my Vmoso network

Giving individuals control of their personal data to build trusted online relationships

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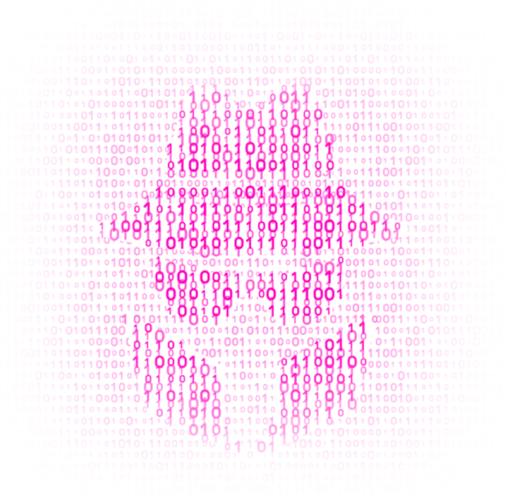
The new products described in this white paper, MyVmoso Network and MyVmoso Token, are in development and not currently operational or available to users in any form. These products will not be made available to users until development and testing are completed and the products are determined by BroadVision to be ready for commercial launch. It is expected to start a pilot by the end of 2018 and enter production in the first half of 2019.

Executive Summary:
Is This The Internet We Hoped For?

If you are old enough to remember when the internet first started to gain mass adoption in the late 1990s, ask yourself this… has the internet turned out to be everything you hoped for? 20 years ago, did you expect the internet to become powered by "surveillance capitalism"[1] and dominated by a small number of tech giants who use your personal data to make huge advertising profits? When you first heard Google's "don't be evil"[2] motto in the early 2000s, you probably loved it. But how do you feel that's working out now?

These days, few of us are comfortable with the way data about who we talk to, which websites we visit, which products we buy, even our physical location is used to target us with the ever-increasing volumes of ads. But in the last two years, this growing data privacy crisis has taken altogether more sinister turn, with this data allegedly being used illegally to influence the way we vote.



We are reaching a major inflection point in the development of the internet where governments and consumers will no longer tolerate these abuses of personal data. Data privacy is becoming a defining issue of our time. It is time for consumers to take back control of their data and how it is used.

[1] https://en.wikipedia.org/wiki/Surveillance_capitalism

[2] https://en.wikipedia.org/wiki/Don%27t_be_evil

The problem with trust

In 2010, Sheryl Sandberg, COO of Facebook was widely quoted[3] as saying:

> *In the next three to five years, a website that isn't tailored to a specific user's interest will be an anachronism*

This was hardly a ground-breaking prediction. BroadVision has been delivering personalized web applications since the late 1990s, led by CEO Pehong Chen who was inspired by the One-to-One Marketing work of Don Peppers and Martha Rogers.

As far back as 1996, analysts such as Josh Bernoff of Forrester had been predicting:

> *Much of the Web's future will come from delivering individualized experiences*

But the first decade of progress towards the personalized web was slower than any of us expected. In a blog post[4] responding to Sandberg's prediction, Richard Hughes, Director of Digital Strategy at BroadVision explained the reason for this:

> *To do effective personalization, you need two things. Firstly, you need enough information about the user to be able to select relevant content for them. Secondly, you need their trust to use this information in this way. And trust is a funny thing – it seems that just around the time when a company acquires enough information about you to create an effective, personalized experience, they start to lose your trust.*

[3] https://gigaom.com/2010/09/29/419-facebooks-sandberg-in-the-future-all-media-will-be-personalized/

[4] http://www.broadvision.com/blog-archive/is-there-an-echo-in-here/

He concluded:

> *So, it may require a completely new breed of company to build and retain the trust required for large scale personalization; one that understands where the line between acceptable and unacceptable use of personal data lies, and takes care to never cross that line. And that may take a little longer than 3-5 years.*

Eight years on, from this, and there is no doubt that personalized web predicted by Pehong Chen, Sheryl Sandberg and others has arrived. But Hughes's observation on the balance between data acquisition and trust is truer than ever. Companies such as Facebook and Google have vast volumes of data from which to build personalized experiences, but trust in these companies is at an all-time low. Google's "don't be evil" motto feels a long, long time ago. With data privacy issues reaching crisis point, the need for the "new breed of company" that Hughes wrote of in 2010 is greater than ever.

BroadVision kick-started web personalization more than 20 years ago with a vision of mutually-beneficial online relationships between companies and their customers. We have watched with growing unease at the way these relationships have become increasingly unbalanced against the customer and we have concluded that BroadVision is uniquely positioned to be that "new breed of company". In 2018, BroadVision will launch MyVmoso, a platform for both secure personal data storage and building of trusted relationships with the businesses you interact with.

In this white paper we will describe the growing data privacy crisis, BroadVision's history and credentials for addressing this, the vision for the MyVmoso platform, and how Blockchain technology enables this.

The Data Privacy Crisis

Growth of the Internet Giants

How did it come to this? The Cambridge Analytica data harvesting scandal of March 2018 has highlighted just how much data the internet giants such as Facebook and Google hold about each of us, and how that has the potential to be misused. But should it surprise anyone? When Google launched Gmail in 2004, it was widely publicized that the content of your messages would be used to target personalized ads to you. After the initial uproar, we all just accepted it, and few of us noticed when Google finally stopped the practice in June 2017[5].

Cambridge Analytica

In March 2018, The Guardian published a series of articles documenting a year-long investigation into how Cambridge Analytica used personal data harvested from millions of Facebook users to influence the outcome of the US Presidential Election and UK EU referendum in 2016.

At the time of writing, the lasting consequences of these revelations were far from clear. But it is hard to believe consumers will ever be so trusting with their personal data again.

In the intervening years, it seems we all tacitly accepted the trade-off - in return for free services like Gmail, Facebook, etc, we'd let their providers build up an increasingly detailed picture of our lifestyle. They would use this information to sell the ads that pay for the "free" internet we take for granted. A 2013 survey showed that only 15% of Facebook users would be willing to pay for an ad-free service[6].

So why have the revelations about Cambridge Analytica[7] caused such a furore? Perhaps it is because of the way the data was used to attempt to influence the way we vote, rather than what we buy. Maybe it's because it has shown Facebook's "we take privacy very seriously" reassurances to be somewhat hollow. Or maybe it's simply been a wake-up call that has brought to a head the growing unease about data

[5] http://adage.com/article/digital/google-stop-reading-emails-gmail-ads/309558/

[6] http://www.adweek.com/digital/greenlight-poll-pay-to-avoid-ads/

[7] https://www.theguardian.com/news/series/cambridge-analytica-files

privacy. Whatever the reason, there is little doubt now that something needs to be done - data privacy is a problem that can no longer but put off.

