

## Lippobank Puts Trust in Cisco for Storage Consolidation and Business Continuance

### EXECUTIVE SUMMARY

#### CUSTOMER NAME

PT. Bank Lippo, Tbk (LippoBank)

#### INDUSTRY

Banking and financial services

#### BUSINESS CHALLENGE

- Needed a storage network solution that would be stable, reliable and secure
- Achieve minimum downtime with fast disaster recovery capabilities
- Required a scalable and easily managed storage system

#### NETWORK SOLUTION

Cisco Integrated SAN Solution, consisting of:

- 2 x Cisco MDS 9506 multilayer directors
- 2 x IP service modules with a total 96 Fiber Channel ports
- IBM ESS storage with PPRC for data replication

#### BUSINESS VALUE

- Lower business risks with data consolidation and replication
- Improved work efficiency and productivity at lower costs
- Enhanced level of customer service

**Major Indonesian bank implements a Cisco SAN solution to consolidate and extend its storage infrastructure.**

### BUSINESS CHALLENGE

The PT. Bank Lippo, Tbk (LippoBank), formerly known as NV. Bank Perniagaan, was the first Indonesian private bank established in 1948. In 1989, the bank successfully merged with PT. Bank Umum Asia, and changed its name officially to PT. Bank Lippo, in time for an IPO launch at the Jakarta Stock Exchange and Surabaya Stock Exchange.

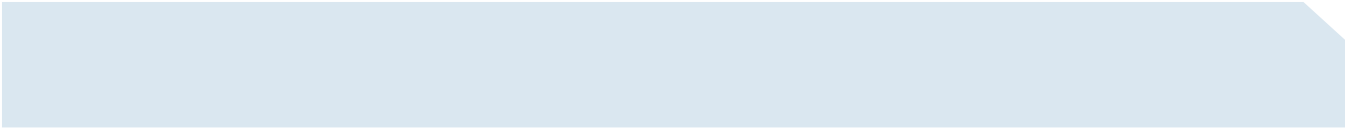
The bank began expanding its operations with the vision of becoming the number one service provider for funding, clearing and payment intermediaries. From a network of only 30 branches in 1989, the bank quickly grew and in 2001, had 363 branches located in 120 cities throughout Indonesia.

LippoBank currently provides one-stop banking services to its customers in the retail, consumer and commercial segments, as well as international products and investment products for its individual and corporate customers. It currently has more than 2.1 million accounts. LippoBank's revenue last year was Rp. 892.6 billion. Its net income growth from 2003 to 2004 was Rp. 359.74 billion.

The bank believes in continually updating its IT infrastructure to improve performance and increase work productivity in order to meet the evolving needs of its corporate and consumer accounts. A reliable network is a mission-critical requirement for the bank's ability to service its growing customer base, as well as demands for "anytime, anywhere" banking via the ATM network, and phone and Internet banking. As such, LippoBank wanted to enhance the functional capabilities at these points of transaction to deliver more value to its customers. Besides the basic transaction functions, these external modes can be used as communication vehicles to convey sales and marketing information to the bank's customers.

"Our challenge is to meet the banking needs of our customers quickly and efficiently. We believe a strong and easily manageable IT infrastructure can support us in this area and improve our service level. By advancing the level of robust IT implementation in our organization, we can also increase our customers' trust in our organization, as well as their ease of use of our services through our various transaction points," explained Mr. Wellianto Halim, IT Group Head for LippoBank.





In the past, the bank used different storage systems and servers for customer account information and internal information such as inventory and human resource data. Apart from the technical problems of keeping track of a growing number of Cisco Systems, Inc. heterogeneous storage devices in the network, the bank was also beginning to run into significant problems in attempting to manage disparate data pools that contained a mix of critical and non-critical information. Furthermore, with security as a growing concern, disaster recovery was always at the forefront in any IT consideration.

