

Pfsense 2 0 And Beyond Bsdcan 09

There are hundreds--if not thousands--of techniques used to compromise both Windows and Unix-based systems. Malicious code and new exploit scripts are released on a daily basis, and each evolution becomes more and more sophisticated. Keeping up with the myriad of systems used by hackers in the wild is a formidable task, and scrambling to patch each potential vulnerability or address each new attack one-by-one is a bit like emptying the Atlantic with paper cup. If you're a network administrator, the pressure is on you to defend your systems from attack. But short of devoting your life to becoming a security expert, what can you do to ensure the safety of your mission critical systems? Where do you start? Using the steps laid out by professional security analysts and consultants to identify and assess risks, Network Security Assessment offers an efficient testing model that an administrator can adopt, refine, and reuse to create proactive defensive strategies to protect their systems from the threats that are out there, as well as those still being developed. This thorough and insightful guide covers offensive technologies by grouping and analyzing them at a higher level--from both an offensive and defensive standpoint--helping administrators design and deploy networks that are immune to offensive exploits, tools, and scripts. Network administrators who need to develop and implement a security assessment program will find everything they're looking for--a proven, expert-tested methodology on which to base their own comprehensive program--in this time-saving new book.

Because the Internet has changed and is changing the ways in which we think and act, it must also be changing the ways in which we think Christianity and its theology. Cybertheology is the first book to explore this process from a Catholic point of view. Drawing on the theoretical work of authors such as Marshall McLuhan, Peter Levy, and Teilhard de Chardin, it questions how technologies redefine not only the ways in which we do things but also our being and therefore the way we perceive reality, the world, others, and God. "Does the digital revolution affect faith in any sense?" Spadaro asks. His answer is an emphatic Yes. But how, then, are we to live well in the age of the Internet? Spadaro delves deeply into various dimensions of the impact of the Net on the Church and its organization, on our understanding of revelation, grace, liturgy, the sacraments, and other classical theological themes. He rightly points out that the digital environment is not merely an external instrument that facilitates human communication or a purely virtual world, but part of the daily experience of many people, a new "anthropological space" that is reshaping the way we think, know, and express ourselves. Naturally, this calls for a new understanding of faith so that it makes sense to people who live and work in the digital media environment. In developing the notion of cybertheology, Spadaro seeks to propose an intelligence of faith (*intellectus fidei*) in the era of the Internet. The book's chapters include reflections on man the

decoder and the search engines of God, networked existence and the mystical body, hacker ethics and Christian vision, sacraments and “virtual presence,” and the theological challenges of collective intelligence.

OpenBSD's stateful packet filter, PF, is the heart of the OpenBSD firewall. With more and more services placing high demands on bandwidth and an increasingly hostile Internet environment, no sysadmin can afford to be without PF expertise. The third edition of *The Book of PF* covers the most up-to-date developments in PF, including new content on IPv6, dual stack configurations, the “queues and priorities” traffic-shaping system, NAT and redirection, wireless networking, spam fighting, failover provisioning, logging, and more. You'll also learn how to:

- * Create rule sets for all kinds of network traffic, whether crossing a simple LAN, hiding behind NAT, traversing DMZs, or spanning bridges or wider networks
- * Set up wireless networks with access points, and lock them down using authpf and special access restrictions
- * Maximize flexibility and service availability via CARP, relayd, and redirection
- * Build adaptive firewalls to proactively defend against attackers and spammers
- * Harness OpenBSD's latest traffic-shaping system to keep your network responsive, and convert your existing ALTQ configurations to the new system
- * Stay in control of your traffic with monitoring and visualization tools (including NetFlow)

The Book of PF is the essential guide to building a secure network with PF. With a little effort and this book, you'll be well prepared to unlock PF's full potential.

The FreeBSD Handbook is a comprehensive FreeBSD tutorial and reference. It covers installation, day-to-day use of FreeBSD, and much more, such as the Ports collection, creating a custom kernel, security topics, the X Window System, how to use FreeBSD's Linux binary compatibility, and how to upgrade your system from source using the 'make world' command, to name a few.

The Red Team Field Manual (RTFM) is a no fluff, but thorough reference guide for serious Red Team members who routinely find themselves on a mission without Google or the time to scan through a man page. The RTFM contains the basic syntax for commonly used Linux and Windows command line tools, but it also encapsulates unique use cases for powerful tools such as Python and Windows PowerShell. The RTFM will repeatedly save you time looking up the hard to remember Windows nuances such as Windows wmic and dsquery command line tools, key registry values, scheduled tasks syntax, startup locations and Windows scripting. More importantly, it should teach you some new red team techniques.

