PROJECT TITLE: NADRA NETWORK

INTRODUCTION:

Computer network can be defined as a number of computer systems and other computing hardware devices that linked together for sharing information in form message, files, and databases in organization that may be in one building or spread over large campus. In today's world, Networking have become extremely necessary for providing e-mail, telnet, chat and others services. In these services, computer networks play very important role to communicate, administrate, automat and process the information from point to another points. Hence Computer networks considered the basics of proper functionally in most of the companies and organizations. In this paper, cisco pocket tracer is used as a network simulator tools to simulate and design a network project of company. The paper discussed interconnection between routers, switches and other components in data communication network and how are programmed and configured.

KEYWORDS:

Cisco Packet tracer, Router's, Switches, PC's, six servers (WEB, DNS, DHCP, FTP, E-MAIL, DATABASE), Static Routing, NAT, RIP v2, EIGRP, ACL, PORT security.

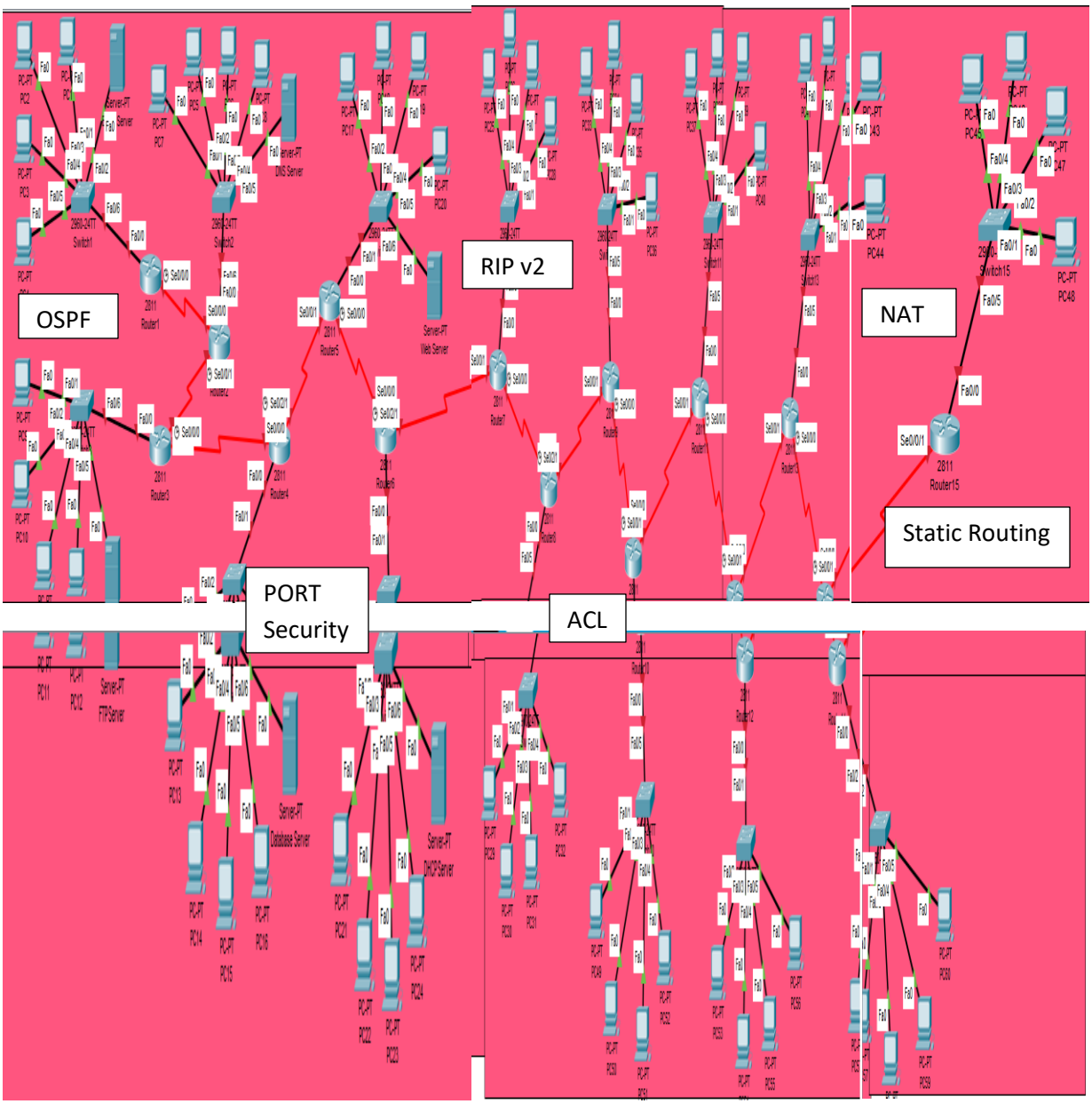
PROJECT NETWORK SCENARIO:

The scenario of the project assumes the **NADRA** has three branches in three different locations. It consists of ***15 Routers***. Each router connects with **four PCs** with the help of switch. There are **six Servers**, **E-MAIL** server, **DNS** server, **WEB** server, ***FTP*** server, **DATABASE** server and **DHCP** server. We will configure **OSPF** on four routers, **EIGRP** on four Routers, **RIP version 2**, and configure **DHCP** on all PCs and **ACL, NAT, PORT security.** We will use class A, B and C IPs. We will configure static routing on one environment.

CONFIGURATIONS OF THE PROJECT:

In cisco pocket tracer, there are four steps in the configurations to implementation of project network consist of:

- Routers Configuration
- Servers Configuration
- PC's Configuration



NETWORK DIAGRAM OF NADRA NETWORK