SSC Department of IT – Org structure

```
                    ┌─────────────┐
                    │ Dept. Board │
                    └──────┬──────┘
                           │
              ┌────────────┴─────┐
      ┌───────────────┐         │
      │ General Affairs│        │
      │     Div.       │        │
      └───────┬────────┘        │
              │                 │
   ┌──────────┼─────────────────┼──────────────┐
┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│  Database    │  │ Information  │  │ Application  │
│ Management & │  │  Security    │  │ Development  │
│ Statistics   │  │ Management   │  │    Div.      │
│   Div.       │  │    Div.      │  │              │
└──────────────┘  └──────────────┘  └──────────────┘
```
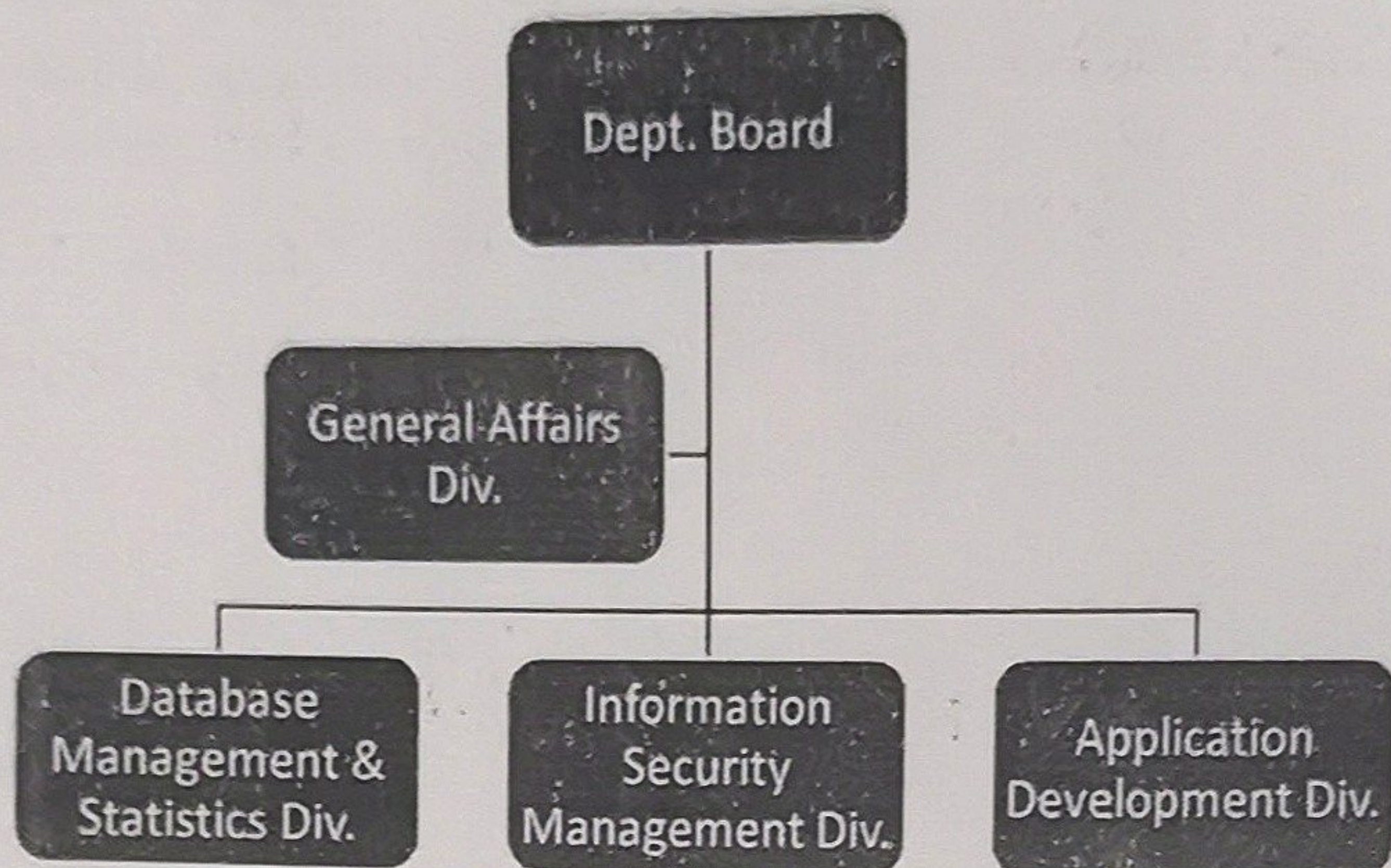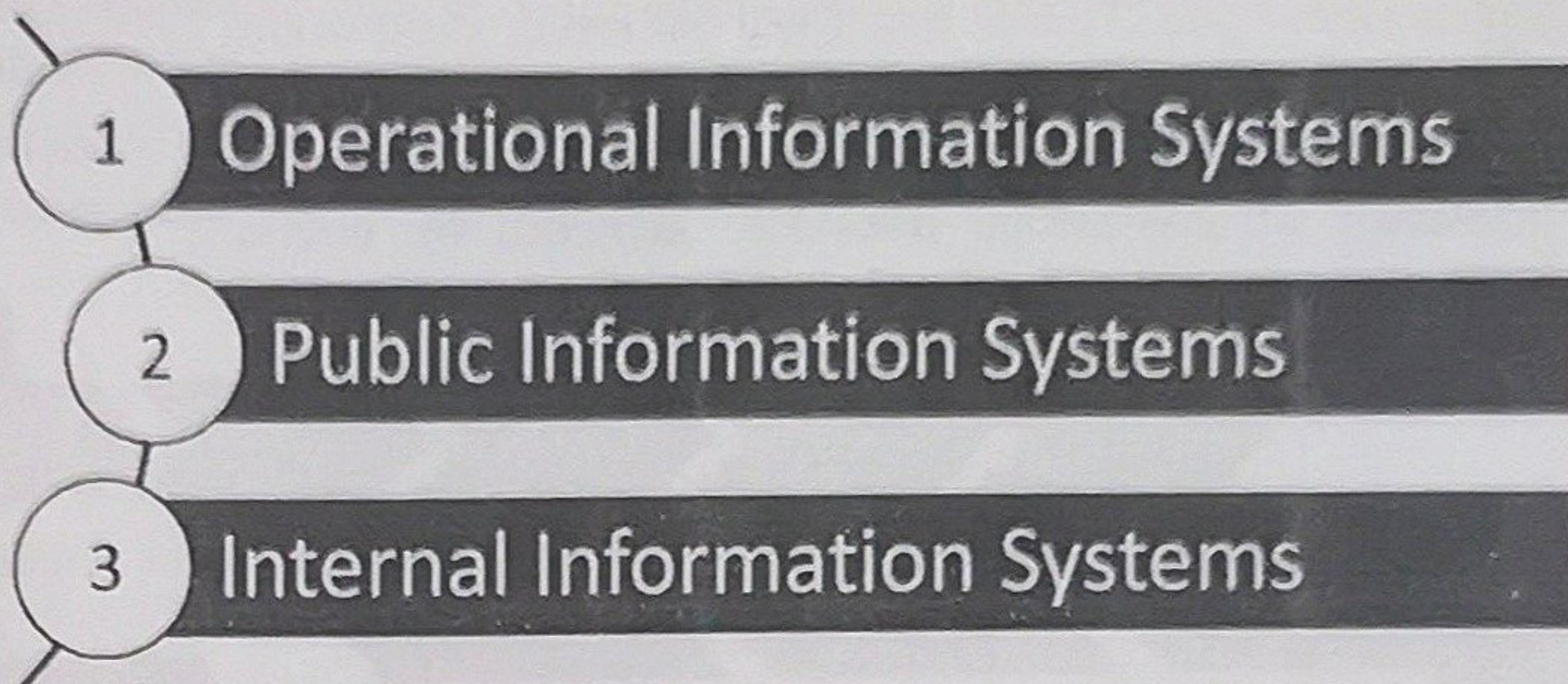
SSC Department of IT – at a glance

Mid-term plans: Software   DB   IT infrastructure   InfoSec   HR   ...

Annual plans   ...

