



IT Master Plan

FY2019 ▶ FY2021

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Japan Exchange Group, Inc.

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Objective of IT Master Plan

The IT Master Plan is, as an accompaniment to the Medium-Term Management Plan, formulated to clearly communicate JPX's direction and strategy on IT internally and externally and drive business by aligning management and IT policies for achieving business targets set in the Medium-Term Management Plan.

Basic Concept of IT Master Plan

We design the vision for JPX's IT divisions looking ahead 10 years into the future. Based on such mid- to long-term vision, we formulate and advance measures that contribute to achieving the targets in the 3rd Medium-Term Management Plan.

JPX IT Divisions' 10-Year Vision

1.

IT as source of competitiveness and key to maintaining industrial edge

The exchange is a systems infrastructure, and IT lies at the foundation for driving our business forward and creating new business. Thus, **JPX identifies IT as its source of competitiveness and the key to maintaining its edge in the industry. We incorporate the latest in IT to provide highly reliable and convenient market infrastructure and services.**

2.

Maximal use of rapidly evolving technology

Aiming for stable market operations and apt response to changes in the market environment, **business administration and IT collaborate closely in market operations. As a market infrastructure provider, JPX makes maximal use of evolving technology at an accelerated pace and supports market operations via the use of technology.**

Approach for Building IT Strategy

IT divisions need to stably operate markets while responding to changes based on the basic policy of 3rd Medium-Term Management Plan.

Core Strategies in 3rd MTMP

**"Sail to the future.
Keep the market secure."**



I Pursue "the shape of the market" toward the next generation

II Launch and develop a comprehensive exchange

III Diversify and propel data services into the next generation

IV Develop a foundation to support our business and the society

Approach for Building IT Strategy

With JPX running various systems and businesses, IT divisions will prepare themselves to respond to diverse changes.

Sustainable
market
operations

- ✓ Steady implementation of existing development/project
- ✓ Reliability, efficiency, and availability

