Unofficial Translation This translation is for convenience of those unfamiliar with Thai language Please refer to the Thai official version

Bank of Thailand Notification No. SorNorChor. 4 /2561 Re: Regulations on Supervision of the Designated Payment Systems Business

1. Rationale

For the purposes of supervision of the designated payment systems to be safe and secure, have risk management in line with international standards, continuously operate under normal and emergency conditions, including promote efficiency and competitiveness in undertaking the business, as well as ensure appropriate system user protection.

The Bank of Thailand therefore prescribes the regulations on supervision of the business providers of the designated payment systems by specifying supervisory framework in order for the business providers to give importance to the following areas:

(1) Financial status: the business providers must have financial status that is stable and sufficient to continue its business operation and provide payment systems services as a going concern.

(2) Governance: the business providers must manage their businesses based on good governance principles and ensure appropriate internal control.

(3) Risk management and security: the business providers must manage risks relating to the undertaking of the payment systems business appropriately and in line with potential risks.

(4) System user protection: the business providers must adequately disclose information related to the services including fee rate charged to system users, safely protect data privacy of system users, and properly handle complaints.

(5) Promotion of efficiency and competitiveness: the business providers must ensure that the payment systems are efficient, and feedback from system users are received, as well as business rules and conditions for accessing and exiting the systems with fairness and openness are set. This will promote competition and the adoption of new innovations in developing the payment systems in the country.

2. Statutory Power

By virtue of Section 15 Section 24 Section 25 Section 26 and Section 31 of the Payment Systems Act B.E. 2560 (2017), the Bank of Thailand hereby issues the regulations on supervision of the designated payment systems business, as prescribed in this Notification.

3. Scope of Application

This Notification shall apply to business providers of the designated payment systems according to the law governing payment systems.

4. Content

4.1 Definition

In this Notification,

"Payment systems" means any systems or arrangement for the transfer of funds, clearing or settlement.

"Designated payment systems" means payment systems which shall obtain a license from the Minister.

"Business provider" means the business provider who is licensed to undertake the designated payment systems business according to the law governing payment systems.

"System user" means a user who is a member and agrees to be bound by the rules for using designated payment systems services.

"Person with managerial power" means

(1) Manager, deputy manager or any person holding equivalent position but named otherwise.

(2) A person who, de facto, has the power to exercise control over or dominate managers, directors, or management of the business provider of designated payment systems to follow his order in the formulation of policies or the operations.

"High-quality liquid assets" means unencumbered high-quality liquid assets that can be quickly converted into cash at no significant loss of value even under severe liquidity stress scenarios.

"Financial institution" means the financial institution under the law governing financial institutions businesses. "Specialized financial institution" means the specialized financial institution under the law governing financial institutions businesses.

"State enterprise" means the state enterprise established under the specific law.

"Foreign juristic person" means a juristic person incorporated under foreign law, and operating payment systems business or providing payment systems services in Thailand.

"Power to control the entity" means having relationship in any of the following manners:

(1) Holding shares with voting rights of a juristic person in an amount exceeding 50 percent of the total number of the voting rights of such juristic person; including holding shares with voting rights of the jutistic person of the spouse, child or adopted child who is under legal age.

(2) Having control of the majority voting rights in the shareholders' meeting of a juristic person, including having control of the majority voting rights in the shareholders' meeting of the juristic person of the spouse, child or adopted child who is under legal age.

"BOT" means the Bank of Thailand under the law governing the Bank of Thailand.

"Minister" means the Minister of Finance.

4.2 General regulations for supervision

4.2.1 Financial status

For the business providers to have financial status that is stable and sufficient to continue its business operation and provide the designated payment systems services as a going concern under both normal and emergency conditions, the business providers shall comply with the following regulations:

(1) Have paid-up capital of no less than the amount specified in the BOT's Notification Re: Regulations, Procedures, and Conditions on Application for License to Undertake Designated Payment Systems Business.

(2) Have a sound financial position and operation status which represent the capability of undertaking the business and providing services as a going concern without any risks that may cause damages to system users such as historical financial position and performance, and shareholders' equity. (3) Not allowed to reduce the paid-up capital without the permission from the BOT.

(4) For the increase in the paid-up capital, the business provider shall notify the BOT in writing or by the defined electronic means within 15 days from the date of registration of the increase in the paid-up capital.

(5) Prepare a business plan including plans for investments, revenues, expenditures and annual budget plan; and the budget prepared must be sufficient for pursuing the investment plan and business operation in order to continue business as a going concern under both normal and emergency conditions. The business providers shall keep such business plan and investment plan that have been approved by the board of directors of the juristic person to be available for the BOT examination and upon the BOT's request.

4.2.2 Governance

For the business providers to have good business management and internal control, to have organizational structure with the system of checks and balances in accordance with good governance principles, to have directors or persons with managerial power who have all qualifications and do not have prohibited characteristics as prescribed by the law, to have the clear and appropriate assignment of duties and responsibilities for directors or persons with managerial power and other units, the business providers shall comply with the following regulations:

(1) Undertaking the business as approved.

(1.1) Undertake the business in compliance with the plans, policies, measures and systems as approved by or notified to the BOT.

(1.2) Monitor and review to ensure that directors and persons with managerial power have the qualifications and do not have the prohibited characteristics as prescribed in the law governing payment systems and the BOT's Notification Re: Regulations, Procedures and Conditions on Application for License to Undertake Designated Payment Systems Business.

(1.3) Have at least 1 director with Thai nationality and domiciled within Thailand.

In the case that there are any events that cause such director being discharged from the position which results in lacking of the director with qualifications stated under the first paragraph, the new qualified director must be appointed within 45 days from the date of the discharge. (1.4) In the case that there is a change of directors or persons with managerial power of the juristic person, the business provider shall notify the BOT, in writing or by the defined electronic means, within 15 days from the date of the change. In this regard, the business providers must check and certify the qualifications of directors or persons with managerial power of the juristic person that they have the qualifications and do not have the prohibited characteristics as prescribed in the law governing payment systems and the regulations prescribed by the BOT, according to the Certification Form attached at the end of the BOT's Notification Re: Regulations, Procedures and Conditions on Application for License to Undertake Designated Payment Systems Business.