1996 → **2009** → **2011**

- **1996** — Founded as Informatics and Statistics Division under SSC
- **2009** — Become Department of Information Technology, Own legal status & Stamp
- **2011** — Start rolling out IT Systems to manage a variety of participants on the securities market

SSC
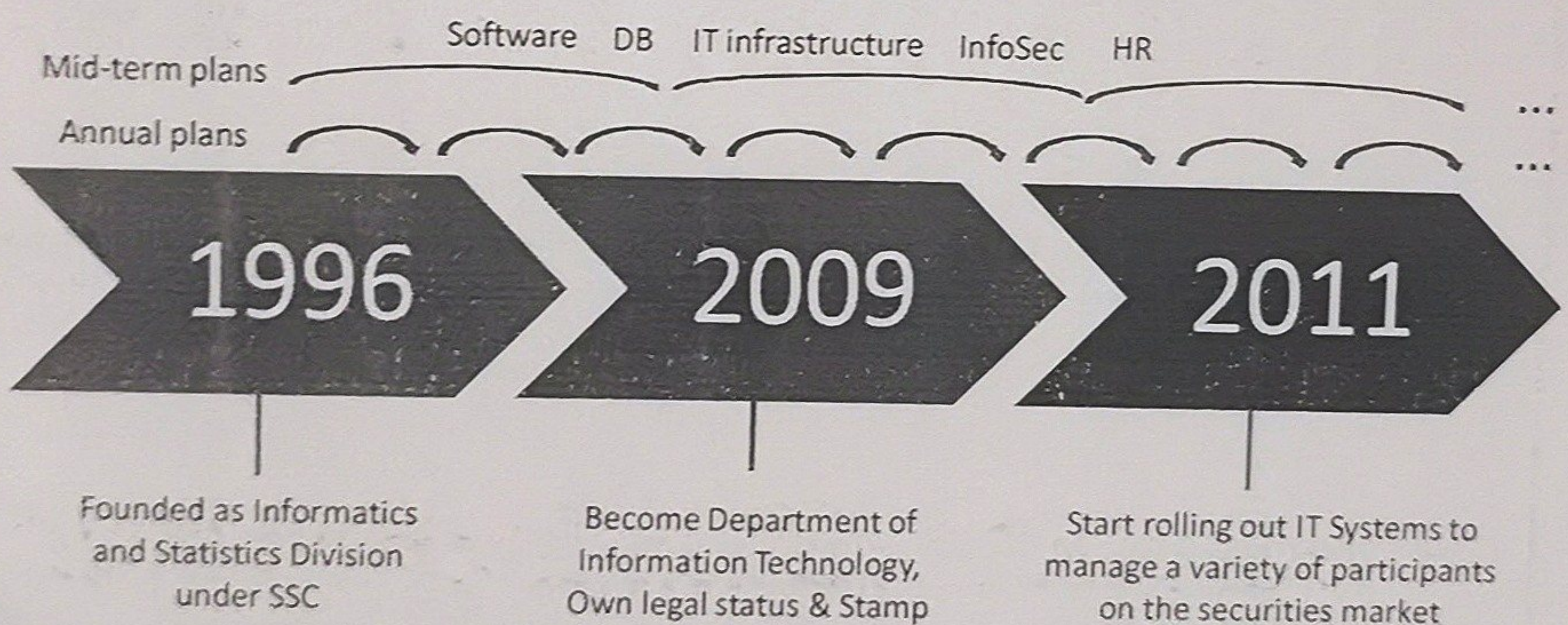
Information Systems

1. Operational Information Systems
2. Public Information Systems
3. Internal Information Systems

SSC

1. Operational Information Systems

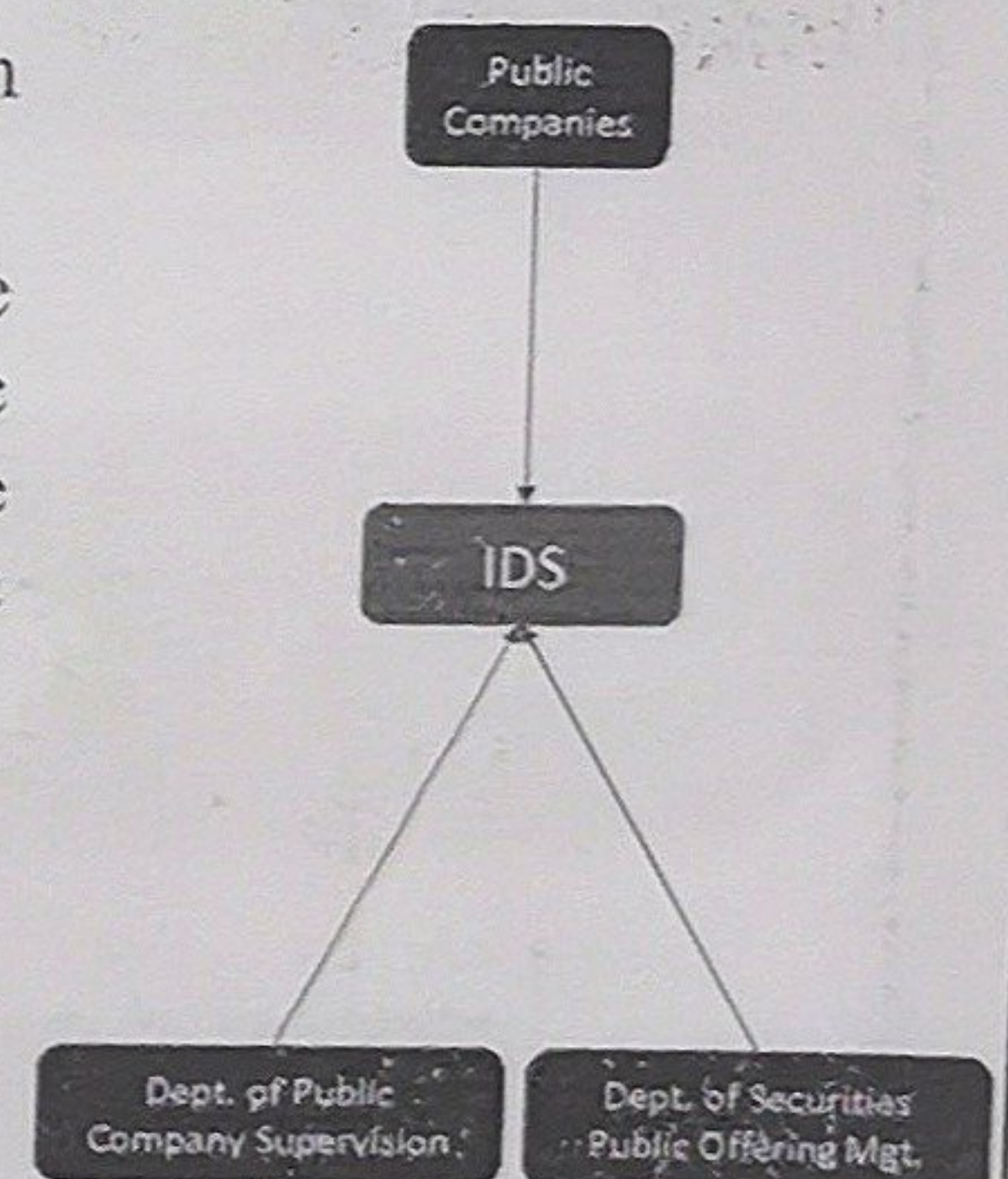|							
Market Participants	General Audience, Investors, Organizations	Public Companies	Securities Companies	Fund Mngrs., Securities Investment Funds	Depository Banks	Foreign Investors	HNX/HOSE/VSDC
Operational Info Systems	Portal — IDS — SCMS — SBMS — FMS — FIMS — SIDS — MSS						
SSC	Office of SSC	Dept. of Public Company Supervision	Dept. of Securities Public Offering Mgt.	Dept. of Securities Business Mgt.	Dept. of Fund Mngrs. and Securities Investment Funds Mgt.	The Inspectorate	Dept. of Securities Market Surveillance

SSC Information Disclosure System (IDS)

- Public Companies: Tool to report and disclosure information to SSC in accordance with the regulation.
- SSC: Aggregate statistics, automate calculation of the compliance of information disclosure activities by public companies, generate reports and statistics that accommodate SSC's managing and surveillance function on public companies' information disclosure.

2012	2017	2019
First Launched	1st Update	2nd Update

Public Companies → IDS

Dept. of Public Company Supervision — Dept. of Securities Public Offering Mgt.

>2,000	~58,000
Public Companies	Reports & Info Disclosures annually

Public Companies → IDS

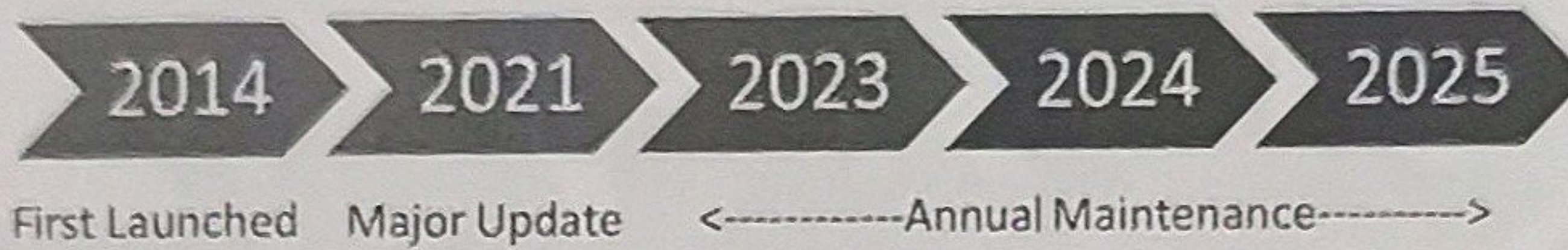Dept. of Public Company Supervision — Dept. of Securities Public Offering Mgt.

SSC — Securities Company Management System (SCMS)

- Securities Companies: Tool to report and disclosure information to SSC in accordance with the regulation.
- SSC: Database of the profile, information and operational activities of securities companies.

2014	2021	2023	2024	2025
First Launched	Major Update	<-----------Annual Maintenance---------->		

Securities Companies → SCMS → Dept. of Securities Business Mgt.

SSC — Securities Company Management System (SCMS)

- Securities Companies: Tool to report and disclosure information to SSC in accordance with the regulation.
- SSC: Database of the profile, information and operational activities of securities companies.

| 80	~30,000	~4,000
Securities Companies	Reports annually	Info Disclosures annually

Securities Companies → SCMS → Dept. of Securities Business Mgt.

SSC

Securities Broker Management System (SBMS)

- Manages broker profiles, as well as the issuance of the securities brokerage certificates on VN securities market.
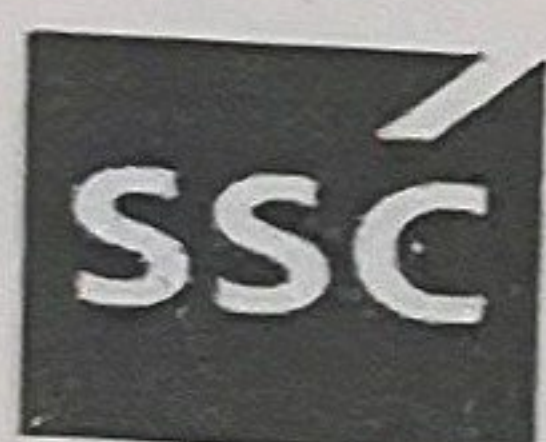
SBMS

Office of SSC | Dept. of Securities Business Mgt. | Dept. of Fund Mngrs. and Securities Investment Funds Mgt.
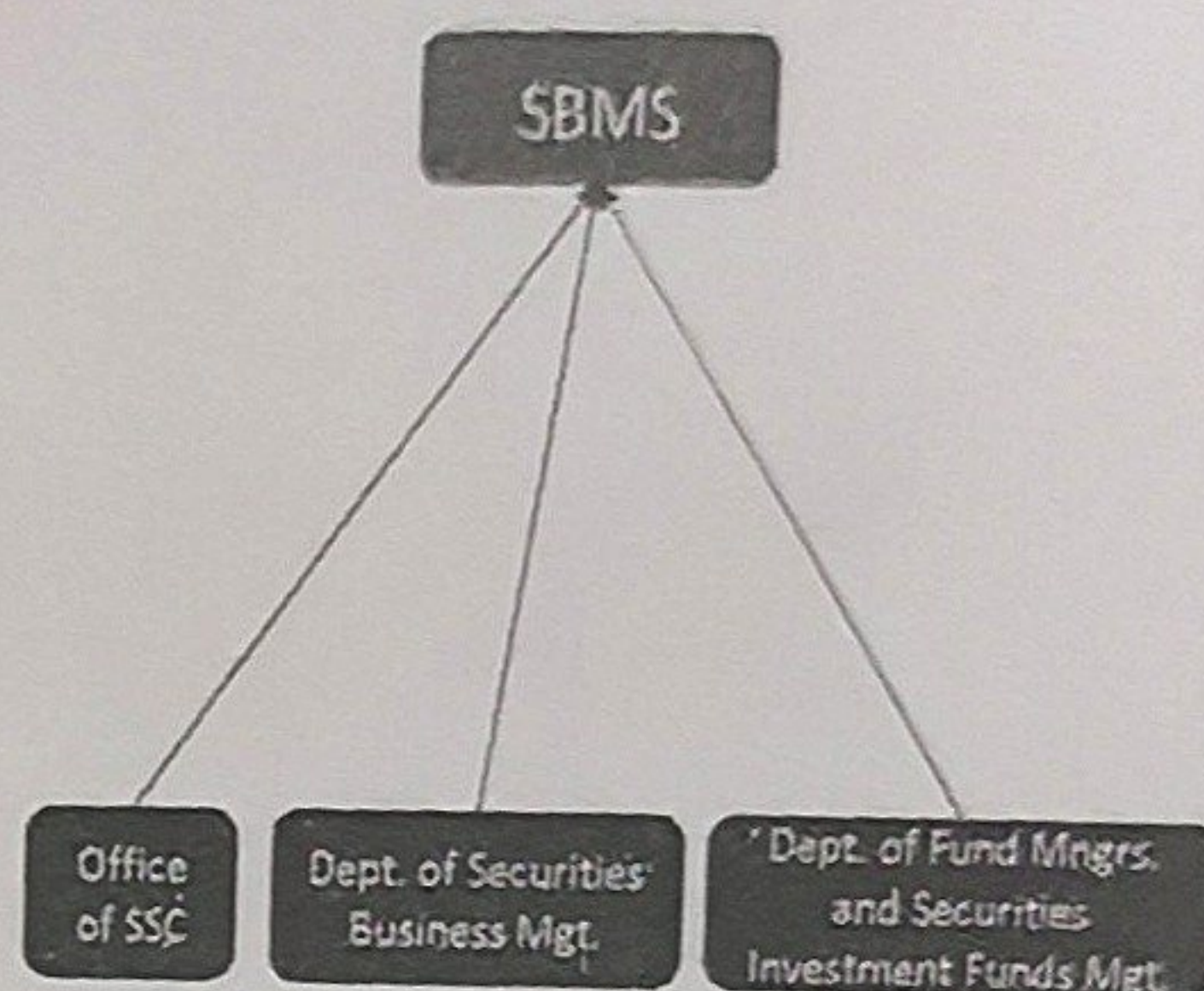
2015
First Launched

2020
Maintenance

2021
Maintenance

SSC

Securities Broker Management System (SBMS)

- Manages the broker profiles, as well as the issuance of the securities brokerage certificates on VN securities market.

SBMS

Office of SSC | Dept. of Securities Business Mgt. | Dept. of Fund Mngrs. and Securities Investment Funds Mgt.

