

EMEA - CASH MARKETS**Regulated Markets**

Abu Dhabi Securities Exchange - ADX	FIX, TSMR
Euronext Amsterdam Stock Exchange	Optiq OEG, MDG
Athens Stock Exchange	OASIS IDS - ODL, FIX
Borsa Istanbul	Genium INET ITCH, OUCH, FIX
Borsa Italiana MTA	MillenniumIT, Optiq OEG & MDG
Borsa Italiana ETFPlus	MillenniumIT, Optiq OEG & MDG
BX Swiss - Bern eXchange	Elasticia, FIX, FAST
Euronext Brussels Stock Exchange	Optiq OEG & MDG
Copenhagen Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
Dubai Financial Market - DFM	FIX, TSMR
Helsinki Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
Iceland Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
Euronext Dublin Stock Exchange - ISE	Optiq OEG, MDG
Euronext Lisbon Stock Exchange	Optiq OEG, MDG
London Stock Exchange	MillenniumIT
Moscow Exchange MICEX-RTS	MFIX, FIX/FAST
NASDAQ Dubai Exchange	FIX, TSMR
Euronext Oslo Stock Exchange	Optiq OEG, MDG
Euronext Paris Stock Exchange	Optiq OEG, MDG
Nordic Growth Market	Elasticia, FIX, FAST
Riga Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
Frankfurt Certificate Stock Exchange (ex-Scoach)	T7
Saudi Stock Exchange - Tadawul	GBS FIX
SIX Structured Products Exchange (ex-Scoach Swiss)	IMI, OTI, QTI, RDI, STI
SIX Swiss Exchange - SWX	IMI, OTI, QTI, RDI, STI
Stockholm Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
Tadawul - Saudi Exchange	Genium INET FIX, TIP
Tallinn Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
Vilnius Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
Warsaw Stock Exchange	UTP
Xetra (Bonds, Warrants, Energy, Equities)	T7

Multilateral Trading Facilities

Cboe Europe Equities	FIX, PITCH, Multicast PITCH
Equiduct	FIX, ITCHMD
NYSE Arca Europe	UTP MD, UTP Direct
LSE Turquoise	MillenniumIT

EMEA - DERIVATIVES MARKETS

Athens Stock Exchange	OASIS IDS - ODL
Borsa Istanbul	Genium INET ITCH, OUCH, FIX
Borsa Italiana Italian Derivative Market - IDEM	SAIL, HSVF
Borsa Italiana SEDEX	MillenniumIT
CATS-OS	FIX
CATS-LS	FIX
Eurex	T7 (RDI, ETI, EMDI, OEBI)
European Warrant Exchange - Euwax Stuttgart	TIQS Issuers Interface
Euronext Derivatives	CCG, Optiq MDG
ICE Futures Europe	FIX OS, iMPact
London Stock Exchange Derivatives	SAIL, HSVF
Madrid Futures Exchange - MEFF	MEFFGate Trading
NASDAQ Dubai Exchange	FIX, TSMR

Moscow Exchange Futures & Options Market - FORTS	Plaza-2
SIX Swiss Exchange - SWX	STI, QTI, MDI
Tadawul - Saudi Exchange	Genium INET FIX, TIP
Warsaw Stock Exchange	UTP

ASIA - CASH MARKETS

Australian Stock Exchange - ASX	OMX
Bursa Malaysia - KLSE	BDA
Hanoi Stock Exchange - HNX	Various ⁽¹⁾
Ho Chi Minh Stock Exchange - HOSE / HSX	Various ⁽¹⁾
Hong-Kong Stock Exchange - SEHK	CMG, OMD-C
Indonesia Stock Exchange - IDX	FIX, ITCH + GLIMPSE
Korea Exchange - KRX	Koscom NFS
National Stock Exchange - NSE	CTCL
Shanghai Stock Exchange - SSE	SBF, FAST
Shenzhen Stock Exchange - SZSE	SBF, FAST
Singapore Exchange - SGX	OMX
Thailand Stock Exchange - SET	ITCH, OUCH
Tokyo Stock Exchange / JPX Group - TSE	ArrowHead, TosTNet

