What is Liability? When Does it Arise?
Executive Summary

Fear of liability is one of the most significant impediments to participation in the emerging identity market. In many cases, “liability” has become a convenient label for the unknown risks and costs of engaging in this emerging market, and an excuse for inaction. Yet the term “liability” is often misapplied, and the risk of liability is often misunderstood.

This OIX White Paper Series is designed to demystify liability, and assist in liability risk analysis.

As the first step in that process, this paper seeks to explain the concept of liability, and to develop a common understanding of what it means for participants in an identity system to incur liability. The goal is to introduce identity system experts to the fundamentals of legal liability, while introducing the context of a federated identity system to legal counsel. This will allow us to establish a foundation that future white papers can use to identify and address specific liability risks and to examine potential models to limit and allocate such liability among participants in federated identity systems.
1. The Liability Concern

Identity transactions are information transactions. That is, they involve the collection, verification, storage, and/or communication of information about someone or something, and reliance on that information by the recipient of the communication. Like all information transactions, at times problems may arise. For example:

- the information may be incorrect or unavailable,
- the communication may fail or be delayed,
- someone may not properly perform their obligations,
- part of the process simply may not work, or
- third parties may interfere with the processes, maliciously or otherwise.

Recognising that such problems may occur, “What’s my liability?” is one of the questions most commonly asked by organisations considering participating in a federated identity system. All parties have concerns. For example:

- Identity providers (IdPs) worry that some of the credentials they issue may be incorrect, and that reliance on that incorrect data may result in significant damages to the relying party, for which they might be held liable;
- Attribute providers (APs) worry that use by IdPs or relying parties of the information they provide might violate the regulatory restrictions applicable to it, exposing them to risk of fines and penalties;
- Relying parties (RPs) worry that their reliance on incorrect identity data might result in significant losses due to fraud and/or render them liable to individuals whose identity may have been stolen; and
- Individuals (data subjects) worry about their liability if someone else misuses their identity credential.

Addressing concerns like these must begin with a clear understanding of the vocabulary of liability, the sources of the rules that determine liability, and the methods by which such rules allocate liability among the various parties to an identity transaction.
2. What Is Liability?

Issues of liability arise whenever someone suffers a loss, be it a financial loss, property damage, or personal injury. The default rule is that any party suffering a loss must bear that loss itself. In many cases, however, there is a legal rule (e.g., a law or a contractual provision) that shifts responsibility for such losses from the party that incurs them to another party – i.e., there is a rule that makes a second party “liable” for the losses of the first party.

Thus, to say that a business has liability means that it is legally responsible for paying damages (i.e., money) to compensate others for injuries or losses they have suffered.2

Rules that impose liability on any person or business are based on an obligation or duty that such person or business owes to another. And every role in an identity system – e.g., identity providers, attribute providers, relying parties, data subjects, and others – likely has one or more duties, and thus faces liability concerns to some extent.

Accordingly, every participant in an identity system – individuals, businesses, and even government agencies3 must address the risk of liability. To evaluate that risk, we must begin by considering the sources of the rules regarding liability, and the way in which those rules approach a determination of liability. This will ultimately facilitate an understanding of the nature of liability risk, and how it may be limited or controlled.

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2 It is important to distinguish the use of the term “liability” as it relates to paying damages to compensate others for the losses they have suffered, from the use of the term “liability” as it relates to the financial obligations that a company is legally bound or obligated to pay to others for value received from them in the ordinary course of its business (e.g., trade accounts payable, credit debts, contractual obligations to pay money, promissory notes for loans, etc.), and which show up on its balance sheet as “liabilities.” This paper exclusively addresses the former definition. Likewise, the term liability can also refer to the legal obligation to pay fines or other penalties imposed by government agencies for violations of the law. This paper does not address that form of liability.

3 This paper will discuss liability in the context of a business, but the rules apply to individuals and governments as well. In many cases, however, the liability of a government agency is limited by law.
3. Sources of Liability Rules for Identity System Transactions

In the case of identity transactions, the rules that shift responsibility for losses suffered by one person onto another can exist at three different levels, as follows:

General Law (Level 1)

The first and primary level of rules governing identity transaction liability consists of the myriad existing laws that govern general commercial activity and human interaction, some of which have been in effect for many years. These are statutes, regulations, and common law duties that apply to everyone in a jurisdiction. Examples include contract law, tort laws governing deceit and fraudulent misrepresentation, negligence, and defamation, laws governing the communication of inaccurate information, law relating to reliance on inaccurate information, and consumer protection law. Such generally applicable laws were not written specifically to address the concept of identity management, but are frequently applied, by default, to resolve identity transaction liability claims.