13,336
Issued certificates

11,515
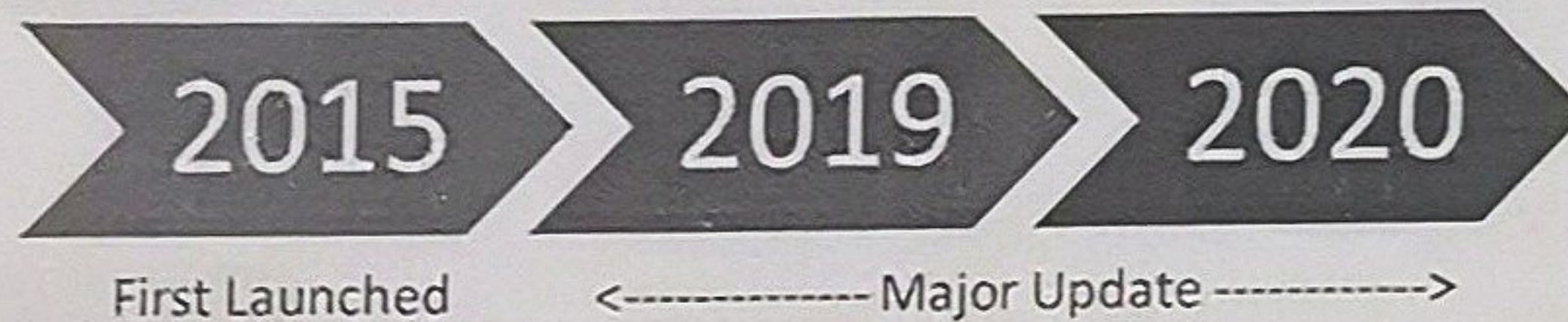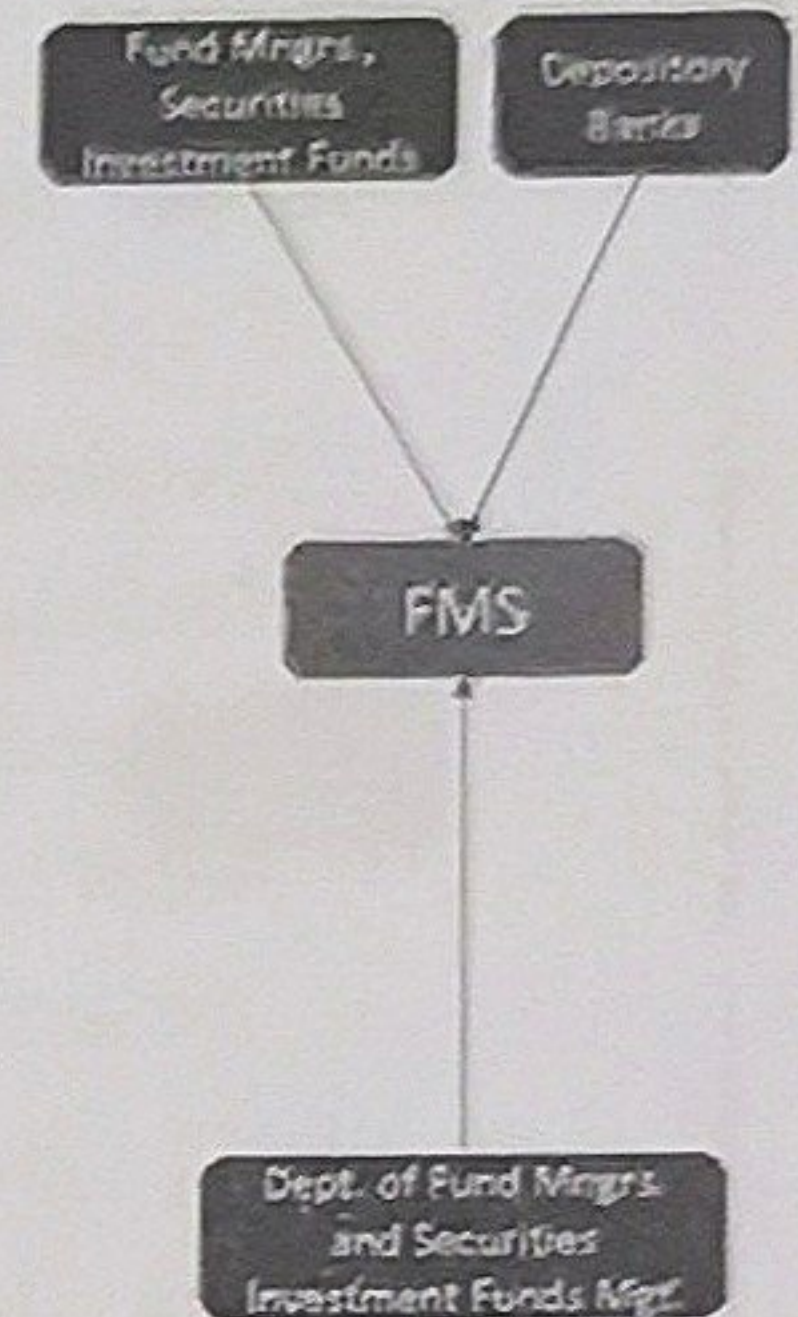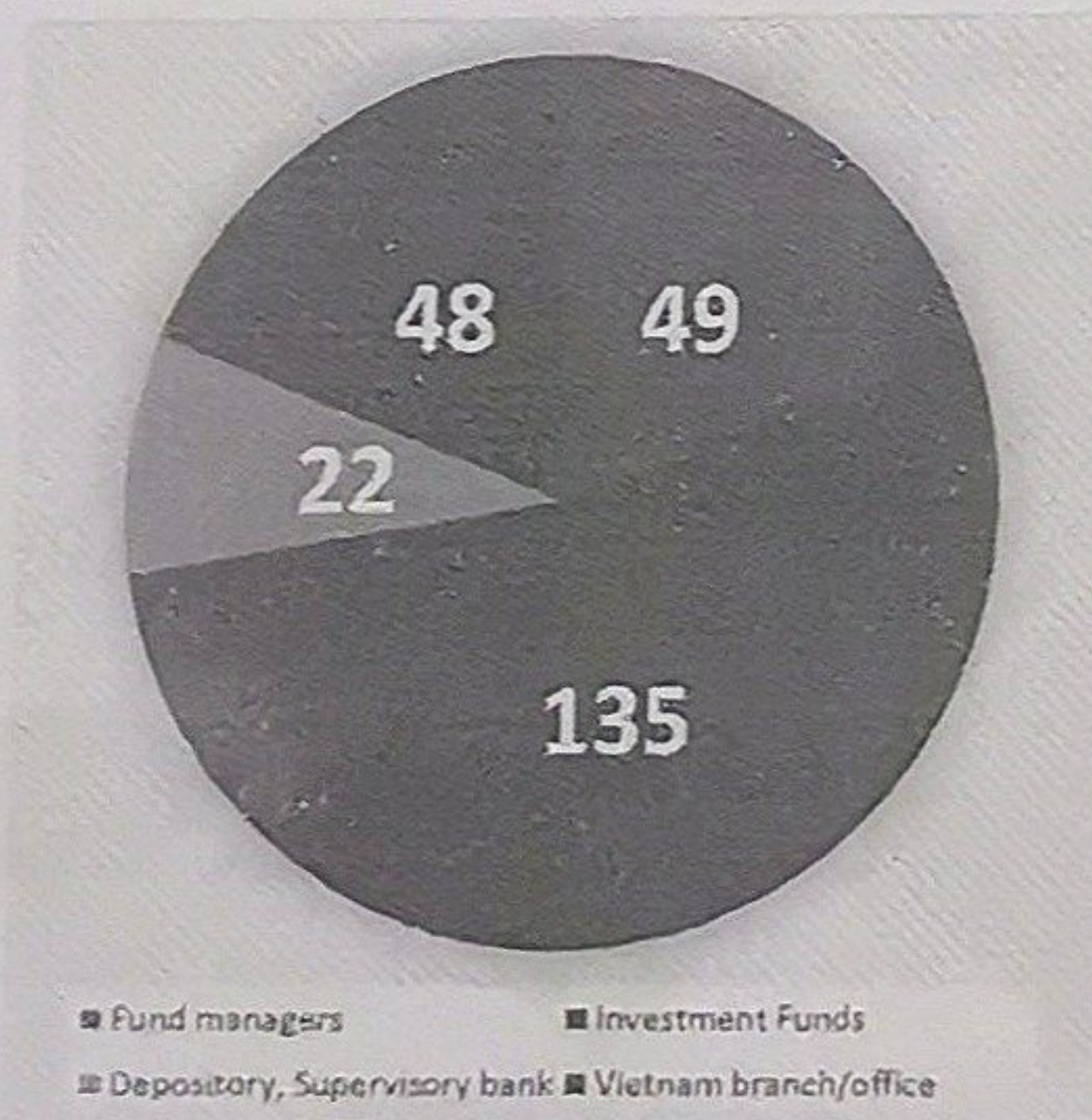Verified profiles against the National DB of Residents