ASIA - DERIVATIVES MARKETS

Australian Stock Exchange - ASX	OMX
Australian Stock Exchange - ASX24	FIX
Bombay Stock Exchange	OMB
Bursa Malaysia - BMD	Market Data Platform 3, iLink
China Financial Futures Exchange - CFFEX	CTP, Hundsun
Dalian Commodity Exchange - DCE	Feichuang, CTP, Hundsun
Dubai Gold & Commodities Exchange - DGCX	Cinnober
Dubai Mercantile Exchange	NEON/FIX.4.2 (NYMEX)
Hanoi Stock Exchange - HNX	Various ⁽¹⁾
Hong-Kong Futures Exchange	OMX, OMD-D
Korea Exchange	Koscom NFS
Osaka Securities Exchange / JPX Group	OMX
Shanghai Futures Exchange - SHFE	CTP, Hundsun
Shanghai Stock Exchange - SSE	FIX, Hundsun
Singapore Exchange - SGX	OMX
Thailand Futures Exchange - TFEX	ITCH, OUCH
Tokyo Financial Exchange - TFX	MM Quote System
Zhengzhou Commodity Exchange - ZCE / CZCE	eSunny, CTP, Hundsun

AMERICAS - CASH MARKETS

American Stock Exchange	FIX NYSE
Boston Stock Exchange	NASDAQ OMX ITCH, OUCH, FIX
BM&FBOVESPA - B3	PUMA
FXall	FIX
International Securities Exchange - ISE	FIX Gateway / ISE Depth of Market
New-York Stock Exchange - NYSE	FIX / ArcaBook, OpenBookRT, OpenBookUltra

AMERICAS - DERIVATIVES MARKETS

BM&FBOVESPA	PUMA
CBOE Futures Exchange	FIX / CFN
Chicago Mercantile Exchange - CME	Market Data Platform 3, iLink
International Securities Exchange - ISE	FIX Gateway / ISE Depth of Market
Montreal Exchange - TMX	FIX / STAMP
New-York Mercantile Exchange - NYMEX	Market Data Platform 3, iLink

(1) Native exchange connectivity is usually not possible on these markets ; exchange connectivity is done via bank core systems and requires specific adaptations.



OUTBOUND BROKER FIX CONNECTIVITY⁽²⁾

ABN Amro	Worldwide markets - Cash Equity, Equity Derivatives / Possible from LD4
Apex Clearing	AMER markets - Cash Equity / Possible from LD4
Bank of America Merrill Lynch	Worldwide markets - Equity Derivatives
Barclays BARX	Worldwide markets - Cash Equity, Equity Derivatives
Bay Crest Partners	AMER markets - Cash Equity
BNP	ASIA markets - Cash Equity, Equity Derivatives
Citadel	AMER markets - Cash Equity / Possible from LD4
Citic Securities	Mainland China markets - Equity Derivatives
Cowen	EU markets - Cash Equity
Credit Suisse	Worldwide markets - Cash Equity, Equity Derivatives
Daiwa	ASIA markets - Cash Equity
Deutsche Bank	Worldwide markets - Equity Derivatives
EquitaSIM (Specialist)	Italy market - Cash Equity
Goldman Sachs	Worldwide markets - Cash Equity / Possible from LD4 ASIA markets - Equity Derivatives
Shinhan Securities	KRX - Cash Equity, Equity Derivatives
ICF (Specialist)	Frankfurt Scoach exchange
InteractiveBrokers	Worldwide markets - Cash Equity, Equity Derivatives / Possible from LD4 & FR2
Instinet	APAC markets - Cash Equity
J.P. Morgan	Worldwide markets - Cash Equity / Possible from LD4 CBOE - Options
Kepler Cheuvreux	EU markets - Cash Equity
Maybank	SGX, SET - Cash Equity
Morgan Stanley	Worldwide markets - Cash Equity, Equity Derivatives
ODDO BHF	EU markets - Cash Equity
Saxo Bank	Worldwide markets - Cash Equity / Possible from LD4 CME / ICE EU / Eurex - Derivatives
Société Générale NewEdge	Worldwide markets - Cash Equity, Equity Derivatives
SwissQuote	Spot Cryptocurrencies
Tick-TS (Specialist)	Bern exchange
UBS (including Swiskey)	Worldwide markets - Cash Equity, Equity Derivatives
Virtu - Knight Capital Group	AMER markets - Cash Equity / Possible from LD4

