

EMSTRADEPOINT EXCHANGE PLATFORM

SOFTWARE RELEASE NOTES

02 October 2023 Version: 6.9.5

Software Highlights

emsTradepoint Exchange Platform Software Release Notes is a living document, updated after each software release to include the highlights and external points of note. Should you require additional information on emsTradepoint software, please contact the emsTradepoint Support Desk: supportdesk@emsTradepoint.co.nz

emsTradepoint Exchange Platform Application Enhancements

VERSION 6.9.5

Security Patch

In response to the Critical Vulnerability Event (CVE-2023-4863) advised by Microsoft on Friday, 29 September 2023 we are applying security patches to mitigate risk of exposure.

The CVE exposes a common library used on web-facing servers to malicious use when uploading certain image files. While emsTradepoint servers have this library installed, the application code does not use it all so was not at risk. This patching is undertaken as best business practise.

VERSION 6.9.4

Bugfixes

- Bugfix to correct date format of "deliver_by" field in Trades API response
- Bugfix to resolve recent Off Market Trade ESCROW validation

VERSION 6.9.2

Notification Update

 updated Carbon Trade notification to include "Settlement Date"; indicates the date that emsTradepoint pays the Seller and delivers NZUs to the Buyer

Fixes To Correct

bugfix to resolve hung 'withdrawal' notification if pending order gets matched

VERSION 6.9.0

Technology Stack Update

updated underlying software versions; Ruby on Rails, etc

Fixes To Correct

 bugfix to resolve 'custom expiry' issue introduced with shortened Carbon settlement period

VERSION 6.8.0

Feature Updates

- updates to support shortened Carbon settlement period
- updates to Admin product creation feature
- update to Broker OMT creation interface
- update to move the forced logout from 7pm to 9pm

Fixes To Correct

• bugfix to flag/identify SDE FM OMT in Trade Detail interface

VERSION 6.7.1

Bugfix to update source for NZ Electricity Price charts on Trading Board and Market Results.

VERSION 6.7.0

Fixes To Correct

- bug where New Bid/New Offer form was dropping custom expiry
- bug where OMT UI denied trades for historic dates
- bug that still included withdrawn orders/voided trades in trader limit calculation
- bug which generated ESCROW notification for failed NZU withdrawal request

VERSION 6.6.0

New Broker Features

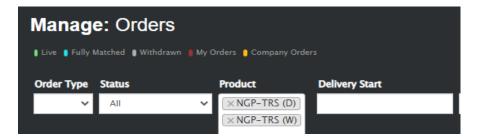
- New API endpoint to help facilitate B2B submission of Off Market Trades.
- Cosmetic UI change to Off Market Trade form.

Trading Board Updates

- Bugfix: Best Bid/Best Offer format changed to 'currency'.
- Bugfix: Last Deal indicator now redraws after a trade is voided.
- Enhancement: added admin-defined monitoring period for NZU spot products (CP-NZU, CP-NZU (K))

Orders and Trades

• Enabled multi-selection when filtering product categories on the Orders and Trades pages.



- Made Voided column in Trades.csv visible to all parties, previously only visible to Admin users.
- Bugfix: to include error message for OMT that would fail due to breaching Delivery Day Value limits.

Force Majeure Update

Introduction of a Same Day Event Force Majeure certificate. Previously an FM certificate was only able to be submitted for delivery periods of *tomorrow and beyond*. This release enables an FM certificate to be submitted for the same day.

Note: only pre-agreed OMT quantities will be eligible for curtailment.

API Documentation

- Added new Off Market Trade endpoint schema for brokers.
- Added an Index model and example.

Admin Console

• Update to backend management of broker customer list.

VERSION 6.5.0

Technology stack upgrade

No change to existing features, release was an upgrade to underlying technology and migration to Amazon Web Services.

VERSION 6.4.0

Minor Update

- Updated privileges for the Company Admin role to better align with the onboarding process
- Trades API response update to include new carbon settlement fields
 - delivery_due_by advising the buyer when emsTradepoint will transfer the purchased NZUs

- payment_due_by advising the seller when emsTradepoint will make payment for sold NZUs
- Publish 2022 CP-NZU (F) products for the carbon forward market

VERSION 6.3.2

Patch Update

- Bug fixes following previous release
 - SMS messages were not sending to users with the same email address as the company
 - o Incorrect unit of measure on carbon graph tool-tip

