FIA Japan

Paper: Market Research of Mechanisms to Improve Participation and Activity in Japanese Financial Markets

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Introduction

Over the past 5 years, the Japanese financial markets have seen significant changes in technology, across all participants: investors, brokers, exchanges and clearing houses. The Futures Industry Association Japan (FIA Japan) would like to present the following market research from a wide range of market participants, of suggestions on improving participation and activity in Japanese financial markets.

The FIA Japan is an industry body, with representatives from the Exchanges, Securities Brokers, Banks, Investors, Independent Software Vendors and Infrastructure Providers who are active in the Japanese financial markets. The Financial Instruments Committee and the Technology Committee and Comprehensive Exchange Committee of FIA Japan, consider questions such as this one in their committee activity.

The following topics have been collated from input from Japanese and Foreign brokers, Exchanges and Financial Industry Technology companies; including firms who are not FIA Japan members. The views of these direct market participants also include the views of their clients who invest in Japan (though they may not be a direct participant). *As such, the ideas presented here are a fair, balanced and representative view of opinion.*

Objectives

It is the opinion of the FIA Japan that the objectives of all the participants in financial markets should be:

a) An improvement in the efficiency and fairness of the financial market; *which would lead to…*

b) A benefit for investors; *who in turn would transact more and lead to…*

c) An improved financial return for participants and related firms.

The objective a) can be achieved by:

i) Reducing barriers to entry and participation; and…

ii) Improving the efficiency and fairness of the market.

Reducing barriers to entry can be achieved by…

Reducing costs for Exchanges[1]	Reducing costs for trading venues will increase profitability for the trading venues and enable the exchange to continuously invest in market leading technology.
Reducing costs for Investors[2]	Reducing costs for investors attracts new investors to Japan, and encourages existing participants to transact in larger volume.
Improving technology	Improving technology and system architecture reduces costs and allows greater volume to be transacted for less cost.

Efficiency of the market can be achieved by…

Improving technology	More transactions will be executed if the technology and infrastructure architecture is improved.
Increasing flexibility	More investors will enter the market if there is more choice and opportunity.
Increasing opportunity	More investors will enter, and more transactions executed, if there is greater opportunity.
Reducing operational risk	Reducing operational risk improves the safety, and fairness of the market.

Note: FIA Japan has no opinion on the business activities of any participant in the Japanese financial markets. In the discussion of topics below, references to any particular Company are made for illustration purposes only. These references are not intended to be an endorsement or otherwise of any Company.

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[1] "Exchanges" include Central Clearing Counterparties (CCP) and Central Securities Depositories (CSD) and other related entities.

[2] "Investors" include brokers, banks, related financial firms and their clients.

The topics in this document are summarized:

		Reducing barriers		Efficient Markets			
	Investors - **B**rokers and their Clients **IT** service providers **E**xchanges	Reduce costs for Exchange	Reduce costs for Investors	Improve technology	Increase flexibility	Increase Opportunity	Reduce Operational Risk
N.0	Network/Connectivity						
N.1	How co-location clients connect to the co-location site						
	Connect direct to the co-location site	E	B		B	I	
	Connect via an external ring communication network						E
N.2a	External ring network access points for <u>non-co-location</u> clients						
	Connect direct to the location where the matching engine is located	E	B				
	Connect to an access point that is not in the same location as the matching engine				E		E
N2b	The number of providers who are permitted to provide network access points						
	A single point of connection or multiple point, operated by <u>one</u> telecommunication provider	E					
	Multiple points of connection, provided by <u>multiple</u> telecommunication providers				B	I	E
N.3	Access/connectivity to the test environments from within co-location						
	Connect to the development environment from the co-location rack		B				
	Connect to the development environment from a location other than the co-location rack						E
N.4	How lines to the co-location site are ordered						
	Lines ordered by investors with their own choice of vendor	E	B		B	I	
	Lines ordered through the exchange						E
N.5	The capacity of lines for order entry and market data						
	Provide larger capacity lines.				B	I	
N.6	The provision of fiber lines to the matching engine.						
	Provide fiber lines to the matching engine.				B	I	
N.7	The provision of automated mechanisms (email/ web) to allow users to reset password of their trading user IDs						
	Resetting IDs using an automated facility	E		B	B		E B
	Resetting IDs manually	E					
L.0	Legal/Contractual						
L.1	Who may contract/rent racks within the co-location						
	Allow any legitimate participant to contract/rent the racks		B		B	I	
	Allow only direct participant investors (broker members) to contract/rent racks						E
L.2	Who may contract/rent a gateway and market facing lines						
	Allow any legitimate participant to contract/rent a gateway and market facing lines				B	I	

ID	Description						
	Allow only the direct market participants (broker member) to rent a gateway and market facing lines.						E
L.3	How clients may practically (rack and gateways) move broker.						
	Allow end investors to move broker without needing to move to another rack.				B		
	Require end investors to de-rack and re-rack in the new broker's rack.						E
M.0	Matching Engines/APIs						
M.1	How auction trades and tachiaigai trades are executed through APIs						
	Allow investors to use a single API to execute both auction trading and tachiaigai trades.	E	B				
	Require investors to use separate APIs to execute auction trading and tachiaigai trades.	E					
M.2	A single FIX API for all products						
	Provide both native protocols and generic (for example FIX) protocols				B	B I	
	Only provide either native protocols or only generic protocols (for example FIX)	E					
M.4	Exchange side risk controls						
	Implement pre-trade risk controls (fat finger, etc.,) on the exchange side.			B			
	Require investors (brokers) to implement pre-trade risk controls (fat finger, etc.).						E
M.5	Mechanisms that allow users to initiate the cancellation of their orders direct with the exchange						
	Provide an independent mechanism for direct cancellation of orders.						B
	Not provide an independent mechanism for direct cancellation of orders.	E					
CL.0	Clearing						
CL.1	Real time clearing feeds						
	Provide real time clearing feed to the brokers.			B			B
	Provide end of day clearing feed to the brokers.	E					
CL.2	How OTC equity (market) trades are cleared						
	Centrally clear both exchange traded equities and OTC equity (market) trades.	E	B				B E
	Clear exchange traded equities and OTC equity (market) trades separately.	E					
CL.3	The netting of payments to/from clearing houses						
	Making net payments to/from clearing houses	E	B				E
	Making gross payments to/from clearing houses	E					
CO.0	Co-location Access / Physical						
CO.1	The structure of co-location (data centers) that services multiple venues						
	A single generic co-location in the same data centre.		B	B	B		
	An exchange delineated co-location in the same data centre.					E	
CO.2	Short term shipment storage facilities at data centers				B		
CO.3	Long term storage facilities at data centers				B		
CO.4	Staging areas for installation-preparation				B		
PA.0	Process Administration						
PA.1	How applications (for data centers) are						

	managed/administered						
	A web portal for managing application requests.	E		B	B		
	A manual process for managing requests.	E					
R.0	Rules						
R.1	Error trade policies						
	Implement a 'manifest error' trade policy.						B
	Do not have an error trade policy.	E					
R.2	The practicality of Exchange incentive schemes						
	Schemes which are structurally simple.	E	B				
	Schemes which are complex.		B			E	
R.3	How Exchange fees for give up trades are charged to the clearing broker						
	Charge exchange 'clearing' and 'execution' fee component to the clearing broker.				B		
	Charge exchange 'clearing' fee to the clearing broker, and separately the exchange 'execution' fee to the execution broker.		B				

Appendix – Detail Requests

Contents

N.0   Network/Connectivity

N.1   How co-location clients connect to the co-location site

<u>Context</u>
Exchanges who operate co-location sites typically take one of two approaches to how participants may connect to their equipment within the co-location site; either…
1) The Exchange allows participants to connect directly to the site using the vendor of their choice.
2) The Exchange implements a ring communication network with access points; the participant does <u>not</u> directly connect to the data centre.

Either approach is favored by different participants for different reasons as described below.

1) Connect direct to the co-location site

All investors and most Technology Providers plus some Exchanges prefer this approach.

<u>Business Rationale</u>
Reduce costs for the Exchange. The Exchange avoids the costs incurred to support a network (*because co-location users can connect direct to the co-location racks using their own network*).
Reduce costs for Investors.   The co-location users will choose the most cost effective set up and telecom provider for their particular requirements; they will avoid the cost of unnecessary networks.
Increase flexibility. Each co-location user can choose the network connection configuration/set-up independently and are not limited by a ring communication network.
Increase opportunity. More Technology providers are able to compete for business because there is no restriction on providers because there is no ring network.

<u>Other Comments/Information</u>
From an Investors perspective, there is no useful purpose to using an external ring network to connect to co-location. Investor do not recognize the 'redundancy' and 'security' benefits of remote access points because many markets, globally provide sustainable and secure markets without a remote access point and/or 'ring' network architecture. Whilst it is recognized that an internal (to the DC) ring network is required in order to create a 'back bone' between co-location and matching engines, access to the co-location site does not need to go through an external ring network. Investors' opinion is that there is no IT security issue with direct connection given the quality of service provided by independent telecommunication network providers. Investors regard the costs of maintaining external ring networks as unnecessarily high, without providing any benefit.

2) Connect via an external ring communication network

Some Exchanges prefer this approach.

<u>Business Rationale</u>

Reduce operational risk. Some Exchanges prefer the reduction in operational risk which is created by separating the point which the investors connect to, from the data centre itself.


Other Comments/Information
From an exchange perspective, having a broad network to manage communication between various systems is advantageous (*although not all Exchanges recognize this benefit*).

Technical Description

A direct connection between investors and co-location

For example, the network connectivity between investor and co-location site is owned/controlled by the investor, and connects directly from the investor's location to the co-location site.
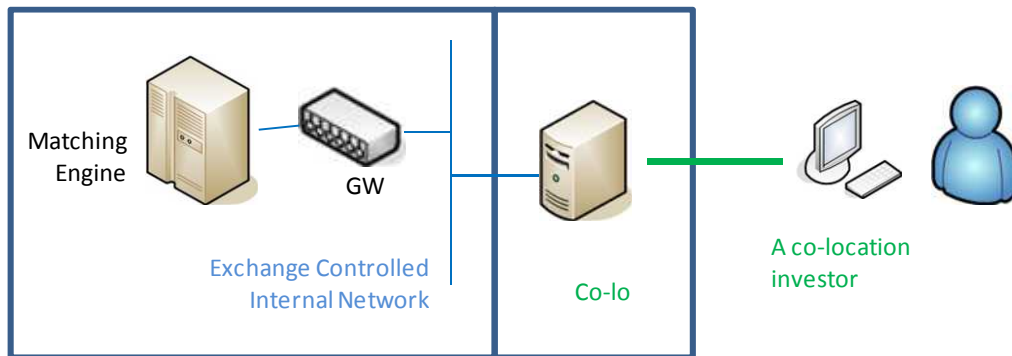
A ring communication network between investors and co-location

For example, the network connectivity is owned/controlled by Exchange and the investor does <u>not</u> directly connect to the co-location site.
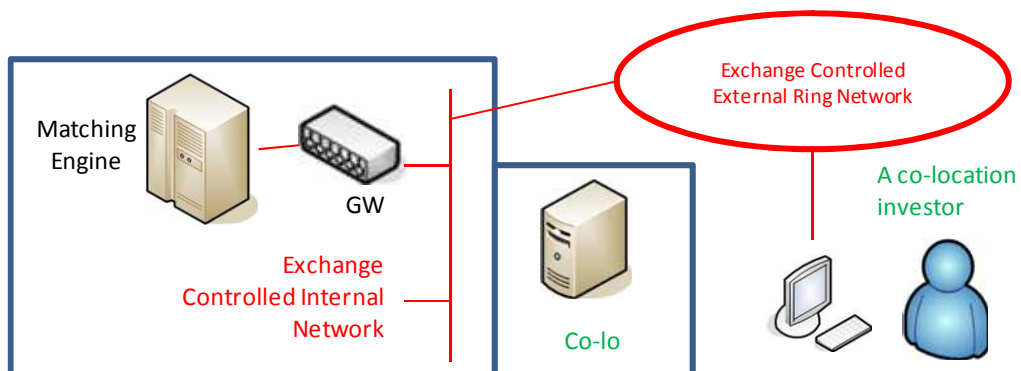
N.2a External ring network access points for <u>non</u>-co-location clients.

<u>Context</u>
Exchanges who operate electronic exchanges typically take one of two approaches to how participants, who do not set up in exchange provided co-location sites, may connect to the matching engine network; either…

1) The Exchange allows participants to connect directly to the location in which the matching engine is located, using the vendor of their choice.

2) The Exchange implements a ring communication network with access points that are not in the same location as the matching engine; the participant does <u>not</u> directly connect to the location in which the matching engine is located.

Either approach is favored by different participants for different reasons as described below.

