DAL
Diverse Authentication Library

Forensic Identity Management Based in Web 4.0

DAL Identity Management employs forensic onboarding through its Web 4.0 platform and utilizes forensic cryptographic provenance to establish a seamless connection between a and an Single Existing Real-World Human Being and their Single Digital Twin Identity, ensuring global interoperability.

IdentiKee™
Your body, your IdentiKee

IDENTITY ESSENTIALS

WHAT IS AN IDENTITY?

An Identity is Proof of existing Evidence of a Single Existing Real-World Human Being

"Identity theft, criminal investigations of the dead or missing, mass disasters both by natural causes and by criminal intent – with this as our day-to-day reality, the establishment and verification of human identity has never been more important or more prominent in our society. Maintaining and protecting the integrity of our identity has reached levels of unprecedented importance and has led to international legislation to protect our human rights."

*(**Forensic Human Identification: An Introduction**, 1st Edition - Tim Thompson, Sue Black – 2007)*

WHAT IS A DIGITAL IDENTITY?

A Human Digital Identity is a record of the existence of a Human, and the management - creation, verification, usage, custody, storage and destruction of this record - should be afforded the same levels of security, sensitivity and protection that we assign to Electronic Records Management; it is after all, singularly and undoubtedly the most important Record ever created.

The forensic protocol **DAL Identity** deploys ensures that only **REAL** humans can onboard onto **DAL**

