

ANALYSIS OF LOCAL AREA NETWORK (LAN) UTILIZATION IN IMPROVING LOAN SERVICE

(Study at PT. Bank Rakyat Indonesia Tbk. Branch Malang, Kawi)

Yanuar Armansyah

Kertahadi

Riyadi

Faculty of Administrative Science

Brawijaya University

Email : isnaarmansyahh@gmail.com

ABSTRACT

The Purpose of this research is to know and to find out how utilization of LAN for loan service Study at PT. Bank Rakyat Indonesia Tbk. Branch Malang, Kawi. Type of this research can be considered as the explanatory research with the method of interview, documentation, and observation for collecting data methods. For data analysis is using data analysis spiral to analyze qualitative data, researcher engages in the process of moving in analytic circles rather than using a fixed linear approach. Based on the survey results revealed the LAN used at PT. Bank Rakyat Indonesia Tbk. Branch Malang, Kawi in loan service can more improving more then before no using LAN in loan service. The survey results revealed the LAN is used at PT. Bank Rakyat Indonesia Tbk. Branch Malang, Kawi in loan service is not maximized. Topology is tree topology can be replaced with a star topology, because the star topology has more advantages. Use of software and hardware that consumes less support in improving employee performance. Internet use at PT. Bank Rakyat Indonesia Tbk. Branch Malang, Kawi is less than maximum should implement an intranet to help information system to be more easily, smoothly and efficiently.

Key words: Local Area Network (LAN) , Loan Service.

ABSTRAK

Tujuan dari penelitian ini adalah untuk mengetahui dan mencari tahu bagaimana dari pemanfaatan LAN untuk layanan pinjaman Studi di PT. Bank Rakyat Indonesia Tbk. Cabang Malang, Kawi. Jenis penelitian ini dapat dianggap sebagai penelitian penjelasan dengan metode wawancara, dokumentasi, dan observasi untuk mengumpulkan metode data. Untuk analisis data menggunakan analisis data spiral untuk menganalisis data kualitatif, peneliti terlibat dalam proses bergerak dalam lingkaran analitik daripada menggunakan pendekatan linear tetap. Berdasarkan hasil survei mengungkapkan LAN digunakan di PT. Bank Rakyat Indonesia Tbk. Cabang Malang, Kawi dalam pelayanan pinjaman dapat lebih meningkatkan lebih sebelum ada menggunakan LAN dalam pelayanan pinjaman. Hasil survei mengungkapkan LAN digunakan pada PT. Bank Rakyat Indonesia Tbk. Cabang Malang, Kawi dalam pelayanan pinjaman belum maksimal. Topologi topologi pohon bisa diganti dengan topologi bintang, karena topologi star memiliki keunggulan lebih. Penggunaan perangkat lunak dan perangkat keras yang mengkonsumsi kurang mendukung dalam meningkatkan kinerja karyawan. penggunaan internet di PT. Bank Rakyat Indonesia Tbk. Cabang Malang, Kawi kurang maksimal harus menerapkan intranet untuk membantu sistem informasi menjadi lebih easily, lancar dan efisien.

Kata Kunci : Pelayanan Pinjaman, Local Area Network (LAN).

INTRODUCTION

Communication is a process of interaction between one party with other parties, which is initially very simple starting with a number of estimated and abstract ideas in the human mind in pursuit of data or conveying information then packed into a message then delivered directly or indirectly use of language like code visual, code sound, or a code written. Communication as well as a means for humans who always expect the progress and changes of information, either directly or indirectly very beneficial to the development of the individual, community groups and a country. In this globalization era, the existence of communication in the dissemination of information adjusted with the developments of the times, technology, and the human need. Various kinds of communication within the company to use the computer. By using technology information system. Computers are one of the tools used for the user to know the information in the enterprise. Computer is an auxiliary apparatus reliable by since its excellence that is not only in the speed but also of accuracy to perform data processing in large numbers. In this time computer technology has been used as a staple in the management and information presentation. Moreover, since computer applications growing very rapidly so as to create information presentation techniques that interactive and communicative. However, The use of communication using computers to distribute information to the user.

