TABLE OF CONTENTS

ABSTRAK ii

ABSTRACT iii

ACKNOWLEDMENT SHEET iv

STATEMENT OF ORIGINALITY v

PREFACE vi

Table of Contents viii

List of Figures xiii

List of Tables xv

List of Appendixes xvii

List of Terms xviii

Chapter I INTRODUCTION 1

I.1 Background 1

I.2 Problem statement 4

I.3 Research objectives 5

I.4 Research scopes 5

I.5 Research benefits 5

Chapter II LITERATURE REVIEW 7

II.1 E-Government 7

II.1.1 E-Government Implementation in Different Country 8

II.2 National Electronic-Based Government Architecture 17

II.3 Regulation of Ministry of Administrative and Bureaucratic Reform of the Republic of Indonesia No. 19 of 2018 concerning the Preparation of Government Agencies Business Process Map 24

II.4 Enterprise Architecture 27

II.5 Enterprise Architecture Framework 28
II.5.1 The Open Group Architecture Framework (TOGAF) 28
II.5.2 Enterprise Architecture Framework Comparison 31
II.5.3 Enterprise Architecture Framework Implementation in E-Government 33
II.6 Previous Research 35
Chapter III METHODS 40
III.1 Conceptual Model 40
III.2 Research Systematics 43
III.3 Data Collection 46
III.4 Data Process or Product / Artifact Development 47
III.5 Evaluation Method 51
III.6 Reason of Method Selection 51
CHAPTER IV PREPARATION AND IDENTIFICATION 53
IV.1 Data Identification 53
IV.2 Data Collection Method 54
IV.3 Description of Research Object 55
IV.3.1 Organization Overview 55
IV.3.2 Vision and Mission 56
IV.3.3 Core Value 57
IV.3.4 Organizational Structure 57
IV.3.5 Details of Duties, Functions and Work Procedures 58
IV.3.6 Objectives, Targets, Strategies and Policy Directions 61
IV.3.7 Key Performance Indicator 66
CHAPTER V ANALYSIS AND DESIGN 67
V.1 Preliminary Phase 67

V.1.1 Principles Catalog 67
V.2 Architecture Vision 73
V.2.1 Stakeholder Map Matrix 73
V.2.2 Value Chain Diagram 78
V.2.3 Solution Concept Diagram 77
V.2.6 Goal Diagram 78
V.2.7 Goal Catalog 80
V.2.8 Objective and Requirement Catalog 80
V.3 Business Process Architecture Phase 82
V.3.1 Select Reference Models, Viewpoints, and Tools 82
V.3.2 Business Process Architecture Requirement 83
V.3.3 Functional Decomposition Diagram 84
V.3.4 Mapping of Objectives, Targets, Strategies, Policy Directions and Business Process Maps at the ESDM Department of West Java Province . 84
V.3.5 Business Footprint Diagram 102
V.3.5 Business Service/Function Catalog 104
V.3.6 Business Process Map with SIPOC Principles 104
V.3.7 Sub-Process Business Map with SIPOC Principles 105
V.3.8 Relationship Map 106
V.3.9 Business Process Map Level 0 106
V.3.10 Business Process Map Level 1 107
V.3.11 Business Process Map Level 2 108
V.3.12 Gap Analysis Business Process Architecture 132
V.4 Service Architecture Phase 135
V.4.1 Select Reference Models, Viewpoints, and Tools 135
V.4.2 Service Architecture Requirements 136

V.4.3 Service Catalog 136
V.4.4 Service/Business Process Matrix 137
V.4.5 Gap Analysis Service Architecture 141
V.5 Data and Information Architecture Phase 142
V.5.1 Select Reference Models, Viewpoints, and Tools 142
V.5.2 Data and Information Requirement 143
V.5.3 Data Entity Catalog 143
V.5.4 Data Entity/Business Process Matrix 147
V.5.5 Data Entity/Application Catalog 151
V.5.6 Entity Relationship Diagram 153
V.5.7 Class Diagram 154
V.5.8 Data Dissemination Diagram 158
V.5.9 Gap Analysis Data Architecture 159
V.6 Application Architecture Phase 162
V.6.1 Select Reference Models, Viewpoints, and Tools 162
V.6.2 Application Architecture Requirement 163
V.6.3 Application Catalog 164
V.6.4 Application Interface Catalog 166
V.6.5 Application Interaction Matrix 167
V.6.6 Application Communication Diagram 167
V.6.7 Gap Analysis Application Architecture 168
V.7 Consolidated Gap Analysis 169
V.8 Enterprise Architecture Validation 177
V.8.1 Validation Results for Business Process Target 177
V.8.2 Validation Result of EA Model 179
CHAPTER VI CONCLUSION AND SUGGESTION 182

VI.1 Conclusion 182
VI.2 Suggestion 183
REFERENCES 184
APPENDIX A – Research Licensing Administration 189
APPENDIX B – Research Validation Questionnaire 191
APPENDIX C – EA Blueprint 201
APPENDIX D – Documentation 203