

Cisco Guide to Harden Cisco IOS Devices

Document ID: 13608

Introduction

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Related Information

Introduction

This document contains information to help you secure your Cisco IOS® system devices, which increases the overall security of your network. Structured around the three planes into which functions of a network device can be categorized, this document provides an overview of each included feature and references to related documentation.

The three functional planes of a network, the management plane, control plane, and data plane, each provide different functionality that needs to be protected.

Cisco Guide To Harden Cisco Ios Devices

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Harris,Jamie Sanbower**



Cisco Guide To Harden Cisco Ios Devices:

Implementing Cisco IOS Network Security (IINS 640-554) Foundation Learning Guide Catherine Paquet, 2012-11-29
Implementing Cisco IOS Network Security IINS Foundation Learning Guide Second Edition Foundation learning for the CCNA Security IINS 640 554 exam Implementing Cisco IOS Network Security IINS Foundation Learning Guide Second Edition is a Cisco authorized self paced learning tool for CCNA Security 640 554 foundation learning This book provides you with the knowledge needed to secure Cisco networks By reading this book you will gain a thorough understanding of how to develop a security infrastructure recognize threats and vulnerabilities to networks and mitigate security threats This book focuses on using Cisco IOS routers to protect the network by capitalizing on their advanced features as a perimeter router firewall intrusion prevention system and site to site VPN device The book also covers the use of Cisco Catalyst switches for basic network security the Cisco Secure Access Control System ACS and the Cisco Adaptive Security Appliance ASA You learn how to perform basic tasks to secure a small branch office network using Cisco IOS security features available through web based GUIs Cisco Configuration Professional and the CLI on Cisco routers switches and ASAs Whether you are preparing for CCNA Security certification or simply want to gain a better understanding of Cisco IOS security fundamentals you will benefit from the information provided in this book Implementing Cisco IOS Network Security IINS Foundation Learning Guide Second Edition is part of a recommended learning path from Cisco that includes simulation and hands on training from authorized Cisco Learning Partners and self study products from Cisco Press To find out more about instructor led training e learning and hands on instruction offered by authorized Cisco Learning Partners worldwide please visit www.cisco.com/go/authorizedtraining Develop a comprehensive network security policy to counter threats against information security Secure borderless networks Learn how to use Cisco IOS Network Foundation Protection NFP and Cisco Configuration Professional CCP Securely implement the management and reporting features of Cisco IOS devices Deploy Cisco Catalyst Switch security features Understand IPv6 security features Plan threat control strategies Filter traffic with access control lists Configure ASA and Cisco IOS zone based firewalls Implement intrusion prevention systems IPS and network address translation NAT Secure connectivity with site to site IPsec VPNs and remote access VPNs This volume is in the Foundation Learning Guide Series offered by Cisco Press These guides are developed together with Cisco as the only authorized self paced learning tools that help networking professionals build their understanding of networking concepts and prepare for Cisco certification exams Category Cisco Certification Covers CCNA Security IINS exam 640 554 **CCNA Cyber Ops SECOPS 210-255 Official Cert Guide** Omar Santos, Joseph Muniz, 2017-06-08 This is the eBook version of the print title Note that the eBook does not provide access to the practice test software that accompanies the print book Learn prepare and practice for CCNA Cyber Ops SECOPS 210 255 exam success with this Official Cert Guide from Pearson IT Certification a leader in IT Certification learning Master CCNA Cyber Ops SECOPS 210 255 exam topics Assess your

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CCNA Security 210-260 Official Cert Guide

Omar Santos, John Stuppi, 2015-09-01 Trust the best selling Official Cert Guide series from Cisco Press to help you learn prepare and practice for exam success They are built with the objective of providing assessment review and practice to help ensure you are fully prepared for your certification exam Master Cisco CCNA Security 210 260 Official Cert Guide exam topics Assess your knowledge with chapter opening quizzes Review key concepts with exam preparation tasks This is the eBook edition of the CCNA Security 210 260 Official Cert Guide This eBook does not include the companion CD ROM with practice exam that comes with the print edition CCNA Security 210 260 Official Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques Do I Know This Already quizzes open each chapter and enable you to decide how much time you need to spend on each section Exam topic lists make referencing easy Chapter ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly CCNA Security 210 260 Official Cert Guide focuses specifically on the objectives for the Cisco CCNA Security exam Networking Security experts Omar Santos and John Stuppi share preparation hints and test taking tips helping you identify areas of weakness and improve both your conceptual knowledge and hands on skills Material is presented in a concise manner focusing on increasing your understanding and retention of exam topics Well regarded for its level of detail assessment features comprehensive design scenarios and challenging review questions and exercises this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time The official study guide helps you master all the topics on the CCNA Security exam including Networking security concepts Common security threats Implementing AAA using IOS and ISE Bring Your Own Device BYOD Fundamentals of VPN technology and cryptography