Note:
The decision to deploy either approach depends on the particular IT Risk policy of the exchange.
An architecture that does not employ a network ring (1) incorporates an IT risk approach which considers duplicate lines (*one to production data centre and another to back up data centre*) as an appropriate 'resilient' network.
An architecture that employs a network ring (2) incorporates an IT risk approach which considers a network ring (*to separate 'connectivity risk' from 'data centre risk'*) as an appropriate 'resilient' network.
From an IT Risk approach, neither can be said to be better than the other; it is only possible to conclude that each approach has both merits and disadvantages.

1) Connect direct to the location where the matching engine is located

All investors and some Exchanges prefer this approach.

<u>Business Rationale</u>
Reduce costs for the Exchange. There will be lower costs incurred by the Exchange to support a smaller network.
Reduce costs for Investors.   The non-co-location clients will incur lower costs because they won't have to pay for the ring network that runs an unnecessary distance (*between the location of the matching engine and the access point*).

<u>Other Comments/Information</u>
Whilst it is recognized that the external ring network has some benefits for clients who are not at co-location, the access point does not need to be remote from the co-location site. Investors and some Exchanges do not perceive there being a 'security' benefit to separating the access point from the matching engine location.

2) Connect to an access point that is not in the same location as the matching engine

Some Exchanges plus some data centre and/or telecommunications providers prefer this approach.

<u>Business Rationale</u>

Reduce operational risk.   Some Exchanges prefer the reduction in operational risk which is created by separating the point which the investors connect to, from the matching engine itself.

Increase flexibility. The provision of a ring network and multiple access points creates more choice for investors (who may reside at the other data centers on the ring network than the location of the matching engine).

Other Comments/Information
Whilst it is recognized that the external ring network has some benefits for clients who are not at co-location, the access point does not need to be remote. Investors and some Exchanges do not perceive there being a 'security' benefit to separating the access point from the matching engine location.

Technical Description

A direct connection between the users and the location of the matching engine.

For example, users may connect directly to the network in the location in which the exchange matching engine platform is located.
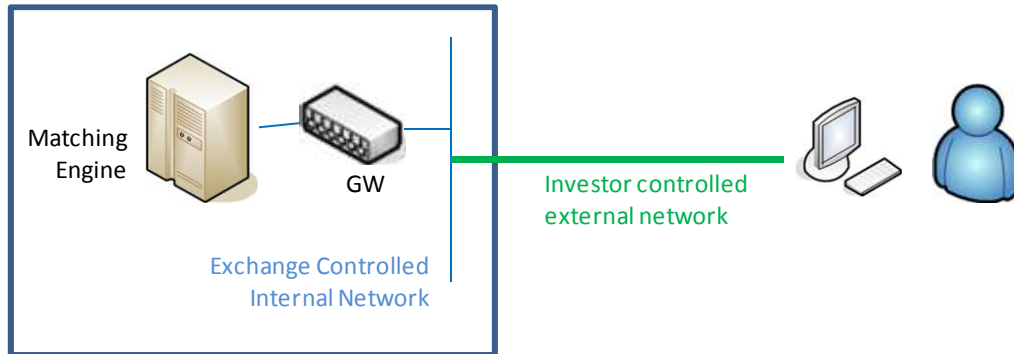
A connection to an access point that is not in the same location as the matching engine.

For example, users connect to an access point that is not in the same location as the exchange matching engine platform.
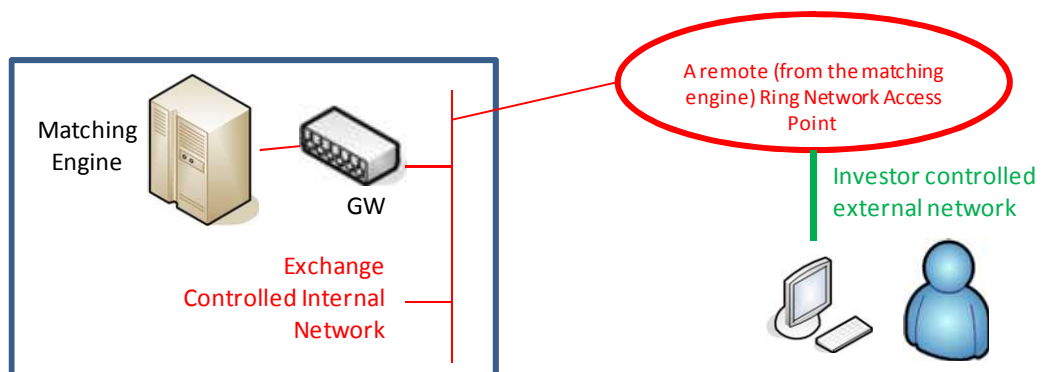
N.2b The number of providers who are permitted to provide network access points

Context
Typically exchanges allow participants to connect either
i) (*If the investor is trading from co-location*) direct to the co-location site; or…
ii) (*If the investor is not trading from the co-location site*) to the matching engine from the location the investor is trading from.

In both cases, exchanges may elect either to
1) Allow only a single point of connection that is provided by a single telecommunications vendor. Or allow multiple points of connection provided by a single telecommunications provider.
2) Allow multiple points of connection, provided multiple telecommunications providers.

Either approach is favored by different participants for different reasons as described below.

1) A single point of connection or multiple points, *operated by only one telecommunications provider*

Some exchanges and some investors prefer this approach.

Business Rationale
Reduce costs for the Exchange. The exchange does not need to maintain a wider network. The exchange can negotiate a volume discount for providing multiple access points with the same provider.

2) Multiple points of connection, *operated by a choice of multiple telecommunications providers*

Some exchanges, telecommunications and some investors prefer this approach.

Business Rationale
Reduce operational risk.   Some exchanges prefer to have multiple connection points to reduce operational risk.
Increase flexibility. Investors are provided with more choice for connectivity than in single point, or single vendor models.
Increase opportunity. More telecommunication vendors are able to compete for business.

<u>Technical Description</u>

A single point of connection, provided without giving the investor any choice of the <u>one</u> telecommunication provider.

For example, an exchange that operates a single point of connectivity to its co-location site, or the remote connection to it's trading system. However there is a single operator/supplier of the telecommunication lines allowed to make the connection.


Multiple points of connection, provided without giving the investor any choice of the <u>one</u> telecommunication provider.

For example, and exchange that operates multiple points of connectivity to its co-location site, and remote connection to it's trading system. However there is a single operator/supplier of the telecommunication lines allowed to make the connection.
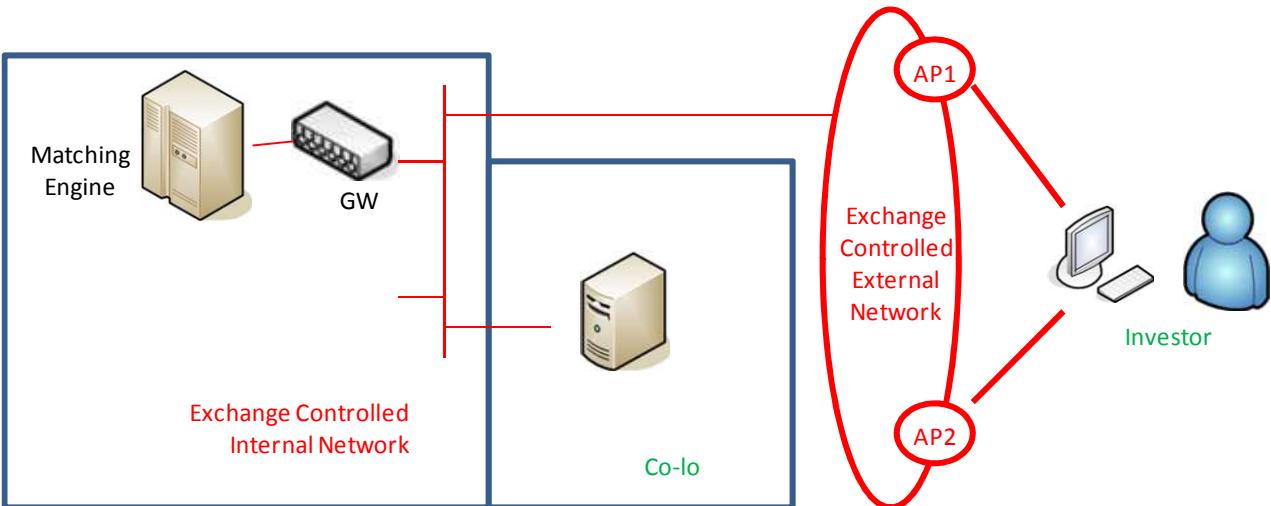
Multiple points of connection, operated by a choice of <u>multiple</u> telecommunications providers

For example, access points are provided by a choice of data centre vendors. And access to those access points is provided by a choice of telecommunication service providers.
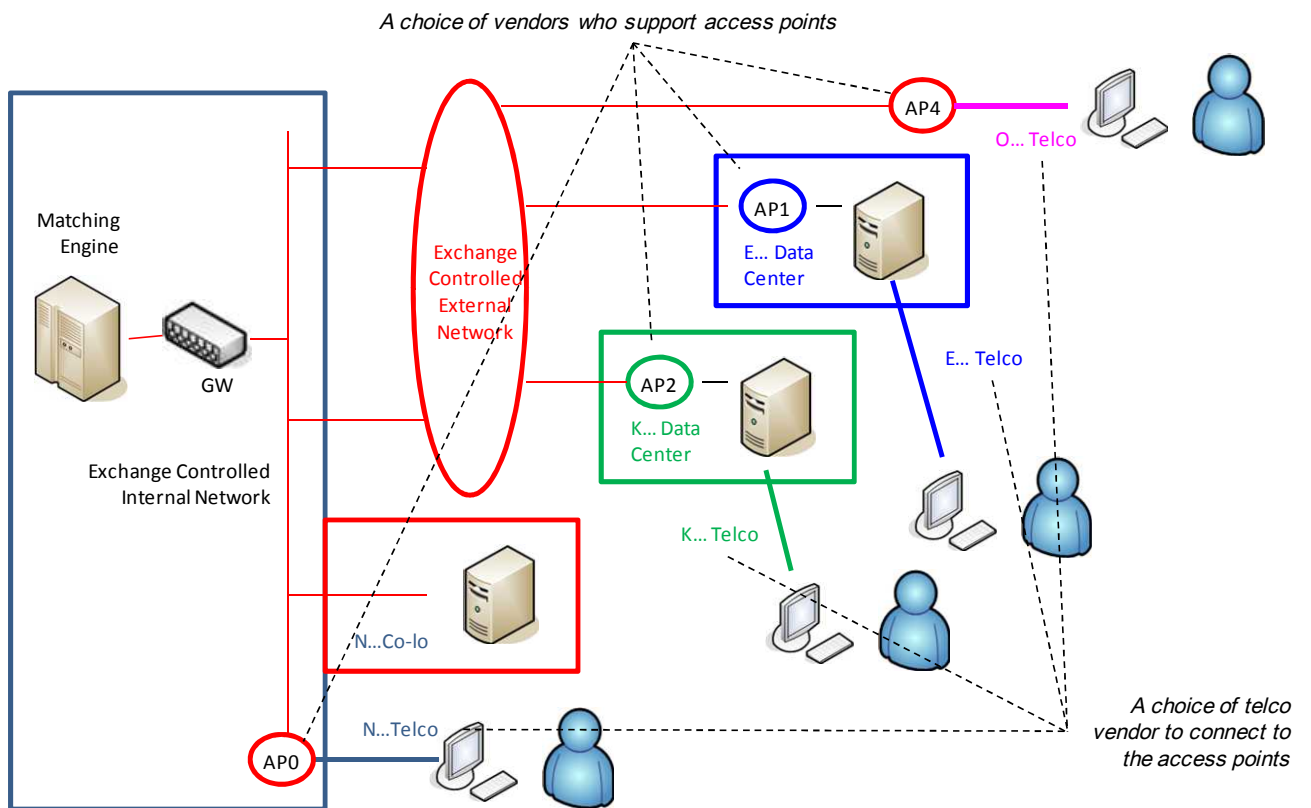
N.3 *Access/connectivity to the test environments from within co-location*

Context

Exchanges provide investors with development/test environments to develop against. Exchanges allow investors to connect to those environments, either...

1) Connect from development kit that is located within the co-location rack (*next to but not the same as the production kit*); or...

2) Connect from development kit located outside of the co-location rack.

Either approach is favored by different participants for different reasons as described below.

1) Connect to the development environment from the co-location rack

Investors and some exchanges prefer this approach.

Business Rationale

Reduce costs for Investors. Investors/brokers avoid the costs of having network connection to the broker/test market AP to connect to the test market. Investors avoid the costs of having separate racks to keep their development and production kits.

Other Comments/Information

Investors view a requirement to connect externally to the test environment as an unnecessary burden and cost, which serves no IT security purpose (*as long as production and development kit is segregated in the co-location rack*).

2) Connect to the development environment from a location other than the co-location rack

Some exchanges prefer this approach.

