

 **DigitalAlliances**
continue collaboration

CISO **Alliances**

SOUTH AFRICA
CHAPTER

30th of May 2022
Results

 **DigitalAlliances**
continue collaboration

CISO **Alliances**


ALLIANCE Media Group

Alliance - 'A union formed for mutual benefit'

Community – '1: a unified body of individuals: such as. A: the people with common interests living in a particular area broadly: the area itself the problems of a large community'

CISO Alliances



 **Digital Alliances**
continue collaboration

 **Executive Business Exchange**

DPO Alliances

CIO Alliances

CISO Alliances

CXO Alliances

CMO Alliances

CDO Alliances

Foreword



Leigh Thomas
Director & Founder

We are a group of driven and ambitious professionals who strive to achieve the ideal.

We have built and participated in C-level communities in a variety of industries, including Oil & Gas, Mining, Power & Enterprise IT, Information and Cyber Security, and across many divisions.

The Alliances Community's basic ideals were born along with Alliance Media Group, as defined by the Collins dictionary: "A union formed for mutual benefit." Everyone must believe in their own ability to succeed and improve. This can only be accomplished via selflessness in sharing and genuine feedback from everyone to whom we devote our time.

We no longer consider this industry to be B2B, but rather P2P. (Peer to Peer). Our intentions are to create a trusted platform for executives tackling similar business objectives to leverage their collective experience to support one another, debate opinions candidly for industry progression and professional growth, and benchmark strategies against one another, which we have been doing since August 2016. This is the community for CISO Alliances. The community built it for the community.

While understanding that in order to be sustainable in the modern world, every business will need to drive commercials. We believe that commercials should not be the driving force, but rather a solution to a 'why'.

Our Chapters and community are working to make an impact on the Events Managed Services industry, which continues to act as if money is the most important factor and not the value of time. The industry was founded on the premise that "everyone wants to learn," and we established the Alliances to ensure that end-user-driven meetings are solely focused on the educational needs of everyone involved as well as their business objectives. Focusing on the best practises for overcoming the common business objectives that motivate activity within each end user firm, rather than just global trends and themes to generate revenue.

Due to the Coronavirus pandemic, the digital environment has been forced to accommodate a remote workforce with limited human interaction since March 2020. As a result, our community representative has been open to digital chapters in addition to physical chapters when they return in Q3 2022. This complements our efforts in community building and makes the community feel like they are part of a continuous effort to meet their educational needs.

16.45

Welcome Remarks & Joining Time

17.00

Overview

Session Leaders:

Gerhard Cronje, CISO Alliances Community Member

Session Title:

Blockchain DLT Security Model

Digital Alliances
continue collaboration

“Blockchain DLT Security Model”

South Africa

Monday 30th of May 2022
17.00-18.00 (SAST)
Leigh@alliances.global
www.alliances.global

CISO Alliances

Gerhard Cronje
CISO Alliances
Community Member

17.55

Action Areas and Next Steps

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Overview

Date: [Monday, 30th of May 2022](#)

Time: [17.00 pm – 18.00 pm](#)

Platform: [Digital Alliances](#)

Location: [Digital Alliances – Microsoft Teams Link – Invite Only](#)

Overall Theme:

Blockchain DLT Security Model

The Digital Alliances is a platform created to ensure our communities are enabled to utilise our candid approach to benchmark and to continue collaboration where physical Chapters are restricted

Focused Session



Session Leaders

Gerhard Cronje, CISO Alliances Community Member

Blockchain DLT Security Model

Blockchain security is sometimes seen as having addressed confidentiality through encryption, integrity through signing, and availability through distributed processing. Non-repudiation is a typical benefit in the use of cryptography as is done in the blockchain. These factors are by no means the complete security picture for consideration within the blockchain.

This presentation aims to introduce a model that outlines the major security aspects involved in blockchain technology, to guide security professionals in any organisation wishing to adopt or drive implementation of a blockchain.

This presentation should leave you with:

- Broadly understanding the relevant blockchain security aspects requiring consideration;
- Being able to order those security aspects in a logical way; and
- Relating the various aspects to each other in a way that makes sense and assists in decision making.

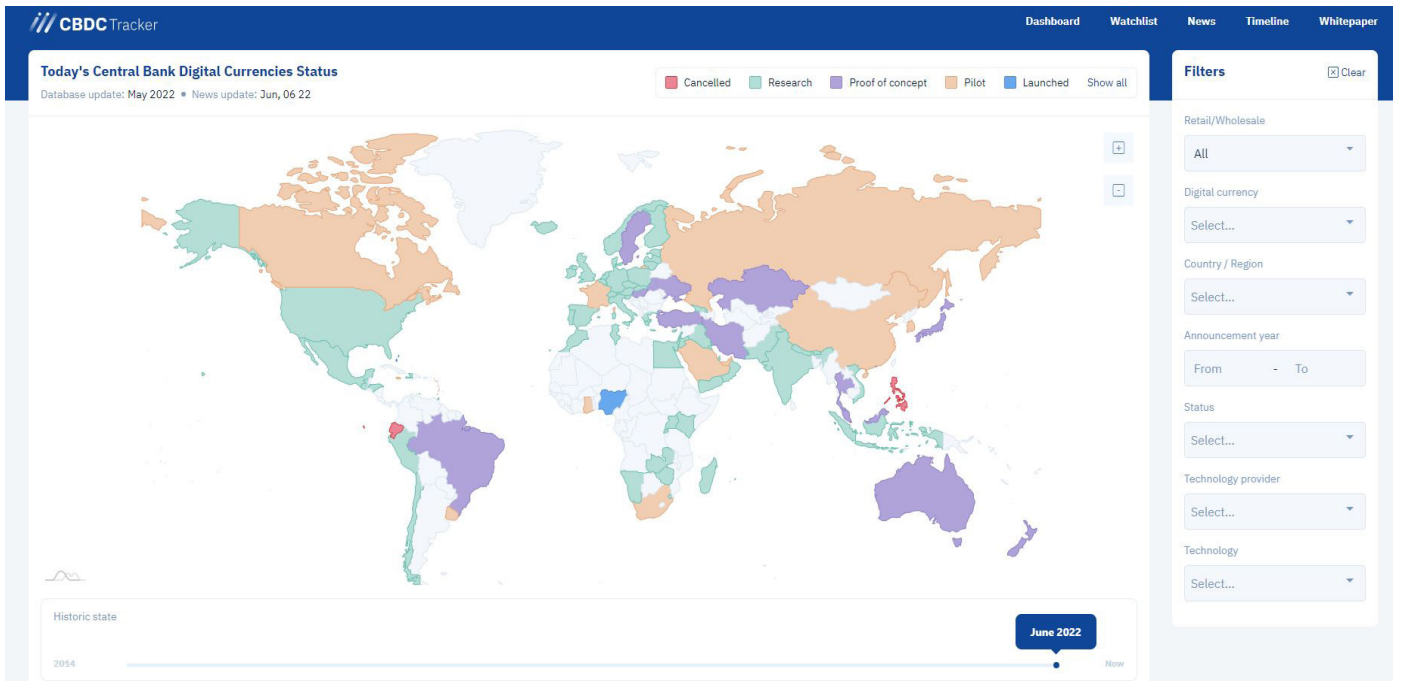
Takeaways

Supportive Links -

The Imperial College Business School actually track bitcoin transactions, and through the visuals you can actually see when attacks do take place on some of the nodes.

<https://www.imperial.ac.uk/business-school/faculty-research/research-centres/imperial-business-analytics/data-observatory/>

Insight into global digital currency efforts <https://cbdctracker.org/>



Security Model to Guide Decision Making for Securing Blockchains

Gerhard Cronje

CISO Alliance

30 May 2022

Warning – It might feel a little too much to take in...



2022-06-06

Agenda

- 1) Fintech First?
- 2) Blockchain/DLT
- 3) Making Sense of it
- 4) Decision Making Model



Fintech First?

Just to set some context

Fintech Definitions

- The Centre for Finance, Technology and Entrepreneurship¹ surveys a couple of Fintech definitions for us:
 - EY adopts a more encompassing definition of fintech as: “organizations combining innovative business models and technology to enable, enhance and disrupt financial services”, emphasising that fintech is not only about early-stage start-ups and new entrants, but also scale-ups, maturing firms and even non-financial services firms.
 - In the same vein, McKinsey & Company characterises fintech company as: “start-ups and other companies that use technology to conduct the fundamental functions provided by financial services, impacting how consumers store, save, borrow, invest, move, pay, and protect money.”
 - Similarly, KPMG defines fintech as: “a portmanteau of finance and technology” which includes (1) “businesses who are using technology to operate outside of traditional financial services business models to change how financial services are offered” and (2) “that use technology to improve the competitive advantage of traditional financial services firms and the financial functions and behaviours of consumers and enterprises alike.”
 - Accenture states that fintech is about using technological advances to improve financial services, emphasising that: “the ‘tech’ in Fintech is the emergence of brand new technologies, such as AI, blockchain, analytics and big data.”

1. <https://medium.com/the-centre-for-finance-technology-and-entrepreneur/what-is-fintech-what-are-some-definitions-of-fintech-ddffebd98c1d>

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Security Elements – New Focus Areas

- Traditional security models still apply but what is notably new in terms of focus:
 - Changing Operating Models (Traditional hierarchical role-players and boundaries are shifting) - New Governance / Security Approaches (new borderless alliances non-traditional financial sector players, decentralized trust)
 - Distributed Ledger (Next Session)
 - Identity/Privacy and Keys
- Layered Approach to Security ensures holistic thinking (Fintech tends to latch security on to “one” idea and discipline of building on previous thinking required for security is often lacking)

2022-06-06

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Blockchain/DLT

I know there is a difference... but today I don't care...



