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## Development of Data Management in the Implementation of Electronic-based Government in Serang Regency

**John Chaidir**

**Haerofiatna Haerofiatna**

Universitas Primagraha

[johnchaidir@primagraha.ac.id](mailto:johnchaidir@primagraha.ac.id)

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**ABSTRACT:** *This research develops data management in the implementation of electronic-based governance in Serang Regency by examining empirically the application of data management. The data collection technique used is Library Research on secondary data. Literature study was conducted to obtain secondary data in examining in depth the object of study. Data analysis was carried out using the content analysis approach. The results of the research on the implementation of SPBE Data Management for the Government of Serang Regency are carried out through the One Data Indonesia organizer according to their duties and authorities. Coordinating the preparation of the Serang Regency SPBE Data Architecture, which in the end resulted in alignment of agency-level SPBE Data Architecture and Regional-level SPBE Data Architecture with the national SPBE Data Architecture. . Based on the results of the study it can be concluded that the Master Data and Reference Data that have been agreed upon are the results of coordination between Regional Apparatus Organizations in the Serang Regency environment. Data Quality Management is carried out to guarantee that the Data produced by Data Producers adheres to the principle of One Data Indonesia; and can be updated according to the data update schedule. Data Quality Planning is carried out by the Serang District Indonesia One Data Forum.*

**KEYWORDS:** data management, e government, digital service, e governance

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### INTRODUCTION

The development of information and communication technology has become one of the supporting factors for a public service organization to provide excellent service in the era of globalization. One that is widely used today is electronic-based information technology. Information technology is a general form that describes any technology that can help produce, manipulate, store, communicate and or convey information. Information is a form of data that has been processed in such a way that it becomes a form that is meaningful to the recipient of the information and is useful in making decisions. Information collected and processed in an

information system is needed in making decisions. In an information system, data resources must be structured in a logical way that can be accessed easily, processed efficiently, retrieved quickly and processed effectively.

Data is an important and valuable asset for individuals, organizations/groups, and even government agencies. This can be used to fulfill business processes and achieve the expected business goals, adjustments need to be made so that these assets are maintained. The application of Information Technology is one of the adjustments that can be made to support the achievement of strategic plans in order to achieve the vision, mission and goals of the organization. The application of Information and Communication Technology in government circles is often associated with the term e-government. With the existence of e-government, it is expected that the quality of government performance in public services can be further improved. Therefore the Office of Communication, Informatics, Encryption and Statistics of Serang Regency as one of the Regional Apparatus Organizations of Serang Regency as well as e-government organizers seeks to improve the quality of public services through the Electronic Based Government System (SPBE) which is supported by One Data to Big Data through data integration. with other Regional Apparatus Organizations and Vertical Agencies within the Banten Provincial Government. This is in accordance with Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems.

Electronic Based Government System (SPBE) is a government administration that utilizes Information and Communication Technology in providing services to SPBE users. With data integration in the form of SPBE, good and correct data management is needed so that it can work optimally and support the effectiveness of the performance of the Regional Government to achieve its vision, mission and goals. In accordance with article 3 of Presidential Decree No. 95 of 2018 the scope of SPBE is divided into six sections, namely SPBE Governance; SPBE Management; Information and Communication Technology Audit; SPBE organizers; SPBE acceleration; and SPBE Monitoring and Evaluation. The main objective of the six SPBE scopes is that all systems that are still standing independently in each government agency, both at the district/city and provincial levels, can be combined into one centralized system at the national level. So it is hoped that government business processes can run better, more effectively and more efficiently. Thus, SPBE involves all government agencies, both central and regional, in its implementation. In implementing SPBE, the information security factor is a very important aspect to pay attention to considering that SPBE implements a data integration system from various government agencies. SPBE's performance can be disrupted if data and information as one of the main objects of SPBE's success experience problems in the form of obstacles, disturbances and threats involving aspects of confidentiality, integrity and availability (Hidayah, 2022).

Given that information security is currently a strategic issue that needs attention as an effort to deal with increasingly massive cyber-attacks. Information security can be carried out by implementing appropriate Information Technology governance including organizational structure, policies, processes, procedures and implementation of hardware and software functions. and information security. Electronic-Based Government System Data Management

aims to ensure the realization of data that is accurate, up-to-date, integrated, and accessible as a basis for planning, implementing, evaluating, and controlling national development. Electronic-Based Government System Data Management, as intended, is carried out with the aim that the Serang Regency Government can comprehensively manage data, ensuring its integrity, improving data quality continuously, and maximizing the effective use of data to enhance the planning and evaluation processes. This approach aligns with the key principles of Master Data Management (MDM) in today's organizations.