REAL-WORLD YOU

YOUR CYBERWORLD DIGITAL TWIN IDENTITY

CHAIN OF CUSTODY

CREATION: MASTER IDENTITY

MULTI MODAL BIOMETRICS

PRIVACY

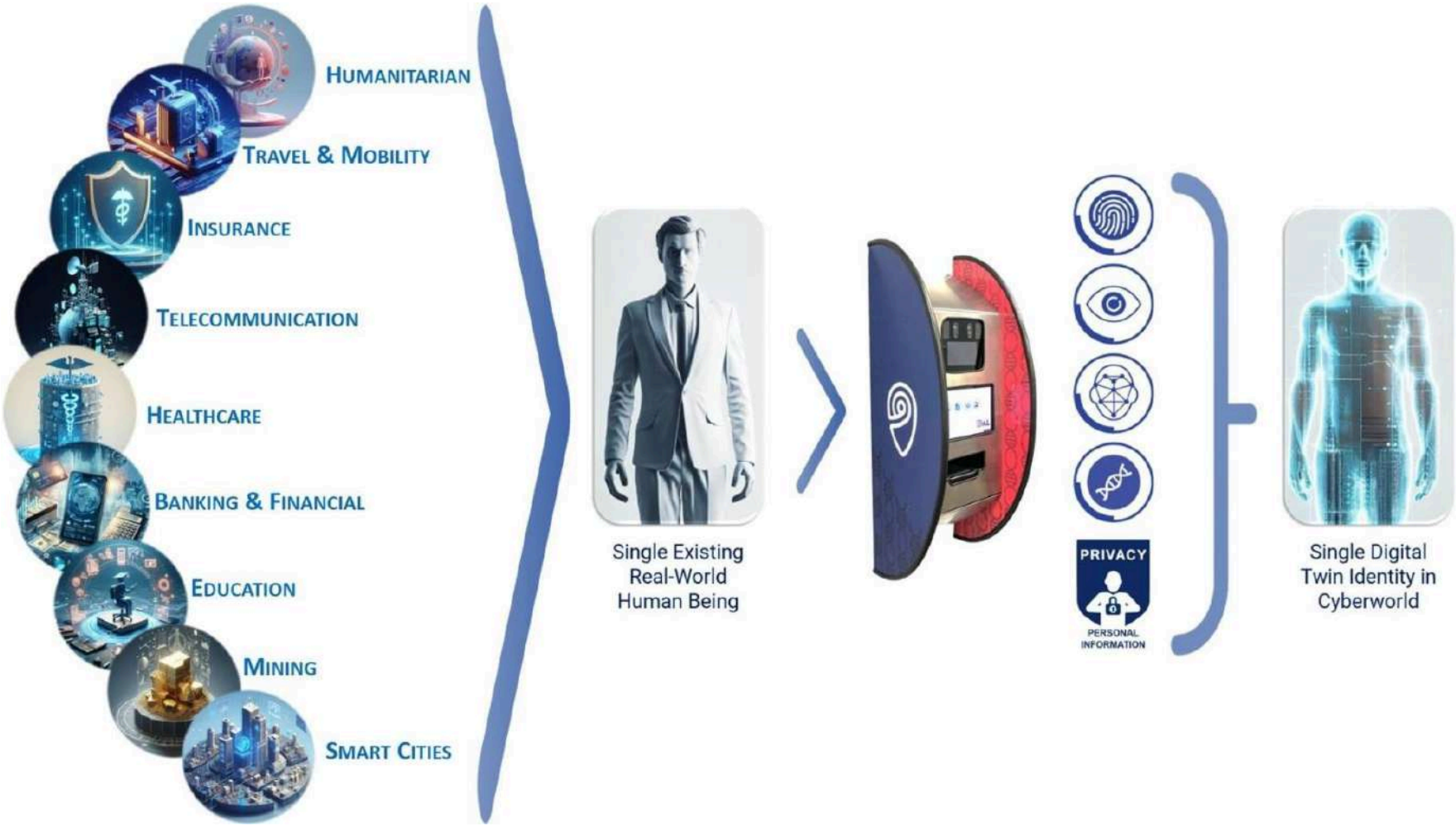
PERSONAL INFORMATION

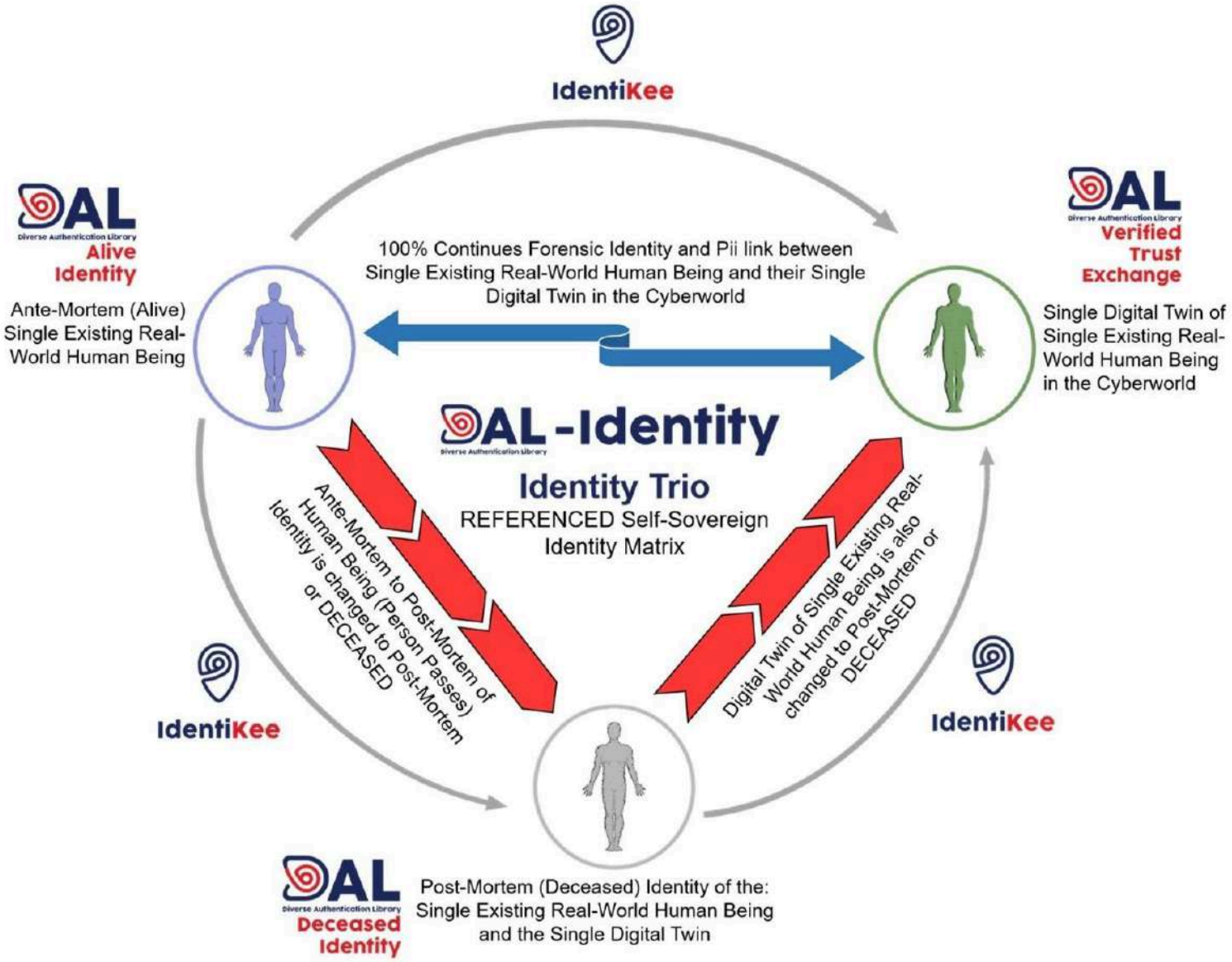
SINGLE DIGITAL TWIN IDENTITY

100% LINKED TO HUMAN BEING IN REAL-WORLD

REFERENCED SELF SOVEREIGN IDENTITY

100% LINKED TO THE REAL-WORLD **YOU**


HUMANITARIAN
TRAVEL & MOBILITY
INSURANCE
TELECOMMUNICATION
HEALTHCARE
BANKING & FINANCIAL
EDUCATION
MINING
SMART CITIES
Single Existing Real-World Human Being
PRIVACY
PERSONAL INFORMATION
Single Digital Twin Identity in Cyberworld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Alive Identity
Ante-Mortem (Alive) Single Existing Real-World Human Being
100% Continues Forensic Identity and Pii link between Single Existing Real-World Human Being and their Single Digital Twin in the Cyberworld
DAL
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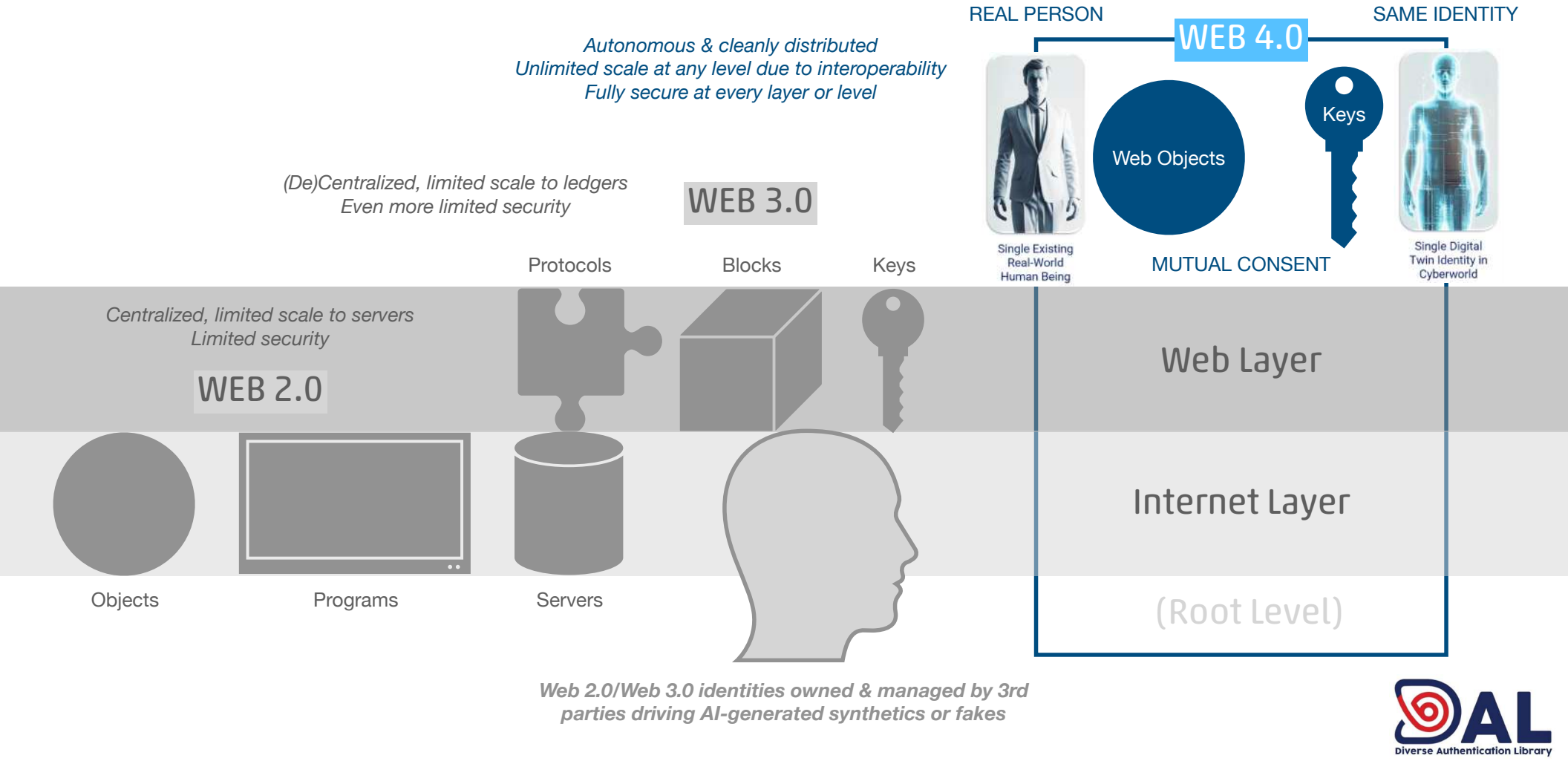
Verified Trust Exchange
Single Digital Twin of Single Existing Real-World Human Being in the Cyberworld
DAL -Identity
Diverse Authentication Library
Identity Trio
REFERENCED Self-Sovereign Identity Matrix
Ante-Mortem to Post-Mortem of Human Being (Person Passes) Identity is changed to Post-Mortem or DECEASED
Digital Twin of Single Existing Real-World Human Being is also changed to Post-Mortem or DECEASED
IdentiKee
IdentiKee
DAL
Diverse Authentication Library
Deceased Identity
Post-Mortem (Deceased) Identity of the: Single Existing Real-World Human Being and the Single Digital Twin

