Configuration Vpn Huawei Enterprise

Cisco IOS 12.0 Switching Services is a comprehensive guide detailing available Cisco IOS switching alternatives. Cisco switching services range from fast switching and Netflow switching to LAN Emulation. This book describes how to configure routing between virtual LANs (VLANs) and teach how to effectively configure and implement VLANs on switches.

Like sysadmins before them, network engineers are finding that they cannot do their work manually anymore. As the field faces new protocols, technologies, delivery models, and a pressing need for businesses to be more agile and flexible, network automation is becoming essential. This practical guide shows network engineers how to use a range of technologies and tools—including Linux, Python, JSON, and XML—to automate their systems through code. Network programming and automation will help you simplify tasks involved in configuring, managing, and operating network equipment, topologies, services, and connectivity. Through the course of the book, you ' ll learn the basic skills and tools you need to make this critical transition. This book covers: Python programming basics: data types, conditionals, loops, functions, classes, and modules Linux fundamentals to provide the foundation you need on your network automation journey Data formats and models: JSON, XML, YAML, and YANG for networking Jinja templating and its applicability for creating network device configurations The role of application programming interfaces (APIs) in network automation Source control with Git to manage code changes during the automation process How Ansible, Salt, and StackStorm open source automation tools can be used to automate network devices Key tools and technologies required for a Continuous Integration (CI) pipeline in network operations

Learn and implement network automation within the Enterprise network using Python 3. This introductory book will be your guide to building an integrated virtual networking lab to begin your Network Automation journey and master the basics of Python Network Automation. The book features a review of the practical Python network automation scripting skills and tips learned from the production network, so you can safely test and practice in a lab environment first, various Python modules such as paramiko and netmiko, pandas, re, and much more. You'll also develop essential skills such as Python scripting, regular expressions, Linux and Windows administration, VMware virtualization, and Cisco networking from the comfort of your laptop/PC with no actual networking hardware. Finally, you will learn to write a fully automated and working Cisco IOS XE upgrade application using Python. Introduction to Python Network Automation uses a canonical order, where you begin at the bottom and by the time you have completed this book, you will at least reach the intermediate level of Python coding for enterprise networking automation using native Python tools. What You'll Learn Build a proper GNS3-based networking lab for Python network automation needs. Write the basics of Python codes in both the Windows and

Linux environments. Control network devices using telnet, SSH, and SNMP protocols using Python codes. Understand virtualization and how to use VMware workstation Examine virtualization and how to use VMware Workstation Pro Develop a working Cisco IOS upgrade application Who This Book Is For IT Engineers and developers, network managers and students, who would like to learn network automation using Python.

“ Annabel Dodd has cogently untangled the wires and switches and technobabble of the telecommunications revolution and explained how the introduction of the word ‘ digital ’ into our legislative and regulatory lexicon will affect consumers, companies and society into the next millennium. ” – United States Senator Edward J. Markey of Massachusetts; Member, U.S. Senate Subcommittee on Communications, Technology, Innovation, and the Internet “ Annabel Dodd has a unique knack for explaining complex technologies in understandable ways. This latest revision of her book covers the rapid changes in the fields of broadband, cellular, and streaming technologies; newly developing 5G networks; and the constant changes happening in both wired and wireless networks. This book is a must-read for anyone who wants to understand the rapidly evolving world of telecommunications in the 21st century! ” – David Mash, Retired Senior Vice President for Innovation, Strategy, and Technology, Berklee College of Music Completely updated for current trends and technologies, The Essential Guide to Telecommunications, Sixth Edition, is the world ’ s top-selling, accessible guide to the fast-changing global telecommunications industry. Writing in easy-to-understand language, Dodd demystifies today ’ s most significant technologies, standards, architectures, and trends. She introduces leading providers worldwide, explains where they fit in the marketplace, and reveals their key strategies. New topics covered in this edition include: LTE Advanced and 5G wireless, modern security threats and countermeasures, emerging applications, and breakthrough techniques for building more scalable, manageable networks. Gain a practical understanding of modern cellular, Wi-Fi, Internet, cloud, and carrier technologies Discover how key technical, business, and regulatory innovations are changing the industry See how streaming video, social media, cloud computing, smartphones, and the Internet of Things are transforming networks Explore growing concerns about security and privacy, and review modern strategies for detecting and mitigating network breaches Learn how Software Defined Networks (SDN) and Network Function Virtualization (NFV) add intelligence to networks, enabling automation, flexible configurations, and advanced networks Preview cutting-edge, telecom-enabled applications and gear–from mobile payments to drones Whether you ’ re an aspiring network engineer looking for a broad understanding of the industry, or a salesperson, marketer, investor, or customer, this indispensable guide provides everything you need to know about telecommunications right now. This new edition is ideal for both self-study and classroom instruction. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

