

Instituto Tecnológico de Cancún

INSTITUTO TECNOLÓGICO DE CANCÚN

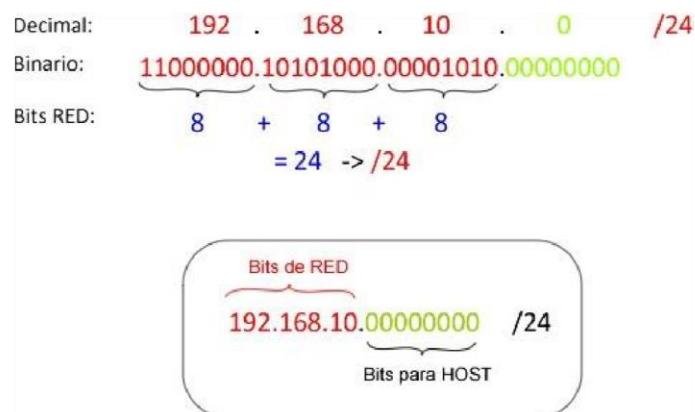
CALCULO DE REDES

MIGUEL ÁNGEL OY CASTRO

21 ENERO 2021

PROFESOR: ISMAEL JIMÉNEZ SÁNCHEZ

FUNDAMENTOS DE TELECOMUNICACIONES



Ip=172.16.0.0/19

| | | | | | |
|---------|----------|----------|----------|----------|---------------|
| Ip | 10101100 | 00010000 | 00000000 | 00000000 | 172.16.0.0 |
| Mask | 11111111 | 11111111 | 11100000 | 00000000 | 255.255.224.0 |
| Id | 10101100 | 00010000 | 00000000 | 00000000 | 172.16.0.0/19 |
| Wcard | 00000000 | 00000000 | 00011111 | 11111111 | 0.0.3.255 |
| Bcast | 10101100 | 00010000 | 00011111 | 11111111 | 172.16.31.255 |
| 1ª ip | 10101100 | 00010000 | 00000000 | 00000001 | 172.16.0.1 |
| Last ip | 10101100 | 00010000 | 00011111 | 11111110 | 172.16.31.254 |

Ip=172.16.0.0/21

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|---------|----------|----------|----------|----------|---------------|
| Ip | 10101100 | 00010000 | 00000000 | 00000000 | 172.16.0.0 |
| Mask | 11111111 | 11111111 | 11111000 | 00000000 | 255.255.248.0 |
| Id | 10101100 | 00010000 | 00000000 | 00000000 | 172.16.0.0/21 |
| Wcard | 00000000 | 00000000 | 00000111 | 11111111 | 0.0.7.255 |
| Bcast | 10101100 | 00010000 | 00000111 | 11111111 | 172.16.7.255 |
| 1ª ip | 10101100 | 00010000 | 00000000 | 00000001 | 172.16.0.1 |
| Last ip | 10101100 | 00010000 | 00000111 | 11111110 | 172.16.7.254 |

Ip=172.16.8.0/22

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|---------|----------|----------|----------|----------|---------------|
| Ip | 10101100 | 00010000 | 00001000 | 00000000 | 172.16.8.0 |
| Mask | 11111111 | 11111111 | 11111100 | 00000000 | 255.255.240.0 |
| Id | 10101100 | 00010000 | 00001000 | 00000000 | 172.16.8.0/22 |
| Wcard | 00000000 | 00000000 | 00000011 | 11111111 | 0.0.3.255 |
| Bcast | 10101100 | 00010000 | 00001011 | 11111111 | 172.16.31.255 |
| 1ª ip | 10101100 | 00010000 | 00001000 | 00000001 | 172.16.0.1 |
| Last ip | 10101100 | 00010000 | 00001011 | 11111110 | 172.16.31.254 |

Ip=172.16.12.0/22

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|---------|----------|----------|----------|----------|----------------|
| Ip | 10101100 | 00010000 | 00001100 | 00000000 | 172.16.12.0 |
| Mask | 11111111 | 11111111 | 11111100 | 00000000 | 255.255.252.0 |
| Id | 10101100 | 00010000 | 00001100 | 00000000 | 172.16.12.0/22 |
| Wcard | 00000000 | 00000000 | 00000011 | 11111111 | 0.0.3.255 |
| Bcast | 10101100 | 00010000 | 00001111 | 11111111 | 172.16.15.255 |
| 1ª ip | 10101100 | 00010000 | 00001100 | 00000001 | 172.16.12.1 |
| Last ip | 10101100 | 00010000 | 00001111 | 11111110 | 172.16.15.254 |

Ip=172.16.16.0/23

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|---------|----------|----------|----------|----------|----------------|
| Ip | 10101100 | 00010000 | 00010000 | 00000000 | 172.16.16.0 |
| Mask | 11111111 | 11111111 | 11111110 | 00000000 | 255.255.254.0 |
| Id | 10101100 | 00010000 | 00010000 | 00000000 | 172.16.12.0/23 |
| Wcard | 00000000 | 00000000 | 00000001 | 11111111 | 0.0.1.255 |
| Bcast | 10101100 | 00010000 | 00010001 | 11111111 | 172.16.17.255 |
| 1ª ip | 10101100 | 00010000 | 00010000 | 00000001 | 172.16.16.1 |
| Last ip | 10101100 | 00010000 | 00010001 | 11111110 | 172.16.17.254 |

