“Information technology aims to simplify customer digital transactions and services. Security will continue to be an important factor when we respond to technological advancements.”

The rapid advancement of information technology (IT), especially in the financial services industry, requires that Danamon keeps pace with technology advancements. This can provide convenience and ease of use for customers perform banking services.

The main focus of information technology is to simplify and reduce processing time, and provide superior customer service and experience. With this intent we aim to keep updating our technology solutions.

In principle, digitalization is to create more effective and efficient processes. As the result, Danamon is able to provide better customer service and experiences.
Highly secured digital transaction along with the increasing threats of cybercrime needs to be considered in applying and responding to technology advancements. Thus, Danamon continuously strives to update the security measures so that customers can be protected from unwanted incidents.

Equally important, the development of information technology in Danamon is also crucial to support the growth of Bank and its subsidiary companies. Through the support of information technology, it is expected that the business growth can be sustainable.

**INITIATIVES AND PERFORMANCE 2017**

Danamon continuously works to streamline customer transactions. Throughout 2017, there are approximately 30 major initiatives. Some of these many initiatives, are to develop applications such as digital customer service channel, Reward points, API management and other digital-based applications. In addition Danamon is designing and setting up the infrastructure for Omni Channel or digital multi-channel services.

**Server Capacity Improvement**

To accommodate the business growth, Danamon continues to increase the server capacity and embark on server virtualization to reduce physical servers, maintenance costs associated, and electricity usage.

**Data Center Development**

As part of revamping the data center in terms of capacity, scalability and reliability, in 2017 Danamon has completed the selection of new data center locations that meet Tier-4 standards. Data center relocation is undertaken as the old location is no longer able to support the increasing operational load in an optimal way. The process of relocating the data center will start in 2018.

**Analytic Engine**

To expand its capabilities in data analysis, Danamon start to initiate Master Data Management and Data Integration for Structured Data and Unstructured Data. This system can process the following data: customer data, products and other internal data, which can be used in decision making, business development, and innovation.

**Network System Update**

Danamon is upgrading the network infrastructure (backbone routers, cores, and distribution switches) that have reached end-of-support by 2017. This upgrade is required to increase the capacity, scalability, flexibility and availability of network infrastructure, as well to support the implementation of network virtualization.

**Application Virtualization**

In 2017, Danamon embarked on application virtualization, a system that centralizes standard end user applications used by Danamon’s employees. The impact of application virtualization is an effort to reduce cost as well as to minimize the risk of data loss.

**End User Computer Procurement Management**

In 2017, Danamon embarked on seat management for new computer purchases. Instead of purchasing new computers we will lease. This initiative provides potential efficiencies to the cost of maintaining and buying computer devices.

**Cyber Crime Threat Countermeasures**

In 2017, Danamon initiated the Advance SOC (Security Operation Center), to detect and respond to cyber security threats. This system can have the ability to detect and respond to security threats whether from outside or within Danamon. The system will monitor network traffic for 24/7 and detect and provide information in the case of potential cyber attacks.

**Malware Threat Countermeasures**

To protect from internal threats, Danamon in 2017 started the system implementation to detect malware for Internet and Mobile Banking. The implementation is targeted for the next year.
Special Cyber Security Team
In order to protect from both external and internal threats, in 2017, Danamon formed the Cyber Threat Analytic and Response Team. The team is responsible for analyzing and addressing cyber security threats, as well as providing necessary measures to overcome them.

End-to-End Transaction Monitoring
In 2017, Danamon has implemented an end-to-end transaction monitoring system to provide early warning in the case that issue/potential problems detected in Internet Banking and Mobile Banking. In the future, end-to-end monitoring will be also applied to the other applications.

Disaster Management
Danamon has disaster management processes and solutions to anticipate and to respond to any unforeseeable events that may occur, with the objective to ensure that Danamon's banking services remain accessible to customers at all times. In line with Business Continuity Management (BCM) rules and guidelines, Danamon has established the necessary measures to ensure uninterrupted customer service.

HUMAN RESOURCES
Danamon is committed to deliver the best digital service to the customers. To anticipate this, Danamon is focused on developing talent with the right skill sets.

