

RAA Update and WHOIS Validation Workshop

Moderated by:

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12 March 2012



One World

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Registrar Accreditation Agreement (RAA)

Status of Negotiations



RAA Amendments to cover:



- Multiple stakeholders' interests considered
 - Law Enforcement Agencies
 - GNSO recommendations
 - ICANN Board & Staff
 - Registrars
- Topics advancing registrant protection & DNS stability
- Priority on LEA requests



General Operating Method



- RAA negotiations
 - 12+ meetings
 - Weekly phone conferences
 - Progress posted on wiki page
 - Status Report Published:

<http://www.icann.org/en/resources/registrars/raa/raa-negotiations-progress-report-01mar12-en.pdf>



Next Steps – new agreement



- Registrars must renew their agreement under a new form of RAA if one is approved based on a consensus among Internet stakeholders demonstrated by:
 - a recommendation, adopted by at least a two-thirds vote of GNSO council
 - a written report that documents the extent of agreement/disagreement of affected groups and the outreach to those groups
 - adoption by the Board



Next Steps – when agreement takes effect



- Registrars have 5 year agreements
- Many registrars signed a revised agreement in 2009, and this comes up for renewal in 2014
- Other registrars at varying times
- Registrars could voluntarily sign an updated agreement prior to 2014
- A new registrar would sign the new agreement
- Policy aspects can be implemented via PDP



What makes this difficult



- Negotiating on behalf of many parties
- Full compliance with LEA asks
- Some vagueness to LEA asks
- Can't publish partial agreement
- Some issues require public discussion or some type of bottom-up process
 - Examples:
 - Validation of Whois information
 - Reveal of proxy registration data



Example: Whois Data Validation



- What does validation mean?
- Identify the benefits
- Identify financial / social costs:
 - Time to register a domain name
 - Identification requirements
 - Increased cost
 - Effects on market



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WHOIS Validation Workshop



What is Whois “Validation”?



- Related concepts:
 - *Validation: fields are non-blank and contain data in the proper format*
 - *Authentication: data is useful to actually reach registrant*
 - *Verification: data authentically corresponds to the true information*
- Making sure that Whois data is “accurate”



How Do We Achieve Whois Validation?



- A range of models
- Each of different effectiveness
- Potential spectrum of validation efforts available at <http://costarica43.icann.org/meetings/sanjose2012/draft-whois-verification-steps-12mar12-en.pdf>



Whois Validation Progression



1. No blanks
2. Correct formatting
3. Deliverable addresses
4. Patently false information
5. Confirming email
6. Registered mail receipt
7. Match payment / registration data
8. Phone number verification
9. D/L or passport authentication



What is the Right Solution? Balance:



- Incremental in accuracy
- Benefits of that increase in accuracy
- Costs
 - Registration price
 - Impacts in registration process





Whois Data Validation

John Curran, NRO Chair

March 15, 2012

193.0.0.202 62.109.128 195.048.02.03 193.0.0.202 2001.610.240 193.0.0.203
62.109.128 195.048.02.03 193.0.0.202 2001.610.240 193.0.0.203
193.0.0.203 2001.610.240 193.0.0.202 62.109.128 195.048.02.03 178.42.09.02 2001.610.240 193.0.0.203
2001.610.240 193.0.0.202 62.109.128 195.048.02.03 193.0.0.202 2001.610.240 193.0.0.203
Number Resource Organization



Practices

APNIC

- Maintains regular contact with account holders and through the annual renewal process and thereby updates Whois objects for resources delegated to those account holders
- Indicates that changes to the database are very rare as most resources are registered to “role” objects
- Obligates the member to maintain their own assignment information records, therefore no validation is conducted
- Provides a public form for reporting invalid details in which staff follow up with members
- Performs an annual Whois data cleanup process which helps to maintain current and valid information
- Updates Whois data when processing requests

