

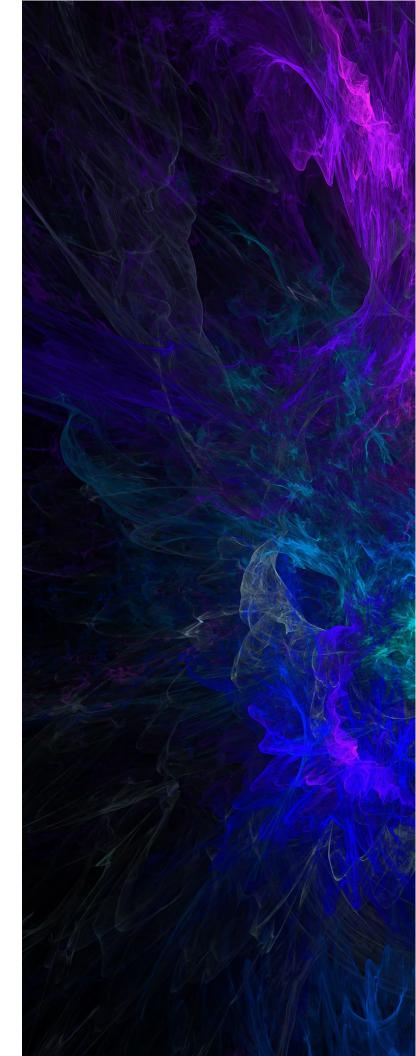
# Vogon Decentralized Cloud

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Questions? Email hello@crowdpointtech.com or visit us at https://crwdunit.com.

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# Word on the street

"Data lakes and DLDBs are the foundation for any digital transformation, providing the architecture and tools needed to manage large datasets, reduce costs, and improve cyber security."

#### - David Smith, Executive Vice President, Microsoft Azure"

The promise of a decentralized cloud computing platform using distributed ledger technology and a decentralized virtual machine is a revolutionary one – one that will revolutionize the way we interact with data and the cloud, enabling us to reduce costs and increase security and privacy."

#### - Santosh Gopinathan, CTO of Oracle Application Express.

"Let's redefine the Cloud to a place where Collective Intelligence is the new standard and massive data breaches are in the distant past"

#### - Sai Vennam, the Global Head of Cloud and AI at IBM.

"A distributed ledger database is the future for data lakes, providing a secure, reliable and cost-effective way to store and manage data."

#### - John G. Sotos, Managing Director, Accenture Technology & Data.

"A distributed ledger database is essential for the development of a data lake. It is the most secure, efficient and cost-effective way to store and manage data."

#### - Abhay Gupta, Global Leader of Data and Al Solutions, IBM.

"Distributed ledger databases will revolutionize the data lake space, enabling unprecedented levels of security, reliability and cost-effectiveness."

# - David Schumacher, Senior Program Manager for Azure Data Platforms, Microsoft.

"Data lakes are the future of data storage and distributed ledger databases provide the perfect framework for managing and leveraging this data."

# - Anna Miller, Senior Technical Staff Member and Master Inventor, IBM.

"Deterministic concurrency is the most reliable and efficient way to construct a data lake. It provides a foundation for constructing a robust, secure, and efficient data lake that can serve as a reliable source for analytics and decisionmaking."

#### -Chris Givens, Data Scientist, Microsoft Azure

"Deterministic concurrency is the only way to guarantee the accuracy of data lake operations. It ensures that data lake operations are executed in a predictable and consistent manner, which is essential for creating reliable and secure data lakes."

-James Thompson, Data Architect, Microsoft



# The Future of Cloud Computing

The future of cloud computing looks brighter than ever, according to leading technology experts.

The high optimism is because cloud computing has enabled organizations to become more efficient, agile, and cost-effective.

With cloud computing, organizations can access powerful servers and store large amounts of data at a fraction of the cost of traditional data storage solutions.

Additionally, cloud computing allows organizations to quickly deploy applications and services through serverless architecture, enabling them to bring new products and services to market faster.

# Centralized Cloud Providers Dominate the Market Today

Today cloud computing is dominated by centralized cloud service providers that own and operate cloud services, such as hosting and storage, and offer them to customers. They are large companies that are subject to regulations, as well as stringent security controls. The advantages of centralized service providers include delivering services quickly and on a large scale with access to customer support.

However, these services are also subject to potential risks, including data privacy, security, reliability issues, and internal staff that might

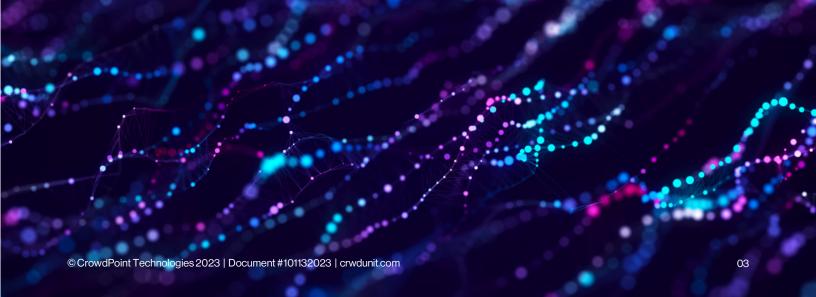
While the cloud service industry is poised to grow, many users and enterprises are increasingly wary of these large, centralized cloud organizations. Businesses and consumers alike are concerned about the monopolistic dependencies these companies have created. Their power over the internet value chain reaches so far that access to infrastructure services is allowed only in exchange for user data. Providers can block access at any time without having to give a reason.