Blockchain/DLT Definition (What Satoshi¹ said)

1) Uses of cryptographic private and public key pairs with hashing to enable peer to peer transactions.

2) Employs timestamps on grouped (blocked) transactions to create a time-based chain .

3) Ensures veracity of the chain across the distributed peer-to-peer network using the proof-of-work concept.

4) Defines the rules of engagement required from the network nodes in transmitting transaction and providing and verifying the proof-of-work outputs.

5) Uses an incentive system for nodes to ensure processing.

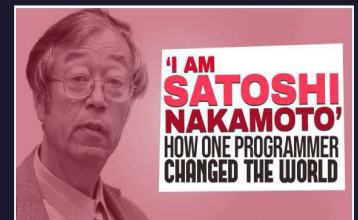
6) Optimises storage space by discarding details of unneeded spent transactions.

7) Defines how payment verification can be simplified by only retaining headers of the longest proof-of-work chain.

8) Combines various input transactions to enable the output of transferring a set value.

9) Establishes privacy but upholds transparency through using uniquely identifiable keys but not enforcing the linkage of such to an individual's identity.

10) Ensures infeasibility and lack of incentive for an attacker or group of attackers to corrupt the chain.



¹. Nakamoto, S. (2008) *Bitcoin: A Peer-to-Peer Electronic Cash System*. doi: 10.1007/s10838-008-9062-0.

Major Additions ...



Two Security Dimensions in DLT



Making Sense of it

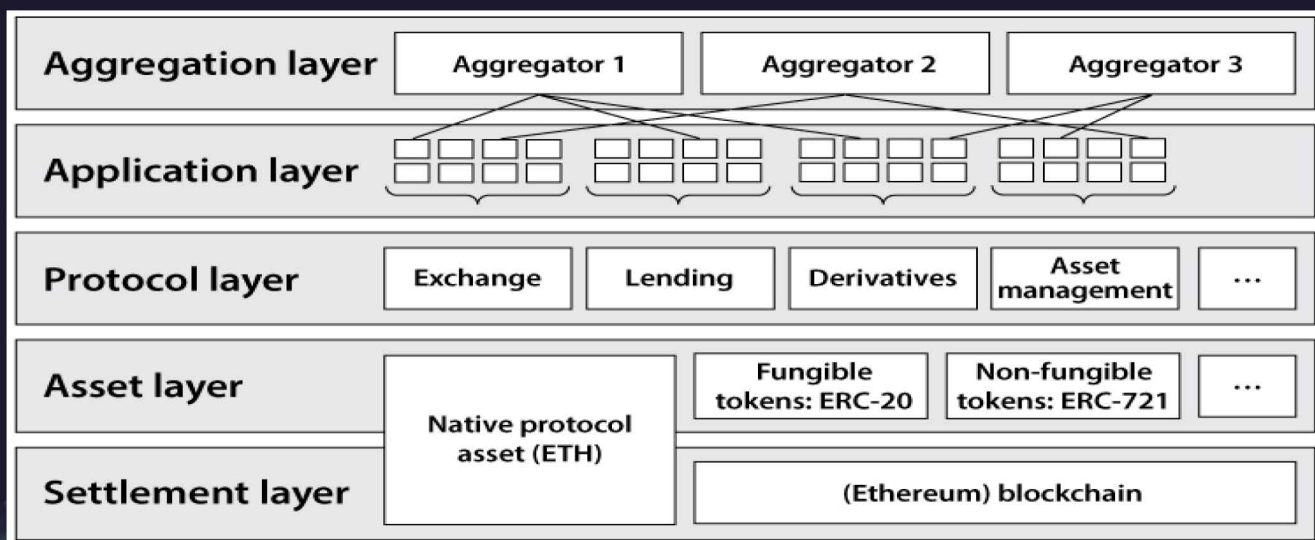
If you are not lost as to where to begin... you are better than me...

Warning – It seem like a convoluted mess...



Model – Layered thinking

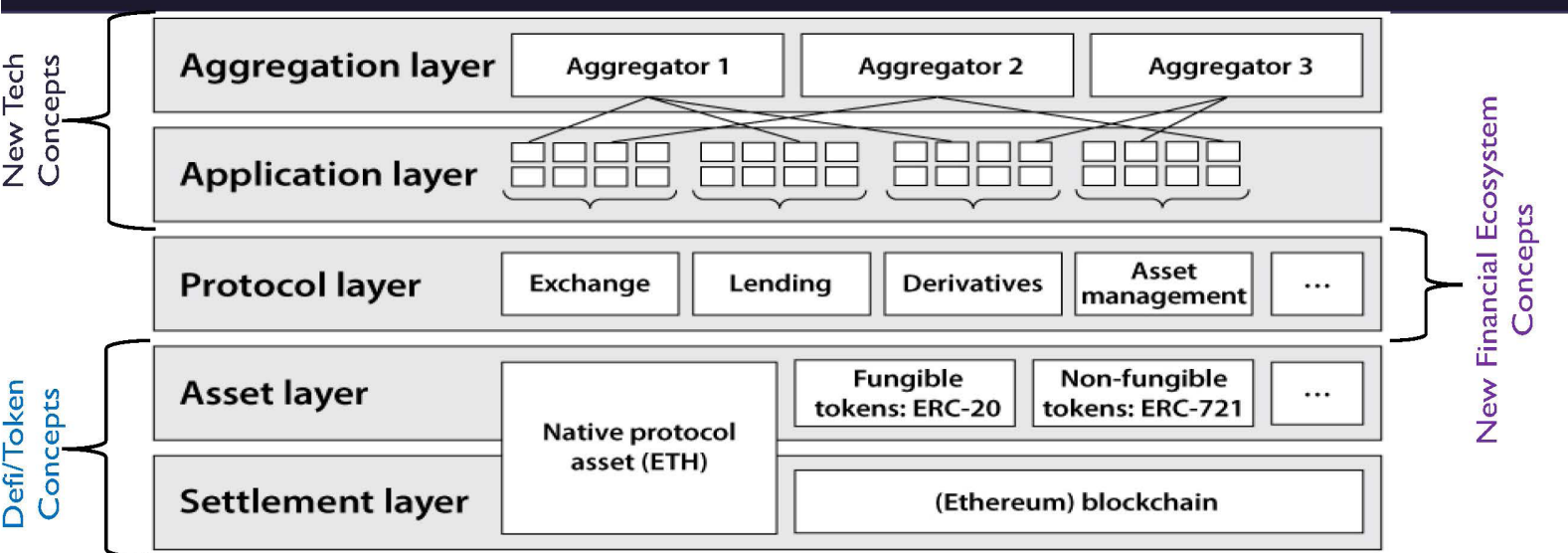
- Schär (2021) introduces a layered model in what he refers to as the “DeFi Stack”:



1. Available at: <https://research.stlouisfed.org/publications/review/2021/02/05/decentralized-finance-on-blockchain-and-smart-contract-based-financial-markets> (Accessed: 15 February 2021).