MDM plays a vital role in maintaining and improving data integrity, ensuring data accuracy, reducing redundancy, and complying with data regulations. It emphasizes the need for high-quality data, time and cost reduction, and data cleansing. As a result, organizations that implement MDM can increase efficiency and productivity in their business operations. (Pansara, 2021).

Data management is the process of collecting, storing, securing, and using data. Currently local governments must be able to analyze and integrate data to obtain intelligence to perform public services. Data management includes all policies, tools and procedures that enhance the usability of data within legal and regulatory boundaries. Data is considered as a valuable resource in this modern era. With access to lots of data and many different data types, organizations are making heavy investments in data storage and management infrastructure. Local governments use data management systems to carry out public service intelligence operations and data analysis more efficiently, (Bisma, 2022).

The scope of Data Management in realizing e-government in the Serang Regency Government Environment by implementing an Electronic-Based Government System. The preparation of these data management guidelines is inseparable from the overall e-government implementation strategy which includes 7 components, (Sari, 2021).



Figure 1. The Strategy in Implementing of Data Management

It is on this basis that the Government of Serang Regency through the Office of Communication, Informatics, Encryption and Statistics seeks to provide balanced information services to the public and other agencies/institutions through various daily activities in

accordance with their main duties and functions. The main tasks of the Office of Communication, Informatics, Encryption and Statistics of Serang Regency according to Serang District Head Regulation Number 78 of 2018 concerning Main Duties and Functions of the Office of Communication, Informatics, Encryption and Statistics of Serang Regency have the main task of carrying out regional government affairs in the field of Communication, Informatics, Encryption and Statistics of Serang Regency based on the principle of regional autonomy and co-administration. Thus in essence the main task of the Office of Communication, Informatics, Encryption and Statistics of Serang Regency is planning, coordinating, controlling, monitoring and controlling management in a planned, gradual and sustainable manner to improve the performance of all work units within the scope of the Serang Regency Government through cooperation in a coordinated manner to take steps to reform the state administration sector (public service reform) in the framework of realizing good governance.

## **METHOD**

This data management research uses two different approaches in comprehensively examining aspects of regulatory legitimacy, namely normative legal research and empirical research. Normative legal research is mainly used to examine aspects of philosophical and juridical legitimacy through two stages. First, carry out an inventory of various laws and regulations that have relevance to regional regulations regarding peace and public order, (Manan, 2019). Second, the statutory regulations that have been inventoried will then be analyzed by relying on two aspects, namely the philosophical aspect and the juridical aspect. An analysis of the philosophical aspects is carried out on the content of laws and regulations, (Supranto, 2018). The study of the juridical aspect is carried out on the norms of laws and regulations that provide the basis for regional authority as well as those that determine the regulatory substance that must be accommodated in the preparation of a Regional Regulation on the Implementation of an Electronic-Based Government System. While empirical studies are used to describe aspects of sociological legitimacy. The empirical studies are carried out through team studies and Focus Group Discussions on studies related to the vision and mission; goals and objectives of implementing data management in the implementation of government in Serang Regency.

The data collection technique used is Library Research on secondary data. A literature study was conducted to obtain secondary legal material by conducting a review of books related to the object of preparation (Narbuko et. al., 2017). Primary data was obtained through field studies (field research), namely by conducting interviews and Focus Group Discussions (FGD). An interview is a conversation with a specific purpose carried out by two parties, namely the interviewer (interviewer) who asks questions and the interviewee (interviewee) who provides answers to the questions. while FGDs are also commonly referred to as qualitative data collection methods and techniques by conducting group interviews, (Maleong, 2017). FGD can be defined as a method and technique in collecting qualitative data in which a group of people discuss a focus on a particular problem or topic guided by a facilitator or moderator.

Data analysis used is qualitative analysis. Qualitative analysis is a way of analyzing data sourced from law based on concepts, theories, laws and regulations, doctrines, legal principles, expert opinions or the views of the researchers themselves. Sources of data in data management research in the implementation of government in Serang Regency, contain primary materials, secondary legal materials, and tertiary legal materials, (Soekamto, 2018).

## **FINDINGS AND DISCUSSION**

The application of Data Management towards Smart Regency in the Serang Regency Government is a development and management of an area by utilizing Information and Communication Technology (ICT) in connecting, monitoring and controlling various existing resources more effectively and efficiently to maximize services to its citizens and support development sustainable.

Meanwhile, if seen from the meaning per word itself, smart regency is composed of two words regency or district and smart or smart. Regency or district can be interpreted as a settlement with a relatively large population, limited area, relatively high population density, a place for a certain number of people living in a certain geographical area, tending to be patterned in rational, economic and individualistic relationships. In an area or region there are three main aspects, namely physical, social and economic where each aspect has its own linkages and problems.