Build easy and accessible solutions for automating mundane processes in marketing, sales, operations, and finance to enable teams to focus on core tasks

Key Features

- Learn Zapier and find solutions to specific problems with this comprehensive yet concise guide
- Explore various scenarios describing specific business problems and how they can be solved with Zapier
- Discover expert tips and practical examples to harness the full potential of Zapier

Book Description

Zapier is an emerging no-code workflow automation technology that enables organizations to connect their cloud-based and web applications and automate data transfer between them. Zapier's built-in features and flexibility allow users to integrate thousands of business applications and create simple to complex automation to reduce time spent on repetitive tasks, thereby increasing productivity. This book is a must-have for business owners, their employees, and independent freelancers and contractors looking to use Zapier for business process automation. The book takes a hands-on approach to implementation and associated problem-solving methodologies that will have you up-and-running and productive in no time while leveling up your automation skills. You'll discover how to plan your automation building for optimal results, what are the native features available in Zapier, and the applications that connect with it, as well as how to optimally configure your workflows to automate your processes in as few steps as possible. Finally, you'll find out how to create advanced workflow automation from scratch and learn how to troubleshoot issues. By the end of this Zapier book, you'll be able to build your own advanced workflow automation using Zapier, addressing the key pain points encountered in businesses with manual and repetitive tasks. What you will learn Think creatively to plan your business workflows to overcome specific business problems Get to grips with the native features and built-in applications available in Zapier Explore different types of third-party business applications that integrate with Zapier Configure your workflows optimally to automate business processes and minimize task usage Use Zapier's library of pre-built workflows and create advanced workflows from scratch Discover the extensive functionality and practical uses of Zapier's built-in apps Who this book is for This book is for solutions architects, process consultants, business analysts, virtual assistants, digital marketers, CRM consultants, online business managers, technical consultants, bookkeepers, and accountants who want to deploy effective automation techniques in Zapier. This book will help micro, small, or medium-sized businesses to increase their productivity using workflow automation with Zapier, as well as freelancers and contractors providing digital process improvement, systemizing, and automation services. No prior experience with business process automation or Zapier is required.

The perimeter defenses guarding your network perhaps are not as secure as you think. Hosts behind the firewall have no defenses of their own, so when a host in the "trusted" zone is breached, access to your data center is not far behind. That's an all-too-familiar scenario today. With this practical book, you'll learn the principles behind zero trust architecture, along with details necessary to implement it. The Zero Trust Model treats all hosts as if they're internet-facing, and considers the entire network to be compromised and hostile. By taking this approach, you'll focus on building strong authentication, authorization, and encryption throughout, while providing compartmentalized access and better operational agility. Understand how perimeter-based defenses have evolved to become the broken model we use today

Explore two case studies of zero trust in production networks on the client side (Google) and on the server side (PagerDuty) Get example configuration for open source tools that you can use to build a zero trust network Learn how to migrate from a perimeter-based network to a zero trust network in production

Addressing the firewall capabilities of Linux, a handbook for security professionals describes the Netfilter infrastructure in the Linux kernel and explains how to use Netfilter as an intrusion detection system by integrating it with custom open source software and Snort rulesets, discussin such topics as Linux firewall log analysis and policies, passive network authentication and authorization, and more. Original. (Intermediate)

Install and configure a pfSense router/firewall, and become a pfSense expert in the process. Key Features You can always do more to secure your software – so extend and customize your pfSense firewall Build a high availability security system that’s fault-tolerant – and capable of blocking potential threats Put the principles of better security into practice by implementing examples provided in the text Book Description pfSense has the same reliability and stability as even the most popular commercial firewall offerings on the market – but, like the very best open-source software, it doesn’t limit you. You’re in control – you can exploit and customize pfSense around your security needs. Mastering pfSense - Second Edition, covers features that have long been part of pfSense such as captive portal, VLANs, traffic shaping, VPNs, load balancing, Common Address Redundancy Protocol (CARP), multi-WAN, and routing. It also covers features that have been added with the release of 2.4, such as support for ZFS partitions and OpenVPN 2.4. This book takes into account the fact that, in order to support increased cryptographic loads, pfSense version 2.5 will require a CPU that supports AES-NI. The second edition of this book places more of an emphasis on the practical side of utilizing pfSense than the previous edition, and, as a result, more examples are provided which show in step-by-step fashion how to implement many features. What you will learn Configure pfSense services such as DHCP, Dynamic DNS, captive portal, DNS, NTP and SNMP Set up a managed switch to work with VLANs Use pfSense to allow, block and deny traffic, and to implement Network Address Translation (NAT) Make use of the traffic shaper to lower and raise the priority of certain types of traffic Set up and connect to a VPN tunnel with pfSense Incorporate redundancy and high availability by utilizing load balancing and the Common Address Redundancy Protocol (CARP) Explore diagnostic tools in pfSense to solve network problems Who this book is for This book is for those with at least an intermediate understanding of networking. Prior knowledge of pfSense would be helpful but is not required. Those who have the resources to set up a pfSense firewall, either in a real or virtual environment, will especially benefit, as they will be able to follow along with the examples in the book.