Reliability, scalability, and security both on premises and in the cloud
Cloud Based 5G Wireless Networks
A Practical Guide to TPM 2.0
Introducing Microsoft SQL Server 2019
Building a Future-Proof Cloud Infrastructure
Label Switched Multicast for MPLS VPNs, VPLS, and Wholesale Ethernet

Prepare for the future of cloud infrastructure: Distributed Services Platforms By moving service modules closer to applications, Distributed Services (DS) Platforms will future-proof cloud architectures—improving performance, responsiveness, observability, and troubleshooting. Network pioneer Silvano Gai demonstrates DS Platforms' remarkable capabilities and guides you through implementing them in diverse hardware. Focusing on business benefits throughout, Gai shows how to provide essential shared services such as segment routing, NAT, firewall, micro-segmentation, load balancing, SSL/TLS termination, VPNs, RDMA, and storage—including storage compression and encryption. He also compares three leading hardware-based approaches—Sea of Processors, FPGAs, and ASICs—preparing you to evaluate solutions, ask the right questions, and plan strategies for your environment. Understand the business drivers behind DS Platforms, and the value they offer See how modern network design and virtualization create a foundation for DS Platforms Achieve unprecedented scale through domain-specific hardware, standardized functionalities, and granular distribution Compare advantages and disadvantages of each leading hardware approach to DS Platforms Learn how P4 Domain-Specific Language and architecture enable high-performance, low-power ASICs that are data-plane-programmable at runtime Distribute cloud security services, including firewalls, encryption, key management, and VPNs Implement distributed storage and RDMA services in large-scale cloud networks Utilize Distributed Services Cards to offload networking processing from host CPUs Explore the newest DS Platform management architectures Building a Future-Proof Cloud Architecture is for network, cloud, application, and storage engineers, security experts, and every technology professional who wants to succeed with tomorrow's most advanced service architectures.

Using simple language, this text explains the properties of light, its interaction with matter, and how it is used to develop optical components such as filters and multiplexers

that have applications in optical communications. The text also introduces the evolving dense wavelength division multiplexing (DWDM) technology and communications systems. Software Defined Networks: A Comprehensive Approach, Second Edition provides in-depth coverage of the technologies collectively known as Software Defined Networking (SDN). The book shows how to explain to business decision-makers the benefits and risks in shifting parts of a network to the SDN model, when to integrate SDN technologies in a network, and how to develop or acquire SDN applications. In addition, the book emphasizes the parts of the technology that encourage opening up the network, providing treatment for alternative approaches to SDN that expand the definition of SDN as networking vendors adopt traits of SDN to their existing solutions. Since the first edition was published, the SDN market has matured, and is being gradually integrated and morphed into something more compatible with mainstream networking vendors. This book reflects these changes, with coverage of the OpenDaylight controller and its support for multiple southbound protocols, the Inclusion of NETCONF in discussions on controllers and devices, expanded coverage of NFV, and updated coverage of the latest approved version (1.5.1) of the OpenFlow specification. Contains expanded coverage of controllers Includes a new chapter on NETCONF and SDN Presents expanded coverage of SDN in optical networks Provides support materials for use in computer networking courses

A Practical Guide to TPM 2.0: Using the Trusted Platform Module in the New Age of Security is a straight-forward primer for developers. It shows security and TPM concepts, demonstrating their use in real applications that the reader can try out. Simply put, this book is designed to empower and excite the programming community to go out and do cool things with the TPM. The approach is to ramp the reader up quickly and keep their interest.A Practical Guide to TPM 2.0: Using the Trusted Platform Module in the New Age of Security explains security concepts, describes the TPM 2.0 architecture, and provides code and pseudo-code examples in parallel, from very simple concepts and code to highly complex concepts and pseudo-code. The book includes instructions for the available execution environments and real code examples to get readers up and talking to the TPM

quickly. The authors then help the users expand on that with pseudo-code descriptions of useful applications using the TPM.

Microsoft System Center - Network Virtualization and Cloud Computing

Introduction to DWDM Technology

Cisco Software-Defined Access

The Road to Digitization

Connecting Networks v6 Companion Guide

Design, implement, manage, and secure a network architecture in Google Cloud

This book is a study guide for Huawei (HCNA) certification. It has been written to help readers understand the principles of network technologies. It covers topics including network fundamentals, Ethernet, various protocols such as those used in routing, and Huawei's own VRP operating system—all essential aspects of HCNA certification. Presenting routing and switching basics in depth, it is a valuable resource for information and communications technology (ICT) practitioners, university students and network technology fans.

