

Market Operator Service Provider WITS manager road map

November 2022
Version 3.0



Revision history

Version	Date	Description
0.2	November 2017	Draft for Authority comment
1.0	November 2017	For initial release, incorporating Authority comments
2.0	September 2018	Roadmap update
3.0	November 2022	Roadmap update



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1. Introduction

This document presents a product strategy and road map for the WITS manager services and system. 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 system.

2. Context

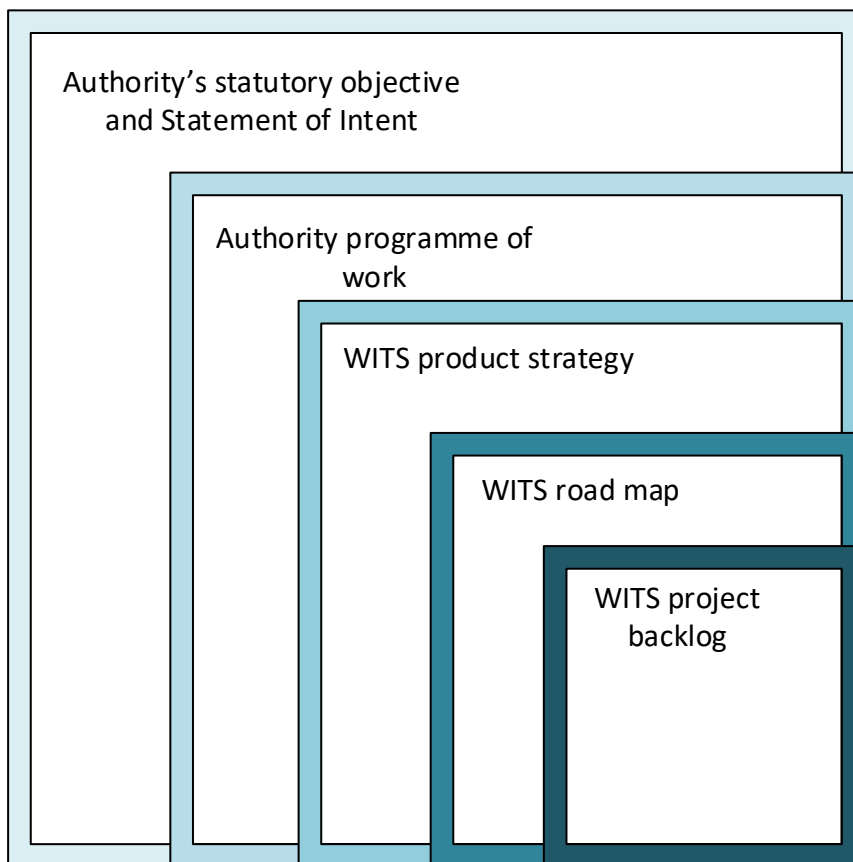
The road map provides a high level overview of work to be progressed over the next 6 – 24 months. It informs the back log of features used by our IT team to prioritise their work on a week by week basis. The road map is not intended to be at a sufficiently granular level to include all work undertaken 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 WITS 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 WITS manager's services and systems.

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

To ensure that our services and system continue to meet the needs of the industry we need to be aware of how the WITS 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 WITS 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.

Changes in WITS users

We expect growth in the number of WITS users across the suite of services provided by the WITS manager.

This includes new participants as a consequence of industry competition, changes in market design and changes in technology. Changes in market design can result in the introduction of new classes of participants. In the future, technology may facilitate the entry of participants with non-traditional business models. For example, the evolution of the internet of things and solar PV, may enable aggregators of small consumers and small scale generation.

Non - participants are also likely to increase. Such users could range from electricity futures traders through to households who are exposed, via their retailer, to the spot market. These users see WITS as an information hub rather than as a trading platform.

We have enhanced our services and systems to ensure that:

- Our services are scalable and continue to meet the required levels of reliability with greater numbers of uses, and
- Our services are fit for purpose for a much broader range of users.

We have done this by user segmentation (traders, data users and clearing users) to allow the right solution for each profile

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 WITS manager include:

- Changes to DNX participants and DNX bid/offer types as part of the real time pricing project phase four scope.
- Changes to publish and display the dispatch and forecast island residual data to help with low residuals and indicating the progress when clearing a low residual situation.
- Changes to make more data besides of prices and quantities available through WITS API.

More generally, we do not expect that the pace of market design change will slow down. This reflects the introduction of new technologies and business models into the market.



Demand for new services

With a broader range of WITS users we anticipate greater demand for new services. For example:

- WITS should enable users to develop their own innovative applications using WITS data. This may require the development of alternative delivery channels, such as the expanded use of APIs, and
- WITS may need to meet to evolve to meet the specific information needs of new users.

WITS as a central information portal for the market

There may be benefits in evolving WITS to become the central portal for the market. Users would be able to interact with key market operator service providers and other third parties through one portal, providing a common set of interfaces. One step further would be to enable users to compare datasets across roles, for example a clearing manager user could chart invoice amounts against monthly average prices.

This one-stop-shop would aim to remove the burden of accessing multiple systems and seek to gain efficiencies by using a common set of interface technologies.

