

**NETWORK
AUDIT REPORT
OF**

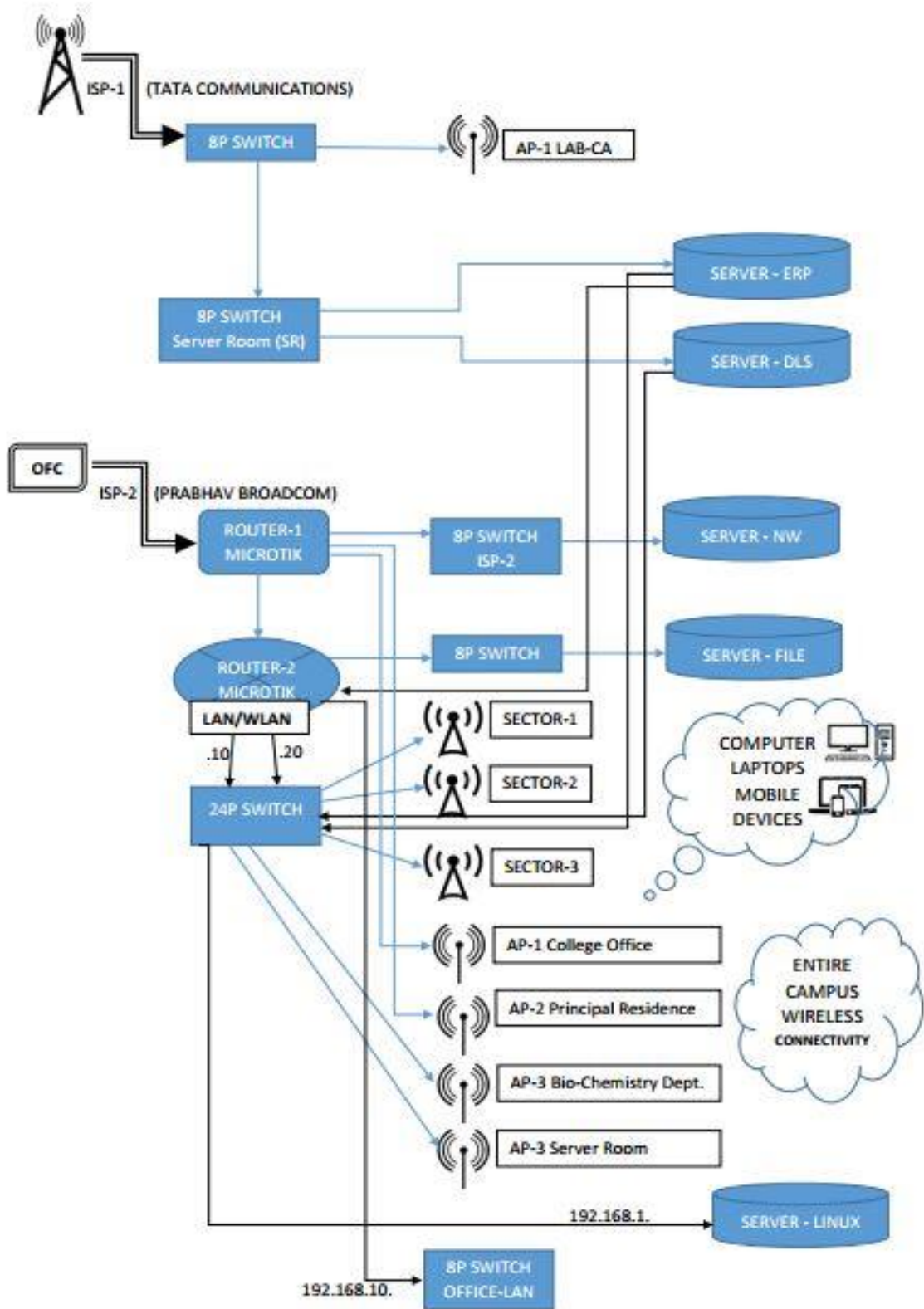
**St. Aloysius College (Autonomous),
Jabalpur, M.P.**

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Contend

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1. Block Diagram of Network



2. Technical Summary/Finding of Server Room

Sr.No	Scope of Work	Parameters	Remarks
1	IP schema	Type of Network	LAN, WLAN
2		Gateway ping status	GOOD 1 MS
3		Inter VLAN ping status	NA
4		dynamic/workgroup	WORKGROUP
5		Static / Dynamic	BOTH
6		Type of Topology	STAR
7	Cable testing	Type of Network cable	CAT 5, CAT 6, OPTICAL FIBER
8		condition of network cable	GOOD
9		RJ45	YES WITH PATCH CORDS
		Crimping Method	MACHINE & MANUAL CRIMP WITH PATCH CORDS
10	Network Center/Hub	Condition of switch Rack/patch panel	GOOD BUT NEED TO CLEAN BLOWING SWICH
11		Type / Make of switch	D-LINK 1224T 24 PORT UNMANAGABLE SWITCH CISCO SMALL BUSINESS 24 PORT MANAGABLE SWITCH
12		Air-conditioning	YES
13		Moisture /Dust	DUST
14		Firewall	SOFTWARE
15	Server Monitoring	Anti-virus	QUICK HEAL SERVER EDN.
16		Internet	YES
17		Proxy server	NA
18		Windows update	YES
19		Auto update services	OFF
20	Power backup	Source of Power	UPS
21		Backup Duration	APPROX. 6 HRS. STANDBY
22		Generator Capacity	40 KV