Business Rationale

Reduce operational risk. The exchange enforces the rule, prohibiting investors from connecting development kit to the production environment, by prohibiting access to the co-location rack from containing development kit.

Technical Description

1) Connecting to the test environment from within co-location

For example, an exchange that allows development hardware in the co-location to connect to the test/development environments via the internal ring network.
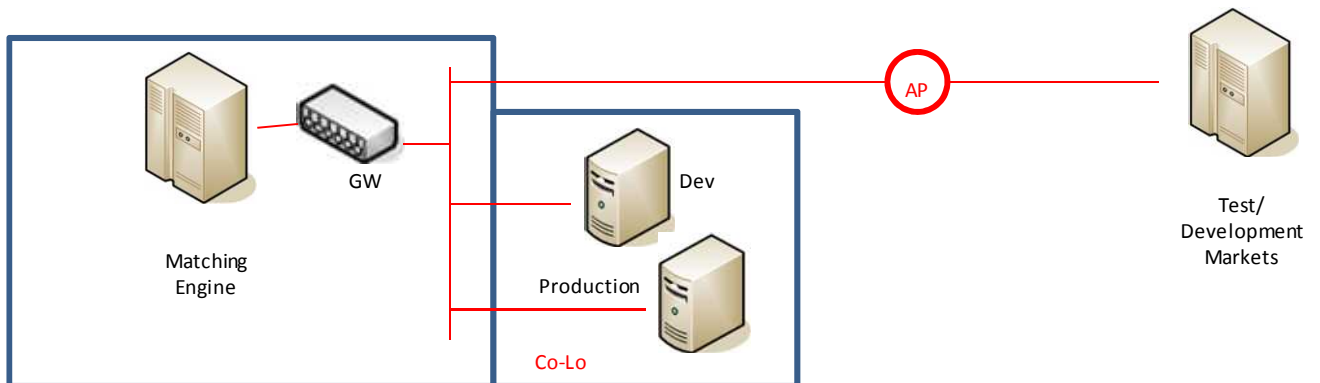
2) Connecting externally to the development/test environment

For example, an exchange that mandates that the development hardware/software cannot connect to the production matching engine (and vice versa). Access to the development/test environment may only be achieved via an external network.
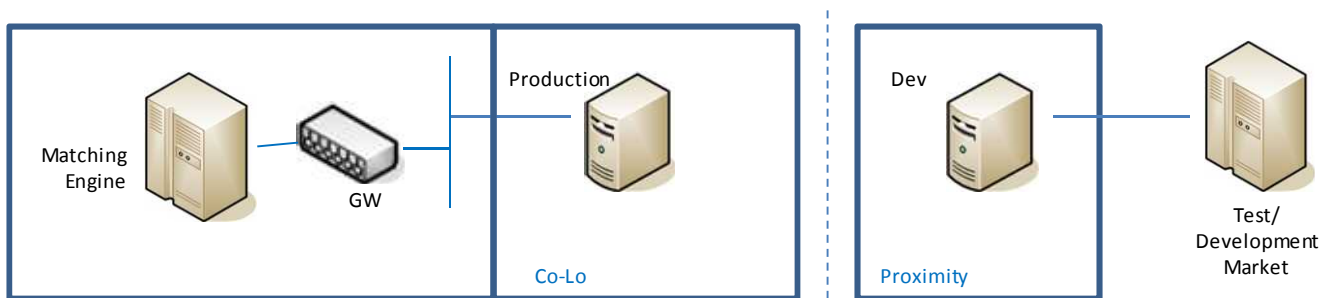
Data center housing production and development kit is physically separate

N.4   How lines to the co-location site are ordered

Context
Telecommunication lines to exchange systems and co-location sites can be provided in one of two ways.
1) Investors and other participants are able to choose a telecommunication vendor of their choice, and order the lines themselves.
2) The exchange requires line orders to be placed with the exchange themselves, and the exchange only uses a limited number of telecommunications vendors.

Either approach is favored by different participants for different reasons as described below.

1) Lines ordered by investors with their own choice of supplier

Investors and telecommunications firms prefer this approach

Business Rationale
Reduce costs for the Exchange. Exchanges do not have to bear the cost of administer the ordering and installation of the telecoms lines.
Reduce costs for Investors.   Investors can achieve cost reductions by having greater choice/negotiations with the vendors when ordering lines.
Increase flexibility. There will be a greater choice of carriers to connect to the co-location site.
Increase opportunity.   More telecommunications firms are able to compete for the business.

Other Comments/Information
Investors do not recognize any useful purpose to force the interaction with the line vendors through the Exchange. Nor recognize any useful purpose to limit the ordering of the lines via the Broker. In exchanges that do not require orders to be place with the exchange, there is flexibility, choice and competition provided by investors being able to engage their own circuit providers.

2) Lines ordered through the exchange

Some exchanges prefer this approach.

Business Rationale
Reduce operational risk. Exchanges ensure the quality and technical variability of the operators that provide the connection to the matching engine and co-location site.

N.5   The capacity of lines for order entry and market data

<u>Context</u>
Investors in electronic exchanges require speed and capacity to trade faster and in larger amounts. Exchanges either…
1) Define a single capacity option (*e.g. 100 Meg*), for lines for order entry and market data; or…
2) Provide a variable capacity, price differentiated options (*e.g. choice of 10 Meg, 1 Gig or 10 Gig*) for lines for order entry and market data.

All investors prefer more choice of options, and larger investors prefer the option to use the highest capacity lines for order entry and market data.

<u>Business Rationale</u>
Increase flexibility. More choice of line options for connecting to the matching engines.
Increase opportunity.   Faster speed to the matching engine means more opportunity for sophisticated investors to trade.

<u>Other Comments/Information</u>
Faster lines are preferred by sophisticated investors.

N.6   The provision of fiber lines to the matching engine

<u>Context</u>
Investors in electronic exchanges require speed and capacity to trade faster and in larger amounts. Exchanges either…
1) Define a single specification option (*e.g. only standard copper wire*), for lines for order entry and market data; or…
2) Provide a variable specification, price differentiated options (*e.g. standard copper wire or fiber optic*) for lines for order entry and market data.

All investors prefer more choice of options, and larger investors prefer the option to use fiber optic lines for order entry and market data.

<u>Business Rationale</u>
Increase flexibility. More choice of line options for connecting to the matching engines.
Increase opportunity.   Faster speed to the matching engine means more opportunity for sophisticated investors to trade.

<u>Other Comments/Information</u>
Faster lines are preferred by sophisticated investors.

N.7 The provision of automated mechanisms (email/ web) to allow users to reset password of their trading user IDs

<u>Context</u>
Trading user IDs are provided to direct participants, and their end investors, to trade with. When those IDs become locked they can be reset in one of two ways
1) Via a web or authenticated email service where users can reset the passwords directly with an automated facility, and without having to fill in forms in Japanese and without exchange side staff processing the request manually.
2) Manually where only the direct participant can request a user ID reset, the request must be completed and submitted manually and in Japanese only.

Either approach is favored by different participants for different reasons as described below.

1) Resetting IDs using an automated facility

Investors prefer this approach.

<u>Business Rationale</u>
Reduce costs for the Exchange. The exchange will avoid the costs to support and administer the reset activity manually by support staff. Whilst in the short term the exchange will need to invest in technology, over the long term automated solutions are far cheaper than manual processing.
Improve technology. Automation of the process to reset passwords is a better solution than the process of IDs being reset manually by exchange staff.
Increase flexibility. Investors can easily reset their user ID passwords quickly.
Reduce operational risk. User IDs that can be reset automatically is a less operational risky process than if passwords are reset manually by staff. User ID passwords that can be reset automatically reduces the time between a password lock out and reset; therefore reducing the 'down time' for the trading user to be out of the market. E.g. during the March earthquake, a manual password reset took 1 minute per password; many trading users waited for over 2 hours for password resets before they could trade.

<u>Other Comments/Information</u>
The current service operated by many exchanges, which requires a form to be completed in Japanese, sent to the exchange, which is processed manually for each ID is out of date and unnecessarily time consuming. It should be easily possible for end users to request their own password reset via the web or secure email. Further, the reset action should be automatically processed by the exchange systems without needing exchange staff to process them.
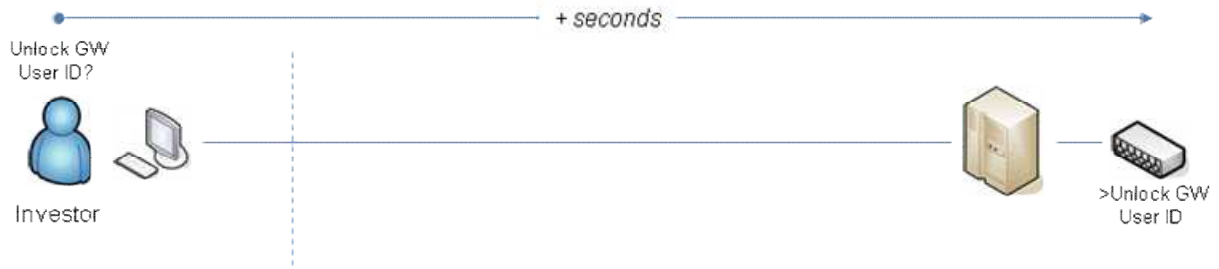
2) Resetting IDs manually

Some exchanges prefer this approach.
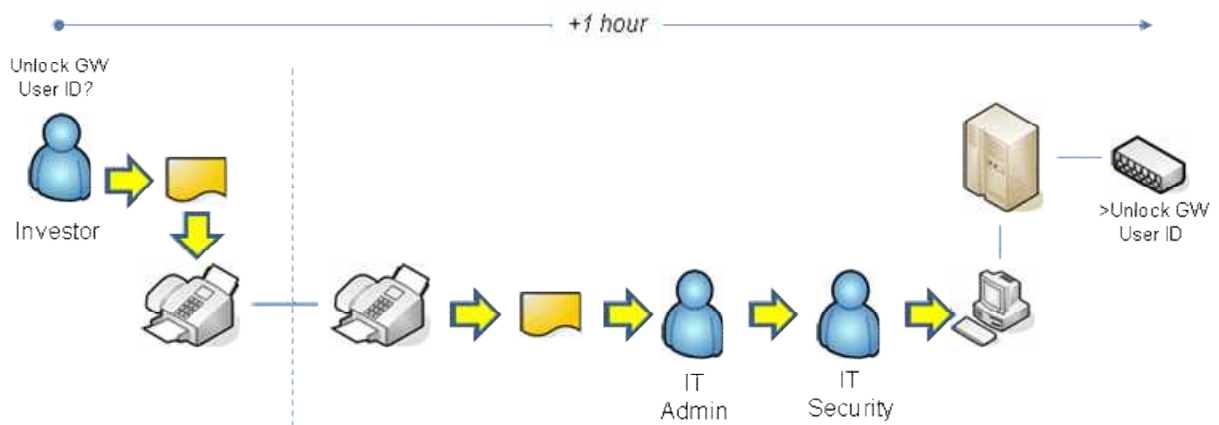
<u>Business Rationale</u>
Reduce costs for the Exchange. In the short term, exchanges do not need to invest in technology to automate the resetting of ID passwords.

<u>Technical Description</u>

1) Automated process for unlocking or resetting User ID passwords:

2) Manual process for unlocking or resetting User ID passwords:

L.0   Legal/Contractual

L.1   Who may contract/rent racks within the co-location

Context
Exchanges who allow access to their co-location site either…
1) Allow all of i) direct participant Investors (*the broker members*), and ii) Technology Firms and iii) indirect participant Investors (*the end investors who are not the direct broker member*) to contract/rent racks within the co-location.
2) Allow only the direct participant Investors (the broker members) to contract/rent racks within the co-location.

Note:
In the consideration of 'protection' of investors in the broad sense, Exchanges have to balance their product offering versus certain security considerations. *For example, who can physically access the site at which a financial market operates (physical security). And whether the person(s) are authorized, under the relevant financial laws or regulations, to access the site at which significant financial market operates (Compliance).* As such, it should be noted decisions such as who may contractually participate in services for trading, or the mechanism by which participation occurs, is not solely a commercial consideration.

Either approach is favored by different participants for different reasons as described below.

1) Allow any legitimate participant to contract/rent racks

All Investors, Technology Firms and some Exchanges prefer this approach.

Business Rationale
Reduce costs for Investors. The availability of ISV solutions, and shared infrastructure solutions will bring down the costs for investors to trade from the co-location site.
Increase flexibility. Many sophisticated end investors want to be able to contract a rack directly from the exchange, and do not wish to contract with the broker. Additionally, where a client contracts their own rack, it is easier for them to move broker, and easier to connect to more than one broker.
Increase opportunity. Many technology firms also want to contract their own rack within the co-location site. Exchanges are able to sell more racks to different participant types (i.e. technology firms, and end investors).