(2) Duty and responsibilty of directors and persons with

managerial power

(2.1) Ensure that, in undertaking the business, strategies, policies and business plan are established; as well as ensure that strategic plan and business goals are communicated to staff.

(2.2) Ensure that, in undertaking the business, efficient risk management policies and measures for handling key risks are established by taking into account the business model, complexity and business strategies; as well as the risk management policies and measures are reviewed on a regular basis or at each time when there is an important incident or a change that may significantly affect services provided.

In this regard, there must be monitoring and evaluation of the overall risk assessment, outcome of business operation under the risk management plan, and risk status, including trend of potential risks.

(2.3) Ensure that, in undertaking the business, there is an appropriate and efficient internal control systems, with an appropriate systems of checks and balances, including ensure the availability of appropriate staff or units to be responsible for risk management and audit; in order to be in compliance with laws, regulations and orders of the BOT and those of relevant authorities.

(2.4) Ensure that, in undertaking the business, there is a system for reporting any actions that are non-compliant with laws, regulations and orders of the BOT and those of relevant authorities, including the internal practices or rules of the entity itself, in order for directors and the management to be able to monitor or rectify in order to prevent the business operation from any damages or significant impacts.

(2.5) Ensure that the accounting records and relevant documents are prepared and maintained in order to demonstrate the actual financial position and performance of the business providers.

(3) Internal control

(3.1) Arrange the organizational structure that promotes efficient internal control and audit by appropriately separating the assignment of duties and responsibilities for relevant units to be in charge of supervising, controlling and auditing the business operation, and have clear line of commands and reporting relationships; in order to ensure appropriate checks and balances.

(3.2) Have in place the process and practice for internal control which cover an inspection of irregular transactions to prevent risks arising from mistakes or fraud in the operation, or the risk management that is not sufficiently appropriate and cautious, or failure to comply with internal rules, practices, or orders of the entity, or relevant laws.

(3.3) Have in place staff or units to be in charge of supervising compliance with regulations, for the purpose of oversight of the business providers' operation to ensure the compliance with the regulations in an orderly manner.

(3.4) Have in place an audit of the internal control and risk management at least once a year, and prepare an audit findings report and propose it to the entity's board of directors or the assigned committee to consider for approval, and submit a copy of the audit findings report to the BOT in writing or by the defined electronic means within 45 days from the date on which the audit is completed. The auditor, who carries out such audit, must have knowledges, experiences and be independent from the units responsible for performing the internal control and risk management functions.

In the case that the BOT considers that the audit findings of the internal control and risk management contain inadequate information or ambiguous contents, or in the case that the BOT considers that it is necessary or appropriate, the BOT may order the business providers to appoint an external auditor to perform the audit and report the audit findings to the BOT.

The business providers shall start conducting the audit and submit a copy of the audit findings report according to the above regulation to the BOT in the year following the year in which it has obtained the license to undertake the business.

(4) Change of power to control the entity

In the case that the business provider is to change the power to control the entity; for example, shareholders intend to sell shares with voting rights of the company to the extent that allow other persons to hold shares and have voting rights of the company more than 50% of the total number of voting rights, etc., the business provider shall take the following actions:

(4.1) The business provider which is a juristic person incorporated in Thailand shall request for permission from the BOT, in writing or by defined electronic means, prior to commencement of the action. The business provider shall clarify details of the action, conduct assessment of impact and potential risks that might affect the business operation and services of the designated payment systems, as well as submit information and supporting documents. The BOT will complete the consideration within 45 business days from the date that the request and documents have been completely and correctly received.

In this regard, the BOT may or may not grant permission, or grant permission with additional conditions on a case by case basis, or order to suspend temporarily, or later revoke the permission if it is found that actions are inconsistant with the facts notified to the BOT, or the business provider fails to comply with the conditions prescribed by BOT.

(4.2) The business provider which is a foreign juristic person shall notify the BOT, in writing or by the defined electronic means, within 7 days from the date of the change, together with details of the action and assessment of impact and potential risks that might affect the business operation and services of the designated payment systems.

4.2.3 Risk management and security

For the purposes of ensuring the designated payment systems to be safe and secure, creating confidence among system users and public, the business providers shall appropriately manage risks relating to the undertaking of the designated payment systems to be in line with business model, size, volume of transactions and complexity of the business, and at least shall comply with the following regulations:

(1) Risk management policy and measure

(1.1) Establish risk management policy and measures in various aspects relating to the systems clearly and in writing such as liquidity risk, operational risk and information technology risk, as well as identify risk appetite covering the management of risks that arise from systems, system users and connected systems (interdependencies), which must be approved by the board of directors or the assigned committee.

(1.2) Establish risk management procedures such as risk identification, risk assessment and risk mitigation in order to control or reduce any potential risks, including assigning the person to be responsible for risk management, together with reporting the result of risk tracking and risk status to the assigned committee or executives within the appropriate time period.

(1.3) Establish Business Continuity Management (BCM) policy along with the analysis and assessment of the impact of the system disruption, and prepare a Business Continuity Plan (BCP)

(1.4) Have in place the review and testing of the Business Continuity Plan (BCP) together with the system users and relevant stakeholders at least once a year and upon every significant change of the systems.

(2) Risk Management for Information Technology (IT) systems

(2.1) Comply with the regulations under the BOT's notification regarding policies and measures on security of IT systems in order to ensure that the designated payment systems meet the IT risk management standards, and that the systems have security, integrity and availability to provide services with continuity.