Network World

This SpringerBrief introduces key techniques for 5G wireless networks. The authors cover the development of wireless networks that led to 5G, and how 5G mobile communication technology (5G) can no longer be defined by a single business model or a typical technical characteristic. The discussed networks functions and services include Network Foundation Virtualization (N-FV), Cloud Radio Access Networks (Cloud-RAN), and Mobile Cloud Networking (MCN). The benefits of cloud platforms are examined, as are definable networking and green wireless networking. Other related and representative projects on 5G are mobile and wireless communications enablers for the Twenty-Twenty Information Society, Multi-hop Cellular Networks, Network Function as-a-Service over Virtualized Infrastructures, iJOIN, and Nuage Virtualized Services Platform. Major applications of 5G range from RAN sharing and Multi-Operator Core Networks to mobile convergence. Enhancing the user experience by providing smart and customized services, 5G will support the explosive growth of big data, mobile internet, digital media, and system efficiency. This SpringerBrief is designed for professionals, researchers, and academics working in networks or system applications. Advanced-level students of computer science or computer engineering will also find the content valuable.

Your ultimate guide to pentesting with Kali Linux Kali is a popular and powerful Linux distribution used by cybersecurity professionals around the world. Penetration testers must master Kali's varied library of tools to be effective at their work. The Kali Linux Penetration Testing Bible is the hands-on and methodology guide for pentesting with Kali. You'll discover everything you need to know about the tools and techniques hackers use to

gain access to systems like yours so you can erect reliable defenses for your virtual assets. Whether you're new to the field or an established pentester, you'll find what you need in this comprehensive guide. Build a modern dockerized environment Discover the fundamentals of the bash language in Linux Use a variety of effective techniques to find vulnerabilities (OSINT, Network Scan, and more) Analyze your findings and identify false positives and uncover advanced subjects, like buffer overflow, lateral movement, and privilege escalation Apply practical and efficient pentesting workflows Learn about Modern Web Application Security Secure SDLC Automate your penetration testing with Python

Learning OpenDaylight

Internet of Things From Hype to Reality

Using the Trusted Platform Module in the New Age of Security

Google Cloud Certified Professional Cloud Network Engineer Guide

Deploying Next Generation Multicast-enabled Applications

The First Journey

Today, billions of devices are Internet-connected, IoT standards and protocols are stabilizing, and technical professionals must increasingly solve real problems with IoT technologies. Now, five leading Cisco IoT experts present the first comprehensive, practical reference for making IoT work. IoT Fundamentals brings together knowledge previously available only in white papers, standards documents, and other hard-to-find sources—or nowhere at all. The authors begin with a high-level overview of IoT and introduce key concepts needed to successfully design IoT solutions. Next, they walk through each key technology, protocol, and technical building block that combine into complete IoT solutions. Building on these essentials, they present several detailed use cases, including manufacturing, energy, utilities, smart+connected cities, transportation, mining, and public safety. Whatever your role or existing infrastructure, you'll gain deep insight what IoT applications can do, and what it takes to deliver them. Fully covers the principles and components of next-generation wireless networks built with Cisco IOT solutions such as IEEE 802.11 (Wi-Fi), IEEE 802.15.4-2015 (Mesh), and LoRaWAN Brings together real-world tips, insights, and best practices for designing and implementing next-generation wireless networks Presents start-to-finish configuration examples for common deployment scenarios Reflects the extensive first-hand experience of Cisco experts

A practical handbook for network adminstrators who need to develop and implement security assessment programs, exploring a variety of offensive technologies, explaining how to design and deploy networks that are immune to offensive tools and scripts, and detailing an efficient testing model. Original. (Intermediate)

After leaving the Service, ex SAS Sergeant Ben Nash took up a Ski

Instructors' Position at a Victorian Ski Resort mainly for fun but also because of his love of the mountains .The story starts during his service in Afghanistan and that sets the scene for a chain of events that will follow him to his home in the Gold Coast Hinterland and beyond... He is approached by executives from an electronics company to locate their CEO who has gone missing on a trade mission to Moscow. Ben's experience in the SAS, and a previous mission within Russia, makes him the ideal candidate for the task. However, friends are not always who they seem to be and the past soon begins to catch up with him. Eventually Ben finds out who his real friends are.

Gain practical skills to design, deploy, and manage networks on Google Cloud and prepare to gain Professional Cloud Network Engineer certification Key FeaturesGain hands-on experience in implementing VPCs, hybrid connectivity, network services, and securityEstablish a secure network architecture by learning security best practicesLeverage this comprehensive guide to gain Professional Cloud Network Engineer certificationBook Description Google Cloud, the public cloud platform from Google, has a variety of networking options, which are instrumental in managing a networking architecture. This book will give you hands-on experience of implementing and securing networks in Google Cloud Platform (GCP). You will understand the basics of Google Cloud infrastructure and learn to design, plan, and prototype a network on GCP. After implementing a Virtual Private Cloud (VPC), you will configure network services and implement hybrid connectivity. Later, the book focuses on security, which forms an important aspect of a network. You will also get to grips with network security and learn to manage and monitor network operations in GCP. Finally, you will learn to optimize network resources and delve into advanced networking. The book also helps you to reinforce your knowledge with the help of mock tests featuring exam-like questions. By the end of this book, you will have gained a complete understanding of networking in Google Cloud and learned everything you need to pass the certification exam. What you will learnUnderstand the fundamentals of Google Cloud architectureImplement and manage network architectures in Google Cloud PlatformGet up to speed with VPCs and configure VPC networks, subnets, and routersUnderstand the command line interface and GCP console for networkingGet to grips with logging and monitoring to troubleshoot network and securityUse the knowledge you gain to implement advanced networks on GCPWho this book is for This Google Cloud certification book is for cloud network engineers, cloud architects, cloud engineers, administrators, and anyone who is looking to design, implement, and manage network architectures in Google Cloud Platform. You can use this book as a

