Introduction to CoreConnect

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Abstract

The multi-billion dollar cloud-computing sector brings with it many complexities and disadvantages in giving up user privacy. While many projects attempt to offer privacy-focused cloud solutions, they often fail due to unnecessary complexity and misalignment with user needs. CoreConnect is a privacy-focused project dedicated to providing advanced digital services designed for users who prioritize anonymity, performance, and ease of use. Through the Telegram bot, users can discreetly rent Virtual Private Servers (VPS), Remote Desktop Protocols (RDP), and GPUs. Additionally, CoreConnect enables participation in cryptographic GPU pools and offers secure access to SSH servers with enhanced security measures. The platform's innovative "Click and Play" system simplifies complex deployments, enabling users of all technical backgrounds to easily manage a wide range of services. On top of this, CoreConnect also provides exclusive discounts and access to private crypto resources to community members, with an advanced staking system that aligns user incentives with platform growth. CoreConnect seamlessly integrates privacy and technology, ensuring that users can manage their digital needs with the utmost discretion and efficiency.

1 Introduction

In recent years, there has been an unprecedented surge in the demand for computing power, driven by advancements in artificial intelligence, machine learning, and data-intensive applications. This demand is reshaping the technology landscape, creating new opportunities and challenges that span from individual users to large-scale enterprises.

The explosion in server usage is at the heart of this transformation. Cloud computing, once a novelty, has become an indispensable component of digital infrastructure. The global cloud computing market, valued at 368.97 billion USD in 2021, is projected to reach a staggering 1.5 Trillion by 2030, growing at a compound annual growth rate (CAGR) of 15.7% (5). The increasing utilization of GPUs for AI and the growing demand for servers to automate processes are at the forefront of this revolution.

While there is an increasing number of products that utilize cloud services to make everyday lives easier, such as ChatGPT, there are two main concerns within this space: as users increasingly rely on the cloud and AI-powered applications, they often unknowingly surrender vast amounts of personal data; and while other companies have tried to make it easier for users to utilize these services, not a single one has made it easier for users to create these services.

Firstly, the issue of privacy has been a concern for decades. Cloud services and gigantic corporations often collect extensive user data, sometimes beyond what's necessary for the service's core functionality. This also creates a huge target for cyber criminals. In 2022, the average cost of a data breach reached $ 4.35 million (6), highlighting the financial and reputational risks of inadequate data protection. One of Blockchain's key traits is that it aims to anonymize users and create this aura of privacy that has been sought for years, however, there is still much low-hanging fruit in terms of its capabilities and utilities.

Furthermore, recently implemented solutions have been extremely difficult for non-technical users to get involved in. Projects have been presented that address this privacy-oriented cloud computation but fail

to be simple enough that users can understand it without thorough research. For instance, decentralized computers may be useful, but the vast majority of users do not comprehend how to utilize them. In fact, many users even struggle with the intricacies of website hosting, something that should be extremely simple. Even if users find out how to use cloud services, they may often resort to solutions that do not prioritize data privacy. Configuring private game servers often requires using third-party services that may not prioritize user privacy. Aspiring AI developers often rely on cloud platforms that may not offer robust privacy controls for their training data and models. Even running a blockchain node, while privacy-enhancing, remains technically challenging for many users.

This document explores how CoreConnect addresses these major challenges: the growing demand for powerful computing resources and the critical need for privacy preservation. We introduce new concepts such as "Click and Play," which simplifies complex cloud deployments to a single user action, and implement privacy measures in ways not previously achieved in the cloud computing sector. The innovative approach of CoreConnect is set to redefine the landscape of cloud services, empowering users with unprecedented computational capabilities while maintaining the highest standards of privacy and security.

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2 Welcome to CoreConnect

CoreConnect aims to address the growing demand for privacy and ease of use in digital services. Many existing platforms are either too complex for most users or do not prioritize user privacy, leaving gaps that CoreConnect aims to fill. CoreConnect offers a user-friendly mobile ecosystem that embodies two essential principles that form the core of the platform:

1. Comprehensive security and privacy, ensuring that data remains exclusively under the control of the user.
2. Simplified access to cloud-based services through the "Click and Play" approach, eliminating unnecessary complexity.

