



NEW ZEALAND'S EXCHANGE  
TE PAEHOKO O AOTEAROA

# NZX Participant Guidance Note

Direct Market Access

November 2021



The purpose of this Guidance Note is to provide guidance to NZX Participants in relation to Direct Market Access encompassed by the NZX Participant Rules and NZX Derivatives Market Rules.

Under Participant Rule 21.4.1 and Derivatives Market Rule 14.14.1, NZX may act by and through NZX Regulation Limited (NZ RegCo) in performing any function or discharging any power set out in the Rules. References in this Guidance Note to NZX therefore also include NZ RegCo in relation to any regulatory activity or discretion.

This Guidance Note replaces the previous Direct Market Access Practice Note published in April 2011.



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This Guidance Note has been issued by NZX to promote market certainty and assist market participants. This Guidance Note sets out NZX's general approach to the subject, but is not to be regarded as a definitive statement of the application of the Rules in every situation. Examples set out in this Guidance Note are limited and are not designed to cover all eventualities. NZX may replace Guidance Notes and Practice Notes at any time and an NZX Participant should ensure it has the most recent versions of these documents. Guidance Notes do not constitute legal advice. NZX recommends that NZX Participants take advice from qualified persons.



# 1. Introduction

The purpose of this Guidance Note is to provide guidance and best practice information for Participants in respect of trading on NZX's markets via Direct Market Access (**DMA**), including:

- The fundamental principles, definitions and interpretations that NZX considers underpin the role of Participants who allow access to NZX markets via DMA;
- The process and information required to be designated as a DMA Participant and/or have a new DMA order entry system (**DMA System**) approved to connect to the Trading System;
- The controls and security arrangements Participants are required to establish when granting access to a DMA System;
- Expectations in relation to the setting and maintenance of DMA filters;
- Additional considerations to be made in respect of algorithmic trading via DMA; and
- Compliance monitoring and oversight expectations.

Adequate processes, controls and oversight of a Participant's DMA function contribute to good conduct practices which underpin fair, orderly and transparent markets and promote market integrity.

## 1.1 Scope of this Guidance Note

This Guidance Note addresses considerations relating to trading on NZX's markets via DMA under both the Participant Rules and the Derivatives Market Rules (**the Rules**).

References to "**Participants**" in this Guidance Note include:

- Trading Participants as defined in the Derivatives Market Rules; and
- Trading Participants as defined in the Participant Rules;

as specified in each relevant Rule.

Capitalised terms which are not defined in this Guidance Note have the same meanings given to them in the Rules.

# 2. Key Principles

## 2.1 What is DMA?

Under the Rules, DMA is defined as:

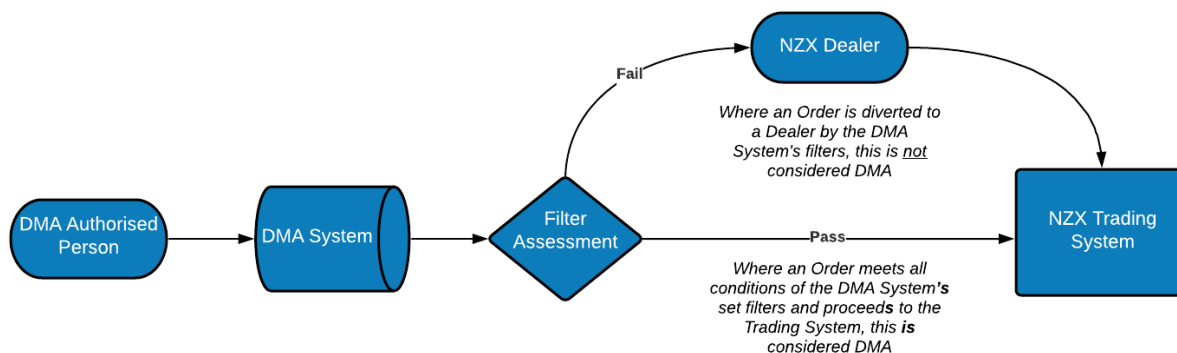
*"the automatic entering of Orders directly into the Trading System via the Order entry system of a Trading Participant, including those Orders submitted via Direct Client Order Processing (DCOP)";*



Where DCOP means:

*“the process by which an Order is submitted by a DMA Authorised Person directly into the Trading System via the order entry system of a Trading Participant without being accepted or re-keyed by a Dealer of that Trading Participant”.*

Put simply, an Order is considered to be a DMA Order where it has been entered into the Trading System without the intervention, handling or sighting by a designated NZX Dealer.



