

# A Framework for Authentication

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Brand Protection Seminar

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# The International Authentication Association (IAA)

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- 19 Members
- Users and Providers of Authentication
- International - US & Europe
- Goals:
  - Promote education & understanding
  - Create dialog - improve practice
  - Voice for the Authentication Community
- Members include, Fortune 100 including:
  - J & J, DuPont, 3M, Honeywell, Richemont
- Patron Program in 2009
- [www.internationalauthenticationassociation.org](http://www.internationalauthenticationassociation.org)

# Agenda

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- The IAA – What is it ?
- What can the IAA do for you ?
- The Authentication Framework
  - The Objectives

# The International Authentication Association (IAA)

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## What the IAA Can Do For You

- **Credibility**
  - **Advocacy**
  - **Standards Development**
  - **Communications & Public Relations**
  - **Marketing Tools**
  - **Conferences**
  - **Code of Conduct**
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- Above all, the IAA brings together providers and users of authentication

# Development of the Authentication Framework

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- Developed over the 2008 / 2009 period
- Authentication Framework Working Group (AFWG)
  - Hologram Industries
  - Authentix
  - SICPA
  - NanoGuardian
  - Label Systems Authentication
  - Johnson & Johnson
  - Contributions from other IAA Members

# Why The Need for a Framework?

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- Lack of common:
  - Terminology
  - Understanding
- Effective standards development limited
- Try to reduce a complex subject to elements which can be communicated and understood
- Needs to be applicable to all situations & actionable in real-world situations
- A tool for strategy development, decision making and implementation

# Objectives for the Framework

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- To establish a persuasive rationale for the use of authentication
- Respective roles of authentication and tracking systems
- Glossary of common terms
- Guidance to brand owners on authentication within anti-counterfeiting strategy
- Guide policy makers and legislators on authentication in anti-counterfeiting legislation, policy and strategy.
- Best practice procedures for authentication of goods, and thus the identification of counterfeit goods, which will guide users, enforcement agencies and judiciary
- Contribute to development of authentication and anti-counterfeiting standards

Through all the above, to support IAA members, by providing clear guidance to user members and by encouraging the use of authentication systems and devices provided by members.

# What Does It Mean to “Authenticate”?

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- Informed questioning and examination
- A “**trial**” billions of times per day
- Legal implications:
  - Seizure
  - Prosecution
  - Liability

**authenticate**  
| ô'θenti,kāt | verb [ trans. ] prove or show (something, esp. a claim or an artistic work) to be true or genuine

# A Trial Relies on a Presumption and Evidence

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- What is, or should be, the presumption when it comes to the status of an item:
  - Authentic until proven fake
  - Fake until proven Authentic
- To prove either, you need evidence
- And you need to cross a point (**Threshold**) where you can reasonably believe you have “proved” one way or the other

## *evidence*

| 'evədəns | noun the available body of facts or **information** indicating whether a belief or proposition is **true** or valid

# Authentication Requires Evidence

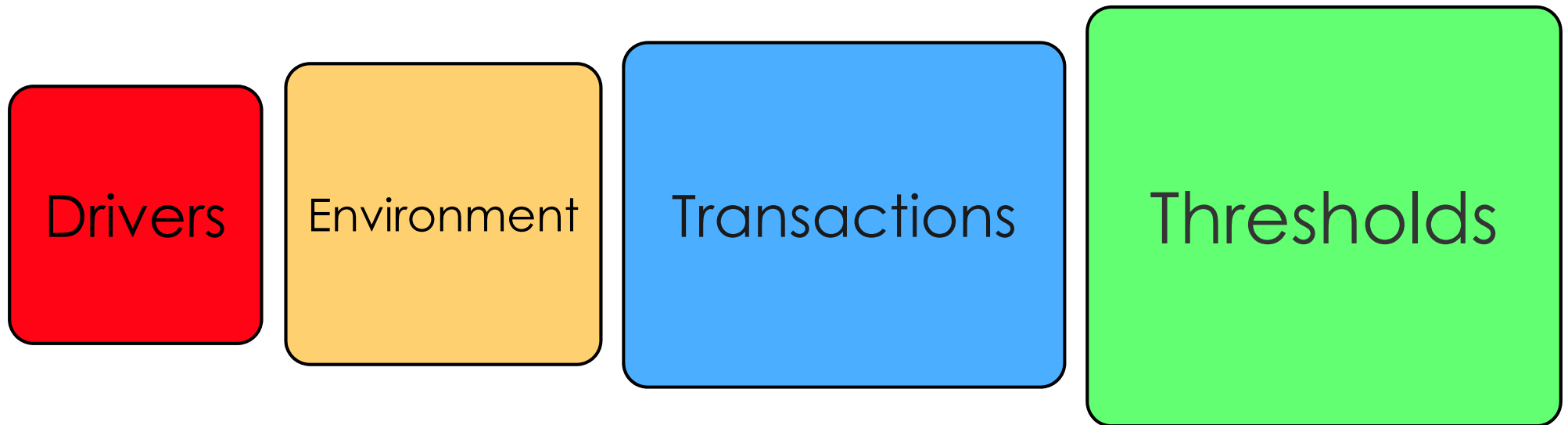
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- Evidence must prove: but in *general there are at least six things that have to be proven in these cases:*
  1. That plaintiff's goods are authentic;
  2. Why plaintiff's goods are authentic;
  3. Defendant's goods are not authentic;
  4. Why defendant's goods are not authentic;
  5. Why defendant actually knew the goods were not authentic, and/or
  6. Why defendant should have known the goods were not authentic.

