

## CONTENT

<b>APPROVAL PAGE .....</b>	<b>Error! Bookmark not defined.</b>
<b>SELF DECLARATION AGAINST PLAGIARISM</b>	<b>Error! Bookmark not defined.</b>
<b>ABSTRACT .....</b>	<b>Error! Bookmark not defined.</b>
<b>ACKNOWLEDGMENTS .....</b>	<b>Error! Bookmark not defined.</b>
<b>CONTENTS.....</b>	<b>Error! Bookmark not defined.</b>
<b>CHAPTER I INTRODUCTION.....</b>	<b>1</b>
1.1 Background .....	<b>Error! Bookmark not defined.</b>
1.2 Scope of Limitation .....	2
1.3 Objectives .....	3
1.4 Hypothesis.....	3
1.6 Schematic Writting .....	4
<b>CHAPTER II LITERATURE REVIEW .....</b>	<b>6</b>
2.1 5G Non Stand Alone (NSA) .....	6
2.2 Techno Economics Framework .....	8
2.3 Projection Indonesia mobile market .....	9
2.4 5G Network Planning .....	10
2.4.1 Network Planning.....	<b>Error! Bookmark not defined.</b>
2.5 Economical Parameter .....	16
2.5.1 CAPEX (Capital Expenditures) .....	17
2.5.2 OPEX (Operational Expenditures).....	17
2.5.3 Total Cost Ownership.....	17
2.5.4 Return on Investment .....	17
2.5.5 Compound Annual Growth Rate (CAGR) .....	18
2.5.6 Pricing Model 5G Data Charge .....	18
2.5.7 Benchmarking 5G Customer Data Price .....	19
<b>CHAPTER III 5G NETWORK PLANNING AND PRICING METHODOLOGY AND SCENARIO FOR B2C (eMBB) &amp; B2B (FWA).....</b>	<b>21</b>
3.1 Research Framework .....	21
3.2 Research Location.....	22
3.3 5G Network dimensioning.....	23
3.4 Population Projection.....	23
3.5 Capacity Planning .....	23

3.6	Coverage Planning .....	24
3.7	Analysis Economic Calculation.....	25
3.8	Cost Predicting Analysis.....	25
3.9	Data Capture Scenario .....	26
3.10	Commercial Strategic Analysis.....	26
<b>CHAPTER IV ANALYSIS RESEARCH RESULTS OF 5G NETOWRK PLANNING AND PRICING FOR ENHANCED MOBILE BROADBAND &amp; FIXED WIRELESS ACCESS.....</b>		<b>28</b>
4.1	Technical Aspect.....	28
4.1.1	Dense Urban Area Calculation using Capacity Dimensioning .....	28
4.1.1.1	Projection Data Rate 5G NR .....	29
4.1.2	Dense Urban Area Calculation using Coverage Dimesioning .....	34
4.2	Economic Aspect .....	39
4.2.1	Pricing Model B2C.....	39
4.2.2	Pricing Model B2B.....	40
4.2.3	Total Cost Ownership Analysis.....	44
4.2.4	Revenue Analysis.....	45
4.3	Regulation Aspect .....	48
<b>CHAPTER V CONCLUSION AND RECOMMENDATION.....</b>		<b>51</b>
5.1	Conclusion .....	50
5.2	Recommendations.....	50
5.3	Future Works .....	50
<b>REFERENCES.....</b>		<b>52</b>
<b>APPENDIX A: 5G NR TCO MODE OPTIMISTIC .....</b>		<b>54</b>
<b>APPENDIX B: 5G NR TCO MODE MODERATE.....</b>		<b>55</b>
<b>APPENDIX C: 5G NR MODE PESSIMISTIC .....</b>		<b>56</b>
<b>APPENDIX D: 5G NR CAPACITY PLANNING CALCULATION BANDUNG CITY.....</b>		<b>Er ror! Bookmark not defined.</b>
<b>APPENDIX E: 5G NR UE ACTUAL REVENUE GENERATION FROM PRDB BANDUNG CITY 3,75%.....</b>		<b>58</b>
<b>APPENDIX F: B2C AVERAGE SPEED PRICING MODEL M1 FOR CONDITION OPTIMISTIC.....</b>		<b>59</b>
<b>APPENDIX G: B2C AVERAGE SPEED PRICING MODEL M1 FOR CONDITION MODERATE.....</b>		<b>60</b>

<b>APPENDIX H: B2C AVERAGE SPEED PRICING MODEL M1 FOR CONDITION PESSIMISTIC .....</b>	<b>61</b>
<b>APPENDIX I: B2C FLEXIBLE CAPACITY PRICING MODEL M2 FOR CONDITION OPTIMISTIC.....</b>	<b>62</b>
<b>APPENDIX J: B2C FLEXIBLE CAPACITY PRICING MODEL M2 FOR CONDITION MODERATE.....</b>	<b>63</b>
<b>APPENDIX K: B2C FLEXIBLE CAPACITY PRICING MODEL M2 FOR CONDITION PESSIMISTIC.....</b>	<b>64</b>
<b>APPENDIX L: B2B FWA PRICING MODEL FOR CONDITION OPTIMISTIC.....</b>	<b>65</b>
<b>APPENDIX M: B2B FWA PRICING MODEL FOR CONDITION MODERATE.....</b>	<b>66</b>
<b>APPENDIX N: B2B FWA PRICING MODEL FOR CONDITION MODERATE.....</b>	<b>67</b>