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# Topológia

# Számolás

## PC

|  |  |  |  |
| --- | --- | --- | --- |
| **Szervezeti egység** | **Gépszám** | **Állomáscímek száma** | **Alhálózat mérete** |
| Backend | 13 | 14 | /28 |
| Frontend | 11 | 14 | /28 |
| Tester | 10 | 14 | /28 |
| Design | 7 | 14 | /28 |
| Network engineer | 7 | 14 | /28 |
| Management | 4 | 6 | /29 |

## Telefonok

|  |  |  |  |
| --- | --- | --- | --- |
| **Szervezeti egység** | **Gépszám** | **Állomáscímek száma** | **Alhálózat mérete** |
| Backend | 13 | 14 | /28 |
| Frontend | 11 | 14 | /28 |
| Tester | 10 | 14 | /28 |
| Design | 7 | 14 | /28 |
| Network engineer | 7 | 14 | /28 |
| Management | 4 | 6 | /29 |

## Wifi

|  |  |  |  |
| --- | --- | --- | --- |
| **Szervezeti egység** | **Gépszám** | **Állomáscímek száma** | **Alhálózat mérete** |
| Wifi | 3 | 30 | /27 |

## Switchek

|  |  |  |  |
| --- | --- | --- | --- |
| **Szervezeti egység** | **Gépszám** | **Állomáscímek száma** | **Alhálózat mérete** |
| Switch | 3 | 14 | /28 |

## Nyomtatók

|  |  |  |  |
| --- | --- | --- | --- |
| **Szervezeti egység** | **Gépszám** | **Állomáscímek száma** | **Alhálózat mérete** |
| Nyomtató | 3 | 6 | /29 |

## Server

|  |  |  |  |
| --- | --- | --- | --- |
| **Szervezeti egység** | **Gépszám** | **Állomáscímek száma** | **Alhálózat mérete** |
| Server | 1 | 2 | /30 |

# VLSM Tábla

|  |  |  |  |
| --- | --- | --- | --- |
| 192.168.1 | 0 | Wifi | alhálózati cím |
| 192.168.1 | 1 |  |
| 192.168.1 | 2 |  |
| 192.168.1 | 3 |  |
| 192.168.1 | 4 |  |
| 192.168.1 | 5 |  |
| 192.168.1 | 6 |  |
| 192.168.1 | 7 |  |
| 192.168.1 | 8 |  |
| 192.168.1 | 9 |  |
| 192.168.1 | 10 |  |
| 192.168.1 | 11 |  |
| 192.168.1 | 12 |  |
| 192.168.1 | 13 |  |
| 192.168.1 | 14 |  |
| 192.168.1 | 15 |  |
| 192.168.1 | 16 |  |
| 192.168.1 | 17 |  |
| 192.168.1 | 18 |  |
| 192.168.1 | 19 |  |
| 192.168.1 | 20 |  |
| 192.168.1 | 21 |  |
| 192.168.1 | 22 |  |
| 192.168.1 | 23 |  |
| 192.168.1 | 24 |  |
| 192.168.1 | 25 |  |
| 192.168.1 | 26 |  |
| 192.168.1 | 27 | Wireless Router0 |
| 192.168.1 | 28 | Wireless Router1 |
| 192.168.1 | 29 | Wireless Router2 |
| 192.168.1 | 30 | gateway |
| 192.168.1 | 31 | szórási cím |

|  |  |  |  |
| --- | --- | --- | --- |
| 192.168.1 | 32 | Backend - PC | alhálózati cím |
| 192.168.1 | 33 |  |
| 192.168.1 | 34 |  |
| 192.168.1 | 35 |  |
| 192.168.1 | 36 |  |
| 192.168.1 | 37 |  |
| 192.168.1 | 38 |  |
| 192.168.1 | 39 |  |
| 192.168.1 | 40 |  |
| 192.168.1 | 41 |  |
| 192.168.1 | 42 |  |
| 192.168.1 | 43 |  |
| 192.168.1 | 44 |  |
| 192.168.1 | 45 |  |
| 192.168.1 | 46 | gateway |
| 192.168.1 | 47 | szórási cím |
|  |  |  |  |
| 192.168.1 | 48 | Backend - Telefon | alhálózati cím |
| 192.168.1 | 49 |  |
| 192.168.1 | 50 |  |
| 192.168.1 | 51 |  |
| 192.168.1 | 52 |  |
| 192.168.1 | 53 |  |
| 192.168.1 | 54 |  |
| 192.168.1 | 55 |  |
| 192.168.1 | 56 |  |
| 192.168.1 | 57 |  |
| 192.168.1 | 58 |  |
| 192.168.1 | 59 |  |
| 192.168.1 | 60 |  |
| 192.168.1 | 61 |  |
| 192.168.1 | 62 | gateway |
| 192.168.1 | 63 | szórási cím |