While Smart itself means smart, which can be interpreted as showing mental alertness and calculation an resourcefulness, elegant and stylish, quick needs and ease in learning, quick and birsk, capable of independent and apparently intelligent action. In the modern era like today, the need for integrated and friendly technology is increasingly felt. Along with the complexity of various lines of life in the district community in Indonesia in general, and in Serang Regency in particular, starting from education, health, energy consumption, transportation, regional planning, to public security, it becomes a challenge to realize the growth of Serang Regency which is able to provide comfort for its residents. . Another challenge that needs to be faced is the high rate of urbanization and population growth rates, so that it is necessary to manage the area according to the expectations of the community. This encourages each region, including Serang Regency, to use the smart city concept as a strategy for regional development.



Figure 2. Smart Governance

Development of a data center is a solution that can be implemented as a cross-sectoral medium for exchanging data and information without having to change the existing system. Serang District Government Data Center. The concept of a Data Center or data center is one of the efforts to make the Serang Regency government system integrated. Every data contained in SKPD can be monitored and provide information globally according to executive needs. The Data Center is an important component in today's business environment.

As the core of business services, the data center is expected to be able to provide services as optimally as possible, even in the event of a disaster so that businesses in the area can survive. Departing from the significant role of the data center, then related to various issues that exist in data centers recently, especially the problem of Disaster Recovery Planning, the study of data centers is one of the interesting topics. Various best practices regarding data centers have been put forward, besides that there are several standards that have been prepared by organizations such as TIA (Telecommunication Industry Association) to help create an ideal data center.

Data Center is a facility used for the placement of several collections of servers or computer systems and data storage systems which are conditioned by one power setting, air control, fire prevention and are usually also equipped with a physical security system.





Figure 3. Data Center

Before carrying out the implementation stages of the data center within the Serang Regency Government, it is necessary to carry out an analysis of the design of the infrastructure and the mechanism design of the data center. System Requirements Analysis Analysis of system requirements is taken from primary and secondary data from field observations in the Serang District Government Environment. In analyzing system requirements, only a few SKPDs will be used whose applications meet the criteria for the system integration process. All selected applications will later become a pilot project for the development of data center systems in Serang Regency, and so on one by one will be integrated with the data center.

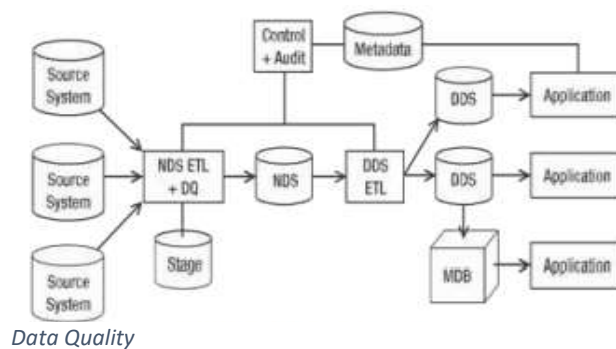


Figure 4. Data Quality

Data and information managed in information systems need to meet availability, accuracy and integration, as well as guaranteed information security according to user needs. For this reason, information systems need to accommodate these three aspects so that the needs of information system users can be facilitated. It is also hoped that the data that will be transacted within the Serang Regency environment is one data, namely data that is sourced or generated from one door and is used in a shared manner between sectors. Data architecture can be seen from the point of view of general data groups. This general data group will become a supplier/supporter

for other data needs. Having data groups will make it easier to integrate or share data across sectors.

## CONCLUSION

The SPBE Data Management implementation for the Government of Serang Regency is carried out through the One Data Indonesia organizer in accordance with its duties and authorities. SPBE Data Management for Serang Regency has the goal of ensuring the realization of data that is accurate, up-to-date, integrated and accessible as a basis for planning, implementing, evaluating and controlling regional development. All Regional Apparatus Organizations within the Serang Regency coordinated the preparation of the SPBE Data Architecture for Serang Regency, which in the end resulted in an alignment of the agency-level SPBE Data Architecture and Regional-level SPBE Data Architecture with the national SPBE Data Architecture. The main data and reference data that have been agreed upon as a result of coordination between the Regional Apparatus Organizations in the Serang Regency environment, are then submitted by the Coordinator of the Indonesia One Data Forum for Serang Regency to the Development of One Data Indonesia for Serang Regency. In Master Data Management and Reference Data it can be carried out by aligning with the formulation and agreement on Reference Codes as referred to in the directions given by the Serang Regency Indonesia One Data Development. Data Quality Management is carried out to guarantee that the Data produced by Data Producers adheres to the principle of One Data Indonesia; and can be updated according to the data update schedule. Data Quality Planning is carried out by the Serang District Indonesia One Data Forum.

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