

IPv6 Subnetting Problems

Problem 1

Subnets Based on User Groups

ISP Address: 2001:EE00:2575::/48

- Infrastructure Site ID: 2001:EE00:2575::/52
- Sales Site ID: 2001:EE00:2575:1000::/52
- Accounting Site ID: 2001:EE00:2575:2000::/52
- Distribution Site ID: 2001:EE00:2575:3000::/52
- Casting Site ID: 2001:EE00:2575:4000::/52
- Editing Site ID: 2001:EE00:2575:5000::/52

Subnets Based on Location

ISP Address: 2001:EE00:2575::/48

- Infrastructure Site ID: 2001:EE00:2575::/52
- Administration Site ID: 2001:EE00:2575:1000::/52
 - Infrastructure Sub-Site ID: 2001:EE00:2575:1000::/56
 - Sales Sub-Site ID: 2001:EE00:2575:1100::/56
 - Accounting Sub-Site ID: 2001:EE00:2575:1200::/56
 - Distribution Sub-Site ID: 2001:EE00:2575:1300::/56
- Production Site ID: 2001:EE00:2575:2000::/52
 - Infrastructure Sub-Site ID: 2001:EE00:2575:2000::/56
 - Casting Sub-Site ID: 2001:EE00:2575:2100::/56
 - Editing Sub-Site ID: 2001:EE00:2575:2200::/56

Problem 2

Subnets Based on User Groups

ISP Address: 3F01:ABCD:8875::/48

- Infrastructure Site ID: 3F01:ABCD:8875::/52
- Management Site ID: 3F01:ABCD:8875:1000::/52
- Sales Site ID: 3F01:ABCD:8875:2000::/52
- Human Resources Site ID: 3F01:ABCD:8875:3000::/52
- Warehouse Site ID: 3F01:ABCD:8875:1000:4000::/52

Subnets Based on Location

ISP Address:

- Infrastructure Site ID: ID: 3F01:ABCD:8875::/52
- Building 1 Site ID: ID: 3F01:ABCD:8875:1000::/52
 - Infrastructure Sub-Site ID: 3F01:ABCD:8875:1000::/56

- Management Sub-Site ID: 3F01:ABCD:8875:1100::/56
- Sales Sub-Site ID: 3F01:ABCD:8875:1200::/56
- Building 2 Site ID: 3F01:ABCD:8875:2000::/52
 - Infrastructure Sub-Site ID: 3F01:ABCD:8875:2000::/56
 - Management Sub-Site ID: 3F01:ABCD:8875:2100::/56
 - Human Resources Sub-Site ID: 3F01:ABCD:8875:2200::/56
- Building 3 Site ID: 3F01:ABCD:8875:3000::/52
 - Infrastructure Sub-Site ID: 3F01:ABCD:8875:3000::/56
 - Management Sub-Site ID: 3F01:ABCD:8875:3100::/56
 - Warehouse Sub-Site ID: 3F01:ABCD:8875:3200::/56

Problem 3

Subnets Based on User Groups

ISP Address: 2001:CA21:9000::/48

- Infrastructure Site ID: 2001:CA21:9000::/52
- Management Groups Site ID: 2001:CA21:9000:1000::/52
 - HR Sub-Site ID: 2001:CA21:9000:1000::/56
 - Sales Sub-Site ID: 2001:CA21:9000:1100::/56
 - Wholesale Sub-Site ID: 2001:CA21:9000:1100::/60
 - Retail Sub-Site ID: 2001:CA21:9000:1110::/60
- Production Groups Site ID: 2001:CA21:9000:2000::/52
 - Warehouse Sub-Site ID: 2001:CA21:9000:2000::/56
 - Shipping Sub-Site ID: 2001:CA21:9000:2100::/56
 - Domestic Sub-Site ID: 2001:CA21:9000:2100::/60
 - Worldwide Sub-Site ID: 2001:CA21:9000:2110::/60

