



# WEB 3.0



SEMANTIC  
WEB



METaverse



3D  
GRAPHICS



CONNECTIVITY  
(UBIQUITY)



BLOCKCHAIN



DIGITAL  
IDENTITIES



MICROPAYMENTS



AI &  
BIG DATA



DECENTRALIZATION

# Purpose built for Web3

CrowdPoint's Technology, leadership and vision can define Web3

<https://crwdunit.com>

Author: Sean Michael Brehm

February 2023

Executive Leadership

Questions? Email [hello@crowdpointtech.com](mailto:hello@crowdpointtech.com) or visit us at <https://crwdunit.com>.

"The Semantic Web will revolutionize our internet experience by providing better financial inclusion through collective intelligence and a decentralized cloud. It will not only help semantically align content, but provide a more egalitarian and efficient technology experience, allowing for a more equitable distribution of knowledge and resources."

**-Sean Michael Brehm, Chairman & CEO, CrowdPoint**

"Our Vogon decentralized cloud technology is unlocking the potential of tokenization and more efficient markets through the semantic alignment powered by collective intelligence providing timely insight into global markets, driving the next wave of innovation and growth."

**-Nadab Akhtar, President & COO, CrowdPoint**

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# Introduction

CrowdPoint Technologies is building platforms for the next generation of the internet. We're building the foundational building blocks for a new web, known as Web3, that is secure and reliable. We're making it possible for everyone to be free to access the internet without worrying about their data being stolen or people manipulating the results.

To make this happen, we are using decentralized cloud technology, powered by a decentralized ledger database. This means that the data is stored in a secure and encrypted way that no one can access without permission. Additionally, we have an embedded document store that always keeps your information safe and organized.

We are also using a powerful Virtual Machine, purpose built for Web3. It is a specialized virtual machine that provides decentralized containers that are fast and secure and change the economics of the cloud not only beating the centralized clouds in performance but more efficiently using the processing power of the underlying hardware. It makes sure that all the information is processed quickly, without any risk of it being hacked or stolen. This makes sure that your data is always secure.

Finally, we want to make sure that it is the safest experience for our youth where even the youngest of users can understand and use our platform. That's why we have designed our platform so that it can be used by a 16-year-old with ease. We want to make sure that everyone has access to the latest technology...safely, no matter their age, technical skill level or financial situation.

CrowdPoint Technologies is the backbone of Web3 and will make sure that everyone is able to interact with the internet securely and achieve financial inclusion. We are dedicated to making sure that everyone has access to the latest technology and will always keep your data safe.

## Web1, Web2, and Web3, what's the difference?

To better understand the importance and difference of the emerging Web3 technologies, it is essential to compare Web 1, Web2, and Web3 and understand how the semantic web will provide a better experience for consumers and businesses globally:

**Web 1:** Web 1.0 was the first generation of the internet, consisting of static webpages and single authoring tools. It was mainly used for information gathering and sharing through Yahoo and Google. The information was predominantly text-based, and users could not interact with the content.

**Web 2:** Web 2.0 introduced user interactivity with the content, including blogs and social media sites such as Facebook and Twitter. It allowed users to share content, comment, and interact with each other.

**Web 3:** Web 3.0 is the next generation of the internet, also known as the semantic web. It will use artificial intelligence, natural language processing, and machine learning to create a more personalized web experience for the user. It will also allow more efficient search, data transfer, and storage.

A semantic web will provide a better experience for consumers and businesses globally because it will be able to understand the context of user queries better, allowing it to provide more accurate results. Also, by utilizing artificial intelligence and natural language processing, it will be able to understand user preferences better and provide more personalized recommendations. Additionally, it will be able to provide more efficient data transfer and storage, allowing businesses to access and analyze data quickly. Finally, it will create a more connected web experience as it can link different pieces of data together to create a more comprehensive picture: Collective Intelligence powering the semantic web.

## Why does Web3 need a new approach?

Web3 is the next generation of the internet that promises to revolutionize how we interact with digital content and data. At its core, Web3 is a decentralized model of data management that leverages digital ledger technology to ensure greater security, transparency, and user control over personal data.



Web3, also known as the Semantic Web, is a term used to describe the vision of an interconnected web layered with additional information, making it easier for machines and software to draw meaning and context from the data available online.

It enables a web where interconnected documents carry data readily understood by machines, thus enabling computers to read, strategize, and reason in the same way we do, using a standard set of technologies from which new algorithms and applications can be created.

This vision of a more intelligent web drives Web3 and its Semantic Web technology stack.

Picture a world where you and your business partners have a big box of great ideas and new software to share.

But sharing everything with everyone can be hard, especially if there are too many people and too many great ideas. That's where a decentralized cloud comes in! It's like having lots of different great idea boxes in different places, so everyone can have their own space to run their business and share their great ideas without worrying about running out of room. And just like how more great idea boxes having makes sharing easier.

Having a decentralized cloud makes it easier for lots of people to share and store all their digital stuff like documents in box that is a unique virtual machine. Now data, pictures and videos can be deployed in these boxes that self-replicate without worrying about running out of space.

So, when someone talks about decentralized cloud being the "disruptor for the disrupter," what they really mean is that it's like a superhero that can solve the problem of too many people and not enough space to share their digital things.

Most experts believe that Web3 will need a decentralized cloud that can secure efficiently and store information in a way that enables machines to 'understand' data on the Web. Using ontologies and applying natural language processing techniques, the Semantic Web aims to provide a universal representation of information and further enable intelligent machines to process and react to that information.

The Semantic Web uses standard technologies like RDF, OWL, and SPARQL. RDF, OWL, and SPARQL are technologies used to manage and store data on the Web.

1. RDF stands for Resource Description Framework and is a language for describing and exchanging information about resources on the Web.
2. OWL stands for Web Ontology Language and is a language for formally describing the meaning of resources on the Web.
3. SPARQL (SPARQL Protocol and RDF Query Language) is a query language for retrieving and manipulating data stored in RDF format.

These technologies are essential for Web3 because they allow developers to create applications with multiple sources of cross-linked data. These sources cross-linked will create a new kind of "semantic data lake."

A semantic data lake is like an even bigger, more organized version of a filing cabinet. It helps you keep track of lots of different types of information and makes it easier to find what you need. And Web3 is the next big wave of the internet, where every form of information is connected, interactive and aligned with your personal needs for a more efficient, secure, and financially beneficial web experience.



A semantic data lake is a database, or digital repository, of information in which the data is related to the meaning of the material. It is organized according to semantic rules and extra structure to make it easier to sift and retrieve information quickly and for analysis for supporting the Semantic Web, otherwise known as Web3.

On Web3, data types supporting many information sources are stored in a semantic data lake, allowing for easier manipulation and better-informed decisions for consumers and businesses. Using a decentralized cloud with a JSON-distributed document store and semantic data lake, you're creating a robust system that can handle a lot of data and seamlessly connect with other parts of the internet. This can help power all kinds of excellent applications, making things like online shopping, social media, and even healthcare more efficient and secure.

The Semantic Web will enable information to be more readily available and analyzed more quickly and efficiently than traditional centralized clouds that house siloed relational databases while providing consistent standards to all applications. It also allows developers to create smart contracts, decentralized applications, and other distributed applications that can interact with the Web. This can open various possibilities and make the Web more powerful and efficient.

