



Developers Conference

The Future of Securing the eBay Marketplace

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`$> build your business
with us`

`_devcon'09`

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Agenda

- The marketplace and users
- Protecting the marketplace and its users
- Questions as we go

The Marketplace and Users

Improve the overall customer experience

- For buyers: eBay as a place to get great **value** and **selection** from sellers they can **trust**
- For sellers: **great service** will make the difference in 2009. We will be rewarding sellers who provide a **superior experience** to buyers
- The user's identity and how they use the marketplace is where security is moving toward, even in cloud computing
- Enhancing the way in which users access all marketplace properties

The Marketplace and Users

There are four main ways an online criminal tries to defraud you and we have safeguards in place to stop them at every stage of the online transaction:

- Via finding and exploiting vulnerabilities in the eBay site itself
- Obtaining a fraudulent account - Phishing
- Getting visibility to generate leads
- Communicating with you to get you to send them money

Protecting the Marketplace and Its Users

- What we have and what we're working on or evaluating
 - Signin protections
 - 2 Factor Authentication (tokens)
 - Biometrics: keyboard and mouse use
 - Identity management technology
 - Precise Network Geolocation
 - Robotic Network Detection
 - Malicious use detection
 - Security in cloud computing
- Active content controls
 - Use safe markup language(s)

Signin...

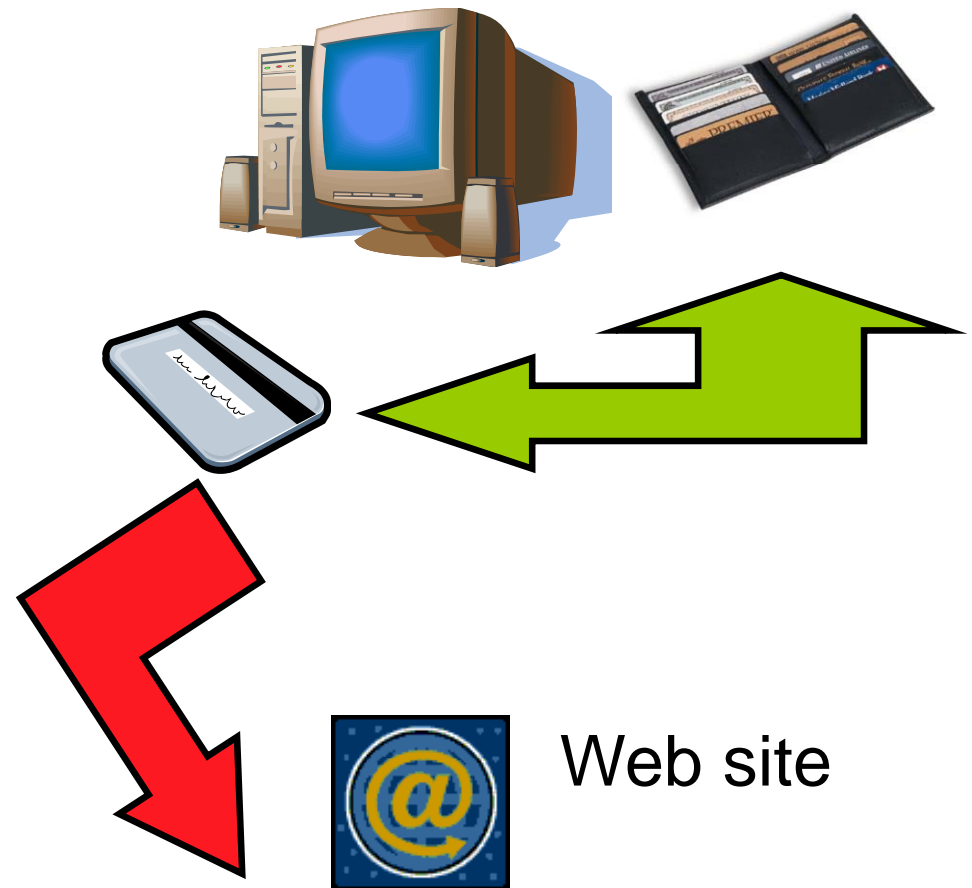
- 2 factor authentication is using what you know in addition to what you have
 - Tokens generating 6 digit numbers
- Biometric evaluation of how user enters name and password
- How a member uses their mouse