The fragmented response from national governments

The internet's lack of respect for international borders has, of course, brought many positive benefits in the way we communication and share information. But it has also made it hard for national governments to legislate against the growth of the internet giants. Of course, some countries choose to ban Facebook, Twitter and other social media sites entirely, but such a move would be so unpopular in a western democracy, it's hard to believe it could really happen.

Government response is also compromised by the potential conflict of interest - many governments seem less concerned about what data about their citizens is being stored than whether their security services can get access to it too.

The most famous example of this is the set of revelations by Edward Snowdon[8] about the activities of the US National Security Agency, including data collections programs such as PRISM[9]. The UK government has repeatedly proposed (but is yet to enact) plans[10] to ban messaging services such as iMessage and Snapchat which cannot be decrypted by security services. And in 2014, the Russian government introduced a law requiring all personal data about Russian citizens to be stored on servers in Russia[11]. Ostensibly this was to protect the privacy of citizens, but few observers accept that explanation at face value.

Perhaps the most effective campaign of holding the tech industry to account has been that of the European Union (EU). The EU has a long history of anti-trust suits against technology firms found to be abusing their position, with Intel, Microsoft and Facebook all receiving substantial fines. At the time of writing, Google was continuing its appeal against a record $2.73 billion fine[12], with the EU still considering an enforced break-up of the company[13].

[8] https://en.wikipedia.org/wiki/Global_surveillance_disclosures_(2013%E2%80%93present)

[9] https://en.wikipedia.org/wiki/PRISM_(surveillance_program)

[10] https://en.wikipedia.org/wiki/Encryption_ban_proposal_in_the_United_Kingdom

[11] http://www.computerweekly.com/feature/Russian-personal-data-law-set-to-come-into-force-despite-fears

[12] https://www.nytimes.com/2017/06/27/technology/eu-google-fine.html

[13] https://www.reuters.com/article/us-eu-google-antitrust/eu-antitrust-chief-keeps-open-threat-to-break-up-google-report-idUSKBN1H110H

The EU has also had concerns about the data protection implications of cloud computing. The 2000 "Safe Harbor" agreement aimed to protect EU citizens' data when held by US-based tech companies. But in 2015, the agreement was ruled to be invalid in light of Edward Snowdon's revelations[14].

While the EU has unquestionably been a thorn in the side of US tech companies, it can claim with some justification to have championed the consumer's interests more than any other legislative body. And this is set to continue in 2018 with the introduction of GDPR.

[14] https://www.theguardian.com/technology/2015/oct/06/safe-harbour-european-court-declare-invalid-data-protection

GDPR

The European Union's General Data Protection Regulation (GDPR) comes into force on 25th May 2018, harmonizing and strengthening data protection laws of 28 EU countries. It applies not just to organizations in the European Union, but also all organizations outside the EU that offer goods or services to individuals in the EU.

GDPR establishes a set of rights for individuals about the information organizations hold about them. While GDPR obviously cannot grant these rights to non-EU citizens, BroadVision believes that these rights should be universal, and therefore use these rights to inform the detail of the MyVmoso Network.

GDPR Rights

- **The right to be informed** about the information organizations hold about them, and how it is used
- **The right of access** to that information
- **The right to rectification** of any incorrect data held
- **The right to erasure** of the data
- **The right to restrict processing**, limiting how data an organization holds may be used
- **The right to data portability**, allowing individuals to transfer their data from one service to another
- **The right to object** to how their data is used
- **Rights in relation to automated decision making and profiling**

The penalties for non-compliance are significantly higher than under previous data protection laws. Maximum fines are €20 million or 4% of annual turnover, whichever is greatest. It is estimated[15] that the record £400,000 fine issued in the UK to TalkTalk in 2016 could have reached £59 million under GDPR.

Organizations are also required to notify individuals and the relevant regulatory authority within 72 hours of any data breach. GDPR should put an end to the "try to cover it up" approach many companies have had to data breaches in the past.

[15] https://www.theregister.co.uk/2017/04/28/ico_fines_post_gdpr_analysis/

The importance of consent

Many of the abuses of personal data don't relate to the original collection of the data, but the way that data is it subsequently used. When an individual gives consent for their data to be used, it is almost always with a specific purpose in mind. But far too often, organizations use personal data they have acquired for other purposes, or re-share it with other organizations.

Not just the web giants

It is easy to blame the tech giants for all the misuse of personal data, but the same thing is happening on a smaller scale in far more unlikely and unexpected places.

In 2016, the UK Fundraising Standards Board investigated the circumstances of Olive Cooke, a 92-year-old woman, who took her own life after becoming overwhelmed by the huge number of requests for donations she received from charities. The investigation found that 99 charities had Mrs Cooke's details, and 70 of these had acquired the details via a third party.

In related cases, the UK Information Commissioner's Office fined 13 charities in 2016-17 for misusing donors' personal data.

Cases like these show the scale of the problem. Many organizations, however well-intentioned, continue to demonstrate an endemic lack of respect for, or at least a lack of understanding of, data privacy.

In March 2018, the UK Information Commissioner's Office (ICO) ruled[16] that it would illegal for WhatsApp to share user data with its parent company, Facebook. The ICO found that if sharing were to occur, *"such sharing would involve the processing of personal data for a purpose that is incompatible with the purpose for which such data was obtained"*.

WhatsApp was forced to sign an undertaking not to share any user data with Facebook until they could do so in compliance with GDPR.

Many organizations have historically collected data without a clear record of what consent was given at the time of acquisition. In preparation for GDPR, some organizations are contacting all individuals whose data they hold, re-requesting consent to continue to hold that information. But some companies are simply choosing to delete all personal data for which they cannot find clear confirmation of consent.

Going forward, it will be increasingly important that all organizations maintain a clear consent trial, recording when permission was given to use the data, and for what purpose. This isn't limited to commercial organizations – schools, hospitals, charities and other non-profit making organizations are all subject to the same rules.

[16] https://iconewsblog.org.uk/2018/03/14/whatsapp-signs-public-commitment/

The time is right

Of course, the unethical or illegal hoarding of personal data is nothing new. Privacy advocates have been raising concerns about the behavior of the tech industry for many years. But these warnings have been met by a resounding lack of interest, particularly from younger consumers. Data privacy just didn't seem that important to them.

BroadVision believe that this is changing. When personal data was simply being used to target adverts, many users tolerated this. But with evidence growing of darker practices to influence elections and shape public opinion, and GDPR legislation looming, data privacy has suddenly become a much more topical and important issue.

