Advances in Security, Trust and Dependability in Internet

Panelists

- Alexey M. Kashevnik, SPIIRAS, Russia
- Chikara Ohta, School of System Informatics, Kobe University, Japan
- Rainer Falk, Siemens AG, Corporate Technology, Germany
Discussed Topics:
Trust, Privacy, and Security

Discussion Topics

- How far can an end user be made responsible for the security of a used web service? E.g., to evaluate trustworthiness to decide whether to provide credit card number?
- Heavy reliance on passwords, but limited capability of users to remember various passwords for different web services
- Need for a secure and efficient management of security infrastructure
- Some Internet services keeps passwords in their database. Services only need possibility to have a mechanisms to check if the password correct or not.
- Content Centric Networks (CCN): In-network cache will help efficient content delivery.
- Can we use cache anonymously in CCNs?

Some critical axes of security

- Usability
- Responsibility, liability
- Security education for end users, administrators, and developers
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- Provide a topic for discussions on Advances in Security, Trust and Dependability in Internet
- How about Privacy Concerns in Content Centric Networks?
CCN and Content Name

Content Centric Networks

- People are interested in contents themselves rather than where they come from
- Content Names are used to find caches
- How can we know content names?

What are you doing?

- We find contents according to preference
- Using search engines (Google, Yahoo,...)
- We get a list of URLs (content names)
- And click \( \rightarrow \) If this action is detected by ...
Content Name plus ...

- Search engine (Mapping Server) can know
  - Who (his/her location), Which content, When
  → A content is probably cached near him/her
  → If MS replies content name + cache location, ...

A click is diverted to another URL via Yahoo
Benefits and Concerns

Privacy/Security Concerns

- MS knows who requests which content
- Fake mapping request → wrong history

Reduction of server load
Reduction of the amount of traffic
Discussions

■ MS collects a history
  ◆ MS server can know your preference

■ To get contents from caches means
  ◆ Cache managers also can know who obtains which content
  ◆ Who is a cache manager? Just anyone else?

We just want to get contents from anywhere. Can we use cache anonymously?
Trust Issues During Paying for Goods and Services via Internet Using Credit Cards

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General Scheme of Buying Goods or Services via Internet Using Credit Card

User chooses needed good or service (e.g. chooses hotel room for a trip)

User checks web site of payment service Provider if it is possible to trust it and enter credit card information (make payment).

User gets confirmation of pay order

Well-known payment service providers:

- Amazon Payments
- Authorize.net
- CyberSource
- Google Wallet

- PayPal
- Assist
- WebMoney
- WorlPay
Hotel Booking Using Credit Card