Emilio Sibaja Villarreal	

255.255.255.192

## **Ejercicios VLSM**

## A01025139

						IP						Ma							
EJERCIC	10 1				140.35	.0.0/17				-	2	55.25	5.192	2.0		_			
Host	s	IP Segn	mento	Mask CIDR	Máscar	a en decin	nal			Ra	ingo utili	zable				IP	Difu	sión	
115			.35.0.0	25		255.255.2		28			140.35			5.0.1	26	1	40.3	5.0.1	27
80		140.3	5.0.128	25		255.255.2	55.1	28		$\top$	140.35.0	).129	- 140	).35.0	).254	$\overline{}$		5.0.2	
63		140.	.35.1.0	26		255.255.2	55.1	92		$\top$	140.35	.1.1 -	140.	.35.1.	.62	T :	140.5	35.1.6	63
45		140.3	35.1.64	26		255.255.2	55.1	92		$\top$	140.35.	1.65 -	140.	.35.1.	.126	1	40.3	5.1.1	27
15		140.3	5.1.128	28		255.255.2	55.2	40		$\top$	140.35.1	.129	- 140	).35.1	.142	1	40.3	5.1.1	43
2			5.1.144	30		255.255.2				$\top$	140.35.1					$\overline{}$		5.1.1	_
2		140.3	5.1.148	30		255.255.2	55.2	252		$\top$	140.35.1	.149	- 140	).35.1	.150	$\overline{}$		5.1.1	_
	128		64		32	16	8	4	2	1		128	64	32	16	8	4	2	1
140.35.	0		0		0	0	0	0	0	0		0	0	0	0	0	0	0	0
Hosts	11	15 ->	7 bit	ıs															I
			IP Se	_	5.0.0/25														Ī
	$\perp$		IP Di		5.0.127														
	$\perp$		Rang	-	5.1 - 140.3														
	128	_	Mas 64		55.255.12	8 16	8	4	2	1	_	128	64	22	16	0	Λ	2	- 1
140.35.	0		0		32 0	0	0	0	0	0		0	0	32 0	16 0	8	4 0	2 0	1 0
												1							
	00		7 6 14																
Hosts	80	->	7 bits		.0.128/25														
	+		IP Dif	_															
	_		Range			40.35.0.254													
			Mask		5.255.128														
	128		64		32	16	8	4	2	1		128	64	32	16	8	4	2	1
140.35.	0		0		0	0	0	0	0	0		0	0	0	0	0	0	0	0
			61.0							1									
Hosts	63	->	6 bits		1.0/26														
	-		IP Se																
	+		Rang		.1.1 - 140.	35.1.62													

	128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
140.35.	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
										1						
Hosts	45 ->	6 bits														
		IP Seg.	140.35.1.64/26													
		IP Dif.	140.35.1.127													
		Rango:	140.35.1.65 - 140	.35.1.126												
		Mask:	255.255.255.192													
	128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
140.35.	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
									1							
Hosts	15 ->	4 bits														
		IP Seg.	140.35.1.128/28													
		IP Dif.	140.35.1.143													
		Rango:	140.35.1.129 - 14	0.35.1.142	)											
		Mask:	255.255.255.240													
		1														
	128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
140.35.	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
												1				
Hosts	2 ->	2 bits														
		IP Seg.	140.35.1.144/30													
		IP Dif.	140.35.1.147													
		Rango:	140.35.1.145 - 14	10.35.1.14	6											
		Mask:	255.255.255.252													
	128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
140.35.	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0
														1		
Hosts	2 ->	2 bits														
		IP Seg.	140.35.1.148/30													
		IP Dif.	140.35.1.151													
		Rango:	140.35.1.149 - 14	0.35.1.150	)											

