

## REFERENSI

- [1] J. G. Park, J. M. Kim, C. W. Ahn, Y. C. Woo, and H. Choi, "Cluster management in a virtualized server environment," *Int. Conf. Adv. Commun. Technol. ICACT*, vol. 3, pp. 2211–2214, 2008, doi: 10.1109/ICACTION.2008.4494229.
- [2] J. Butler, E. Pietrosevoli, M. Zennaro, C. Fonda, S. Okay, and C. Aichele, *Wireless Networking In The Developing World*. 2013. [Online]. Available: <http://wndw.net/>
- [3] R. Droms, "Automated configuration of TCP/IP with DHCP," *IEEE Internet Comput.*, vol. 3, no. 4, pp. 45–53, 1999, doi: 10.1109/4236.780960.
- [4] B. A. Forouzan and S. C. Fegan, *TCP/IP Protocol Suite*, 4th ed. New York: McGraw-Hill, 2010.
- [5] W. A. Syaefi, Y. A. A. Soetrisno, and A. B. Prasetijo, "Simple Smart Algorithm for Flexibility of Dynamic Allocation in DHCP Server for SOHO Wireless Router," *CENIM 2020 - Proceeding Int. Conf. Comput. Eng. Network, Intell. Multimed. 2020*, pp. 321–325, 2020, doi: 10.1109/CENIM51130.2020.9297852.
- [6] Z. Farhadi and M. Ahmadi, "Implementation of multiple routing tables in software routers," *2017 IEEE 4th Int. Conf. Knowledge-Based Eng. Innov. KBEI 2017*, vol. 2018-Janua, pp. 0497–0502, 2018, doi: 10.1109/KBEI.2017.8325028.
- [7] D. Melkov, A. Saltis, and S. Paulikas, "Performance Testing of Linux Firewalls," *2020 IEEE Open Conf. Electr. Electron. Inf. Sci. eStream 2020 - Proc.*, pp. 0–3, 2020, doi: 10.1109/eStream50540.2020.9108868.
- [8] B. A. Forouzan, *Data Communications and Networking Overview*, 5th ed. New York: McGraw-Hill Education, 2012.
- [9] Y. Li, D. Li, W. Cui, and R. Zhang, "Research based on OSI model," *2011 IEEE 3rd Int. Conf. Commun. Softw. Networks, ICCSN 2011*, pp. 554–557, 2011, doi: 10.1109/ICCSN.2011.6014631.
- [10] P. N. Intercommunication, "Packet Network Intercommunication," *IEEE Trans. Commun.*, vol. C, no. 5, pp. 637–648, 1974, [Online]. Available: [http://ieeexplore.ieee.org/xpls/abs\\_all.jsp?arnumber=1092259](http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1092259)
- [11] D. Comer, *Internetworking with TCP/IP Vol 1*, 4th ed. Prentice Hall, 2000. [Online]. Available: [http://cpe.rmutt.ac.th/network/images/cn/\[3\]Comer\\_Douglas\\_Internetworking\\_with\\_TCP\\_IP\\_Vol.1.pdf](http://cpe.rmutt.ac.th/network/images/cn/[3]Comer_Douglas_Internetworking_with_TCP_IP_Vol.1.pdf)
- [12] A. D. Kusuma, "Apa itu Server ? Berikut Pengertian, Jenis dan Fungsinya," *Dicoding*, 2020. <https://www.dicoding.com/blog/apa-itu-server/> (accessed Jul. 17, 2022).
- [13] J. Arianto, "Apa Fungsi dan Peran Protocol ARP Dalam Jaringan Komputer (Networking)? Berikut Penjelasan," *Pintarkomputer.Com*, 2016. <https://www.pintarkomputer.com/apa-fungsi-dan-peran-protokol-arp-dalam-jaringan-komputer-networking-berikut-penjelasan/> (accessed Jul. 19, 2020).
- [14] J. Postel, "RFC 793: Transmission control protocol, September 1981," 1981. doi: 10.17487/RFC0793.
- [15] I. Indra, "Apa Itu DNS? Pengertian, Fungsi, Cara Kerja, dan Cara Settingnya," *Niagahoster*, 2019. <https://www.niagahoster.co.id/blog/apa-itu-dns/> (accessed Jul. 19, 2022).
- [16] Internet Assigned Numbers Authority (IANA), "Number Resources," 2001. <http://www.iana.org/numbers/> (accessed Jul. 19, 2022).
