



TRUNG TÂM LƯU KÝ CHỨNG KHOÁN VIỆT NAM
VIETNAM SECURITIES DEPOSITORY



ASIA-PACIFIC CSD GROUP

ACG Networking week

Topic: E-Passbook project - Enhancing services for securities investor in vietnam

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1. Main features

Background:

- Depository member manage investor account for deposited balance of stocks
- VSD monitor deposited balance and undeposited balance of stocks
- VSD provide many services for market participants but not yet for investor directly
- Investor who has many depository accounts use apps from different securities company to check stock balance.

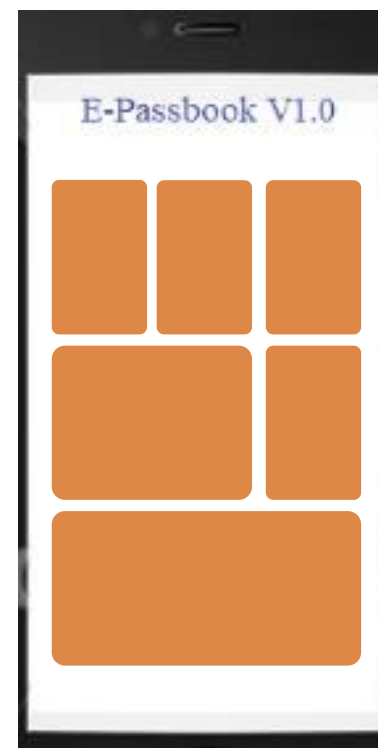
Market demand: A single application that supports investors to aggregate investors' securities balances (deposited and undeposited) → E-Passbook.



1. Main features

Phase 1: E-Passbook v1.0

- Information about stock balance and stock market value owned by investor:
 - + Deposit balance of stocks
 - + Undeposited balance of stocks
 - + The market value of holding stocks at market-closing price (receive market-closing price from stock exchanges in batch files and update at the end of trading session).
 - + Status of holding stocks (freely transferable balance, restricted-transfer balance, mortgaged/mortgaged balance, etc.).
- Information about exercising rights related to holding stocks:
 - + Information of the General Meeting of Shareholders / Collecting shareholders' opinions about company strategy (time, place, meeting documents, etc.)
 - + Information on dividend payment, stock options, bonus shares, stock swap rights (dividend rate, bonus share ratio, swap ratio, exercising price, exercise date, etc.).

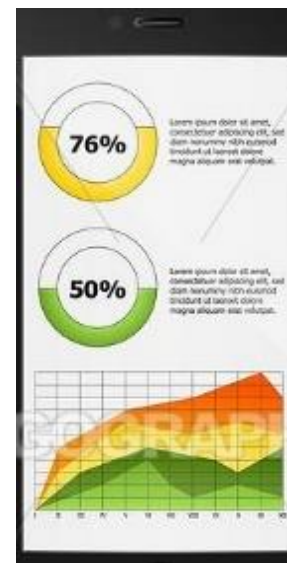


1. Main features

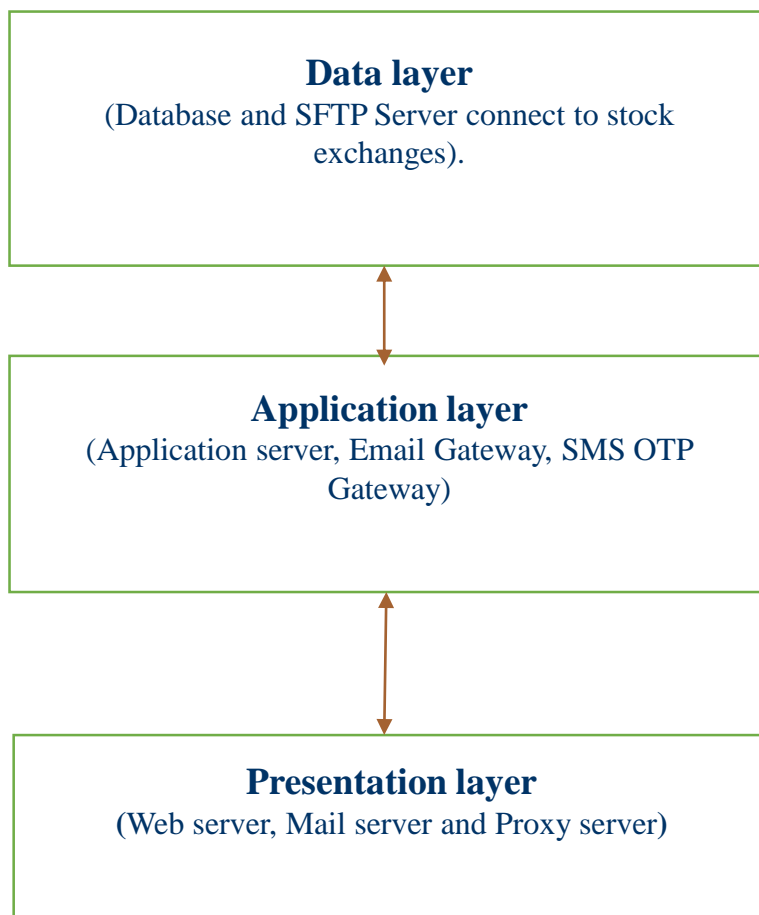
Phase 2: E-Passbook v2.0

- Additional stock market references:
 - + graphical description of stock portfolio value
 - + ratio of each stock in the portfolio
 - + trading history/stock balance changes

