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Autore	Held Gilbert <1943->
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SECURITY RISKS; 1.4.5 PROPRIETARY SECURITY ENHANCEMENT TECHNIQUES; 1.4.6 STANDARDS BASED SECURITY; Chapter 2 Frame Formats and Basic Security Operation; 2.1 FRAME FORMATS; 2.1.1 BASIC FRAME FORMAT; 2.1.2 FRAME CONTROL FIELD; 2.1.3 CONTROL FRAMES; 2.1.4 MANAGEMENT FRAMES 2.1.5 THE AUTHENTICATION PROCESS2.2 WEP AND PRIVACY; 2.2.1 MISCONCEPTIONS; 2.2.2 DEVELOPMENT CONSTRAINTS; 2.2.3 DEFICIENCIES; Chapter 3 Understanding Wireless Signals; 3.1 THE WIRELESS RF SPECTRUM AND BASIC MEASUREMENTS; 3.1.1 FREQUENCY; 3.1.2 PERIOD AND WAVELENGTH; 3.1.3 BANDWIDTH; 3.1.4 THE FREQUENCY SPECTRUM; 3.1.5 POWER MEASUREMENTS; 3.1.6 POWER LEVEL; 3.1.7 SIGNAL-TO-NOISE RATIO; 3.2 ANTENNA BASICS; 3.2.1 BASIC OPERATION; 3.2.2 CATEGORIES; 3.2.3 ANTENNA GAIN; 3.2.4 DIRECTIONALITY AND EIRP; 3.2.5 POWER LEVELS; 3.2.6 PROPAGATION LOSS; 3.2.7 INCREASING ANTENNA GAIN; 3.2.8 POWER LIMITS 3.2.9 RECEIVER SENSITIVITY3.2.10 REDUCING EMITTED RADIATION; 3.2.11 HORIZONTAL TRANSMISSION DISTANCE; 3.2.12 EQUIPMENT POSITIONING; 3.2.13 USING MONITORING EQUIPMENT; Chapter 4 Understanding WEP; 4.1 THE WEP FRAME BODY; 4.1.1 THE IV; 4.1.2 THE ICV; 4.1.3 THE NAKED DEFAULT; 4.1.4 WEP KEY LIMITATIONS; 4.2 LOCATING AND OBSERVING WIRELESS LAN TRAFFIC; 4.2.1 NETWORK STUMBLER; 4.2.2 MONITORING WITH AIROPEEK; 4.3 RC4; 4.3.1 OVERVIEW; 4.3.2 OPERATION; 4.3.3 ILLUSTRATIVE EXAMPLE; 4.3.4 STRENGTHS AND WEAKNESSES; 4.4 WEP WEAKNESS; 4.4.1 UNSAFE AT ANY SIZE; 4.4.2 THE INSECURITY OF 802.11 4.4.3 EXPLOITING RC4 WEAKNESS4.4.4 BREAKING WEP; 4.4.5 AIRSNORT; 4.4.6 WEPCRAK; Chapter 5 Security Risks and Countermeasures; 5.1 THE SSID; 5.1.1 OVERVIEW; 5.1.2 OVERRIDING THE SSID; 5.1.3 OBTAINING THE SSID; 5.1.4 COUNTERMEASURES; 5.2 EAVESDROPPING; 5.2.1 OVERVIEW; 5.2.2 THREATS; 5.2.3 COUNTERMEASURES; 5.3 MASQUERADE; 5.3.1 OVERVIEW; 5.3.2 COUNTERMEASURES; 5.4 DATA MODIFICATION; 5.4.1 OVERVIEW; 5.4.2 COUNTERMEASURES; 5.5 FILE SHARING; 5.5.1 OVERVIEW; 5.5.2 WINDOWS 95; 5.5.3 WINDOWS 2000; 5.5.4 COUNTERMEASURES; 5.6 JAMMING; 5.6.1 OVERVIEW; 5.6.2 COUNTERMEASURES; 5.7 ENCRYPTION ATTACKS 5.7.1 OVERVIEW

Sommario/riassunto

Wireless LANs will enable small teams and communities to communicate via their mobile devices without cables. This new technology will facilitate communication in small businesses/teams such as in hospitals, on construction sites, warehouses, etc.Held provides a comprehensive guide to the implementation, planning and monitoring of all aspects of wireless LAN security in small offices/small to medium business (SMBs).Securing Wireless LANs is timely in addressing the security issues of this important new technology and equips its readers with the tools they need to make the appro