Identity-Specific Law (Level 2)

The second level of rules governing liability consists of new laws and regulations designed specifically to address issues that arise in identity transactions. While very few such laws currently exist, increasing attention to this topic suggests that more such laws may be adopted in the future. Examples include laws to regulate identity providers, identity theft laws, and (in some countries) laws governing the licensing of identity providers. The European Union has proposed an eID Regulation and the U.S. is developing voluntary second level rules via its National Strategy for Trusted Identities in Cyberspace (NSTIC) program.
Contracts (Level 3)

The third level of rules governing liability comes from the contracts that identity system participants enter into between and among themselves. Most notable are individual contract-based identity system trust frameworks (sometimes referred to as system rules or scheme rules) that identity system participants agree to comply with. These sets of rules, usually made legally binding by contract, often contain the most detailed sets of rules governing identity transaction liability.

The first two levels of liability rules can be referred to as “public law” because those rules are adopted by governments (in the form of statutes, regulations and common law duties). The third level is referred to as “private law” because those rules are agreed to by the parties involved in a particular identity system, through the vehicle of a contract (such as a contract-based trust framework), and typically apply only to the parties who sign the contract. Such private law rules cannot, of course, violate any of the public law rules, but in many cases they can be used to limit or modify liability rules from public law at levels 1 and 2. Both public law and private law rules are enforced by the courts and can be the basis for liability.

4. Two Approaches to Determining Liability

Regardless of the source, rules governing liability use one of two basic approaches to determine whether responsibility for a loss suffered by one party to an identity transaction should be shifted to another. Those two approaches may be summarised as follows:

Fault-Based Liability

This is the traditional and primary approach to determining liability. Responsibility for a loss suffered by one party is shifted to a party that is in some way “at fault” or “responsible” for the loss. In other words,

Party A is liable for Party B’s loss when that loss is Party A’s “fault.” And as discussed below, fault is determined by the existence and breach of a legal duty.

**Strict Liability**

In some limited cases, parties that are not responsible for causing a loss are nonetheless held liable due to public policy or contractual risk allocation reasons. This is referred to as strict liability (i.e., liability without fault). Under a strict liability approach, Party A is liable for Party B’s loss, even though the loss is not Party A’s fault. Instead, Party A is deemed to be legally responsible for the loss by virtue of a rule of public law (e.g., statute or regulation) or private law (e.g., contract).

The following sections will first examine fault-based liability, and then address strict liability.

### 5. Incurring Fault-Based Liability

The fault-based approach to liability is the primary justification for shifting responsibility for losses from one party to another. Fault-based liability is grounded in the existence of a legal obligation or duty. Liability flows from a violation (or breach) of that legal duty.

Specifically, a business is “at fault” for a loss incurred by another party (and thus liable for the loss) when four conditions are met:

1. The business had a legal duty to the other party to act (or to refrain from acting) in a certain way;
2. It breached that duty;
3. The other party suffered an injury or loss; and
4. The business’ breach of duty was the “proximate” (i.e., legally recognised) cause of that other party’s loss.

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This also includes cases where the loss is the “fault” of someone for whom Party A is legally responsible, such as an employee, agent, or subcontractor.
Existence of a Duty

Simply stated, a legal duty is a responsibility to act (or refrain from acting) in a certain way so as to prevent injury to others. Under a fault-based approach, if a business does not have a legal duty, it cannot incur liability. Thus, the key to assessing the liability risk assumed by any business in an identity transaction is to identify and understand the scope of the legal duties imposed on it by the applicable law.

Identity system participants can potentially be subject to numerous legal duties. Those duties ultimately come from one or more of the three levels of law noted above – i.e., either public law statutes, regulations, or common law (levels 1 or 2), or private law, such as a contract-based trust framework (level 3).

For example, the common law of negligence, a general law which has applied to activities of all types for many years, may be interpreted to impose a legal duty on IdPs in certain cases to use “reasonable care” when identity proofing individual data subjects.

Examples of Potential Legal Duties: Identity Proofing

From Level 1, General Law:
The common law of negligence, a tort law which has applied to activities of all types for many years, may be interpreted to impose a legal duty on IdPs in certain cases to use “reasonable care” when identity proofing individual data subjects.

