**ZITHA TECH SPECIALTY CABLES (Pty) Ltd**

# Network Security Equipment Combination Configuration Scheme



## Overview

Automatic Configuration Scheme of Network Security Protection Automatic Configuration Scheme of Network Security Protection Based on Configuration Manageme.

## Key Takeaways

A secure network equipment combination configuration scheme integrates baseline-hardened devices, strict change management, and adherence to NESAS and CIS Control 11 standards.Core Principles

1. Baseline-Hardened Configurations All network devices—including firewalls, routers, switches, and IDS/IPS systems—should start from a secure baseline configuration. Default settings from manufacturers are often optimized for ease of deployment, not security, and may include open ports, default accounts, or outdated protocols, which can be exploited by attackers (CIS Control 11) . 2. Layered Security Integration Combine devices in a defense-in-depth architecture:

• Firewalls enforce perimeter and internal segmentation.

• Routers and switches implement VLANs, ACLs, and traffic filtering.

• IDS/IPS monitor and block suspicious activity.

*© 2026 ZITHA TECH SPECIALTY CABLES (Pty) Ltd - All rights reserved*

• NAC and DHCP/DNS appliances enforce endpoint compliance and network access policies. Each device's configuration should complement others, avoiding redundant or conflicting rules while maintaining visibility and control over traffic flows . 3. Change Management and Continuous Monitoring Secure configuration is not a one-time task. Implement a rigorous configuration management process:

• Document all deviations from baseline configurations.

• Require approval from a change control board for any modifications.

• Use automated tools to detect unauthorized changes and log all configuration updates . 4. Compliance with NESAS Standards The Network Equipment Security Assurance Scheme (NESAS) provides a framework for evaluating security across the development lifecycle and operational processes of network equipment. Vendors and operators should ensure that devices meet NESAS requirements, including secure development practices, vulnerability management, and audit readiness . 5. Vendor and Product Lifecycle Considerations When combining equipment from multiple vendors, ensure:

• Each product is NESAS-certified or meets equivalent security assurance standards.

• Firmware and software updates are applied consistently.

• Security policies are harmonized across devices to prevent gaps or conflicts .
Implementation Steps
• Inventory and Classification: Identify all network devices and classify them by function and criticality.

• Baseline Configuration Deployment: Apply hardened configurations according to CIS and NESAS guidelines.

• Integration Testing: Validate that combined devices enforce security policies without disrupting business operations.

• Continuous Monitoring: Use automated tools to track configuration changes, detect anomalies, and generate alerts.

• Periodic Review and Audit: Regularly review configurations, update baselines, and ensure compliance with NESAS and internal security policies.
Key Takeaways
• Start with secure, standardized configurations for all devices.

• Apply defense-in-depth principles to integrate multiple security devices.

• Maintain strict change management and monitoring to prevent configuration drift.

• Ensure NESAS compliance for vendor products and lifecycle processes.

*© 2026 ZITHA TECH SPECIALTY CABLES (Pty) Ltd - All rights reserved*

• Regularly audit and update configurations to adapt to evolving threats and business needs. This approach ensures that a network's security equipment combination is robust, compliant, and resilient against attacks while maintaining operational efficiency.

## Article Content

Automatic Configuration Scheme of Network Security Protection

Automatic Configuration Scheme of Network Security Protection Based on Configuration Management Database Abstract: With the

Network security fundamentals | National Cyber Security Centre

How to design, use, and maintain secure networks. Networks are fundamental to the operation, security and resilience

Network Device Configuration Security | Strobes

Expert guide to network device configuration reviews: routers, switches, firewalls. Discover best practices & Strobes

IP Network Addressing Scheme | Class A B C Subnets

This article explains the IP network addressing scheme. Which describes classful and classless operations, including the use of

Guide for Security-Focused Configuration Management of

The goal of SecCM activities is to manage and monitor the configurations of information systems to achieve adequate security and

Ensuring Secure Configuration of Network Devices

In this comprehensive article, we explore the landscape of network security, examine the evolving threat environment, and offer step

CIS Control 11: Secure Configuration for Network Devices, such as ...

Establish, implement, and actively manage (track, report on, correct) the security configuration of network infrastructure devices

Security Configuration Checklists for Commercial IT Products

NIST maintains the National Checklist Repository, which is a publicly available resource that contains information on a

Integrating Network and Security Components: A Practical Guide for

*© 2026 ZITHA TECH SPECIALTY CABLES (Pty) Ltd - All rights reserved*

Step-by-step guide for IT infrastructure integration involving firewalls, routers, switches, load balancers (F5), Cisco ISE, wireless LAN

comptia Security+ : Installing And Configuring Both Hardware And ...

VPN: Short for Virtual Private Network is private network formed using public Internet. It is formed between two hosts using tunneling

Network Security Architecture: Best Practices & Tools

This article explores network security architecture components, goals, best practices,

Automation for Network Security Configuration: State of the Art and ...

