or has accessed your account, you must notify us immediately. You agree that you are solely responsible (to us and to others) for the activity that occurs under your account. We reserve the right to disable your user account at any time, including if you have failed to comply with any of the provisions of these Terms, or if activities occur on your account which, in our sole discretion, would or might cause damage to or impair the Services or infringe or violate any third party rights, or violate any applicable laws

or regulations. If you no longer want to use our Services again, and would like your account deleted, contact us. We will provide you with further assistance and guide you through the process. Once you choose to delete your account, you will not be able to reactivate your account or retrieve any of the content or information you have added.

**2. Usage Requirements**

**a. Use of Services.** You may access, and we grant you a non-exclusive right to use the Services in accordance with these Terms. You will comply with these Terms and all applicable laws when using the Services. We and our affiliates own all rights, title, and interest in and to the Services, including to the look and feel, source code, algorithms, and any associated software, hardware or other intellectual property rights in connection with the Services.

**b. Feedback.** We appreciate feedback, comments, ideas, proposals and suggestions for improvements. If you provide any of these things, we may use it without restriction or compensation to you.

**c. Restrictions.** You may not (i) use the Services in a way that infringes, misappropriates or violates any person's rights or threatens or could threaten to do such; (ii) reverse assemble, reverse compile, decompile, translate or otherwise attempt to discover the source code or underlying components of models, algorithms, and systems of the Services (except to the extent such restrictions are contrary to applicable law) or otherwise use for malicious purposes, disrupt or interfere with any component in connection with the Services; (iii) use output from the Services to develop models that compete with Citadel; (iv) except as expressly permitted by us, use any automated or programmatic method to extract data or output from the Services, including scraping, web harvesting, or web data extraction; (v) represent that output from the Services was generated by a certain method when it is not or otherwise violate any usage policies; (vi) buy, sell, or transfer any part of the Services, or use the Services for any commercial purposes without our prior consent; or (vii), send us any personal information or information subject to any heightened data protection obligations. You will comply with any rate limits and other requirements in our documentation.

**d. Third Party Services.** To execute transactions, we may use third-party platforms or wallet service providers. Any third party software, services, or other products you use in connection with the Services are subject to their own terms, and we are not responsible for third party products and may not be held liable for third party products in any way.

**3. Content** You may provide input to the Services ("Input"), and receive output generated and returned by the Services based on the Input ("Output"). Input and Output are collectively "Content." As between the parties and to the extent permitted by applicable law, you own all Input. By using the Services, you hereby grant us a right to access, track, and use

the Input as necessary in connection with the Services. Subject to your compliance with these Terms, Citadel hereby assigns to you all its right, title and interest in and to Output. This means you can use Content for any purpose, including commercial purposes such as sale or publication, if you comply with these Terms. Citadel may use Content to provide and maintain the Services, comply with applicable law, and enforce our policies. You are responsible for Content, including for ensuring that it does not violate any applicable law or these Terms. Citadel makes no representations or warranties as to the quality, origin, or ownership of any Content. Citadel shall not be liable for any errors, misrepresentations, or omissions in, of, and about, the Content, nor for the availability of the Content. Citadel shall not be liable for any losses, injuries, or damages from the purchase, inability to purchase, display, or use of Content. In addition to the above, your access to and use of the Services must, at all times, be compliant with our community guidelines. We reserve the right, at any time and without prior notice, to remove or disable access to the Services or Content at our discretion for any reason or no reason. Some of the reasons we may remove or disable access to the Services or Content may include violation of these Terms or our community policy, suspected fraud, illegitimate activity, or any other suspected activity otherwise harmful to the Services or our users. We are constantly working to improve our Services to make them more accurate, reliable, safe and beneficial. Given the probabilistic nature of machine learning, use of our Services may in some situations result in incorrect Output that does not accurately reflect requests or reality. You should evaluate the accuracy of any Output as appropriate for your use case, including by using human review of the Output.