(2.2) Have in place an audit of the IT system security at least once a year which is conducted by an independent external auditor who has knowledge and experiences in examining and assessing IT risks, and submit a copy of the audit findings report to the BOT, in writing or by the defined electronic means, within 45 days from the date on which the audit is completed.

The business provider shall start conducting the audit and submit a copy of the audit findings report according to the above regulation to the BOT in the year following the year in which it has obtained the license to undertake the business.

(3) Outsourcing

In the case that the business providers use services provided by other service providers or third parties (outsourcing) for the operation on behalf of themselves in the IT system functions, including functions that have a significant impact on the business, the business providers are still responsible for the system users in providing the services with continuity, security, reliability and for any damages that may occur as if the services are provided by the business providers themselves, the business providers shall take actions as follows:

(3.1) Have in place an appropriate risk management process including selection, monitoring, evaluation and examination of the services provided by other service providers or third parties; and assess risks arising from outsourcing activities on a regular basis.

In this regard, the risk assessment should cover risks relating to protection of confidentiality and data privacy as well as an impact on the critical systems of the business providers.

(3.2) Have in place an outsourcing contract which indicates the rights of internal auditor, external auditor and the BOT to perform an audit of the operations and internal control of other service providers or third parties for parts relating to the undertaking of the designated payment systems.

(3.3) Have in place a Business Continuity Plan (BCP) or a Disaster Recovery Plan (DRP) that cover the outsourcing activities, including the testing and reviews of the implementation of the plans on a regular basis in order to ensure that the plans can be practically implemented.

(3.4) In the case of using services provided by other service providers or third parties from overseas especially for data storage, data processing or any other operations relating to the data, the business providers must assess potential risks that may arise from such offshore outsourcing activities such as the risk of not being able to access to data due to disruption or blocking of communications networks or international communication systems (information access risk) and the legal risk related to the compliance with foreign countries' regulations (cross-border compliance), as well as prepare the plan to manage potential risks.

(4) Change of operation

In the case that the business providers change their business operations from those that have been approved, or those that additional permission requests have been granted, or those that have been notified to the BOT, as the case may be, the business providers shall take actions as follows:

(4.1) In the case of adding new service or terminating existing service for which permission was granted, the business providers shall submit the request for permission, in writing or by defined electronic means, to the BOT prior to commencement of the implementation, together with information and supporting documents. The BOT will complete the consideration within 30 business days from the date that the request and documents have been completely and correctly received.

In this regard, the BOT may or may not grant permission, or grant permission with additional conditions on a case by case basis, or order to suspend temporarily, or later revoke the permission if it is found that actions are inconsistant with the facts notified to the BOT for permission, or the business provider fails to comply with the conditions prescribed by the BOT.

(4.2) In the case of relocation of the head office, the business providers shall submit the request for permission, in writing or by defined electronic means, to the BOT in advance no less than 30 days prior to commencement of the implementation.

(4.3) For the following cases, the business providers shall notify the BOT in advance in writing or by defined electronic means.

(4.3.1) No less than 15 days prior to commencement of the implementation, in the case of change in the form of services to be different from those for which the permission was granted, the business providers shall submit the detailed information of such change in the form of services, as well as assessing impacts on the IT systems according to the assessment form attached at the end of this Notification (Attachment 1).

(4.3.2) No less than 15 days prior to commencement of the implementation, in the case of change of the IT systems that is significant or have an impact on the security of the systems used for providing services, the business providers shall notify the BOT by presenting a diagram of the IT systems and clearly identifying the major changes on the diagram, that are different from those that the permission have been granted by or those that have been notified to the BOT, as well as assessing the impact on the IT systems according to the assessment form attached at the end of this Notification (Attachment1). (4.3.3) No less than 7 days prior to commencement of the implementation, in the case of change of the juristic person's name.

In this regard, for the cases in Clause (4.3.1) and (4.3.2), the BOT may request the business providers to submit additional information, or oppose, or prescribe additional regulations or conditions for the business providers to comply with, as deemed appropriate prior to commencement of the implementation. The BOT will notify the business providers of such actions.

(4.4) For the following cases, the system users shall be

notified in advance:

(4.4.1) No less than 7 days prior to commencement of the implementation, in the case of change of the juristic person's name.

Notifying the system users shall be done through at least 2 channels which may be through electronic channel, or in writing, or by any other methods that enable the system users to be informed.

(5) Temporary suspension of services, or occurrence of problems or defects in providing services

In the case of temporary suspension of services or there is a problem or defect in providing services of the designated payment systems, the business providers shall comply with the following regulations:

(5.1) In the case of temporary suspension of services resulting from the advance planning (planned downtime) such as suspension of critical systems for maintenance which has broad impact.

(5.1.1) Notify the BOT in writing or by the defined electronic means in advance no less than 15 days prior to commencement of the implementation.

(5.1.2) Notify the system users in advance no less than 7 days prior to commencement of the implementation through at least 2 channels which may be through electronic channel, or in writing, or by any other methods that enable the system users to be informed. (5.2) In the case of temporary suspension of services which has broad impact and there is no advance planning; or in the case of the occurrence of problems or defects arising from providing services of the designated payment systems which is the significant incident with respect to the use of Information Technology, and affects the services provided, systems or reputation of the business provider, including the case that the critical Information Technology of the business provider has been attacked or threaten from cyber threats, and it is the problem or incident that the business provider must report to the top executive of the business provider to be informed.

(5.2.1) Notify such problem or incident to the BOT immediately upon the occurrence or acknowledgement of such incident, and later additionally inform the reasons and actions taken to resolve the problem in writing or by the defined electronic means as soon as possible.

(5.2.2) Notify the system users as soon as possible from the time of the occurrence or acknowledgement of such incident, by notifying through electronic channel, or in writing, or by any other methods that enable the system users to be informed.

(6) Cease of business operation or not undertaking the business as usual.