Slide 1

SSC
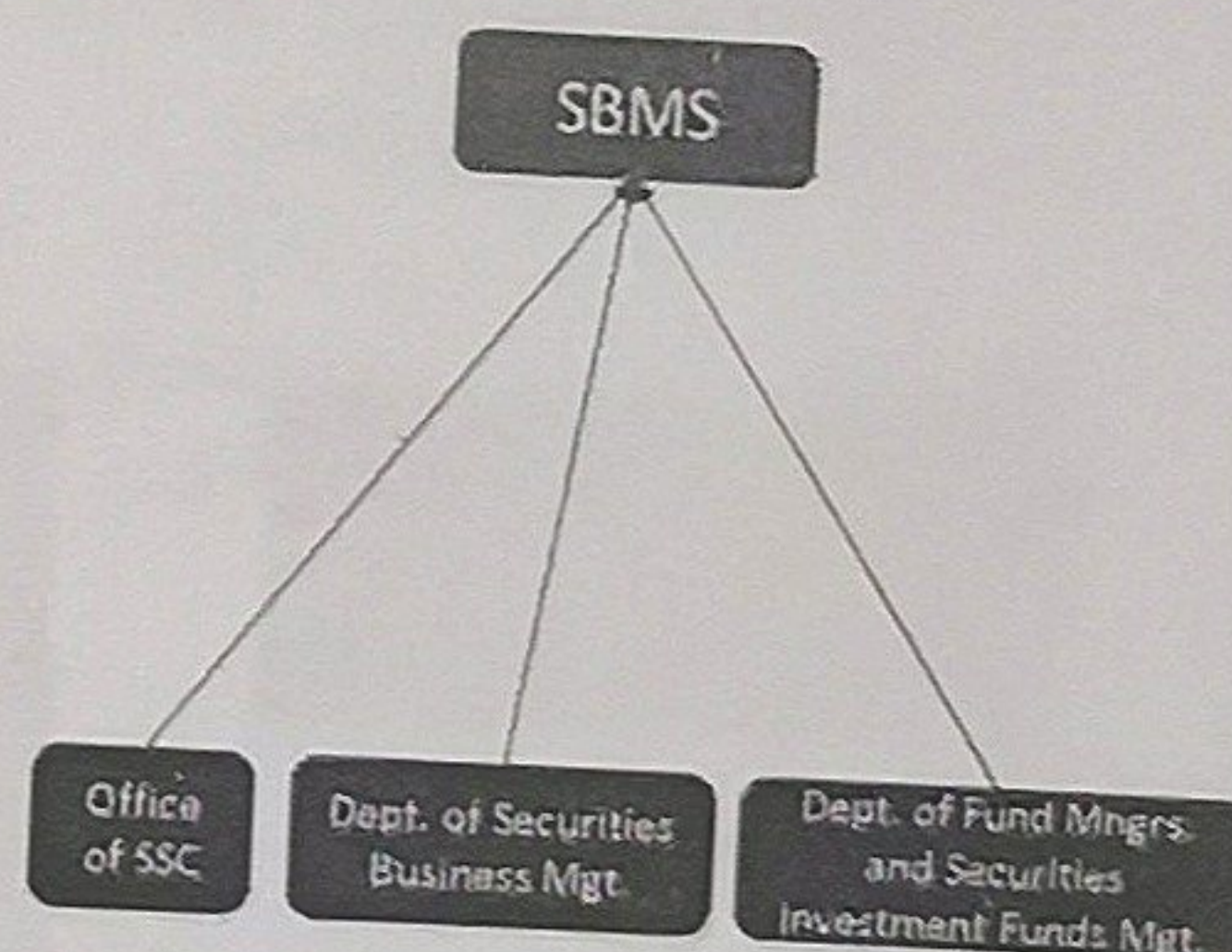
Fund Management System (FMS)

- Collect, process, store data from Fund managers, Investment funds, Supervisory, Depository banks, Vietnam branch/office of Foreign fund managers
- Aggregate statistics, generate reports adhering to the managing and surveillance functions of SSC

2015 > **2019** > **2020**

First Launched   <----------- Major Update ----------->

Fund Mngrs, Securities Investment Funds → FMS ← Depository Banks

Dept. of Fund Mngrs. and Securities Investment Funds Mgt.

Slide 2

SSC

Fund Management System (FMS)

48   49
22
135

- Fund managers
- Investment Funds
- Depository, Supervisory bank
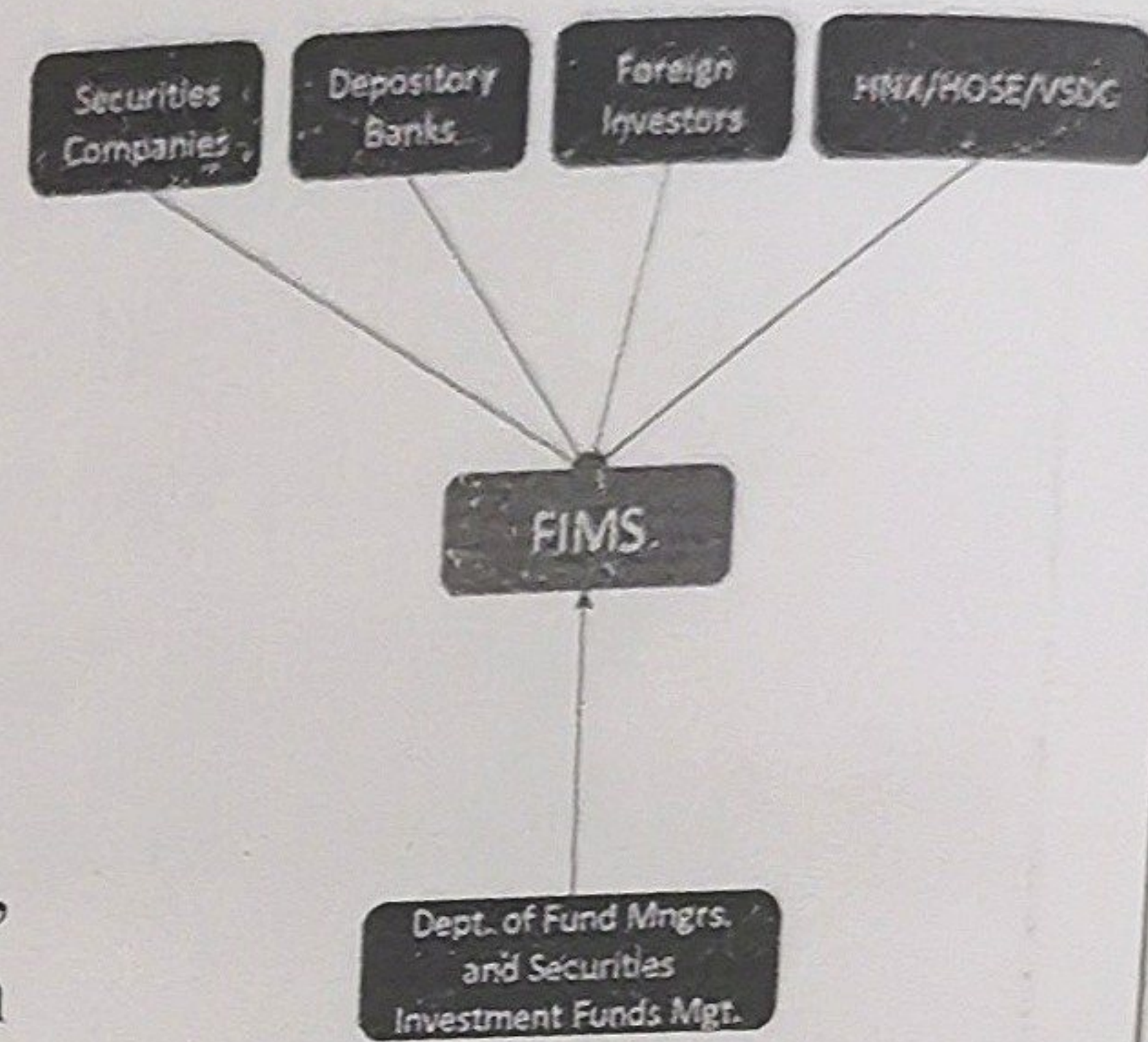- Vietnam branch/office

