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E-Government Implementation Planning in The Foreign Ministry in XYZ Village Government Indonesia

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ABSTRACT

The implementation of e-Government has become a commitment of the Government as set out in Presidential Instruction No. 3 of 2003 on national policies and strategies for the development of the e-government, stating that each Regional Government can take the necessary measures in accordance with its main tasks, functions, and authority to implement the development of government services based on Information and Communications Technology (ICT) nationally. In support of the implementation of e-Government in the area must of course start from the smallest government of the village. The village is the smaller part of the administrative government system in Indonesia, according to the Law No.6 Year 2014 about the village states the maintenance of the government of village using information technology can be done through e-Governance Village. The implementation of e-Government requires an in-depth study of a suitable model for this village's e-government. The research methods used in the Research are Qualitative Methods, the process of identification of the e-Government needs of the village is carried out with the COBIT 4.1 Framework, Critical Success Factor (CSF), and SWOT analysis. The results of the analysis produce Maturity Level to find out the existing condition of the XYZ Village Government towards e-government, and proposes the implementation plan of e-governing to the XYZ Village Government.

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1. INTRODUCTION

Indonesia has made significant strides in e-government implementation, with the national program dating back to 2003. However, the specific state of the art for e-government within a village foreign ministry, like the one in XYZ Village, is likely less developed compared to national or provincial levels. The rapid development of information technology has made technology very important to the basic needs of human beings[1]. There is no exception to the government that is now adapting to using technology to do the service of society [2]. Based on the rapid technological development of the government issued policy, namely President's Instruction No. 3 of 2003 on national policies and strategies for the development of e-Government, it is stated that each Regional Government can take the necessary measures in accordance with its basic tasks, functions, and authority to implement

development of government services based on Information and Communications Technology (ICT) nationally[1][3][4].

e-Government is a reform or new paradigm of government implementation that refers to the openness of public information that gives responsibility to governments to provide information about ongoing government activities [5]. According to the World Bank (2004), e-Government is the use of information technology by bodies that have the ability to establish relationships between citizens, business actors and government agencies [6][7].

In support of the implementation of e-Government in the region of course should start from the smallest government namely the village[8]. The village is the smaller part of the administrative governance system in Indonesia, which is required to keep up with technological developments and improve its ability in managing administrative data of the population of the village[9]. According to the Act No. 6 of 2014 on Villages, Village Development is an effort to improve the quality of life and life for the greatest well-being of the villagers [1]. In addition, the development of e-Government in particular Central Java has also been strengthened with the presence of PERGUB No. 47 Year 2016 on Guidelines for the Development of Village Information Systems in Central Java Province.

XYZ Village is one of the villages that are administratively located in Bala Pulang Prefecture, Tegal District, Central Java Province. Maintenance of the government of the village through the use of Information Technology makes e-government in the village can be used as a means of accountability of the governments of the villages for the maintenance of government, so will be created an independent, transparent and accountable government. While the state of the art for e-government in XYZ Village's foreign ministry might be in its early stages, there's significant potential for improvement. By carefully assessing needs, planning strategically, and learning from existing models, the village can implement e-government solutions that enhance foreign ministry services, improve communication, and empower local citizens.

The implementation of e-Government at the village governance level is planned using the COBIT 4.1 framework, CSF, and SWOT analysis [10][11][12]. This planning for the XYZ Village Government is expected to be the guideline or benchmark of the XYZ Village Government in defining policies, strategic plans, ICT work programmed, development of ICT management units, user management, network infrastructure development, and ICT infrastructure, so that the village government office can provide fast, targeted public services and implement the vision of the government set out in Impress No. 3 of 2003, namely towards good government [13][4].