BroadVision - Uniquely Positioned

With more than 20 years' experience of real-world web personalization experience, BroadVision are uniquely positioned to build a framework for mutually-beneficial trusted relationships between individuals and users of their personal data.

In addition to this experience, BroadVision has:

- 80 employees already in place with experience of building, operating, selling and marketing personalized web applications. This provides a perfect combination of a small, agile organization and an established team, avoiding the weaknesses of under-staffed startups and less manoeuvrable larger companies.
- A global presence with strong teams in the US, Europe and Asia. This avoids the mistakes that narrowly-focused US-centric tech startups often make, as we have a deeper understanding of legal and cultural differences around the world.
- More than $70m existing research and development investment in the Vmoso platform that underpins MyVmoso.

BroadVision's privacy commitment

It is often said that if you are not paying for a service, you're not the customer, you're the product. While the origins of this quote go back to the 1970s, there have never been better examples of this than Facebook and Google.

While MyVmoso is free to consumers, you will never be "the product" unless you actively choose to be. MyVmoso's business model is based on transactions in the MyVmoso Network, which is described in the next section.

BroadVision will never use your data for any purpose you have not given explicit consent to.

BroadVision

For 25 years, BroadVision has been at the forefront of bringing personalization to the web

1993

Company Founded

1996

One to One Enterprise

provides the world's first general purpose web personalization platform

1998

One to One Commerce

powers the first wave of personalized eCommerce applications

2000

One to One Portal

brings personalization to both internal- and external-facing company information portal

2010

Clearvale

applies BroadVision's expertise in personalization to Enterprise Social Networking

2016

Vmoso

brings together 20 years of experience in personalization, communication and collaboration to ensure information workers get the information they need, when they need it in a mobile-centric digital workplace hub

2018

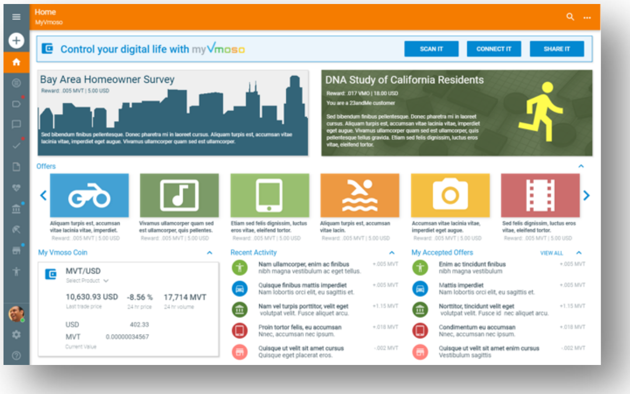
MyVmoso Network

secures personal data storage and builds trusted relationships with the businesses you interact with

Now, in 2018, MyVmoso builds on the Vmoso platform to provide a Personal Digital Hub, putting the consumer back in control of their own private data.

MyVmoso Vision

At its simplest level, MyVmoso is a like a bank for your personal data. It provides secure storage for important data you need to preserve such as health records, financial transactions, product purchases and warranties.


Home
MyVmoso
Control your digital life with myVmoso
SCAN IT
CONNECT IT
SHARE IT
Bay Area Homeowner Survey
Reward: .005 MVT | 5.00 USD
Sed bibendum finibus pellentesque. Donec pharetra mi in laoreet cursus. Aliquam turpis est, accumsan vitae lacinia vitae, imperdiet eget augue. Vivamus ullamcorper quam sed est ullamcorper.
DNA Study of California Residents
Reward: .017 VMO | 18.00 USD
You are a 23andMe customer
Sed bibendum finibus pellentesque. Donec pharetra mi in laoreet cursus. Aliquam turpis est, accumsan vitae lacinia vitae, imperdiet eget augue. Vivamus ullamcorper quam sed est ullamcorper, quis pellentesque tellus gravida. Etiam sed felis dignissim, luctus eros vitae, eleifend tortor.
Offers
Aliquam turpis est, accumsan vitae lacinia vitae, imperdiet.
Reward: .005 MVT | 5.00 USD
Vivamus ullamcorper quam sed est ullamcorper, quis pellentes.
Reward: .005 MVT | 5.00 USD
Etiam sed felis dignissim, luctus eros vitae, eleifend tortor.
Reward: .005 MVT | 5.00 USD
Aliquam turpis est, accumsan vitae lacin.
Reward: .005 MVT | 5.00 USD
Accumsan vitae lacinia vitae, imperdiet eget augue.
Reward: .005 MVT | 5.00 USD
Sed felis dignissim, luctus eros vitae, eleifend tortor.
Reward: .005 MVT | 5.00 USD
My Vmoso Coin
MVT/USD
Select Product
10,630.93 USD
Last trade price
-8.56 %
24 hr price
17,714 MVT
24 hr volume
USD 402.33
MVT 0.00000034567
Current Value
Recent Activity
Nam ullamcorper, enim ac finibus nibh magna vestibulum ac eget tellus. +.005 MVT
Quisque finibus mattis imperdiet Nam lobortis orci elit, eu sagittis et. +.005 MVT
Nam vel turpis porttitor, velit eget volutpat velit. Fusce aliquet arcu. +1.15 MVT
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My Accepted Offers
VIEW ALL
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Quisque ut velit sit amet enim cursus Vestibulum sagittis -.002 MVT

MyVmoso also provides interfaces for you to receive this data from the organizations that provide it, and for you to provide this data to other organizations. This is a crucial element of data portability.

But just having a place to store your data is not that useful in itself – MyVmoso is so much more than that. It is the platform from which you can manage your data, how it is used, and your relationships with users of your data.

MyVmoso also provides:

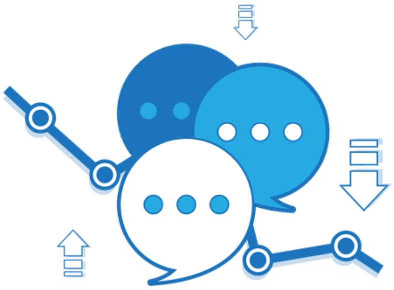
- A place for communicating with the organizations you want to deal with, on your terms. We call this **High Touch Engagement**.
- A platform for businesses to build **Blockchain-enabled applications** for customer engagement
- A way of **monetizing your data** by licensing its use to third parties
- A **consent audit trail** so you can keep track of who you have allowed to use your data, for what purpose, and for how long.
- A toolkit for exercising your **data-related digital rights**.

Looking further ahead, MyVmoso is potentially even a web browser that controls how your information is released to website you visit far more carefully and transparently than any browser available today.

Each of these are described in more detail below.