Annual Reports
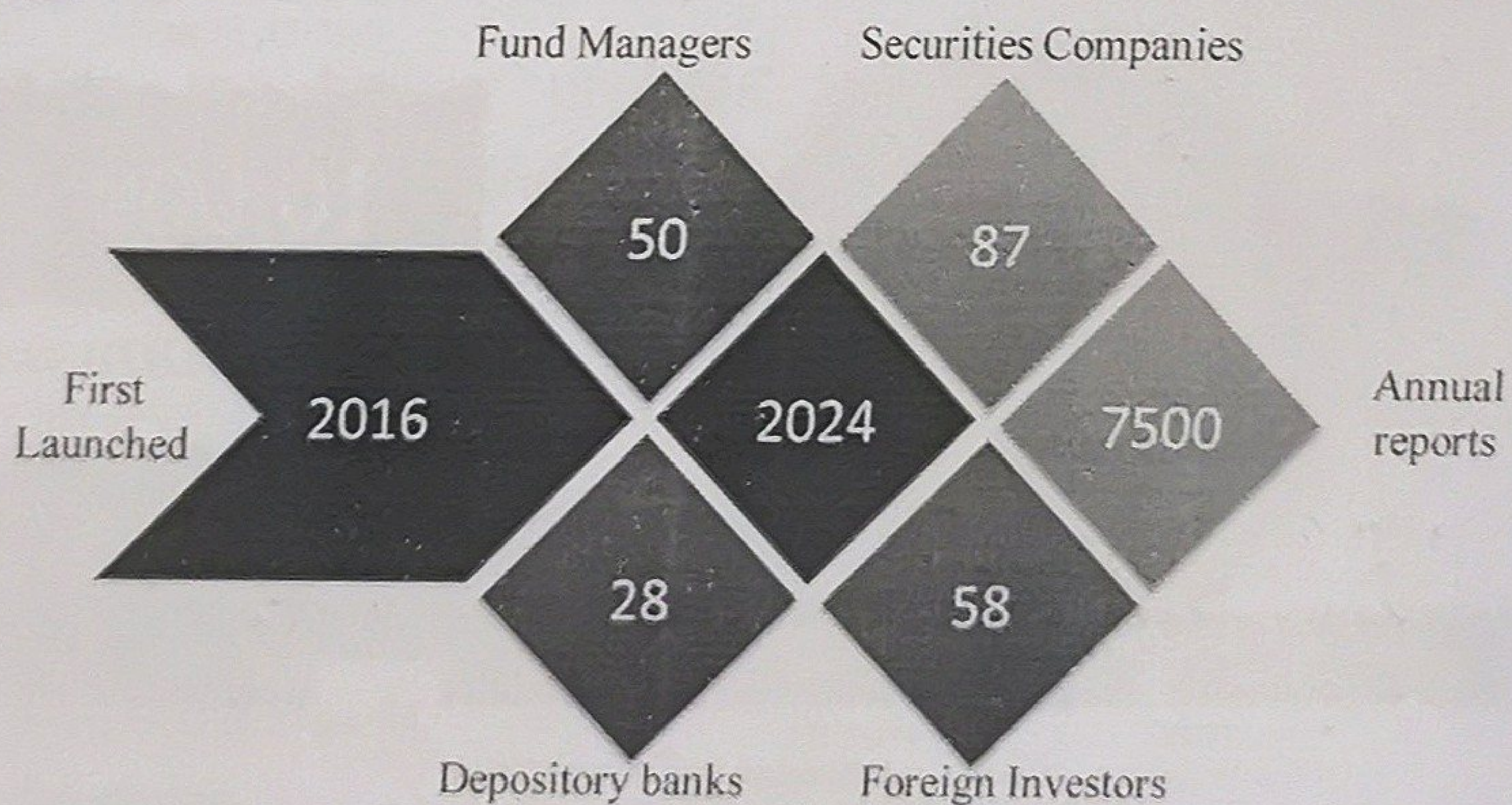
10,000

11,515

Annual Info Disclosures

Foreign Investors Management System (FIMS)

- Receive, store, and process reports related to foreign investors including:
  - Trader ID,
  - Detailed info,
  - Trading activities,
  - Deposited securities list,
  - Asset mgt. & Investment activities
  - Investment portfolio
- SSC: Query, generate analytical reports, assess investment activities of Foreign investors

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Foreign Investors Management System (FIMS)

First Launched — 2016

Fund Managers: 50

Securities Companies: 87

2024

Annual reports: 7500

Depository banks: 28

Foreign Investors: 58

Securities Inspection Database System (SIDS)

- Launched in 2016, maintenance in 2021
- Manage:
  - Inspection documents
  - Complaints settlement documents
  - Denunciation and violation sanctioning documents

SIDS

The Inspectorate

Market Surveillance System (MSS)

- Collect trading data and reports from Securities Exchanges (HNX, HOSE), Vietnam Securities Depository and Clearing Corporation over secured connection of MOF to facilitate the securities market surveillance functions of SSC

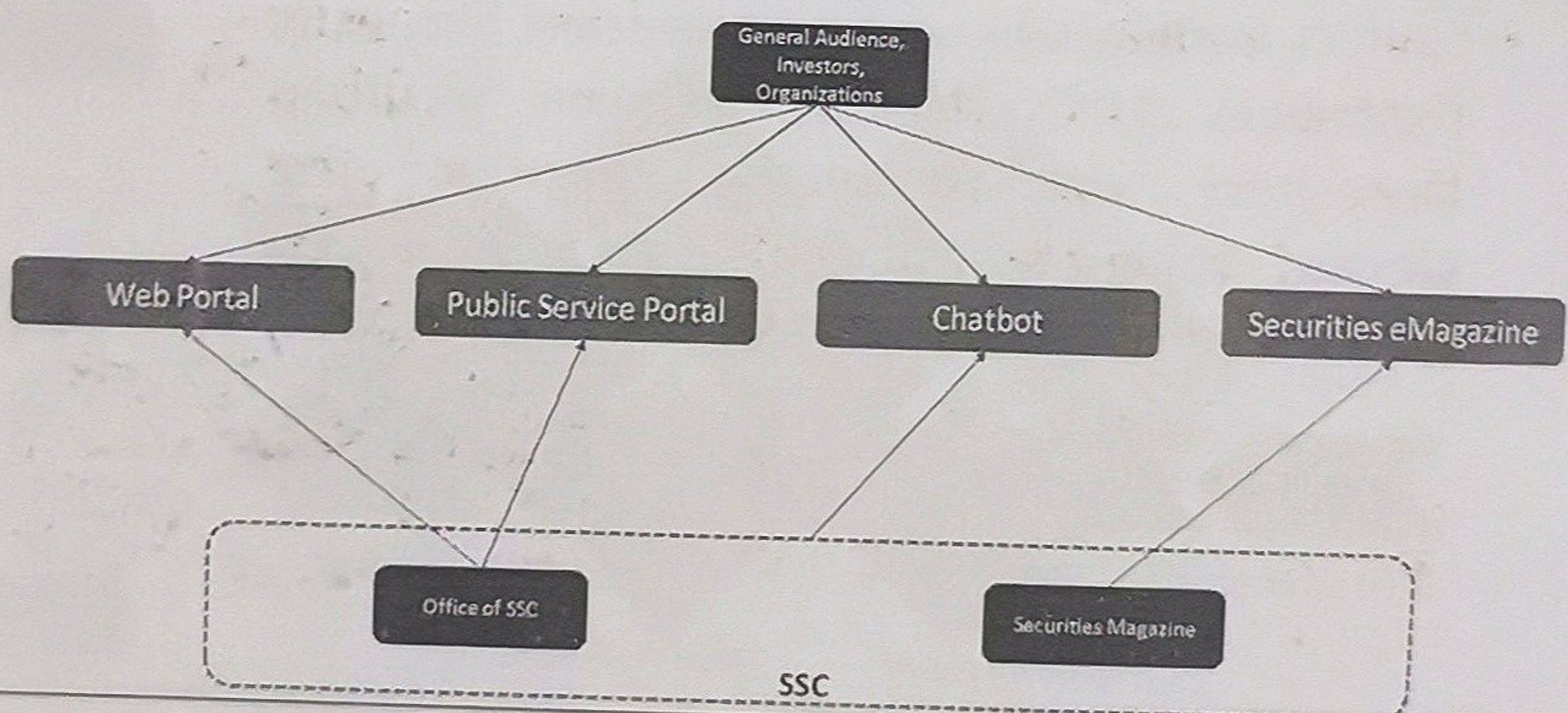| 2012 | 2016 | 2019 | 2020 | 2021 |
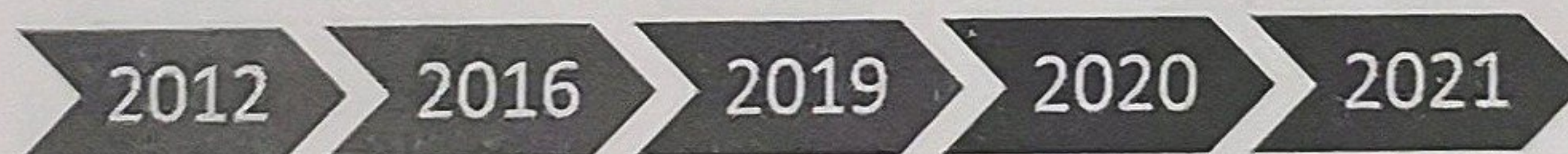
First Launched <------- Major Updates ------>   <-----Annual Maintenance--->