From Level 2, Identity-Specific Law:
The Washington State Electronic Authentication Act imposes a duty on certain IdPs, when confirming that an applicant is the person to be listed in a credential to be issued, to “make a reasonable inquiry into the [data subject’s] identity.” The proposed EU eID Regulation would impose a duty on IdPs to verify a data subject’s identity “by appropriate means and in accordance with national law.”

From Level 3, Contract-Based Rules:
A trust framework that an IdP has contractually agreed to comply with may impose on such IdP a legal duty to conduct identity proofing using a certain specified and detailed process.

One of the biggest challenges for assessing liability risk is to figure out exactly which duties are imposed on each identity system role, and the elements that must be satisfied to fulfill those obligations. This isn’t always easy, especially in the case of general public law (level 1). Given the lack of precedent for applying traditional general legal duties to participants in an identity system, there may be uncertainty when it comes to defining the nature of a duty as well as the class of persons such a duty is intended to protect.

6 Under the common law of negligence, what constitutes “reasonable care” in the context of an identity system transaction may not yet be well defined, however.
For example, does the general law of negligence impose on an IdP a duty to use reasonable care in identifying the subject of an identity credential? If so, what constitutes reasonable care? And does the IdP owe such a duty (if it exists) to all potential users of that credential, or just to the parties that the IdP intended to rely on the credential? These are difficult questions, often with no clear cut answers.

The uncertainties regarding how general public law (level 1) might be applied to identity transactions may ultimately drive the development of new identity-specific public law (level 2) in the future. But currently, contract-based private law (level 3) often serves as the best tool to provide a predictable substitute for defining legal duties in the context of a specific identity implementation. When properly written, legal duties imposed by contract can be quite clear.

Trust frameworks (i.e., system rules or scheme rules) can be designed to assign specific and well-defined duties to each role in an identity system, and to clarify, modify or eliminate some of the legal duties assigned by general public law. Through the private law approach of a contract-based trust framework, some of the uncertain legal duties assigned by public law can be tailored in a manner that clarifies their nature and applicability, subject, of course, to the relative bargaining power of the parties. In such cases, trust frameworks can allow identity system participants to better assess the potential for fault-based liability, and can offer participants the best option for clearly understanding their obligations and their liability risk.

**Breach of the Duty**

Whenever a business is subject to a legal duty, breaching that duty in a manner that directly leads to injury or loss to a protected party will trigger liability. This is readily illustrated in our everyday conduct of driving a car. A legal duty is imposed on all drivers to use reasonable care when driving so as not to injure any person or damage any property. Anyone who breaches that duty by driving negligently and
causing an accident will be liable for any personal injuries and property damage they cause to others.

Whether driving or engaging in identity transactions, determining whether an individual or a business has breached a duty imposed on it requires pairing an analysis of the nature of the duty and its constituent elements to the facts of a particular situation. In some cases, the elements of the duty might be defined in a law or regulation. Or, in the case of the common law of negligence, the duty might have evolved through a number of cases over a number of years, perhaps defining the nature of a requirement to use “reasonable care.” In the case of a duty imposed by contract, the terms of the contract that a party has agreed to may define the elements of the duty imposed on it, and can be used to determine whether such party’s conduct constitutes a breach of the duty.

Depending on the nature of the duty, a business participating in an identity system can breach one of its legal duties by its actions, such as issuing an identity credential without conducting the required identity proofing, or by its failure to act where it is otherwise obligated to do so, such as by failing to provide appropriate security for personal data required by applicable law or the trust framework to which the party has contractually agreed. And in either case, its conduct or failure to act can be either intentional or negligent.

Injury

Having established a duty and breach of that duty, the third element typically necessary to determine fault-based liability is the existence of an injury. A party suffers injury or losses when it incurs some sort of harm for which the law allows legal or equitable relief. In a federated identity system, such harms will typically include economic or financial losses, although it might also include non-monetary injury, such as unauthorised disclosure of personal or confidential information, damage to reputation, or other forms of injury.
Without injury there is typically no liability. For example, an IdP might breach a contract-based duty to follow a certain process in identifying a data subject (e.g., by failing to ask for the required two government-issued picture IDs, and instead relying on self-asserted data), but nonetheless issue an identity credential that correctly identifies the data subject. In such a case, an RP who relies on the resulting credential would likely have no financial injury, in which case the IdP will have no liability to pay damages.

