



## Case Study

Predictive Enterprise  
Intel® Xeon® Processor  
Technology  
Service Providers  
Service Delivery  
Infrastructure



“Blade servers running on quad-core Intel® Xeon® processor technology allow Bank NISP to better consolidate our server applications, optimize existing resources and experience greater scalability.”

Filipus H. Suwarno  
Head, IT Division  
Bank NISP

# Going Bullish on Quad-Core

**Quad-core Intel® Xeon® processor technology gives Bank NISP the performance, reliability and scalability to meet its business needs**

Indonesia-based Bank NISP is expanding rapidly, and central to its growth is its increasing multitude of customers who have placed both their funds and trust with the bank.

In its quest for ever-greater service efficiency and to meet the increasingly sophisticated demands of Indonesia’s banking sector, Bank NISP maintains a Predictive Enterprise vision together with an Intel® technology deployment, allowing it to predict and refresh its IT infrastructure according to market needs.

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### Challenge

- **Improve capacity planning capabilities**

Bank NISP’s business has grown greatly, and with it comes the need to address increasing business IT demands. Thus the ability and flexibility to plan and cater for future IT infrastructure to address business needs is critical to Bank NISP’s daily operations.

- **Develop scalable, reliable and price-efficient IT infrastructure**

Bank NISP’s mission-critical operations require server solutions that are not only powerful but also stable. In addition, the bank needed to find a cost-effective solution that maximizes its return on investment (ROI).

- **Deliver overall better service quality**

As a service-oriented bank, quality service for Bank NISP is always a top priority and the bank sought a server solution with performance that could boost its productivity and efficiency across the board.

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### Solution

- **Develop a Predictive Enterprise vision**

To adequately address its current challenges and meet future ones, Bank NISP needed to develop a Predictive Enterprise vision that will respond to its evolving business environment and allow it to sense, predict and act on current and future technology needs.

- **Acquire top-end processing power and virtualization capabilities**

Adopting a strategy that includes Intel® multi-core architecture, the bank found a powerful, reliable and cost-efficient computing solution that meets its performance and capacity-planning needs now and into the future.

- **Acquire the right tools for the job**

Banking moves at a relentless pace and the ability to respond to changes in business environment is critical. By acquiring scalable blade server systems running on quad-core Intel® Xeon® processor technology<sup>1</sup> for its enhanced IT Infrastructure, Bank NISP effectively hedges itself against business uncertainties.

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# Multi-core Intel architecture fully complements Bank NISP's Predictive Enterprise computing vision

## Assessing the Situation

Banking services today grow rapidly sophisticated with a dizzy array of products and services, as consumer needs become increasingly complex.

### Spotlight: NISP Bank

- As the fourth oldest banking institution in Indonesia, Bank NISP has been serving customers since 1941, focusing especially on Indonesia's Small Medium Enterprise (SME) sector.
- This focus has since taken the bank through tremendous development, from gradual growth over the decades to even surviving and thriving through the Asian Financial Crisis (AFC) in the late 1990s.
- Bank NISP's ability to face and overcome numerous challenges was the turning point in the bank's fortunes, as during the crisis, Bank NISP was one of the few banks in Indonesia to start extending consumer loans.
- This business foresight turned out in the bank's favor, enabling it to battle the economic slump that was threatening the region.
- By the end of 1997, Bank NISP had broken free from the grip of the regional economic crisis that shook the foundations of Indonesia's economy, proving the bank's mettle in the face of adversity.
- Post-AFC and going into the new millennium, Bank NISP has seen rapid growth, evidenced by a more than threefold growth in assets between 2001 and 2006, along with an expansion of its business and services.
- With the support of its shareholders, OCBC Bank Singapore and IFC, Bank NISP has now set its sights on becoming one of the national banks under the Indonesian Banking Architecture by 2010.

\*\*Source: Bank NISP

These trends have served to create a demand for fast, efficient and tailored banking services that was quite simply unheard of merely a decade ago.

Sensing the increasing savvy of its customers, Bank NISP had leveraged on technology right from the start to address its customer service challenges.

However, as its business grows by leaps and bounds over the years, Bank NISP began to realize that it needed to refine its IT infrastructure to keep up with its ever-expanding business demands.

"IT deployment in Bank NISP is designed to give full support to our core banking services such as online transactions for each branch and real-time turnaround for foreign exchange transactions," says Bank NISP's IT division head Filipus H. Suwarno, "Thus one way for us to reinforce the bank's IT infrastructure effectively is to implement a Predictive Enterprise strategy, which allows us to sense, predict and act on changes to our business environment."

"By ensuring that our systems are flexible and scalable enough to keep up the demands of our evolving business environment, we will be able to keep our service levels up. Additionally, this will allow us to take into account issues such as cost-efficiency and ease of deployment in order to maximize our ROI," says Suwarno.

The time was ripe for Bank NISP to refresh its IT infrastructure with greater computing performance and capacity flexibility.

To do that, Bank NISP turned to Intel for an IT infrastructure upgrade that will serve to address greater business demands for computing resources.

## Delivering the Solution

In all, 16 HP\* blade servers running on quad-core Intel® Xeon® processor technology form Bank NISP's enhanced IT infrastructure, delivering processing capabilities superior to single or even dual-core processors for NISP Bank' resource-intensive applications.