2001-6-10-2400 193.0.0.202 62 109 128 195 048 02 03 129 120 202 2001-6-10-240 493.0.0.203
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Number Resource Organization

Story on CN Whois Verification

Prof. Xiaodong Lee

Chinese Academy of Sciences

Why Whois Accuracy

- User requirement vs. Governmental requirement
 - Domain name Abuse
 - Law enforcement
- Regulation on China Internet Domain Name
 - Registrant MUST submit the true, accurate and complete registration information
 - Individual registration was not permitted
 - It was said that China will open the individual registration in the near future

Story on CN Whois Accuracy

- Challenge
 - What is Whois accuracy?
 - Address, phone, email, ID, certificate and so on
 - Check if it is true? If it is complete and if it is accurate
 - Consistency check between registration information and proof materials
 - How to valid the information?
 - No unique system available
 - How to protect the privacy?
 - CSDN, Tianya, and etc.
 - How to deal with the legacy issues

Story on CN Whois Accuracy

- Advantage
 - Domain name abuse
 - Second in the world vs. almost none
 - Connect to registrant
 - All necessary contact information collected
 - Much more safety and trustworthy domain name
- Disadvantage
 - Registration number
 - 13 million vs. 3.3 million
 - Cost increase
 - Facilities, human resource, validation services
 - Marketing and user experience
 - Regulation is not stable, and so many materials need to be provided

Questions

- How to define the Whois accuracy?
 - What's the standard?
- How to valid the information globally?
 - Where is the online system?
- How to protect the user privacy?
 - Transfer, storage, backup, law enforcement, and etc.
- Who like it?



Neustar Registry Services

.US WHOIS Accuracy Program



ICANN Costa Rica
March 2012

.US WHOIS Accuracy Program - Overview

- No pre-validation of registrants
- Random audits (post-registration)
- Policy compliance and enforcement
- Proxy data not permitted

.US WHOIS Accuracy Program – Key Components

- » Weekly random spot checks looking for:
 - » WHOIS Accuracy
 - » Nexus Compliance
- » Weekly searches for proxy WHOIS data
- » Bi-Annual manual review of a large random WHOIS sampling
- » Annual review of every Registrar's WHOIS implementation
- » Annual WHOIS accuracy reminder email to Registrants
- » Online WHOIS accuracy reporting tool

.US WHOIS Accuracy Program – Random Audits

- » Weekly and Bi-Annual Spot checks
- » Looking for any data that appears to be inaccurate, including:
 - » Missing data
 - » Blatantly inaccurate data
 - » Mistakes that appear to be unintentional
- » Data is not validated
- » Inaccuracies are scored based on severity
- » Registrars are notified and required to correct inaccuracies or delete/suspend the domain



