IDPro Body of Knowledge Table of Contents
Working DRAFT

July 31, 2019

Contents

Chapter 1

Introduction

1.1 Information security

1.1.1 Trust (say more - what is this?)

1.2 Privacy

1.3 Identification and authentication

1.3.1 Context and Identity

1.3.2 Levels of Assurance

1.4 The Business Case for IAM

1.4.1 Workforce IAM

1.4.2 Consumer/Citizen IAM

Chapter 2

Digital Identity

2.1 Definition

2.1.1 Reputation

2.1.2 Laws of Identity (this sounds like jurisdictions and real laws - is that the intent?)

2.2 Identifiers

2.3 Digital Identity Lifecycle (?)

2.4 Mapping to human or device

2.5 Proofing, Binding or Registration (?)

2.5.1 Verification/Validation

2.6 Credentials

Chapter 3

Access Control

3.1 Authentication

3.1.1 Dynamic Authentication (risk-based)

3.1.2 Multi-Factor Authentication

3.1.3 Single Sign-on Within a Domain

3.1.4 Centralised Authentication Service

3.1.5 Federated Authentication (between domains)

3.1.6 Device Identity for Corroboration

3.1.7 Fast Identity Online (FIDO) and its cousins

3.1.8 Session Management

3.2 Authorization

3.2.1 Resources to Protect

3.2.2 Authorisation

3.2.2.1 ACL's

3.2.2.2 RBAC

3.2.2.3 ABAC / Dynamic Access Management

Policy Management solutions

3.2.3 Privileged Access Management

3.2.3.1 Alignment to Risk Management

3.2.3.2 System Accounts

Chapter 4

Regulations and Laws

4.1 Privacy (generic)

4.2 Survey of Jurisdictions

4.2.1 SOX, HIPAA, GDPR, CBPR etc.

4.3 Consent Management

Chapter 5

Workforce IAM / Internal IAM

5.1 IAM Processes

5.1.1 Joiner-Mover-Leaver

5.1.2 HR Ownership

5.1.3 Provisioning (On-boarding and Off-boarding)

5.1.4 Role Management

5.1.5 Re-certification

5.2 Analytics and Intelligence

5.3 Handling Business Partners' People

Chapter 6

Consumer/Citizen IAM

6.1   Consumer Journey (identification to loyal customer)

6.1.1   Registration of Consumers

6.1.2   Authentication Assurance (meeting LoA requirements)

6.2   Industry Considerations

6.2.1   Public Sector vs. Private Sector

6.2.2   Financial Services

6.2.3   Healthcare

6.3   Social Sign-up and Sign-on

Chapter 7

Non-Human Entity

7.1   Operational Technology (OT)

7.2   IoT Devices

7.2.1   IoT Sectors

7.2.1.1   Home Automation

7.2.1.2   Personal (wearables)

7.2.1.3   Implants

7.2.1.4   Plant Automation

7.2.1.5   Vehicle

7.2.1.6   Smart Cities

7.2.1.7   Agriculture

7.2.1.8   Building/Industrial

7.2.1.9   Utilities

7.3   RPA / robotics

7.4   Security requirements

Chapter 8

IAM Architecture and Solutions

8.1   Business System

8.1.1   Business Processes

8.1.1.1   Recertification of accounts

8.2   Information/Data Architecture

8.3   Application Portfolio

8.3.1   APIs

8.3.1.1   HTTP

8.3.1.2   S/LDAP

8.3.1.3   RACF

8.3.1.4   XACML

8.4   Technical

8.4.1   Repositories

8.4.1.1   Relational Database

Query optimization

Replication limitations

8.4.1.2   Directories

Historical note - X.500

SLAPD and its descendants

8.4.1.3   NoSQL databases

Graph Databases

8.4.1.4   Identity Provider (IdP) Trends

Distributed Ledger (Blockchain)

8.4.2   Identity Provider Services

8.4.3   Protocols

8.4.3.1   Kerberos

8.4.3.2   Lightweight Directory Access Protocol (LDAP)

8.4.3.3   SCIM

8.4.3.4   SAML

SP Initiated vs IDP Initiated

Bindings

8.4.3.5   OIDC

Authentications Flows

Chapter 9

Operational Considerations

9.1   Account recovery

9.2   Call centers

9.3   Engagement of user for their own security

9.4   Security events and operations

Chapter 10

Project Management

10.1   New implementations

10.2   Migration scenario's

Chapter 11

IAM Knowledge Sharing

Chapter 12

Advanced Topics – Parking Lot

12.1   Digital Legacy - handling deceased persons' digital ID (Advanced Topic)

12.2   Self-Sovereign Identity

12.2.1   Blockchain ID