



GMEX Group Limited

Case Studies - November 2021



GMEX Group Limited, 1 Royal Exchange, London, EC3V 3DG, United Kingdom



Below is a list of project references that GMEX is involved with currently:

Arabian Bourse (ABX)



Arabian Bourse (ABX) is a crypto asset exchange and custodian that has received in-principle approval from Financial Services Regulatory Authority (FSRA) of Abu Dhabi Global Market (ADGM). ABX delivers secure and efficient marketplace to financial institutions for trading cryptocurrencies thanks to its fully regulated environment and custodial services which eradicates any counterparty and clearing risks. This initiative has combined the efficiency of non-regulated cryptocurrency exchanges and the security of regulation for market participants underpinned by a leading-edge and comprehensive technology suite, 100% proven, from exchange platform down to digital custody.

GMEX Technologies has an extensive participation in the Arabian Bourse as ABX implements the GMEX-powered hybrid centralised & blockchain distributed ledger technology suite, which is deployed and trusted by international regulated financial institutions. With a goal to be the leading institutional grade crypto assets exchange and custodian in the region, ABX is building a fully integrated ecosystem with well experienced promoters to become the preferred venue for crypto assets listing, trading and associated digital custody, depository and data services. GMEX is not only a technology provider to this exchange, but also holds an equity stake in it through its group company GMEX Holdings Limited as part of its unique partnership driven approach.

www.arabianbourse.com

ALTX Africa Group



ALTX Africa Group Ltd (ALTX) is an investment holding company incorporated in Mauritius. ALT Xchange Ltd (ALTX Uganda) is a private company incorporated in Uganda, which operates ALTX exchange in Uganda. ALTX Uganda's has been live since July 2016 and is approved by the securities regulator in Uganda and is the first in a series of steps to establish a network of exchanges in Africa. ALT-X Clearing Ltd (ALTX Clearing) is a private company incorporated in Uganda, which operates a clearing house and central securities depository.

GMEX Group has a 25% stake in the Mauritius-based ALTX Africa Group Ltd (ALTX). ALTX wholly owns ALT-Xchange Ltd (ALTX Uganda) and ALT-X Clearing Ltd (ALTX Clearing). GMEX TECH provides its leading edge ForumMatch exchange trading platform, ForumDetect



market surveillance system and ForumTrader workstation to ALTX Uganda as a fully managed “Exchange-in-a-box” hosted solution interconnecting ALTX Uganda to GMEX’s infrastructure in London, enabling access to international vendors and clients.

<https://www.altxafrica.com/>

Quote:

“GMEX Technologies allows us to access world-class exchange technology and business expertise through their unique partnership driven approach in a way that mutually aligns interests and sets it apart from the usual customer-supplier approach.” – Joseph Kitamirike, CEO, ALTX

Amazon Web Services



Amazon Web Services (AWS) is the world’s most comprehensive and broadly adopted cloud platform. AWS has been continually expanding its services to support virtually any cloud workload, and now has more than 200 fully featured services for computing, storage, databases, networking, analytics, machine learning and artificial intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, virtual and augmented reality (VR and AR).

GMEX MultiHub Limited (GMEX), collaborated with AWS, supported by DXC Luxoft to develop Digital MultiHub (MultiHub), a cloud based trading and post trade digital market infrastructure platform as a service (PaaS), which provides interconnectivity and access to 3rd party services across traditional and digital asset markets. MultiHub, as a ‘multi-asset network of networks service’ facilitates a first-of-its-kind collaboration across major institutions, regulatory regimes and start-ups, with the goal of bringing digital assets to a wider audience.

<https://aws.amazon.com/>

Quote:

“GMEX MultiHub powered by AWS makes it easier for customers to access, trade and settle digital assets with a reduced carbon footprint as digital assets can be pledged by custodians without moving as well as netted to optimize settlement, therefore reducing the time, cost and energy usage of constantly writing to the chain.” - Anoop Nannra, Global Blockchain Lead, AWS.



