

DAFTAR ISI

| | Halaman |
|--|---------|
| HALAMAN JUDUL | i |
| LEMBAR PERNYATAAN ORISINALITAS | ii |
| LEMBAR PENGESAHAN | iii |
| ABSTRAK | iv |
| ABSTRACT | v |
| KATA PENGANTAR | vi |
| UCAPAN TERIMA KASIH | vii |
| DAFTAR ISI | ix |
| DAFTAR GAMBAR | xi |
| DAFTAR TABEL | xiii |
| DAFTAR ISTILAH | xiv |
| BAB I PENDAHULUAN | 1 |
| 1.1. LATAR BELAKANG MASALAH | 1 |
| 1.2. RUMUSAN MASALAH | 2 |
| 1.3. TUJUAN | 2 |
| 1.4. MANFAAT | 3 |
| 1.5. BATASAN MASALAH | 3 |
| 1.6. METODOLOGI | 4 |
| 1.7. SISTEMATIKA PEULISAN | 4 |
| BAB II DASAR TEORI | 6 |
| 2.1. Deskripsi Umum UMTS | 6 |
| 2.1.1. Arsitektur Jaringan UMTS | 6 |
| 2.1.2. Spesifikasi UMTS | 8 |
| 2.2. UMTS900 | 9 |
| 2.2.1. Keuntungan UMTS900 | 9 |
| 2.2.2. Strategi Penyebaran UMTS900 | 10 |
| 2.3. Regulasi Alokasi Frekuensi di Indonesia | 11 |
| 2.4. <i>Refarm</i> | 13 |
| 2.4.1. Proses <i>Refarm</i> berdasarkan <i>Guidence</i> dari Vendor Huawei | 14 |
| 2.5. <i>Drive Test</i> | 15 |

| | |
|---|--------------|
| 2.6. Pengukuran <i>Drive Test</i> | 16 |
| 2.7. Parameter KPI | 17 |
| 2.7.1. <i>Accessibility</i> | 17 |
| 2.7.2. <i>Retainability</i> | 17 |
| 2.7.3. <i>Integrity and Mobility</i> | 17 |
| 2.8. <i>Capacity vs Coverage</i> | 17 |
| 2.9. Model Propagasi..... | 17 |
| BAB III DRIVE TEST DAN REFARMING | 19 |
| 3.1. Proses Refarming untuk Optimasi Kapasitas dan Area Cakupan | 27 |
| BAB IV ANALISIS HASIL OPTIMASI | 35 |
| 4.1. Perhitungan RSCP | 35 |
| 4.2. Analisis Hasil <i>Drive Test Before</i> | 37 |
| 4.3. Optimasi | 39 |
| 4.3.1. Alokasi Frekuensi Ulang & <i>Refarming Activity</i> | 39 |
| 4.3.2. <i>Integration UMTS900</i> | 40 |
| 4.4. Analisis Hasil <i>Drive Test After</i> | 41 |
| 4.5. KPI (<i>Key Performance Indicator</i>)..... | 43 |
| 4.5.1. <i>Drive Test KPI Result</i> | 43 |
| 4.5.2. NMS KPI..... | 43 |
| 4.5.3. MR KPI | 44 |
| 4.6. <i>Traffic Utilization</i> | 49 |
| 4.6.1. <i>CS Traffic</i> | 49 |
| 4.6.2. <i>Payload Data</i> | 49 |
| 4.6.3. <i>Code Utilization</i> | 50 |
| 4.6.4. <i>CE (Channel Element) Utilization</i> | 51 |
| 4.6.5. <i>Power Utilization</i> | 52 |
| 4.7. Hasil Optimasi | 54 |
| BAB V PENUTUP | 57 |
| 5.1. Kesimpulan..... | 57 |
| 5.2. Saran..... | 58 |
| DAFTAR PUSTAKA | xviii |
| LAMPIRAN | xix |