- [17] S. U. Masrurroh, A. Fiade, M. F. Iman, and Amelia, "Performance evaluation of routing protocol RIPv2, OSPF, EIGRP with BGP," *Proc. - 2017 Int. Conf. Innov. Creat. Inf. Technol. Comput. Intell. IoT, ICITech 2017*, vol. 2018-Janua, pp. 1–7, 2018, doi: 10.1109/INNOCIT.2017.8319134.

- [18] R. Yoga, “Macam-Macam Routing Protocol,” *diaryconfig.com*, 2017. <https://www.diaryconfig.com/2017/07/macam-macam-routing-protokol.html> (accessed Jul. 19, 2022).
- [19] P. Aprilia, “Apa itu Server? Inilah Pengertian, Jenis, Fungsi, serta Cara Kerjanya!,” *niagahoster.co.id*, 2021. <https://www.niagahoster.co.id/blog/server-adalah/> (accessed Jul. 19, 2022).
- [20] Ralph Droms and R. Droms, “RFC 2131 - Dynamic Host Configuration Protocol,” 1997. doi: 10.17487/RFC2131.
- [21] C. Audet, F., Jennings, “Network Address Translation (NAT) Behavioral Requirements for Unicast UDP. RFC 4787 (Best Current Practice),” Jan. 2007. doi: 10.17487/rfc4787.
- [22] A. Mendel-Nykorowycz, “Static NAT,” *study-ccna.com*. <https://study-ccna.com/static-nat/> (accessed Jul. 20, 2022).
- [23] A. Mendel-Nykorowycz, “Dynamic NAT,” *study-ccna.com*. <https://study-ccna.com/dynamic-nat/> (accessed Jul. 20, 2022).
- [24] A. Mendel-Nykorowycz, “Port Address Translation (PAT) configuration,” *study-ccna.com*. <https://study-ccna.com/port-address-translation-pat-configuration/> (accessed Jul. 20, 2022).
- [25] citraweb, “Mikrotik.ID : [Policy Based Route 1] Memetakan Jalur dengan Route Rules,” *citraweb.com*, 2019. [https://citraweb.com/artikel\\_lihat.php?id=351](https://citraweb.com/artikel_lihat.php?id=351) (accessed Jul. 20, 2022).
- [26] A. D. B. Raharja, “Kenali Router, Fungsi, Bedanya dengan Modem, dan 6 Jenisnya,” *ekrut media*, 2022. <https://www.ekrut.com/media/router-adalah%0Ahttps://accurate.id/teknologi/server-adalah/> (accessed Jul. 20, 2022).
- [27] R. Setiawan, “Mengenal Apa Itu Firewall dengan Lebih Baik - Dicoding Blog,” 2021. <https://www.dicoding.com/blog/apa-itu-firewall/> (accessed Jul. 17, 2022).
- [28] techopedia, “Network-based Intrusion Detection System (NIDS),” *techopedia.com*. <https://www.techopedia.com/definition/12941/network-based-intrusion-detection-system-nids> (accessed Dec. 15, 2022).
- [29] M. Adhikari, “Persona Network Packet Sniffer,” no. April 2014, 2015, doi: 10.13140/RG.2.1.2117.8404.
- [30] A. Pervaiz, M. Younas, A. G. Hashmi, and H. W. Malik, “AN ECONOMICAL DISTRIBUTED DESIGN OF A HARDWARE BASED ROUTER,” *Memory*, 2004.
- [31] Q. Ye and M. H. Macgregor, “Hardware bottleneck evaluation and analysis of a software PC-based router,” *Int. Symp. Perform. Eval. Comput. Telecommun. Syst. 2008, SPECTS 2008, Part 2008 Summer Simul. Multiconference, SummerSim 2008*, no. December 2014, pp. 480–487, 2008.
- [32] B. Wang, K. Lu, and P. Chang, “Design and implementation of Linux firewall based on the frame of Netfilter/IPtable,” *ICCSE 2016 - 11th Int. Conf. Comput. Sci. Educ.*, no. Iccse, pp. 949–953, 2016, doi: 10.1109/ICCSE.2016.7581711.
- [33] C. Wang, D. Zhang, H. Lu, J. Zhao, Z. Zhang, and Z. Zheng, “An experimental study on firewall performance: Dive into the bottleneck for firewall effectiveness,” *2014 10th Int. Conf. Inf. Assur. Secur. IAS 2014*, pp. 71–76, 2014, doi: 10.1109/ISIAS.2014.7064623.
- [34] IR Media, “Network Latency - Common Causes and Best Solutions,” *ir.com*, 2021. <https://www.ir.com/guides/what-is-network-latency> (accessed Jul. 22, 2022).
