

# 3<sup>rd</sup> International Conference on Network and System Security (NSS 2009)

# 6<sup>th</sup> IFIP International Conference on Network and Parallel Computing (NPC 2009)

October 19-21, 2009 Gold Coast, Australia Conference Program and Information Booklet



Organizers Deakin University Central Queensland University Swinburne University of Technology

Sponsors IEEE and IEEE Computer Society IEEE CS Technical Committee on Scalable Computing International Federation for Information Processing



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# NSS 2009 / NPC 2009 Program Overview

# Sunday 18 October 2009

14:00-18:30 Registration (Registration Desk)

18:30-20:30 Welcome Reception (Ballroom Foyer)

Monday 19 October 2009				
08:30-09:00	Opening and Welcom	e (Grand Ballroom)		
09:00-10:00	Keynote Address 1 by	/ Professor Vijay Varadh	arajan (Grand Ballroor	n)
10:00-10:30	Morning Tea (Ballroor	m Foyer)		
10:30-12:30	Session 1A: NSS 2009 (Grand Ballroom)	Session 1B: NSS 2009 (Fraser)	Session 1C: NPC 2009 (Brampton)	Session 1D: IDSS-NDS 2009 (Heron)
12:30-13:30	Lunch (Ballroom Foye	er)	••••	
13:30-14:30	Keynote Address 2 by	/ David Bernstein (Gran	d Ballroom)	
14:30-15:00	Afternoon Tea (Ballroom Foyer)			
15:00-17:30	Session 2A: NSS 2009 (Grand Ballroom)	Session 2B: NSS 2009 (Fraser)	Session 2C: NPC 2009 (Brampton)	Session 2D: IDSS-NDS 2009 (Heron)

#### Tuesdav 20 October 2009

09:00-10:00	Keynote Address 3 by Dr Gregor von Laszewski (Grand Ballroom)					
10:00-10:30	Morning Tea (Ballrooi	m Foyer)				
10:30-12:30	Session 3A:Session 3B:Session 3C:Session 3D:NSS 2009NSS 2009NPC 2009DMAI 2009(Grand Ballroom)(Fraser)(Brampton)(Heron)					
12:30-13:30	Lunch (Ballroom Foyer)					
13:30-14:30	Keynote Address 4 by Professor Weijia Jia (Grand Ballroom)					
14:30-15:00	Afternoon Tea (Ballro	om Foyer)				
15:00-17:30	Session 4A: NSS 2009 (Grand Ballroom)	Session 4B: NSS 2009 (Fraser)	Session 4C: NPC 2009 (Brampton)	Session 4D: DMAI 2009 (Heron)		
18.30-21.30	Conference Banquet (Grand Ballroom)					

Wednesday 21 October 2009					
09:00-10:00	Keynote Address 5 by	/ Professor Binxing Fang	g (Grand Ballroom)		
10:00-10:30	Morning Tea (Ballroor	m Foyer)			
10:30-12:30	Session 5A:Session 5B:Session 5C:Session 5D:NSS 2009WMNS 2009NPC 2009FIAS 2009(Grand Ballroom)(Fraser)(Brampton)(Heron)				
12:30-13:30	Lunch (Ballroom Foyer)				
13:30-14:30	Panel Session: Secur	ity in Cloud Computing	(Grand Ballroom)		
14:30-15:00	Afternoon Tea (Ballroom Foyer)				
15:00-17:30	Session 6A: NSS 2009 (Grand Ballroom)	Session 6B: NSS 2009 (Fraser)	Session 6C: NPC 2009 (Brampton)	Session 6D: FIAS 2009 (Heron)	

# Message from NSS 2009 General Chair



**Wanlei Zhou** Deakin University, Australia

Welcome to the beautiful and dynamic city of Gold Coast. We are privileged and delighted to welcome you to the 2009 International Conference on Network and System Security (NSS 2009).

Network and system security continues to be a very hot research area in computing as security has always been the demand for distributed networks and systems by people in the world. NSS has been a high quality research forum in network and system security for years. This year's NSS has grown to a full international conference. It will continue to play an important role of stimulating valuable ideas and collaborations among the members of the research community.

We sincerely thank many people who have helped organizing this conference. We would like to thank the Program Chairs Yang Xiang, Javier Lopez, and Haining Wang for their leadership in providing the excellent technical program. We would like to also thank the International Advisory Committee members David Basin, Elisa Bertino, Sushil Jajodia, Jennifer Seberry, Makoto Takizawa, and Vijay Varadharajan.

We wish you a very enjoyable and rewarding experience at NSS 2009 in Gold Coast!

# Message from NSS 2009 Program Chairs



Yang Xiang Central Queensland University, Australia



**Javier Lopez** University of Malaga, Spain



Haining Wang College of William and Mary, USA

A warm welcome to the 2009 International Conference on Network and System Security (NSS 2009) and to Gold Coast, Australia.

NSS has been a premier conference that has brought together researchers and practitioners from academia, industry and governments around the world to advance the theories and technologies of network and system security, such as authentication, access control, availability, integrity, privacy, confidentiality, dependability and sustainability of computer networks and systems. The goal of NSS is to establish an international forum for researchers and practitioners to present their excellent ideas and experiences in all system fields of network and system security. NSS 2009 features new results, challenging research questions, novel approaches and innovative directions in network and system security.

NSS 2009 is the next event in a series of highly successful events of Network and System Security (NSS), previously held as IFIP International Workshop on Network and System Security: NSS 2008 (Shanghai, China, October 2008) and NSS 2007 (Dalian, China, September 2007), respectively.

This year we received 149 submissions from 30 countries in the world. Each paper was reviewed by at least two internationally renowned referees and selected based on their originality, significance, correctness, relevance, and clarity of presentation. Among the high quality submissions, only 38 regular papers and 15 short papers were accepted.

In addition to the main conference, there are four workshops held together with NSS 2009. They are:

- 1. First International Workshop on Frontiers of Information Assurance and Security (FIAS 2009)
- 2. First International Workshop on Intelligent Decision Support Systems and Applications in Networked and Distributed Systems (IDSS-NDS 2009)
- 3. Second International Workshop on Data Mining and Artificial Intelligence (DMAI 2009)
- 4. First International Workshop on Wireless & Mobile Networks Security (WMNS-2009)

We would like to take this opportunity to thank all the authors for their submissions to NSS 2009 and associated workshops. Many of them have travelled some distance to participate in the conference. We also thank the Program Committee members and additional reviewers from all around the world for their efforts in reviewing the large number of papers. We appreciate all workshop Chairs for their dedication and professionalism. We would like to extend our sincere thanks to the General Chair, Professor Wanlei Zhou. He provided us with invaluable guidance throughout the process of paper selection and program organization. We also thank Georgi Cahill, the Conference Secretariat, for her professional organization.

Last but not least, we would like to express our gratitude to all of the organizations who have supported our efforts to bring conference to fruition. We are grateful to Deakin University, Central Queensland University, and IEEE Computer Society TCSC for their sponsorships and assistance.

Welcome to Gold Coast and enjoy!

# Message from NPC 2009 Chairs



**Wanlei Zhou** Deakin University, Australia



Andrew Wendelborn University of Adelaide, Australia



Yang Xiang Central Queensland University, Australia



**Jinjun Chen** Swinburne University of Technology, Australia



Guang R. Gao University of Delaware, USA

Welcome to the 6th 2009 IFIP International Conference on Network and Parallel Computing (NPC 2009) held in Gold Coast, Australia.

