

Network Design Report - Corporate Office Network

Prepared for: Client Name
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Network Design Report

Corporate Office Network

Professional Network Design Report

Prepared for: Client Name

Date: 4/8/2025

Design Version: 2

Executive Summary

Project Overview

This report outlines the network design for Corporate Office Network, supporting 51-200 users with 100/100 Mbps symmetrical bandwidth.

Key Features

Segmented network architecture
enterprise firewall protection
Redundant internet connections

Network Architecture

Network Design Specifications

Total Users

51-200

Wired Users

120

Wireless Users

80

Bandwidth

100/100 Mbps

IP Addressing Plan

IP Subnet Allocation

Subnet 1: 192.168.0.0/24

Usable Range

192.168.0.1 - 192.168.0.240

Gateway

192.168.0.1

Broadcast

192.168.0.241

Subnet Mask

255.255.0.0

Subnet 2: 192.168.0.254/24

Usable Range

192.168.0.255 - 192.168.1.238

Gateway

192.168.0.255

Broadcast

192.168.1.239

Subnet Mask

255.255.0.0

Subnet 3: 192.168.1.252/24

Usable Range

192.168.1.253 - 192.168.2.236

Gateway

192.168.1.253

Broadcast

192.168.2.237

Subnet Mask

255.255.0.0

Subnet 4: 192.168.2.250/24

Usable Range

192.168.2.251 - 192.168.3.234

Gateway

192.168.2.251

Broadcast

192.168.3.235

Subnet Mask

255.255.0.0

Subnet 5: 192.168.3.248/24

Usable Range

192.168.3.249 - 192.168.4.232

Gateway

192.168.3.249

Broadcast

192.168.4.233

Subnet Mask

255.255.0.0

VLAN Configuration

Segment Name

VLAN ID

Type

Recommended Configuration

Finance

100

Department

Trunk port

Guest

101

Guest

Trunk port

Equipment Recommendations

Recommended Network Equipment

Routers

Model

Quantity

Purpose

Cisco ISR 4300

1

Core routing for medium office

Switches

Model

Quantity

Purpose

Cisco Catalyst 9200

6

Access layer switching

Justification

The recommended equipment was selected based on:

User count requirements (51-200)

Bandwidth needs (100/100 Mbps)

Security requirements (Enterprise firewall)

Future scalability considerations

Implementation Plan

Project Phases

Phase 1: Core Infrastructure

Duration: 2 weeks

Key Tasks:

Install and configure core routers
Set up primary switching infrastructure
Implement basic network segmentation

Recommended Timeline

The complete implementation is estimated to take approximately

2 weeks from project kickoff.

Budget Estimate

Cost Projection

Item

Estimate

Budget Range

\$20400 - \$30600 USD

Implementation Complexity

Medium

Included Services

Estimate includes hardware and basic configuration

Cost Considerations

Premium budget allocation

Enterprise-grade security features

Redundant infrastructure