Arrangement of Archives of Cloud Computing Based and Utilization of Microsoft Access

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Service at the “Kelurahan” is a very important part in determining the success of development, especially in public service. The problem faced is the lack of skill level of the “Kelurahan” apparatus with the more dynamic demands of the community and the archive management system is still conventional and manual that is writing the identity of the archive into the book agenda, expedition, control card, and borrowed archive card, so it takes a more practical electronic system, effective and efficient so required to develop themselves in order to improve public services. Conventional administration and archive management must be transformed into cloud-based computing (digital), for which archiving managers should always be responsive and follow these developments and wherever possible in order to utilize for archival activities, with greater access expected archives are evidence at once able to talk about historical facts and events and be able to give meaning and benefit to human life, so archives that were only visible and readable at archival centers can now be accessed online, and even their services have led to automated service systems. Using Microsoft Access which its main function is to handle the process of data manipulation and manufacture of a system, this system is built so that the bias runs on Cloud which means Cloud itself is a paradigm in which information is permanently stored on servers on the internet and stored. The purpose of this program is the implementation of administrative management that has been based cloud computing (digital) and is expected to be a solution in managing the archive so that if it has been designed and programmed, it can be stored in the computer and beneficial to the “Kelurahan” apparatus and add in the field of management archives in the form of improving the quality of service to the community, can facilitate and scientific publications

Keyword: *Cloud computing, Microsoft Access*

INTRODUCTION

An archive is a record or record of any activity undertaken as a tool for remembering and for administrative purposes and authentic interests. Archival files will arise, either with simple equipment or with sophisticated equipment or technologies such as computers and documentary evidence of problem solving and evidence of transactions or reminders of a body or institution, providing the required information, the verification value of a so that it can provide easiness for the future, so there needs to be a good archive management system, so that the entire process of activities can be recorded and can be a material assessment of the performance of an institution. Arrangement of this archive using Microsoft Access which its main function is to handle the process of data manipulation and manufacture of a system, in addition to the system that will be built also Cloud Computing-based where is a paradigma where information is permanently stored in server on the internet. So in the archive will be able to facilitate employees to collect data archives in the Pradah Kali Kendal and Kali Rungkut. Similarly, the archives in Kelurahan need to be managed properly and systematically so that every archive management in the field of Government can run efficiently. For that will be built an archive-based archival system cloud computing as a container in the arrangement of mail archives, so the process of collecting archives that during this less efficient can run efficiently

1.1 Situation Analysis

In the era of regional autonomy, “Kelurahan” is a very important part in determining the success of development and in direct contact with the community, especially in public services, Rungkut Kidul and Pradah Kalikendal, as the spearhead in providing services public to the people in the city of Surabaya, we see in terms of administrative structuring services levels have not shown improvement in service.

Another problem faced by the kelurahan apparatus is the lack of skill level of the kelurahan apparatus with the more dynamic demands of the community. The conventional archive management system triggers high risk with natural disruption (flood & fire) and other disturbances. This happens because of the lack of information communication technology (ICT), lack of human resources (HR), the amount of budget needed to implement ICT until financing maintenance, because the system needed to facilitate the process of delivering information and efficient communication on the side cost and operation. In order to realize the program kelurahan apparatus should strive to improve the ability of individuals, organizations and services based system. Users do not need to know how and where their computing resources are met by cloud providers and do not need to be bothered with the provision of server, storage, software, system maintenance, and IT personnel, but simply subscribe to the service by choosing the packages provided as needed and paying regular rental fees, then fill and process the content inside. The hope is to create uniformity and ease in terms of information processing so that access to information becomes faster, easier, cheaper, can be done anytime and anywhere. Geographically the area of Rungkut Kidul is located in East Surabaya precisely at Jl. Rungkut No. 35 Surabaya. In accordance with the slogan "SERVE WITH HEART" serves with all my heart, while the Village Pradah Kalikendal in Dukuh Pakis in West Surabaya

1. Kelurahan Rungkut Kidul

Boundaries of Kelurahan Rungkut Kidul→North: Kalirungkut dan Penjaringansari, East: Medokan Ayu, **South:** Rungkut Tengah, dan Gunung Anyar, West: Kendangsari. The population is 14.410 people with details of 7.200 men and 7210 women consisting of 12 RW from 58 RT and 4.414 families. Kelurahan Rungkut Kidul consists of 12 RW and 58 RT.

