

MASTER OF SCIENCE IN SOFTWARE ENGINEERING

PLANNING CONSIDERATIONS FOR SECURE NETWORK PROTOCOLS

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An attempt is made to provide the reader with an appreciation for incorporating basic security services within a network protocol (e.g., multicast). Security incorporated within a network design is an increasingly common requirement that users are levying upon network implementations (military and commercial). Network security implementations evoke a myriad of abstractions, technologies and other related issues that can overpower a reader and cloud the topic with details. This thesis is intended to assist readers achieve an overview and background of the varied subject matter network security implementation necessitates. Essential services are introduced and discussed to provide an understanding of what constitutes an adequate and efficient security implementation. Related infrastructure (key distribution/management) requirements needed to support network security services are examined. The thesis concludes by identifying tactical user network requirements and suggests security issues to be considered in concert with network implementation.

DoD KEY TECHNOLOGY AREA: Computing and Software

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