LKPD NAT - ASJ

Lembar Kerja Peserta Didik

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NIS : 12209161 Kelas : TJKT XI-1

Judul Materi : NAT Gateway

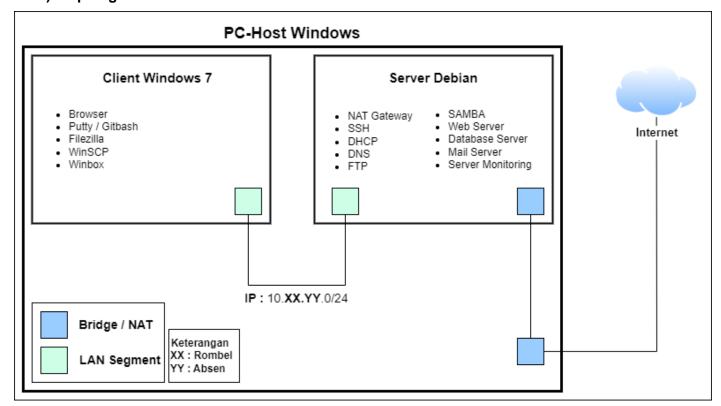
NILAI

Kegiatan 1:

a) Petunjuk Kerja:

- Menyiapkan Software aplikasi pendukung
- Menyiapkan Laptop / PC
- Menyiapkan Koneksi Internet
- Menyiapkan peralatan Praktek
- Menyiapkan Modul Panduan kerja Jobsheet Konfigurasi DNS Server

b) Topologi



Buatlah Konfigurasi File Server (Samba)

Pra-Install

Berdasarkan topologi diatas terdiri dari 1 PC Server Linux dan 1 PC/Laptop CLient yang sudah terinstal pada aplikasi virtualbox atau vmware workstation

1. Create VM

VM Name : Server_Nama Siswa

Memory : 512 MB

Sistem Operasi : Linux – Debian 11 (Virtual)

Net Adapter : Host-Only Adapter IP Address : 10.xx.yy.1/ 24 Domain : srvnamaXY.net

2. PC/Laptop (VM-Windows)

IP Address : DHCP-Client Sistem Operasi : Windows / Linux

Pastikan Pada Sisi Client mendapatkan Ip dari Server

Keterangan

xx: Nomor Rombel

yy: Nomor Absen

namaXY: Nama masing-masing dan 2

digit terakhir NIS

Langkah Kerja

1. Instalasi dan konfigurasi NAT Gateway di VM Linux (Debian 11)

No	Konfigurasi	Hasil (Gambar)	Keterangan
1	Membuat snapshot	FTP Iptables You Are Here	Disini saya menambahkan snapshot sebelum melakukan konfigurasi supaya ketika gagal bisa diulang sebelum di konfig.
2	Konfigurasi IP Address	# The loopback network interface auto lo iface lo inet loopback # The primary network interface auto ens33 iface ens33 inet dhcp auto ens36 iface ens36 inet static address 10.1.18.1/24	Saya telah konfigurasi IP sesuai dengan LKPD dengan settingan ens33 dhcp dan ens36 static

Jl. Raya Wangun Kel. Sindangsari Kota Bogor Telp. 0251-8242411, email: prohumasi@smkwikrama.net, website: www.smkwikrama.net

		ens33: <broadcast,multicast,up,lower_up> mtu 1500 qdisc 1000 link/ether 00:0c:29:23:e3:88 brd ff:ff:ff:ff:ff:ff altname enp2s1 inet 172.16.149.194/24 brd 172.16.149.255 scope global valid_lft 2117sec preferred_lft 2117sec inet6 fe80::20c:29ff:fe23:e388/64 scope link valid_lft forever preferred_lft forever ens36: <broadcast,multicast,up,lower_up> mtu 1500 qdisc 1000 link/ether 00:0c:29:23:e3:92 brd ff:ff:ff:ff:ff altname enp2s4 inet 10.1.18.1/24 brd 10.1.18.255 scope global ens36 valid_lft forever preferred_lft forever inet6 fe80::20c:29ff:fe23:e392/64 scope link valid_lft forever preferred_lft forever ot@srv-awan61:~# _</broadcast,multicast,up,lower_up></broadcast,multicast,up,lower_up>	
3	Konfigurasi repository debian 11	The straight and continued the straight of the straight and straight a	Saya menggunakan repo dari datautama.net.id. Kegunaannya untuk memudahkan kita saat ingin mendownload sofware tools tambahan tanpa harus memerlukan dvd 2 debian 11
4	Install networking tools	rootesrv-awan61: "W apt-get -y install net-tools dosutils Reading package lists Done Building dependency tree Done Reading state information Done desurils is already the newest version (1:9.16.44-1"dabilul). net-tools is already the newest version (1:60+git20181103.0eebece-1). 0 upgraded, 0 newly installed, 0 to remove and 114 not upgraded. root@srv-awan61: "W	Saya meng install net tools dan dnsutils untuk digunakan pada saat pengetesan jaringan
5	Edit file sysctl.conf	# Uncomment the next line to enable packet forwarding for IPv4 net.ipv4.ip_forward=1	Membuka pagar net.ip_forward=1 agar jaringan bisa melewati ip debian server dan ip windows
6	Install tools iptables	Residue defender. (3939 line and directories currently installed.) Property for enset. (Justine and directories currently installed.) Property for enset. (Justine ed directories currently installed.) Property for enset. (Justine ed. 18-7) Retting up installed (18-7) Retting up installed using /unr/schir/installed-regay to provide /unr/schir/installed (Justine) in and each under-alternatives using /unr/schir/installed-reft to provide /unr/schir/installed (Justine) in and a code under-alternatives: using /unr/schir/installed-reft to provide /unr/schir/installed (Justine) in and a code under-alternatives: using /unr/schir/installed-reft to provide /unr/schir/installed (Justine) in and a code under-alternatives: using /unr/schir/installed-reft to provide /unr/schir/installed (Installed) in and a code under-alternatives: using /unr/schir/installed-reft to provide /unr/schir/installed (Installed) in and a code under-alternatives: using /unr/schir/installed-reft to provide /unr/schir/installed (Installed) Retting up unrelated per little of the code (Installed (Installed)) Retting up unrelated (Installed (Installed)) Retting up unrelated (Installed) Retting up unrelated (Installed) Retting up unrelated (Installed) Retting up unrelated (Installed) Retting up dependency tree Done Reading state information Done Reading state information Done Reading state information Done Intalled on results of the code (Installed) Retting up of the present of the code (Installed) Retting up of the present of the code (Installed) Retting up of the present of the code (Installed) Retting up of the present of the code (Installed) Retting up of the present of the code (Installed) Retting up of the present of the code (Installed) Retting up of the present of the code (Installed) Retting up of the present of the code (Installed) Retting up of the code (Installed) Retting up of the code (Installed) Retting up of the co	Meng install iptables tools agar bisa mengatur firewall NAT.

