

State of Development of the Quiet Enjoyment Infrastructure and The Authenticity Alliance Plus Selections from the Roadmap

1. The Quiet Enjoyment Infrastructure

Part I of QEI

People: The Authenticity Infrastructure

Question 1 Authenticity calls for pervasive digital signatures made by reliably identified human beings. How do you protect the PENs (private keys), while making them available for digital signatures?

Answer 1 The PEN Component

Nothing we do with computers, phones, tablets, or other information appliances will be secure until there is a sound way to keep files, directories, identifiers, and other important items in a truly protected space. That in turn requires the isolation of private keys, or PENs, as specified in The PEN Component.

State of Development of the PEN Component

1. PEN Component Using Existing Keystores

Keystores that are embedded in commercial operating systems such as iOS, Android, Windows, MacOS, and Linux provide an adequate level of isolation for now.

In 2020 we contracted for the development of an Android app that provides both PEN storage in the Trusted Execution Environment (TEE), a Secure Element (SE) of an Android device as well as IDQA reporting.

However, those keystores require reliance upon Silibandia's good intentions with respect to personal control of access to personal information – which is not good, and will become more concerning as Authenticity becomes more visible. As the third CEO of Intel, Andy Grove, put it in the title of his 1996 book, "Only The Paranoid Survive."

2. "Audrey"

"Audrey" is our project name for a hardware wallet that will provide complete isolation of PENs from everything else. We have made arrangements with Dana Coe of Bitlox to repurpose his Bitcoin wallet into...

The Isolated PKIDR Wallet™

- Mobile with Bluetooth LE for low power usage and massive battery life
- Credit card form factor



- Use by itself or stick it onto the back of a phone
- 4 mm thin
- 2" full matrix advanced e-paper display

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- Supports 1 factor, 2 factor, 3 factor and 4 factor Utility Puzzle Kits
- Supports hundreds of Utility Puzzle Kits (authentication, signing, encryption, etc.)
- Supports Professional License Puzzle Kits
- Sufficiently isolated and secure to store a copy of your Foundational Puzzle Kit if desired
- Virtually indestructible shockproof & weatherproof metal case
- Can be charged with any micro-USB cable
- Extra flat form factor cables with reversible heads included
- Multiple languages supported
- Display and sign free-form messages with your address key - proving your identity
- Multiple layers of PIN protection for the device, utility puzzle kits, bitcoin wallets, and even for individual bitcoin transactions
- Device verification- set a custom phrase to be displayed after entering your personal passcode
- NIST certified True Random Number Generator for puzzle kit generation on the wallet
- Osmio Wallet also serves as a host for Bitcoin wallets (in fact that's the original purpose of the device)
- Hidden bitcoin wallets - hidden wallet data is indistinguishable from random bytes - only the user can know they are there
- Emergency PIN irrevocably wipes all user data
- Fine leather protection case included
- Stylish and advanced design
- Fully BIP32 & BIP39 compliant
- Lightweight yet robust at only 25 g

I (Wes) have had one of these attached to my phone via one of those credit card holders that sticks on the back of a phone. It's a bit thick, but overall not bad. Soon, this increasingly cashless age will allow us to seriously consider getting rid of the old leather wallet.

Battery charging is not as critical as it may seem, as the PKIDR Isolated Wallet consumes very little power. A USB cable can connect the PKIDR Isolated Wallet to the phone for charging, but in the future we will need to devise a way to charge the Wallet at the same time as the phone, perhaps with a Y cable.

Audrey does require internal power from a rechargeable battery. Also, the Bitlox platform is on the expensive side. Others may be suitable.

The Multiple Device Challenge

Almost everyone needs to authenticate using multiple devices. This presents an additional challenge to the PEN Component, as its PENs are generated on the device and are never transmitted anywhere, by any means. Thus when the user wants to authenticate with his or her phone one day and their tablet or laptop the next, the system must allow the PENs from the two devices to be seen as equivalent.

The following present three approaches to meeting the multiple device challenge with a workable solution.

3. Osmio Credential Using Passkey Multiple Device Authentication

Passkeys are passwords that are used in conjunction with a biometric, where the biometric "endorses" the passkey at each authentication. The Osmio PEN can be used to gate access to open-source passkey systems, such as the FIDO Alliance's Universal 2nd Factor (U2F) protocol. Other open-source passkey systems include WebAuthn, which is also developed by the FIDO Alliance, and OpenPGP, which is a free

1 The fourth factor is really the server authenticating to the user rather than vice versa, by means of an encrypted string or graphic that is unique to that utility certificate. See Passmark.

and open encryption standard that can be used for passkeys. We have not worked with these approaches. When using these systems for multi-device authentication, the common denominator is the biometric-endorsed passkey, which is not particularly secure.

4. Externally Powered Convenient Keystore

The EMV card chip has proven to be viable in millions of wireless transactions every day in retail commerce. Better yet, the EMV chip is powered entirely by RF energy at time of use; it requires no internal battery power.

We have removed an EMV chip from a card and glued it to a ring, and it appears to work. Since rings are typically worn 24/7, placing the PEN in an EMV-type chip mounted on a ring might solve the problem of requiring multiple device access.

