

Market Operator Service Provider

Clearing manager road map

December 2022
Version 3.0



Revision history

Version	Date	Description
0.1	May 2017	Draft for Authority comment
1.0	May 2017	For publication to participants, incorporating Authority comments
2.0	November 2020	Roadmap updated
3.0	December 2022	Roadmap updated



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1. Introduction

This document presents a product strategy and road map for the clearing manager’s services and systems. It is a living document and will be revised at least annually. The product strategy and road map will be developed and evolved in close collaboration with the Authority and users of our services and systems.

2. Context

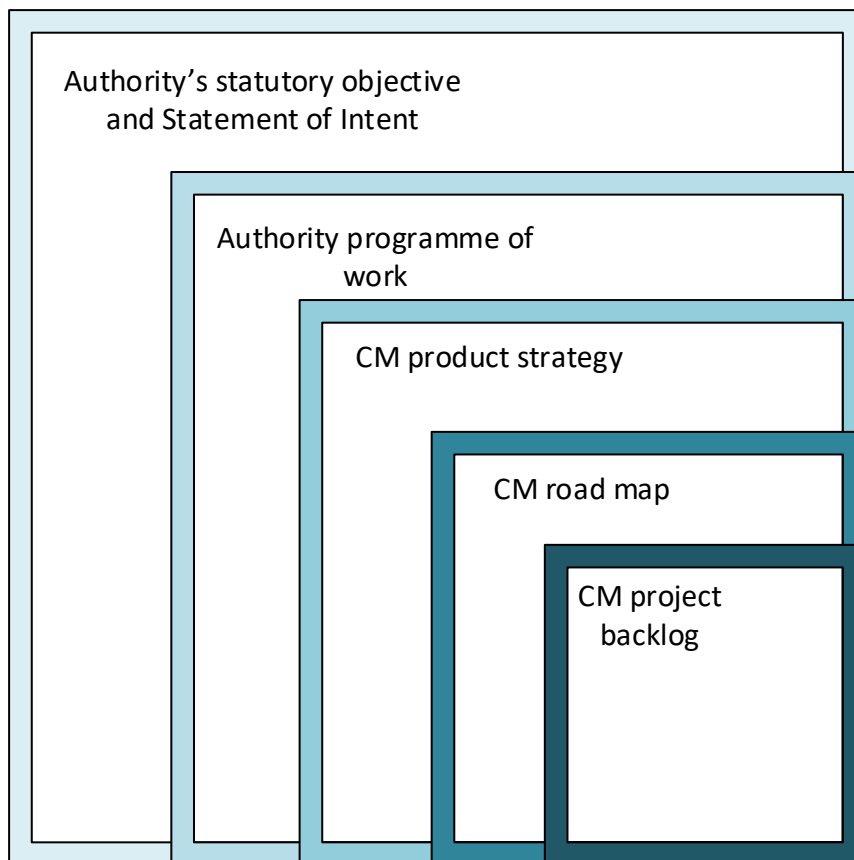
The road map provides a high level overview of work to be progressed over the next 6 – 36 months. It informs the back log of features used by our IT team to prioritise their work on a week by week basis. The road map is not intended to be at a sufficiently granular level to include all work undertaken by NZX.

Our roadmap has been developed taking into account:

- The Authority’s strategy as outlined in their statement of intent and statement of performance objectives,
- The Authority’s programme of work,
- Our product strategy for the clearing manager and services.

The relationship between these elements is shown in Figure 1.

Figure 1: Relationship between strategic elements



3. Product strategy

Our product strategy provides a high level plan for the development of the clearing manager's services and systems.

3.1 How could the clearing manager role change in the future?

To ensure that our services and systems continue to meet the needs of the industry we need to be aware of how the clearing manager role could change in the future.

We have identified the following issues below that may result in changes to our services and systems. While we have consulted with the Authority and participants, these issues are solely the clearing manager's assessment of what may happen in the future. Significant changes to systems would almost certainly require the normal Authority consultation and approval processes and would be signalled by the Authority well ahead of implementation.

