|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Device | Interface | Address | Subnet Mask | Default  Gateway | VLAN |
| R1 | s0/0/0 | 192.10.10.2 | 255.255.255.0 | N/A | N/A |
| G0/0.10 | 192.168.10.1 | 255.255.255.0 | N/A | 10 |
| G0/0.20 | 192.168.20.1 | 255.255.255.0 | N/A | 20 |
| G0/0.30 | 192.168.30.1 | 255.255.255.0 | N/A | 30 |
| G0/0.40 | 192.168.40.1 | 255.255.255.0 | N/A | 40 |
| G0/0.50 | 192.168.50.1 | 255.255.255.0 | N/A | 50 |
| G0/0.60 | 192.168.60.1 | 255.255.255.0 | N/A | 60 |
| G0/0.70 | 192.168.70.1 | 255.255.255.0 | N/A | 70 |
| G0/0.99 | 192.168.99.1 | 255.255.255.0 | N/A | 99 |
| D1 | VLAN 99 | 192.168.99.200 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_Server | VLAN 99 | 192.168.99.11 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_ComNet | VLAN 99 | 192.168.99.21 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_MarketAdmin | VLAN 99 | 192.168.99.31 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_Teacher | VLAN 99 | 192.168.99.41 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_Manager | VLAN 99 | 192.168.99.51 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_ITLab1\_1 | VLAN 99 | 192.168.99.61 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_ITLab1\_2 | VLAN 99 | 192.168.99.62 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_ITLab2\_1 | VLAN 99 | 192.168.99.71 | 255.255.255.0 | 192.168.99.1 | 99 |
| S\_ITLab2\_2 | VLAN 99 | 192.168.99.72 | 255.255.255.0 | 192.168.99.1 | 99 |
| DHCP-DNS | NIC | 192.168.10.2 | 255.255.255.0 | 192.168.10.1 | 10 |
| Web | NIC | 192.168.10.3 | 255.255.255.0 | 192.168.10.1 | 10 |
| Mail | NIC | 192.168.10.4 | 255.255.255.0 | 192.168.10.1 | 10 |
| File | NIC | 192.168.10.5 | 255.255.255.0 | 192.168.10.1 | 10 |
| ComNet01 | NIC | 192.168.20.11 | 255.255.255.0 | 192.168.20.1 | 20 |
| ComNet02 | NIC | 192.168.20.12 | 255.255.255.0 | 192.168.20.1 | 20 |
| ComNet03 | NIC | 192.168.20.13 | 255.255.255.0 | 192.168.20.1 | 20 |
| WR\_Saff | NIC | 192.168.20.22 | 255.255.255.0 | 192.168.20.1 | 20 |
| MA1 | NIC | 192.168.30.11 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA2 | NIC | 192.168.30.12 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA3 | NIC | 192.168.30.13 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA4 | NIC | 192.168.30.14 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA5 | NIC | 192.168.30.15 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA6 | NIC | 192.168.30.16 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA7 | NIC | 192.168.30.17 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA8 | NIC | 192.168.30.18 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA9 | NIC | 192.168.30.19 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA10 | NIC | 192.168.30.20 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA11 | NIC | 192.168.30.21 | 255.255.255.0 | 192.168.30.1 | 30 |
| MA12 | NIC | 192.168.30.22 | 255.255.255.0 | 192.168.30.1 | 30 |
| P\_MaketAdmin | NIC | 192.168.30.200 | 255.255.255.0 | 192.168.30.1 | 30 |
| T1 | NIC | 192.168.40.11 | 255.255.255.0 | 192.168.40.1 | 40 |
| T2 | NIC | 192.168.40.12 | 255.255.255.0 | 192.168.40.1 | 40 |
| T3 | NIC | 192.168.40.13 | 255.255.255.0 | 192.168.40.1 | 40 |
| T4 | NIC | 192.168.40.14 | 255.255.255.0 | 192.168.40.1 | 40 |
| T5 | NIC | 192.168.40.15 | 255.255.255.0 | 192.168.40.1 | 40 |
| T6 | NIC | 192.168.40.16 | 255.255.255.0 | 192.168.40.1 | 40 |
| T7 | NIC | 192.168.40.17 | 255.255.255.0 | 192.168.40.1 | 40 |
| T8 | NIC | 192.168.40.18 | 255.255.255.0 | 192.168.40.1 | 40 |