WEB 4.0

Web 4.0, or “WebNext”, connects all the operations of a business into a sustainable & profitable system by turning web objects into their own microservices.

THE BASICS OF WEB 4.0 INFRASTRUCTURE & IDENTITY



Web 2.0/Web 3.0 identities owned & managed by 3rd parties driving AI-generated synthetics or fakes

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Introducing Web4 ("WebNext")

Web4, or "WebNext", connects all the operations of a business into a sustainable & profitable system.
We invented Web4 in a Tier 1 software stack interoperable with any type of computing system.
This software stack is 5x less in computing costs, and is 20x more profitable with its microservices.

Click here to watch this amazing explainer video of our technology made by our customer, Deloitte.

WEB2	WEB3
Centralized apps are time-intensive therefore costly to develop	"Decentralized" apps with centralized inefficiencies
Middleware used to connect apps/services is costly & hard to maintain	Connecting middleware is costly & wastes energy
Datacenters incur massive compute costs, or, can't scale businesses	No interconnected standing datacenters, massive compute costs
No available interoperating system	No available interoperating system
Virtualization is limited because data is limited	Virtualization is limited because data is limited

WEB4 LAYERS	WEB4 ASSETS	WEB4 SERVICES
applications	autonomous businesses	INTERNET OF SERVICES SUITE
middleware	autonomous utilities	PRIVACY + SECURITY SERVICES
datacenters	autonomous computing	IMPACT PERFORMANCE ANALYTICS
interoperating system	autonomous objects	INTEROPERATING INFRASTRUCTURE
virtualization	autonomous models	INTEROPERATING METAVERSES

autonomous networked interactions!

socioecological + socioeconomic parameters

no 3rd parties, "my data under my control"

customers:

DHL NEOM DELOITTE BANKSERV SAP SHIFT

FORENSIC CRYPTOGRAPHY

DAL Identity's Forensic Cryptography

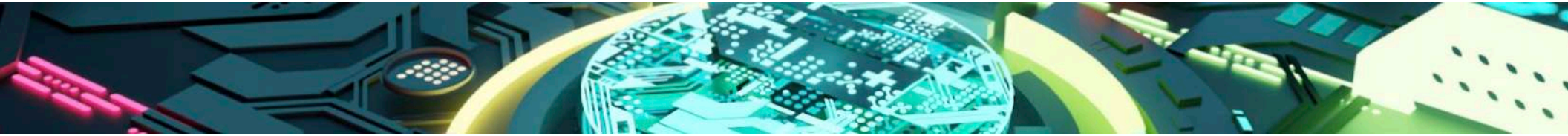
Forensic Cryptography

- Forensic cryptography combines the principles of cryptography and forensic protocol.
- It provides secure communication and data protection and enables the proper collection of digital data (evidence).

Advantages of Using Forensic Cryptography for Identity Management

- Provides end-to-end encryption, tokenization, and secure key management
- Ensures data integrity, confidentiality, and availability
- Improves digital security and provides consistent and reliable processes
- Aids in the identification of cybercriminals and the prevention of future attacks

DAL's Web4 Post-PGP, Post-Quantum Security at a glance



MATH

AES

(Advanced Encryption Standard)

Protocol-Based Elliptical Curves

Largest solvable key size: 795-bit (2019)

RSA-Focused Algorithms

Lots of SSH exploits

MATH OR LANGUAGE

PQC

(Post-Quantum Cryptography)

Protocols Applied to Web Objects

Indeterminable Key Sizes

Shor's/Grover's Algorithms

SSH Incompleteness (some traceability)

MATH + LANGUAGE

W4S

(Web4 Security)

Complete Object-Orientations, SuperKernels

1-Bit Binary Representations (no key limits)

Holonomial Algorithms (instances)

SSH Completeness (no traceability)