guide for passing the Professional Cloud Network Engineer certification exam. You need to have at least a year of experience in Google Cloud, basic enterprise-level network design experience, and a fundamental understanding of Cloud Shell to get started with this book.

Data in a Rainbow

White Lies and Dark Truths

IPv6 Deployment Guide

Kali Linux Penetration Testing Bible

Skills for the Next-Generation Network Engineer

Software-Defined Wide Area Network Architectures and Technologies

This book comprehensively describes an end-to-end Internet of Things (IoT) architecture that is comprised of devices, network, compute, storage, platform, applications along with management and security components. It is organized into five main parts, comprising of a total of 11 chapters. Part I presents a generic IoT reference model to establish a common vocabulary for IoT solutions. This includes a detailed description of the Internet protocol layers and the Things (sensors and actuators) as well as the key business drivers to realize the IoT vision. Part II focuses on the IoT requirements that impact networking protocols and provides a layer-by-layer walkthrough of the protocol stack with emphasis on industry progress and key gaps. Part III introduces the concept of Fog computing and describes the drivers for the technology, its constituent elements, and how it relates and differs from Cloud computing. Part IV discusses the IoT services platform, the cornerstone of the solution followed by the Security functions and requirements. Finally, Part V provides a treatment of the topic of connected ecosystems in IoT along with practical applications. It then surveys the latest IoT standards and discusses the pivotal role of open source in IoT. “Faculty will find well-crafted questions and answers at the end of each chapter, suitable for review and in classroom discussion topics. In addition, the material in the book can be used by engineers and technical leaders looking to gain a deep technical understanding of IoT, as well as by managers and business leaders looking to gain a competitive edge and understand innovation opportunities for the future.” Dr. Jim Spohrer, IBM “This text provides a very compelling study of the IoT space and achieves a very good balance between engineering/technology focus and business context. As such, it is highly-recommended for anyone interested in this rapidly-expanding field and will have broad appeal to a wide cross-section of readers, i.e., including engineering professionals, business analysts, university students, and professors.” Professor Nasir Ghani, University of South Florida

Enter the fast-paced world of SAP HANA 2.0 with this introductory guide. Begin with an exploration of the technological backbone of SAP HANA as a database and platform. Then, step into key SAP HANA user roles and discover core capabilities for administration, application development, advanced analytics, security, data integration, and more. No matter how SAP HANA 2.0 fits into your business, this book is your starting point. In this book, you'll learn about: a. Technology Discover what makes an in-memory database platform. Learn about SAP HANA's journey from version 1.0 to 2.0, take a tour of your technology options, and walk through deployment scenarios and implementation requirements. b. Tools Unpack your SAP HANA toolkit. See essential

tools in action, from SAP HANA cockpit and SAP HANA studio, to the SAP HANA Predictive Analytics Library and SAP HANA smart data integration. c. Key Roles Understand how to use SAP HANA as a developer, administrator, data scientist, data center architect, and more. Explore key tasks like backend programming with SQLScript, security setup with roles and authorizations, data integration with the SAP HANA Data Management Suite, and more. Highlights include: 1) Architecture 2) Administration 3) Application development 4) Analytics 5) Security 6) Data integration 7) Data architecture 8) Data center