### A Change is Coming

There is a growing shift in consumer preference toward infrastructure and applications that provide democratized access and give consumers more choices. Many believe that Web3 is the path to a more equitable cloud.

Web3, the next iteration of the internet, is the natural progression from the current Web 2.0 status quo. It redefines the relationships between users and cloud infrastructure service providers.

This change in dynamics means enabling machines to access and interpret data. But to truly unlock the value of Web3 requires a more efficient way to access and process information because computers can analyze data faster and more accurately than humans.



#### Web 2.0

Web 2.0 is the second generation of the World Wide Web, characterized by social media and user-generated content.

It increased user engagement and interactions such as commenting, sharing, and collaboration.

Web 2.0 primarily relies on humans to interpret content and has been hosted exclusively on centralized clouds.

A centralized cloud limits the control of content creators. Centralized cloud providers restrict content owners through their policies and protocols, which may limit the types of content they are allowed to upload.

The control allowed to users over their content's security is limited.

Because of this kind of centralized approach, there are three significant issues it was unable to overcome:

- Security: Many Web 2.0 applications lack sufficient security measures to protect users' data from unauthorized access and manipulation.
- **Scalability:** The design of Web 2.0 applications does not scale with demand, making them prone to outages and slowdowns.
- **Privacy:** Many Web 2.0 applications do not provide adequate privacy controls for users, leaving them vulnerable to data exploitation and misuse.

Web 3.0

Web3 is the third generation of the web, focused on intelligent applications and data-driven services.

It is based on the semantic web and utilizes artificial intelligence and machine learning to create a smarter, more personalized, and semantically aligned web experience.

Web3 integrates data from different sources to create an efficient and powerful web experience. It uses data and algorithms to enable machines to understand the meaning behind web content.

Integrating data from different sources in a Decentralized Ledger Database (DLDB) can offer numerous benefits over a centralized data lake. By utilizing a DLDB, organizations can benefit from increased data security, improved data privacy, better scalability, and improved data availability.

A decentralized cloud can help solve security, scalability, and privacy issues by breaking data into smaller pieces. This data gets stored across multiple nodes throughout the network. This new architecture helps to protect data from a single point of failure and reduce the risk of a data breach.

Decentralization makes it possible to scale up or down the storage and processing power of the network as needed. Additionally, decentralized clouds are less expensive than centralized cloud options and offer more levels of customization.

Because the protocol stores data on multiple nodes, it is more difficult for third parties to access or monitor it, helping ensure the data remains private and secure.



# **Collective** Intelligence

#### Interconnected Data Collaboration

Collective intelligence is the capacity of a group of people to think, act, and collaborate in a coordinated way. In the end, the cooperative produces better results than could be achieved by any single member working alone or using a centralized data lake.

A decentralized cloud is a technology that enables sharing of resources and data across a distributed network of computers. It can create collective intelligence by allowing people to collaborate on a shared platform and facilitate sharing ideas and insights in a secure environment. It also enables the pooling of compute power, data storage, and bandwidth to help create more efficient and practical collaborative solutions.

### Goals of Web3

Web3 aims to create a more interconnected and interactive online experience. It uses artificial intelligence (AI), blockchain, and the Internet of Things (IoT). It seeks to create a more user-friendly, secure, and efficient online experience. CrowdPoint augmented Web3 by combining cloud, encryption, database, blockchain, ledger, distributed document store, and virtual machine technologies into one compute stack. This singular solution makes it easier for users to share data and services across different platforms. It simplifies access to data and services for businesses from other companies. The most significant benefit of this transformative technological shift is the new ability to reimburse users who share their data.

### The Decentralized Cloud Creates Collective Intelligence

Vogon creates collective intelligence by allowing people to collaborate on a shared platform and facilitate sharing ideas and insights in a secure Distributed Ledger Database (DLDB). It also enables the pooling of compute power, data storage, and bandwidth to help create more efficient and practical collaborative solutions.

Technologists see collective intelligence as the prize offering for Web3, but this requires cloud computing to move from a centralized model to a more decentralized one. The shift is becoming even more prevalent. Businesses and individuals alike will take advantage of collective intelligence's ability to deliver increased scalability and flexibility to reduce costs further and improve efficiency.

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# The CrowdPoint Mission

The big idea from the inception of CrowdPoint was to empower human identity with collective intelligence. A place where groups of people can derive knowledge, skills, and resources of the many in a decentralized cloud and power the emerging Web3 to solve the world's biggest problems. Leveraging the founders' big data, artificial intelligence, and banking experience, the team came together to provide a better vision for Web3. It has built a disruptive and innovative decentralized cloud platform that leverages its Decentralized Ledger Database (DLDB) to create the next generation data lake. It was purpose-built to harness a group of people's collective knowledge, skills, and experiences across the digital realm.

The first appearances of collective intelligence have been made possible through the rise of Web 2.0 technologies, such as social media, collaborative platforms, data lakes, and the Internet of Things. The increasing connectivity of the world will increase collective intelligence through Web3. The Vogon Decentralized Cloud is needed to ensure users can take advantage of shared insights derived from machine learning and artificial intelligence. CrowdPoint focuses on expanding markets through a decentralized, egalitarian model. On Vogon, more people will have access to shared knowledge, skills, and resources, allowing for the creation of more robust solutions.

The founders recognized that this technology and vision would place it firmly at the intersection of commercial and capital markets. The technology was so innovative, disruptive, and forward-thinking that a product suite must vertically integrate these tools to illustrate the benefits and enormity.

CrowdPoint's ready-built product suite is an essential resource for customers deploying new and disruptive technology for a few reasons. These tools provide customers with a comprehensive solution to their needs, tailored to business requirements associated with identity, markets, capital, and finance.

