

CTRM

THE NEXT GENERATION



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INTRODUCTION

There is no doubt that technology has undergone a sea-change over the last decade or so potentially making it possible to build and deploy software faster and more cost-effectively while offering a host of features that help users to work smarter, faster and with less opportunity for error. Additionally, the way that applications are designed and built has also changed to take better advantage of these technologies. While arguably there is no single technology that facilitates a paradigm shift in Commodity Trading and Risk Management (CTRM) software, when you combine advances in all areas of solution development and deployment technology, then such a leap forward is both likely and desirable.

Nowhere is the gap between the possibilities offered by these leaps in technology and what is available as commercial solutions more apparent than in the commodity trading and risk management software category. There are many aging, legacy, solutions still being utilized, marketed, and deployed and yet, this is an industry that is experiencing unprecedented demands and change, which in turn, are placing increasing demands on the software it utilizes. What most commodity firms are seeking is more agile software platforms that can allow them to adapt and evolve through these changes. This growing demand is also accentuated by the younger, more tech-savvy people entering the business whose expectations are

not being met by many existing solutions.

This white paper reviews some of the advancements now possible in terms of E/CTRM software resulting from the deployment of modern technologies. New technologies provide the tools for developers to enhance, optimize and improve user interfaces, architecture, connectivity, configurability and much more. In turn, these aid users in focusing on their key activities and help to potentially reduce operating costs and implementation timescales and complexities. It then looks at the initiative by Enuit with its EnTrade 7 development that involves adopting much of these technologies to enhance its offerings for its customers.

A TECHNOLOGY EVOLUTION

Modern solutions are architected to take advantage of the cloud where they can utilize processors and scale to the processing power needed to maintain good performance and take advantage of other cloud benefits. This also means that running and support costs are optimized according to workload. The ability to now embed intelligent and configurable workflow to help guide users through a solution, utilize AI to intelligently automate business processes, and new approaches to UI design helps make interaction with solutions more intuitive as well. However, one of the biggest areas is the evolution of various technologies and standards designed to facilitate seamless integration using microservices or APIs. This has already begun to revolutionize the IT world in commodities facilitating the move to ecosystems of commercial and home-grown solutions as well as connectivity more generally to the outside world for things like exchange connectivity, data feeds and more.

A key aspect of this evolution has been the need to improve the user interface and experience. Most younger users have been used to services like Google and highly useable applications like Facebook, X and so on. They are often taken aback when they get to interact with a legacy CTRM solution whose interface is not so far away from a green screen of the last century. They expect something more usable and certainly more flexible. New UIs are also required to help users better visualize and consume the significantly greater amounts of data now available. Data of all types including satellite and other imagery is both available and required to help make smarter decisions. However, it is the volume and latency of data that really demands attention to UI design. Everything is happening faster, and trading is often intraday requiring real-time updates.

Another aspect of this technology revolution touched on above is the ability to integrate solutions more easily via services and APIs. This offers users the ability to

access many disparate data sources from prices to actual events on the ground that could impact supply and demand. Users can now build and deploy ecosystems of solutions rather than rely on cumbersome and costly monolithic legacy solutions and these ecosystems offer increased agility and speed of adaption so critical to a modern commodity trading business. Within this ecosystem, the ability to deploy intelligent workflow with AI to optimize business processes and automate is now feasible.

Decision makers when looking at procuring an E/CTRM solution often face a dilemma. Should they adopt a newer solution that provides all the features and benefits of a modern architecture and technologies but has yet to mature in terms of its functional coverage or buy something functionally deep and broad on an older technology stack? Many of the newer solutions that have come to market over the last 4-5 years do have a limited footprint and user base meaning that

some functional coverage is still needed to be added. Historically, vendors have evolved their products over time using new customer requirements and strategic roadmap to increased depth and breadth of functionality.

Those that have successfully managed this though often come with a legacy of older technologies and an inability to easily adopt modern technologies.