LAN can assist or facilitate the activities of the company in the provision of loan. However, there are still many organizations and governments as well as private still rely on manual way in receipt or transmit information and to parties concerned, but thanks to the innovation of IT experts, then creating computer network such as LAN (Local Area Network) that allows the distribution of information between one place to another within an organization can be handled quickly and relative effective. In addition to the LAN distribution processes are no longer done with just one computer but can be distributed to a different place so as to make it easy for the user to acquire and process information at any time. Currently a very complex computer networks and network complexity will continue to rise. In addition, the current network generally consists of a variety of equipment such as computers (PCs), workstations, file servers, printers, routers, hubs, switches, bridges, firewalls, and so on. On the network, usually we gradually add to or replace existing

equipment with new. With the development of the organization, the organization is also growing network. Some computers are added in 'the organization, and as a result, the number of computers on the LAN is also growing. If growing so big and reliability of the network being down, it needs to be segmentation by a LAN switch or router. In addition, the vendor often offers new tools that can improve network performance and equipment often does not match the network and the old equipment must be replaced. In monitoring changes to the network requires the use of advanced network management tools.

In conjunction with the development of networks in the field of telecommunications, currently network technology has penetrated into all areas. In the field of banking, computer network has been one factor supporting in terms of community service users. The utilization of LAN for information system in loan is a data processing in loan part and aided by LAN that can accelerate the performance of the company, such is the case with Bank Rakyat Indonesia Malang Branch by using LAN, expected data processing users loan service to be optimized and capable generated accurate information and can available easily. In addition, the possibility of error and fraud or abuses- can be immediately known and resolved quickly. In the circumstances of Bank Rakyat Indonesia any deficiencies in the LAN utilization one of the existing system such as lack of component systems, environmental systems, process system and a target system. Finally, the performance by the employee less than the maximum, so the inhibition of anything that can be done quickly. The effectiveness in the LAN utilization less smoothly one cause is cannot serving heavy traffic so that the buildup in loan information system network. System security used have nothing added that internal security is built on the hardware and the operating system is corrupted so as not to maintain the integrity of the program and data are stored primarily on sub branch on the server.

At Bank Rakyat Indonesia Malang Branch employees are also less able to adapt to its full potential because of a lack of LAN system, because not understand the utilization of LAN is used to facilitate them in their work. In loan information system data processing employees need learning gradually to allow the creation of fast and precise in the task on each of its parts. LAN utilization within a company that is so important to accelerate decision-making and transactions quickly and consumers will feel satisfaction in their service.

Based on that description, look how important the LAN utilization, including in its efforts to improve the loan information system. This is the background for the author reveal the scientific study entitled "Analysis of LAN Utilizations in Improving Loans Services".

From the explanation that has been elaborated, the problems formulation in this study are as follow:

1. How the LAN utilization in improving loan service at Bank Rakyat Indonesia Branch Malang Kawi ?
2. Barriers of LAN utilization in improving loan service at Bank Rakyat Indonesia Branch Malang Kawi ?

LITERATURE REVIEW

Definition of Information Systems

Information System as a system in the organizations that bring together the needs of processing daily transactions, supporting the operation, activities are managerial and strategy of an organization and provide external parties with certain required reports. Information is very important for management in the decision-making process. To get the information that can be beneficial and useful for an organization, then it takes a way or a certain activity to produce such information. The way or activity threaded in a series of procedures or activities that are known by the name of information system.

Definition of Data

The Data is a fact or a part of fact that have a meaning, which is connected with the fact, drawings, words, numbers, letters or symbols declared a condition object idea or the other situation.

Data Processing System

The purpose of the data processing is to generate and maintain corporate records are accurate and up to date. Data processing of information system in an organization is usually made up of technological and manual methods. According to Buch and Stater there are two types method data processing that is important:

- a) Manual System: all operations are done by hand and assistance tools such as pencils, paper and others.
- b) Electromechanical: a combination of people and machines for example an employee that works by using the note column (post).

Method punched equipment; Use all the equipment used is referred to as a clearance system unit (the

unit record system). The principle is that the data about the data of a person, object or event was usually noted within an (punched) card, a card that contains data about the same subject.

Computer Networks.

Computer network is a group of autonomous computer connected to one and the other using the protocol of communication through the communication media or transmission media so can share data - information, programs, use of shared hardware such as printers, disks, and so on. There are several reasons why a network (networking) developed, namely as the impact of the full development of the world and information society, manual jobs began reduced and shipping information no longer use paper or diskette through other postal service. The tendency is to use shared information that is required by some user's computer in an Office. Another reason is to provide a reliable communications medium for a number of computer users who are scattered in different locations.

