

*Trusted Identities  
That Drive  
Global Commerce*



## **Identification and Authentication requirements for a trusted online world**

*Governance & Operational Risk Management in a world of ubiquitous & instantaneous electronic networks – Public and Private Sector, spanning*

*Industry verticals & Geographies*

*15<sup>th</sup> June 2015      John G Bullard*

**Camino Workshop**

**Royal Holloway University**

## Galls Law- A Classic Illustration of the challenges

- “A complex system that works is invariably found to have evolved from a simple system that worked. The Inverse also appears to be true, a complex system designed from scratch never works, and cannot be made to work”

Quote from John Gall’s publication “Systemantics: How Systems Really Work and How They Fail”

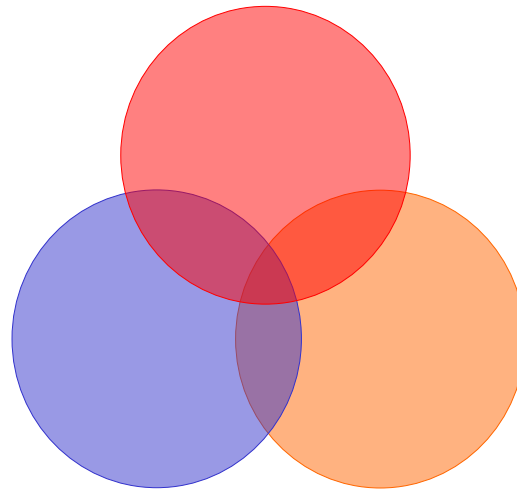
## Do we agree what we mean by “trusted eIdentity”?

- ✓ Having ***absolute certainty*** of who you are interacting with
- ✓ Being ***able to check/validate*** that this is, indeed, the case
- ✓ Knowing who ***guarantees*** the identity of the individual
- ✓ Being a ***real name***, not just a number
- ✓ Having ***complete trust*** to act on their instructions
- ✓ Having a ***transparent audit trail*** of who did what, and when
- ✓ Seeing eID as a key component to ***limiting liability*** and ***external exposures***

***In the online world, this creates many significant issues to overcome, especially in OpRisk and related transaction management***

**And yet ...Today we have**

**Solutions defined by national boundaries, which cannot operate outside?**



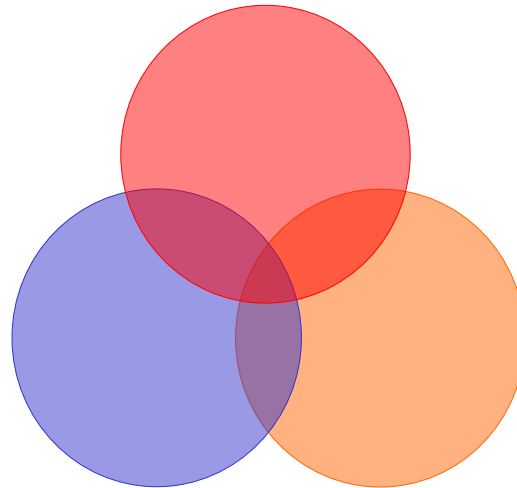
**Solutions defined for a single Industry vertical ?  
(e.g. Pharma, Aerospace, Insurance, Government )**

**Solutions defined by a product/an application?  
(e.g. Payments Only  
eInvoicing only  
or Logistics only )**

**Should we look for an approach which  
can cover all 3 circles...**

## Operational Risk Management

Transactional e.g. national and global payments and settlement functions

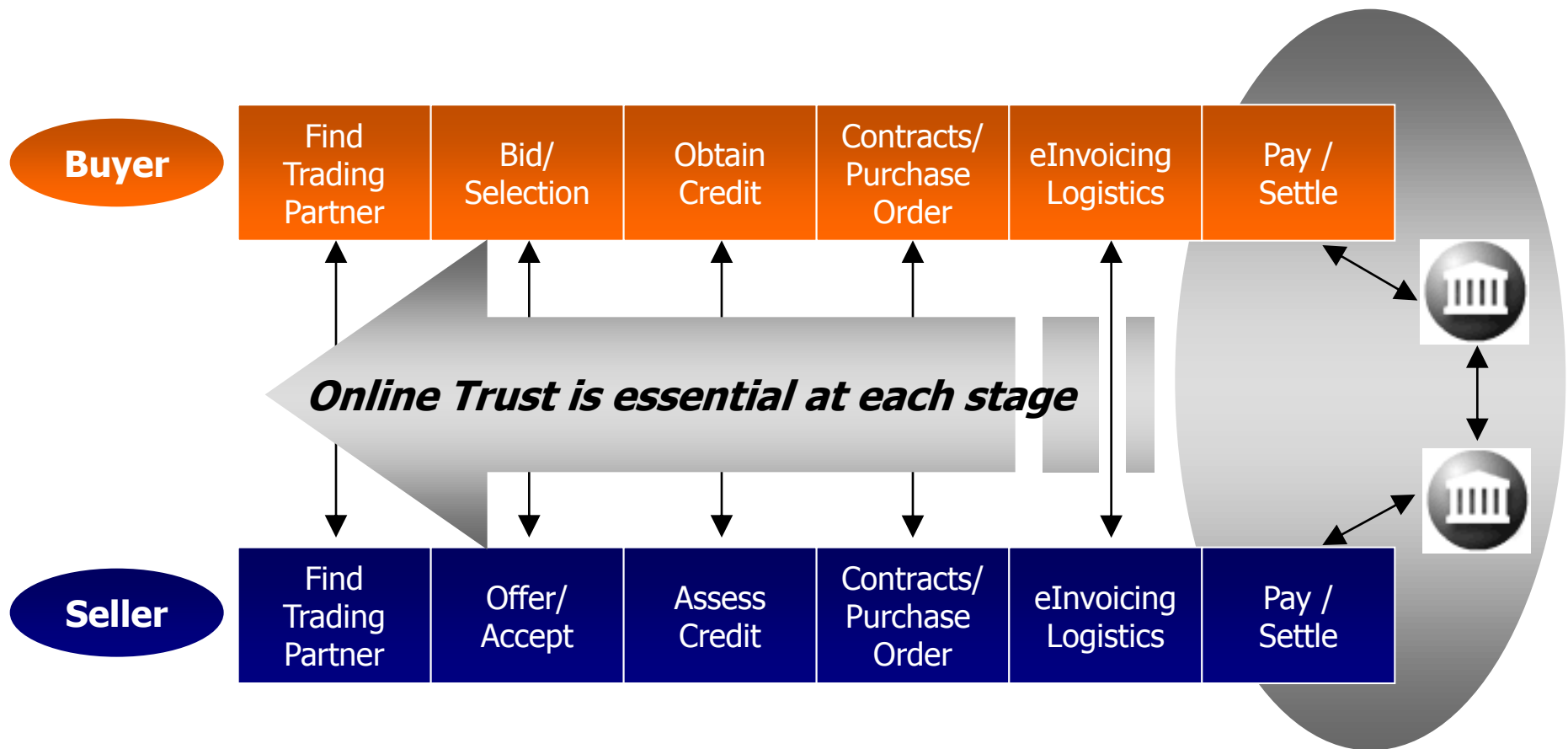


**Credit Markets Risk Management**  
i.e acceptance of deposits  
and making loans

**Capital/Wholesale Markets  
Risk Management. Banks trade  
on their own behalf or for customers**

**Trusted eIdentities, underpinned by strong KYC processes, are  
essential for each area of Risk Management**

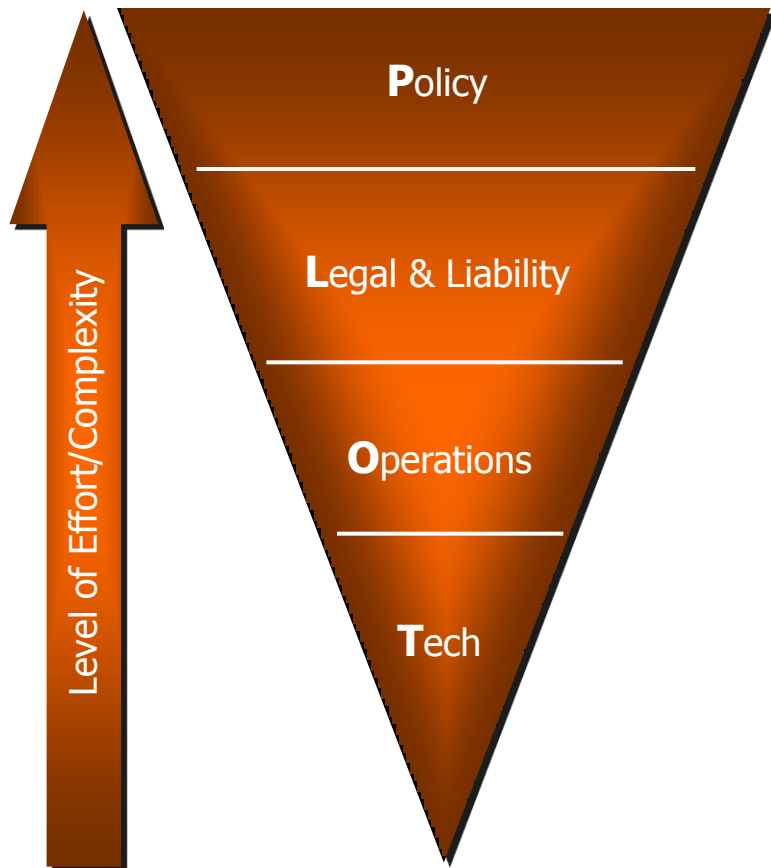
# Why is this subject of significant interest to Business, to Governments ... and to their Banks - in the Internet Era?