High Touch Engagement

Typically, the organizations that hold the most data about you are the ones you have the longest relationships with. Yet your correspondence with these organizations is often fragmented across multiple email trails with different people, making it impossible for either you, or the organization involved, to find a full record of everything that has taken place.

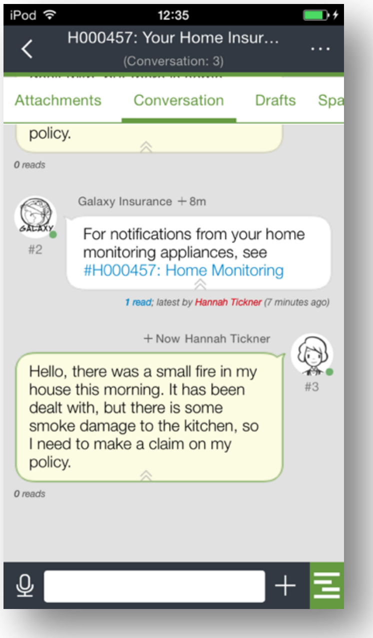


MyVmoso High-Touch Engagement gives you a focal point for all your communication with a company, and this persists over the lifetime of your relationship. All messages and documents you exchange with the company are maintained in a secure, private channel for easy future reference. It is best-suited to long-running relationships such as those with your bank, your insurer, your energy supplier, or shorter-term, more complex transactions such as buying a house or a new car.

How much was my last electricity bill? When is my car insurance due for renewal? Where are the survey documents I was sent for my new house? With MyVmoso, these questions are all easily answered by looking back through the discussion. Customer service staff from the company can also see all the information you have previously provided, so there's no more wasting time supplying the same documents again and again to different contacts at the company.

Example: Insurance Claim

A fire in your home is stressful enough; the last thing you need is more stress and wasted time caused by fragmented and chaotic communication with the various parties involved in making an insurance claim to repair the damage.



policy.

0 reads

Galaxy Insurance + 8m

#2

For notifications from your home monitoring appliances, see #H000457: Home Monitoring

1 read; latest by Hannah Tickner (7 minutes ago)

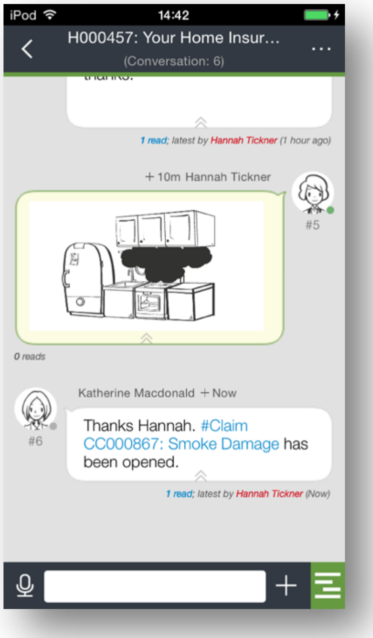
+ Now Hannah Tickner

#3

Hello, there was a small fire in my house this morning. It has been dealt with, but there is some smoke damage to the kitchen, so I need to make a claim on my policy.

0 reads

Hannah uses MyVmoso's dedicated, persistent communication channel with her insurer, Galaxy Insurance, to start a claim for the damage to her kitchen. Here she's able to discuss the details of what happened and upload photos in a secure environment.



1 read; latest by Hannah Tickner (1 hour ago)

+ 10m Hannah Tickner

#5

0 reads

Katherine Macdonald + Now

#6

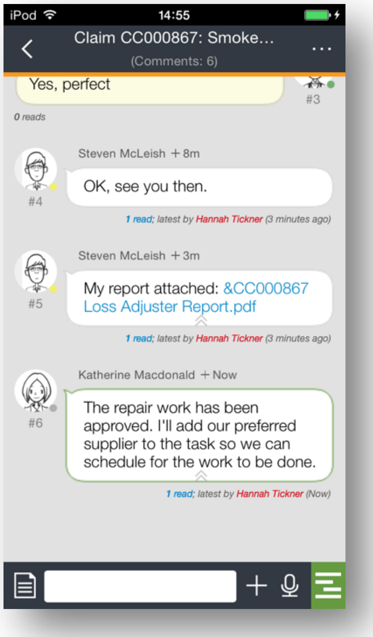
Thanks Hannah. #Claim CC000867: Smoke Damage has been opened.

1 read; latest by Hannah Tickner (Now)

Katherine is dealing with the claim, and she creates a private collaboration space for Hannah, Galaxy, the loss adjuster, and the contractors who are performing the repair work.

Everyone knows what each other are doing, so no time is wasted with miscommunication or misunderstandings.

Hannah retains control of the personal data she has provided during the claim. She also maintains a record of the documents provided by other parties in the claim, and the actions authorized by her insurer.



Yes, perfect

#3

0 reads

Steven McLeish + 8m

#4

OK, see you then.

1 read; latest by Hannah Tickner (3 minutes ago)

Steven McLeish + 3m

#5

My report attached: &CC000867 Loss Adjuster Report.pdf

1 read; latest by Hannah Tickner (3 minutes ago)

Katherine Macdonald + Now

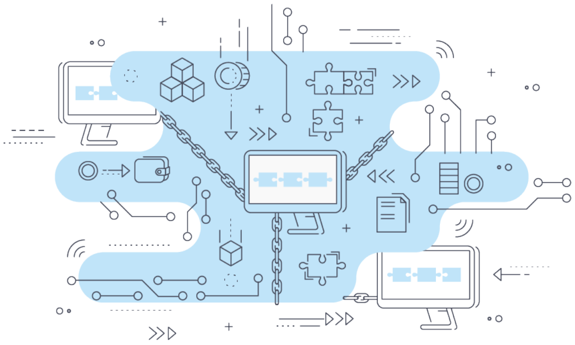
#6

The repair work has been approved. I'll add our preferred supplier to the task so we can schedule for the work to be done.

1 read; latest by Hannah Tickner (Now)

Application Platform

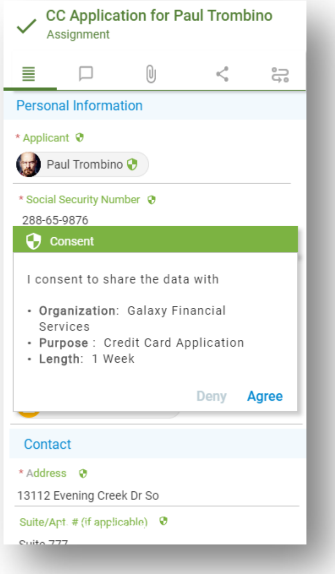
Businesses can use MyVmoso to build secure, verifiable, auditable applications for customer engagement. Using MyVmoso's Collaborative Process Management capabilities, organizations can quickly construct dynamic, blockchain-enabled workflow-based applications. These applications have secure, consent-based access to personal data, enabling the organization to build trusted online relationships with their customers.