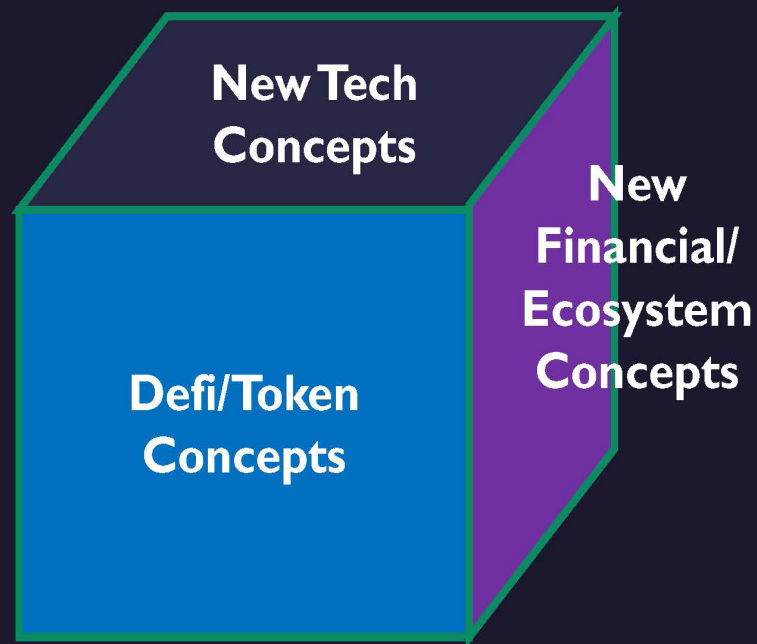
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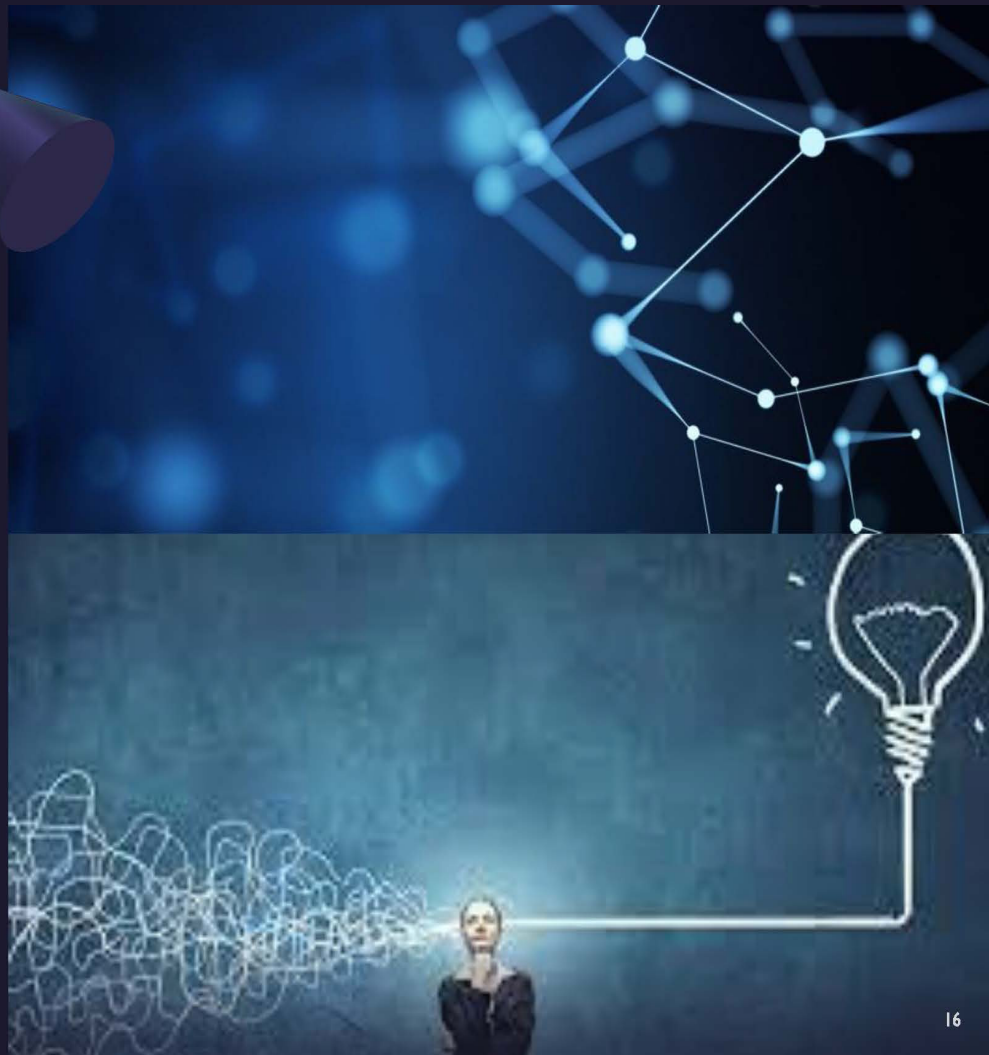
Dimensions



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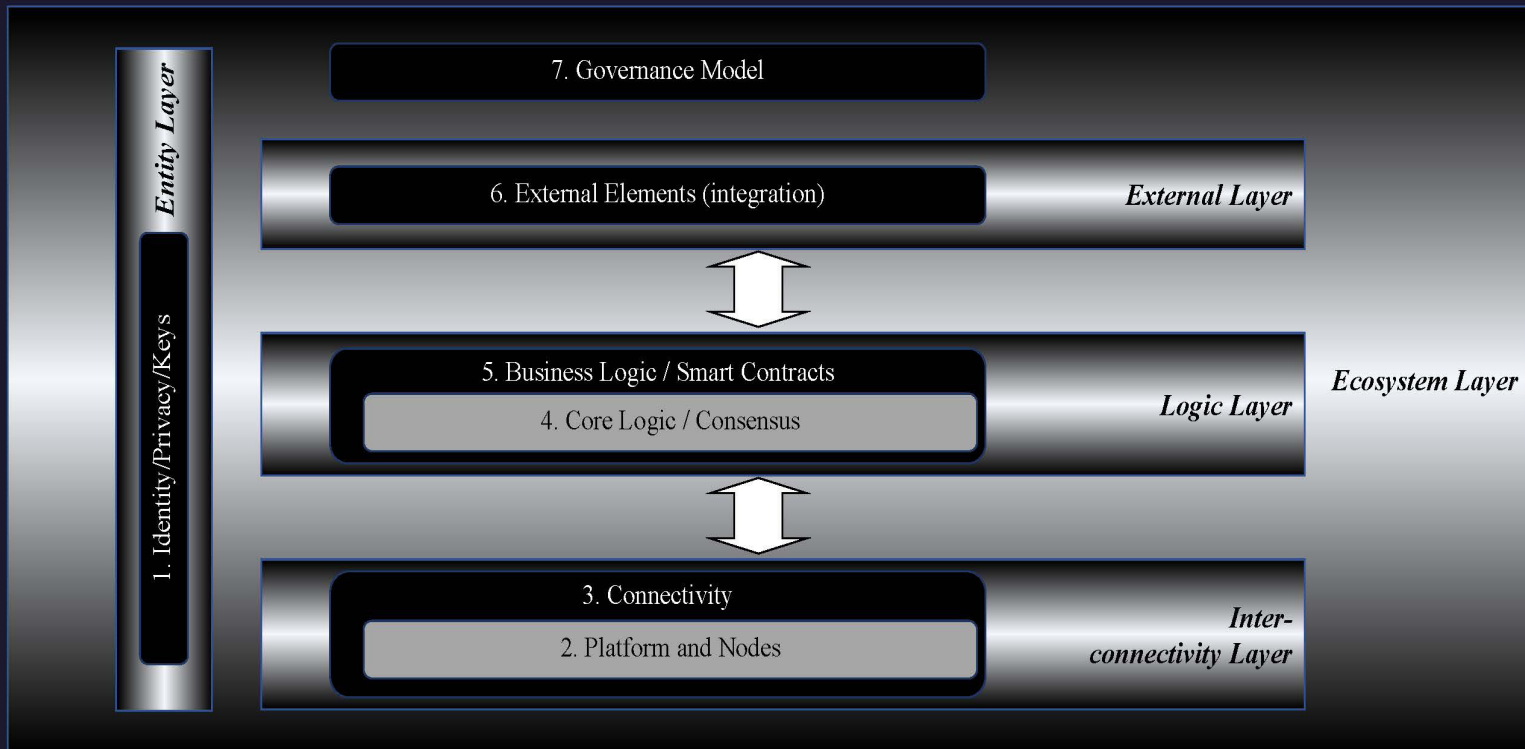
Decision Making Model

Can you say OSI - It makes sense to me 😊...



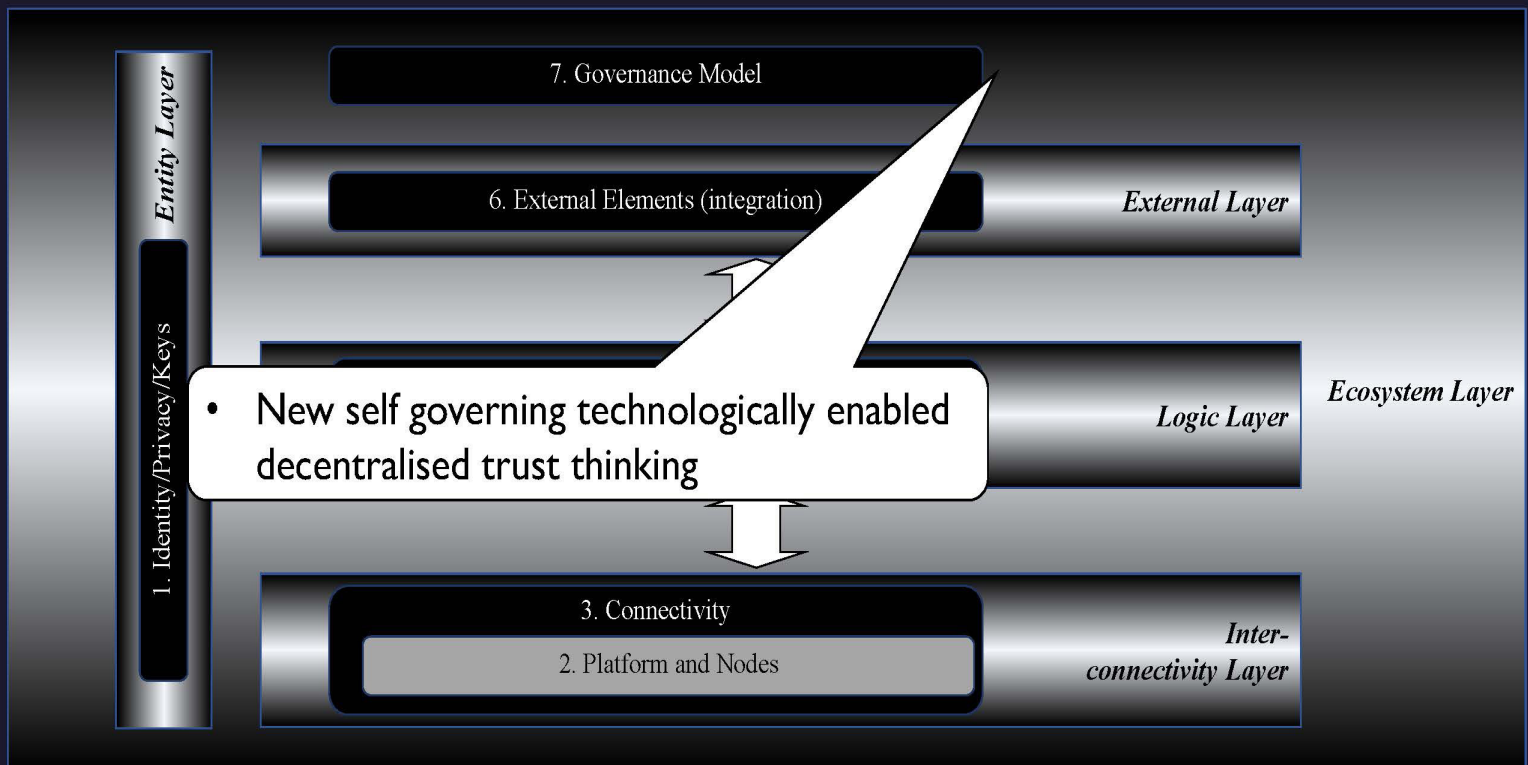
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Proposed Security Decision Making Model



