

# E-Gov Master Plan (Case Study: XYZ City)

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***Abstract**---Information and Communication Technology is one of the technology develops very rapidly. The rapid development of ICTs will open opportunities and challenges for creating, access, process, and utilize the information appropriately and accurately. Information is a very valuable commodity in this era of globalization to be mastered in order to improve the competitiveness of an organization an ongoing basis. To answer these challenges, the Government of the Republic of Indonesia has initiated a policy for the use of ICT to build the Electronic Government for Good Governance is integrated from the local level up to the center. The aim is that the ICT infrastructure to be built can be used together to coordinate by all agencies, both at central and regional levels. The main indicators of their e-Gov are the services to the public and interaction between government agencies, as well as the interaction between government agencies and non-governmental, complete through online channels. That is, it can be said there are e-Gov if people still have to leave the house to take care of licensing, taxes, public school enrollment, certification of property, etc. Implementation of e-Gov development may not be comprehensive from the outset but will continue to grow steadily over time, in tune with the readiness of each layer of bureaucracy that would be expropriated e-Gov and socialization to people. But the reference and direction must be right in order to reach the goal, that no manual service to the public, both individuals and institutions, and there is no manual interaction among institutions, and there should be no redundancy process and data. Development e-Gov in XYZ City, still require the appropriate references to Reach Goal and Objectives with due regard to the development needs at every layer of bureaucracy, so we need a Master Plan E-Gov XYZ City that can accommodate the needs of the implementation of government services to the public and interaction with other agencies or other agencies online, according to the dynamics of development in XYZ.*

***Keywords**---Masterplan, E-Government, Development, Implementation, Information, ICT.*

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## I. BACKGROUND

Utilization of systems and information technology is a strategic thing because information technology allows an organization to transform service delivery mechanisms to become more qualified and change the internal working mechanism to become more effective and efficient. Utilization of information technology must be driven by business needs XYZ City Government, thus defining the service model / the business that is the basis of the development of information technology.

*E-Government* is an attempt to develop a process-based implementation of the Government using an electronic in order to improve the quality of public services in an effective, efficient and transparent (Nuryaman, 2018). XYZ City Government can apply information technology to organize various public services to the community as well as encouraging good governance.

As shown in many cases the success of the business world, technology implementation and application of information technology is not easy with a success rate that is uncertain. The selection and use of appropriate technologies is a crucial step, but not enough to guarantee the completion of information technology projects. As with the interrelated technology, organizational and cultural aspects. In general, is another factor that determines the success of Information Technology so that it takes integrated and sustainable planning.

E-Governance Master Plan Local Government of XYZ are planning concept development and Information Technology is working guidelines, technical references, and phasing of development and operation of information technology to ensure support for the activities of governance and service-oriented stakeholders XYZ City Government [1]

## II. LITERATURE REVIEW

In accordance with the experience of e-gov initiatives around the world, infoDev - World Bank divides the stages of the transformation process of e-gov on 3 phases<sup>8</sup>, Namely publications, interactions, and transactions. The three phases are not mutually dependent on each other and do not mean that one phase is also carried out after the other phases, but conceptually is a mindset about the purpose of e-gov.[2]

### Phase 1: Publications

Using IT for Expanding Access to Government Information. The government regularly always generate a large amount of data and information, many potential benefits for individuals and businesses. Internet and other advanced communication technologies can bring that information more quickly and directly to the public. Forms application publication phase of this information may vary according to the type and volume of information to be published both design and content. As a first step, the publication of the Government's information can be initiated by publishing a variety of laws, rules, and regulations, documents and forms that are public. With easier for people and businesses to access the information without the need to go to government offices, website the government is directed to disseminate information on the government to reach the broadest possible visitors. Thus the Government website will act as the leading edge of e-gov efforts.

### Phase 2: Interaction

Expanding public participation in the Government. Government Web sites, though rich in content is the first step. E-gov has the potential to involve the public in the governance process by opening people's interaction with policymakers through policy cycle and at all levels of government. Strengthening the role of public involvement to build public trust in his government. E-Gov which involves interactive 2-way communication, and can be started with basic functions such as e-mail information about government officials or feedback form that allows the public to send comments on the proposed new policy or regulation. This interaction phase may also include the establishment of community forums Government. These forums will further establish an online community where everyone can exchange ideas, broaden public awareness of the problems together and form new opportunities for the activities that are not limited by distance.