The ability to allow individuals to rent VPS, RDP, and GPU resources anonymously, without the need for registration or KYC processes, is central to CoreConnect services."Anonymously" within this platform is precisely defined as:

- Data not being collated and linked to the user's real identity, only the wallet
- No linkage to the user's IP address in any way
- CoreConnect lacking access to user server credentials, ensuring the platform cannot log in or monitor user activities

A key advantage of the platform is the management of access and secrets entirely client-side from known applications, starting with Telegram. This approach significantly enhances user privacy and security. For instance, the SSH key generator stores sensitive information securely on the client side, further bolstering CoreConnect's commitment to user data sovereignty.

Furthermore, by simplifying access to these advanced technologies and maintaining a strong focus on privacy, CoreConnect makes it easier for users of all experience levels to engage with digital services securely and efficiently. In the near future, CoreConnect will expand its offerings to include premade solutions, enabling users to easily run a variety of services, from blockchain nodes to other complex tasks, such

as Docker solutions to run specialized applications like Anyone Nodes. These solutions are designed to be user-friendly, ensuring that even those with limited technical knowledge can set up and manage advanced digital services with ease.

CoreConnect has coined the term ”Click and Play” to encapsulate the streamlined approach to service deployment. This methodology addresses the need for rapid implementation without requiring users to navigate through extensive tutorials or documentation for setup procedures. The objective is to enable users to select a desired service, which is then configured and deployed via a single interaction—”one click”—and subsequently hosted securely on CoreConnect's infrastructure. The intricacies of this system and its underlying architecture will be elucidated in subsequent sections of this document.

While this document has covered the general overview of CoreConnect, the next section relays how significant the platform's key services are to the main objective.

3 Key Services

CoreConnect introduces comprehensive services designed to maximize user convenience, potential earnings, and the highest standards of security and privacy. This is accomplished via two layer: Physical Layer, and the Application layer. At its core, the physical layer will encompass Virtual Private Servers (VPS), Remote Desktop Protocol (RDP) instances, and GPUs, all of which will be customizable based on user requirements. The application layer will leverage this infrastructure to deliver ”Click and Play” setups, allowing users to deploy complex services with minimal effort. Below is a detailed overview of the key services that CoreConnect plans to offer:

Testnet Node Farming: CoreConnect is planning to provide an automated setup for testnet nodes, enabling users to participate in early blockchain testing environments. By engaging in these setups, users could potentially farm substantial airdrops. The platform will abstract the underlying complexity, allowing users with minimal technical knowledge to deploy and manage nodes across various blockchain testnets. These nodes will be optimized for performance and reliability, leveraging CoreConnect's infrastructure to maintain uptime and connectivity essential for successful participation in testnet rewards.

Gaming Servers: CoreConnect intends to support containerized deployments for popular gaming titles such as Counter-Strike: Global Offensive (CS:GO) and Minecraft. The platform will utilize Docker containers and bash scripts to ensure isolated and secure environments, providing a robust gaming experience. Users will be able to customize server settings, manage player access, and deploy servers with high availability and low latency, leveraging geographically distributed data centers.

SSH Key Generation: CoreConnect currently offers a SSH key generation and management system, integrated through a Telegram bot. This system generates SSH keys that provide robust security while ensuring that all private keys are stored client-side. As a result, CoreConnect has no access to these keys, thereby guaranteeing complete user sovereignty over their data. This approach aligns with CoreConnect's commitment to privacy and security, making it easy for users to manage their SSH keys without compromising on control.

Custom VPN Creation: Users will be able to set up custom VPNs using OpenVPN (OVPN) technology, which will be integrated with CoreConnect's premade relay solution system to ensure enhanced privacy and security.This service is particularly beneficial for users needing to circumvent geo-restrictions or protect sensitive data in transit.

Self-Hosted Cloud Solutions: CoreConnect plans to enable users to create and manage self-hosted cloud environments for secure data storage and sharing. Users will be able to deploy cloud storage solutions such as Nextcloud or ownCloud on their VPS instances, with full control over data storage locations, encryption standards, and access permissions. This service will be ideal for individuals and organizations that require private cloud storage without relying on third-party providers.

