Identity Management:
The Next Frontier for International E-Commerce

The Subject, Legal Issues, and Challenge for UNCITRAL

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Identity Management – A Foundational Issue Critical to . . .

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- E-Commerce
- E-Signatures
  - Convention on the Use of Electronic Communications in International Contracts
- Mobile Commerce
- Electronic Transferable Records
- Single Window

- All of these activities require addressing identity in some form

Identity Management . . .

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- "is a key element for the delivery of any e-services."
  - European Commission COM(2008) 798 final (28 Nov. 2008)

- "is a critical component of . . . national and global economic, governmental and social activities [which] rely more and more on the Internet."
  - OECD, The Role of Digital Identity Management in the Internet Economy, June 2009

- "is critical to the health of the economy."
  - U.S. Draft National Strategy for Trusted Identities in Cyberspace., June 2010

Agenda – Three Issues

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1. The Subject – What is Identity management?
2. The legal issues
3. The challenge for UNCITRAL

I. The Subject

What Is Identity Management?

Identity Management Is . . .

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- An integrated system of business processes, policies, rules, procedures, and technical components to answer two fundamental questions:
  - **Who are you?** (Identification)
  - **How can you prove it?** (Authentication)

- Answering those questions is a prerequisite to most online commercial activity

The Basic Problem

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- Party A needs to know *something* about Party B, as a prerequisite to a commercial transaction; e.g., --
  - Age (bartender)
  - Name (airport security agent)
  - Credit history (lender)
  - Right to access financial account (bank)
  - Right to access patient medical records (hospital)
- The challenge is how to accomplish this online –
  - So Party B can use a single electronic ID document with multiple parties
  - And each Party A can rely on third party ID documents
  - In a manner that is ***trusted*** by all

"Identification" – Who Are You?

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- Goal - Need to know something about a person (or device) --
  - To determine whether you want to do business with them, or
  - To determine whether they meet your requirements, or
  - To satisfy regulatory requirements, etc.

- Conduct a one-time Identity Proofing process to --
  - Verify identity "Attributes" about a person
    - E.g., name, address, date of birth, employer, authority, credit rating, hair color, gender, medical condition, club membership, title, etc.
  - Issue a "Credential" that evidences the attributes
    - E.g., drivers license, passport, ATM card, UserID, digital certificate, smart card, etc.

"Authentication" – How Can You Prove It (Online)?

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- Goal – Determine whether a remote party claiming to be a previously identified person is in fact such person

- Process involves –
  - Verifying or confirming the association of the remote person with a credential
  - E.g., using a picture on a passport to associate it to a person
  - E.g., using a password to associate a User ID to a person

- NOTE: Authentication of identity can occur **numerous times**

Focus on Three Key "Roles"

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- **Subject** (a/k/a "user," "principal" or "customer")
  - The person that is identified and authenticated
  - Uses identity Credential to engage in online transactions
- **Identity Provider** (a/k/a "credential service provider")
  - Responsible for Identity Proofing of Subject and issuing a Credential
  - Responsible for validating Credentials for relying party
- **Relying Party** (a/k/a "service provider" or "vendor")
  - Uses identity Credentials to authenticate identity of Subject
  - Relies on identity assertion to authorize access / approve transaction / accept signature / etc.

Traditional Two-Party Approach

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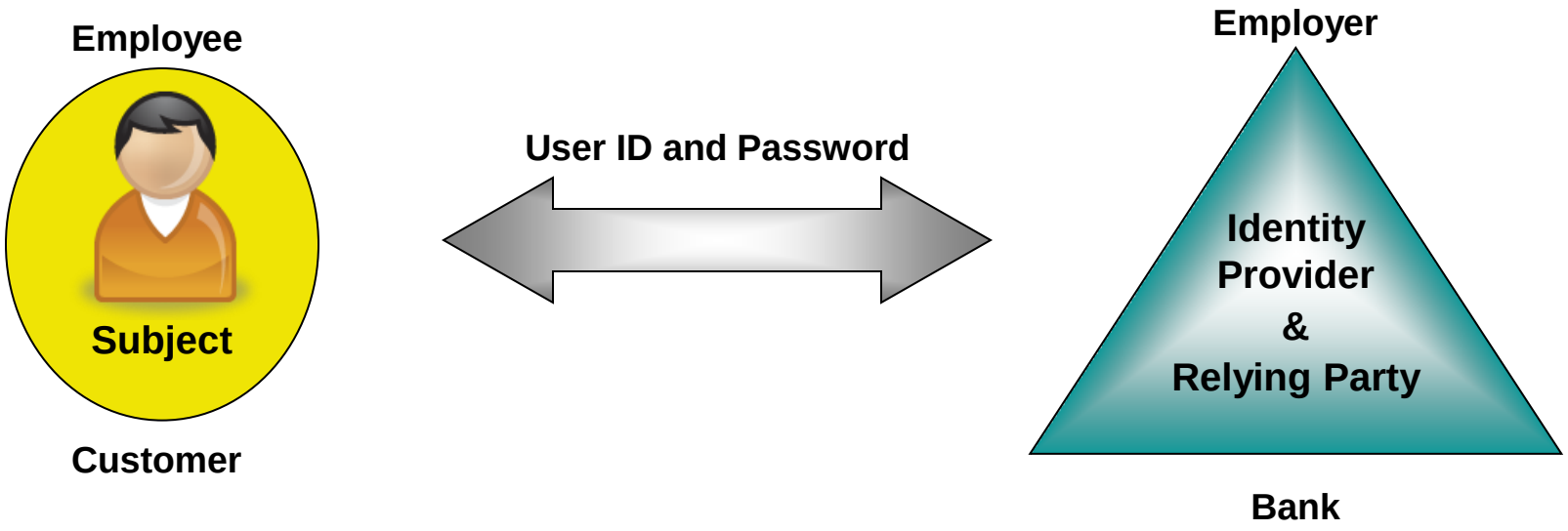
Non-Portable Identity Credential

