

DESIGN AND IMPLEMENTATION OF A SECURE COMPANY NETWORK SYSTEM



CONTENT

01

Introduction

02

Network
Topology

03

Security
Design
Approach

04

IR & DR & BC

05

Monitoring
and Control

06

Network
Security
Measures

07

AAA Server

08

SOC
Requirements

09

Awareness
and Training
Programs

10

Our Team

INTRODUCTION

Title

Overview of the project and its goals

Tools used: Packet Tracer





NETWORK TOPOLOGY

[Go to Paket Tracer >>>](#)

SECURITY DESIGN APPROACH

01 Physical Security Controls

Example: Secure access to server rooms



02 Technical Security Controls

Use of firewalls, IDS/IPS(Intrusion Detection and Prevention Systems), VPNs

03 Administrative Security Controls

Security policies, user training

IR & DR & BC

Incident Response, Disaster Recovery, Business Continuity

NETWORK
SECURITY

Different IR, DR, and BC plans implemented

How the network can recover from potential disruptions

MONITORING AND CONTROL

Network monitoring: How the SOC monitors network traffic and device status.



Using tools to collect logs and analyze them

User behavior analysis



NETWORK SECURITY MEASURES

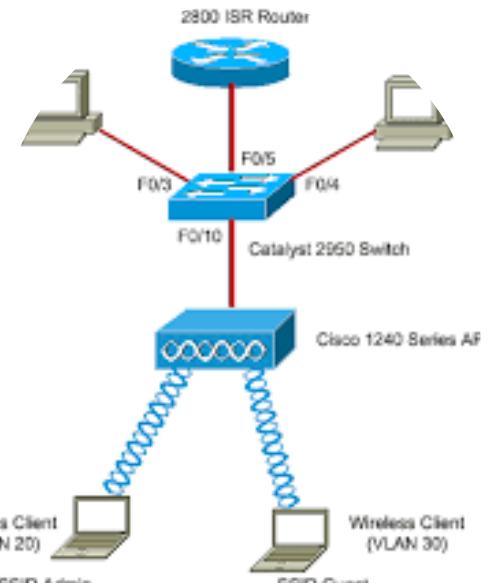
Protection Against External Attacks

Firewalls, VPN encryption for branches.



Securing Internal Communications

VLANs for department isolation.



Preventing Internal Attacks

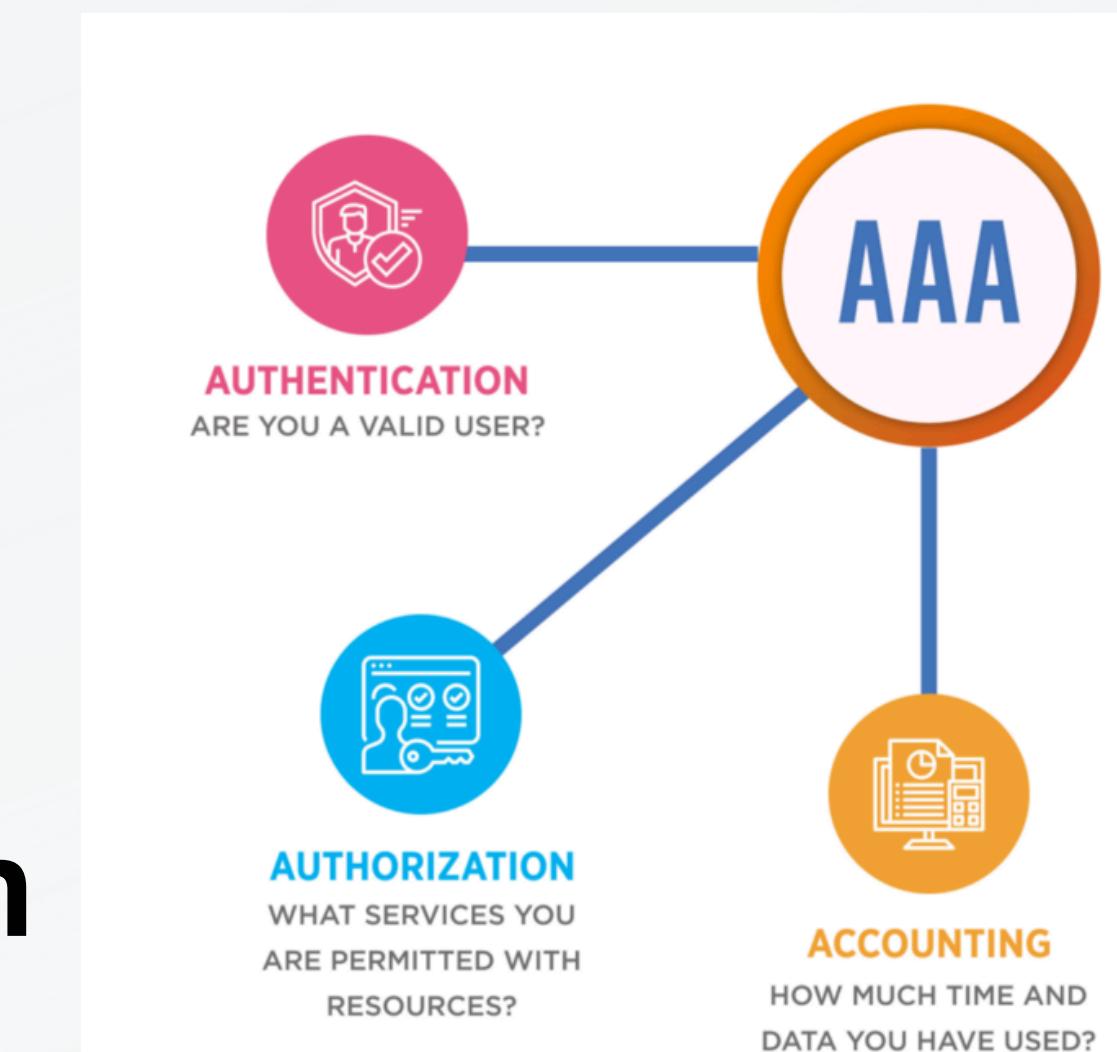
Access controls, user activity monitoring