Streaming Server Setup: The platform will facilitate the easy setup of streaming servers, allowing users to stream content either for personal use or to a broader community. Leveraging technologies such as NGINX with RTMP (Real-Time Messaging Protocol) module, users will be able to establish low-latency streaming servers that support live broadcasting and video-on-demand (VOD). This service will be particularly useful for content creators, educators, and enterprises looking to distribute video content securely and privately.

Algorithmic Trading: CoreConnect will provide pre-configured environments for algorithmic trading, utilizing powerful GPUs and CPUs to optimize trading strategies. The platform will support the deployment of algorithmic trading bots that can operate across various cryptocurrency exchanges, executing trades based on user-defined parameters. CoreConnect will ensure low-latency connections to exchanges and real-time data feeds, providing users with a competitive edge in the fast-paced world of trading.

Privacy-Focused Analytics: CoreConnect is planning to offer the deployment of Matomo analytics servers, which will provide detailed insights into user behavior while maintaining strict privacy controls. Unlike traditional analytics platforms that often involve third-party data collection, Matomo will be self-hosted, giving users full control over their data. CoreConnect's implementation will ensure that all analytics data remains private, with no risk of exposure to external entities.

Email Server Hosting: Users will be able to deploy their own email servers using CoreConnect's infrastructure, ensuring full control over their communications. The platform will support the setup of email servers using Postfix and Dovecot, with options for advanced security measures such as DKIM, SPF, and DMARC to protect against email spoofing and phishing attacks. By hosting their own email servers, users will be able to maintain privacy and avoid the data-mining practices commonly associated with mainstream email providers.

User Marketplace Services: CoreConnect is developing a decentralized marketplace where users will be able to rent out services built on CoreConnect's servers. This marketplace will be powered by multisignature (multisig) technology, which ensures that transactions are secure and decentralized. Payments in the marketplace will be supported by CORE tokens and other major cryptocurrencies. Fees from transactions within the marketplace will be used for buybacks, token burning, and contributing to the staking supply, thereby enhancing the value of the CORE ecosystem.

Premade Mining Solutions: CoreConnect plans to provide ready-made solutions for mining various cryptocurrencies using both GPU and CPU resources. These solutions will be designed to maximize efficiency and profitability, allowing users to engage in mining without the need for extensive configuration or technical knowledge. CoreConnect's infrastructure will support a wide range of mining algorithms, ensuring compatibility with multiple blockchain networks.

GPU Rentals for Cryptographic Work: CoreConnect will offer the rental of GPUs specifically for cryptographic tasks, such as solving complex computational problems, including partially solved wallet puzzles left by Satoshi Nakamoto. This service will showcase the power of SHA-256 encryption and other cryptographic algorithms, providing users with the computational resources needed to tackle these demanding tasks. The rented GPUs will be optimized for high-performance computing, ensuring that users can complete cryptographic operations efficiently and securely.

3.1 For Developers

The simplicities of the system are not just for non-technical users, but also extend to developers as well. CoreConnect presents a variety of tools that can be easily set up to aid developers, allowing them to avoid the complexities of their own providers while ensuring complete anonymity. Developers may easily host Docker containers that allow them to share code or endpoints for simple scripts within projects. For example, a developer could build an image with a database and an endpoint to allow internal developers to access the database easily. This can be extended to serverless and edge functions. A private edge function that can be

hosted via the platform is something to be desired, without having to go through the complex and bloated UIs of other services.

A possible future development is the integration for server management within a mobile platform. Similar to Nomad or Grafana, developers would be able to access servers while working away from their laptop, easing on-call duties and solving problems directly from their phone.