3. Technical Summary/Finding of Network resources.

Sr.No	Scope of Work	Parameters	Remarks
1	Antenna / Sectors	Separate Tower	Yes
		Make	UBNT
		Total No.	03
		Degree	120
		Chanel Width	20MHz
		Frequency Range	2412 – 2462 MHz
		Pool-1 (Wi-Fi)	10.10.10.1- 10.10.10.255
2	LAN IP Series/Sub netting/	Pool-2 (Wi-Fi)	20.20.20.1 – 20.20.20.255
		Pool-3 (Wired)	192.168.10.1 – 192.168.10.255
		Availability	Yes
3	Internet	Type	Leased line
		Availability	Yes
3.1	(1:1) Leased Line – 1	Vendor	Tata Communications
		Bandwidth	2 mbps
		Public IPs	10
		Availability	Yes
3.2	Leased Line – 2 (OFC)	Vendor	Prabhav Broadcom
		Bandwidth	4 mbps
		Public IPs	6
		Availability	Yes
4	Access Point	Total No.	5
		Make	D-Link
		Availability	Yes
	Repeater/Signal Boaster	Availability	Yes
5	Firewall	Mode	Software & Hardware
		Content/Site Filtering	Yes
		Availability	Yes
6	Load Balancer	Mode	Software
		MAC Filtering	Yes
7	Security	IP Restriction	Yes
		User Accounts	Yes
		Availability	Yes
8	Bandwidth Management	Mode	Centralized (through Software)
		Tool	Winbox
		Device	Microtik Router

4. Technical Summary Finding of Sectors.

Sector Details: Sector-1

Status

Device Model: Rocket M2	AP MAC: 00:27:22:18:DC:D8
Device Name: UBNT	Connections: 6
Network Mode: Bridge	Noise Floor: -92 dBm
Wireless Mode: Access Point WDS	Transmit CCQ: 82.5 %
SSID: SACJ1	airMAX: Disabled
Security: WPA-AES	
Version: v5.6.3 (XM)	
Uptime: 12 days 06:44:17	
Date: 2015-12-13 00:33:10	

Channel/Frequency: 8 / 2447 MHz
Channel Width: 20 MHz
Frequency Band: 2437 - 2457 MHz
Distance: 0.6 miles (0.9 km)
TX/RX Chains: 2X2
TX Power: 26 dBm
Antenna: AM-V2G-Ti - 17 dBi
WLAN0 MAC: 00:27:22:18:DC:D8
LAN0 MAC: 00:27:22:19:DC:D8
LAN0: 100Mbps-Full

Monitor

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WLAN0

Time	RX (kbps)	TX (kbps)
0	0	0
10	0	10
20	0	20
30	0	10
40	0	20
50	0	10
60	0	20
70	0	10
80	0	20
90	0	10
100	0	20
110	0	10
120	0	20
130	0	10
140	0	20
150	0	10
160	0	20
170	0	10
180	0	20
190	0	10
200	0	20
210	0	10
220	0	20
230	0	10
240	0	20
250	0	10
260	0	20
270	0	10
280	0	20
290	0	10
300	0	20
310	0	10
320	0	20
330	0	10
340	0	20
350	0	10
360	0	20
370	0	10
380	0	20
390	0	10
400	0	20
410	0	10
420	0	20
430	0	10
440	0	20
450	0	10
460	0	20
470	0	10
480	0	20
490	0	10
500	0	20
510	0	10
520	0	20
530	0	10
540	0	20
550	0	10
560	0	20
570	0	10
580	0	20
590	0	10
600	0	20
610	0	10
620	0	20
630	0	10
640	0	20
650	0	10
660	0	20
670	0	10
680	0	20
690	0	10
700	0	20
710	0	10
720	0	20
730	0	10
740	0	20
750	0	10
760	0	20
770	0	10
780	0	20
790	0	10
800	0	20
810	0	10
820	0	20
830	0	10
840	0	20
850	0	10
860	0	20
870	0	10
880	0	20
890	0	10
900	0	20
910	0	10
920	0	20
930	0	10
940	0	20
950	0	10
960	0	20
970	0	10
980	0	20
990	0	10
1000	0	20