Danamon regularly conducts information technology training courses. And at the same time, Danamon consistently develop the talent development in the universities to invite the best talented individuals to join Danamon. With technology advancement, Danamon require consistent skill development in the information technology.

REGULATION, COMPLIANCE, AND INFORMATION TECHNOLOGY GOVERNANCE
In accordance with the regulatory initiatives to provide financial inclusion, Danamon has implemented Laku Pandai within the Adira network.

Danamon has implemented Rule-based Engine to centralize and simplify the credit decision-making processes. Danamon will increase the use of such solutions for sub-processes where decisions need to be made.

IT Steering Committee meetings are held regularly to review and approve IT projects and to ensure alignment with the Bank's strategy.

STRATEGY AND INITIATIVES 2018
Danamon's IT Division has established a number of strategies and initiatives in 2018 in order to support Danamon business activities.

System Enhancements and Digital Strategy
Danamon IT will continue to develop digital services to facilitate customers interactions across all channels. We will continue to enhance our product and services through these channels.

Danamon will continue replacement of aging Automated Teller Machines (ATMs) in an effort to continuously increase and improve transaction services.

In addition, the security level of ATM/CDM will continue to be improved.

Danamon IT will enhance the sale and purchase of bond transactions to ease customers in transactions.

Danamon IT will implement host-to-host integration with Sistem Informasi dan Komputerisasi Haji Terpadu SISKOHAT to facilitate and support Hajj Savings.
IT will facilitate the integration between Danamon and its partners and customers through API Management.

The CRM System will continue to be expanded to the Wholesale and SME businesses.

We will together with businesses continue to explore partnerships with Fintechs.

The IT Division will assess the Treasury System to determine if an upgrade is required to further support business development of Treasury products.

In ongoing efforts to improving efficiency, IT Division will explore RPA (Robotic Process Automation), with the first focus on manual processes in the back office.

**Infrastructure Enhancements**
We will increase capacity for server virtualization to cater for the new growth and systems. We will continue in our efforts to migrate from physical to virtual servers.

We will need to replace our network server farm as it will reach end-of-support in 2018.

IT Division has completed the selection process of new Data Center locations that meet Tier-4 standards. Consequently, IT Division will move and consolidate all existing hardwares in Kebon Sirih into the new location.

**Big Data Analytics**
To align with the data from primary source systems i.e. core banking, Danamon will continue to build data analytics for downstream system and integration with external data, either by batch and real-time data. Furthermore, automated machine learning platform is used to generate analytics modeling related to Customer, Fraud and Risk.

**IT Security**
IT Division will implement Cloud Access Security Broker to provide visibility in maintaining the security of cloud-based applications used by Danamon and implementing Virtual Patch solutions for Windows-based servers to handle all the latest patches.

**IT Organization and Skills**
Throughout 2017, IT Division has implemented the Agile process for several strategic projects. To improve productivity, coordination, and support for the Agile process, IT will implement Agile Collaboration Tools.

The IT Division will also implement DevOps methodologies and processes. This system aims to build an environment where we can develop, test and launch software programs or features in more quickly, precisely and better quality.

**Risk Management and Regulatory**
IT Division will implement the Early Warning System for early detection of high-risk customer credit data and to protect the bank from possible losses.

As part of compliance with BI/OJK regulations, IT will upgrade and develop regulatory applications as required.
Danamon continues to take its operational activities to the next level with streamlined processes, centralized operations, synergy across lines of business, and the utilization of alternative e-channels.

Danamon’s Operations Unit is in charge of supporting the Company’s business growth. Continuing its last year initiative, in 2017 the Company continued to evaluate and restructure its operational activities in order to enhance Danamon’s operation efficiency.

In order to stay ahead of challenges and to fulfill customer needs for quality banking products and services, Danamon is committed to implement ongoing strategic policies and initiatives in its business operations. The Bank continues to innovate, and improve its operations so it can improve customer experiences.

