

Directory of Dark Pools

BROKER-DEALER-OWNED DARK POOLS: DOMESTIC

Barclays Capital/LX - Liquidity Cross.....	2
BNP Paribas/BIX	2
BNY ConvergeEx/VortEX	3
Citi/Citi Match	4
Credit Suisse Securities (USA)/CrossFinder	4
Fidelity Capital Markets Services/CrossStream	4
GETCO/GETCO Execution Services (GES)	5
Goldman Sachs/SIGMA X	5
Knight/Knight Link	5
Knight/Knight Match	6
Pulse Trading/BlockCross	6
UBS Investment Bank/UBS PIN Cross and UBS PIN ATS	6

CONSORTIUM-OWNED DARK POOLS: DOMESTIC

BIDS Trading/The BIDS ATS	9
Level ATS/eBX LLC	9

EXCHANGE-OWNED DARK POOLS: DOMESTIC

BIDS Holdings & NYSE Euronext/New York Block Exchange	10
ISE Stock Exchange/MidPoint Match	10
NYSE Euronext/MatchPoint	11

INDEPENDENT DARK POOLS: DOMESTIC

Instinet/Instinet CBX	12
Instinet/Instinet Crossing	12
Investment Technology Group/POSIT	12
Liquidnet/Liquidnet	13
Liquidnet/Liquidnet H2O	13
Mismi/Mismi ATS	13
NYFIX, Inc./NYFIX Millennium	14
River Cross Securities/RiverCross	14

INTERNATIONAL DARK POOLS

BlocSec PTE/BlocSec	15
Instinet/Instinet KoreaCross	15
Instinet/Instinet BlockMatch	15
Instinet/Instinet JapanCrossing	16
ITG/TriAct Canada Marketplace – MATCH Now	16
NYFIX/NYFIX Euro Millennium	16
SWX Europe/SWX Swiss Block	17
Turquoise/Turquoise	18

Barclays Capital

LX - Liquidity Cross

Description of Dark Pool

LCX is a low-latency, high-capacity limit order matching engine that operates on a continuous basis during market hours. Executions occur at or within the national best bid and offer. Currently Barclays operates dark pools in the U.S. and U.K. markets. Connectivity to Asian markets is planned.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

Average daily volume is 55 million shares per day as of November 2008.

User Profile

Traditional asset managers, hedge funds, index managers and retail accounts.

Types of Orders Traded

Limit and pegged orders. Pegged orders can be tied to the bid, midpoint or offer.

Does your dark pool link to other dark pools?

Yes: LX links to 18 other dark pools of liquidity, including two other full-service broker-dealers, 10 independents, two consortiums and several exchange crosses.

Which EMSs include your dark pool as a destination?

Customers can access LX via the Lehman Brothers HYDRA algorithm, which is available through many OMSs and EMSs.

What anti-gaming technology does your dark pool employ?

Barclays Capital employs extensive anti-gaming surveillance as well as providing our clients liquidity tiers and the choice of which tiers they would like to interact with. We also provide performance reporting showing execution venues and price improvement within each venue and each liquidity tier.

Are broker-dealer algorithms permitted in your dark pool?

Based upon agreements in place, there is reciprocal algorithmic access.

Contact Information

Barclays Capital Electronic Sales
212-526-1130
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BNP Paribas

BIX

Description of Dark Pool

BIX offers all parties the opportunity for price improvement. You can find the other side of your order from any or all of our participants: institutional, aggregated retail flows, asset management or proprietary. All BNP order flow passes through BIX before going to external venues for execution. *(For full description see online.)*

In which countries outside of the U.S. does your dark pool operate?

Japan, Hong Kong and Europe.

Daily Volume Traded in Dark Pool

NA

User Profile

BNP institutional and retail (aggregated flows) clients with various types of order flow as well as BNP algorithms, smart routing and proprietary businesses.

Types of Orders Traded

Latent and transient orders pegged (five points within the spread), market and limit orders.

Does your dark pool link to other dark pools?

No.

Which EMSs include your dark pool as a destination?

Trading Screen, Fidessa, Tora Trading, Bloomberg, Metabit and FlexTrade.

What anti-gaming technology does your dark pool employ?

The periodic crossing is done at random time periods; all executions are always done at or between bid/ask; no crossing takes place if the bid/ask is not available; no crossing takes place during market auctions; all participants are monitored regularly and any possible gamers are thrown out of the pool.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

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BNY ConvergEx

VortEX

Description of Dark Pool

Dynamic high-speed dark pool offering a unique and diverse source of agency flow from institutional and wholesale clients as well as our conflict-free block, program trading and transition management desks.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

20 million to 30 million shares.

User Profile

Money managers, hedge funds, quantitative institutions and wholesale broker-dealers. All ConvergEx desk order flow accesses VortEx, including block, program trading and transition management groups.

Types of Orders Traded

Day, IOC, LMT and MKT.

Does your dark pool link to other dark pools?

Orders opted in to ELP program can route to external dark liquidity.

Which EMSs include your dark pool as a destination?

All major OMSs and EMSs.

What anti-gaming technology does your dark pool employ?

We conduct an analysis of customers' executions versus interval volumes and prices in order to identify patterns of reversion that may indicate profiling.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

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www.bnyconvergex.com**GET READY TO BLOCK N' ROLL**THE ONLY DARK POOL TO UNITE DISPLAYED,
NON-DISPLAYED AND RESERVE BOOK LIQUIDITY

Citi

Citi Match

Description of Dark Pool

The Citi Match Crossing Network brings together a diverse set of retail, institutional, principal and broker-dealer order flow. Direct, anonymous access is available to Citi Institutional clients.