When it appears that the business provider ceases to operate the business or does not undertake the business as usual for a period of more than 2 years, the Minister have the power to revoke the license of such business provider.

(7) Reporting and submission of financial statements to

the BOT

(7.1) The business providers must prepare the financial statements which represents the financial position and performance, and submit to the BOT from the commencement date of undertaking the business under the following conditions:

(7.1.1) For an accounting period of the first 6-months of the accounting year, the business providers shall submit the financial statements for the first 6-month period of the accounting year to the BOT within 45 days from the end date of the period.

(7.1.2) For the annual accounting period, the business providers shall submit the annual audited financial statements with opinions of the certified public accountant to the BOT within 90 days from the end date of the period. (7.2) Report a name list of the shareholders and percentage of top 10 shareholding including a nationality of the shareholders to the BOT, together with the submission of the annual financial statements.

A state enterprise shall submit the financial statements representing the financial position and performance to the BOT within 45 days from the date that the State Audit Office of the Kingdom of Thailand has approved the financial statements according to Clause (7.1.1) and (7.1.2) together with a report of a name list of the shareholders as prescribed in Clause (7.2).

4.2.4 System user protection

In order to ensure that the business providers disclose relevant information relating to the service provided to the system users adequately for them to make decision to choose the service that serves their needs, protect data privacy of the system users, as well as handle complaints appropriately, the business providers shall comply with the following regulations:

(1) Establish and disclose the service agreement

Establish a service agreement in a written form, and disclose the clear and up-to-date agreement to the system users, which must at least consist of the followings:

(1.1) Rights, duties and liabilities of the business providers and system users for both normal and emergency conditions.

(1.2) Rules, conditions and procedures in providing services.

(1.3) Financial risk or other risks that might arise from using the services (if any) in order to enable the system users to assess any relevant risks arising from the use of services.

In this regard, the business providers have a duty to monitor to ensure that the system users comply with the defined rules and conditions. There shall be in place the procedures for dealing with system users who violate or fail to comply with the defined rules and conditions. In the case that the business providers make any changes to such rules which cause disadvantages to the system users, the business providers must notify the system users in advance no less than 30 days before that change comes into effect, by notifying details of such changes via electronic channel, or in writing, or by any other methods that enable the system users to be informed.

(2) Protect data privacy of system users

Must protect data privacy of the system user by complying with the following regulations:

(2.1) Establish policy to protect data privacy of the system users, determination of the level of confidentiality for data access, and identification of persons who have access rights to such data; and arrange the systems for data storage that is accurate and reliable; and prevent an unauthorized person who has no relevant authority from accessing to or modifying the data maintained.

(2.2) Protect system users' confidentiality and data privacy by not disclosing such information during the course of services and after ceasing to provide services, except for the following cases:

(2.2.1) Disclosure upon receiving consent in a written form or by any other electronic means which the business provider has agreed upon with the system users.

(2.2.2) Disclosure for the purpose of investigation or trial.

(2.2.3) Disclosure to the auditor of the business provider.

(2.2.4) Disclosure for the purpose of policy formulation and oversight of the payment systems of the BOT.

(2.2.5) Disclosure for the purpose of compliance with laws.

(3) Fee disclosure

Implement the fee disclosure as follows:

(3.1) Disclose details of the fees being charged to the system users including the discount policies (if any), by notifying such fee information via electronic channel, or in writing, or by any other methods that enable the system users to be informed.

In this regard, in setting the fees, the business providers must also consider fairness to the system users.

(3.2) In the case of changing fees, the business providers must notify system users the details of such change of fees via electronic channel, or in writing, or by any other methods that enable the system users to be informed. If the changes cause any disadvantages to the system users, the business providers must notify the system users in advance no less than 30 days before that change comes into effect. (3.3) Submit the details of the fees to the BOT as soon as possible by the defined electronic means from the commencement date of undertaking the business and every time when there is a change.

(4) Complaint handling

Take actions when there are complaints or arguments from the system users, and specify time frame to resolve them as follows:

(4.1) Have in place channels and methods to receive a complaint from the system user, by at least providing the valid telephone number, and office address or email address.

(4.2) Establish procedures relating to action process and time frame to resolve the case, in writing, and organize the training of such procedures for relevant staff. Furthermore, the business providers must examine the complaint, report progress, and inform the process and time frame to resolve the complaint to the complainant, within 7 days from the date the complaint has been received.

(4.3) Take actions to resolve the complaint, and notify the complainant of the result as soon as possible.

4.2.5 Promotion of efficiency and competitiveness

To promote competition and continuous adoption of new innovation in developing and increasing the efficiency of the payment systems. The business providers shall comply with the following regulations:

(1) Undertaking business with efficiency and effectiveness

(1.1) Define targets for providing services which are assessable and measureable such as system availability, and have in place the monitoring and evaluation, including report the results to the board of directors of the juristic person regularly, as well as disclose the important operating performances in providing services according to the targets to the system users.

(1.2) Establish mechanisms to survey and receive feedback from the system users relating to important services regularly such as scope of services, functions of system usages, or choices of adoption of technology or procedures, etc. in order to develop and improve the systems to meet the system users' needs and keep up to date for the rapid change of the technology. 4.3 Exemption of general regulations for supervision of the financial institutions, specialized financial institutions, state enterprises as well as foreign juristic persons since they have already been under the supervision of specific laws

(1) The business providers who are financial institutions, specialized financial institutions, and state enterprises, shall be exempted from complying with the regulations on Financial Status as prescribed in Clause 4.2.1 (1) - (5) and the regulations on Governance as prescribed in Clause 4.2.2 (1.3) and (4).