Example: Opening a bank account

In recent years, opening a bank account has become more complicated in many countries due to the introduction of more rigorous anti-money laundering checks. Often, identity documents need to be presented in person or sent via the postal system, both of which slow the process and feel like an anachronism in today's digital age.

In MyVmoso, the necessary proof of identity can be stored securely in your profile and released to organizations needing access, only for long enough to perform the identity check.



CC Application for Paul Trombino
Assignment

Personal Information

* Applicant
Paul Trombino

* Social Security Number
288-65-9876

Consent

I consent to share the data with

- **Organization:** Galaxy Financial Services
- **Purpose** : Credit Card Application
- **Length:** 1 Week

Contact

* Address
13112 Evening Creek Dr So

Suite/Apt. # (if applicable)
Suite 777

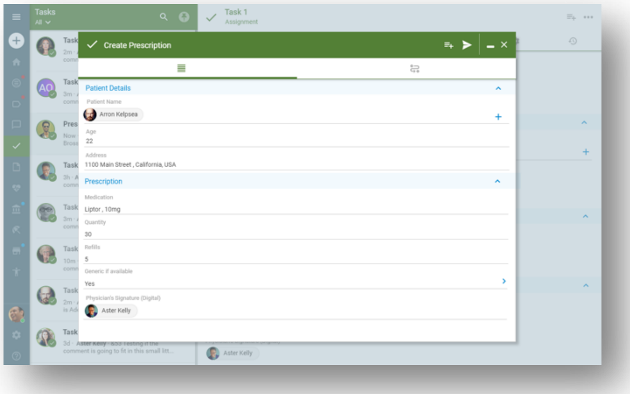
Last year, John opened a bank account. He was required to provide photographs of his driving license, his passport, and a household bill. John uploaded all these to MyVmoso and granted access to the bank for one week. The bank completed the identity check and opened the account, after which their access to John's identity documents was automatically revoked.

Now John is applying for a credit card with Galaxy Financial Services. Instead of needing to upload all the same information again, John simply authorizes the release of the identity documents to the credit card company. But his profile has also been supplemented with details of his Galaxy Bank account. The credit card provider uses Open Banking APIs to uses John's Galaxy account as an additional source of identity verification, thereby accelerating the approval of John's application.

Example: Smart Prescription

Four billion prescriptions are dispensed in the US every year, with a total value of over $400 billion. Complexities in the relationships between health providers, insurers, pharmacists and patients mean that these prescriptions often require multi-party collaboration to determine the drugs the patient is entitled to and the level of co-pay. Also, prescription fraud is a rising problem causing rising costs and driving public health issues related to the misuse of prescription drugs.

Arron has been taking medication to reduce his cholesterol for the last few months. It has proved effective, but the co-pay requirement is proving expensive. He starts a discussion in MyVmoso with his doctor to explore whether there are any cheaper alternative available.



Create Prescription

Patient Details

Patient Name: Arron Kelpsea

Age: 22

Address: 1100 Main Street , California, USA

Prescription

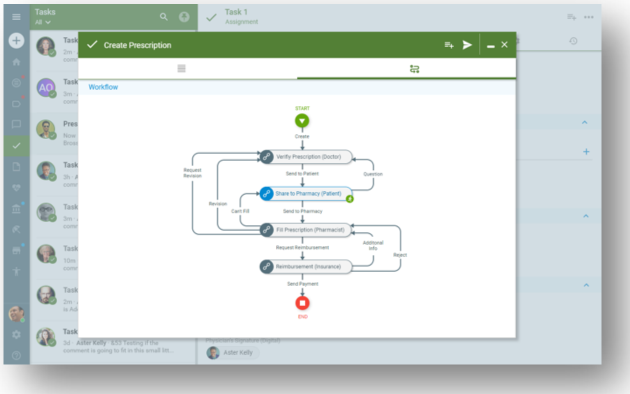
Medication: Liptor , 10mg

Quantity: 30

Refills: 5

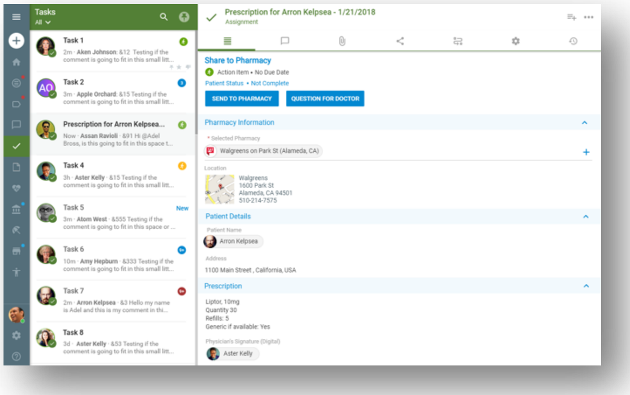
Generic if available: Yes

Physician's Signature (Digital): Aster Kelly



Dr. Kelly recommends two alternative options, but Arron needs to check whether his health plan covers these. He adds his insurer to the discussion, who confirms that one of the options is covered, with a lower co-pay requirement than Arron's current prescription.

Dr. Kelly prescribes the new medication, and this starts a structured process that includes Arron, the pharmacist and the insurer. The details of the prescribed medication are released to the pharmacist, and Blockchain technology is used to create an independent, verifiable record of the prescription.



Task 1
2m · Aken Johnson: &12 Testing if the comment is going to fit in this small litt...

Task 2
3m · Apple Orchard: &15 Testing if the comment is going to fit in this small litt...

Prescription for Arron Kelpsea...
Now · Assan Ravioli · &91 Hi @Adel Bross, is this going to fit in this space t...

Task 4
3h · Aster Kelly · &15 Testing if the comment is going to fit in this small litt...

Task 5
3m · Atom West · &555 Testing if the comment is going to fit in this space or ...

Task 6
10m · Amy Hepburn · &333 Testing if the comment is going to fit in this small litt...

Task 7
2m · Arron Kelpsea · &3 Hello my name is Adel and this is my comment in thi...

Task 8
3d · Aster Kelly · &53 Testing if the comment is going to fit in this small litt...