AAA SERVER:-

- Authentication
- Authorization
- Accounting



SOC REQUIREMENTS

Monitoring Network Traffic

Dani Martinez



Collecting Logs

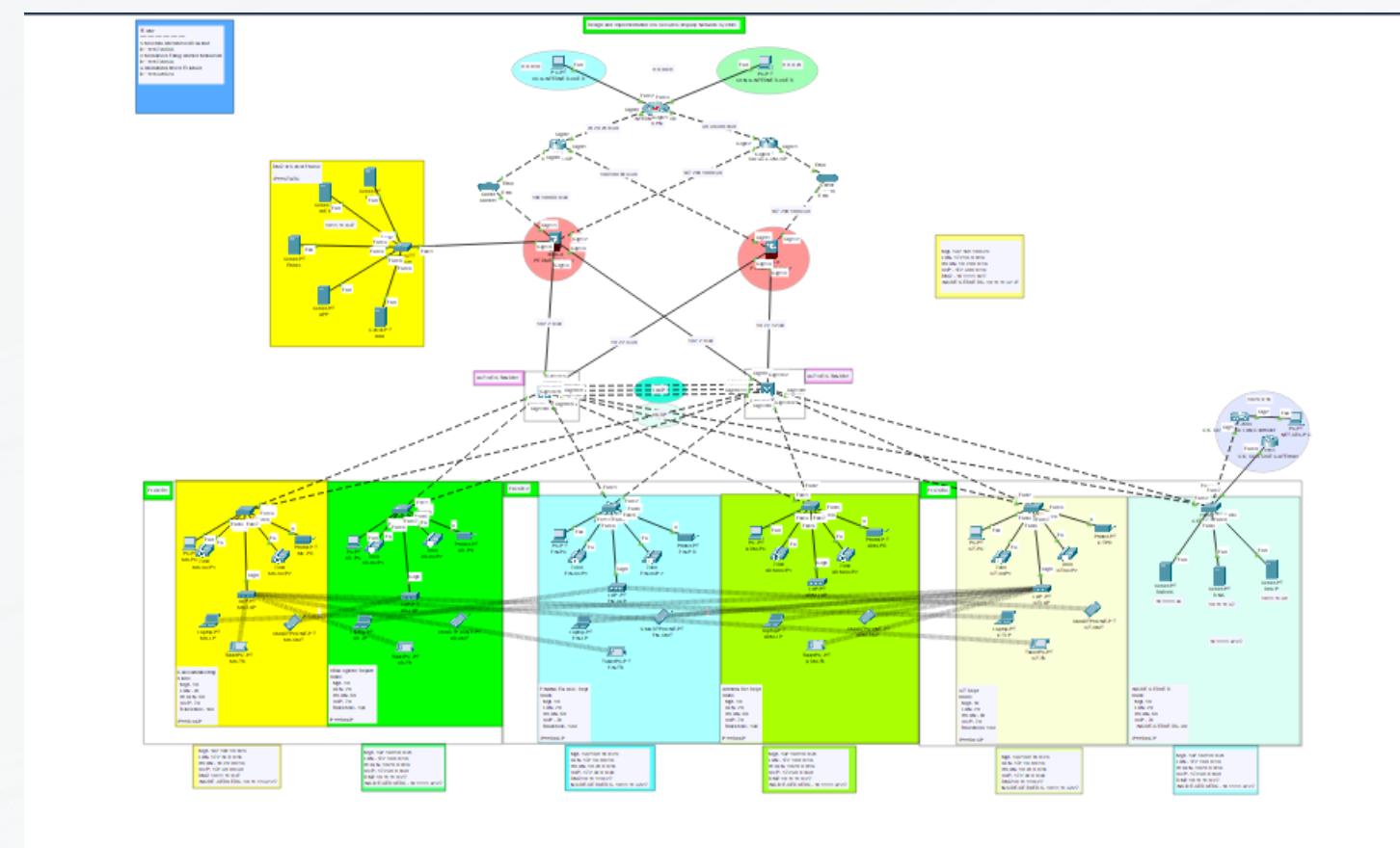