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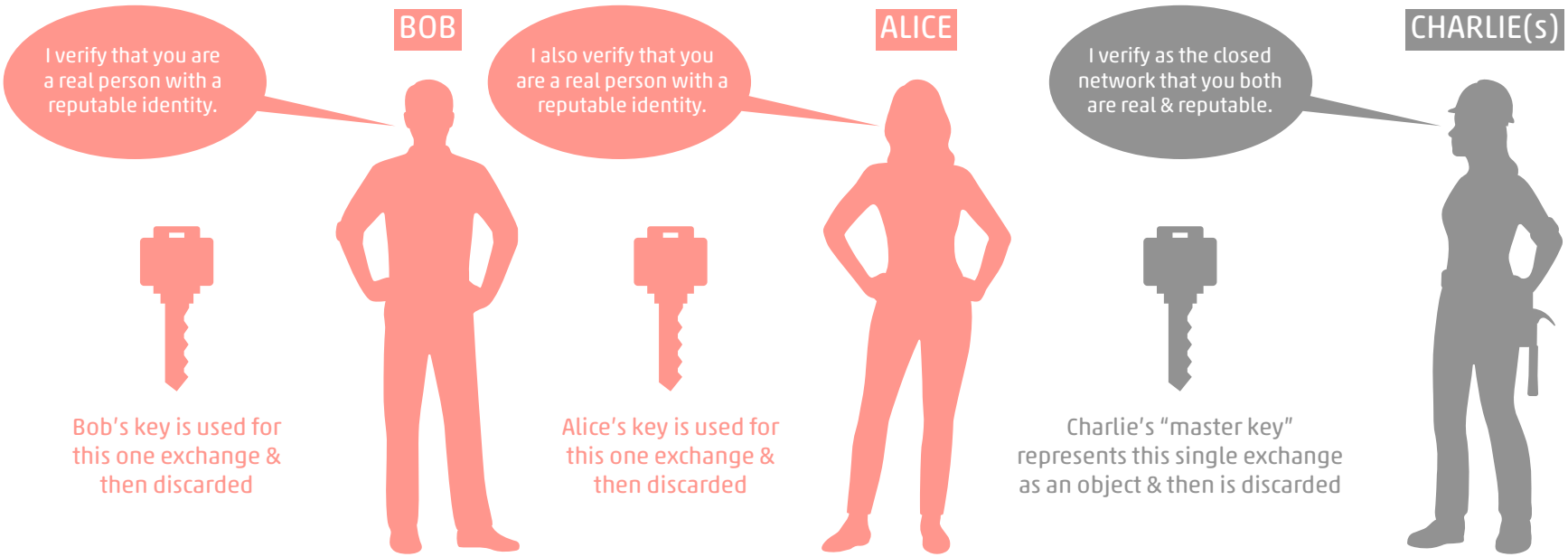
Traditional PGP security.

"Charlies" that are cast out which don't support actual, real trust between peers or counterparties.

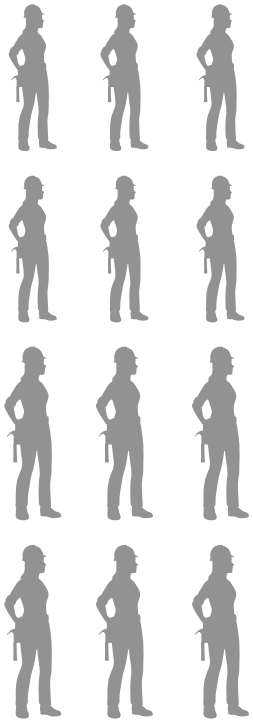


Charlie, as the closed network, now facilitates (web) object redistribution between counterparties, once an asset is exchanged beyond the initial one.

Trustless trust.

Keyless object pairings (without trust seals) that support actual, real trust between peers or counterparties.

A bunch of untrusted Charlies, in an open network which all have the potential of acting on behalf of Bob and Alice, but are still required to generate a key to access an asset for a trans-action.