Other Comments/Information
Many clients wish to take their own rack within the co-location; many offshore clients do not care about PE risk. For all onshore clients PE risk is not relevant. A client who takes their own rack could trade through multiple brokers (*with simple cross connect*) without incurring the expense of taking rack space at every broker. There is no security issue with legitimate parties taking their own rack; the majority of modern exchanges around the world do not restrict legitimate parties from contracting/renting racks.

2) Allow only direct participant Investors (broker members) to contract/rent racks

Some exchanges prefer this approach.

Business Rationale
Reduce operational risk. Restricting who may contract/rent the racks to the brokers ensures the quality and performance of those who will enter the site.

Technical Description

*See below section "**L.x Technical Description for L.1, L.2 and L.3**".*

L.2 Who may contract/rent a gateway and market facing lines

Context
Exchanges that operate electronic exchanges either…
1) Allow all of i) direct participant Investors (*the broker members*), and ii) Technology Firms and iii) indirect participant Investors (*the end investors who are not the direct broker member*) to contract/rent a gateway and market facing lines.
2) Allow only the direct participant Investors (the broker members) to contract/rent a gateway and market facing lines.

Either approach is favored by different participants for different reasons as described below.

Note:
In the consideration of 'protection' of investors in the broad sense, Exchanges have to balance their product offering versus certain security considerations. *For example, who can physically access the site at which a financial market operates (physical security). And whether the person(s) are authorized, under the relevant financial laws or regulations, to access the site at which significant financial market operates (Compliance).* As such, it should be noted decisions such as who may contractually participate in services for trading, or the mechanism by which participation occurs, is not solely a commercial consideration.

1) Allow any legitimate participant to contract/rent a gateway and market facing lines

Investors and Technology firms prefer this approach.

Business Rationale
Increase flexibility.
Ideally sophisticated end investors would like to be able to contract all the connectivity themselves. This provides them with flexibility and choice over the set up.

Other Comments/Information
Many clients wish to take their own gateway; many offshore investors do not care about PE risk. For all onshore investors PE risk is not relevant. A client who takes their own gateway could trade through multiple brokers without incurring the expense of taking a gateway at every broker. In other leading markets a party is allowed to contract the "connectivity" directly, and the trades are attributed the broker by virtue of an ID (see point 6 above).

2) Allow only the direct market participant (broker members) to contract/rent a gateway and market facing lines.

Business Rationale
Exchanges prefer this approach.

Business Rationale
Reduce operational risk. Restricting who may contract/rent the gateway and market facing line to only the brokers ensures the quality and performance of those who will connect to the market.

<u>Technical Description</u>

*See below section "**L.x Technical Description for L.1, L.2 and L.3**".*

L.3   How end clients may practically (rack and gateways) move broker

Context
Exchanges that operate co-location sites, when an end investor wishes to change broker, either…
1) Allow an end investor to move brokers without needing to de-rack, and re-rack in the new broker's rack; or..
2) Require the end investor to de-rack and re-rack in the new broker's rack.

Either approach is favored by different participants for different reasons as described below.

Note:
In the consideration of 'protection' of investors in the broad sense, Exchanges have to balance their product offering versus certain security considerations. *For example, who can physically access the site at which a financial market operates (physical security). And whether the person(s) are authorized, under the relevant financial laws or regulations, to access the site at which significant financial market operates (Compliance).* As such, it should be noted decisions such as who may contractually participate in services for trading, or the mechanism by which participation occurs, is not solely a commercial consideration.

1) Allow end investors to move broker without needing to move to another rack.

All investors prefer this approach.

Business Rationale
Increase flexibility. Sophisticated end investors want the flexibility and choice to be able to move broker without needing to fully decommission their current rack and rebuild their set up in new rack.

Other Comments/Information
Exchanges which require a rack move limit competition and choice for investors, and provide unnecessary costs and burden for the brokers and the clients. Whilst it is recognized that requiring a rack move is based around the idea that the racks/lines belong to the broker, it should be possible to recognize the ownership concept *but* enable a simple and easy mechanism for clients to move between brokers. E.g. legal assignment of the contracts between brokers upon the end clients wish.

2) Require end investors to de-rack and re-rack in the new broker's rack.

Exchanges prefer this approach.

Business Rationale
Reduce operational risk. Requiring that only brokers are able to contract racks and gateways ensures the quality and performance of those who will connect to the market.

Technical Description

*See below section "**L.x Technical Description for L.1, L.2 and L.3**".*

L.x   Technical Description for L.1, L.2 and L.3

Technical Description
L.1 1) Allow any legitimate participant to contract/rent racks
L.2 1) Allow any legitimate participant to contract/rent a gateway and market facing lines
**L.3 1) Allow end investors to move broker without needing to move to another rack.**

*Please also see **M.3 Recognition of the order originator by ID, rather than the owner of the equipment**, upon which L.1 1),L.2 1), and L.3 1) rely practically in order to be implemented.*

The investor may engage a rack, lines, and gateways. Market lines may only terminate into a Broker rack; this preserves the control requirement for brokers to control the trading activity that use their membership but allows flexibility and mobility for co-location users.
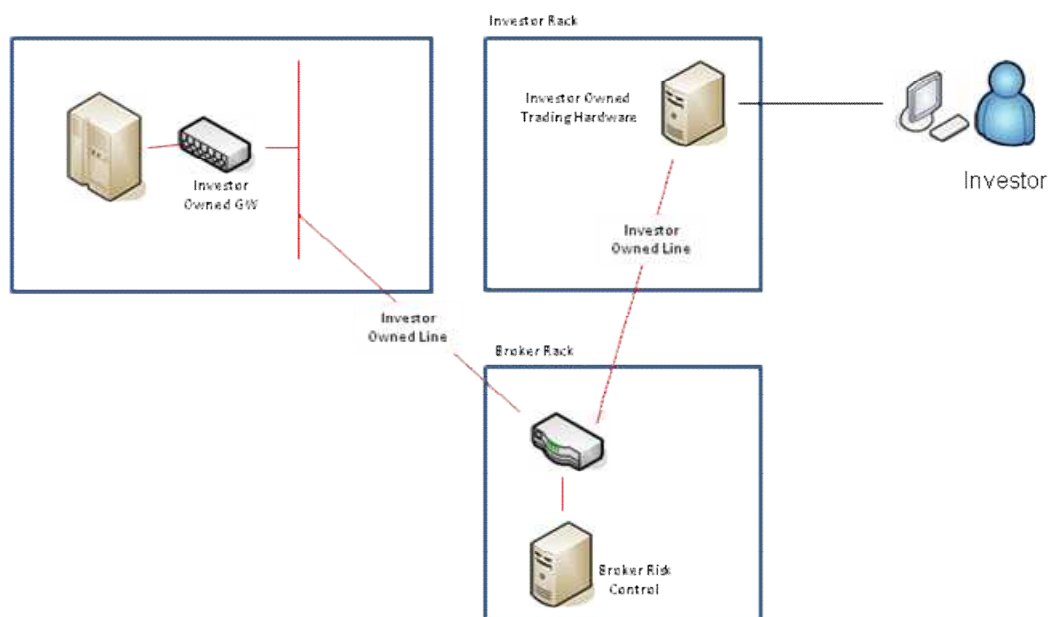
It also allows investors to trade easily with multiple brokers and allows clients to move broker without incurring large costs for the investor or the broker.
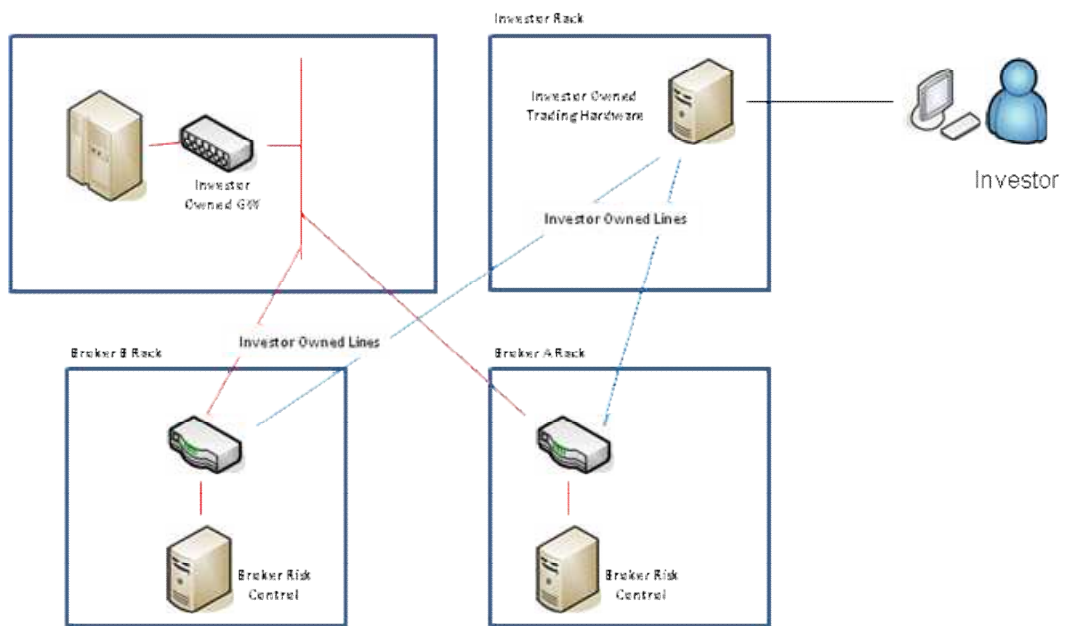
L.1 2) Allow only direct participant Investors (broker members) to contract/rent racks
L.2 2) Allow only the direct market participant to contract/rent a gateway and market facing lines.
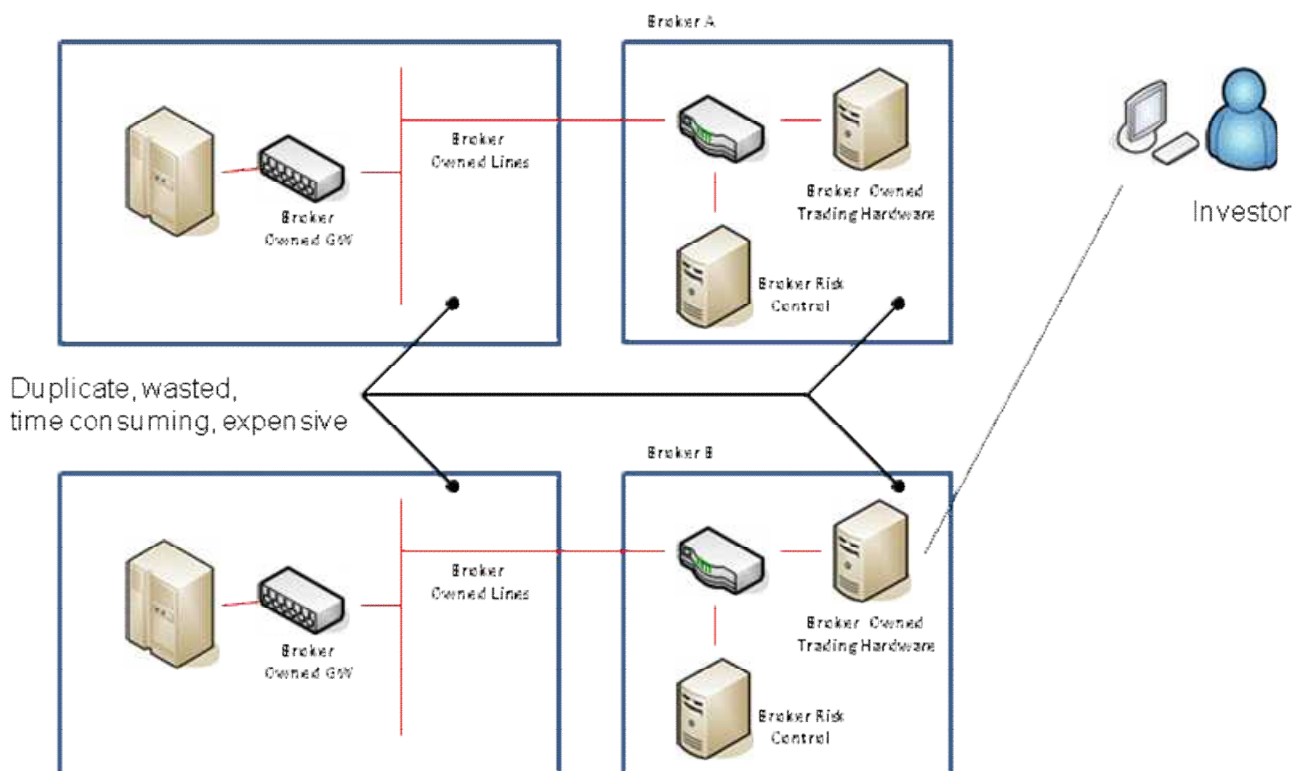**L.3 2) Require end investors to de-rack and re-rack in the new broker's rack.**

The set up for racks, lines and gateways only allows a Broker to take a rack, line and gateway. End investors may not engage their own rack*, line or gateway.
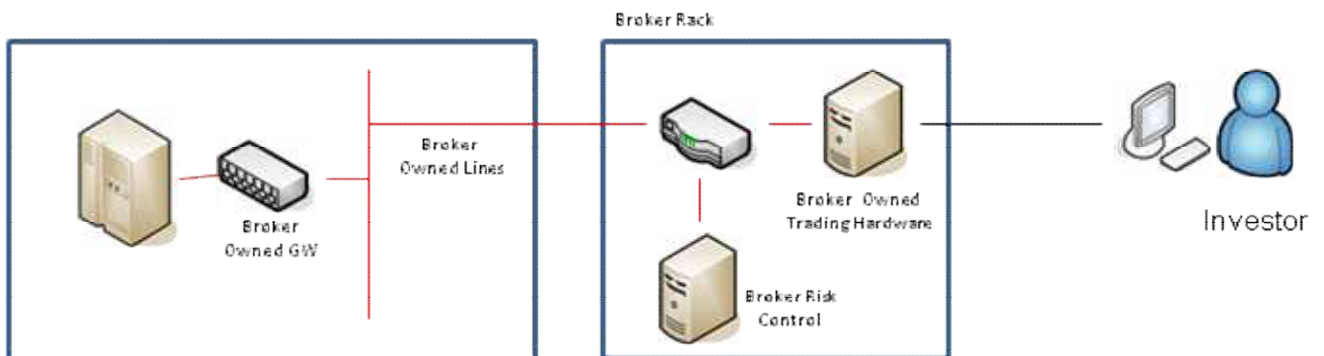
It is very difficult if an end investor wishes to change broker. The end investor must request the entire set up with another broker, which is very expensive for the end investor. The previous broker cannot easily recycle the equipment and it is often discarded.