Malware analysis is big business, and attacks can cost a company dearly. When malware breaches your defenses, you need to act quickly to cure current infections and prevent future ones from occurring. For those who want to stay ahead

of the latest malware, Practical Malware Analysis will teach you the tools and techniques used by professional analysts. With this book as your guide, you'll be able to safely analyze, debug, and disassemble any malicious software that comes your way. You'll learn how to: –Set up a safe virtual environment to analyze malware –Quickly extract network signatures and host-based indicators –Use key analysis tools like IDA Pro, OllyDbg, and WinDbg –Overcome malware tricks like obfuscation, anti-disassembly, anti-debugging, and anti-virtual machine techniques –Use your newfound knowledge of Windows internals for malware analysis –Develop a methodology for unpacking malware and get practical experience with five of the most popular packers –Analyze special cases of malware with shellcode, C++, and 64-bit code Hands-on labs throughout the book challenge you to practice and synthesize your skills as you dissect real malware samples, and pages of detailed dissections offer an over-the-shoulder look at how the pros do it. You'll learn how to crack open malware to see how it really works, determine what damage it has done, thoroughly clean your network, and ensure that the malware never comes back. Malware analysis is a cat-and-mouse game with rules that are constantly changing, so make sure you have the fundamentals. Whether you're tasked with securing one network or a thousand networks, or you're making a living as a malware analyst, you'll find what you need to succeed in Practical Malware Analysis.

Master building and integrating secure private networks using OpenVPN About This Book Discover how to configure and set up a secure OpenVPN Enhance user experience by using multiple authentication methods Delve into better reporting, monitoring, logging, and control with OpenVPN Who This Book Is For If you are familiar with TCP/IP networking and general system administration, then this book is ideal for you. Some knowledge and understanding of core elements and applications related to Virtual Private Networking is assumed. What You Will Learn Identify different VPN protocols (IPSec, PPTP, OpenVPN) Build your own PKI and manage certificates Deploy your VPN on various devices like PCs, mobile phones, tablets, and more Differentiate between the routed and bridged network Enhance your VPN with monitoring and logging Authenticate against third-party databases like LDAP or the Unix password file Troubleshoot an OpenVPN setup that is not performing correctly In Detail Security on the internet is increasingly vital to both businesses and individuals. Encrypting network traffic using Virtual Private Networks is one method to enhance security. The internet, corporate, and “free internet” networks grow more hostile every day. OpenVPN, the most widely used open source VPN package, allows you to create a secure network across these systems, keeping your private data secure. The main advantage of using OpenVPN is its portability, which allows it to be embedded into several systems. This book is an advanced guide that will help you build secure Virtual Private Networks using OpenVPN. You will begin your journey with an exploration of OpenVPN, while discussing its modes of operation, its clients, its secret keys, and their format types. You will explore PKI: its setting up and working, PAM authentication, and MTU troubleshooting. Next, client-

server mode is discussed, the most commonly used deployment model, and you will learn about the two modes of operation using "tun" and "tap" devices. The book then progresses to more advanced concepts, such as deployment scenarios in tun devices which will include integration with back-end authentication, and securing your OpenVPN server using iptables, scripting, plugins, and using OpenVPN on mobile devices and networks. Finally, you will discover the strengths and weaknesses of the current OpenVPN implementation, understand the future directions of OpenVPN, and delve into the troubleshooting techniques for OpenVPN. By the end of the book, you will be able to build secure private networks across the internet and hostile networks with confidence. Style and approach An easy-to-follow yet comprehensive guide to building secure Virtual Private Networks using OpenVPN. A progressively complex VPN design is developed with the help of examples. More advanced topics are covered in each chapter, with subjects grouped according to their complexity, as well as their utility.

This book introduces methods of re-processing images to extract numerical information that can be used to quantify the observables in environmental modelling. Experiments or procedures that yield large images can be statistically or parametrically examined. Through the use of open source libraries, the book shows how 'big data' in the form of images or datasets can be comparatively analysed along same defined procedures or standards. This book helps to solve the challenges of discarding datasets that are relevant directly or indirectly to the research. The habit of screening datasets leads to the discard of over 90% of the original dataset or images generated in the experiments or procedure. If the images or datasets are generated under the same principles or conditions, then each measurement may be the narrative of unique events. The focus of this book is to enlighten researchers on how to analyse measurements with the aim of ensuring 100% utilization.

What is SQL injection? -- Testing for SQL injection -- Reviewing code for SQL injection -- Exploiting SQL injection -- Blind SQL injection exploitation -- Exploiting the operating system -- Advanced topics -- Code-level defenses -- Platform level defenses -- Confirming and recovering from SQL injection attacks -- References.

Being able to identify security loopholes has become critical to many businesses. That's where learning network security assessment becomes very important. This book will not only show you how to find out the system vulnerabilities but also help you build a network security threat model.