Blockchain Board of Derivatives (BBOD) (rebranded as CoinDeal Derivatives)



CoinDeal Derivatives (formerly Blockchain Board of Derivatives) (BBOD) is a hybrid, semi-decentralised cryptocurrency futures trading platform that provides a real-time, ultra-fast matching engine in conjunction with a decentralised, secure Blockchain based settlement process controlled by clients. BBOD accepted the deposits in the stable coin TrueUSD (TUSD) and offered futures trading on 16 cryptocurrencies against TUSD, enabling clients to trade over 100 different cryptocurrency contracts in total, on both rising and falling cryptocurrency prices. GMEX Technologies (GMEX) has provided BBOD with the GMEX Fusion digital exchange platform suite to run the exchange, market surveillance system and index engine to facilitate the creation and trading of Ethereum based indices and futures contracts.

<https://derivatives-coindeal.com/>

BYMA



BYMA is the primary stock exchange of Argentina. BYMA operates as the main stock exchange for the country as well as a clearing house settling all cash product trades (currently stocks, derivatives, bonds, bills and depository receipts). In 2018, the entity required a modern risk management system in order to improve the risk monitoring of positions for collateralised loans and derivatives in particular, and also to streamline their legacy post trade processing systems using a step-by-step approach (i.e. integration of its CCP with CSD). The entity contracted with GMEX Technologies for an advanced risk management system in order to make appropriate margin calls for the open positions of market participants.

<https://www.byma.com.ar/en/homepage/>



Central Asian Stock Exchange (CASE) – Tajikistan



Open Joint Stock Company “Central Asian Stock Exchange” (CASE) provides access to alternative sources of funding for local entities from both local and foreign investors, and provides conditions for foreign investors to enter into the Tajikistan capital market. CASE actively works under the reforms of legislation in regards to security markets and tax legislation for all participants of security markets.

The partnership with GMEX Tech facilitated the establishment of the first fully integrated Exchange, CCP and CSD in Tajikistan leveraging the end to end exchange trading, market surveillance, clearing and settlement technology platforms, operations and global business expertise ecosystem, which is provided by GMEX Technologies.

<https://www.case.com.tj/en/>

Quote:

“Our partnership with GMEX Technologies will facilitate the establishment of the first fully integrated Exchange, CCP and CSD in Tajikistan, which will see exchange trading, market surveillance, clearing and settlement technology platforms, operations and global business expertise ecosystem, all of which will be provided by GMEX Technologies.” - Alisher Shernazarov, CEO, CASE

Hanoi Stock Exchange and Vietnam Securities Depository



The Hanoi Stock Exchange (HNX) and Vietnam Securities Depository (VSD) launched the first ever Derivatives market with a fully-integrated, central counterparty clearing house in Vietnam in August 2017. They implemented the GMEX Technologies (GMEX), multi-asset, multi-language exchange trading system (ForumMatch) and market surveillance solution (ForumDetect) with a real-time clearing and settlement system.

This new derivatives market has attracted institutional investors to the Vietnamese market by providing hedging facilities for risk management, together with the ability to leverage and extend their investment period. By keeping market volatility low, HNX has helped investors manage the future movement of securities and profit on their invested assets.



Aligning with the government's objectives to encourage foreign investment, HSX/VSD are creating a supportive capital markets environment to support the move of Vietnam from MSCI* 'frontier market' status to MSCI 'emerging markets' status.

*MSCI = Morgan Stanley Capital International

<https://hnx.vn/en-gb/>

<http://vsd.vn/>

Quote:

"We are quite happy with our relationship with GMEX & GMEX solutions. GMEX solutions provide us with outstanding connectivity and the exchange trading platform – 'ForumDetect' is a parallel functional platform with a full market supervision facility and reporting. Also ForumTrader as web-based platform is easy deploy, is effective and is efficient. We are quite happy with that solution and I think that is one of the key factors that make our market grow quite impressively." - Nguyen Thank Long, Chairman of the Hanoi Stock Exchange

IGX



The Indian Energy Exchange chose to partner with GMEX early 2020 to launch the first gas exchange in India, the Indian Gas Exchange (IGX). Natural gas is a vital component for India to meet its energy need and a comprehensive national grid has been in development under the impetus of the government.

IGX has chosen GMEX for the quality, the comprehensiveness and the flexibility of the GMEX's technology for commodities as the gas delivery management function required a specific logic taking into account pipeline capacity.