NPC has been a premier conference that has brought together researchers and practitioners from academia, industry and governments around the world to advance the theories and technologies of network and parallel computing. The goal of NPC is to establish an international forum for researchers and practitioners to present their excellent ideas and experiences in all system fields of network and parallel computing. The main focus of NPC 2009 was on the most critical areas of network and parallel computing: network applications, network technologies, network and parallel architectures, and parallel and distributed software.

In total, the conference received 85 papers from researchers and practitioners from 25 countries and regions in the world. Each paper was reviewed by at least three internationally renowned referees and selected based on its originality, significance, correctness, relevance, and clarity of presentation. Among the high-quality submissions, only 25 regular papers and 10 short papers were accepted by the conference. All of the selected conference papers are included in the conference proceedings. After the conference, some high-quality papers will be recommended to be published in a special issue of several international journals.

We are delighted to host the well-known international experts, Dr Gregor von Laszewski from Indiana University, USA, and David Bernstein from Huawei North America Software Division, USA, to offer the keynote speeches. Besides the keynote addresses and the paper presentations from the authors, NPC 2009 features a panel session of "Security in Cloud Computing".

We would like to take this opportunity to thank all the authors for their submissions to NPC 2009. Many of them travelled some distance to participate in the conference. We also thank the Program Committee members and additional reviewers for the efforts in reviewing the large number of papers. Thanks also go the local conference organizers for their great support. We thank Georgi Cahill, the Conference Secretariat, for her professional organization. Last but not least, we would like to express our gratitude to all of the organizations who have supported our efforts to bring the conference and workshops to fruition. We are grateful to IFIP Working Group 10.3 on Concurrent Systems, Deakin University, Central Queensland University, and Swinburne University of Technology for their sponsorship and assistance.

# Keynote Address 1 at NSS 2009

# **Trust Enhanced Security in Networked Systems**



Vijay Varadharajan Professor and Microsoft Chair in Innovation in Computing Department of Computing Macquarie University Sydney, Australia vijay@ics.mq.edu.au

Abstract — The recent decades have witnessed dramatic developments in information and communication technologies, and the Internet is transforming the way we work and live. Along with the phenomenal growth in technology and technology enabled information economy has been a growth in technology related crimes. Security, trust and privacy on the Internet are causing major concerns and are no longer at socially acceptable levels by almost any reasonable standards. From consumer threats (such as identity theft) to enterprise threats (e.g. loss of personally identifiable information data) to government threats (e.g. information warfare), there is little doubt that sophisticated adversaries are causing malicious effects. In this talk, we will consider the technical challenges involved in the development of secure and trustworthy networked systems and infrastructures. We will address aspects such as the notions of trust in the security technology world, how does one user trust another user or a service provider over the Internet and design choices for developing trustworthy systems and networks. We will introduce the notion of "trust enhanced security" and discuss how such an approach can be used to enhance security decisions in distributed systems and mobile ad hoc networks.

#### Professor Varadharajan's Biography

Vijay Varadharajan is currently Professor and Microsoft Chair in Innovation in Computing at Macquarie University (2001-todate). He is also the Director of Information and Networked System Security (INSS) Research. Before this he was Chairman of School of Computing and IT at University of Western Sydney (1996-2000).

Previously, Vijay has headed Security Research at HP Labs Bristol, UK (1988-1995). During his tenure at HP Labs., under his leadership, some 6 different security technologies were transferred into successful HP products in Divisions. He also headed the Technical Security Strategy Initiative at HP under the Senior Vice President. Before this, he was a Research Manager at British Telecom Research Labs. U.K (1987-88). From 1985 till 1987, he was Research Fellow and Lecturer in Computer Science at Plymouth and Reading Universities. He did his Ph.D in Computer and Communication Security in the U.K (1981-1984) from Plymouth and Exeter Universities in U.K., which was sponsored by BT Research Labs. He did his Electronic Engineering degree from Sussex University, UK (1978-1981). He was awarded the 1981 Prize of the Institution of Electrical Engineers, IEE, for outstanding performance at Sussex University and the Committee of Vice Chancellors and Principals Award (UK).

Vijay has had several visiting positions at different institutions over the years including Senior Research Scientist at Microsoft Research Cambridge UK, Senior Research Scientist at the Institute of Mathematical Sciences at National University of Singapore, Invited Professor at French National Research Labs (INRIA), Invited Professor at the Indian Inst. of Technology, Research Scientist at Fujitsu Research Labs, Fellow at British Telecom Research Labs., UK and Visiting Professor at the Chinese Academy of Sciences.

Vijay was on the Board of International Advisors of TCPA, USA, originally formed by HP, Microsoft, Intel, Sun and Compaq. Now TCPA is known as TCG and TCPA security specification is currently being in products endorsed by numerous companies. Vijay is a member of the Trustworthy Computing Academic Advisory Board (Microsoft, USA). He is also a member of the Australian Government's Peak Security Advisory Body, ITSEAG, for the Ministry of Broadband, Communications and Digital Economy, Australia. Previously he has acted as an Expert in Security for the European Union and for the UK Dept. of Trade and Industry. He has also acted as consultant and architect for several projects in computing, financial and telecom organizations in the UK, US and in Australia. He has been the Technical Board Director of Computer Science at Australian Computer Society (1999-2006), and a member of the Board of Studies NSW Australian Government since 2005.

Vijay has published more than 280 papers in International Journals and Conferences, has coauthored and edited 8 books on Information Technology, Security, Networks and Distributed Systems and holds 2 patents. His research work over the years has contributed to the development of several successful secure commercial systems in the areas of Secure Distributed Applications, Secure Network Systems, Security Tools, Secure Mobile Systems as well as Cryptographic and Smart Card based Systems and secure financial, telecom and medical solutions. His current areas of research interest include Web Services Security, Secure Distributed Applications, Trusted Computing, Security Policies and Management in Distributed Systems, Internet Security, Secure Mobile Agents, Security in Mobile Networks, Wireless Security, Secure E-Commerce, Security Policies, Models and Architectures and Protocols. He has supervised successfully many PhD Research students in UK and Australia.

He has given 15 keynote speeches at international conferences, and has been a program committee member/chaired over 150 international conferences all over the world. He is an Editorial Board member of several journals including the prestigious ACM Transactions on Information System Security (USA), Journal of Information Security, Springer (Germany), Computer and Communication Security Reviews (UK) as well as the IEEE Transactions on Dependable and Secure Computing (TDSC) and IEEE Security and Privacy (from 2009). His research work has been supported by industry such as Microsoft, Hewlett-Packard, British Telecom and Fujitsu, as well as government agencies such Australian Research Council (ARC), UK Research Council (EPSRC), Australian Defense (DSD), Dept of Prime Minister and Cabinet Australia and European Union (COST, EUREKA, ESPRIT, RACE).

He is a Fellow of the British Computer Society (FBCS), a Fellow of the IEE, UK (FIEE), a Fellow of the Institute of Mathematics and Applications, UK (FIMA), a Fellow of the Australian Institute of Engineers (FIEAust), a Fellow of the Australian Computer Society (FACS) and a Senior Member of IEEE (SMIEEE).