Mastering PfsensePfSense Essentials: The Complete Reference to the PfSense Internet Gateway and FirewallReed Media Services

Get up and running with industrial cybersecurity monitoring with this hands-on book, and explore ICS cybersecurity monitoring tasks, activities, tools, and best practices Key Features Architect, design, and build ICS networks with security

in mind Perform a variety of security assessments, checks, and verifications Ensure that your security processes are effective, complete, and relevant Book Description With Industrial Control Systems (ICS) expanding into traditional IT space and even into the cloud, the attack surface of ICS environments has increased significantly, making it crucial to recognize your ICS vulnerabilities and implement advanced techniques for monitoring and defending against rapidly evolving cyber threats to critical infrastructure. This second edition covers the updated Industrial Demilitarized Zone (IDMZ) architecture and shows you how to implement, verify, and monitor a holistic security program for your ICS environment. You'll begin by learning how to design security-oriented architecture that allows you to implement the tools, techniques, and activities covered in this book effectively and easily. You'll get to grips with the monitoring, tracking, and trending (visualizing) and procedures of ICS cybersecurity risks as well as understand the overall security program and posture/hygiene of the ICS environment. The book then introduces you to threat hunting principles, tools, and techniques to help you identify malicious activity successfully. Finally, you'll work with incident response and incident recovery tools and techniques in an ICS environment. By the end of this book, you'll have gained a solid understanding of industrial cybersecurity monitoring, assessments, incident response activities, as well as threat hunting. What you will learn Monitor the ICS security posture actively as well as passively Respond to incidents in a controlled and standard way Understand what incident response activities are required in your ICS environment Perform threat-hunting exercises using the Elasticsearch, Logstash, and Kibana (ELK) stack Assess the overall effectiveness of your ICS cybersecurity program Discover tools, techniques, methodologies, and activities to perform risk assessments for your ICS environment Who this book is for If you are an ICS security professional or anyone curious about ICS cybersecurity for extending, improving, monitoring, and validating your ICS cybersecurity posture, then this book is for you. IT/OT professionals interested in entering the ICS cybersecurity monitoring domain or searching for additional learning material for different industry-leading cybersecurity certifications will also find this book useful.

Wireless has become ubiquitous in today's world. The mobility and flexibility provided by it makes our lives more comfortable and productive. But this comes at a cost – Wireless technologies are inherently insecure and can be easily broken. BackTrack is a penetration testing and security auditing distribution that comes with a myriad of wireless networking tools used to simulate network attacks and detect security loopholes. Backtrack 5 Wireless Penetration Testing Beginner's Guide will take you through the journey of becoming a Wireless hacker. You will learn various wireless testing methodologies taught using live examples, which you will implement throughout this book. The engaging practical sessions very gradually grow in complexity giving you enough time to ramp up before you get to advanced wireless attacks. This book will take you through the basic concepts in Wireless and creating a lab environment for your

experiments to the business of different lab sessions in wireless security basics, slowly turn on the heat and move to more complicated scenarios, and finally end your journey by conducting bleeding edge wireless attacks in your lab. There are many interesting and new things that you will learn in this book – War Driving, WLAN packet sniffing, Network Scanning, Circumventing hidden SSIDs and MAC filters, bypassing Shared Authentication, Cracking WEP and WPA/WPA2 encryption, Access Point MAC spoofing, Rogue Devices, Evil Twins, Denial of Service attacks, Viral SSIDs, Honeypot and Hotspot attacks, Caffe Latte WEP Attack, Man-in-the-Middle attacks, Evading Wireless Intrusion Prevention systems and a bunch of other cutting edge wireless attacks. If you were ever curious about what wireless security and hacking was all about, then this book will get you started by providing you with the knowledge and practical know-how to become a wireless hacker. Hands-on practical guide with a step-by-step approach to help you get started immediately with Wireless Penetration Testing

Master the art of identifying vulnerabilities within the Windows OS and develop the desired solutions for it using Kali Linux. Key Features Identify the vulnerabilities in your system using Kali Linux 2018.02 Discover the art of exploiting Windows kernel drivers Get to know several bypassing techniques to gain control of your Windows environment Book Description Windows has always been the go-to platform for users around the globe to perform administration and ad hoc tasks, in settings that range from small offices to global enterprises, and this massive footprint makes securing Windows a unique challenge. This book will enable you to distinguish yourself to your clients. In this book, you'll learn advanced techniques to attack Windows environments from the indispensable toolkit that is Kali Linux. We'll work through core network hacking concepts and advanced Windows exploitation techniques, such as stack and heap overflows, precision heap spraying, and kernel exploitation, using coding principles that allow you to leverage powerful Python scripts and shellcode. We'll wrap up with post-exploitation strategies that enable you to go deeper and keep your access. Finally, we'll introduce kernel hacking fundamentals and fuzzing testing, so you can discover vulnerabilities and write custom exploits. By the end of this book, you'll be well-versed in identifying vulnerabilities within the Windows OS and developing the desired solutions for them. What you will learn Get to know advanced pen testing techniques with Kali Linux Gain an understanding of Kali Linux tools and methods from behind the scenes See how to use Kali Linux at an advanced level Understand the exploitation of Windows kernel drivers Understand advanced Windows concepts and protections, and how to bypass them using Kali Linux Discover Windows exploitation techniques, such as stack and heap overflows and kernel exploitation, through coding principles Who this book is for This book is for penetration testers, ethical hackers, and individuals breaking into the pentesting role after demonstrating an advanced skill in boot camps. Prior experience with Windows exploitation, Kali Linux, and some Windows debugging tools is necessary

This book presents the peer-reviewed proceedings of the 5th International Conference on Intelligent Computing and Applications (ICICA 2019), held in Ghaziabad, India, on December 6-8, 2019. The contributions reflect the latest research on advanced computational methodologies such as neural networks, fuzzy systems, evolutionary algorithms, hybrid intelligent systems, uncertain reasoning techniques, and other machine learning methods and their applications to decision-making and problem-solving in mobile and wireless communication networks.