(2) In the case of the business providers, who are financial institutions and specialized financial institutions under specific laws prescribing regulations relating to risk management and security and subject to the supervision of the BOT, having already complied with such prescribed regulations, they shall be exempted from complying with the regulations in this Notification in the following matters:

(2.1) Notification on a change of directors or persons with managerial power of the juristic person, as prescribed in Clause 4.2.2 (1.4)

(2.2) Arrangement for an audit of the internal control and risk management, and submission of a copy of the audit findings report, as prescribed in Clause 4.2.2 (3.4)

(2.3) Arrangement for an audit of the IT system security, and submission of a copy of the audit findings report, as prescribed in Clause 4.2.3 (2.2)

(2.4) Request for permission to relocate the head office, as prescribed in Clause 4.2.3 (4.2)

(2.5) Notification on a change of the juristic person's name, as prescribed in Clause 4.2.3 (4.3.3) and (4.4.1)

(2.6) Temporary suspension of services, as prescribed in Clause

(2.7) Reporting and submission of financial statements, as prescribed in Clause 4.2.3 (7)

4.2.3 (5)

(2.8) Submission of details of the fees, as prescribed in Clause 4.2.4 (3.3)

(3) The business providers who are foreign juristic persons shall be exempted from complying with the regulations in this Notification in the following matters: (3.1) Financial status as prescribed in Clause 4.2.1 (1) - (5)

(3.2) Governance as prescribed in Clause 4.2.2 (1.1) (1.3) – (1.4)

and (2) – (3)

(3.3) Risk management and security as prescribed in Clause 4.2.3 (1.4) (2.2) (3) (4.1) – (4.2) (4.3.1) – (4.3.2) (5.1) and (7)

In this regard, the business providers shall prepare related documents relating to the exempted regulations as prescribed above, and ensure that they are up-to-date and made available for the BOT examination and upon the BOT's request.

4.4 Request for extension of time period for compliance with the

regulations

In the case that the business providers cannot perform the following actions within the defined time period due to necessity or extraordinary circumstances, the business providers can submit to the BOT a permission request for an extension of time period, together with reasons, necessity as well as the scheduled timeline to complete the action, in writing or by the defined electronic means, which the BOT may or may not grant permission, or may prescribe additional conditions for compliance.

(1) Notification on the increase in the paid-up capital, as prescribed in Clause 4.2.1 (4)

(2) Appointment of director who has Thai nationality, as prescribed in Clause 4.2.2 (1.3)

(3) Notification on a change of directors or persons with managerial power, as prescribed in Clause 4.2.2 (1.4)

(4) Submission of a copy of the audit findings report on the internal control and risk management, as prescribed in Clause 4.2.2 (3.4)

(5) Submission of a copy of the audit findings report on the IT system security, as prescribed in Clause 4.2.3 (2.2)

(6) Submission of permission request, or notification to the BOT about the change of operation, as prescribed in Clause 4.2.3 (4.2) - (4.4)

(7) Notification of temporary suspension of services, as prescribed in Clause 4.2.3 (5.1)

(8) Reporting and submission of financial statements, as prescribed in Clause 4.2.3 (7)

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4.5 Specific regulations for supervision of the Inter-institution Fund Transfer Systems business.

To ensure that the business providers undertaking the Inter-institution Fund Transfer Systems have sufficient liquidity to continue its business as a going concern under normal and emergency conditions, and have appropriate risk management that is in line with international standards, including reduce systemic risks, the business providers of the Inter-institution Fund Transfer Systems shall comply with the following regulations:

(1) Maintain high-quality liquid assets as prescribed in the regulations as follows, and prepare a high-quality liquid assets maintenance report, including submit such report to the BOT on a quarterly basis, within 45 days from the end date of the quarter according to the reporting form attached at the end of this Notification (Attachment 2).

(1.1) High-quality liquid assets to be maintained

Maintain the high-quality liquid assets at the end of day in each quarter at no less than the sum total of business operation expenses for the previous 6-month periods before the date on which the business provider shall begin to maintain the high-quality liquid assets for 3-months. The business providers shall begin to maintain the high-quality liquid assets within 6 months from the date on which they have obtained the license to undertake the Inter-institution Fund Transfer Systems business.

In this regard, the business operation expenses include cost of sales, cost of services, selling expenses and administration expenses but do not include unrealized expenses such as depreciation expenses and amortization expenses according to standards or regulations prescribed by the Federation of Accounting Professions.

(1.2) Characteristics of the high-quality liquid assets

The high-quality liquid assets maintained under the regulations as prescribed in Clause (1.1) must be assets in the type of cash, deposit, or debt securities issued or guaranteed by governments or central banks, which are unencumbered; or other high-quality liquid assets as prescribed by the BOT.

In this regard, the valuation of debt securities issued or guaranteed by governments or central banks shall use mark-to-market price or fair value according to standards or regulations prescribed by the Federation of Accounting Professions. The financial institutions, specialized financial institutions, and state enterprises are exempted from complying with the regulations on high-quality liquid assets as prescribed in Clause 4.5 (1).

(2) Establish rules for accessing and exiting the systems (access and exit regime) in order to promote fair access to the payment systems infrastructure for systems users. The business providers at least shall comply with the following regulations:

(2.1) Establish objectives, rules, conditions, procedures, and fees or expenses relating to the access and exit regime in writing, and disclose them to system users and public such as posting on the website of the business provider; by considering the principles of fair and open access, as well as allowing system users to choose the services that they want.

If business providers undertaking the Inter-institution Fund Transfer Systems change rules, conditions, procedures, and fees or expenses relating to access and exit regime, they shall notify the BOT in writing or by the defined electronic means in advance no less than 30 days prior to commencement of the implementation, and disclose to system users and public such as posting on the website of the business providers.

In this regard, the BOT may request the business providers undertaking the Inter-institution Fund Transfer Systems to submit additional information, or oppose, or prescribe additional regulations or conditions for the business providers to comply with, as deemed appropriate, prior to commencement of the implementation. The BOT will notify the business providers undertaking the Inter-institution Fund Transfer Systems of such actions.

