PMAS-Arid Agriculture University Rawalpindi

University Institute of Information Technology

Department of Computer Science

Project Report Title

NADRA NETWORKING MANAGEMENT SYSTEM

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Submitted To

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NETWORK DESIGN:

Here we are going to design a network model for NADRA Mianwali branch.

In this branch there are total six rooms namely office area 1, office area 2, office area 3, security room, reception area, server room.

The organization requirement is about 6 PCs in office area 1, 7 PCs in office area 2, 6 PCs in office area 3, 2 PCs in security room, 4 PCs in reception area. The organization needs 2 Printers and 6 telephones which are deployed on different departments.

The organization having 2 servers which will be place in IT Department, one is webserver where the web of the organization will be maintained, other server will be used for the file server where the data and important files will be directly stored.

In this scenario we have used 6 switches (namely 2960, it has 24 ports to connect 24 different end devices and its cost in Pakistan is about PKR 58,000). So the total cost of the switches is about PKR 348,000.

We have also used 3 routers to connect the 6 switches (namely 827, it has 4 gigabit ports to connect about 4 switches) and we used the Copper Straight through wire to connect the PCs to switches and then switches to the router.

We have use the C class IP address to configure the PCs and used different default gateway for all the departments to make them different over the router.

ORGANIZATION REQUIREMENT:

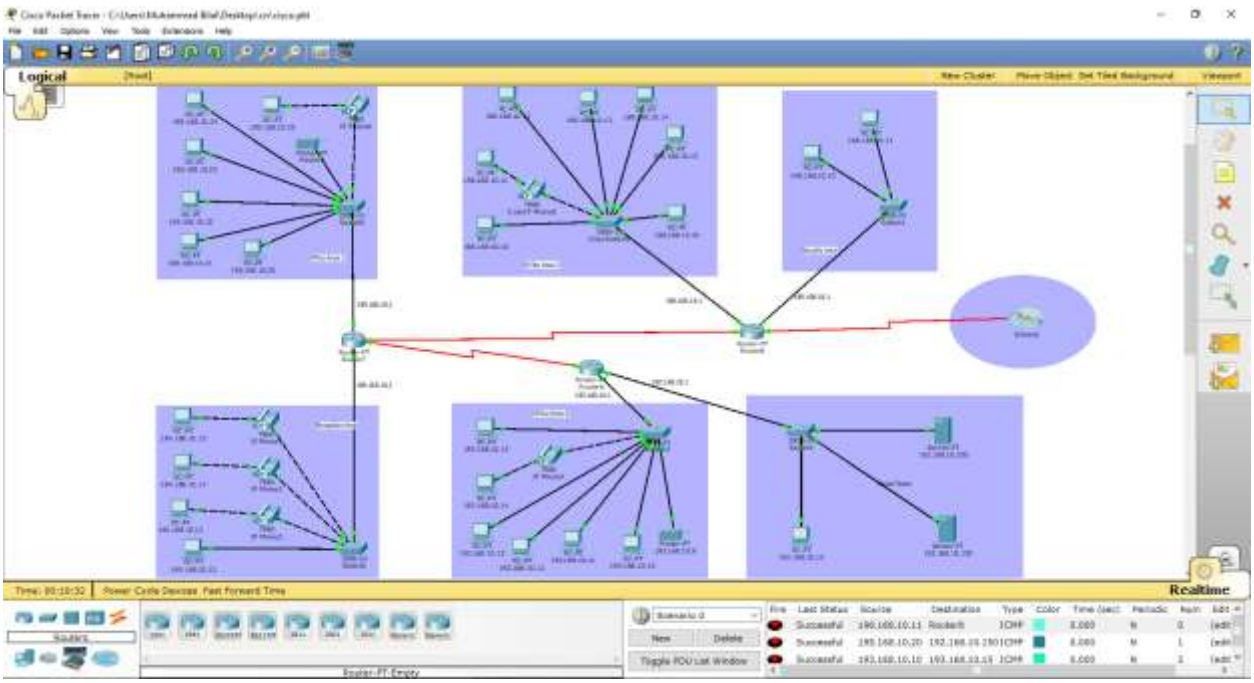
DEPARTMENT	REQUIRED
Office area 1	6 PCs
Office area 2	7 PCs
Office area 3	6 PCs
Reception room	4 PCs
Security room	2 PCs
Server room	1 PC
Printers required	2 pcs
Telephones	6 pcs

LIST OF IP ADDRESSES USED:

Sr. No.	Department	IP Address	Default Gateway	Subnet Mask
1	Office room 1	195.168.10.20	195.168.10.1	255.255.255.0
2		195.168.10.21	195.168.10.1	255.255.255.0
3		195.168.10.22	195.168.10.1	255.255.255.0
4		195.168.10.23	195.168.10.1	255.255.255.0
5		195.168.10.24	195.168.10.1	255.255.255.0
6		195.168.10.25	195.168.10.1	255.255.255.0
7		195.168.10.26	195.168.10.1	255.255.255.0
8	Office area 2	196.168.10.10	196.168.10.1	255.255.255.0

9		196.168.10.11	196.168.10.1	255.255.255.0
10		196.168.10.12	196.168.10.1	255.255.255.0
11		196.168.10.13	196.168.10.1	255.255.255.0
12		196.168.10.14	196.168.10.1	255.255.255.0
13		196.168.10.15	196.168.10.1	255.255.255.0
14		196.168.10.16	196.168.10.1	255.255.255.0
15	Office area 3	193.168.10.9	193.168.10.1	255.255.255.0
16		193.168.10.10	193.168.10.1	255.255.255.0
17		193.168.10.11	193.168.10.1	255.255.255.0
18		193.168.10.12	193.168.10.1	255.255.255.0
19		193.168.10.13	193.168.10.1	255.255.255.0
20		193.168.10.14	193.168.10.1	255.255.255.0
21		193.168.10.15	193.168.10.1	255.255.255.0
22	Reception room	194.168.10.12	194.168.10.1	255.255.255.0
23		194.168.10.13	194.168.10.1	255.255.255.0
24		194.168.10.14	194.168.10.1	255.255.255.0
25		194.168.10.15	194.168.10.1	255.255.255.0
26	Security room	198.168.10.11	198.168.10.1	255.255.255.0
27		198.168.10.12	198.168.10.1	255.255.255.0
28	Server room	192.168.10.10	192.168.10.1	255.255.255.0
29		192.168.10.150	192.168.10.1	255.255.255.0
30		192.168.10.250	192.168.10.1	255.255.255.0

PACKET TRANSFER REPORT:



DIFFERENT SYSTEM RESPONSE: