
Table of Contents

INTRODUCTION.....	4
HOW TODAY'S IDENTIFICATION SYSTEMS CAN FAIL	5
WHAT MAKES AN IDENTIFICATION SYSTEM SECURE	7
THE SECURE ID SYSTEM TRUST MODEL	7
DESIGN ELEMENTS THAT MAKE AN ID SYSTEM SECURE	8
COMPONENTS OF A SECURE ID SYSTEM	9
PRIVACY REQUIREMENTS FOR SECURE ID SYSTEMS	10
SMART CARDS AND SECURE ID SYSTEMS.....	10
SECURE IDENTIFICATION SYSTEM ENROLLMENT	11
THREE ELEMENTS OF SECURITY	11
THE ENROLLMENT PROCESS	11
HOW INDIVIDUALS PROVE THEIR IDENTITY.....	11
ID SYSTEM USE OF BIOMETRICS.....	12
ISSUES WITH ENROLLMENT AND ID PRODUCTION.....	12
ID USE, THE CHAIN OF TRUST AND THE ROLE OF SMART CARDS ...	14
WHAT CONTRIBUTES TO A CHAIN OF TRUST	14
PHYSICAL ID VERIFICATION	14
ID DEVICE AUTHENTICATION	15
READER AUTHENTICATION.....	15
ID CREDENTIAL AUTHENTICATION.....	15
ID HOLDER AUTHENTICATION	16
THE ROLE OF SMART CARDS IN THE CHAIN OF TRUST	16
CHAIN OF TRUST SUMMARY.....	18
BUSINESS AND IMPLEMENTATION CONSIDERATIONS FOR SMART CARD-BASED SECURE IDENTIFICATION SYSTEMS.....	19
HOW ORGANIZATIONS BUILD THE BUSINESS CASE FOR SMART ID CARDS	19
IMPLEMENTATION CONSIDERATIONS FOR ISSUING ID CARDS.....	21
IMPLEMENTATION CONSIDERATIONS FOR MANAGING ID SYSTEMS.....	21
CONCLUSIONS.....	24
REFERENCE AND RESOURCES	26
PUBLICATION ACKNOWLEDGEMENTS.....	27
APPENDIX A: ORGANIZATION PROFILES.....	28
AMERICAN ASSOCIATION OF MOTOR VEHICLE ADMINISTRATORS – DRIVER LICENSE/ID SECURITY FRAMEWORK	28
U.S. DEPARTMENT OF DEFENSE COMMON ACCESS CARD	29
FEDERATED IDENTITY AND CROSS-CREDENTIALING SYSTEM (FiXs)/DEFENSE CROSS-CREDENTIALING IDENTIFICATION SYSTEM (DCIS) PROOF OF CONCEPT	30
TRANSPORTATION SECURITY ADMINISTRATION TRANSPORTATION WORKERS IDENTIFICATION CREDENTIAL (TWIC).....	31
UNITED STATES PASSPORT: CONCEPT OF OPERATIONS FOR THE INTEGRATION OF CONTACTLESS CHIP	32
RABOBANK	34