Definition of LAN

A LAN is a network in which the relationships occur only limited to one location only, for example within a complex building

LAN Topologies

Computer network topology is a pattern of relationships between the terminals in a computer network. This pattern is closely related to the access methods and media delivery used. (Oetomo, 2004: 105). Another definition mention topology is a term used to describe how the computer is connected to a network (Wahana Komputer, 2001: 106). The four main topology is a Star Topology, Bus Topology, Ring Topology, Tree Topology.

Definition of LAN Utilization

The term a local area network is called LAN is usually applied to data communications system in a building, or between several places which a part several kilometers. LAN can connect a computer or computer, mini or macro computer, or in General is a PC (Personal Computer), so that it can access the computer and peripherals such as printers and hard disks.

Definition of Bank

The Bank is a financialy intermediation institution generally establish with the authority to accepted deposits of money, lending money, and

issued promissory note or what is known as a bank note. The word bank is derived from the Italy *banca* means moneychangers. While according to the law of the Republic of Indonesia number 10 in 1998 on 10 November 1998 concerning banking, the bank is a business entity that collects funds from the public in the form of savings it to the communitys in the form of loan and others forms or in order to improve the people's livelihoods. The importances of bank using LAN this is because the device connections (such as computers, printers, storage) which are in a location into one unified network. Point so that the devices can communicate with each other, especially for sharing functional.

Definition of Lending

The loan could be money or bills that can be resized and value for money. Humans require a loan because man is a homo economics and every man always trying to meet his needs. Human needs varied according to the dignity that is always on the rise, while its ability to achieve anything you want is limited. This causes humans need help to meet the desire and financial problems, in this case he is trying. Then to increase his business or to enhance the effectiveness of stuff, human very need help in the form of capital. Assistance on financial institutions banks and non banking called credit. As explained that granting loan is granting trust. This means that the loan is loan given absolutely sure that a client or debtor will return the loan is received according to the duration and terms to be agreed upon by the parties, without the belief of a loan institution is not going to be able to give you credit

RESEARCH METHOD

The last stage in the method of this research is in the form of data analysis. Data analysis is emphasized in the qualitative analysis which is a non-statistical analysis. The research was carried out with a reading of the documents collected, then describes and provides interpretation, so that it can be taken up the conclusions and suggestions that need to be delivered. As for steps in analyzing data, namely:

1. Describes the LAN topology picture that has been used in Bank Rakyat Indonesia Malang.
2. To identify problems encountered BRI in the use of LAN.
3. Analyzing the use of LAN for loan information system, including analysis of how the data processing using a LAN.

4. Doing the identification of disadvantages and advantages that LAN has been used.
5. Provide some alternative solutions for the problems faced BRI related LAN utilization.
6. Evaluating the proposed alternatives related to the advantages and disadvantages of each alternative.
7. Choosing the best alternative and develop a framework of alternative solutions chosen based on priorities.

RESULT AND DISCUSSION

LAN Utilizations in Bank Rakyat Indonesia Branch Kawi , Malang

The use of computers to store data used for passbook accounts at the customer's Loan file named master savings made by customer service. The data can be accessed by other parts connected to the computer at the customer service by using the database. Process LAN utilization and loan passbook books order can be seen in the picture. After opening a Loan passbook, then next to the procedure so customers can loan that they want. Customer requirements are determined; the next Loan division examines customer files in order to meet all customers requirements. After that Loan division asking approval to directors, the directors accept/agree with the Loan submission so the customer can borrow the money.

Data Analysis and Interpretation

LAN Utilization Analysis

Problem Identification

At this time the use of the LAN system used in Bank Rakyat Indonesia Branch Kawi, Malang is a database using windows server 2003. On the server computer as the database using the database MySQL data transaction Virtual Basic (VB) as DBMS in Bank Rakyat Indonesia Branch Malang Kawi. Utilization of PC LAN server to the client PC in Bank Rakyat Indonesia Branch Malang Kawi using Star topology, star topology is the topology of the most frequently used to design the network at this time. This topology has the characteristic, namely the existence of a switch or hub that connects to any computer both server and client. advantages star topology network among others, Most flexible compared to other topologies, the new workstation Installation is very easy, and does not interfere with the work of other computers, centralized control, making it easier for network error checking. Ease of error detection on the

network, because of the centralized control and a cable to a computer. Then from the use of star topology is connected to one network server that is connected to the central database.

