

# Information System Hosted in the Cloud to Promote Rural Tourism

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## ABSTRACT

Information systems that are hosted in the cloud are a powerful tool for progress in underdeveloped areas. If properly managed, the area's current potential may be put to use in the expansion of nearby resources. Cloud-based information management has the potential to serve as a platform for advocacy that boosts economic activity across the board in the area. The purpose of this research is to shed light on how a Cloud-based information system might aid in the growth of a tourist community. It's a literature review for this research. The research team gathers its material by reading and analyzing a wide range of relevant publications and online resources. Based on the findings of this research, using Cloud Computing in tourist communities ensures that data is safely kept in a centralized location. Cloud computing eliminates the need for consumers to supply physical storage devices like hard drives by storing data electronically. The availability of the Cloud-based information system also helps the larger community become more aware of the tourist potential that the town has. Thus, it's fair to say that using Cloud Computing in tourist towns is a smart, efficient, and novel way to showcase the area's offerings. Media related to visiting a village may be viewed at any time and from any location thanks to cloud computing.

## 1. INTRODUCTION

There are many different ethnic groups, dialects, cultures, and faiths in Indonesia. In addition, there is untapped potential in the economic, cultural, and ecological spheres in every place. By tapping into the possibilities of the region, it might become a tourist destination and recreational hub. There are many potential tourist attractions in any given location, but often only one really stands out and comes to symbolize that place. The tourist village is one of the most widely practiced kinds of regional tourism[1]. According to [2], the creation of tourist communities

is now being used as an alternative to local economic growth in several areas.

Building up tourism communities is a great way to boost the economy as a whole. A tourism village is a community-run settlement where residents work together to provide care and where everyone is aware of the importance of contributing their unique set of skills and knowledge to maximizing the village's potential for attracting tourists [3,4]. Using IT is one strategy for a tourist town's growth and development. Access to the tourist village's information is simplified with the use of IT. The widespread uptake of information technology (IT) nowadays is a result of the fact that IT may be used in tandem with several other areas of study [5]. Implementing a cloud-based information service system will aid in the growth of the tourist town. When used to manage the growth of tourist towns into readily visit able destinations, information solutions based on cloud computing make it simpler for people to do so. The term "cloud computing" refers to a kind of computing where data and programs are stored and accessed through the internet rather than on local servers. Cloud computing makes it simple to get data about a specific location.

Users of a cloud computing service do not need to set up a local computer to have instantaneous access to data stored in the cloud [7]. As a result, people will have access to reliable details regarding the circumstances at the time. Cloud computing is a methodology for using the internet that allows for dynamic scalability in terms of resources (such as networks, servers, storage, applications, and services) and speed of access on demand [8]. Through the power of computation, cloud computing systems are able to conveniently store and exchange data with many users across a variety of networked devices and endpoints [9,10]. In order to provide a high degree of operation and service to consumers, cloud computing combines grid contribution and a distributed system with some novel ideas[7]. Both tourists and local shopkeepers in the tourist town may profit from cloud computing, as the former can have more streamlined access to data, while the latter can run

their operations from anywhere with an internet connection.

## 2. LITERATURE REVIEW

The rate at which technology is advancing makes it imperative that we stay up with the latest innovations. When it comes to the workplace, computers are one of the technologies that has the most impact on people's daily lives. There always seems to be a new innovation that improves the system. It's a method of integrating and enhancing computer systems that rely on the internet, much like "cloud computing." Because of advancements in technology, all of the server's data and programs are now kept in cyberspace. Research [11] suggests that using an internet-accessible, cloud-based information system for religious institutions is an effective way to improve the management of these institutions and address issues such as the rising number of people registering to attend services. Pilgrims may now register on their own using the app because of this mechanism. Government service systems are increasingly using cloud computing technologies to improve efficiency and lower costs for providing services to citizens. Some of the benefits of cloud computing for government are outlined in [12]: a) cloud computing is fast, integrates data easily, and provides timely feedback; b) cloud computing also helps the government to store data with large capacity; c) because of its speed, government performance becomes effective; d) this system also easily distributes data to various providers quickly; e) low cost, making it easier for the government to allocate its budget. Below is an example of the government's use of cloud computing systems:

Current E-Government	Government Cloud
• Limited services	• Ubiquitous services
• Information island	• Standard APIs
• Network isolation	• Business Collaboration
• Rigid configuration	• Dynamic distribution
• Respective management	• Professional teams
• Respective deployment	• Unified Supervision
• High cost, Low RI	• Low Cost, High RI

Figure 1: A Look at How E-Government and Government Cloud Services Stack Up [12]

According to [14,15], the potential of tourist settlements is given more weight in the information

system made available to the community. One effective tactic is to advertise tourist communities by means of electronic media. Because media advertising requires access to the web, it is essential that all industries have one. The website will be used as a marketing tool to improve accessibility for both domestic and international visitors. Tourist attractions, accommodations, cuisine, and modes of transportation all have different names on the website's menu. The website displays the waterfall technique, which is a subset of application development that belongs to the traditional life cycle and is symbolized by a waterfall since its phases are completed in a sequential order.

Cloud computing on the internet enables convenient accessibility [6] at any time. Cloud computing also facilitates wider distribution of content for owners and administrators. The website has data generated by a technology that streamlines the process of booking tours and other attractions for guests. Visitors may avoid waiting in line by reserving their seats in advance online. A service provider that makes use of infrastructure and platforms to provide software as a service. System analysis is used in this research as well, performed after interviews with informants who have succeeded with cloud computing. As a representation of the reservation strategy, the research makes use of system architecture design.