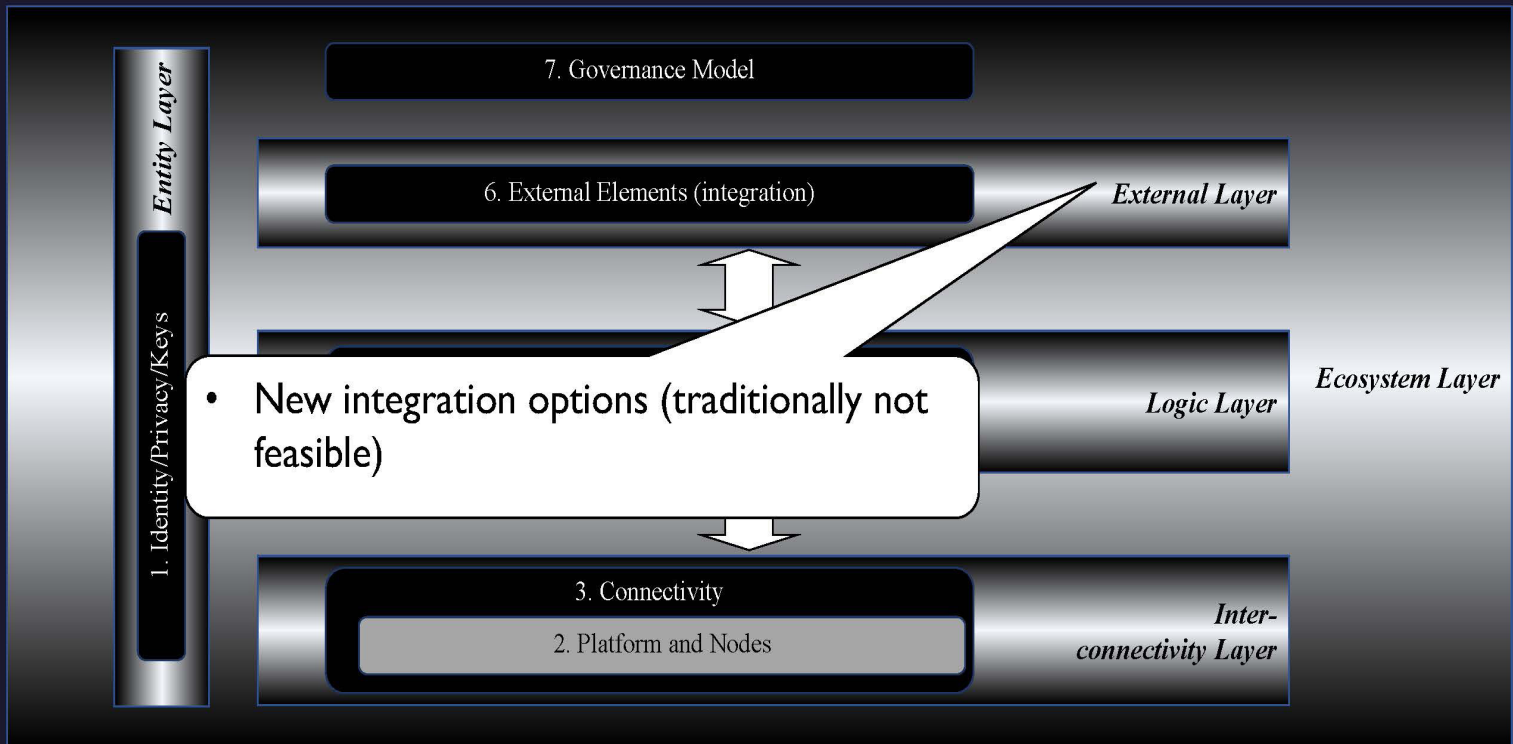
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Proposed Security Decision Making Model (Why?)



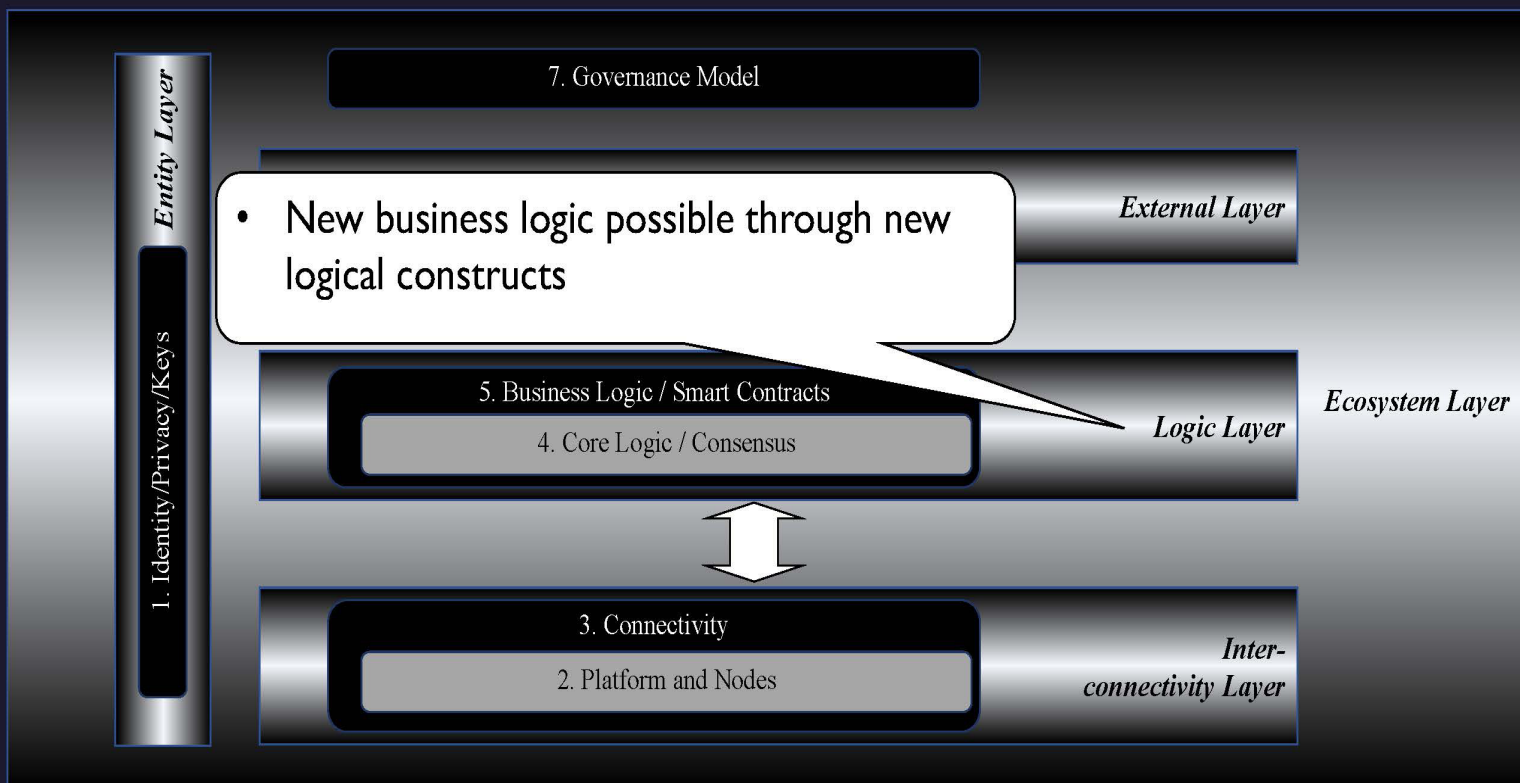
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Proposed Security Decision Making Model (Why?)



