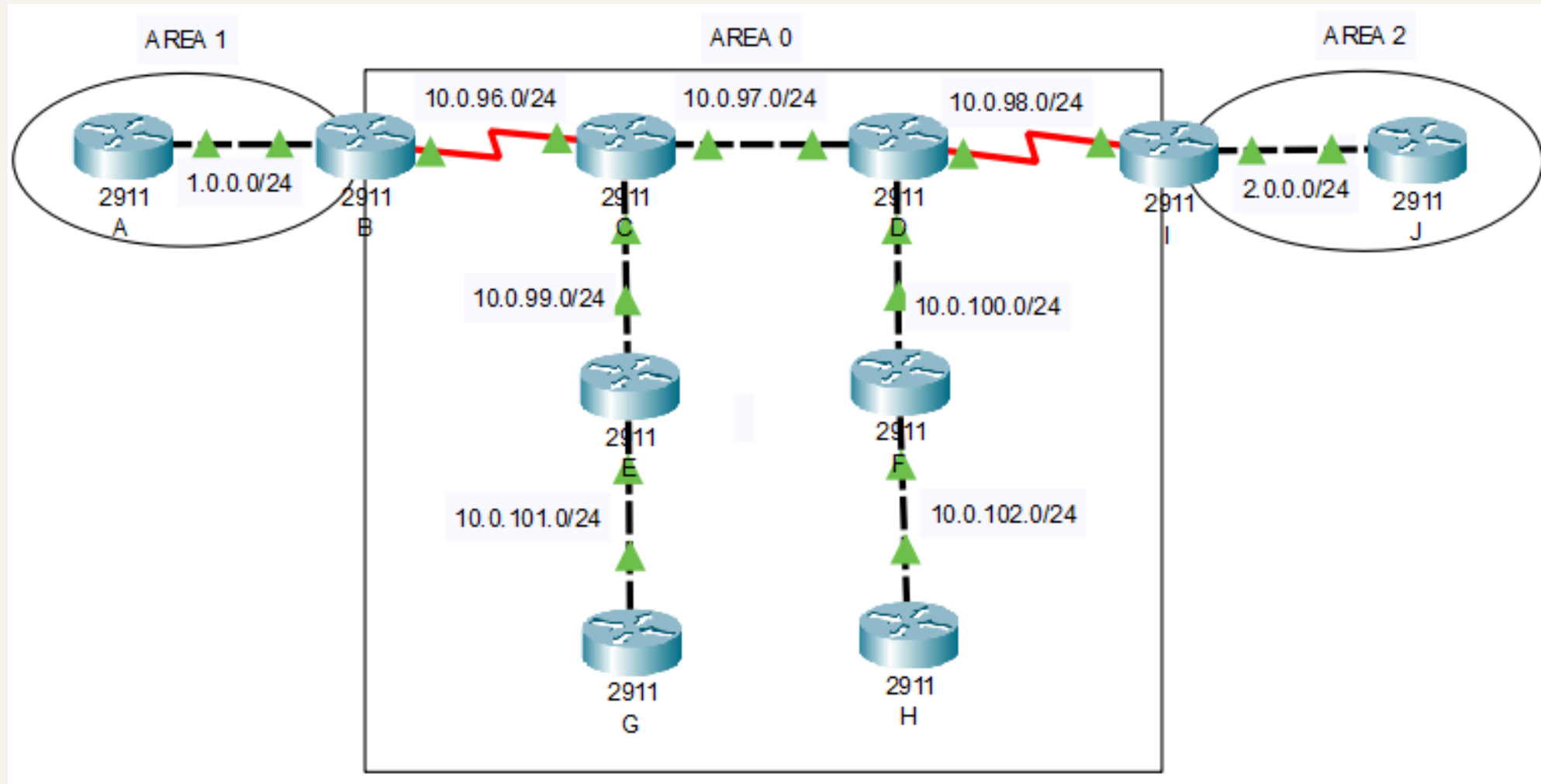


Summarization in OSPF

CyberQuince

Summarization — Example



Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|-------|-----|----|----|----|---|---|---|---|
| 10.0. | | | | | | | | |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | | | | | | | | |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10.0. (97) | | | | | | | | |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| 10.0. (98) | | | | | | | | |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| 10.0. (98) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|-------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| 10.0. (98) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 10.0. (99) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 10.0. (100) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 10.0. (101) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| 10.0. (102) | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|-------------|-----|----|----|----|---|---|---|---|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| 10.0. (98) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 10.0. (99) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 10.0. (100) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 10.0. (101) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| 10.0. (102) | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| 10.0. (98) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 10.0. (99) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 10.0. (100) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 10.0. (101) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| 10.0. (102) | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| 10.0. | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |

Summarization — Example

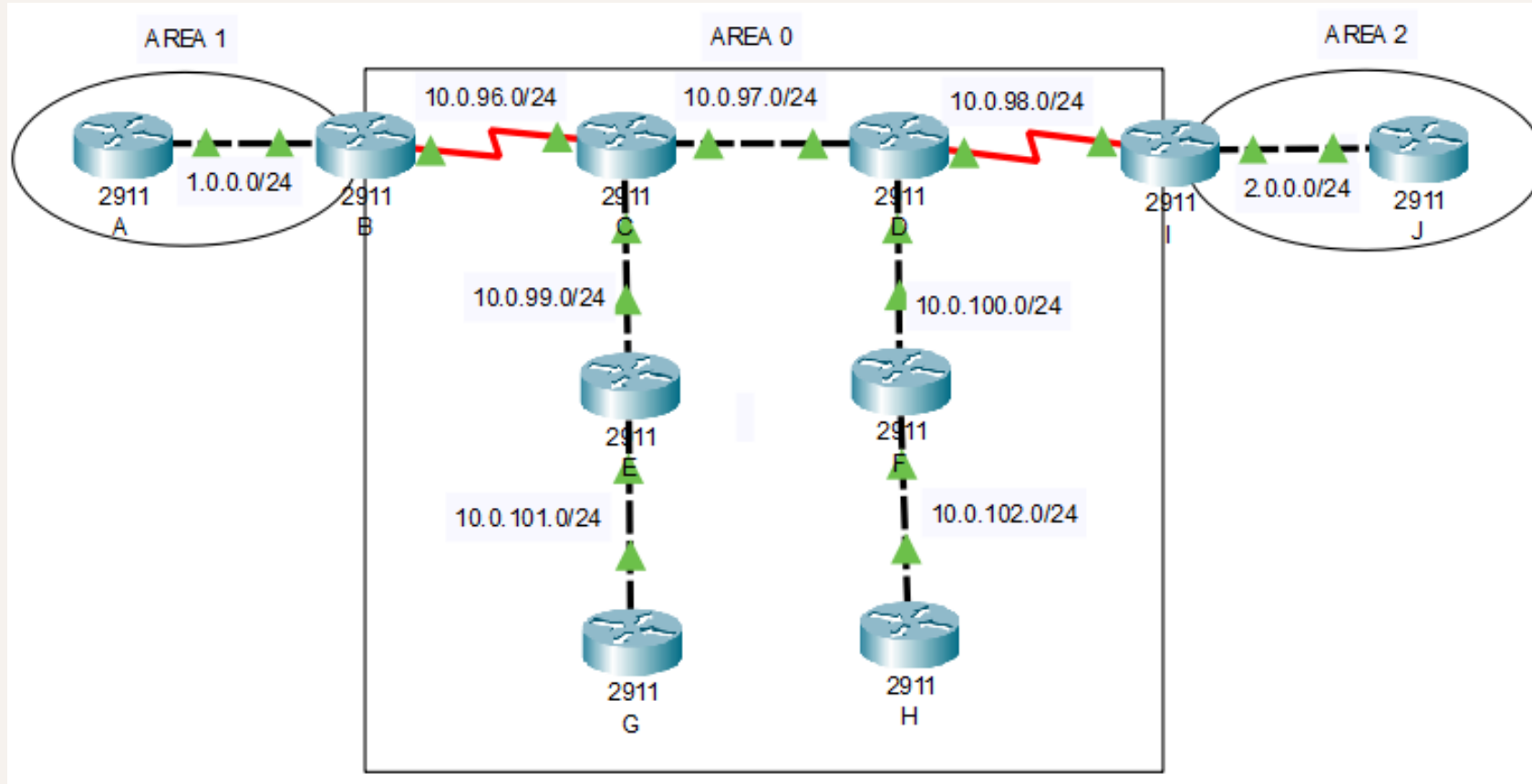
| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | | | | | | | | | | | | | | | | |
|-------------|-----|----|----|----|---|---|---|---|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | |
| 10.0. (98) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | | | | | | | | | | | | | | | | |
| 10.0. (99) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | |
| 10.0. (100) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | | | | |
| 10.0. (101) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | |
| 10.0. (102) | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | | | | | | | | | | | | | | | | |
| 10. 0. | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | . 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | | | | | | | |

Summarization — Example

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | |
|-------------|-----|----|----|----|---|---|---|---|-------------------|
| 10.0. (96) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| 10.0. (97) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | |
| 10.0. (98) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | |
| 10.0. (99) | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | |
| 10.0. (100) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | |
| 10.0. (101) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | |
| 10.0. (102) | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| 10.0. | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | . 0 0 0 0 0 0 0 0 |

→ Summary IP: 10.0.96.0 /21

Summarization in OSPF - Configuration



```
B(config-router)#area 0 range 10.0.96.0 255.255.248.0
```

```
I(config-router)#area 0 range 10.0.96.0 255.255.248.0
```

Summarization in OSPF

CyberQuince