

DYPATIL TECHNICAL CAMPUS FACULTY OF ENGINEERING TALSANDE

Page	e No	:	•	,	•	,	•	•	•	•	•	•		•
Roll	No.	:	,		,			•			•	•		

	-Assignment No. 02
1	V
1.	Write a short Note on ICMPre.
1.	It is a Internet control message protocol versions.
2.,	It is more complicated than ICMPV4, some
,	new messages added into it to make it more
	1.000.1
3.	TCMPVE is message oriented it uses messages to report errors to get information probe a neighbour or manage multicast communication
	to report errors to get information probe
6.7	a neighbour or manage multicast communication
3	a value of the designation and some some
	Types of ICMPVE :- I I I I I I I I I I I I I I I I I I
	I Frmy message and the state of the state
1 1 14	2. Informational message
	2. Informational message 3. Neighbor dis covery message 4. Group membership message
	4. Group membership message
14	to the first of the state of th
V	(1) Error message :-
100	Main function of error message is to report
	(1) Error message :- Main function of error message is to report the errors. These are four types of error
	messages -
	. Uila
Salar Sa	1. Destination Unreachable:-
and any	When router cannot
-	forward a datagram or a host cannot deliver
	content of the datagram to the upper layer
Constitution	Protocol, the router or host discards the datagram
	4 sends destination - unreachable error message to
	the source host



Page	No	:						
Roll								

Indianale
Type: L Code: checksum
Type: L Code: Checksum
Unused (All o's)
As much of received datagram as possible without exceeding the maximum IPVE MTU
without exceeding the maximum
IPVE MTU
fig. destination unreachable.
2. Packet - Too-Big Message:
i> This is new type of mag added to version of
2. Packet -Too-Big Message:- i> This is new type of msg, added to version s ii> IPVS does not fragment at the router if a router receives a datagram that is larger than the max transmission with (MT):2 si
router receives a datagram that is larger
than the max transmission unit (MTU) Size
of the network through which the datagram
Should pass two things are bapped
Should pass two things are happen O Router discard the datagram
© ICMP error packet send message to the
Source, message is, a packet is too big.
mossage 15, a packet is too big.
Tupe: 2 Code: 0 del-
Type: 2 Code: 0 Checksum
20025
MTU
Ac much of the last
As much of received datagram as
possible without exceeding the max.
IPVE MTU



DY PATIL TECHNICAL CAMPUS FACULTY & ENGINEERING TALSANDE

Page	No		,	*	*	i	i	j	ě	,	,	è	,	
Roll N	10,	,	,	,	,	,	,	,	,	,	,	,	,	

	3	Time Exceeded Message: t is generated in two cases when the tin live value becomes zero & when not all
	T	t is generated in two cases when the tin
	to	live value becomes zero & when not all
	fra	oments of a datagram have grrived in the
	tic	gments of a datagram have grrived in the
	Ox	e same as to IPV4, only type value is
.,,	ch	and the state of the day of the state of
	0	university 8,4, description of the state 81
-	1917	Type: 3 code o checksum
		Type: 3 code o checksum
		Uniused (Allo's)
	122	The second of th
		As much of received datagram as possible without exceeding the maximum
	1	possible without exceeding the maximum
4.54		IPV6 MTU. Apparent Ser Date . Alla I
1		fig. time exceeded message
	4.	Parameter Problem Message: 0 8 16 31
		01 1-01100
		Type:4 code: Checksum
		offset Pointer
		As much of received datagram as
		possible without exceeding the maximum
		IPVE MIL
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
		Ode o → Errorneous header field
	4 10	code 1 > unrecognized next header type



Page No:

2. Information Message: There are two types of information message i> echo request ii> echo reply
lii) echo replu
Liz echo replu
Both are designed
in the Internet can communicate with each other a host another host the receiving computer or router can reply using the echo
e-170 Reguest Message
It is same as the one in version 4. The only type value is changed is Type: Code o Checksum
Identifier Sequence number
Sent by the request message; ii) Echo reply message iii) Echo reply message
Type Code o checksum
Identifier Sequence number
sent by the request message; repeated by the reply message



DY PATIL TECHNICAL CAMPUS FACULTY & ENGINEERING TALSANDE

Page No:	
Poll No. :	