Network database Bank Rakyat Indonesia Branch Malang Kawi use the Intranet to Support Liaison database from the central office to the BRI Malang Kawi, and vice versa. Intranet is a computer network that connects information from individual servers to be accessed. Intranet usage in Bank Rakyat Indonesia Branch Malang Kawi has long cooperated with one provider using IP VPN Special to access the database from the database to the center of Bank Rakyat Indonesia. Of computer servers Kawi Malang BRI employees can access the database from the center and use the LAN to provide database access to employees who use the PC Client.

Employees involved in the LAN utilization generally are all employees at Bank Rakyat Indonesia Branch Kawi, Malang. The following describes the general overview of some of the supporting components are involved in the LAN utilization that includes the employee, hardware, and software at Bank Rakyat Indonesia Branch Kawi, Malang.

Process of Database Information System Performance

Rights of access and security systems at Bank Rakyat Indonesia Kawi Branch, Malang with the permission of the directors as the holder on the computer server and security on the computer server using the interface. The use of the storage and retrieval of data on a database server using security system with password members and who have the rights is a directors, so if there are employees who will take customer data to go through the relevant directors. Employees who will perform additional work hours and days off, if they want to use file server access on a computer server must have permission from the directors and beliefs can be justified. If the directors do not consent, it can not be access in the computer server. So the security system on a computer server maintained well and it all depends on the access holder that is the directors.

Comparison before and after using the LAN in Bank Rakyat Indonesia Branch Malang Branch Kawi.

This study should be known to improving the use of the LAN in order to compare the results of the use of the LAN with prior use of the LAN to determine the advantages of using LAN at Bank Rakyat Indonesia Branch Malang Kawi. The following is a step by customer loan submission to granting the loan is completed before using the LAN:

1. First of all, prospective borrowers are advised to consult prior to Customer Service.
2. Prior to the fulfillment of the procedure performed should customers who wish to request such credit can be interviewed, it is imperative that the time to survey the field, we are now looking for the truth of the customer's business and the feasibility of various customers.
3. Conduct a brief interview on a variety of matters relating to the business application. The interview also aims to determine the nature and character of the applicant.
4. The next phase, the Customer Service will make CIF (Customer Information File), but not before first Customer Service will check the identity of the customer to avoid double CIF ownership. If the customer already has a CIF, then Customer Service just need to make him a new account with the customer record does not yet have an account. Account serves as the customer's identity.
5. After the Customer Service will keep records of the customer file into the loans form.
6. Customer service brings form to loans department. The department loans, loans form will be the analysis and in the survey file truth about the location and condition of the customer.
7. If proven true through the survey, that the data submitted is valid and legitimate, then later loans department will once again analyze the file and take into account how much the nominal loan that would correspond to monthly income and collateral pledged by the customer.
8. The next step is to loans department provide a report at once proposed to the director.
9. Director will check again the file from loans department for loans approval.
10. After that, director give back the loans application which has been approved to loans department.
11. Loans department will re-examine the completeness of the data from the file. When it

is complete, loans department will give to Customer Service again.

- 12.If there are form missing, customer service will contact the customer (by Phone) to immediately complete the form.
- 13.After the customer data is complete, customer service will make SPH (Surat Pengakuan Hutang) for loans disbursement.
- 14.SPH then given to the customer for the realization or disbursement of loans to teller Bank Rakyat Indonesia Branch Malang Kawi.
- 15.Done. The length of the loan processing time until realization takes ± 3 s / d 4 days or longer depending on whether the customer concerned in completing the paperwork that is still not complete.

That is the step submission loans in Bank Rakyat Indonesia Branch Malang kawi before using LAN. Can be seen not use the LAN much delay time in the Process of granting loans. As at the time of loan customer service will submit the form to the loan department, customer service will wait the next day to submit the loan department for waiting another form. After that, in loan department also waiting all loans form completed in the analysis after given to the director for the loan department in repeated data completeness customer data and wait for all the forms completed in the new regiven the data again to customer service to be delivered to customers. Risk of lossing data of customer loan is low after using LAN. When using the LAN also takes a short time is 1 until 2 days only because no buildup of customer data in customer service and loan department.