In which countries outside of the U.S. does your dark pool operate?

Europe and Australia.

Daily Volume Traded in Dark Pool

2008: 109 million shares.

User Profile

Global institutional equity clients.

Types of Orders Traded

Market and limit orders.

Does your dark pool link to other dark pools?

NA

Which EMSs include your dark pool as a destination?

Citi Match is fully integrated with all major OMS and EMS platforms.

What anti-gaming technology does your dark pool employ?

Citi Match protects clients with sophisticated anti-gaming technology. The security of the crossing network is strengthened by Citi's advanced market-making technology.

Are broker-dealer algorithms permitted in your dark pool?

Citi Algorithms can place "resting" orders in Citi Match. Other broker-dealer algorithms are not permitted to "rest" orders in Citi Match.

Contact Information

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Credit Suisse Securities (USA)

CrossFinder

Description of Dark Pool

CrossFinder is a dark pool crossing system that provides enhanced execution quality and liquidity to Credit Suisse clients on a global basis.

In which countries outside of the U.S. does your dark pool operate?

CrossFinder is a global offering and is available in most major equity markets including the U.S., Europe and Asia (including Japan).

Daily Volume Traded in Dark Pool

Average daily volume is 206 million shares.

User Profile

CrossFinder is available to all Credit Suisse clients.

Types of Orders Traded

Limit, market, peg to national best bid, peg to midpoint, peg to national best offer, minimum quantity, day and IOC.

Does your dark pool link to other dark pools?

CrossFinder accepts orders from several liquidity partners. Cross-

Finder is intended to be a true dark book and as such does not publish feeds of any kind or route out orders.

Which EMSs include your dark pool as a destination?

CrossFinder is available as an AES tactic on 72 EMSs/OMSs worldwide.

What anti-gaming technology does your dark pool employ?

CrossFinder is a pure dark matching engine based on price/time priority. CrossFinder supports minimum execution quantity.

Are broker-dealer algorithms permitted in your dark pool?

CrossFinder is an open platform and accepts orders from Credit Suisse's own Advanced Execution Services (AES) as well as other algo offerings.

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Fidelity Capital Markets Services

CrossStream

Description of Dark Pool

CrossStream is a registered ATS operating as a non-quoting, non-display dark book. Advanced order types include market, limit, pegging, discretion, reference pricing and min./max. execution quantity. Matching logic within the NBBO spread helps ensure quality executions with minimal market impact. *(For full description see online.)*

In which countries outside of the U.S. does your dark pool operate?

U.S. only.

Daily Volume Traded in Dark Pool

NA

User Profile

All types of users, including retail investors, institutions, hedge funds, investment advisers and correspondent broker-dealers.

Types of Orders Traded

Day, IOC, pegged, ISO and derivative pricing.

Does your dark pool link to other dark pools?

No, not directly. Through our smart order routing technology, clients may access DarkSweep, our dark aggregation algorithm that links to more than 30 non-displayed liquidity pools.

Which EMSs include your dark pool as a destination?

RealTick, Neovest, Bloomberg EMS, Fidessa EMS, AFA Impact Pro, Brass Broker Direct U2, Instinet Newport, ITG Triton and REDIPlus.

What anti-gaming technology does your dark pool employ?

Advanced financial engineering technology helps protect customer orders in CrossStream.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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GETCO

GETCO Execution Services (GES)

Description of Dark Pool

GETCO Execution Services (GES) is a registered ATS with dedicated liquidity provided by GETCO, a global electronic market maker. Subscribers access GETCO's deep liquidity by sending immediate or cancel (IOC) orders. Subscribers receive sub-millisecond responses for a fill, partial fill or cancel. All executions are at the NBBO or better. GES maintains the full anonymity of both trading counterparties, and unexecuted subscriber quantities are never disclosed.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

150 million shares, single-counted.

User Profile

Sell-side broker-dealers.

Types of Orders Traded

Market or limit orders. All orders are treated as immediate or cancel (IOC) orders.

Does your dark pool link to other dark pools?

No.

Which EMSs include your dark pool as a destination?

NA

What anti-gaming technology does your dark pool deploy?

GES is structured to minimize subscriber risk for any sort of gaming or information leakage. There are no IOI feeds or orders routed out of the ATS, and unexecuted order quantities are never disclosed.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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Goldman Sachs

SIGMA X

Description of Dark Pool

Through SIGMA X, Goldman Sachs aims to connect clients to the largest source of non-displayed liquidity available. Our liquidity strategy matches customer-to-customer flow, as well as Goldman Sachs franchise liquidity. SIGMA X offers both continuous and point-in-time matching ("X-Cross").

In which countries outside of the U.S. does your dark pool operate?

Goldman Sachs' global crossing network offering consists of SIGMA X (U.S.), SIGMA X (Europe) and SIGMA X (Asia).

Daily Volume Traded in Dark Pool

Average daily volume (2008-Q4):~300 million+ shares (U.S.).

User Profile

Mixed — includes broker-dealers, institutions and hedge funds.

Types of Orders Traded

Peg-mid, peg-bid, peg-ask orders, ping (limit IOC), limit and market orders. Parameters include minimum execution quantity and minimum discretion quantity.

Does your dark pool link to other dark pools?