Subnets Based on Location

ISP Address: 2001:CA21:9000::/48

- Infrastructure Site ID: 2001:CA21:9000::/52
- Building A Site ID: 2001:CA21:9000:1000::/52
 - Infrastructure Sub-Site ID: 2001:CA21:9000:1000::/56
 - HR Sub-Site ID: 2001:CA21:9000:1100::/56
 - Sales Sub-Site ID: 2001:CA21:9000:1200::/56
 - Wholesale Sub-Site ID: 2001:CA21:9000:1200::/60
 - Retail Sub-Site ID: 2001:CA21:9000:1210::/60
- Building B Site ID: 2001:CA21:9000:2000::/52
 - Infrastructure Sub-Site ID: 2001:CA21:9000:2000::/56
 - Warehouse Sub-Site ID: 2001:CA21:9000:2100::/56
 - Shipping Sub-Site ID: 2001:CA21:9000:2200::/56
 - Domestic Sub-Site ID: 2001:CA21:9000:2200::/60
 - Worldwide Sub-Site ID: 2001:CA21:9000:2210::/60

Problem 4

Subnets Based on User Groups

ISP Address: 2000:ACAD:1145::/48

- Infrastructure Site ID: 2000:ACAD:1145::/52
- Administration Site ID: 2000:ACAD:1145:1000::/52
- Finance Site ID: 2000:ACAD:1145:2000::/52
- Guest Access Site ID: 2000:ACAD:1145:3000::/52
- Marketing Site ID: 2000:ACAD:1145:4000::/52
- Bookkeeping Site ID: 2000:ACAD:1145:5000::/52

Subnets Based on Location

ISP Address: 2000:ACAD:1145::/48

- Infrastructure Site ID: 2000:ACAD:1145::/52
- Office A Site ID: 2000:ACAD:1145:1000::/52
 - Infrastructure Sub-Site ID: 2000:ACAD:1145:1000::/56
 - Management Sub-Site ID: 2000:ACAD:1145:1100::/56
 - Administration Sub-Site ID: 2000:ACAD:1145:1100::/60
 - Finance Sub-Site ID: 2000:ACAD:1145:1110::/60
 - Wireless Access Sub-Site ID: 2000:ACAD:1145:1200::/56
 - Guest Access Sub-Site ID: 2000:ACAD:1145:1200::/60
 - Marketing Sub-Site ID: 2000:ACAD:1145:1210::/60
- Office B Site ID: 2000:ACAD:1145:2000::/52
 - Infrastructure Sub-Site ID: 2000:ACAD:1145:2000::/56
 - Management Sub-Site ID: 2000:ACAD:1145:2100::/56
 - Administration Sub-Site ID: 2000:ACAD:1145:2100::/60
 - Production Sub-Site ID: 2000:ACAD:1145:2200::/56
 - Administration Sub-Site ID: 2000:ACAD:1145:2200::/60
 - Bookkeeping Sub-Site ID: 2000:ACAD:1145:2210::/60
 - Wireless Access Sub-Site ID: 2000:ACAD:1145:2300::/56
 - Guest Access Sub-Site ID: 2000:ACAD:1145:2300::/60

Problem 5

Subnets Based on User Groups

ISP Address: 3F01:AA07:3907::/48

- Infrastructure Site ID: 3F01:AA07:3907::/52
- Manufacturing Groups Site ID: 3F01:AA07:3907:1000::/52
 - Infrastructure Sub-Site ID: 3F01:AA07:3907:1000::/56
 - Marketing Sub-Site ID: 3F01:AA07:3907:1100::/56
 - Inventory Sub-Site ID: 3F01:AA07:3907:1200::/56
 - Shipping Sub-Site ID: 3F01:AA07:3907:1300::/56
- Admin Groups Site ID: 3F01:AA07:3907:2000::/52
 - Infrastructure Sub-Site ID: 3F01:AA07:3907:2000::/56

- HR Sub-Site ID: 3F01:AA07:3907:2100::/56
 - Hiring Sub-Site ID: 3F01:AA07:3907:2100::/60
 - Benefits Sub-Site ID: 3F01:AA07:3907:2110::/60
- Financial Sub-Site ID: 3F01:AA07:3907:2200::/56
 - Purchasing Sub-Site ID: 3F01:AA07:3907:2200::/60
 - Sales Sub-Site ID: 3F01:AA07:3907:2210::/60