To be more efficient, an alternative to traditional centralized cloud computing is the creation of a decentralized cloud that will provide a more secure and reliable framework for services, such as communication and data storage. With a decentralized cloud, data is stored and managed across multiple nodes on a distributed and secure network, meaning that transactions and information sharing can be completed faster and with greater reliability. This will help remove the traditional single point of failure typically associated with the current centralized computing clouds and create a more reliable, cost-effective, and secure environment for running Web3 applications.

The idea of a decentralized, interconnected network where data is readily available and easily accessible to users is undoubtedly a vital feature of the Web3 vision. Building a decentralized cloud is challenging and requires multi-echelon configuration and an artisanal approach to handle the unique challenges posed by Web3. Some individuals or groups could envision a more structured and organized approach to presenting data to users based on semantic alignment or other criteria. Ultimately, the specifics of how Web3 will evolve, and its features will be shaped by ongoing discussions and collaborations among developers, entrepreneurs, and other stakeholders in the space.

Today traditional data management systems on centralized clouds are susceptible to attacks from cybercriminals and other malicious actors, which can compromise the integrity and privacy of sensitive information. However, Web3 platforms store data across multiple nodes on a decentralized network, making it virtually impossible for hackers to compromise the entire system.



Web3 platforms typically prioritize user control and ownership of data.

This means that users have more granular control over their personal information and can choose to share specific pieces of data with different parties, depending on their preferences and needs.

Smart contracts are another critical feature of Web3 that enable self-executing agreements with the contract terms written directly into code.

This helps to reduce the risk of fraud and ensures greater transparency in transactions.

Web3 prioritizes user control and data ownership, enabling users to have more granular control over their personal information and choose to share specific pieces of data with different parties based on their preferences and needs.

As more and more businesses and organizations adopt Web3 technologies, we expect to see a continued shift towards more secure and transparent data management practices.

The impact of Web3 on data management has the potential to be transformative, ushering in a new era of digital trust and accountability.

Compared to traditional data management systems, Web3 provides more security and transparency through distributed data and ledger systems that eliminate the need for centralized control and supervision.

In traditional data management systems, a centralized authority usually controls and manages user data, making it vulnerable to hacking and other security breaches. However, with Web3, data is stored decentralized across multiple nodes, making it virtually impossible for hackers to compromise the entire system.

Decentralized cloud technology has the potential to revolutionize data storage and management in numerous ways. First and foremost, it can offer greater security and resilience against data breaches or cyberattacks since the data is distributed across multiple nodes rather than being concentrated in one location.

Decentralized clouds can also provide greater transparency and accountability since all transactions are recorded on a public ledger that is accessible to anyone. This can be particularly valuable for industries like finance or healthcare, where data privacy and security are critical concerns.

Furthermore, decentralized cloud technology can offer greater flexibility and cost-effectiveness since resources can be allocated dynamically based on demand. This means that businesses don't need to invest in expensive hardware or infrastructure upfront and can scale up or down as needed without incurring additional costs.

In addition, decentralized cloud technology can enable new collaboration and innovation by allowing individuals and organizations to share data and resources more efficiently and securely. This can lead to the faster and more efficient development of new products and services and may drive economic growth and social progress.

Overall, Web3 represents a significant improvement over traditional data management systems regarding security, transparency, and user control. As more and more businesses and organizations adopt Web3 technologies, we expect to see a continued shift towards more secure and transparent data management practices.

Web3 is the next generation of the internet, which is designed to be more intelligent, secure, and connected. Data lakes are essential for companies to keep up with the innovations of the semantic web, as they allow companies to store and share data in an organized and structured way.



## The Team

The decentralized cloud to power Web3 requires expertise in various fields, including cryptography, data science, and finance.

1. The team at CrowdPoint technologies combined the skills of a former Airborne Ranger mathematician turned IBM data scientist to lead a team with eclectic technical and banking skills to design and implement secure solutions for storing and managing decentralized data.
2. The former investment banker on the team provided experience in transactions worth billions of dollars and would bring a deep understanding of financial markets and the ability to fundraise for the project.
3. A technical genius who built the first cryptographic e-commerce solutions for Wells Fargo would have the expertise to create secure payment systems for the decentralized cloud. As an original Java Virtual Machine (JVM) architect, this genius's experience at Sun Microsystems would possess the knowledge necessary to optimize the platform for high performance and scalability.
4. A Chief scientist and PhD in optimization a deep understanding of mathematical optimization theory and methods. His expertise drives the creation of algorithms and models for maximizing efficiency and optimizing resource allocation in a decentralized cloud system. As the founder of 2 separate AI labs who co-authored analytic tomographic approach with the Ranger mathematician for data analytics, he has experience in designing AI models for analyzing and making sense of complex datasets and is an invaluable resource in designing the algorithms and models necessary to optimizing the scale of the cloud.

Together, the CrowdPoint team has created a powerful and efficient decentralized cloud solution that is transforming how businesses operate in today's digital landscape. Their north star for this endeavor was the Human Identity. They recognized that data was the new oil, and just like refined oil is the fuel that powers industry today, refined data is the information fuel that will power Web3.

By creating semantic data lakes on a decentralized cloud these leaders, along with their teammates will empower companies to share data with their business partners and customers, allowing them to access the same data sets with ease.



Moreover, the entire CrowdPoint team will empower their customers with insights into customer behavior and preferences, helping them to better understand their customers and make better decisions.

Collectively they will help companies to stay ahead of the competition by providing them with an edge in terms of data-driven decisions. Ultimately, CrowdPoint will help companies to be more agile and innovative, ensuring that they will keep up with the advances of the semantic web.



## Blockchains aren't enough to support Web3.

Blockchains are currently limited by their design as transactional ledgers that are best suited for storing and managing financial information in a decentralized manner. However, the potential applications of a decentralized ledger database extend far beyond the current limited cryptocurrency finance models and will replace blockchains to unlock the full potential of cryptographic and deterministic technologies.

By becoming a decentralized cloud with an embedded JSON distributed document store, the next evolution of blockchain like technologies will serve as a global data lake purpose built for the Semantic Web3. These enterprise class solutions must be business and government class secure and using compaction technologies will enable customers to secure their data ensuring data integrity and confidentiality. To expand rapid market adoption the use of a polyglot VM technology will speed up development and adoption by making it easier for developers to build on this platform.

This evolution will enable blockchains evolve away from a clumsy implementation in its current form into a hybrid approach with decentralized ledger technology and a decentralized database that will power a new kind of cloud that will now finally be seen as enterprise class. In short, by evolving into a decentralized cloud with a distributed document store, blockchains will be seen as the first generation of the decentralized web, while these newer technologies are better suited to usher in a new era of Web3 that enables decentralized, democratic, enterprise credibility and global collaboration on a scale never seen before.



## Data, Information, and Web3

Data and information are often used interchangeably, but there is a difference between the two. Data refers to raw, unprocessed facts or figures without meaning or context.

For example, the numbers 5, 10, and 15 are just data without context. On the other hand, information is processed data that has meaning and context. When we organize and interpret data meaningfully, it becomes information.

Why does Web3 need to be built on information instead of data? The answer is that Web3 aims to create a decentralized internet that can give users greater control over their data.

In the current centralized Web, user data is often collected and controlled by a few large corporations, which can lead to privacy concerns and exploitation of user information for profit. By building Web3 on Information rather than raw data, we can create a more transparent and secure user environment. Information can be organized and interpreted to allow users to control how their data is shared and used. With Web3, users can have more ownership and control over their data, leading to greater privacy and security.