Security Onion is a free and open source Linux distribution for threat hunting, enterprise security monitoring, and log management. It includes Elasticsearch, Logstash, Kibana, Suricata, Zeek, Wazuh, CyberChef, and many other security tools. This documentation will give you an overview of installation, configuration, and usage of Security Onion and its components. Don't miss the inspiring foreword by Richard Bejtlich! Proceeds go to the Rural Technology Fund! This book covers the following Security Onion topics: Getting Started Security Onion Console (SOC) Analyst VM Network Visibility Host Visibility Logs Updating Accounts Services Customizing for Your Environment Tuning Tricks and Tips Utilities Many folks have asked for a printed version of our official online documentation and we're excited to provide that! Whether you work on airgapped networks or simply want a portable desk reference, this is what you've been asking for! Q&A What is Security Onion? Security Onion is a free and open source Linux distribution for threat hunting, enterprise security monitoring, and log management. It includes Elasticsearch, Logstash, Kibana, Snort, Suricata, Zeek, Wazuh, CyberChef, and many other security tools. Security Onion was started by Doug Burks in 2008. Who is Doug Burks? Doug Burks started Security Onion as a free and open source project in 2008 and then founded Security Onion Solutions, LLC in 2014. What is Security Onion Solutions? Doug Burks started Security Onion Solutions, LLC in 2014. Security Onion Solutions is the only official provider of training, professional services, and hardware appliances for Security Onion. Who wrote this book? Security Onion Solutions is the primary author and maintainer of this documentation. Some content has been contributed by members of our community. Thanks to all the folks who have contributed to this documentation over the years! The inspiring foreword was written by Richard Bejtlich! What is the difference between this book and the online documentation? This book is the online documentation formatted specifically for print. It also includes an inspiring foreword by Richard Bejtlich that is not available anywhere else! Finally, proceeds go to the Rural Technology Fund! Who should get this book? Security Onion users who work on airgapped networks or simply want a portable reference that requires no Internet connection and no batteries! Also anyone who wants to donate to a worthy cause like Rural Technology Fund!

pfSense Essentials is a detailed reference to the pfSense Internet gateway, a featureful software suite for VPN, captive portal, and shared network management. The book covers the installation and basic configuration through advanced

networking and firewalling.

FreeBSD—the powerful, flexible, and free Unix-like operating system—is the preferred server for many enterprises. But it can be even trickier to use than either Unix or Linux, and harder still to master. Absolute FreeBSD, 2nd Edition is your complete guide to FreeBSD, written by FreeBSD committer Michael W. Lucas. Lucas considers this completely revised and rewritten second edition of his landmark work to be his best work ever; a true product of his love for FreeBSD and the support of the FreeBSD community. Absolute FreeBSD, 2nd Edition covers installation, networking, security, network services, system performance, kernel tweaking, filesystems, SMP, upgrading, crash debugging, and much more, including coverage of how to:—Use advanced security features like packet filtering, virtual machines, and host-based intrusion detection —Build custom live FreeBSD CDs and bootable flash —Manage network services and filesystems —Use DNS and set up email, IMAP, web, and FTP services for both servers and clients —Monitor your system with performance-testing and troubleshooting tools —Run diskless systems —Manage schedulers, remap shared libraries, and optimize your system for your hardware and your workload —Build custom network appliances with embedded FreeBSD —Implement redundant disks, even without special hardware —Integrate FreeBSD-specific SNMP into your network management system. Whether you're just getting started with FreeBSD or you've been using it for years, you'll find this book to be the definitive guide to FreeBSD that you've been waiting for.

Install, Configure and Setup different connections with pfSense Key Features Build firewall and routing solutions with PfSense. Learn how to create captive portals, how to connect Pfsense to your https environment and so on. Practical approach towards building firewall solutions for your organization Book Description As computer networks become ubiquitous, it has become increasingly important to both secure and optimize our networks. pfSense, an open-source router/firewall, provides an easy, cost-effective way of achieving this – and this book explains how to install and configure pfSense in such a way that even a networking beginner can successfully deploy and use pfSense. This book begins by covering networking fundamentals, deployment scenarios, and hardware sizing guidelines, as well as how to install pfSense. The book then covers configuration of basic services such as DHCP, DNS, and captive portal and VLAN configuration. Careful consideration is given to the core firewall functionality of pfSense, and how to set up firewall rules and traffic shaping. Finally, the book covers the basics of VPNs, multi-WAN setups, routing and bridging, and how to perform diagnostics and troubleshooting on a network. What you will learn Install pfSense Configure additional interfaces, and enable and configure DHCP Understand Captive portal Understand firewalls and NAT, and traffic shaping Learn in detail about VPNs Understand Multi-WAN Learn about routing and bridging in detail Understand the basics of diagnostics and troubleshooting networks Who this book is for This book is towards any network security professionals who want to