SIGMA X does not directly link to other dark pools. GS algorithms

do offer direct access to most dark venues, including UBS PIN, NYFIX, BIDS, LeveL, Fidelity CrossStream, Instinet CBX, Knight Link, Liquidnet, BNY ConvergeX and others.

Which EMSs include your dark pool as a destination?

SIGMA X is offered through a variety of EMSs and OMSs, including Goldman Sachs' proprietary trading platform, REDIPlus.

What anti-gaming technology does your dark pool employ?

Real-time monitoring for large-sized orders, high participation rates, excessive price moves and abnormal spreads. Monitoring tools for a particular execution and all relevant data. Monitoring of historical performance. Internal checks on DMA and algorithmic flow: ability to set anti-gaming measures at client and order levels.

Are broker-dealer algorithms permitted in your dark pool?

As part of our unique liquidity-access arrangements with UBS and Morgan Stanley, their algorithmic order flow is permitted in SIGMA X.

Contact Information

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Knight

Knight Link

Description of Dark Pool

Knight Link is a dark, electronic access point into Knight's off-exchange liquidity. Knight Link is customizable and enables easy integration into a client's smart order router, dark liquidity-seeking algorithms or OMS systems. (For full description see online.)

In which countries outside of the U.S. does your dark pool operate?

London is live and Europe will be up and running by Q2 2009.

Daily Volume Traded in Dark Pool

189 million shares per day (single-counted).

User Profile

Open to all.

Types of Orders Traded

Market and limit IOC.

Does your dark pool link to other dark pools?

No.

Which EMSs include your dark pool as a destination?

Fidessa, Brass, MIXIT, Sterling, Belzberg, Reuters, Bloomberg OMS and InfoReach.

What anti-gaming technology does your dark pool employ?

Knight's technology uses built-in anti-gaming logic for protecting clients.

Are broker-dealer algorithms permitted in your dark pool?

Algorithms can send IOCs to Knight Link.

Contact Information

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Knight

Knight Match

Description of Dark Pool

Knight Match provides anonymous access and trade execution at a low cost with opportunities to obtain significant price improvement.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

Not disclosed.

User Profile

Traditional asset managers, hedge funds and retail order flow through our broker-dealer clients.

Types of Orders Traded

Limit orders, market orders, IOC orders, peg orders (primary, mid and market) and minimum order quantity.

Does your dark pool link to other dark pools?

Knight has partnered with some of the largest, most liquid dark pools. Knight Match now receives both passive (resting) and flow orders of dark liquidity from these partners.

Which EMSs include your dark pool as a destination?

Knight Direct EMS and many other EMSs and OMSs.

What anti-gaming technology does your dark pool employ?

To ensure subscribers are efficiently and effectively accessing Knight Match liquidity without disadvantaging one another, we have implemented monitoring procedures to identify and respond to instances of gaming if they occur.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information**Bill Cronin**

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Pulse Trading

BlockCross

Description of Dark Pool

BlockCross allows a trader to find block liquidity first, then decide how big a print to put up. Traders have complete control over which orders are eligible and the types of counterparties to which they are exposed. Information leakage is minimized compared to other dark pool crossing networks.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

NA

User Profile

Buy side and broker-dealers.

Types of Orders Traded

Large blocks, 5,000 shares or more.

Does your dark pool link to other dark pools?

No, but open to strategic opportunities.

Which EMSs include your dark pool as a destination?

Bloomberg, Triton and InfoReach.

What anti-gaming technology does your dark pool employ?

High minimum trade size, 5,000 shares or more.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

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UBS Investment Bank

UBS PIN Cross and UBS PIN ATS

Description of Dark Pool

UBS Price Improvement Network (UBS PIN) is our global crossing network. We have two internal crossing pools in the U.S.: UBS PIN ATS and UBS PIN Cross. UBS PIN Cross gives clients immediate access to cross directly with other algorithmic orders as well as UBS' retail liquidity. UBS PIN ATS allows a wide array of UBS U.S. equity liquidity to interact in a signal-free environment. *(For full description see online.)*

In which countries outside of the U.S. does your dark pool operate?

We provide crossing opportunities inside and outside of UBS in the Americas, Europe and Asia-Pacific.

Daily Volume Traded in Dark Pool

UBS trades one of every nine shares on a global basis (Autex 2007). In the U.S., UBS trades more than 400 million shares a day.

User Profile

Corporates, hedge funds, brokers and asset managers worldwide.

Types of Orders Traded

PIN Cross offers natural crosses with retail and institutional agency order flow. PIN ATS enables clients' algorithmic orders to interact with UBS U.S. equity liquidity and that of other liquidity partners.

Does your dark pool link to other dark pools?

UBS provides algorithmic trading strategies that enable clients to access available liquidity in UBS PIN, as well as in other displayed

and non-displayed markets. This includes ECNs, ATSS, the major dark pools and the exchanges.

Which EMSs include your dark pool as a destination?

All major EMS and OMS systems can connect to UBS and tap the power of UBS PIN. We also offer clients the opportunity to connect to us via our FIX gateway.

What anti-gaming technology does your dark pool employ?

UBS PIN Cross and UBS PIN ATS do not provide intervening layers of order management logic, since they are accessible only by algorithmic order types. By carefully managing participants, UBS can limit the risks related to information-seeking flow within UBS PIN. *(For full description see online.)*

Are broker-dealer algorithms permitted in your dark pool?

Select liquidity partner broker-dealers' algorithms may access PIN ATS (only).