Thank You



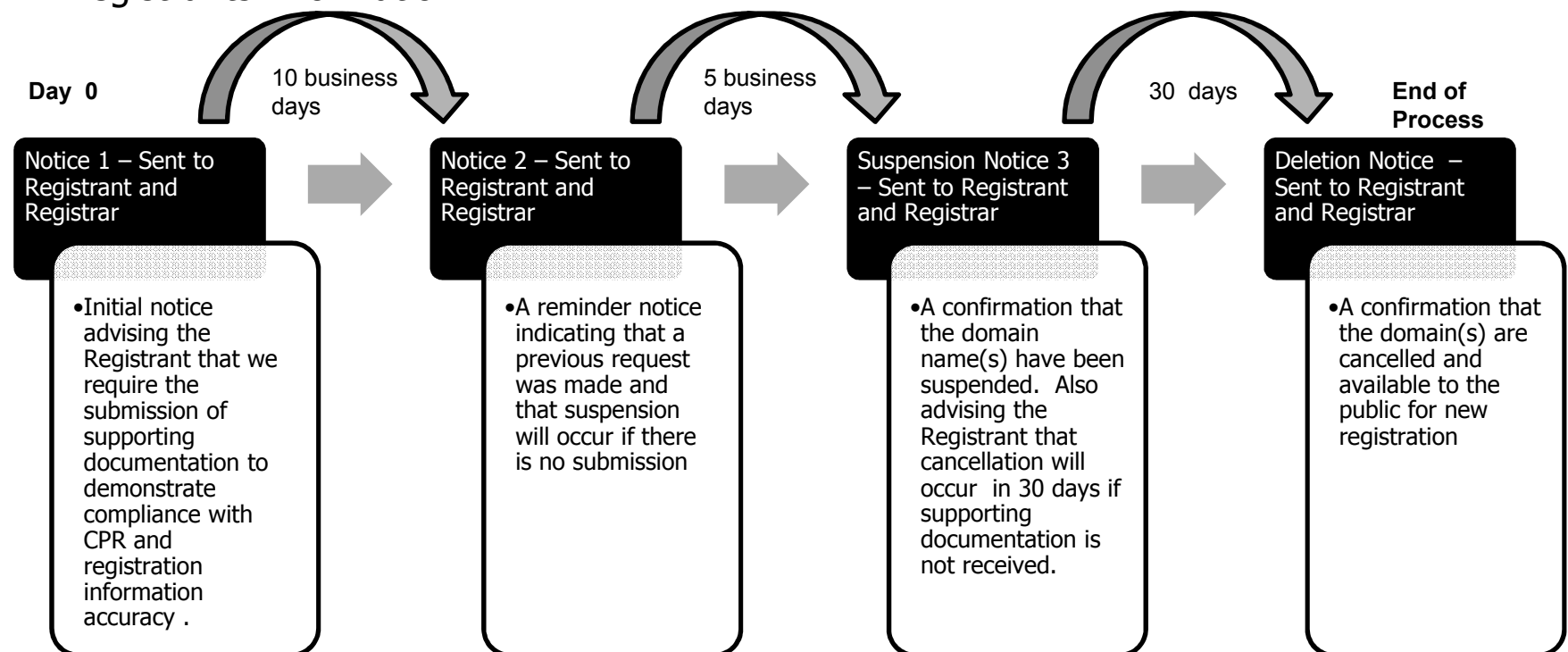


CIRA's Registrant Information Validation

CIRA
Canadian Internet Registration Authority (CIRA)

CIRA's Registrant Information Validation Process

- CIRA utilizes a validation process to verify that the Registrant meets with CIRA's Canadian Presence Requirements ("CPR") and that their registration information is complete and accurate. The process continues for roughly 45 days until CIRA receives acceptable documentation and/or approves the validation of the Registrants information.