DMA is also commonly referred to as direct electronic access (DEA), automated client order processing (ACOP), or Automated Order Routing System (AORS) across other Recognised Securities Exchanges and Alternate Regulators.

## 2.2 DMA Authorised Persons

DMA Orders must only be submitted by DMA Authorised Persons, being:

*“a person, not being a Dealer of the relevant Trading Participant, who has proper authority from a Trading Participant and is employed by or acts for/or by arrangement with a Trading Participant to submit Orders into that Trading Participant's Order entry system for Direct Market Access”*

DMA Authorised Persons are not accredited by NZX, but are authorised to have direct access to a Trading Participant's approved DMA System to enter DMA Orders in one of the following capacities:

- As a client of the Trading Participant, being a **DMA Authorised Client**; or
- As an Employee of a Trading Participant employed for the purpose of Trading or dealing in Securities on behalf of clients, being a **DMA Authorised Employee**.

While any external entity or person granted written access to a Participant's DMA System would be considered a DMA Authorised Client, and may be an organisation or an individual as relevant to the particular client, an example of a DMA Authorised Employee would be an NZX Adviser or NZX Derivatives Adviser approved to submit Orders direct to market via the DMA System on behalf of clients of the Participant.

## 2.3 DMA Systems

The DMA requirements apply to a Participant's order entry system that connects to the Trading System to submit Orders under that Participant's identification code via DMA. These obligations apply equally to any DMA System that connects directly to the Trading System, including for example:

- A proprietary system of the Participant developed in-house to send Orders to the Trading System via DMA;
- An order entry system of an independent software vendor used by the Participant and its clients to send Orders to the Trading System via DMA; and
- An order entry system where the Participant's client is also the software vendor that is used by the Participant to send Orders to the Trading System via DMA.

## 2.4 Fundamental Obligations

As a fundamental obligation, Participant Rule 4.5.5 and Derivatives Market Rule 8.3.6 provide that Trading Participants are responsible for ensuring the accuracy of the details, the integrity and bona fides of *all* trading messages entered into the Trading System using that Trading Participant's identification code. This applies equally and regardless of whether the trading messages are entered into the Trading System:

- Via a Dealer; or
- As a result of the Trading Participant allowing access to its order entry systems **via DMA**.

With specific regard to DMA, this obligation is expanded upon under Participant Rule 10.8 and Derivatives Market Rule 8.4.2, requiring that a Participant must ensure that it and any of its DMA Authorised Persons comply with the Rules, Procedures, NZX directions and Good Broking Practice at all times and this includes having in place appropriate filters, screens and security measures.

With each Participant that offers DMA being responsible and liable for Orders entered/submitted into the Trading System by DMA Authorised Clients and DMA Authorised Employees alike, Participant Rule 10.9.1 and Derivatives Market Rule 8.5.1 require a Participant to have adequate protocols to ensure only the authorised entities and individuals are granted access to its DMA System. Irrespective of the method by which Orders are entered into its DMA System, the Participant is equally responsible for all trading messages submitted into the Trading System.

## 3. Approval for DMA

Where a Participant wishes to provide Direct Market Access to a market provided by NZX to its clients and/or Employees, it must apply to NZX to become a Direct Market Access Participant and have its DMA order entry system approved for connection to the Trading System.

In accordance with Participant Rule 10.8.3 and Derivatives Market Rule 3.5.1, the Participant must complete the respective application form as provided in either:

- Appendix 12 to the Participant Rules – DMA Application; or
- Form 8 in the NZX Derivatives Market Procedures - Direct Market Access Application.

Where a Participant has already been granted approval as a DMA Participant but wishes to connect an additional DMA System, a separate application must be made for each additional DMA system through which the Participant proposes to offer DMA.