Fundamentals of IP security Implementing IPsec site to site VPNs Implementing SSL remote access VPNs using Cisco ASA
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Securing the data plane Securing routing protocols and the control plane Understanding firewall fundamentals Implementing
Cisco IOS zone based firewalls Configuring basic firewall policies on Cisco ASA Cisco IPS fundamentals Mitigation
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network management into your designs Integrated Security Technologies and Solutions - Volume I Aaron Woland,Vivek Santuka,Mason Harris,Jamie Sanbower,2018-05-02 The essential reference for security pros and CCIE Security candidates policies standards infrastructure perimeter and content security and threat protection Integrated Security Technologies and Solutions Volume I offers one stop expert level instruction in security design deployment integration and support methodologies to help security professionals manage complex solutions and prepare for their CCIE exams It will help security pros succeed in their day to day jobs and also get ready for their CCIE Security written and lab exams Part of the Cisco CCIE Professional Development Series from Cisco Press it is authored by a team of CCIEs who are world class experts in their Cisco security disciplines including co creators of the CCIE Security v5 blueprint Each chapter starts with relevant theory presents configuration examples and applications and concludes with practical troubleshooting Volume 1 focuses on security policies and standards infrastructure security perimeter security Next Generation Firewall Next Generation Intrusion Prevention Systems and Adaptive Security Appliance ASA and the advanced threat protection and content security sections of the CCIE Security v5 blueprint With a strong focus on interproduct integration it also shows how to combine formerly disparate systems into a seamless coherent next generation security solution Review security standards create security policies and organize security with Cisco SAFE architecture Understand and mitigate threats to network infrastructure and protect the three planes of a network device Safeguard wireless networks and mitigate risk on Cisco WLC and access points Secure the network perimeter with Cisco Adaptive Security Appliance ASA Configure Cisco Next Generation Firewall Firepower Threat Defense FTD and operate security via Firepower Management Center FMC Detect and prevent intrusions with Cisco Next Gen IPS FTD and FMC Configure and verify Cisco IOS firewall features such as ZBFW and address translation Deploy and configure the Cisco web and email security appliances to protect content and defend against advanced threats Implement Cisco Umbrella Secure Internet Gateway in the cloud as your first line of defense against internet threats Protect against new malware with Cisco Advanced Malware Protection and Cisco ThreatGrid **CCNP and CCIE Security Core SCOR 350-701 Official Cert Guide** Omar Santos,2023-11-09 Trust the best selling Official Cert Guide series from Cisco Press to help you learn prepare and practice for the CCNP and CCIE Security Core SCOR 350 701 exam Well regarded for its level of detail study plans assessment features and challenging review questions and exercises CCNP and CCIE Security Core SCOR 350 701 Official Cert Guide Second Edition helps you master the concepts and techniques that ensure your exam success and is the only self study resource approved by Cisco Expert author Omar Santos shares preparation hints and test taking tips helping you identify areas of weakness and improve both your conceptual knowledge and hands on skills This complete study package includes A test preparation routine proven to help you pass the exam Do I Know This Already quizzes which let you decide how much time you need to spend on each section Exam Topic lists that make referencing easy Chapter ending exercises which help you drill on key concepts you must know thoroughly The

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IPv6 Security Scott Hogg, Eric Vyncke, 2008-12-11 IPv6 Security Protection measures for the next Internet Protocol As the world s networks migrate to the IPv6 protocol networking professionals need a clearer understanding of the security risks threats and challenges this transition presents In IPv6 Security two of the world s leading Internet security practitioners review each potential security issue introduced by IPv6 networking and present today s best solutions IPv6 Security offers guidance for avoiding security problems prior to widespread IPv6 deployment The book covers every component of today s networks identifying specific security deficiencies that occur within IPv6 environments and demonstrating how to combat them The authors describe best practices for identifying and resolving weaknesses as you maintain a dual stack network Then they describe the security mechanisms you need to implement as you migrate to an IPv6 only network The authors survey the techniques hackers might use to try to

