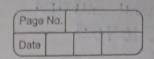
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Maine	Lab Assignment 6
-	Title: Static and Dynamic NAT configuration
the los	Aim: Implement static and Dynamic NAT configuration with
ton	Packet Tracer.
suldy	objective: 1. To understand and team the concept of NAT
	by static and dynamic methods.
park	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
194113	Theory:
0	Defination of NAT with diagram. A set of network addresses assigned to an organization
_	internal network so that devices can communicate
1	locally a slider to locally and a serious an
- Ard	If there is a need for such devices to connect to the
200 297	internet, their private addresses must be translated
	to public addresses using network Address Translation
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rasjusta 1	LAN and gran and an all internet.
	. 172:31:1.2.1
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teaite	1841
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	Panales 1. Switch of NAT-enabled SELVER-PT
and en	11/2031:1.20100 011 011 00100 1000.0.2
is made	and liters there freezed and the manthe offer
is made	and their time time time and the mathe side
is made	ii) Method - Static and Dynamic:
is made	ii) Method - Static and Dynamic: a) Static NAT:
is made	ii) Method - Static and Dynamic: a) Static NAT: - Static NAT creates a one-to-one mapping between
is made	ii) Method - Static and Dynamic: a) Static NAT:



-strator, and this configuration remains constant.

) Static NAT can be configured by using the following two steps: 1. Creating a mapping between the private internal addr--ess and public global address using the 19 not inside source static oprivate-address I Tpublic address I global configuration command

2. After the mapping is made, the interfaces taking part in the NAT translation are configured as either inside or outside with respect to NAT. 2. Dynamic NAT - Dynamic NAT makes a pool of public addresses and assigns them to private addresses on a first-come-firstserve (FCFS) basis to determine which private addresses ought to be translated. - An organization is assigned to four different public address, but the organization can have more than 4 internal devices that require access to the internet. - To resolve this problem the network administrator decides to configure dynamic NAT to allow these devices to access the internet. - If all the internal devices have been assigned to all the available global address, then the device requesting for a public address will have to wait white until one is made available iii) Advantage of NAT. d) consistency in network a) Lowers the cost e) Network Security b) Conserving Address

c) Connection flexibity

f) Private, addressing.

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Students observation:

Thus, we implemented static and dynamic NAT configuration with Packet Tracer.

ans) A set of Network addresses assigned to an organizations internal network so that devices can communicate locally.

ans 2) Static NAT: It maps network traffic from a Static external 11 address to an internal 1P address or network. It creates a static translation of real addresse to mapped addresses static NAT provides internet connectivity to networking devices through a private LAN with an unregistered private IP address.

> Dynamic NAT: It is a many-to-one mapping of a private IP addresses or subnets inside the SD-WAN network to a public IP address or subnet outside the SD-WAN network. The traffic from different zones and subnets over trusted Cinside) IP addresses in the LAN segment is sent over a single public Coutside IP address).

- us the translation table containing all the active NAT entries:
- ans 4) NAT translates to the inside Iral address into inside global addresses, similarly, PAT too translates to private Enregistered if addresses into public registered it addresses. However, Unlike, NAT, PAT also uses source

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ere dans o	port numbers, allowing multiple hosts to share a single IP address while using different port numbers.
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on the	pitaret state e estesis it diseates
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. 5	The with an unregistered private 19 addies 1911
9 30	Dynamic NAT: A 19 a many -to and warpen
	to all ablant Maridus to respectable 91 stourie
	a traduz to restation is addition of tradition
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511	The IAD exposent is sent con a single pur controlle 19 address).
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