Short to medium term goals (over the next 36 months):

1. *Performance optimization for participants*

The clearing manager continues to respond to current needs and anticipate future needs of new and existing participants through:

- a. Market driven enhancements - leveraging existing participant's input and market insights
- b. Future proofing our services and systems for an increase in participants to ensure that we can deliver consistent high levels of service
- c. Offering bespoke services - we expect that there will be an on-going demand for more bespoke clearing services. For example, this could include a participant request for a new type of hedge settlement agreement or a new clearing report. This trend is partly associated with new participants and new types of participants (e.g. financial institutions). We expect that a modern clearing system can and should be able to evolve and remain relevant to a wide range of participants.

2. *Market design changes*

In line with its statutory objective the Authority has an on-going programme of market design enhancements. Future potential enhancements, of relevance to the clearing manager include:

Allocation of constrained on costs

A number of participants operate multiple participant codes for a variety of purposes. This involves for some offering in generation under one and reconciling that volume under another. Whilst this option exists for the participant, the clearing systems are not set up to allow the allocation of constrained on costs. Work is underway to facilitate this distribution of constrained on and is scheduled for completion within 2021.

Real time pricing (RTP)

In collaboration with Transpower and the Electricity Authority to complete the development and implementation for the final phase of the RTP project, which enables the bidding and offering from the dispatch notification purchaser/generator. Changes to accommodate the Code requirements will need to be reflected into the clearing manager



systems and processes in 2023. Under the project scope, clearing manager is taking over the residual role of the pricing manager. Having the residual tasks into the CM process and CM system will need to be completed before April 2023.

Prudential methodology

At the end of 2019 / beginning of 2020 the clearing manager reviewed the prudential methodology and consulted on an initiative for prudential to be more responsive to shifts in wholesale demand. There was a mix of feedback but in general the decision was made to not implement in favour of engaging in additional market engagement. Its intended that within 2022/2023 we seek further consultation and deliver market driven enhancements to this process.

3. Operational excellence

The clearing manager plans to increase robustness and efficiency of operations with:

- a. Introduction of system monitoring dashboards
- b. Control enhancements over settlement and other monthly processes.

4. Reliability

Regular review of infrastructure and software means that systems are supported and updated, as necessary.

Longer term goals (36+ months):

Peer to peer trading

There is some interest at present in peer to peer trading of energy. This could be in the form of physical trades outside of the current wholesale market or as financial trades alongside the current wholesale market. This type of trading may be facilitated by block chain technology. If peer to peer trading was to be progressed as a physical trading mechanism it would most likely have an impact on the clearing manager's services and systems. This may link into the Authority's multiple traders at an ICP project.

3.2 Planning for the future

We are planning continuous improvements and modernisation of clearing manager systems and processes. While many of these changes may not directly impact participants, they ensure that the clearing manager will be able to effectively meet participant's needs in the future.

Under the real time pricing project scope, the clearing manager has taken over the residual tasks of the pricing manager, which includes publishing the pricing report (daily and weekly) and managing the pricing error claims. System automation and process enhancement specifically for these tasks are considered in future planning.

In addition, pending a decision from the Authority around schedule 14.3, the calculation of LCE may be carried out by the clearing manager, as opposed to the FTR manager.

