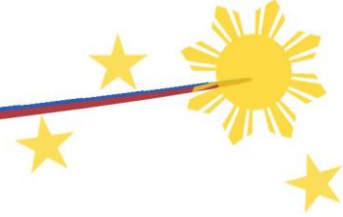




Introduction of the New Registry of Scripless Securities (nRoSS)

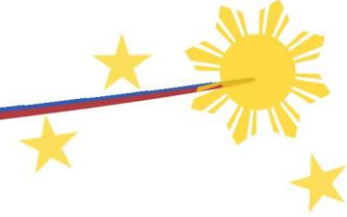
Bureau of the Treasury

Background



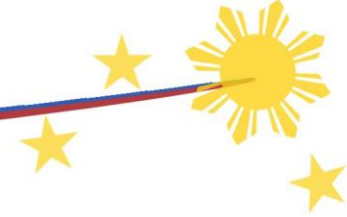
- The Bureau currently uses two systems for the issuance of Government Securities (GS)
 - Automated Debt Auction Processing System (ADAPS)
 - Registry of Scripless Securities (RoSS)
- Both systems have been in operation for 20 years.
- These systems lack the robustness and functionality to address current and foreseen business requirements to support the expanding capital market.

Objectives



- Modernize the auction platform and registry of securities eradicating possible operational and reputation risks.
- Meet existing and future liability management programs and capital market development initiatives of the Bureau.
- Conform to industry best practices and international standards:
 - Bank for International Settlements (BIS)
 - Committee on Payment and Settlement Systems- International Organization Commissions (CPSS-IOSCO)
 - ISO20022
- Consolidate auction and registry information for data mining and analytics to support policy-making.

nRoSS at a glance



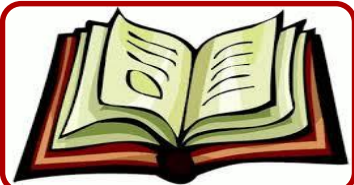
Provides full management of Primary Market Activities for various types of financial instruments



Maintains an online centralized electronic registry for dematerialized fixed income securities

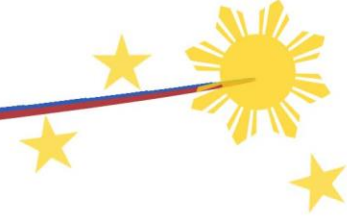


Improves the efficiency by implementing Delivery versus Payment (DvP) and Straight-Through Processing (STP)



Facilitates the electronic transfer of securities for trade and non-trade transactions

nRoSS at a glance



Calculates and executes automatically interest and coupon payment events and early or total redemption



Allows participants to monitor the cash leg of securities transactions (Primary and Secondary) settled on PhilPaSS



