



NETWORK DESIGN PROPOSAL FOR A SCHOOL

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INTRODUCTION

The scope of this proposal is to create a better network for the School Area that will allow them flexibility in the following categories:

1. Security
2. Network Scalability
3. Emailing and FTP using
4. Own Server
5. Data backup

There is no VPN for the school to provide separation from the public network.

SCOPE AND UTILITY

- Scope
 - The project is primarily intended for small organizations, which include startups & other organizations, and small to medium-sized schools.
 - The project has been made keeping in mind both cost and efficiency.
 - Lastly, the project can be used both as a blank slate, and for upgrading a pre-existing network.
- Utility
 - I firmly believe that the template provided by this design is applicable for *any* network – provided it is *not* large enough.

TOOLS USED AND KEY HIGHLIGHTS

- Tools
 - The main tool used is Cisco Packet Tracer, provided free of charge for educational or academic use, by Cisco Inc.
- Highlights
 - DHCP
 - DNS
 - WEB
 - VLANs
 - FTP
 - EMAIL
 - Routing
 - Printer

DEVICES

Network Devices need

1. 6 Switches
2. 3 Routers
3. 5 Hubs

Server Equipment

1. 1 Print server
2. 1 Web and 1 FTP server
3. 1 DHCP , 1 DNS, 1 Email server

Workstations

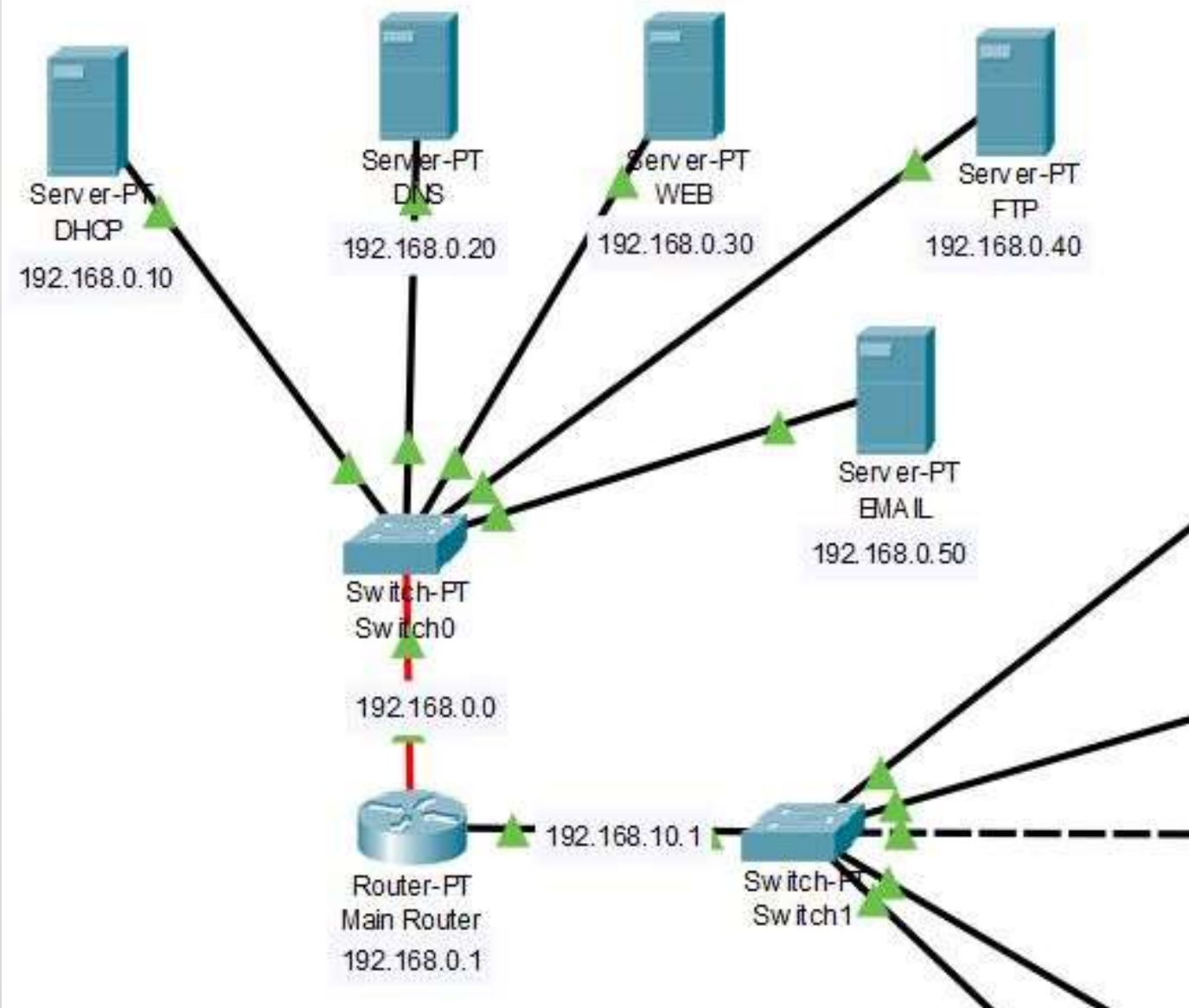
64 PC

36 For Students (ICT Lab)
15 For Classroom
9 For Teachers
1 For Lab Teacher (ICT)
1 For Hall Room
1 For Head Master
1 For Printing