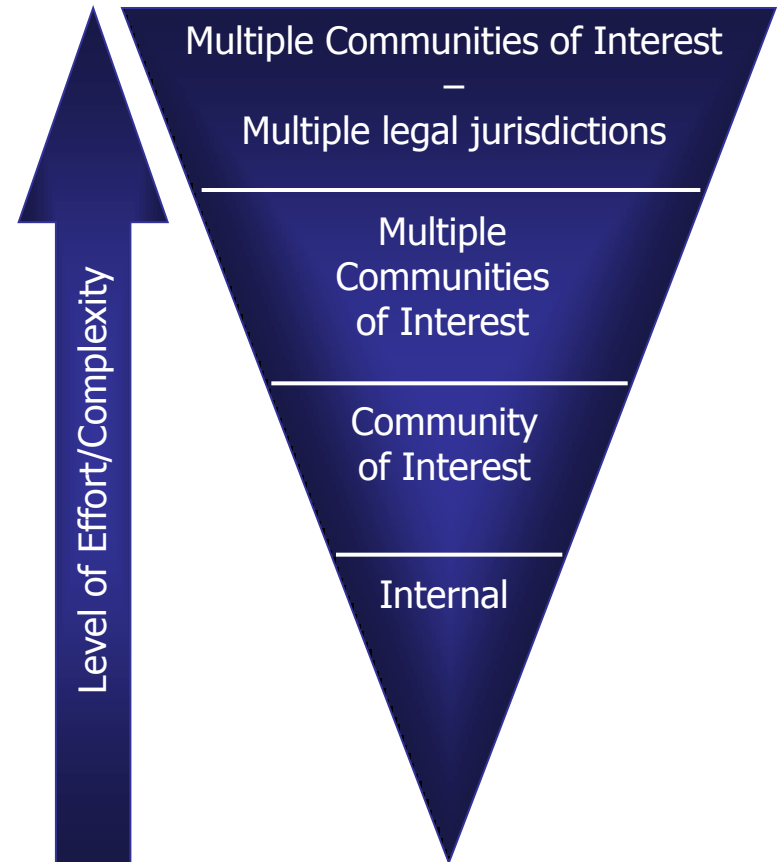
***Banks Traditional Trust /Assurance Role in payments can be leveraged***

