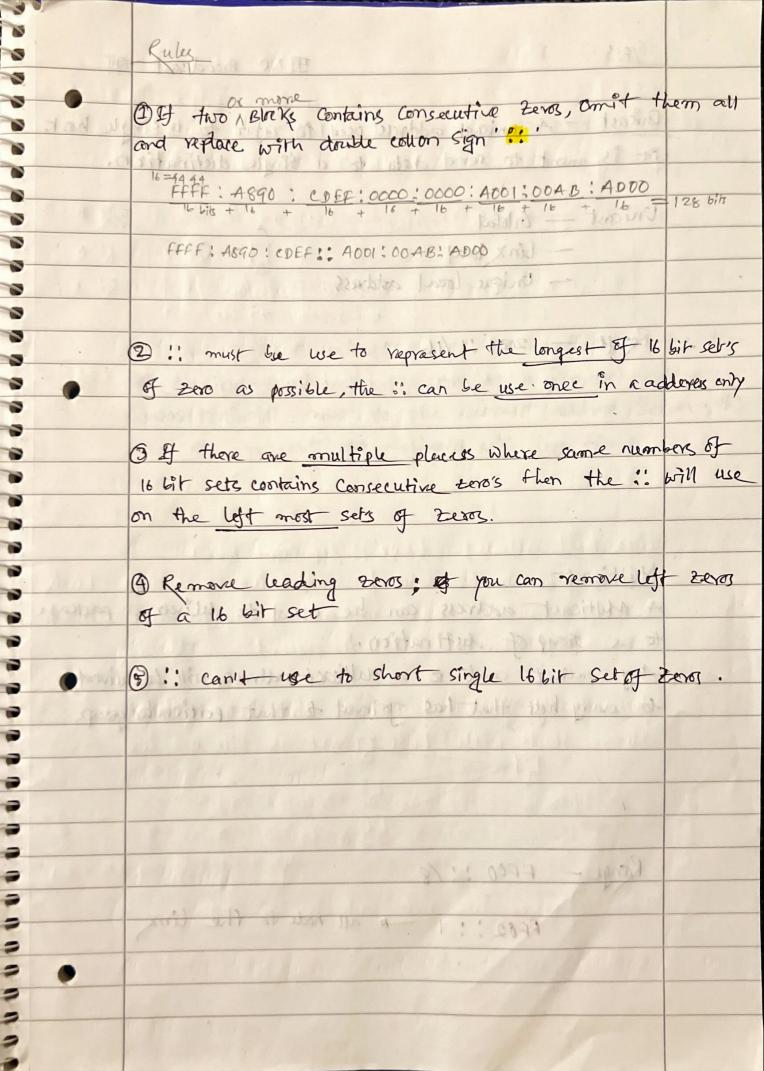
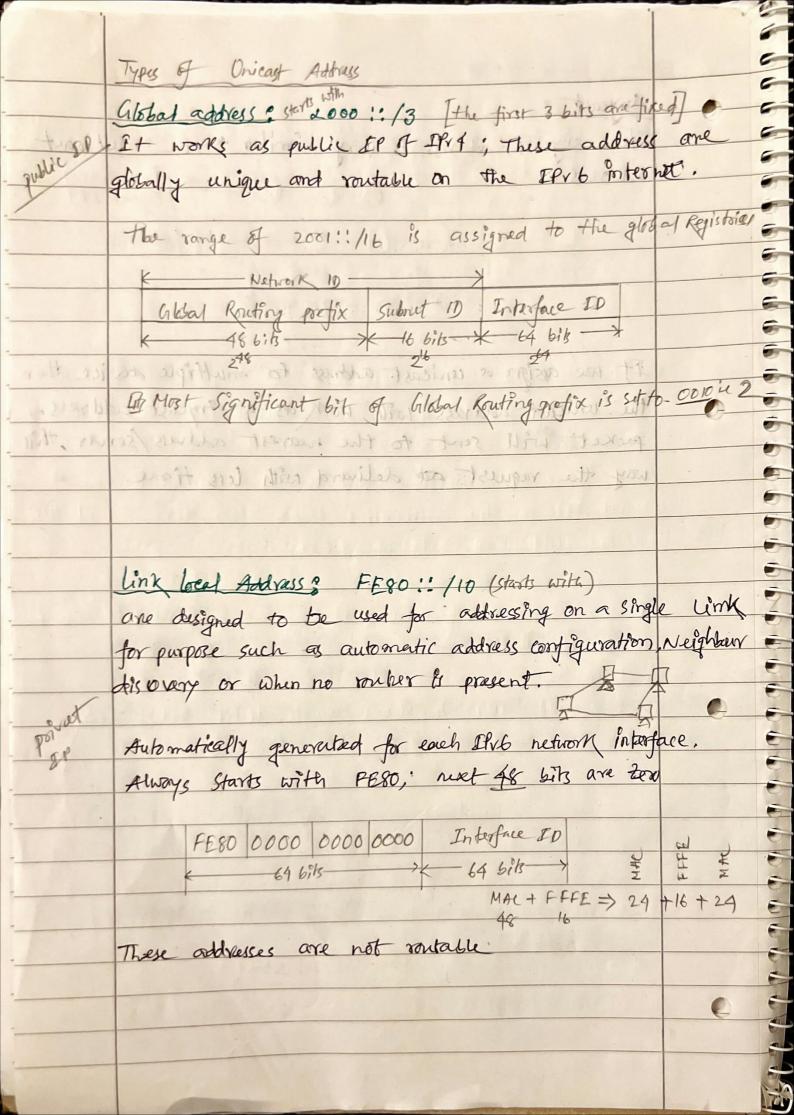
Chapter - 7 IPV6 34 / Levelschaus Hexadecimal 128 bit / Eight signents / 16 bits (21) Featimes Olarger Allress Space - 34 x 10 38 1) Simplified Header - 40 bytes (always) -8 fields 3 End to End connectivity - Not NAT needed a Auto Configuration - both stateful & Stute less config Couto) (5) fast Forward routing - All important info is in starting of the header so router can take quick duission. @ IPsec - enable but optional a EPV6 sec A @ No Broadcast - only unicast, mulfiast, any cost 8) Any Cast - Support - TomerA) Mutiple devices has the some IP and It sends the information to the nearest device who the same IP 9 Mobility - Dynamic No dynamic IP nuded, because no IP crisis happens here -10) Smooth Transaction - Dual State, Header Translation, Turinding 1 No class @ Backward in compadible

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	Conversions	
	Hexadecimal	Girary 8421
	0	10000 James 1 1 2 2 2
	1(1)	6001 Example
	2	0010 2648
	3	0011 0010 0110 1010 1011
	4	0010
	3	0101 FAST
	Ь	0110.
	7 Jal 8 -	C Singlified Header - 40 lysis VialIIIO
	8	1000 FABD 1986
	natur P	100100 - 1111 1100 1101 1001 1001 1000 0110
16	A	1010
4 (1)	Balanda	1011 between med - between 1101
12	e	1100
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14	E	
15	F	till to the same of the same o
	1 Aus Alpan	= OIPac - course but optional 1 1 17
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Anycast? The anyeast address is very similar to the multicoast 9 It we assign a unicast address to multiple device than 5 the unicast address will work as a Anycast address. 0 packet will sent to the nearest address /sorver, this 9 way the request at delivery with less time. link head Advance Free " regress and 9 9 light is no entereither into beautiful on the plant into 9 to propose such as automatic addice configuration a continua 3 trover or who we will be present 3 10 10 Automatically generaled for each Ilite naturally interface. Allows Starts with PEST, much is life are tis (0 1 1 These orthodox on not solvette. 1



Unique Local Address Peoo: 7 (starts with) 0 Used for local communication within the site or organization FC00: 1/8 (reserved) FD00::/8 (Commonly used) FCOO global &D; Company Subnet &D interface ID × 16 bit × 6451-> As bit Loopback Address - :1/128 3 wed by host host to send packets to itself. 3 3 total to the host not soutable. 8 9 Unspecified Address ::/128 Indecates the absence of an address; It are during the initial configuration of an interface or in Deterris EPV4-Mapped - IPV6 Addrass Ronge - :: FFFF: 0:0/96