|  |  |  |  |
| --- | --- | --- | --- |
| 192.168.1 | 64 | Frontend - PC | alhálózati cím |
| 192.168.1 | 65 |  |
| 192.168.1 | 66 |  |
| 192.168.1 | 67 |  |
| 192.168.1 | 68 |  |
| 192.168.1 | 69 |  |
| 192.168.1 | 70 |  |
| 192.168.1 | 71 |  |
| 192.168.1 | 72 |  |
| 192.168.1 | 73 |  |
| 192.168.1 | 74 |  |
| 192.168.1 | 75 |  |
| 192.168.1 | 76 |  |
| 192.168.1 | 77 |  |
| 192.168.1 | 78 | gateway |
| 192.168.1 | 79 | szórási cím |
|  |  |  |  |
| 192.168.1 | 80 | Frontend - Telefon | alhálózati cím |
| 192.168.1 | 81 |  |
| 192.168.1 | 82 |  |
| 192.168.1 | 83 |  |
| 192.168.1 | 84 |  |
| 192.168.1 | 85 |  |
| 192.168.1 | 86 |  |
| 192.168.1 | 87 |  |
| 192.168.1 | 88 |  |
| 192.168.1 | 89 |  |
| 192.168.1 | 90 |  |
| 192.168.1 | 91 |  |
| 192.168.1 | 92 |  |
| 192.168.1 | 93 |  |
| 192.168.1 | 94 | gateway |
| 192.168.1 | 95 | szórási cím |

|  |  |  |  |
| --- | --- | --- | --- |
| 192.168.1 | 96 | Tester - PC | alhálózati cím |
| 192.168.1 | 97 |  |
| 192.168.1 | 98 |  |
| 192.168.1 | 99 |  |
| 192.168.1 | 100 |  |
| 192.168.1 | 101 |  |
| 192.168.1 | 102 |  |
| 192.168.1 | 103 |  |
| 192.168.1 | 104 |  |
| 192.168.1 | 105 |  |
| 192.168.1 | 106 |  |
| 192.168.1 | 107 |  |
| 192.168.1 | 108 |  |
| 192.168.1 | 109 |  |
| 192.168.1 | 110 | gateway |
| 192.168.1 | 111 | szórási cím |
|  |  |  |  |
| 192.168.1 | 112 | Tester - Telefon | alhálózati cím |
| 192.168.1 | 113 |  |
| 192.168.1 | 114 |  |
| 192.168.1 | 115 |  |
| 192.168.1 | 116 |  |
| 192.168.1 | 117 |  |
| 192.168.1 | 118 |  |
| 192.168.1 | 119 |  |
| 192.168.1 | 120 |  |
| 192.168.1 | 121 |  |
| 192.168.1 | 122 |  |
| 192.168.1 | 123 |  |
| 192.168.1 | 124 |  |
| 192.168.1 | 125 |  |
| 192.168.1 | 126 | gateway |
| 192.168.1 | 127 | szórási cím |