breach your network such as IPv6 network reconnaissance address spoofing traffic interception denial of service and tunnel injection The authors also turn to Cisco products and protection mechanisms You learn how to use Cisco IOS and ASA firewalls and ACLs to selectively filter IPv6 traffic You also learn about securing hosts with Cisco Security Agent 6.0 and about securing a network with IOS routers and switches Multiple examples are explained for Windows Linux FreeBSD and Solaris hosts The authors offer detailed examples that are consistent with today's best practices and easy to adapt to virtually any IPv6 environment Scott Hogg CCIE No 5133 is Director of Advanced Technology Services at Global Technology Resources Inc GTRI He is responsible for setting the company's technical direction and helping it create service offerings for emerging technologies such as IPv6 He is the Chair of the Rocky Mountain IPv6 Task Force Eric Vyncke Cisco Distinguished System Engineer consults on security issues throughout Europe He has 20 years experience in security and teaches security seminars as a guest professor at universities throughout Belgium He also participates in the Internet Engineering Task Force IETF and has helped several organizations deploy IPv6 securely Understand why IPv6 is already a latent threat in your IPv4 only network Plan ahead to avoid IPv6 security problems before widespread deployment Identify known areas of weakness in IPv6 security and the current state of attack tools and hacker skills Understand each high level approach to securing IPv6 and learn when to use each Protect service provider networks perimeters LANs and host server connections Harden IPv6 network devices against attack Utilize IPsec in IPv6 environments Secure mobile IPv6 networks Secure transition mechanisms in use during the migration from IPv4 to IPv6 Monitor IPv6 security Understand the security implications of the IPv6 protocol including issues related to ICMPv6 and the IPv6 header structure Protect your network against large scale threats by using perimeter filtering techniques and service provider focused security practices Understand the vulnerabilities that exist on IPv6 access networks and learn solutions for mitigating each This security book is part of the Cisco Press Networking Technology Series Security titles from Cisco Press help networking professionals secure critical data and resources prevent and mitigate network attacks and build end to end self defending networks Category Networking Security Covers IPv6 Security Cisco Intelligent WAN (IWAN) Brad Edgeworth, David Prall, Jean Marc Barozet, Anthony Lockhart, Nir Ben-Dvora, 2016-11-04 The complete guide to Cisco IWAN features benefits planning and deployment Using Cisco Intelligent WAN IWAN businesses can deliver an uncompromised experience security and reliability to branch offices over any connection Cisco IWAN simplifies WAN design improves network responsiveness and accelerates deployment of new services Now there's an authoritative single source guide to Cisco IWAN all you need to understand it design it and deploy it for maximum value In Cisco Intelligent WAN IWAN leading Cisco experts cover all key IWAN technologies and components addressing issues ranging from visibility and provisioning to troubleshooting and optimization They offer extensive practical guidance on migrating to IWAN from your existing WAN infrastructure This guide will be indispensable for all experienced network professionals who support WANs are deploying Cisco IWAN solutions or use related technologies

such as DMVPN or PfR Deploy Hybrid WAN connectivity to increase WAN capacity and improve application performance Overlay DMVPN on WAN transport to simplify operations gain transport independence and improve VPN scalability Secure DMVPN tunnels and IWAN routers Use Application Recognition to support QoS Performance Routing PfR and application visibility Improve application delivery and WAN efficiency via PfR Monitor hub transit and branch sites traffic classes and channels Add application level visibility and per application monitoring to IWAN routers Overcome latency and bandwidth inefficiencies that limit application performance Use Cisco WAAS to customize each location s optimizations application accelerations and virtualization Smoothly integrate Cisco WAAS into branch office network infrastructure Ensure appropriate WAN application responsiveness and experience Improve SaaS application performance with Direct Internet Access DIA Perform pre migration tasks and prepare your current WAN for IWAN Migrate current point to point and multipoint technologies to IWAN

Embracing the Track of Term: An Emotional Symphony within **Cisco Guide To Harden Cisco Ios Devices**

In a world taken by monitors and the ceaseless chatter of fast transmission, the melodic beauty and emotional symphony created by the written word frequently diminish in to the backdrop, eclipsed by the constant noise and interruptions that permeate our lives. Nevertheless, set within the pages of **Cisco Guide To Harden Cisco Ios Devices** a wonderful literary value brimming with fresh emotions, lies an immersive symphony waiting to be embraced. Crafted by an elegant composer of language, that fascinating masterpiece conducts visitors on a psychological journey, skillfully unraveling the hidden songs and profound influence resonating within each cautiously crafted phrase. Within the depths with this emotional evaluation, we can discover the book is central harmonies, analyze their enthralling publishing type, and submit ourselves to the profound resonance that echoes in the depths of readers souls.

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