| T9 | NIC | 192.168.40.19 | 255.255.255.0 | 192.168.40.1 | 40 |
| T10 | NIC | 192.168.40.20 | 255.255.255.0 | 192.168.40.1 | 40 |
| T11 | NIC | 192.168.40.21 | 255.255.255.0 | 192.168.40.1 | 40 |
| T12 | NIC | 192.168.40.22 | 255.255.255.0 | 192.168.40.1 | 40 |
| T13 | NIC | 192.168.40.23 | 255.255.255.0 | 192.168.40.1 | 40 |
| T14 | NIC | 192.168.40.24 | 255.255.255.0 | 192.168.40.1 | 40 |
| T15 | NIC | 192.168.40.25 | 255.255.255.0 | 192.168.40.1 | 40 |
| P\_Teacher | NIC | 192.168.40.200 | 255.255.255.0 | 192.168.40.1 | 40 |
| M1 | NIC | 192.168.50.11 | 255.255.255.0 | 192.168.50.1 | 50 |
| M2 | NIC | 192.168.50.12 | 255.255.255.0 | 192.168.50.1 | 50 |
| M3 | NIC | 192.168.50.13 | 255.255.255.0 | 192.168.50.1 | 50 |
| M4 | NIC | 192.168.50.14 | 255.255.255.0 | 192.168.50.1 | 50 |
| M5 | NIC | 192.168.50.15 | 255.255.255.0 | 192.168.50.1 | 50 |
| P\_Manager | NIC | 192.168.50.200 | 255.255.255.0 | 192.168.50.1 | 50 |
| ITL1 | NIC | 192.168.60.34 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL2 | NIC | 192.168.60.17 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL3 | NIC | 192.168.60.29 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL4 | NIC | 192.168.60.16 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL5 | NIC | 192.168.60.19 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL6 | NIC | 192.168.60.42 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL7 | NIC | 192.168.60.21 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL8 | NIC | 192.168.60.33 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL9 | NIC | 192.168.60.35 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL10 | NIC | 192.168.60.39 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL11 | NIC | 192.168.60.32 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL12 | NIC | 192.168.60.37 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL13 | NIC | 192.168.60.41 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL14 | NIC | 192.168.60.36 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL15 | NIC | 192.168.60.43 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL16 | NIC | 192.168.60.30 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL17 | NIC | 192.168.60.46 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL18 | NIC | 192.168.60.15 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL19 | NIC | 192.168.60.25 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL20 | NIC | 192.168.60.45 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL21 | NIC | 192.168.60.38 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL22 | NIC | 192.168.60.28 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL23 | NIC | 192.168.60.44 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL24 | NIC | 192.168.60.23 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL25 | NIC | 192.168.60.40 | 255.255.255.0 | 192.168.60.1 | 60 |
| ITL26 | NIC | 192.168.70.16 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL27 | NIC | 192.168.70.13 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL28 | NIC | 192.168.70.20 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL29 | NIC | 192.168.70.26 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL30 | NIC | 192.168.70.14 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL31 | NIC | 192.168.70.27 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL32 | NIC | 192.168.70.28 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL33 | NIC | 192.168.70.35 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL34 | NIC | 192.168.70.21 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL35 | NIC | 192.168.70.34 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL36 | NIC | 192.168.70.24 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL37 | NIC | 192.168.70.33 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL38 | NIC | 192.168.70.30 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL39 | NIC | 192.168.70.31 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL40 | NIC | 192.168.70.41 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL41 | NIC | 192.168.70.19 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL42 | NIC | 192.168.70.11 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL43 | NIC | 192.168.70.17 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL44 | NIC | 192.168.70.37 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL45 | NIC | 192.168.70.18 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL46 | NIC | 192.168.70.39 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL47 | NIC | 192.168.70.40 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL48 | NIC | 192.168.70.32 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL49 | NIC | 192.168.70.23 | 255.255.255.0 | 192.168.70.1 | 70 |
| ITL50 | NIC | 192.168.70.38 | 255.255.255.0 | 192.168.70.1 | 70 |
| R\_ISP | Se0/1/0 | 192.10.10.1 | 255.255.255.0 | N/A | N/A |
| G0/0/0 | 8.8.8.1 | 255.255.255.0 | N/A | N/A |
| G\_DNS | NIC | 8.8.8.8 | 255.255.255.0 | 8.8.8.1 | N/A |

**Test plan table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test ID | Test case | Expected Outcome | Actual Outcome | Remarks |
| 1 | Ping from host to host in VLAN 10 | Successful |  | Ping from DHCP\_DNS to web server |
| 2 | Ping from host to host in VLAN 20 | Successful |  | Ping from ComNet01 to ComNet03 |
| 3 | Ping from host to host in VLAN 30 | Successful |  | Ping from MA1 to MA7 |
| 4 | Ping from host to host in VLAN 40 | Successful |  | Ping from T1 to T6 |
| 5 | Ping from host to host in VLAN 50 | Successful |  | Ping from M3 to M7 |
| 6 | Ping from host to host in VLAN 60 | Successful |  | Ping from ITL8 to ITL16 |
| 7 | Ping from host to host in VLAN 70 | Successful |  | Ping from ITL35 to ITL48 |
| 8 | Ping from switch to switch in VLAN 99 | Successful |  | Ping from S\_Server to S\_ComNet |
| 9 | Ping from VLAN 10 to default gateway | Successful |  | Ping from web server to 192.168.10.1 |
| 10 | Ping from VLAN 20 to default gateway | Successful |  | Ping from ComNet01 to 192.168.20.1 |
| 11 | Ping from VLAN 30 to default gateway | Successful |  | Ping from MA1 to 192.168.30.1 |
| 12 | Ping from VLAN 40 to default gateway | Successful |  | Ping from T1 to 192.168.40.1 |
| 13 | Ping from VLAN 50 to default gateway | Successful |  | Ping from M1 to 192.168.50.1 |
| 14 | Ping from VLAN 60 to default gateway | Successful |  | Ping from ITL1 to 192.168.60.1 |
| 15 | Ping from VLAN 70 to default gateway | Successful |  | Ping from ITL26 to 192.168.70.1 |
| 16 | Ping from VLAN 10 to VLAN 20 | Successful |  | Ping from web server to ComNet01 |
| 17 | Ping from VLAN 10 to VLAN 30 | Successful |  | Ping from web server to MA1 |
| 18 | Ping from VLAN 10 to VLAN 40 | Successful |  | Ping from web server to T1 |
| 19 | Ping from VLAN 10 to VLAN 50 | Successful |  | Ping from web server to M1 |
| 20 | Ping from VLAN 10 to VLAN 60 | Successful |  | Ping from web server to ITL1 |
| 21 | Ping from VLAN 10 to VLAN 70 | Successful |  | Ping from web server to ITL26 |