“We used IBM AS400 servers to store customer account information while internal data were stored in other servers in different locations. Our business and data management requirements were quickly outgrowing our existing infrastructure. Uncertainties and security concerns also meant that we had to ensure our data can be quickly recovered in real time, in the event of a disruption” said Mr. Halim.

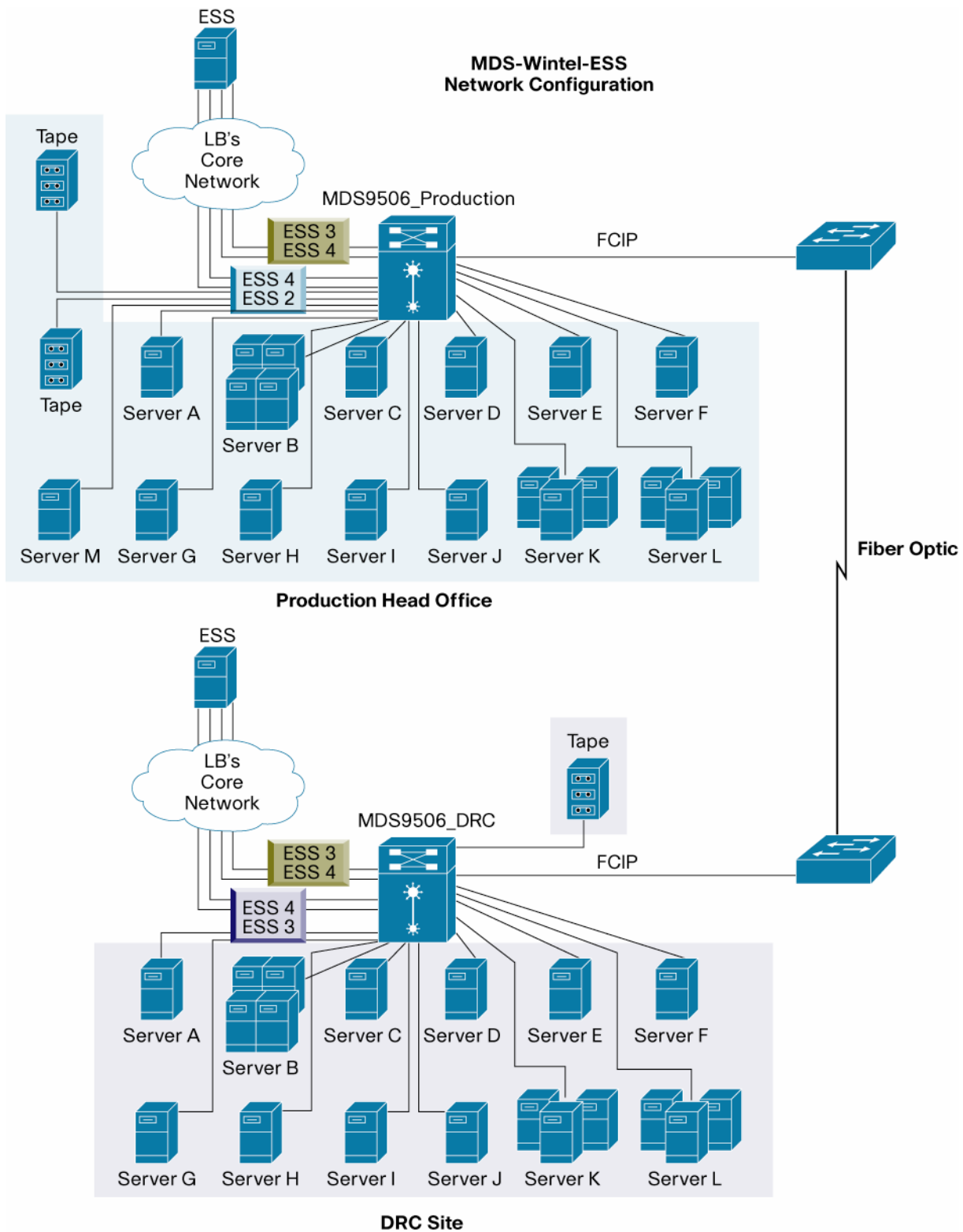
## **NETWORK SOLUTION**

LippoBank undertook an exhaustive search for appropriate solutions: it identified key business and technical requirements, and built a shortlist of the available storage networking solutions in the market. A main consideration was a scalable and reliable storage infrastructure that could be easily accessed and managed from a single location to ensure seamless information sharing, as well as a real time disaster recovery solution which would help increase work efficiency and productivity.