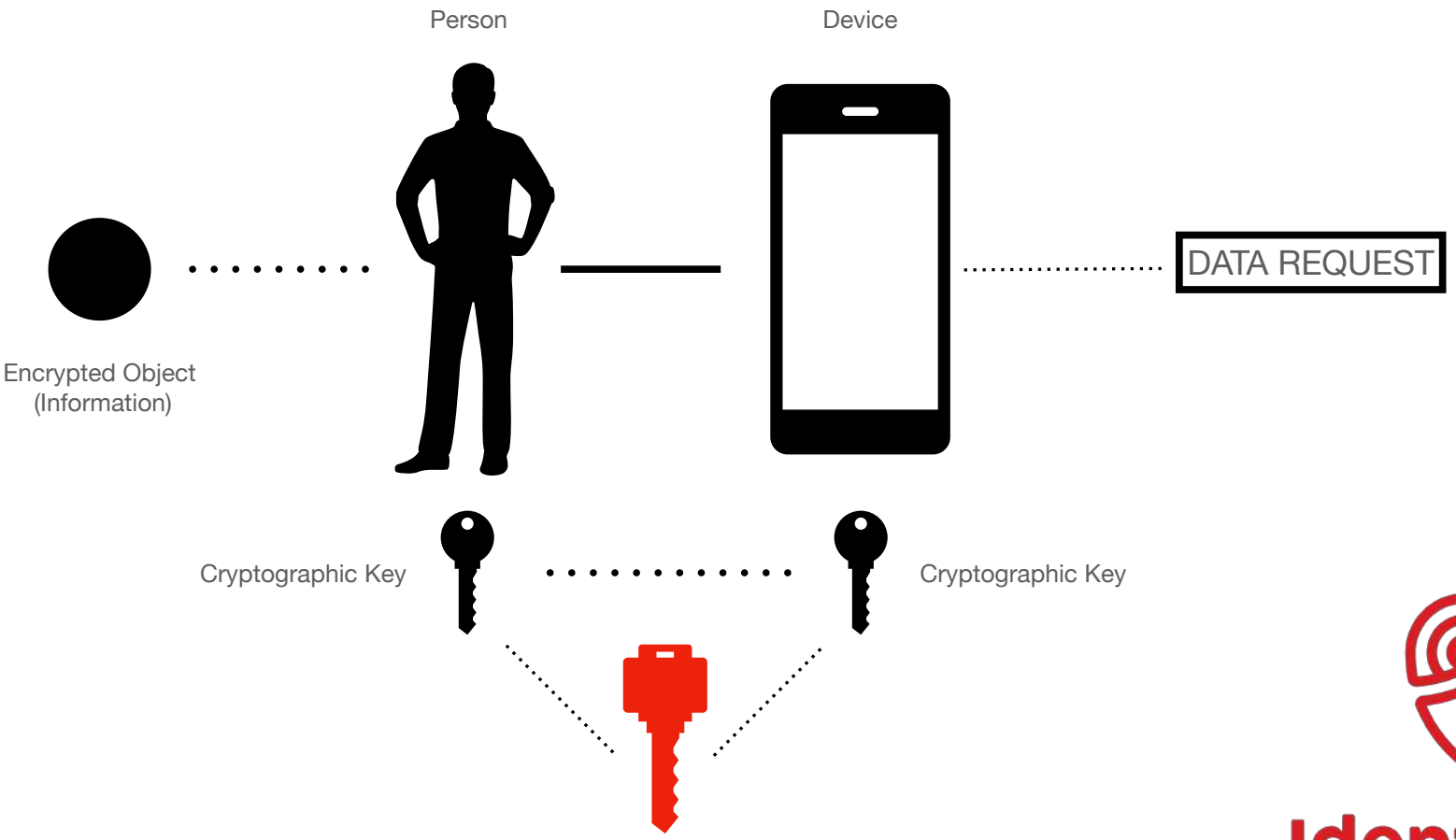


Charlies search for a “master key” representing this single exchange as an object & then find it!

Two Charlies become a trusted Bob and a trusted Alice with a “master key”!

ACCESS | asset metadata as web object | asset metadata as web object | TRANS-ACTION

THE BASICS OF "TRUSTLESS TRUST" REUSABLE IDENTITY



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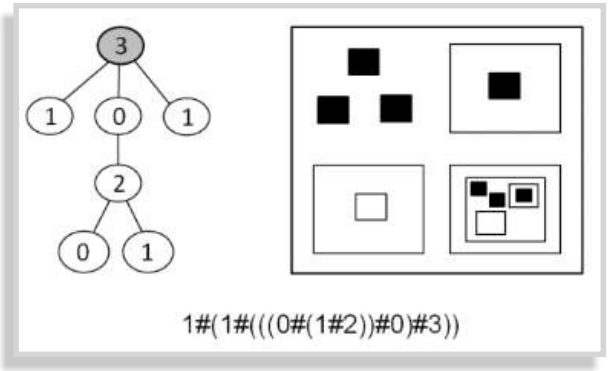
object

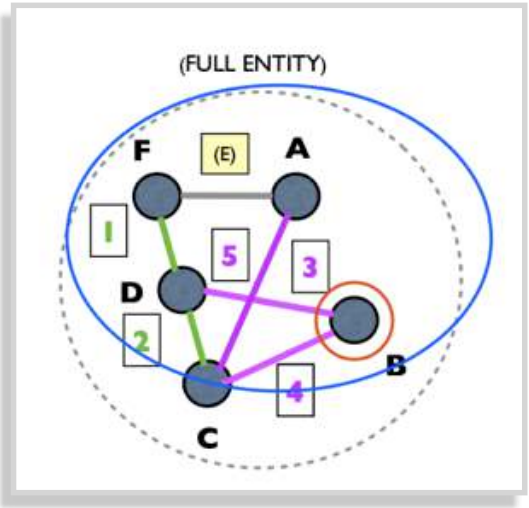
WEB4 Security object-level holomorphic hashing system

HOLONOMIALS

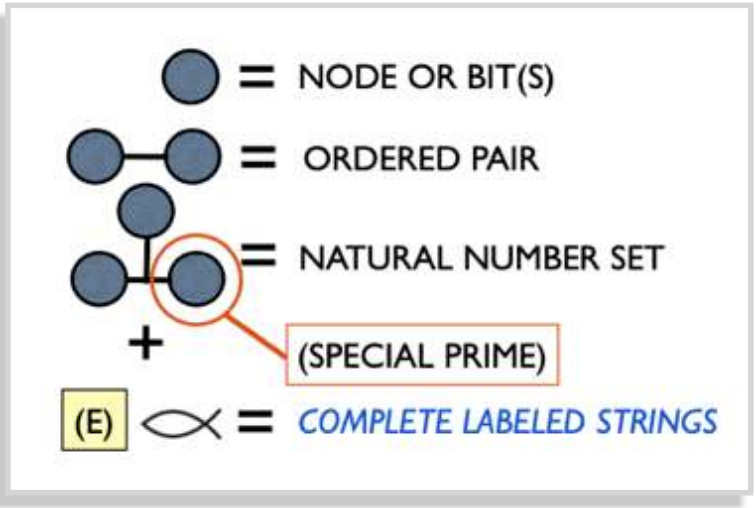


Holonomials simulate post-quantum level cryptography with a holomorphic hashing mechanism as 1-bit succinct binary representations of root primes, symbols & syntax.

objects represented as fully programmable entities



labeled strings (smart strings) as fully hashable graph objects



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QUANTUM-TOLERANT/SAFE CRYPTOGRAPHY

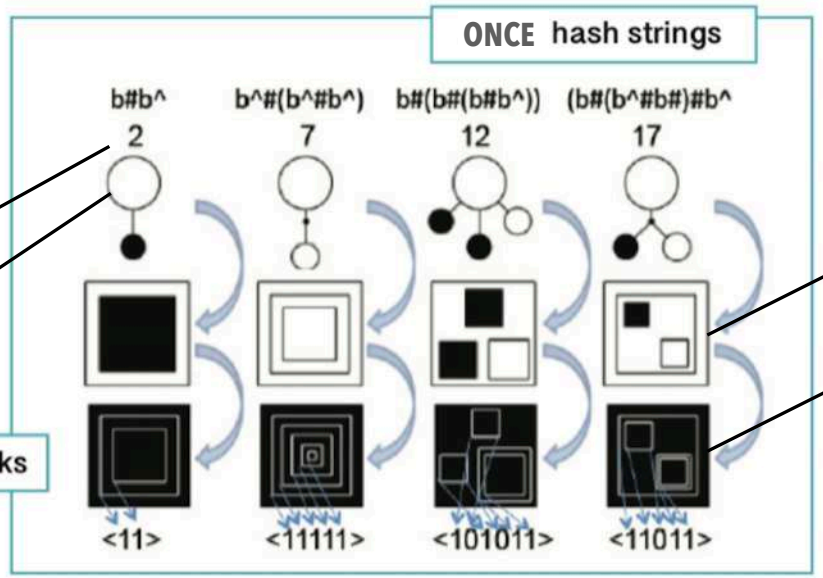
As represented on its own holomorphic node...