7	Konfigurasi NAT Gateway / Masquerade	root@srv-wwan61170	Disini saya konfig menggunakan tipe nat dan menambahkan postrouting dan jaringan internet berasal dari ens33 dengan jaringan masquarade
			* masquarade adalah mengtranslate ip local menjadi ip public agar bisa terhubung dengan internet dengan cara masking
8	Save rules iptables	root@grv-asan61:79 netfilter-persistent save run-parts: seconting /lar/share/netfilter-persistent/olugins.d/15-ioftables save run-parts: excepting /usr/share/netfilter-persistent/olugins.d/25-ioftables save root@grv-asan61:79 netfilter-persistent reland run-parts: excepting /lar/share/netfilter-persistent/olugins.d/15-ioftables start run-parts: excepting /usr/share/netfilter-persistent/olugins.d/15-ioftables start root@grv-asan61:79 _	Save rules iptables berhasil dan ditambahkan command reload
9	Check / list rules nat	root@srv-awan61:~# iptables -t nat -L Chain PREROUTING (policy ACCEPT) target prot opt source destination Chain INPUT (policy ACCEPT) target prot opt source destination Chain OUTPUT (policy ACCEPT) target prot opt source destination Chain POSTROUTING (policy ACCEPT) target prot opt source destination MASQUERADE all anywhere anywhere MASQUERADE all anywhere anywhere root@srv-awan61:~#	Disini konfigurasi NAT telah berhasil dan berjalan dengan baik

2. Pengujian NAT pada sisi VM Windows client (Pastikan sudah bisa terhubung ke Internet)

No	Tampilan (Screenshot)	Hasil Gambar	Keterangan
1	Tampilan IP Address di VM Windows.	Etherset adapter Etherset8: Connection-uperific DME Meffix : prudeabase61.ee6	Disini windows guest berhasil mendapat kan IP dhcp dari DHCP server debian
2	Ping ke ip Server Debian 11	CivBorryBrakeff)ping predadasan61.net Pinging predadasa61.net 118.1.18.13 with 32 bytem of data: Reply from 18.1.18.1: bytem=32 time(lnm TTL=64 Fing statistics for 18.1.18.1: Fackets: Sent = 4, Received = 4, Lost = 8 (B: loss), Reprovidence resund trip times in milli-seconds: Riminum = Rem. Maximum = Rem. Received = 4. C:\UnameryBrakeff)	Windows guest telah berhasil terhubung ke debian server. Cara memastikannya

			dengan cara ping ip debian server.
3	Ping VM Server ke Internet (8.8.8.8 dan google.com) ** jika ping google.com tidak reply, silahkan cek konfigurasi file resolv.conf	C:\Benra\Brahaff?ping google.cum Pinging google.cum 164.233.178.1881 with 32 hytes of data: Reply from 64.233.178.1882 bytes=22 time=14m1 TIL=184 Reply from 64.233.178.1883 bytes=32 time=14m1 TIL=184 Ping statistics for 64.233.178.1881 Pockets* Sent = 4. Received = 4. Lost = 8 (8x loss). Typnocimate round trip times in milli-seconds? Rinimum = 14m2, Maximum = 14m2, Ruerage = 14mu C:\Usunra\Brakeff)	Disini sudah terbukti bahwa konfigurasi nat telah berhasil dan windows bisa mendapatkan jaringan internet yang berasal dari adapter ens33 pada debian server yang di forward ke IP DHCP server.

☼ Selamat Mengerjakan