|  |  |  |  |
| --- | --- | --- | --- |
| 192.168.1 | 128 | Design - PC | alhálózati cím |
| 192.168.1 | 129 |  |
| 192.168.1 | 130 |  |
| 192.168.1 | 131 |  |
| 192.168.1 | 132 |  |
| 192.168.1 | 133 |  |
| 192.168.1 | 134 |  |
| 192.168.1 | 135 |  |
| 192.168.1 | 136 |  |
| 192.168.1 | 137 |  |
| 192.168.1 | 138 |  |
| 192.168.1 | 139 |  |
| 192.168.1 | 140 |  |
| 192.168.1 | 141 |  |
| 192.168.1 | 142 | gateway |
| 192.168.1 | 143 | szórási cím |
|  |  |  |  |
| 192.168.1 | 144 | Design - Tel | alhálózati cím |
| 192.168.1 | 145 |  |
| 192.168.1 | 146 |  |
| 192.168.1 | 147 |  |
| 192.168.1 | 148 |  |
| 192.168.1 | 149 |  |
| 192.168.1 | 150 |  |
| 192.168.1 | 151 |  |
| 192.168.1 | 152 |  |
| 192.168.1 | 153 |  |
| 192.168.1 | 154 |  |
| 192.168.1 | 155 |  |
| 192.168.1 | 156 |  |
| 192.168.1 | 157 |  |
| 192.168.1 | 158 | gateway |
| 192.168.1 | 159 | szórási cím |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 192.168.1 | 160 | Network Engineer - PC | alhálózati cím |  | 192.168.1 | 176 | Network Engineer - Tel | alhálózati cím |
| 192.168.1 | 161 |  |  | 192.168.1 | 177 |  |
| 192.168.1 | 162 |  |  | 192.168.1 | 178 |  |
| 192.168.1 | 163 |  |  | 192.168.1 | 179 |  |
| 192.168.1 | 164 |  |  | 192.168.1 | 180 |  |
| 192.168.1 | 165 |  |  | 192.168.1 | 181 |  |
| 192.168.1 | 166 |  |  | 192.168.1 | 182 |  |
| 192.168.1 | 167 |  |  | 192.168.1 | 183 |  |
| 192.168.1 | 168 |  |  | 192.168.1 | 184 |  |
| 192.168.1 | 169 |  |  | 192.168.1 | 185 |  |
| 192.168.1 | 170 |  |  | 192.168.1 | 186 |  |
| 192.168.1 | 171 |  |  | 192.168.1 | 187 |  |
| 192.168.1 | 172 |  |  | 192.168.1 | 188 |  |
| 192.168.1 | 173 |  |  | 192.168.1 | 189 |  |
| 192.168.1 | 174 | gateway |  | 192.168.1 | 190 | gateway |
| 192.168.1 | 175 | szórási cím |  | 192.168.1 | 191 | szórási cím |

|  |  |  |  |
| --- | --- | --- | --- |
| 192.168.1 | 192 | Management - Tel | alhálózati cím |
| 192.168.1 | 193 |  |
| 192.168.1 | 194 |  |
| 192.168.1 | 195 |  |
| 192.168.1 | 196 |  |
| 192.168.1 | 197 |  |
| 192.168.1 | 198 | gateway |
| 192.168.1 | 199 | szórási cím |
|  |  |  |  |
| 192.168.1 | 200 | Management - PC | alhálózati cím |
| 192.168.1 | 201 |  |
| 192.168.1 | 202 |  |
| 192.168.1 | 203 |  |
| 192.168.1 | 204 |  |
| 192.168.1 | 205 |  |
| 192.168.1 | 206 | gateway |
| 192.168.1 | 207 | szórási cím |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 192.168.1 | 208 | SW-R | alhálózati cím |  | 192.168.1 | 224 | Nyomtatók | alhálózati cím |
| 192.168.1 | 209 | S0 |  | 192.168.1 | 225 |  |
| 192.168.1 | 210 | S1 |  | 192.168.1 | 226 |  |
| 192.168.1 | 211 | S2 |  | 192.168.1 | 227 |  |
| 192.168.1 | 212 |  |  | 192.168.1 | 228 |  |
| 192.168.1 | 213 |  |  | 192.168.1 | 229 |  |
| 192.168.1 | 214 |  |  | 192.168.1 | 230 |  |
| 192.168.1 | 215 |  |  | 192.168.1 | 231 | szórási cím |
| 192.168.1 | 216 |  |  |  |  |  |  |
| 192.168.1 | 217 |  |  | 192.168.1 | 232 | Server | alhálózati cím |
| 192.168.1 | 218 |  |  | 192.168.1 | 233 | Szerver IP |
| 192.168.1 | 219 |  |  | 192.168.1 | 234 | gateway |
| 192.168.1 | 220 |  |  | 192.168.1 | 235 | szórási cím |
| 192.168.1 | 221 |  |  |  |  |  |  |
| 192.168.1 | 222 |  |  |  |  |  |  |
| 192.168.1 | 223 | szórási cím |  |  |  |  |  |