5. The Equivalence Certificate

QEI calls for a “certificate stack,” where all credentials other than the simple certificate (Osmio ID Pair) are based upon a combination of a Foundational Puzzle Kit (certificate + PEN) which is linked to any number of Utility Puzzle Kits (certificates + PENs).

There are also plans to support two additional puzzle kits that are topologically similar to the Foundational Puzzle Kit: the Safety Puzzle Kit and the Equivalence Puzzle Kit. The purpose of the Safety Puzzle Kit is to provide a means of generating a new Foundational Puzzle Kit that supports all Utility Puzzle Kits in case the Foundational Puzzle Kit is lost, stolen or corrupted. The purpose of the Equivalence Puzzle Kit is to enable a Utility PEN on any device to have the same access as its equivalent PEN on any of the user’s other devices.

Question 2 Reliable digital identity certificates, professional licenses and occupancy permits call for a reliable source of issuing public authority that is independent of any geographic jurisdiction. Where do we find such a source of duly constituted global public authority?

Answer 2 The Public Authority Component.

State of Development of the Public Authority Component

1. The City of Osmio

On March 7, 2005, the City of Osmio was chartered at the Geneva headquarters of the oldest international governance body in the world, the International Telecommunication Union. Osmio’s Vital Records Department is a certification authority that limits its practice to creating, maintaining, and protecting identity certificates.

The Certification Practice Statements for the use of the root puzzle kit (“key pair”) and its for intermediate puzzle kits were written beginning in May, 2005, revised over the following two years, and published in 2010.

On September 12, 2017, seven representatives of The Authenticity Institute gathered in Geneva to conduct a formal ceremony to create Osmio's root certificate and key pair.

A key ceremony has the goal of not only creating sensitive key material but to reach an overwhelming consensus that it was generated in a cryptographically secure manner and in such a way that no one could have made unauthorized copies.

As the foundational ancestor of all derivative keys and certificates, Osmio’s Root Private Key was created using a meticulous and extensively documented procedure, including safeguards such as manufacturer confirmation of software integrity, offline execution of the process, two-person confirmation of each command, and destruction of all equipment.

Also created were four intermediate certificates signed by the **root private key**, to be used in the operation of Osmio's Certification Authorities. The root private key itself is stored nowhere, existing only as shares distributed among the signatories. Any three shares can be used to reconstitute the root key if that ever becomes necessary.

The ceremony script, a continuous video and screen capture of the ceremony, and the signatories' affidavits signed immediately afterward are on file in the City of Osmio's Vital Records Department, as a permanent and public record of the process that created the cryptographic foundation of its **duly constituted public authority**.

A video record of the key generation ceremony may be seen at <https://osmio.ch>.

Osmio's Professional Licensing Department will issue licenses that will allow architects, contractors, and building inspectors to sign plans for facilities and occupancy permits. Osmio's authority is strictly limited to those who choose to accept it, and its governance is as participatory as that of a small New England town.

Osmio's various commissions and departments await participation from individuals who are willing to devote time and effort in building the Authenticity Alliance.

Question 3 How do you establish identity in the first place?

Answer 3 The Enrollment Component

Enrollment can be costly or not, depending upon the level of rigor needed by relying parties. The Enrollment Component ensures that evidence supporting a claim of identity is gathered properly for the requisite level of rigor and presented along with the public key in a certificate signing request to the Osmio Vital Records Department.

State of Development of the Enrollment Component

The simple certificate (Osmio ID Pair) enrollment procedure verifies the user's email address via a verification-response email and the user's mobile phone number via an SMS text message. The combination results in a puzzle kit (certificate and PEN) with an Identity Quality (identity reliability) score of 8 on a scale of 0-72.

The Osmio ID Pair enrollment procedure is working properly, including the recording of ID quality scores.

The Osmio ID Pair puzzle kit serves as the starting point for the creation of License Plate IDs and other certificates and their accompanying PENs that constituted the "certificate stack," with Foundational, Utility, Safety, and Equivalence puzzle kits. The Certificate Stack is in development.

Question 4 When someone identifies herself to you, how do you know how reliable is that claim of identity?

Answer 4 The Identity Reliability Component

The foundational identity certificate is accompanied by other certificates and by an identity quality record. Very little might be revealed to a relying party about the person identified other than their identity quality information and the fact that the identity certificate has not been revoked. Despite that anonymity, the Identity Reliability Component establishes accountability.

State of Development of the Identity Reliability Component

IDQA Recording and Reporting, as described at <https://idqa.org> and in Quiet Enjoyment, Second Edition, is working. Scores are reported in component form, with summation or weighted analysis to be performed by the client. Badge generation has been developed but not thoroughly tested.

If possible, Identity badges are to make use of the Open Badge standard as published by the EdTech Consortium <https://openbadges.org/>. The Open Badge standard has not been thoroughly evaluated for things such as compatibility with Accountable Anonymity standards.

Question 5 Personal control of information about oneself has been a long-sought goal of privacy activists. How can a universal identity credential restore privacy rather than erode it even further?