LAN0

Time	RX (kbps)	TX (kbps)
0	10	5
10	15	10
20	10	5
30	15	10
40	10	5
50	15	10
60	10	5
70	15	10
80	10	5
90	15	10
100	10	5
110	15	10
120	10	5
130	15	10
140	10	5
150	15	10
160	10	5
170	15	10
180	10	5
190	15	10
200	10	5
210	15	10
220	10	5
230	15	10
240	10	5
250	15	10
260	10	5
270	15	10
280	10	5
290	15	10
300	10	5
310	15	10
320	10	5
330	15	10
340	10	5
350	15	10
360	10	5
370	15	10
380	10	5
390	15	10
400	10	5
410	15	10
420	10	5
430	15	10
440	10	5
450	15	10
460	10	5
470	15	10
480	10	5
490	15	10
500	10	5
510	15	10
520	10	5
530	15	10
540	10	5
550	15	10
560	10	5
570	15	10
580	10	5
590	15	10
600	10	5
610	15	10
620	10	5
630	15	10
640	10	5
650	15	10
660	10	5
670	15	10
680	10	5
690	15	10
700	10	5
710	15	10
720	10	5
730	15	10
740	10	5
750	15	10
760	10	5
770	15	10
780	10	5
790	15	10
800	10	5
810	15	10
820	10	5
830	15	10
840	10	5
850	15	10
860	10	5
870	15	10
880	10	5
890	15	10
900	10	5
910	15	10
920	10	5
930	15	10
940	10	5
950	15	10
960	10	5
970	15	10
980	10	5
990	15	10
1000	10	5

Refresh

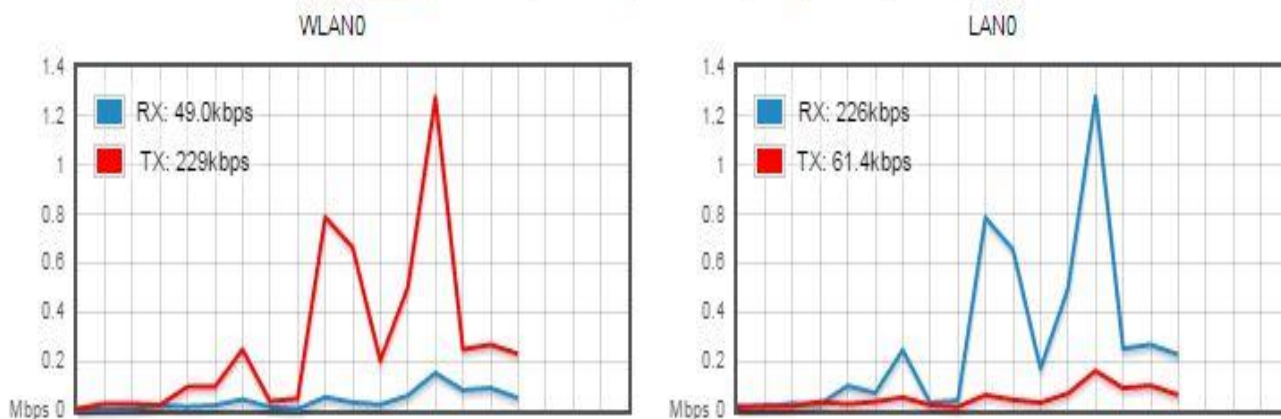
Sector Details: Sector-2

Status

Device Model: Rocket M2	AP MAC: 00:27:22:4E:55:90
Device Name: UBNT	Connections: 16
Network Mode: Bridge	Noise Floor: -89 dBm
Wireless Mode: Access Point WDS	Transmit CCQ: 76.4 %
SSID: SACJ2	airMAX: Disabled
Security: WPA2-AES	
Version: v5.6.9 (XM)	
Uptime: 18 days 07:32:28	
Date: 2013-02-23 07:32:14	
Channel/Frequency: 4 / 2427 MHz	
Channel Width: 20 MHz	
Frequency Band: 2417 - 2437 MHz	
Distance: 1.0 miles (1.7 km)	
TX/RX Chains: 2X2	
TX Power: 28 dBm	
Antenna: AM-V2G-Ti - 17 dBi	
WLAND MAC: 00:27:22:4E:55:90	
LAN0 MAC: 00:27:22:4F:55:90	
LAN0: 100Mbps-Full	

Monitor

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Refresh

Sector Details: Sector-3

Status

Device Model: Rocket M2	AP MAC: 68:72:51:02:06:CE
Device Name: Rocket M2	Connections: 39
Network Mode: Bridge	Noise Floor: -89 dBm
Wireless Mode: Access Point WDS	Transmit CCQ: 97.8 %
SSID: SACJ3	airMAX: Disabled
Security: WPA2-AES	
Version: v5.6.9 (XM)	
Uptime: 04:47:46	
Date: 2015-02-18 04:47:32	

Channel/Frequency: 10 / 2457 MHz
Channel Width: 20 MHz
Frequency Band: 2447 - 2467 MHz
Distance: 1.3 miles (2.1 km)
TX/RX Chains: 2X2
TX Power: 28 dBm
Antenna: AM-V2G-Ti - 17 dBi
WLAN0 MAC: 68:72:51:02:06:CE
LAN0 MAC: 68:72:51:03:06:CE
LAN0: 100Mbps-Full

Monitor

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WLAN0

Time	RX (kbps)	TX (kbps)
0	100	400
10	100	450
20	100	400
30	100	450
40	100	400
50	100	450
60	100	400
70	100	450
80	100	400
90	100	450
100	100	400
110	100	450
120	100	400
130	100	450
140	100	400
150	100	450
160	100	400
170	100	450
180	100	400
190	100	450
200	100	400
210	100	450
220	100	400
230	100	450
240	100	400
250	100	450
260	100	400
270	100	450
280	100	400
290	100	450
300	100	400
310	100	450
320	100	400
330	100	450
340	100	400
350	100	450
360	100	400
370	100	450
380	100	400
390	100	450
400	100	400