The exchange must also expend resources to install the new gateway and lines when the end investor changes broker.

Broker A

Broker
Owned Lines

Broker
Owned G/W

Broker Owned
Trading Hardware

Broker Risk
Control

Investor

Duplicate, wasted,
time consuming, expensive

Broker B

Broker
Owned Lines

Broker
Owned G/W

Broker Owned
Trading Hardware

Broker Risk
Control

M.0 Matching Engines/APIs

M.1 *How auction trades and tachiaigai trades are executed through APIs.*

Context
Exchanges who offer both auction trading and tachiaigai trading either…
1) Allow investors to use a single API to execute both auction trading and tachiaigai trades; or…
2) Require investors to use separate APIs to execute auction trading and tachiaigai trades.

Either approach is favored by different participants for different reasons as described below.

1) Allow investors to use a single API to execute both auction trading and tachiaigai trades; or…

All investors and some exchanges prefer this approach.

Business Rationale
Reduce costs for the Exchange.   The exchange can eliminate the costs to support duplicate APIs.
Reduce costs for Investors. Eliminate the costs for investors to connect to the duplicate APIs.

Other Comments/Information
Tachiagai trades are identical to auction trades except that the price and opposite parties are agreed OTC; there is no logical reason to run separate systems for execution of tachiaigai vs. auction trades.

Other systems e.g. Tdex+ and OMX, all use the same auction system to process tachiaigai. Running a separate system to tachiaigai unnecessarily increases costs.

2) Require investors to use separate APIs to execute auction trading and tachiaigai trades.

Some exchanges prefer this approach.

<u>Business Rationale</u>
Reduce costs for the Exchange. The exchange avoids the investment cost to support tachiaigai on the auction trade API.

Technical Description

1) Allow investors to use a single API to execute both auction trading and tachiaigai trades; or…

For example, the OMX and Liffe Connect platforms allow tachiaigai trades to be executed on the same API as for auction trades.

2) Require investors to use separate APIs to execute auction trading and tachiaigai trades.

For example, systems that requires tachiaigai trades to be executed on a different API than auction trades.
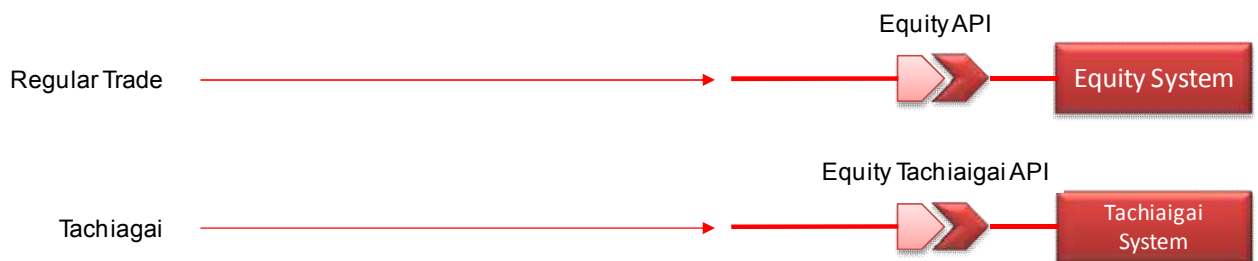
M.2   A single FIX API for all products

<u>Context</u>
Exchanges who offer electronic trading execution APIs either…
1) Provide both native protocols and generic (for example FIX) protocols.
2) Only either native protocols; only generic protocols for example FIX.

Either approach is favored by different participants for different reasons as described below.

1) Provide both native protocols and generic (for example FIX) protocols.

Investors and Technology firms prefer this approach.

<u>Business Rationale</u>
Increase flexibility.   Provide more choice for smaller investors, and trading technology providers, who currently do not trade 'Japan' because they have to write to multiple exchange APIs.
Increase opportunity. Smaller Japanese brokers who cannot afford large IT investments will be easier to connect and trade if simple FIX API was available. More ISVs would operate in Japan if they could connect to the simple FIX API.

<u>Other Comments/Information</u>
In addition to the brokers/clients who wish to write individually and directly to the native APIs of the exchange, there are many brokers/clients who wish to have a single FIX connection for all products. This is because there are many investors who are less concerned about speed, and would like a low cost solution to connect.
The requirement to write only to native protocols prevents smaller brokers from being able to connect; because the cost to write direct to Arrowhead and Derivatives system is high, compared to a simple FIX connection.   And the requirement to only write to FIX prevents more sophisticated investors from achieving their desired performance.

2) Only either native protocols; only generic protocols for example FIX.

Exchanges prefer this approach.

<u>Business Rationale</u>
Reduce costs for the Exchange. Exchanges avoid the cost of providing multiple API protocols.

<u>Other Comments/Information</u>
Brokers typically provide FIX connectivity in their own in-house solutions; the opportunity for less sophisticated investors to access the market via FIX is already generally supported by brokers. For an exchange to provide FIX in addition to native protocols does not materially improve choice or competition (that is already provided by the brokers themselves).

Technical Description

1) Provide both native protocols and generic (for example FIX) protocols.
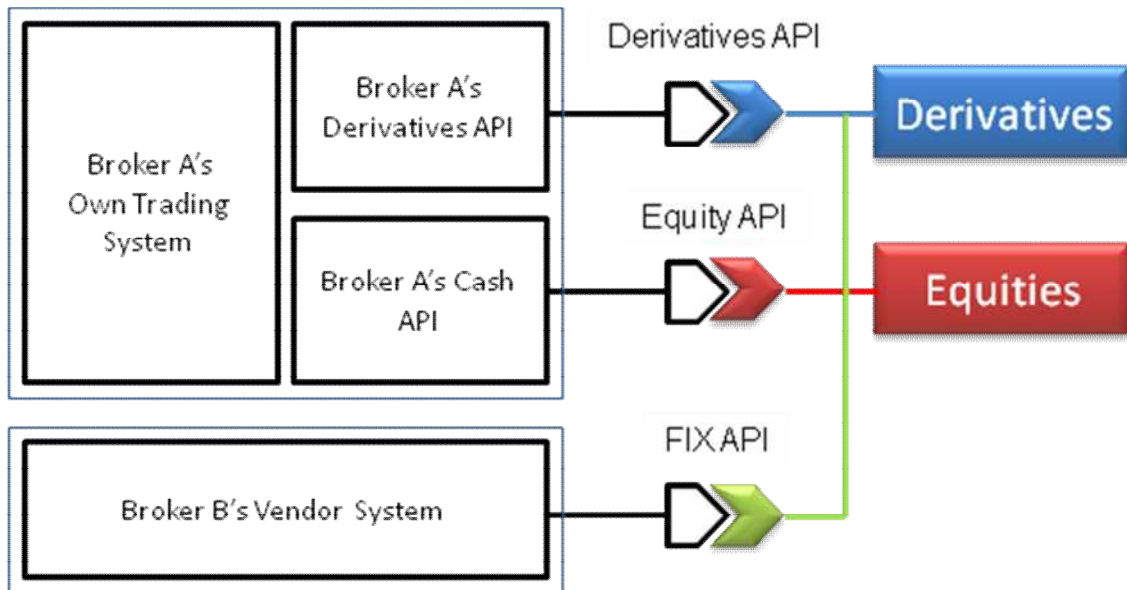
2) Only either native protocols; only generic protocols for example FIX.
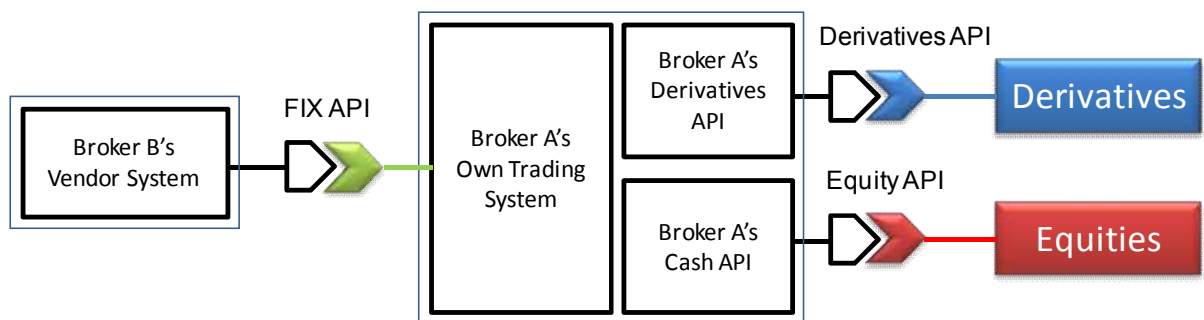
M.3   Recognition of the order originator by ID, rather than the owner of the equipment

<u>Context</u>
Exchanges that operate electronic trading markets either…
1) Recognize the order originator by virtue of a value (ID) attributed to the order messages; this is a logical component (not hardware or architecture) ID and may be changed easily and without need to invest to change physical infrastructure' or…
2) Recognize the order originator by virtue of physical components of the connectivity architecture. For example, the IP address of the server to which the gateway connects, or the ownership of the network gateway and lines to which the investor connects.   Whilst exchanges may incorporate the idea of logical identifiers for orders, these logical identifiers are linked to the physical components and may not be changed easily.

Either approach is favored by different participants for different reasons as described below.

1) Recognize the order originator by virtue of a value (ID) attributed to the order messages

All investors and some exchanges prefer this approach.

<u>Business Rationale</u>
Reduce costs for the Exchange. The costs of the architecture and infrastructure would be reduced if the exchange recognized orders based on logical parameters of the transaction (rather than needing to build infrastructure to achieve the aim).
Reduce costs for Investors.   Many architecture and infrastructures costs would be avoided if the exchange recognized the orders by the logical parameters of the transaction.
Improve flexibility.   It is easy for end investors to use multiple brokers because the orders sent from Broker A or Broker B do not require large technology investments in infrastructure for the sole purpose of identifying the order originator.
Improve opportunity. More brokers are able to compete for business because clients do not have to make large technology investments in infrastructure for the sole purpose of identifying the order originator.

<u>Other Comments/Information</u>
To de-couple the order originator from the physical infrastructure; and to de-couple the owner of the order from the owner of the physical infrastructure, in order to provide to provide flexibility and choice of execution by investors and cost effectiveness of execution.
For example, a client could order their own network gateways and exchange lines. They could register themselves with a number of IDs. They could choose to execute with multiple brokers only by changing the IDs they attribute to the order. They could change broker without needing to change their infrastructure.

2) Recognize the order originator by virtue of physical components of the connectivity architecture

Some exchanges prefer this approach.