Answer 5 The Personal Information Ownership Component

The foundation of real privacy is your own control over information that identifies you. Without such strong controls, individuals will rightfully resist the idea of a strong identity infrastructure. While the companies that accumulate information about you regard that information as their own corporate asset, the PIOC provides technological and legal tools by which you can reclaim that asset as your own personal property. The PIOC accomplishes accountable anonymity, letting you *assert* your identity without *revealing* your identity.

State of Development of the Personal Information Ownership Component

The W3C Solid software has been installed on the Authenticity Institute's server at Digital Ocean and is being installed on the Geneva Privacy server. The specifications for MOI (MyOwnInformation) are available in the *CombinedResidenceAndMOI_Spec 2023.odt* document and others. MOI is presented at <https://zkgroup.com>. This is a conversion from its previous instance at <https://mickyfoundation.org>.

Question 6 We value anonymity, but at the same time we want others to be accountable. What happens when someone whose privacy is protected anonymously harms me, my community, or my country?

Answer 6 The Accountability Component

As QEI must protect your privacy, it must also protect your right to recourse if you are harmed by someone whose privacy is similarly protected. Law enforcement must also be able to seek a court order to intercept communications when a legitimate court deems it necessary to protect public safety. The Accountability Component ensures that due process prevails even in jurisdictions that are not known for adhering to due process.

State of Development of the Accountability Component

Accountable Anonymity is built into Authenticity.

The Internet of People protocol was created after the publication of Quiet Enjoyment, Second Edition and so its specifications are not in that document.

The Osmio Certification Authority database supports the Internet of People protocol in that its identity certificate records do not contain identity information on enrollees but rather only on the Attestation Officers who are responsible for their records.

Part II of QEI

Places: The InDoors Infrastructure

Question 7 By what standards are we assured that an information facility is habitable, that is, secure and manageable?

Answer 7 *The Building Codes Component*

Your information is never secure in a private, cryptographic tunnel if it is exposed at the ends of the tunnel. Indeed, a tunnel can be less secure than the outdoor space around it, because it gives its occupants a false sense of security. Building codes are sets of standards and procedures that ensure the integrity of the virtual buildings that enclose, for example, the ends of tunnels.

State of Development of the Building Codes Component

The Building Codes Component is documented in Quiet Enjoyment, Second Edition and in other documents. Certificate authentication has been implemented at the top level in the social placeware component built on the Open Social platform. However, the ACL structure and occupancy permits system is not developed.

Question 8 How do we bring the benefits of InDoor spaces to our computers, tablets, and phones?

Answer 8 *The Tectonics Component*

Established operating systems are invitations to plantation owners to help themselves to the contents of your information home.

With the new continents, we will exchange the vulnerable and cranky old operating system foundation in computers and phones for a more reliable, secure, and manageable set of foundations for **places** rather than “apps.” **Authentiverse, Montaigne, Dorren, and Glenda** are *continents*.

State of Development of the Tectonics Component

Authentiverse is under development.

Question 9 How do we know that a facility is habitable, that is, that it conforms to building codes; and how do we trust that servers and other parts of the infrastructure are managed with integrity?

Answer 9 *The Professional Licensing Component*

As with physical real estate, our bounded online spaces need qualified architects, contractors, property management people and building inspectors to ensure that they serve our purposes. The Professional Licensing Component provides a system of certification of their professional credentials and of the results of their work. The Professional Licensing Component does the same for the attestation profession and for other professions as well.

State of Development of the Professional Licensing Component

Twenty-Four professional licenses have been identified and defined. The specifications for the Professional License Utility Certificate have been written.

Question 10 How do we bring privacy and authenticity to social media?

Answer 10 The Community Component

Where are these online buildings built? Who owns them? Who pays for them? How do they connect to each other in a rational way? How does online real estate become economically sustainable, that is, profitable? We find our answer in the surprising intersection between skills and methods in the media industry and those of the urban planning profession.

State of Development of the Community Component

We have created the certificate authentication module for the Drupal CMS and for the Open Social social network add-on which is the first implementation of social placeware for the system.

Question 11 Can the outdoor public transport system also benefit from QEI?

Answer 11 The Public Roadways Component

The roadway system, the Internet, is far ahead of the real estate – the secure online places where people can safely gather. Its protocols, like those for the next generation of concrete Interstate highways, are well established. But the facilities that control the Internet are entirely too vulnerable to criminals and vandals. Access controls based on measurably reliable identities must be put in place.

State of Development of the Public Roadways Component

The development of the Public Roadways component will be dependent on a working Professional Licensing system, as it is predicated on the existence of professional licenses for individuals who operate protocols such as BGP and DNS. The IETF and others involved in the operation of the outdoor public highway system – the internet – will have to be sold on this.

Part III of QEI

Things: The Ontology Infrastructure

Question 12 Strict definitions of terms reduces confusion in the world of building codes and permits. Can terminology standards reduce rampant “FUD factor” confusion in information technology?

Answer 12 The Ontology Component

What information technology provides to the online world is no more mysterious than what architects, contractors, and property managers provide to the physical world. The Ontology Component requires the use of standardized terminology in the permitting of new facilities. By using the well-understood language of real estate, management can finally direct information technology, rather than the other way around.

State of Development of the Ontology Component

The 2021 version of the International Building Code is being used as the basis for the vocabulary defined by the Ontology Component.