# The dimensions of Identification and of Authentication

## 1. What aspects of Identity will be managed?



## 2. Who will be covered by the identity management solution?



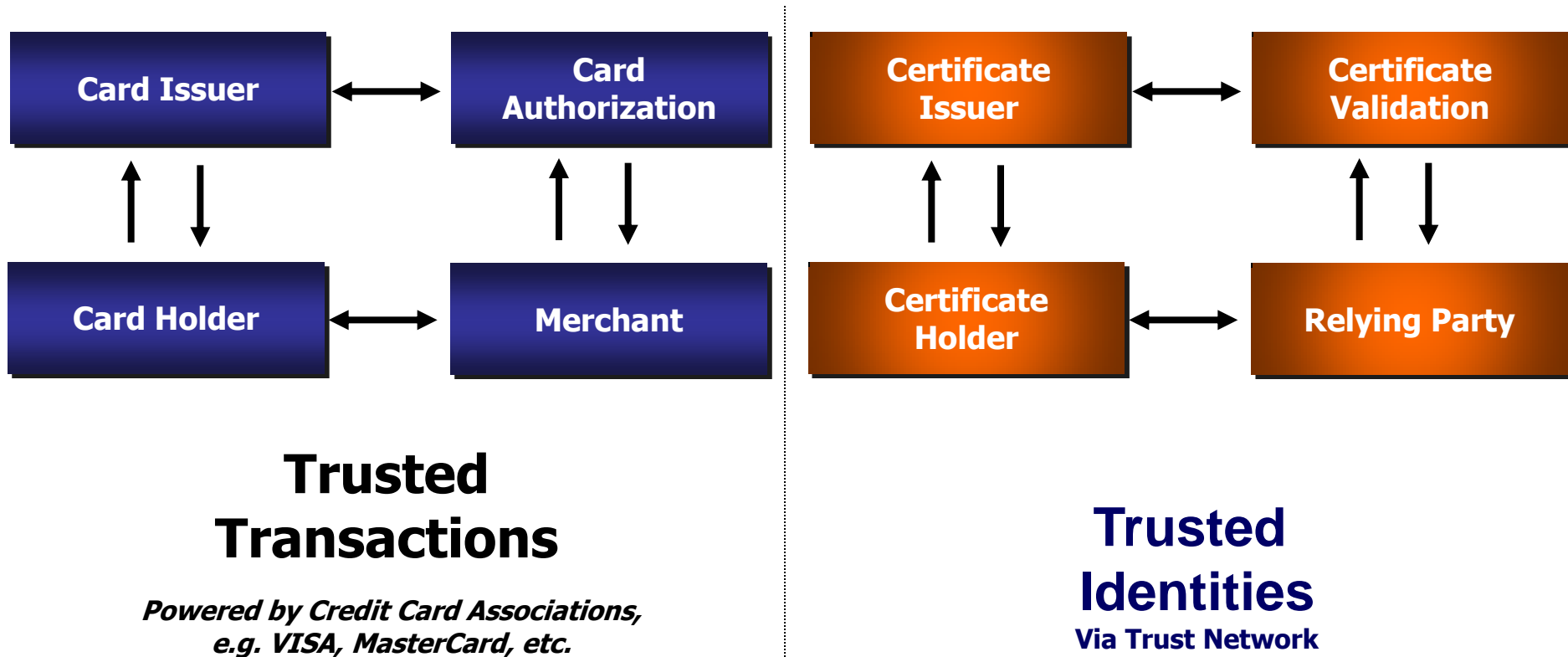
# The concept of a Bank-based Identity Solutions Provider

- Built by banks, for bank, regulator-grade – the **identity 'gold standard'**
- Global **interoperable identity scheme** (Trust Network)
  - User-level non-repudiation, legally enforceable
  - Regulator-grade identity vetting
  - Single identity, multiple uses, any form-factor (hardware or software based identities)
  - Member banks issue identity credentials usable in more than 172 countries
- Proven record of delivering **bank-grade strong authentication** (Trust Gate)
  - Used across 6+ billion transactions annually
  - No data or infrastructure compromise in the ten years of platform operation
  - Multiple fulfilment options
- Proven supplier of **outsourced PKI hosting services** with a compelling and **proven ROI** (Trust Infrastructure)
  - Support services based on multiple identity schemes (banking, government, industry and corporate)
- **Used by many of the world's leading financial institutions** and multinational corporations
- **3 million+ certificates** issued across all policies





# The model is evolutionary. Think of 1970's creation of Visa or MasterCard as Schemes for Card Payments



**As a Third-Party Enabler that operates the network, uses established standards, and ensures compliance**

## It isn't just a technological issue....

Aided by lawyers worldwide and customer input, banks financed an ***Operating Rule Set*** approach to global identity credential management

### **P**olicy

- ✓ KYC consistency
- ✓ Global regulatory compliance

### **L**egal

- ✓ Global contractual framework
- ✓ Contracted liability model
- ✓ Dispute resolution