From launch, IGX has offered a day-ahead market as well as daily, weekly, bimonthly and monthly contracts. IGX intends to add more products in the future including petroleum products. IGX went live in May 2020.

<https://www.igxindia.com/>



IBM Blockchain



IBM Blockchain Platform is a flexible, enterprise-grade blockchain platform built on Hyperledger Fabric. It provides a secured platform to build, govern, operate and grow blockchain networks, with the ability to deploy components in multiple cloud or on-premise environments.

IBM Blockchain Platform helps enable GMEX Fusion to manage digital assets that represent multiple types of financial instruments simultaneously, including cryptocurrencies, security tokens, tokenised commodities and margin traded crypto derivatives; with inter-bank message flows to facilitate settlement downstream, and exchange messaging upstream.

GMEX Fusion Digital Capital Markets technology suite (GMEX Fusion) is built on IBM (NYSE: IBM) Blockchain Platform.

<https://www.ibm.com/blockchain>

Midclear S.A.L. - Lebanon



Midclear S.A.L. is the Custodian Clearing Centre of financial instruments for Lebanon and the Middle East and has been instrumental in the reinvigoration of the Lebanese capital markets as part of Lebanon's plans for the overall economy and reconstruction.

Midclear chose to contract with GMEX Technologies (GMEX) when they set up a new CCP to provide real-time clearing and settlement of derivatives asset classes including FX Futures, Equity Index Futures & Options, and Commodity Futures, including precious metals.

This project will underpin the expansion of the Lebanese capital markets into additional assets classes.

<http://midclear.com.lb/>



MAXDA Markets



MAXDA Markets Group Limited ('MAXDA Group') is an institutional grade, digital asset ecosystem providing a safe regulated marketplace, which permits the buying and selling of cryptocurrencies, security tokens and other digital assets. This ecosystem will initially include a UK MTF subject to regulatory approval by the FCA and a SWISS OTF subject to regulatory approval by FINMA, followed by 1 additional Asian based exchange. There will also be a guarantee fund (ensuring contract performance) and a digital custodian in Europe. A key feature will be access to third party digital asset marketplaces and custodians as well as access to fiat banking.

This will differentiate MAXDA Group from other start-up digital asset exchanges and help secure significant additional cross border liquidity. MAXDA Group will also look to acquire or obtain other regulated exchange licences or alternatively partner in key strategic locations such as the EU, USA, Middle East and Africa.

www.maxdamarkets.com

SECDEX Group



The Seychelles based Securities, Commodities and Derivatives Exchange (SECDEX) is a market infrastructure ecosystem located in Seychelles. The SECDEX Group business includes an exchange offering traditional and digital assets, a central counterparty clearing house (CCP) and a central securities depository with registry authorised and regulated by the Seychelles Financial Services Authority (FSA). The ecosystem also includes a digital custodian. SECDEX Exchange focuses on securities, debt, spot commodities and derivatives contracts in traditional and digital tokenised form.

What makes SECDEX distinctive from existing commodities and derivatives exchanges is that SECDEX aims to provide fully allocated contracts, which will be physically backed by the underlying commodities.

www.secdex.net



Seed CX



Seed CX is a CFTC regulated institutional grade exchange in the US with a SEF status offering commodity-based and security-based digital assets. Seed CX has offered physically settled short-dated and long-dated forward contracts on digital assets. Seed Digital Securities Market will be a certified Broker-Dealer and ATS subject to regulatory approval by FINRA & SEC, which will be facilitated by the trading of security tokens and acting as a qualified custodian. GMEX Technologies (GMEX) has accompanied Seed CX from the very beginning having advised Seed CX on their application to obtain the CFTC license, and we have been extensively involved in their strategic shift towards digital assets. GMEX is not only a technology provider to Seed CX, but also holds an equity stake in Seed CX through its group company GMEX Holdings Limited as part of its unique partnership driven approach.