The crwd\_ product suite allows customers to benefit from the advances of the Vogon Decentralized Cloud without the need for extensive customization or integration. CrowdPoint designed the products to be easy to use, so customers can quickly get up to speed and start seeing results from their investments. CrowdPoint Technologies provides a digital platform consisting of four product modules: identity, market, capital, and finance, to accelerate collective intelligence through a decentralized cloud.



# Introducing the Vogon Decentralized Cloud

# It's a Decentralized Ledger Database (DLDB), and DevOps Compute Stack

Vogon's decentralized cloud is designed from the ground up to enable collective intelligence. It is an artisanal assembly of polyglot Virtual Machines that is deterministically concurrent designed to handle multiple tasks (concurrent) in a very precise way (deterministic) using a specific type of cryptographic tool (bls 12-381) for security purposes.

Together this technology is specifically designed to organize and manage a JSON distributed document store database in a way that allows for seamless connections between different parts of the database.

The discovery derived from collective intelligence created using this technology ensures that all information generated remains in control of the data owner because the Vogon decentralized cloud does not own or operate its services centrally.

The advantages of Vogon include greater data privacy, increased security, improved reliability, and no singular control over your data by one company.

Additionally, the Vogon Decentralized Cloud offers more flexibility and control to users than centralized services.

One prime example is sharing in the use of crwdunits common utility https://crwdunit.com.

### Determining the Preferred Cloud Provider of the Future

The preferred provider for customers, large or small, depends on their specific needs. Today, they can choose a large corporation with a strong track record of reliability, but higher costs and centralized control fueled by surveillance capitalism. Or they can pick Vogon.

Vogon Decentralized Cloud operates a deterministic and concurrent DLDB with an embedded ledger and next-generation encryption. It leverages a polyglot programming interface to deploy microservices natively. And it provides a higher level of security than traditional cloud computing since Vogon spreads data across multiple nodes instead of a single server.

Data stored on Vogon is immutable and in a tamper-proof format. Transactions are processed quickly and reliably because validating and verifying information is effortless.

The polyglot interface allows developers to quickly build applications in various programming languages, making creating robust and secure applications easier.

Its embedded virtual machine (VM) technology enables anyone to run programs written in Java, JavaScript, Ruby, Python, R, and other languages, on different platforms such as Windows, Mac, Linux, and Docker.



This VM allows developers to write code once and run it on any platform. It is more efficient than writing separate code for multiple operating systems, increasing support for decentralized hosting. It also allows developers to compile code ahead-of-time (AOT compilation) for faster startup and execution.

By providing a polyglot runtime environment and a universal binary format, this VM enables developers to write applications in multiple languages, improve performance, and reduce costs. Vogon redefines the economics of cloud computing because it more efficiently uses CPU processing by utilizing several levels of optimization and compilation.

Vogon applies advanced techniques such as partial evaluation, whole-program analysis, speculative optimizations, and register allocation to create a highly optimized executable for the target platform. These techniques help improve the efficiency and scalability of cloud computing operations.

- Vogon can better optimize its resources and improve the performance of its applications.
- Partial evaluation can help reduce the amount of work needed for a particular computation by analyzing the code and identifying common patterns for reusability.
- Whole-program analysis can help identify potential issues and improve the overall performance and execution of programs in the cloud.
- Speculative optimizations can improve the speed and accuracy of computations. At the same time, register allocation helps ensure that the cloud uses its resources efficiently.
- Vogon can automatically detect and use the most appropriate optimizations for a given workload, which helps reduce the application's CPU utilization.
- These techniques can help improve the performance of the cloud and ensure it is running at peak efficiency.

Vogon offers customers increased data privacy, security, and flexibility. It prevents the central control of users' data with a model designed to monetize and reimburse data owners through crwdunits https://crwdunit.com.

The preferred cloud provider of the future stands to become the market leader quickly. Many experts today predict the decentralized cloud services industry will be at \$25 Billion by 2025 as more companies will switch to this delivery model. Vogon is poised for success because it integrates mission-critical functions into one highly scalable technology stack.



# Vogon: A Superior Technology

### More Efficient Use of Computing Power

Why is the Vogon Decentralized Cloud, in simple terms, the superior technology for more efficient use of computing power?

Vogon is designed from the ground up to have a faster compilation, improved memory management, and more efficient utilization of computing power.

The Vogon Decentralized Cloud leverages a virtual machine designed to allow for the efficient execution of programs written in multiple languages. It runs on a modern, highly optimized Java Virtual Machine (JVM) compiler.

It also supports multiple programming languages. Through the polyglot interface, Vogon allows code written in different languages to be combined and executed in a single process, leading to more efficient utilization of computing power.

This interface used to deploy microservices makes it much easier for developers to integrate their applications with the cloud. The feature helps to reduce the time and cost associated with developing and deploying applications. It reduces the barriers to entry for small businesses and startups, who often have limited resources and budgets for cloud computing. Ultimately, this could lead to new and innovative companies that wouldn't have been possible with traditional cloud computing models.

Additionally, Vogon Decentralized Cloud offers improved memory management, a low energy footprint, and a high level of performance, making it an ideal choice for enterprise applications.

Vogon has the potential to reduce the costs associated with cloud computing drastically. Leveraging a deterministic and concurrent database, a ledger, and next-generation encryption will provide secure and efficient data storage and processing capabilities at a fraction of the cost of traditional cloud computing.

In the future, Vogon Decentralized Cloud will likely become the preferred provider due to its efficient utilization of computing power, improved memory management, low energy footprint, and decentralized architecture.

