

APPROVAL

Approval of the Graduate School of IT Telkom

Date: _____

(Dr. Maman Abdurrohman, M.T.)

Dean of the School of Computing, Telkom University

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Informatics Engineering.

Date: _____

(Dana Kusuma, Ph.D)

Head of Graduate School of Informatics Engineering

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Informatics Engineering.

Date: _____

(Ari Moesriami Barmawi, Ph. D)

Supervisor

Examining Committee Members:

Date of examination: _____

Hisar Maruli Manurung, Ph. D (Chairperson of the jury) _____

Jimmy Tirtawangsa, Ph. D (jury's member) _____

Arie Ardiyanti, S.T., M.T. (jury's member) _____