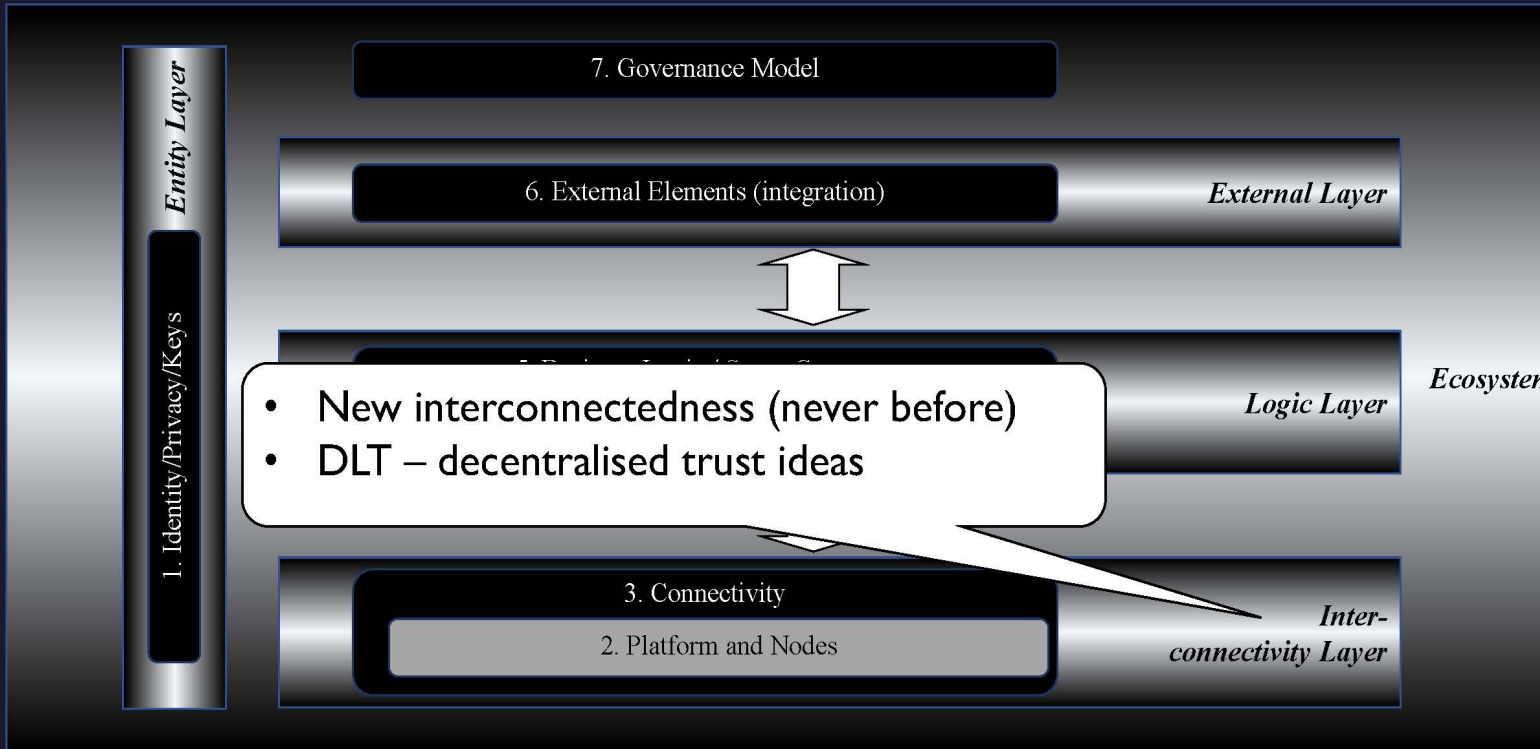
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Proposed Security Decision Making Model (Why?)

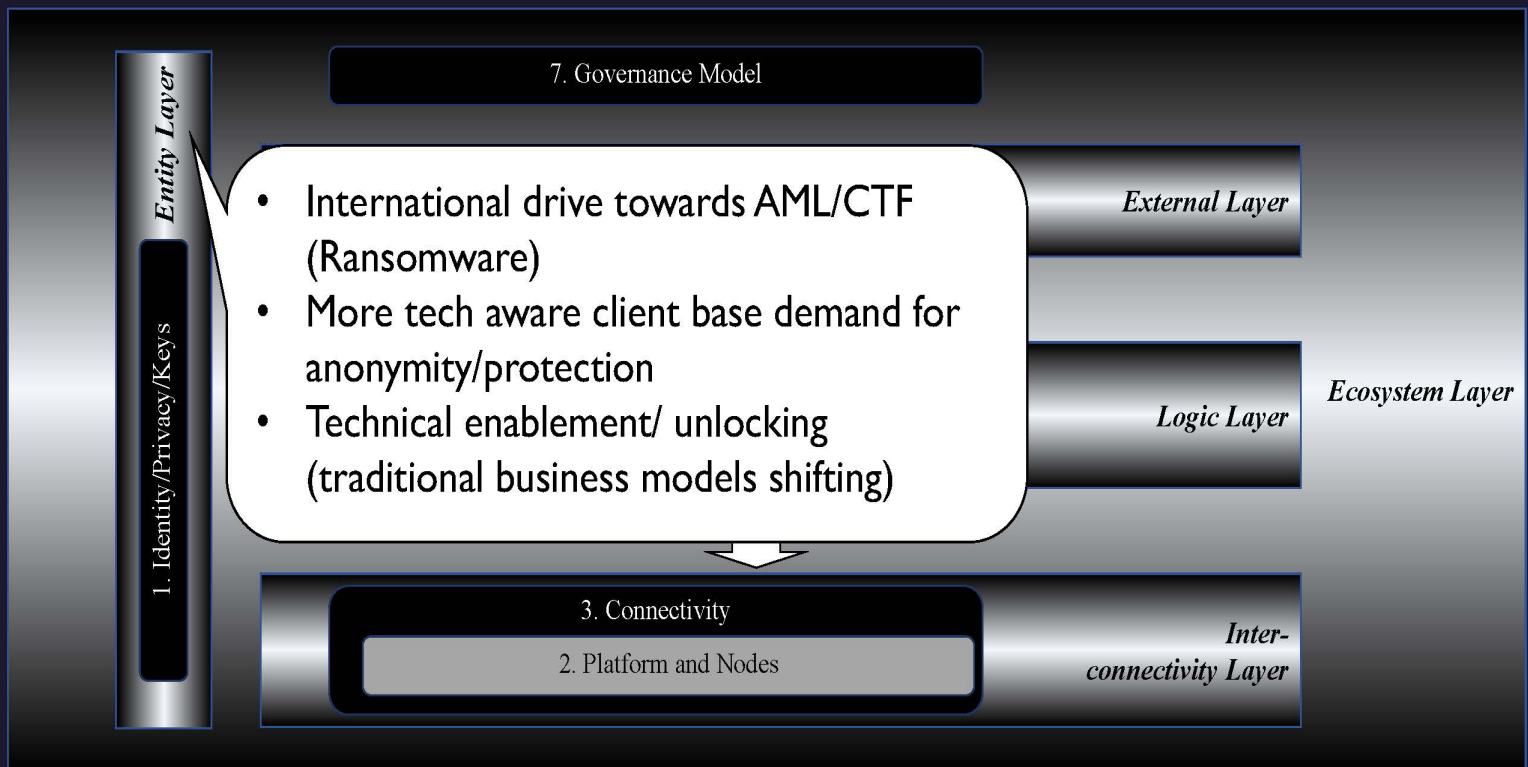


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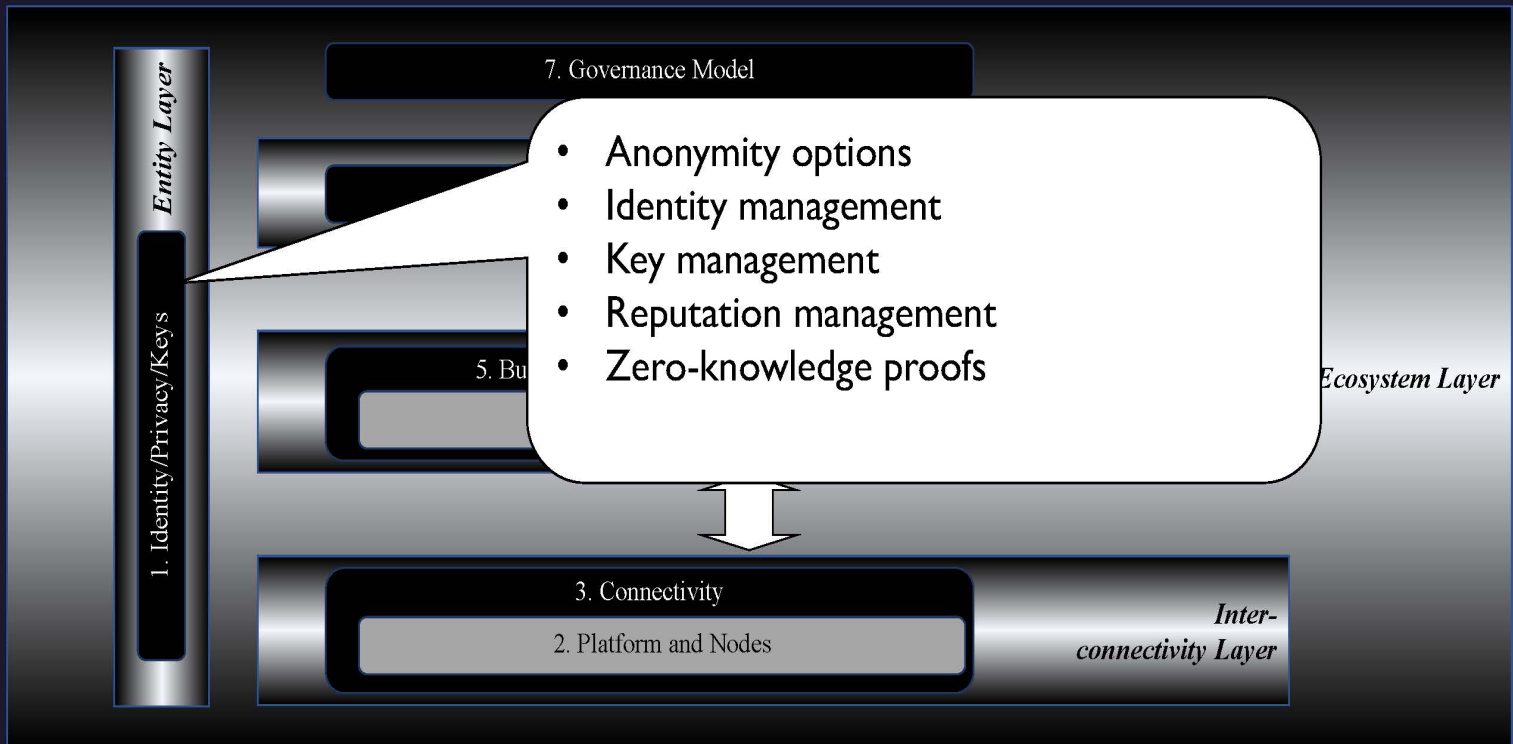
Proposed Security Decision Making Model (Why?)