The difference between data and information lies in the processing and interpreting of raw facts and figures. Web3 must be built on information rather than data to create a more decentralized and secure internet that gives users greater control over their personal information.

Many experts in the field of decentralized technologies state that Web3 must evolve from blockchain technology to a more efficient distributed ledger and distributed document store to promote information sharing in a timely and cost efficient manner.

The idea is that while blockchains were the first and most well-known distributed ledger technology, there are other approaches to creating decentralized systems that are more efficient and scalable that don't necessarily require all the complexity and overhead of a blockchain.

Ultimately, the goal of Web3 is to create a more open, democratic, and decentralized internet the the most efficient, secure and timely delivery of information, and there are many different approaches that can be taken to achieve this goal.



Web3 can ensure that users have the tools to interpret and use interconnected information it provides in several ways.

One way is using the next wave of the decentralized ledger and emerging decentralized database and cloud technology, allowing for greater information-sharing transparency and security.

The semantic web is built on structured data that is processed, organized, and connected to provide useful information.

The semantic web uses standard vocabulary and rules to help computers understand the meaning of the data, which makes it easier to access and process.

Therefore, information is critical to the semantic web because it provides context and meaning to the data on the decentralized cloud.

The semantic web needs information over data because it aims to make data accessible and useful to people and machines. With the help of information, the data can be organized and interlinked, enabling seamless communication and interaction between different nodes or devices on the decentralized cloud. Thus, the semantic web needs to focus on transforming raw data into meaningful information to fulfill its objective of providing useful and accessible data.

This means that users can have more confidence in the accuracy and authenticity of the information they receive through Web3.

Another way is by providing user-friendly interfaces and tools that allow users to access and interact with their personal information easily.

This can include features such as customizable privacy settings, data visualization tools, and secure messaging and communication platforms.

Additionally, Web3 can promote education and awareness around data privacy and security issues, helping users better understand the implications of sharing their personal information online and how to protect themselves from potential risks.

By prioritizing user control and transparency in managing personal information, Web3 can provide users with the tools and resources to fully utilize information and make informed decisions about their online presence derived from interconnected information.



## Collective Intelligence

Interconnected information creates Collective Intelligence.

Collective intelligence combines information from many different sources by tapping into everyone's knowledge and experiences to develop solutions that can help an entire group, not just one person.

Collective intelligence can make financial inclusion more accessible by providing the necessary information to the population to empower people with new solutions tailored to compel others to pay for using personal information.

By leveraging collective intelligence, financial inclusion initiatives can better understand and balance first-world consumer needs with third-world resources tailored to provide mutual benefit.

With the ability to analyze more extensive and complex data sets, companies and consumers can take advantage of the data more effectively to gain insights and make more informed decisions through a semantic web powered by Collective Intelligence (Ci).

Collective intelligence is the natural evolution of inefficient data lakes to collaborative discovery that powers the semantic web because it enables organizations to leverage the collective knowledge of their staff, customers, and partners to create more meaningful and powerful insights and create a more interconnected digital landscape.

Collective intelligence is driven by data-driven discovery, which allows organizations to rapidly identify and implement new opportunities, while also providing a platform for more meaningful collaboration between organizations, partners, and customers.

Collective Intelligence ultimately leads to a more efficient and effective use of resources, more accurate and actionable insights, and more meaningful connections between people. Collective intelligence is a way to make Web3 even better. It combines the smarts of humans and machines with the help of different groups of people.

This means data lake teams can use models and algorithms to learn patterns and determine answers from the data lake. With these models, they can make smarter decisions, get better insights, or enhance how things are done.

With the ability to analyze more extensive and complex data sets, companies and consumers can take advantage of the data more effectively to gain insights and make more informed decisions through a semantic web upgraded to generate Collective Intelligence (Ci).

Collective intelligence is the natural evolution of inefficient databases powering Web2 into a collaborative discovery process. Ci powers the semantic web because it enables organizations to leverage the collective knowledge of their staff, customers, and partners to create more meaningful and powerful insights and create a more interconnected digital landscape.



Collective intelligence is driven by data-driven discovery, which allows organizations to rapidly identify and implement new opportunities, while also providing a platform for more meaningful collaboration between organizations, partners, and customers.

This ultimately leads to a more efficient and effective use of resources, more accurate and actionable insights, and more meaningful connections between people.

The collective power of different teams can also be used to build new services or products that leverage the information-- like doing experiments, collecting user feedback, or creating new and inventive things through hackathons.

Additionally, collective intelligence can be used to target data gaps and identify anomalies quickly or to design security controls, so the information is safe.

Collective intelligence will improve Web3 by leveraging human and machine capabilities and joint effort from cross-functional business ecosystem members.

Partnerships can create models and algorithms that create patterns and insights from the semantic web. They can then use these models and algorithms to make better decisions, extract insights and optimize processes. Additionally, businesses can leverage the collective power of multiple teams to develop new services and products that leverage the data.

Collective intelligence can be accomplished through cross-functional collaboration, iteration, and feedback loops. For example, they design experiments, collect user feedback on the semantic web, and run workshops and hackathons to create innovative products.

Additionally, collective intelligence can help identify information gaps, analyze, and interpret data, develop applications, and detect anomalies quickly and accurately. Collective intelligence can also help improve the security and governance of Web3 by incorporating methods such as role-based access control and authentication.

Collective intelligence is the natural evolution of inefficient Web2 powered databases to collaborative discovery that powers the semantic web because it enables organizations to leverage the collective knowledge of their staff, customers, and partners to create more meaningful and powerful insights and create a more interconnected digital landscape.

Collective intelligence is driven by information-driven discovery, which allows organizations to rapidly identify and implement new opportunities, while also providing a platform for more meaningful collaboration between organizations, partners, and customers. This ultimately leads to a more efficient and effective use of resources, more accurate and actionable insights, and more meaningful connections between people.



## Web3 needs a new kind of cloud.

Web3 will need a new kind of cloud infrastructure to support a semantic web powered by a more efficient form of a data analysis that uses AI to generate collective intelligence because of the complexity and scale of the data that will be generated and stored on the semantic web. As the semantic web grows, it will require an infrastructure designed for scalability, reliability, and performance.

This infrastructure must be able to handle large amounts of data, as well as provide a secure platform for data storage and retrieval. AI will be used to analyze data and generate collective intelligence, and this AI must be able to access the data lake quickly and securely.

Additionally, the cloud infrastructure must be able to handle the various types of data that will be generated by the semantic web and store it in a way that is easily accessible and searchable. Finally, the infrastructure must be able to handle the processing power required to generate collective intelligence.

One of the main drivers behind Web3 is a desire to move away from centralized systems and infrastructure, which can be vulnerable to hacking or manipulation. Blockchain technology has been a key enabler of this shift, allowing for decentralized and trustless transactions without the need for intermediaries.

However, blockchain technology is not well-suited for storing and processing large amounts of data or hosting applications. This is because blockchains are designed to be slow and costly to maintain their security guarantees. Therefore, there is a need for a new kind of cloud infrastructure that is decentralized, but not built on top of a blockchain.