Conversely, it is also important to recognise that just because someone suffers a loss doesn’t necessarily mean that a duty exists or that there has been a breach of a duty. For example, the fact that a relying party suffers a loss by relying on an incorrect identity credential does not establish that the issuing identity provider either: (1) had a duty to act with reasonable care or to follow specific procedures when it issued the credential; or (2) breached such a duty if it had one.

Scenario 2: Likewise the mere fact that a hacker may obtain that personal data held by an IdP or RP does not per se establish that either entity had, or breached, a duty to provide reasonable security to protect the data.

Causation

Finally, a breach of duty must actually be causally linked to the injury or losses suffered by someone else. Just because someone breaches a duty and an injury occurs, it does not necessarily mean they must pay damages to someone who suffers the loss. The breach of duty must be the proximate cause of the injury.

Thus, if the identity credential in the above example is later compromised by a hacker or other third party who uses it to perpetrate a fraud, then the damages suffered by the relying party – though real – were not likely “caused” by the identity provider’s breach of its duty to property perform the identity proofing process. Rather, the cause of

\footnote{In certain cases based on a breach of contract, however, a claimant may be able to recover so-called “nominal damages.”}
the relying party’s loss is the unauthorised third party, not the identity provider (even though the identity provider breached its duty to properly perform its required task).

Generally speaking, if the foreseeable consequences flowing from the breach of duty lead to the particular causes of the injury—without the interference of an unlikely, unanticipated event—then that breach of duty would qualify as the proximate cause.

6. Incurring Strict Liability

In some cases, public or private law requires that one party, regardless of fault, be held liable for certain losses suffered by another party. This is often referred to as strict liability. This is a form of policy-based liability shifting. Instead of allocating liability on the basis of who was at fault, liability is apportioned on the basis of certain public policy considerations or negotiated agreements. These might include, for example, allocating liability to the party in the best position to avoid or bear the loss, to the party responsible for designing the system and thus best able to minimise losses, or to the party in the best position to spread losses over a large group.

Under general existing law (level 1), strict liability is most commonly applied in cases involving abnormally dangerous activities or defective products that result in personal injury or property damage – situations that are unlikely to arise in most traditional identity transactions. But certain regulatory approaches in some sectors suggest a potential model for the applicability of a strict liability approach in the context of identity transactions.

Examples include regulations governing liability for unauthorised debit/ATM card use and for unauthorised banking funds transfers. Those regulations (in the U.S.) provide that banks are responsible for losses from consumer bank accounts, notwithstanding that such loss was not the bank’s fault. Similarly, under U.S. regulations governing

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**Strict Liability Examples: Financial Services**

In the U.S., regulation of the financial services sector provides examples of *strict liability* in cases involving consumers:

- Banks assume liability for unauthorised fund transfers from a consumer account
- Banks assume liability for unauthorised debit/ATM card use
- Credit issuers assume liability for unauthorised use of a consumer credit card (above $50)
credit cards, issuers take responsibility for losses in excess of $50 suffered by consumer credit card holders resulting from misuse of their cards, notwithstanding that such loss was not the issuer’s fault. Similar regulations have been proposed for general purpose reloadable prepaid cards as well.

While strict liability may not currently apply to identity transactions, it is certainly possible that strict liability rules could be adopted in future identity-specific law or regulations (public law in level 2). Likewise, a contract-based identity system trust framework might choose to hold a specific role strictly liable for losses incurred by others in certain specific situations.

7. Assessing Damages

Once a court determines that a business is liable for a loss suffered by someone else (usually after a trial), the court must assess the amount of the damages the business will be required to pay to the injured party. Damages are categorised by type, and the type of damages affects how the amount is calculated. Which type of damages is available is often a function of the nature of the claim.

Damages are generally categorised as compensatory damages, statutory damages, and punitive damages.

Compensatory Damages

Compensatory Damages (sometimes called “actual” damages) are an award of money to be paid by the liable party to an injured person as compensation for a loss the injured person has suffered. They are the measure of the loss or harm the injured party has sustained, and are intended to make good or replace the loss caused by the wrong or injury, – i.e., they are awarded to make the injured party whole. In some cases they are intended to put the injured party in the position it was before it suffered the loss. In other cases, they are intended to give
the injured party the benefit of its bargain – i.e., what was to be provided under the applicable contract.