A practical guide to building programmable networks using OpenDaylight About This Book Learn and understand how SDN controllers operate and integrate with networks; this book's step-by-step tutorials will give you a strong foundation in SDN, NVF, and OpenDayLight. Learn how to map legacy Layer 2/3 networking technologies in the SDN world Add new services and capabilities to your infrastructure and quickly adopt SDN and NFV within your organization with OpenDayLight. Integrate and manage software-defined networks efficiently in your organization. Build innovative network applications with OpenDayLight and save time and resources. Who This Book Is For This book targets network engineers, network programmers and developers, administrators, and anyone with some level of networking experience who'd like to deploy OpenDayLight effectively. Familiarity with the day-to-day operations of computer networks is expected What You Will Learn Transition from legacy networking to software-defined networking Learn how SDN controllers work and manage a network using southbound and northbound APIs Learn how to deploy the OpenDayLight SDN controller and integrate it with virtual switches Understand the basic design and operation of the OpenDaylight platform Build simple MD-SAL OpenDaylight applications Build applications on top of OpenDayLight to trigger network changes based on different events Integrate OpenStack with OpenDayLight to build a fully managed network Learn how to build a software-defined datacenter using NFV and service-chaining technologies In Detail OpenDaylight is an open source, software-defined network controller based on standard protocols. It aims to accelerate the adoption of Software-Defined Networking (SDN) and create a solid foundation for Network Functions Virtualization (NFV). SDN is a vast subject; many network engineers find it difficult to get started with using and operating different SDN platforms. This book will give you a practical bridge from SDN theory to the practical, real-world use of SDN in datacenters and by cloud providers. The book will help you understand the features and use cases for SDN, NFV, and OpenDaylight. NFV uses virtualization concepts and techniques to create virtual classes for node functions. Used together, SDN and NFV can elevate the standards of your network architecture; generic hardware-saving costs and the advanced and abstracted software will give you the freedom to evolve your network in the future without having to invest more in costly equipment. By the end of this book, you will have learned how to design and deploy OpenDaylight networks and integrate them with physical network switches. You will also have mastered basic network programming over the SDN fabric. Style and approach This is a step-by-step tutorial aimed at getting you up-to-speed with OpenDayLight and ready to adopt it for your SDN (Software-Defined Networking) and NFV (Network Functions Virtualization) ecosystem.

Explore the emerging definitions, protocols, and standards for SDN—software-defined, software-driven, programmable networks—with this comprehensive guide. Two senior

network engineers show you what's required for building networks that use software for bi-directional communication between applications and the underlying network infrastructure. This vendor-agnostic book also presents several SDN use cases, including bandwidth scheduling and manipulation, input traffic and triggered actions, as well as some interesting use cases around big data, data center overlays, and network-function virtualization. Discover how enterprises and service providers alike are pursuing SDN as it continues to evolve. Explore the current state of the OpenFlow model and centralized network control Delve into distributed and central control, including data plane generation Examine the structure and capabilities of commercial and open source controllers Survey the available technologies for network programmability Trace the modern data center from desktop-centric to highly distributed models Discover new ways to connect instances of network-function virtualization and service chaining Get detailed information on constructing and maintaining an SDN network topology Examine an idealized SDN framework for controllers, applications, and ecosystems

Cisco IOS Switching Services

NX-OS and Cisco Nexus Switching

HCNA Networking Study Guide

Network Programmability and Automation

Next-Generation Data Center Architectures

SDN: Software Defined Networks

Architect, engineer, integrate, and implement security across increasingly complex, hybrid enterprise networks Key FeaturesLearn how to apply industry best practices and earn the CASP+ certificationExplore over 400 CASP+ questions to test your understanding of key concepts and help you prepare for the examDiscover over 300 illustrations and diagrams that will assist you in understanding advanced CASP+ conceptsBook Description CompTIA Advanced Security Practitioner (CASP+) ensures that security practitioners stay on top of the ever-changing security landscape. The CompTIA CASP+ CAS-004 Certification Guide offers complete, up-to-date coverage of the CompTIA CAS-004 exam so you can take it with confidence, fully equipped to pass on the first attempt. Written in a clear, succinct way with self-assessment questions, exam tips, and mock exams with detailed explanations, this book covers security architecture, security operations, security engineering, cryptography, governance, risk, and compliance. You'll begin by developing the skills to architect, engineer, integrate, and implement secure solutions across complex environments to support a resilient enterprise. Moving on, you'll discover how to monitor and detect security incidents, implement incident response, and use automation to proactively support ongoing security operations. The book also shows you how to apply security practices in the cloud, on-premises, to endpoints, and to mobile infrastructure. Finally, you'll understand the impact of governance, risk, and compliance requirements throughout the enterprise. By the end of this CASP study guide, you'll have covered everything you need to pass the CompTIA CASP+ CAS-004

certification exam and have a handy reference guide. What you will learnUnderstand Cloud Security Alliance (CSA) and the FedRAMP programsRespond to Advanced Persistent Threats (APT) by deploying hunt teamsUnderstand the Cyber Kill Chain framework as well as MITRE ATT&CK and Diamond ModelsDeploy advanced cryptographic solutions using the latest FIPS standardsUnderstand compliance requirements for GDPR, PCI, DSS, and COPPASecure Internet of Things (IoT), Industrial control systems (ICS), and SCADAPlan for incident response and digital forensics using advanced toolsWho this book is for This CompTIA book is for CASP+ CAS-004 exam candidates who want to achieve CASP+ certification to advance their career. Security architects, senior security engineers, SOC managers, security analysts, IT cybersecurity specialists/INFOSEC specialists, and cyber risk analysts will benefit from this book. Experience in an IT technical role or CompTIA Security+ certification or equivalent is assumed.