A decentralized cloud, also known as a distributed cloud, decentralized ledger database or a decentralized storage network, can provide the necessary infrastructure for Web3 applications and services. This type of cloud is comprised of a network of computers that collectively provide storage and processing power, without relying on a central authority or organization. Decentralized clouds can provide greater security, privacy, and resilience compared to traditional cloud solutions, as well as lower costs and greater scalability.



The Semantic Web is a web of connected information. It is a vision of the internet where data on the web is more easily accessible, more useful, and more understandable by machines. Instead of the current web of unstructured and unlinked documents, the Semantic Web is a web of information that can be processed by machines to provide knowledge, structure, and context. The decentralized cloud is the best approach to support the Semantic Web because it provides a single, global platform for sharing data. By decentralizing the cloud, users can access data from any location, and the data is always available and secure.

This distributed system makes it easier for applications to access data from multiple sources, and it enables developers to build information generating applications on top of the data. Additionally, the distributed nature of the cloud makes it more resilient and secure than traditional centralized solutions. Decentralized cloud technology has the potential to impact our daily lives in many ways. One of the enormous benefits of this technology is that it allows for more secure and private data storage and sharing. With decentralized cloud technology, individuals and organizations can store their data on a distributed computer network rather than relying on a single centralized server. This means that data is less vulnerable to hacks and breaches, as there is no single point of failure.

Another benefit of decentralized cloud technology is that it can reduce costs associated with traditional cloud services. By using a decentralized network, individuals and organizations can save on storage and bandwidth costs, as they only pay for the resources they use. In addition to these benefits, decentralized cloud technology can improve access to information and services, particularly in underdeveloped or remote areas. Using a decentralized network, individuals and organizations can access information and services from any location with an internet connection without relying on traditional infrastructure like servers and cables.

Decentralized cloud technology can revolutionize storing, sharing, and accessing information and services. As this technology continues to evolve and become more widely adopted, we can expect to see even more innovative applications and benefits in our daily lives. Armed with this vision, the team invested their time, money, and resources to build the Vagon decentralized cloud to provide numerous benefits over traditional centralized cloud services. By leveraging emerging technologies like blockchain and a polyglot VM, decentralized clouds can offer businesses and consumers greater security, transparency, flexibility, and cost savings.

By leveraging emerging technologies like decentralized ledgers, decentralized databases, Polyglot (multilingual) virtual machines, distributed document stores, deterministic concurrency, BLS-17 block graph, and compaction technologies, the team at CrowdPoint built a new kind of decentralized cloud to leveraging these technologies provide businesses and consumers with greater security, transparency, flexibility, and cost savings than today's centralized cloud providers.



## The Vogon Decentralized Cloud

The Vogon Decentralized Cloud (VDC) artisanal integration of these technologies ultimately transforms how we live and work. A decentralized ledger database DLDB built on polyglot virtual machine containers using deterministic concurrency, BLS 17 block graph technology, an embedded document store of JSON files with compaction technology for extra security and digital rights management is a better choice because it is more scalable, flexible, and less expensive than a relational database on a centralized cloud. Additionally, it is easier to use, as it requires a different level of expertise and knowledge than a traditional relational database. Furthermore, it offers better performance, storing and retrieving data more quickly. Finally, it also provides better data security, as the data is distributed across multiple nodes.

1. A polyglot virtual machine (VM): Decentralized Containers change the economics of the global cloud industry today. Multilingual container technology is crucial for decentralized cloud computing because they allow applications to be deployed quickly and easily, regardless of the underlying infrastructure. By using a multi-language VM for its foundation, developers can enjoy the increased performance, flexibility, and resource utilization from a container that supports multiple programming languages, which makes it easier for developers to work across different platforms. Creating highly distributed and complex applications will give developers flexibility, scalability, and cost savings.
  - a. This cutting-edge technology allows for faster and more efficient execution of code, which can help businesses save money on infrastructure costs. Deterministic concurrency is another essential feature that ensures that applications run smoothly and efficiently, even when multiple users access the system simultaneously.
  - b. A multilingual VM decentralized implementation solves the anti-correlation problem by utilizing a distributed, non-blocking architecture where multiple independent applications reasonably compete for resources. This maximizes the system's efficiency, as resources are not locked up by a single application, even when competing.
  - c. To understand how the decentralized implementation of a Polyglot VM solves the anti-correlation problem and changes the economics of the cloud, we first need to understand what these terms mean.



- i. The anti-correlation problem refers to the situation in which competing applications that require access to the CPU create conflicts and slowdowns. This is a common problem in centralized computing, where multiple users or applications share a single server or resource. As the competition for resources increases, the system's performance decreases, as the CPU cannot keep up with the demands of all the applications.
  - ii. A Polyglot VM is a virtual machine that runs multiple programming languages and applications on a shared infrastructure. The decentralized implementation of this VM enables applications to run on a distributed network, with each node acting as a self-contained unit optimized for running specific workloads. This eliminates the anti-correlation problem by allowing each application to run on its dedicated node, ensuring it has all the necessary resources without interference from other applications running on the same node.
- d. This decentralized approach changes the economics of the cloud by enabling more efficient decentralization. By distributing computing resources, this VM will increase utilization rates, reducing the number of wasted resources. This, in turn, reduces the cost of running applications, making it more economically feasible for developers and businesses to run their applications in the cloud.
- e. Furthermore, the decentralized implementation of Polyglot VM is designed to be scalable, allowing it to add or remove nodes as needed based on the workload. This means that application performance can be scaled up or down as required, ensuring that resources are available as needed without wasting resources.
- f. Overall, the decentralized implementation of polyglot VM solves the anti-correlation problem by allowing applications to be run on dedicated nodes within a distributed cloud network and changes the economics of the cloud by enabling more efficient decentralization, leading to cost savings and better performance.
  - i. By eliminating anti-correlation, the VM decentralizes cloud economics by allowing smaller applications and services to have parity with larger ones.
  - ii. Companies with limited access to cloud resources can now access and use them without fear of disruption from larger companies.
  - iii. Additionally, applications no longer must compete for system resources, reducing the need for cloud resources and company costs.
  - iv. This promotes competition and cost-efficiency, providing excellent opportunities for all businesses that depend on cloud computing for success.
- 2. Deterministic concurrency: This technology allows for more predictable and efficient execution of concurrent programs. With deterministic concurrency, developers can avoid common problems such as race conditions and deadlocks, leading to significant delays and other issues.
- 3. BLS 17 block graph technology: This cryptographic algorithm enables secure and efficient communication between nodes in a decentralized network. Using BLS 17, nodes can authenticate messages and transactions without relying on a trusted third party, which increases security and reduces the risk of fraud.
  - a. BLS 17 block graph technology enables nodes to authenticate messages and transactions without relying on a trusted third party, increasing security and reducing the risk of fraud. This is a significant improvement over traditional cloud computing, which typically relies on centralized authentication methods that can be vulnerable to hacking and other security breaches.
  - b. BLS 17 block graph technology is a secure way to manage data on the blockchain, which is especially important when handling sensitive information such as financial or personal data. With BLS 17, businesses can ensure their data is secure and cannot be tampered with or

stolen.

