

Proceedings



New Security Paradigms Workshop 2004

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Greetings from the New Security Paradigms Workshop 2004 General and Vice Chairs

Welcome to the Proceedings of the New Security Paradigms Workshop 2004. This was the thirteenth year of the workshop. The ideas resulting from this year's workshop are presented here for your consideration and enjoyment.

If you find the work presented here interesting and provocative and would like to share your own ideas at a future NSPW, please watch for the Call for Papers for our next NSPW on our web site at <http://www.nspw.org>.

NSPW is distinguished by the fact that every selected paper is discussed in a collegial setting at the time of its presentation and often afterwards. The number of papers selected is small enough to allow a comfortable time period for the intensive examination of new concepts. Authors are instructed to prepare for a 20 to 25 minute presentation and then given an hour of actual presentation-cum-discussion time, which shows the high degree of interaction with the other workshop participants.

NSPW must remain small to provide the high quality interaction between authors and attendees. We try to keep attendance under thirty; this year's attendance was exactly thirty.

One of the most noteworthy features of NSPW is the "psychological contract" by which all workshop participants abide. Because authors are asked to present ideas that might be considered risky in some other venues, all participants are charged with providing feedback in a constructive and gracious manner. And it works! The resulting brainstorming environment has proven to be excellent for furthering the development of these ideas. Authors typically receive a considerable amount of feedback about their presentations and incorporate it into the final version of their paper. The results are reflected in these proceedings, published—as always—after the workshop.

NSPW is often held in small hotels that provide a picturesque locale, comfortable surroundings, and excellent cuisine. This year's workshop was held at the White Point Beach Resort on Nova Scotia's historic Atlantic coast. The resort, located two hours from Halifax, provides excellent conference facilities, a lovely beach with icy ocean waves, and large numbers of tame bunnies hopping around the park-like grounds. Our conference planner, Alana Hirtle, was especially helpful in making all arrangements go smoothly.

We would like to thank the following people whose hard work made NSPW 2004 a success.

Program chairs R. Sekar and John McHugh, along with their program committee, put together an excellent program. It is always hard to identify the new paradigms among the many submissions since they often differ from the polished papers that are published in other venues. That Sekar and John succeeded at this challenging task is evident from the papers in this volume.

We owe a great deal to the Applied Computer Security Associates (ACSA), and especially to Marshall Abrams and Jeremy Epstein, for their unstinting assistance and constant support.

Local chair Carrie Gates did a great job in selecting and working with the White Point Beach Hotel. NSPW is particularly demanding for local chairs since we insist that our surroundings enhance and support the intimate, collegial atmosphere for which we strive. In addition, since we publish our proceedings after the workshop, it is traditional for us to have a disposable "pre-proceedings" printed for use at the workshop. We are grateful to

Carrie for compiling the pre-proceedings and to Global Information Networking Institute University Services (GINIus), Dalhousie University, for producing them for our participants.

Financial Aid chairs Hilary Hosmer, John McHugh, and Steven J. Greenwald organized the collection and disbursement of financial aid to help make it possible for students and others with limited funding to attend. Our financial aid provider, the U.S. Department of Defense, continued their tradition of supporting graduate student work in computer security. We are also grateful to James Madison University for managing the disbursement of scholarship monies to students.

Publicity chair Abe Singer provided ongoing web site support at <<http://www.nspw.org>> and email distributions of the Call for Papers. The San Diego Supercomputer Center (SDSC) contributed valuable web-hosting services for nspw.org.

NSPW presenters are expected to learn from the discussion and have the opportunity to revise their papers after the workshop. Bob Blakley once again performed as our scribe, taking notes during the discussions and providing the presenters with complete notes after each presentation.

Proceedings chair Victor Raskin's work and care are evidenced in the volume in your hands.

Finally, we thank the authors and participants who brought their novel ideas and probing questions. We hope you are able to get some sense of the dynamic nature of the workshop from the pages that follow.

Carla Marceau (carla@atc-nycorp.com), General Chair

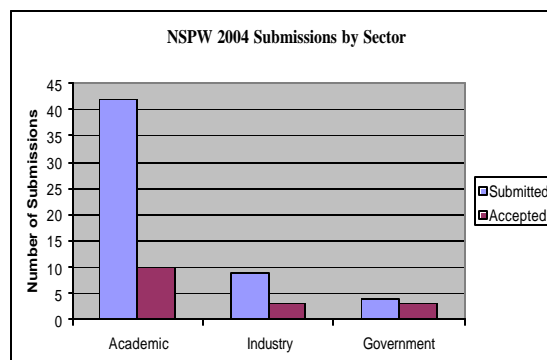
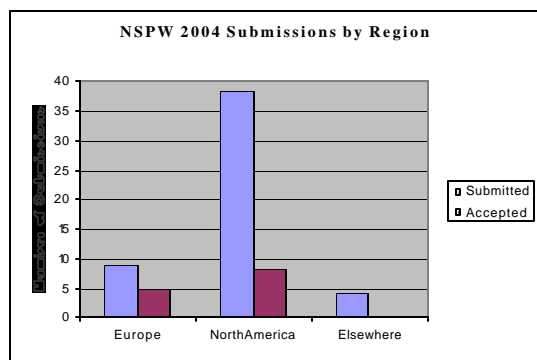
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A Note from the New Security Paradigms Workshop 2004 Program Chairs

The job of program chair for the New Security Paradigms Workshop (NSPW) is both difficult and rewarding. Selecting the program committee, assigning papers to committee members, and choosing a few among many excellent submissions are all time-consuming tasks. The reward comes with the workshop, when exciting papers stimulate discussions that extend beyond the meeting room into the dinner hour and beyond. We appreciate the hard work of the organizers, who made the workshop so enjoyable for all of us.

We are grateful to the members of the program committee for the many hours they spent carefully reading, evaluating, and commenting at length on each of the submissions. In addition, we would like to thank Paul Ammann, Chris Giblin, Guenter Karjoth, Daryl McCullough, Jonathan Poritz, C.R. Ramakrishnan, Jason Rouse and Paul Syverson for their assistance in the review process. In accordance with the NSPW philosophy, reviewers were asked to provide detailed feedback to authors. Besides selecting papers for the workshop, a major goal is to help authors of papers to improve their work. NSPW is unique in that authors have two chances to revise their papers after the initial submission: a revision for the pre-proceedings that are distributed at the workshop, incorporating responses to reviewer critiques and a revision for the final proceedings published after the workshop, incorporating changes in response to the extensive discussions during the meeting. We believe that this process greatly contributes to the quality of the proceedings before you.

This year, we continued the general trend we have seen in the past few years in terms of increase in the number of submissions. There were fifty submissions, of which we accepted twelve. We were very pleased with the quality of the accepted papers. Some statistics about the submissions and the papers can be seen in the graphs below. What statistics cannot show is the variety and novelty of the contributions and breadth of knowledge that the papers represent. We would like to thank the authors for all the work and creativity that went into these papers.



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Session 1

Digital Rights

Management

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Session 2

Foundations

Session Chair
Bob Blakley

Session 3

Usability

(Panel)

Session 4 Software Development Practices

**Session Chair
Abe Singer**

Session 5

Ubiquitous Computing

Session Chair
Michael Franz

Session 6

Trustworthy

Systems

Session Chair
Steve Greenwald

Session 8

Intrusion Detection

Session Chair
Cristina Serban

Session 9

Human Factors

Session Chair
Mary Ellen Zurko