Danamon’s operational unit continues to transform. This is in line with Danamon’s strategy to acquire efficiency-oriented operational procedures, improved customer experiences, and sustainable growth as a unique value proposition (UVP) operation, focused on three service attributes: faster, easier, and cheaper.
PERFORMANCE 2017

In 2017, Danamon's operational unit continued the structural transformation and development of its operations with a digitalization-oriented strategy and improvement of the competence and quality of resources. In doing so, manual input was minimized and back office work load and processes were reduced.

Together with the automated and integrated systems, Danamon’s operational units improved the STPs and enhanced their support systems for better compliance, control, and good corporate governance.

This is in accordance with the initial idea contained within the bank’s business plan (RBB); the operational unit will continue to transform into a business partner that is geared up for the era of digitalization.

By the end of the fiscal year, almost all plans had been successfully implemented. This was due to the persistent commitment of a reliable management and operational team. In monitoring the transformation process, the operational team utilized 4DX tools to ensure that transformations were performed meticulously.

Several of the strategies set forth in the operational transformation are as follows:

1. Reorganized the operational structure that separates innovation from operational development and daily business activities so as to accelerate transformation
2. Formulated a lean operational model that aims to provide better operational services and digitalization empowerment through automation, shared services, and human capital management so that a faster, better and more cost-effective performance could be maintained
3. Enhanced human resource capability in the interests of creating a High Performing Team
4. Reinforced strategic initiatives for business advancement related to network office optimization (closure, relocation, and establishment of branch offices)
5. Collaborated with the Transformation Management Officer (TMO) team to implement Operation Transformation projects including restructuring, re-engineering and automation.

In addition, to achieving faster, better and more efficient operational processes, the operational unit had undertaken various strategic initiatives by the end of 2017. Some of these initiatives were to streamline the organization, to improve service and to obtain a better span of control, such as the consolidation of the loan processing unit.

Re-engineering was also conducted on various operational units, such as Optical Character Recognition (OCR), E-reconciliation, Operation Dashboard, Automation on User ID Management System and automation on reconciliation process in control area.

Danamon has also optimized document imaging through the Document Management System (DMS) that has been applied to Centralized Document Collateral Processing (CDCP), Trade, and Signature Verification units.

With respect to human resources, Danamon is aware of the importance human resource quality improvement in order to sustain operational excellence. Few initiatives that the operational unit concentrated to improve employee capabilities are following:

1. Re-launched the Operation Development Program (ODP) to prepare future leaders, notably for Bank Danamon operations
2. Implemented the Up-skilling program for all operational staff at Head Office, mainly related to transactional processes
3. Devised E-Learning for Control, Loan Module and Payment Operations.

**AWARDS AND RECOGNITION 2017**

Some of Danamon’s achievements in operational areas are as follows:

1. **Warta Ekonomi:**
   - Indonesia’s Top Performing Mutual Fund & Consumer Choice Award for Best Performance in the Custodian Bank category
2. **Marketing Research Indonesia:**
   - Third Place out of nine banks for Branch & E-Channel Category Award
3. **Bony Mellon:**
   - STP Award presented in recognition of Your Outstanding Payment Formatting and Straight – Through Rate
4. **JP Morgan:**
   - Elite Quality Recognition Award for Outstanding Achievement of Best in Class with STP Rating 99.33% MT – 103
   - Elite Quality Recognition Award for Outstanding Achievement of Best in Class with STP Rating 99.96 % MT 202.

**2018 PLAN**

In 2018, Danamon will continue to bring about sustainable transformation to prepare for digitalization and automation of operational processes in lending, funding products, and risk control & compliance, to become a faster, better, and more efficient operation.

Several strategic plans to be developed and implemented in 2018 are as follows:

1. To incorporate operational loan services into an integrated system from the beginning of limit provision up to loan disbursement and documentation
2. To improve control and process automation
3. To integrate document imaging safekeeping into the DMS (Digital Management System)
4. To support the National Non-Cash Movement with the development of a the Cashless Payment System
5. To build an integrated system with the custodian, regulator, and tax office so that transactions can be processed swiftly and accurately in accordance with the specified Service Level Agreement (SLA)
6. To formulate a comprehensive bank-wide reconciliation system with applications and records of all customer transactions.

The main focus for operations in 2018 will be streamlining process, review centralized operations, and implement otomation process in some area.