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BIDS Trading

The BIDS ATS

Description of Dark Pool

The BIDS ATS block crossing network maximizes large order execution by allowing traders to find legitimate trading counterparties without prematurely revealing trading intentions. *(For full description see online.)*

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

The BIDS ATS had an average daily volume of 27.8 million* shares in October 2008. (*Volume figures are double-counted to include both sides of the transaction.)

User Profile

The BIDS ATS is open to both buy-side and sell-side firms.

Types of Orders Traded

The BIDS ATS supports both firm and conditional orders. Conditional orders allow traders to work their order in multiple venues simultaneously.

Does your dark pool link to other dark pools?

No. The BIDS ATS is a destination, and there are other dark pools that route to BIDS. The BIDS ATS does not route outbound except to satisfy NMS if applicable, and it will route to the NYBX upon customer request only.

Which EMSs include your dark pool as a destination?

The BIDS ATS is currently connected to more than 16 technology systems.

What anti-gaming technology does your dark pool employ?

The BIDS ATS ensures order protection through behavioral profiling, minimum block size and price discretion. BIDS Scorecards and BIDS Filters give traders additional control over their trades, letting them decide to whom they want to disclose information. In addition, each trader determines the size of a block; no counterparty with a size less than the minimum receives information about the order.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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Level ATS

eBX LLC

Description of Dark Pool

Level ATS is a U.S. equity dark book that provides for multitiered crossing opportunities. Level's structure maximizes liquidity and provides best execution while minimizing information leakage and market impact. Level has emerged as a leading liquidity source with notable price improvement, low latency and nominal fees.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

Level executed an average of 118.4 million shares per day in November 2008.

User Profile

Level is available to all broker-dealers or customers that are sponsored by a broker-dealer.

Types of Orders Traded

IOC orders and Intents (resting orders). Orders that will be accepted are limit, market and midpoint IOC. Intents can be pegged to the primary, midpoint or market.

Does your dark pool link to other dark pools?

Level does not link with any other systems and does not disseminate data.

Which EMSs include your dark pool as a destination?

NA

What anti-gaming technology does your dark pool employ?

Level allows for two types of minimum size execution. Level also allows customers to build a list of trusted counterparties.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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www.levelats.com

BIDS Holdings & NYSE Euronext**New York Block Exchange (NYBX)****Description of Dark Pool**

The NYBX is a joint venture between BIDS Holdings and the NYSE Euronext. The NYBX unites the liquidity of the NYSE with the anonymity, speed and flexibility of the BIDS ATS. The NYBX is open to all members of the NYSE.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

The NYBX launched Jan. 29, 2009. Volume data is not yet available.

User Profile

NYSE members may access NYBX through the NYSE. BIDS Trading clients can "opt in" to NYBX liquidity. BIDS Trading is open to all broker-dealers, investment managers, hedge funds and algorithms via a sponsored access model. *(For full description see online.)*

Types of Orders Traded

Auto-match, firm orders. Orders can be conditional in BIDS Trading and firm in the NYBX, taking advantage of opportunities in both liquidity pools.

Does your dark pool link to other dark pools?

No.

Which EMSs include your dark pool as a destination?

More than 16 technology providers currently have access to the BIDS ATS, including many major EMS providers.

What anti-gaming technology does your dark pool employ?

Whether accessed through BIDS Trading or NYSE sponsorship, all order details in the NYBX remain anonymous, right through clearing. NYBX uses the latest technology to ensure that neither side reveals information about its identity or trading intentions. *(For full description see online.)*

Are broker-dealer algorithms permitted in your dark pool?

Yes. The NYBX is open to all market participants, including algorithms via a sponsored-access model.

Contact Information

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crs@nyx.com
www.nybx.com

ISE Stock Exchange**MidPoint Match****Description of Dark Pool**

MidPoint Match (MPM) is a continuous, exchange-based dark pool for trading equity securities at the midpoint price of the national best bid and offer (NBBO). MPM accepts round-lot orders of any size.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

ISE Stock Exchange reports aggregate daily volume for both MidPoint Match and its integrated displayed market. Total average daily volume for November 2008 was 135.6 million shares.

User Profile

MidPoint Match was designed to support both large and small orders and is open to both the buy and sell sides, although it is accessed through the sell side.

Types of Orders Traded

Standard MidPoint Match (a market or limit order). Minimum Execution Quantity. Solicitation of Interest; the ticker symbol of an SOI order is broadcast to market participants.

Does your dark pool link to other dark pools?

No.

Which EMSs include your dark pool as a destination?

Fidessa, InstaQuote, Lava Trading, MIXIT, Neovest, Portware, Orc Software and Order Execution Services.

What anti-gaming technology does your dark pool employ?

MidPoint Match is a completely dark trading venue.

Are broker-dealer algorithms permitted in your dark pool?

Yes. MidPoint Match is algorithmic-friendly and accepts round-lot orders of any size.

Contact Information

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NYSE Euronext

MatchPoint

Description of Dark Pool

NYSE MatchPoint is a non-displayed, point-in-time, portfolio-based exchange facility. It operates scheduled matching sessions for portfolios and block orders during regular and after market hours.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

NA

Types of Orders Traded

NYSE member firms and their customers.

Types of Orders Traded

Completely non-displayed orders, portfolios with constraints, market and limit orders.

Does your dark pool link to other dark pools?

No.

Which EMSs include your dark pool as a destination?

FlexTrade, Portware, Tradeware, OES, RealTick, Fidessa, Neovest, ITG Triton, Inet Newport, SunGard, MIXIT, REDIPlus, Algorithmic Trading Mgmt, GLTrade and FTEN.