<u>Business Rationale</u>

Reduce operational risk. It is easier and less complex for exchanges to recognize order originator simplistically from the owner of equipment (rather than logically from an ID attributed to an order message).
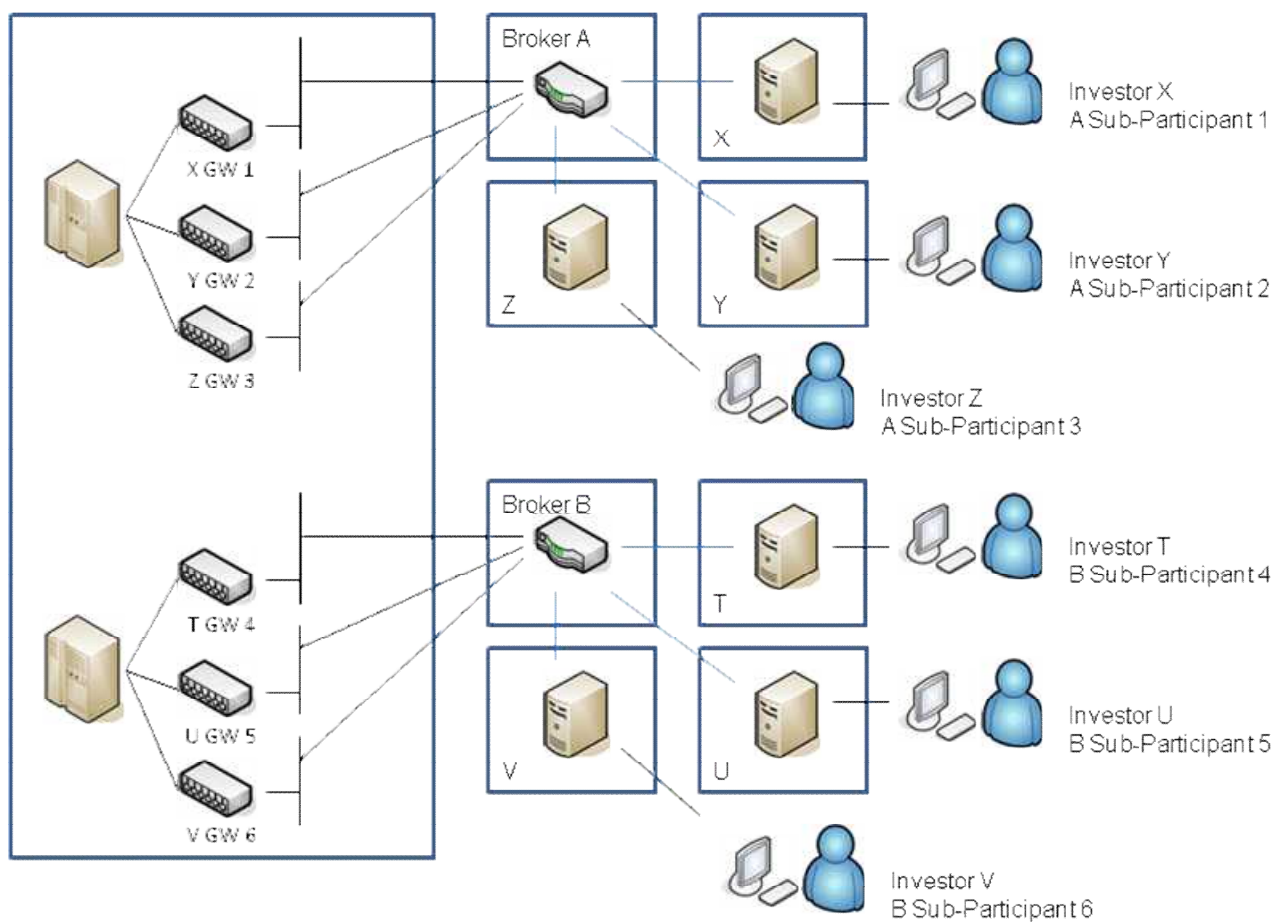
Technical Description

1) Recognize the order originator by virtue of a value (ID) attributed to the order messages

In a simplistic example…

Sub-Participant Code	Order Owner = Broker
#1	A
#2	A
#3	A
#4	B
#5	B
#6	B

Gateway	Gateway Owned By
#1	X
#2	Y
#3	Z
#4	T
#5	U
#6	V

2) Recognize the order originator by virtue of physical components of the connectivity architecture

In a simplistic example…

Gateway	Gateway Owned By	Sub-Participant Code	Order Owner = Broker
#1		#1	A
#2	Broker A	#2	A
#3		#3	A
#4		#4	B
#5	Broker B	#5	B
#6		#6	B

Please see the following diagram (next page)
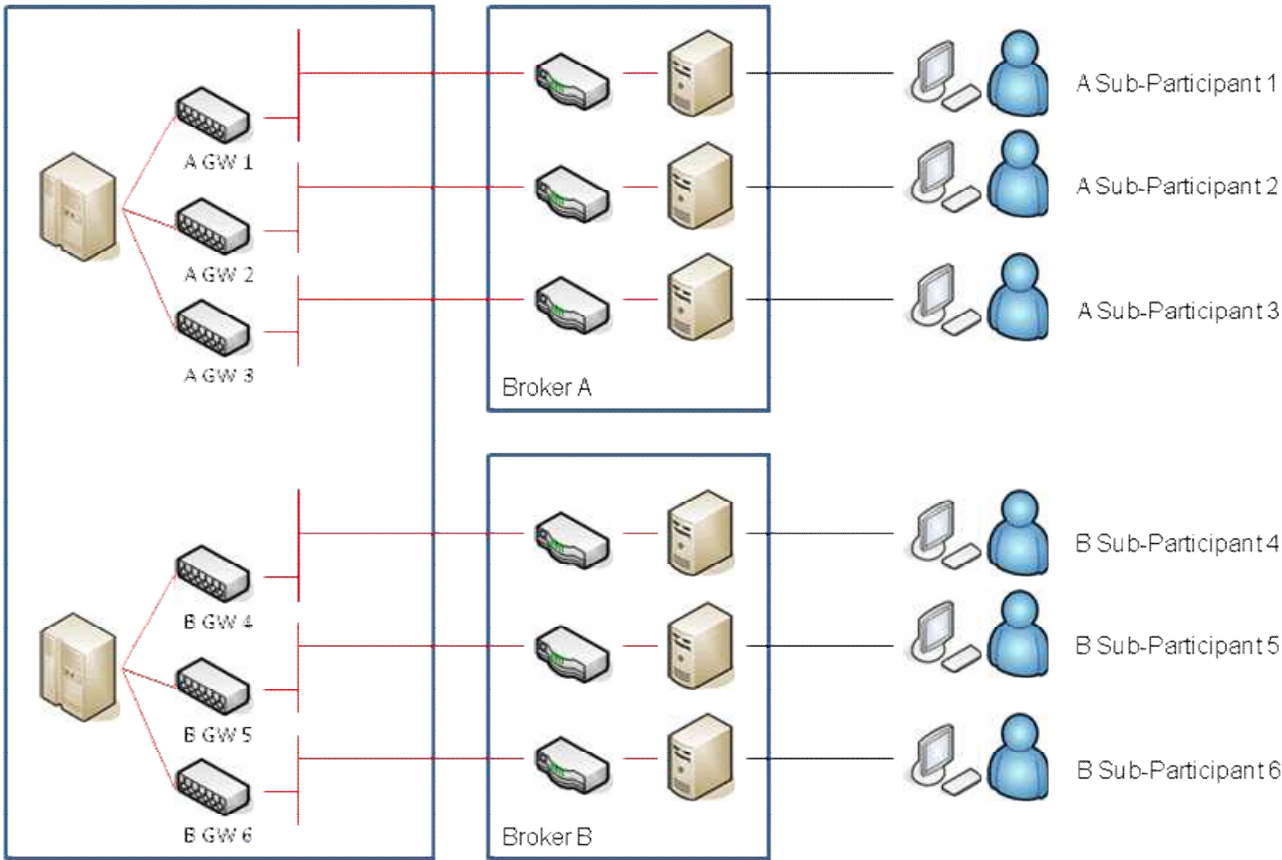
Required future identification of orders

M.4   *Exchange side risk controls*

Context
Exchanges that offer electronic trading markets either…
1) Implement pre-trade risk controls (fat finger, etc.,) on the exchange side; or…
2) Require investors (brokers) to implement pre-trade risk controls (fat finger, etc.).

Either approach is favored by different participants for different reasons as described below.

1) Implement pre-trade risk controls (fat finger, etc.,) on the exchange side

Investors and some exchanges prefer this approach.

Business Rationale
Improve technology. Consistent exchange side controls are a better technology solution (more consistent) than allowing multiple, variable solutions implemented by each broker.
Reduce operational risk. A consistent set of controls, which the exchange could see, would reduce operational risk.

Other Comments/Information
Consistency and uniformity of controls; eliminates broker compliance policy arbitrage and improves competition.

2) Require investors (brokers) to implement pre-trade risk controls (fat finger, etc.).

Some Exchanges prefer this approach.

Business Rationale
Reduce operational risk.   Fundamentally, the broker is responsible for the control of all activity performed on it's membership. Removing formal responsibility from Brokers to manage pre-trade risk would increase the operational risk probability that a broker did not perform those primary control duties.

Other Comments/Information
Brokers should perform risk controls regardless of whether pre-trade risk controls exist at the exchange side; the brokers are more qualified to determine appropriate risk controls and already performing the activity; there is no reduction in risk if the controls exist on the exchange side.

M.6 Mechanisms that allow users to initiate the cancellation of their orders direct with the exchange.

Context
Exchanges who offer electronic trading markets either…
1) Provide an independent* mechanism for direct cancellation of orders; or…
2) Not provide an independent* mechanism for direct cancellation of orders.
*independent of the trading APIs.

Either approach is favored by different participants for different reasons as described below.

1) Provide an independent* mechanism for direct cancellation of orders; or…

Investors prefer this approach.

Business Rationale
Reduce operational risk.   Reduce the delay for client to initiate the cancellation of a request. Eliminate the current operational risk 'gaps' (remote members, the broker looses all connectivity).

Other Comments/Information
Many global exchanges provide such a service. As an additional advancement, it would be ideal to have an automated portal (either email with password and user ID) or web portal where members and/or investors could login and initiate the cancel automatically. Similarly on the exchange side, the action would be automatically initiated by the matching engine - in order to reduce the time to cancel the order.

Currently members are wholly responsible for cancelling their own orders and have no reasonable recourse when systems fail. The "Emergency Log-out" approach is not sufficient for a modern exchange. The additional advancement of an automated portal would provide even speedier and more sophisticated protection.   The current approach does not work in the case of the remote member; if the remote member loses their systems – how does he/she cancel their own trades? The current approach does not work when the broker loses connectivity to the market – how does the end investor or broker cancel his/her trades?

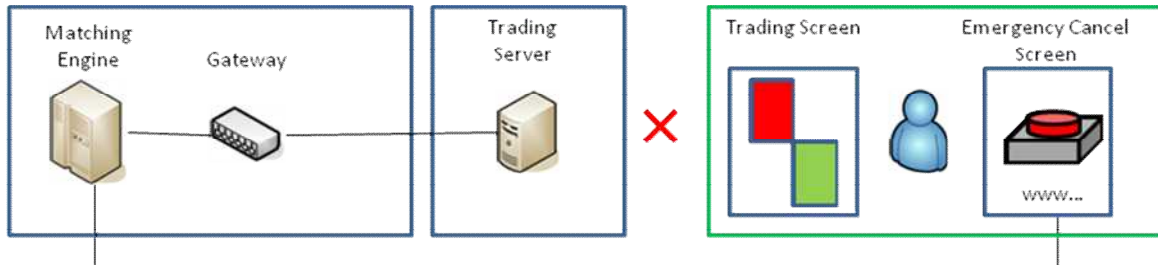**2) Not provide an independent* mechanism for direct cancellation of orders.**

Business Rationale
Reduce costs for the Exchange. Exchanges do not have to invest in technology to provide an independent cancellation mechanism.

Technical Description

1) Provide an independent mechanism for direct cancellation of orders

For example, in the event that the connection is lost to the trading server, a web based order cancellation screen should allow the participant to cancel all open orders.


2) Not provide an independent* mechanism for direct cancellation of orders.

In this example, the only mechanism available to a participant to cancel orders on all systems is by sending orders from an active trading server.

If the connection to trading server has failed, but the trading machine remains connected to the market, there is no mechanism to stop the trading machine from running.

In the case of remote memberships, there is no broker who might have an alternative connection.
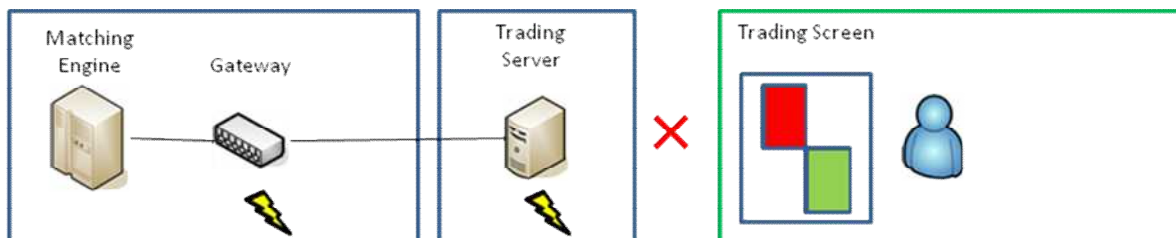
CL.0 Clearing

CL.1 Real time clearing feeds

<u>Context</u>
Exchanges/Clearing houses that provide electronic clearing feeds either…
1) Provide a *real time* clearing feed to the brokers; or…
2) Provide an *end of day* clearing feed to the broker.