## 3. METHOD

This study makes use of library resources. In order to gather and analyze research on the issue at hand, library research is a reference that is retrieved as a reference in a research [17]. Researchers in this study employed library resources to gather background information, and they reviewed and built upon the findings of other studies to influence their own data gathering efforts. All of the articles utilized in this study have been published within the previous five years, and several of them provide significant new information. Vivo 12 Plus software is used to handle literature data using the clustered by word similarity feature [18,19]. This study relies on data collected through library searches because they are stable, readily available, and verifiable by design. The goal of a literature review is to provide readers with background information on a topic by summarizing and evaluating relevant prior studies and providing a review of relevant literature gleaned from a variety of print and digital sources [20].

## 4. RESULTS AND DISCUSSION

In early 2021, there were estimated to be 202.6 million internet users in Indonesia. When compared to January 1, 2020, this figure is 15.5% higher, or an increase of 27 persons. It seems to reason that this figure will keep growing each year. It is envisaged that the Indonesian people would learn to become news creators as well as consumers as a result of this phenomena. Many individuals in the modern world utilize the internet as a tool for financial advancement. In reality, many individuals have been able to create work opportunities for others by using the power of the internet for their own financial gain. The internet has simplified every facet of modern living. People can talk to one other instantly, no matter how far apart they are, thanks to the internet. Because of this, something called cloud computing has to be introduced so that people's everyday lives, businesses, and governments may all benefit more from the usage of technology [13,21]. The widespread use of cloud computing is crucial because of the increasing number of forward-thinking rural communities throughout the nation.

#### 4.1 How Successful Cloud Computing Is in Tourist Communities

The existence of new developments has made tourist settlements a particular focus of attention. Cloud computing offers several benefits and advantages, especially in tourist communities. Cloud computing is the practice of doing computational tasks through the internet rather than locally-stored hardware like hard disks. The price is low, and there's no restriction on how much data may be stored. Cloud computing may be used to disseminate information about tourist villages and store that information. How can cloud computing function as a marketing tool for vacation communities? A website run by a tourist town is required for this to function. You may get information on anything from restaurants to attractions on this site. In addition, the webpage may include all the sights and activities available in the town. Hours of operation, visitor amenities, photographs of sights, menus for culinary excursions, online bookings, and more are all available through the website. Using cloud computing, information provided by a tourist village may be kept in a single location. Therefore, users may stop worrying about the security of their data and instead store all they need on a single, trusted server.

The community of a tourist hamlet would benefit greatly from adopting cloud computing so that its members could more effectively engage in branding and tourism marketing. Naturally, this has the potential to significantly increase public awareness of

tourist villages. Since the website can be accessed from any location and at any time, it is obviously a highly efficient tool (5). Cloud computing is a system that allows everyone to use shared computer resources, such as memory storage. Using cloud computing in this way to save money and time is a natural choice for a tourist resort.

#### Cloud Computing Role in the Growth of Tourist Communities 4.2

Promoting a tourism village's ability to become well-known to the general public is essential to the project's success. Time, money, and people resources can all be better managed, and progress can be made on the tourist village, with the help of cloud computing. The amount of data that may be stored with cloud computing is substantial. Cloud computing allows for a wide variety of data types to be saved, including promotional material in the form of images and videos, which is crucial for the growth of tourist towns. Of course, the community also plays a role in the implementation process. For digital information systems supporting tourist villages, community involvement in cloud computing is essential. Since 2013 [22], this system has been in place in the Ministry of Communication and Information Technology, one of the government's primary technological hubs.

All of the people who utilize the internet will have access to the data centers of cloud computing. It is essential in the 4.0 age to keep up with the ever-increasing pace at which information technology is being used. An assessment of the current state of the tourist village's infrastructure and supporting amenities is the first step before implementation. Governance of cloud security is the next stage. Assuring the safety of information whilst uploading to the server is crucial. The second step is to keep an eye on the cloud computing infrastructure. The last step is an examination of the whole system to identify any problems encountered during installation.



Fig. 2 Nvivo 12 Plus's word-similarity clustering of items

Cloud computing application to the expansion of tourist communities has several human resource limitations [23,24]. This is because there is an insufficient supply of specialists in the field of senior IT and internet usage. In addition, there is the issue of safety [24,25]. Cloud computing is not widely accepted in Indonesia because many people there still believe that only data saved on physical devices is really secure. The slowness of the internet is the third hurdle. If cloud computing is performed locally, limitations imposed by the network will be experienced. A reliable internet connection is necessary for cloud computing [6].

[dile/11617/9072/geotik2017\\_1.pdf?isAllowed=y&sequence=1](dile/11617/9072/geotik2017_1.pdf?isAllowed=y&sequence=1)

## 5. CONCLUSION

The above analysis leads us to the conclusion that cloud computing is a powerful and efficient tool for the growth of tourist communities. Cloud computing eliminates the need for specialized hardware like hard drives by storing all data on a single server. Cloud computing makes it simple for the general public to find popular tourist villages. Cloud computing may also be used as a branding and promotional medium by businesses in tourist communities. Understandably, there are challenges to using cloud computing for rural development, including a lack of technological expertise among local staff, a general public wary of sharing personal information online, and a shaky, unreliable network.

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