- ARR - NDP - Broad last - ECMRB - Broad last - Temper Solic Itation - Router Muritisement - Router Muritisement - Neighbor Attentisement - Re-direct  Router Solicitation - Re-direct  Router Solicitation usg to discour the first firm, it sould a Ruder solicitation usg to discour the Router.  The router solicitation usg to discour the Router.  The router solicitation usg to discour the Router.  Router Solicitation pasket details— Source address— :: or to 80:; aa:w:cc:9  Destination address— !! or to 80:; aa:w:cc:9  Destination address— !! or to 80:; aa:w:cc:9  Router Atvertisement  A Router and the advertisement when it is requested or connected network foot trans on as per routine.  The Router Atvertisement contains— Link profixes— MTV — Specific router — Use SLATE?	IPVA	scovery protocol)  IPV6
Pol concil of - Router Solicitation - Router Moertisement - Neighbor Solidtection - Neighbor Solidtection - Neighbor Advertisement - Re-direct  Router Solicitation  Once a Host attached to a religion of for the first firm, it sends a Router Solicitation may to discour the Router.  The router solicitation may to discour the Router Solicitation Multica address #f01::2-  Router Solicitation parket details—  Source address— " or feso:; aa:u:ce:9  Destination address— #f02::2 [all router hutticast address]  Router Advertisement  A Router and the advertisement when it is requested or comme the network fost time on as per routine.  The Router Advertisement Contains— Link prefixes — MTV — Specific routers		[10] [2] [10] [10] [10] [10] [10] [10] [10] [10
Not constof - Router Solicitation  Router Mortisement  Neighbor Advertisement  Neighbor Advertisement  Router Solicitation  Re-direct  Router Solicitation High to a reduce the first firm, it sends a Router Solicitation High to discour the Router.  The router Solicitation High to discour the Router.  The router Solicitation High sends to all router Solicitation Multicar address of feed; as: in: cc: 9  Router Solicitation parket details—  Source address— if or feed; as: in: cc: 9  Destination address— If 102: 12 [all router Hulticust address]  Router Advertisement  A Router and the advertisement of it is requested or connective network first time or as per routine.  The Router Advertisement contains— Link prefixes—  MTV  — Specific routers		