What anti-gaming technology does your dark pool employ?

NYSE Regulation and MarketWatch provide independent surveillance and enforcement oversight for MatchPoint. Intraday matching sessions randomly select match price within a one-minute window. Price collar thresholds for the 4:45 p.m. match.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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Instinet

Instinet CBX

Description of Dark Pool

Instinet CBX is a continuous dark pool that aggregates liquidity across Instinet's order infrastructure — over 3 billion shares daily — and through reciprocal links to selected external dark pools. CBX does not send IOIs or route orders and uses an ultralow latency to minimize opportunity cost.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

Instinet executes roughly 75 million shares/day across its U.S. dark pools.

User Profile

CBX is available to both the buy and sell sides.

Types of Orders Traded

CBX supports all advanced order types (i.e., hidden, peg, reserve, limit, discretionary, partial penny executions, minimum quantities, etc.).

Does your dark pool link to other dark pools?

No: Traders can reach 20+ U.S. dark pools, including Instinet CBX,

through Instinet's Nighthawk dark aggregation algorithm, but CBX does not route out orders.

Which EMSs include your dark pool as a destination?

Instinet's Newport 3 and Trading Portal include CBX as a destination, as do many third-party trading systems including InfoReach, Portware and TradingScreen.

What anti-gaming technology does your dark pool employ?

Instinet's Nighthawk dark aggregation algorithm uses submission tactics and anti-gaming logic to avoid predictable trading patterns. We encourage all clients to access CBX through Nighthawk. CBX provides advanced order functionality to enable clients to set their own anti-gaming parameters.

Are broker-dealer algorithms permitted in your dark pool?

Yes, though Instinet carefully vets its partners.

Contact Information

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www.instinet.com

Instinet

Instinet Crossing

Description of Dark Pool

Comprised of 11 daily crossing matches, Instinet Crossing provides clients trading U.S. stocks multiple ways to access liquidity, reduce market impact, and gain price and size improvement in a completely anonymous environment.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

Instinet executes roughly 75 million shares/day across its U.S. dark pools.

User Profile

Instinet Crossing is available to both the buy and sell sides.

Types of Orders Traded

Instinet Crossing supports market, limit and minimum-fill orders, as well as cash and sector constraints on portfolios.

Does your dark pool link to other dark pools?

No: Traders can reach 20+ U.S. dark pools, including Instinet CBX

and Intraday Cross, through the Nighthawk dark aggregation algorithm, but Instinet Crossing does not route out orders.

Which EMSs include your dark pool as a destination?

Newport 3 and Trading Portal include all Instinet Crossing matches as a destination, as do many third-party trading systems, including InfoReach, Portware and TradingScreen.

What anti-gaming technology does your dark pool employ?

Match prices are snapped randomly during the match window, and Instinet Crossing's trading staff protects Overnight Cross clients against late-breaking news.

Are broker-dealer algorithms permitted in your dark pool?

Yes, though Instinet carefully vets its partners.

Contact Information

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Investment Technology Group

POSIT

Description of Dark Pool

ITG's POSIT crossing destinations give buyers and sellers opportunities to match equity orders with complete confidentiality, access to diverse liquidity pools, no market impact and the cost savings of midpoint pricing.

In which countries outside of the U.S. does your dark pool operate?

Europe, Canada and Asia-Pacific.

Daily Volume Traded in Dark Pool

We do not disclose volume.

User Profile

More than 700 institutional clients currently participate in POSIT, comprised primarily of institutions, broker-dealers and hedge funds.

Types of Orders Traded

All listed and Nasdaq OTC equities are eligible to cross in POSIT. No derivatives or fixed income are eligible.

Does your dark pool link to other dark pools?

At this time, there are no plans to link POSIT to other dark pools.

Which EMSs include your dark pool as a destination?

Clients can access POSIT liquidity through an ITG front end (Triton, Radical, ITG Channel) or through a direct FIX connection, including popular EMS and OMS products.

What anti-gaming technology does your dark pool employ?

Anti-gaming analysis is embedded in the POSIT suite.

Are broker-dealer algorithms permitted in your dark pool?

No.

Contact Information

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Liquidnet

Liquidnet

Description of Dark Pool

Liquidnet is an electronic marketplace for block trading. Through Liquidnet, buy-side firms access the largest natural pool of institutional liquidity in the industry, allowing them to execute their institutional-sized orders directly and anonymously with significant price improvement and little to no market impact.

In which countries outside of the U.S. does your dark pool operate?

Australia, Korea, Hong Kong, Singapore, Japan, U.S., Canada, U.K., Germany, Austria, Greece, Netherlands, Norway, Czech Republic, Ireland, South Africa, Italy, Spain, France and more.
(For full list see online.)

Daily Volume Traded in Dark Pool

84.1 million shares (Q3 2008).

User Profile

Buy side only.

Types of Orders Traded

Large block equity orders.

Does your dark pool link to other dark pools?

Liquidnet currently links to Liquidnet H2O.

Which EMSs include your dark pool as a destination?

Advent, Bloomberg, Charles River Development, DST, Eze Castle Software, EZX, Fidessa Latent Zero, FlexTrade, Indata, IRESS, Instinet, Macgregor, Portware, SunGard and Thomson.

What anti-gaming technology does your dark pool employ?

Our Liquidity Watch group meets weekly and acts as an independent and unbiased panel that monitors member trading activities, reviews member complaints and determines appropriate disciplinary actions.