After reviewing and considering various options, the bank decided to go with the Cisco integrated SAN solution that included a Fiber Channel based storage network with seamless IP integration, which would be able to work with the existing Ethernet infrastructure. The project began in mid October 2003 and was completed in five months: Cisco provided the advice, supervision and remote support services, while IBM and Multipolar acted as implementation partners for the solution.

The integrated SAN solution featured two Cisco MDS 9506 multilayer directors which are highly scalable, standards-based, imbued with strong disaster recovery capabilities and are able to work with existing Ethernet infrastructures. These were installed in two different locations, connected via an IP link to enable synchronous and asynchronous backups between the production site and the disaster recovery site. Each MDS director, which comes with 96 Fiber Channel ports, links up an IBM pSeries 570 server with an IBM Enterprise Storage Server.

**Figure 1.** Storage Consolidation and Disaster Recovery Solution with Cisco MDS 9000 Switches



“We are very pleased with the SAN implementation. We now have a reliable data center that is easy to access and manage. It is also scalable and possesses real time replication functions to enable quick disaster recovery on our side. Although we lacked the knowledge and resources in the beginning, these issues were quickly resolved, thanks to excellent support from the Cisco team and their partners for the project,” said Mr. Halim.

## **BUSINESS VALUE**

### **Lowering Business Risks Through Data Consolidation and Replication**

The Cisco integrated SAN solution improved the bank’s storage capabilities and ability to react quickly to unforeseen challenges. With the Fiber Channel over IP (FCIP) link, LippoBank is able to place two physically-distinct storage systems at separate secured locations for data replication and fast disaster recovery.

The disaster recovery solution involves the provision of a real time database similar to the data center, which helps LippoBank prevent data loss during the replication process. Thanks to the solution, LippoBank is now able to avoid any potential business losses with real time disaster recovery capabilities. Operational risks are also reduced as information is mirrored in two locations. The result is a more robust IT infrastructure; vital for an industry that places a premium on its customers’ trust.

### **Improved Work Efficiency and Productivity While Lowering Costs**

LippoBank is now able to share updated information with users of the system through the IP link. The users also have more access choices to the storage network. The network’s improved reliability also meant that users could connect to the storage system with Fiber Channel over IP instead of through expensive and limited fiber optic lines based on their availability. LippoBank was able to reduce access and connectivity costs as there was no need to deploy fiber cables at every new transaction point.

The SAN has also significantly reduced the data administrator’s management burden. And with data such as customer accounts, inventory or human resource consolidated and stored in a juke box disc, data replication is much easier and more reliable.

### **Enhanced Level of Customer Service**

“At LippoBank, we believe in providing seamless service to our customers wherever and whenever they are. Now that we have implemented Cisco’s integrated SAN solution, our customers will see even better service,” added Mr. Halim.

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**—Mr. Wellianto Halim, IT Group Head**



## NEXT STEPS

Now that the SAN is working seamlessly with the current infrastructure, LippoBank is considering adding more connections to the data center, and to build in better data management capabilities in order to handle the massive amounts of data coming into the SAN.

“As our business continues to grow strongly, we will need to add more physical bank branches or points of transactions. This will mean an exponential increase in connections and traffic flows to the data center. In the medium term, we may consider Cisco’s data management solution to help us manage our future storage needs.”

## FOR MORE INFORMATION

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To find out more about Cisco storage networking solutions, go to: <http://www.cisco.com/go/storagenetworking>

To find out more about LippoBank, go to: <http://www.lippobank.co.id/english/>



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