Credential = User ID



Note: The credential (the User ID) can be used ONLY with the Relying Party that issued it

Emerging Three-Party Approach: Federated Identity Management

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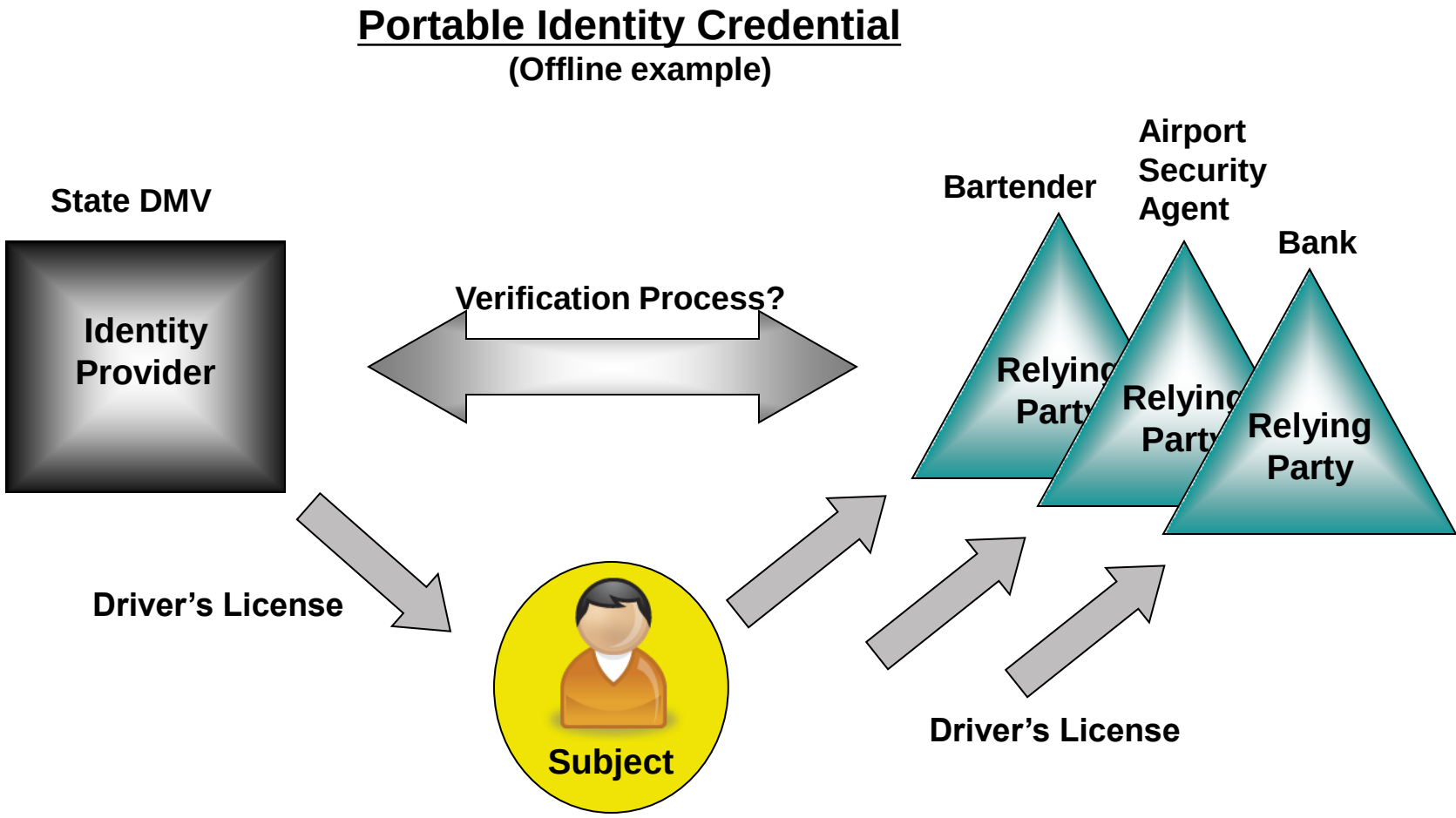

