The 1996 Symposium on Network and Distributed Systems Security (SNDSS'96)

Hypermedia Proceedings, Slides, and <u>Summary</u> <u>Report</u>

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Session 1: Electronic Mail Security Chair: Stephen T. Kent - BBN Corporation

- 1. <u>Mixing E-mail with BABEL</u> C. Gulcü and G. Tsudik (<u>abstract</u>)
- 2. <u>An Integration of PGP and MIME</u> K. Yamamoto (abstract)

Session 2: Distributed Object Systems

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- 1. <u>A Security Framework Supporting Domain-Based Access Control in Distributed Systems</u> N. Yialelis and M. Sloman (<u>abstract</u>, <u>slides</u>)
- 2. <u>Panel Scalability of Security in Distributed Object Systems</u> Moderator: Danny M. Nessett - Sun Microsystems (<u>abstract</u>)
 - Bret Hartman BlackWatch Technology (slides)
 - Danny M. Nessett Sun Microsystems (slides)
 - ~ Nicholas Vialelis Imperial College London

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Session 3: Distributed System Security

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- 2. <u>Preserving Integrity in Remote File Location and Retrieval</u> T. Jaeger and A.D. Rubin (<u>abstract</u>)
- 3. <u>C-HTTP The Development of a Secure, Closed HTTP-Based Network on the Internet</u> T. Kiuchi and S. Kaihara (<u>abstract, slides</u>)

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Moderator: Peter Neumann - SRI International (abstract)

- Olin Sibert Electronic Publishing Resources
- Russell D. Housley Spyrus (slides)
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- 1. <u>Designing an Academic Firewall: Policy, Practice, and Experience with SURF</u> M. Greenwald, S.K. Singhal, J.R. Stone, and D.R. Cheriton (<u>abstract, slides</u>)
- 2. <u>Digital Signature Protection of the OSPF Routing Protocol</u> S.L. Murphy and M.R. Badger (abstract, slides)
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- 1. <u>SKEME: A Versatile Secure Key Exchange Mechanism for Internet</u> H. Krawczyk (<u>abstract</u>, <u>slides</u>)
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- 1. <u>An Empirical Study of Secure MPEG Video Transmissions</u> I. Agi and L. Gong (<u>abstract</u>, <u>slides</u>)
- Parallelized Network Security Protocols
 E. Nahum, D.J. Yates, S. O'Malley, H. Orman, and R. Schroeppel (abstract, slides)
- 3. <u>A "Bump in the Stack" Encryptor for MS-DOS Systems</u> D.A. Wagner and S.M. Bellovin (<u>abstract</u>, <u>slides</u>)

Session 8: <u>Panel - Public-Key Infrastructure</u> Moderator: Warwick Ford - Bell-Northern Research (<u>abstract</u>)

- John Wankmueller MasterCard International
- Taher ElGamal Netscape Communications (slides)
- Michael Baum Verisign

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General Chair's Message

Welcome to the third annual ISOC Symposium on Network and Distributed System Security! Each year we seek to bring together researchers, implementors, and users of network and distributed system security facilities. This year our Program Committee has again done an outstanding job of selecting a mix of technical presentations and panel sessions to discuss and debate the issues we face today.

As we are all aware, the need for usable distributed system security mechanisms is growing rapidly, tracking the growth and utilization of the world-wide Internet. For a welcome change, the general awareness of and interest in security is growing significantly as well _ by commercial organizations, the media, and private citizens. More than ever before, organizations will be looking to you, the participants of this symposium, for both technical solutions to specific problems and advice for the emerging public policy debates.

I encourage you to take advantage of this Symposium to not only listen to the presentations but also share your own experiences and ideas with other attendees during the breaks and evening activities.

Many thanks are in order for the behind-the-scenes effort that has culminated in this symposium: Tom Hutton "secured" our new location at the Princess Resort; Donna Leggett has done a superb job in handling the increased registration activities; and Stephen Welke has brought our Proceedings into the electronic age! I also want to commend the Program Co-Chairs, David Balenson and Clifford Neuman, for their excellent work with the Program Committee for pulling together the excellent program in which you are about to participate. Without the hard work by all these folks, this symposium would not have been possible.

As always, I want to thank all the authors who submitted papers and the panelists who are participating by sharing their knowledge and experiences with us.

Enjoy!

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James T. Ellis Carnegie Mellon University <u>ite@cert.org</u>

Program Chairs' Message

In the past year, the public has increasingly been urged to enter cyberspace and to use the Internet to obtain information from vendors, order products, and even bank from home. At the same time, businesses are being compelled to have a presence on the Internet, making information available to customers and other businesses. As a result, the need for network and distributed system security has grown dramatically.

Today we find that the individuals trying to breach the security of computer systems are using more sophisticated attacks, and because such attacks now can yield business data or result in financial transactions, these attacks have become more lucrative. While the computer security discipline once addressed mostly hypothetical threats, the press has recently taken notice when attacks known by practitioners for years were suddenly perpetrated against widely-used and heavily marketed products including web servers and browsers and network file systems.

There is good news and bad news regarding the state of Internet security. The good news is that most of the threats we are seeing have been known for some time, and we know how to protect against them. The bad news is that the solutions must still be integrated with applications, many of the solutions require a computer security infrastructure that is not widely available, and we have yet to see widespread deployment of computer security

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The organizers of this symposium hope that the symposium will encourage the Internet community to deploy the available security technology and develop new technology in areas where it is lacking. In selecting papers and panels for the symposium, the program committee sought to bring together the papers that will have the greatest impact on the field by introducing new computer security technologies whether research prototypes or actual products, demonstrating the application of computer security technologies to Internet applications, and describing components of the computer security infrastructure.

By bringing together researchers and practitioners in the field we are confident that the symposium will have a positive impact on the state of Internet security. We encourage you, as a participant in this symposium, to use this opportunity to actively participate in the dialog. Ask questions of the speakers, raise your important issues during relevant panel sessions, and let others know of your requirements, observations, and experience in this important area.

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