# Switchek portkiosztása

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S0 | Port | Alhálózat | Vlan | Eszköz |  |
|  | Fa0/1 | 192.168.1.192/29 | 2 | IP Phone - mngt |  |
|  | Fa0/2 | 192.168.1.200/29 | 1 | PC - mngt |  |
|  | Fa0/3 | 192.168.1.48/28 | 31 | IP Phone - backend |  |
|  | Fa0/4 | 192.168.1.32/28 | 30 | PC - backend |  |
|  | Fa0/5 | 192.168.1.112/28 | 51 | IP Phone - tester |  |
|  | Fa0/6 | 192.168.1.96/28 | 50 | PC - tester |  |
|  | Fa0/7 - 0/19 | - | - | - |  |
|  | Fa0/20 | 192.168.1.224/29 | 80 | Printer0 |  |
|  | Fa0/21 | 192.168.1.0/27 | 100 | Wireless Router0 |  |
|  | Fa0/22 | 192.168.1.232/30 | 90 | Server |  |
|  | Fa0/23 | - | trunk | S1 |  |
|  | Fa0/24 | - | trunk | Router |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| S1 | Port | Alhálózat | Vlan | Eszköz |  |
|  | Fa0/1 | 192.168.1.80/28 | 21 | IP Phone - frontend 1 |  |
|  | Fa0/2 | 192.168.1.64/28 | 20 | PC - frontend 1 |  |
|  | Fa0/3 | 192.168.1.48/28 | 31 | IP Phone - backend 1 |  |
|  | Fa0/4 | 192.168.1.32/28 | 30 | PC - backend 1 |  |
|  | Fa0/5 | 192.168.1.144/28 | 61 | IP Phone -UX 1 |  |
|  | Fa0/6 | 192.168.1.128/28 | 60 | PC - UX 1 |  |
|  | Fa0/7 - 0/19 | - | - | - |  |
|  | Fa0/20 | 192.168.1.224/29 | 80 | Printer0 |  |
|  | Fa0/21 | 192.168.1.0/27 | 100 | Wireless Router0 |  |
|  | Fa0/22 | - | - | - |  |
|  | Fa0/23 | - | trunk | S2 |  |
|  | Fa0/24 | - | trunk | S0 |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| S2 | Port | Alhálózat | Vlan | Eszköz |  |
|  | Fa0/1 | 192.168.1.80/28 | 21 | IP Phone - frontend 1 |  |
|  | Fa0/2 | 192.168.1.64/28 | 20 | PC - frontend 1 |  |
|  | Fa0/3 | 192.168.1.176/28 | 41 | IP Phone - neteng 2 |  |
|  | Fa0/4 | 192.168.1.160/28 | 40 | PC - neteng 2 |  |
|  | Fa0/5 | 192.168.1.112/28 | 51 | IP Phone - tester 2 |  |
|  | Fa0/6 | 192.168.1.96/28 | 50 | PC - tester 2 |  |
|  | Fa0/7 - 0/19 | - | - | - |  |
|  | Fa0/20 | 192.168.1.224/29 | 80 | Printer0 |  |
|  | Fa0/21 | 192.168.1.0/27 | 100 | Wireless Router0 |  |
|  | Fa0/22 | - | - | - |  |
|  | Fa0/23 | - | - | - |  |
|  | Fa0/24 | - | trunk | S2 |  |

# DHCP poolok

|  |  |  |  |
| --- | --- | --- | --- |
| PC |  |  |  |
| **Szervezeti egység** | **Alhálózat címe** | **Átjáró címe** | **DNS** |
| Management | 192.168.1.200 /29 | 192.168.1.206 | 192.168.1.233 |
| Frontend | 192.168.1.64 / 28 | 192.168.1.78 | 192.168.1.233 |
| Backend | 192.168.1.32 /28 | 192.168.1.46 | 192.168.1.233 |
| Net engeneer | 192.168.1.160 /28 | 192.168.1.174 | 192.168.1.233 |
| Tester | 192.168.1.96 /28 | 192.168.1.110 | 192.168.1.233 |
| Design | 192.168.1.128 /28 | 192.168.1.142 | 192.168.1.233 |
|  |  |  |  |
|  |  |  |  |
| Telefon |  |  |  |
| **Szervezeti egység** | **Alhálózat címe** | **Átjáró címe** |  |
| Management | 192.168.1.192 | 192.168.1.198 |  |
| Frontend | 192.168.1.80 | 192.168.1.94 |  |
| Backend | 192.168.1.48 | 192.168.1.62 |  |
| Net engeneer | 192.168.1.176 | 192.168.1.190 |  |
| Tester | 192.168.1.112 | 192.168.1.126 |  |
| Design | 192.168.1.144 | 192.168.1.158 |  |
|  |  |  |  |
| Wifi |  |  |  |
| **Szervezeti egység** | **Alhálózat címe** | **Átjáró címe** | **DNS** |
| WiFi | 192.168.1.0 /27 | 192.168.1.30 | 192.168.1.233 |