Note: The credential (the driver's license) can be used with multiple Relying Parties

But There Are Many Open Questions

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- Does the technology work?
- Was it properly implemented?
- Has the Identity Provider properly identified the Subject?
  - What are the risks that someone else impersonated the Subject?
- What does the identity assertion mean?
  - E.g., guarantee of identity vs. guarantee of process
- Does the Relying Party trust the Identity Provider?
- Does the Relying Party trust that the identity credential –
  - Really came from the Identity Provider?
  - Is still valid?
- Who is responsible if something goes wrong?
- Etc., etc.

II. The Legal Issues

Key Risks to the Participants

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- Technology risk
- Process risk
- Performance risk
- Privacy / Data Protection risk
- Data security risk
- Liability risk
- Enforceability risk
- Regulatory compliance risk

Making It Work Requires A "Trust Framework" Composed of:

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- **Operational Requirements**
  - Goals
    - Ensure proper operation of the identity system
    - Ensure that operation will protect accuracy, integrity, privacy and security of data
  - Content
    - Technical specifications, process standards, policies, procedures, performance obligations of the participants, etc.
- **Legal Rules**
  - Goals
    - Make Operational Requirements legally binding on the participants
    - Define and govern the legal rights and responsibilities of the participants
  - Content
    - Existing legislative/regulatory rules
    - Contractual obligations

"Trust Frameworks" . . .

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- Will typically be created by commercial entities
- Will vary with the purpose of the identity system
- Will be primarily based on private contracts
- Will seek to support participant trust in the identity system by:
  - Imposing enforceable specifications, standards, and rules on all parties
  - Adequately defining the rights and responsibilities of the parties
  - Fairly allocating risk and responsibilities among the parties
  - Providing legal certainty and predictability to the participants
  - Complying with existing law
  - Working cross-border

Possible Approach to an Identity Trust Framework

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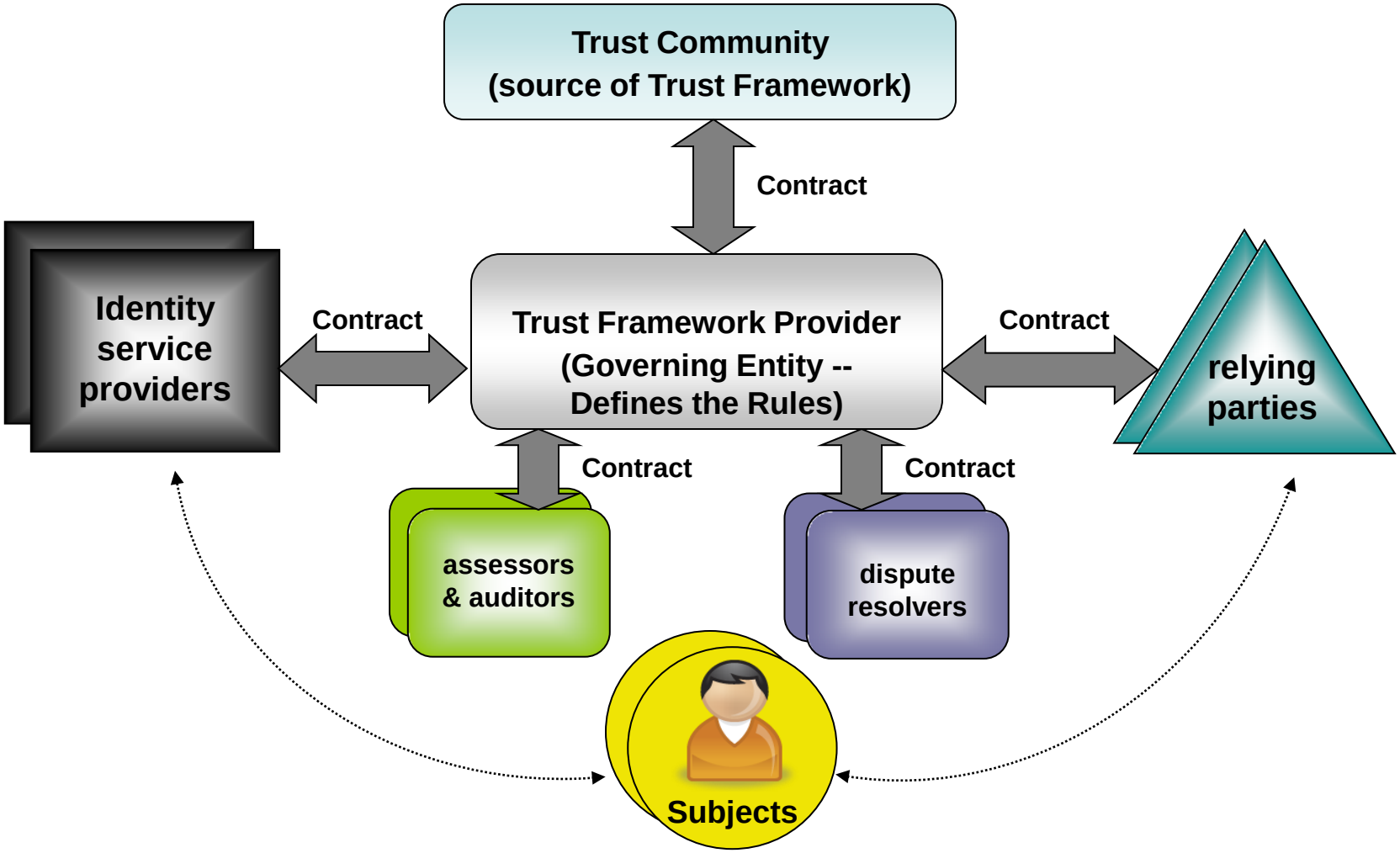