Subnets Based on Location

ISP Address: 3F01:AA07:3907::/48

- Infrastructure Site ID: 3F01:AA07:3907::/52
- 33rd Floor Site ID: 3F01:AA07:3907:1000::/52
 - Infrastructure Sub-Site ID: 3F01:AA07:3907:1000::/56
 - Manufacturing Groups Sub-Site ID: 3F01:AA07:3907:1100::/56
 - Marketing Sub-Site ID: 3F01:AA07:3907:1100::/60
 - Inventory Sub-Site ID: 3F01:AA07:3907:1110::/60
 - Shipping Sub-Site ID: 3F01:AA07:3907:1120::/60
- 34th Floor Site ID: 3F01:AA07:3907:2000::/52
 - Infrastructure Sub-Site ID: 3F01:AA07:3907:2000::/56
 - Admin Groups Sub-Site ID: 3F01:AA07:3907:2100::/56
 - HR Sub-Site ID: 3F01:AA07:3907:2100::/60
 - Hiring Sub-Site ID: 3F01:AA07:3907:2100::/64
 - Benefits Sub-Site ID: 3F01:AA07:3907:2101::/64
 - Financial Sub-Site ID: 3F01:AA07:3907:2200::/56
 - Purchasing Sub-Site ID: 3F01:AA07:3907:2200::/60
 - Sales Sub-SiteID: 3F01:AA07:3907:2210::/60

Problem 6

Subnets Based on User Groups

ISP Address: 2001:0:17::/52

- Infrastructure Site ID: 2001:0:17::/56
- Administrators Site ID: 2001:0:17:0100::/56
- Staff Site ID: 2001:0:17:0200::/56
- Advertising Site ID: 2001:0:17:0300::/56
 - Infrastructure Sub-Site ID: 2001:0:17:0300::/60
 - Radio Sub-Site ID: 2001:0:17:0310::/60
 - TV Sub- Site ID: 2001:0:17:0320::/60
 - Web Sub- Site ID: 2001:0:17:0330::/60
- Sales Site ID: 2001:0:17:0400::/56
 - Infrastructure Sub-Site ID: 2001:0:17:0400::/60
 - Retail Sub-Site ID: 2001:0:17:0410::/60
 - Wholesale Sub-Site ID: 2001:0:17:0420::/60

Subnets Based on Location

ISP Address: 2001:0:17::/52

- Infrastructure Site ID: 2001:0:17::/56
- Management Site ID: 2001:0:17:0100::/56
 - Infrastructure Sub-Site ID: 2001:0:17:0100::/60
 - Administrators Sub-Site ID: 2001:0:17:0110::/60
 - Staff Sub- Site ID: 2001:0:17:0120::/60
- Finance Site ID: 2001:0:17:0200::/56
 - Infrastructure Sub-Site ID: 2001:0:17:0200::/60
 - Staff Sub-Site ID: 2001:0:17:0210::/60
- Marketing Dept Site ID: 2001:0:17:0300::/56
 - Infrastructure Sub-Site ID: 2001:0:17:0300::/60
 - Advertising Sub-Site ID: 2001:0:17:0310::/60
 - Radio Sub-Site ID: 2001:0:17:0310::/64
 - TV Sub-Site ID: 2001:0:17:0311::/64
 - Web Sub-Site ID: 2001:0:17:0312::/64
 - Sales Sub-Site ID: 2001:0:17:0400::/56
 - Retail Sub-Site ID: 2001:0:17:0400::/60
 - Wholesale Sub-Site ID: 2001:0:17:0410::/60