In assessing an application for approval of a DMA Participant or DMA System, NZX will consider the following factors:

- *Technology* – the DMA System’s technical capacity to be connected to the Trading System, including satisfaction of conformance, connectivity and validation;
- *Management controls and compliance procedures* – oversight by the Participant’s key management personnel responsible for the DMA function;
- *DMA System Access and Security* – controls and procedures for ensuring only appropriate DMA Authorised Employees and DMA Authorised Clients are given access to the DMA System;
- *DMA Authorised Persons Register* – the arrangements for maintenance of the register that contains details of the clients and Employees authorised for DMA;
- *DMA Filters* – the adequacy of the DMA System’s pre-trade controls and proposed parameter settings; and
- *Compliance Monitoring* – the ongoing monitoring arrangements for the new DMA System, and incorporated as tasks in the Participant’s Compliance Monitoring Plan.

For further guidance on the application process and the supporting information to be supplied, the following document should be consulted:

- [DMA Participant & System Application Information](#)

## 4. DMA System Access and Security

As an electronic gateway for bringing Orders to the Market, the access protocols and security arrangements for a DMA System are a critical factor in maintaining market integrity and orderliness. In addition to ensuring adequate policies and processes are in place for ensuring only authorised entities and individuals are granted access to a DMA System, a Participant must ensure robust system controls and capabilities exist with the ability to limit, suspend and revoke access to the Market.

Participant Rule 10.9.1 and Derivatives Market Rule 8.5.1 require that a Participant providing DMA must have procedures in place, including:

- (a) For authorising DMA Authorised Persons to submit Orders into the DMA System;
- (b) To ensure that each DMA Authorised Person is made aware of the appropriate use of the DMA System, the relevant Rules, Good Broking Practice, applicable Guidance Notes and any directions issued from time to time by NZX;
- (c) For taking reasonable steps to ensure that each DMA Authorised Client makes any individuals who will place Orders via DCOP on its behalf aware of the matters in (b); and
- (d) For recording any security arrangements between the Participant and the DMA Authorised Persons regarding the devices connected to the DMA System.

NZX acknowledges that responsibility for these processes will sit across a number of business functions, including the front office, IT and compliance. Coordination between departments, management oversight and compliance monitoring are therefore critical aspects to be considered in establishing controls and procedures.

#### **4.1 Approval of DMA Authorised Person**

In granting DMA Authorised Clients and DMA Authorised Employees access to a DMA System, a Participant must establish procedures and documentation for undertaking the due diligence such entities and individuals will undergo. In addition, robust controls and oversight for ensuring the process's completion prior to any user being able to place an Order via the DMA System must be put in place.

NZX expects each of the following factors to be accounted for by Participants, noting that the factors may be accounted for across a number of the Participant's business units associated with the DMA function:

- The appropriate use of the DMA System:
  - The provision of clear instructions and guidance materials for using the DMA System;
  - Written acknowledgement from DMA Authorised Persons of their understanding of how to use the DMA System;
- Applicable NZX obligations:
  - Making users aware of all applicable Rules relating to trading conduct, Good Broking Practice and the relevant Guidance Notes;
  - Ensuring the Rules and guidance documentation is made readily available and accessible to all users of the DMA System;
- In respect of DMA Authorised Clients:
  - Entering into a written agreement setting out the terms upon which the DMA System may be used to access the Trading System;
  - Formalising the Participant's expectations for underlying users of its client being granted access to the DMA System and obtaining details of such users where required;
- Process oversight and management approval:
  - Establishing the appropriate segregation of duties and sign-off mechanisms within client on-boarding and user access approval and set up;
  - Review by the appropriately qualified personnel within the Participant to ensure each new DMA Authorised Person has been set-up with the appropriate DMA filters and parameters in place, that account for the scale of activity and nature of that client's business; and





- Regular periodic compliance monitoring of the users granted DMA access to ensure all required documentation, authorisation and set up processes have been completed as required, and all registers updated.

NZX considers that these factors are integral in maintaining the quality and integrity of the Orders submitted into the Trading System where an Employee or client has been given the ability to place Orders into the DMA System in place of going via an accredited NZX Dealer.

## 4.2 DMA Agreement

Participant Rule 10.9.2 and Derivatives Market Rule 8.5.2 requires that a Participant must have a written agreement with each DMA Authorised Client setting out the terms of that client's access to the Trading System via DMA. While there may be circumstances where a Participant has established a supplementary addendum to a client agreement or a completely separate document to meet this requirement, meeting this obligation can also be achieved through a Participant's standard contractual client agreement.