TALSANDE
Lina from IPV4 to
2. Explain in detail about Transition from IPV4 to
IPV6
Transition from IPV4 to IPV6 can't happen - Transition from IPV4 to IPV6 can't happen - Suddenly because of the huge no of systems on the internet. - There are 3 Strategies are used for transition from IPV4 to IPV6. I] Dual stack: - It is recommended that all hosts before migretting completely to version 6 have a dual stack of protocol - Station must run IPV4 & IPV6 Simultaneously Until all the internet uses IPV6
Transport & application
layer 1
The state of the s
IPV4 IPV6
With this is a pain to a man the second of t
Underlying LAN
WAN Technology
To IPV4 — Ta
system fig. Dual Stack IPve system



DYPATIL TECHNICAL CAMPUS FACULTY & ENGINEERING TALSANDE

Page	No:	٠.,			
Roll 1					

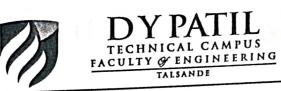
	TALIANDE
- 7	To undo all I will I
	To understand which version to use when send;
	packet to a destination the source host queries
-	the DNS
•	If the DNS returns on TRIL all a
(If the DNS returns on IPV4 address, the
1	Soyrce host sends an IPv4 packet.
+	f the DNS returns on IPVE address the source
+	host send an IPve
2	Tynneling:-
- I	t is a stratau used it
T	t is a strategy used when two computers using
18	Pre want to communicate with each other
1	the packet must pass through a region
+	hat uses IPV4.
+	o pass through this region, the packet must have an IPV4 address
h	have an IPV4 address
0	the TPV6 party is all
P	acket when it enters the region & it leaves of the TPVG packet area through
it	is capsule when it exists the
I	f the Trys partet and I me region.
0	ne end & emorgo al all at unnel at
it	the end & emerges at other end. To make the packet is carrying an ever packet as data the protection
I	Pre packet as date II packet is carrying an
	Protocol value is ont to ul
	IPve header
16	IPv6 h. Payload
H	Payload Tunnel () IPv6 header
10	Payload Payload
14	
-	TPV4 region Tage
120	



DY PATIL TECHNICAL CAMPUS FACULTY & ENGINEERING TALSANDE

Page No	:	•	•		•				•	•
Roll No.	:	,	,				,	,		,

07.11.
3] Header Translation :-
- It is necessary when the majority of the internet
has moved to IPVE but some systems still
luse IPV4
- The sender wants to use IRVG but receiver does
last understand TRUG
Transline does not work in this limitation occause
the packet must be in the IPV4 format to
I li wadowal and bu the receiver
I I I man the header Tolling lims
- In this case the iscard. Changed through header translation.
Hedder
IPV6 header translation IPV4 Head
Payload done here Payload
IPV4
IPv6 host
host
Header translation uses the mapped address to
Header translation uses me mapped address translate an IPV6 address to an IPV4 address translate an IPV6 address to an IPV4 address
The following lists some rates ascert ing an IPv4 packet
header.
1) The IPVG mapped address is changed to an IPV4
by extracting the olymnight of hits
of the IPVS PRIOTITY FIELD IS GISCIFCIED
2> The value of service field in IPv4 is set to zero.



Page No:	
Roll No. :	

>

a to is calculated & inserted in
4) The checksum for IPV4 is calculated & inserted in
the IPV4 header. Some may have
The This Chap label is ignored.
Compatible extension headers are converted to
e incompany in the IPVY TRAVEL.
3) The length of TPV4 header is carcalary interior
• 1 11 - c - ~ 00 00 0 d i 00 ti 01 ti
ex The total length of the IPV4 packet is cultured
f inserted in the corresponding field.
myla is the part footier with ad
contract means of grandle advant and and associated in
and the second of the second o
- Literature Williams 121
in the second of
1307i
Provinces and the second secon
to the state of th
[**** (조현 (조현)) (**) 설립 (전) (조현
transcom dentrope bestell groupe a street lister to be trait. It has
to support the profile of the confidence of support to the first of th
To Die ger
in which are the formation of the size in the liberation of the original size of
in an explain the principle principle and experient
the day of the contract of the second of the
the compared describes production of the production of the contract of the con