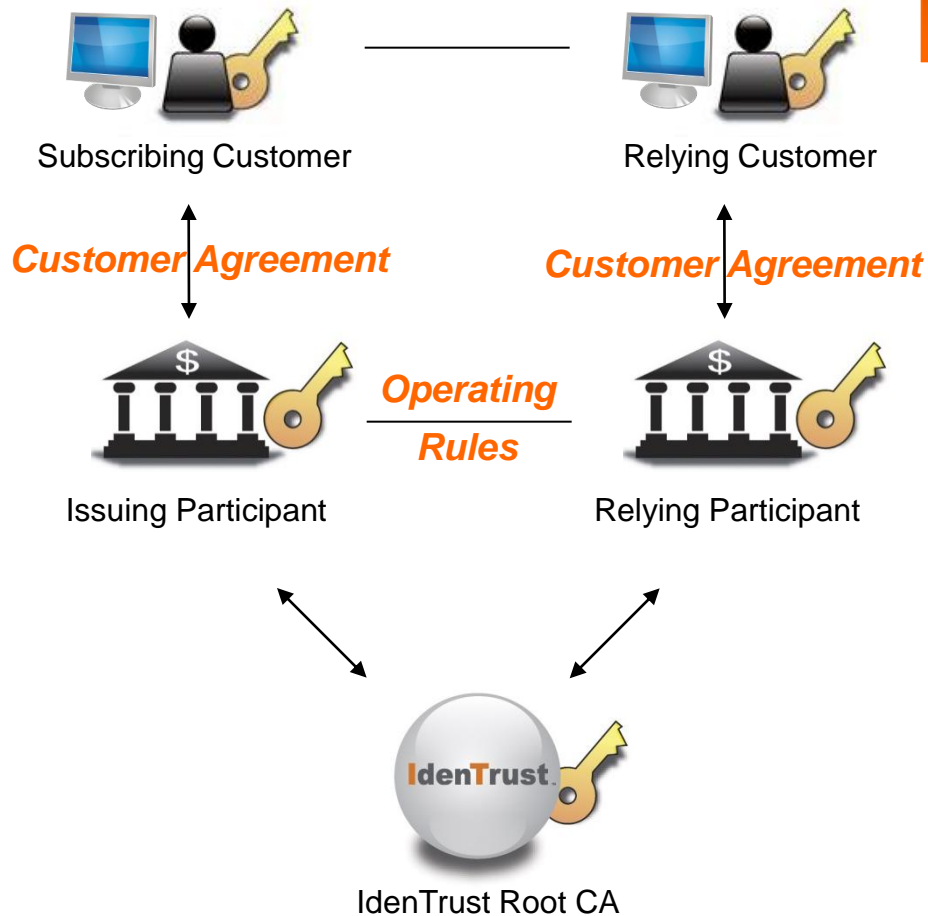
### **O**perational

- ✓ Data centre security
- ✓ Consistent manufacturing process
- ✓ Secure fulfilment process
- ✓ Cross community efficiency

### **T**echnical

- ✓ Industry-standard technologies
- ✓ Interoperable solution elements
- ✓ Consistent deployment

## It has a Contract-based legal framework



### *Global Legal Interoperability is possible only in a Contractual System governing ...*

- **Liability and Recourse Among All Parties**
  - Operating Rules bind all players
  - Customer Agreements bind customers to contractual liability limitations
- **Legal Recognition of Digital Signatures**
- **Contract Formation Electronically**
  - Signed OCSP validation assures every Relying Party is bound to a customer agreement
  - Legal effect of digital signatures authenticated by validated certificates provided by contract, globally
- **Dispute Resolution over Signature Validity**
  - Dispute Resolution Procedures provide private forum (London Court of Arbitrage)
- **Technical Standards**
  - Ensures compatibility across the Network
  - Reduces cost through vendor competition for standard component elements

# In practice such Bank-issued credentials fulfill 4 capabilities

## **1. Access Only**

- Support better Single Sign-on, with improved controls
- Establish two-factor compliance for regulatory purposes
- Limit capability to access; no identity, encryption, or electronic signature

## **2. Authentication**

- Provide Access control and add use of Digital Signatures to prove identity and deliver non-repudiation
- Reduce online fraud
- Provide audit and compliance tracking