### The Intersection of Decentralized Cloud and Edge Computing

The Vogon Cloud facilitates the convergence between cloud computing and edge computing. This intersection is crucial because it enables better data management and processing.

By utilizing the decentralized cloud, companies can process data from multiple sources worldwide securely and efficiently.

Edge computing operating at this intersection enables data to be processed closest to the source, thus reducing latency, and improving performance.

This intersection is crucial because it allows for more efficient, secure, and cost-effective data management.

Vogon fuses cloud technology and edge computing through distributed networks and protocols.

Distributed applications hosted on Vogon get the benefits of cloud and edge computing systems. Essentially each node is a Turing Complete system located anywhere in the world, operating a hybrid computing environment.

Developing more efficient, vertically integrated super apps is feasible because of deployments across multiple devices and platforms.

If data is the new oil, intelligence is the gasoline produced when refining crude data. As Vogon continues to refine data to create collective intelligence, new kinds of vertical super apps powered by Vogon will usher in a new exponential growth period. Enriched data places collective intelligence into a semantic context for an exceptional Web3 experience for users.

# **Eight Reasons for Vogon as the Technology of Choice**

#### Reason #1

The Vogon Decentralized Cloud is transformative and disruptive because it redefines cloud architecture.

Vogon has a Decentralized Ledger Database(DLDB), and polyglot virtual machine in a single deployment capable of scaling infinitely.

Each block contains transactional records that additionally store data in a JSON while performing better than a traditional relational database.

Vogon allows users to store and query data without relying on a third-party search tool.

The Vogon Decentralized Cloud with an embedded database and native ledger capability is desirable because:

- 1. It would allow for secure and tamper-proof storage of data.
- 2. It would allow for easy access to data by users without going through a third party.
- 3. It would allow data exchange between different parties without a centralized authority.

### Reason #2

Increased Resiliency: Vogon is more resilient to cyber-attacks, compute failure, and content censorship for several reasons.

The distributed and decentralized architecture means a malicious actor must attack multiple systems simultaneously to take them down.

With distributed computing, data is stored redundantly across multiple nodes, which makes it more difficult to erase or corrupt data. Since the cloud design is decentralized, content censorship becomes much more difficult, as any attempt to control data would have to validate across multiple nodes.

Decentralized cloud storage is generally more secure than traditional cloud storage, as it adds a layer of document security and helps to protect the data further during transmission A Distributed Ledger Database is resilient to cyber-attacks, compute failure, and content censorship due to its decentralized nature, which means that the data is stored as JSON in a distributed document store at multiple locations and is not controlled by any single entity. The data is stored on multiple nodes, making it nearly impossible for malicious actors to access or manipulate it. Additionally, since all transactions are cryptographically secured and stored, they cannot be altered or deleted, making it resistant to attempts to censor content. Finally, the data is always backed up across multiple nodes, making it resilient to compute failure.

Next generation crwdbeam encryption increases Vogon's security by preventing unauthorized data access. Typical ledgers only track transactions and encrypt the source of the entry. They do not store data creating an additional point of entry for cyber-attacks. Vogon permits transactional records and the corresponding data blob on the same block. With crwdbeam, the entire payload is encrypted and only accessible by the data owner and those allowed access to the information.

Integrating the compaction technology with Vogon allows faster data transmission while reducing the data's size.

With crwdbeam technology, there is a unique process of reducing the size of a file or database. The method represents data as a different mathematical expression, reducing the file or database's size and making it easier to store and transfer.

This benefits Vogon by helping to keep distributed document stores within a block payload by reducing its size, making it easier to store more data and transmit at faster speeds.

In turn, networks experience improved bandwidth, faster transmission speeds, and reduced data size. It is especially beneficial to businesses with applications that require large amounts of data to be transferred quickly, such as streaming video services or online gaming.

#### Reason #3

Improved Security: Vogon is the best technology for building a decentralized cloud because it allows developers to create a more deficient and secure platform than traditional clouds.

The Vogon Decentralized Cloud is less prone to data breaches as it is not reliant on a single organization or provider.

A decentralized cloud eliminates the need for a single failure point, increasing the system's security.

With no central authority to hack or steal data, the decentralized cloud is more secure than traditional solutions.

#### Reason #4

Reduced Costs: Vogon allows for faster transactions and more secure data storage.

It reduces the need for third-party verification processes, which could lead to increased efficiency and cost savings for businesses.

As the Vogon Decentralized Cloud is not reliant on a single provider, it can be less expensive than centralized clouds.

Vogon eliminates the need for third-party providers and delays associated with processing and queue times throughout the supply chain.

With no centralized point of failure, Vogon is less costly and more reliable than traditional cloud solutions because of the reduced overhead costs needed to run massive data centers.

#### Reason #5

Faster Access: The Vogon Decentralized Cloud is quicker, as it is not reliant on a single provider.

A decentralized cloud is faster because the cloud is distributed across multiple physical locations, allowing more immediate access to data and resources.

A distributed ledger database provides quicker response times because it is stored on multiple nodes across a network. This means that the data is spread out, so it can be accessed from multiple locations, which speeds up the response time. Additionally, distributed ledger databases are built with consensus-based algorithms, which allows for faster decision-making and improved scalability. Users don't have to rely on a single centralized server located far away for data and resources, which helps reduce latency, improve availability, and increase performance.

Additionally, distributed cloud storage is more secure because it is less vulnerable to cyber-attacks and data breaches. Because the data is encrypted and spread across multiple nodes, it means no malware, spyware, or ransomware bogging down or stopping transactions.