Device/User Biometrics

- Keyboard typing analysis
 - Time between strokes
 - Time during key stroke
- Mouse movement
 - Is there a mouse being used?
 - Does it jitter by itself
 - Does the user move the mouse between fields

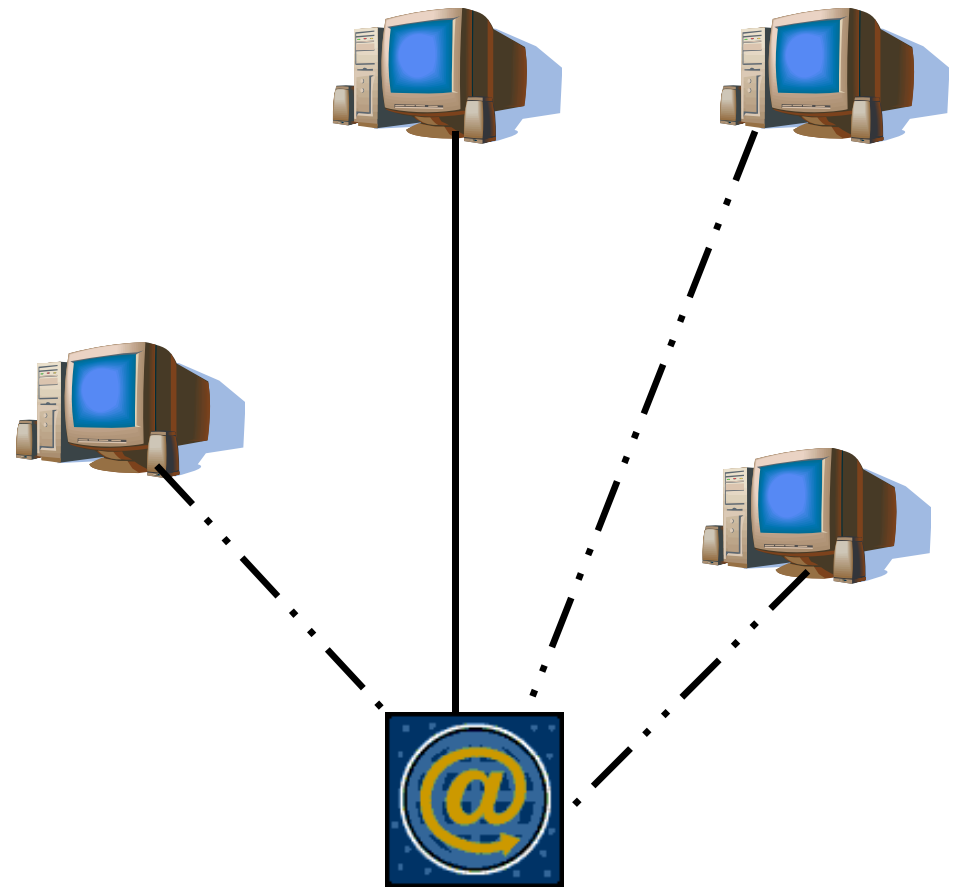
Protection Using Identity Management Products

- One to many identity cards contain user identities
- Stored securely on users device
- A card is bound to use on a web site
- Card won't bind to another without permission