## **3. Encryption**

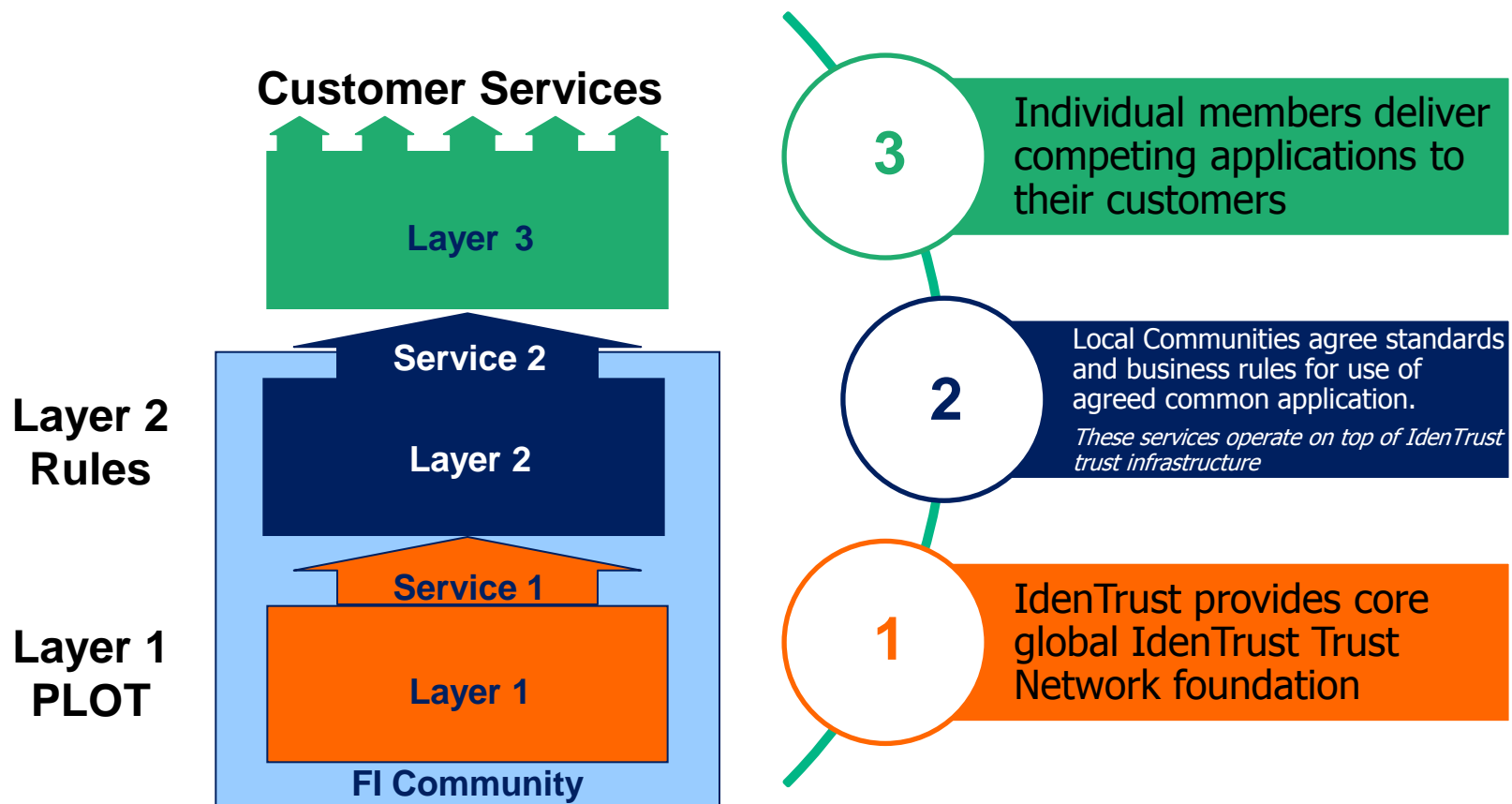
- Safeguard content and eliminate pharming
- Encrypt data while in transit and at rest including supporting format preserving encryption (FPE)
- Ensure document and data integrity for electronic documents and forms

