

BIS Core Principles Self Assessment of PRISM System



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State Bank of Pakistan

PRISM

- Pakistan Real-time Interbank Settlement Mechanism (PRISM) went live in July, 2008.
- PRISM is a state-of-the art Real Time Gross Settlement (RTGS) system which enables Real Time Settlement of Interbank Funds Transfers and Securities Settlement.
- PRISM is using Private Telecom Network & SWIFT Message Format.

Principle 1: Legal Basis

The system should have a well founded legal basis under all relevant jurisdictions (PRISM-Fully Compliant).

Principle 1: Compliance

- Contractual Arrangements in Payment Systems are largely covered by Contract Act 1872.
- Finality and irrevocability of payments are covered in section 21 of the PS & EFT Act 2007 and further covered in PRISM Operating Rules, 2009.
- Insolvency / liquidation of companies are largely addressed in Companies Ordinance 1984 though the scope is very limited but it will be further addressed in Corporate Rehabilitation Act which is in final stages of completion.

Principle 1: Compliance

- PS & EFT Act overrides Insolvency Laws for areas related to payments settlements, property disposition in case of default, enforceability of netting arrangement etc.
- Electronic Processing of Payment is also recognized in PS & EFT Act 2007.
- The legal recognition of netting arrangements is covered in Section 25 of the PS & EFT Act 2007.

Principle II- System Rules & Procedures

The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it. (Fully Compliant).

Principle II: Compliance

- PRISM System settles funds & Securities (DvP Model 1) in real time and on Gross Basis so there is no settlement risk.
- Liquidity Risk is being mitigated by extending the ILF Facility, the procedure of which is clearly defined in PRISM Operating Rules.
- PRISM Operating rules were issued in March 2009 and are readily available.

Principle II: Compliance

- Any changes / modifications in the PRISM system will be intimated and adequate lead time for these modifications will be provided(Section 2.6).
- Processing and queue management procedures are described in PRISM Operating Rules, while business session time bands are also communicated to participants.
- Appropriate trainings are arranged by SBP as and when required.

Principle III- Management of Risks

The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks. (Partially Compliant)

Principle III-Compliance

- PRISM being a real Time Gross Settlement System mitigates the Credit Risk as the Payments are settled in real time without any delay.
- Liquidity risk is mitigated by offering fully collateralized free of charge intraday liquidity facility (ILF).

Principle III-Compliance

- Issues
 - Multilateral Net Settlement Batches (MNSB) for retail clearing are settled in PRISM. Settlement of these batches in PRISM System can contain settlement risk.
 - At present Central Counter Party arrangements do not exist in the clearing system to address default by a participant in the clearing system.
 - Rules regarding clearing house and its participant's obligations needs to be developed.

Principle III-Compliance

- Issues:
 - Section 21 (2) of PS& EFT Act prohibits reversal of entry or payments and states that these entries or payments are final & irrevocable.
 - Section 25 (2) also states that “nothing in this Act shall be construed to require (i) the unwinding of any netting done by the operator of the designated payment system...”
 - Settlement rules as mentioned in section 23 of the PS & EFT Act 2007 need to be drafted to address this issue.

Principle IV-Prompt Final Settlement

The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day. (Fully Compliant)

Principle IV- Compliance

- PRISM System provides the prompt final settlement for interbank funds and securities transfers on the day of value during the day.
- Finality of a payment is clearly defined in section 15.1 of PRISM Operating Rules which describes specific nature of messages generated by the system to ensure and legally enforce finality of payment.
- Cutoff times are clearly defined and strictly followed by the SBP.

Principle V- Multilateral Netting

A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation. (Partially Compliant)

Principle V- Compliance

- Core Principal V does not apply to PRISM System for interbank funds transfers & securities settlement which are settled in Real Time and on Gross basis.
- However Multilateral Net Settlement Batches for Retail Clearing are settled in PRISM and issues related to this are discussed above in Core Principal III.

Principle VI-Central Bank Assets

Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk. (Fully Compliant)

Principle VI- Compliance

- The assets used in the PRISM System for settlement are claims on the central banks therefore they carry no credit or liquidity risk.

Principle VII-Security & Operational Reliability

The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing. (Partially Compliant)

Principle VII- Compliance

- The PRISM systems provides state of art encryption technology and follows international and Industry-level standards (like SWIFT and PKI).
- PRISM is operated by the State Bank of Pakistan therefore all central operational and network components are maintained in a central location.

Principle VII- Compliance

- Components' Security of the system is well defined and covers both link and transactional encryption using international standards.
- Business level security includes multiple authorization levels for all participants.
- The participants are responsible for security and operational reliability of their front end systems as defined in the PRISM Operating Rules.

Principle VII- Compliance

- New Developments or changes in the transactions / messages processing in the PRISM System are first tested on entirely different test environment and then are implemented in the live system.
- PRISM System messaging handling capability is significantly above the current operational needs therefore new participants and resultantly increased volume of transactions can be easily handled for some years.

Principle VII- Compliance

- Telecom /Power Infrastructure poses a significant risk to the operational reliability of the PRISM System. This however is being addressed by installing multiple connections to ensure redundancy like DXX Lines, ISDN lines as well as upcoming wireless links.
- For operational reliability PRISM has a DR site and backup ISDN telecom lines (to be further strengthened by wireless links).

Principle VII- Compliance

Issues

- Security objectives and policies need to be clearly defined and documented.
- Security features needs to be tested regularly.
- Explicit policies for the control of both physical and logical access to the system, its hardware, software and network needs to be developed & documented.

Principle VII- Compliance

Issues

- The standards of operational reliability required for the PRISM System need to be formally defined and documented by the SBP and participants, possibly as “service level agreements”.

VIII-Practical & Efficient

The system should provide means of making payments which is practical for its users and efficient for the economy. (Partially Compliant)

Principle VIII- Compliance

- PRISM System replaced old settlement procedure which was based on physical presentment of paper based instruments for interbank funds and securities settlement.
- This resulted in electronic processing of transactions, enhanced timings for money market operations, mitigation of credit/settlement risks and settlement on delivery versus payment basis.

Principle VIII- Compliance

- PRISM System is based on Private Network developed by local telecom provider, therefore installation costs are not significant for the participants.
- Liquidity requirements though increased because of RTGS implementation but are being met by offering Intraday Liquidity Facility (ILF) free of charge which resulted in greater efficiency in the system.

Principle VIII- Compliance

Issues

- Analysis framework for identifying efficiency requirements, safety requirements, cost evaluation, practical constraints (technology, infrastructure) needs to be developed.

Principle IX-Access Criteria

The system should have objective and publicly disclosed criteria for participation, which permit fair and open access. (Partially Compliant)

Principle IX- Compliance

- The operating rules define the criteria for participation in the PRISM system.
- Membership of PRISM for financial institutions participating in the retail clearing system is mandatory.
- Various types of membership categories like Direct Member, Indirect Member, and Sub Membership are defined in the operating rules.

Principle IX- Compliance

- PRISM Membership for participants other than clearing house members is decided on case to case basis.
- Access criteria based on risk measures such as capital ratios, risk ratings or other indicators needs to be defined.

Principle X-Governance Arrangements

The system's governance arrangements should be effective, accountable and transparent. (Partially Compliant)

Principle X-Compliance

- The system is being operated & governed by the Central bank after due consultations with all the stakeholders. All major decisions are made after consultation and full involvement of all the participants. High level decision making by the Central Bank is also prompt and effective.
- As the system is not fully compliant with all the other nine core principles it may be termed as partially compliant.

Thank You