2. METHOD

The research method used is the Qualitative Method Approach (Case Study) approach [14]. That is, the qualitative approach of case studies to planning the implementation of e-Government in the XYZ Village Government. In the planning of e-Government implementation there are steps that are used:

2.1 Preparation phase

a. Analysis of the current situation, at this stage the analysis is done to know the government of XYZ Village such as vision, missing, profile, objectives and also strategy so that it can be known the focus of e-Government development.
b. Analysis of the state of information technology of the XYZ Village Government using the COBIT 4.1 Framework further studied resulted in a definition of Management Guidelines for the COBIT, which consist of Maturity Level, Critical Succes Factor (CSF), Key Goal Indicator (KGI), and Key Performance Indicators (KPI).
c. In addition to conducting a comprehensive data analysis of the survey results, in order for the results of e-Government implementation planning in the XYZ Village Government based e-Government can reach the expected ideal conditions, a thorough analysis with SWOT method is needed.
d. Provides proposals for e-Government implementation strategies, to maximize the benefits of e-Government to the XYZ Village Government.
e. Making e-Government implementation planning based on analyses that have been coordinated and harmonized with the vision and mission of the current XYZ government.

2.2 Implementation Phase

a. Data collection: Depending on the method chosen, perform data collection through: Interviews (COBIT 19 - DSS01 Manage Investigations and Dispute Resolution). Surveys (Cobit 19 - BAI09 Manage Supplier Relationships). (COBIT 19 - MEA01 Manage Enterprise Architecture).
b. Observation of existing public service processes (COBIT 19 - DSS03 Manage Activities and Incidents). (COBIT 19 - BAI03 Manage Requirements Definition).
c. Obstacles encountered in accessing public services (COBIT 19 - MEA04 Manage Process Performance).
d. Information technology infrastructure available in the village (COBIT 19 - APO06 Manage Service Continuity). (COBIT 19 - APO01 Manage Service Delivery Processes and Procedures).

2.3 Plan development stage

a. Identification of priority services Based on data analysis, determine which public services are priority to be converted into electronic services (COBIT 19 - BAI02 Manage Information Sharing).
b. E-Government Solution Selection Adjust to resource constraints, choose an e-government solution that is cheap and easy to implement (COBIT 19 - APO03 Manage Service Offerings and Agreements). (COBIT 19 - BAI07 Manage Sourcing and Acquisition).
c. Using a social media platform or an instant messaging app for basic services (COBIT 19 - APO13 Manage Security Services).
d. Implementation Roadmap Development Create a realistic implementation roadmap, covering implementation stages (COBIT 19 - APO09 Manage Processes and Procedures). Note: Resource requirements (hardware, software, and SDM) (COBIT 19 - APO02 Manage Service Catalog). (COBIT 19 - APO07 Manage Sourcing and Acquisition).
e. Responsible for each stage (COBIT 19 - APO10 Manage Skills and Competencies).
f. Socialization and Training Strategies Develop socialization and training strategies that are easily understood by the village community, incorporate village devices (COBIT 19 - DSS02 Manage Education and Awareness).

3. RESULT AND DISCUSSION

3.1. Analysis of the current state of XYZ Village Government:

A. Legal Tracks
   a. Presidential Instruction No. 3 of 2003 on national policies and strategies for the development of e-Government.
   b. Act No. 6 of 2014 on the Village.
   c. PERGUB No. 47 of 2016 on the Guidelines for the Development of the Village Information System in the Central Java Province.

B. Profile of the Village of XYZ

XYZ Village is located in Bala Pulang Prefecture, Tegal District, Central Java Province, Postal Code 52464. The village of XYZ has an aera of 196.68m^2 and most of the territory is plain and hilly. The total population of XYZ Village is 3754 people with a total of 1888 men and 1866 women. This is vision and mission of the Government of XYZ Village:

   a. Vision: The the realization of a clean, honest, innovative, transparent and accountable government system for the creation of an independent, advanced and prosperous Kali bakung Village.
   b. Mission: To exploit, empower and maximize all the potential in society, through the empowerment of human resources (HR), the enabling of natural resources (NR), and the empowering of the economy of citizenship.

3.2. Analysis of information technology conditions of XYZ Village Government using COBIT 4.1 Framework

A. GAP Analysis

After knowing the maturity level of the Control Objective domain PO1, PO2, and PO3 in the current XYZ Village Government (as-is), then it is necessary to make adjustments with the desired Control Objective maturity target (to-be). To analyze the gap in the PO domain, can be seen in the following diagram.