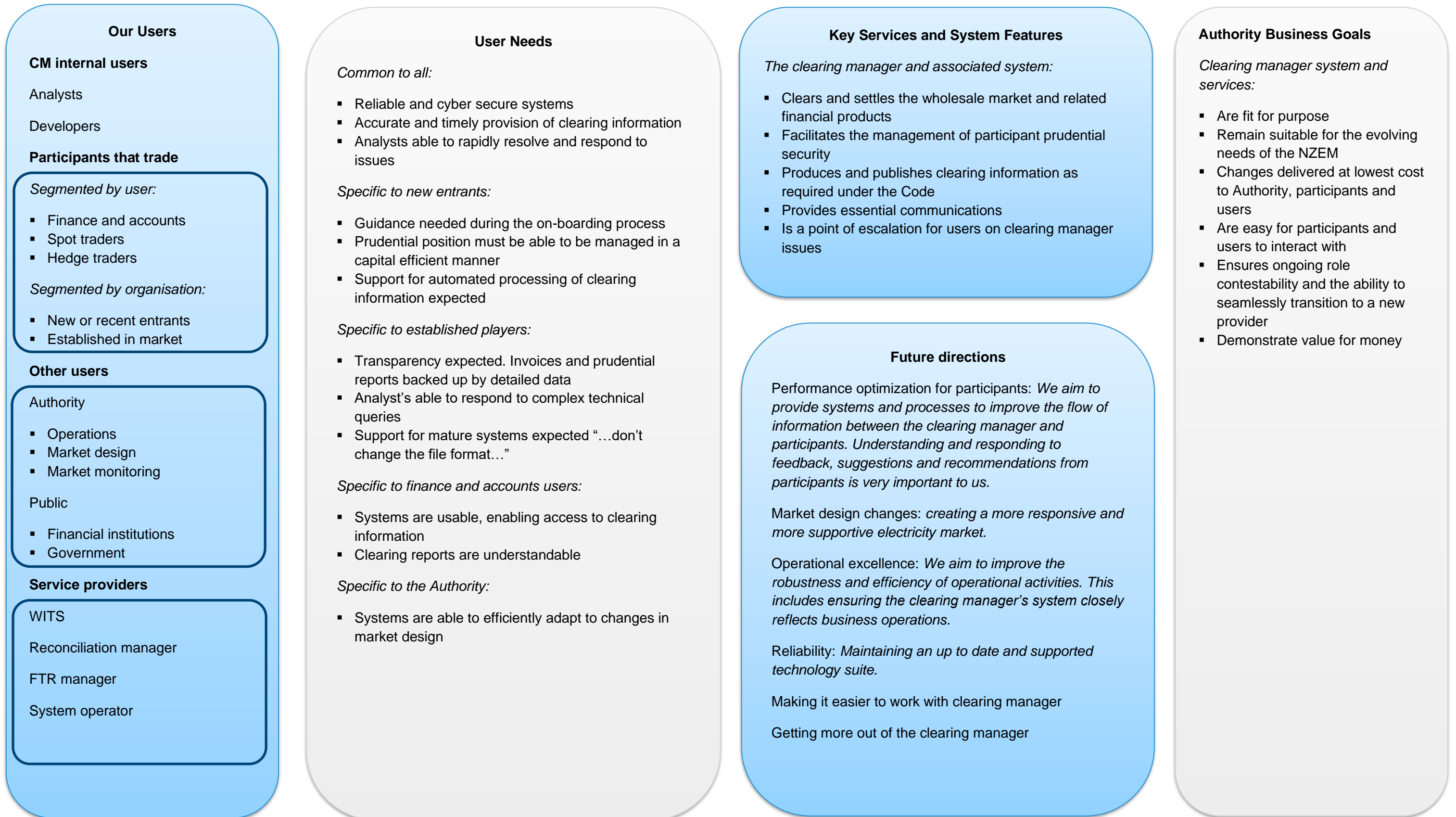


3.3 Product strategy overview

Figure 2 provides an overview of the clearing manager's product strategy.



Fig 2. Clearing Manager Strategy Overview:



Our users

Our users cover a variety of different types of participants, including generators (including dispatch notification generators), retailers, instantaneous reserve providers, load aggregators, dispatchable demand purchasers (including dispatch notification purchasers), FTR traders, OTC hedge traders and almost any combination thereof. It is likely that this list will grow in the future.

Participants can also be usefully grouped by their experience in the market. The needs of new entrants are significantly different to those that have been established in the market for some period of time.

Particularly for some larger organisations, the clearing manager may have relationships with multiple professionals, including those from finance, hedge traders, and back-office analysts. Each of these groups will have different needs and different ways of interacting with the clearing manager.

Other users include the Authority, the public and service providers. The clearing manager works with the Authority's market design, market operations and market performance teams. Financial institutions are a growing group of public users, with most interest in the FTR daily settlement prices. The clearing manager works with a number of service providers. For the most part this interaction is in the form of system to system exchange of files. The FTR manager is one exemption as initiatives in the FTR market often have implications for the clearing manager.