Are broker-dealer algorithms permitted in your dark pool?

No. Broker-dealer algorithms are only allowed to interact as Streaming Liquidity Partners through Liquidnet H2O.

Contact Information

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Liquidnet

Liquidnet H2O

Description of Dark Pool

Liquidnet H2O aggregates fragmented market liquidity through our streaming liquidity providers, which enables our members to interact with additional liquidity in a controlled and secure environment.

In which countries outside of the U.S. does your dark pool operate?

In the U.S. only, but we plan to launch Liquidnet H2O, our electronic trading desk and supernatural orders first in Europe and then in Canada, Asia and Australia.

Daily Volume Traded in Dark Pool

12.8 million shares (Q3 2008).

User Profile

Leading broker-dealers and marketplaces.

Types of Orders Traded

Equity orders.

Does your dark pool link to other dark pools?

Liquidnet H2O accesses liquidity from 25 streaming liquidity partners. (For full description see online.)

Which EMSs include your dark pool as a destination?

Advent, Bloomberg, Charles River Development, DST, Eze Castle Software, EZX, Fidessa Latent Zero, FlexTrade, Indata, IRESS, Instinet, Macgregor, Portware, SunGard and Thomson.

What anti-gaming technology does your dark pool employ?

Our Liquidity Watch group meets weekly and acts as an independent and unbiased panel that monitors member trading activities, reviews member complaints and determines appropriate disciplinary actions.

Are broker-dealer algorithms permitted in your dark pool?

Yes. However, the algos cannot preference Liquidnet, and the broker-dealer's customer cannot know that the execution occurred in the Liquidnet system.

Contact Information

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Mismi

Mismi ATS

Description of Dark Pool

Mismi is a crossing system that gives traders greater control over trading outcomes, combined with the benefit of enhanced execution rates. Our portfolio-level controls help traders maintain predicted returns and minimize exposure to market conditions throughout the trade execution process. (For full description see online.)

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

NA

User Profile

NA

Types of Orders Traded

U.S. equity.

Does your dark pool link to other dark pools?

NA

Which EMSs include your dark pool as a destination?

Neovest, Portware, Sonic and Triton.

What anti-gaming technology does your dark pool employ?

Proprietary.

Are broker-dealer algorithms permitted in your dark pool?

Yes, with minimum size and time minimum.

Contact Information

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NYFIX, Inc.**NYFIX Millennium****Description of Dark Pool**

NYFIX Millennium is a leading, independent dark pool that reduces market impact, provides significant price improvement and is open to all market participants.

In which countries outside of the U.S. does your dark pool operate?

NYFIX Millennium operates only in the United States. Euro Millennium is a pan-European dark pool.

Daily Volume Traded in Dark Pool

Average matched volume in NYFIX Millennium in Q3 2008 was 52 million shares. On September 18, 2008, Millennium set a single-day record when 110 million shares were matched.

User Profile

Open to all market participants including investment managers, broker-dealers and hedge funds. The only firms prohibited from the pool are those that exhibit gaming behavior.

Types of Orders Traded

All order types are accepted into Millennium except those that exhibit gaming behavior. There is also no NYFIX proprietary flow in Millennium.

Does your dark pool link to other dark pools?

Numerous dark pools link into NYFIX Millennium. Millennium does not, however, route out any orders.

Which EMSs include your dark pool as a destination?

Most EMS/DMA platforms connect to NYFIX Millennium, including (but not limited to) Portware, FlexTrade, Lava, Royal Blue, Eze Castle, Charles River Development, Advent Moxy, Macgregor XIP and RealTick.

What anti-gaming technology does your dark pool employ?

NYFIX constantly monitors the order flow in NYFIX Millennium and reviews the ways firms are accessing it to make sure it remains a fair and neutral place to trade. To ensure clients receive maximum protection, NYFIX offers anti-gaming logic to help protect client orders. This feature proactively reviews all orders and detects adverse price movements.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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River Cross Securities**RiverCross****Description of Dark Pool**

The RiverCross ATS operates as a totally dark agency-only high-capacity continuous crossing engine while providing a well-balanced liquidity source for U.S.-registered broker-dealers and their clients.

In which countries outside of the U.S. does your dark pool operate?

NA

Daily Volume Traded in Dark Pool

NA

User Profile

RiverCross is open to a wide array of broker-dealers, order flow aggregators and dark pool algo providers.

Types of Orders Traded

Limit, pegged and market. Day, IOC and timed IOC.

Does your dark pool link to other dark pools?

Connected to various liquidity providers.

Which EMSs include your dark pool as a destination?

RiverCross' technology implementation allows it to establish connectivity to any OMS/EMS provider or directly through its FIX gateways.

What anti-gaming technology does your dark pool employ?

Implemented, company-confidential.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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*The companies listed here have separate pools of liquidity for international securities. Some of the dark pools listed under "Domestic" also operate internationally, but those have one liquidity pool for both domestic and international flow.

BlocSec PTE

BlocSec

Description of Dark Pool

BlocSec is an electronic crossing network created to provide institutional investors with optimized execution for their Asian block trades, minimizing both transaction costs and market impact. As a dark pool of liquidity, BlocSec gives traders the ability to place orders with complete anonymity, allowing zero information leakage into the market.

In which countries outside of the U.S. does your dark pool operate?

BlocSec is currently live in Singapore, Japan and Hong Kong. We will launch Korea and Australia in 2009.

