Trust Frameworks: Their Critical Role in Governing Identity Systems and Allocating Liability
Technology Tools + Governing Rules = Trust
Governance Rules: Options

Bi-lateral Contracts

Loosely Coupled SLA’s

Terms of Service Agreements

Trust Frameworks
Why Trust Frameworks?

- Functionality/Interoperability
- Internet/Scalability
- Openness/Transparency
- Opportunity Cost /Time-to-Market
Evolving Definitions of Trust Frameworks

**US FICAM:** processes and controls for determining an identity provider’s compliance to OMB M-04-04 Levels of Assurance

**ISO 29115 Draft:** a set of requirements and enforcement mechanisms

**OITF Model:** a set of technical, operational, and legal requirements and enforcement mechanisms

**US NSTIC 4/15/2011 Final:** It defines the rights and responsibilities; specifies the policies and standards; and defines the community-specific processes and procedures
A Trust Framework Is:

a legally enforceable set of specifications, rules, and agreements that governs an identity system.
Identity System: Tools + Trust Framework: Rules
An Identity System is Governed by a Trust Framework
Characteristics of a Trust Framework

1. Scope
2. Purpose
3. Form
4. Role Definition
5. Content / Issues Addressed
6. Authorship and Control
7. Enforceable
Trust Framework Scope

Govern a single identity system
- i.e., each identity system will have its own trust framework
- Many identity systems interoperate

Thus, many trust frameworks will exist
- Many trust frameworks will interoperate
Trust Framework Purpose

Defines and governs the operation of a specific identity system

Defines the rights, responsibilities, and obligations of the participants

For three basic purposes:

1. To ensure that the identity system is *operational*  
   ➢ i.e., that it functions properly

2. To ensure that the identity system is *trustworthy*  
   ➢ i.e., that the participants are willing to participate, trust the results, and act in reliance on them

3. To address the legal issues  
   ➢ And ensure that it is enforceable
Trust Framework Form

- Words on paper
- Can take a variety of forms
- Can be one or several documents
- Can be long or short
- Can be self-contained or incorporate pre-existing standards or requirements
- Can be comprehensive or defer to existing standards and/or laws for many issues
Trust Framework Role Definition

Typically defines specific roles

Operational Roles
- To develop and maintain the trust framework itself
- To govern aspects of the operation of the identity system

Participating Roles
- Identity issuing roles
- Identity verification roles
- Identity consuming roles (relying parties)
Trust Framework Roles

**Trust Framework (Operational Roles)**

- Policy Development
- Policy Enforcement
- Network Evolvement
- On-boarding/Assessment
- Central Services

**Identity System (Participating Roles)**

- Identity Issuing
- Authentication Management
- Authorization Management
- Identity Verification
- Attribute/Assertion Management

**Participating entities**

**Services**

**End Users**
Trust Framework Content

Specifications, rules, and agreements that address the

✓ business,
✓ technical,
✓ operational, and
✓ legal issues

of importance to the functioning and trustworthiness of the identity system
Trust Frameworks Might Include . . .

**Business, Technical, and Operational Rules**
- Technical Specifications
- Identity Proofing
- Credential Issuance
- Privacy Standards
- Security Standards
- Authentication Requirements
- Audit & Assessment Oversight
- Reliance Rules
- Enrolment Rules
- Credential Management

**Legal Rules (Contractual)**
- Liability for Losses
- Warranties
- Dispute Resolution
- Termination Rights
- Enforcement Mechanisms
- Measure of Damages

**Enforcement Element**
- Contract(s): “I Agree” to . . .
Who writes and updates the trust framework?

Many options, including –

- A separate entity established for the express purpose of writing and updating the trust framework (think, e.g., Visa in the credit card world)
- A participating entity that established or controls the identity system (e.g., GSA, UK Cabinet Office, Google, Facebook, etc.)
- A committee of all or some of the participants in the identity system
- Other
Trust Framework Enforceability

- How is trust framework made enforceable on the parties?

- Private sector identity systems – usually rely on contracts

- Public sector identity systems – can rely on either contract or regulations
1. General Commercial Law

2. General Identity Management Law

   - Trust Framework 1
     - Identity System 1
   - Trust Framework 2
     - Identity System 2
   - Trust Framework N
     - Identity System N

3. Identity System-Specific Rules
Where is Liability Addressed?

Default is that liability rules come from existing General Commercial Law

Three problems with this approach:

1. Existing law is not written to address identity systems, so the answers may be vague and uncertain – no predictable rules
2. Many of the potential liability situations that could occur in an identity context may simply not be anticipated or addressed by existing law
3. If liability is addressed, we may not like the answers we get from existing law

Solution is to use the trust framework

- Tailored for a specific identity system
- Can set liability rules appropriate for the identity system, its goals, and its participants
- Parties agree to liability rules by contract
- Can alter rules under existing law (except where expressly prohibited)
AN OPEN MARKET SOLUTION FOR ONLINE IDENTITY ASSURANCE

A New Solution for Internet-Scale Identity Assurance: the Open Identity Exchange

AUTHORS:
Don Thibeau - OpenID Foundation
Tony Nadalin - Microsoft
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Drummond Reed - Information Cards
Eve Maler - PayPal

MARCH 2010

March 2010

THE VOCABULARY OF IDENTITY SYSTEMS LIABILITY

What is Liability? When Does it Arise?

Identity System Liability White Paper, Phase 1

The Open Identity Exchange | EDWARDS WILDMAN PALMER LLP

By Thomas J. Smedinghoff, Mark Deem, and Sam Eckland

June 2014

TRUSTMARKS IN THE IDENTITY ECOSYSTEM

Definitions, Use, and Governance

White Paper
IDENTITY STEERING GROUP

By Dr. Gilad L. Rosner

September 2015
OIX Curates a Global Conversation

Soon to be Published OIX Trust Framework White Papers

Trust Frameworks for Identity Systems

Esther Makaay - SIDN
Tom Smedinghoff - Locke Lord LLP
Don Thibeau - Open Identity Exchange
May 2017


Tom Smedinghoff - Locke Lord LLP
August 2017

A Global Inventory of Trust Frameworks and Trust Schemes

Sue Dawes - Open Identity Exchange
Mike Leszcz - Open Identity Exchange
Don Thibeau - Open Identity Exchange
May 2017
OIX Curates a Global Conversation

OIX Trust Framework White Papers Being Developed

- Trust Frameworks and Attribute Exchanges
  December 2017

- Self-Certification and Identity Systems
  October 2017

- A Case Study: Cross Border Banking Services
  The Connect Europe Facility (CEF) Project
  December 2017
International Identity Management Law & Policy Workshops
OpenID FAPI

Intuit

Microsoft

CA technologies

NRI

momentum financial technology

(UK IE Liaison)

NIST

Ping Identity

T...

Peercraft

UK Implementation Entity
A Trusted Place for Trust Frameworks

tScheme Trust Body for UK’s Trust-Service Status List (TSL)

Creates, hosts and maintains the UK’s Trust Service-status List (TSL) on behalf of the Department for Business, Innovation and Skills (BIS)
Join and help shape the markets you intend to lead.

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