## **APPROVAL**

| Approval of the Graduate School of I       | T Telkom    |                            |                       |
|--|-------------|----------------------------|-----------------------|
| Date                                       |             | _                          |                       |
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| Dean of Graduate School of IT Telko        | om          |                            |                       |
| I certify that this thesis satisfies all t | the require | ements as a thesis for the | degree of Master of   |
| Informatics Engineering.                   |             |                            |                       |
| Date                                       |             |                            |                       |
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| Head of Informatics Engineering            |             |                            |                       |
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| This is to certify that we have read t     | his thesis  | and that in our opinion it | is fully adequate, in |
| scope and quality, as a thesis for the     | degree of M | Master of Informatics Eng  | ineering.             |
| Date                                       |             |                            |                       |
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| Co-Supervisor                              |             | Supervisor                 |                       |
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| Date of examination                        |             |                            |                       |
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| Jury's member                              | . –         |                            |                       |
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| Jury's member                              |             |                            |                       |