**Capstone Project Propsoal**

**Group 3: B1P3 (2082 - 2089)**

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|  | **IPv4** | **IPv6** |
| **Major LAN networks** | 172.19.0.0/16 | FD00:DB8:19::/48 |
| Site1 (64× /24) | 172.19.0.0/18 | FD00:DB8:19:0::/64 |
| Site2 (32× /24) | 172.19.64.0/19 | FD00:DB8:19:64::/64 |
| Site3 (16× /24) | 172.19.96.0/20 | FD00:DB8:19:96::/64 |
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| **Major WAN Network** |  |  |
| SP1 | 152.19.0.0/16 | N/A |
| Site1-WAN1 | 152.19.0.0/30 | N/A |
| Site2-WAN1 | 152.19.0.4/30 | N/A |
| Site3-WAN1 | 152.19.0.8/30 | N/A |
| SP2 | 162.19.0.0/16 | N/A |
| Site1-WAN2 | 162.19.0.0/30 | N/A |
| Site2-WAN2 | 162.19.0.4/30 | N/A |
| Site3-WAN2 | 162.19.0.8/30 | N/A |

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| **Site** | **Assigned IPv4 Range** | **Assigned IPv6 Range** | **Subnet Mask** |
| Burnaby | 172.19.0.0/18 | FD00:DB8:19:0::/64 | /24 |
| Vancouver | 172.19.64.0/19 | FD00:DB8:19:64::/6 | /24 |
| Richmond | 172.19.96.0/20 | FD00:DB8:19:96::/6 | /24 |

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|  | **IPv4** |
| **SP1** | 152.19.0.0/16 |
| Site1-WAN1 |  |
| → SP1 (S1 – Gig1/0/1) | 152.19.0.1/30 |
| → Site1 (R1 – Gig0/0/0) | 152.19.0.2/30 |
| Site2-WAN1 |  |
| → SP1 (S1 – Gig1/0/2) | 152.19.0.5/30 |
| → Site2 (R2 – Gig0/0/0) | 152.19.0.6/30 |
| Site3-WAN1 |  |
| → SP1 (S1 – Gig1/0/3) | 152.19.0.9/30 |
| → Site3 (R3 – Gig0/0/0) | 152.19.0.10/30 |

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|  | **IPv4** |
| **SP2** | 162.19.0.0/16 |
| Site1-WAN2 |  |
| → SP2 (S2 – Gig1/0/1) | 162.19.0.1/30 |
| → Site1 (R1 – Gig0/0/1) | 162.19.0.2/30 |
| Site2-WAN2 |  |
| → SP2 (S2 – Gig1/0/2) | 162.19.0.5/30 |
| → Site2 (R2 – Gig0/0/1) | 162.19.0.6/30 |
| Site3-WAN2 |  |
| → SP2 (S2 – Gig1/0/3) | 162.19.0.9/30 |
| → Site3 (R3 – Gig0/0/1) | 162.19.0.10/30 |

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| **Interface** | **IPv4** | **IPv6** |
| R1 – Loop 1 | 172.19.63.254/24 | FD00:DB8:19:3F::FE/64 |
| R1 – Gig 0/1/0 | 172.19.0.1/24 | FD00:DB8:19:0::FE/64 |
| Fortigate -Port6 | 172.19.0.2/24 | FD00:DB8:19:1F::FE/64 |
| Fortigate– port7 – VLAN 1 – SE1-115 | 172.19.1.254/24 | FD00:DB8:19:1::FE/64 |
| Fortigate– port7 – VLAN 2 – SE1-207 | 172.19.2.254/24 | FD00:DB8:19:2::FE/64 |
| Fortigate– port7 – VLAN 3 – SE1-DC | 172.19.3.254/24 | FD00:DB8:19:3::FE/64 |

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| **Interface** | **IPv4** | **IPv6** |
| R2 – Gig 0/1/0 | 172.19.64.254/24 | FD00:DB8:19:40::FE/64 |
| R2 – Loop 1 | 172.19.65.254/24 | FD00:DB8:19:5F::FE/64 |
| R2 – Gig 0/1/0 – VLAN 1 – 360 | 172.19.66.254/24 | FD00:DB8:19:41::FE/64 |
| R2 – Gig 0/1/1 – VLAN 2 – Room 460 | 172.19.67.254/24 | FD00:DB8:19:42::FE/64 |

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| **Interface** | **IPv4** | **IPv6** |
| R3 – Gig 0/1/0 – VLAN 1 – 1N5 | 172.19.96.254/24 | FD00:DB8:19:60::FE/64 |
| R3 – Loop 1 | 172.19.111.254/24 | FD00:DB8:19:6F::FE/64 |
| R3 – Gig 0/1/1 – VLAN 2 – 2W7 | 172.19.97.254/24 | FD00:DB8:19:61::FE/64 |
| R3 – Gig 0/1/2 – VLAN 3 – Placeholder | 172.19.98.254/24 | FD00:DB8:19:62::FE/64 |