VERSION 6.3.0

Minor Update

- New Carbon Listings
 - CP-NZU (K) new spot product for trading in lots of 1000
 - CP-NZU (F) new forward products which settle at month end, following a Government ETS auction; also in lots of 1000
- Notifications Centre:
 - o inactive users are now hidden
 - o new NZU transfer reminder for non-ESCROW traders
 - clearer content for universal FM certificate notification
- Order Withdrawn notification to advise Unmatched Quantity
- Swaps:
 - Updated Off Market Trade form to enable 'swap' identification
 - Updates to Trading Board and Trades interfaces to indicate 'swap' trades
- Bugfixes for:
 - SMS/TXT notifications, now requires 'Company Trades' to be set
 - o FM adjustment calculation, updated to include DA day contracts
 - o Trading Board charts to handle rendering when missing data
 - o Ticker API when calling carbon ticker information

VERSION 6.2.0

Minor Update

- NZU Feature:
 - o added NZU Escrow feature for sellers
 - o ability to view balance & transactions
 - ability to request withdrawals

- Carbon Settlement: update to default delivery period, now 5 business days
- Admin UI: update to back-end user/company management interfaces
- Order Form: visual highlight of product type on order confirmation box

VERSION 6.1.0

Patch fixes

- Off Market Trades: fix to clarify validation error message
- New NZU Chart: added Daily Delivery Chart
- Ticker Update: fix to treat align OTD movement arrows with DA movement arrows for same date

VERSION 6.0.1

Patch fixes

- Order Filters: fix for issue where requests using delivery_start and delivery_end were timing out
- Gas Indices Chart: fix to correctly display both FRMI and FRQI

VERSION 6.0.0

Major Change

Introduced new carbon market.

- New carbon product
 - o Revised carbon user management and permissions to accommodate carbon
 - o Revised trade and order schemas to accommodate carbon
 - New carbon matcher
 - New carbon trading limits
 - New carbon notifications and revised specifications to accommodate carbon
 - New carbon specific charts and reporting
 - o Revised API schemas and filter parameters to accommodate carbon
 - o Revised Broker model to accommodate carbon customers
 - Update FM Certs business rules to exclude carbon and not pass on gas notifications
 - Revised dashboard to accommodate carbon (products list, ticker, market depth)
 - Updated Delivery Position reporting to accommodate carbon
 - Updated .CSV specifications (both upload <u>and</u> download) to accommodate carbon
- New Indices API
 - New endpoints for both gas and carbon indices.
 - Inclusion of traded_vwap alongside the existing vwap, frmi, frqi in the API response, which are all calculated on delivery period

VERSION 5.3.4

Cosmetic update

• Branding: applied new branding to platform

VERSION 5.3.1

Patch fix

• Trade Filters: fix to filter issue, introduced with the Voided Trades change.

VERSION 5.3

Minor Changes

- Voided Trades: voids will now be visible to the involved parties.
- Trades History Chart: cosmetic changes to remove time dependency of the x-axis.
- Product Selection Droplists: updated with more intuitive ordering.
- API Date Filters: created_from / created_to now allows time granularity (in NZT).
- Push Notifications: framework added for future services.

VERSION 5.2

Minor Changes

- Order Uploads: chronological sorting of uploads.
- Ticker: auto-expiry of 'new' transaction flag after 20mins.
- Locked Account Prompt: rewording of message in UI.
- Scheduler Page: shortened the default period, on open.

VERSION 5.1

Order & Trade Management

- Removal of 'auto-expired' being carried over from trades and underlying orders.
- Removal of underlying orders for Off Market Trades from the Ticker.

General

- Rails patching to protect against security vulnerabilities.
- Improved handling of auto-restart job for the API server.

VERSION 5.0

API Functionality

The Application Programming Interface (API) suite is built using RESTful JSON technologies and OAuth2.0 authentication.

The emsTradepoint API suite has two key benefits:

Machine to Machine integration: the suite allows participants to integrate their internal systems with the Exchange, enabling you to build your own dashboards and reports.

Robust data source for mobile app: in the new financial year, the emsTradepoint team are planning to release native iOS and Android applications to support trading on the go, which these APIs will service.

Most datasets on the Exchange are available via the API suite. The response data will adhere to the existing security model of the Exchange platform where a Participant's anonymity is upheld.

Live API documentation and a test interface can be found on the following URL:

https://uat-exchange.emstradepoint.co.nz/api/docs.

Broker Enhancement

The platform now enables accredited brokers to place bids and offers on behalf of clients where they have received explicit permission from their clients. Brokers will also be able to enter Off-Market trades for deals they have formed off screen.