The rules for calculating compensatory damages can and frequently do vary based on the type of claim which is presented (e.g., breach of contract versus a tort claim).

**Breach of Contract Claims**
In the case of liability based on a breach of a duty arising by contract, a court will generally require the breaching party to pay the sum that would put the injured party in the economic position it expected from performance of the promise or promises (known as an "expectation" measure of damages), i.e., it will place the claimant in the position that it would have been in had the contract been performed in accordance with its terms. When such an approach is either not possible or not desirable, a court may award monetary damages designed to restore the injured party to the economic position it occupied at the time the contract was entered into (known as the “tortious” or “reliance” measure of damages), or designed to prevent the breaching party from being unjustly enriched (“restitution”). Of course the contract can also specify how the damages are calculated, and/or establish limits on the amounts that can be recovered.

**Tort Claims**
In the case of torts, such as negligence, the general rule is that the wrongdoer is liable for any injury which is the natural and probable consequence of his or her misconduct. Damages in tort are generally awarded to place the claimant in the position that would have been in had the tort not taken place. Damages in tort are assessed by the loss suffered by the claimant due to the negligent act or omission by the person at fault giving rise to the loss. The loss must be reasonably foreseeable and not too remote.
Statutory Damages

Statutory damages are an alternate method of calculating compensatory damages, available in certain limited cases, primarily in the U.S. They are referred to as statutory damages because the amount of the damage award is stipulated within a statute rather than being calculated based on the degree of harm to the injured party. Statutory damage amounts are typically an alternative to compensatory damages, and are sometimes set by statute on a per-incident basis or on a per-day basis. Some statutes specify statutory damages for acts in which it is difficult to determine a precise value of the loss suffered by the injured party. This could be because calculation of a value is impractical, because the nature of the injury is subjective, or to further a goal of deterrence. In other cases, statutes authorise the doubling or tripling of compensatory damages for deterrent purposes, such as in the case of antitrust violations or copyright or trademark infringement.

Punitive Damages

Punitive damages (also referred to as “exemplary” damages) are imposed by way of punishment, and are given in addition to compensatory damages, primarily in the U.S. Generally, before punitive damages can be recovered, there must be some aggravating circumstances, such as malice, intentional deceit, or gross negligence. Punitive damages are available in tort cases (e.g., deceit and fraudulent misrepresentation or negligence), but are generally not allowed for breach of contract.

As a general rule, a person who has sustained loss or injury may receive no more than just compensation for the loss or injury sustained. He or she is not entitled to be made more than whole and may not recover from all sources an amount in excess of the losses sustained, or be put in a better position than he or she would have been had the wrong not been committed. Punitive damages, however, are an exception to this general rule.
Key to expanding the online identity market is knocking down barriers to entry. Fear of liability is one of those barriers. But in this emerging ecosystem, fear of liability is little different than a fear of the unknown.

This paper seeks to address that problem by promoting a common understanding and vocabulary of the spectrum of basic liability considerations. To that end, it makes clear that:

- Liability is the legal obligation to pay money to compensate someone else for the losses they have suffered;
- The legal rules that determine when, and under what circumstances, one party is liable to another exist on three different levels: (1) general public law, (2) identity-specific public law, and (3) contract-based private law;
- At all three levels, those liability rules reference a “duty” or “obligation” that is imposed on a party. Thus, the first step in assessing the liability risk assumed by any business in an identity transaction is to identify and understand the legal duties imposed on it in connection with the role it undertakes in such transaction;
- At all three levels, those liability rules apportion liability to the person who is “at fault,” by breaching a duty imposed on it, except in certain limited situations where the rules impose liability without fault (or strict liability); and
- In all cases, while there are differences in the way the damages are calculated, the basic goal is to compensate the injured party for the losses it has suffered.

Future white papers in this series will examine the specific legal duties imposed on identity system participants by the three levels of law, and consider the various ways in which those duties can be voluntarily created, modified, or eliminated. They will then examine potential models for the allocation of identity system liability, as well as available policies and strategies to limit liability for identity system participants.
Glossary | Liability Terms

**Breach of contract:** Violation of a contractual obligation that one has agreed to, such as by failing to perform one’s own promise made in the contract, by repudiating it, or by interfering with another party’s performance.

**Breach of duty:** The violation of a promise agreed to in a contract (i.e., a breach of contract), or the violation of an obligation arising under a law or regulation, either to do or not to do an act.

