

# Torpedo Oficial

## Redes de computadores

### Decimal a Hexadecimal

First Hex Digit → [e.g.  $64_{16} = 100_{10}$ ]

HEX<sub>16</sub> ↔ DECIMAL<sub>10</sub>

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Second Hex Digit →

	0x	1x	2x	3x	4x	5x	6x	7x	8x	9x	Ax	Bx	Cx	Dx	Ex	Fx
x0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
x1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
x2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
x3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
x4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
x5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
x6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
x7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
x8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
x9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
xA	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
xB	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
xC	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
xD	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
xE	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
xF	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

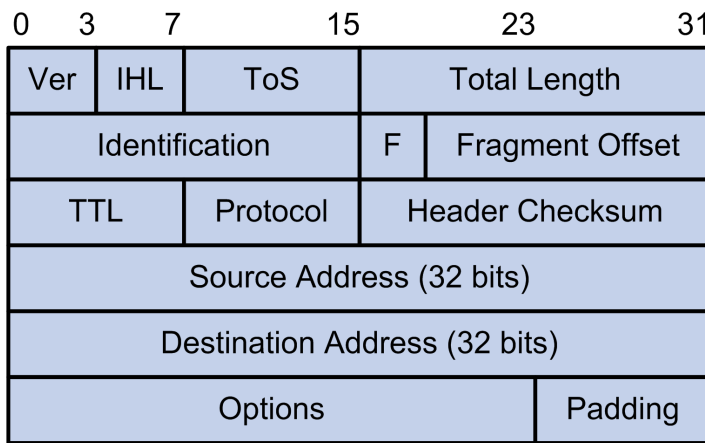
### Clases IPv4

Class	First Octet Range	Valid Network Numbers*	8	24 - x	x	
A	1 to 126	1.0.0.0 to 126.0.0.0	Network	Subnet	Host	Class A
B	128 to 191	128.0.0.0 to 191.255.0.0	16	16 - x	x	
			Network	Subnet	Host	Class B
C	192 to 223	192.0.0.0 to 223.255.255.0	24	8 - x	x	
			Network	Subnet	Host	Class C

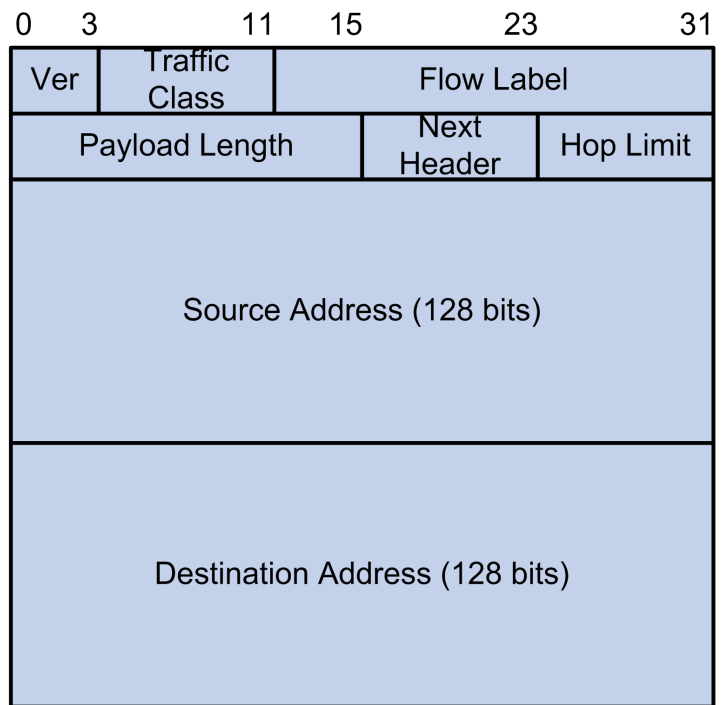
### IPv6 – Removiendo los 0s

FE80:0:0:0:2AA:FF:FE9A:4CA2 becomes FE80::2AA:FF:FE9A:4CA2

FF02:0:0:0:0:0:0:2 becomes FF02::2



IPv4 header



Basic IPv6 header

F en IPv6 = Máscara actual - 48  
 Incremento IPv6 =  $2^{(16 - (F+S))}$

## Puerto - Aplicación

20 y 21 – FTP

23 – Telnet

25 – SMTP

53 – DNS

67 y 68 – DHCP

69 – TFTP

80 – HTTP

443 – HTTPS

520 – RIP

Maximum Number  
of Hosts ( $2^h - 2$ )

Maximum Number  
of Subnets ( $2^s$ )

Subnet Mask's Decimal Octet	Binary Equivalent	Number of Binary 1s
0	00000000	0
128	10000000	1
192	11000000	2
224	11100000	3
240	11110000	4
248	11111000	5
252	11111100	6
254	11111110	7
255	11111111	8