User needs

Our users have a core set of common needs that must be met without compromise. Our systems and services should be:

- Reliable,
- Cyber secure and protective of the confidentiality of sensitive commercial information,
- Able to produce and publish clearing information that is Code compliant and otherwise correct, and
- Supported, such that any issues escalated to the clearing manager are resolved promptly.

Different user groups will have other more specific needs. Satisfying these more complex needs is important as it is likely that this will drive overall user satisfaction and value delivery.

New entrants require on-boarding into the market, at least for the first few weeks of trading. This will involve clearing manager briefings, prudential security set-up and anti-money laundering checks. Many new and recent entrants have a strong desire to manage their prudential security in a capital efficient manner. They will want to use a combination of prudential security types in a relatively sophisticated manner. This group are also likely to express a preference for receiving and sending automated clearing information.

Established participants will often have an excellent understanding of clearing manager operations. They require a high level of transparency such that their clearing information - for example, invoices or prudential security reports - is sufficiently backed-up with detailed information. While queries from this group are infrequent, they tend to be complex and relatively time consuming. Established participants will expect the clearing manager to support their more mature systems by minimising or avoiding changes to long standing file formats.



Finance and accounts professionals are frequent users of our services and systems. This group of users require systems that are easy to use, allowing them to access the right information at the right time. Clearing information should also be understandable.

The Authority is also an important user of the clearing manager's systems and services. As discussed above, the Authority has a significant programme of work. It is important that changes to the system can be accommodated in a cost effective manner, providing value for money for both the Authority and participants.

Key services and features

The clearing manager:

- Clears and settles the wholesale market and related financial products,
- Facilitates the management of participant prudential security,
- Produces and publishes clearing information as required under the Code, and
- Is the first point of escalation for clearing related matters.

Authority business goal

As the Authority owns the clearing manager role, the direction and pace of the product strategy will be heavily influenced by the Authority's business goals (see Figure 3).

Whether any given initiative is implemented will depend on:

- Participant support as expressed in, for example, surveys and user group meetings,
- Authority approval. An initiative should be consistent with the Authority's statutory objective and business goals for the clearing manager's system,
- Available budget for system improvements. This will be a critical factor.
- Our strong preference is for low cost, low risk initiatives that have a high likelihood of providing value to participants and other users.

4. Road map

The clearing manager road map is shown in Figure 3.

The Authority and NZX have an internal joint development process to manage project conflicts and priorities. This process will manage all active road map initiatives. Part of the reconciliation manager role is to develop a joint goal setting framework. This framework has been integrated into the road map.

It is highly likely that the road map will change in response to:

1. Participant feedback,
2. Changes to the Authority's strategy or programme of work,
3. Operational necessities, and

Conflicts and changes in priority as identified through the Authority - NZX joint development process.



Fig 3. Clearing Manager Road Map:

Clearing Manager Road Map 2022

Feature / Enhancement	Participants	Authority	NZX Internal	Benefit	Status	2023				2024				2025			
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Performance optimization for participants																	
Market driven enhancement	X		X	Responding to participant requests	In progress												
Enhance ability to manage more participants	X			Preparation and improvements to services and systems for an increase in participants	In progress												
Market design changes																	
Real time pricing phase four project changes		X		The RTP project phase four scope to incorporate the Code requirement on DNX participants and bids/offers.	In progress												
Allocation of constrained on cost	X			Distributing constrained amounts between participant codes when offer and submission differs	In progress												
Prudential methodology enhancements	X	X		Better respond to volatility in the market	Future work												
Operational excellence																	
Automating the daily and weekly pricing report			X	Mitigate human errors and improve operational efficiency	Future work												
Building CHASM dashboard			X	Increase controls and efficiency	Future work												
Enhancing settlement day processes			X	More robust, efficient settlement day process	In progress												
Reliability																	
Asset management			X	Review of infrastructure and software	Future work												