All existing features of the exchange such as anonymity and trading limits remain the same.

When an order placed on behalf of a client is non-compliant (breaching trading rights, trading limits or collateral limits) the emsTradepoint Market Administrator is notified and the order is placed on 'hold'.

Performance Improvements

Overall performance improvements to increase responsiveness and resolve any timeout issues associated with the Scheduler and FM Certificate submission.

VERSION 4.0

Server OS Upgrade

VERSION 3.9

Frankley Road Natural Gas Indices Calculation

- FRMI and FRQI Calculation updated to include trades that are brokered and/or anonymous (the buyer and seller are not known to one another at the time of trade confirmation).
- VWAP calculation updated to include trades that are brokered and/or anonymous.

Trades CSV Download

- Inclusion of the following information in the Trades CSV download where applicable and non-confidential to user:
 - Broker (Y/N)
 - Anonymous (Y/N)
 - Buyer Notes
 - Seller Notes

Order Expiry Time

• Expiry time included in CSV download for trades that are no longer live and/or were placed by user or a member of user's company.

Off Market Trade Updates

 Market administration functionality added to indicate broker execution and anonymity of off market trades as a prerequisite for indices and VWAP calculation.

VERSION 3.8

Off Market Trade Updates

- Off market trades are identifiable from the trading board.
- Off market trades field added to the 'Trades' csv download.
- When entering off-market trades, the market admin can enter 'Seller Notes' and 'Buyer Notes'. This field appears in the 'Trade Notification' email that is sent to the Buyer and the Seller (only visible to the trading parties).

New user unlock function

Ability for a user to 'unlock account' via email without market admin intervention.

FM event notices

- FM certificate hardcoded to 4pm (previously responsive to 30 minutes prior to market close which is incorrect).
- When submitting an FM certificate, if the minimum revised quantity is the same as the original trade quantity, the user can no longer edit the revised quantity field.

General

- Removal of expiry times on the order management csv downloads where user is not the owner organisation (or agent of).
- Cosmetic bug fix on the trading screen.

VERSION 3.7

Application Upgrade

• The web application framework has been upgraded to the latest version

General

• Bug fixes to Market Data graphs

VERSION 3.6

OTD / D+1 Trade Notification

 New notification email for NGP-TRS (D) trades struck for delivery on-the-day (OTD) or the following day (D+1)

VERSION 3.3

Updated Collateral Model

- Sales and settlements are now included in the exposure calculation
- The Market Exposure page has been updated to include details of sales and settlements

Market Data

- Rotowaro has been added to the pipeline pressure graph
- General tidy-ups and bug fixes to the existing Market Data graphs

NGP-TRS

 A new product type – NGP-TRS – has been added to the platform. This will be displayed on the trading board following activation of the product.

VERSION 3.2

Market Data

- Three new graphs have been added to the Market Data page:
 - o Pipeline Running Operational Imbalance
 - o Pipeline pressure
 - NZ electricity market
- These also replace the 'Trade history' and 'Indices' graphs on the Trading Board
- 'Trade history' graph horizontal axis changed to represent time of trade

Automation of Force Majeure Certificate

- Force Majeure (FM) Certificates are now submitted and automatically processed via the Exchange Platform
- New user authorisation 'FM User' added
- FM quantities displayed as an entry on the Scheduler column 'Net FM Shortfall'

User Interface Updates

- UI updates made to the Trading Board and Market Data page
- 'Sweep' columns, showing total live bid/offer quantity, added to the product pane

General

- If automatically logged-out, the user will be returned to the log-in screen
- An 'All-Market' tab has been added to the Scheduler
- Graphs on Trading Board fixed to always display regardless of screen size

VERSION 3.1

General

• Fix to bug in the Scheduler filter

VERSION 3.0

Introduction of NGP-FR (W) and NGP-FR (M)

- Two new products have been added NGP-FR (W) and NGP-FR (M)
- The existing daily product NGP:FR has been renamed NGP-FR (D) and the trading window has been shortened
- Format changes have been made to order & trade details, notification emails, csv downloads and csv uploads
- A scheduler page has been introduced to group traded positions into a single daily delivery obligation

New Trading Board Interface

- The Trading Board, daily Trading Board and Ticker have been combined into a single screen layout
- The Market Results graphs have also been integrated into the page
- Changes to colour themes and other general UI improvements
- 'Withdrawal All' option on the Trading Board
- On the products pane, Bid Qty / Offer Qty now represents the quantity available at the best 'Bid / Offer' price
- "NEW" label added to the ticker to displaying updates from the last 20 minutes