Explore the impressive storage and analytic tools available with the in-cloud and on-premises versions of Microsoft SQL Server 2019. Key FeaturesGain insights into what's new in SQL Server 2019Understand use cases and customer scenarios that can be implemented with SQL Server 2019Discover new cross-platform tools that simplify management and analysisBook Description Microsoft SQL Server comes equipped with industry-leading features and the best online transaction processing capabilities. If you are looking to work with data processing and management, getting up to speed with Microsoft Server 2019 is key. Introducing SQL Server 2019 takes you through the latest features in SQL Server 2019 and their importance. You will learn to unlock faster querying speeds and understand how to leverage the new and improved security features to build robust data management solutions. Further chapters will assist you with integrating, managing, and analyzing all data, including relational, NoSQL, and unstructured big data using SQL Server 2019. Dedicated sections in the book will also demonstrate how you can use SQL Server 2019 to leverage data processing platforms, such as Apache Hadoop and Spark, and containerization technologies like Docker and Kubernetes to control your data and efficiently monitor it. By the end of this book, you'll be well versed with all the features of Microsoft SQL Server 2019 and understand how to use them confidently to build robust data management solutions. What you will learnBuild a custom container image with a DockerfileDeploy and run the SQL Server 2019 container imageUnderstand how to use SQL server on LinuxMigrate existing paginated reports to Power BI Report ServerLearn to query Hadoop Distributed File System (HDFS) data using Azure Data StudioUnderstand the benefits of In-Memory OLTPWho this book is for This book is for database administrators, architects, big data engineers, or anyone who has experience with SQL Server and wants to explore and implement the new features in SQL Server 2019. Basic working knowledge of SQL Server and relational database management system (RDBMS) is required.

Direct from Cisco, this comprehensive book guides networking professionals through all aspects of planning, implementing, and operating Cisco Software Defined Access, helping them use intent-based networking, SD-Access, Cisco ISE, and Cisco DNA Center to harden campus network security and simplify its management. Drawing on their unsurpassed experience architecting SD-Access solutions and training technical professionals inside and outside Cisco, the authors cover all facets of the product: its relevance, value, and use cases; its components and inner workings; planning and deployment; and day-to-day administration, support, and troubleshooting. Case studies demonstrate the use of Cisco SD-Access components to address Secure Segmentation, Plug and Play, Software Image Management (SWIM), Host Mobility, and more. Building on core concepts and techniques, the authors present full chapters on advanced SD-Access and Cisco DNA Center topics, as well as detailed coverage of fabric assurance.

Part of a series of specialized guides on System Center - this book delivers a focused overview of network virtualization capabilities and cloud computing scenarios. Series editor Mitch Tulloch and a team of System Center experts provide concise technical guidance as they step you through key technical scenarios and considerations.

An Introduction

Metro Optical Networks

Network Management and Control

SAP HANA 2.0

The Pennsylvania-German Society

Volume 2

This book constitutes the refereed conference proceedings of the 12th International Conference on Security and Privacy in Communications Networks, SecureComm 2016, held in Guangzhou, China, in October 2016. The 32 revised full papers and 18 poster papers were carefully reviewed and selected from 137 submissions. The papers are organized thematically starting with mobile and network security, followed by applied cryptography, web security and privacy, system security, hardware security. The volume also includes papers from the ATCS workshop and the poster session.

This book constitutes the proceedings of the Second International Conference on Information and Communication Technology for Development for Africa, ICT4DA 2019, held in Bahir Dar, Ethiopia, in May 2019. The 29 revised full papers presented were carefully reviewed and selected from 69 submissions. The papers address the impact of ICT in fostering economic development in Africa. In detail they cover the following topics: artificial intelligence and data science; wireless and mobile computing; and Natural Language Processing.

Cisco® Nexus switches and the new NX-OS operating system are rapidly becoming the new de facto standards for data center