Tabel 1.1 DATA RT DAN RW DI KELURAHAN RUNGKUT KIDUL

No	RUKUN WARGA	JUMLAH RUKUN TETANGGA
1	RW I Drs. H. Ahmad Fuad	5
2	RWII Drs. MuchKhoiron,MM	4
3	RW III H. Yudi Gunawan SH	6
4	RW IV	4
5	RW V Drs.Imam Asmuni	5
6	RW VI Suyanto	6
7	RW VII H. Fahri	6
8	RW VIII H.Rahmad Sondak SH	4
9	RW IX IrH.Ahmad Hartanto	5
10	RW X Suyanto	6
11	RW XI Subaru	7
12	RW XII H.Nasim	5
	JUMLAH	63

Human Resources owned by Kelurahan Rungkut Kidul can be seen in Table 1.2 below:

The Dataof Employee Kelurahan Rungkut Kidul

NO	NAMA	GOL/TMT	JABATAN	PENDD	JENIS KELAMIN
1	Dra. Diah Ernawati		Lurah	S 1	Perempuan
2	Heri Suswati	Penata/ III c	Sekretaris	SLTA	Laki-laki
3	Mega Rahayu	Penata Muda Tk.1/III b	Sekel	SLTA	Perempuan
4	Sri Binatun SH	Penata Muda Tk.1/III b	Kasi Pemerintahan	S 1	Perempuan
5	Lely Sulistyowati	Penata Muda Tk. 1/III b	Kasi Kesar	SLTA	Perempuan
6	Endah Budiningsih	Pengatur Muda Tk. 1/IIb	Kasi Arsip	SLTA	Perempuan
7	Ghema Andriani	Pengatur Muda Tk. 1/IIb	Staf	SLTA	Perempuan
8	Endang S, T		Staf Sekell	S 1	Perempuan
10	Alpiani		Staf Pemerintahan	S 1	Perempuan
12	Achmad Zainap		Petugas Kebersihan	SLTA	Laki-laki
13	Ach. Imron		Penjaga Kantor	SLTA	Laki-laki

The problems encountered in Kelurahan Rungkut Kidul as follows:

1. Unavailability of an up-to-date Microsoft Access based system
2. Lack of ability and skill of kelurahan apparatus in controlling system to improve service in society;
3. Limitations of personnel in the kelurahan compared with the volume of work encountered to interfere with the effectiveness of service.
4. A very limited archiving place compared to the number of documents to be stored (space, wardrobe archives);
5. The lack of facilities owned by the infrastructure including computers and printers and not yet has a scanner as a supporting tool for archiving.

More details related to the problem can be seen in figure 1.2

2. Kelurahan Pradah Kali Kendal Area as follows:

North: Suko Manunggal, South: Babatan Wiyung, Border: Lontar Kecamatan Lakarsantri; and East: Putat Gede Kecamatan Suko Manungga. It has an area of 520,670 Ha which is divided into 43 RT and 9 RW with 3.5 s / d 4.0 m above sea level and dry climates. Based on number of residents as many as 13,196 souls consisted of men 6666 and women 6,530 inhabitants. The number of family members consists of 3,609 families, with a total population of 820 people (205 households). Based on Profile data, as much as 2226 consist of men as many as 1115 inhabitants and women as many as 1069 inhabitants. The number of head of household consists of 735 families, with the total population of poor as many as 122 KK. The profile of each partner of IbM program we can explain as follows

Table 1.3 Pradah Kali Kendal

Tabel 1.3 DATA PEGAWAI KELURAHAN PRADAH KALIKENDAL

NO	NAMA	GOL/TMT	JABATAN	PEND D	JENIS KE- LAMIN
1	Drs. Untung Hariyono	Penata Tk. I/IIId	Lurah	S 1	Laki-laki
2	Rachminiwati, SE	Penata Tk. I/IIId	Sekretaris	S 1	Perempuan
3	Sulistyaningsih, S. Sos	Penata Tk. I/IIId	Ka. Sie. Pemerintahan	S 1	Perempuan
4	Subiyandoko, SIP	Penata Tk. I/IIId	Staf Operasional 1	S 1	Laki-Laki
5	Joedhianto	Penata Muda IIIa	Ka. Sie Kesar	SLTA	Laki-Laki
6	Fatoni	Pengatur / II c	Staf	SMEA	Laki-Laki
7	ML Choirul Huda	Pengatur Muda IIb	Staf	SLTA	Laki-Laki
8	Ismadi		Linmas	SLTA	Laki-laki
9	Wisnu Maulana S		Penjaga Kantor	SLTA	Laki-laki

