Security Engineering: A Guide To Building Dependable Distributed Systems
The world has changed radically since the first edition of this book was published in 2001. Spammers, virus writers, phishermen, money launderers, and spies now trade busily with each other in a lively online criminal economy and as they specialize, they get better. In this indispensable, fully updated guide, Ross Anderson reveals how to build systems that stay dependable whether faced with error or malice. Here’s straight talk on critical topics such as technical engineering basics, types of attack, specialized protection mechanisms, security psychology, policy, and more.

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Customer Reviews

A large group of programmers were asked a hypothetical question: If Microsoft was to build an airplane, would you get on it? All of the programmers instantly said no, save for a sole programmer who said he would definitely board the plane. When asked why he was so confident about getting on the plane, he replied, "If Microsoft were to ever build an airplane, it would be extremely safe since the plane would never make it out of the gate." When it comes to information security, its current state is similar to that of a Microsoft airplane--built, but often flashy, while not forcefully functional. The root of the problem is that most organizations view security as something added on in a piecemeal fashion, rather than an integral engineering issue. Those in the construction business get this concept; they know that designs, plans, permits, coordination, commitment, buy-in, etc., are all requirements, not options. Similarly, before any information security product is rolled-out, the appropriate project plans must exist. While the concept that design must come before
implementation is a given in most other industries, many IT departments lack this understanding. Thus is the quandary that Ross Anderson deals with in Security Engineering: A Guide to Building Dependable Distributed Systems. In a nutshell, Security Engineering is one of the best security books ever written. If you are looking for 50 pages of screen prints on how to install and configure a printer under Windows 2000, this is the wrong book for that. What Anderson does, in great detail and with lucidity, is particularize all of the aspects that are required to create a security infrastructure. He relentlessly reiterates that security must be engineered into information systems from the outset.

For the typical busy security professional, reading a 900-page tome cover to cover represents an investment of time that may be difficult to justify. Frankly, security books that are worth the effort are few and far between. Security Engineering is one such book, for several reasons. First, Ross Anderson’s vast knowledge, experience and insight on the subject are well known, and his reputation as one of the top security experts in the world is well deserved. No doubt a reflection of this, his book covers a very broad range of security topics, the discussions ranging from high-level policy issues, all the way down to details of smartcard hacking and the mathematics of cryptography. The topics are well researched and described at a level of detail useful to the non-specialist. Concise summaries and occasional nuggets of insight indicate an in-depth understanding of the subject matter. The book is well written, easy to follow, and devoid of the vagueness and platitudes so typical of much of the security literature. Second, the book exposes the sheer difficulty of engineering secure systems in the face of the many forces at play in a typical product development lifecycle. Through many case studies of success and failure, the author illustrates the numerous pitfalls that may befall even a well-intentioned design. Lessons learned from deploying products in the real world include the negative impact of perverse economic incentives, the importance of designing security features for maximum usability, and the need to look at a security problem from many different angles in a holistic manner. The book is a treasure trove of wisdom for the aspiring security engineer. Lastly, the book brings together insight from many diverse areas of research.

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