The Vogon Decentralized Cloud uses distributed document stores and microservices to run faster because the system no longer relies on a single server or database instance. By spreading the system and data storage across multiple servers, the system can process information faster and more efficiently. The distributed system also helps to improve fault tolerance and reliability since applications can still access data from other servers or databases if one server or database fails.

#### Reason #6

Greater Flexibility: Vogon allows organizations to customize their solutions to meet their specific needs, as they are not reliant on a single provider.

Microservices allow for flexibility and scalability for developers. They can build custom solutions to meet the needs and requirements of their application design.

Instead of relying on a single centralized provider, multiple nodes, or servers, connect in a peer-to-peer network, and each node stores and accesses a portion of the data.

This decentralization allows users to access data from anywhere in the world if they have a connection to the network.

Decentralized clouds also eliminate single points of failure, meaning that if one node goes down, the data is still accessible from other nodes in the network. Furthermore, since the data gets spread across multiple nodes, it is more secure from malicious actors.

#### Reason #7

Increased privacy: A decentralized cloud eliminates the need for a central authority, which raises the bar for data privacy. Vogon removes the need for a single entity to have control over data.

With a decentralized cloud, encrypted data is stored and shared across multiple nodes, meaning no single entity can access or gain control of the data.

A distributed ledger database provides more privacy because it enables transactions to be conducted without a third-party intermediary, such as a bank or financial institution. Transactions are validated and recorded on a public ledger, but the data is encrypted, making it difficult to trace the original transaction. This provides more privacy than a centralized database, which is accessible by a single entity with control over the data.

This distribution makes it much more difficult for malicious actors to access and exploit a user's personal information.

Furthermore, Vogon's ultra-efficient crwdbeam compaction technology abstracts, shrinks, secures, and speeds up data transmission, further increasing users' security and privacy.

#### Reason #8

Transparency: With everyone participating in the cloud, there is a need for greater transparency and accountability in data governance.

Transparency with no centralized control means that data is immutable and can't be changed, nor can any organization determine who or what can host information on their servers. It allows users to access data and applications from anywhere, anytime, and on any device.

It eliminates the need for expensive hardware and software investments. It also eliminates the need for maintenance and support personnel since the cloud service provider takes care of those tasks.

With no centralized control, there is no single point of failure, making cloud computing more reliable, democratic, and egalitarian than traditional data centers.

With no centralized control, there is no single point of failure, making cloud computing more reliable, democratic, and egalitarian than traditional data centers.

A DLDB provides more transparency because it is shared among many different computers or nodes in a network, meaning all the data is publicly available.

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# **Centralized vs. Decentralized**

### Current Centralized Cloud Providers Have Good Market Positioning

The centralized cloud providers enjoy strong business models and trust from their customers. It is an essential factor to overcome for decentralized cloud providers to gain market share.

Startups vying for customers will have to prove their technical expertise. Their understanding will impact the effectiveness of decentralized cloud services and how they compete with current market leaders.

However, decentralized cloud companies are likely to win business from centralized cloud companies. Their nimbleness to integrate new technology, provide a better user experience, offer lower prices, and offer more reliable, secure services is critical. They are also not subject to the political opinions of employees who could interfere with technology to disrupt business activities at any time.

# Why is Vogon's Disruptive Approach Better?

# A Decentralized Cloud Consisting of a DLDB, Ledger, and Compaction?

What are the benefits of combining distributed document storage and placing JSONs inside a cube on a self-deployed decentralized cloud with an embedded ledger?

The grouping of these technologies provides a compelling argument for Vogon to emerge as the new leader in the decentralized cloud space.

**1. Security** - By combining distributed document store, blockchain ledger, and a decentralized cloud, the data gets stored in a highly secure and distributed manner. Vogon does not store data in one system or location, making it harder for hackers to access data.

**2. Increased Transparency** – Combining these technology elements into one solution makes all changes and transactions easily trackable with an audit trail. This lineage model makes it easier to monitor activity and verify authenticity.

**3. Cost Savings** - By combining distributed document storage, blockchain, and a self-deployed decentralized cloud, organizations can save on operational costs, such as IT infrastructure, maintenance, and cloud storage costs.

**4. Scalability** – This new cloud architecture allows infrastructure to grow and scale flexibly. As data and transactions increase, the system can quickly expand to accommodate the growth.

**5. Improved Deficiency** - Organizations can reduce data entry and validation time with distributed document storage, blockchain, and a decentralized cloud. This disruptive combination will help increase the efficiency of operations and reduce redundancies.

**6. Increased Speed** - Vogon's use of "automated DevOps and application containers" will simplify and automate the development, testing, and deployment processes, allowing developers to iterate on their applications with minimal effort quickly. This streamlining can significantly reduce the time it takes to launch new features and products.

**7. Improved Reliability** - The disruptive homogeny of Vogon makes it highly reliable, allowing for fewer errors and less downtime. The higher uptime reduces overall costs and ensures that applications are always available.

8. Improved Scalability - Vogon blocks are designed to be highly scalable and can quickly adapt to changing customer demands. The automated growth of the network can help businesses rapidly scale up and down to meet customer needs.

**9. Improved Flexibility** - Automated DevOps and application containers are designed to be highly secure and can help protect applications from cyber threats. Improved security reduces the risk of data breaches and other security incidents.