# Keynote Address 2 at NPC 2009

# The Intercloud: Cloud Interoperability at Internet Scale



**David Bernstein** Huawei North America Software Division, USA david@cloudstrategypartners.com

Abstract — Today, Cloud Computing is seen largely as isolated providers or enterprise instances of a special kind of hosting or application container. Virtual Machines, or managed code executing against Cloud API's, are limited to that provider or that enterprise in terms of direct context or reach. This reminds us very much of the state of networking before the Internet where LANs of various domains and protocols did not interconnect. It will either be history repeating, or our collective manifest destiny, to evolve Cloud Computing to a worldwide, interoperable, transparent platform. In other words, Cloud will become to Computing just what the Internet is for Data. Unfortunately, there are many aspects of the platform on which Cloud Computing depends which are preventing this. For example, for the Internet to work, someone had to invent IP addressing, Domain Name Service, Peering and Routing protocols such as AS numbering, OSPF and BGP, and Certificates to enable SSL. In Cloud, for the broader vision of Cloud Interoperability to work, ranging from VM mobility to storage federation to multicast and media streaming interoperability to identity and presence and everything in between, analogous technologies need to be invented. This talk overviews the "grand challenges" in making such changes on the scale of the Internet, and then speaks to specific work completed to-date and in-progress in standards bodies. The attendee will leave the talk with a new understanding of how following the blueprints of the Internet itself (exchange and peering, geographical dispersion, etc) are enabling Cloud Interoperability at a fundamental level. This is what is being called the "Intercloud".

#### **Bernstein's Biography**

David Bernstein is a Cloud Computing researcher and business consultant. Currently on contract to Huawei Software Division, he leads their "Carrier as a Service" initiative. Huawei also supports David's continuing work in Cloud Computing standards including the Intercloud efforts. Previous to this, David was VP/GM of Cloud Computing in Cisco's Office of the CTO running Cisco's Cloud Lab, Interoperability, and Standards initiatives, where his team produced the first published work on the Intercloud. David's experience includes executive positions in AT&T, Siebel Systems, Pluris, and Santa Cruz Operation. David holds nearly a dozen patents in software and communications, publishes research regularly in IEEE, and IARIA conferences. He was a key author/contributor to many industry standards such as OpenSOA.org, OASIS SCA, WS-I, JCP/J2EE, and IEEE POSIX. David holds degrees in Physics and Mathematics from University of California where he was awarded the UC Regents Scholar designation for his work for the Office of Naval Research.

# Keynote Address 3 at NPC 2009

# **Towards Green Computing in Clouds**



**Gregor von Laszewski** Pervasive Technology Institute Indiana University 2729 E 10th St Bloomington IN 47408, USA laszewski@gmail.com

**Abstract** — Recently electricity usage has become a major IT concern for data centers. In fact, the electricity costs for running and cooling computers generally are considered a major portion of the IT budget. As reported by the U.S. Environmental Protection Agency, 61 billion kilowatt-hours of power was consumed in data centers in 2006, which is 1.5% of all US electricity consumption and worthy of \$4.5 billion and will double by 2011. In this talk we will discuss our current efforts to improve the effectiveness of data centers while using green scheduling algorithms, virtualization, and clouds. We also provide an example on how to reduce the carbon footprint by using specially tuned algorithms using GPPGU's exposed as a Cloud service for flowcytometry.

#### Dr Gregor von Laszewski's Biography

Gregor von Laszewski is conducting state-of-the-art work in Cloud computing and GreenIT at Indiana University as part of the Future Grid project. During a 2 year leave of absence from Argonne National Laboratory he was the Director of a Lab at Rochester Institute of Technology (RIT) focussing on Cyberinfrastructure. He was also an associate professor of the PhD program at RIT and did hold a guest appointment in the computer science department. Prior to this, he worked between 1996 and 2007 for Argonne National Laboratory where he was last a scientist and a fellow of the Computation Institute at University of Chicago. He received a Masters Degree in 1990 from the University of Bonn, Germany, and a Ph.D. in 1996 from Syracuse University in computer science. He is involved in Grid computing since the term was coined. Current research interests are in the areas of GreenIT, Grid & Cloud computing, and GPGPUs. He is best known for his efforts in making Grids usable and initiating the Java Commodity Grid Kit which provides a basis for many Grid related projects including the Globus toolkit (http://www.cogkits.org). His Web page is located at http://cyberaide.org.

# Keynote Address 4 at NSS 2009

# Realizations of Ubiquitous Networking for Interactive Multimedia Applications



Weijia Jia Professor of Computer Science Director of Future Networking Centre (FNC) City University of Hong Kong wei.jia@cityu.edu.hk

**Abstract** — Modern Ubiquitous networks, including the 3G family of W-CDMA, TD-SCDMA, CDMA2000, and HSPA, together with WLAN and the Internet, will provide end-users with an infrastructure for interactive multimedia applications such as VoIP, video calls, video-on-demand and video surveillance. However, there are four challenges: (1) Link-interface heterogeneity -- end-users need to access different types of mobile links; (2) Link-communication interruption due to end-user mobility, unstable radios, and limited coverage; and (3) Link-access vulnerability -- mobile links are vulnerable to attacks. Consequently, the mission of R&D a system to provide end-users with secure, interactive multimedia communications in ubiquitous networks is extremely challenging. In this talk, I will present a comprehensive system realized at FNC, CityU to meet the above mission. The system composes of two subsystems -- Multimedia Personnel Gateways (PG) and Multimedia User Elements (ME) -- with corresponding protocols that enable end-users to securely access ubiquitous/heterogeneous networks and to transmit interactive multimedia, and to provide non-interruptive communications for interactive multimedia applications.

#### **Professor Jia's Biography**

Weijia Jia is currently a full Professor in the Department of Computer Science and the Director of Future Networking Center, ShenZhen Research Institute of City University of Hong Kong (CityU). He received BSc and MSc from Center South University, China in 1982 and 1984 and Master of Applied Sci. and PhD from Polytechnic Faculty of Mons, Belgium in 1992 and 1993 respectively, all in Computer Science. He joined German National Research Center for Information Science (GMD) in Bonn (St. Augustine) from 1993 to 1995 as a research fellow. In 1995, he joined Department of Computer Science, CityU as an assistant professor. Prof. Jia's research interests include next generation wireless communication, protocols and heterogeneous networks; distributed systems, multicast and anycast QoS routing protocols. In these fields, he has a number of publications in the prestige international journals (IEEE Transactions, e.g., TPDS, TC, TMC etc.), books/chapters and refereed international conference proceedings (e.g. ACM WiSec, MobiHoc, SenSys, IEEE ICDCS, INFOCOM etc.). He (with Wanlei Zhou) has published a book "Distributed Network Systems" by Springer where the book contains extensive research materials and implementation examples. He has received the best paper award in a prestige conference and (with Jianer Chen et. al) has proposed an improved algorithm for well-known Vertex Cover and Set-packing NP-hard problems with time bounds of O(kn+1.2852k) and O((5.7k)kn) respectively. Both results stand on the current best time-bound to date for the fixed-parameterized intractable problems.

Prof. Jia is the Chair Professor of Central South University, Changsha, China, Guest Professor of Shanghai Jiao Tong University, University of Science and Technology of China, Beijing Jiao Tong University and Jinan University, Guangzhou, China. He has served as the editor and guest editor for international journals and PC chairs and members/keynote speakers for various prestige international conferences. He is the Senior Member of IEEE and the Member of ACM.