CyberSource®

Ecommerce Fraud Solutions

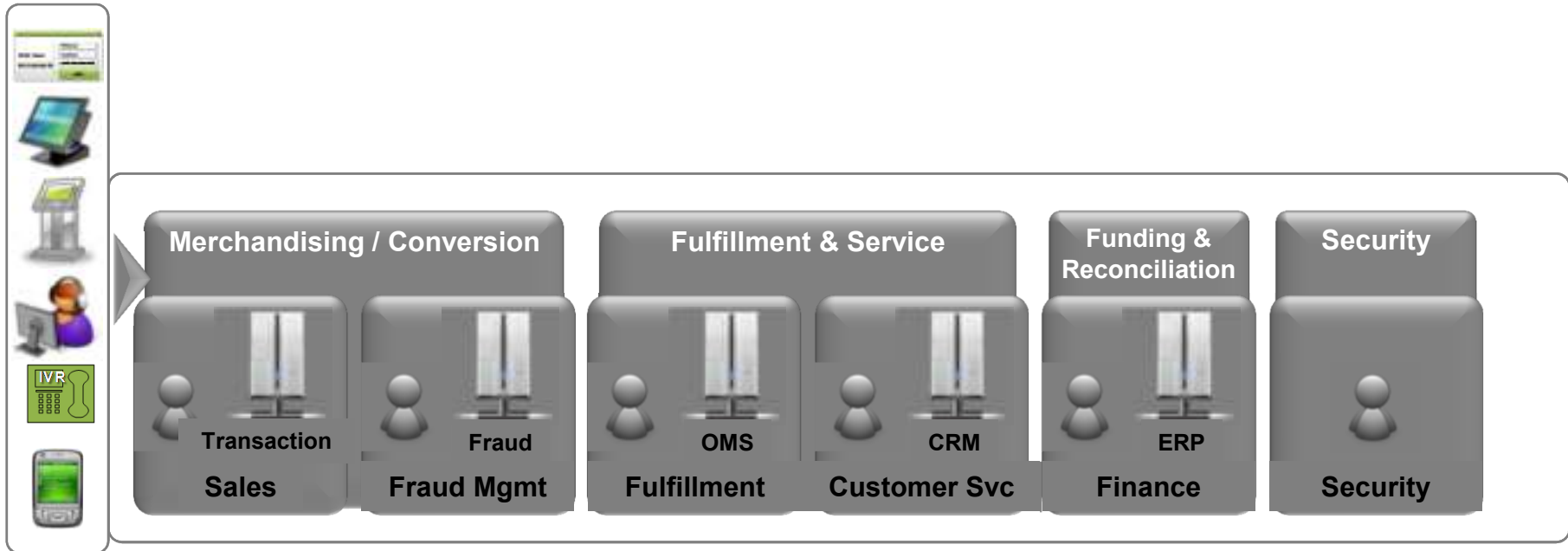
Andrew Naumann,
Director, Product Management, Risk Products