<https://seedcx.com/>

Quote:

"In collaboration with GMEX, Seed's platform was built for professional traders in an industry where standards exist: FIX protocol, colocation, market surveillance, redundancy, and uptime. The current crypto trading eco-system suffers from fundamental issues including the lack of basic controls and redundancy, which leads to frequent flash crashes and system downtime. Seed was built to change this." - Edward Woodford, CEO of Seed recently commented

Taurus Digital Exchange



Taurus SA specialises in digital assets and blockchain. Taurus was founded by senior executives with a background in banking, regulatory, IT and cyber security. Taurus offers enterprise grade financial market infrastructure solutions for digital assets as well as other financial services to its clients. It is a leader in Europe and Switzerland. Taurus solutions are in production and entrusted with the full spectrum of banks: systemic banks, investment banks, private banks, retail/digital banks, crypto-banks, trading venues.

Taurus SA has adopted GMEX trading technology to support the Taurus Digital eXchange ("TDX"), its newly launched independent regulated marketplace for digital assets.



TDX utilises the GMEX exchange trading and market surveillance solutions, key components of the GMEX Fusion technology suite which is deployed and trusted by multiple international regulated financial institutions across the globe. Banks and other trading participants can connect to TDX through standard FIX connectivity and access digital asset segments of their choice.

GMEX's exchange trading platform, with its integral high performance matching engine, facilitates TDX support for the operation of both highly liquid instruments and less liquid auction-based and request-for-quotes systems. It is fully integrated into the Taurus 24/7 blockchain node infrastructure and technology stack which encompasses digital asset token issuance, a secure storage solution, and supports any type of smart contracts issued on Ethereum or Tezos.

www.taurushq.com

www.t-dx.com

TP-ICAP



TP-ICAP (*formerly: Tullet Prebon*) is one of the leading global inter-dealer brokerage firms operating in the world's financial, energy and commodities markets. TP-ICAP partnered with GMEX Technologies (GMEX) to develop a best-in-class hybrid voice and electronic trading platform for FX Options (FXO) with the aim of ensuring that both voice and electronic operations work seamlessly together. Live since May 2017, GMEX provided the trading solution (ForumMatch) for the FXO Request-for-Quote (RFQ) project in parallel with a new TP-ICAP front-end system and integrated with the existing internal settlement system to deliver clients a RFQ capability with rich functionality and an intuitive interface. GMEX also provided a new FIX gateway that allowed for STP for clients who wanted to interact electronically. The project has also been extended to additional asset classes including precious metals.

TP ICAP announced the launch of a crypto asset trading platform in June 2021. GMEX Technologies is powering this innovative wholesale trading platform which features a wholesale electronic marketplace for spot crypto asset trading, including Bitcoin and Ethereum, as well as providing connectivity and post-trade infrastructure into a network of digital assets custodians.

The platform utilises the GMEX advanced exchange trading and market surveillance solutions and key components of the GMEX Fusion digital technology suite which is deployed and trusted by multiple international regulated financial institutions across the globe.



As part of the project, GMEX has developed a new post trade platform to connect to multiple digital asset custodians, facilitating credit checking, netting and settlement for all trading activity.

<https://www.tpicap.com/>

Tokenise Stock Exchange



Tokenise has been established to create a full end-to-end service, from issuance of tokenised securities, trading and brokerage services to settlement and depository. Tokenise Stock Exchange is a fully regulated entity established in Barbados and authorised by the FSC to launch its digital stock exchange. This will democratise the securities industry by tokenising assets that have previously been inaccessible, illiquid or unavailable to a global community of investors and issuers. It will set the global standard for security token issuances, and operate the world's first dedicated, multi-jurisdictional global single order book.

The partnership with Tokenise was established in September 2019 and in May 2020 delivered a live digital exchange platform to support securities issuance, trading, surveillance, clearing, settlement and custody. The end to end solution for issuers and investors ensures regulatory robustness and adherence to exacting exchange-trading standards. To facilitate this, Tokenise uses the proven GMEX Fusion hybrid centralised & blockchain distributed ledger technology suite.

<https://tokenise.io/sto/home>

Quote:

“Tokenisation of securities and other real-world assets will transform the accessibility and efficiency of capital markets. Removing inefficiencies, friction and barriers to participation will democratise the process of matching providers and consumers of risk capital. This in turn will increase the flow of funds and investment opportunities for market participants”. Martin Graham – Group Chairman.”