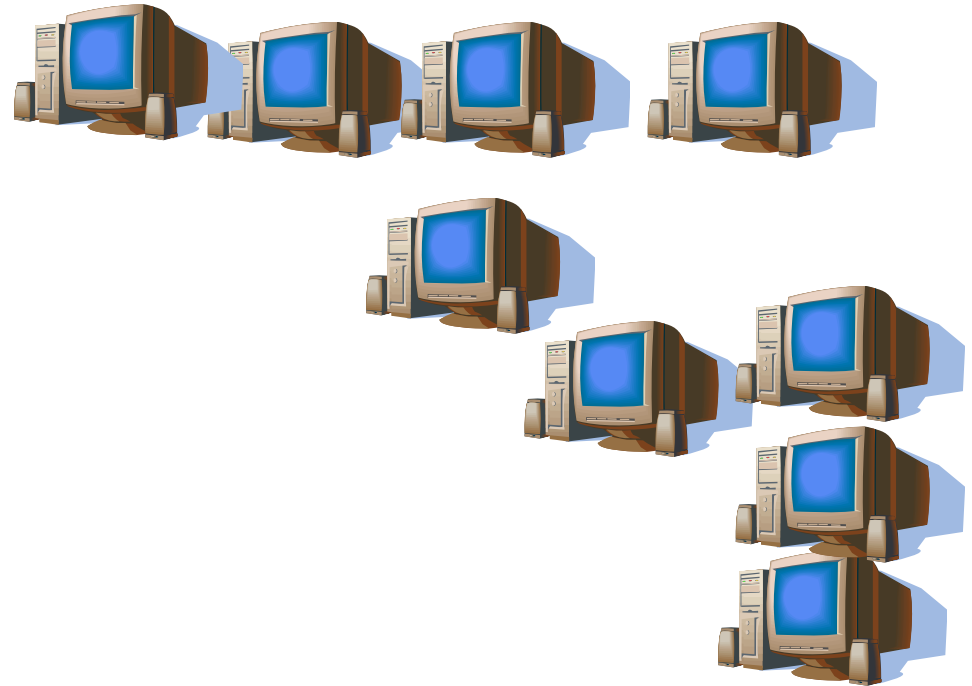
Precise Network Geo-location

- User connections compared to references
- References are known locations on the Internet



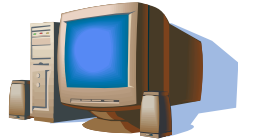
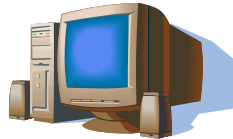
Robotic Network Detection

- Geo-Location of connections
- Patterns over the connection
- Robots process commands at a site at regular intervals
- Biometrics or lack of Biometrics helps



Malicious Use Detection – User Provides Content

- Items, Ad's, Aboutme, email marketing content is scanned
- External content needs to be verified
- First step is the “reputation” of the hosting location
- Other steps are taken

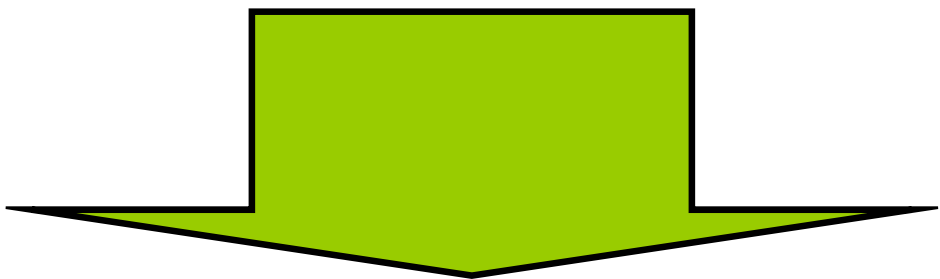


Malicious Use Detection – Bad Content Handling

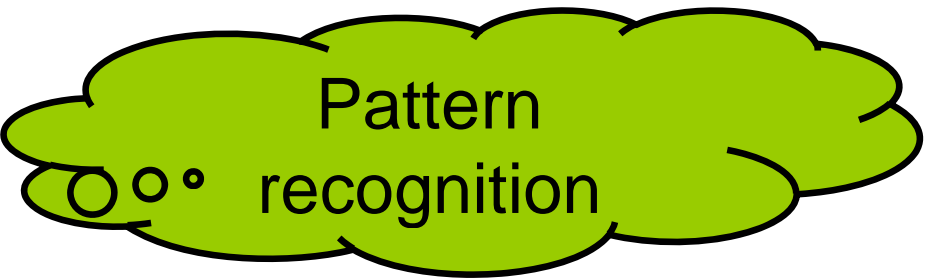
- Bad content discovery removes stored content
- Signature is created for the type of issue
- Hosting location is geo-located
- Place signature and location into learning engine
- Try to trace back to a known bad actor
- Start incident response process

Malicious Use Detection – Command Detection

- Good patterns in site access are differentiated from bad patterns
- By signature or geo-located position of a known bad reputation
- Bad patterns get blocked during incident response handling



Internet Traffic



Site Functions

Security in Cloud Computing

- eBay is a founding member of the Cloud Security Alliance
- 15 domains of security consideration in the cloud
 - Compliance
 - Architecture
 - Application Security
 - Storage
 - Etc.
- www.cloudsecurityalliance.org

Q&A

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Thank you!

Questions?

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