# COMPUTER SECURITY IN THE AGE OF INFORMATION

Proceedings of the Fifth IFIP International Conference on Computer Security, IFIP/Sec '88 Gold Coast, Queensland, Australia, 19-21 May, 1988

Edited by

# William J. CAELLI

Information Security Research Centre Queensland University of Technology Brisbane, Queensland

and

ERACOM Pty. Ltd. Gold Coast, Queensland Australia



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### PREFACE

This volume contains 41 papers, which were presented at the IFIP/Sec'88 Conference in the Conrad International Hotel and Jupiters Casino, Gold Coast, Queensland, Australia from May 19-21, 1988. IFIP/Sec'88 was the fifth international computer security conference sponsored by the International Federation for Information Processing (IFIP), under the auspices of IFIP's Technical Committee on Security and Protection in Information Processing Systems (TC11) and the Australian Computer Society Inc., a member society of IFIP. The conference was an endorsed activity of Australia's Bicentennary (1788-1988) and an associated activity of the Expo '88 World Exposition, Brisbane.

The theme of IFIP/Sec'88, "COMPUTER SECURITY IN THE AGE OF INFORMATION", was addressed by papers which covered all major aspects of Computer Security. The conference programme was divided into 21 technical sessions which included:

Cryptographic Systems ( 1, 2 and 3.), Secure Data Bases, EFTS and Banking, Organisations and Education, Computer Crime, Office Automation, Security Products and Systems, Crypto-key Systems, Secure/Trusted Systems ( 1 and 2 ), Access/Authentication Control, Auditing ( 1 and 2 ), Document Interchange and Networks, Networks / EFT, Networks, PCs and Workstations, and Authentication and Identification

together with 4 Plenary Sessions and a Public Forum. The Plenary Sessions were addressed by invited speakers, international experts in the field of computer security and banking, including:

Mr. J. Lobel, "Security and Management in the Space Age",

Dr. H. Highland, "Computer Viruses and the PC",

Dr. W. Ware, "Trusted Computer Base: What Have We Learned in 10

Years ?", and

Mr. G. Hogg, "EFT and Banking in the Year 2000".

The conference was officially opened by The Hon. Paul Clauson, M.L.A., Queensland State Minister for Justice and Attorney-General for the State of Queensland.

There is no doubt that the topic of security in computer and telecommunications systems has attracted worldwide attention in recent years. The creation and study of security systems for computers and their associated telecommunications networks has now firmly entered the mainstream of Computer Science and Computer Systems Engineering.

Research, development and educational activities in this emerging technology have now moved to the forefront in both academic and educational as well as industrial research organisations. Already research into computer architecture, operating systems, data base management systems, data communications protocols, standards, human interfaces and numerous other areas have been affected by the growing requirement for sufficiently developed security measures. Governmental responses to the problems of personal privacy, computer related criminal activity and so on have likewise been growing over the last two to three years and appear set to increase markedly in the near future

I would like to thank all who helped in making IFIP/Sec'88 a success and look forward to meeting again at IFIP/Sec'90, the Sixth International Conference on Computer Security, in Helsinki, Finland in May 1990.

William J. Caelli Editor

W.J. Caelh.

Queensland University of Technology and ERACOM Pty. Ltd. Australia.

#### **ACKNOWLEDGEMENTS**

IFIP/Sec'88 was held under the auspices of the International Federation for Information Processing's Technical Committee on Security and Protection in Information Processing Systems, through its Australian member, the Australian Computer Society Inc. The preparatory work was shared among the following volunteers and professional organising company:

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### EDITOR'S NOTES

The papers contained in this volume represent the Proceedings of IFIP/Sec'88. As in previous volumes in this series the papers in this volume are ordered in the sequence they were presented under the various subject headings of the sessions. Papers from the addresses at a number of sessions are not included, particularly some of the review presentations of the plenary sessions. In these cases a formal paper was not available or not appropriate.

A subject index is included in this volume. This index only contains references to major topics addressed in the various papers. The page number referenced is that of the starting page for the referenced paper.

This manuscipt was prepared with the able assistance of Ms. Anne Hamburger, Secretary to the Information Security Research Centre (I.S.R.C.) at the Queensland University of Technology, to whom I extend my thanks and those of IFIP TC-11.

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