4 Architecture

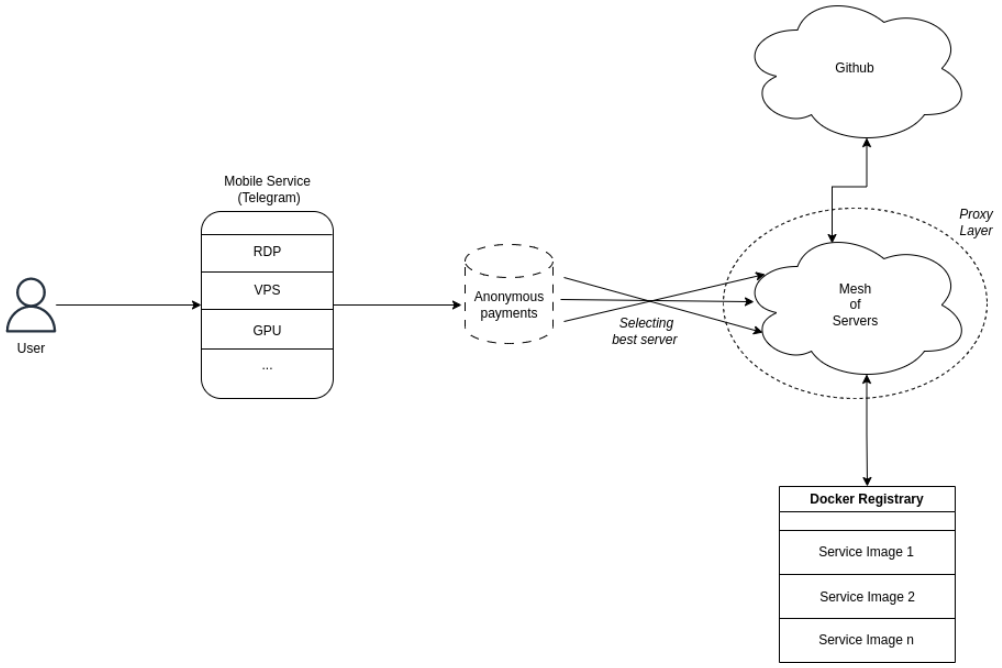

Figure 1: General Overview of the system

The diagram above presents an overview of the current infrastructure. When a user starts the Telegram bot, they can easily choose their desired server specifications, including the operating system, storage, cores, RAM size, and location. Specifically, they also choose the service they would like. After selecting their options, the user is prompted to choose between two authentication methods: SSH, which can be generated with CoreConnect's SSH gen bot (with the keys hosted only on the client side, making it the most private and secure option), and a password option. Once the user selects an authentication method, the bot generates a Coinbase payment link for an anonymous transaction, leveraging the very nature of blockchain technology. This guarantees the properties defined in section 2. After the payment is confirmed, the bot automatically finds the best available server that meets the user's requirements. Finally, the server is configured with the chosen authentication method and the login details are sent directly to the user.

Depending on the user's selection, the server may come pre-configured with specialized applications. The servers pull via the Docker Registry or GitHub, allowing these complex applications to be available via "Click and Play." Docker allows the applications to run on any part of our physical layer, regardless of the operating system, using containers and images. Images are built in layer given in Fig 2. For a more technical overview refer to the Docker Documentation (4). CoreConnect also offers GitHub features, where users can easily git clone some of the click and play solutions and run them in just a few clicks.

Optionally, users can also pick a proxy layer to create another layer of privacy on top of their server.

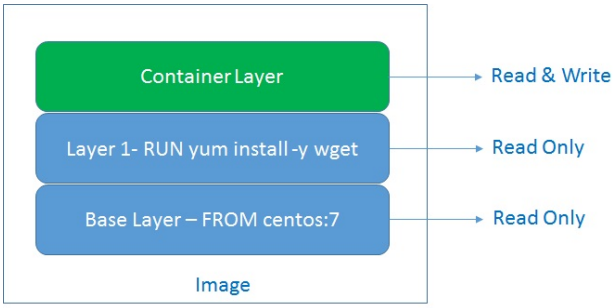

Figure 2: Layers within Docker

Many SDKs easily allow the system to incorporate this functionality, such as the AnyOne SDK.(1) Therefore, both the user's inbound and outbound connections are proxied through anonymization networks.

5 CORE token

Central to the functionality of the system, the CORE token is the central token used within the infrastructure. It will be used to rent the products offered and ready-made solutions, which creates an active price dynamic that incentivizes users to hold early.