THE NEED FOR NEW SOLUTIONS

The history of commodity trading is replete with often quite abrupt change¹, however, the last few years has witnessed unprecedented change targeting the industry and from all possible angles. Geopolitics has played a huge role with sanctions and wars creating production, movement and supply issues, politically driven initiatives around sustainability, climate, diversity and more has impacted trade finance, production, movement, and supply and the recent COVID pandemic has left issues in its wake as well.

The drive to net zero, move to renewables and batteries, and electrification of vehicles and heating, for example, is also ensuring that balancing supply and demand is harder and more finely tuned while driving demand for many metals. It also has impacts on farming, fertilizer use and agriculture in general meaning that prices for raw materials are volatile. Regulations of all types have increased the need to capture, report and validate via traceability and the like, all manner of data to avoid hefty fines and other consequences. In short, the drivers for change are everywhere and persistent.

The impact of these changes is not just on transaction

processing with a need for increased speed, data volumes and more latency but also on the need to manage risks. While firms are exposed to greater market and credit risk than previously, they are now exposed to significant operational risks as well that encompasses legal, regulatory, financing, and geopolitical risks amongst others. A modern trading business whether as a merchant, supplier, or consumer is more risky, volatile, and complex than ever before. The need for agile software solutions that can help and even enable businesses operating under these circumstances is unprecedented.

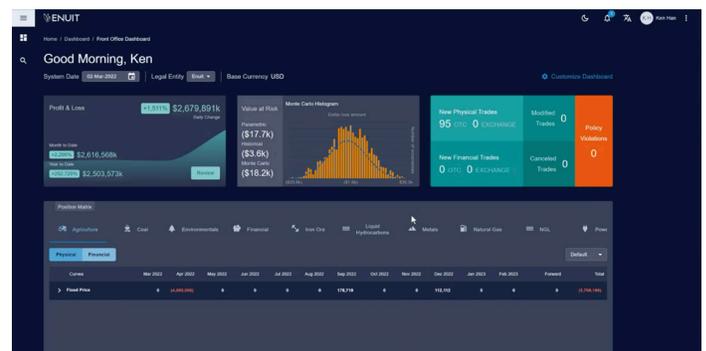
¹ See Reames & Vasey, 2023, An Analyst View of a Dynamic Software Market, Chapters 2 and 3

ENUIT – A COMMITMENT TO EVOLVE

Enuit was founded in 2008 and has since thrived offering its ENTRADE E/CTRM solution, which it has evolved into an award winning, multi-commodity, commodity management solution utilized by many companies around the world. To ensure its continued success, Enuit is constantly seeking to improve and expand its offerings to the market. Noting the trends in the market and listening to its customers need has meant that Enuit is now working on a major new version of ENTRADE – version 7 that will position it and its users at the pinnacle of the E/CTRM software market for the coming decade. The first version of ENTRADE 7 is due to be rolled out to trial customers mid-2024.

Enuit's vision for ENTRADE 7 is comprehensive and aimed at ensuring it utilizes the very latest in technologies. This includes a messaging architecture, use of standard API's and a fully web-based UI that is persona-based. That means that the user will start their use of the solution in a configurable and personalizable dashboard that presents a summary of the key information they need to do their job. Persona-based dashboards mean that different roles in the business will be identified and, as a starting point, users in roles like, for example, risk management or scheduling, will be presented with information specific to them. Each individual user will be able to further configure this dashboard for their own use. By ensuring that users see the summary information in the form (graphical, tabular etc.) they need, users will be able to be more efficient in their work. Each dashboard or cockpit heads up display will feature the ability to drill deeper into the information displayed as well as built in decision support tools.