**Causation:** The causing or producing of an effect.

**Compensatory damages:** Damages awarded to make the injured party whole, i.e., sufficient in amount to indemnify the injured person for the loss suffered.

**Duty:** An obligation that is owed or due to another and that needs to be satisfied; an obligation for which somebody else has a corresponding right.

**Legal Duty:** A duty arising by contract or by operation of law; an obligation the breach of which would give a legal remedy.

**Exemplary damages:** See “punitive damages.”

**Fault:** The intentional or negligent failure of a party to comply with a legal duty when that failure causes harm to another person. The four requirement for legal fault are: (1) the existence of a legal duty owed to another party to act (or to refrain from acting) in a certain way; (2) a breach of that duty; (3) injury or losses suffered by the other party; and (4) where the breach of duty caused the other party to incur those losses.

**Fault-based liability:** Liability resulting from one’s “fault.” As contrasted with “strict liability.”

**Fines / penalties:** A pecuniary criminal punishment or civil penalty, typically payable to the applicable regulatory agency or the public treasury.

**Fraud:** Knowing misrepresentation of, or concealment of, a material fact for the purpose of inducing another to act to his or her detriment.

**General law:** The myriad existing laws that govern general commercial activity and human interaction.

**Identity-specific law:** Laws designed specifically to regulate identity systems or to address issues that arise in identity transactions.

**Identity system:** An identity system is (i) a set of rules, methods, procedures and routines, technology, standards, policies, and processes, (ii) applicable to a group of participating entities, (iii) governing the collection, verification, storage, exchange, authentication, and reliance on identity attribute information about an individual person, a legal entity, device, or digital object. Identity systems provide an online environment for identity management where individuals, organisations, services, and devices can trust each other because authoritative sources establish and authenticate information about their identities.

**Identity transaction:** A transaction involving the collection, storage, processing, communication, and/or use of information relating to some attribute of the identity of a person, entity, or device.

**Injury:** Any harm or loss suffered by a party, including economic losses, property damage, and personal injury.
Liability: Legal responsibility for paying damages (i.e., money) to compensate a person or business for injuries or losses they have suffered, or a requirement to pay a fine to a government agency as punishment for the business’ conduct. In some cases it may also involve court ordered injunctions requiring a business to do, or not to do, some specific act.

Negligence: The failure to exercise the degree of care that a reasonably prudent person would have exercised to protect others from a foreseeable and unreasonable risk of harm in a particular situation.

Penalty: A sum of money extracted as punishment for either a wrong to the state or a civil wrong (as distinguished from compensation for the injured party’s loss).

Private law: Legally binding rules agreed to by two or more parties and made enforceable between or among them by virtue of a contract. Private law is typically enforceable only against the parties who have contractually agreed to the rules.

Proximate cause: The primary cause for why an injury occurred (also known as a legal cause). Barring interference from an unlikely or unanticipated event, if the foreseeable consequences of the breach of duty would generally lead to the causes of the particular injury then such a breach of duty would generally qualify as the proximate cause.

Public law: Legally binding rules adopted by a government, typically in the form of a statute, regulation, or court ruling. Public law is enforceable against anyone in the jurisdiction who is covered by the law.

Punitive damages: In the U.S., damages awarded in addition to compensatory damages in tort cases when the defendant acted with recklessness, malice, or deceit. Punitive damages are assessed to punish the wrong-doer and/or to make an example for others.

Scheme rules: See “trust framework.”

Statutory damages: In the U.S., an alternate method of calculating compensatory damages wherein the amount of the damage award is stipulated within a statute rather than being calculated based on the degree of harm to the injured party.

Strict liability: Liability that does not depend on fault, but which is usually stipulated in law or by contract as a form of policy-based liability shifting. Instead of allocating liability on the basis of who was at fault, liability is apportioned on the basis of certain public policy considerations or negotiated agreements. These might include, for example, allocating liability to the party in the best position to bear the loss, to the party responsible for designing the system and thus best able to minimise losses, or to the party in the best position to spread losses over a large group.

System rules: See “trust framework.”

Tort: A civil wrong, other than breach for contract, for which a remedy may be obtained, usually in the form of damages. Examples of torts include negligence, deceit and fraudulent misrepresentation, and defamation.

Trust framework: A set of technical, business, and legal rules, standards, processes, and requirements that govern the operation of an identity system and corresponding identity transactions, which are made legally binding on and enforceable by the participants, typically by contract.