Log Analysis

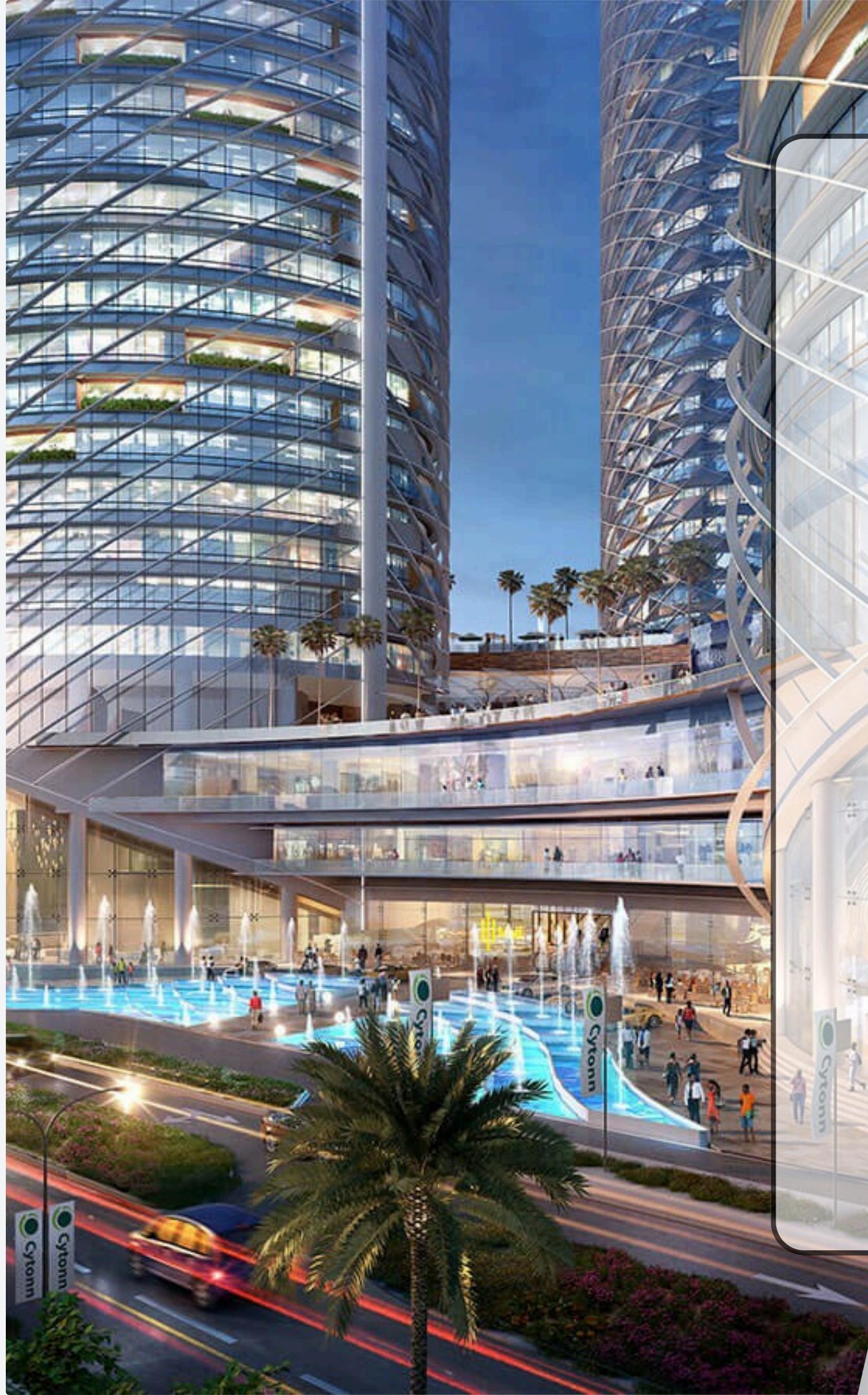
Mitigation Strategies

AWARENESS AND TRAINING PROGRAMS

- **Protecting Weak Points:-**

User training, attack simulations, and the use of a proxy server.