Provides online query facilities to all the participants



Calculates and collects securities account maintenance fees

Core Operations



Primary Market Operations

**Auction
Results
Processing &
Awarding**

**DvP Settlement
of Auction
Results**

Secondary Market Operations

**Delivery versus
Payment &
Free of
Payment**

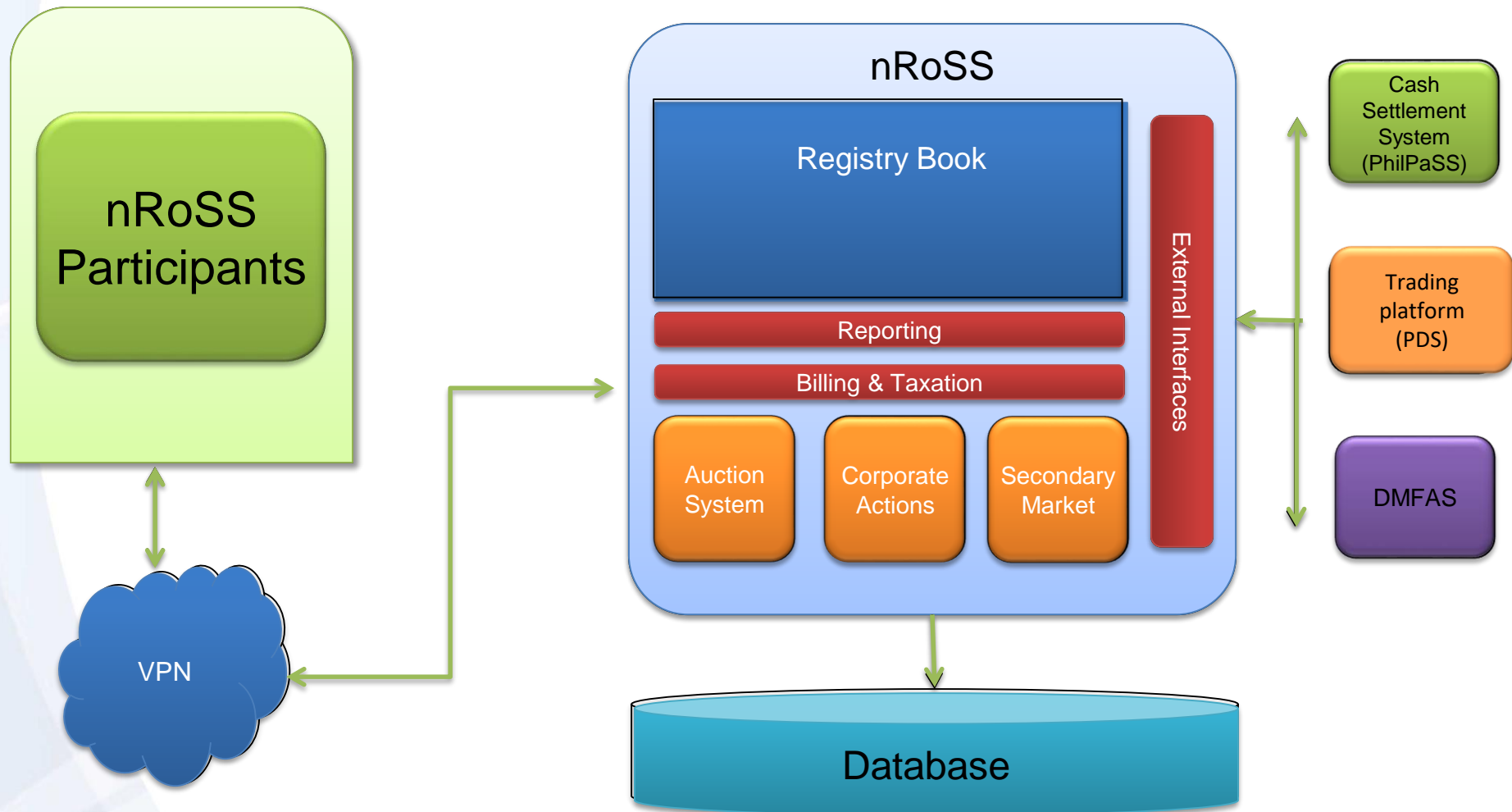
**Pledge and
other non-trade
transactions**

Payment Events & Corporate Actions

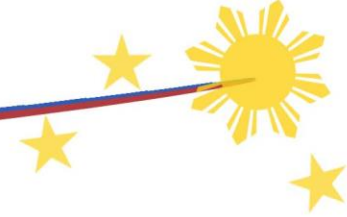
**Payment of
Interest**

**Total, Early or
Optional
Redemptions**

THE BIG PICTURE



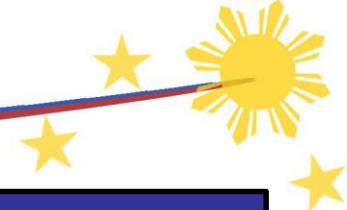
nRoSS in Contrast (1)