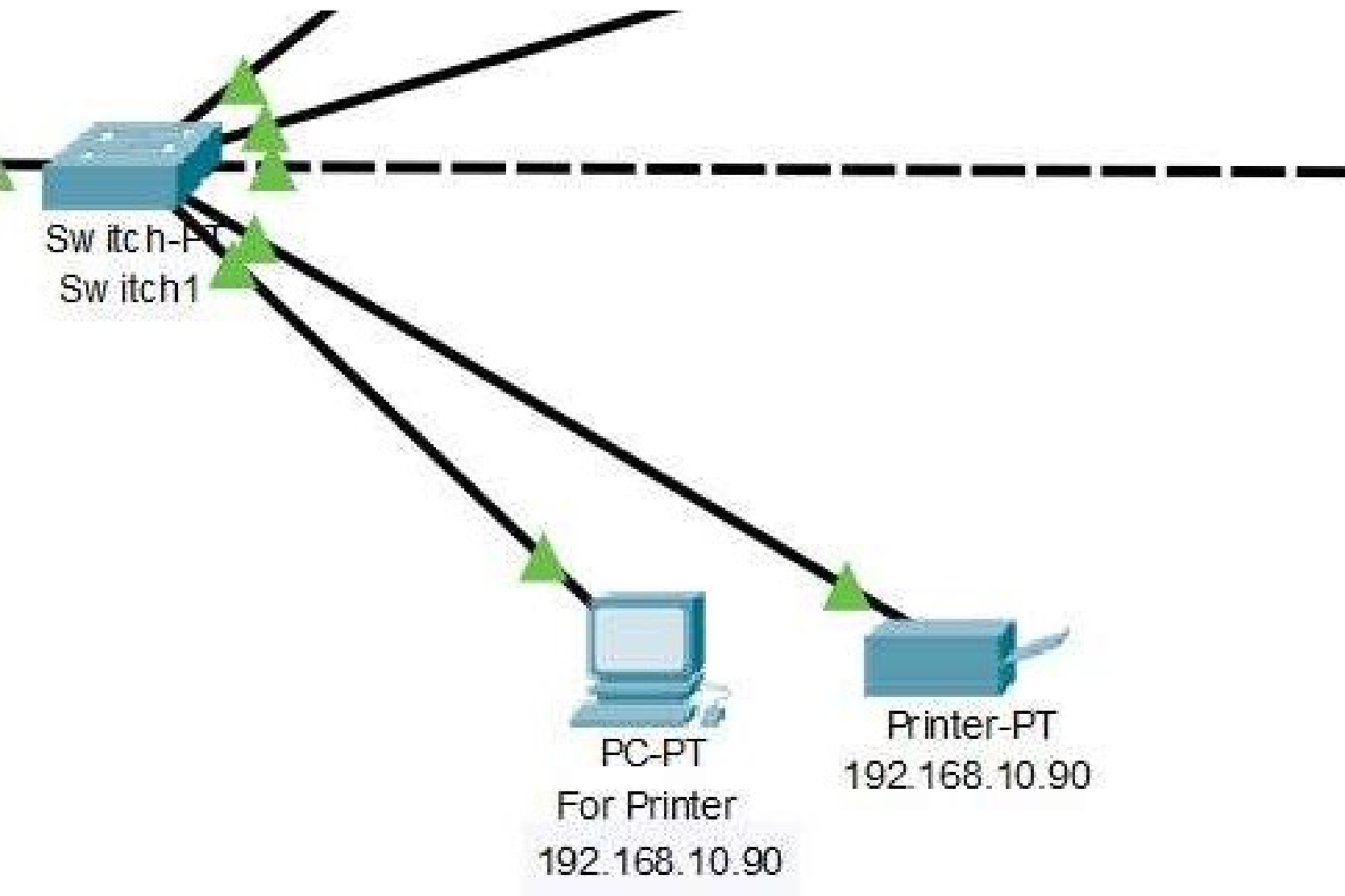
PROFESSIONAL & TECHNICAL LEARNING

- Professional
 - Broadened my horizons - learnt that there is more to life than studies.
 - Managed to set deadlines, and abide by them – so that there is no undue pressure near the end.
- Technical
 - Learned the OSI and the TCP/IP model in great detail.
 - Learned about various protocols, and why they are (or not) in use.
 - Learned to build complex networks using Packet Tracer.
 - Learned in great detail about various components of a network – switches, hubs, routers, servers, connecting wires, static and DHCP routings, VLans uses etc.