distribution/aggregation layer networking. NX-OS builds on Cisco IOS to provide advanced features that will be increasingly crucial to efficient data center operations. NX-OS and Cisco Nexus Switching is the definitive guide to utilizing these powerful new capabilities in enterprise environments. In this book, three Cisco consultants cover every facet of deploying, configuring, operating, and troubleshooting NX-OS in the data center. They review the key NX-OS enhancements for high availability, virtualization, In-Service Software Upgrades (ISSU), and security. In this book, you will discover support and configuration best practices for working with Layer 2 and Layer 3 protocols and networks, implementing multicasting, maximizing serviceability, providing consistent network and storage services, and much more. The authors present multiple command-line interface (CLI) commands, screen captures, realistic configurations, and troubleshooting tips—all based on their extensive experience working with customers who have successfully deployed Nexus switches in their data centers. Learn how Cisco NX-OS builds on and differs from IOS Work with NX-OS user modes, management interfaces, and system files Configure Layer 2 networking: VLANs/private VLANs, STP, virtual port channels, and unidirectional link detection Configure Layer 3 EIGRP, OSPF, BGP, and First Hop Redundancy Protocols (FHRPs) Set up IP multicasting with PIM, IGMP, and MSDP Secure NX-OS with SSH, Cisco TrustSec, ACLs, port security, DHCP snooping, Dynamic ARP inspection, IP Source Guard, keychains, Traffic Storm Control, and more Build high availability networks using process modularity and restart, stateful switchover, nonstop forwarding, and in-service software upgrades Utilize NX-OS embedded serviceability, including Switched Port Analyzer (SPAN), Smart Call Home, Configuration Checkpoint/Rollback, and NetFlow Use the NX-OS Unified Fabric to simplify infrastructure and provide ubiquitous network and storage services Run NX-OS on Nexus 1000V server-based software switches This book is part of the Networking Technology Series from Cisco Press®, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

Integration Guide for IBM Tivoli Netcool/OMNIbus, IBM Tivoli Network Manager, and IBM Tivoli Netcool Configuration Manager

Develop CASP+ skills and learn all the key topics needed to prepare for the certification exam

Security and Privacy in Communication Networks

Network Security Assessment

Day One Data Center Fundamentals

A Comprehensive Approach

Connecting Networks v6 Companion Guide is the official supplemental textbook for the Connecting Networks version 6 course in the Cisco Networking Academy CCNA Routing and Switching curriculum. The Companion Guide is designed as a portable desk reference to use anytime, anywhere to reinforce the material from the course and organize your time. The book's features help you focus on important concepts to succeed in this course: Chapter Objectives–Review core concepts by answering the focus questions listed at the beginning of each chapter. Key Terms–Refer to the lists of networking vocabulary introduced and highlighted in context in each chapter. Glossary–Consult the comprehensive Glossary with 347 terms. Summary of Activities and Labs–Maximize your study time with this complete list of all associated practice exercises at the end of each chapter. Check Your Understanding–Evaluate your readiness with the end-of-chapter questions that match the style of questions you see in the online course quizzes. The answer key explains each answer. How To–Look for this icon to studythe steps you need to learn to perform certain tasks. Interactive Activities–Reinforce your understanding of topics with dozens of exercises from the online course identified throughout the book with this icon. Packet Tracer Activities–Explore and visualize networking concepts using Packet Tracer exercises interspersed throughout the chapters and provided in the accompanying Labs & Study Guide book. Videos–Watch the videos embedded within the online course. Hands-on Labs–Work through all the course labs and additional Class Activities that are included in the course and published in the separate Labs & Study Guide.

This IBM® Redbooks® publication covers the integration scenarios for IBM Tivoli® Network Manager, IBM Tivoli Netcool/OMNIbus, and IBM Tivoli Netcool® Configuration Manager. These three products working together provide a comprehensive solution for network and event management, and network configuration management, within the context of service availability and performance management. Tivoli Network Manager and Tivoli Netcool/OMNIbus are long established products in the IBM portfolio. Tivoli Netcool Configuration Manager (from the Intellident acquisition) is a new product in the portfolio and provides a comprehensive network configuration and change management solution and a policy-based network compliance solution for managing network devices in complex, rapidly changing environments. This book describes practical examples and use cases where these products work together to address network configuration management and event management requirements. IT architects and IT specialists working on integrating these Tivoli products in real life environments will benefit from this book.

Three speakers at the Second Workshop on Network Management and Control nostalgically remembered the INTEROP Conference at which SNMP was able to interface even to CD players and toasters. We agreed this was indeed a major step forward in standards, but wondered if anyone noticed whether the toast was burned, let alone, would want to eat it. The assurance of the correct operation of practical systems under difficult environments emerged as the dominant theme of the workshop with growth, interoperability, performance, and scalability as the primary sub-themes.

Perhaps this thrust is un surprising, since about half the 100 or so attendees were from industry, with a strong contingency of users. Indeed the technical program co-chairs, Shivendra Panwar of Polytechnic and Walter Johnston of NYNEX, took as their assignment the coverage of real problems and opportunities in industry. Nevertheless we take it as a real indication of progress in the field that the community is beginning to take for granted the availability of standards and even the ability to detect physical, link, and network-level faults and is now expecting diagnostics at higher levels as well as system-wide solutions.