# Keynote Address 5 at NSS 2009

# Information Content Security on the Internet: the Control Model and Its Evaluation



**Binxing Fang** President Beijing University of Posts and Telecommunications Beijing, China fangbx@bupt.edu.cn

**Abstract** — Flooding of harmful information on the Internet seriously endangers the physiological and mental health of teenagers. Due to the user-friendliness of the Internet as well as the difficulty in the authentication for the access of specific categories of information, curbing the transmission of harmful information, i.e., to assure the information content security (ICS), has become a reasonable yet challenging alternative. At present, there is an urgent need to develop a systematic model that can effectively carry out the curbing. In fact, curbing the transmission of harmful information by way of filtering can be modeled by access control. In the paper, based on the three core-elements of communication, namely, "Who communicates with whom", "How do they communicate" and "What is the content of communication", we propose a control model, called ICCON. Unlike the existing access control, the reference monitor (RM) of our model is placed in the transmission channel, and moreover, an evaluation frame is proposed, through which the effectiveness of the RM in controlling information transmission on the Internet can be quantitatively evaluated.

#### **Professor Fang's Biography**

Professor Fang Binxing has been engaged in the research on information security. He gives the formal definition of "Information Security", by which, the calculating on the properties of information security is possible. Now he is the president of Beijing University of Posts and Communications, the expert of Advisory Committee for State Informatization, and expert of the National 863 High-Tech project in the field of Information Technology.

# NSS 2009 / NPC 2009 Program

Sunday '	18 O	ctob	er 20	)09
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Registration (Registration Desk) 14:00-18:30 18:30-2

Monday 19 October 2009				
	Opening and Welcom	e (Grand Ballroom)		
08.30 00.00	Professor Wanlei Zhou	(Deakin University, Aus	tralia)	
00.30-09.00	Dr Yang Xiang (Centra	l Queensland University,	Australia)	
	Dr Jinjun Chen (Swinb	urne University of Techn	ology, Australia)	
	Keynote Address 1: Trust Enhanced Security in Networked Systems (Grand Ballroom)			
09:00-10:00	00 Speaker: Professor Vijay Varadharajan (Macquarie University, Australia)			
	Chair: Dr Yang Xiang (Central Queensland University, Australia)			
10:00-10:30	0 Morning Tea (Ballroom Foyer)			
	Session 1A:	Session 1B:	Session 1C:	Session 1D:
10:30-12:30	NSS 2009	NSS 2009	NPC 2009	IDSS-NDS 2009
	(Grand Ballroom)	(Fraser)	(Brampton)	(Heron)

#### Session 1A: NSS 2009 (Grand Ballroom) – Distributed Attack Systems and Mechanisms Session Chair: Dr Jemal Abawajy (Deakin University, Australia)

Hardware Trojan Horse Device based on Unintended USB Channels John Clark, Sylvain Leblanc, Scott Knight Distinguishing DDoS Attacks from Flash Crowds Using Probability Metrics Ke Li, Wanlei Zhou, Ping Li, Jing Hai, Jianwen Liu Enhancing RFID Tag Resistance against Cloning Attack Jemal Abawajy A Data mining Approach for Detection of Self-Propagating Worms Mohd Fadzli Marhusin, Chris Lokan, Henry Larkin, David Cornforth An Information Filtering Approach Nasim Vatani, Mohammad Ebrahim Shiri, Amir Masoud Rahmani

#### Session 1B: NSS 2009 (Fraser) – Security Architectures in Distributed Network Systems Session Chair: Dr Rong-Jian Chen (National United University, Taiwan)

Architecture Design of High Efficient and Non-memory AES Crypto Core for WPAN Rong-Jian Chen, Yu-Cheng Peng, Jui-Lin Lai, Shi-Jinn Horng A Cryptographically t-Private Auction System Markus Hinkelmann, Andreas Jakoby, Nina Moebius, Tiark Rompf, Peer Stechert Design of a Secure Router System for Next-Generation Networks Tilman Wolf, Russell Tessier **Changing Network Behavior Robert Koch** Grid of Security: A New Approach of the Network Security Olivier Flauzac, Florent Nolot, Cyril Rabat, Luiz-Angelo Steffenel

#### Session 1C: NPC 2009 (Brampton) – Network and Parallel Architectures Session Chair: Dr Jinjun Chen (Swinburne University of Technology, Australia)

The Nornir Run-Time System for Parallel Programs Using Kahn Process Networks Željko Vrba, Pål Halvorsen, Carsten Griwodz, Paul Beskow, Dag Johansen Network Performance of Pruned Hierarchical Torus Network M.M. Hafizur Rahman, Xiaohong Jiang, Md. Shahin-Al Masud, Susumu Horiguchi Energy Aware Loop Scheduling for High Performance Multi-Module Memory Meikang Qiu, Meiqin Liu, Fei Hu, Shaobo Liu, Lingfeng Wang Super-Peer Availability Prediction Strategy in Unstructured P2P Network Soohong Min, JoAnne Holliday Impact of Fragmentation Strategy on Ethernet Performance Eoin Creedon, Michael Manzke

# Session 1D: IDSS-NDS 2009 (Heron) – Intelligent Methods and Algorithms Session Chair: Dr Andrew Chiou (Central Queensland University, Australia)

A Comparison Between Rule Based and Association Rule Mining Algorithms

Mohammed M. Mazid, A. B. M. Shawkat Ali, Kevin S. Tickle

Early Breast Cancer Identification: Which Way to Go? Microarray or Image Based Computer Aided Diagnosis!

Kevin S. Tickle, A B M Shawkat Ali, Yi-Ping Phoebe Chen

A Modified PSO Algorithm for Constrained Multi-Objective Optimization

Lily D Li, Xinghuo Yu, Xiaodong Li, William Guo

Significance of Computional Intelligence Method in Computer Networks

Reginald Lal, Andrew Chiou

An Efficient Mobile Voting System Security Scheme based on Elliptic Curve Cryptography *Tohari Ahmad, Jiankun Hu, Song Han* 

### Monday 19 October 2009

12:30-13:30	Lunch (Ballroom Foye	er)			
	Keynote Address 2: The Intercloud: Cloud Interoperability at Internet Scale (Grand				
13.30-14.30	Ballroom)				
13.30-14.30	Speaker: David Bernstein (Huawei North America Software Division, USA) Chair: Professor Wanlei Zhou (Deakin University, Australia)				
14:30-15:00	Afternoon Tea (Ballroom Foyer)				
	Session 2A:	Session 2B:	Session 2C:	Session 2D:	
15:00-17:30	NSS 2009	NSS 2009	NPC 2009	IDSS-NDS 2009	
	(Grand Ballroom) (Fraser) (Brampton) (Heron)				

#### Session 2A: NSS 2009 (Grand Ballroom) – Security Protocols Session Chair: Dr Qingsong Wei (Data Storage Institute, A-STAR, Singapore)

DeWorm: A Simple Protocol to Detect Wormhole Attacks in Wireless Ad hoc Networks

Thaier Hayajneh, Prashant Krishnamurthy, David Tipper

Effective Attacks in the Tor Authentication Protocol

Yang Zhang

Secure Authenticated Key Establishment Protocol for Ad hoc Networks

A.John Prakash, V.Rhymend Uthariaraj

An Evaluation of Secure Real-time Transport Protocol (SRTP) Performance for VoIP

Andre L. Alexander, Alexander L. Wijesinha, Ramesh Karne

Analysis of Two Pairing-based Three-party Password Authenticated Key Exchange Protocols *Raphael C.-W. Phan, Wei-Chuen Yau, Bok-Min Goi* 