LAN0

Time	RX (kbps)	TX (kbps)
0	400	50
10	450	50
20	400	50
30	450	50
40	400	50
50	450	50
60	400	50
70	450	50
80	400	50
90	450	50
100	400	50
110	450	50
120	400	50
130	450	50
140	400	50
150	450	50
160	400	50
170	450	50
180	400	50
190	450	50
200	400	50
210	450	50
220	400	50
230	450	50
240	400	50
250	450	50
260	400	50
270	450	50
280	400	50
290	450	50
300	400	50
310	450	50
320	400	50
330	450	50
340	400	50
350	450	50
360	400	50
370	450	50
380	400	50
390	450	50
400	400	50

Recommendation

- 1) Clean the switches with blower as dust is present in the switch
- 2) Need proper TAGGING of network cables

5. Ping Test Results

Ping to Gateway: 10.10.10.1

C:\WINDOWS\system32\ping.exe

```
Pinging 10.10.10.1 with 32 bytes of data:
Reply from 10.10.10.1: bytes=32 time=129ms TTL=64
Reply from 10.10.10.1: bytes=32 time=92ms TTL=64
Reply from 10.10.10.1: bytes=32 time=234ms TTL=64
Reply from 10.10.10.1: bytes=32 time=297ms TTL=64
Reply from 10.10.10.1: bytes=32 time=328ms TTL=64
Reply from 10.10.10.1: bytes=32 time=829ms TTL=64
Reply from 10.10.10.1: bytes=32 time=335ms TTL=64
Reply from 10.10.10.1: bytes=32 time=27ms TTL=64
Reply from 10.10.10.1: bytes=32 time=12ms TTL=64
Reply from 10.10.10.1: bytes=32 time=28ms TTL=64
Reply from 10.10.10.1: bytes=32 time=5ms TTL=64
Reply from 10.10.10.1: bytes=32 time=30ms TTL=64
Reply from 10.10.10.1: bytes=32 time=127ms TTL=64
Reply from 10.10.10.1: bytes=32 time=2ms TTL=64
Reply from 10.10.10.1: bytes=32 time=7ms TTL=64
Reply from 10.10.10.1: bytes=32 time=28ms TTL=64
Reply from 10.10.10.1: bytes=32 time=1ms TTL=64
Reply from 10.10.10.1: bytes=32 time=506ms TTL=64
Reply from 10.10.10.1: bytes=32 time=804ms TTL=64
```

Ping to Server(s):

ISP-1 Gateway

C:\WINDOWS\system32\ping.exe

```
Pinging 10.10.10.1 with 32 bytes of data:
Reply from 10.10.10.1: bytes=32 time=129ms TTL=64
Reply from 10.10.10.1: bytes=32 time=92ms TTL=64
Reply from 10.10.10.1: bytes=32 time=234ms TTL=64
Reply from 10.10.10.1: bytes=32 time=297ms TTL=64
Reply from 10.10.10.1: bytes=32 time=328ms TTL=64
Reply from 10.10.10.1: bytes=32 time=829ms TTL=64
Reply from 10.10.10.1: bytes=32 time=335ms TTL=64
Reply from 10.10.10.1: bytes=32 time=27ms TTL=64
Reply from 10.10.10.1: bytes=32 time=12ms TTL=64
Reply from 10.10.10.1: bytes=32 time=28ms TTL=64
Reply from 10.10.10.1: bytes=32 time=5ms TTL=64
Reply from 10.10.10.1: bytes=32 time=30ms TTL=64
Reply from 10.10.10.1: bytes=32 time=127ms TTL=64
Reply from 10.10.10.1: bytes=32 time=2ms TTL=64
Reply from 10.10.10.1: bytes=32 time=7ms TTL=64
Reply from 10.10.10.1: bytes=32 time=28ms TTL=64
Reply from 10.10.10.1: bytes=32 time=1ms TTL=64
Reply from 10.10.10.1: bytes=32 time=506ms TTL=64
Reply from 10.10.10.1: bytes=32 time=804ms TTL=64
```

Ping to Server(s):

