Tell Us What You Think

Introduction

1. Introduction

The Golden Age of Hacking
How Bad Is the Problem?
What Are Companies Doing?
What Should Companies Be Doing?
Defense in Depth
Purpose of This Book
Legal Stuff
What's Covered In This Book
Summary

2. How and Why Hackers Do It

What Is an Exploit?
The Attacker's Process
The Types of Attacks
Categories of Exploits
Routes Attackers Use to Get In
Goals Attackers Try to Achieve
Summary

3. Information Gathering

Steps for Gathering Information Information Gathering Summary Red Teaming Summary

4. Spoofing

Why Spoof?
Types of Spoofing
Summary

5. Session Hijacking

Spoofing versus Hijacking
Types of Session Hijacking
TCP/IP Concepts
Detailed Description of Session Hijacking
ACK Storms
Programs That Perform Hijacking
Dangers Posed by Hijacking
Protecting Against Session Hijacking
Summary

6. Denial of Service Attacks

What Is a Denial of Service Attack?
What Is a Distributed Denial of Service Attack?
Why Are They Difficult to Protect Against?
Types of Denial of Service Attacks
Tools for Running DOS Attacks
Tools for Running DDOS Attacks
Preventing Denial of Service Attacks
Preventing Distributed Denial of Service Attacks
Summary

7. Buffer Overflow Attacks

What Is a Buffer Overflow?

How Do Buffer Overflows Work?

Types of Buffer Overflow Attacks

Why Are So Many Programs Vulnerable?

Sample Buffer Overflow

Protecting Our Sample Application

Ten Buffer Overflow Attacks

Protection Against Buffer Overflow Attacks

Summary

8. Password Security

Typical Attack

The Current State of Passwords

History of Passwords

Future of Passwords

Password Management

Password Attacks

Summary

9. Microsoft NT Password Crackers

Where Are Passwords Stored in NT?

How Does NT Encrypt Passwords?

All Passwords Can Be Cracked (NT Just Makes It Easier)

NT Password-Cracking Programs

Comparison

Extracting Password Hashes

Protecting Against NT Password Crackers

Summary

10. UNIX Password Crackers

Where Are the Passwords Stored in UNIX?

How Does UNIX Encrypt Passwords?

UNIX Password-Cracking Programs

Comparison

Protecting Against UNIX Password Crackers

Summary

11. Fundamentals of Microsoft NT

Overview of NT Security

Availability of Source Code

NT Fundamentals

Summary

12. Specific Exploits for NT

Exploits for NT

Summary

13. Fundamentals of UNIX

Linux

Vulnerable Areas of UNIX

UNIX Fundamentals

Summary

14. Specific Exploits for UNIX

UNIX Exploits Summary

15. Preserving Access

Backdoors and Trojans

Rootkits

NT Backdoors

Summary

16. Covering the Tracks

How To Cover One's Tracks

Summary

17. Other Types of Attacks

Bind 8.2 NXT Exploit

Cookies Exploit

SNMP Community Strings

Sniffing and Dsniff

PGP ADK Exploit

Cisco IOS Password Vulnerability

Man-in-the-Middle Attack Against Key Exchange

HTTP Tunnel Exploit

Summary

18. SANS Top 10

The SANS Top 10 Exploits

Commonly Probed Ports

Determining Vulnerabilities Against the SANS Top 10

Summary

19. Putting It All Together

Attack Scenarios

Summary

20. Summary

Security Cannot Be Ignored

General Tips for Protecting a Site

Things Will Get Worse Before They Get Better

What Does the Future Hold?

Conclusion

A. References

Hacker/Security Related URLs

Hacker/Security Tools

General Security Related Sites