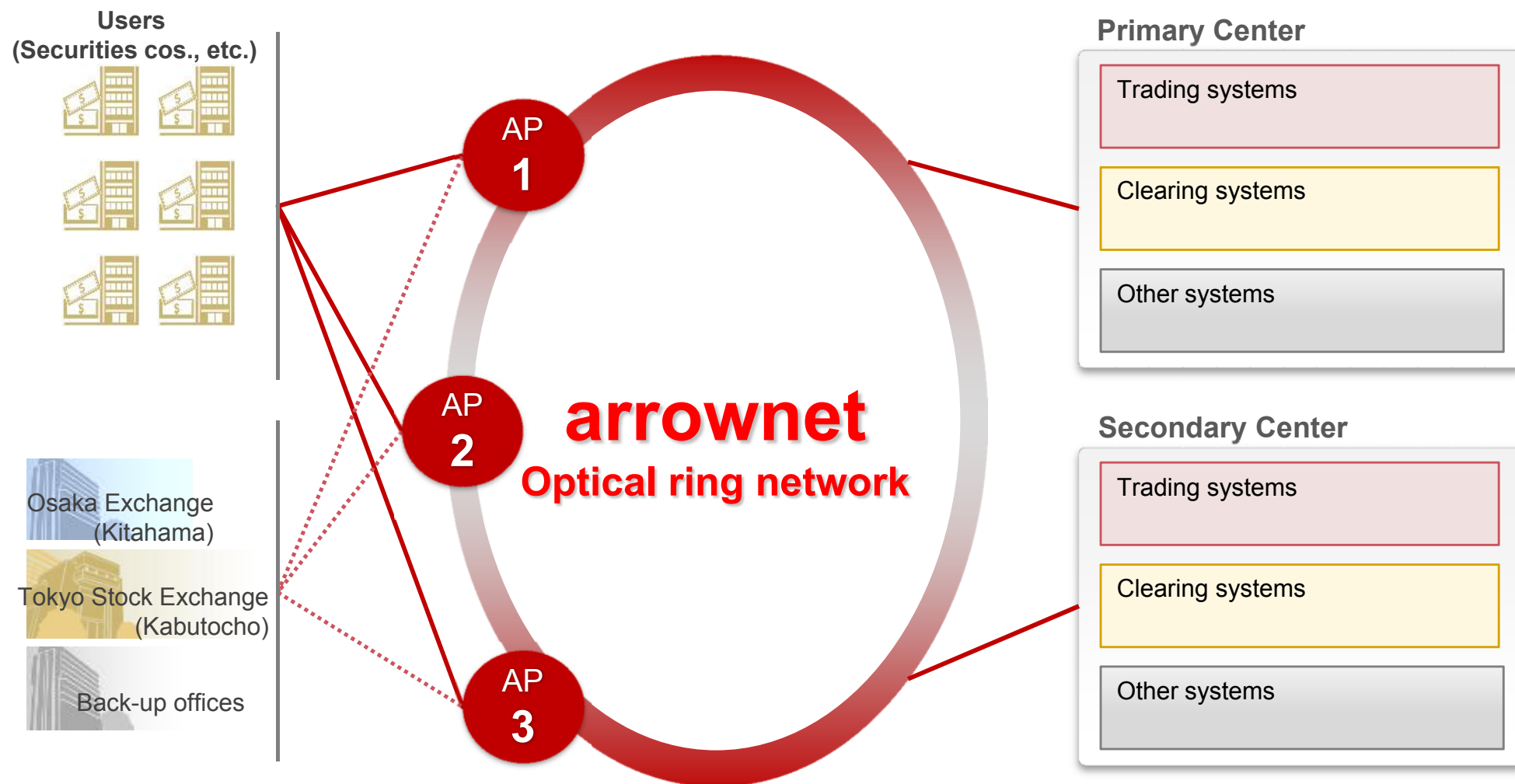
IT agility
amid
changes

- ✓ Adapt to drastic changes in the external environment
- ✓ Catch up with technology diversifications and commoditization

Specific Measures

Med-term Management Plan	Sustainable market operations		IT agility amid changes	
I. Pursue “the shape of the market” toward the next generation	I.-(1) Improve reliability and convenience via system upgrades		I.-(2) Raise the topline by building new platforms	
II. Launch and develop a comprehensive exchange	II.-(1) Realize flexible launch of new products and functions			
III. Diversify and propel data services into the next generation			III.-(1) Use accumulated information resources	III.-(2) Diversify channels that enable flexible information distribution
IV. Develop a foundation to support our business and the society	IV.-(1) Improve BCP measures by building new secondary center	IV.-(2) Enhance stability by using new technology	IV.-(5) Proactively adopt advanced technology	IV.-(6) Train/develop human resources to use technology
	IV. -(3) Optimize operations via cloud and automation	IV. -(4) Strengthen measures against more complex cyber-attacks		

Overview of JPX Systems (As of April 2019)



IT Systems Plan

		FY2018	FY2019	FY2020	FY2021	FY2022-
Trading Systems	arrowhead (Cash Equities)	Sep. 2015 Upgrade	Nov. 2019 Replacement			*
			Expand risk management functions/ Improve trading scheme, etc.			
	J-GATE (Futures/Options)	Jul. 2016 Upgrade			FY2021 (Scheduled) Replacement	
					(Including work for new secondary center)	
Trading Systems	ToSTNeT (Off-Auction)	Mar. 2017 Upgrade	Nov. 2019 Replacement			*
			Hardware Replacement			
	ISC (Index & Statistics Calculation)	Sep. 2015 Upgrade	Nov. 2019 Replacement			*
Clearing Systems	Cash Equities Clearing System	Feb. 2018 Partial Replacement	Jul. 2019 Replacement			*
			Upgrade/ Shorten Settlement Cycle			
	Derivatives Clearing System	Feb. 2018 Launch				*
	JGB Clearing System	May 2018 New Function				*
		Shorten Settlement Cycle				
	OTC Clearing System	Feb. 2018 Upgrade				*

* Details of the system architecture at the new secondary center will be subject to future discussions to match the replacement schedule of the relevant systems.