ISP-2 Gateway

```

C:\WINDOWS\system32\ping.exe
Pinging 110.172.189.97 with 32 bytes of data:
Reply from 110.172.189.97: bytes=32 time=2ms TTL=63
Reply from 110.172.189.97: bytes=32 time=1ms TTL=63
Reply from 110.172.189.97: bytes=32 time=7ms TTL=63
Reply from 110.172.189.97: bytes=32 time=2ms TTL=63
Reply from 110.172.189.97: bytes=32 time=1ms TTL=63
Reply from 110.172.189.97: bytes=32 time=10ms TTL=63
Reply from 110.172.189.97: bytes=32 time=3ms TTL=63
Reply from 110.172.189.97: bytes=32 time=20ms TTL=63
Reply from 110.172.189.97: bytes=32 time=11ms TTL=63
Reply from 110.172.189.97: bytes=32 time=1ms TTL=63
Reply from 110.172.189.97: bytes=32 time=2ms TTL=63
Reply from 110.172.189.97: bytes=32 time=5ms TTL=63
Reply from 110.172.189.97: bytes=32 time=3ms TTL=63
Reply from 110.172.189.97: bytes=32 time=3ms TTL=63
Reply from 110.172.189.97: bytes=32 time=1ms TTL=63
Reply from 110.172.189.97: bytes=32 time=3ms TTL=63
Reply from 110.172.189.97: bytes=32 time=1ms TTL=63
Reply from 110.172.189.97: bytes=32 time=3ms TTL=63
Reply from 110.172.189.97: bytes=32 time=2ms TTL=63
    
```

Ping Findings:

<u>S.N.</u>	<u>Location</u>	<u>Full Load Ping</u>	<u>Without Load Ping</u>	<u>Remarks</u>
<u>1</u>	<u>LAN- 1</u> 10.10.10.1 - .255	<u>11,22,113 MS</u> (variable)	<u>1 MS (Constant)</u>	<u>Ok</u>
<u>2</u>	<u>LAN- 2</u> 20.20.20.1 - .255	<u>101,12,23 MS</u> (variable)	<u>1 MS (Constant)</u>	<u>OK</u>
<u>3</u>	<u>LAN- 3</u> 192.168.10.1 - .255	<u>10,102,43 MS</u> (variable)	<u>1 MS (Constant)</u>	<u>OK</u>

Recommendations

- **Dusting is necessary**
- **Need to do proper tagging**
- **Switch rack should be provided wherever necessary.**