Prescription for Arron Kelpsea - 1/21/2018
Assignment

Share to Pharmacy

Action Item • No Due Date

Patient Status • Not Complete

SEND TO PHARMACY | QUESTION FOR DOCTOR

Pharmacy Information

* Selected Pharmacy: Walgreens on Park St (Alameda, CA)

Location:
Walgreens
1600 Park St
Alameda, CA 94501
510-214-7575

Patient Details

Patient Name: Arron Kelpsea

Address: 1100 Main Street , California, USA

Prescription

Liptor, 10mg
Quantity 30
Refills: 5
Generic if available: Yes

Physician's Signature (Digital): Aster Kelly

Consent Audit Trail

Whenever you agree to release your data from MyVmoso to another organization, the terms of your consent are recorded indicating:

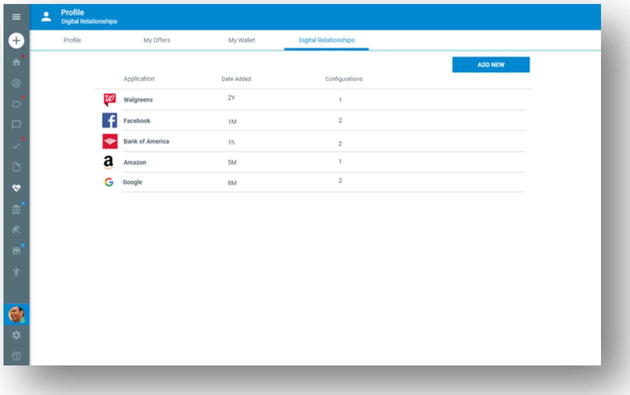
- what data is being provided
- to whom
- for what purpose
- for what length of time

MyVmoso creates a permanent, verifiable, auditable record of the consent granted to use personal data.

Toolkit to exercise your data rights

While MyVmoso will help you organize and securely manage future sharing of your data, it cannot, of course, tidy up the vast amount of personal data that has already been scattered around different internet providers.

GDPR will give EU citizens the right to know what data an organization holds about them, the right any errors to be corrected, and the right for this data to be deleted. However, it is almost certain that many companies will make this an unnecessary slow and complex process. So MyVmoso will include a set of tools to help users manage these requests. This will also be available to non-EU citizens, adjusted to align with local data protection laws.



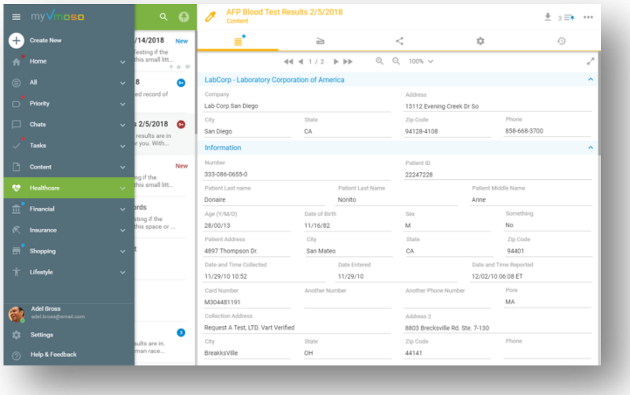
Application	Date Added	Configurations
Walgreens	2Y	1
Facebook	1M	2
Bank of America	1h	2
Amazon	5M	1
Google	8M	2

Where data can be obtained, modified or deleted through interfaces provided by the data controller, MyVmoso will seek to make this as easy as possible to use. Where no such interface exists, MyVmoso will help users create formal requests to the data controller. Conversations resulting from these requests will be record in MyVmoso - this is another example of High Touch Engagement.

Monetize Your Data in the MyVmoso Network

For many people, what is most galling about the abuses of their personal data is the way companies are getting rich on the proceeds of this abuse. MyVmoso optionally enables users to realize the value of their data by allowing it to be used by third parties, either for targeting personalized offers, or anonymous participation in wider studies.

Everyone has different levels of comfort about their data being used in this way. MyVmoso lets you choose how to manage this. Maybe you are happy for shopping history to be used to enable retailers to offer you products that might interest you and be rewarded for your attention in MyVmoso's own cryptocurrency. Perhaps you are willing for your health records to be used anonymously as part of a scientific study for the greater good. But maybe you would like to keep your data very tightly controlled, and only released when absolutely necessary. With MyVmoso, that is entirely your decision.



AFP Blood Test Results 2/5/2018
Content

LabCorp - Laboratory Corporation of America

Company Lab Corp San Diego		Address 13112 Evening Creek Dr So	
City San Diego	State CA	Zip Code 94128-4108	Phone 858-668-3700

Information

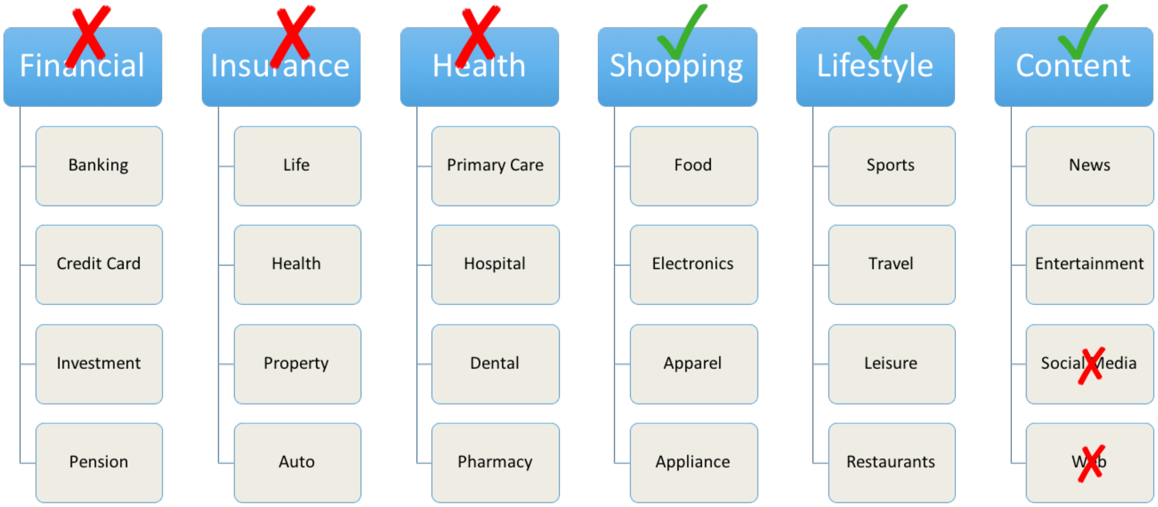
Number 333-086-0655-0		Patient ID 22247228	
Patient Last name Donaire	Patient Last Name Nonito	Patient Middle Name Anne	
Age (Y/M/D) 28/00/13	Date of Birth 11/16/82	Sex M	Something No
Patient Address 4897 Thompson Dr.	City San Mateo	State CA	Zip Code 94401
Date and Time Collected 11/29/10 10:52	Date Entered 11/29/10	Date and Time Reported 12/02/10 06:08 ET	
Card Number M304481191	Another Number	Another Phone Number	Pore MA
Collection Address Request A Test, LTD. Vart Verified		Address 2 8803 Brecksville Rd. Ste. 7-130	
City BreakksVille	State OH	Zip Code 44141	Phone

Types of Data

MyVmoso divides your data into several different categories and allows you to choose the appropriate level of privacy for each one.