The new version of the solution will provide users with a personalized and focused view into the information they need to perform their role. The aim is to provide an

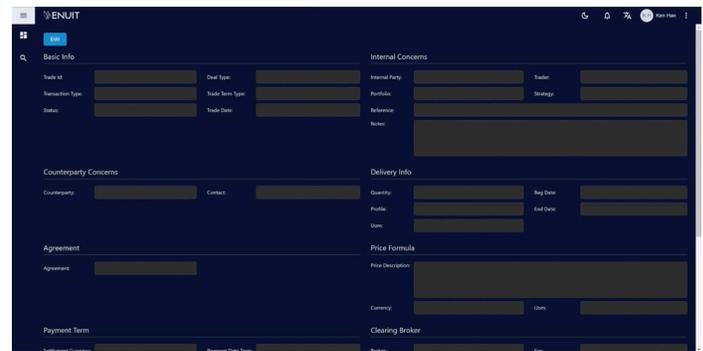
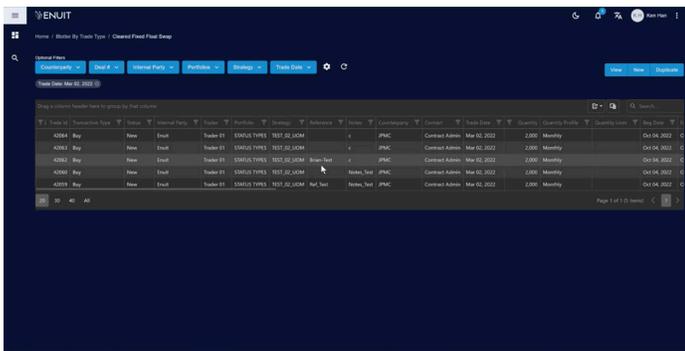


intuitive and adaptable system that takes advantage of connectivity via API's to grab whatever data and display it to the user in a consumable manner. With built-in workflow, this could also take the form of activity or task tracking, statuses or help guide the user to completion of a set of activities in the system related to the business process being managed. Enuit is also providing the ability for it to add in AI in the future in areas where it makes sense and can further aid the worker perhaps by, for example, identifying exceptions requiring human intervention.

Of course, ENTRADE 7 is also designed to make full use of the cloud and to scale as required with the business providing an enhanced level of agility to

users to cope with change, add in new data sources or connect to new markets or third-party solutions in an adaptable ecosystem. Enuit is investing heavily in ensuring that it has an agile, scaling solution that meets the expectations of all generations of users working in

commodities going forward and hopes to build on that platform into the future. It is also adopting a strategy whereby it can continue to offer deep and broad functionality but on a modern platform.



ABOUT ENUIT LLC

Enuit, founded in 2008, aims to deliver affordable and effective trade management software with Entrade. This tool supports the complete transaction lifecycle, from deal finalization to billing. As a comprehensive ETRM/CTRM and CM solution, ENTRADE® caters to all commodities, users, and features on a single platform.

Key ENTRADE® features include:

- Comprehensive commodity support, encompassing NGLs, LNG, natural gas, power, renewables, crude oil, refined products, metals, and coal.
- A holistic view of renewable energy transactions for sustainable business operations.
- Detailed transaction lifecycle visibility, from deal discussions to invoice issuance.
- An analytical pricing engine designed for complex pricing structures.
- Adaptability for diverse trading scenarios, including both physical and financial commodities.
- Streamlined processes for deal recording,

scheduling, cost tracking, inventory management, valuation, settlements, invoicing, and risk monitoring.

- In-depth logistics support, detailing costs and movements from purchase to delivery.
- Transparent reporting with both standard and ad-hoc reporting capabilities, aiding swift decision-making.

Furthermore, ENTRADE®'s transparent data model grants clients a clear understanding of their data storage locations, offering enhanced control.

In essence, ENTRADE® isn't just a tool - it's a pathway to streamlined operations, echoing Enuit's dedication to supporting clients throughout their growth journey.



ABOUT

Commodity Technology Advisory LLC

Commodity Technology Advisory is the leading analyst organization covering the ETRM and CTRM markets. We provide the invaluable insights into the issues and trends affecting the users and providers of the technologies that are crucial for success in the constantly evolving global commodities markets.

Patrick Reames and Gary Vasey head our team, whose combined 60-plus years in the energy and commodities markets, provides depth of understanding of the market and its issues that is unmatched and unrivaled by any analyst group.

For more information, please visit:

www.comtechadvisory.com

ComTech Advisory also hosts the CTRMCenter, your online portal with news and views about commodity markets and technology as well as a comprehensive online directory of software and services providers.

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