Pictures of Labs



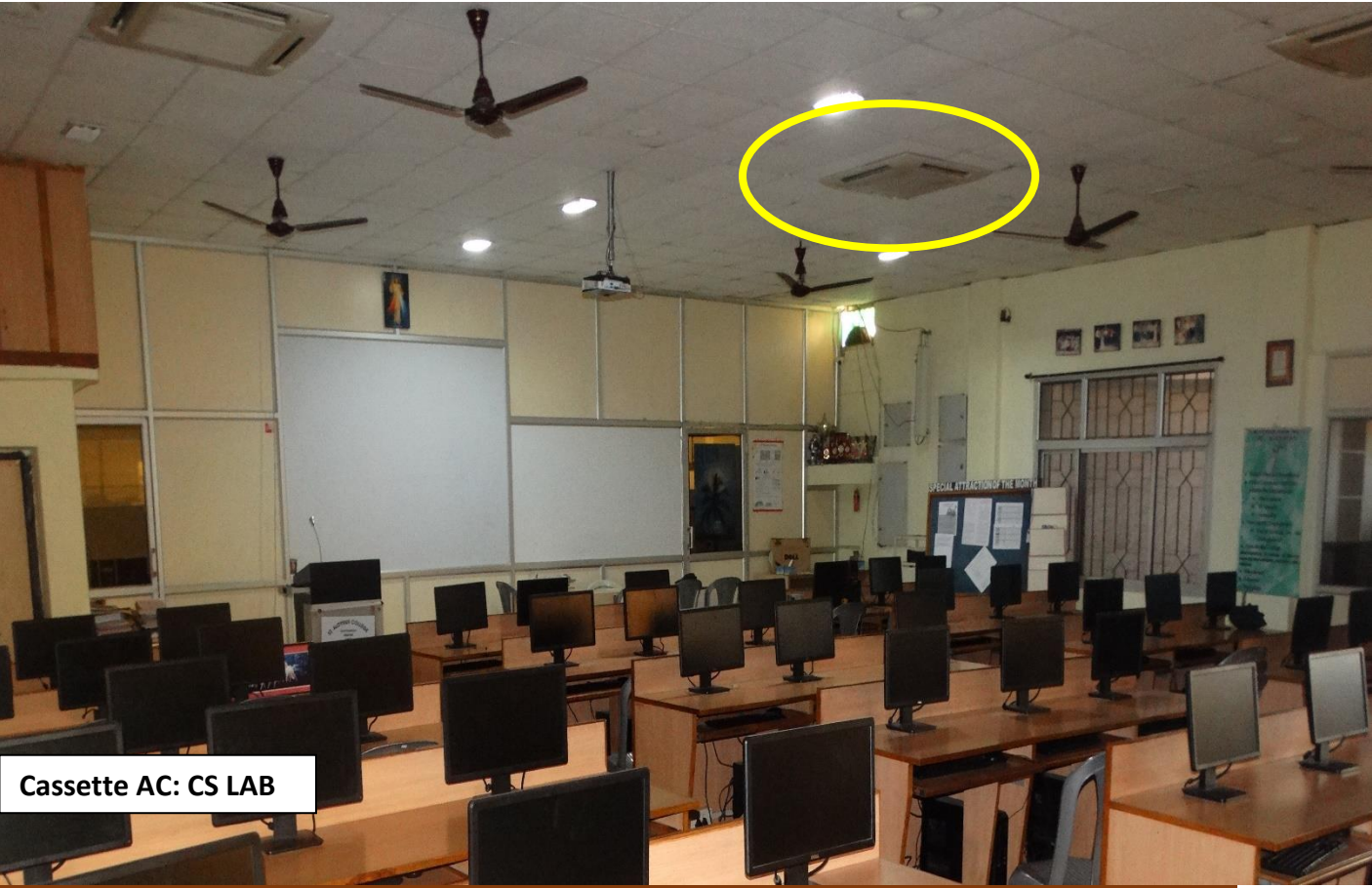
Sector 3: CS Lab



Switch Rack: CS



Split AC: CA LAB

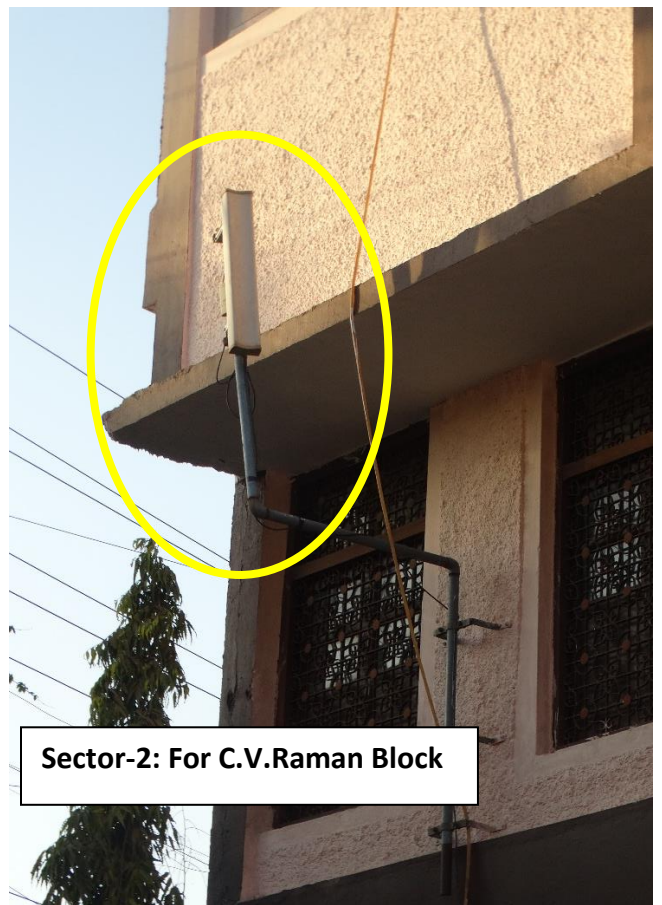


Cassette AC: CS LAB

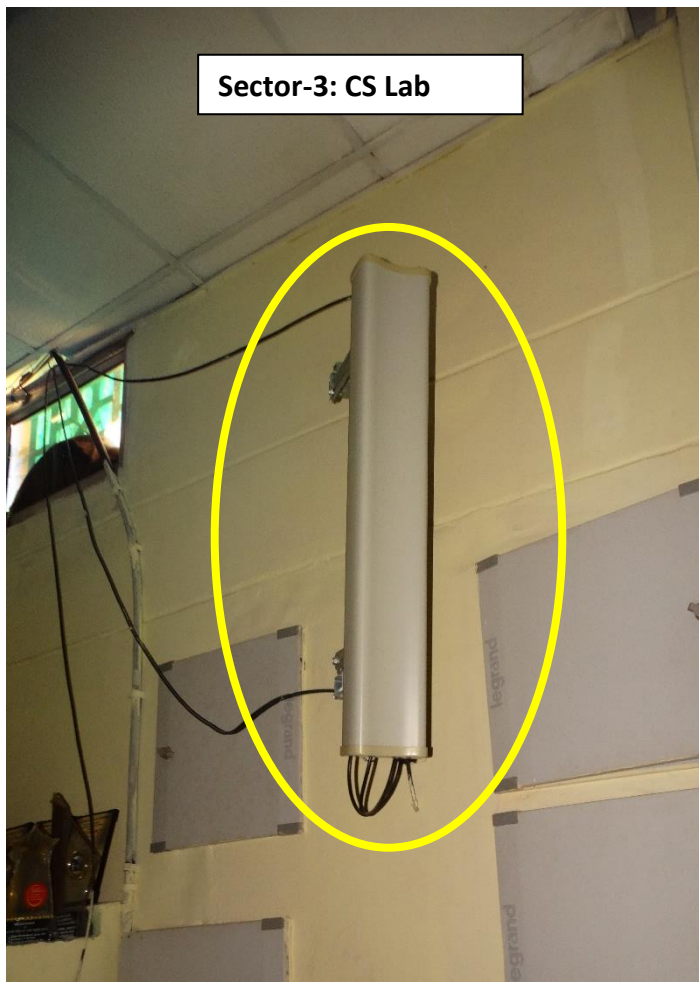
Pictures of Sectors



Sector-1: Garden



Sector-2: For C.V.Raman Block



Sector-3: CS Lab



Internet Tower: ISP-1

Pictures of Access Point, Repeater, Switches with Rack.