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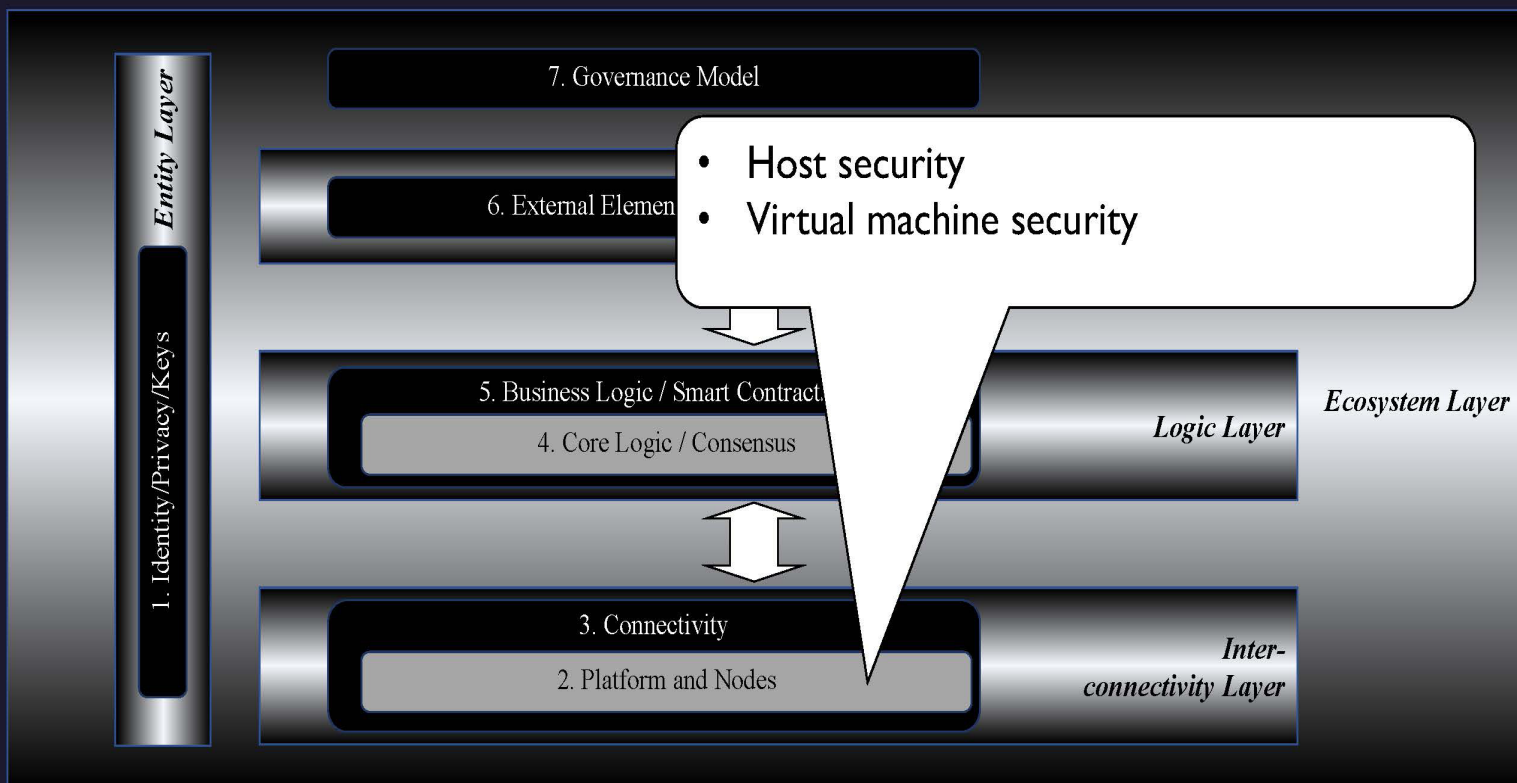


Proposed Security Decision Making Model (How?)



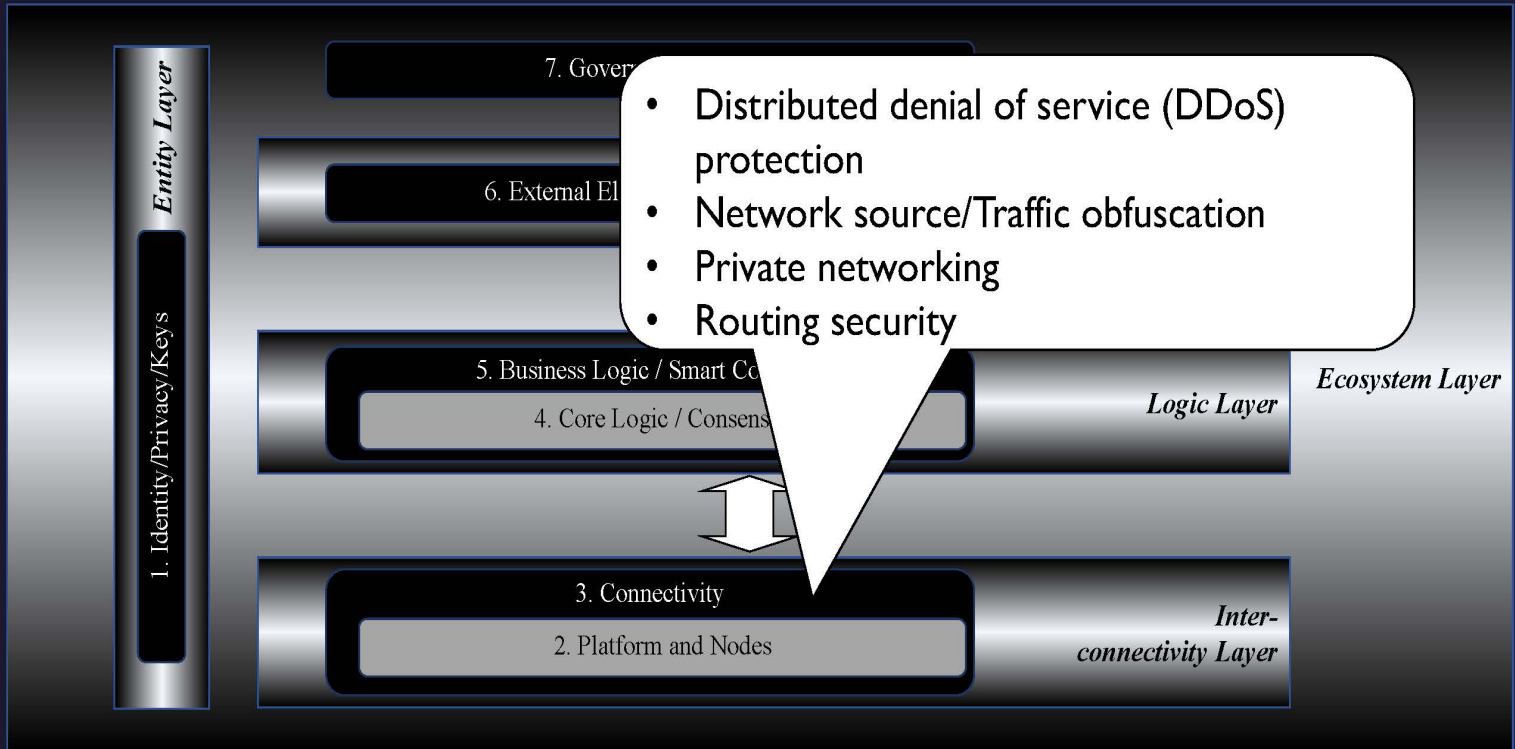
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Proposed Security Decision Making Model (How?)