**"Intel® Core™ microarchitecture is just what Bank NISP needs for our virtualization-intensive applications."**

Filipus H. Suwarno  
Head, IT Division  
NISP Bank



**“Quad-core Intel® Xeon® processor technology simply delivers the performance that Bank NISP needs to run our daily operations smoothly.”**

Filipus H. Suwarno  
Head, IT Division  
NISP Bank

In addition, servers running on quad-core Intel® Xeon® processor technology feature breakthrough performance that allow the bank to do more with less servers, space and energy consumption.

These servers in turn drive NISP Bank’ daily operations with operating systems such as Microsoft Windows\* and Linux Redhat\*, which was enabled with the hardware virtualization capabilities of quad-core Intel® Xeon® processor technology and the software capabilities of VMWare\*.

The resulting IT infrastructure not only keeps Bank NISP’s services running smoothly and reliably, but also provides Bank NISP with the means to scale its computing capabilities quickly and efficiently when the need arises.

Furthermore, Intel® technologies work together to help Bank NISP rapidly sense, predict, and act on market demands – steps that will enable the bank to become a Predictive Enterprise that uses technology to maximize ROI and business growth by developing banking infrastructure and applications that are not only robust but also adaptive.

As a result, Bank NISP can now offer faster and more efficient customer service on a flexible, responsive network that keeps its back-end applications running at peak performance while improving overall system flexibility and customer satisfaction across the board.

And the bank could not be happier:

- **Sense:** Quad-core Intel® Xeon® processor technology come with virtualization capabilities that sense and analyze changing demands in processor usage. This dynamic resource management capability also provides the facilities to redirect available processing capacity to maintain optimal performance and meet application demands.
- **Predict:** Quad-core Intel® Xeon® processor technology provides energy-efficient management capabilities that allow the bank to predict which resources it will need. The result is more efficient, environmentally friendly and performance-intensive blade server systems that can switch off unused systems or transfer processing capacity to applications.
- **Act:** In all, Intel® multi-core technology deployment has contributed critical features such as performance, reliability and scalability to Bank NISP’s operations. It is now possible for the bank to act on evolving business demands in a timely, effective and cost-efficient manner.

With the successful deployment of blade server systems based on Intel® Core™ microarchitecture, Bank NISP has effectively buffered itself against increased business demands and laid the groundwork for further service expansion, distinguishing itself from the competition.

### Key Technologies

- Intel® Core™ microarchitecture forms the fundamental platform for NISP Bank’s application of quad-core computing technologies.
- Based on Intel Core microarchitecture, quad-core Intel® Xeon® processor technology delivers performance superior to single or even dual-core processors for NISP Bank’s performance-intensive applications.
- Quad-core Intel® Xeon® processor technology features breakthrough performance capabilities that allow Bank NISP to do more with less servers, space and energy consumption.

### Integral Answers

- 16 HP\* blade servers running on quad-core Intel® Xeon® processor technology form part of the bank’s enhanced IT infrastructure.
- These servers in turn drive Bank NISP’s daily operations with operating systems such as Microsoft Windows\* and Linux Redhat\*.
- In addition, Bank NISP also leverages on the Intel Virtualization Technology (VT) capabilities of quad-core Intel® Xeon® processor technology to run virtualization software VMWare\*, effectively maximizing existing server resources.

Bank NISP's success has not gone unnoticed by other Indonesia banks though. Already Suwarno reveals that several banks have already come knocking on Bank NISP's doors, seeking to evaluate the results of the bank's Intel® technology-enhanced blade server deployment for themselves.

"The resource-maximizing capabilities of quad-core Intel® Xeon® processor technology has far exceeded our expectations, and we are very satisfied with the results. We've even had some banks visit us solely to ascertain the efficiency of our blade server system and we do not hesitate to tell them that Intel® technology makes all this possible," says Suwarno.

According to Suwarno, as Bank NISP continues to expand, it will continue to depend on blade servers with quad-core Intel® Xeon® processor technology for the scalability and headroom to secure a bright financial future not only for itself but also for its valued customers.

And that is something to go bullish about indeed.

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## Return on Investment

- By adopting a Predictive Enterprise strategy, Bank NISP's quad-core Intel® Xeon® processor technology deployment allows the bank to sense, predict, and act rapidly on market demands.
- Quad-core Intel® Xeon® processor technology delivers performance superior to single and dual-core processors, giving Bank NISP more processor headroom for database applications.
- Quad-core Intel® Xeon® processor technology also offers superior compatibility with Bank NISP's legacy IT infrastructure, allowing for a smoother upgrading process.
- In addition, quad-core Intel® Xeon® processor technology also adds to the stability and reliability of Bank NISP's critical applications, improving overall system response for the bank.
- Bank NISP further estimates that the throughput of its quad-core Intel® Xeon® processor technology deployment, together with its VMWare\* virtualization application, is equivalent to the capacity of almost 40 servers, saving costs for the bank not only in terms of new server acquisitions, but also overall energy consumption and server space.

\*\*Source: Bank NISP



## Solution provided by:



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<sup>1</sup>64-bit Intel® Xeon® processors with Intel® EM64T requires a computer system with a processor, chipset, BIOS, OS, device drivers and applications enabled for Intel EM64T. Processor will not operate (including 32-bit operation) without an Intel EM64T-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel EM64T-enabled OS, BIOS, device drivers and applications may not be available. Check with your vendor for more information. Performance will vary depending on the specific hardware and software you use. See most up to date benchmarks at <http://www.intel.com/products/benchmarks/server/index.htm> for detailed information.

\*Other names and brands may be the property of their respective owners.

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