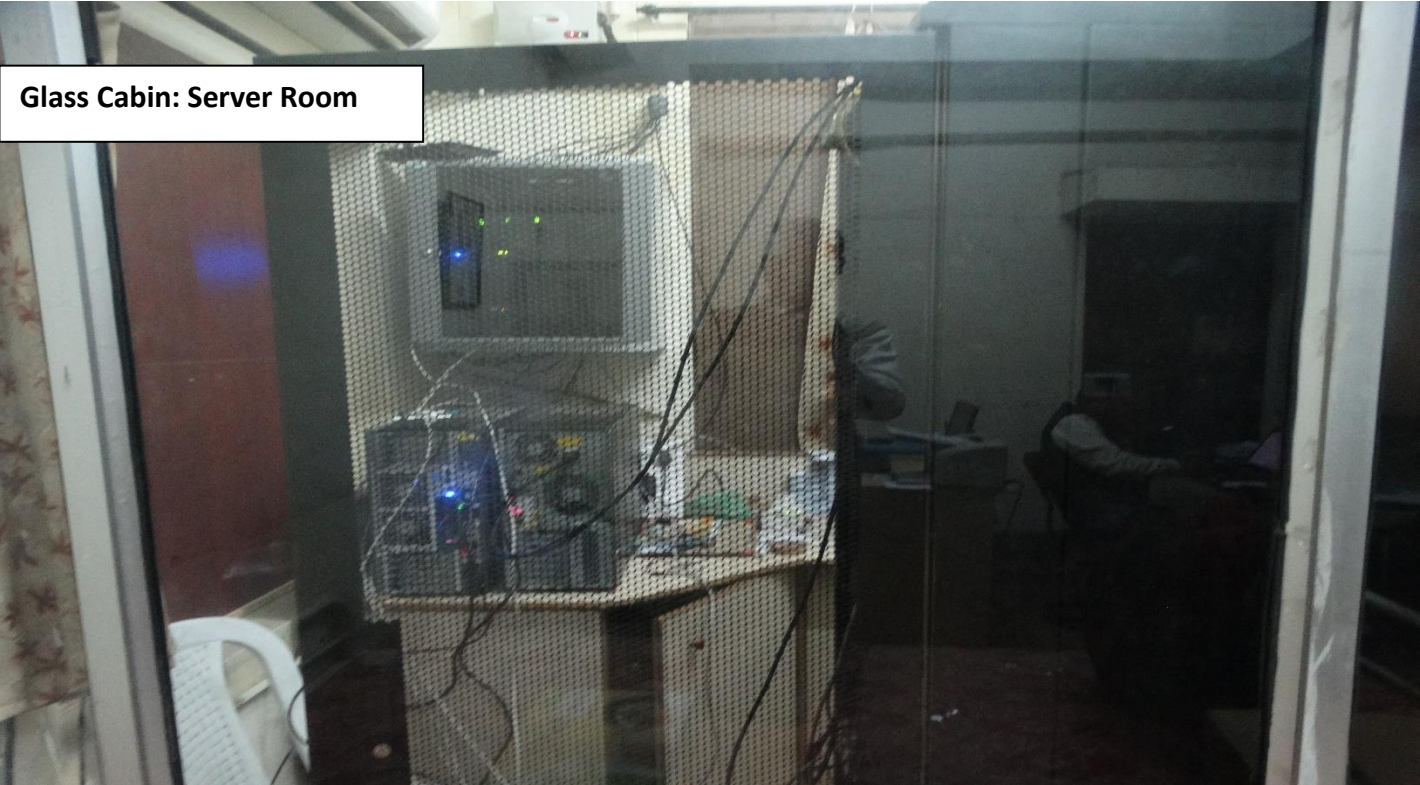


Pictures of Server, Rack and KVM Switch

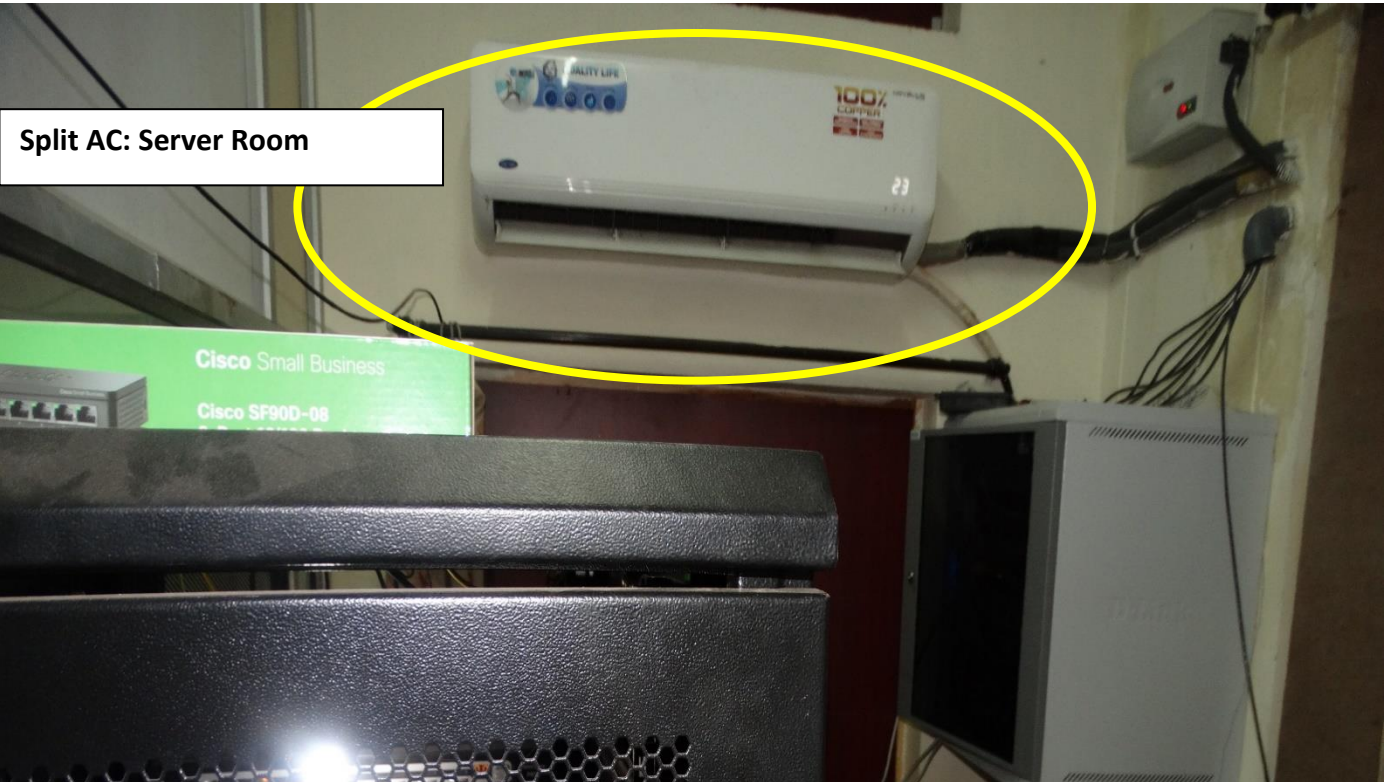
Server Rack (OUTSIDE): Server Room

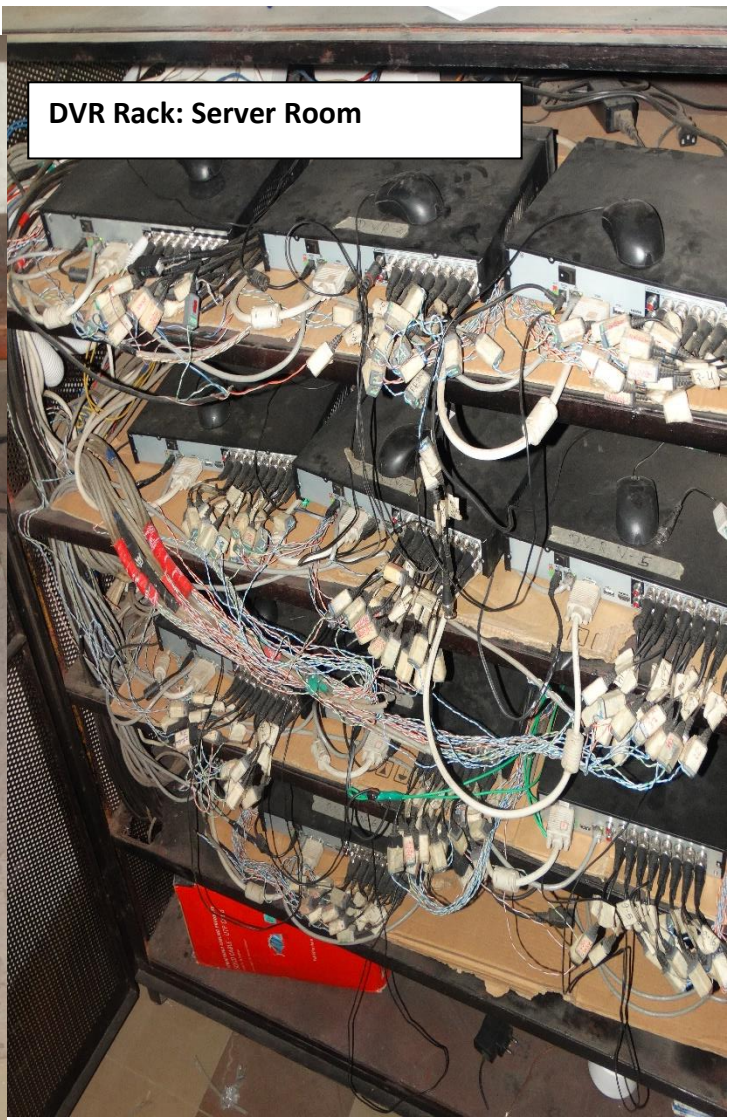


Server Rack (INSIDE): Server Room



Glass Cabin: Server Room





Recommendations

- **Dusting is necessary**
- **Need to do proper tagging**
- **Switch rack should be provided wherever necessary.**