## **4. Electronic Signatures**

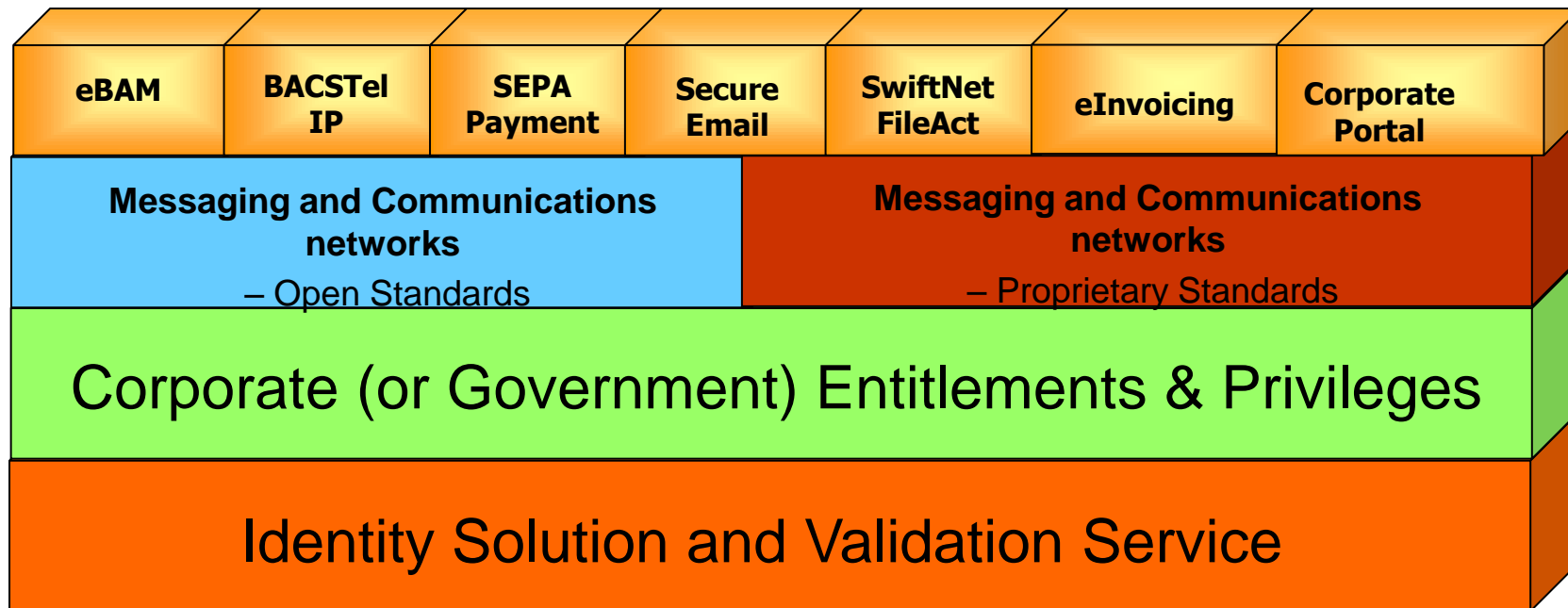
- Replace “wet ink” signatures
- Provide legally-binding user-level signatures
- Enable reengineered electronic processes including STP

# Communities: Localisation

Layering of business and application rules on top of Trust to minimize duplication and extend reach as broadly as possible



## Foundation stone of a multi-use identity and validation layer



- Lower cost of ownership and economies of scale are achieved through spreading fixed costs across a larger volume of certificates- Multipurpose certificates have a greater value than single use certificates
- Improved customer experience through the use of standard authentication methods across the enterprise and Interoperability of certificates both internal and external from the enterprise, and future proofing your investment by building a solution that satisfies future customer supply chain requirements

# Customer Proposition – true interoperability

## Historic parallels – electricity voltages, railroad gauges

Secure email	ERP	eInvoicing & Trade Mgmt	Country Scheme e.g. CNIPA (Italy)	BACSTEL-iP (UK)	Electronic Banking	Other Applications
<b>An integrated Identity Solution</b>						

*instead of different identification and different authentication methodologies for each verticle*

FileAct	ERP	eInvoicing & Trade Mgmt	Country Scheme e.g. CNIPA (Italy)	BACSTEL-iP (UK)	Electronic Banking
<b>Identity Solution 1</b>	<b>Identity Solution 2</b>	<b>Identity Solution 3</b>	<b>Identity Solution 4</b>	<b>Identity Solution 5</b>	<b>Identity Solution 6</b>

***Single vs. Multiple Platforms***

***Interoperable vs. 'Point' Solution***

***Single vs. Multiple Tokens***

***Cross-border vs. solely Local solution***

***High vs. Lower RoI***

***A utility. High vs. Low Scalability***

# ... each usable independently or as part of a broader interconnected Supply Chain structure



IdeaTrust TN – Identity – Validation – Liability Management  
Globally interoperable – Legally enforceable



# Perspective

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- “The Past and the Future are two sides of one paper; he who learns this will discover a new Beginning at the end of a previous Age”

quote Mihai Eminescu a Romanian Philosopher & Poet (1850-1889)

Thank you !

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