Ecommerce Overview: Merchant Challenge

2-5%

Of Revenue

Payment Processing | Fraud Management | Payment Security



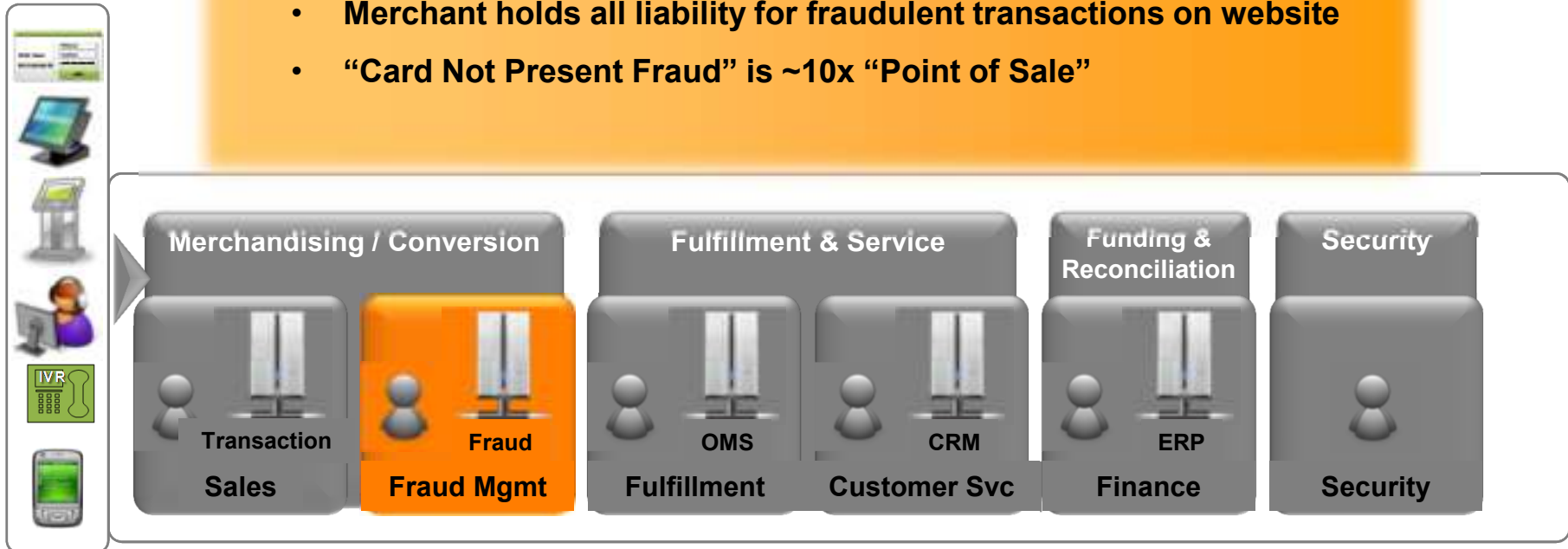
Ecommerce Overview: Merchant Challenge

2-5%