AUCTION OPERATIONS

Business Process	Existing	New
1. Auction Access	Using ADAPS via Reuters terminal	Web-based nRoSS browser using VPN
2. Settlement of auction	Semi-automated	DvP
3. Auction rules and conventions	Current Convention	Generally no change
4. Security	Login authentication	Login authentication with security token
5. ISO 20022	Non-compliant	Compliant

nRoSS in Contrast (2)



REGISTRY OPERATIONS

Business Process	Existing	New
1. Primary Market	RoSS	nRoSS
2. Secondary Market	One Registry Book, Two Registry Systems	<u>nRoSS</u>
3. Tax calculation	via PDS	nRoSS tax module
4. Security	Login authentication	Login authentication with security token
5. Account Setup	RoSS Principal Securities Account; SATT/BPID/PIC	nRoSS account number
6. Reports	BTr-generated	Participant-generated
7. Portfolio access	Not available	On-line query facility
8. Payment event	Requires manual process	Automated

High Level Process Model

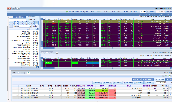
TRADE

TRADE REPORT

CLEARING

SETTLEMENT

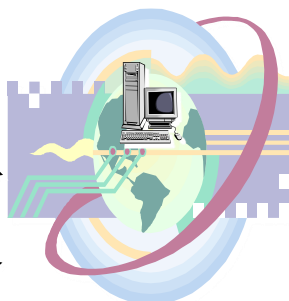
Buyer



Seller

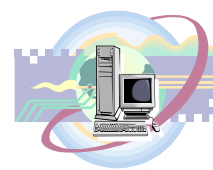


②



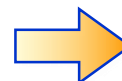
PDEX
Philippine Derivatives & Exchange Corp.

③



PDS Gateway

④



⑥



Securities
Settlement



BTr-
nRoSS

⑤



PhilPaSS



Cash
Settlement

nRoSS-PhilPaSS DvP
System

- 1.0 **PREREQUISITE:** Buyer and Seller must have nRoSS account.
- 2.0 Buyer and Seller input trade details using PDEX platform including **nRoSS account number**.
- 3.0 Bilaterally cleared/authorized trade for settlement in PDS Gateway.
- 4.0 PDS Gateway sends settlement details to nRoSS.
- 5.0 nRoSS checks securities balance and (if sufficient) proceeds to cash leg settlement via BSP PhilPass thru message exchange. nRoSS employs a tax tracking module similar to NRT convention.
- 6.0 Provide transaction confirmation message to PDS.

①

nRoSS
Account





Technical Requirements



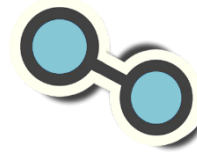
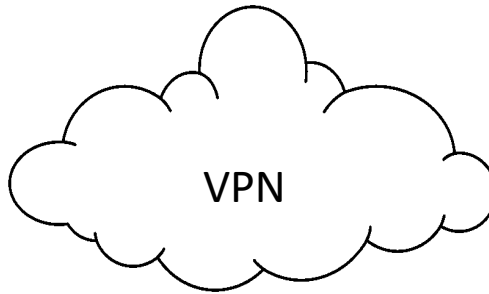
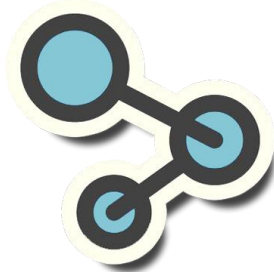
Participant Access Model