Problem 7

Subnets Based on User Groups

ISP Address: 3F00:3589:0:5000::/52

- Infrastructure Site ID: 3F00:3589:0:5000::/52
- Management Site ID: 3F00:3589:0:5100::/52
- HR Site ID: 3F00:3589:0:5200::/52
 - Infrastructure Sub-Site ID: 3F00:3589:0:5200::/56
 - Record Keeping Sub-Site ID: 3F00:3589:0:5210::/56
 - Insurance Sub-Site ID: 3F00:3589:0:5220::/56
- Finance Site ID: 3F00:3589:0:5300::/52
 - Infrastructure Sub-Site ID: 3F00:3589:0:5300::/56
 - Sales Sub-Site ID: 3F00:3589:0:5310::/56
- Purchasing Site ID: 3F00:3589:0:5400::/52
 - Inventory Sub-Site ID: 3F00:3589:0:5400::/56
 - Distribution Sub-Site ID: 3F00:3589:0:5410::/56

Subnets Based on Location

ISP Address: 3F00:3589:0:5000::/52

- Infrastructure Site ID: 3F00:3589:0:5000::/56
- Office A Site ID: 3F00:3589:0:5100::/56
 - Infrastructure Sub-Site ID: 3F00:3589:0:5100::/60
 - Management Sub-Site ID: 3F00:3589:0:5110::/60
 - HR Sub- Site ID: 3F00:3589:0:5120::/60

- Record Keeping Sub-Site ID: 3F00:3589:0:5110::/64
 - Insurance Sub-Site ID: 3F00:3589:0:5111::/64
- Office B Site ID: 3F00:3589:0:5200::/56
 - Infrastructure Sub-Site ID: 3F00:3589:0:5200::/60
 - Management Sub-Site ID: 3F00:3589:0:5210::/60
 - Finance Sub-Site ID: 3F00:3589:0:5220::/60
 - Sales Sub-Site ID: 3F00:3589:0:5220::/64
- Office C Site ID: 3F00:3589:0:5300::/56
 - Infrastructure Sub-Site ID: 3F00:3589:0:5300::/60
 - Management Sub-Site ID: 3F00:3589:0:5310::/60
 - Purchasing Sub-Site ID: 3F00:3589:0:5320::/60
 - Inventory Sub-Site ID: 3F00:3589:0:5320::/64
 - Distribution Sub-Site ID: 3F00:3589:0:5321::/64

Problem 8

Subnets Based on User Groups

ISP Address:

- Infrastructure Site ID: 2000:2531:FE00::/52
- Nurses/Staff Site ID: 2000:2531:FE00:1000::/52
- Laboratory Site ID: 2000:2531:FE00:2000::/52
- Obstetrics Site ID: 2000:2531:FE00:3000::/52
- Pediatric Site ID: 2000:2531:FE00:4000::/52
- Records Site ID: 2000:2531:FE00:5000::/52
- Guest WIFI Site ID: 2000:2531:FE00:6000::/52

Subnets Based on Location

ISP Address:

- Infrastructure Site ID: 2000:2531:FE00::/52
- Emergency Site ID: 2000:2531:FE00:1000::/52
 - Infrastructure Sub-Site ID: 2000:2531:FE00:1000::/56
 - Nurses/Staff Sub-Site ID: 2000:2531:FE00:1100::/56
 - Laboratory Sub-Site ID: 2000:2531:FE00:1200::/56
 - Obstetrics Sub-Site ID: 2000:2531:FE00:1300::/56
 - Pediatric Sub-Site ID: 2000:2531:FE00:1400::/56
- Admissions Site ID: 2000:2531:FE00:2000::/52
 - Infrastructure Sub-Site ID: 2000:2531:FE00:2000::/56
 - Nurses/Staff Sub-Site ID: 2000:2531:FE00:2100::/56
 - Records Sub-Site ID: 2000:2531:FE00:2200::/56
- Patient Wards Site ID: 2000:2531:FE00:3000::/52
 - Infrastructure Sub-Site ID: 2000:2531:FE00:3000::/56
 - Ward A Sub-Site ID: 2000:2531:FE00:3100::/56
 - Nurses/Staff Sub-Site ID: 2000:2531:FE00:3100::/60
 - Guest WIFI Sub-Site ID: 2000:2531:FE00:3110::/60

- Ward B Sub-Site ID: 2000:2531:FE00:3200::/56
 - Nurses/Staff Sub-Site ID: 2000:2531:FE00:3200::/60
 - Guest WIFI Sub-Site ID: 2000:2531:FE00:3210::/60