# Session 2B: NSS 2009 (Fraser) – Security Algorithms and Applications Session Chair: *Dr Rong-Jian Chen* (*National United University, Taiwan*)

Harnessing the Power of P2P Systems for Fast Attack Signature Validation *Spiros Antonatos, Vu Quang Hieu* 

Authentication in Peer-to-Peer Network: Survey and Research Directions

Zhongwen Li, Xiaochen Xu, Liang Shi, Jian Liu, Chen Liang

A Hierarchical Model for Cross-Domain Communication of Health Care Units

Dimitris Geneiatakis, Costas Lambrinoudakis, Stefanos Gritzalis

Extended K-Anonymity Models Against Attribute Disclosure

Xiaoxun Sun, Hua Wang, Lili Sun

Implementation and Analysis of Sensor Security Protocols in a Home Health Care System *Kalvinder Singh, Vallipuram Muthukkumarasamy* 

#### Session 2C: NPC 2009 (Brampton) – Network Technologies

Session Chair: Dr Steve Ling (University of Technology Sydney, Australia)

VirtualNet: Mapping Distributed Communication on a Single Node

Wangxi Jia, Xuping Tu, Hai Jin, Xiaofei Liao

A Virtual Machine Replay System Based on Para-virtualized Xen

Tao Cui, Hai Jin, Xiaofei Liao, Haikun Liu

Optimizing Live Migration of Virtual Machines in SMP Clusters for HPC Applications

Muhammad Atif, Peter Strazdins

DPM: A Demand-driven Virtual Disk Prefetch Mechanism for Mobile Personal Computing Environments *Bin Chen, Nong Xiao, Zhiping Cai, Ji Wang* 

Optimizing Transmission in Multi-Flow Streaming Overlay Networks *Rui Wang, Depei Qian, Danfeng Zhu, Qinglin Zhu, Zhongzhi Luan* Explorations of Honeycomb Topologies for Network-on-Chip *Alexander Wei Yin, Thomas Canhao Xu, Pasi Liljeberg, Hannu Tenhunen* Dynamic Self-configuration of User QoS for Next Generation Network *Guangsheng Feng, Huiqiang Wang, Bingyang Li, Zengyou He* 

# Session 2D: IDSS-NDS 2009 (Heron) – Intelligent Systems in Industrial Applications Session Chair: *Dr Noel Patson (Central Queensland University, Australia)*

Visualizing Global Patterns in Huge Digraphs

Noel Henry Patson

Putting Simple Hierarchy into Ant Foraging: Cluster-based Soft-bots

Wei Peng, Qingmai Wang, Bin Wang, Xinghuo Yu

Industrial Process Model Integration using a Blackboard Model within a Pan Stage Decision Support System

Roland Dodd, Andrew Chiou, Xinghuo Yu, Ross Broadfoot

Functional Characteristics and Proposed Deployment Infrastructure of an Industrial Decision Support System within a Sugar Mill Crystallisation Stage

Roland Dodd, Andrew Chiou, Xinghuo Yu, Ross Broadfoot

If Cross-functional Teams are the Answer, What is the Question?

W K Daniel Pun, Ricardo Santa

Determining Supply Chain Flexibility Using Statistics and Neural Networks: A Comparative Study *Ananda Jeeva, William Guo* 

#### **Tuesday 20 October 2009**

Keynote Address 3: Using Clouds for Science (Grand Ballroom)					
09:00-10:00	Speaker: Dr Gregor von Laszewski (Indiana University, USA)				
	Chair: Dr Jinjun Chen (Swinburne University of Technology, Australia)				
10:00-10:30	0 Morning Tea (Ballroom Foyer)				
	Session 3A:	Session 3B:	Session 3C:	Session 3D:	
10:30-12:30	NSS 2009 NSS 2009 NPC 2009 DMAI 2009				
	(Grand Ballroom)	(Fraser)	(Brampton)	(Heron)	

# Session 3A: NSS 2009 (Grand Ballroom) – Implementation, Deployment and Management of Security Systems

Session Chair: Wei-Chuen Yau (Multimedia University, Malaysia)

Certificateless Threshold Signature for Data Report Authentication in Mobile Ad-Hoc Network *Piyi Yang, Zhenfu Cao, Xiaolei Dong* 

Error Correction of Noisy Block Cipher using Cipher and Plaintext Characteristics

Nabil M.K. Mirza, Ziad Osman, Rached Zantout, Mohamed El-Sayed

Policy-Driven Patch Management for Distributed Environments

Jan Muhammad, Richard O. Sinnott

Enhancing Trust on e-Government: A Decision Fusion Module

Bruno Lage Srur, Vallipuram Muthukkumarasamy

Trusted Network Access Control in the Eduroam Federation

Fernando Bernal, Manuel Sánchez, Gabriel López, Antonio F. Gómez-Skarmeta, Óscar Cánovas

#### Session 3B: NSS 2009 (Fraser) – Intelligent Defense Agents and Systems

Session Chair: Dr Thaier Hayajneh (The Hashemite University, Jordan)

ACSIS: Agents for Cooperative Secured Information Systems

L. Huin, D. Boulanger, E. Disson

A Multi-agent Security Architecture

Rossilawati Sulaiman, Dharmendra Sharma, Wanli Ma, Dat Tran

A Novel Fuzzy Identity-based Signature with Dynamic Threshold

Wei Chen, Li Zhu, Xiaomei Cao, Yang Geng

Self-Protection Model Based on Intelligent Agent

Ya-Ping Zhang, Ning Zhang

A Novel Grid Trust Model based on Fuzzy Theory

Shaomin Zhang, Yue Zou, Baoyi Wang

# Session 3C: NPC 2009 (Brampton) – Parallel and Distributed Software Session Chair: *Dr Roland Dodd* (*Central Queensland University, Australia*)

Adaptive Energy-Efficient Packet Transmission for Voice Delivering in Wireless Sensor Networks

Junfeng Xu, Keqiu Li, Yanming Shen, Geyong Min, Wenyu Qu

Accelerator-Oriented Algorithm Transformation for Temporal Data Mining

Debprakash Patnaik, Sean P. Ponce, Yong Cao, Naren Ramakrishnan

Sleep Scheduling and Gradient Query in Sensor Networks for Target Monitoring

Ying Guo, Zhongwen Guo, Feng Hong, Lu Hong

Bag-of-Tasks Self-Scheduling over Range-Queriable Search Overlays

Hammurabi das Chagas Mendes, Li Weigang, Azzedine Boukerche, Alba Cristina Magalhaes Alves de Melo Improved Forwarding Architecture and Resource Management for Multi-Core Software Routers Norbert Egi, Adam Greenhalgh, Mark Handley, Gainluca Iannaccone, Maziar Manesh, Laurent Mathy, Sylvia Ratnasamy

#### Session 3D: DMAI 2009 (Heron) – Data Mining Algorithms and Applications

Session Chair: Dr Andrew Chiow (Central Queensland University, Australia)

