

## DAFTAR ISI

|  | Halaman |
|--|---------|
| Lembar judul                                     |         |
| Lembar Pengesahan                                |         |
| <b>ABSTRAKSI</b> .....                           | i       |
| <b>ABSTRACT</b> .....                            | ii      |
| KATA PENGANTAR .....                             | iii     |
| UCAPAN TERIMA KASIH.....                         | iv      |
| DAFTAR ISI.....                                  | vi      |
| DAFTAR GAMBAR .....                              | ix      |
| DAFTAR TABEL DAN GRAFIK .....                    | x       |
| DAFTAR ISTILAH .....                             | xi      |
| DAFTAR SINGKATAN .....                           | xii     |
| <br><b>BAB I    PENDAHULUAN</b>                  |         |
| I.1 Latar Belakang Masalah .....                 | 1       |
| I.2 Tujuan Penulisan .....                       | 1       |
| I.3 Perumusan Masalah .....                      | 2       |
| I.4 Batasan Masalah .....                        | 2       |
| I.5 Metodologi Penelitian .....                  | 2       |
| I.6 Sistematika Penulisan .....                  | 3       |
| <br><b>BAB II    LANDASAN TEORI</b>              |         |
| II.1 Pengenal;an <i>IPTV</i> .....               | 4       |
| II.1.1 Keuntungan Implementasi <i>IPTV</i> ..... | 4       |
| II.1.2 Jenis-jenis Layanan <i>IPTV</i> .....     | 4       |
| II.2 <i>Local Area Network (LAN)</i> .....       | 5       |
| II.3 Konsep Dasar Aplikasi Berbasis Web.....     | 5       |
| II.3.1 <i>Internet</i> .....                     | 5       |
| II.3.2 <i>TCP/IP</i> .....                       | 6       |
| II.3.3 <i>Arsitektur Protocol TCP/IP</i> .....   | 6       |

|  |    |
|--|----|
| 1. <i>Network Access Layer</i> .....                 | 7  |
| 2. <i>Internet Layer</i> .....                       | 7  |
| 3. <i>Transport Layer</i> .....                      | 7  |
| 4. <i>Aplication Layer</i> .....                     | 8  |
| II.3.4 Aplikasi Web .....                            | 8  |
| II.4 <i>Content Management Sistem (CMS)</i> .....    | 9  |
| II.4.1 Manajemen Data .....                          | 10 |
| II.4.2 Mendukung <i>Web Templating</i> .....         | 10 |
| II.4.3 Pemrograman Berbasis Objek .....              | 10 |
| II.5 Konsep <i>Streaming</i> .....                   | 11 |
| II.6 Arsitektur <i>Streaming</i> .....               | 12 |
| II.7 Konsep Jaringan <i>Streaming</i> .....          | 12 |
| II.8 Permasalahan Pada Jaringan .....                | 13 |
| II.8.1 <i>Bandwith</i> .....                         | 13 |
| II.8.2 <i>Delay</i> .....                            | 13 |
| II.8.3 <i>Jitter</i> .....                           | 14 |
| II.8.4 <i>Loss Rate</i> .....                        | 14 |
| <b>BAB III PERANCANGAN SISTEM</b>                    |    |
| II.1 Spesifikasi Perangkat Yang Akan Digunakan ..... | 15 |
| III.1.1 Perangkat Keras ( <i>Hardware</i> ) .....    | 15 |
| III.1.2 Perangkat Lunak ( <i>Software</i> ) .....    | 15 |
| III.2 Arsitektur Sistem .....                        | 15 |
| III.2.1 <i>Sources Video Broadcast</i> .....         | 16 |
| III.2.2 <i>Broadcast Streaming Server</i> .....      | 16 |
| III.3 Perancangan Sistem .....                       | 17 |
| III.4 Perancangan <i>Database</i> .....              | 19 |
| <b>BAB IV IMPLEMENTASI DAN ANALISA</b>               |    |
| IV.1 Implementasi Sistem .....                       | 20 |
| IV.1.1 Sistem <i>Video Sources</i> .....             | 20 |

|   |    |
|---|----|
| IV.1.2 Sistem <i>Web Client-Server</i> .....              | 20 |
| IV.1.2.1 <i>Opening</i> .....                             | 20 |
| IV.1.2.2 <i>Authentication User</i> .....                 | 21 |
| IV.1.2.3 <i>Create and Delete Session</i> .....           | 22 |
| IV.1.3 Sistem <i>Database</i> .....                       | 23 |
| IV.1.4 Sistem <i>Streaming Server</i> .....               | 23 |
| IV.1.3.1 <i>Encoder Configuration</i> .....               | 23 |
| IV.1.3.2 <i>Konfigurasi Streaming Server</i> .....        | 25 |
| IV.1.3.3 <i>Web Server Setting</i> .....                  | 26 |
| IV.1.5 <i>Streaming Progress</i> .....                    | 27 |
| IV.2 Pengukuran Dan Analisa.....                          | 28 |
| IV.2.1 Pengukuran <i>Delay</i> .....                      | 28 |
| IV.2.2 Pengukuran <i>Jitter</i> .....                     | 33 |
| IV.2.3 Pengukuran <i>Packet loss Dan Throughput</i> ..... | 35 |
| IV 2.4 Pengukuran <i>Frame Rate</i> .....                 | 39 |
| IV.2.5 Estimasi Parameter Hasil Pengukuran .....          | 40 |
| <br>  |    |
| <b>BAB V KESIMPULAN DAN SARAN</b>                         |    |
| V.1 Kesimpulan .....                                      | 42 |
| V.2 Saran .....   | 42 |
| <br>  |    |
| <b>DAFTAR PUSTAKA</b> .....                               | 43 |