Ip=172.16.18.0/23

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|---------|----------|----------|----------|----------|----------------|
| Ip | 10101100 | 00010000 | 00010010 | 00000000 | 172.16.18.0 |
| Mask | 11111111 | 11111111 | 11111110 | 00000000 | 255.255.254.0 |
| Id | 10101100 | 00010000 | 00010010 | 00000000 | 172.16.18.0/23 |
| Wcard | 00000000 | 00000000 | 00000001 | 11111111 | 0.0.1.255 |
| Bcast | 10101100 | 00010000 | 00010011 | 11111111 | 172.16.19.255 |
| 1ª ip | 10101100 | 00010000 | 00010010 | 00000001 | 172.16.18.1 |
| Last ip | 10101100 | 00010000 | 00010011 | 11111110 | 172.16.19.254 |

Ip=172.16.20.0/24

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|---------|----------|----------|----------|----------|----------------|
| Ip | 10101100 | 00010000 | 00010100 | 00000000 | 172.16.20.0 |
| Mask | 11111111 | 11111111 | 11111111 | 00000000 | 255.255.255.0 |
| Id | 10101100 | 00010000 | 00010100 | 00000000 | 172.16.20.0/24 |
| Wcard | 00000000 | 00000000 | 00000000 | 11111111 | 0.0.0.255 |
| Bcast | 10101100 | 00010000 | 00010100 | 11111111 | 172.16.20.255 |
| 1ª ip | 10101100 | 00010000 | 00010100 | 00000001 | 172.16.20.1 |
| Last ip | 10101100 | 00010000 | 00010100 | 11111110 | 172.16.20.254 |

Ip=172.16.21.0/24

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|---------|----------|----------|----------|----------|----------------|
| Ip | 10101100 | 00010000 | 00010101 | 00000000 | 172.16.21.0 |
| Mask | 11111111 | 11111111 | 11111111 | 00000000 | 255.255.255.0 |
| Id | 10101100 | 00010000 | 00010101 | 00000000 | 172.16.21.0/24 |
| Wcard | 00000000 | 00000000 | 00000000 | 11111111 | 0.0.0.255 |
| Bcast | 10101100 | 00010000 | 00010101 | 11111111 | 172.16.21.255 |
| 1ª ip | 10101100 | 00010000 | 00010101 | 00000001 | 172.16.21.1 |
| Last ip | 10101100 | 00010000 | 00010101 | 11111110 | 172.16.21.254 |

Ip=172.16.22.0/24

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|---------|----------|----------|----------|----------|----------------|
| Ip | 10101100 | 00010000 | 00010110 | 00000000 | 172.16.22.0 |
| Mask | 11111111 | 11111111 | 11111111 | 00000000 | 255.255.255.0 |
| Id | 10101100 | 00010000 | 00010110 | 00000000 | 172.16.22.0/24 |
| Wcard | 00000000 | 00000000 | 00000000 | 11111111 | 0.0.0.255 |
| Bcast | 10101100 | 00010000 | 00010110 | 11111111 | 172.16.22.255 |
| 1ª ip | 10101100 | 00010000 | 00010110 | 00000001 | 172.16.22.1 |
| Last ip | 10101100 | 00010000 | 00010110 | 11111110 | 172.16.22.254 |

Ip=172.16.23.0/25

| | | | | | |
|---------|----------|----------|----------|----------|-----------------|
| Ip | 10101100 | 00010000 | 00010111 | 00000000 | 172.16.23.0 |
| Mask | 11111111 | 11111111 | 11111111 | 10000000 | 255.255.255.128 |
| Id | 10101100 | 00010000 | 00101110 | 00000000 | 172.16.23.0/25 |
| Wcard | 00000000 | 00000000 | 00000000 | 01111111 | 0.0.0.127 |
| Bcast | 10101100 | 00010000 | 00010111 | 11111111 | 172.16.23.127 |
| 1ª ip | 10101100 | 00010000 | 00010111 | 00000001 | 172.16.23.1 |
| Last ip | 10101100 | 00010000 | 00010111 | 11111110 | 172.16.23.126 |

Ip=172.16.23.128/26

| | | | | | |
|---------|----------|----------|----------|----------|------------------|
| Ip | 10101100 | 00010000 | 00010111 | 10000000 | 172.16.23.128 |
| Mask | 11111111 | 11111111 | 11111111 | 11000000 | 255.255.255.192 |
| Id | 10101100 | 00010000 | 00010111 | 10000000 | 172.16.23.128/26 |
| Wcard | 00000000 | 00000000 | 00000000 | 00111111 | 0.0.0.63 |
| Bcast | 10101100 | 00010000 | 00010111 | 10111111 | 172.16.23.191 |
| 1ª ip | 10101100 | 00010000 | 00010111 | 10000001 | 172.16.23.129 |
| Last ip | 10101100 | 00010000 | 00010111 | 10111110 | 172.16.23.190 |