255.255.255.252

							ID								14	l.								-
EIEDCICIO 3						125	IP <b>0.0.0</b> /	42							Mas	к 8 <b>.0.0</b>								+
EJERCICIO 2						123.	U.U.U	12						255	.248	0.0.0								$\dashv$
Hosts	IP Segmento	Mas	k CIDR	Másca	ra e	n de	cimal				Rai	ngo i	utili	izab	le					IP I	Difu	ısióı	n	
355	125.0.0.0		23				55.25									5.0.	1.25	4				0.1.		
215	125.0.2.0		24				55.25									5.0.				_		0.2.2		_
105	125.0.3.0		25				5.255									5.0.				_		0.3.:		_
75	125.0.3.12	_	25				5.255				$\vdash$					25.0						0.3.2		_
35	125.0.4.0		26				5.255				$\vdash$					5.0.4				_		.0.4		_
2	125.0.4.6		30				5.255									25.0				_		.0.4		_
2	125.0.4.6		30				5.255				$\vdash$					25.0						.0.4		$\dashv$
	•	_ '									_													_
125 .	128 0	64 0		32 16 0 0	8 0	4 0			. 128 . 0	64 0	32 0	16 0	8		2 1		128		32 0	16 0	8	4 0	2	
				0		•	0		. 0	J	J	V		U	J 0		J	U	U	U	U	v		
Hosts	355 ->	9 bits	125.0	0.0/22																				
		IP Seg. IP Dif.		0.0/23					Más	cara		N	lueva	Más	cara		Н	osts			Nu	ievo l	Bit	
		Rango:		0.1 - 12!	5.0 1	254																	7"	
		Mask:		55.254.0																				
								-																
125 .	128 0	64 0		32 16 0 0		4 0	0 0			64 0	32 0		8		2 :		128 0	64 0	32 0	16 0	8	4 0		1
123 .	U	U		0 0		0	0 0		. 0		U		U	U	1		U	U	U	U	U	U	U	U
Hosts	215 ->	8 bits																						
110313	213 %	IP Seg.	125.0	2.0/24				_																
		IP Dif.	125.0					$\top$																
		Rango:		2.1 - 129	5.0.2.	254																		
		Mask:	255.2	55.255.0																				
400	128	64		32 16	8		2 1		128	64	32	16	8	4	2		128	64	32	16	8	4	2	1
125 .	0	0		0 0	0	0	0 0		. 0	0	0	0	0	0	1 (	) . I	0	0	0	0	0	0	0	0
												-												
Hosts	105 ->	7 bits																						
		IP Seg.	125.0.																					
		IP Dif.	125.0.			100		_																
		Rango:		3.1 - 125		126		_																
		Mask:	255.25	5.255.1	28			_																
125	128	64		2 16	8	4 2			128	64	32	16	8	4	2 1		128	64	32	16	8	4	2	1
120 .	0	0		0	0	0 (	0		. 0	0	0	0	0	0	1 1		0	0	0	0	0	0	0	0
							-																	_

									_																
Hosts	75 ->	7 bits																							
		IP Seg.	125.0.3	128/	25																				
		ID Dif	125 0 2	255																					
	128	64	32	16	8	4	2	1		128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
125	. 0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
															1										
Hosts	35 ->	6 bits																							
		IP Seg.	125.0.4.	0/26																					
		IP Dif.	125.0.4.	63																					
		Rango:	125.4.1	- 125	0.4	62																			
		Mask:	255.255																						
									_																
405	128	64	32	16	8	4	2	1		128		32	16	8	4	2	1	128	64	32	16	8	4	2	1
125	. 0	0	0	0	0	0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
																			1	_					
Hosts	2 ->	2 bits																							
		IP Seg.	125.0.4.	64/30	0																				
		IP Dif.	125.0.4																						
		Rango:	125.0.4		25.0	0.4.6	6																		
							,,,		-																
		Mask:	255.255	.255.	252				_																
	128	64	32	16	8	4	2	1		128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
125 .	0	0	0	0	0	0	0	0		0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
																							1		
Hosts	2 ->	2 bits																							
110313	2 -7		405.0.4	co lo	_																				
		IP Seg.	125.0.4		U																				
		IP Dif.	125.0.4	.71																					
		Rango:	125.0.4	.69 - 1	125.0	0.4.7	70																		

