FUNDAMENTAL INTERACTIONS

Alternative Trading System (ATS) Comparison of Matching Engine Deployment Models

FUNDAMENTAL INTERACTIONS INC.

Learn more about how our Matching Engine can benefit your firm at finteractions.com

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COMPARISON OF MATCHING ENGINE DEPLOYMENT MODELS

Alternative Trading Systems (ATS) play a crucial role in modern electronic trading by providing liquidity and execution services outside of traditional exchanges. Fundamental Interactions offers several ATS deployment models, each tailored to different market structures and regulatory environments.

The following comparison highlights four distinct ATS models, showcasing their pricing structures, order handling mechanisms, trading lifecycles, reporting rules, priority frameworks, and unique features.

OVERVIEW OF ATS MODELS

Model 1: ATS for Over-the-Counter (OTC) Securities

This model facilitates the trading of OTC securities using a subscription-based pricing model. Order handling is based on bilateral subscriber-to-subscriber messaging, meaning participants interact directly without a centralized order book. Trade reporting is managed through FINRA's Over-the-Counter Reporting Facility (ORF), and pricing is dealer-driven with negotiated quote access fees.

Model 2: ATS for REG NMS Securities

Designed for National Market System (NMS) securities, this model utilizes a Maker/Taker pricing structure and a centralized limit order book for fully anonymous trading. Trade execution follows price/time priority, and trade reporting is handled through NYSE/NASDAQ TRFs or FINRA ORF. The system supports various dark order types, including limit, midpoint peg, and reserve orders, allowing for enhanced execution flexibility.

Additionally, the ATS operates 24 hours a day, 5 days a week, supporting overnight trading sessions from 8 PM to 4 AM, enabling greater market access and liquidity beyond regular trading hours.

OVERVIEW OF ATS MODELS

Model 3: Quotation Bureau

This ATS model emphasizes transparency, featuring a centralized limit order book with publicly attributable orders. The Maker/Taker pricing structure applies, and order activity is visible via a depth-of-book feed. Unlike fully anonymous models, participants can attribute quotes, making it more aligned with displayed market trading.

Model 4: ATS for REG NMS Dark Pool

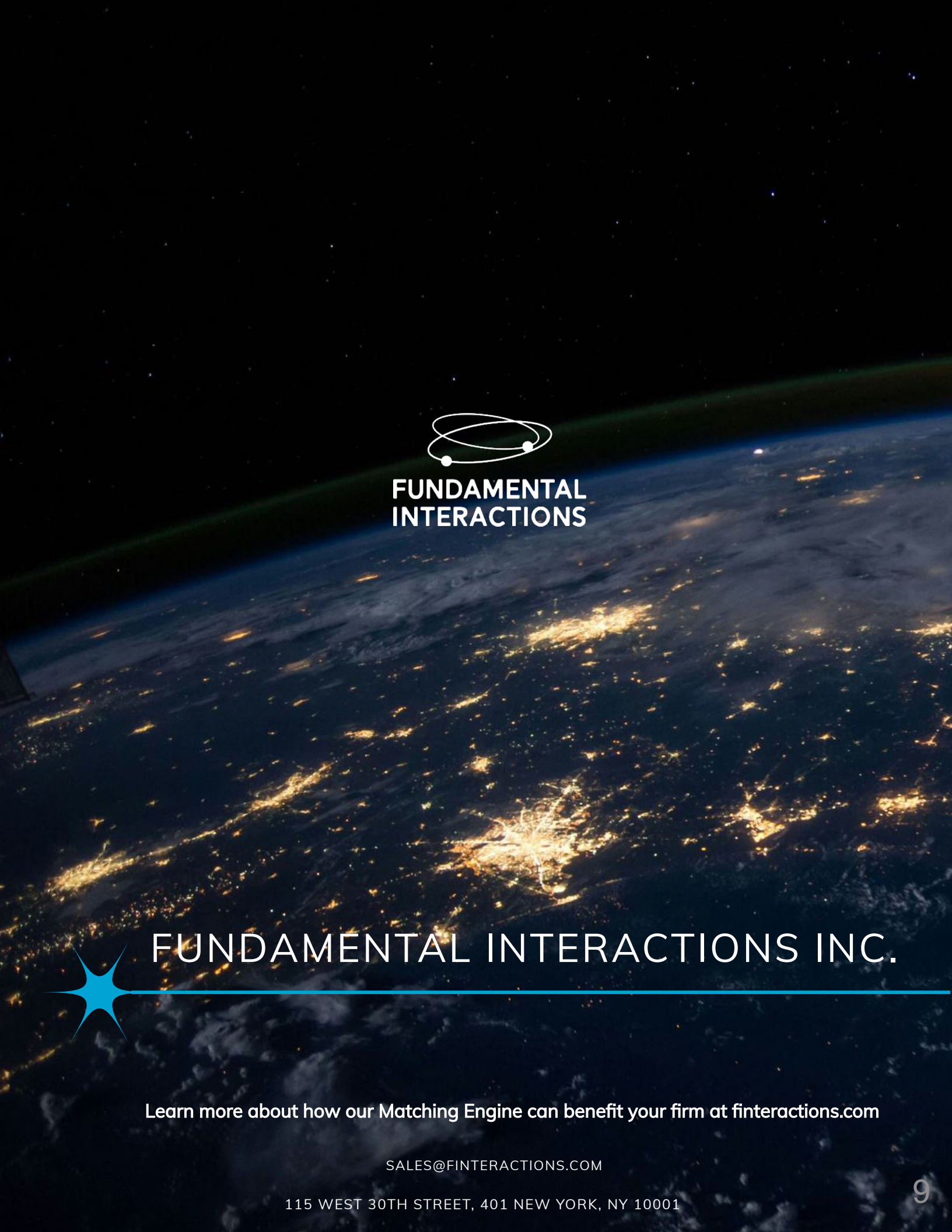
Focused on non-displayed liquidity, this model provides an agency book for order resting, supplemented by Indications of Interest (IOIs) from Market Makers. If an order cannot be matched internally, the system attempts to execute via Dark Ping routing before ultimately canceling or reverting to the book. Pricing is pegged to the National Best Bid and Offer (NBBO), ensuring executions remain within the best market prices. Unlike the other models, costs are embedded within the broker-dealer arrangement rather than being explicitly disclosed.