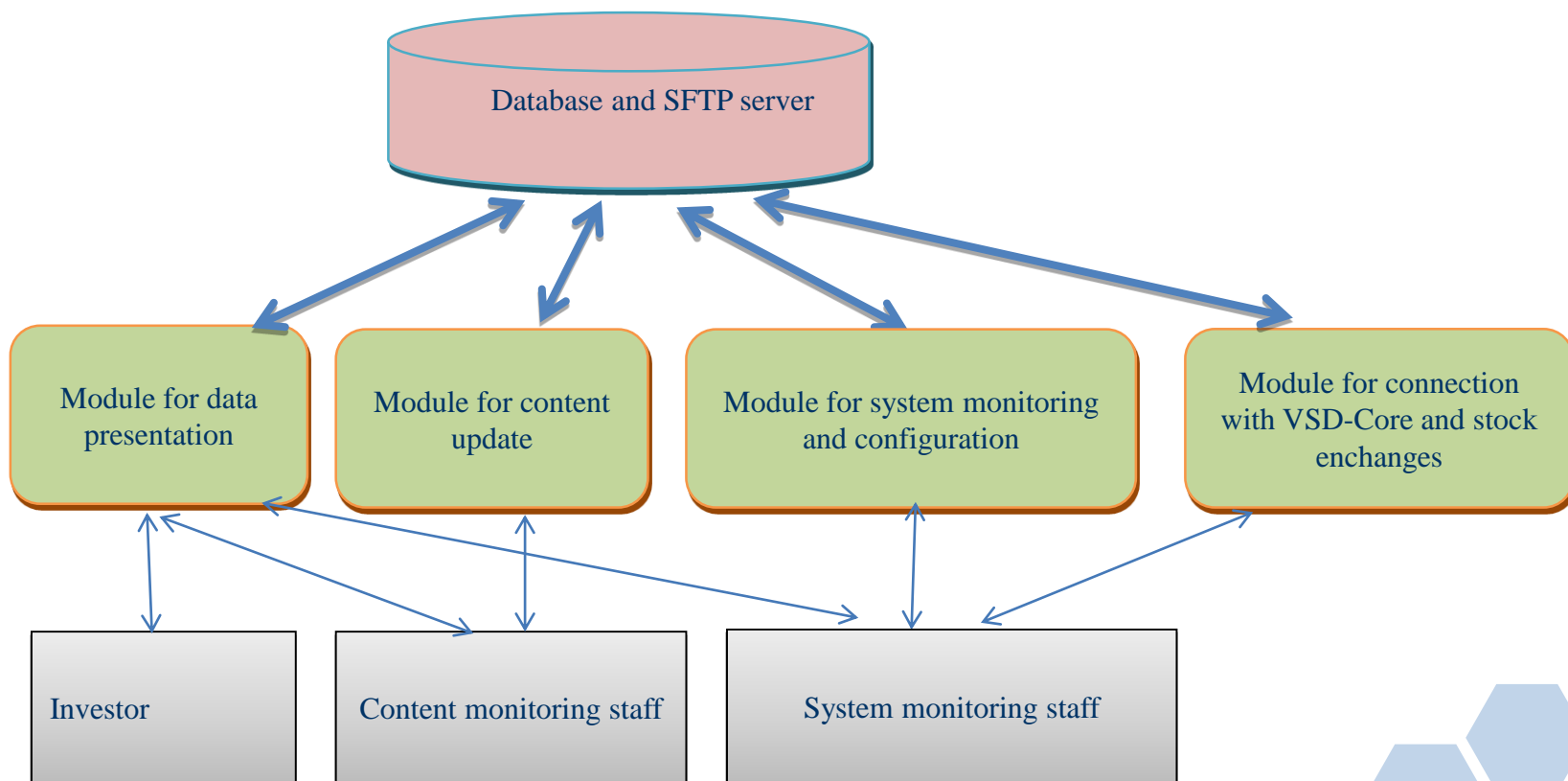
- Checking the possibility/feasibility to provide real time update on market value of the portfolio .