4. Embedded JSON distributed document store: This technology allows developers to store data in a flexible and easily searchable format. With an embedded JSON store, developers can easily query and manipulate data without worrying about complex schemas or formats.
  - a. The embedded JSON distributed document store is another technology that offers unique advantages over traditional cloud services. With an embedded JSON store, developers can easily query and manipulate data without worrying about complex schemas or formats. This flexibility can lead to faster development cycles, more efficient data management, and significant innovation.
  - b. The embedded JSON-distributed document store is a way to store and manage large amounts of data in a decentralized manner. This means businesses can access their data anywhere worldwide without relying on centralized servers or storage solutions. And with compaction, companies can reduce the size of their data storage, leading to cost savings in the long run.
  - c. A distributed document store of JSON files will enable better analytics and AI because it allows for faster data access and better query performance.
  - d. Additionally, JSON files are easy to integrate and store, making creating new data points and features for analytics and AI applications easier.
  - e. JSON files are easier to parse and understand than other formats, providing organizations with faster and better insights into their data.
    - i. A distributed document store of JSON files embedded in a decentralized ledger database will provide better scalability and security on a decentralized cloud because the data is stored in an immutable ledger that is distributed across multiple computers.
    - ii. This ensures that the data is always available and secure, even if one of the computers becomes unavailable. Additionally, the decentralized nature of the ledger provides no single point of failure, meaning that the data is protected from malicious attacks and potential data loss. The distributed nature of the ledger also allows for scalability, as more computers can be added to the network as needed.
    - iii. A Distributed document store of JSON files embedded in a decentralized ledger database will provide better scalability, security, and semantic discovery, making it the foundation for Web3.
    - iv. A distributed document store of JSON files embedded in a decentralized ledger database enables better scalability than a traditional database by allowing multiple nodes to store and process data simultaneously. This increases the overall throughput of the network and allows for better data availability.
  - f. Improved Security: A distributed document store of JSON files embedded in a decentralized ledger database provides enhanced security by not relying on a single server or node to store and process all the data. This makes it much more difficult for malicious actors to take control of the data as it is spread across multiple nodes in the network.
  - g. A decentralized ledger database with an embedded document store of JSON files is a better choice to build an application than a relational database because it provides several advantages:
    - i. It is more scalable, flexible, and less expensive than a relational database.
    - ii. Additionally, it is easier to use, as it requires a different level of expertise and knowledge than a traditional relational database.
    - iii. Furthermore, it offers better performance, storing and retrieving data more quickly.
    - iv. It also provides better data security, as the data is distributed across multiple nodes and will perform more efficiently to build collective intelligence. Faster Transactions:

The distributed nature of the database allows for faster transaction processing since multiple nodes can process the data simultaneously. This allows for a more efficient and secure way of processing transactions.

- v. A distributed document store of JSON files embedded in a decentralized ledger database provides an increased level of fault tolerance since the data is spread across multiple nodes in the network. This makes it much less likely that a single node failure will take down the entire network.
  - vi. A distributed document store of JSON files embedded in a decentralized ledger database makes it much easier to discover relevant data as it is organized in an easy-to-understand hierarchical structure. This makes it much simpler to find the information you need quickly.
  - vii. A distributed document store of JSON files embedded in a decentralized ledger database reduces the costs associated with running a traditional database by removing the need for expensive hardware and software to maintain the network.
  - viii. A distributed document store of JSON files embedded in a decentralized ledger database makes it much more difficult for malicious actors to access and use the data as it is spread across multiple nodes in the network. This provides a much higher level of privacy for users.
  - ix. A distributed document store of JSON files embedded in a decentralized ledger database makes it much easier for users to access and use the data as it is spread across multiple nodes in the network. This makes accessing and using data from any location much more uncomplicated.
5. **Compaction:** This technology allows for more efficient data storage by compressing it at the source. Compaction technology allows more efficient data storage by compressing it at the source. This reduces storage costs, improves overall system performance, and increases data security. Again, this is a significant improvement over traditional cloud services, where data is often stored in a central location and may be vulnerable to breaches and other security threats.
- a. Developers can reduce storage costs, improve overall performance, and increase data security with compaction.

Building a decentralized cloud with these technologies offers numerous advantages, including increased security, transparency, flexibility, and cost savings. By leveraging these technologies, businesses can create more efficient and secure systems, which may ultimately lead to faster development and more significant innovation. While traditional cloud computing services offer a centralized approach to storing and managing data, decentralized cloud technologies open new possibilities for secure and efficient communication between nodes in a network.

Decentralized cloud technologies offer numerous advantages over traditional cloud services, including increased security, transparency, flexibility, and cost savings. By leveraging these technologies, businesses can create more efficient and secure systems, which may ultimately lead to faster development and more significant innovation. Decentralized cloud technology has the potential to revolutionize data management and cybersecurity in several ways. With traditional cloud services, data is often stored in a centralized location, making it vulnerable to hacking and other security threats. Decentralized cloud technology, on the other hand, distributes data across multiple nodes, making it much more difficult for hackers to gain access to sensitive information.

In addition to improved security, decentralized cloud technology offers greater flexibility and scalability. Developers can easily add or remove nodes as needed, allowing them to scale their systems up or down depending on demand. This makes handling large amounts of data more accessible and ensures systems remain efficient as they grow. The Vogon Decentralized cloud technology also has the potential to reduce costs significantly. Businesses can save money on expensive centralized storage solutions by distributing data across multiple nodes. In addition, by using decentralized cloud technology, companies can avoid vendor lock-in and reduce their reliance on specific cloud providers, which can also lead to cost savings.

