1. 1. Forwarding table

| Destination Address Range | Link Interface |
| --- | --- |
| 11100000 00\*\*\*\*\*\* \*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\* | 0 |
| 11100000 01000000 \*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\* | 1 |
| 1110000\* \*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\* | 2 |
| 11100001 1\*\*\*\*\*\*\* \*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\* | 3 |
| otherwise | 3 |

* 1. 1. 110\*\* = otherwise, 3
     2. 1110000\*\* = 2
     3. 11100001 1\*\* = otherwise, 3



| Prefix | Destination Address Range | Link Interface | Number of Addresses |
| --- | --- | --- | --- |
| 00 | 00000000 - 00111111 | 0 | 64 |
| 010 | 01000000 - 01011111 | 1 | 32 |
| 011 | 01100000 - 11111111 | 2 | 32 |
| 10 | 01100000 - 10111111 | 2 | 64 |
| 11 | 11000000 - 11111111 | 3 | 64 |



| Prefix | Address Range | Link Interface | Number of Addresses |
| --- | --- | --- | --- |
| 1 | 11000000 - 11011111 | 0 | 32 |
| 10 | 10000000 - 10111111 | 1 | 64 |
| 111 | 11100000 - 11111111 | 2 | 32 |
| otherwise | 00000000 - 01111111 | 3 | 128 |



| subnet | Address Range |
| --- | --- |
| 1 | 223.1.17.128 /25 - 223.1.17.191 /25 |
| 2 | 223.1.17.0 /25 - 223.1.17.127 /25 |
| 3 | 223.1.17.192 /25 - 223.1.17.207 /25 |

1. 128.119.40.129

| subnet | Address Range |
| --- | --- |
| 1 | 128.119.40.64 /28 - 128.119.40.79 /28 |
| 2 | 128.119.40.80 /28 - 128.119.40.95 /28 |
| 3 | 128.119.40.96 /28 - 128.119.40.111 /28 |
| 4 | 128.119.40.112 /28 - 128.119.40.127 /28 |

1. With x as start

|  | dv | pv |
| --- | --- | --- |
| t | 7 | v |
| u | 6 | v |
| v | 3 | x |
| w | 6 | x |
| x | 0 | - |
| y | 6 | x |
| z | 8 | x |

| Step | Path | Current | Neighbors | Curr Weights | Weights |
| --- | --- | --- | --- | --- | --- |
| 0 | x | X, +0 | z, y, v, w | 8, 6, 3, 6 | - |
| 1 | x-v | V, +3 | y, t, u, w | 8, 4, 3, 4 | 11, 7, 6, 7 |
| 2 | x-v-u | U, +6 | t, w | 2, 3 | 8, 9 |
| 3 | x-v-t | T, +5 | y, v | 7, 4 | 12, 9 |
| 4 | x-w | W, +8 | y | 12 | 20 |



| Destination | u | v | x | y | z |
| --- | --- | --- | --- | --- | --- |
| u | 0 | 1 | 4 | 2 | 6 |
| v | 1 | 0 | 3 | 3 | 5 |
| x | 4 | 3 | 0 | 3 | 2 |
| y | 2 | 3 | 3 | 0 | 5 |
| z | 6 | 5 | 2 | 5 | 0 |