From: The Legal Framework for Authentication – M. Kelly Tillery  
Authentication News, July 2006

# Elements of the Framework

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# Example for Today

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## Transaction Acceptance Process

- Clear example of the Framework
- Uses both sensory and digital tools
- Supported by clear & concise training
- Ubiquitous

# Drivers for Authentication

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- A few truths about Authentication:
  - Authentication is **inconvenient**
  - Authentication has a **cost**
  - Authentication requires **training**
- It's not a voluntary act - it needs some motivation or "**driver**" to compel it to happen
- In most places / cases where authentication "works" today it works because it's **mandatory**
- Drivers can be:
  - Legally based
  - Safety based
  - Value based

## **Fighting fraud in every transaction**

If you are a card-present merchant, take the following steps to ensure the legitimacy of every credit card, cardholder, and transaction. ***Under most operating regulations, merchants or their sales associates must check the card security features, request an authorization, and obtain the cardholder's signature.***

# Environment

- An authentication "environment" is:
  - The whole of the influences surrounding any authentication transaction, which can/do effect the viability and effectiveness of the transaction
- Elements include:
  - What is being authenticated - physical, digital, people?
  - Venue
  - Examiners
    - Their level of training and motivation
  - The **tools** and **technologies** available
  - Time available
  - When is it necessary / desirable to authenticate
  - The costs, in both money and other resources, of authentication

# Effect of Environment

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- The environment for an authentication transaction sets the boundaries for what's possible
- While a driver can set the rules, they will always be governed by the realities of the environment in what can be practically achieved in an authentication transaction and how high the threshold can be
- Example: US FDA with RFID & pedigree

# Authentication Tools

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## • Intrinsic Authentication Tools

- Functional or aesthetic elements of the product *not primarily* intended for authentication
- Could include:
  - Specific materials
  - Unique construction features
  - Stitching

## • Extrinsic Authentication Tools

- Added for the *primary* purpose of authentication
- Sensory tools
  - Overt
  - Semi-Covert
  - Covert
  - Forensic
- Digital tools
  - Serialization
  - Bar Codes

# Tools Need Training

## Credit Card Features and Security Elements

Hologram on Back



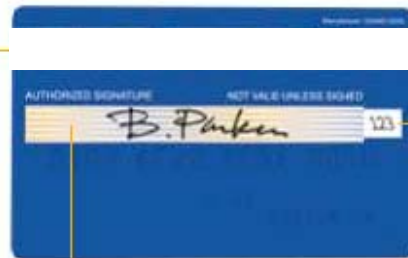
Hologram on Front



## Cards with Holographic Magnetic Stripe on Back of Card

The **Holographic Magnetic Stripe** that some cards have contain features, such as a ring around a sun when the card is moved from side-to-side. The card brand name appears in the center of the sun when the card is tilted.

Roll over card to view front



The **Signature Panel** can include tamper evident designs or custom images. If someone has tried to erase the signature panel, the word "VOID" will be displayed.

**Card Verification Value** is a three digit code that appears either on the signature panel or on a white box to the right of the signature panel. Portions of the account number may also be present on the signature panel. The code is used primarily in card-not-present transactions to verify that the customer is in possession of a valid credit card at the time of the sale.

# Fit to User Objectives

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What are you trying to accomplish ?

	Brand Integrity	Detection / Discernment	Market Intelligence	Seizure	Prosecution
Overt					
Semi-Covert					
Covert					
Forensic / In Product					
Track & Trace / Digital					

Fit this to your needs

	Good Fit
	Partial Fit
	Poor Fit

# Fit to User Groups (Example)

	Public	Company	Supply Chain	Customs	Police	Attorney	Judge & Jury
Overt							
Semi-Covert							
Covert							
Forensic InProduct							
Track & Trace							

# Transaction

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An authentication transaction is the **deliberate interaction**, using a **specified process**, in relation to the **examination** of an item with respect to its authenticity

# Transaction Example

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## Quick steps to Credit Card Acceptance

1. **Check the card security features (listed below).** Make sure that the card has not been altered.
2. **Swipe the stripe.** Swipe the card through the terminal in one direction only to obtain authorization.
3. **Check the authorization response.** Take appropriate action for the specific response:

<b>Response</b>	<b>Action</b>
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Approved	Ask the customer to sign the sales receipt.
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Declined	Return the card to customer and ask for another Visa card.
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Call or Call Center	Call your voice authorization center and tell the operator that you have a "Call" or "Call Center" response. Follow the operator instructions.
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Note: In most cases, a "Call" or "Call Center" message just means the card Issuer needs some additional information before the transaction can be approved.

Pick Up	Keep the card if you can do so peacefully.
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No Match	Swipe the card and re-key the last four digits. If "no match" response appears again, keep the card if you can do so peacefully. Request a <u>Code 10</u> authorization.
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4. **Match the numbers.** Check the embossed number on the card against the four digits of the account number displayed on the terminal.
5. **Request a signature.** Have the cardholder sign the transaction receipt.
6. **Check the signature.** Be sure that the signature on the card matches the one the transaction receipt.

# Authentication Threshold

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- An authentication threshold is:
  - the recognized point where the examiner in an authentication transaction
    - using an agreed set of tools
    - and an agreed process
  - **judges** an examined item to be authentic or not

# The Threshold

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- The threshold will vary depending on circumstances:
  - Confiscation in a raid
  - Through to evidence in court
- Therefore tools required will also vary:  
overt to forensic

# What Can We Learn?

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- More evidence / more certainty
- Need a range of tools
  - One tool cannot provide certainty, nor be applicable in all situations & with all user groups
- Information that needs to be shared:
  - Specific toolsets
  - Order of examination
  - Reference examples

# Thanks - Want to Know More - Visit

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