Speech Recognition Enhancement Using Beamforming and a Genetic Algorithm

K.Y. Chan, K.F.C. Yiu, S.Y. Low, S. Nordholm, S.H. Ling

A New Particle Swarm Optimization Algorithm for Neural Network Optimization

S. H. Ling, Hung T. Nguyen, K.Y. Chan

Real-time Data Mining Methodology and a Supporting Framework

Xiong Deng, Moustafa M. Ghanem, Yike Guo

Generating Hierarchical Association Rules with the Use of Bayesian Network

Khalid Iqbal, Dr. Sohail Asghar

#### **Tuesday 20 October 2009**

12:30-13:30	Lunch (Ballroom Foye	er)		
13:30-14:30	Keynote Address 4: Realizations of Ubiquitous Networking for Interactive Multimedia Applications (Grand Ballroom) Speaker: <i>Professor Weijia Jia (City University of Hong Kong)</i> Chair: <i>Dr Yang Xiang (Central Queensland University, Australia)</i>			
14:30-15:00	Afternoon Tea (Ballroom Foyer)			
15:00-17:30	Session 4A: NSS 2009 (Grand Ballroom)	Session 4B: NSS 2009 (Fraser)	Session 4C: NPC 2009 (Brampton)	Session 4D: DMAI 2009 (Heron)

Session 4A: NSS 2009 (Grand Ballroom) – Security and Privacy in Wireless Networks Session Chair: Dr Thaier Hayajneh (The Hashemite University, Jordan)

A Pseudonym-based Signature Scheme for Dynamic Clusters in Ad Hoc Networks

Yang Zhang

Scalable RFID Pseudonym Protocol

Boyeon Song, Chris J Mitchell

Securing Roaming and Vertical Handover in Fourth Generation Networks

Neila Krichene, Noureddine Boudriga

A Security Calculus of Concurrent Objects for Verifying Ad Hoc Network Protocols *Oin Li, Oingkai Zeng* 

Flexible Wireless Trust Through Ontology-based Mapping and Its Attendant Semantic Limitations *Robert Steele, Kyongho Min* 

# Session 4B: NSS 2009 (Fraser) – Distributed Access Control and Trust Management Session Chair: *Dr Matus Harvan (Information Security, ETH Zurich, Switzerland)*

xDUCON: Coordinating Usage Control Policies in Distributed Domains

Giovanni Russello, Naranker Dulay

A System for Distributed SELinux Policy Management

Pedro Chavez Lugo, Juan Manuel Garcia Garcia, Juan J. Flores

A Messaging-based System for Remote Server Administration

Marco Ramilli, Marco Prandini

On Role Mappings for RBAC-based Secure Interoperation

Jinwei Hu, Ruixuan Li, Zhengding Lu

Property Based Attestation and Trusted Computing: Analysis and Challenges *Aarthi Nagarajan, Vijay Varadharajan, Eimear Gallery, Michael Hitchens* 

#### Session 4C: NPC 2009 (Brampton) – Network Applications Session Chair: Dr Meikang Qiu (University of Kentucky, USA)

Re-exploring the Potential of using Tree Structure in P2P Live Streaming Networks

Qinglin Zhu, Rui Wang, Depei Qian, Feng Xiao

Design and Performance Evaluation of a Versatile Object-based File System

Qingsong Wei, Zhixiang Li, Rajesh Vellore Arumugam, Kyawt Kyawt Khaing

Performance Evaluation of Parallel Programming in Virtual Machine Environment

Cong Xu, Yuebin Bai, Cheng Luo

BLAST: Off-The-Shelf Hardware for Building an Efficient Hash-Based Cluster Storage System *George Parissis, George Xylomenos, Dimitris Gritzalis* 

Performance of LAMMPS Code on Intel Quad-Core Xeon

Mingze Bai, Yusheng Dou, Hong Tang, Shixin Sun

An Investigation on a Real Time System over WiFi in Educational Environment *Norrozila Sulaiman, Che Yahaya Yaakub* 

#### Session 4D: DMAI 2009 (Heron) – Advances in Artificial Intelligence

Session Chair: Associate Professor Michael Blumenstein (Griffith University, Australia)

An Approach to Leak Detection in Pipe Networks Using Analysis of Monitored Pressure Values by Support Vector Machine

John Mashford, Dhammika De Silva, Donavan Marney, Stewart Burn Discovery of Exceptions: A Step towards Perfection Saroj, K.K. Bharadwaj Novel Approaches for Detecting Frauds in Energy Consumption Fábio Fabris, Letícia Rosetti Margoto, Flávio Miguel Varejão

Contextual Analysis Methods Capturing Knowledge Representation Related to the Reputation

Miho Itoh

Guided Navigation Using Query Log Mining through Query Expansion

Burcu Yurekli, Gokhan Capan, Baris Yilmazel, Ozgur Yilmazel

### Tuesday 20 October 2009

18:30-21:30 Conference Banquet (Grand Ballroom)

Wednesday 21 October 2009					
09:00-10:00	<ul> <li>Keynote Address 5: Information Content Security on the Internet: the Control Model and Its Evaluation (Grand Ballroom)</li> <li>9:00-10:00</li> <li>Speaker: Professor Binxing Fang (Beijing University of Posts and Telecommunications, China)</li> <li>Chair: Professor Wanlei Zhou (Deakin University, Australia)</li> </ul>				
10:00-10:30	30 Morning Tea (Ballroom Foyer)				
10:30-12:30	Session 5A: NSS 2009 (Grand Ballroom)	Session 5B: WMNS 2009 (Fraser)	Session 5C: NPC 2009 (Brampton)	Session 5D: FIAS 2009 (Heron)	

Session 5A: NSS 2009 (Grand Ballroom) – Security Theory and Tools Session Chair: *Dr Qingsong Wei* (*Data Storage Institute, A-STAR, Singapore*)

Secure Mobile Agents with Designated Hosts

*Qi Zhang, Yi Mu, Minjie Zhang, Robert Huijie Deng* 

A Novel Reputation Computation Model Based on Subjective Logic for Mobile Ad hoc Networks

Yining Liu, Keqiu Li, Yong Zhang, Wenyu Qu

An Efficient Certificateless Encryption Scheme in the Standard Model

Hua Guo, Xiyong Zhang, Yi Mu, Zhoujun Li

A Self-reflection Model for Autonomic Computing Systems Based on  $\pi$ -Calculus

Huiqiang Wang, Hongwu Lv, Guangsheng Feng

FSS2-Id/A Fast Safe Identity-based Multi Signature Scheme

Sami Harari

# Session 5B: WMNS 2009 (Fraser) – Advances in Wireless and Mobile Networks Security Session Chair: Dr Noel Patson (Central Queensland University, Australia)

Incentive-Based Self-Organized Public Key Management for Mobile Ad Hoc Networks *Dakila Reyes II, Cedric Angelo M. Festin, Susan Pancho-Festin* Distributed Detection of Attacks in Mobile Ad-hoc Networks Using Learning Vector Quantization *James Cannady* A Novel Quad-band Internal Antenna with Ni/Ag/Ni Structure for Wireless Mobile Handset

*Book-Sung Park, Dan Qi, Yanli Liu, Bolormaa Khurelbaatar, Chul-Ju Kim* Weakness on Cryptographic Schemes based on Chained Codes *Omessaad Hamdi, Ammar Bouallegue, Sami Harari* 