(2) Please note these outbound broker connectivity have been built outside a routing network, hence usually requires a re-certification in the client's scope. Also, this list is not exhaustive and new FIX brokers can be added upon demand, following a FIX connectivity certification process.



ORDER ROUTING NETWORKS

OUTBOUND

Bloomberg EMSX FIX Network	FIX-Out
Bloomberg EMSX FIX for OMS Staging	FIX-Out
Refinitiv Autex Trade Route	FIX-Out

INBOUND

Charles River CRD	FIX-In
Bloomberg EMSX FIX Network	FIX-In
ITG/Virtu Net GATE	FIX-In
NYFIX	FIX-In
Refinitiv Autex Trade Route	FIX-In



MARKET DATA VENDORS

ActivFinancial	ActivContentGateway API
Bloomberg	Managed Bpipe (including Zero Footprint), Server API
Chi-Tech MarketPrizm	MarketPrizm API
GTN Global Trading Network	REST
ICE Data Service - Interactive Data Corporation	CTF, MDG
IRESS - QuantHouse	FeedOS Java API
Lightstreamer	REST, WebSocket, gRPC
Refinitiv - Reuters	TREP JRFA (OMM and MD)
Vela Trading Technologies	MAMA and MAMDA



THIRD PARTIES INTEGRATION

Aquariux	FIX (referential, orders and market data), REST
Arqa QUIK	FIX Out (orders and market data)
Bclear	SOAP/axis
Beacon	FIX (Drop Copy)
Bloomberg	Multi Product Feed, FIX-In
Corise Technology	Gemzip
Cscreen	SOAP/axis
CSE	IOMSS FIX
Feichuang	Xspeed API
Fidessa (ION)	EMMA/OpenAccess, OMAR/OpenAccess, FIX, MDAPI
FinIQ	Equity Connect FIX (RFQ)
FIS - SunGard GL TRADE	GL API, FIX In, FIX Out
GBS	FIX Out
Hundsun	TCP2 UFX API
Integral FXCloud	FIX Out
Misys Sophis	FIX (Drop Copy)
Murex	FIX (Drop Copy)
Refinitiv - Reuters	Datascope Select, Tick History
RootNet	FIX Out
S&P Global - IHS Markit	Markit SOLA API
SFIT	Comprehensive Transaction Platform (CTP)
SmartTrade	FIX Out (orders and market data)
Terranoha	API
Trading Technologies	FIX Out (orders and market data)
TS Imagine	REST (pricing)
Ullink (Broadridge Itiviti)	FIX In, FIX Out
Ultumus	API
Vectalis	UTS Direct access
Yeonhap Infomax	Global Data Feed



CRYPTOCURRENCIES SECURITY TOKENS

SPOT MARKETS

Binance	REST / HTTP + WebSocket
Bitstamp	REST / HTTP + WebSocket
Bittrex	REST / HTTP + WebSocket
GDAX / Coinbase Pro	REST / HTTP + WebSocket
ADDX / iSTOX	FIX
Kraken	REST / HTTP + WebSocket

DERIVATIVES MARKETS

Binance	REST / HTTP + WebSocket
CBOE	REST / HTTP + WebSocket
Chicago Mercantile Exchange	Market Data Platform 3, iLink