**4. Fees a. Fees and Billing.** You will pay all fees charged to your account ("Fees") according to the prices and terms on the applicable pricing page, or as otherwise agreed between us in writing. We have the right to correct pricing errors or mistakes even if we have already issued an invoice or received payment. You will provide complete and accurate billing information including a valid and authorized payment method. We will charge your payment method on an agreed-upon periodic basis, but may reasonably change the date on which the charge is posted. You authorize Citadel and its affiliates, and our third-party payment processor(s), to charge your payment method for the Fees. If your payment cannot be completed, we will provide you written notice and may suspend access to the Services until payment is received. Fees are payable in U.S. dollars and are due upon invoice issuance. Payments are nonrefundable except as provided in this Agreement. All transactions involving the offering are final. All Fees related to the Services are non-refundable except at the sole discretion of

Citadel(for service fees and other fees within its control) or applicable third parties.

**b. Taxes.** Unless otherwise stated, Fees do not include federal, state, local, and foreign taxes, duties, and other similar assessments ("Taxes"). You are responsible for all Taxes associated with your purchase, excluding Taxes based on our net income, and we may invoice you for such Taxes. You agree to timely pay such Taxes and provide us with documentation showing the payment, or additional evidence that we may reasonably require. Citadel uses the name and address in your account registration as the place of supply for tax purposes, so you must keep this information accurate and up-to-date. You acknowledge that you are solely responsible for determining whether or not taxes apply to your transactions. The taxes that apply to your transactions are not the responsibility of Citadel.

# Cookie Policy

We know that your privacy is important to you, and we work hard to earn and keep your trust. Citadel, LLC (collectively with its subsidiaries and affiliates, "Company," "we," "us," and "our"), respects your privacy and is committed to protecting your privacy through our compliance with this Cookies Policy (the "Policy"). The words "you" and "your" refer to you as a user of the Website (defined below), either as a visitor, registered customer, or employee of a Company customer. This Policy describes our current policies and practices with regard to Website cookies and web beacons. If we make any changes to this Policy, a revised Policy will be posted on this webpage and the date of the change will be reported in the "Last Revised" block above. You can get to this page from any of our webpages by clicking on the "Cookies Policy" link (usually at the bottom of the screen). We may collect information about you during your visit to our Website. We collect this information using automated tools that are detailed below. These tools may collect information about your behavior and your computer system, such as your internet address (IP Address), the pages you have viewed, and the actions you have taken while using the Website. Some of the tools we use to automatically collect information about you may include: **Cookies**. A "cookie" is a small data file transmitted from a website to your device's hard drive. Cookies are usually defined in one of two ways, and we may use either (or both) of them: session cookies, which do not stay on your device after you close your browser, and persistent cookies, which remain on your device until you delete them or they expire.

We may use the following categories of cookies on our Website. **Strictly Necessary Cookies**. These cookies are essential in order to enable you to move around the Website and use its features. Without these cookies, services you have requested cannot be provided. **Performance Cookies**. These cookies collect anonymous information on how you use our Website to help us understand how you arrive at our Website, browse or use our Website and highlight areas where we can improve, such as navigation. The data stored by these cookies never shows personal details from which your individual identity can be established. **Functionality Cookies**. These cookies remember choices you make such as the country from which you visit our Website, your preferred language, and your search parameters. This information can then be used to provide you with an experience more appropriate to your selections and to make your visits to our Website more tailored to your preferences. The information in these cookies may be anonymized. These cookies

cannot track your browsing activity on other websites. **Targeting Cookies or Advertising Cookies.** These cookies collect information about your browsing habits in order to make advertising more relevant to you and your interests. They are also used to limit the number of times you see an advertisement as well as help measure the effectiveness of an advertising campaign. The cookies are usually placed by third-party advertising networks. These cookies remember the websites you visit and that information is shared with other parties, such as advertisers. Of course, if you do not wish to have cookies on your devices, you may turn them off at any time by modifying your internet browser's settings. However, by disabling cookies on your device, you may be prohibited from full use of the Website's features or lose access to some functionality.

**Web Beacons.** A Web Beacon is an electronic image. **Web Beacons** can track certain things from your computer and can report activity back to a web server allowing us to understand some of your behavior. If you choose to receive emails from us, we may use Web Beacons to track your reaction to our emails. We may also use them to track if you click on the links and at what time and date you do so. Some of the third-party marketers we engage with may use Web Beacons to track your interaction with online advertising banners on our Website. This information is only collected in aggregate form and will not be linked to your Personal Information. Please note that any image file on a webpage can act as a Web Beacon.