The problems encountered in Kelurahan Pradah Kali Kendal as follows:

1. Unorganized documents and archives systematically (still using conventional archiving), the risk is higher (prone to fire and rayab). A very limited archiving place compared to the number of documents to be stored (space, wardrobe archives)
2. Lack of ability and skill of kelurahan apparatus in controlling system to improve service in society, compared with volume of work encountered so that interfere with service effectiveness;
3. The absence of cloud computing implementation for services that provide applications². Maintenance system, infrastructure and data storage centrally

More details related to the problem can be seen in Figure 1.4

1.2 Objectives and Benefits

- This archive system using Microsoft Access and Cloud Computing based only mengij upload file archive and can download archives that have been uploaded
- Storing archival materials or documents that still have value in use at a time is required with a particular system, so that when required by ceas can be rediscovered
- Maintain and maintain physical archives or documents in order to avoid the possibilities of damaged or lost by storing them into the system.

- d. Benefits: may facilitate the collection, storage, retrieval and maintenance of archives or documents in order to avoid loss or damage.

1.3 Partner Problems

Based on the results of identification problems Kelurahan: Rungkut Kidul and Pradah Kali Kendal can be seen in table 1.1 below

Table 1.4 Data Problems of Rungkut Kidul and Pradah Kali Kendal as follows:

CHAPTER II SOLUTION AND OUTSIDE TARGET

2.1 Solutions Offered

Based on the agreement with the Kelurahan Pradah Kali Kendal and Rungkut Kidul with PENMAS Team the problems that will be resolved in the activity will be discussed in 3 problems:

No	KELURAHAN	
	PRADAH KALI KENDAL	RUNGKUT KIDUL
1	Not yet systematized documents and archives (still using conventional archiving)	Unavailability of up-to-date archiving based on cloud computing
2	The Lack of ability and skill Officials in the mastery system to improve the service in the community	The lack of ability and skills of the kelurahan in the mastery of the system to improve the service in the community
3	Limitations of personnel in compared with the work encountered so as to interfere with the effectiveness of service	Limitations of personnel in compared with the volume of work encountered
4	Archiving places that are very limited compared to the number of documents to be stored	The minimum level of education is only 4 (four) people who are S1
5	The risk of archiving is conventionally higher (prone to fire and rayab)	The risk of archiving that has not been updated, the potential is owned because no coaching & assistance
6	Minimnya infrastructure including computers and printers and do not have scanners to support archiving tools	Minimnya infrastructure facilities, computers and printers and not yet have a scanner to support archiving tools.

blems:

Tabel 2.1 Solutions Offered In Resolving Partner Problems

No	PROBLEMS	SOLUTION	FACTS
1	Not yet systematized documents and archives (still using conventional filings at higher risk and prone to fire and rayab)	Workshop of administrative by changing from manual / conventional to digital by maximizing cloud computing based system and the use of computer and printer scanners and socialization UUASN 2014	Documents will remain stored systematically, easily, safely from the danger of flooding, nerds and do not need a vast place because in digital form
2	Unavailability of up-to-date cloud computing System-based in 2 (two) Kelurahan	a. Communicating Microsoft access to the entire kelurahan apparatus and involving RT and RW in data retrieval (Stakeholder) b. Up-date cloud computing involving students in extracting data and recapitulation and implementing a system of "virtual bureaucracy" c. Provision of sarpras (computer PC and scanner)	Cloud computing data is updated and ready to be used as a reference for the development of regional potential
3	Minimum ability and skill of Kelurahan apparatus in order to increase service in society according to bureaucratic reform agenda from Ministry of Administrative Reform (MENPAN)	a. Providing socialization on the State Civil Apparatus Act (ASN) in 2014 b. Provide training on cloud computing software and virtual bureaucracy c. Monev cloud computing software applications and Microsoft access virtual bureaucracy	

2.2 Output Target

Output target in science and technology activities for the Community (IbM) is as follows:

1. Cloud computing and Microsoft access
2. Document administration and documentation system based on Cloud Computing
3. Improving the ability and skills of the kelurahan with Microsoft Access software training and cloud computing-based archiving in order to improve the service to the community to realize Good Governance.
4. Scientific articles in national journals, published through online media

2.3 Organizational of Kelurahan

Gambar 2.2 Struktur Organisasi

CHAPTER III METHOD OF IMPLEMENTATION

Microsoft Access kelurahan is a collection of data implemented by kelurahan and government systematically compiled, complete, accurate and integrated in governmental administration, development and development development (Microsoft access, 2009). Kelurahan has a very decisive role, because the success of the implementation of various government programs in the city of Surabaya at all levels is very dependent on the preparation of the plan that stems on the data and information compiled systematically, completely, accurately and integrated.