#### Session 5C: NPC 2009 (Brampton) – Security, Privacy and Reliability

Session Chair: Dr Alba Cristina Magalhaes Alves de Melo (University of Brasilia, Brazil)
Reliable Downloading Algorithms for BitTorrent-like Systems
Ke Li, Wanlei Zhou, Ping Li
Cogset: A Unified Engine for Reliable Storage and Parallel Processing
Steffen Viken Valvåg, Dag Johansen
Modeling the Propagation Process of Topology-Aware Worms: An Innovative Logic Matrix Formulation
Xiang Fan, Yang Xiang
A Theoretical Model of Lock-Keeper Data Exchange and its Practical Verification
Sebastian Roschke, Feng Cheng, Thanh-Dien Tran, Christoph Meinel
Robust Multi-Server Authentication Scheme
Eun-Jun Yoon, Kee-Young Yoo

#### Session 5D: FIAS 2009 (Heron) – Applications of Information Security Technologies Session Chair: Dr Adnan Gutub (King Fahad University of Petroleum and Minerals, Saudi Arabia)

FIAS 2009 Keynote Address: Closer Look at the Underground World

Speaker: Associate Professor Khaled Alghathbar (King Saud University, Saudi Arabia)

Chair: Dr Muhammad Khurram Khan (King Saud University, Saudi Arabia)

Intrusion Detection System using Self-Organizing Maps

Mansour M. Alsulaiman, Aasem N. Alyahya, Raed A. Alkharboush, Nasser S. Alghafis

Speaker Verification based on Different Vector Quantization Techniques with Gaussian Mixture Models *Sheeraz Memon, Margaret Lech, Namunu Maddage* 

Practical Implementations for Securing VoIP Enabled Mobile Devices

Chan Yeob Yeun, Salman Mohammed Al-Marzouqi

Framework for Identification of Power System Operating Security Regions

Mohamed A. El-Kady, Essam A. Al-Ammar

### Wednesday 21 October 2009

12:30-13:30	Lunch (Ballroom Foyer)					
	Panel Session: Security in Cloud Computing (Grand Ballroom)					
	Chair: Professor Wanle	ei Zhou (Deakin Universi	ity, Australia)			
	Panellists: David Bern	stein (Huawei North Am	erica Software Division,	USA)		
13.30-14.30	Professor Binxing Fang	g (Beijing University of H	Posts and Telecommunica	tions, China)		
13.30-14.30	Professor Weijia Jia (City University of Hong Kong)					
	Professor Hai Jin (Hua	zhong University of Scie	nce and Technology, Ch	ina)		
	Professor Vijay Varadharajan (Macquarie University, Australia)					
	Dr Gregor von Laszewski (Indiana University, USA)					
14:30-15:00	Afternoon Tea (Ballroom Foyer)					
	Session 6A: Session 6B: Session 6C: Session 6D:					
15:00-17:30	NSS 2009	NSS 2009	NPC 2009	FIAS 2009		
	(Grand Ballroom)	(Fraser)	(Brampton)	(Heron)		

# Session 6A: NSS 2009 (Grand Ballroom) – Distributed Intrusion Detection/Prevention Systems Session Chair: *Dr Shui Yu* (*Deakin University, Australia*)

Distributed Agent Architecture for Intrusion Detection Based on New Metrics *Farah Barika Ktata, Nabil EL Kadhi, Khaled Ghedira* F-TAD: Traffic Anomaly Detection for Sub-Networks using Fisher Linear Discriminant *Hyunhee Park, Meejoung Kim, Chul-Hee Kang* Automatic Network Protocol Automaton Extraction *Ming-Ming Xiao, Shun-Zheng Yu, Yu Wang*  Characterising the Evolution in Scanning Activity of Suspicious Hosts *Alif Wahid, Christopher Leckie, Chenfeng Zhou* Discriminating DDoS Flows from Flash Crowds Using Information Distance *Shui Yu, Theerasak Thapngam, Jianwen Liu, Su Wei, Wanlei Zhou* 

#### Session 6B: NSS 2009 (Fraser) – Security Simulation, Methods, and Tools

Session Chair: Dr Mahmood, Abdun Naser (RMIT University, Australia)

Building a SCADA Security Testbed

Carlos Queiroz, Abdun Mahmood, Jiankun Hu, Zahir Tari, Xinghuo Yu

Honeypot Traces Forensics: The Observation Viewpoint Matters

Van-Hau Pham, Marc Dacier

State-based Usage Control Enforcement with Data Flow Tracking using System Call Interposition *Matus Harvan, Alexander Pretschner* 

HoneyLab: Large-scale Honeypot Deployment and Resource Sharing

W. Y. Chin, Evangelos P. Markatos, Spiros Antonatos, Sotiris Ioannidis

MagicNET: Security System for Development, Validation and Adoption of Mobile Agents

Muhammad Awais Shibli, Sead Muftic, Alessandro Giambruno, Antonio Lioy

#### Session 6C: NPC 2009 (Brampton) – Network and Parallel Algorithms Session Chair: Dr George Parissis (Athens University of Economics and Business, Greece)

System Level Speedup Oriented Cache Partitioning for Multi-programmed Systems *Guang Suo, Xue-jun Yang* 

A Topology Aggregation Model for Survivability in Multi-Domain Optical Networks Using p-Cycles *Hamza Drid, Samer Lahoud, Bernard Cousin, Miklós Molnár* 

Search Space Reduction Technique for Distributed Multiple Sequence Alignment

Manal Helal, Lenore Mullin, John Potter, Vitali Sintchenko

GFFC: the Global Feedback based Flow Control in the NoC Design for Many-core Processor

Xu Wang, Ge Gan, Dongrui Fan, Shuxu Guo

Non-threaded and Threaded Approaches to MultiRail Communication with uDAPL

Jie Cai, Alistair P. Rendell, Peter E. Strazdins

A Network Emergent Computing Model Based on Cellular Automaton

Hong Tang, Ying Wang, Haitao Wang, Yu Wu

Formal Modeling of Parallel System based on TCPN

Bin Cheng, Xingang Wang, Weiqin Tong

#### Session 6D: FIAS 2009 (Heron) – Advances in Information Assurance and Security

Session Chair: Dr Mansour Alsulaiman (King Saud University, Saudi Arabia)

Enhancing the Security of a 'More Efficient & Secure Dynamic ID-based Remote User Authentication Scheme'

#### Muhammad Khurram Khan

A Context-Aware Access Control Model for Pervasive Environments Sumayah Al-Rwais, Jalal Al-Muhtadi A New Similarity Measure for the Anomaly Intrusion Detection Ahmed Belkhirat, Abdelghani Bouras, Abdelkader Belkhir Integrating Palmprint and Fingerprint for Identity Verification Chin Yong Jian, Ong Thian Song, Michael Goh Kah Ong, Hiew Bee Yan An Extension of Differential Fault Analysis on AES Wei Li, Dawu Gu, Yong Wang, Juanru Li, Zhiqiang Liu Exploit Kashida Adding to Arabic e-Text for High Capacity Steganography Ahmed Al-Nazer, Adnan Gutub

# **Registration Desk**

The Registration Desk is located in the Grand Ballroom foyer directly opposite the Conference Centre entrance. The Registration Desk will be open to assist you at the following times:

Sunday 18 October 2009, 14:00pm – 18:30pm Monday 19 October 2009, 8:30am – 17:30pm Tuesday 20 October 2009, 8:30am – 17:30pm Wednesday 21 October 2009, 8:30am – 17:30pm

### Name Badges and Tickets

All delegates, sponsors and speakers of NSS 2009 / NPC 2009 and associated workshops will be provided with a name badge. This badge must be worn at all times as it is your official pass to all sessions of the conferences, welcome reception, lunches, morning and afternoon teas. You will also be given the tickets to enter the conference dinner if requested.

