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1 Introduction

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References

[1] Anwer Al-Dulaimi, Xianbin Wang, and I Chih-Lin. *5G Networks: Fundamental Requirements, Enabling Technologies, and Operations Management*. John Wiley & Sons, 2018.

[2] Carsten Bockelmann, Nuno Pratas, Hosein Nikopour, Kelvin Au, Tommy Svensson, Cedomir Stefanovic, Petar Popovski, and Armin Dekorsy. Massive machine-type communications in 5g: Physical and mac-layer solutions. *IEEE Communications Magazine*, 54(9):59–65, 2016.

[3] M Condoluci, R Trivisonno, T Mahmoodi, and X An. miot connectivity solutions for enhanced 5g systems.

[4] Jim Doherty. *SDN and NFV simplified: a visual guide to understanding software defined networks and network function virtualization*. Addison-Wesley Professional, 2016.

[5] Mohammad Asif Habibi, Bin Han, and Hans D Schotten. Network slicing in 5g mobile communication architecture, profit modeling, and challenges. *arXiv preprint arXiv:1707.00852*, 2017.

[6] Patrick Marsch, Ömer Bulakci, Olav Queseth, and Mauro Boldi. *5G System Design: Architectural and Functional Considerations and Long Term Research*. John Wiley & Sons, 2018.

[7] Peter Öhlén, Björn Skubic, Ahmad Rostami, Matteo Fiorani, Paolo Monti, Zere Ghebretensaé, Jonas Mårtensson, Kun Wang, and Lena Wosinska. Data plane and control architectures for 5g transport networks. *Journal of Lightwave Technology*, 34(6):1501–1508, 2016.

[8] Jose Ordonez-Lucena, Pablo Ameigeiras, Diego Lopez, Juan J Ramos-Munoz, Javier Lorca, and Jesus Folgueira. Network slicing for 5g with sdn/nfv: concepts, architectures and challenges. *arXiv preprint arXiv:1703.04676*, 2017.

[9] Petar Popovski, Kasper F Trillingsgaard, Osvaldo Simeone, and Giuseppe Durisi. 5g wireless network slicing for embb, urllc, and mmtc: A communication-theoretic view. *arXiv preprint arXiv:1804.05057*, 2018.

[10] Ahmad Rostami, Peter Ohlen, Kun Wang, Zere Ghebretensae, Bjorn Skubic, Mateus Santos, and Allan Vidal. Orchestration of ran and transport networks for 5g: an sdn approach. *IEEE Communications Magazine*, 55(4):64–70, 2017.