

## **FOR IMMEDIATE RELEASE**

### **PDQ Announces Advanced Transaction Analytics For Its ATS Based on Paradigm4's SciDB**

*Waltham, MA and Glenview, IL– March 30, 2016* – PDQ Enterprises, owner and operator of PDQ ATS, Inc., an independent alternative trading system that provides customized execution and unique liquidity generation for equity market participants, and Paradigm4, Inc., creators of SciDB, a scalable, computational database management system designed for advanced analytics on big and diverse data, today announced the launch of an innovative proprietary transaction cost analytics (TCA) database system. SciDB will accelerate and streamline the creation of PDQ ATS's TCA capabilities.

PDQ Enterprises' patented technology, employed by PDQ ATS, gives market participants time to achieve enhanced trade execution through an on-demand auction process that creates unique liquidity in response to each order. An alternative trading system (ATS) is an off-exchange equity market that matches buy and sell orders from subscribers to the system. In February 2016, PDQ ATS averaged 122.3 million shares executed per day in both the ATS and via PDQ's extensive custom routing options, with an average of 14.3 million shares per day traded in the ATS.

Transaction cost analysis (TCA) is the study of the cost of acquiring liquidity by comparing realized trade prices to benchmark values. Assembling an aggregated order book of all trades and quotes for each symbol enables the calculation of the most accurate benchmark values by allowing all relevant microstructure data to be incorporated into the analysis, a challenging task which SciDB is well suited to solve.

#### **Speed, efficiency, faster time to answers with SciDB**

PDQ ATS needed to analyze market microstructure so that when a subscriber wanted to acquire or liquidate a position, PDQ could forecast how much the particular transaction should cost. In order to maintain an optimal flow of information, PDQ ATS needed to ingest large amounts of market data every 2 hours, which their previous system was unable to do.

PDQ was equally interested in a streamlined solution that allowed their analysts to operate the management of a tick database – i.e., the data management tasks that have to happen before they run any transaction cost analytics.

SciDB's time series data management, parallel distributed processing, dynamic provisioning, and tight integration with R and Python, the most common languages used in financial markets, eliminate the hassles PDQ ATS experienced with data management and simplified dealing with computational complexity. In addition, SciDB handily managed ingesting data at the rate required.

#### **Supporting quotes**

"When you buy a house, the real estate agent provides you with comparable properties to document fair market value. We want to do the same for equity trades, helping the customer to understand what it should cost to make the transaction," stated Don Ross, chief strategic officer at PDQ Enterprises.

"SciDB is tightly integrated with R and insulates us from the extra effort of programming the database. With a simple command in R environment, we ask for and receive the data we need. Then it is

immediately available in our preferred programming environment. This simple interface is an important criteria for why we chose SciDB,” concluded Alex Nazaruk, data platform architect at PDQ Enterprises.

#### **About PDQ Enterprises, LLC and PDQ ATS**

PDQ ATS is an independent Alternative Trading System (ATS), based in Glenview, Ill., that optimizes liquidity aggregation for all market participants via an innovative auction process. PDQ’s on-demand auctions neutralize the speed arms race through a pause that allows for competition among trade responses, while also minimizing the potential for gaming or order leakage. PDQ ATS, Inc. is a registered broker-dealer, member FINRA and SIPC, and wholly owned by PDQ Enterprises, LLC. [www.pdqats.com](http://www.pdqats.com)

#### **About Paradigm4**

Paradigm4’s SciDB – the latest innovation from renowned database researcher, Turing Laureate, and entrepreneur, MIT Professor Michael Stonebraker – is a radically new computational database for mining insights from genomic, clinical, image, financial markets, instrument, and sensor data. Paradigm4 is changing what’s possible with Big Data by answering bigger, harder questions. Industry leaders like Foundation Medicine, the National Institutes of Health, NASA, PDQ, Novartis, MIT Lincoln Laboratories, and others use SciDB for collaborative, reproducible research. [www.paradigm4.com](http://www.paradigm4.com)

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