3.2 Product strategy overview

Figure 2 provides an overview of the WITS manger's product strategy.

Our users: WITS trader

WITS trader users primarily include those participants that submit offers or bids into the market. These participants are generators including dispatch notification generators, retailers, instantaneous reserve providers, load aggregators, dispatchable demand purchasers including dispatch notification purchasers and almost any combination thereof. Some users may act as agents for other participants.

WITS trader users are typically sophisticated, established and with an excellent understanding of the market.

Some users, typically from large, established organisations, will primarily depend on WITS for the delivery of data through machine to machine interfaces and will use the WITS trader web portal either infrequently or not at all. These users have developed their own, or use third party applications, to trade on the market.

Other users will be more reliant on the full suite of services provided by WITS. These users will use the web portal to trade on the market, possibly supplemented by their own in house applications.



Our users: WITS data hub

WITS data hub¹ users are diverse. Users include small retailers, financial institutions, electricity futures traders, FTR traders, OTC hedge traders, consumers with exposure to the spot market, academics, and the general public.

These users will:

- Differ in their understanding of the market. Some users will require a detailed, rich picture of the market. Other users will only need more basic information, such as a daily price index,
- Need market information for differing purposes. For some users, this information will be a key input to the decisions that they will make for their organisation. For the general public, the information on WITS will be only of passing interest,
- Require the information to be delivered in different ways. Some users will be dependent on the web browser, other users will prefer machine to machine interfaces to automate data delivery.

Our users: the Authority and service provider

Other users include the Authority, and service providers. The WITS 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.

User needs

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

- Reliable and resilient,
- Cyber secure and protective of the confidentiality of sensitive commercial information,
- Able to publish critical market information through multiple channels, and
- Supported, such that any issues escalated to the WITS manager are resolved promptly.

Some users will primarily interact with WITS via automated machine to machine interfaces. Given the nature of the market that WITS serves these interfaces must be reliable, secure, fit-for-purpose and based on industry standard, scalable technology. Support and communication around these services is important. Users must be aware of the next outage, disaster recovery test or change in data formats.

Other users will be more reliant on the web portal. The web browser must meet the needs of a diverse range of users. To achieve this information must be able to be viewed at user configurable levels of granularity and complexity. For example, one user may only wish to view the home page dash board, while another user may wish to view forecast prices transposed on real time prices. The information must also be presented in a manner which enables users to understand what is happening in the market. Reflective of the diverse range of users, the web portal must be mobile capable, as some users will need price information away from the comfort of a desk.

¹ www.electricityinfo.co.nz

The system operator is a key WITS user. The interface between WITS and the system operator is market critical and must be operated at a very high availability. WITS is the market's gateway to the system operator. WITS transfers orders to the system operator's market system. Market schedules produced by the system operator, using these orders as an input are then published to WITS.

The Authority is an important user of the WITS manager's systems and services. As discussed above, the Authority has a significant and on-going 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 WITS manager:

- Publishes market critical information to participants and the public
- Receives bids and offers from participants
- Provides and receives critical market information to other market operator service providers
- Provides essential communications around services, such as planned market outages and so on

Future directions for our services and systems

Changes to our core services and systems will be driven by the strategic issues identified above and by the delivery of the MOSP enhancement project and participant engagement. We intend to prioritise the following broad areas of improvement (which we refer to as road map themes) for our services and systems:

Performance optimization for market participants: WITS was traditionally a transactional relationship model between users and the IT team. This is being replaced with a relationship between the operational team and the wider participant. This enables us to improve engagement with the participants and improve the delivery of service to the various parts of the participant's organisation through system enhancements.

Market design changes: WITS must be able to accommodate changes in market design and implement amendments to the Code.

Enhancing how users interface with WITS: This theme is focused on how users connect and interface with WITS. These interfaces must be secure, resilient and fit-for-purpose for a broad range of WITS users.

Enhancing the delivery of WITS public information: Gaining access to public market information should be easy. This includes enabling third parties to access this information for their own purposes.

Improving the WITS data hub user experience: This theme will look to improve the WITS data hub user experience. The new WITS data hub released on October 2016 provided users with vastly improved access to public WITS information. In our view there are further improvements that can be made to allow users to more readily take advantage of the market information available.