Barriers of LAN Utilitation in Improving Loan Sercive

Several components supporting LAN utilization above then determined the identification of the problem to determine the existing problems with the system that is running. Existing problems include, among others:

- a. Employees of Bank Rakyat Indonesia Branch Kawi, Malang do not understand their purpose and utilize optimally the LAN itself well. Employees of Bank Rakyat Indonesia Branch Kawi, Malang only be able to operate according to the procedure known by themselves and sometimes lazy to learn due to one factor busyness.
- b. Lack of routine hardware maintenance by Bank Rakyat Indonesia Branch Kawi, Malang and turn your PC on a regular basis in doing 5 years on development policy Management Bank. Therefore Many complaints from employees when using the serve or the client computer.

- c. Software treatment lack, causing susceptibility data damage or loss of data, the length of updating software and antivirus banking so that slow down the performance of the computer and use the software beyond banking applications such as music player, photo editor, etc.
- d. High data traffic with a small bandwitch.

Of the problems that often occur from the use of LAN in improving Loan services in Bank Rakyat Indonesia Branch unfortunate Kawi can lead or lead length or delays in the decision granting the Loan due LAN system trouble or moderate damage and disruption to the performance of employees in serving the Loan granting process.

Solutions / Problem Solving

Intranet Application

Intranet advantages:

- a) Work productivity with the intranet can help the workers in an organization to obtain the information they needed to support the roles and each responsibilities.
- b) Time utilization by intranet, bank employees can gain information access anywhere so can more efficient. Bank also can provide information at any time.
- c) Communication, the intranet to facilitate communication between divisions.
- d) Operation and management, intranet can be used to support operations and decisions business either internally or between banks.
- e) Through the intranet compiled all the information about the organization thereby increasing the access efficiency to bank information.
- f) Framework of culture change through the intranet, bank employees can connect and work together in a virtual world thus allowing the emergence of thought so ride as for the bank development.
- g) Intranet system support integration internal and external email capabilities.
- h) Connect with the Internet system that allows access to a variety of information.

Intranet disadvantages:

- a) Incorrect information can be contained in the intranet system if not done intensive control mechanism. As a result, reduces the intranet credibility that is owned by the bank.
- b) In addition to the information that is untrue, there is the possibility of the spread of illegal material via the intranet.

Recommended Computer Specifications

Server operating system and client operating system is crucial for the selection of applications

and services that will be provided on a network. Some operating systems offer easiness in use, some of them offer low prices and even free. Having regard to the rules of HaKI (Hak atas Kekayaan Intelektual) the option to use application or the original software, not pirated. The use of pirated applications program is unlawful, even though pirated software price is very cheap than the original software.

Because of every unit computer has installed Microsoft Windows 98 operating system and therefore, it is recommended to Bank Rakyat Indonesia Branch Kawi, Malang to switch to Linux server as a server operating system, while the client computer/workstation still using Windows 98 operating system. The choice of Linux server as the operating system for server because Linux promises a stability and reliability. In addition Linux server operating system is an operating system that requires little cost, even though the operation may experience some problems due to the limited power that the operator can operate and handle the Linux server operating system. To determine differences server operation system with client, administrators need to activate the existing samba server on the Linux operating system. By enabling samba on a Linux machine, then we can share files and printers with Windows 95/98 or NT. In other words, by running samba, then a Linux server may seem like a Windows NT Server to another Windows machine. While the operating system client/workstation selected using the Windows 98SE due to since 2004 the Windows 98SE operating system already released by Microsoft in use. Another factor chosen Windows 98SE operating system because users are familiar with the operating system is in other words, eliminating the need for adjustments to the users on the use of this operating system.

CONCLUSION AND SUGGESTION

Conclusion

1. In the previous chapters about LAN (Local Area Network) utilization to optimize Loan service can be summarized as follows:
2. LAN utilization using a database as used at Bank Rakyat Indonesia Branch Kawi, Malang is not optimal with limitations in terms less of data security guarantee. LAN utilization using the

database can be developed using the intranet. With the development of the intranet will have the advantage that can be used for customer's Loan, eliminating redundancies, facilities such as the Internet, and can be associated with other applications.