- Router Muertisement  - Neighbor Solidation  - Neighbor Advertisement  - Re-direct  Router Solicitation  Once a Host attached to a retwork for the first firme, it sends a Router solicitation Msg to discour the Couper.  The router solicitation Msg sends to all router solicitation Multical address # 102::2-  Router Solicitation parket details—  Source address— :: or fe80:: aa:w:cc:9  Destination address— # 102::2 [all router Hulticust address]  Router Advertisement  A Router and the advertisement when it is requested a connection network first time or as per routine.  The Router Advertisement Contains— Link prefixes— MTV— Specific routers		- Multicast
- Router Monthsement  - Neighbor Solidation  - Neighbor Advertisement  - Re-direct  Router Solicitation  Once a Host attached to a network for the first time, it sends a Router solicitation Msg to discour the Couper.  The router solicitation Msg to discour the Couper.  The router solicitation Msg sends to all router solicitation Multical address #101::2  Router solicitation parket details—  Source address— if or fe80:; aa: wice: 9  Destination address— #102::2 [all router hulticust address]  Router Advertisement  A Router and the advertisement when it is requested a connective network first time or as per routine.  The Router Advertisement contains— Link prefixes— MTV— Specific routers	NOT could - r	en ten alia Hatan
- Neighbor Solicitation  - Neighbor Advertisement  - Re-direct  Router Solicitation  Once a Host attached to a network for the first firme, it sends a Router solicitation Msg to discour the Couper.  The router solicitation Msg sends to all router solicitation Multica address # 102::2-  Router solicitation gasket details—  Source address— is or feso; as: M; cc: 9  Destination address— if or feso; as: M; cc: 9  Destination address— if or feso; as: Miccial address  A Router and the advertisement when it is requested or connective network first tione or as per routine.  The Router sheartise ment contains— link prefixes— MTV— specific routers	- R	on her Advertisement
- Neighbor Astartisement  - Re-direct  Router Solicitation  Once a Host attached to a network for the first firme, it sould a Router solicitation Msg to discour the Router.  The router solicitation Msg sords to all router solicitation Multica  address #02::2  Router solicitation parket details—  Source address— if or fe80:: aa: w:cc: 9  Destination address— #02::2 [all router Hulticust address]  Router Advertisement  A Router and the advertisement when it is requested or comme  the network first time or as per routine.  The Router Advertise ment contains— Link prefixes — MTV — Specific routers	$-\lambda$	leighbor solicitation