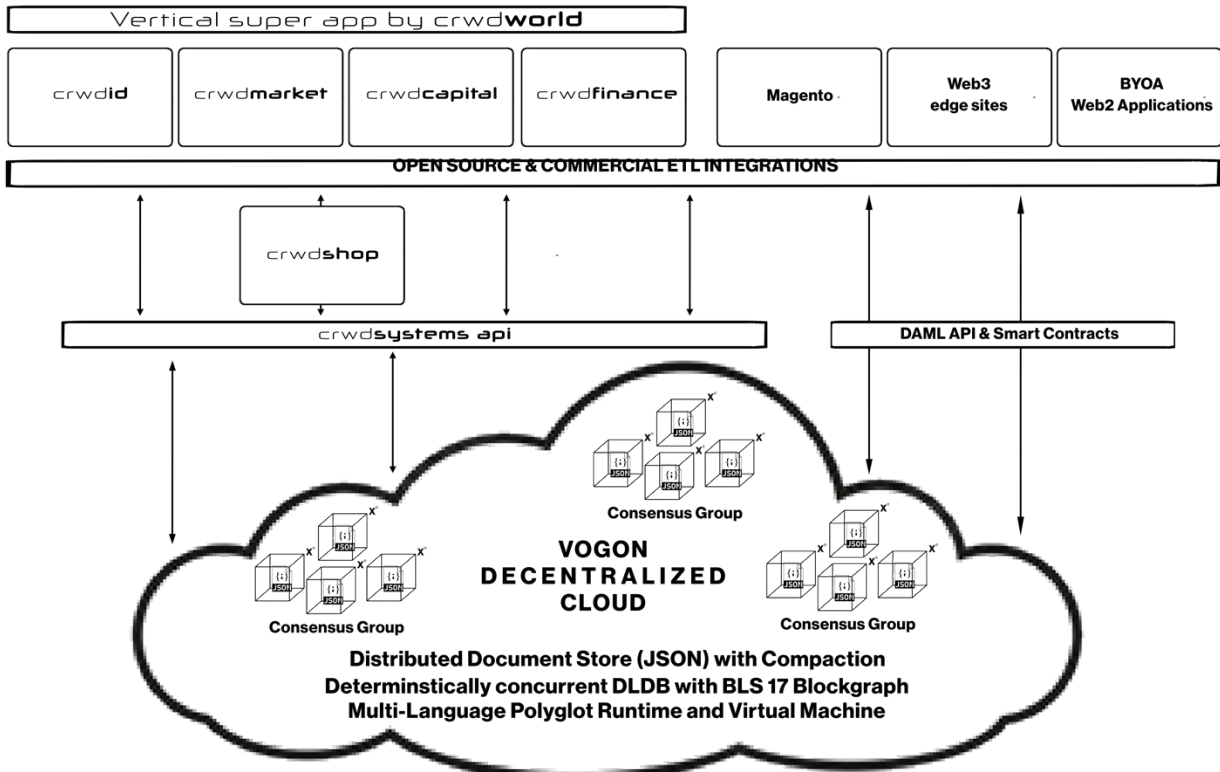


We will likely see more data management and cybersecurity advances as technology evolves. Decentralized cloud technology significantly shifts how businesses manage data and ensure cybersecurity. By leveraging this technology, companies can create more efficient and secure systems that can handle large volumes of data and adapt to changing business needs.

These features together make for a highly efficient and secure decentralized cloud platform. By investing in this technology, businesses can gain a competitive advantage, reduce operational costs, and better serve their customers. This is important for companies that want to stay competitive in today's fast-paced digital landscape while ensuring their data is safe and protected against cyber threats.

Vogon's integration of these technologies redefines the decentralized ledger database (DLDB) technology by creating a more secure, efficient, and

cost-effective solution than traditional database systems. The Vogon Decentralized Cloud (VDC) provides a more secure, distributed database system that records and stores data in a tamper-proof and immutable way. Vogon ensures that data is not subject to manipulation and cannot be compromised. Furthermore, Vogon allows for a distributed, trustless architecture with no single point of failure. Distributed document store technologies on the Vogon Decentralized Cloud are an excellent choice to work with Chat GPT due to their scalability, availability, high throughput, and low latency. They are also well-suited for storing and accessing large amounts of data quickly and easily. This type of technology is ideal and is purpose built for Web3 applications because it provides a secure and reliable way to store and verify data while ensuring that it is tamper-proof and resistant to malicious actors. The Vogon use of deterministic concurrency control with compaction technology, which allows multiple users to make updates to the data while ensuring the data has an immutable and transparent history and remains consistent and tamper-proof. This is important for Web3 applications because it prevents malicious actors from altering the data and provides users with a secure way to store and verify data. Additionally, the compaction technology ensures that the data remains compact and efficient, which makes it ideal for Web3 applications.





## Why build it on a unique Virtual Machine?

We had to change the economics of the cloud. Vogon's embedded VM changes the economics of the cloud by allowing cloud providers to deliver more power at lower costs. By running multiple languages on the same runtime, the VM allows cloud providers to use their CPU resources more efficiently, leading to improved performance and lower costs. Additionally, the VM can run both Java and JavaScript, allowing cloud providers to reduce the amount of time spent on translation and compilation, resulting in faster application startup times. Finally, the VM's Ahead-of-Time compilation feature allows cloud providers to pre-compile code and store it in the cloud, reducing the amount of time needed to compile code when it is needed. All these features lead to increased efficiency and savings, resulting in lower costs for cloud providers and customers alike.

Using the Vogon Decentralized Cloud will redefine the economics of cloud computing in several ways. Firstly, it can reduce the costs of managing and maintaining a centralized infrastructure and enable more efficient data storage and retrieval. This, in turn, can lead to lower operational costs and improved scalability.

Vogon's Polyglot VM solves the anti-correlative problem created by competing applications accessing the CPU and how it changes the economics of the cloud by enabling more efficient decentralization.

To understand how the decentralized implementation of the VM solves the anti-correlation problem and changes the economics of the cloud, we first need to understand what these terms mean.

The anti-correlation problem refers to the situation in which competing applications that require access to the CPU create conflicts and slowdowns. This is a common problem in centralized computing, where multiple users or applications share a single server or resource. As the competition for resources increases, the system's performance decreases, as the CPU cannot keep up with the demands of all the applications.

The Vogon VM is a virtual machine designed to run multiple programming languages and applications on a shared infrastructure. The decentralized implementation of the Vogon VM enables applications to run on a distributed network, with each node acting as a self-contained unit optimized for running specific workloads. This eliminates the anti-correlation problem by allowing each application to run on its dedicated node, ensuring it has all the necessary resources without interference from other applications running on the same node.



This decentralized approach changes the economics of the cloud by enabling more efficient decentralization. By distributing computing resources, the Vogon VM can increase utilization rates, reducing the number of wasted resources. This, in turn, reduces the cost of running applications, making it more economically feasible for developers and businesses to run their applications in the cloud.

Furthermore, the decentralized implementation of Vogon VM is designed to be scalable, allowing it to add or remove nodes as needed based on the workload. This means that application performance can be scaled up or down as required, ensuring that resources are available as needed without wasting resources.

Vogon's embedded VM is a unique open-source technology with the ability to take code written in multiple different languages and compile them into a single high-performance executable. This makes it perfect for powering a decentralized cloud with a DLDB (Distributed Ledger Database) technology, as it allows developers to write code in whatever language they prefer and still have it be compatible with the DLDB. Additionally, it has the capability to provide the high performance, security, and scalability that is essential for Web3 applications. Additionally, the VM powering Vogon supports several different languages, including JavaScript, Java, Python, Ruby, and R, which makes it even more suitable for Web3 applications.

Vogon's embedded virtual machine supports high-performance software execution. This technology allows for the efficient and cost-effective execution of complex software applications, including those that migrate a passive data lake into active collective intelligence. Its polyglot feature is perfect for a data lake because it allows data access from multiple languages. This feature enables data scientists to use the language of their choice to access and work with data from the data lake. For example, if a data scientist is comfortable with Python, but the data lake stores its data in a Java format, the multilingual feature allows them to access the Java data from within Python, giving them the benefit of working with the language they are most comfortable using.

Overall, the decentralized implementation of the VM solves the anti-correlation problem by allowing applications to be run on dedicated nodes within a distributed network and changes the economics of the cloud by enabling more efficient decentralization, leading to cost savings and better performance.

As stated above, its Polyglot VM technology is the foundation of container software that helps different programming languages communicate. It's like a translator that allows languages that don't typically work together to understand each other.

Polyglot containers are like little packages that hold all the different program parts, like the code and data. They're called "polyglots" because they can have different types of languages and technologies altogether.

Now, why are polyglot containers an excellent choice for building a decentralized cloud? Well, because they let you use different programming languages and technologies all on the same network. This means you can rely on more than one system or technology to run everything, which reduces the risk of things breaking or slowing down. Plus, it lets people in different parts of the world access information and services more easily without being limited by traditional infrastructure.

So, imagine you're trying to build something with many different tools, but the tools sometimes work well together. This VM is like a super-smart tool that helps all those other tools communicate and work together smoothly.

One of the key benefits of using a polyglot VM for decentralized cloud applications is its ability to provide faster startup times and lower memory usage than traditional virtual machines. The VM uses ahead-of-time (AOT) compilation, which compiles code into native machine code before it is executed, reducing the amount of overhead required to run the application.

