



**Information Systems Frontiers**  
**Special Issue on**  
*Security Management and Technologies*  
*for Protecting Against Internal Data Leakages*  
<http://www.som.buffalo.edu/isinterface/ISFrontiers/>

### **Motivation**

During the past decades, information security developments have been mainly concerned with preventing illegal attacks by outsiders, such as hacking, virus propagation, and spyware. However, according to a recent Gartner Research Report<sup>1</sup>, information leakage caused by insiders who are legally authorized to have access to some corporate information is increasing dramatically. These leakages can cause significant damages such as weakening the competitiveness of companies (and even countries). Information leakage caused by insiders occurs less frequently than information leakage caused by outsiders<sup>2</sup>, but the financial damage is much greater. Countermeasures in terms of physical, managerial, and technical aspects are necessary to construct an integral security management system to protect companies' major information assets from unauthorized internal attackers. The objective of this special issue is to showcase the most recent challenges and advances in security technologies and management systems to prevent leakage of organizations' information caused by insiders. It may also include state-of-the-art surveys and case analyses of practical significance. We expect that the special issue will be a trigger for further research and technology improvements related to this important subject.

Papers on practical as well as on theoretical topics and problems are invited.

Topics include (but are not limited to):

- Theoretical foundations and algorithms for addressing insider threats
- Insider threat assessment and modeling
- Security technologies to prevent, detect and avoid insider threats
- Validating the trustworthiness of staff
- Post-insider threat incident analysis
- Data breach modeling and mitigation techniques
- Authentication and identification
- Certification and authorization
- Database security
- Device control system
- Digital forensic system
- Digital right management system
- Fraud detection
- Network access control system
- Intrusion detection
- Keyboard information security
- Information security governance
- Information security management systems
- Risk assessment and management
- Log collection and analysis
- Trust management
- IT compliance (audit)
- Continuous auditing

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<sup>1</sup> Jay Heiser. "Understanding Data Leakage", Gartner Research Report, August 2007

<sup>2</sup> George Fyffe. "Addressing the insider Threat", Network Security, March 2008

## Best Papers Selected from Workshop

In addition to regular submissions, the extended versions of the outstanding papers selected from the First International Workshop on Managing Insider Security Threats (MIST 2009) will be invited to this special issue.

## Submission

The target audience for the call for papers of this special issue includes academic and commercial researchers in the topic areas, as well as professionals and engineers developing security management products, systems and techniques.

## Schedule

- Manuscript submission deadline: **August 14, 2009**
- Notification of first round reviews: **October 31, 2009**
- Revised manuscripts due: **December 12, 2009**
- Final acceptance notification: **February 13, 2010**
- Camera-ready papers due: **March 31, 2010**
- Publication of special issue: **Spring or Summer, 2010 (Tentative)**

## Submission Procedure

Manuscripts must be submitted electronically in Microsoft Word or LaTeX format through <http://www.editorialmanager.com/isfi/> no later than August 14, 2009 (please specify: "For Special issue on Security Management and Technologies for Protecting Against Internal Data Leakages" in the submission).

All submissions should follow the Style and Author Guidelines for regular papers of *Information Systems Frontiers*.

## Guest Editors

### Prof. David Chadwick (Corresponding Editor)

University of Kent, UK

E-mail: [d.w.chadwick@kent.ac.uk](mailto:d.w.chadwick@kent.ac.uk)

### Prof. Hang Bae Chang

Daejin University, South Korea

E-mail: [hbcahng@daejin.ac.kr](mailto:hbcahng@daejin.ac.kr)

### Prof. Ilsun You

Korean Bible University, South Korea

E-mail: [ilsunu@gmail.com](mailto:ilsunu@gmail.com)

### Prof. Seong-Moo Yoo

University of Alabama in Huntsville, USA

E-mail: [yoos@eng.uah.edu](mailto:yoos@eng.uah.edu)

## Contacts

For further information regarding the special issue, please contact at [ilsunu@gmail.com](mailto:ilsunu@gmail.com).