### Phase 3: Transaction.

**Making Government Services Being Online.** The government can go further by making its web site is able to public needs to conduct transactions online. Just as in the private sector have begun to use the Internet to offer electronic trading service, the government is expected to also do the same for its services. Potential cost savings improved accountability and improved productivity to trigger the application of this phase. Government Web sites can offer a direct transaction relationship to government services, and available at any time. The benefits accruing to the Government in terms of the use and provision of IT-based services is to expedite bureaucratic procedures and labor-intensive, thus saving costs and improving productivity in the long term. Even by clicking automate and streamline procedures and processes, especially in areas that generate revenue such as collecting taxes and fees, the government can reduce corruption and embezzlement, thereby increasing the amount of income and while maintaining the image of the Government.

The Global revolution in information technology and communication is happening today. Various types of technology such as the internet, mobile phones, personal computers, only some of the names that we know, is fundamentally changing the way people's lives, affecting the way people work, learn, and interact. In the business world, the use of technological advances began two decades ago, and now all types of organizations including government organizations experience the same effect.

Some of the important developments in the era of globalization associated with the information age are [3]:

**a. Digitization Information and Services** via the Internet - this time almost every day new services provided over the Internet by both the private and government sectors worldwide. Topics and terms of e-commerce, B2B, B2C, G2G, G2C, Portal, and so are the much talked about in all sectors today. The Internet allows an organization to create new businesses and new mechanisms of service delivery, in other words, the Internet has become a business enabler. Almost certainly in the not too distant future the level of dependence on Internet service providers to provide their services to customers will be higher. From the perspective of the government and its agencies,

**b. Global interdependence-** increasing the economic and social dependence between countries, between organizations, and between individuals will create serious problems in the national strategy. In general, the business sector (businesses) are better able to facilitate and overcome dependence than the government. Some important things to be challenges and obstacles to overcome such dependence is the commitment and vision of the organization, the gap in the quality of human resources, as well as the ability to master technology in which one of them is information technology.

**c. Convergence Technology-** when the boundaries between information technology, telecommunications, and media broadcasting (broadcasting) are increasingly blurred. WebTV, Internet Radio, Voice over IP / IP Telephony and Video-Audio conferencing is an application form that can be enjoyed as a result of such convergence. Telecom operators began a transformation from circuit-based telephone service provider switch towards the multiservice provider of network-based packet switches and cell switches capable of carrying the flow of voice, data, and video. With the convergence is expected to save costs and increase the penetration of digital services to the public.

**d. Teleworker-** by increasing the quality of human resources and information technology infrastructure and telco allow shift work patterns of worker-approaching-job into a job-approaching-workers. Shifting patterns of the work will improve the well-being in terms of more time for everyone and cost savings. It will also facilitate people with disabilities to travel, such as the disabled, people who live far away from the central offices, and housewives. From an organizational perspective, the teleworker will improve productivity, cost savings, and space, and increases worker motivation. Despite the resistance, of course, is not yet even infrastructure services, and other constraints still a bottleneck at the moment, but the direction toward teleworker will continue to rise.

**e. Massive Internet Access-** the scope of the vast telecommunications infrastructure supported the rapid development of technology both based wireline, wireless, and satellite capable of carrying communications traffic is high then the opportunities that were previously not included in the area of Internet services to also enjoy Internet services. With mobile phone penetration and large television, is expected to access the Internet through these media will become dominant in the next few years. Would be expected that the next-generation Internet will be built within the framework of supranet is a network that connects many objects that will become smarter with embedded computer, a wireless network that allows access anywhere (indoor and outdoor), and interface technology that enables two-way communication between the physical and digital world objects (eg electronic identification and speech recognition). The increasing convergence of IP in networks of information and telecommunications technology (Information & Communication Technology -ICT) - Voice over IP allows access to more affordable for the public, but on the other hand, will reduce the income of traditional telephone study program. Increased capacity was taken in