Authority business goal

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

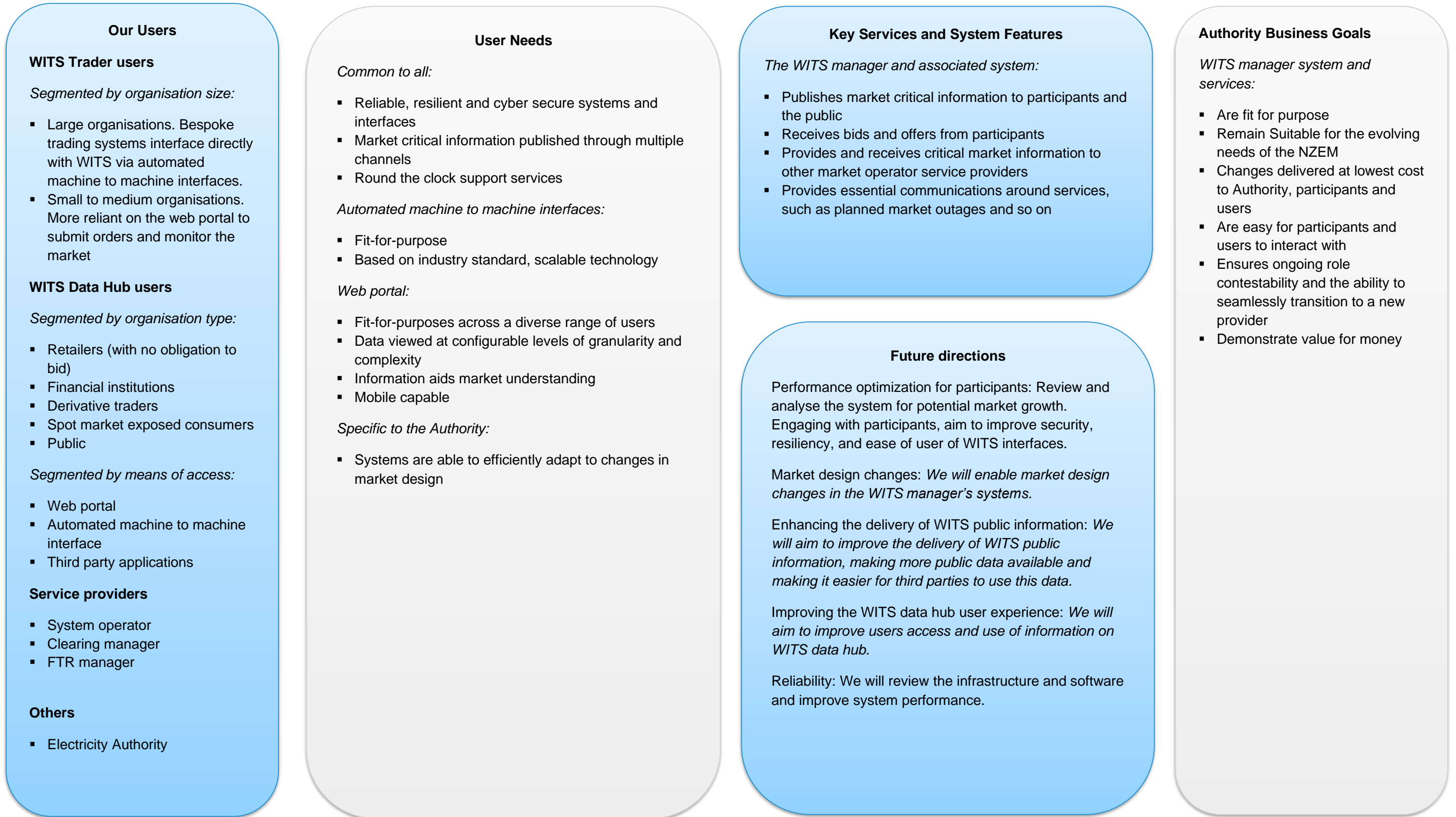
Whether any given initiative is implemented will depend on:

- Participant support as expressed in, for example, surveys and user group meetings,
- Authority approval. An initiative should consistent with the Authority's statutory objective and business goals for the WITS 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.



Fig 2. WITS Manager Strategy Overview:



4. Road map

The WITS manager road map is shown in Figure 3.

The Authority and NZX has an internal joint development process to manage project conflicts and priorities. This process will manage all active road map initiatives. Part of the WITS 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:

- The real time pricing project phase four requirements,
- Participant feedback (user forum June 2022),
- Changes to the Authority's strategy or programme of work,
- Operational necessities, and
- Conflicts and changes in priority as identified through the Authority - NZX joint development process.



Fig 3. WITS Manager Road Map:

WITS 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																	
Analyse system for market growth and performance enhancements	X	X	X	Review the system and future proof for potential market growth	In progress												
WITS front portal data display format consistency	X		X	To display the WITS data in a more consistent format for less confusion	Future work												
Market design changes																	
Changes to WITS system to allow DNX participants to bid/offer		X		The real time pricing project phase four scope to enable DNX participants to bid/offer.	In progress												
Publish and display island residual data		X		To help with low residuals and indicating the progress when clearing a low residual situation.	In progress												
Enhancement on the delivery of WITS public information																	
Making more public data available to consumers through WITS API	X	X		Provides more options for users to develop their own innovation applications using WITS public data.	Future work												
Focus on user experience issues of selecting and viewing the data	X			Provides more user friendly and intuitive display to end users.	Future work												
Improvement on WITS data hub user experience																	
Aggregation of multiple data sets to form	X		X	For example: load and price on single screen for a more intuitive datasets	Future work												
Focus on user experience issues of selecting and viewing the data	X			Provides more user friendly and intuitive display to end users.	Future work												
Reliability																	
Asset management			X	Review of infrastructure and software	Future work												
Enhance ability to manage more participants		X	X	Improve system performance for more participants	Future work												