NZX also recognises that Participants may have an agreement in place to cover DMA, or electronic/automated access, to other non-NZX markets. In this respect the Rules do not require a separate agreement specific to NZX's markets. For example, in circumstances where the same software and interface of an approved DMA System will be used by DMA Authorised Clients to access multiple exchanges, a single agreement will suffice on the proviso that the general requirements of Participant Rule 10.9 and Derivatives Market Rule 8.5 are accounted for within the Participant's DMA agreement with its client.

Participant Rule 10.9.2 and Derivatives Market Rule 8.5 further require that a Participant's DMA agreement with its DMA Authorised Client must provide that, subject to any applicable data protection and privacy laws, the client must, on request by NZX provide the following information to the Participant in relation to any Order placed via DCOP:

- (a) Where the DMA Authorised Client has placed an Order for the account of a third party (i.e. an underlying client) for whom it is acting:
  - i. The identity of that third party and confirmation of the client's authority to act for the third party; and
  - ii. Where applicable, the identity of the individual acting for the DMA Authorised Client who placed the Order on behalf of that third party;
- (b) Where the DMA Authorised Client has placed an Order on its own behalf the identity of the individual who placed the Order.

NZX acknowledges that in the case of part (a) above, there may be certain sensitivities around a DMA Authorised Client supplying its underlying client information to a Participant. To account for such circumstances, an agreement may provide that the DMA Authorised Client may elect to provide the requested information directly to NZX, and must provide that NZX is authorised to use the information for any investigative or regulatory purpose.



### 4.3 DMA System Security

Where a client or other individual has been deemed appropriate by a Participant to access the market via its DMA System, having provided the required information and achieved the firm's sign-off, system access must be provided with the appropriate security arrangements and system controls to maintain and monitor the user(s) conduct moving forward.

The Participant's procedures, and system capabilities, should account for the following factors when configuring users:

- Authentication of users;
- Password and strength protocols;
- Confidentiality of client and Order information, and where appropriate encryption of such details;
- DMA System firewalls;
- Establishment of appropriate filters and limits;
- Separate and independent compliance monitoring of user approval and settings;
- Ability to suspend, limit or prohibit a user, and the ability to cancel any pre-existing Orders entered by the user;
- Ability to switch off DMA access at the client or Security level;
- Ability to switch off the DMA System's connection;
- Appropriate assignment of administration access rights for Employees; and
- Assurance of access controls where a DMA Authorised Client has underlying users of a DMA System.

## 5. DMA Authorised Persons Registers

Participant Rule 10.10.1 and Derivatives Market Rule 8.6 require Participants to keep a register of all DMA Authorised Persons. This list may be requested by NZX from time to time (e.g. inspections) as part of its oversight and supervision and must be inclusive of all entities and individuals with access to the Participant's DMA System(s).

Client information and details of the individuals may be housed in the DMA System itself, or separately in another system or a dedicated register, all of which may be specific, and in some cases unique, to the relevant Participant. Therefore, NZX does not prescribe a format which the register should take. However, at a minimum a DMA Authorised Persons' register must record the following information:

- DMA Authorised Clients:
  - Name
  - Address
  - Contact details
  - Client's unique identifier as per Participant Rule 15.5
  - Telephone, facsimile and e-mail details, of the client
- DMA Authorised Employees:
  - Employee name



- DMA System identifier

NZX recognises that where DMA is offered to Retail Clients, a substantial number of individual clients may have access to the DMA System. In these circumstances the Participant's client database may suffice as the DMA Authorised Persons register on the basis that the Participant can immediately distinguish the clients authorised for DMA.

## 6. DMA Filters

As required by Participant Rules 4.5.5 and 10.8.1(a) and Derivatives Market Rules 8.3.6 and 8.4.2(a), in order to ensure that DMA Authorised Persons comply with all applicable Rules, Procedures, directions issued by NZX, Guidance Notes and Good Broking Practice, each Participant must ensure that the appropriate filters are established and maintained.

DMA filters are an approved DMA System's pre-trade controls against which Orders are vetted prior to being submitted into the Trading System. DMA filters are the front line control for assessing an Order in the absence of an accredited Dealer before its entry to the market. Accordingly, the assignment of the DMA System's filters and setting of the filter parameters are critical factors in maintaining the orderliness and integrity of the Market.