QEI Roadmap

Authentiverse is a digital continent where all visitors and residents (formerly known as “users”) are made “anonymously accountable” by the fact that all carry a PKIDR identity credential issued by the City of Osmio Vital Records Department.

Authentiverse includes three types of space:

- Outdoor spaces (“the Web”)
- InDoor spaces (buildings and their interior demised spaces)
- Public Accommodations (spaces in buildings that do not have ACLs)

Inasmuch as possible, facilities in Authentiverse are built using ActivityPub-PKIDR, which is a construction material that adds PKIDR with its digital signatures everywhere to the ActivityPub protocol.

Our goal is for Authentiverse to be the digital continent that constitutes the Authenticity-enabled version of The Fediverse.

In other words, Authentiverse is a parallel universe of Fediverse that supports InDoor spaces. That Osmio IDs are required for all Authentiverse visitors and residents (that used to be called “users”...)



The Fediverse has been described by Bob Murphy as follows:

People want to communicate over the internet as easily as they do in real life, with similar protections but, potentially, farther reach. In other words, people want to be able to chat with a group of other people who aren't physically in the same location and still maintain some control over who claims ownership of the conversation. In today's world, of course, a lot of companies have a lot to say about who owns the data you send back and forth over the world wide web. Most companies seem to feel they have the right to govern the

way you communicate, how many people your message reaches, and so on. Open source, luckily, doesn't need to own your social life, and so appropriately it's open source developers who are delivering a social network that belongs, first and foremost, to you.

The "Fediverse" (a portmanteau of "federated" and "universe") is a collection of protocols, servers, and users. Together, these form networks that can communicate with one another. Users can exchange short messages, blog-style posts, music, and videos over these networks. Content you post is federated, meaning that once one network is aware of your content, it can pass that content to another network, which passes it to another, and so on.

Most platforms are run by a single company or organization, a single silo where your data is trapped. The only way to share with others is to have them join that service.

Federation allows users of different services to inter-operate with one another without creating an account for each shared resource.

Admins for each service instance can block other instances in case of egregious issues. Users can likewise block users or entire instances to improve their own experience.

From https://joinfediverse.wiki/What_is_the_Fediverse%3F

Terminology

- Your **account** or **identity** has a unique address called a **handle** and is hosted on one of the many servers, also called instances.
- An **instance** is basically a small social network hosted on one server. Each instance can have its own set of rules as for what content is allowed. You can also host your own instance. Each instance runs one software.
- The **software** used on an instance is essential for the user experience and possibilities.
- Many software projects use the same **protocol** which enables instances to communicate with each other. Most software projects use Activity Pub. Some projects might not have full federation with other projects yet.
- The **Fediverse** (federated universe) is the sum of all **accounts**, on all **instances** using any **software**, communicating with any **protocol**.
The Fediverse includes more than just social media projects. Any software that federates using one of the protocols is part of the Fediverse.
- @PaulaToThePeople@ClimateJustice.social is an example of a handle. ClimateJustice.social is the instance the account is on. The software it uses is Mastodon. Thanks to the ActivityPub protocol it can follow accounts on other instances that use e.g. Mastodon, GNU Social or Pixelfed software.

ActivityPub-PKIDR

A new protocol called ActivityPub-PKIDR will be created to facilitate this combination.

We will also endeavor to incorporate the methods, standards, and technology of one of the versions of Android that has been rebuilt from Android to meet the spirit and letter of open source. These include BharOS,

More detail on Fediverse can be found in the file PlatformRoadmap230404.odt

Osmium OS (OsmiOS?)



There exists a number of AOSP mobile operating systems that could be the foundation of Osmium OS. However, BharOS

- will be well funded
- will attract the attention of app developers, because 1.4 billion people
- is being built by an entity which, like us, has a chip on its shoulder about Silibandia

BharOS is an Indian government-funded project to develop a new mobile OS.

Wikipedia says:

BharOS is a mobile operating system designed by IIT Madras.[1] It is an Indian government-funded project to develop a free and open-source operating system (OS) for use in government and public systems.[2] *The Indian Express* said it appears to be a forked version of Android.[3] Since "BharOS can run most apps" it is presumably based on the Android Open Source Project.[4]

The BharOS project aims to reduce the dependence on foreign operating systems in smartphones and promote the use of locally developed technology.[7] It was developed by JandK Operations Private Limited (JandKops), which was incubated at IIT Madras.[8] Minister for telecommunications and information technology Ashwini Vaishnaw and education minister Dharmendra Pradhan launched the operating system in a public event.[9][3][10]

BharOS targets security-conscious groups.[11] BharOS does not come with any preinstalled services or apps.[12] This approach gives the user more freedom and control over the permissions that are available to apps on their device. Users can choose to grant permissions only to apps that they require to access certain features or data on their device.[13] The software can be installed on commercially available handsets, providing users with a secure environment, the company stated in a statement.[14] The new operating system will provide access to trusted apps via organization-specific Private App Store Services (PASS), which is a list of curated apps that meet security and privacy standards. Security updates and bug fixes will be automatically installed rather than users having to manually check for updates and install them.[13]

(There's also something called Desi OS that looks like it may just be the name used early in Bharos's development.)

http://timesofindia.indiatimes.com/articleshow/97286124.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

BharOS is an AOSP (Android Open Source Project) based operating system with no Google apps or services. It is developed by JandK Operations Private Limited (JandKops), which is a non-profit organization incubated at IIT Madras.