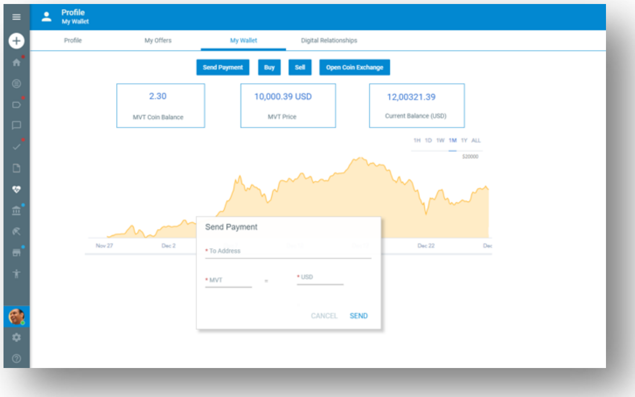
- **Financial** - banking transactions, credit cards, investments, pension
- **Insurance** – health, property, auto, life
- **Health** – primary care, hospital, dental, pharmacy
- **Shopping** – food, electronics, apparel, appliances
- **Lifestyle** – sports, travel, leisure, restaurants
- **Content** – news, entertainment, social media, web browsing

For example, you may choose to allow your shopping, lifestyle and some content data to be used to let retailers, entertainment promoters, restaurants, etc target you with ads. But you may keep your health and financial data and social media activity a closely guarded secret. Or you may allow your financial and health information to be used anonymously, increasing the potential for you to monetize your data.



MyVmoso Token

The MyVmoso Token (MVT)[17] is the currency of the MyVmoso Network. You can earn MVT by allowing your data to be used by interested third parties. These third parties pay you MVT for use of your data. BroadVision is paid by taking a small fee from each transaction. Your data is never used in a way you have not consented to.



2.30
MVT Coin Balance

10,000.39 USD
MVT Price

12,00321.39
Current Balance (USD)

* To Address

* MVT = * USD

Example 1

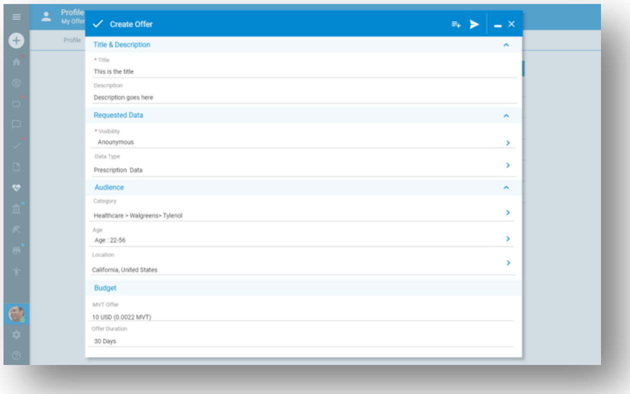
You've loaded your Amazon purchase history into MyVmoso. You earn MVT by allowing this to be made available to other retailers who target you with selected product offers.

Example 2

You're looking for a new car. You describe what you're looking for and agree to take phone calls from four dealers. For each call you take, you earn MVT.

Example 3

A pharmaceutical company has commissioned a survey of users of one of its drugs, which you have been taking for the last three years. You are offered the chance of earning MVT by participating. You can choose to take a greater MVT payment by sharing your personal details, or a smaller MVT payment by participating anonymously. Or you can decline entirely.



Title & Description

* Title
This is the title

Description
Description goes here

Requested Data

* Visibility
Anounymous

Data Type
Prescription Data

Audience

Category
Healthcare > Walgreens> Tylenol

Age
Age : 22-56

Location
California, United States

Budget

MVT Offer
10 USD (0.0022 MVT)

Offer Duration
30 Days

[17] MyVmoso Token (MVT) may be a cryptocurrency issued by MyVmoso Network or as a proxy for an existing 3rd-party cryptocurrency

The future of the browser?

Of course, one of the most common ways information about you is being leaked is via your web browsing behavior. The use of cookies for tracking activity has been a concern of the EU for some time, but the EU itself has admitted[18] that its first attempt to address the issue has not been successful. In March 2017, The Register reported[19]:

> *The failings of the existing "cookie law" were noted even by the European Commission, which said that the consent rules for cookies had "failed to reach its objectives" since "end-users face requests to accept tracking cookies without understanding their meaning and, in some cases, are even exposed to cookies being set without their consent". It also admitted that meeting the consent requirements "can be costly for businesses".*

BroadVision have no particular desire to build our own browser, so we will carefully assess whether private browsing and incognito modes of current browsers are adequate. But we will also consider whether a new type of browser is required, one which puts data privacy ahead of all other concerns, even if this results in only working with a subset of websites.

[18] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52017PC0010&from=EN

[19] https://www.theregister.co.uk/2017/03/01/planned_cookie_law_update_expert/

MyVmoso Platform

MyVmoso and Blockchain

MyVmoso is powered by a combination of the Blockchain technology, and the Vmoso platform resulting from $70m research and development investment.

Wikipedia describes Blockchain[20] as:

> *A decentralized, distributed and public digital ledger that is used to record transactions across many computers so that the record cannot be altered retroactively without the alteration of all subsequent blocks and the collusion of the network.*
>
> *This allows the participants to verify and audit transactions inexpensively.*

While Blockchain has come to prominence as the technology on which Bitcoin is based, this ability to verify and audit transactions inexpensively provides the basis for building trusted relationships between individuals and organizations with whom they have shared their personal data.

MyVmoso uses Blockchain:

- For the MVT currency
- Optionally, as a record of the consent audit trail
- For application-specific records created by MyVmoso-based customer engagement applications

[20] https://en.wikipedia.org/wiki/Blockchain#Structure

MVT currency

Like other cryptocurrencies, MVT uses Blockchain to record transaction details and maintain account balances independently of any central bank. The integrity and the chronological order of the block chain are enforced with cryptography, with each transaction being accompanied by a signature to prevent subsequent alteration.