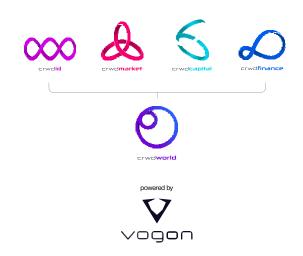
# **Current Solutions** on the Vogon **Decentralized** Cloud

### The crwd\_ Product Suite

CrowdPoint recognized early on that decentralized cloud technology is a departure for many to understand. It built a product suite to show how vertical integration on a decentralized cloud will impact digital identity, markets, capital, and finance applications in the future.

- · Our product applications provide a more streamlined and user-friendly customer experience, allowing them to deploy the technology guickly.
- · We offer our customers a rapid onboarding as a competitive edge by giving them various options to choose from to suit their needs.
- · It helps CrowdPoint reduce the development time and cost associated with customizing the technology for individual customers, allowing the company to focus on other product and market development areas.

The crwd\_suite of products and applications assists CrowdPoint in growing Vogon's market penetration by providing customers with more efficient, cost-effective, and user-friendly options for deploying their technology. The four applications powered by Vogon inside of crwdworld include:





#### Vogon Decentralized Cloud

# CrowdPoint

# Identity Application

### CrowdPoint built crwdid as an identity application product that offers the following features and benefits:

1. Protects an identity graph of one billion records on Vogon accessible through a subscription-based model allowing customers and businesses to gain data for a fee

2. Generates additional revenue streams through data analytics, data storage services, and decentralized targeted advertising

3. Charges a fee for using Vogon Cloud records

4. Provides a stable and reliable way to store and access customer data

5. Allows customers to claim their personal information and upload their identification card compliant with relevant industry regulations and standards, such as GDPR and HIPAA

6. Leverages the immutability of an embedded ledger to provide auditing capabilities to ensure that all access attempts get logged and tracked

7. Uses role-based access control, ensuring that only authorized users can access sensitive data

8. Offers multi-factor authentication (MFA), a form of identity verification that requires users to provide multiple forms of authentication, such as passwords, biometrics, security questions, and other credentials

9. Provides self-service capabilities to enable users to manage their identities, such as resetting passwords or updating personal information

10. Validates Know Your Customer (KYC) and Anti-Money Laundering (AML) compliance, an essential tool for any financial institution to help identify customers, verify their identity, and reduce the risk of fraud and money laundering



11. Allows single sign on through its digital identity storage solution to help users quickly and easily sign into multiple systems and applications, as well as secure authentication and verification services to organizations, allowing them to verify customers' identity promptly and efficiently

12. Grants access to identity verification APIs that enable organizations to verify customers' identity using various methods quickly, including email, phone, and document verification and secure authentication methods

13. Powers a wallet solution built on Vogon that enhances security and privacy by spreading encrypted data across multiple nodes with no single point of failure, making it much more resilient to hacking and data breaches

14. Leverages crwdbeam technology to ensure data protection in transit and at rest through advanced encryption of data stored and moved on the Vogon Decentralized Cloud, including identity-related data like:

- · Biometric Data: Fingerprint and iris scan
- Digital Certificates: Electronic signatures, digital certificates, and digital seals
- · Financial Data: Bank account numbers, credit card numbers, etc.
- Government-issued Identification: Driver's license, passport, national ID card, etc.
- Medical Records: Health history and health insurance information
- · Personal Characteristics: Gender, date of birth, address, etc.
- Social Media Information: Profiles from social media networks
- User Credentials: Usernames and passwords

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# Market Application

CrowdPoint built crwdmarket as a market application product that offers the following features and benefits:

1. Provides the ability to securely store and manage digital products and assets in a decentralized manner

2. Offers a secure and reliable infrastructure to guarantee the security and availability of digital assets stored in the cloud

3. Settle with smart contract-based transactions enabled with trustless transactions on the decentralized cloud

4. Decentralizes data storage and processing for e-commerce merchants, helping to reduce transaction costs, increase transaction speed, and improve data security

5. Enables merchants to benefit from improved scalability, as Vogon technology can handle many transactions quickly and efficiently

6. Helps to reduce fraud and increase customer satisfaction as payments are processed more quickly

7. Facilitates micropayments on Vogon, allowing merchants to accept smaller customer payments, leading to increased sales



8. Provides a way for decentralized governance, allowing users to vote on decisions that affect the platform

9. Scales to meet the growing demand for services and resources

10. Secures access through authentication and authorization system that should be in place to guarantee the privacy and security of user data

11. Gives merchants flexible pricing models to accommodate different user needs

12. Opens API access to allow developers to integrate easily with the platform and build applications

13. Offers robust analytics organized by the Global Industrial Categorization Standard (GICS®) and is available to enable all users to understand their consumption and overall market trends better



#### Vogon Decentralized Cloud

# Capital Application

CrowdPoint built crwdcapital as a digital banking application product that offers the following features and benefits:

1. Uses the Vogon Decentralized Cloud to redefine how deposit funds managed by banks can facilitate new ways to make loans and other sources of financing

2. Enhances how banks use their capital to maintain a minimum level of reserves, pay dividends to shareholders, and provide loans to customers

3. Provides integrated dashboards to assist consumers, depositors, and banks in increasing efficiency

4. Enables faster transactions, reducing processing times, and settling banking transactions more efficiently

5. Improves security to protect data and transactions from malicious attacks or breaches



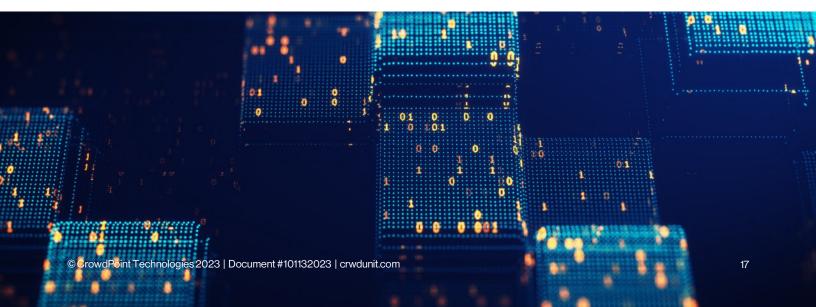
6. Allows banks to have greater visibility into their customer's financial activities, providing more transparency in banking and financial operations to create more customer trust and a better banking experience