The role of the kelurahan as a place, the foundation of the community in obtaining prime ladies and as the spearhead in governance, the implementation of building and community development as well as a source of data and information in the determination of various government policies. In order to realize the excellent service in Rungkut Kidul and Pradah Kali Kendal, the following strategies are needed: In administrative and archive administration should be supported by infrastructure facilities based on cloud computing. According Prastowo (2014)

There is Model 4 Model Development Cloud computing is implemented on various servers running various data center for easy access

1. Public Cloud usually done by a company or organization by holding the attributes of cloud computing ie, elasticity, Self Service, Pay-by-Use, and programmability. This exists because it is able to efficiently cost such as reducing electricity consumption and cooling for their previous server. Vendors that provide this model include vmWare, Microsoft, IBM, and Sun.
2. Private Cloud → combination or combination of public and private models that still have unique entities but are tied together by technology standards or data ownership and application portability.

3. Hybrid Cloud → is implemented when several companies or organizations have the same data context
4. Community Cloud → With the use of Cloud Computing and Microsoft Access

On archiving arrangement in Kelurahan Rungkut Kidul & Pradah Kali Kendal got the following benefits

1. Simplify the process of data and information ready to be submitted both to the citizens in need because of web-based services, delivery of information faster, easier, cheaper, and can be done anytime anywhere.
2. Implement a cloud computing for services in kelurahan that provide services, applications, maintenance system, infrastructure and data storage centrally in the cloud server.
3. Generate an E-Village Cloud-based cloud computing as a public service with ready-made features and modules, on demand, capable of processing information, creating uniformity in terms of information processing. But basically cloud computing has many benefits besides being environmentally friendly because it does not add to the trash also helps to reduce the pile of paper on the desk. In addition to the digital format, information dissemination becomes easier and faster.
4. Preparation of Microsoft Access is up-date based on the system as a source of data and information for all preparation of development programs. In an effort to present the administrative data of the kelurahan as a whole, integrated, accurate and accountable the truth should be arranged in the form of microsoft access kelurahan. To make microsoft access updated in need of virtual bureaucracy software.
5. Increasing human resources (HR) apparatus through workshops structuring administrative and socialization of Civil State Property Act (ASN).

For the accompaniment of the implementation of IBM there are also 2 students who are involved to assist, in solving the problems of the partners in this team has related duties and responsibilities and complement each other. So as to create a synergy of the right science in finding solutions to existing partner problems. As a solid team and accompanying students, we strive to contribute knowledge and thought to the community, especially Kelurahan Pradah Kali Kendal and Village Rungkut Kidul

CHAPTER V RESULTS & DISCUSSION

Implementation

This stage is the core stage of system development. At this stage, what is done is to translate the design results into the program code to generate the archive arrangement system. In implementation, this system is built using Microsoft Access, but it also built website archive arrangement system whose contents are not much different from the application made in Microsoft Access.

Trial Scenarios

1. In this section will be explained about the experiments that have been done with various inputs. The trial of the Kelurahan Arrangement Management system is done to determine whether the system can run as properly as possible. The experiments were carried out with a predetermined test environment and performed in accordance with the trial scheme.
2. Trial Environment
3. This test is performed on a computer that has installed Microsoft Access and XAMPP Server programs. The operating system installed on this computer is Microsoft Windows 10 Professional. The computer that used the trial has also been installed Mozilla Firefox and Chrome browser.
4. Trial Scenarios
5. To ensure that this application runs smoothly, the authors will arrange the scenarios to be attempted. The scenarios to be tested are divided into two, namely scenarios in Microsoft Access based systems and scenarios in web-based systems. These scenarios include:

For Microsoft Access based systems:

1. Doing login
3. Changing incoming mail

For web-based systems:

1. Doing login
3. Changing incoming mail
5. Print daily reports of incoming mail

2. Performing additional user data
4. Changing outgoing mail data

2. Performing additional employee data
4. Changing outgoing mail data

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