3. Barriers of LAN in BRI usage is very many in the lending process and the handling of these barriers are also very long due to the replacement of the policy management computer for 5 years

Suggestion

Suggestion in LAN (Local Area Network) In Improving Loan Service is as follows:

1. Always be evaluated by the company which includes the advantages and disadvantages of a network, the latest development tools such as hardware and software systems, as well as maintenance.
2. Need for adequate human resources in the management of software and hardware used for LAN. In this case, do the training of the staff of EDP (Electronic Data Processing) for a better understanding of the use of information technology.
3. The data security issue is an issue that should always be considered. Agencies party can use optimally software such as data backup capability, password, virus blocking, crackers / hackers blocking, and other supporting facilities for security.
4. For further development of the agency can increase the LAN utilization to the Internet in the future.
5. By considering the costs and needs, the IT (Information Technology) devices can be improved by using more advanced equipment that suits of needs and has the advantage of previous equipment.
6. For the next research, the researcher expected processing data more than one source.

REFERENCES

- Djaslim, Saladin H. 1994. *Dasar-Dasar Manajemen Pemasaran Bank*, Edisi Pertama, CV. Mandar Maju, Bandung.
- Gunadi, FX Sutiono dan Hanny Agustine. 1993. *Memahami Konsep Lokal Area Network*. Jakarta : PT. Elex Media Komputindo.
- Hariyanto, Bambang. 2001. *Sistem Operasi*. Bandung : Informatika.

- Husein, M. Fakri dan Wibowo Amin. 2000. *Sistem Informasi Manajemen*. Yogyakarta : AMP YKPN.
- Jogiyanto, H.M. 2001. *Analisis dan Desain Sistem Informasi: Pendekatan Terstruktur Teori dan Praktek Aplikasi Bisnis*, Yogyakarta: Andi.
- Kamus Besar Bahasa Indonesia. 2005. Edisi Ketiga. Jakarta. Balai Pustaka.
- Kurniadi. 2000. *Analisis Local Area Network (LAN)*. Jakarta : CV. Prehallindo.
- Madcoms. 2004. *Dasar Teknis Instalasi Jaringan Komputer*. Yogyakarta: Andi.
- Martin M, Lipschutz dan Seymour Lipschutz. 1990. *Pengolahan Data*. Seri Buku Schaum, Jakarta: Erlangga.
- Mc Leod, Jr, R. 2001. *Sistem Informasi Manajemen*, ed. 7. Jakarta: PT. Prehallindo.
- Mulyadi, 1993. *Sistem Akuntansi* edisi ke 3 Cetakan 1, Yogyakarta: Sekolah Tinggi Ilmu Ekonomi YKPN.
- Martin, E.W. & De Hayes, D.W. & Hoffer, J.A. & Perkins, W.C. 2004. *Managing Information Technology: What Managers Need To Know*. New York: Maxwell Macmillan Pub Co.
- Nazir, Mohammad. 1999. *Metode Penelitian*. Jakarta: Ghalia Indonesia.
- Neibauer, Alan. 2000. *Small Business Solutions for Networking. Membuat Jaringan Komputer Untuk Perusahaan Kecil*, alih bahasa: B.M. Adam. Jakarta: Elex Media Computindo
- Rahmadana, M Fitri. 2002. *Manajemen & Bisnis*, Edisi ke 2 Jasa Kredit. Jakarta: PT. Gramedia Utama.
- Singarimbun, Masri dan Sofian Effendi. 1995. *Metode Penelitian Survei. LP3ES*. Jakarta.
- Tannenbaum, Andrew S. 2002. *Jaringan Komputer*. Edisi Bahasa Indonesia, alih bahasa: Ir. Gurnita Priatna. Jakarta.
- Wahana Komputer. 2003. *Konsep Jaringan Komputer dan Pengembangannya*. Jakarta: Salemba Infotek.
- Whitten, Jeffery & Bentley. 2004. *Metode Desain & Analisis Sistem*. Diterjemahkan oleh: Tim Penerjemah ANDI. Yogyakarta: Andi.
- Williams Stallings. 2002. *Komunikasi Data dan Komputer, Jaringan Komputer* Diterjemahkan oleh: Thamir Abdul Hafedh. Jakarta: Salemba Teknika.