7. Helps reduce payment rail costs by cutting out the need for third-party services and intermediaries

8. Saves businesses money by eliminating expensive fees associated with traditional payment systems

9. Leverages the decentralized cloud to help improve the efficiency of payment rails by streamlining the payment process and reducing paperwork, resulting in faster and more secure payments

10. Reduces fraud risk and theft, as each transaction is stored securely on the blockchain and can only be accessed by those with the appropriate keys



# Finance Application

CrowdPoint built crwdfinance as a financial application product that offers the following features and benefits:

1. Revolutionizes the investment industry by providing access to more real-time data and collective intelligence, thus enabling more informed decisions

2. Offers faster and more efficient trading and reduces transaction costs, allowing investors to make more profitable investments

3. Reduces costs for investors by eliminating the need for expensive proprietary hardware and software

4. Provides a platform for investors to collaborate and share resources, allowing them to make more informed decisions and unlock new opportunities

5. Enables the regulated issuance of fractionalized instruments to help companies by reducing the risk associated with raising funds

6. Creates new kinds of exchange-traded funds (ETFs), where fractionalized funds split an instrument and spread the risk of investment, reducing the likelihood of a single investor taking on too much financial risk



#### crwd**finance**

7. Helps users diversify their portfolios, limit their risk exposure, and increase the yield that they can earn through fractionalized instruments, serving to reduce costs for issuers and allowing them to market these assets at lower prices than traditional instruments

8. Supports the direct public offering market through:

- a. A secure and transparent platform facilitating the sale of securities and allowing stakeholders to monitor transactions in real-time
- Document store for corporate and offering materials, allowing stakeholders to access the information they need quickly and securely
- c. Smart contract support for the sale of securities, allowing for automated execution of transactions and improving efficiency in the process



# Final Thoughts

### The Future Is Bright for CrowdPoint

The decentralized cloud offers customers several advantages, such as increased security, privacy, and flexibility.

An added benefit to markets is decentralized cloud solutions are typically cheaper than traditional cloud storage solutions, making them attractive to customers.

Decentralized cloud solutions are beginning to offer more features than conventional cloud solutions. Developers can build applications without a centralized server but still benefit from an embedded database, compaction, and a native ledger to offer immutability and transparency.

Increasing customer awareness of the benefits of decentralized cloud solutions is necessary. This education will help increase adoption and lead to a larger total addressable market. Analysts expect the decentralized cloud market to become a significant industry. The size of the decentralized cloud market is challenging to estimate due to the emerging state of the technology and various definitions. However, some estimates place the potential market size between \$25 billion and \$2 trillion. This wide range is due to the need for standardization in defining Web3. The current reliance on traditional blockchain-only approaches to valuation and evolving definitions of the decentralized cloud creates a disparity in assessments. CrowdPoint's approach to helping determine the emerging decentralized cloud market is to: 1. Establish a thought leadership position in the market

2. Reach out to industry influencers and thought leaders for their opinion on the technology

3. Identify customers and user groups that could benefit from the technology

4. Conduct market research to understand the needs and wants of the target market

5. Develop a comprehensive marketing strategy to reach the target market

6. Establish partnerships with key influencers and industry players to increase awareness of the technology

7. Develop a pricing strategy that accurately reflects the value of the technology

8. Monitor the market closely to assess the success of the technology

CrowdPoint's decentralized cloud is a way to securely store data and information without relying on a centralized server. Instead, data is stored in multiple locations, meaning that if one site fails, the other decentralized nodes can still provide access to the data.

Decentralization allows for greater security, reliability, and control over who can access data because the record owner and creator set the access permissions.

Decentralization of data promotes privacy. Even so, Vogon maintains a level of connectedness through semantic mapping indexes. The approach lays the technical foundation for collective intelligence.

Allowing people and businesses across the ecosystem to access and enrich data through permission-based roles from the owner, creator, or trusted agent ensures more insightful discoveries.

The iterative and connected process unlocks complete and accurate insights into an audience. Furthermore, decentralization allows for collaboration between multiple parties, which can result in more efficient and effective solutions to problems.

Decentralization can also increase the speed of data sharing, information generation, and collective intelligence, which can drive ideas, innovation, and progress faster.

Collective intelligence can benefit a company in several ways. It enables organizations to quickly and accurately synthesize large amounts of data across their supply chain and ecosystem to make informed decisions.

It also helps reduce research, development, and marketing costs by leveraging the wisdom of a crowd.

It can identify market trends and opportunities, allowing companies to act quickly on changing customer needs and preferences.

Collective intelligence can also benefit consumers by giving them access to various ideas and opinions to which they may not have exposure. It can help them make more informed decisions, making them more knowledgeable when purchasing. It also allows them to take advantage of a group's thoughts and better evaluate products and services.

The Vogon Decentralized Cloud allows data to be stored securely and efficiently while allowing real-time access to collective intelligence and trends analysis through interconnected indices. Organizations can achieve scalability, trust, and transparency by leveraging Vogon. Big data analytics can be performed on the decentralized cloud, generating actionable intelligence to make informed decisions and optimize operations.