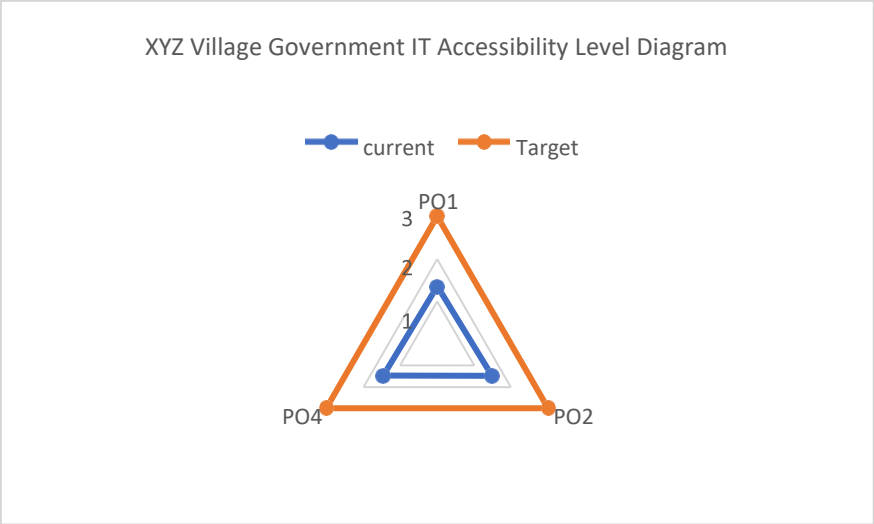

Figure 1 GAP ANALYSIS

Based on the results of the assessment of the current state of the Government of XYZ Village, the IT process maturity rate is based on the PO1 domain reference on the definition of a strategic IT plan with a maturity level of 1.36, the PO2 domain on the determination of an information architecture with a level of maturity of 1.48, and the PO4 domain on IT processes, IT organizations and their relationship with maturity levels of 1.46. Out of the three IT process domains the IT level of the Kali bakung village Government is categorized at level 1 (Initial/Ad Hoc) which means there is evidence that the Government is aware of problems to be addressed. However, there is no standard process, but it uses an ad hoc approach that tends to be treated individually or on a case-by-case basis. Generally speaking, an approach to unorganized process management.

At XYZ Village Government still very minimal SDM and infrastructure especially related to Information and Communication Technology (ICT), by looking at the results of the table and diagram above can be seen the gap on Control Objective domain PO1, PO2 and PO4 with distance 2 gap, so it is still very necessary further development.

B. Identification of CSF, KPI, and KGI

The following table identifies the result using the KPI and KGI methods to determine the critical points that need be done to the existing GAP.

Table 1 PO1 - Defining IT Strategy Planning

Process Name: PO1 – Defining IT Strategy Planning
CSF: 1. Documentation of e-Government ICT Strategy Planning in the XYZ Village Government. 2. The ICT strategy plan takes into account the risks that will arise when implanting e-Government in the XYZ Village Government. 3. The ICT strategy plan has been outlined in accordance with the e-Government in force in Indonesia.
KPI-Process 1. ICT planning is divided into e-Government ICT strategy planning and e-government IT operational planning. 2. Public participation in e-Government ICT strategy planning.
KGI-ITKGI 1. The XYZ Village Government understands the purpose of the SI strategy related to the objectives of e-Government. 2. ICT planning covers the entire XYZ Village Government,

3. The allocation of the budget to ICT by stakeholders of the XYZ Village Government.

Table 2 PO2 - Defining Information Architecture

Process Name: PO2 – Defining Information Architecture
CSF: 1. Data ownership is allocated and approved. 2. The function of the SI data administrator has been set by following the e-Government standard. 3. Maintain consistent SI infrastructure components, such as information architecture, data dictionaries, data syntax and the level of security that exists on e-Government.
KPI-Process 1. There is documentation of data classification. 2. Reduction of incidents caused by inconsistent data models.
KGI-ITKGI 1. Application development in accordance with e-Government standards. 2. Meeting data requirements for security, availability and integration in accordance with e-Government standards. 3. Reduction of data repetition in accordance with the requirements set out in e-Government purposes.