Technically, BharOS is not that different from Android's Google OS. In fact, it is based on the AOSP (Android Open Source Project). The major difference between BharOS and Google's Android OS is the fact

that BharOS does not ship with Google services, and it will be a barebone operating system, which allows users to install apps of their own interest.

While BharOS is known as an indigenous operating system, it is still based on AOSP, hence, it is not that different from Google's stock Android in terms of features and UI. Not just that, BharOS also doesn't come with any pre-built applications. Having no pre-installed applications will allow users to sideload an app of their choice. However, sideloading an APK could compromise the device's security, and could make the device more vulnerable to hacking.

As of now, it is unclear how one can replace a pre-installed OS with BharOS. Does it require bootloader unlocking, which could further compromise the device's security? On top of that, how long will the operating system receive software and security updates? These are the questions that the developer of the BharOS should answer.

It is also interesting to see that the current build of BharOS has third-party apps like DuckDuckGo and Signal as default browsers and messaging apps. It is also interesting to see if the team that has developed BharOS will partner with OEM to launch phones with BharOS.

How to install BharOS on your phone?

As of now, there is no information on when the BharOS will be available for download. Unlike Windows OS, a single build of BharOS cannot be installed on all Android phones, and the team behind BharOS should optimise the OS for each smartphone model for it to run smoothly. Hence, the BharOS could only be available for select phones at the time of launch.

While the team behind BharOS does speak about the requirement of an app-store-like service for BharOS, it is interesting to see if they will partner with an already existing service or will built-in from scratch. When it's made available, one might have to unlock the bootloader and install a custom recovery image to flash BharOS on an Android smartphone.

When will BharOS be released?

Currently, there are no exact details on when BharOS will be released. It is said that a wider rollout might take some time.

Will your next smartphone run BharOS?

Right now, there is no confirmation on the phones that will support BharOS. However, the company is expected to partner with some major Android OEMs to launch phones with BharOS in the coming days. While BharOS is said to be compatible with Google Pixel smartphones, developers have not confirmed the exact models that will support BharOS.

Is BharOS any better than Android?

BharOS developers claim that BharOS is better than both Android and iOS in terms of features and security. On top of that, they also claim that BharOS could even improve the battery life of the device. It will also allow users to install apps of their interest and will ship with an India-based app store.

Can BharOS run Android apps?

Yes, BharOS is an Android operating system and it will have a private app store and users can also sideload third-party apps. While it can run most apps, a few apps that require Google Play Services will not run on a phone with BharOS.

Can BharOS replace Android?

No, it can't replace Android OS yet, While it could come as an alternative to Android and iOS, it still has a long way to go and requires support from OEMs and users for its adoption

And what would OsmiOS be without built-in payments?

UPI

India's Unified Payment Interface (#UPI) is a real-time payment system launched in 2016 and has since revolutionized #digitalPayments in the country. The UPI platform is powered by the National Payments Corporation of India (#NPCI) under the Reserve Bank of India (#RBI). It allows users to easily make payments directly from their bank accounts using an app without needing a credit or debit card.



In comparison to the payment systems in the US and Europe, UPI has many advantages:

1 Firstly, UPI is nearly free for consumers in India, and the government incentivizes merchants to accept UPI payments.

This makes it a #CostEffective option for customers.

The Indian economy has traditionally been heavily dominated by cash.

However, the adoption of UPI has seen a significant surge in digital payments across the country.

UPI achieved a record single-month transaction figure of \$48.6 B in May 2022.

UPI also benefits the economy, with a recent study estimating that instant payments generated an additional cost savings of \$12.6 B in 2021.

This cost #savings helped unlock \$16.4 B of India's economic output or 0.56% of India's GDP.

2 Secondly, UPI allows customers to select from a range of addressing options, such as phone numbers, account numbers, and domain-based aliases, to receive payments.

This makes it a very flexible and convenient way to make payments.

Merchants also accept UPI in Singapore, Malaysia, Thailand, Philippines, Vietnam, Cambodia, and Bhutan (and shortly in France and the UK...) through #QRcode payment systems.

3 Thirdly, UPI is accessible to non-bank account issuers, allowing third-party payment initiation.

This makes it a great way to connect fintech to the payment system.

UPI is based on the JAM (#JanDhan - #Aadhaar - #Mobile) trinity.

It is a secure, convenient, revolutionary way to pay and transfer money.



Overall, UPI is a great payment system for India, and its success has encouraged other countries to explore similar models. UPI has made it easier and more convenient for customers to make payments and has also helped to drive digital payments among #LowIncome customers.

State of Development of the Authenticity Alliance

1. Incorporated Authenticity Enterprises

MailSlot, Inc.

MailSlot's product, MailSlot, provides organizations of all sizes with protection from phishing attacks by enabling enrolled employees of the client organization and counterparty employees of its suppliers, distributors, etc. with digitally signing email client software. MailSlot has been developed an "Addin" module for Microsoft Outlook 365 and native Thunderbird mail application.

