

# Contents

<b>FOREWORDS .....</b>	<b>xi</b>	
<b>PREFACE .....</b>	<b>xv</b>	
<b>ABOUT THE AUTHORS.....</b>	<b>xvii</b>	
<b>ACKNOWLEDGMENTS .....</b>	<b>xix</b>	
<b>CHAPTER 1</b>	<b>What Is a Security Awareness Program? .....</b>	<b>1</b>
	Introduction.....	1
	Policy Development.....	4
	Policy Enforcement .....	4
	Cost Savings .....	5
	Production Increases.....	5
	Management Buy-In .....	6
	Notes.....	7
<b>CHAPTER 2</b>	<b>Threat .....</b>	<b>9</b>
	The Motivations of Online Attackers.....	9
	Money.....	9
	Industrial Espionage/Trade Secrets .....	10
	Hacktivism .....	10
	Cyber War .....	11
	Bragging Rights.....	12
	Notes.....	12
<b>CHAPTER 3</b>	<b>Cost of a Data Breach.....</b>	<b>15</b>
	Ponemon Institute .....	15
	HIPAA .....	15
	The Payment Card Industry Data Security Standard (PCI DSS).....	19
	State Breach Notification Laws.....	20
	Notes.....	23



<b>CHAPTER 4</b>	Most Attacks Are Targeted .....	25
	Targeted Attacks .....	25
	Recent Targeted Attacks .....	26
	Targeted Attacks Against Law Firms .....	26
	Operation Shady RAT .....	28
	Operation Aurora .....	29
	Night Dragon .....	30
	Watering Hole Attacks.....	30
	Common Attack Vectors: Common Results .....	31
	Notes.....	32
<b>CHAPTER 5</b>	Who Is Responsible for Security? .....	33
	Information Technology (IT) Staff .....	33
	The Security Team .....	34
	The Receptionist .....	34
	The CEO .....	34
	Accounting .....	35
	The Mailroom/Copy Center .....	35
	The Runner/Courier.....	35
	Everyone Is Responsible For Security .....	35
	Notes .....	37
<b>CHAPTER 6</b>	Why Current Programs Don't Work .....	39
	The Lecture Is Dead as a Teaching Tool .....	39
	Notes.....	43
<b>CHAPTER 7</b>	Social Engineering .....	45
	What is Social Engineering?.....	45
	Who are Social Engineers? .....	46
	Why Does It Work? .....	46
	How Does It Work?.....	46
	Information Gathering .....	47
	Attack Planning and Execution .....	49
	The Social Engineering Defensive Framework (SEDF) .....	52
	Where Can I Learn More About Social Engineering?.....	63
	Notes .....	63
<b>CHAPTER 8</b>	Physical Security.....	65
	What is Physical Security? .....	65
	Physical Security Layers .....	66
	Threats to Physical Security .....	67
	Why Physical Security is Important to an Awareness Program .....	67
	How Physical Attacks Work .....	68

Minimizing the Risk of Physical Attacks.....	79
Notes.....	80
<b>CHAPTER 9</b>	
Types of Training .....	81
Training Types .....	81
Formal Training.....	81
Informal Training.....	85
Notes.....	87
<b>CHAPTER 10</b>	
The Training Cycle .....	89
The Training Cycle.....	89
New Hire .....	89
Quarterly .....	90
Biannual.....	90
Continual.....	90
Point of Failure.....	91
Targeted Training .....	91
Sample Training Cycles.....	92
Adjusting Your Training Cycle.....	93
Notes.....	93
<b>CHAPTER 11</b>	
Creating Simulated Phishing Attacks .....	95
Simulated Phishing Attacks .....	95
Understanding the Human Element.....	95
Methodology.....	95
Open-Source Tool, Commercial Tool, or Vendor Performed? .....	96
Before You Begin.....	100
Determine Attack Objective.....	101
Select Recipients .....	102
Select a Type of Phishing Attack .....	102
Composing the E-mail.....	103
Creating the Landing Page.....	104
Sending the E-mail.....	105
Tracking Results.....	106
Post Assessment Follow-up .....	107
Notes.....	107
<b>CHAPTER 12</b>	
Bringing It All Together .....	109
Create a Security Awareness Website.....	109
Sample Plans.....	110
Promoting Your Awareness Program.....	116
Notes.....	117

<b>CHAPTER 13</b>	Measuring Effectiveness .....	119
	Measuring Effectiveness .....	119
	Measurements vs. Metrics.....	119
	Creating Metrics .....	119
	Additional Measurements .....	121
	Reporting Metrics .....	122
	Notes.....	124
<b>CHAPTER 14</b>	Stories from the Front Lines.....	125
	Phil Grimes .....	125
	Amanda Berlin.....	128
	Jimmy Vo.....	133
	Security Research at Large Information Security Company.....	135
	Harry Regan.....	137
	Tess Schrodinger.....	140
	Security Analyst at a Network Security Company.....	151
	Ernie Hayden .....	154
<b>APPENDICES</b>	.....	159
<b>INDEX</b>	.....	191