# Tesztek

|  |
| --- |
| Tesztelés menete |
| - adott switcheken belül, adott Vlan-on belül a gépeknek van-e IP címe |
| - adott switchen belül, adott vlan-on belül két gép között ping |
| - különböző switchek között , ugyanabban a vlanban két gép között ping |
| - adott gép eléri-e az alapértelmezett átjárót |
| - adott switchben, különöző vlanok ban lévő gépek között ping, traceroute |
| - különböző switchben, különböző vlanban lévő gépek között ping |
| - névfeloldás ellenörzése |
| - webszerver elérhető |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Honnan | Hova | Típus | Sikeres |  |
| 1 | PC - mngt | PC - mngt 1 | ping | ✔ | S0 |
| 2 | PC - back | PC - back 1 | ping | ✔ | S0 |
| 3 | PC - tester | PC - tester 1 | ping | ✔ | S0 |
| 4 | PC - front | PC - front 1 | ping | ✔ | S1 |
| 5 | PC - back 2 | PC - back 3 | ping | ✔ | S1 |
| 6 | PC - Ux | PC Ux 1 | ping | ✔ | S1 |
| 7 | PC - front 2 | PC - front 3 | ping | ✔ | S2 |
| 8 | PC - nete | PC - nete | ping | ✔ | S2 |
| 9 | Pc - tester 2 | PC - tester 3 | ping | ✔ | S2 |
| 10 | PC - front | PC - front 2 | ping | ✔ | S1 - S2 |
| 11 | PC - back | PC - back 2 | ping | ✔ | S0 - S1 |
| 12 | PC - tester | PC - tester 2 | ping | ✔ | S0 -S2 |
| 13 | PC - mngt | R1 | ping | ✔ |  |
| 14 | PC - back | R1 | ping | ✔ |  |
| 15 | PC - tester | R1 | ping | ✔ |  |
| 16 | PC - ux | R1 | ping | ✔ |  |
| 17 | PC - front | R1 | ping | ✔ |  |
| 18 | PC - nete | R1 | ping | ✔ |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 19 | PC - mngt | PC - back | ping | ✔ | S0 |
| 20 | PC back | PC - tester | ping | ✔ | S0 |
| 21 | PC -tester | PC - mngt | ping | ✔ | S0 |
| 22 | PC - mngt | PC - back | tracert | ✔ | S0 |
| 23 | PC back | PC - tester | tracert | ✔ | S0 |
| 24 | PC -tester | PC - mngt | tracert | ✔ | S0 |
| 25 | PC - front 1 | PC - back 1 | ping | ✔ | S1 |
| 26 | PC - back 1 | PC - UX 1 | ping | ✔ | S1 |
| 27 | PC - Ux 1 | PC - front 1 | ping | ✔ | S1 |
| 28 | PC - front 1 | PC - back 1 | tracert | ✔ | S1 |
| 29 | PC - back 1 | PC - UX 1 | tracert | ✔ | S1 |
| 30 | PC - Ux 1 | PC - front 1 | tracert | ✔ | S1 |
| 31 | PC - front 2 | PC - nete 2 | ping | ✔ | S2 |
| 32 | PC - nete 2 | PC - tester 2 | ping | ✔ | S2 |
| 33 | PC - tester 2 | PC - front 2 | ping | ✔ | S2 |
| 34 | PC - front 2 | PC - nete 2 | tracert | ✔ | S2 |
| 35 | PC - nete 2 | PC - tester 2 | tracert | ✔ | S2 |
| 36 | PC - tester 2 | PC - front 2 | tracert | ✔ | S2 |
| 37 | PC - mngt | PC - front 1 | ping | ✔ | - |
| 38 | PC - mngt | PC - front 2 | ping | ✔ | - |
| 39 | PC - mngt | PC - back 1 | ping | ✔ | - |
| 40 | PC - mngt | PC - nete 2 | ping | ✔ | - |
| 41 | PC - mngt | PC - tester 2 | ping | ✔ | - |
| 42 | PC - mngt | PC - UX 1 | ping | ✔ | - |
| 43 | PC - front 1 | PC - Front 2 | ping | ✔ | - |
| 44 | PC - front 1 | PC - back | ping | ✔ | - |
| 45 | PC - front 1 | PC - nete 2 | ping | ✔ | - |
| 46 | PC - front 1 | PC - tester | ping | ✔ | - |
| 47 | PC - front 2 | PC - tester 2 | ping | ✔ | - |
| 48 | PC - back | PC - nete 2 | ping | ✔ | - |
| 49 | PC - back | PC - tester 2 | ping | ✔ | - |
| 50 | PC - back | PC - UX 2 | ping | ✔ | - |
| 51 | PC - nete 2 | PC - tester | ping | ✔ | - |
| 52 | PC - mngt | Server | nslookup | ✔ | - |
| 53 | PC - front 1 | Server | nslookup | ✔ | - |
| 54 | PC - front 2 | Server | nslookup | ✔ | - |
| 55 | PC - mngt | Server | ping | ✔ | - |
| 56 | PC - front 1 | Server | ping | ✔ | - |
| 57 | PC - front 2 | Server | ping | ✔ | - |