CEO: John King

Mail Slot, Inc. has raised \$100,000 of equity capital from an outside investor.

The Council of Attestation Officers, Inc.

The Council of Attestation Officers, Inc. provides identity attestation services for all enterprises.

CEO: Juanita Lyons

The council of Attestation Officers, Inc. has raised initial equity capital from its CEO. The VIVOS identity workstation is available for upgrades (and downgrades) of IDQA scores.

Abyx Properties, Inc.

Abyx Properties, Inc. builds and manages online "placeware" facilities where participants, including visitors, are identified with credentials that carry a measure of their own reliability.

Reliable Identities, Inc.

Reliable Identities provides a variety of services directly to customers and other enterprises including these key services.

- **Digital Identity Certificates** that carry a measure of their own reliability – the product of our rigorous enrollment procedures
- **CredentialBridge™** linking the existing identity credentials used by your organization to PKI key pair based identities
- **Accountable Micro-Segmentation** assuring you that all network assets and workloads are properly isolated, and reachable only by users who are not only authorized but who possess the PENs (private keys) accompanying those identity certificates, each of which carries an Identity Quality score.
- **CertAuth™** – Implementing certificate authentication throughout your network
- **DSE™** – Digital Signatures Everywhere – assuring you that all events are digitally signed by the person responsible
- **Logchain™** – A network log that resembles a blockchain, with all network events immutably recorded and signed.

Behind the epidemic of cyberattacks, malware, online predation, data breaches, ransomware, identity theft, IoT-borne DDOS attacks, and other digital plagues is **inauthenticity**.

You can't fight inauthenticity by trying to determine the intentions and character of the sender of a stream of bits. Rather, you eliminate inauthenticity with Authenticity™.

The Authenticity Institute, Inc.

The Authenticity Institute is a business incubator - an authenticity business incubator. Those businesses and organizations constitute the Authenticity Alliance - enterprises built upon a fundamentally new set of assumptions that are the foundation of their mission: to solve security and privacy challenges – the effects of inauthenticity – in their target markets through the use of the Authenticity Infrastructure.

The institute’s Authenticity Infrastructure platform and support services provide what Authenticity Enterprises need to solve security and privacy challenges in their target markets.

Global Villages, Inc.

Global villages Is aiming to change the way people think about social media and social gathering places on the internet.

The traditional social media companies play a numbers game to drive revenue. Their main goal is to increase page views and return visitors. The idea is that the more time people spend on the network, the more they will learn about their preferences, relationships and browsing history. This valuable information is then sold to companies looking for this data.

Global villages moves the control of online communities from the social media companies to the association leaders, magazine publishers and bloggers and influencers. Such people are more interested in engaging with qualified members of a highly targeted audience. They may incidentally spare a little time building a Facebook page or LinkedIn page, but courting and building and deploying that controlled circulation audience is where they spend most of their marketing dollars.

The City of Osmio, Inc.

The City of Osmio is a “certification authority.” Just like a public agency that signs things like birth certificates, passports and drivers’ licenses, the job of a CA is to provide legitimate authority to back up a claim. Osmio’s Vital Records Department (VRD) issues and records the PKI Certificates issued to individuals. In addition Osmio also brings back individual accountability for claims and representations made in online spaces via its professional licensing program.

2. Authenticity Enterprises to be Incorporated:

Authentiverse, Inc.

The Authentiverse is built on Authenticity, also known as PKI Done Right

In a nutshell, Authenticity™ is Pervasive Accountability with Privacy.

Let’s face it, everyone wants privacy for themselves

and Everyone wants accountability from others they encounter online.

3. Unincorporated Intraprises:

Authentrus

Authentrus, a Member Enterprise of **The Authenticity Alliance**, serves members of boards of directors, by advising them of PKI-based alternatives to traditional security technologies.

Available Business Plans for Prospective Enterprises and Intraprisers of The Authenticity Alliance