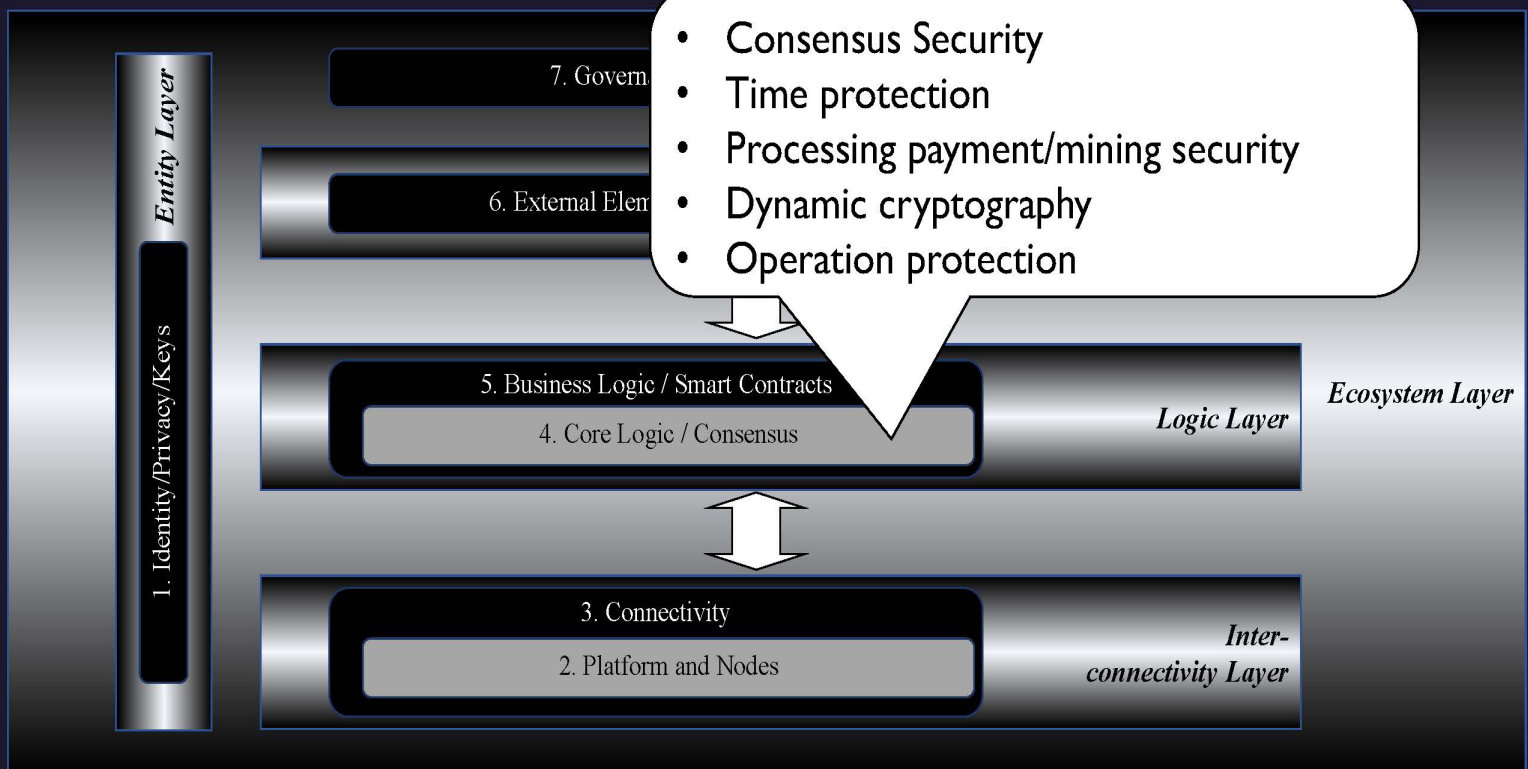
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Proposed Security Decision Making Model (How?)



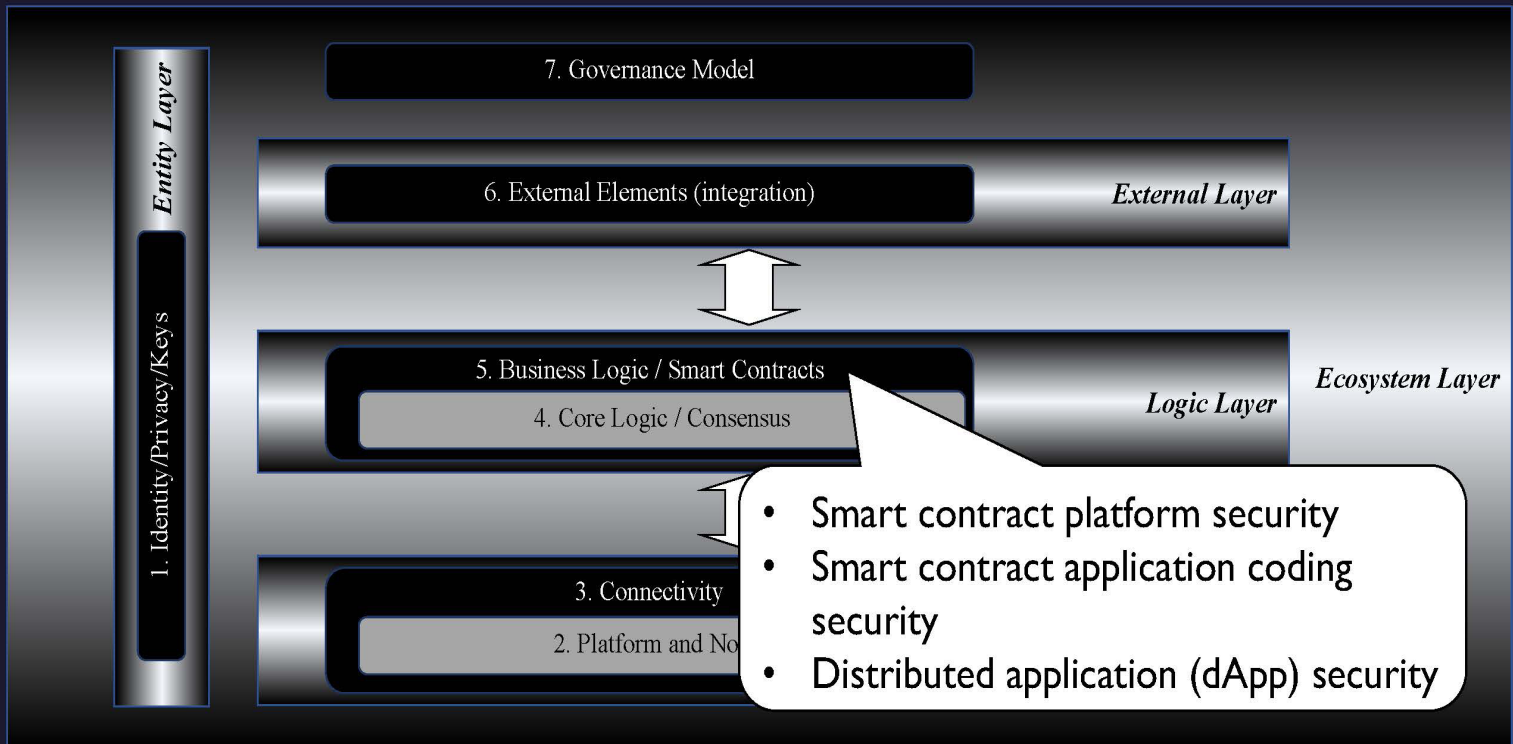
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Proposed Security Decision Making Model (How?)



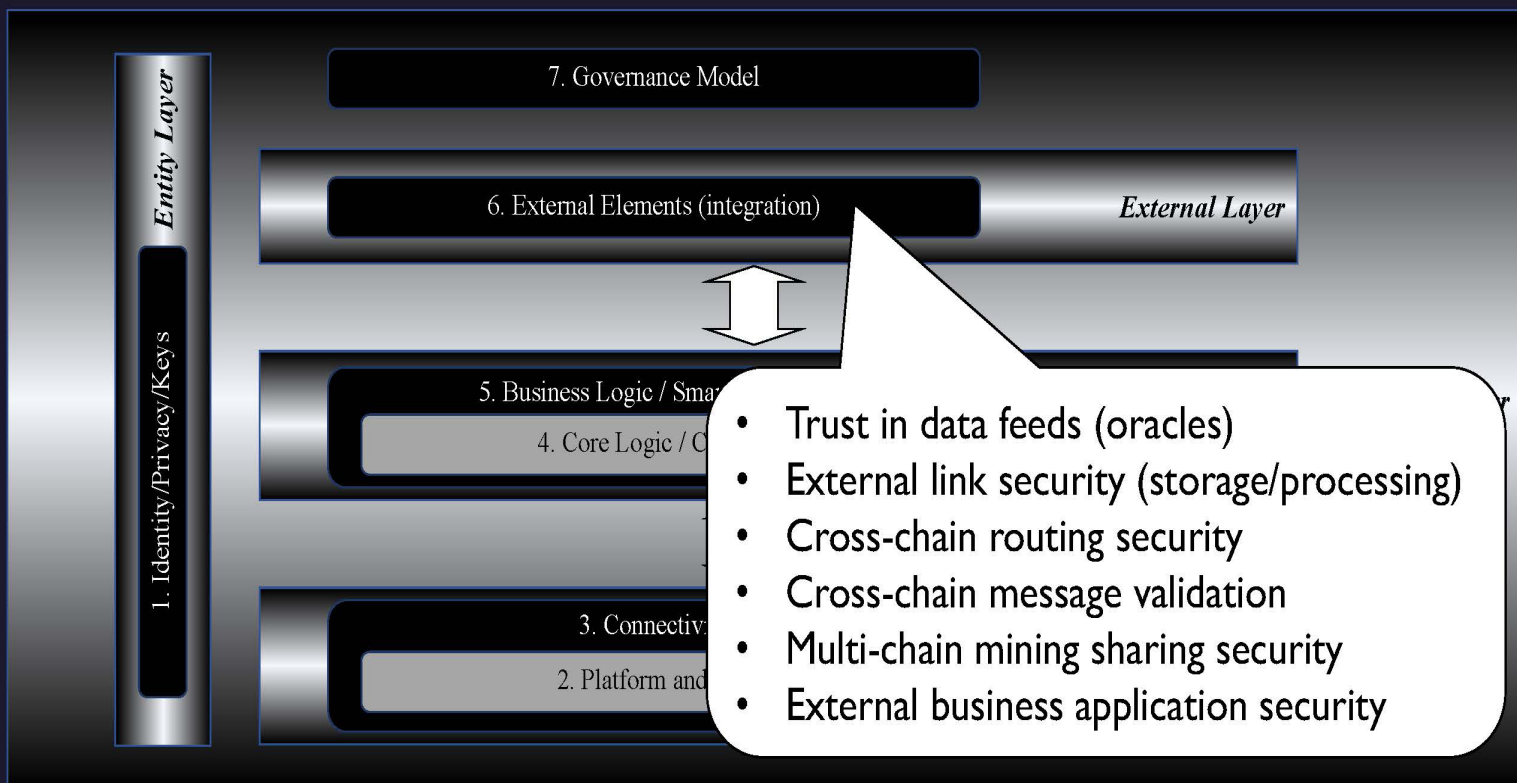
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Proposed Security Decision Making Model (How?)