### 6.1 DMA Filter Alerts and Rejections

Participant Rule 10.8.1(c) and Derivatives Market Rule 8.4.2(d) provide that where an Order does not meet the criteria of the set DMA filters to pass directly through to the Trading System, it must either be:

- (a) Rejected outright (also referred to as a **hard filter**); or
- (b) Referred to a designated Dealer to review and determine whether it should be allowed to proceed through to the Market (also referred to as a **soft filter**).

On receiving an Order as a result of a soft filter exception, the Dealer is responsible for applying the same considerations as if they were managing the entry of an Order into the market, while also being mindful of the specific filter alert.

### 6.2 Appropriate DMA Filters

In determining the filters and parameters a Participant should set in its DMA System, NZX acknowledges that what is deemed 'appropriate' will vary among Participants based on a myriad of factors. The nature of each Participant's business model, scale of the DMA offering and the DMA System's capabilities will each play a part in the design of appropriate controls to address the bespoke risks the Participant exposes itself to in offering DMA.

A critical aspect within the Participant's considerations will be its understanding of the clients that will utilise the DMA System to access the Market. Institutional clients utilising high-frequency trading strategies or trade algorithms (or permitting their underlying clients to do so), for example, will require pre-trade controls designed to account for this activity. In contrast, a DMA System designed for Retail Clients must have filters that cater for less experienced investors.

Where Participants allow a particular algorithm, or client utilising an algorithm, to access the market via their DMA System, pre-trade filters and other controls must account for limited human involvement, the nature of the pre-programmed strategies being implemented and other unique elements that apply to trading by algorithms.

Consideration should also be given to whether filters will apply across the board or be set specifically for an individual client. In this respect a Participant should also take into account whether its DMA Authorised Client deals on behalf of its own underlying clients, which in certain circumstances can involve several steps through to the ultimate beneficial owner(s) that created an Order.

In addition to the sophistication of DMA Authorised Persons, the volume, velocity or means by which Orders will be entered into the DMA System and the potential market impact of Orders (such as the matters to be considered when accepting an Order under Participant Rule 10.2.2 and Derivatives Market Rule 4.3.2), consideration should also be given to financial aspects and implications in respect of the Participant's liquidity.

At a high-level, NZX expects the following types of filters to be factored into a Participant's assessment when establishing its pre-trade DMA filters:

- Orderly Market, designed to prevent the placement of Orders that may materially impact the price or market of a Security or Contract:
  - Number of price steps from last traded price and from best bid/offer
  - Percentage price move from last traded price and from best bid/offer
  - Percentage price move from the previous closing or opening price
  - Percentage price move over a period of time accounting for a series of Orders (e.g. % price move over a number of trades by the same client, rather than trade by trade)
  - Prohibiting or limiting 'at market' Orders
  - Price impact filters that account for a series of Orders;
  - The velocity at which messages will be sent to the Trading System;
  - Potential for asynchronous processing of messages sent to the Trading System (race conditions); and
  - Ability to apply volume restrictions on execution algorithms.
- Market Manipulation, designed to prevent the placement of Orders that may create a false or misleading appearance of active trading in, or with respect to the market for or price/yield of any Security or Contract, whether intentional or not:
  - Self-match (wash trade) prevention
  - The number of strategies being utilised by a single beneficial owner;
  - Maximum number of Orders permitted in the order book (potential layering)



- Order to trade ratios
- Restrictions on Orders on both sides of the market
- Concurrent bid/offer limits
- Financial risk, designed to limit counterparty and position exposure:
  - Volume or value restrictions on single Orders or a series of Orders
  - Daily trading value limits
  - Position limits
  - Margin requirements
- Other Security specific risks:
  - Should DMA be disallowed for any particular Securities
- All of these should be considered for both individual Orders and for a series of Orders

While NZX appreciates filters are designed primarily to prevent misconduct and a disorderly market, Participants should not consider its pre-trade DMA controls to be a replacement for any post-trade monitoring it performs to detect inappropriate activity.