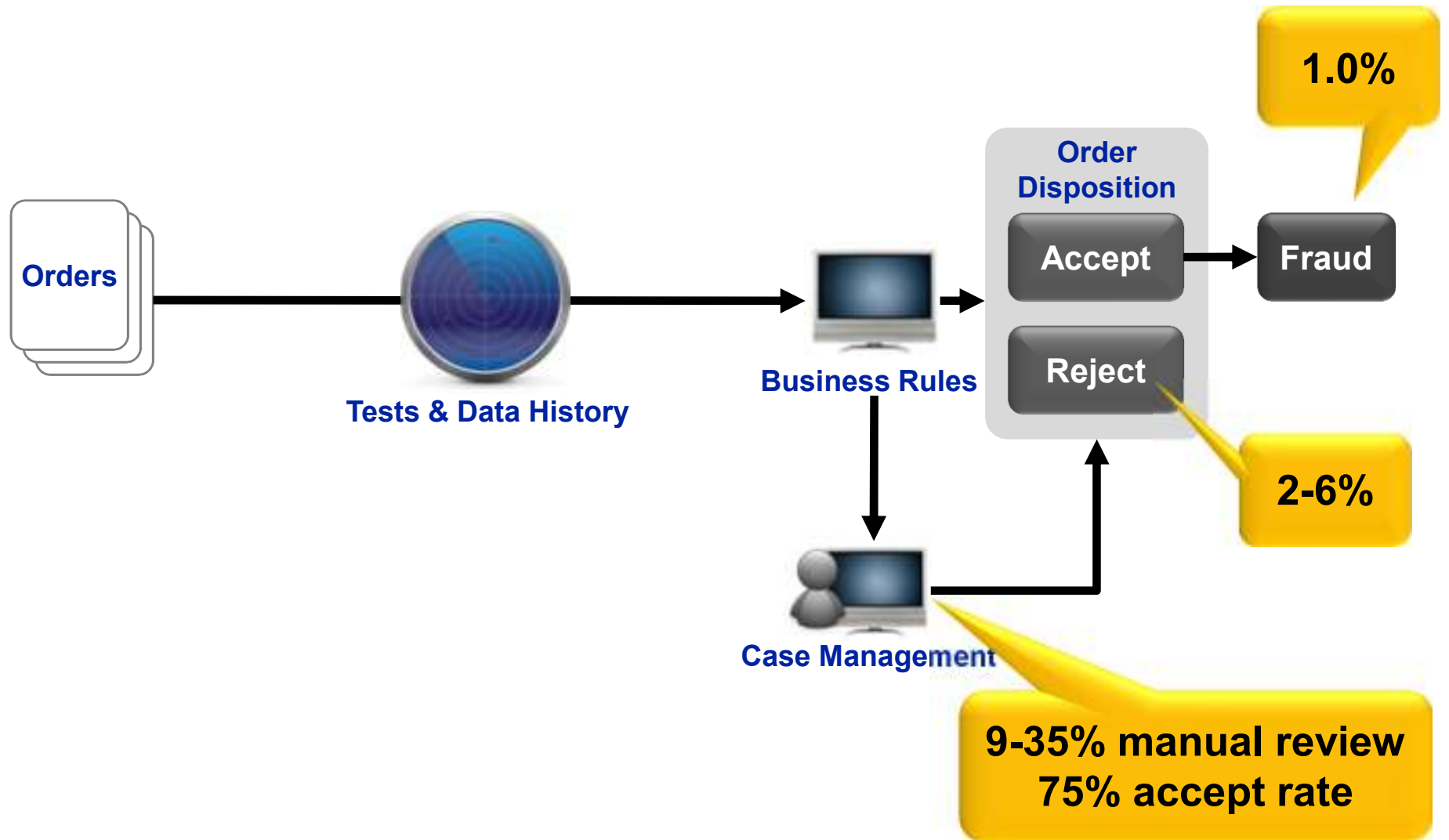
Of Revenue

Fraud Management:

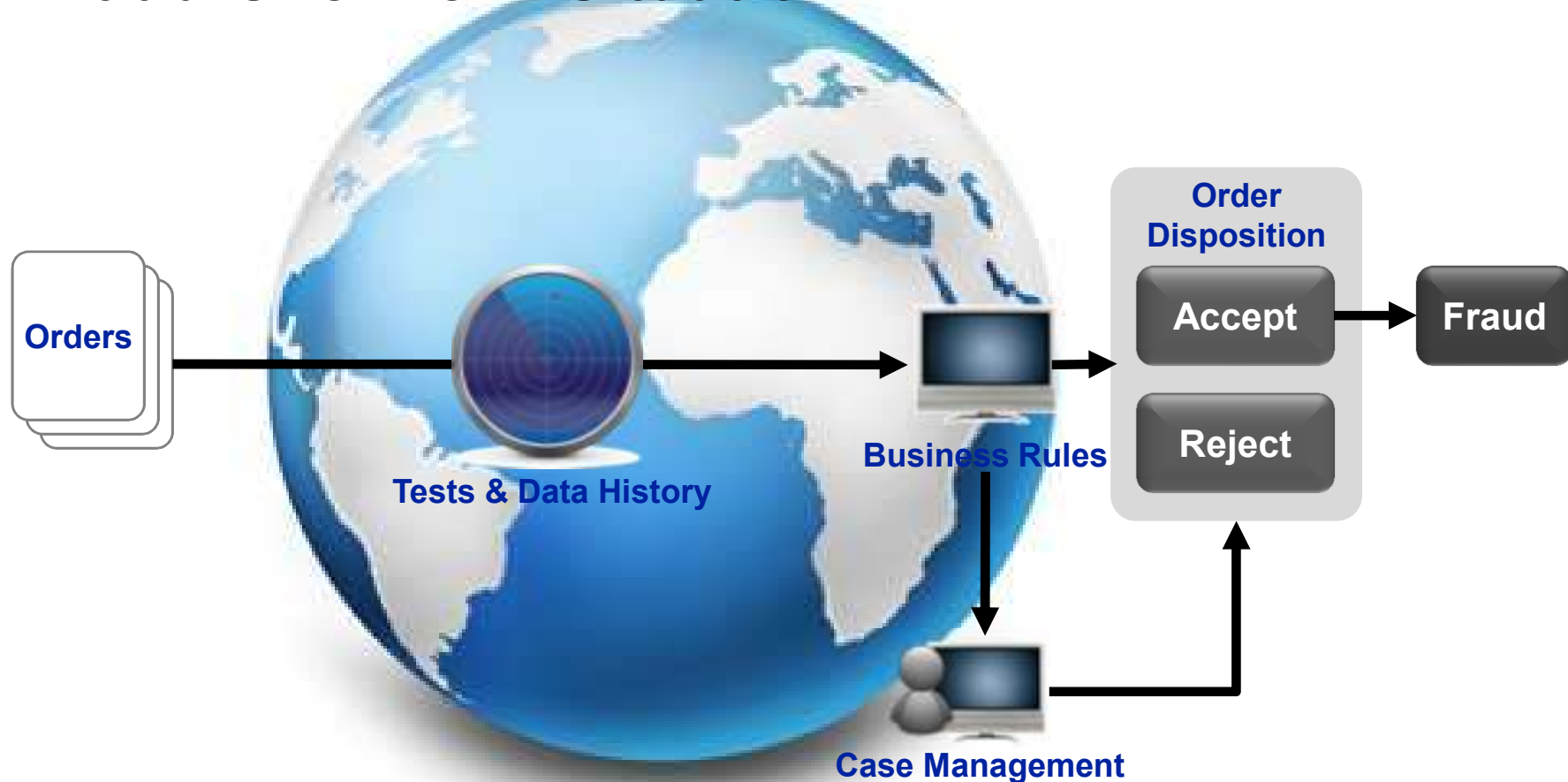
- Merchant holds all liability for fraudulent transactions on website
- “Card Not Present Fraud” is ~10x “Point of Sale”