Smart Strings, are a 1 bit succinct binary representation of both natural numbers and natural numbers and natural labeled trees

Root prime numbers as hashes (holomorphic) are used to naturally accelerate, or slow down, processing & computation of binary bits (blockchains) & qubits (quantum ledgers).

quantum dots

ONCE hash blocks



- parallel computability
- exponential scalability
- adaptive storage capacity

container which sorts & compiles metadata

container which receives mainnet data

When an **asset is transferred** from container to container, the blocks "slow down" the instance of the transfer such that it is captured **as metadata**. *That metadata is owned, managed & permissioned by you.*

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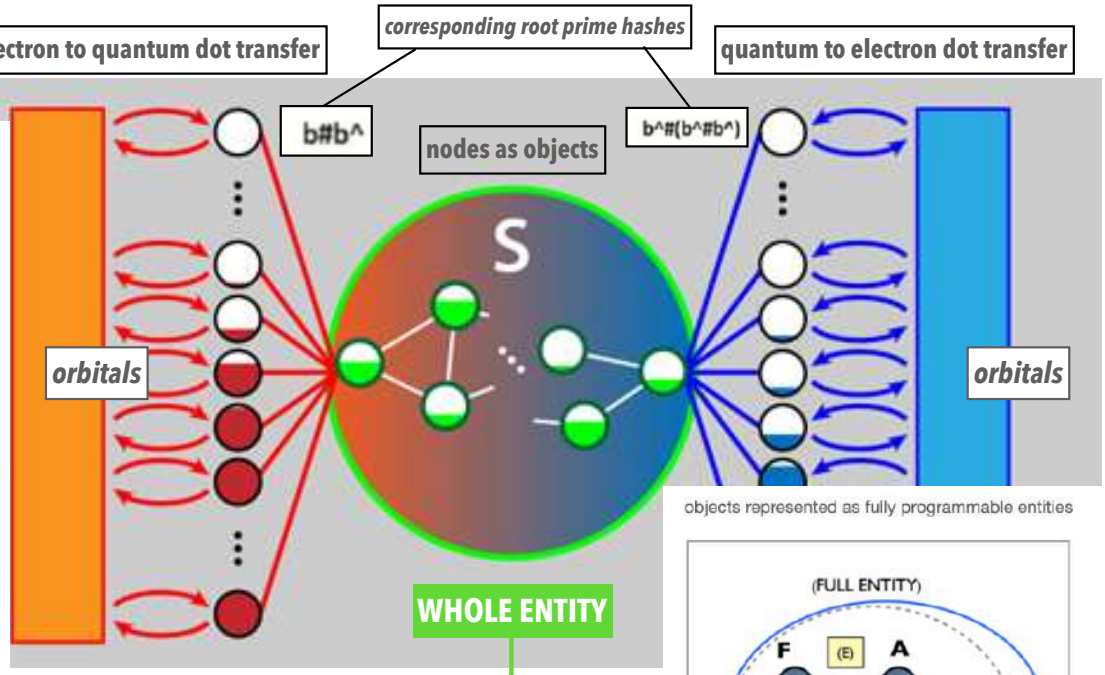
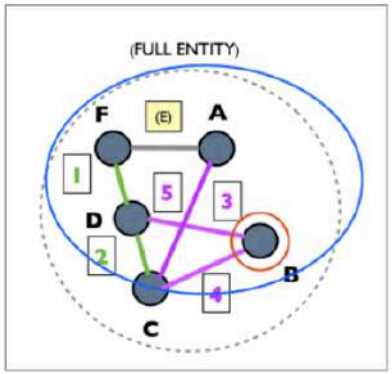
PHOTONIC ENERGY TRANSFER SECURITY

Real Identity transferred & captured via real quantum mechanical energy.

Single Digital Twin Identity in Cyberworld

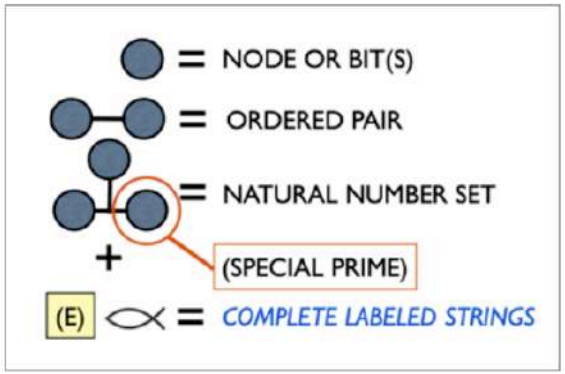


objects represented as fully programmable entities



In other words, quantum energy as qubits, arranged as ordered pairs, through special primes, as complete labeled smart strings – progammable as full entities in a self-organizing graph with the fully secured Real Digital Twin at the center of interactivity!

labeled strings (smart strings) as fully hashable graph objects



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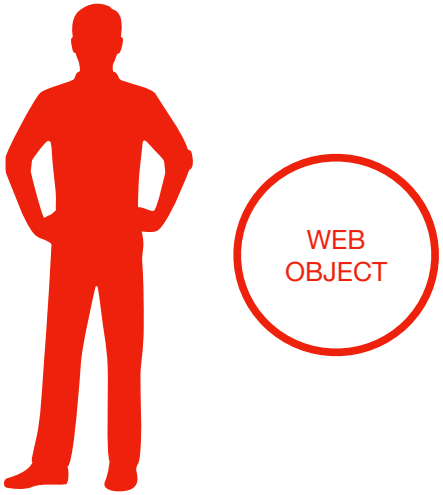
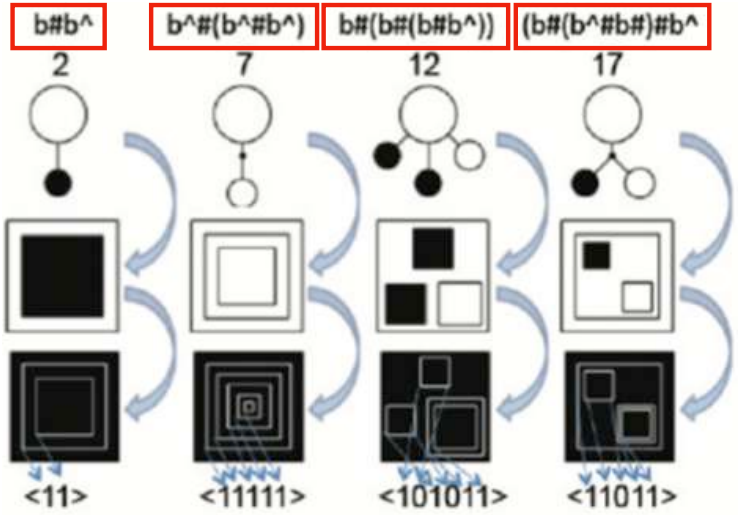
WEB 4.0 REFERENCE METHODOLOGY