Table 3 PO3 - Defining Processes, Organizations and IT Relationships

Process Name: PO3 – Defining Processes, Organizations and IT Relationships
CSF: 1. Respond to government requirements that are consistent with the objectives of e-Government. 2. Responding to e-Government needs in alignment with IT strategy. 3. Build flexible and responsive governance structures and IT relationships. 4. Clarify the definition of owners, roles and responsibilities for all IT processes and stakeholders relationships
KPI-Process 1. Number of e-Government initiatives delayed due to lack of required capabilities. 2. The number of e-Government processes that are not supported by IT organizations but should, according to the strategy.
KGI-ITKGI 1. The amount of contradictory responsibilities in the view of the task separator 2. Unfinished problems due to lack of responsibility for tasks. 3. Percentage of stakeholder satisfaction is responsive.

3.3. SWOT Analysis

Table 4 SWOT Analysis

Internal	**Strengths (S)**	**Weaknesses (W)**
	1. The Government of the Village has been protected by the Village Law of the Republic of Indonesia No. 6 of 2014 on the Village. 2. Regional autonomy enables villages to develop self-reliance especially in the	1. The ICT infrastructure is not adequate. 2. The SDM doesn't know much about IT. 3. Data management and service to the community are skill manual. 4. No SOP about IT usage. 5. Knowledge of the information technology of

External		
	implementation of e-government.	the village apparatus such as the chief of the citizen's rule and the head of the neighboring rule is still minimal.
Opportunities (O) 1. The high level of the public's need for information. 2. There's an information technology investment fund available. 3. The rapid growth of the development of information and communication technology. 4. There's support form the government. 5. Increased public awareness of information and communication technology (e-Government).	**SO Strategy** 1. Drawing up a ICT master plan. 2. Preparing SOP for all services provided. 3. Optimize the use of technology and multimedia. 4. Preparing a budget plan for the procurement of ICT infrastructure.	**WO Strategy** 1. ICT infrastructure procurement. 2. Preparation of SOPs relating to the use of general work support tools. 3. Create a system that can provide extensive information to the public. 4. Conduct training for the village equipment related to the use of the system as needed.
Threats (T) 1. High competitiveness in the face of a free market. 2. Damage to infrastructure due to a lack of shared ownership. 3. ICT infrastructure is widely used for activities outside of common jobs such as gaming, YouTube, social media, etc.	**Strategy ST** 1. Increased efficiency is needed in application deployment, infrastructure, and HR. 2. A commitment to the community to enhance the potential of the village.	**Strategy SW** 1. Training is needed for ICT operators and users of information systems to be aware of the benefits and will work good and correct e-Government to increase confidence and confidence in the use of ICT. 2. It is necessary to allocate a budget for the development of human resources in the form of professional training in the field of ICT.

3.4. E-Government Implementation Strategy Proposal

To maximize the benefits of e-Government, it is necessary to have adequate control processes on the lifecycle of the e-government to ensure that the system implemented according to the needs, the investments issued can be accountable for its operations well and can support the achievement of the goals of the XYZ Village Government. One is to use a consistent implementation strategy on the system's lifecycle accompanied by a process of continuous improvement. The architecture of the implementation strategy proposed by the researchers consists of 4 main parts: research and information integration, implementation agendas, service delivery and performance measurement.

3.5. E-Government Implementation Planning

Based on the analysis that has been done, the following are recommendations for planning the implementation of e-Government of the XYZ Village Government, which are coordinated and

harmonized with the vision and mission of the current Kalibakung government, which with this preparation can be the foundation in implementing e-government in Kalibakung Village.

A. XYZ Village Website

The construction of the XYZ Village website is the first stage in the development of e-Government with the aim of enabling the public to gain access to information and services of Kalibakung Village Government.

B. Social Media Village

Social media plays an important role in life nowadays, especially in the system of government. This can be seen from socialization capabilities in social media, whether regulations or policies issued by the XYZ Village Government. In order to be able to reach the community more easily, in the development of e-Government XYZ Village is also needed the social media development of the village.

Of course with the aim of socialization to the public, besides the informative content and ease in using social media became one of the successful roles of social media development on e-Government in XYZ Village. Some social media can be utilized such as Twitter, Facebook, TikTok, Instagram and also YouTube.