- [35] K. Shaw and O. Brooks, “What is a good internet speed?,” *U.S. News and World Report*, 2021. <https://www.usnews.com/360-reviews/services/internet-providers/what-is-a-good-internet-speed>
- [36] Netplan, “Netplan,” *Canonical Ltd. Ubuntu and Canonical are registered trademarks of Canonical Ltd.*, 2022. <https://netplan.io/> (accessed Dec. 15, 2022).
- [37] Ckimes, “Router,” *Ubuntu Documentation*, 2017. <https://help.ubuntu.com/community/Router> (accessed Dec. 15, 2022).

- [38] R. Yoga, “Konfigurasi IP Forwarding Pada Linux,” *diaryconfig.com*, 2018. <https://www.diaryconfig.com/2018/06/konfigurasi-ip-forwarding-pada-linux.html> (accessed Dec. 15, 2022).
- [39] K. Yasin, “Apa Itu Nginx dan Cara Kerjanya,” *niagahoster.co.id*, 2019. <https://www.niagahoster.co.id/blog/nginx-adalah/> (accessed Dec. 15, 2022).
- [40] Ubuntu, “Install and configure Nginx,” *Canonical Ltd. Ubuntu and Canonical are registered trademarks of Canonical Ltd.* <https://ubuntu.com/tutorials/install-and-configure-nginx#3-creating-our-own-website> (accessed Dec. 15, 2022).
- [41] C. Evans, “vsftpd,” *security.appspot.com*, 2021. <https://security.appspot.com/vsftpd.html> (accessed Dec. 15, 2022).
- [42] L. Weiguo, “Ethernet Frame Format,” *javatpoint.com*, 2012, [Online]. Available: <https://www.javatpoint.com/ethernet-frame-format>
- [43] L. Williams, “What is a MAC Address? Full Form, How to Find it on Windows,” *GURU99*, 2022. <https://www.guru99.com/what-is-mac-address.html> (accessed Dec. 15, 2022).
- [44] W. Parkhurst, “Routing First-Step: IP header format,” *Cisco Press*, 2004. <https://www.techtarget.com/searchnetworking/tutorial/Routing-First-Step-IP-header-format> (accessed Dec. 15, 2022).
- [45] Rhys Haden, “ICMP (Internet Control Message Protocol),” *Rhys Haden*, Accessed: Dec. 15, 2022. [Online]. Available: <https://www.rhysshaden.com/icmp.htm>
- [46] GateVidyalay, “TCP Header | TCP Header Format | TCP Flags | Gate Vidyalay,” 2019, Accessed: Dec. 15, 2022. [Online]. Available: <https://www.gatevidyalay.com/transmission-control-protocol-tcp-header/>
- [47] Imperva, “User datagram protocol (UDP),” *imperva.com*. <https://www.imperva.com/learn/ddos/udp-user-datagram-protocol/> (accessed Dec. 15, 2022).
- [48] Dinesh Thakur, “What is ICMP (Internet Control Message Protocol)?,” *computernotes.com*, 2015. <https://ecomputernotes.com/computernetworkingnotes/routing/internet-control-message-protocol> (accessed Dec. 15, 2022).
- [49] P. S. Foundation, “os — Miscellaneous operating system interfaces,” *Python Softw. Found.*, 2001, [Online]. Available: <https://docs.python.org/3/library/os.html>
- [50] TechFukrey, shubham\_singh, vikeshyadav1, and swatiyedle, “AWK command in Unix/Linux with examples,” *Geeksforgeeks.Org*, 2021. <https://www.geeksforgeeks.org/awk-command-unixlinux-examples/> (accessed Dec. 15, 2022).
- [51] Alfredo, “PENGERTIAN DAN CARA KERJA SOFTWARE SNORT,” *alfredoblog.wordpress.com*, 2012. <https://alfredoblog.wordpress.com/2012/11/22/pengeertian-dan-cara-kerja-software-snort> (accessed Dec. 15, 2022).
- [52] J. Chiang, “pexpect-serial-terminal 0.5.2,” *pypi.org*. <https://pypi.org/project/pexpect-serial-terminal/> (accessed Dec. 16, 2022).
- [53] N. Regita, “Iptables: {Pengertian}, {Fungsi} dan {Cara} {Menggunakannya},” *Niagahoster Blog*, 2021. <https://www.niagahoster.co.id/blog/tutorial-iptables/> (accessed Dec. 16, 2022).