| <u>Name of Enterprise or Intraprise</u> | <u>TAE1 Tab</u> | <u>Mission</u> | <u>Category</u> | <u>URL</u> |
|--|-----------------|---|-----------------|---|
| Abyx Properties | Abyx | Commercial Online Real Estate | Factory | https://abyx.com |
| Applied Authenticity | | Client Software (Door + Browser) | Factory | Appliedauthenticity.com |
| Authenticity Capital | real | Help find funding for AEs | Factory | https://authcap.com |
| Authenticity Store | | Online store for Authenticity books & tools | Factory | https://authenticity.store |
| Authenticity University | | Authenticity Courses and Certifications | Factory | https://authenticity.ac |
| Verdicello Homes | | Residential Online Real Estate | Factory | https://verdicello.com |
| Council of Attestation Officers | CAO | Attestation Services including DBC | Factory | https://attestation.pro |
| Hiberdata | HD | Easy definition of PII pieces | Factory | |
| Osmio Professional Licensing and Permitting Department | O-LIC | Professional Licenses | Factory | |
| Osmio Vital Records Department | O-VRD | Identity Certification | Factory | |
| Osmium Group | OG | Wallets (Hardware PKI tokens) | Factory | https://www.osmiumgroup.com/ |
| PKI Press | PKIP | Books about Authenticity | Factory | https://pkipress.com |
| PostOak Associates | | Marketing Services for AEs | Factory | Look up |
| Reliable Identities, Inc. | RI | ID Consulting and Enrollment Services | Factory | https://reliableidentities.com |
| Roberta's Rules | | Governance tools | Factory | https://robertasrules.org |
| VIVOS, Inc. (enrollment workstations) | VIVOS | Enrollment Workstations | Factory | none |
| ZK Group | ZK | Privacy Services via MyOwnInformation | Factory | https://zkgroup.org |
| ZoVolt | | Blockchain tools | Factory | |
| AuthentiContent | | MOI is the new iTunes | Community | |
| Authenticity Village (for Authenticity Alliance members) | | TAA's own community | Community | https://authenticityvillage.com |
| Gekko Village | | Safe community for pre-COPPA kids | Community | |
| Global Villages, Inc. | GV | Community Construction & Management | Community | https://global-villages.com |
| Identity Processing Association | | PR for enterprise audiences | Community | https://idprocessing.com NEEDS CERT |
| Internet Child Protection, Inc. (Gekko Village) | Gekko | Safe Communities for pre-COPPA kids | Community | https://internetchildprotection.com |
| Knights Veritas | KV | Recruit young Authenticity ambassadors | Community | https://knightsveritas.com |
| NexusVR | Nex | Authenticity Tools for Education | Community | ? |
| TAA Individual Membership Section | | A Community for Authenticity Ambassadors | Community | https://www.authenticityalliance.org/ |
| Village of East Osmio (SquareByte) | VoEO | Default community for enrollees | Community | http://www.instigations.com/osmio/VoEO/pkh3.html |
| World Trust Signatories Assn | | see authenticityalliance.org | Community | https://www.trustsig.org/ |
| StartCom | | Commercial certification authority | Sold | |
| Auth I-Broker | | I-Name IDP | Solutions | No domain; obsolete |
| AuthEHR | EHR | Authenticity for healthcare organizations | Solutions | https://authehr.com |
| Authentainment | | Intellectual property protection for Hollywood | Solutions | No domain |
| Authentic-Pay | | Facilitation of small payments | Solutions | Authentic-pay.com |
| AuthentiBank | Bank | Authenticity consulting for retail bankers | Solutions | Authenticbank.com |
| Authentic APIs | | Accountability for API s | Solutions | Authenticityapi.com |
| Authentic Assistants | | Credentialed Personal Assistants | Solutions | No domain |
| Authentic Auctions | | Authenticity for online auctions | Solutions | No domain |
| Authentic Blockchain | | Blockchain with AccountableAnonymity | Solutions | http://accountable-blockchain.com/ STRANGE |
| Authentic Building Access | | Wallets for physical building access | Solutions | REDIRECT; NO CERT |
| Authentic Containers | | Professionally licensed container signers | Solutions | No domain |
| Authentic CASB | | Authenticity for Cloud Access Security Brokers | Solutions | No domain |
| Authentic DNS | | Professionally licensed DNS signers | Solutions | No domain |
| Authentic IAM | | Authenticity for IAM product vendors | Solutions | No domain |
| Authentic Images | | Authenticity in evidentiary photography | Solutions | No domain |
| Authentic MASP | | Sneak Authenticity into the MASP | Solutions | No domain |
| Authentic MSPP | | Industry | Solutions | No domain |
| Authentic News | | Reputational services for news sources | Solutions | No domain |
| Authentic Notifications | | Authenticity for notifications | Solutions | No domain |
| Authentic PCI | | Authenticity in PCI processes | Solutions | No domain |
| Authentic Reputations | | Non duplication of identities & more | Solutions | No domain |