developing countries should trigger many VoIP operators and the general cost reduction of communication access for poor countries. Communication Technology -ICT) - Voice over IP allows access to more affordable for the public, but on the other hand will reduce the income of traditional telephone study program. Increased capacity was taken in developing countries should trigger many VoIP operators and the general cost reduction of the communication access for poor countries. Communication Technology -ICT) - Voice over IP allows access to more affordable for the public, but on the other hand will reduce the income of traditional telephone study program. Increased capacity was taken in developing countries should trigger many VoIP operators and the general cost reduction of the communication access for poor countries.

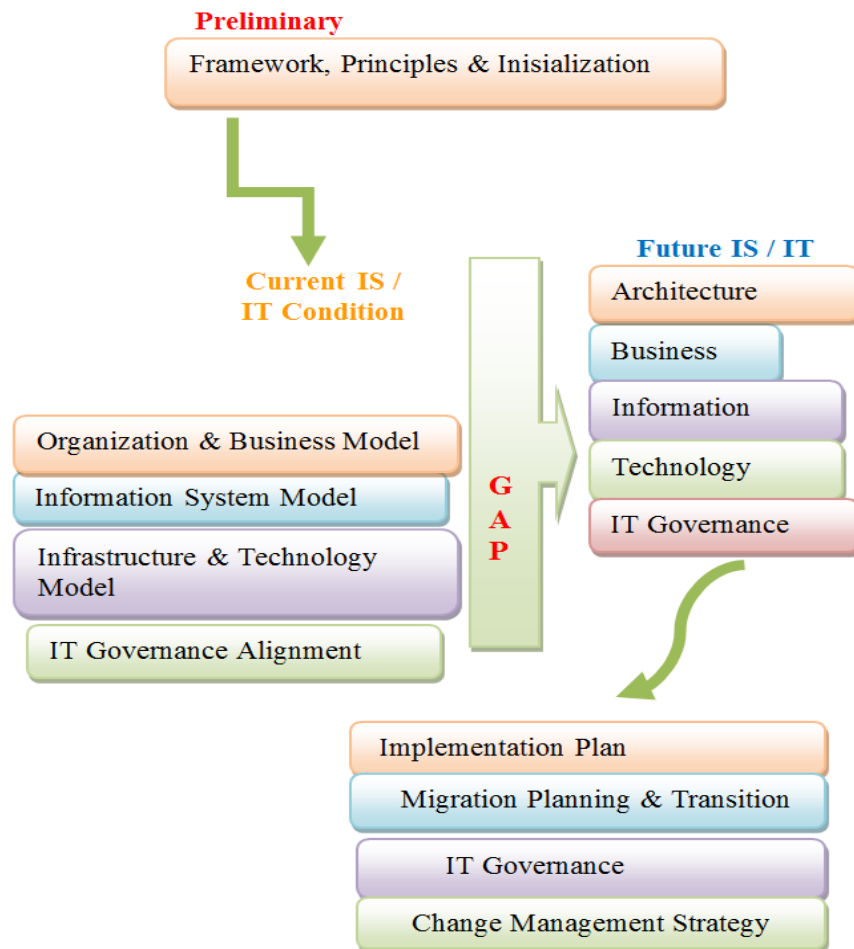
**f. The catalytic effect of free services-** Creation of services of old and new, will give rise to many aggressive strategy-free services to quickly gain market share section. With the rapid penetration will create a lot of new good service provider.

**g. Broadband communication-** the need for multimedia communications that require a large storage capacity and sensitive to time will encourage the progress of broadband communications. Availability of gigabit-capacity communications will improve the efficiency and effectiveness of public services and businesses.

**h. Privacy and Security** - to increase the need and dependence on Internet services / online from the community, government, and private sector, hence the need for credibility and security of data, information, and transactions over the Internet will continue to increase and become one of the prerequisites of success services via the Internet.