Run your own Minecraft server: take total control of your Minecraft experience! What's more fun than playing multiplayer Minecraft? Running your own Minecraft server. Now there's a complete, up-to-date guide to doing just that–even if you have no networking or server experience! Best-selling tech author Timothy L. Warner covers all you need to know, from the absolute basics to cutting-edge customization. You'll learn from crystal-clear, step-by-step instructions designed for today's newest Minecraft servers.Warner guides you through prepping your computer and network…installing a basic server and powerful third-party alternatives…welcoming and managing users…protecting against griefing and other attacks…adding powerful plug-ins and mods…using easy subscription hosting services…giving your users a truly awesome game experience. This book's #1 goal is to help you have more fun with Minecraft. But you'll also master practical skills for a well-paid technology career! Gain deep multiplayer Minecraft knowledge for running your server well Configure your computer to reliably host Minecraft Control your server through the Minecraft Server console Connect users, communicate with them, and set rules they must follow Master basic networking skills for improving server uptime and performance Safeguard your server and users, and prevent griefing Simplify complicated mods with integrated modpacks and launchers Run on the Realms public cloud—let Minecraft worry about maintenance and security Evaluate and choose a third-party hosting provider Customize your spawn "lobby" to help new users find their way Support multiple worlds and teleportation Earn cash with ads, sponsorships, cosmetic upgrades, or VIP access Minecraft is a trademark of Mojang Synergies / Notch Development AB. This book is not affiliated with or sponsored by Mojang Synergies / Notch Development AB. Timothy L. Warner is the author of Hacking Raspberry Pi and The Unauthorized Guide to iPhone, iPad, and iPod Repair: A DIY Guide to Extending the Life of Your iDevices!. He is a tech professional who has helped thousands of people become more proficient with technology in business and education. He holds the CompTIA A+ Computer Technician credential and 20 other technical certifications. As Director of Technology for a progressive high school, he created and managed a self-servicing warranty repair shop for all of its Apple hardware. Now an author/evangelist for Pluralsight, he shares Windows PowerShell scripting knowledge at 2minutepowershell.com.

Second International Conference, ICT4DA 2019, Bahir Dar, Ethiopia, May 28-30, 2019, Revised Selected Papers

Software Defined Networks

Networking Technologies, Protocols, and Use Cases for the Internet of Things

Information and Communication Technology for Development for Africa
IoT Fundamentals

Starting with problems and challenges faced by enterprise WANs, Software-Defined Wide Area Network Architectures and Technologies provides a detailed description of SD-WAN's background and basic features, as well as the system architecture, operating mechanism, and application scenarios of the SD-WAN solution based on the implementation of Huawei SD-WAN Solution. It also explains key SD-WAN technologies and analyzes real SD-WAN deployment cases, affording readers with design methods and deployment suggestions for the SD-WAN solution. The information presented in this book is easy to understand and very practical. It enables you to become adept in the SD-WAN solution's implementation and design principles. The book is intended for ICT practitioners, such as network technical support engineers, network administrators, and network planning engineers, to use in studying theory. Furthermore, it serves as reference material for network technology enthusiasts. Authors Cheng Sheng is the Chief Architect of Huawei's SD-WAN Solution. He has nearly 20 years of experience in network product and solution design, as well as extensive expertise in product design and development, network planning and design, and network engineering project implementation. Jie Bai is an Architect of Huawei's SD-WAN Solution. He is well versed in Huawei security products and SD-WAN Solution and has written books such as Huawei Firewall Technology Talk as well as Huawei Anti-DDoS Technology Talk. Qi Sun is a Senior Information Architect of Huawei, and he is knowledgeable in Huawei SD-WAN Solution, CloudVPN Solution, and Cloud Management Solution. He also participated in the information architecture design and delivery of multiple solutions.

Deploying Next Generation Multicast-Enabled Applications: Label Switched Multicast for MPLS VPNs, VPLS, and Wholesale Ethernet provides a comprehensive discussion of Multicast and MVPN standards—next-generation Multicast-based standards, Multicast Applications, and case studies with detailed configurations. Focusing on three vendors—Juniper, Cisco, and Alcatel-Lucent—the text features illustrations that contain configurations of JUNOS, TiMOS (Alcatel's OS), or Cisco IOS, and each configuration is explained in great detail. Multiple- rather than single-vendor configurations were selected for the sake of diversity as well as to highlight the direction in which the overall industry is going rather than that of a specific vendor. Beginning with a discussion of the building blocks or basics of IP Multicast, the book then details applications and emerging trends, including vendor adoptions, as well as the future of Multicast. The book is written for engineers, technical managers, and visionaries engaged in the development of next-generation IP Multicast infrastructures. Offers contextualized case studies for illustrating deployment of the Next Generation Multicast technology Provides the background necessary to understand current generation multi-play applications and their service requirements Includes practical tips on various migration options available for moving to the Next Generation framework from the legacy

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The Essential Guide to Telecommunications

Know Your Network

Introduction to Python Network Automation

Network World

An Authoritative Review of Network Programmability Technologies

CompTIA CASP+ CAS-004 Certification Guide