OUR TEAM



Mostafa Atef

Network Security

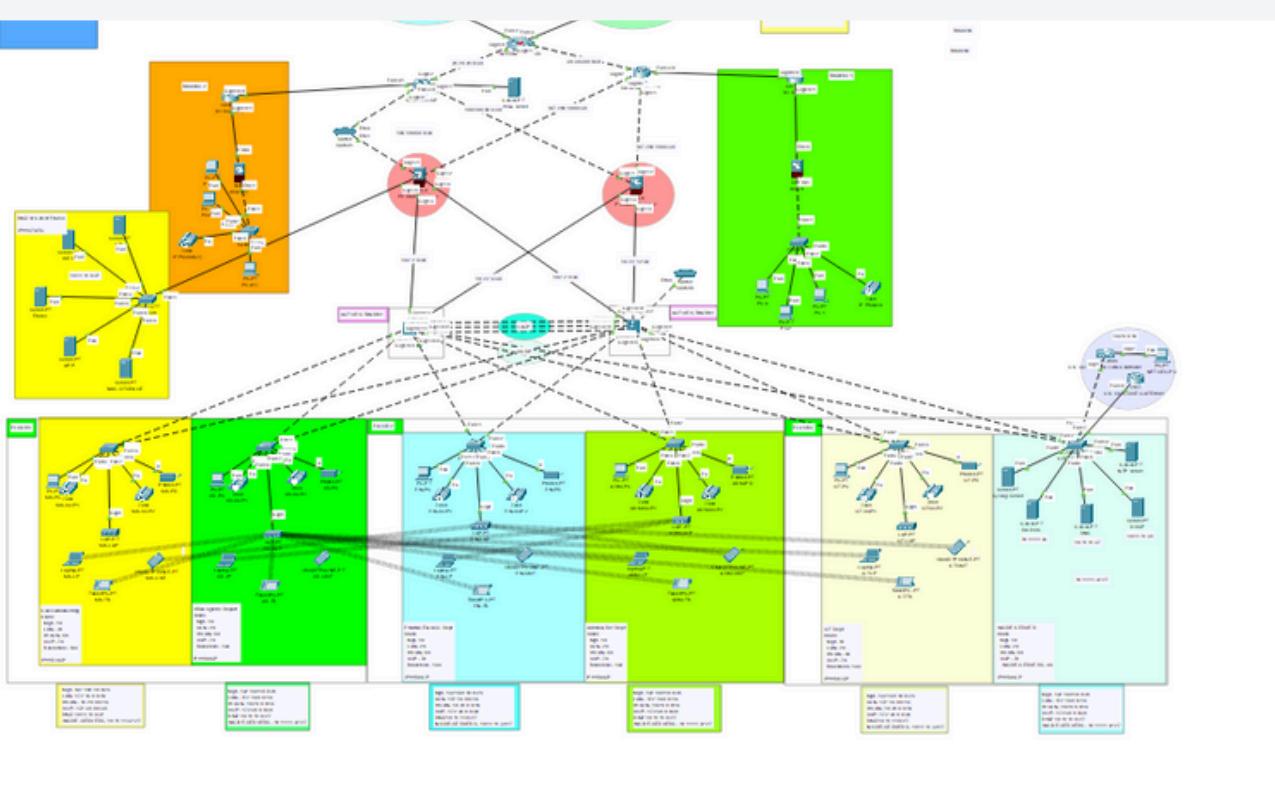
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THANK'S FOR WATCHING