Daily Volume Traded in Dark Pool

We have liquidity with a notional value of between US\$100 to US\$500 million every day.

User Profile

Traditional asset managers, hedge funds and brokers located in Asia, Europe and the U.S.

Types of Orders Traded

Seven crossing conditions: passive, mid, aggressive, 1st session VWAP, 2nd session VWAP, full-day VWAP and last close.

Does your dark pool link to other dark pools?

We're in the process of connecting to other brokers' Asian internal crossing engines.

Which EMSs include your dark pool as a destination?

EMS/OMS providers include Bloomberg, Tora, TradingScreen, Charles River, Macgregor, Fidessa, etc.

What anti-gaming technology does your dark pool employ?

In addition to all orders being firm, we have found that our minimum order size of US\$1 million or > 20% of the 30-day ADV has prevented anyone from gaming the system. Clients have been extremely happy with this feature.

Are broker-dealer algorithms permitted in your dark pool?

In theory yes, but our minimum order size of US\$1 million or > 20% of the 30-day ADV precludes many of the broker algo products available in Asia.

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Instinet

Instinet KoreaCross

Description of Dark Pool

KoreaCross is a neutral block trading platform for the anonymous, zero-market-impact trading of Korean equities. The "blackbox" dark pool, which is operated in conjunction with Samsung Securities, provides a pre-market VWAP match and is one of the Korean market's only crossing networks.

In which countries outside of the U.S. does your dark pool operate?

Korea.

Daily Volume Traded in Dark Pool

Not disclosed.

User Profile

KoreaCross is available to both the buy and sell sides.

Types of Orders Traded

KoreaCross supports minimum-fill orders, as well as cash and sector constraints on portfolios. The platform will also aggregate order flow to allow clients to more easily meet the Korean market's 100 million KRW (Korean won) minimum-order-size requirement.

Does your dark pool link to other dark pools?

No: Traders can reach several other dark pools and ATS platforms through Instinet's Asian SmartRouter, but KoreaCross does not route out orders.

Which EMSs include your dark pool as a destination?

Instinet's Newport 3 and Trading Portal include KoreaCross as a destination, as do many third-party trading systems including Bloomberg EMS, Tora Trading, TradingScreen and Fidessa.

What anti-gaming technology does your dark pool employ?

The price used for matching is randomly selected within a certain time frame to prevent the price from being driven up or down through small orders just ahead of the match, therefore making the price of the cross of a large block more advantageous.

Are broker-dealer algorithms permitted in your dark pool?

Yes, though Instinet carefully vets its partners.

Contact Information

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Instinet

Instinet BlockMatch

Description of Dark Pool

BlockMatch is Instinet Europe's block crossing platform and dark pool. BlockMatch is a pan-European multilateral trading facility. Its use as a block crossing venue is aimed at block-trading clients.

In which countries outside of the U.S. does your dark pool operate?

Austria, Belgium, Denmark, Finland, France, Germany, Holland, Italy, Norway, Portugal, Sweden, Switzerland (large cap) and U.K.

Daily Volume Traded in Dark Pool

Not disclosed.

User Profile

Instinet BlockMatch is available to both the buy and sell sides, though users must be approved clients of Instinet Europe Limited.

Types of Orders Traded

BlockMatch orders can be pegged at the bid, mid or ask.

Does your dark pool link to other dark pools?

BlockMatch is not currently linked directly with other dark pools; however, Instinet's clients can use algorithms that have access to multiple dark pools.

Which EMSs include your dark pool as a destination?

Instinet's Newport 3 and Trading Portal include BlockMatch as a destination, as do many third-party trading systems.

What anti-gaming technology does your dark pool employ?

BlockMatch supports the use of minimum execution quantity orders.

Are broker-dealer algorithms permitted in your dark pool?

Yes, though Instinet carefully vets its partners.

Contact Information

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Instinet

Instinet JapanCrossing

Description of Dark Pool

JapanCrossing is a neutral block trading platform for the anonymous, zero-market-impact trading of Japanese equities. The "blackbox" dark pool, operated under Instinet's Japanese PTS license, provides a pre-market VWAP and morning and afternoon session close crosses.

In which countries outside of the U.S. does your dark pool operate?

Japan.

Daily Volume Traded in Dark Pool

Not disclosed.

User Profile

JapanCrossing is available to both the buy and sell sides.

Types of Orders Traded

JapanCrossing supports limit and minimum-fill orders, as well as cash and sector constraints on portfolios.

Does your dark pool link to other dark pools?

No: Traders can reach several other dark pools and ATS platforms

through Instinet's Asian SmartRouter, but JapanCrossing does not route out orders.

Which EMSs include your dark pool as a destination?

Instinet's Newport 3 and Trading Portal include JapanCrossing as a destination, as do many third-party trading systems including Bloomberg EMS, Tora Trading, TradingScreen and Fidessa.

What anti-gaming technology does your dark pool employ?

The price used for matching is randomly selected within a certain time frame to prevent the price from being driven up or down through small orders just ahead of the match, therefore making the price of the cross of a large block more advantageous.

Are broker-dealer algorithms permitted in your dark pool?

Yes, though Instinet carefully vets its partners.

Contact Information

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Investment Technology Group

TriAct Canada Marketplace –
MATCH Now**Description of Dark Pool**

MATCH Now is a broker-neutral dark book. Orders interact in two ways. Passive orders reside in the dark book and match at 30-second intervals. Smart order routers direct streaming liquidity to MATCH Now for immediate execution. MATCH Now offers price improvement to every participant on every transaction.