Fraud Overview: Situation



Fraud Overview: Situation



1. How can I have an accurate detection process?
2. How will I reduce manual intervention and tune process efficiently?
3. And how do I do this as my business continues to grow?

Fraud Data Sources

Order Detail Data

- Sales Channel
- Shipping Method
- Product Group Risk
- + Merchant Custom Data

Identity Data: Payment

- Multiple Types/Brands
- All Channels
- Billing Address
- **AVS/CVN validation**

Identity Data: Payer

- Name
- Address (Bill to/Ship to)
- Address validation
- Phone validation
- Email address

Identity Data: Device and Network

- **IP Geolocation**
- **Device Fingerprinting**
- Packet Signature Inspection

Purchase History Data

- Purchase Velocity (frequency, cumulative \$/units)
- Chargeback/Truth Data

Note: individual merchant negative lists are not shared cross-merchant

Point of Sale Data

- Over 60 Billion Visa + CyberSource managed transactions annually
- Results of 200+ correlation tests



Example: Data Correlations

Merchant 1

Customer 1
4XXXXXX0123
email1@aol.com
D-Fingerprint: ABC

Merchant 2

Name4
4XXXXXX0123
email2@msn.com
D-Fingerprint: ABC

Merchant 5

Name2
4XXXXXX9234
email3@aol.com
D-Fingerprint: XYZ

Merchant 3

Name2
4XXXXXX9234
email1@aol.com
D-Fingerprint: ABC

Merchant 6

Name5
4XXXXXX1454
email2@aol.com
D-Fingerprint: XYZ

Merchant 4

Name3
4XXXXXX0123
email6@yahoo.com
D-Fingerprint: XYZ

Merchant 7

Name6
4XXXXXX9234
email4@aol.com

Name2
4XXXXXX9234
email2@aol.com
D-Fingerprint: XYZ

Name7
4XXXXXX1454
email5@yahoo.com

Results

Name changes: Multiple
Credit cards: Multiple
Email changes: Multiple
Identities/Device: Multiple

Business Rules Interface

The screenshot displays the CyberSource Decision Manager interface for configuring Custom Rules. The interface is divided into a left-hand navigation menu and a main content area.

Navigation Menu (Left):

- Home
- Virtual Terminal
- Decision Manager
- Case Management
 - Case Search
 - Performance Statistics
 - Reviewer Settings
 - Third-Party Configuration
- Configuration
 - Profiles
 - Custom Rules
 - Custom Lists
 - Issue Definitions
 - Velocity
 - Custom Fields
 - Settings
- List Manager
 - List Search
 - List Action
- Tools & Settings
- Transaction Search
- Reports
- Account Management
- Support

Main Content Area (Right):