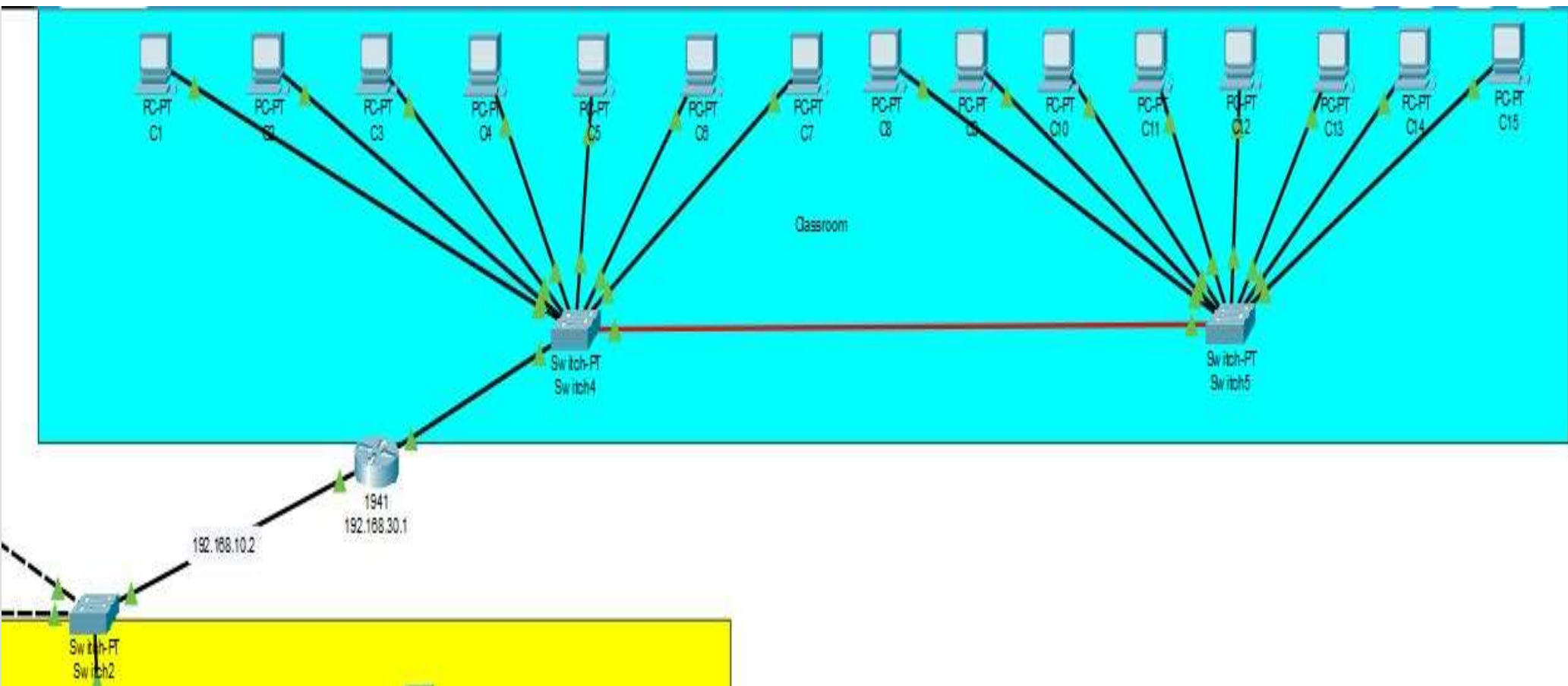
SCREENSHOTS



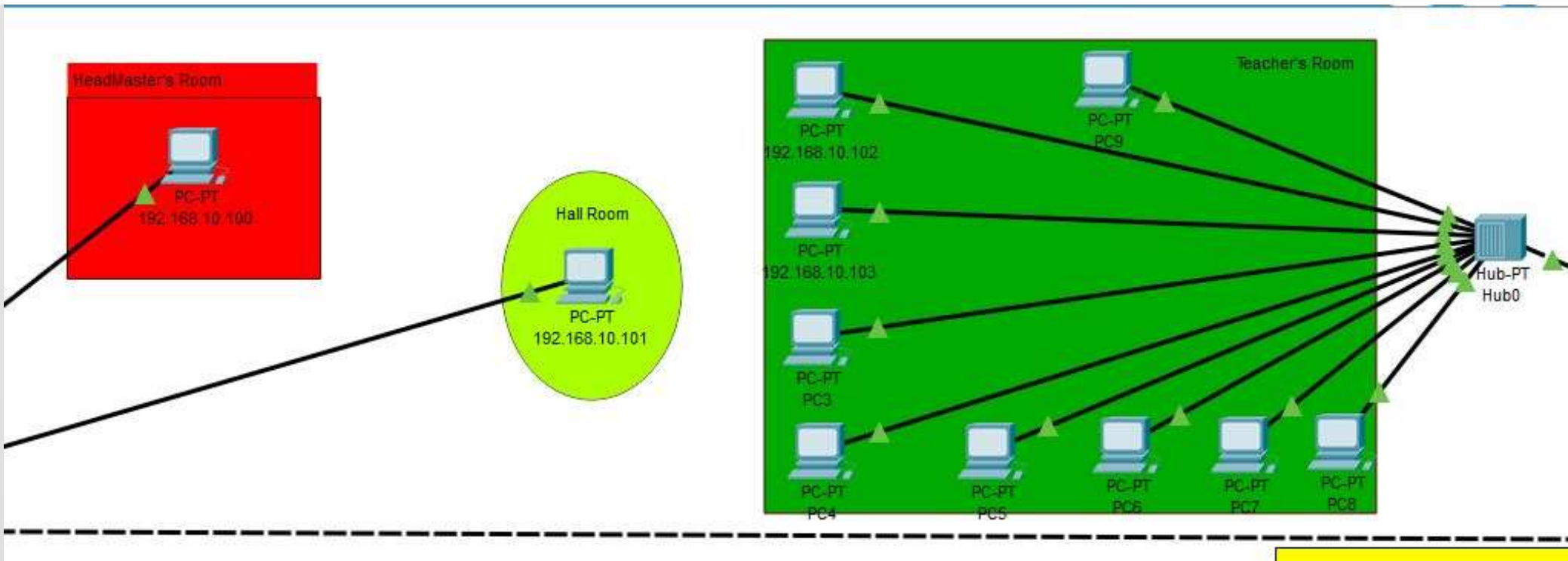
Servers



Printer



ClassRooms



***Some Static (For Head Master)
And DHCP used PC (for Teachers)***



ICT Lab

THANK YOU