ATS Detailed Comparison

Comparison Field	Model 1: ATS Over the Counter (OTC) Securities	Model 2: ATS REG NMS Securities	Model 3: Quotation Bureau OTC, Private & Digital Asset	Model 4: ATS Dark Pool REG NMS Securities
Pricing Model	Subscription-based pricing	Maker/Taker pricing model	Maker/Taker pricing model	No published maker/taker or subscription fees. Usage is part of a broker-dealer arrangement; costs/fees are not explicitly disclosed.
Order Handling	AMarket Participant quoting and messaging	Model 3:	Centralized limit order book (Auto-ex)	Centralized limit order book (Auto-ex) Non-displayed limit order book for Agency orders; optional IOI interaction from Market Makers. No match in the Agency book, system attempts IOI matching or “Dark Ping.”
Trading Lifecycle	Bilateral subscriber-to-subscriber messaging	Fully anonymous throughout	Attribution in quote feed	Agency orders rest in a non-displayed book. No internal match, attempt to match with Market Maker IOIs. No match, “Dark Ping” routes orders externally, then cancels or reverts to the book.
Trade Reporting	All trades reported to FINRA ORF by dealers	All trades reported to NYSE/NASDAQ TRF or FINRA ORF by dealers	All trades reported to ORF by ATS	All trades reported to Nasdaq TRF

Comparison Field	Model 1: ATS Over the Counter (OTC) Securities	Model 2: ATS REG NMS Securities	Model 3: Quotation Bureau OTC, Private & Digital Asset	Model 4: ATS Dark Pool REG NMS Securities
Priority Rules	Price priority, but no trade-through rule	Price / time priority	Price / time priority	Agency orders are prioritized by price, time of entry, and size in a non-displayed book; then IOI-based matching if enabled with Market Makers.
Order Types	Not specified	Dark orders: limit, primary peg, midpoint peg, reserve, hidden	Orders: limit, primary peg, reserve	Supports market, limit, and pegged orders (primary, market, midpoint)
Pricing Specifics	Dealer sets Quote access fee	Tiered Maker/Taker pricing model	Tiered Maker/Taker pricing model	Non-displayed matching at or within NBBO. Pegged orders adjust automatically with offset increments.
Message Attribution	Fully attributable messaging	Fully anonymous	Public Attributable orders	Agency orders are non-displayed and not disseminated. IOIs are private messages from market makers. No public attribution of Subscriber identity.

Comparison Field	Model 1: ATS Over the Counter (OTC) Securities	Model 2: ATS REG NMS Securities	Model 3: Quotation Bureau OTC, Private & Digital Asset	Model 4: ATS Dark Pool REG NMS Securities
Market Data	Not specified	Not specified	Depth of book feed	Subscribes to Nasdaq UTP Level 1 and NYSE Networks A/B for NBBO calculation and pegged order pricing. No proprietary feed is published externally.
Unique Features	Negotiated market	Anonymous order routing, dark order functionality	Attributable orders, depth of book feed	IOI-based matching from Market Makers, “Dark Ping” routing for unmatched Agency orders
Hours of Operations	Standard market hours: 9:30 A.M. – 4:00 P.M. ET	Standard market hours: 9:30 A.M. – 4:00 P.M. ET Pre-Market: Begins at 6:00 A.M. ET (Order Acceptance) Post-Market: 4:00 P.M. – 8:00 P.M. ET After Hours: 8:00 P.M. – 4:00 A.M. ET	Standard market hours: 9:30 A.M. – 4:00 P.M. ET Pre-Market: Begins at 6:00 A.M. ET (Order Acceptance)	Standard market hours: 9:30 A.M. – 4:00 P.M. ET Pre-Market: Begins at 6:00 A.M. ET (Order Acceptance)



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