Consent audit trail

When an organization is granted permission to use an individual's personal data, this can optionally be recorded as a Blockchain transaction, indicating:

- The nature of the data
- Where it can be found
- Who is allowed to use the data
- For what purpose the data may be used
- For how long the data may be used

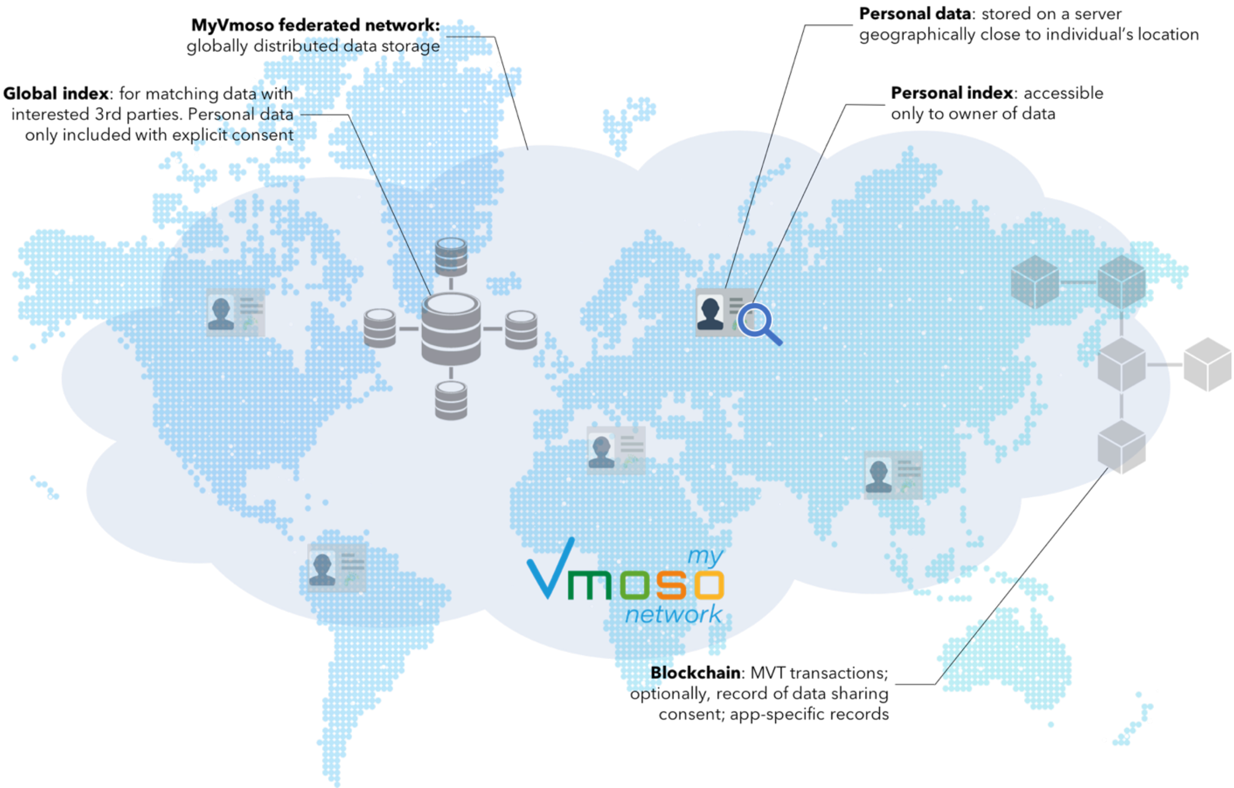
Personal data is not stored in the Blockchain (see *MyVmoso Data Architecture* below); instead, the consent record is analogous to an access control list. The Blockchain-based consent records are regularly reconciled with MyVmoso's own access control list, ensuring direct correlation between the consent that was granted, and the access control restrictions in place.

Application-specific records

Applications built on the MyVmoso Network can also use Blockchain for application-specific purposes. For example, Smart Contract applications may choose to write some, or all, of the contract details to Blockchain to represent a permanent, verifiable record of the contract. Smart Prescription applications may use Blockchain to check patient entitlement to prescriptions and maintain an auditable record of dispensed medication.

MyVmoso Data Architecture

MyVmoso never stores personal data on the Blockchain, only references to where the data can be found. As Blockchain is a permanent, immutable record, storing personal data on Blockchain would violate the "right to erasure" and "right to rectification" principles.


MyVmoso federated network: globally distributed data storage
Global index: for matching data with interested 3rd parties. Personal data only included with explicit consent
Personal data: stored on a server geographically close to individual's location
Personal index: accessible only to owner of data
my Vmoso network
Blockchain: MVT transactions; optionally, record of data sharing consent; app-specific records

MyVmoso also respects its own rules regarding consent. Your personal data, even when anonymized will only be available to interested parties in the MyVmoso Network if you have given your permission. You can even withhold your consent for your data to be indexed for your own personal searches.

As a result, MyVmoso's data architecture uses four types of storage:

1. **Personal data**: This is stored in MyVmoso's federated, distributed data storage to store profile data on a server geographically close to your location. This means that your data is held and processed subject to local laws.
2. **Personal index**: To allow you to search your own data, an index of your personal data is created, accessible only to yourself. You can, if you wish, withhold consent for some or all of your data to be included in this index. This reduces the number of copies of your data, but also makes it harder for you to find your data via search. The personal index is held alongside your personal data.

3. **Global index**: Data which you choose to make available to third parties for monetization in the MyVmoso Network is included in global index. Only data you have chosen to make available to third parties is included in the index, and this is only for matching interested parties. Any release of the data requires additional consent. The global index is maintained centrally by MyVmoso.
4. **Blockchain**: A verifiable, immutable record of (i) MVT transactions and, optionally, (ii) granting of consent for data to be shared with third parties.

Conclusion: Building Trusted Relationships

Data privacy has become the defining issue of the Internet's next stage of development. For too long, individuals have turned a blind eye to the data harvesting practices of the internet giants, adopting a "what's the worst that could happen?" attitude. The Cambridge Analytica scandal and the ensuing revelations have answered that question very clearly, and that has brought us to a tipping point.

But individuals and the organizations they interact with on the Internet need each other. It's simply not practical to lock your data in a vault and never share it with anyone – that's the modern equivalent of "cash under the mattress".

The MyVmoso Network provides a platform for businesses and individuals to build trusted, mutually-beneficial relationships. Individuals can reclaim control of their personal data, engaging with organizations without compromising the privacy of that data. Businesses can build secure, verifiable, auditable applications for customer engagement, and use their respect for consumer privacy as a competitive advantage.

The new products described in this white paper, MyVmoso Network and MyVmoso Token, are in development and not currently operational or available to users in any form. These products will not be made available to users until development and testing are completed and the products are determined by BroadVision to be ready for commercial launch. It is expected to start a pilot by the end of 2018 and enter production in the first half of 2019.