HNX/HOSE/VSDC

MSS

Dept. of Securities Market Surveillance

Information Systems

SSC

1. Operational Information Systems

2. Public Information Systems

3. Internal Information Systems

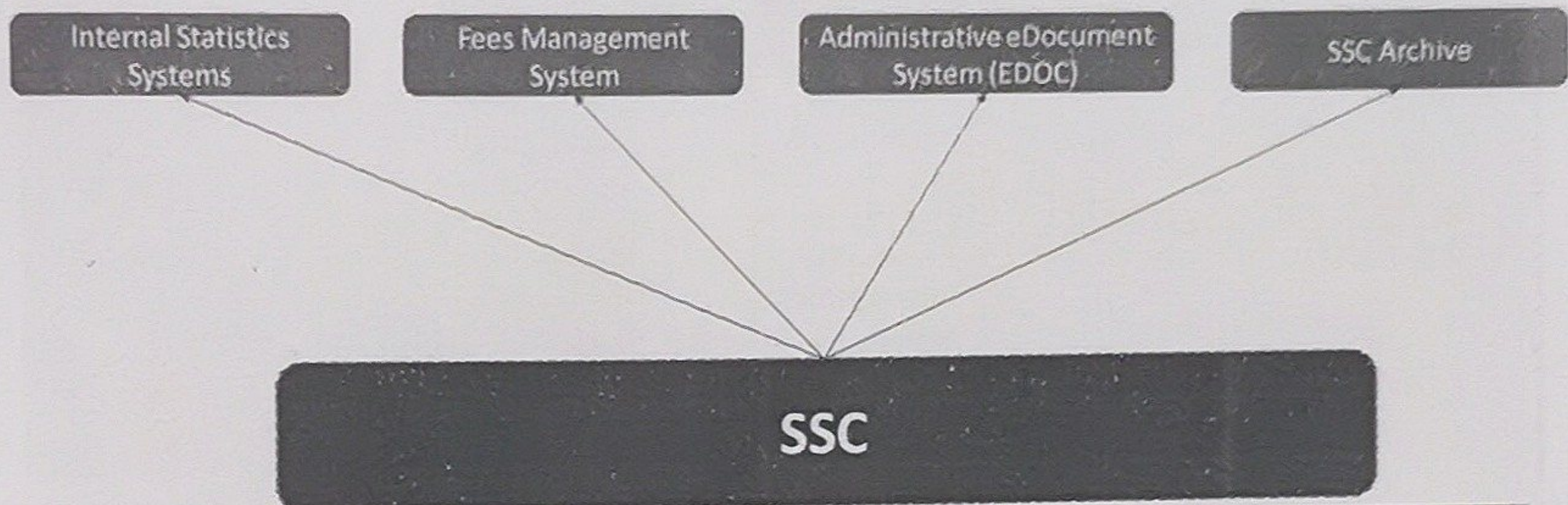## 2. Public Information Systems

SSC

General Audience, Investors, Organizations

Web Portal   Public Service Portal   Chatbot   Securities eMagazine

Office of SSC   Securities Magazine

SSC

3. Internal Information Systems

SSC

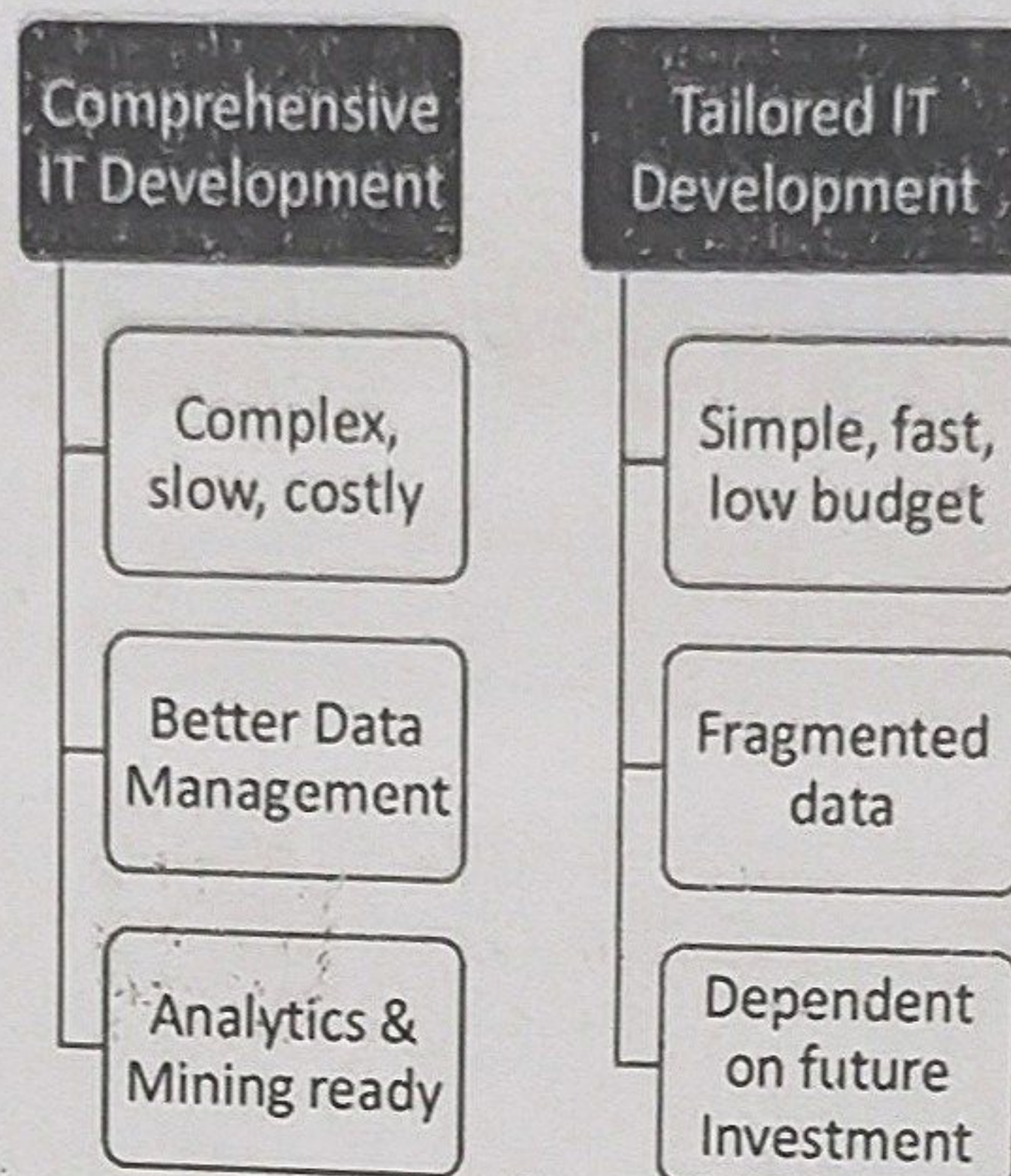| Internal Statistics Systems	Fees Management System	Administrative eDocument System (EDOC)	SSC Archive

SSC

Take Away

SSC

- The Information Systems used at SSC over the years have played a significant role in helping SSC achieved its functions by increasing the efficiency, accuracy, promptness, and transparency in securities regulatory operations.

Info Disclosure from Orgs

>95% Digitalized

Report Published on Portal

Level 3 Public Service

SSC

Comprehensive IT Development	Tailored IT Development
Complex, slow, costly	Simple, fast, low budget
Better Data Management	Fragmented data
Analytics & Mining ready	Dependent on future Investment

