

# IP Address Breakdown

<b>/24</b>	<b>/25</b>	<b>/26</b>	<b>/27</b>	<b>/28</b>	<b>/29</b>	<b>/30</b>
8+8+8	8+8+8+1	8+8+8+2	8+8+8+3	8+8+8+4	8+8+8+5	8+8+8+6
255.255.255.0	255.255.255.128	255.255.255.192	255.255.255.224	255.255.255.240	255.255.255.248	255.255.255.252
256 Hosts	128 Hosts	64 Hosts	32 Hosts	16 Hosts	8 Hosts	4 Hosts
0-255	0-127	0-63	0-31	0-15	0-7	0-3
						4-7
					8-15	8-11
						12-15
			16-31	16-23	16-19	
					20-23	
				24-31	24-27	
					28-31	
		32-63	32-47	32-39	32-35	
					36-39	
				40-47	40-43	
					44-47	
			48-63	48-55	48-51	
					52-55	
				56-63	56-59	
					60-63	
	64-127	64-127	64-79	64-71	64-67	
					68-71	
				72-79	72-75	
					76-79	
			80-95	80-87	80-83	
					84-87	
				88-95	88-91	
					92-95	
		96-127	96-111	96-103	96-99	
					100-103	
				104-111	104-107	
					108-111	
			112-127	112-119	112-115	
					116-119	
				120-127	120-123	
					124-127	
128-255	128-191	128-143	128-135	128-131		
				132-135		
			136-143	136-139		
				140-143		
			144-151	144-147		
				148-151		
		144-159	152-159	152-155		
				156-159		
			160-175	16-167	160-163	
					164-167	
				168-175	168-171	
					172-175	
	176-183	176-179				
		180-183				
	192-255	160-191	184-191	184-187		
				188-191		
			192-199	192-195		
				196-199		
			192-207	200-203		
				204-207		
		192-223	208-223	208-215	208-211	
					212-215	
				216-223	216-219	
			224-239	224-231	224-227	
				228-231		
232-239				232-235		
224-255	240-255	236-239	236-239			
			240-243			
		240-247	244-247			
	240-255	248-255	248-251			
			252-255			

### Class A Addressing Guide

CIDR	# of Bits Borrowed	Subnet Mask	Total # of Subnets	Total # of Hosts	Usable # of Hosts
/8	0	255.0.0.0	1	16,777,216	16,777,214
/9	1	255.128.0.0	2	8,388,608	8,388,606
/10	2	255.192.0.0	4	4,194,304	4,194,302
/11	3	255.224.0.0	8	2,097,152	2,097,150
/12	4	255.240.0.0	16	1,048,576	1,048,574
/13	5	255.248.0.0	32	524,288	524,286
/14	6	255.252.0.0	64	262,144	262,142
/15	7	255.254.0.0	128	131,072	131,070
/16	8	255.255.0.0	256	65,536	65,534
/17	9	255.255.128.0	512	32,768	32,766
/18	10	255.255.192.0	1,024	16,384	16,382
/19	11	255.255.224.0	2,048	8,192	8,190
/20	12	255.255.240.0	4,096	4,096	4,094
/21	13	255.255.248.0	8,192	2,048	2,046
/22	14	255.255.252.0	16,384	1,024	1,022
/23	15	255.255.254.0	32,768	512	510
/24	16	255.255.255.0	65,536	256	254
/25	17	255.255.255.128	131,072	128	126
/26	18	255.255.255.192	262,144	64	62
/27	19	255.255.255.224	524,288	32	30
/28	20	255.255.255.240	1,048,576	16	14
/29	21	255.255.255.248	2,097,152	8	6
/30	22	255.255.255.252	4,194,304	4	2

### Class B Addressing Guide

CIDR	# of Bits Borrowed	Subnet Mask	Total # of Subnets	Total # of Hosts	Usable # of Hosts
/16	0	255.255.0.0	1	65,536	65,534
/17	1	255.255.128.0	2	32,768	32,766
/18	2	255.255.192.0	4	16,384	16,382
/19	3	255.255.224.0	8	8,192	8,190
/20	4	255.255.240.0	16	4,096	4,094
/21	5	255.255.248.0	32	2,048	2,046
/22	6	255.255.252.0	64	1,024	1,022
/23	7	255.255.254.0	128	512	510
/24	8	255.255.255.0	256	256	254
/25	9	255.255.255.128	512	128	126
/26	10	255.255.255.192	1,024	64	62
/27	11	255.255.255.224	2,048	32	30
/28	12	255.255.255.240	4,096	16	14
/29	13	255.255.255.248	8,192	8	6
/30	14	255.255.255.252	16,384	4	2

### Class C Addressing Guide

CIDR	# of Bits Borrowed	Subnet Mask	Total # of Subnets	Total # of Hosts	Usable # of Hosts
/24	0	255.255.255.0	1	256	254
/25	1	255.255.255.128	2	128	126
/26	2	255.255.255.192	4	64	62
/27	3	255.255.255.224	8	32	30
/28	4	255.255.255.240	16	16	14
/29	5	255.255.255.248	32	8	6
/30	6	255.255.255.252	64	4	2