2. System design and connection model



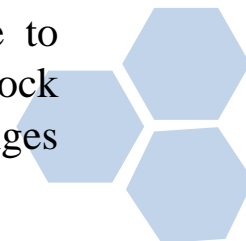
2. System design and connection model



2. System design and connection model

E-Passbook system is designed into 4 main modules in application layer including:

- Module for data presentation: This is the interface of the website displayed to the investors. This function will read the data in the database and display it.
- Module for content update: is a module that provides an interface for content administrators to perform operations in order to monitor content for the E-Passbook system.
- Module for system monitoring and configuration: is a module that provides an interface for administrators to monitor and administer the system, including functions such as creating and assigning user rights, parameter configuration, etc...
- Module for connection with VSD-Core and stock exchanges: is a module to communicate with VSD-Core system to get investor information and stock balance. This module is also responsible for communicate with stock exchanges to get market price of stocks (at the end of trading session or in real-time)



3. Principles of user registration and login

1. User registration:

- a) Investors fill *E-Passbook registration form* at one of Depository member, where investor opens trading account.
- b) Investors download VSD's E-Passbook App to their mobile phones and enter the registered mobile phone number in the username field.
- c) If the Investor has been approved by VSD to use the service, the Investor is required to agree to the Terms of Service, then is required to create a Password.
- d) If the investor has not been approved by VSD, the system will notify the investor, then ask the investor to re-register or exit the system.
- e) After password is created, E-Passbook system will send the OTP code to registered mobile phone number and ask the investor to enter this code to confirm the successful registration.

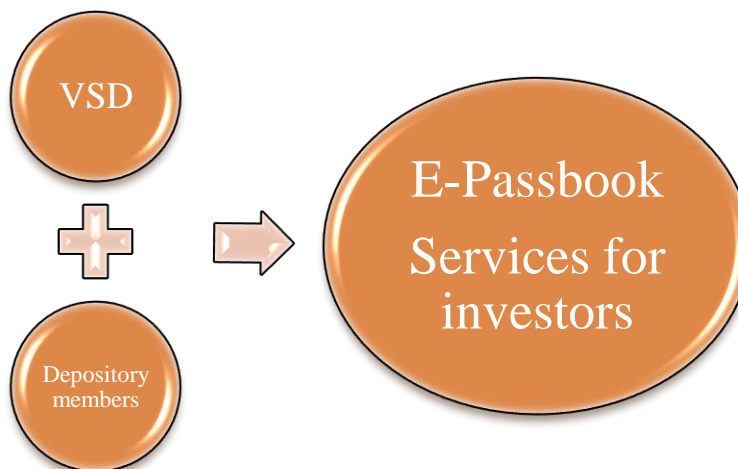
2. Secured Login Using:

- Username + Strong password
- Username + Biometrics (Fingerprint, FaceID)



4. Cooperation with Depository members

- Since VSD does not work directly with investors and does not have the resources to work directly with investors, as with other services, VSD will provide the E-Passbook service through its network of Depository members. In addition, because the activity of providing information on securities account balance has been performed by Depository members so far, it is very necessary to receive the cooperation of affiliates. VSD needs the commitment and support of the Depository members.
- Depository members receive E-Passbook registrations to use the services from investors and transfer to VSD.



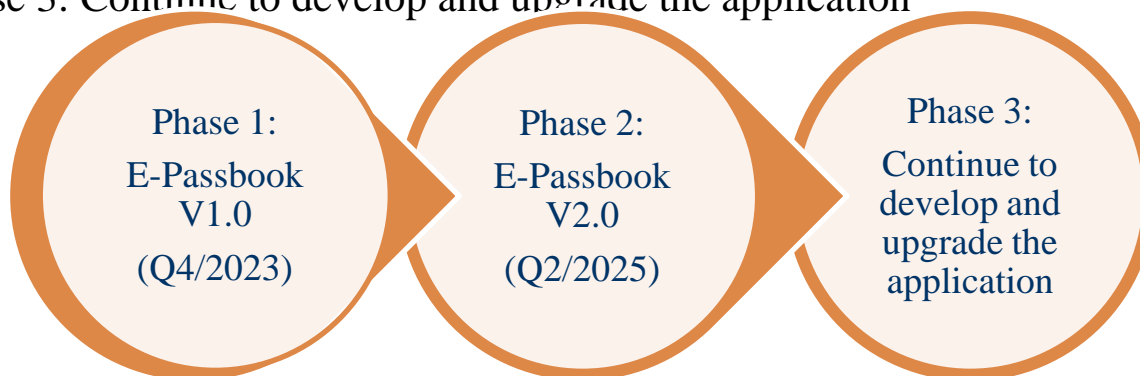
5. Service fee and roadmap

Service fee:

- At the beginning, VSD will provide E-Passbook service to investor for free
- VSD plans to take revenue from advertising and services provided to organizations on the E-Passbook platform to offset operating costs.

Roadmap:

- From now to the end of 2022: VSD will make feasibility study (technically and financially). Note: this project is depend on VSD's new core system, which is expected to go live in 2022.
- Phase 1: Q1-Q3/2023 Application development so that from Q4/2023 VSD can provide E-Passbook 1.0 to the market with the main features
- Phase 2: In 2024-2025, VSD will research and upgrade to E-passbook 2.0 from the 2nd quarter of 2025.
- Phase 3: Continue to develop and upgrade the application



6. Some issues to ask for your comment or experiences

1. Which shall be the ideal username for registration/login?:
 - Personal ID?
 - Mobile Number?
 - Other?
2. Is it possible and necessary to update market value of investor's portfolio real time? or EOD update is good enough?
3. Shall E-passbook be a free service or how can we generate fees from this service?





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Thank you