Either approach is favored by different participants for different reasons as described below.

1) Provide a real time clearing feed to the brokers

Investors, some exchanges/clearing houses and regulators prefer this approach.

<u>Business Rationale</u>
Improve technology.   Real time feeds are a better solution than batch feeds.
Reduce operational risk. Real time feeds provides the clearing broker with settlement confirmation earlier than end of day batch feeds; therefore reducing the operational risk that position breaks have occurred, and improves the reaction time for those breaks to be fixed.

<u>Other Comments/Information</u>
Given the high volume an end of day clearing feed becomes unworkable because it's size to process takes too long if sent only at end of day. A real time clearing feed could be process progressively by clearing brokers.

2) Provide an end of day clearing feed to the broker

Some clearing houses prefer this approach.

<u>Business Rationale</u>
Cost reduction for the Exchange/Clearing house.   The exchange/clearing house does not bear the burden of providing clearing data to brokers in real time.

CL.2   How OTC equity (market) trades are cleared

Context
Exchanges/Clearing houses either…
1) Centrally clear both exchange traded equities and OTC equity (market) trades; or…
2) Clear exchange trade equities and OTC equity (market) trades separately.

Either approach is favored by different participants for different reasons as described below.

1) Centrally clear both exchange traded equities and OTC equity (market) trades

Investors, some exchanges/clearing houses and regulators prefer this approach.

Business Rationale
Reduce costs for the Exchange/Clearing house. Reduce costs for the Central Clearing Counterparty (CCP) transferring positions to and from the Central Securities Depository (CSD).
Reduce costs for Investors. Reduce costs for Investors paying both CCP and CSD twice for the same clearing action.
Reduce operational risk. Maintaining fewer clearing/settlement interfaces reduces operational risk.

Other Comments/Information
There is no logical reason to maintain separate clearing systems and CCPs for exchange and OTC equity trades.   Clearing OTC trades through a CSD, additional to the exchange traded equities clearing through a CCP, unnecessarily increases costs to investors. The system architecture to allow OTC equity (market) trades to be matched and cleared should be the same as for auction trades. To maintain the separate system interfaces for pre-settlement matching at a CSD, separate from the CCP creates a cost and burden for market participants which are unnecessary.

2) Clear exchange trade equities and OTC equity (market) trades separately

Some exchanges/clearing hours prefer this approach.

Business Rationale
Reduce costs for the Exchange/Clearing house. The CCP and CSD do not incur the investment costs to change to centrally clear all transactions.

<u>Technical Description</u>

1) Centrally clear both exchange traded equities and OTC equity (market) trades

The activity of clearing is centralized in the CCP for both exchange traded and OTC trades. The activity of CSD is as custodian for any settled position.
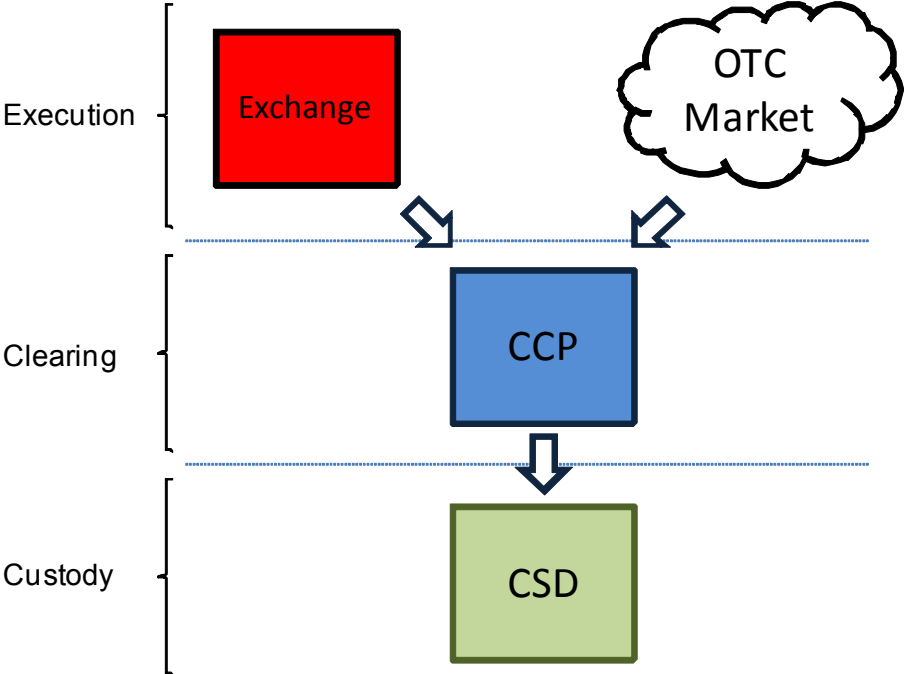
2) Clear exchange trade equities and OTC equity (market) trades separately

For example, exchange traded products are centrally cleared by a CCP which interfaces to the CSD for settlement/custody.   However, the CSD performs the 'clearing' role for OTC equity (market) trades separately from the CCP, as well as performing the role of CSD.
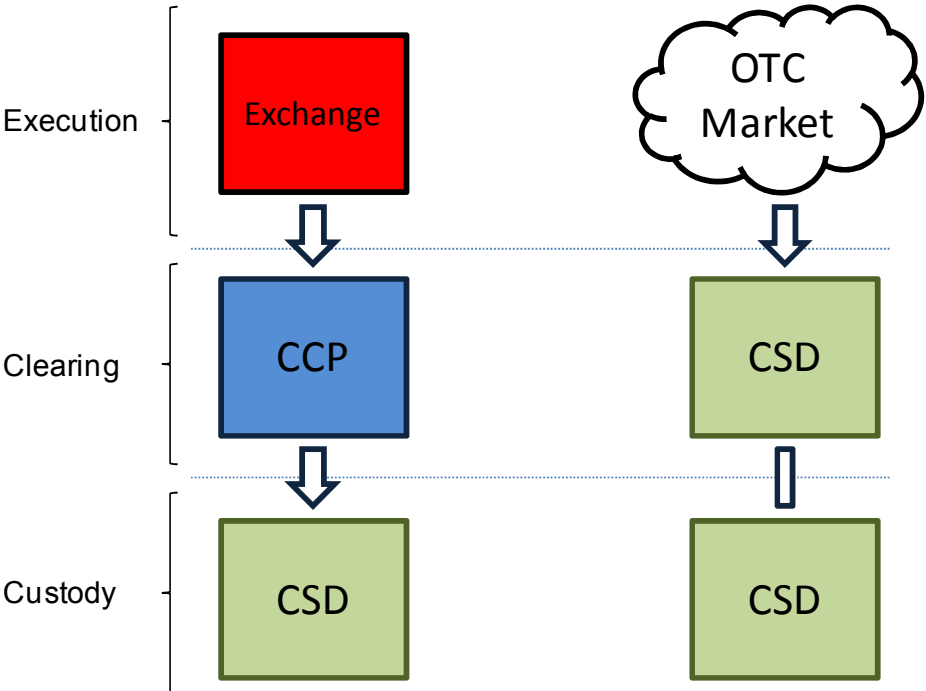
CL.3 The netting of payments to/from clearing houses

Context
Exchanges/Clearing houses either…
1) Allow brokers to make a net payment of i) margin owed plus 'buy' settlement payments and ii) margin to be returned plus 'sell' settlement receipts; or…
2) Require brokers to make a gross payment of margin owed plus 'buy' settlement payments, and a separate gross payment of margin to be returned plus 'sell' settlement receipts.

Either approach is favored by different participants for different reasons as described below.

1) Making net payments to/from clearing houses.

Investors and some Exchanges/Clearing houses prefer this approach.

Business Rationale
Reduce costs for the Exchange/Clearing house. Making gross payments and receipts creates a huge funding cost for the Exchange/Clearing house who have to fund the receipt and payment; if the payment were netted the Exchange/Clearing house funding costs would be significantly reduced.
Reduce costs for Investors. Making gross payments and receipts creates a huge funding cost for the investors who have to fund both the receipt and payment; if the payment were netted the investors funding costs would be significantly reduced.
Reduce operational risk. Managing net payments reduces operational risk in default situations.

Other Comments/Information
There is no logical or practical reason, given modern banking systems, to maintain gross payments between Exchange/Clearing house and brokers. A similar situation used to exist in FX markets (gross settlement); however the industry realized that volume growth would mean that it would not be possible to maintain gross settlement of FX – the securities industry will encounter a similar problem if gross payments continue.
For example, in many markets the clearing house allows a single net payment to be made by brokers to/from the clearing house.

2) Making gross payments to/from clearing houses.

Some exchanges/clearing hours prefer this approach.

Business Rationale
Reduce costs for the Exchange/Clearing house. The clearing house avoids the cost to change procedures to adopt net payments.

CO.0 Co-location Access / Physical

CO.1 The structure of co-location (data centers) that service multiple venues

Context
Financial markets that have multiple participants can exist either…
1) A single generic co-location in the same data centre; a data centre venue operator provides a single generic co-location which many exchanges use as their co-location and for which investors are not physically segregated between exchanges.
2) An exchange delineated co-location in the same data centre; a data centre venue operator provides a venue which many exchanges use, but practically each co-location is separated physically and logically.

Either approach is favored by different participants for different reasons as described below.

1) A single generic co-location in the same data centre

Investors and some exchanges prefer this approach.

Business Rationale
Reduce costs for Investors. Investor's costs to connect to 'Japan' would be reduced by only having one co-location site/rack.
Improve technology. Having a single co-location site with access to multiple markets is a better technology set up than having duplicate sites/systems.
Increase flexibility. Choice for investors is increased; investors can more easily choose to access multiple products/markets.

Other Comments/Information
Given the fact of multiple exchanges deploying co-location facilities, the industry would like to enjoy the significant advantage of being able to trade from a single rack for multiple exchanges. The advantage (of being able to trade from a single rack) is particularly necessary for the smaller domestic brokers/investors who cannot afford to maintain multiple racks; to prohibit a 'borderless' co-location would punitively and specifically disadvantage local Japanese investors.

2) An exchange delineated co-location in the same data centre

Some exchanges prefer this approach.

Business Rationale
Increase opportunity. Exchanges can legitimately differentiate their products by limiting access to the advantages of co-location to only those investors who are willing to use the exchange's co-location (rather than the co-location of a competing exchange) to access their market.

Other Comments/Information
It is legitimate for exchanges to competitively restrict access for valuable resources; in this case – the speed of trading that co-location infers. And legitimate for exchanges to be refuse to allow other exchanges, who may use the same venue, to enjoy the advantage of that speed.

<u>Technical Description</u>

1) A single generic co-location in the same data centre

For example, ideally a single co-location site would exist in which participants could access all markets from a single rack.
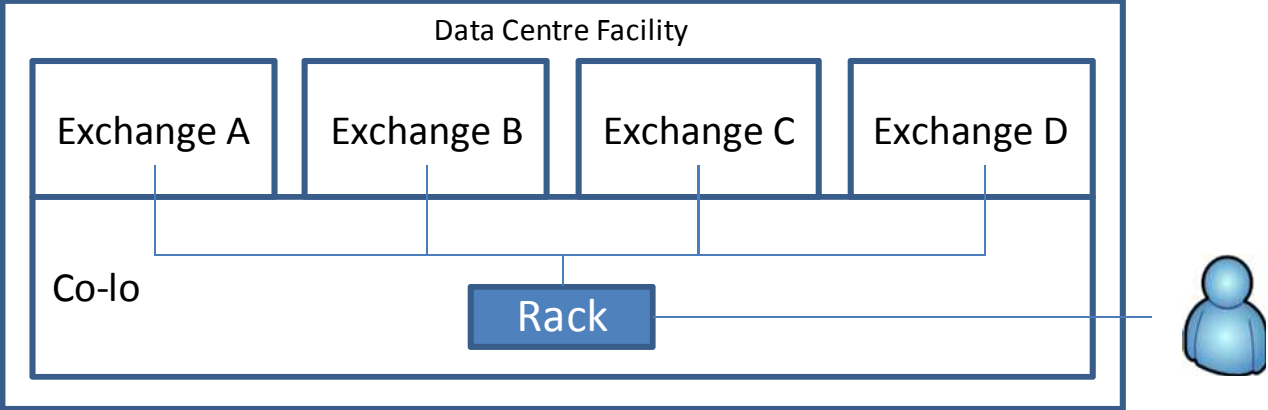
2) An exchange delineated co-location in the same data centre

