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Preface

Welcome to the proceedings of the fifth International Workshop on Security Protocols. These workshops grew from a series of informal meetings held at the University of Cambridge Computer Laboratory. Our aim has been to assemble researchers in an environment where they could discuss the limitations and omissions of current work in computer security, and the implications of these for future directions in security protocol research.

Since the publications in 1978 of the seminal paper on authentication by Roger Needham and Michael Schroeder, it has become abundantly clear that the properties which cryprographic protocols actually possess are extraordinarily fragile. One reason for this is the complex nature of the interactions between the algorithmic mechanisms used to realise the protocols on the one hand, and the high-level behaviour of the applications which the protocols are intended to support on the other. Experience also shows that it is difficult to abstract from these interactions successfully, and to describe them in a way which allows them to be reasoned about correctly.

Consequently, security failures often occur as a result of an unnoticed mismatch between the use an application makes of a security protocol and the properties which the realisation of the protocol provides.
The insights provided by these subtle constraints, and by breaking them, form the theme of this year's workshop. We hope these proceedings will enable you to share some of these insights.

We would like to thank Serge Vaudenay for the exemplary local arrengements at the Ecole Normale Superieure during the workshop.

October 1997   Mark Lomas
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