Another advantage of using the VM is its support for containerization technology like Docker. Containers provide a lightweight and flexible way to package and deploy applications, making it easier to move between environments and scale up or down as needed.

The VM also supports just-in-time (JIT) compilation, which can improve performance for specific parts of an application that are particularly hot or frequently used. This helps ensure the decentralized cloud operates smoothly and efficiently, even as demand grows, and more users come online.

The polyglot VM's support for multiple programming languages, efficient resource usage, and containerization technology make it a strong choice for building and managing decentralized cloud applications. By leveraging these features, developers can create robust and scalable applications that can handle the unique challenges of a decentralized environment.

The VM ensures that all those other languages and tools can work together, while the deterministic concurrency ensures everything runs smoothly and efficiently. Deploying a polyglot VM and deterministic concurrency together, delivers a system that simultaneously handles many different pieces of code. It's a bit like having both a brilliant translator and a perfect traffic cop, all in the same system!

The virtual machine also provides a secure and reliable environment for the execution of these applications, making it a secure, cost-effective option for data migration.



## Deterministic Concurrency

Deterministic concurrency is a way of ensuring that multiple tasks or processes happening simultaneously don't interfere with each other. It ensures that they are done in the order you expect them to be so that you avoid unexpected results.

Think of it like a bunch of people trying to get through a doorway simultaneously. If you had a deterministic concurrency system in place, the first person to enter the entrance would be the first one out, the second person to enter the doorway would be the second one out, and so on. This way, you don't end up with many people at the entrance, and no one can get through. Deterministic concurrency allows for parallelism in database operations, significantly reducing the time and cost associated with data access and manipulation.

Parallelism is important for a distributed document store being used for an AI powered data lake because it allows the data lake to process multiple queries at the same time, thus increasing its performance and scalability. By allowing multiple queries to be processed in parallel, the data lake can access and analyze more data in less time, leading to more accurate results. Additionally, parallelism ensures that the data lake can handle large workloads with minimal latency, allowing it to provide fast and reliable data insights.

Parallelism allows a person's preferences stored on a JSON within a distributed document store to create infinite semantic joins in a data lake for a better Web3 experience by allowing the data lake to process multiple requests simultaneously. This allows for faster and more efficient data retrieval and processing, as the requests can be handled in parallel rather than having to wait for one request to finish before beginning the next. Additionally, the ability to join multiple datasets together quickly and efficiently allows for a more personalized Web3 experience for the user. By joining data from multiple sources, it allows for more nuanced and accurate recommendations, results, and insights, as well as improved security and privacy measures. By using parallelism, the data lake can quickly and efficiently join the person's preferences stored on the JSON within the distributed document store with other data sets, giving them a more personalized and tailored Web3 experience.

Deterministic concurrency is also like when you have friends wanting to play games simultaneously. Instead of all trying to talk at once and causing chaos, they take turns playing games so everyone can have fun without any arguments or fighting. In computer programming, deterministic concurrency means that different parts of an application take turns running instead of all trying to happen at once, which can cause errors and crashes.



Suppose you have an application that needs to perform two separate tasks simultaneously. Without deterministic concurrency, both jobs might try to run simultaneously, causing conflicts and slow performance. But with deterministic concurrency, the application can manage resources more effectively by scheduling each task to avoid conflicts and maximize efficiency. This means the application can run faster and more smoothly without getting bogged down or crashing due to competing demands on system resources. So, deterministic concurrency is a powerful tool for optimizing the performance of computer applications and ensuring that they run smoothly and reliably.

When building something like a decentralized cloud, you want everything to run smoothly and quickly without errors or problems. In a nutshell, deterministic concurrency is a way of managing how different parts of a system interact. It ensures the system behaves predictably even when many things happen simultaneously. This is important in a decentralized cloud because there will be lots of different nodes all communicating with each other at the same time.

The VM ensures that all those other languages and tools can work together, while the deterministic concurrency ensures everything runs smoothly and efficiently. So, when you use the VM and deterministic concurrency together, you end up with a system that simultaneously handles many different pieces of code. It's a bit like having both a brilliant translator and a perfect traffic cop, all in the same system!



## BLS 17 Block graph Technology

BLS-17 block graph technology is a way of saying that different pieces of information, like data and transactions, are organized into blocks and linked securely using advanced math. This creates a digital chain that's hard to tamper with or change without leaving evidence.

Using BLS 17 block graph technology can improve security and privacy by creating robust and tamper-proof data structures, which can help prevent unauthorized access or tampering with sensitive data. Overall, these technologies can help redefine the economics of cloud computing by providing a more efficient, scalable, and secure way to manage and store data in the cloud. Block graph technology is a way of storing and sharing data securely. It uses a system of 'blocks' of data that are joined together like a chain. Each block is securely encrypted with a special code, so that only the people who have access to the code can unlock that block and view the data inside. This makes it much more secure than other methods of storing and sharing data.

1. Block graph technology is the foundation of a decentralized cloud infrastructure. It is based on a distributed ledger and uses a consensus mechanism to ensure the security and accuracy of stored data. The consensus mechanism allows for the decentralization of the cloud infrastructure, making it more secure and resilient to attack.
2. Block graph technology works by using a distributed ledger to record data transactions. Transactions are encoded and stored in blocks, then linked together using cryptographic techniques. Each block is cryptographically linked to the preceding and succeeding blocks, forming an immutable chain. This chain of blocks is then distributed across multiple network nodes, which verify the transactions and store the blocks. This creates a secure, immutable, and distributed ledger of data transactions.
3. The use of block graph technology is critical for use in a decentralized cloud because it provides a secure and resilient means of storing and sharing data. Utilizing distributed ledger technology ensures that data is protected and immutable, as it is replicated across multiple nodes in the network. Furthermore, it allows for decentralized control and governance of the cloud infrastructure, allowing for more efficient and secure data sharing and improved scalability and flexibility.

4. Block graph technology allows for secure and efficient data management across multiple distributed ledgers. This technology provides a secure communication layer between different parts of the data lake, allowing for data movement across numerous groupings of data securely and efficiently. The BLS 17 block graph technology helps to make this system even more secure and efficient. It creates a chain of blocks (like a digital ledger) that records all the transactions and changes made to the information stored in the decentralized database. This means that all the information is verified and protected from unauthorized changes.

Building a decentralized cloud with this technology means that the cloud is not controlled by just one company or organization. Instead, anyone can contribute their computing power and storage to the network and receive rewards for doing so. This creates a more fair and democratic system that just a few influential players don't control.

Some benefits of using block graph technology to build a decentralized cloud include increased security, transparency, and efficiency. It can also be more cost-effective because it doesn't require the same expensive infrastructure as traditional cloud services. Overall, it's a promising option for creating a more equitable and sustainable digital future.

1. By using block graph technology to create a decentralized and transparent supply chain network, companies can better track their goods and ensure they're delivered on time and in good condition. This can reduce waste, improve logistics, and enhance overall efficiency.
2. Another example is in the financial industry, where block graph technology is used to create decentralized finance (DeFi) platforms. These platforms allow people to access financial services like loans and investments without going through traditional banks. Using Vagon technology to facilitate these transactions, DeFi platforms can operate more efficiently and cost-effectively than conventional financial institutions.

Overall, BLS-17 block graph technology has the potential to revolutionize many industries by creating more secure, transparent, and efficient systems. As more companies and organizations adopt this technology, we expect more innovative applications and benefits.