Decision Manager Beta
Exit Beta

Custom Rules

Merchant Categories | Group Categories

- ADDRESS VERIFICATION (4)
- CARD VERIFICATION NUMBER (4)
- CONSUMER DATA VALIDATION (4)
- ORDER DATA QUALITY (7)

C	Name	Description		
<input type="checkbox"/>	Billing and/or shipping address not verifiable	Billing and/or shipping address not verifiable	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Correctable errors in addresses	Correctable errors in addresses	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Geolocation inconsistencies in order	Geolocation inconsistencies in order	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Letter combinations not found in English	Letter combinations not found in English	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Ospreyites in the name, e-mail or billing city	Ospreyites in the name, e-mail or billing city	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Order outside the U.S.	Order outside the U.S.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Shipping address different from billing address	Shipping address different from billing address	<input type="checkbox"/>	<input type="checkbox"/>
- OTHER TESTS (3)

C	Name	Description		
<input type="checkbox"/>	Customer on the negative list	Customer on the negative list	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Customer on the positive list	Customer on the positive list	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Order outside merchant's region	Order outside merchant's region	<input type="checkbox"/>	<input type="checkbox"/>
- PAYER AUTHENTICATION (2)
- VELDCITY (3)

C	Name	Description		
<input type="checkbox"/>	Merchant-specific order velocity	Merchant-specific order velocity	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Merchant-specific product velocity	Merchant-specific product velocity	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Similarity of this order to recent orders (Global Velocity)	Similarity of this order to other recent orders (Global Velocity)	<input type="checkbox"/>	<input type="checkbox"/>
- UNCATEGORIZED (10)

Buttons: Add Category, Add Rule, Delete Rule

Rob Hall Momentous





MOMENTOUS

Verification

- Any level can be done
- Important question becomes what effects it has on the market



MOMENTOUS



YOUR MOVIES.
YOUR WAY.

- Ships over 40,000 DVD's a day
- Verify address through Canada Post database to ensure it exists. Format difficult. High failure rate.
- Verify address through Trans Union and Equifax. Not effective.
- Sent first shipment via traceable courier.
- No appreciable effect on bad addresses.



MOMENTOUS



- Separate account and whois data.
- Much more accurate account data provided.
- Customers do not want to put real info in their whois data because it is public.
- Verify billing data using verified by visa – note: not identity verification, simply payment is possible.



MOMENTOUS

namescout.com

- Allows separate account data and whois data.
- Customers demand control of what is put in the public space



MOMENTOUS

- Field Level Verification: Has data. Where possible is the right data format.
- Cross Field Validation: Postal code matches City.
- Verify Contactability at:
 - Email
 - Phone
 - Postal Address
- Identity Verification
- When do you check what level ?
- Registration, update, complaint, annual whois reminders



Dangers

- Level of verification can cause Nationalization & Ghetto effect
- Some current stringent requirements lead to bad data
- Taking a step backwards towards old technologies
- We seem to have created a dataset called “Whois Data” that is different than other data.
- When we speak of Whois, we mean many different things.
- Customers would be provide more accurate data if not published the way whois currently is.



MOMENTOUS

Benedict Addis

SOCA



User Information Verification: Thoughts from online banking and e-commerce use cases



Rod Rasmussen

March 12, 2012



Verification Goals Vary

- Risk management goals
- Level of scrutiny based on context
- Asymmetry of exposure and transference of risk onto third parties
- Compliance often changes the balance
- Key thought - not all transactions or service requests must be delivered, not all transactions are equal



Dealing with scale

- Verification services and databases
 - Merchant and credit card risk
 - Proper formats of addresses
 - Legitimacy of addresses
- Reputation systems for Internet locations
- Geolocation tied to user claims
- Payment information tied to delivery



Handling higher risk

- Routinize the normal, escalate the unusual
- New user/customer vs. existing
- Firms deal with risk differently
 - No transactions allowed
 - Escrow/pre-payment
 - Providing further proof of identity
 - 3rd party verification services
 - Manual review



Thank You