Order Functionality

- The ability to set custom expiry times when placing orders has been added
- The Market Depth now groups adjacent partial orders which are at the same price
- A quick order replace function has been added

Updated Collateral Model

- A new 3-month collateral model has been implemented
- The existing Balance Sheet has been replaced with a Market Exposure page

General

• IE8 is no longer supported

VERSION 2.1

Change to Trading Hours

- The OTD Market Trading Hours have been changed to 0930 1630.
- The DA Market Trading Hours have been changed to 0930 1630.
- The daily delivery summary email will be sent upon market close, at the updated time.

General

 Update to allow users with the same email address as their organisation's email to modify their email settings in the 'Notification Centre'.

VERSION 2.0

Name change updates

- References to emTrade have been replaced with emsTradepoint.
- The platform URL has been updated to: https://exchange.emstradepoint.co.nz.
- Automated system notifications to users will now be sent from: notifications@emstradepoint.co.nz.
- Automated emails and sms messages will contain 'emsTradepoint' in the subject line.

VERSION 1.100

General

 Fix to bug which prevented view-only users from using the daily trading board date select function.

VERSION 1.90

Notification Centre

- Users now have the ability to select which emails they receive through the 'Notification Centre'.
- A notification email for withdrawn orders has also been added.

Trading Ticker

 A pop-up ticker has been added which displays the latest twenty trades and new orders on the platform.

Trading Boards

- The order stack has been updated to display the cumulative quantity available on the bid and offer side, as well as the VWAP down the stack.
- Selecting the 'HIT' option next to a bid or offer will automatically populate the order form at the price of that bid/offer and with the cumulative quantity.

UI Updates

- UI colour and layout improvements to the trading screens
- Bid and offer price columns are red and green respectively. This colour combination will continue to be used when distinguishing the different order types.
- The delivery period has been positioned above the order stack and navigation arrows have been added
- Row heights have been narrowed across all screens

Order and Trade Management

- Users can now view and download all orders on the order management page, not just those placed by their company.
- A 'Company' filter (for the user's company only) has been added to the order management page.
- The 'Created Start / Created End' date filter on the order management and trade history pages has been replaced with a 'Delivery Start / Delivery End' date filter.

General

- Trade history for a product is no longer limited to the past 7 days; rather it includes the entire open period.
- A user is now alerted to the fact that they have been locked out of their account via an on-screen message.
- Fix to bug not displaying order type when reviewing bulk order uploads.
- Sparkline will automatically update with new orders.
- 'Delivery Date' is now referred to as 'Delivery Period'.
- 'Last Trade' is now referred to as 'Last Deal'.

VERSION 1.80

Password Security

- User password requirements have been strengthened. All new passwords must meet the following criteria:
 - 1. A minimum password length of seven characters, consisting of at least three of the following character sets:
 - lowercase characters (a-z);
 - uppercase characters (A-Z);
 - digits (0-9); and
 - punctuation and special characters.
 - 2. Recent passwords may not be reused

These changes will take effect when a user next updates their password.

Order Management

• There is now the ability to select and withdraw multiple orders at the same time from the Order Management page

VERSION 1.67

Risk Management

 A new feature 'Trader Limits' has been added allowing Participants to set companywide and individual risk controls

Trading Boards

- The trading board default overview now displays 30 days' worth of products on the DA market
- The 'Fast Trade' links have been renamed 'HIT' (previously 'BUY' & 'SELL')
- 'Last Price' on the trading board has been renamed 'Last Trade'

General

Enhancements to the matching engine to improve speed

VERSION 1.58

General

- Fix to bug in IE8 causing csv. format download faults.
- Fix to bug causing visual distortion on mobile devices.
- Per-unit pricing is now denoted by \$/GJ.
- UI improvements to the password activation page, the order upload form, and the balance sheet table.

Order Management

- An 'Order Type' column has been added to the csv. format downloads to distinguish bids and offers.
- An 'Order Number' column has been added to the csv. format downloads to display a unique order number.
- A 'Delete' option has been added to the bulk order upload review screen.
- Orders are now default sorted by creation date, starting with the most recent.

Trading Boards

- The OTD trading board now also includes trades that were made on the DA market.
- Colour coding added to the OTD trade history graph to distinguish between DA trades (blue) and OTD trades (red).

VERSION 1.52

Gen1 application