Router Solicitation  Conce a Host attached to a network for the first firm, it souls a  Router solicitation may to discover the Rouper.  The router solicitation may sould to all router solicitation Mattica  address #101::2.  Router solicitation quartet details—  Source address— is or feed; aa: in: cc: 9  Destination address— #102::2 tall router multicust address  A Router and the advertisement who it is requested or comme  the network first time or as per routine.  The Router Advertisement contains— link prefixes — MTV — specific routers	- 1	heighbor Advertisement
Router Solicitation  Once a Host attached to a network for the first firme, it so als a Roder Solicitation Hsg to discour the Router.  The router Solicitation Msg sords to all router Solicitation Multica address #501::2  Router Solicitation queket details—  Source address— is or fe80:; aa: w:ce: 9  Destination address— #f02:: 2 Tall router hulticust address  A Router Advertisement  A Router and the advertisement who it is requested or connected network fost time or as per routine.  The Router Advertise ment contains— link prefixes—  MTV  — Specific router	(	Re-direct
Cone a Host attached to a network for the first firme, it seeds a Router Solicitation Msg to discover the Rouper.  The router Solicitation Msg sords to all router Solicitation Multica address #102::2-  Router Solicitation queret details—  Source address— is or fe 80:: aa: su; ce: 9  Destination address— if 102::2 tall router Hulticust address  A Router Advertisement  A Router and the advertisement When it is requested or connected entry of the network first time or as per routine.  The Router Advertisement contains— link prefixes—  MTV — Specific router		
Router Sticitation Msg to discover the Router.  The router Sticitation Msg sords to all router Sticitation Multical address # 61:2.  Router Sticitation gasket details—  Source address— :: or fe80:; aa: w:cc:9  Destination address— # 102::2 [all router Multicust address]  Router Advertisement  A Router and the advertisement when it is requested or commented notwork first time or as per routine.  The Router Advertisement Contains— Link prefixes— MTV— Specific routers	Once a Host stad 1 5	a network for the first fime, it sends
The router solicitation Msg sords to all router solicitation Multical address #102::2.  Router solicitation querket details—  Source address— is or fe 80:: aa: bi: cc: 9  Destination address— #102::2 [all router Hulticust address]  Router and the advertisement when it is requested or connected network first trone or as per routine.  The Router Advertisement contains— Link prafixes— MTV— Specific routers	Roder William Men	to discover the Pauler.