In which countries outside of the U.S. does your dark pool operate?

Canada.

Daily Volume Traded in Dark Pool

The average daily volume for Q3 2008 was 2,023,544 shares.

User Profile

Canadian-registered broker-dealers and their clients via DMA.

Types of Orders Traded

No minimum order size, limit and market orders.

Does your dark pool link to other dark pools?

No.

Which EMSs include your dark pool as a destination?

Triton, Fidessa, IRESS, Belzberg, ITS and Credit Suisse AES.

What anti-gaming technology does your dark pool employ?

NA

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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NYFIX

NYFIX Euro Millennium

Description of Dark Pool

Euro Millennium is a neutral dark pool of liquidity for pan-European listed cash equities. Launched in March 2008, Euro Millennium is built on the proven technology that powers NYFIX Millennium.

In which countries outside of the U.S. does your dark pool operate?

Euro Millennium enables trading in U.K., French, German, Dutch, Portuguese and Belgian stocks.

Daily Volume Traded in Dark Pool

On December 2, 2008, Euro Millennium set a single-day record when 23 million shares were matched.

User Profile

Open to all firms that are regulated market professionals seeking liquidity in the equities markets — buy-side and sell-side. The only firms that are not allowed are those exhibiting gaming behavior.

Types of Orders Traded

Proprietary, agency and direct investment management order flow. There is no NYFIX proprietary flow in Euro Millennium.

Does your dark pool link to other dark pools?

Yes: Euro Millennium links to various liquidity pools to provide a powerful tool for aggregating and accessing displayed and non-displayed liquidity. Pass-through orders seek price and/or liquidity improvement in Euro Millennium en route to a specified exchange or

execution venue, such as a preferred broker. (For full description see online.)

Which EMSs include your dark pool as a destination?

A number of European OMS and EMS systems including Charles River, Fidessa, FlexTrade, GL Trade, InfoReach, Latent Zero, Linedata, Portware, RealTick and Ullink.

What anti-gaming technology does your dark pool employ?

NYFIX constantly monitors the order flow in Euro Millennium and reviews the way people are executing it to make sure it remains a fair and neutral place to trade and provides clients with a number of advanced order conditions that allow them to protect their orders. These include minimum execution size requirements, upper/lower price collars for pegged orders and controls to exempt orders should the primary market spread widen/narrow beyond a specified tolerance.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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SWX Europe

SWX Swiss Block

Description of Dark Pool

SWX Swiss Block is the neutral non-displayed liquidity service for Swiss blue-chip securities, owned and operated by SWX Europe, and developed in partnership with NYFIX.

In which countries outside of the U.S. does your dark pool operate?

Operates in the Swiss equity market.

Daily Volume Traded in Dark Pool

Not disclosed.

User Profile

SWX Swiss Block is open to all firms that are regulated market professionals seeking liquidity in the Swiss equities markets — buy-side and sell-side.

Types of Orders Traded

Proprietary, agency and direct investment management order flow. SWX Swiss Block includes two main order types — conditional orders and pass-through orders.

Does your dark pool link to other dark pools?

Yes: SWX Swiss Block links to various liquidity pools of the several users of SWX Swiss Block. It provides a powerful tool for aggregating and accessing non-displayed liquidity for the Swiss equity market.

Which EMSs include your dark pool as a destination?

SWX Swiss Block is integrated with several of the leading European OMS and EMS systems to enable efficient access to the pool from/within a trader's existing workflow.

What anti-gaming technology does your dark pool employ?

SWX Europe constantly monitors the order flow in SWX Swiss Block and reviews the way people are executing it to make sure it remains a fair and neutral place to trade. Additionally SWX Swiss Block provides clients with a number of advanced order conditions that allow them to protect their orders. These include minimum execution size requirements, upper/lower price collars for the pegged orders, and controls to exempt orders should the primary market spread widen/narrow beyond a specified tolerance.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

Contact Information

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Turquoise

Turquoise

Description of Dark Pool

The Turquoise MTF's integrated market segment combines dark and visible orders to increase the likelihood of execution and price improvement for small orders while allowing the trading of large, institutional-sized orders, efficiently and with the minimization of information leakage and market impact. (For full description see *online*.)

In which countries outside of the U.S. does your dark pool operate?

Fourteen European markets: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Daily Volume Traded in Dark Pool

Increasing trend since launch in September 2008.

User Profile

The integrated and dark segment is open to qualified institutions. In general the buy side accesses Turquoise directly and indirectly through member brokers using DMA, algorithms and smart order routing.

Types of Orders Traded

Dark orders can be entered in both the integrated and dark-only segments. For an order to be accepted as dark it must be large in scale as defined by MiFID (e.g., 500,000 euros for large cap securities). Dark orders can be market, limit or pegged. A minimum acceptable quantity (MAQ) can be added to the dark order. An order with a MAQ will only be matched subject to, at minimum, fulfilling its MAQ.

Does your dark pool link to other dark pools?

Not currently.

Which EMSs include your dark pool as a destination?

Fidessa, GL, Neonet XG, Orc, RTS and Visual Trader.

What anti-gaming technology does your dark pool employ?

Traders can employ minimum acceptable quantity on their orders to control execution and limit information loss to the market. In addition, Turquoise has a surveillance team monitoring the market to detect market irregularities and take appropriate actions including sanctions on members.

Are broker-dealer algorithms permitted in your dark pool?

Yes.

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