Personally Owned Digital Twin



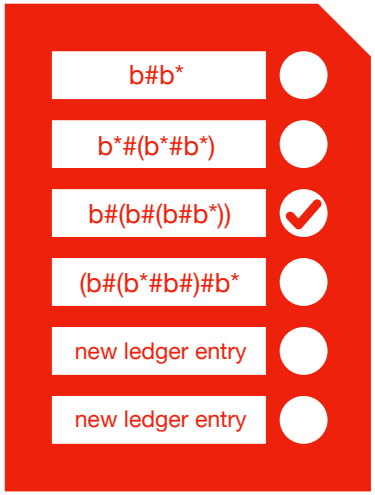
One, uniquely owned instance of you

Referencable Instanced Hashes of Pii + Metadata



Unique hashes representing one use for every instance/request

Authenticated Personal Library



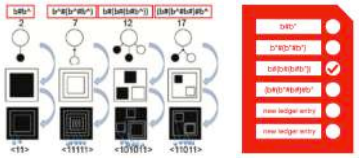
Cryptographic hashes referenced & ledgered

THE FUNDAMENTALS OF DAL'S FORENSIC CRYPTOGRAPHY

A

Bodily data are harvested as pre-encrypted hashes

B



Corresponding hashes are indexed into the DAL reference library owned by the individual

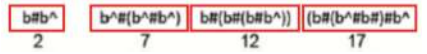
C

The library has any number of public versions or instances per the data request

D

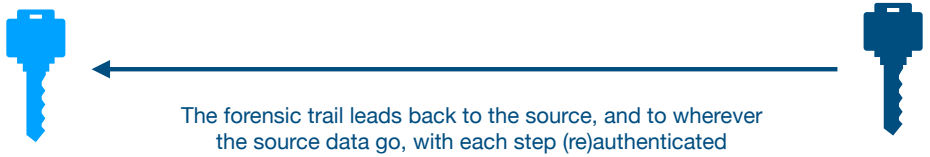
If the data request is authenticated (self-referenced) then the data move freely & securely

E



If the data request is not authenticated, then only the hashes are referenced

The corresponding hashes matched to the underlying data are paired back to the source



The forensic trail leads back to the source, and to wherever the source data go, with each step (re)authenticated

A complete, ongoing forensic audit, preserving all data integrity & the individual's identity

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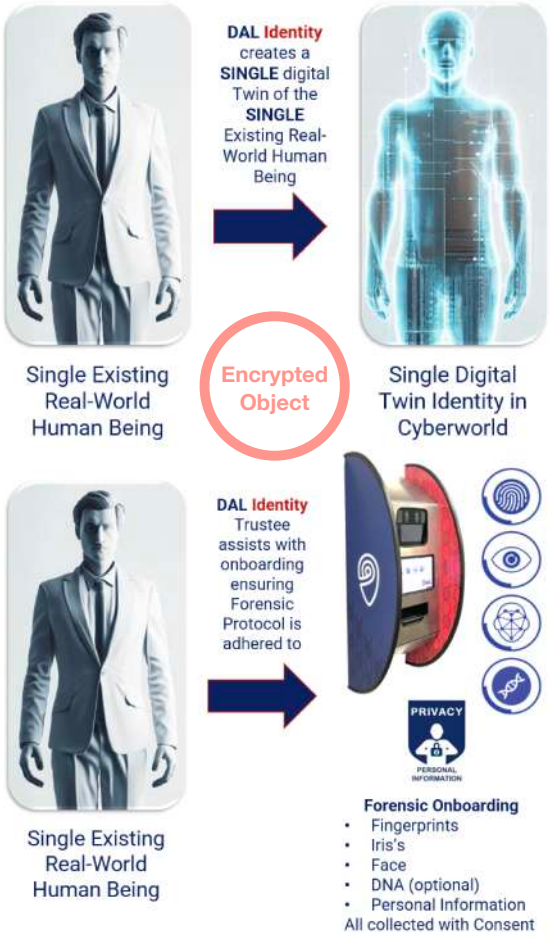
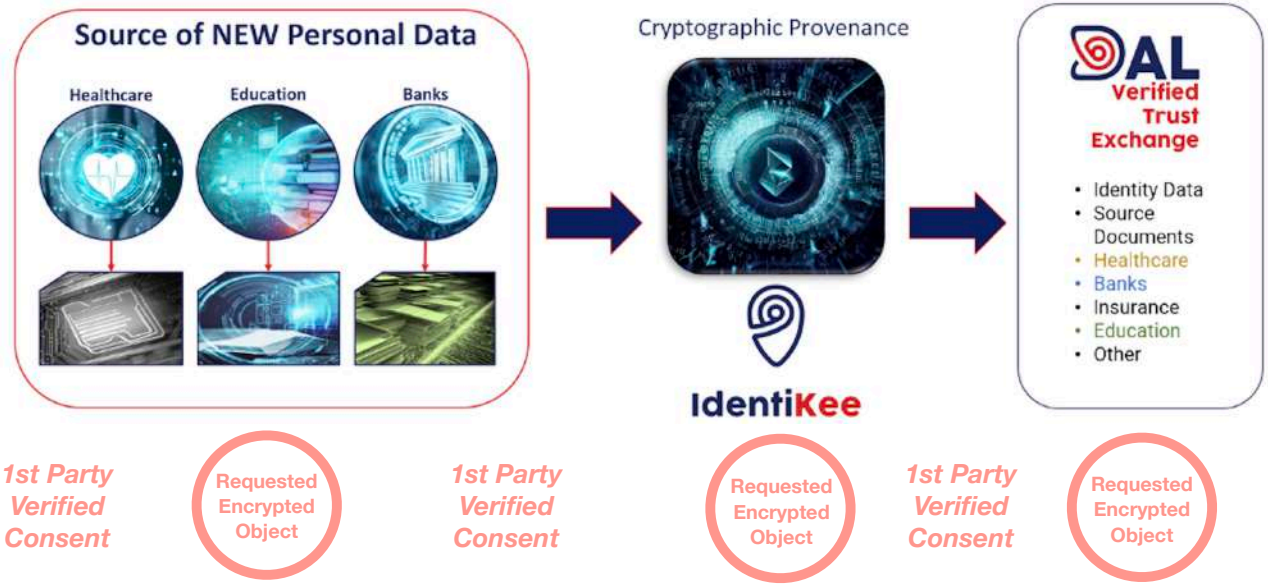
IN SUMMATION