get introduced to the world of firewalls and network configurations using Pfsense. No knowledge of PfSense is required
Get up to speed with Prometheus, the metrics-based monitoring system used by tens of thousands of organizations in production. This practical guide provides application developers, sysadmins, and DevOps practitioners with a hands-on introduction to the most important aspects of Prometheus, including dashboarding and alerting, direct code instrumentation, and metric collection from third-party systems with exporters. This open source system has gained popularity over the past few years for good reason. With its simple yet powerful data model and query language, Prometheus does one thing, and it does it well. Author and Prometheus developer Brian Brazil guides you through Prometheus setup, the Node exporter, and the Alertmanager, then demonstrates how to use them for application and infrastructure monitoring. Know where and how much to apply instrumentation to your application code Identify metrics with labels using unique key-value pairs Get an introduction to Grafana, a popular tool for building dashboards Learn how to use the Node Exporter to monitor your infrastructure Use service discovery to provide different views of your machines and services Use Prometheus with Kubernetes and examine exporters you can use with containers Convert data from other monitoring systems into the Prometheus format

Written by pfSense co-founder Chris Buechler and pfSense consultant Jim Pingle, this Definitive Guide to pfSense covers installation and basic configuration through advanced networking and firewalling with the popular open source firewall and router distribution. This book is designed to be a friendly step-by-step guide to common networking and security tasks, plus a thorough reference of pfSense's capabilities. The book covers hardware and system planning, installation and upgrades, backups, firewalling fundamentals, port forwarding and Network Address Translation, bridging, Virtual LANs (VLAN), Multi-WAN, Virtual Private Networks (VPN) using IPsec, PPTP, and OpenVPN, traffic shaping, load balancing, wireless networking and captive portal setups, redundant firewalls and High Availability, system monitoring, logging, traffic analysis, sniffing, packet capturing, troubleshooting, and software package and third-party software installations and upgrades.

Written in an easy-to-follow approach using hands-on examples, this book helps you create virtual environments for advanced penetration testing, enabling you to build a multi-layered architecture to include firewalls, IDS/IPS, web application firewalls, and endpoint protection, which is essential in the penetration testing world. If you are a penetration tester, security consultant, security test engineer, or analyst who wants to practice and perfect penetration testing skills by building virtual pentesting labs in varying industry scenarios, this is the book for you. This book is ideal if you want to build and enhance your existing pentesting methods and skills. Basic knowledge of network security features is expected along with web application testing experience.

How prepared are you to build fast and efficient web applications? This eloquent book provides what every web developer should know about the network, from fundamental limitations that affect performance to major innovations for building even more powerful browser applications—including HTTP 2.0 and XHR improvements, Server-Sent Events (SSE), WebSocket, and WebRTC. Author Ilya Grigorik, a web performance engineer at Google, demonstrates performance optimization best practices for TCP, UDP, and TLS protocols, and explains unique wireless and mobile network optimization requirements. You'll then dive into performance characteristics of technologies such as

HTTP 2.0, client-side network scripting with XHR, real-time streaming with SSE and WebSocket, and P2P communication with WebRTC. Deliver superlative TCP, UDP, and TLS performance Speed up network performance over 3G/4G mobile networks Develop fast and energy-efficient mobile applications Address bottlenecks in HTTP 1.x and other browser protocols Plan for and deliver the best HTTP 2.0 performance Enable efficient real-time streaming in the browser Create efficient peer-to-peer videoconferencing and low-latency applications with real-time WebRTC transports

ECMAScript 6 represents the biggest update to the core of JavaScript in the history of the language. In *Understanding ECMAScript 6*, expert developer Nicholas C. Zakas provides a complete guide to the object types, syntax, and other exciting changes that ECMAScript 6 brings to JavaScript. Every chapter is packed with example code that works in any JavaScript environment so you'll be able to see new features in action. You'll learn: –How ECMAScript 6 class syntax relates to more familiar JavaScript concepts –What makes iterators and generators useful –How arrow functions differ from regular functions –Ways to store data with sets, maps, and more –The power of inheritance –How to improve asynchronous programming with promises –How modules change the way you organize code Whether you're a web developer or a Node.js developer, you'll find *Understanding ECMAScript 6* indispensable on your journey from ECMAScript 5 to ECMAScript 6.

Master Wicket by example by implementing real-life solutions to every day tasks.