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|--|---------|---|-----------|---|
| Authentic Reviews | | The cure for Yelp corruption | Solutions | No domain |
| Authentic RFID | | Authenticity for RFID devices | Solutions | No domain |
| AuthenticCampus | | Authenticity for college IDs | Solutions | No domain |
| AuthenticCar | | Authenticity for automotive applications | Solutions | No domain |
| AuthenticDataRooms | | Authenticity for the m&A industry | Solutions | No domain |
| AuthenticChip | | Accountability for chip mask contents | Solutions | No domain |
| AuthenticCIP | CIP | Accountability in critical infrastructure | Solutions | https://authenticip.com |
| Authenticity for Hospitality | | Osmio Credential As Key Card + consultancy | Solutions | No domain |
| AuthenticiCloud(1) | | Operate key-in-client cloud services | Solutions | https://authenti.cloud |
| AuthenticiCloud(2) | | Marketing Authenticity via cloud vendors | Solutions | Change name |
| AuthenticiCMS | | Authenticity for CMSes (Drupal, Joomla, etc.) | Solutions | No domain |
| AuthenticiCode | | Personal accountability in code signing | Solutions | https://www.osmio.ch/license-06.html |
| AuthenticiComment | | Troll prevention for bloggers | Solutions | No domain |
| AuthenticiFit | | Security for wearables | Solutions | No domain |
| AuthentiForum | | Authenticity for Moderators (e.g. Subreddits) | Solutions | No domain |
| AuthenticiGame | | Authenticity for gamers | Solutions | No domain |
| AuthenticiGoods | | Digitally signed BOMs and other documents | Solutions | https://authenticgoods.com |
| AuthenticiHost | | Authenticity for the hosting industry | Solutions | No domain |
| AuthenticiKeyManagement | | Authenticity for key management | Solutions | No domain |
| AuthenticiLaw | | Authenticity for law firms | Solutions | https://authenticlaw.com |
| AuthenticiMail | AM | Improvement on DKIM, s/MIME etc. | Solutions | See mail-slot.com |
| AuthenticiMatch | Match | Authenticity for the dating industry | Solutions | https://authenticmatch.com |
| AuthenticiMSP | | PKIDR for MSP Customer | Solutions | No domain |
| AuthenticiMoney | | Organizations | Solutions | No domain |
| AuthenticiProctor | | PKIDR for ICOs | Solutions | No domain |
| AuthenticiProject | | Authenticity in Proctoring | Solutions | No domain |
| AuthenticiRent | | Authenticity in project management | Solutions | No domain |
| AuthenticiRouter | | Streamline Residential Rentals via Authenticity | Solutions | No domain |
| AuthenticiSASE | | Authenticity for routers | Solutions | No domain |
| AuthenticiShare | | Ride the SASE buzzword and concept | Solutions | No domain |
| AuthenticiSign | | Authenticity for site operators | Solutions | https://www.authenti-share.com/ |
| AuthenticiSyncShare | | Reliable digital signatures | Solutions | No domain |
| AuthenticiTitle | | Authenticity for sync/share product vendors | Solutions | No domain |
| The Authentiverse | | Authenticity in digital titles | Solutions | No domain |
| AuthenticiVote | | Authenticity for blockchain multiverse developers | | Authentiverse.com |
| AuthenticiWaiver | | Election Authenticity | Solutions | No domain |
| Authentrus | AT | Digsigs for sports and activity waivers | Solutions | No domain |
| AuthInsure | | Authenticity Consulting to Board Members | Solutions | https://authentrus.com |
| AuthIoT | | Authenticity for insurers | Solutions | No domain |
| Business-In-A-Box | | Personal accountability in IoT devices | Solutions | No domain |
| ChopinLiszt | | InDoor facilities for SMEs | Solutions | No domain |
| Connected Home | | Shared shopping lists | Solutions | No domain |
| Contractor Authenticity | | Authenticity for the connected home industry | Solutions | No domain |
| Department of Public Intellectual Property | | Authenticity for Upwork, Freelancer, etc. | Solutions | No domain |
| Endpoint Authenticity | | Acquiring IP for Osmio residents | Solutions | No domain |
| Fiduciary Trust Company | | Authenticity for client software | Solutions | No domain |
| Gambling Industry Ids | | Certificate behind FIDO clients | Solutions | No domain |
| HSM-ID | | Help online gambling sites with jurisdictions | Solutions | No domain |
| ID Processing Association | | Authenticity for HSM operators | Solutions | https://hsmid.com |
| ID4Cloud | | Authenticity PR for enterprise audiences | Solutions | https://idprocessing.com |
| ID-tenant | | Marketing Authenticity to Enterprises | Solutions | https://www.id4cloud.com/ |
| InDoor Accounting, Inc. | | Authenticity for rental real estate | Solutions | See AuthenticiRent |
| InDoors, Inc. | InDoors | Secure shared accounting | Solutions | Indooraccounting.com – lost domain! |
| Kerbo's List | | see Abyx Properties and Cofaro | Solutions | No domain |
| MCS | | online classifieds (clone of Craigslist) | Solutions | Kerboslist.com |
| Me, Inc. | | Services for vital records departments | Solutions | No domain |
| MSP | | Identity Theft Protection | Solutions | No domain (real.me owned by the prospect) |
| On The Go ID | OTG | see Endpoint Authenticity | Solutions | No domain |
| Personal Assistants, Inc. | | Authenticity Services for govt agencies | Solutions | No domain |
| Pier2Pier | | Accountability for personal assistants | Solutions | See Authentic Assistants |
| PlacesEveryone | | Example for Authentic-Share | Solutions | No domain |
| Retail Authenticity | | Transform a great business idea with Authenticity | Solutions | No domain |
| RiSE, Inc. | | The anti-Target breach consultant | Solutions | No domain |
| SigillID | | PII encryption law compliance consulting | Solutions | No domain |
| SquareByte | | Signing officer sigs for shipping docs | Solutions | See AuthenticiGoods |
| | | Professional licensing for developers | Solutions | https://squarebyte.org |

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|------------------------------|----|---|-----------|---|
| The Authenticity Party | | Authenticity as an ideology | Solutions | No domain |
| True.me | | AE for the owner of true.me | Solutions | No domain |
| Virtuous Machines, Inc. | VM | The Dorren OS | Solutions | No domain |
| WallStreetIndoors | | Authenticity in securities transactions | Solutions | No domain |
| Bookland – COWHN | | An imaginary country with Authenticity | spooF | https://freebookland.com |
| Commercial Software Alliance | | Illustrate the benefits of Authenticity | spooF | Commercialsoftwarealliance.com |
| FUDILIMOP | | Illustrate the benefits of Authenticity | spooF | No domain |
| Vulex | | Failed Law Firm | spooF | https://vulex.com |