For example, each exchange operates a co-location site as the same data centre. Each venue offers its own co-location area. Whilst it may be possible to cross connect between some exchange, each venue requires participants to take rack cabinets within their co-location space.
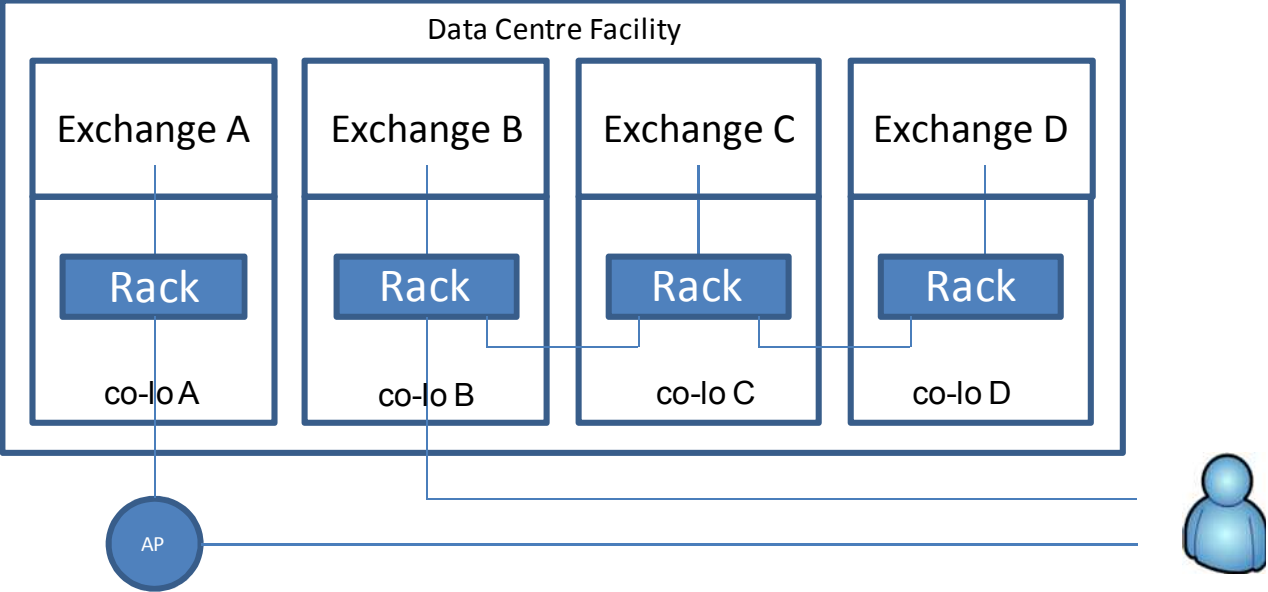
CO.2 Short term shipment storage facilities at data centers

Context
Exchanges who offer co-location may use a data centre that offers a short term storage facility to manage equipment being shipped into, or out from, the co-location.

Investors prefer a short term storage facility to be available at co-location sites.

Business Rationale
Improve flexibility.   A short term shipping facility provides convenience to brokers/investors for their installation work.

Other Comments/Information
It is difficult to manage international shipments of equipment to the co-location facility because international shippers do not guarantee a specific time for delivery and some co-location operators require delivery on a specific time. Currently this is managed by brokers receiving and temporarily storing kit, but this situation does not work for remote members.

CO.3 Long term storage facilities at data centers

Context
Exchanges who offer co-location may use a data centre that offers a [non-colo] long term storage facility to store equipment of investors.

Investors prefer a long term storage facility to be available at co-location sites.

Business Rationale
Improve flexibility.   A long term shipping facility provides convenience to brokers/investors for their installation work.

Other Comments/Information
Many members and their investors have inventory of equipment which needs to be stored between 1-6 weeks whilst other activities are being performed.

CO.4 Staging areas for installation-preparation

Context
Exchanges who offer co-location may use a data centre that provides a staging area to open (or pack) boxes and prepare equipment for racking (or shipment out).

Investors prefer a staging area to be available at co-location sites.

Business Rationale
Improve flexibility.   A staging area provides convenience to brokers/investors for their installation work.

PA.0 Process/Administration

PA.1 How applications (for data center services) are managed/administered

<u>Context</u>
Exchanges that offer co-location may offer either
1) A web portal for managing application requests, e.g. ordering racks, lines, arranging conformance weekends and installations; or...
2) A manual process for managing application requests.

Either approach is favored by different participants for different reasons as described below.

1) A web portal for managing application requests

Investors and some exchanges prefer this approach.

<u>Business Rationale</u>
Reduce costs for the Exchanges. The exchanges avoid the costs to administer applications in hard copy/manually.
Improve technology. Applications for IT change are better managed via electronically/automated by call logging and work management software.
Increase flexibility.   It is more convenient for Brokers and end investors to make applications electronically. It is more convenient for foreign brokers and investors to make submissions in Japanese.

<u>Other Comments/Information</u>
Processes which require equipment orders to be submitted on hard copy forms, and by fax are outdated. The manual processing of application forms is overly administrative and bureaucratic. The turnaround time for manual receipt of forms, and confirmation of orders is too long. Other countries/exchanges can process orders for racks, conformance and services in a matter of a couple of days. Exchanges that turnaround equipment applications in a matter of months are therefore poor by comparison to what can easily be achieved.
The current requirement that the forms be entirely submitted in Japanese limits foreign investor participation in Japan; if Japan wishes to host globally competitive exchanges, exchanges should support English as a language for interaction.

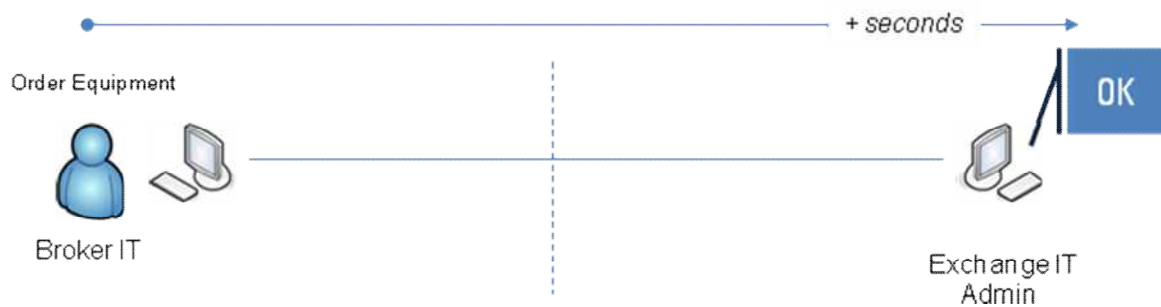**2) A manual process for managing application requests**

Some exchanges prefer this approach.

Reduce costs for the Exchange. The exchanges will avoid the investment cost of building an automated mechanism for processing requests.

<u>Technical Description</u>

1) A web portal for managing application requests

Equipment and services requests for exchange services can easily be automated on the web.

2) A manual process for managing application requests

For example, a process for ordering requires forms to be submitted in hard copy; a process which takes 1 week to receive a confirmation from the exchange.
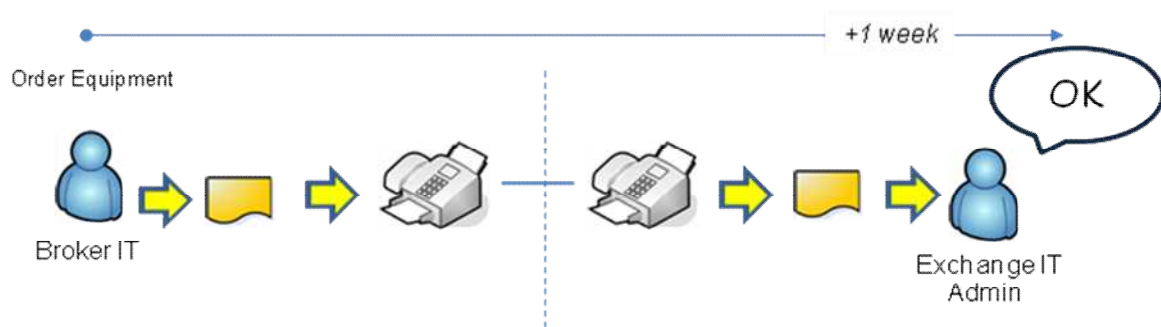
R.0   Rules

R.1   Error trade policies

<u>Context</u>
Exchanges may either..
1) Choose to implement a 'manifest error' trade policy for derivatives; or...
2) Choose not to implement a 'manifest error' trade policy.

Either approach is favored by different participants for the reasons described below.

1) Implement a 'manifest error' trade policy for derivatives

<u>Business Rationale</u>
Reduce Operational Risk. Operational risk will be reduced if derivatives market has a manifest error trade policy.

<u>Other Comments/Information</u>
In other markets, error trades such as sell 655,000 shares at 1 jpy (*as opposed to 1 share at 655,000 jpy*) are considered to be illegitimate trades, because even retail investors can tell that the transaction is in error <u>*because*</u> the trade is 'manifestly' or obviously, in error. In this case, the broker has the ability to call the exchange within a defined period e.g. 10 minutes, to lodge a request that the trade be investigated as manifestly in error. Upon review, and if agreed, all trades can be reversed. Such a policy is normal in other global exchanges.

2) Do not have a 'manifest error' trade policy

<u>Business Rationale</u>
Reduce costs for the Exchanges. Exchanges avoid the costs of having to arbitrate between parties who may disagree on whether a trade was 'manifest' in error.

R.2   The practicality of exchange fee discount schemes

Context
Exchanges that offer incentive schemes strike a balance between…
1) Schemes which are structurally simple; whose application is relatively imprecise, but easy to understand and process; or…
2) Schemes which are complex; whose purpose it meet the needs of many investor types or exchange motivations, but are hard to understand and process.

Either approach is favored by different participants for different reasons as described below.

1) Schemes which are structurally simple

Some investors (brokers) and some exchanges prefer this approach.

Business Justification
Reduce costs for exchanges.   Costs for exchanges are reduced if the incentive schemes can be easily calculated/administered.
Reduce costs for Investors.   Costs for brokers are reduced if the incentive scheme can be automatically processed by the clearing systems.

Other Comments/Information
~) Retroactive rates; schemes which apply retroactively into the past, cannot be automated. Investors do not know their cost of execution at the point of decision making. The retroactive schemes provide problems to the brokers/investors in booking expenses on the general ledger (because previous expense accruals need to be reversed/adjusted when the actual cost is known).

~) Rates which depend on total market volume, cannot be automated by the broker. Schemes which rely on activity outside of the broker cannot be known to the broker.

~) Complex schedules; schemes which have too much complexity cannot be automated. For example, JSCC and JASDEC fees based on net settled position, or based on each individual type of settlement cannot be easily understood by investors, or coded by brokers.

2) Schemes which are complex

Some investors (end clients) and some exchanges prefer this approach.

Business Justification
Reduce costs for Investors. Costs for end investors are reduced if the incentive scheme can be directly applied to their individual performance.
Increase opportunity. The exchange can attract more investors if the investment scheme can be tailored to the specific motivation of many different investor type/class.

R.3 How Exchange fees for give up trades are charged to the clearing broker

Context
Exchanges that support a 'give up' market structure either…
1) Charge exchange 'clearing' and 'execution' fee component to the clearing broker (who then further charges the execution broker); or…
2) Charge exchange 'clearing' fee to the clearing broker, and separately the exchange 'execution' fee to the execution broker.

Either approach is favored by different participants for different reasons as described below.

1) Charge exchange 'clearing' and 'execution' fee component to the clearing broker

Some investors (brokers) prefer this approach.

Business Rationale
Improved flexibility. Adopting a global standard for fees enables Japanese brokers to more easily expand into foreign markets, and reduces the costs for foreign brokers to enter Japan.

Other Comments/Information
It is more common market practice in other global markets for the clearing broker to pay the exchange execution fee and to debit the client (for that fee). There is no utility in the uniquely Japanese current practice of charging a "transaction fee" to the executing broker and a "clearing fee" to the clearing broker – this causes confusion and hinders the progress of transparency and automation. It would be simpler for clients and brokers if all exchange fees were simply charged to the clearer in accordance with the global standard. Of course that would preclude executing brokers receiving volume discounts, so unless the current discount structure is revised, executing brokers could lose out.

2) Charge exchange 'clearing' fee to the clearing broker, and separately the exchange 'execution' fee to the execution broker.

Some investors (brokers) prefer this approach.

Business Rationale
Reduce costs for Investors. The structure of charging the clearing brokers and execution broker directly for their activity is simpler and more cost effective than brokers recharging each other. There is a proven problem of 'unpaid brokerage' in all markets where the clearing broker attempts to charge the execution broker post trade.

Other Comments/Information
Amongst Japanese brokers there is far less adoption of 'execution only' business such that, whilst it is recognized that an international give up structure is more common outside of Japan, the Japan give up structure is more suited to domestic brokers.