### **6.3 Amending DMA Filters**

Once DMA filters have been put in place and parameters set, whether client specific or holistic across all DMA Authorised Persons, any adjustments to the filters or the associated parameters should:

- (a) Be subject to an approval process by the Participant's appropriately qualified personnel;
- (b) Be captured and auditable within the Participant's records for the DMA System; and
- (c) Form part of the Participant's compliance monitoring tasks in respect of its DMA function to verify the effectiveness any changes.

NZX expects Participants to be able to demonstrate the controls within its procedures and evidence the filters and parameters that were in place at any point of time. Mitigating the chances of any unauthorised changes to or deactivation of filters is of critical importance to a Participant offering DMA and must be addressed within its DMA System's controls and procedures to meet NZX's standards.

## **7. Compliance Monitoring and Oversight**

Once operational and passing Orders through to the Trading System, the independent supervision of the DMA function by the Participant, including by its compliance department is



crucial in the timely detection of issues, identifying misconduct or security breaches, and maintaining compliance with the applicable Rules.

As a minimum, NZX expects the following aspects to be accounted for with a Participant's compliance monitoring programme:

- (a) Reviewing the DMA Authorised Persons granted access to the DMA System to ensure sufficient information and approvals have been obtained;
- (b) Reviewing the appropriateness of DMA filters and parameters set for new DMA Authorised Persons;
- (c) Reviewing DMA filters and parameters for appropriateness and assurance of settings to validate any changes to, or deactivation of, DMA filters or parameters; and
- (d) Reviewing Dealer assessment of Orders soft-blocked by DMA filters.

The compliance monitoring tasks should be designed to be performed periodically at an appropriate and regular frequency. Given the technical nature of the electronic Order processing and access rights within the DMA System, NZX recommends as best practice that exception reports and other automated alert mechanisms be developed to inform Participants' compliance monitoring activities.

In addition to the above DMA specific monitoring tasks, it is recommended that Participants consider whether any settings or adjustments within existing post trade monitoring should be made to identify misconduct via DMA trading.

## 8. DMA System Maintenance

To satisfy a Participant's obligation to ensure its DMA trading does not interfere with the integrity, efficiency and proper functioning of NZX's markets, arrangements should be established to test the technical functionalities of any DMA System granted permission to access the Trading System. Testing of a DMA System should occur both periodically (e.g. annually) and following any material changes, upgrades or fixes made.

Testing should be conducted in a non-production environment and incorporate a DMA System's:

- DMA filters and parameters are functioning as expected and remain suitable;
- Ability to function in extreme circumstances (i.e. stress testing);

A Participant may wish to integrate its DMA System into its holistic maintenance and testing regime for all its IT systems. It is also expected that a DMA System should be included within a Participant's BCP and its annual testing required under the Participant Rules and Derivatives Market Rules.

## 9. NZX Direction to Suspend, Limit or Prohibit

Under Participant Rule 10.10.2 and Derivatives Market Rule 8.6.2, if for any reason NZX considers that through its DMA System:

- (a) a Participant has breached any of the applicable Rules, and/or directions issued from time to time by NZX, failed to observe Good Broking Practice and/or engaged in Unprofessional Conduct; or
- (b) the efficiency and integrity of any of the markets provided by NZX, or the functioning of the Trading System, are at risk;

NZX may direct that Participant to immediately:

- (c) stop using and/or providing Direct Market Access until NZX is satisfied of that Participant's compliance;
- (d) suspend, limit or prohibit;
  - i. any one or more of that Participant's DMA Authorised Persons;
  - ii. that Participant's DCOP through any or all of its DMA Systems; or
  - iii. that Participants entire DMA function.

NZX will provide any such direction in writing, however in circumstances requiring urgent action NZX may initially verbally advise a Participant by telephone to effect changes with immediacy. Accordingly, Participants must ensure the relevant contact details are kept up to date, with suitably qualified personnel available through the trading hours of any market offered by NZX.

Where direction is provided by NZX under these Rules, a Participant must promptly put into effect NZX's request. Failure to comply with NZX's direction, or doing so in a time frame that NZX considers has risked the integrity and efficiency of a market it provides, may result in the withdrawal of that Participant's trading permission through its DMA System(s), and thereby terminate its ability to trade via DMA.

Any direction given by NZX will remain in force until, in the opinion of NZX at its complete discretion, that direction is complied with, or the efficiency and integrity of any market provided by NZX and the Trading System are no longer at risk.