C. Architectural Application of XYZ Village Information System

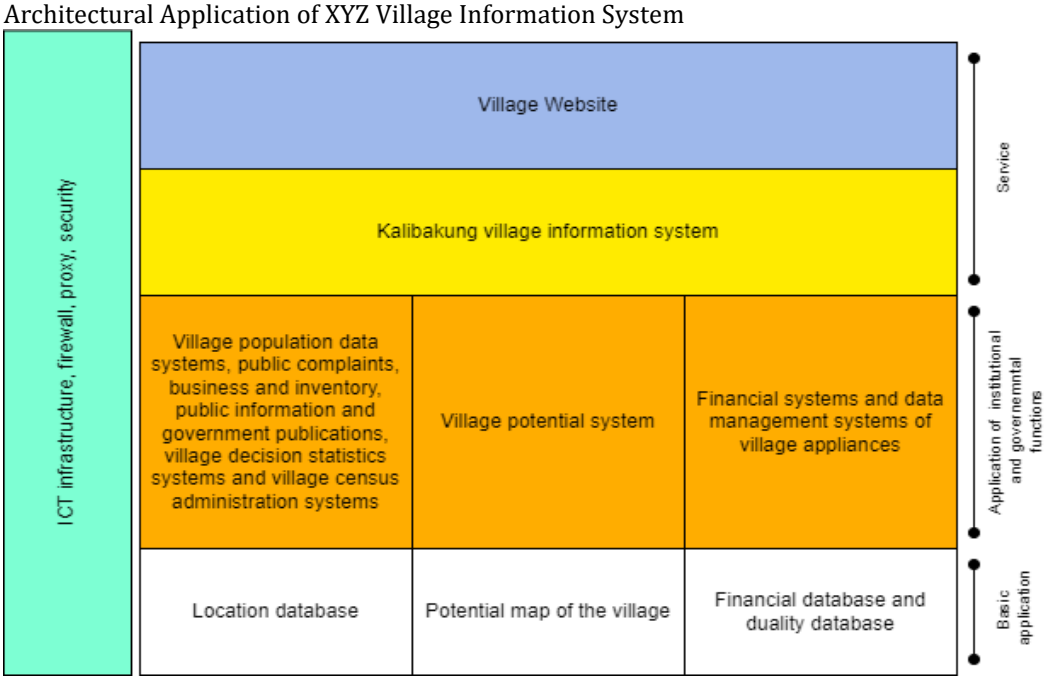

Figure 2 Architectural Application of XYZ Village Information System

D. E-Government Infrastructure Planning

a. Infrastructure aspects suggested to support the development of e-Government in the XYZ Village Government, some minimum devices both computers or networks must be prepared to be able to run e-government such as: minimum hardware Intel Core i-3 or AMD Ryzen 3 RAM 2GB Har disk 500 GB, the addition of access point for expansion of Internet network coverage.

b. The human resources required to build e-Government while maintenance is a reliable and efficient SDM using ICTs. This aspect is very important to pay attention, because it requires SDM who understands and masters ICTs and can work according to their respective tasks, in addition to understanding the structure of government, understand the recruitment process of staff, understand goods procurement process, understand village accounting process according to the module on the e-government development strategy.

3. CONCLUSION

Based on the results of the analysis and description of the discussion of the previous chapter, it can be concluded as follows:

a. This research has produced e-Government Implementation Planning in the XYZ Village Government, where the data sources are analyzed using the COBIT 4.1, CSF, and SWOT analysis methods.
b. This proposal for e-government implementation planning can be used as a reference for the Kalibakung Village Government in implementing e-governing and drawing up a medium-term village development plan. (RPJMD).

This research has investigated the potential for implementing e-government initiatives within the Foreign Ministry in XYZ Village Government, Indonesia. The findings reveal both opportunities and challenges associated with this endeavor. By carefully considering these opportunities, challenges, and recommendations, the Foreign Ministry in XYZ Village Government can effectively leverage e-government to enhance service delivery, improve communication, and foster greater citizen engagement. This research provides a valuable foundation for further exploration and the development of a comprehensive e-government implementation plan tailored to the specific needs and context of XYZ Village Government.

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