AUTONOMOUS SECURITY IN THE DAL IDENTITY SYSTEM

WHOLE PERSON

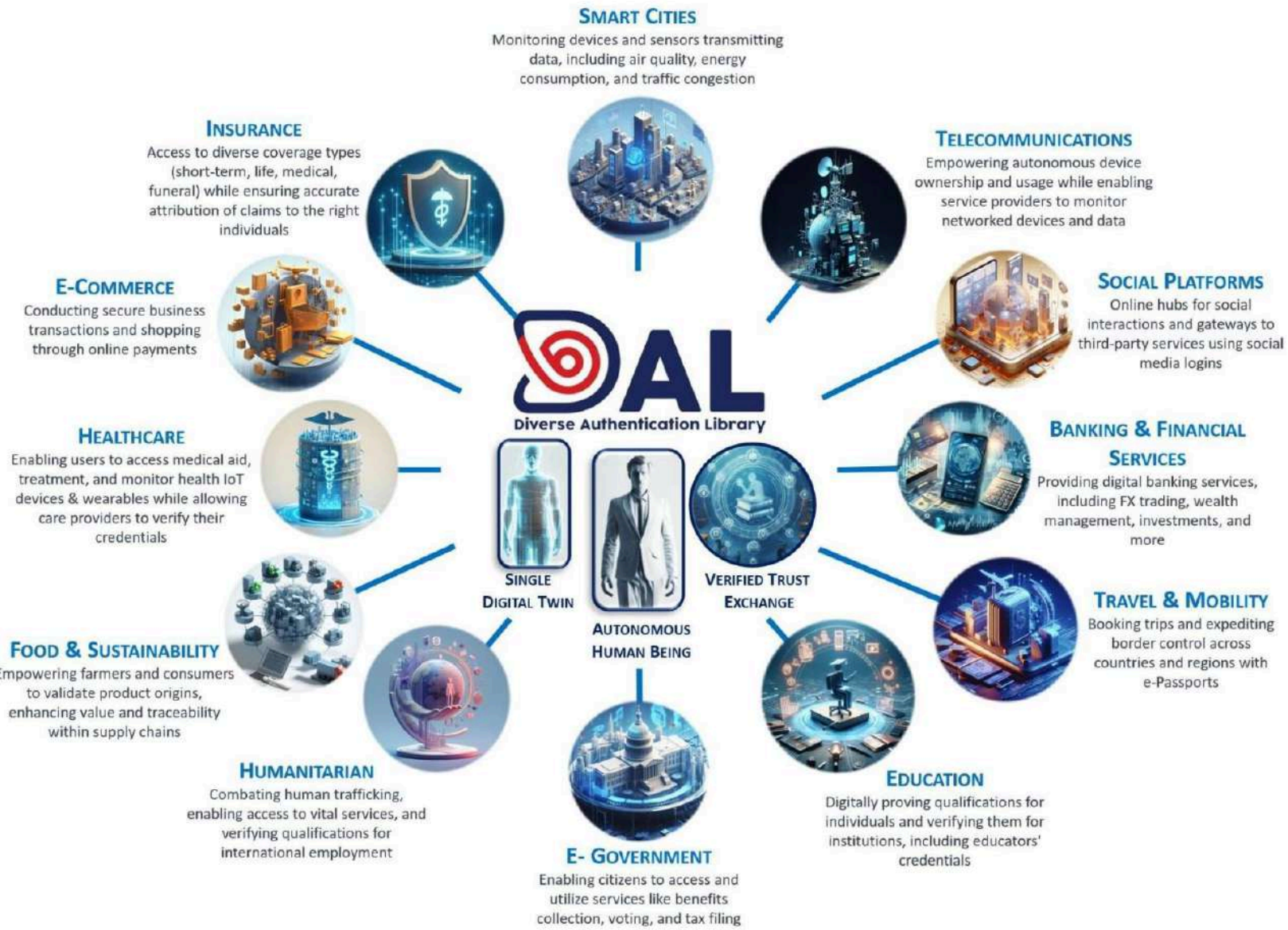


WHOLE SYSTEM



(NEW VERSION/INSTANCE) (NEW VERSION/INSTANCE) (NEW VERSION/INSTANCE)

A whole person supported by a whole system with each part protected & therefore invulnerable as a whole!


SMART CITIES
Monitoring devices and sensors transmitting data, including air quality, energy consumption, and traffic congestion
INSURANCE
Access to diverse coverage types (short-term, life, medical, funeral) while ensuring accurate attribution of claims to the right individuals
TELECOMMUNICATIONS
Empowering autonomous device ownership and usage while enabling service providers to monitor networked devices and data
E-COMMERCE
Conducting secure business transactions and shopping through online payments
SOCIAL PLATFORMS
Online hubs for social interactions and gateways to third-party services using social media logins
DAL
Diverse Authentication Library
HEALTHCARE
Enabling users to access medical aid, treatment, and monitor health IoT devices & wearables while allowing care providers to verify their credentials
BANKING & FINANCIAL SERVICES
Providing digital banking services, including FX trading, wealth management, investments, and more
SINGLE DIGITAL TWIN
AUTONOMOUS HUMAN BEING
VERIFIED TRUST EXCHANGE
FOOD & SUSTAINABILITY
Empowering farmers and consumers to validate product origins, enhancing value and traceability within supply chains
TRAVEL & MOBILITY
Booking trips and expediting border control across countries and regions with e-Passports
HUMANITARIAN
Combating human trafficking, enabling access to vital services, and verifying qualifications for international employment
EDUCATION
Digitally proving qualifications for individuals and verifying them for institutions, including educators' credentials
E- GOVERNMENT
Enabling citizens to access and utilize services like benefits collection, voting, and tax filing

Thank you.

https://www.dal-identity.com/