(2.2) Have in place risk assessment and related impact analysis relating to the acceptance of new system users to access the systems in order to use the services according to the rules prescribed by the business providers undertaking the Inter-institution Fund Transfer Systems such as financial position and readiness to connect with and use the systems; in order to ensure that the acceptance of new system users will not pose risks and impacts to existing system users in using the services.

(2.3) Disclose the up-to-date name list of the system users so that the system users and public are informed such as posting on the website of the business providers. (3) Have in place risk management measures to ensure the successful completion of the settlement between system users in which payments obligations are made within the specified time period, such as liability management or monitoring, bilateral limits between system users in making transactions, collateral requirements to secure the settlement, or settlement guarantee, etc. The business providers undertaking the Inter-institution Fund Transfer Systems should consider using risk management measures that are appropriate and in line with the business model in providing services.

In the case that there is a change of risk management measures to be different from the measures that the permissions have been granted, the business providers undertaking the Inter-institution Fund Transfer Systems shall notify the BOT in writing or by the defined electronic means in advance no less than 15 days prior to commencement of the implementation, and notify system users in advance no less than 15 days prior to commencement of the implementation through at least 2 channels which may be through electronic channel, or in writing, or by any other methods that enable the system users to be informed.

(4) Have in place appropriate process and procedures for the case that any single system user is unable to settle payment obligations, which shall include the case that a system user has been under a receivership order or is adjudicated bankrupt by the court such as notifying other system users, stopping sending and receiving transactions, and recalculating net clearing positions by taking out the transactions of the system user who is unable to settle payment obligations (unwind), etc. Moreover, the business providers shall inform the system users of such process and procedures through electronic channel, or in writing, or by any other methods that enable the system users to be informed.

In this regard, the business providers undertaking the Interinstitution Fund Transfer Systems also have the duty to monitor system users to ensure that they comply with such process and procedures.

In the case that there is a change of process and procedures to be different from those that the permissions have been granted, the business providers undertaking the Inter-institution Fund Transfer Systems shall notify the BOT in writing or by the defined electronic means in advance no less than 15 days prior to commencement of the implementation, and notify system users in advance no less than 15 days prior to commencement of the implementation through at least 2 channels which may be through electronic channel, or in writing, or by any other methods that enable the system users to be informed. (5) The business providers undertaking the Inter-institution Fund Transfer Systems shall notify the BOT in verbal or by any other methods immediately upon the occurrence of the following events:

(5.1) In the case that any single system user is unable to settle payment obligations by using normal methods and within specified time period such as the disruption of system user's systems, any single system user having insufficient fund for the settlement, and the business providers having to apply specified risk management measures, process, and procedures to enable the settlement process to be successfully completed.

(5.2) In the case of a system disruption of the business provider undertaking the Settlement Systems, which causes the failure to settle payment obligations between the creditor and the debtor by using normal methods and within specified time period, excluding the case of settlement in the Highly Important Payment Systems operated by the BOT.

In this regard, business providers undertaking the Inter-institution Fund Transfer Systems shall prepare an incident report for the occurrence of the above events according to the reporting form attached at the end of this Notification (Attachment 3), and submit to the BOT within business day following the date that the incident occurs.

(6) In the case that the business providers undertaking the Interinstitution Fund Transfer Systems temporarily suspend its services provided to any single system user, the business providers undertaking the Inter-institution Fund Transfer Systems shall notify other system users immediately. In the case that there is a termination of services provided to any system users, the business providers shall notify other system users in advance no less than 15 days through at least 2 channels which may be through electronic channel, or in writing, or by any other methods that enable the system users to be informed.

In this regard, the business providers undertaking Inter-institution Fund Transfer Systems shall notify the BOT in writing or by the defined electronic means within 7 days from the date of service suspension or termination, as the case may be.

4.6 Specific regulations for supervision of the Payment Card Network business.

To ensure that the business providers undertaking the Payment Card Network have risk management that is appropriate and in line with international standards, as well as to ensure the protection of system users and public in Thailand. The business providers undertaking Payment Card Network shall comply with the following regulations:

(1) The provisions of Clause 4.5 (3) - (6) shall apply to the business providers undertaking the Payment Card Network.

(2) The business providers undertaking the Payment Card Network who is the foreign juristic person shall implement as follows:

(2.1) Establish a branch office or representative office in Thailand and appoint at least 1 person as a person responsible for engaging in affairs for and on behalf of the juristic person in that office in order to support business operation and coordination with foreign office.

In the case of the relocation of the branch office or representative office in Thailand to be different from the previous location for which the permission has been granted, the business providers shall submit the permission request in writing or by defined electronic means to the BOT in advance no less than 30 days prior to commencement of the implementation.

(2.2) In the case that the supervisory authorities of a foreign juristic person under foreign laws order or take any actions with the business providers relating to the undertaking of the Payment Card Network, which may affect the payment card network services in Thailand, the business providers shall notify the BOT in writing or by the defined electronic means within 15 business days from the date that the supervisory authorities of the foreign juristic person issue the order for actions.

4.7 Specific regulations for supervision of the Settlement Systems

To ensure that the business providers undertaking the Settlement Systems have risk management that is appropriate and in line with international standards, as well as to reduce systemic risks, the business providers undertaking the Settlement Systems shall comply with the following regulations:

business

(1) The provisions of Clause 4.5 (6) shall apply to the business providers undertaking the Settlement Systems.

(2) Establish rules, conditions and operating procedures relating to settlement finality, by prescribing process relating to the settlement, time period for settlement and the point of settlement finality where the transactions cannot be revoked, reversed or modified.

(3) Have in place appropriate settlement methods to adjust the creditor or debtor status of the system users by taking into account the settlement risk that may prevent the successful completion of the settlement and affect other system users.