# **Presentation Information**

#### Language

The presentation language of NSS 2009 / NPC 2009 and associated workshops is English.

#### **Checking In**

Session Chairs are requested to register at least 2 hours before their session, or as soon as the Registration Desk is open. Registration Desk will be open from 8:30am each day of the conference.

#### Setting Up

You must arrive at the room (in which you will deliver your talk) 15 minutes before the commencement of the session. This allows the Session Chair to confirm your attendance and allow you to introduce yourself to him/her and familiarize yourself with the venue prior to your talk.

Please bring with you a single paragraph summary, including your name (as you would like to be introduced), affiliation and research interests (maximum 100 words), which the Session Chair can use to introduce you.

During these 15 minutes, you should copy your slides file to the presentation computer. If you plan to use your own equipment, you should set it up within these 15 minutes, since there is very little time between presentations. If you have requested optional equipment, ensure that is in the room. Make sure you know how the audio system works in the room, and whether you will be heard if you roam.

#### Timing

Please check the program for the exact time of your session and where your paper falls within the session.

It is recommended that all NSS 2009 / NPC 2009 regular paper presentations use 20 minutes presentation time and 4 minutes question time. All NSS 2009 / NPC 2009 short paper and workshops paper presentations will have 16 minutes presentation time and 4 minutes question time. However, The Session Chairs can decide the exact presentation time based on the number of presentations in each session. The Session Chairs will ensure that you do not over-run the time allocated. Please keep strictly to this time guideline.

### Location of NSS 2009 / NPC 2009 Conference Venue

Gold Coast International Hotel 7 Staghorn Avenue Surfers Paradise, Gold Coast Queensland 4217, Australia





# **Travel Guide to Gold Coast International Hotel**

#### Via Brisbane International Airport

Door-to-door service:

1. Airport Con-x-ion Coach: Domestic passengers meeting point is by the luggage carousel. International passengers meeting point is on the left hand side of the arrivals hall near the Coffee Club. The driver will be wearing a distinctive blue shirt with the company logo displayed. The driver will also be displaying a welcome meeting board with the passengers name on it. It is essential you make contact with the driver. Return cost is approximately AUD\$80.

Bookings are essential at http://www.con-x-ion.com/

2. The AirtrainConnect Service involves a train ride from Brisbane airport directly to Gold Coast, and then a chauffeured transfer to Gold Coast International Hotel. When you arrive at the airport, staff in the terminal can direct you to the train and tell you at which Gold Coast train station to hop off. When you arrive, your driver will be waiting with your name on a sign to drive you the rest of the way. Return cost is approximately AUD\$85. Bookings are essential at http://www.airtrain.com.au/products\_airtrainconnect.php.

#### Via Gold Coast International Airport

Door-to-door service:

1. Airport Con-x-ion Coach: Con-x-ion will meet each flight at the Gold Coast Airport. Jetstar and Virgin Blue passengers are met by the luggage carousel. Tiger Airways are to proceed over to the Virgin terminal for pick up. International passengers are met directly outside the custom exit doors. The driver will be wearing a distinctive blue shirt with the company logo displayed. The driver will also be displaying a welcome meeting board with the passengers name on it. It is essential you make contact with the driver. Return cost is approximately AUD\$40.

Bookings are essential at http://www.con-x-ion.com/

2. Gold Coast Airport has a conveniently located Transport and Information Desk right outside International Arrivals. See the friendly staff for Surfside Buslines or Gold Coast Tourist Shuttle tickets.

Surfside Buslines Web Address: <u>http://www.surfside.com.au</u> Gold Coast Tourist Shuttle Web address: <u>http://www.gcshuttle.com.au</u>

Taxi

Phone: 131 008



# **Conference Rooms Floor Plan**

#### 4<sup>th</sup> International Conference on Network and System Security NETWORK & SYSTEM SECURITY Preliminary Call for Papers



#### **NSS 2010 Call For Papers**

While the attack systems have become more easy-to-use, sophisticated, and powerful, interest has greatly increased in the field of building more effective, intelligent, adaptive, active and high performance defense systems which are distributed and networked. We will focus our program on issues related to **Network and System Security**, such as authentication, access control, availability, integrity, privacy, confidentiality, dependability and sustainability of computer networks and systems. The aim of this conference is to provide a leading edge forum to foster interaction between researchers and developers with the network and system security communities, and to give attendees an opportunity to interact with experts in academia, industry and governments.

NSS 2010 will be in technical co-sponsorship with the IEEE and the IEEE Computer Society Technical Committee on Scalable Computing (pending).

NSS 2010 will be held in Melbourne, Australia. Since 2002, Melbourne has been consistently ranked in the top three 'World's Most Livable Cities' by The Economist.

Topics of interest include, but not limited to:

- Active Defense Systems
- Adaptive Defense Systems
- Benchmark, Analysis and Evaluation of Security Systems
- Distributed Access Control and Trust Management
- Distributed Attack Systems and Mechanisms
- Distributed Intrusion Detection/Prevention Systems
- Denial-of-Service Attacks and Countermeasures
- High Performance Security Systems
- Identity Management and Authentication
- Implementation, Deployment and Management of Security Systems
- Intelligent Defense Systems
- Internet and Network Forensics
- Key Distribution and Management
- Large-scale Attacks and Defense

- RFID Security and Privacy
- Security Architectures in Distributed Network Systems
- Security for Critical Infrastructures
- Security in P2P systems
  - Security in Cloud and Grid Systems
- Security in E-Commerce
- Security and Privacy in Wireless Networks
- Secure Mobile Agents and Mobile Code
- Security Protocols
- Security Simulation and Tools
- Security Theory and Tools
- Standards and Assurance Methods
- Trusted Computing
- Viruses, Worms, and Other Malicious Code
- World Wide Web Security

#### **Submission Guidelines**

To submit your paper, please go to http://nss.cqu.edu.au and follow the link "Submit Your Paper". Submitted papers must not substantially overlap with papers that have been published or that are simultaneously submitted to a journal or a conference with proceedings. Papers must be clearly presented in English, must not exceed 8 pages, including tables, figures, references and appendixes, in IEEE CS proceedings 8.5" x 11" Two-Column Format, with Portable Document Format (.pdf). Papers will be selected based on their originality, timeliness, significance, relevance, and clarity of presentation. Submission of a paper should be regarded as a commitment that, should the paper be accepted, at least one of the authors will register and attend the conference to present the work.

The publication will be IEEE Computer Society Proceedings (EI, ISTP, and INSPEC indexed). Selected best papers will be published in some high quality journals (SCI and EI indexed). Previous journal special issues can be found at <a href="http://nss.cqu.edu.au">http://nss.cqu.edu.au</a>.

#### **Tentative Dates**

Workshop proposal due: February 15, 2010 Paper submission due: March 31, 2010 Author notification: May 15, 2010 Camera-ready due: June 15, 2010 Conference date: September 1-3, 2010

#### Website and Contact Information

Please see NSS 2010 website at http://nss.cqu.edu.au Further questions, please email ieee.nss@gmail.com