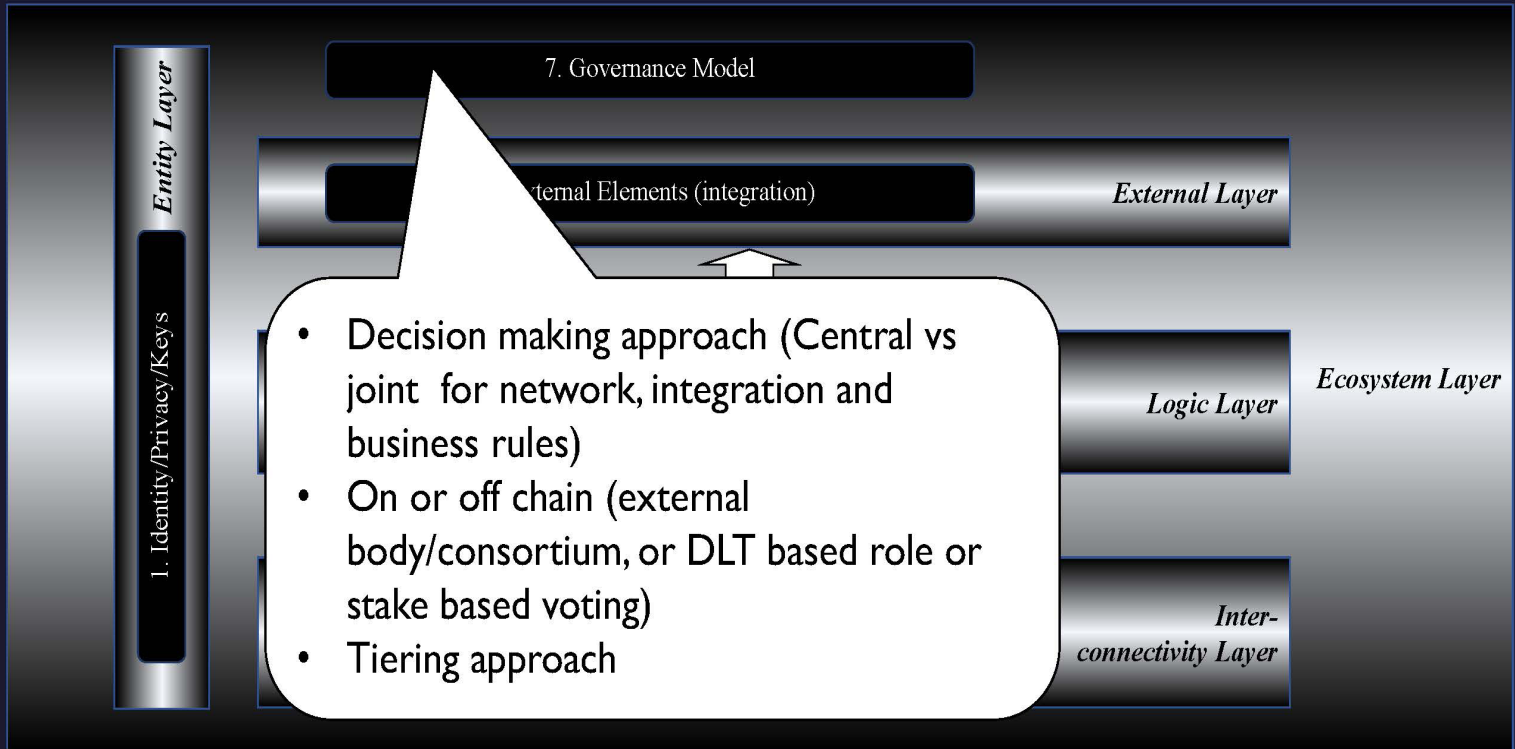
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Proposed Security Decision Making Model (How?)



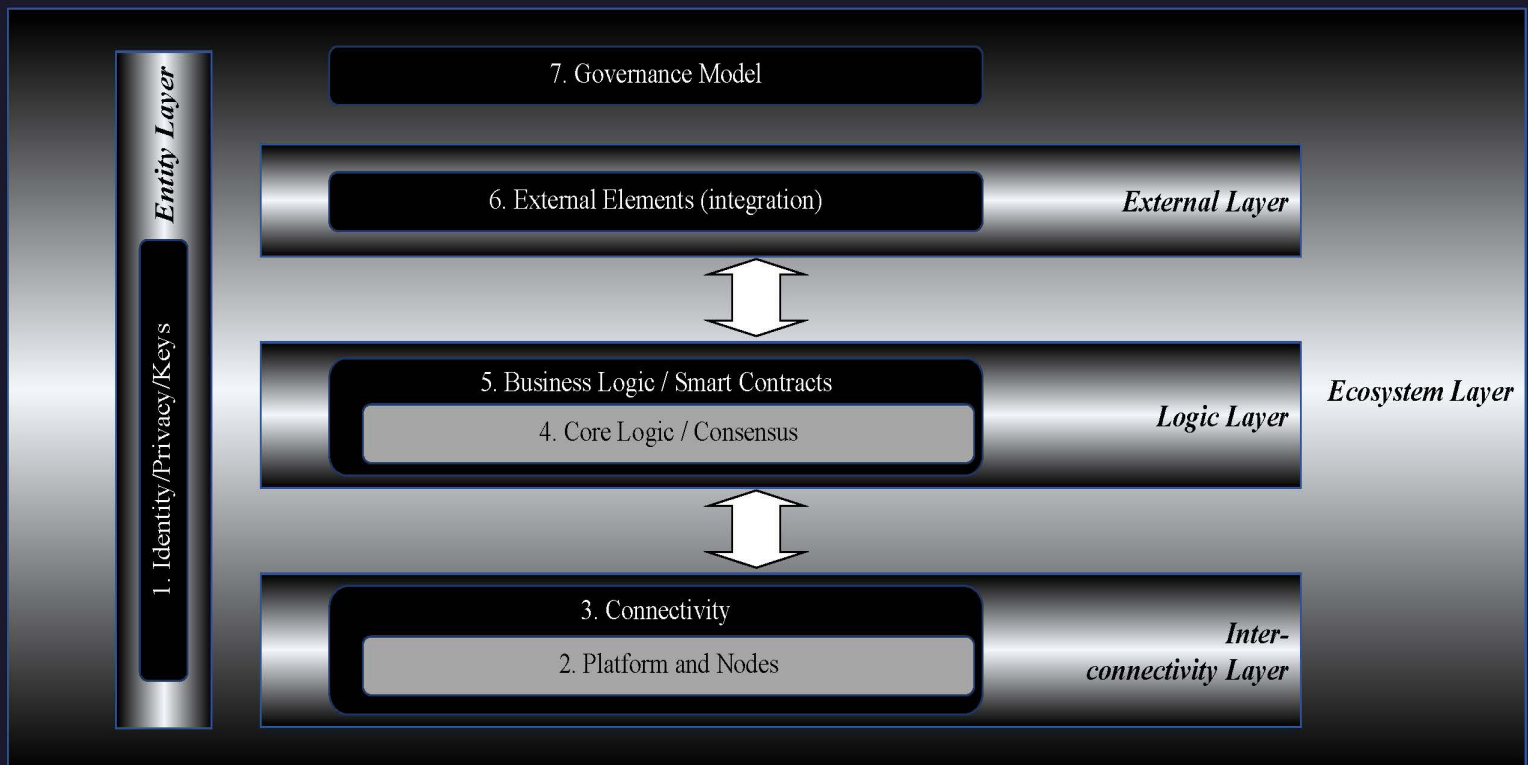
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Proposed Security Decision Making Model (How?)



29

Proposed Security Decision Making Model



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CISO Alliances

CISSOP



PROCEDURES BY PROFESSIONALS
SECURING THE BUSINESS

CISSOP by the CISO Alliances

Cyber and Information Security Standard Operating Procedures

Simply put, this has been launched to empower the end user executive to have input and control a truly end user only procedure around the true focuses in securing the business from a Cyber and Information Security perspective.

Why we are working on it?

The Cyber and Information Security Business Divisions are likely to be battling the same or similar threat landscape and impactful and disruptive breach attempts. Not much is standardised or end-user produced in terms of procedures. This is fundamentally why CISSOP by the CISO Alliances was born.

Planned Outcomes

Leverage CISO Alliances community experiences to create a standardised approach to business in Cyber and Information Security where possible

Published to the active global community

Published as a playbook. Printed and distributed to the wider Cyber and Information Security Community

Expressions of interest to be sent to

cissops@alliances.global

Can you suggest and contribute to create a standardised operating procedure with your peer?

Produced by:



Alliances Activities



 Executive Business Exchange

NORTH AMERICA

CISO Alliances

UK & IRELAND
DUBLIN
EDINBURGH
MANCHESTER
LONDON

 Executive Business Exchange

SOUTH AMERICA

CISO Alliances


LAGOS CHAPTER
ACCRA CHAPTER
ABUJA CHAPTER

CXO Alliances


WESTERN CAPE CHAPTER
KWAZULU NATAL CHAPTER
GAUTENG CHAPTER

CISO Alliances

CAIRO CHAPTER

 Executive Business Exchange

ASIA

 Executive Business Exchange

RIYADH
DUBAI
DOHA

CXO Alliances

NAIROBI CHAPTER
PORT LOUIS CHAPTER

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