(4) In the case that the business provider undertaking the Settlement Systems is not able to adjust the creditor or debtor status of the system users by using normal methods and within specified time period, for example, the system user having insufficient fund for the settlement, or the disruption of either systems of the business provider undertaking the Inter-institution Fund Transfer Systems or the systems of the business provider undertaking the Payment Card Network which cause the failure to calculate the net clearing positions indicating creditor or debtor status of system users, or the failure to transmit such data in order to perform the settlement, the business providers undertaking the Settlement Systems shall notify the BOT in verbal or by any other methods immediately as from the time of occurrence of the incident, and prepare an incident report of the above incidents according to the reporting form attached at the end of this Notification (Attachment 4) and submit to the BOT within business days following the date that the incident occurs.

4.8 Request for relaxation on compliance with the regulations

In the case that the business providers cannot comply with the regulations, practices and conditions prescribed in this Notification due to necessity or extraordinary circumstances which may have an impact on the ability to provide services with continuity or the reliability of the payment systems, the business providers can submit a request for relaxation on compliance with such regulations together with reasons and necessity to the BOT in writing or the defined electronic means, which the BOT may or may not grant permission or may prescribe additional conditions for compliance.

4.9 Regulations on the cease of the designated payment systems business

In the case that any business providers intend to cease the designated payment systems business, they shall submit the request in writing to the Minister through the BOT no less than 90 days prior to the date on which they wish to cease the designated payment systems business.

In considering granting approval for the cease of the designated payment systems business, the Minister shall notify the result within 60 days from the date that the requests and documents have been completely and correctly received. The Minister may order the business providers intending to cease the designated payment systems business to take any actions to protect the benefits of the system users or public before ceasing the business.

When the Minister grants approval to the business providers to cease the businesses, the business providers shall notify the system users in advance no less than 15 days prior to the cease of the business through at least 2 channels which may be through electronic channel, or in writing, or by any other methods that enable the system users to be informed. In addition, the business providers shall return the license to the BOT within 15 days from the date of the cease of the business.

5. Effective Date

This Notification shall come into effect from 16 April 2018.

Announced on 16th April 2018

(Mrs. Ruchukorn Siriyodhin) Deputy Governor, Financial Institutions Stability Governor ^{for} Bank of Thailand

Payment Systems Policy Department Tel. 0 2283 5095, 0 2283 5137

(Attachment 1)

Impact Assessment Form on Information Technology Systems

Date Month B.E.

To Governor of the Bank of Thailand.

(Company's name) wishes to notify the BOT to Change the service of Change Information Technology (IT) Systems Significantly

In summary as follows:

Additional Details

- 1. Impact on Information Technology
 - No (Please specify reasons) \Box Yes (Please specify details)
 - Infrastructure (Hardware / Software / Network)
 - Systems / Database systems
 - Security

2. Risk assessment and risk mitigation methods which was proposed to the board of directors or the assigned committee for approval

No impact (Please specify reasons)

Have impact (Please specify details)

Type of risks	Risk (Increase / Maintain / Decrease)	Summary of impact and risk mitigation methods
Operation		
Security		
Integrity		
Availability		
Other related areas. Specify		

3. In the case that there is an impact on Information Technology, testing of systems and security in developing the systems used for providing the services have been done as follows:

User Acceptance Test Regression Test Vulnerability Scan Test Penetration Test

Other Tests (If any, specify) such as Source Code Review...

I hereby certify that the information submitted to the BOT has been made correctly, and completely, and I agree to clarify and/or submit additional details or information, including compliance with any conditions before and after providing the service as per request from the BOT.

Please be informed accordingly,

Reviewed by	Person in charge of Risk Management
	()
Certified by	Authorized Signatory
	()

(Attachment 2)

High-Quality Liquid Assets Maintenance Report

Company's code		
Company's name		
Quarter		B.E
Submission deadline	45 days from the end date of th	ne quarter

(Unit: Million Baht)

1. High-quality liquid assets at the end of the month, for each month in the quarter				
Type of high-quality liquid assets	Cash	Deposit	Debt securities	Total
(1.1) Date / Month / Year			1	
(1.2) Date / Month / Year				
(1.3) Date / Month / Year				
			(Unit:	Million Baht)

2. Business operation expenses for the previous 6 months				
Type of business operation expenses	Cost of sales and services	Selling and administration expenses	Total	
Month / Year				
Month / Year				
Month / Year				
Month / Year				
Month / Year				
Month / Year				
(2) Total business operation				
expenses for 6 months				

(Unit: Percentage)

3. Ratio of high-quality liquid assets to total business operation expenses for 6 months	
(3.1) = (1.1) / (2) × 100	
(3.2) = (1.2) / (2) × 100	
(3.3) = (1.3) / (2) × 100	

Regulation, calculation method and condition

		Report Description		
Name of report	High-Quality Liquid Assets Maintenance Report			
Frequency of report	Quarterly basis			
Submission deadline	Within 45 days from the end date of the quarter			
Description	This report is the high-quality liquid assets maintenance report on quarterly b			
	 High-quality liquid assets means value of the high-quality liquid assets at the end of the month, for each month in the quarter. 1st quarter (31 January 2018, 28 February 2018 and 31 March 2018) 2nd quarter (30 April 2018, 31 May 2018 and 30 June 2018) 3rd quarter (31 July 2018, 31 August 2018 and 30 September 2018) 4th quarter (31 October 2018, 30 November 2018 and 31 December 2018) High-quality liquid assets shall have the characteristics as follows: High-quality liquid assets maintained under the regulations must be assets in the type of cash, deposit, or debt securities issued or guaranteed by governments or central banks, which are unencumbered; or other high-quality liquid assets as 			
	 prescribed by the BOT. In this regard, the valuation of debt securities issued or guaranteed by governments or central banks shall use mark-to-market price or fair value according to standards or regulations prescribed by the Federation of Accounting Professions. Total business operation expenses for 6 months means the sum total of business operation expenses for 6 month periods before the date on which the business provider shall begin to maintain the high-quality liquid assets for 3 months. 			
	 Types of business operation expenses are as follows: 1) Cost of sales and services means cost of sales and cost of services. 2) Selling and administration expenses means selling expenses and administration expenses In this regard, unrealized expenses shall not be included such as depreciation expenses and amortization expenses according to standards or regulations prescribed by the Federation of Accounting Professions. 			
	High-quality liquid assets maintenance requirement			
	For the cal Period 1 st Quarter 2 nd Quarter	Culation of the ratio, the follo High-quality liquid assets As of 31 March of the current year As of 30 June of the current year	Diving data shall be used:Total business operation expenses for 6 monthsApril – September of the previous yearJuly – December of the previous year	
	3 rd Quarter	As of 30 September of the current year	October – December of the previous year and January – March of the current year	
	4th Quarter	As of 31 December of the current year	January – June of the current year	