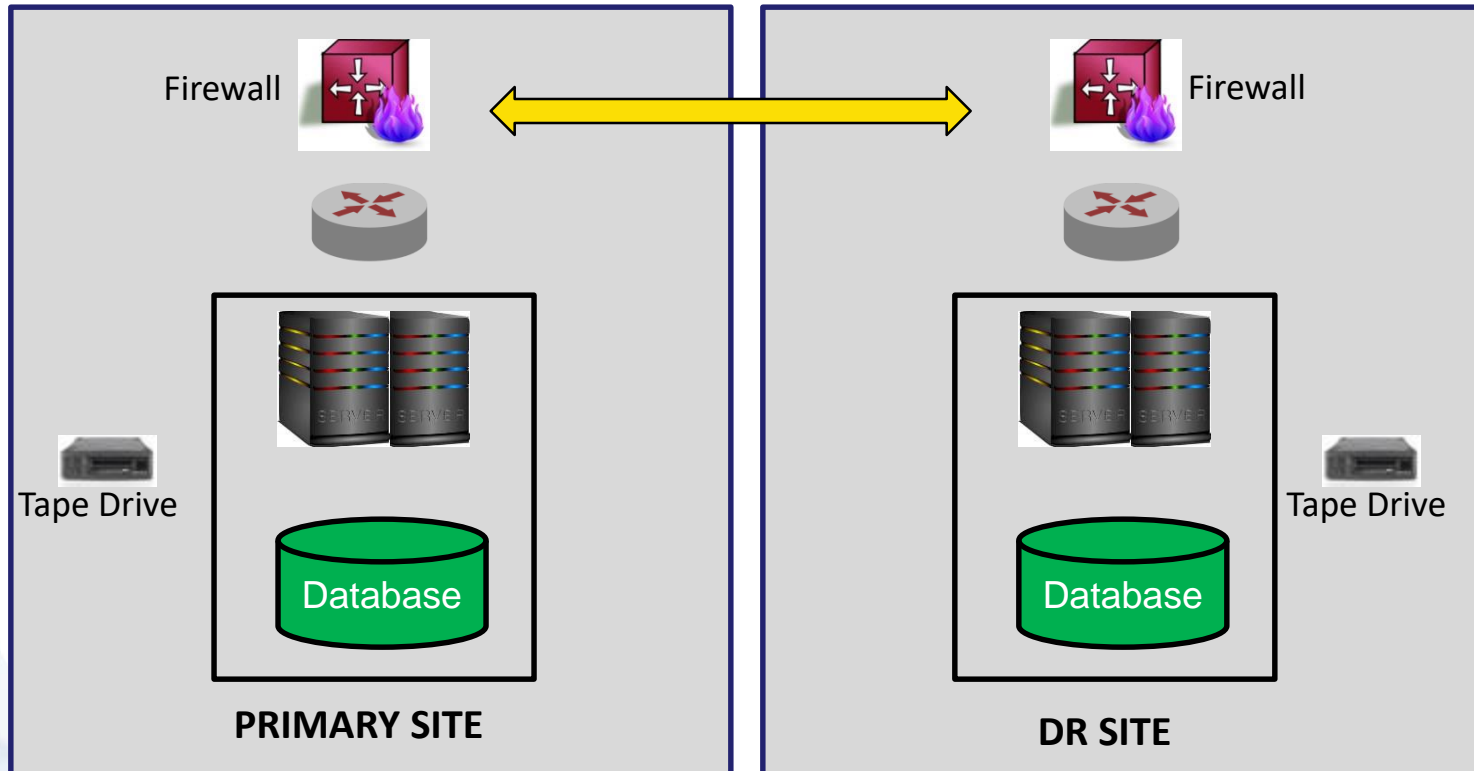
BSP PhilPaSS



PDS Gateway



Participants



System Requirements



HARDWARE

PC with the following minimum configuration:

- 1 dual core Intel/AMD CPU 64 bit
- 4 GB RAM
- 300 GB HDD
- 17 inch monitor
- SafeNet eToken 5100

SOFTWARE

- Internet Explorer, Firefox, Google Chrome (2 versions behind the latest current version are supported)
- Java Runtime Environment 8.0 (optional if digital signature is required in the web interface)
- SafeNet Authentication Client (for SSL client authentication using hardware tokens and digital signature)
- Adobe PDF Reader (for viewing PDF reports)