Simple packet filters are becoming a thing of the past. Even the open-source domain is moving towards Next-Generation Firewalls. And OPNsense is a top player when it comes to intrusion detection, application control, web filtering, and anti-virus. No network is too insignificant to be spared by an attacker. Even home networks, washing machines, and smartwatches are threatened and require a secure environment. Firewalls are a component of the security concept. They protect against known and new threats to computers and networks. A firewall offers the highest level of protection if its functions are known, its operation is simple, and it is ideally positioned in the surrounding infrastructure. OPNsense accepts the challenge and meets these criteria in different ways. This book is the ideal companion for understanding, installing and setting up an OPNsense firewall. Each chapter explains a real-world situation, describes the theoretical fundamentals, and presents a laboratory experiment for better understanding. Finally, it offers a solution using OPNsense methods and knowledge from a technical background. The chapters are mostly independent of each other, but presented with increasing levels of proficiency. Thus, the topics dealt with are appropriate for beginners to professionals.

Originally designed as neutral entities, computerized bots are increasingly being used maliciously by online criminals in mass spamming events, fraud, extortion, identity theft, and software theft. *Malicious Bots: An Inside Look into the Cyber-Criminal Underground of the Internet* explores the rise of dangerous bots and exposes the nefarious methods of "botmasters". This valuable resource assists information security managers in understanding the scope, sophistication, and criminal uses of bots. With sufficient technical detail to empower IT professionals, this volume provides in-depth coverage of the top bot attacks against financial and government networks over the last several years. The book presents exclusive details of the operation of the notorious Thr34t Krew, one of the most malicious bot herder groups in recent history. Largely unidentified by anti-virus companies, their bots spread globally for months, launching massive distributed denial of service (DDoS) attacks and warez (stolen software distributions). For the first time, this story is publicly revealed, showing how the bot herders got arrested, along with details on other bots in the world today. Unique descriptions of the criminal marketplace – how criminals make money off of your computer – are also a focus of this exclusive book! With unprecedented detail, the book goes on to explain step-by-step how a hacker launches a botnet attack, providing specifics that only those entrenched in the cyber-crime investigation world could possibly offer. Authors

Ken Dunham and Jim Melnick serve on the front line of critical cyber-attacks and countermeasures as experts in the deployment of geopolitical and technical bots. Their work involves advising upper-level government officials and executives who control some of the largest networks in the world. By examining the methods of Internet predators, information security managers will be better able to proactively protect their own networks from such attacks.

A guide to the syntax and semantics of regular expressions for Perl 5.8, Ruby, Java, PHP, C#, .NET, Python, JavaScript, and PCRE.

Presenting invaluable advice from the world's most famous computer security expert, this intensely readable collection features some of the most insightful and informative coverage of the strengths and weaknesses of computer security and the price people pay -- figuratively and literally -- when security fails. Discussing the issues surrounding things such as airplanes, passports, voting machines, ID cards, cameras, passwords, Internet banking, sporting events, computers, and castles, this book is a must-read for anyone who values security at any level -- business, technical, or personal.

"China's e-Science Blue Book 2020" has been jointly compiled by the Chinese Academy of Sciences, Cyberspace Administration of China, Ministry of Education of the PRC, Ministry of Science and Technology of the PRC, China Association for Science and Technology, Chinese Academy of Social Sciences, National Natural Science Foundation of China and the Chinese Academy of Agricultural Sciences. It was focusing on the new situation, new progress and new achievements of China's e-Scientific in the past two years. During the "13th Five-Year Plan" period, Chinese scholars make full use of advanced information technology to carry out scientific research work, and have achieved a series of major scientific and technological achievements. This book has collected 28 research reports about China's e-Science application in the past two years to introduce the application in the frontier research of science and technology, the progress of e-Science in major projects and the achievements of informatization in interdisciplinary. As such it provides a valuable reference resource for researchers and students in this area and promotes further e-Science research.

Provides information on building networks with PF, covering such topics as creating a wireless access point, using tables and proactive defense against spammers, and setting up queries and traffic shaping with ALTQ.

Network security is not simply about building impenetrable walls—determined attackers will eventually overcome traditional defenses. The most effective computer security strategies integrate network security monitoring (NSM): the collection and analysis of data to help you detect and respond to intrusions. In *The Practice of Network Security Monitoring*, Mandiant CSO Richard Bejtlich shows you how to use NSM to add a robust layer of protection around your networks—no prior experience required. To help you avoid costly and inflexible solutions, he teaches you how to deploy, build, and run an NSM operation using open source software and vendor-neutral tools. You'll learn how to: –Determine where to deploy NSM platforms, and size them for the monitored networks –Deploy stand-alone or distributed NSM installations –Use command line and graphical packet analysis tools, and NSM consoles –Interpret network evidence from server-side and client-side intrusions –Integrate threat intelligence into NSM software to identify sophisticated adversaries There's no foolproof way to keep attackers out of your network. But when they get

in, you'll be prepared. The Practice of Network Security Monitoring will show you how to build a security net to detect, contain, and control them. Attacks are inevitable, but losing sensitive data shouldn't be.