Vogon is the future of data storage, distributed document stores, and embedded analytics, offering unmatched performance, cost savings, and security.



# The Future of Decentralized Clouds

The future of decentralized clouds is an exciting one. They are expected to become the norm in cloud computing because of greater privacy, increased security, lower costs, and improved scale. They can also provide a more secure and reliable way to manage data more efficiently and cost-effectively when sharing, storing, and processing data. Market trends anticipate decentralized clouds to become increasingly popular for their combination of distributed ledger networks, data analytics, and artificial intelligence applications.

As more companies begin to adopt decentralized cloud solutions, the technology is likely to become even more prevalent in the years to come. Vogon offers today's discerning customers five key capabilities:

**1. Increased Security:** Vogon is more versatile and secure than traditional cloud computing solutions. It employs a distributed document store that performs like a database and distributed ledger.

This architecture eliminates the need for a centralized server. It ensures that all data is encrypted and stored securely across multiple nodes.

The encrypted nodes make data more difficult to infiltrate and provide customers with peace of mind that their information is safe. Vogon stores data within blocks as payloads in a distributed ledger network to protect it from malicious attacks or unauthorized access.

The inherent tracking of provenance, governance, and lineage helps ensure data integrity and authentication while providing a secure way to store and share information. 2. Lower Cost: Vogon is more cost-efficient than traditional cloud computing solutions. It is not subject to the same overhead costs associated with a central server. These benefits allow customers to save money on the cost of their cloud computing needs and make the platform more attractive to potential customers.

Organizations can save on hardware, software, and labor costs because developers can deploy applications quickly and efficiently on Vogon. The technology offers secure data storage and sharing.

Vogon's expected Cost of Access Control (CAC) is in its infancy. However, as decentralized cloud technologies become more prevalent, the CAC will likely become lower over time as access control costs fall. Additionally, organizations will gain access to more resources and capabilities on Vogon than they can currently access with central cloud platforms.

**3. Greater Flexibility:** Vogon offers customers more flexibility regarding infrastructure scalability, data storage, and customization of its current product suites. The included templates permit customers to tailor applications to their specific needs and enable them to scale their cloud computing infrastructure as their needs change. Vogon provides tremendous scalability benefits.

The distributed ledger technology of Vogon allows for rapid deployment and scaling of applications as more users join the network. Its use of polyglot containerization provides a way to package multi-language applications in lightweight containers and deploy them quickly in the cloud.

All these factors make CrowdPoint more attractive to potential customers as it offers more options and control over their data.

**4. Improved Efficiency:** Vogon can help organizations improve the efficiency of their operations because they can quickly deploy applications and updates.

Vogon Decentralized Cloud is purpose-built for Web3 as it is a cross-platform technology with a query able document-oriented data store embedded within it. It is designed for scalability and uses JSON-like documents within blocks using dynamic schemas instead of traditional table-based relational databases.

Vogon enables the storage and access of data in consensus groups, is used to store and query large amounts of data and can easily integrate with other applications and services.

A key feature of Vogon is that it allows for compiling Java code into native machine code by an ahead-of-time compiler. The machine code runs directly on the hardware, bypassing the need for a traditional Java Virtual Machine (JVM) while delivering process efficiency and more economical computing power.

Vogon supports other languages such as JavaScript, Python, Ruby, and R. Additionally, it enables dynamic languages and integrates different codebases into a single application.

**5. Enhanced Transparency:** Vogon provides organizations with transparency and data tracing capabilities through an immutable record.

Vogon embeds distributed ledger technology (DLT) that facilitates secure, reliable, and encrypted data storage and transfer.

The ledger technology is vital because it ensures all transactions are transparent and immutable. It eliminates the need for a central authority or third party to validate transactions.

This approach makes it an ideal secure and efficient data storage and transfer system. It can help reduce costs associated with data storage and transfer, as well as reduce the risk of data tampering and fraud.

The decentralized cloud industry is a nascent but growing industry. Accurate calculations of the total addressable market must rely on adjacent industries that analysts can reference. Researchers estimate the global cloud computing market could be worth over \$200 billion by 2024. Decentralized cloud computing could likely capture a large portion of this market as it offers the potential to provide more secure, cost-effective, and reliable cloud services.

Given that Vogon has an embedded ledger, estimates place the size of the TAM around \$1.7 trillion. This number includes both hardware and software services related to the ledger technology.

The size of the total addressable market for databases is estimated to be \$32.5 billion.

Some estimates put the size of the blockchain market to be worth around \$30 billion globally by 2024.

# CrowdPoint sees three critical factors in its go-to-market strategy as a new decentralized cloud company:

1. Network effects: CrowdPoint focuses on building a solid user base to create self-sustaining network effects. This business model involves developing incentive programs for customers to join the platform. Programs include attracting customers with accelerated onboarding using the crwd\_ product suites, low transaction and development fees, high-performance security, and reliable resource access.

2. Strategic partnerships: CrowdPoint is constantly looking to build partnerships to help drive adoption. CrowdPoint can identify software and application developers and industry-specific companies through this network to enable interoperability, marketing, and access to new markets.

3. Pricing Strategy: The development team diligently considered CrowdPoint's pricing strategy. Using a utility token (https://crwdunit.com), CrowdPoint can power the compute stack and keeps the company's offering competitive because of the potential accretive value when purchasing crwdunits. Early adopters buy crwdunits at a discounted price to participate in the potential growth of the ecosystem. This strategy is augmented by the added value and cost savings from decentralization and market trends. CrowdPoint has carefully crafted a pricing strategy that balances the dual goals of maximizing revenue and encouraging adoption.