SSC State Securities Commission of Vietnam

IT INFRASTRUCTURE

Hanoi, 24/9/2024

Overall Architecture

Market participants

Network Infrastructure

Switch Core

Switch Management

Switch Server

Server

SAN Switch

Storage

Uplink 10Gbps
Fibre Channel 32Gbps
MGMT 1Gbps
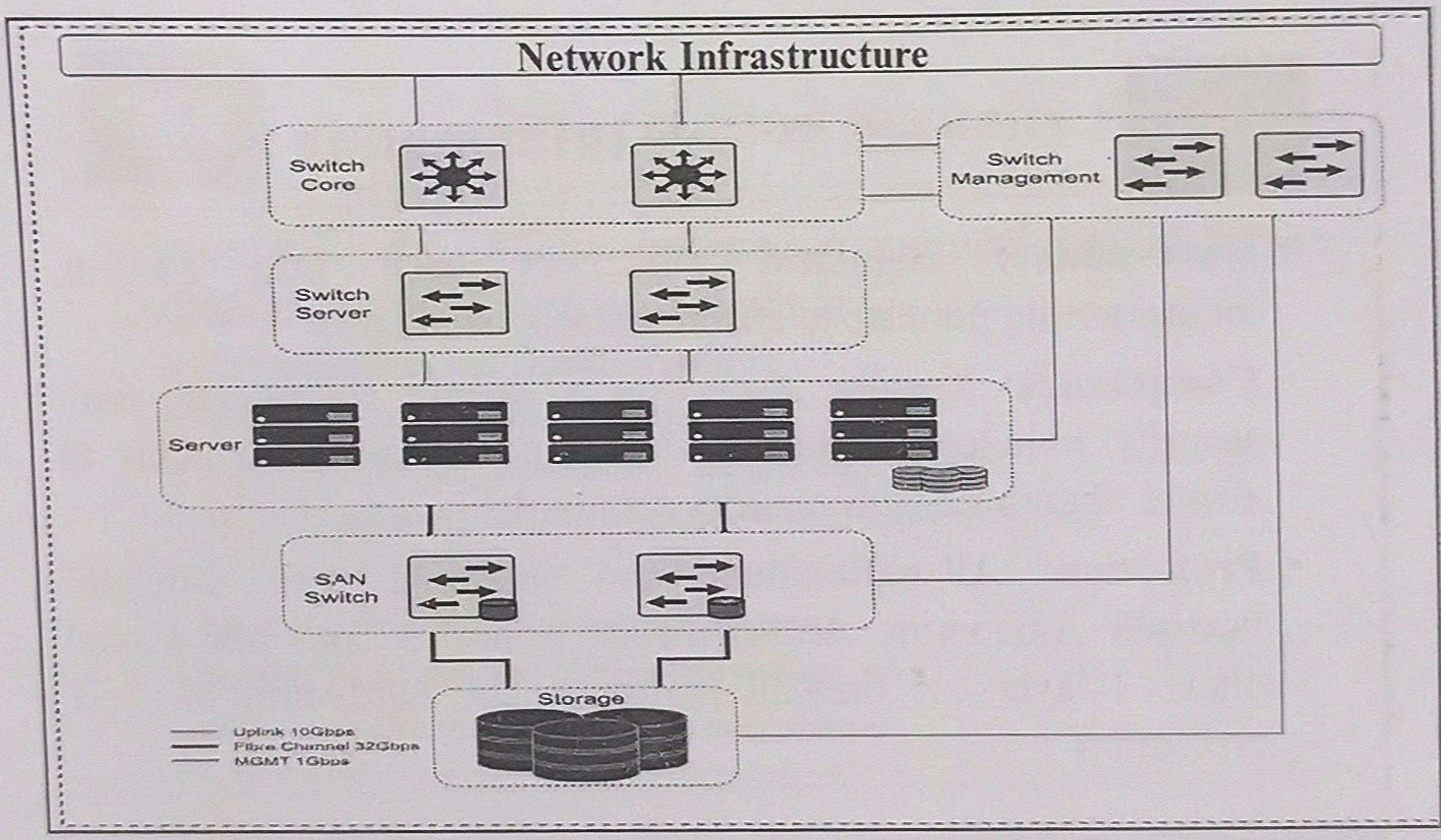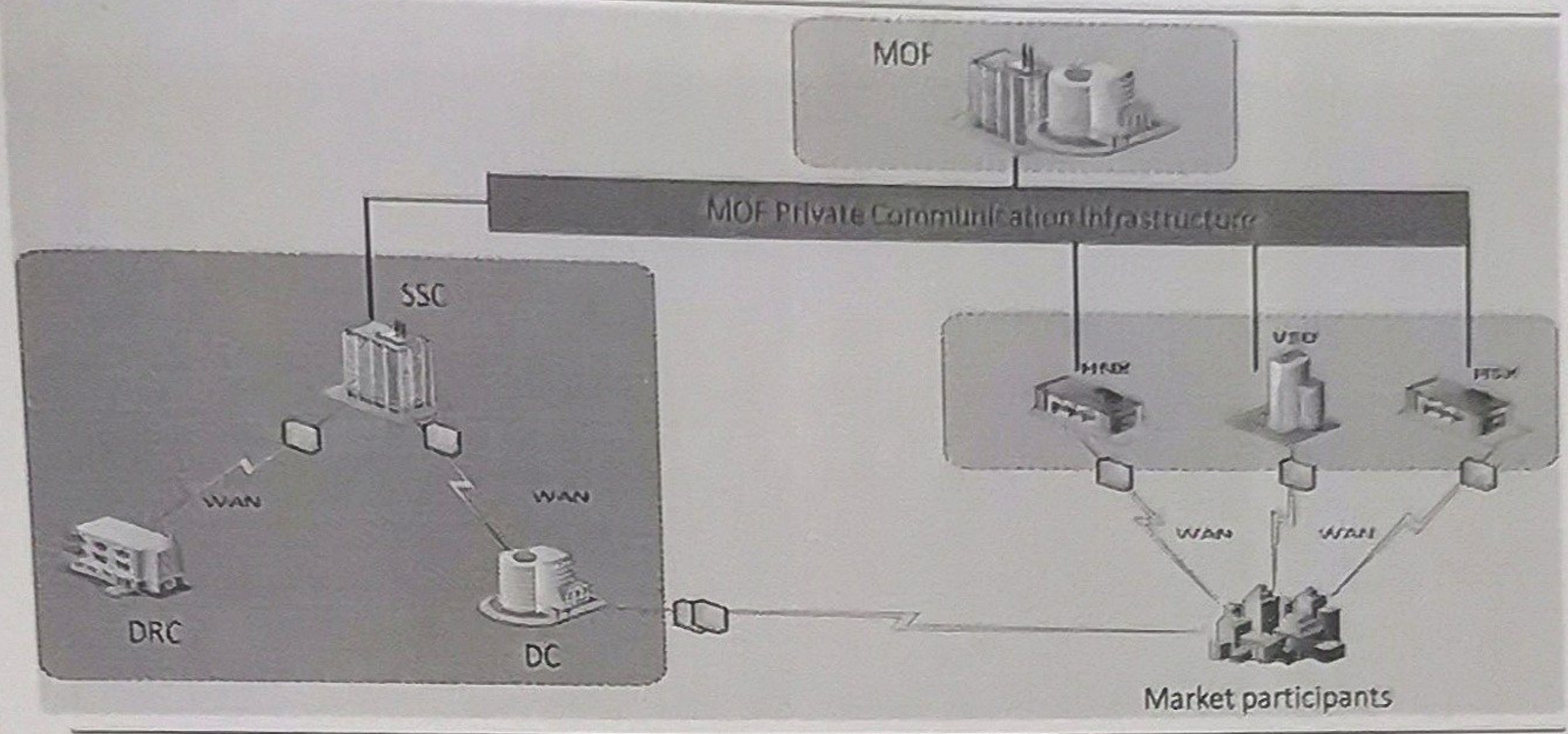
SSC State Securities
Commission
of Vietnam

INFORMATION SECURITY

Hanoi, 24/9/2024

SSC

Information Security

- **Governance**: Regulated SOP per each Info System, incorporating policies to ensure security standards

- **Compliance**: Regular inspection to ensure compliance with security policies. Regular reviews and update to policies to ensure alignment with security standards

- **Protection:** All equipments are equipped with officially licensed Anti-virus, Anti-malware solutions, and are placed under 2 layers of firewall (software and hardware) for best protection

SSC **Information Security Solutions**

- Since 2012, the SSC has invested in and deployed 15 InfoSec solutions for its IT system, including:
  - Anti-spam and antivirus systems;
  - Email protection systems;
  - Integrated firewall systems;
  - DDoS prevention systems;
  - Privileged password management systems;
  - Database security and monitoring systems;
  - Patch management systems;

SSC **Information Security Solutions**

- Since 2012, the SSC has invested in and deployed 15 InfoSec solutions for its IT system, including:
  - Core network firewall protection systems;
  - Web content access control systems;
  - SIEM log collection, management, and analysis systems;
  - Web application firewalls to protect web-based applications;
  - APT (Advanced Persistent Threat) detection systems;
  - Firewall policy change management systems;
  - Security threat detection and analysis systems;
  - APT for datafile monitoring and security systems.

SSC State Securities
Commission
of Vietnam

MAINTENANCE OF SOFTWARE & HARDWARE

Hanoi, 24/9/2024

SSC Software & Hardware Maintenance

- The maintenance of hardware and software for the IT system at the SSC strictly follows the legal regulations on managing public IT investment projects. Specifically, Article 40 of Decree 73/2019/ND-CP, which regulates the management of IT investment using state budget funds, as amended and supplemented in Clause 26, Article 1 of Decree 82/2024/ND-CP, stipulates:

SSC   Software & Hardware Maintenance

- The project's products must be managed, operated, and maintained regularly and continuously immediately after handover and launch.

SSC   Software & Hardware Maintenance

- **The SSC is responsible for:**
  - Organizing the management, operation, and maintenance of the project's products;
  - Determining the costs for management, operation, and maintenance by preparing cost estimates or based on quotations from service providers;
  - Being legally responsible for the deterioration or malfunction of the project's products due to failure to manage, operate, or maintain them as required;
  - Submitting to authorities for approval, balancing, and allocating funds for the management, operation, and maintenance of the project's products;
  - Performing other responsibilities and obligations as stipulated by the law on public asset management and other relevant laws.