5.1 Token Holder benefits

A percentage of the funds made from rentals will funnel back into CORE to benefit holders, in the form of buybacks if paid in other coins/tokens than CORE itself, or if paid in CORE, a part of it will be burned, creating a deflationary system, and another part will be sent to the staking protocol, offering a constant flux of supply to sustain a stable APY for the stakers. CoreConnect also plans on offering a marketplace, powered by multisig, which will be completely decentralized, for users of the rentals to rent services built on the servers. From VPN configs funneled through privacy protocols, rental of gaming server accesses, there are no limits. There will be a small tax on each of those transactions to do further burns and fill the staking protocol.

6 Staking

CoreConnect implements an advanced staking protocol designed to maximize yield potential and platform synergy. While incorporating a conventional staking mechanism, the platform introduces a revolutionary feature: the direct allocation of service payment flows into the staking pool. This infrastructure establishes a symbiotic relationship between platform utilization metrics and staker incentives. The staking mechanism operates through the following protocol:

1. Standard Staking Protocol: Holders can stake their CORE tokens via a smart contract, effectively locking their assets to provide network security and earn proportional rewards.

2. Service Payment Integration Algorithm: When users transact for CoreConnect services, computational resources, or any platform offerings, an automated smart contract channels these payments directly into the staking pool.

3. Enhanced Reward Distribution: The influx of service payments into the staking pool significantly amplifies the reward distribution algorithm. The reward coefficient is directly proportional to platform usage metrics, resulting in potentially higher returns as utilization increases.

4. Dynamic APY Calculation: The Annual Percentage Yield (APY) for stakers is computed using a dynamic algorithm that adjusts in real-time based on platform utilization data. The APY function correlates positively with increased usage of CoreConnect services.

This tokenomic model not only incentivizes CORE holding and staking but, through aligning stakeholder interests, generates a positive feedback loop that drives both staking participation and platform adoption. Token holders are incentivized to stake due to the enhanced yield potential, while platform users indirectly contribute to the reward pool through service payments, creating a self-reinforcing ecosystem. The unique architecture of this system potentially offers substantially higher yield compared to conventional staking models. As the platform scales and user acquisition increases, the staking rewards undergo natural appreciation, fostering sustainable long-term growth and user retention. The continuous inflow of service payments acts as a stabilizing mechanism for the reward pool, potentially mitigating the volatility often associated with purely speculative staking systems. Furthermore, this model democratizes participation in the network's economic layer. Users without significant token holdings can indirectly contribute to and benefit from the staking ecosystem simply by utilizing CoreConnect's services. This creates a more inclusive and dynamic platform economy, where every transaction contributes to the overall health and growth of the network.

7 Tokenomics

CoreConnect has a total maximum supply of 100,000,000 CORE tokens. To support ongoing development and the growth of the project, there is a 5 percent tax applied to both buy and sell transactions. These funds will be used to fuel further innovation and expansion of the platform. Additionally, CORE token holders will enjoy exclusive discounts on all the services, making it even more rewarding to be a part of the CoreConnect community.

Conclusion

To summarize, CoreConnect revolutionizes cloud computing by integrating advanced privacy protocols with user-centric infrastructure, directly addressing significant gaps in the current market. The platform's architecture, built on a robust physical layer and an innovative application layer, enables seamless deployment of services ranging from VPS and RDP instances to GPU-accelerated cryptographic operations. The proprietary "Click and Play" system automates complex configurations, allowing users to deploy sophisticated setups like testnet nodes and algorithmic trading environments with minimal technical overhead. CoreConnect's tokenomic model, centered around the CORE token, implements a dynamic staking protocol that directly correlates platform utilization with staking yields, creating a self-reinforcing ecosystem. A combination of these items, creates a self-sustaining ecosystem that creates a real impact on the multi-billion dollar sector.

This document presents the first initial outline of CoreConnect. CoreConnect is rapidly developing and introducing new features. To keep up to date and find out more information, join the telegram (3) or follow CoreConnect on X (2).

References

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