## JSON Distributed Document Store

A JSON-distributed document store is like a big cloud-based filing cabinet where information can be stored and accessed from many places. Decentralized means this filing cabinet isn't controlled by just one central server or authority. Instead, many smaller servers work together to ensure the information stays safe and accessible.

A JSON-distributed document store means that information can be stored and shared in a decentralized way without relying on a single central server. This is important because it allows for greater security and reliability, as there is less risk of tampering or fraud.

JSON (JavaScript Object Notation) is a lightweight data-interchange format that is widely used for storing and exchanging data.

The distributed document store is essentially a NoSQL database that stores JSON documents across multiple nodes in a network using a deterministically concurrent process.

This is a method of processing data where multiple processes access and modify the data in a deterministic and synchronized manner, which helps prevent conflicts and inconsistencies in the data. This improves the efficiency and reliability of the distributed document store.



BLS17 Block graph technology is a cryptographic protocol that can be used for efficient and secure storage of data on a distributed network. The protocol allows for the creation of a directed acyclic graph (DAG) structure of blocks, which makes it possible to efficiently store and verify large amounts of data within the JSON files.

When combined, deterministically concurrent processing and BLS17 Block graph technology improves the performance and reliability of the JSON distributed document store by reducing conflicts and inconsistencies in the data and allowing for efficient and secure storage and retrieval of large amounts of data.

Businesses and organizations can store and share their data securely and efficiently without relying on a single central server.

This makes it easier for them to scale up their operations and meet their growing IT needs. So, combining BLS 17 Block graph and a JSON distributed document store and compaction technologies, you get an exciting, reliable, and secure decentralized cloud computing environment.



## Compaction Technology

The compaction technology can help reduce the amount of data that needs to be transmitted between nodes, further reducing bandwidth costs, and improving overall network performance. By incorporating deterministic concurrency, the system can ensure predictable and consistent behavior even in highly distributed environments, enhancing reliability and reducing the risk of errors.

Compaction technology uses advanced algorithms to compress data to reduce the amount of data that needs to be sent across a network. This means that less bandwidth is required, and things can run faster and smoother. Additionally, the compaction process removes redundant information, minimizing the risk of errors and improving reliability.

Compaction technology also helps prevent unauthorized access or tampering with sensitive data by making it more difficult for hackers to access and understand the information. The compressed data is much more complex than the original data and, therefore, much harder to decipher or modify.

Compaction works by identifying and removing redundant data in a file, resulting in a smaller but still functional file. Compression, on the other hand, reduces file size by "squeezing" the data into a smaller space using algorithms like LZ77 or Huffman.

In the context of digital rights management (DRM), Compaction technology can be particularly useful when dealing with JSON files. JSON files can contain complex structures with deeply nested objects and arrays, which can make it difficult to compress efficiently. Compaction, however, can identify and remove redundant data within the file without affecting its structure or functionality. This can result in a significantly smaller file size without any loss of key information.

The Compaction technology can achieve compression ratios of up to 95% on JSON files. This can be particularly beneficial for DRM, where the size of the file can be critical for efficient delivery and management of digital assets. Additionally, with a smaller file size, it is also possible to reduce the amount of data that needs to be transmitted for updates or syncing, thereby reducing bandwidth costs, and improving performance. In summary, compaction technology provides a powerful solution for improving the performance and security of distributed document stores like JSON.

It enables faster, more reliable communication while protecting against cyberattacks and other security risks.



## Why bet on this team?

We were purpose built for this moment in time. We can make the argument technically and passionately.

Technically the CrowdPoint leadership team is uniquely positioned to deliver a secure and reliable data-driven technology platform. With their expertise in big data, cyber security, collective intelligence, and distributed and secure delivery of data, they are well-equipped to provide the necessary tools and resources to create a secure and reliable product.

The team's collective experience in economic transformation, global investments, passion for privacy, and financial inclusion make them the perfect team to build the best data-driven technology platform. They have the knowledge and experience to understand the complexities of data-driven technologies and the importance of privacy and financial inclusion for individuals and businesses.

Passionately, the CrowdPoint leadership team is committed to delivering the best experience for their customers. They are constantly innovating and pushing the boundaries to create new and better ways for their customers to interact with data. The team has the necessary tools and resources to create a secure and reliable platform that is designed to meet the needs of their customers. The team is has either already built these applications for customers or is the process of presenting proposals for the Vogon Decentralized Cloud (VDC):

1. Healthcare: VDC help medical professionals keep track of patient records, including medical history, lab results, and prescription information, in a secure and easily accessible way. It also facilitates communication between healthcare providers and organizations, improving patient care and outcomes.
2. E-commerce: An e-commerce platform with VDC allows customers to search for and purchase products from various online stores quickly. The system could also make personalized recommendations based on customers' browsing and purchasing history.
3. Social media: VDC offers users increased privacy, security, and control over their data. It also facilitates more accessible communication and sharing between users across different social media platforms.
4. Financial services: VDC securely stores and manages financial data, such as banking records, investment portfolios, and tax information. It facilitates faster and more secure transactions, improving the efficiency of financial services.

5. Supply chain management: VDC helps companies track the movement of goods and resources from production to delivery by incorporating a semantic data lake. This will improve efficiency, reduce waste, and increase transparency and accountability throughout the supply chain.

These are just a few examples of the many applications for the Vagon Decentralized Cloud utilizing its versatility and scalability to disrupt various industries and use cases.

In closing, this team of professionals is an ideal choice for a Web3 company due to their combined experience and expertise. They have been working together across three startups over the past 10 years, giving them a wealth of knowledge in big data, artificial intelligence, proven sales, and investment banking. This combination of skills and experience means they are well-equipped to handle the complex challenges posed by Web3 companies and can provide valuable insights and solutions to help the company reach its goals.





## 8 reasons why the Vogon Decentralized Cloud

The number 8 is a powerful symbol that represents an ancient truth for a new beginning. It has been used in many religions and cultures to signify renewal, rebirth, and resurrection. The 8 people of Noah's Ark, representing all of humanity, provide an example of a perfect starting point for a new beginning.

The number 8 is a symbol of infinity and abundance, reminding us that the possibilities are endless. It can also signify balance and harmony, as it is the only number that is both even and equal in all directions.

The number 8 is a symbol of karma, reminding us that our actions have consequences. Lastly, 8 also represents a connection to doing good for others, reminding us of our spiritual nature and our connection to the divine.

All in all, the number 8 is a powerful symbol that represents an ancient truth for a new beginning and here are eight reasons why CrowdPoint's Vogon Decentralized Cloud is a preferred choice for Web3:

1. Decentralized cloud eliminates single point of failure, allowing for greater reliability and scalability.
2. Data stored in a data lake is encrypted, providing secure storage and privacy for users.
3. Encrypted JSONs bypass current algorithms designed to control content, as the data is not readable by the algorithms.
4. JSONs are self-describing, making them easier to understand and use.
5. A Semantic Web powered by a Data Lake reduces the need for expensive infrastructure, as storage and processing can be done on the cloud.
6. JSONs are lightweight, allowing for faster transactions and improved performance.
7. JSONs are easier to query, enabling more efficient analytics and data processing.
8. Decentralized cloud is more resilient to cyber-attacks, as the data is stored in multiple distributed points.