A new frontier is then the introduction of automation in network security configuration, i.e., automatically designing the

Security Configuration Checklists for Commercial IT Products

A security configuration checklist (also called a lockdown, hardening guide, or benchmark) is a series of instructions or

Understanding Firewalls – Types, Configuration, and Best ...

Firewalls regulate network traffic by applying preset security rules to allow or prevent access to a network. They can

Network Design and Best Practices

Get a comprehensive guide on network design and best practices, including step-by-step instructions to help you nail

(PDF) Automated Security Configuration Management for Enterprise ...

This article presents a comprehensive analysis of automated security configuration management for enterprise

Network Configuration Management [High Availability]

It covers many areas. Many people think of configuration management as its just managing the configurations of the network

Guide for security-focused configuration management of

ITL''s responsibilities include the development of management, administrative, technical, and physical standards and guidelines for

Secure Device Configuration Guideline | Information Security Office

These sources have detailed guides and procedural documents that explain security configuration options for a wide range of

*© 2026 ZITHA TECH SPECIALTY CABLES (Pty) Ltd - All rights reserved*

Network Device Security: Guide + Recommended Software

Do you know how network devices can affect the security of your entire network? Find out network device

Explore 9 Essential Elements of Network Security

Defining network security The simple definition of network security is any combination of hardware and software

Network Equipment Security Assurance Scheme

Network Equipment Security Assurance Scheme – Development and Lifecycle Security Requirements 05 February 2021 Official

18 Types of Network Security Solutions to Implement

It involves using a combination of multiple tools for different network security types, continuous monitoring, and

Best Practices for Cisco Device Configuration | CISA

In recent incidents, CISA has seen malicious cyber actors acquire system configuration files by leveraging available

Network Security Model and Components: A Complete Guide

Network Security Model And Its Components An effective network security model is crucial for protecting an

Security Configuration Management

Security Configuration Management Security Configuration Management (SCM) is a critical aspect of cybersecurity that involves the

What Is Network Configuration?

Network configuration is the process of arranging a network''s settings, controls, and policies to support

WIFI SECURITY CONFIGURATION BEST PRACTICES

Implement RADIUS Authentication Segment the Network Disable SSID Broadcasting (if appropriate) Use Strong Passwords /

Network infrastructure design: planning and implementation

Discover the key components of network infrastructure design and learn best practices for implementing a scalable

Configuration management: Why it''s so important for IT security

*© 2026 ZITHA TECH SPECIALTY CABLES (Pty) Ltd - All rights reserved*

How does configuration management work? Software development offers a clear example of configuration management, and it''s a

Network Security Architecture: Best Practices & Tools

This article explores network security architecture components, goals, best practices,

Automation for Network Security Configuration: State of the Art and ...

A new frontier is then the introduction of automation in network security configuration, i.e., automatically designing the

Security Configuration Checklists for Commercial IT Products

A security configuration checklist (also called a lockdown, hardening guide, or benchmark) is a series of instructions or

Understanding Firewalls – Types, Configuration, and Best ...

Firewalls regulate network traffic by applying preset security rules to allow or prevent access to a network. They can

Network Design and Best Practices

Get a comprehensive guide on network design and best practices, including step-by-step instructions to help you nail

(PDF) Automated Security Configuration Management for Enterprise ...

This article presents a comprehensive analysis of automated security configuration management for enterprise

Automatic Configuration Scheme of Network Security Protection

Automatic Configuration Scheme of Network Security Protection Based on Configuration Management Database Abstract: With the

Network security fundamentals | National Cyber Security Centre

How to design, use, and maintain secure networks. Networks are fundamental to the operation, security and resilience

Network Device Configuration Security | Strobes

Expert guide to network device configuration reviews: routers, switches, firewalls. Discover best practices & Strobes

IP Network Addressing Scheme | Class A B C Subnets

This article explains the IP network addressing scheme. Which describes classful and classless operations, including the use of

*© 2026 ZITHA TECH SPECIALTY CABLES (Pty) Ltd - All rights reserved*

Guide for Security-Focused Configuration Management of

The goal of SecCM activities is to manage and monitor the configurations of information systems to achieve adequate security and

Ensuring Secure Configuration of Network Devices

In this comprehensive article, we explore the landscape of network security, examine the evolving threat environment, and offer step

Automatic Configuration Scheme of Network Security Protection

Automatic Configuration Scheme of Network Security Protection Based on Configuration Management Database Abstract: With the

Network security fundamentals | National Cyber Security Centre

How to design, use, and maintain secure networks. Networks are fundamental to the operation, security and resilience

Network Device Configuration Security | Strobes

Expert guide to network device configuration reviews: routers, switches, firewalls. Discover best practices & Strobes

IP Network Addressing Scheme | Class A B C Subnets

This article explains the IP network addressing scheme. Which describes classful and classless operations, including the use of

## Contact Us

Continue your research online:

Website: https://zithatech.co.za
Technical inquiry: https://zithatech.co.za/contact.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 ZITHA TECH SPECIALTY CABLES (Pty) Ltd - All rights reserved