Router Solicitation parket details—  Source address— :: or fe 80:; aa: bi; ce: 9  Destination address— if or fe 80:; aa: bi; ce: 9  Router Atvortisement  A Router and the advertisement when it is requested or connective network first time or as per routine.  The Router Atvortise ment contains— Link pratikes— — MTV — Specific routers		
Router Sticitation garket details—  Source address— :: or fe 80:; aa: bi; cc: 9  Destination address— :: for fe 80:; aa: bi; cc: 9  Router Advertisement  A Router and the advertisement when it is requested or connected network first time or as per routine.  The Router Alvertise ment contains— Link prefixes— MTV— Specific routers	The router esticitation	Mea conds to all router solicitation Multic
Router Solicilation packet details—  Source address—:: or fe 80:; aa: in: cc: 9  Destination address—— If 02:: 2 [all router Hulticust address]  Router Atvertisement  A Router and the advertisement when it is requested or comme  the network first trione or as per routine.  The Router Advertisement contains— Link prefixes — MTV — specific router		1 1 1 20 00
Source address - :: or fe80:; aa: bi; ce: 9  Destination address - #102:: 2 [all router Hulticust address]  Router Advertisement  A Router and the advertisement when it is requested or connective network first time or as per routine.  The Router Advertise ment contains — Link prefixes — MTV — specific routers	address #02::2	
Router Advertisement  A Router and the advertisement when it is requested or comme  the network first triane Or as per routine.  The Router Advertise ment contains — Link prefixes  — MTV  — Specific routers	address #02::2	
Router Atvertisement  A Router and the advertisement when it is requested or connuc  the network first time or as per routine.  The Router Advertise ment contains — Link prefixes  — MTV  — Specific routers	Router Solicitation	parket details -
A Router and the advertisement when it is requested a comme  the network first time or as per routine.  The Router Advertise ment contains — Link prefixes  — MTV  — Specific routers	Router Solicitation	parket details —  ii or fe80:; aa: bi: ce: 9
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A Router and the advertisement when it is requested a comme  the network first time or as per routine.  The Router Advertise ment contains — Link prefixes  — MTV  — Specific routers	Router Solicitation	parket details —  ii or fe80:; aa: bi: ce: 9
A Router and the advertisement when it is requested a comme  the network first time or as per routine.  The Router Advertise ment contains — Link prefixes  — MTV  — Specific routers	Router Solicitation	parket details —  ii or fe80:; aa: bi: ce: 9
the network first time or as per routine.  The Router Absortise ment contains — Link prefixes  — MTV  — Specific routers	Router Solicitation of Source address - Destination address -	parket details—  :: or fe80:; aa: bi: ce: 9  ### Jo2:: 2 [all router Hulticust address]
The Router Advortise ment contains — Link prefixes  — MTV  — Specific routers	Router Solicitation of Source address - Destination address -  Router Atvortisement	packet details—  :: or fe80:; aa:bi:ce:9  Ho2::2 [all router Multicust address]
- specific router	Router Solicitation of Source address -  Destination address -  Router Advertisement  A Router and the	packet details—  i: or fe 80:; aa: bi: ce: 9  If 02:: 2 [all router Hulticust address]  advertisement when it is requested or comme
	Router Solicitation of Source address - Destination address -  Router Atvortisement  A Router and the  the network first	packet details—  i: or fe 80:; aa: bi: ce: 9  If 02:: 2 [all router Hulticust address]  advertisement when it is requested or commentione or as per routine.
- Use SLAAC?	Router Solicitation of Source address - Destination address -  Router Atvortisement  A Router and the  the network first	packet details—  :: or fe80:; aa: bi: ce: 9  Ho2:: 2 tall router Multicust address  advertisement when it is requested or comme  time or as per routine.  ment contains— Link prefixes  — MTV
	Router Solicitation of Source address - Destination address -  Router Atvortisement  A Router and the  the network first	packet details—  :: or fe80:; aa: bi: ce: 9  Ho2:: 2 [all router Multicust address]  advertisement when it is requested or conne  time or as per routine.  ment contains— Link prefixes — MTV — specific routers

Router Advertisement packet -Source Address: te80: : ft : ee; dt:1 Destination Address: \$\fo2::1 08 the NOP IPV6 interface address the Host requestred for -Neighbor Sticitation Any Host can send Neighbor Solilitation message at any time, it can be 9 done to request another host's link layer address or to very fig that an 9 9 Eld cash link loyer address an still be used to reach a neighbour. 9 En response to a neighbor solicitation mussage the other host sends a neighbor Advertisement 3 8 3 -9 Redirect Re-direct messages are used by routers to either goint host toward a more preferable router or to indicate that the distination actually resides on the Linx.