Common Legal Problems to Be Addressed By a Trust Framework

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- Legal Uncertainty
  - Lack of legal rules or lack of clarity re applicable legal rules
- Liability Risk
  - Uncertainty over potential liability is key issue!
- Legal Compliance
  - E.g., privacy law requirements
- Legal Barriers
  - Some laws may adversely impact Identity systems;
  - Can they be altered by agreement?
- Contract Enforceability
  - How can we bind all participants (and affected non-parties) in an enforceable Trust Framework?
- Cross-Border Issues
  - Regulatory law in one jurisdiction may differ from another

III. The Challenge for UNCITRAL

Status of Work to Date

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- Operational Requirements
  - Much work being done by many groups and governments
  - Groups: Kantara Initiative, Open Identity Foundation, ITU, EURIM, STORK, OIX, WS-Federation, etc.
  - Governmental: Australia, Belgium, Finland, EU, Germany, India, OECD, Scotland, Sweden, U.S., etc.
- Legal Rules
  - ***Largely unaddressed*!**
  - Some private (closed) identity systems such as IdenTrust, SAFE-BioPharma, CertiPath, etc.
  - American Bar Association Identity Management Legal Task Force

Need to Address Legal Issues

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- There is a critical need to address the legal challenges of identity management necessary to facilitate international e-commerce
- In particular, little (if any) work is being done on the international / cross-border legal aspects of this foundational e-commerce issue

For Example . . .

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- "Business, technical ***and legal inter-operability*** are necessary for cross-sectoral and cross-jurisdictional transactions."
  - OECD Recommendation on Electronic Authentication, June 2007
- "From an international policy perspective, a key challenge is to ***minimise regulatory complexity*** and ***turn regulatory obligations into an enabler rather than a barrier to interoperability*** across borders."
  - OECD, The Role of Digital Identity Management in the Internet Economy, June 2009
- "Issues may also need to be addressed regarding the ***role of contractual obligations***."
  - OECD, The Role of Digital Identity Management in the Internet Economy, June 2009

UNCITRAL's Role

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- UNCITRAL is the organization in the best position to take on this critical task, since its mission is legal, international, and commercial
- Addressing identity management is a prerequisite for --
  - Electronic signatures
    - Model Law on E-Commerce – Articles 7(1) and 9(2)
    - Model Law on E-Signatures – Articles 2(a) and 9
    - Convention on the Use of Electronic Communications in International Contracts -- Article 9(3)
  - Mobile commerce
  - Electronic transferable records
  - Single window

Initial Focus

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- Identifying the legal issues – both generally and internationally – particularly as they relate to
  - the potential liability of participants, and
  - the legal requirements for trust among the participants
- Identifying and addressing legal barriers to cross-border identity management
- Enabling a structure for the development of enforceable private cross-border Trust Frameworks

Further Information

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