255.255.255.252

EJERCICIO	3					128.	192.0.0	/12			255.248.0.0														
Hosts	IP Segment	to I	Mask CID	R M	áscara	en d	lecimal				Ra	ango	uti	liza	ble						ΙP	Dif	usió	n	
1550	128.192.	0.0	21			255.	.255.24	8.0				128	.192	2.0.:	1 -	128	3.19	2.7	.254	4	12	28.1	92.	7.25	55
710	128.192.	8.0	22	Т		255.	.255.25	2.0				128.	192	.8.1	l - 1	28.	192	2.11	.25	4	12	8.1	92.1	1.2	55
500	128.192.1	12.0	23	Т		255.	.255.25	4.0			1	128.:	192	12.	1 -	128	.19	2.1	3.25	54	12	8.1	92.1	3.2	55
100	128.192.1	14.0	25	$\top$	2	55.2	55.255	.128			1	128.:	192	14.	1 -	128	3.19	2.1	4.12	26	12	8.1	92.1	4.1	27
50	128.192.14	-	26	$\top$			55.255				-	28.19									+-				$\rightarrow$
2	128.192.14	$\overline{}$	30	$\top$			55.255				+-	28.19									-				_
	_			_																	•	U.1			22
128	128	64	4 3 L (		16 8	0	2 1 0		128 0	64 0	32 0	16 0	8	4 0	2	0		128 0	64 0	32 0	16 0	8	4	2	1
		1	. '		U	U	0 0		U	U	U	U	U	U	U	U	•	U	U	U	U	U	0	U	0
Hosts	1550 ->	11 bit		02.0	0/21																				
		IP Seg						D.A	ásca	ra		Ni	ueva	Más	car			Не	sts				Nuevo	s Rit	
		Rango			.1 - 128	192	7 254	IVI	asco	ii a		14	ucva	IVIG	scar			110	/515				iuevi	יוט כ	-
		Mask				.132.	7.234																		
								_																	
	128		64	32	16 8	4	2 1		128	64	32	16	8	4	2	1		128	64	32	16	8	4	2	1
128	. 1		1	0	0 0	0	0 0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
													1												
Hosts	710 ->	10 bit																							
		IP Seg																							
		IP Dif.				100.4	4.054	-																	
		Rango Mask:			.1 - 128.	192.1	1.254	-																	
		IVId5K.																							
128	128 . 1		64 1	32 0	16 8 0 0	4 0	2 1 0 0		128 0	64 0	32 0	16 0	8 1	4 0		1		128 0	64 0	32 0	16 0	8	4 0	2	0
120			1	U		U	0 0		U	U	U	U	-	1	U	U	•	U	U	U	U	U	U	U	U
Hosts	500 ->	9 bits					-	1																	-
		IP Seg		92.1	2.0/23																				
		IP Dif.																							
		Rango	128.1	92.1	2.1 - 128	3.192	.13.254																		
		Mask:	255.2	55.2	54.0																				
	128	64	33	!	16 8	4	2 1		128	64	32	16	8		2			128	64	32	16	8	4	2	1
128 .	1	1	0		0 0	0 (	0 0		0	0	0	0	1	1	0	0		0	0	0	0	0	0	0	0
		1																							
Hosts	100 ->	7 bit																							
		IP Se	_		14.0/25																				
		IP Di			14.127 14.1 - 12	0 10	2 1 / 125																		
		Rang			14.1 - 12	0.19	2.14.126																		

255.255.255.128

		128	64	32	16	8	4	2	1		128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
128		1	1	0	0	0	0	0	0		0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
																			1							
Hosts	5	50 ->	6 bits																							
			IP Seg.	128.192	2.14.1	128/	26																			
			IP Dif.	128.192	2.14.1	191																				
			Rango:	128.192	2.14.1	129 -	128	.192	2.14.190	)																
			Mask:	255.255	5.255	.192																				
		128	64	32	16	8	4	2	1		128	64	32	16	8	4	2	1	128	64	32	16	8	4	2	1
128		1	1	0	0	0	0	0	0		0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0
Hosts		2 ->	2 bits																	1						
110313	•	2 -		100 100		00/5																				
			IP Seg.	128.192			SU			-																
			IP Dif.	128.192	.14.1	.95																				
			Rango:	128.192	.14.1	93 -	128	.192	.14.194																	
			Mask:	255.255	.255	252																				
i										1																
1																										