Over 90 practical, actionable recipes to automate, test, and manage your infrastructure quickly and effectively About This Book Bring down your delivery timeline from days to hours by treating your server configurations and VMs as code, just like you would with software code. Take your existing knowledge and skill set with your existing tools (Puppet, Chef, or Docker) to the next level and solve IT infrastructure challenges. Use practical recipes to use code to provision and deploy servers and applications and have greater control of your infrastructure. Who This Book Is For This book is for DevOps engineers and developers working in cross-functional teams or operations and would now switch to IAC to manage complex infrastructures. What You Will Learn Provision local and remote development environments with Vagrant Automate production infrastructures with Terraform, Ansible and Cloud-init on AWS, OpenStack, Google Cloud, Digital Ocean, and more Manage and test automated systems using Chef and Puppet Build, ship, and debug optimized Docker containers Explore the best practices to automate and test everything from cloud infrastructures to operating system configuration In Detail Infrastructure as Code (IAC) is a key aspect of the DevOps movement, and this book will show you how to transform the way you work with your infrastructure—by treating it as software. This book is dedicated to helping you discover the essentials of infrastructure automation and its related practices; the over 90 organized practical solutions will demonstrate how to work with some of the very best tools and cloud solutions. You will learn how to deploy repeatable infrastructures and services on AWS, OpenStack, Google Cloud, and Digital Ocean. You will see both Ansible and Terraform in action, manipulate the best bits from cloud-init to easily bootstrap instances, and simulate consistent environments locally or remotely using Vagrant. You will discover how to automate and test a range of system tasks using Chef or Puppet. You will also build, test, and debug various Docker containers having developers' interests in mind. This book will help you to use the right tools, techniques, and approaches to deliver working solutions for today's modern infrastructure challenges. Style and approach This is a recipe-based book that allows you to venture into some of the most cutting-edge practices and techniques about IAC and solve immediate problems when trying to implement them.

Discover real world scenarios for Proxmox troubleshooting and become an expert cloud builder About This Book Formulate Proxmox-based solutions and set up virtual machines of any size while gaining expertise even on the most complex multi-cluster setups Master the skills needed to analyze, monitor, and troubleshoot real-world virtual environments This is the most up-to-date title on mastering Proxmox, with examples based on the new Linux Kernel 4.10.15 and Debian Stretch (9.x) Who This Book Is For This book is for Linux and system administrators and professionals working in IT teams who would like to design and implement an enterprise-quality virtualized environment using Proxmox. Some knowledge of networking and virtualization concepts is assumed. What You Will Learn Install basic Proxmox VE nodes and get to know the Proxmox GUI Get to know Proxmox's internal structure and mechanics Create and manage KVM or LXC-based virtual machines Understand advanced virtual networks Configure high availability Proxmox nodes Integrate Ceph big data storage with the Proxmox hypervisor Plan a large virtual

environment for cloud-based services Discover real-world scenarios for Proxmox troubleshooting In Detail Proxmox is an open source server virtualization solution that has enterprise-class features for managing virtual machines, for storage, and to virtualize both Linux and Windows application workloads. You'll begin with a refresher on the advanced installation features and the Proxmox GUI to familiarize yourself with the Proxmox VE hypervisor. Then, you'll move on to explore Proxmox under the hood, focusing on storage systems, such as Ceph, used with Proxmox. Moving on, you'll learn to manage KVM virtual machines, deploy Linux containers fast, and see how networking is handled in Proxmox. You'll also learn how to protect a cluster or a VM with a firewall and explore the new high availability features introduced in Proxmox VE 5.0. Next, you'll dive deeper into the backup/restore strategy and see how to properly update and upgrade a Proxmox node. Later, you'll learn how to monitor a Proxmox cluster and all of its components using Zabbix. Finally, you'll discover how to recover Promox from disaster strikes through some real-world examples. By the end of the book, you'll be an expert at making Proxmox work in production environments with minimal downtime. Style and approach This book walks you through every aspect of virtualization using Proxmox using a practical, scenario-based approach that features best practices and all the weaponry you need to succeed when building virtual environments with Proxmox 5.0.

OpenBSD, the elegant, highly secure Unix-like operating system, is widely used as the basis for critical DNS servers, routers, firewalls, and more. This long-awaited second edition of Absolute OpenBSD maintains author Michael Lucas's trademark straightforward and practical approach that readers have enjoyed for years. You'll learn the intricacies of the platform, the technical details behind certain design decisions, and best practices, with bits of humor sprinkled throughout. This edition has been completely updated for OpenBSD 5.3, including new coverage of OpenBSD's boot system, security features like W^X and ProPolice, and advanced networking techniques. You'll learn how to: –Manage network traffic with VLANs, trunks, IPv6, and the PF packet filter –Make software management quick and effective using the ports and packages system –Give users only the access they need with groups, sudo, and chroots –Configure OpenBSD's secure implementations of SNMP, DHCP, NTP, hardware sensors, and more –Customize the installation and upgrade processes for your network and hardware, or build a custom OpenBSD release Whether you're a new user looking for a complete introduction to OpenBSD or an experienced sysadmin looking for a refresher, Absolute OpenBSD, 2nd Edition will give you everything you need to master the intricacies of the world's most secure operating system.

[Copyright: 14da786462be4fc3fa9585fd7216afc0](#)