Calculation method



(Attachment 3)

Report on disruption incident that does not arise from the systems of the business provider undertaking the inter-institution fund transfer systems or payment card network

Company's code	
Company's name	
Type of business	
Date of disruption	
Name of systems	
Number of system users	

Number of transaction: transaction

						V	alue: Baht
	Name		Total cred	it amount	Total debit	t amount	Net
Name of systems	Name of clearing cycle	Name of system user	Number of transaction	Value	Number of transaction	Value	clearing position (Baht)
	7						

Reason of the problem (choose / identify)

1. The systems of system users is disrupted

Name of system users whose systems are disrupted

1

2

3

\square 2. The system users have insufficient fund for settlement.
Number of system users having insufficient fund for settlement
Name of the system users having insufficient fund for settlement
1
2
3. The systems of the business provider undertaking the Settlement Systems are disrupted
4. Others
Problem solving (choose / identify)
1. Use contingency plan or backup systems
2. Use risk management measures for settlement
3 . Others
Impact (choose / identify)
1. Delay of services (hour / minute)
2. Cancel existing transactions and recalculate new net clearing positions (unwind)
3. Others

	Report description
Name of report	Report on disruption incident that does not arise from the systems of the business provider undertaking the inter-institution fund transfer systems or payment card network.
Reporter	Business providers undertaking the inter-institution fund transfer systems or Business providers undertaking the payment card network according to the law governing payment systems.
Frequency of report	When a disruption occurs and the business providers cannot provide services as usual, the data of the date the incident occurs shall be reported.
Submission deadline	Within business days following the date that the incident occurs.
Description	Report on services of inter-institution fund transfer systems or payment card network by indicating the number of transactions and value for the payment received and paid of each system user in the systems on the date that the disruption occurs and the business provider cannot provide the services as usual as follows:
	 In the case that any single system user is unable to settle payment obligations by using normal methods and within specified time period such as the disruption of system user's systems, any single system user having insufficient fund for the settlement, and the business providers having to apply specified risk management measures, process, and procedures to enable the settlement process to be successfully completed. In the case of a system disruption of the business provider undertaking the Settlement Systems, which causes the failure to settle payment obligations between the creditor and the debtor by normal methods and within specified time period, excluding the case of settlement in the Highly Important Payment Systems operated by the BOT.
	Name of systems means name of systems or name of transaction that the net clearing positions are calculated.
	Name of clearing cycle means name of clearing cycle in which the problem arises.
	Name of system user means name of members which are all system users in the clearing cycle that the problem arises.
	Total credit amount means total number of transactions and total amount of value that each system user received in that clearing cycle.
	Total debit amount means total number of transaction and total amount of value that each system user paid in that clearing cycle.
	Net clearing position means net balance of each system user in each clearing cycle (Total credit amount deduct with Total debit amount).

(Attachment 4)

Report on disruption incident that does not arise from the systems of the business provider undertaking the settlement systems

Company's code	
Company's name	
Type of business	
Date of disruption	
Name of systems	
Number of system users	

Name of clearing cycle	Name of system user	Net clearing position (Baht)

Reason of the problem (choose / identify)



1. The system users have insufficient fund for settlement.

Number of system users having insufficient fund for settlement

Name of the system users having insufficient fund for settlement

1

2

3

2. The systems of the business provider undertaking the inter-institution fund transfer systems or the systems of the business provider undertaking payment card network is disrupted, which causes the failure to calculate the net clearing positions indicating creditor or debtor status of system users, or the failure to transmit such data in order to perform the settlement.

3. Others

Problem solving (choose / identify)

- 1. Use contingency plan or backup systems.
- 2. The business provider undertaking the inter-institution fund transfer systems or the business provider undertaking the payment card network apply risk management measures for settlement.
 - 3. Others

Impact (choose / identify)

- 1. Delay of services (hour / minute)
- 2. Cancel existing transactions, and require the business provider undertaking the inter-institution fund transfer systems or the business provider undertaking the payment card network to submit new transactions for settlement.
- 3. Others

Report description		
Name of report	Report on disruption incident that does not arise from the systems of the business provider undertaking the settlement systems.	
Reporter	The business provider undertaking the settlement systems according to the law governing payment systems.	
Frequency of report	When a disruption occurs and the business providers cannot provide services as usual, the data of the date that the incident occurs shall be reported.	
Deadline of submission	Within business days following the date that the incident occurs.	
Description	Report on the settlement systems services by indicating the data on date that disruption occurs and the business providers cannot provide services as usual, including the case that the business provider undertaking the Settlement Systems is unable to adjust the creditor or debtor status of the system users by normal methods and within specified time period, for example, system user having insufficient fund to settle payment obligations, or the disruption of either systems of the business provider undertaking the Inter-institution Fund Transfer Systems or the system users, or the failure to transmit such data in order to perform the settlement. Name of systems means name of systems or name of transaction for settlement services which is disrupted. Name of system user means name of system users using the settlement systems services in the clearing cycle that the problem arises.	
	Net clearing position means net clearing position of each system user in the clearing cycle that the problem arises.	