| 22 | Ping from VLAN 20 to VLAN 10 | Successful |  | Ping from ComNet01 to web server |
| 23 | Ping from VLAN 20 to VLAN 30 | Successful |  | Ping from ComNet01 to MA1 |
| 24 | Ping from VLAN 20 to VLAN 40 | Successful |  | Ping from ComNet01 to T1 |
| 25 | Ping from VLAN 20 to VLAN 50 | Successful |  | Ping from ComNet01 to M1 |
| 26 | Ping from VLAN 20 to VLAN 60 | Successful |  | Ping from ComNet01 to ITL1 |
| 27 | Ping from VLAN 20 to VLAN 70 | Successful |  | Ping from ComNet01 to ITL26 |
| 28 | Ping from VLAN 30 to VLAN 10 | Successful |  | Ping from MA1 to web server |
| 29 | Ping from VLAN 30 to VLAN 20 | Successful |  | Ping from MA1 to ComNet01 |
| 30 | Ping from VLAN 30 to VLAN 40 | Successful |  | Ping from MA1 to T1 |
| 31 | Ping from VLAN 30 to VLAN 50 | Successful |  | Ping from MA1 to M1 |
| 32 | Ping from VLAN 30 to VLAN 60 | Successful |  | Ping from MA1 to ITL1 |
| 33 | Ping from VLAN 30 to VLAN 70 | Successful |  | Ping from MA1 to ITL26 |
| 34 | Ping from VLAN 40 to VLAN 10 | Successful |  | Ping from T1 to web server |
| 35 | Ping from VLAN 40 to VLAN 20 | Successful |  | Ping from T1 to ComNet01 |
| 36 | Ping from VLAN 40 to VLAN 30 | Successful |  | Ping from T1 to MA1 |
| 37 | Ping from VLAN 40 to VLAN 50 | Successful |  | Ping from T1 to M1 |
| 38 | Ping from VLAN 40 to VLAN 60 | Successful |  | Ping from T1 to ITL1 |
| 39 | Ping from VLAN 40 to VLAN 70 | Successful |  | Ping from T1 to ITL26 |
| 40 | Ping from VLAN 50 to VLAN 10 | Successful |  | Ping from M1 to web server |
| 41 | Ping from VLAN 50 to VLAN 20 | Successful |  | Ping from M1 to ComNet01 |
| 42 | Ping from VLAN 50 to VLAN 30 | Successful |  | Ping from M1 to MA1 |
| 43 | Ping from VLAN 50 to VLAN 40 | Successful |  | Ping from M1 to T1 |
| 44 | Ping from VLAN 50 to VLAN 60 | Successful |  | Ping from M1 to ITL1 |
| 45 | Ping from VLAN 50 to VLAN 70 | Successful |  | Ping from M1 to ITL26 |
| 46 | Ping from VLAN 60 to VLAN 10 | Successful |  | Ping from ITL1 to web server |
| 47 | Ping from VLAN 60 to VLAN 20 | Successful |  | Ping from ITL1 to ComNet01 |
| 48 | Ping from VLAN 60 to VLAN 30 | Successful |  | Ping from ITL1 to MA1 |
| 49 | Ping from VLAN 60 to VLAN 40 | Successful |  | Ping from ITL1 to T1 |
| 50 | Ping from VLAN 60 to VLAN 50 | Successful |  | Ping from ITL1 to M1 |
| 51 | Ping from VLAN 60 to VLAN 70 | Successful |  | Ping from ITL1 to ITL26 |
| 52 | Ping from VLAN 70 to VLAN 10 | Successful |  | Ping from ITL26 to web server |
| 53 | Ping from VLAN 70 to VLAN 20 | Successful |  | Ping from ITL26 to ComNet01 |
| 54 | Ping from VLAN 70 to VLAN 30 | Successful |  | Ping from ITL26 to MA1 |
| 55 | Ping from VLAN 70 to VLAN 40 | Successful |  | Ping from ITL26 to T1 |
| 56 | Ping from VLAN 70 to VLAN 50 | Successful |  | Ping from ITL26 to M1 |
| 57 | Ping from VLAN 70 to VLAN 60 | Successful |  | Ping from ITL26 to ITL1 |
| 58 | Ping from ComNet01 to Internet (8.8.8.8) | Successful |  |  |
| 59 | Ping from MA1 to Internet (8.8.8.8) | Successful |  |  |
| 60 | Ping from T1 to Internet (8.8.8.8) | Successful |  |  |
| 61 | Ping from M1 to Internet (8.8.8.8) | Successful |  |  |
| 62 | Ping from ITL1 to Internet (8.8.8.8) | Successful |  |  |
| 63 | Ping from ITL13 to Internet (8.8.8.8) | Successful |  |  |
| 64 | Ping from ITL26 to Internet (8.8.8.8) | Successful |  |  |
| 65 | Ping from ITL38 to Internet (8.8.8.8) | Successful |  |  |
| 66 | Get IP address automatically from DHCP server in VLAN 60 | Successful |  |  |
| 67 | Get IP address automatically from DHCP server in VLAN 70 | Successful |  |  |