### III. METHODOLOGY

Methodology The Master Plan framework model of e-Gov XYZ City Government based Enterprise architecture and IT governance strategy as follows:



**Figure 1:** Methodology the Master Plan for E-Governance.

#### IV. RESEARCH RESULT

Explanation methodology of E-Governance Master Plan for the City of XYZ as follows:

1. Methodology The Master Plan on e-Gov above, starting with the preparation of (preliminary) framework, principles, and initial planning.
2. Followed by an analysis of the condition of the IS / IT right now, ranging from business models and good organizational vision, mission, strategies, policies, followed by the information system model that exists today both data and applications exist.
3. Then proceed with the infrastructure and technology models IS / IT is there, and the last to analyze whether their governance model alignment of IT with business processes and better organization strategy alignment, value delivery, resources management, risk management, performance measurement.
4. Plan for the future of e-Gov Master Plan for the City of XYZ, starting from the vision and mission architecture described herein theme, vision, mission, principles of architecture that will be created as the spirit of the implementation of the Master Plan work e-Governance.
5. In the business architecture with the change in system architecture and information technology, there are a new business process changes in business architecture. In the information system architecture consists of data and applications, here describe the data model and application priority.
6. In the described technology infrastructure architecture and master plan for infrastructure model IS / IT to support the business processes of the organization.
7. In the master plan the alignment of IT governance strategy outlined organizational management model IS / IT better strategy alignment, value delivery, resources management, risk management, performance measurement.
8. Achievement of the plan began plans for implementation, migration and transition process, the implementation of IT governance and change management strategies to achieve sustainable progress of IS / IT has been achieved.

**Table 1:** *Stages of the research activities of the Master Plan for the City Government e-Gov XYZ.*

Stage	Activity	Produced products
Preliminary Initialization Planning	Determine the scope and objectives of the enterprise architecture planning Adopt a planning methodology Set the resource allocation and human-computer Prepare a work plan enterprise architecture planning	The work plan enterprise architecture planning Support and commitment from executives and enterprise management
Business modeling	Identify and define business functions Verification and validation of the initial business model obtained by the executive and management	The initial business model of enterprise
Enterprise survey	Verification of the enterprise business model at each organizational unit relevant	The details of the business that complements the business model
Information Systems, Infrastructure, and Technology today	Determine the scope, objectives and work plan Information Resources Catalog (IRC) Assessment document application systems and technologies Validation and review draft IRC with relevant stakeholders Distribution and care for IRC	<i>Information Resources Catalog (IRC)</i>
Data Architecture	Identify and define data entities, attributes, and relationships. Associate entities on business function Review the architecture of the data generated by the relevant stakeholders Distribute data architecture	The conceptual data model that describes the data details
Application Architecture	Identify and define applications Associate application to business functions Useful analysis application architecture impact on existing systems	Conceptual application model which refers to the conceptual data model that is consistent, comprehensive, and complete

	Review of the application architecture is generated by the relevant stakeholders Distribute the application architecture	
Architecture Technology	Identifying and defining the technology platform Relate technology platform to business functions Review architectural technology produced by the relevant stakeholders Distribute technology architecture	The conceptual model defines a technology platform that is consistent with the application architecture, data, and business models
Implementation plan	The stacking order of priority development of the applications in the application architecture Estimates of effort, resources, costs, and benefits. Then generate a schedule. Determine success factors and make a recommendation	Migration strategy that emphasizes a change in strategy (IT Governance and Management of Change) of the current business position to the position of interest in the future
The conclusion of the planning	Prepare a final report Socialization on executive management and enterprise architecture planning results	The final report enterprise architecture planning Presentation materials enterprise architecture planning results
Transition to implementation	Creating a transition plan Adoption of the system development approach Set the required resources either human or computer Enhance architectures Make the necessary changes into the institutional organization Arrange programming standards for application development Arrange the detailed schedule for the group's first application to be developed Confirm the end of the transition	Transition work plan with a list of personnel involved Methodologies and tools Architectural complete and updated Written policies and their new department The standards of programming Procedural standards System development plan detail

## V. CONCLUSION

Expected completion of a plan of E-Government in the city XYZ that is consistent with the latest developments and needs, and provide guidance in the development, maintenance, and management of information technology in order to support the tasks and functions of the city XYZ.

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