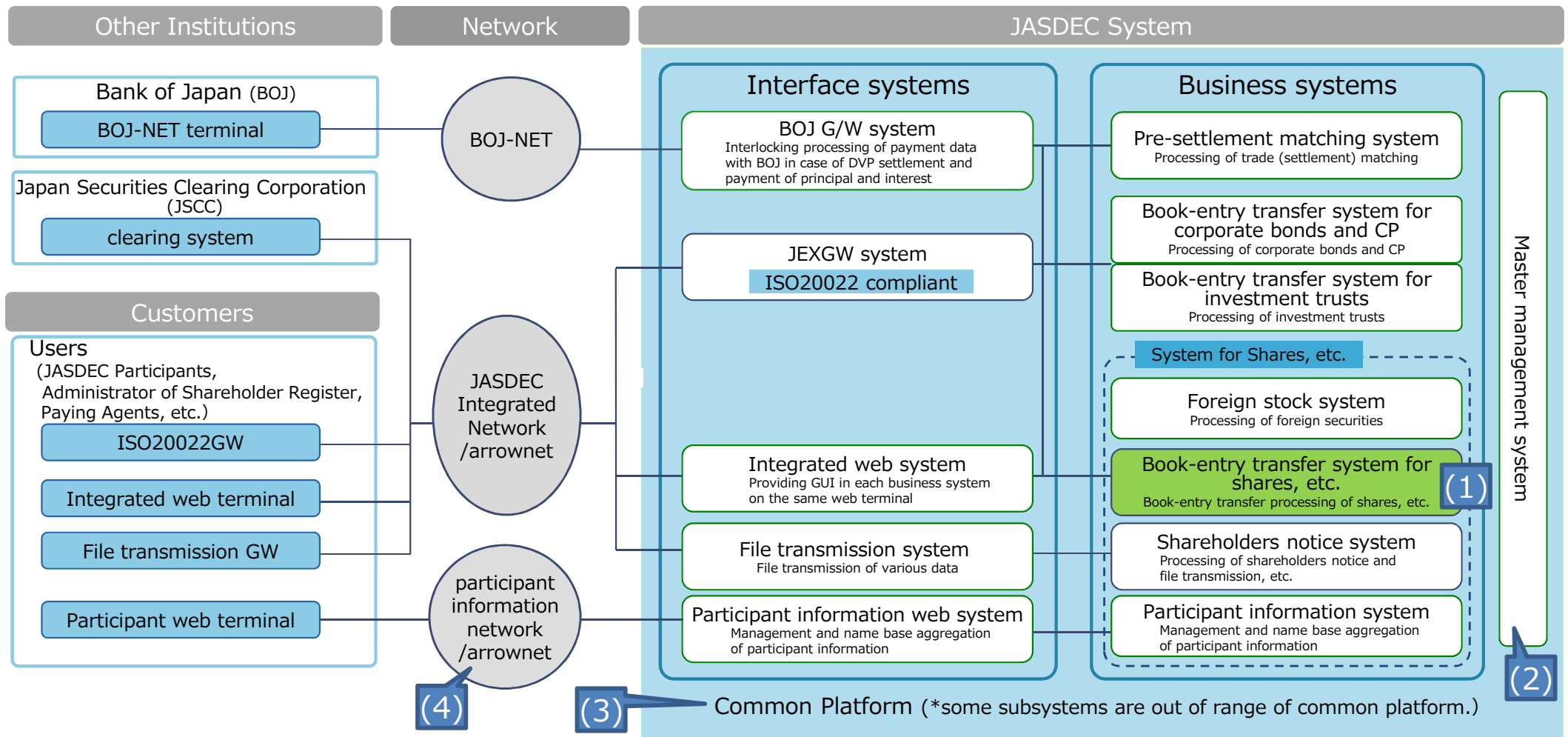


Overview of 2020 System

For the 2020 System, the following 1 – 4 measures were implemented. As for systems other than the book-entry transfer system for shares, etc., we renewed the hardware systems, keeping the applications of 2014 System (see 5 below).

1	Re-engineer the book-entry transfer system for shares, etc.	The book-entry transfer systems for shares, etc. had been used on the mainframe platform for more than 15 years since the beginning of the Depository and Book-Entry Transfer Services, and modified repeatedly till 2014 System. Therefore, there were many systemic constraints. Now it is re-engineered on the common platform with open system architecture, renewed as the high-quality system with scalability and maintainability. At its re-engineering, the processing capability is enhanced such as the increase of number of transfer per minute so that we can provide more stable services. In addition, the time of batch process is shortened so that we can respond to the requests of changing the cut off time. And some functions are partially modified to standardize the operations in each System and product.
2	Build the new master management system	The master management system is newly built to enhance the efficiency of information management and operation and the reliability of data, realizing the unified management of information about securities and participants, etc., which used to be managed system by system.
3	Implement the common platform for subsystems	The infrastructure system, which used to be built and managed system by system, is modified to the common platform with the virtualized software, realizing the unified management of platform and flexible allocation of resources, etc. It is also possible to replace the hardware and applications separately.
4	Improve the convenience of network services	In addition to the existing network services, arrownet can be chosen to connect the participant information web system. This provides users more efficient network services.
5	Renew other systems	As for systems other than the book-entry transfer system for shares, etc., we renew the hardware systems (common platform or individual platform) , keeping the applications of 2014 System. Moreover, as part of total optimization, we make non-functional requirements appropriate, eliminate unnecessary functions, and promote the standardization of the operation and maintenance so that we can prevent the operational errors and our operation can be more stable.

Configuration schematic diagram of 2020 System



(1) Re-engineer the book-entry transfer system for shares, etc.:

*Open system architecture
Processing capability enhanced
Standardization of functions, etc.*

(2) Build the new master management system:

Unified management of various information

(3) Implement the common platform for subsystems:

*Unified management of platform
Flexible allocation of resources, etc.*

(4) Improve the convenience of network services:

Connecting to the participant information web system via arrownet