Chicago Quantum



US ADVANCED COMPUTING INFRASTRUCTURE, INC.

US Advanced Computing Infrastructure, Inc.

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Effective: November 29, 2022

Item 1: Cover Page

This brochure provides you information about the qualifications and business practices of US Advanced Computing Infrastructure, Inc. If you have any questions about the contents of this brochure, please contact us at +1.312.515.7333 or Jeffrey@quantum-usaci.com.

The information in this brochure has not been approved or verified by the United States Securities and Exchange Commission or by any state securities authority.

Additional information about US Advanced Computing Infrastructure, Inc. is available on the SEC's website at www.adviserinfo.sec.gov.

Our registration does not imply any level of skill or training. Please use oral and written communications to make your decision to hire an advisor.

The current version of this brochure is available at www.chicagoguantum.com.

Item 2: Material Changes

- 1. We add a new service. We offer managed account services in addition to our one-time services.
- 2. We now include detailed responses for all sections required in our firm's brochure.

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Item 4: Advisory Business

Our firm was established as an information technology management consultancy in May 2010. We evolved from a focus on information technology (classical) infrastructure to quantum computing research in 2018. We began a practice of equities analysis using our proprietary algorithm and computing infrastructure platform in 2021.

We operate out of an office in Highland Park, Illinois, with plans to grow our footprint and staffing as required to serve our clients.

Jeffrey Cohen, a US citizen and resident of Illinois, owns 100% of the firm and provides 100% of the firm's financing (along with credit from Citigroup).

In 2019, we developed a quantum algorithm that can be used to select stock portfolios with beneficial risk-return characteristics. That algorithm is called the Chicago Quantum Net Score. Since then, we have focused on quantum computing consulting and the maturation of our quantum algorithm and a technical platform (hardware and software) to perform our calculations.

Since 2020, we have supported clients with quantum computing programming and portfolio optimization advisory services. Our first portfolio optimization advisory service is to use computer programs operating on market data services to analyze all US-listed stocks that trade that day to determine the portfolios with the best, and worst, risk-return scores. We provide the results of our analysis, along with commentary, in a management report and detailed spreadsheet.

We operate with in-house and owned information technology and we outsource market data services to Intrinio. We contract for outsourced brokerage and custodial services with The Charles Schwab Corporation.

SERVICE DESCRIPTION

We offer investment advice to institutional investors, high net-worth individuals ('accredited' investors), portfolio managers, corporations and investment advisors. We provide financial planning and quantitative analysis services to individual investors. We provide quantitative, fundamental, and technical analysis on a customized basis.

We maintain a model portfolio with optimized risk vs. return characteristics based on the Chicago Quantum Net Score. We also call this a Smart Volatility model since it maximizes the difference between expected return and historical price variance for an evenly weighted portfolio of stocks. This portfolio does best when there are orderly, liquid US stock markets and when US stock markets are rising.

We hedge this portfolio by investing in a short portfolio of either a stock market indexes or a selection of stocks with minimized differences between expected return and historical price differences. You could think of this as the opposite of Smart Volatility.

We maintain a set of investment management processes that is intended to maximize a client's risk-return tradeoff regardless of market direction, and is based on our proprietary approach, algorithm and technology platform. This model portfolio and stock trading and portfolio management process enables us to offer client separately managed accounts. We continue to enhance, test and document the model portfolio, along with our trading methodology.

| Services | One-Time / Ongoing | Fixed Fee / Performance- Based / Time & Materials | Financial / Technology / Both |
|--|--------------------|--|----------------------------------|
| Separately managed accounts | Ongoing | Performance-Based | Financial |
| Quantitative analysis of US stocks (CQNS UP or DOWN) | One-Time | Fixed Fee | Financial |
| Financial Planning Services | One-Time | Fixed Fee | Financial |
| Computer Programming Services | Both | Time & Materials | Both |
| Consulting Services | Both | Time & Materials | Both |
| Management Consulting | Both | Time & Materials | Technology |

We offer six services:

- 1. We manage investment funds in separately managed accounts on an ongoing, performance-based fee basis. These funds are held in client-owned accounts with a custodian and brokerage firm.
- 2. We provide quantitative analysis of the US stock market on a fixed-price basis where we provide a comprehensive analysis of US-listed common stocks that traded that day, on either an Up (stocks to hold) or Down (stocks to avoid) basis. The analysis is based on both our proprietary algorithm and parameters, and runs on our own technology platform.
- 3. We provide financial planning services to create a customized financial plan for a client through interviews, workshops and analysis over a one-week period.
- 4. We offer custom computer programming services to clients that leverage our technology platform and market data services. We can either deliver the code to our clients or we could operate and maintain that code for a client, for a fee.
- 5. We offer consulting services on a variety of topics, including quantum computing, information technology (IT) advanced computing infrastructure, IT costs, IT governance, IT project and program management, and quantitative algorithms and solvers.
- 6. We offer traditional management consulting services at an executive level, focused on information technology.

Service 1: Separately managed account service:

We manage client investments in separately managed accounts held by our custodian, The Charles Schwab Corporation (or other custodians requested by our clients). We are given the authority by our clients to manage the investments in those accounts into US-listed common stocks with the use of margin so we can hold a combination of long and short positions.

We adjust positions daily to balance holdings (either evenly weighted or by market capitalization by client request), and for clients using our custodian we pool our trades and allocate executions equally. We select our long and short positions based on the results of our Chicago Quantum Net Score quantitative model. The model is run separately to search for long or short portfolios. Portfolios are based on evenly weighted stock portfolios with the minimum

difference between historical price variance and future expected return. These portfolios are selected from sets of US common stocks that go through a rigorous data validation process to reduce anomalies.

We do not accept a client's authority to withdraw funds, and any fees or expenses are collected and disbursed by the custodian.

Service 2: Quantitative analysis service:

CQNS UP is a quantitative analysis of US listed stocks that an investor might like to hold, or take a long position, while hedging downside risk. It is based on the CQNS UP algorithm and the analysis finds portfolios with a better CQNS score than holding any individual stock. It finds many portfolio options, with a range of portfolio sizes, and we provide those options to clients to choose from.

CQNS DOWN is a quantitative analysis of US listed stocks that an investor might like to avoid or short, while also hedging upside risk. These are inefficient portfolios of stocks of moneylosing companies with significantly poor CQNS scores. These have significantly more risk than expected return, and are based on our CQNS DOWN algorithm. Inefficient portfolios are often one or a few stocks, as diversification removed the exceptional level of risk in these stocks.

| Services / Deliverables | CQNS UP | CQNS UP (alternative) | CQNS DOWN |
|--|-----------------------|-----------------------|------------------------|
| Stock Market Index | SPY (ETF) | QQQ (ETF) | SPY (ETF) |
| Data Validation Parameters | Yes | Yes | Yes |
| Key Filter | Net Income > \$0 | Net Income > \$0 | Net Income < \$0 |
| Optimized Portfolios | Best Portfolios Found | Best Portfolios Found | Worst Portfolios Found |
| Market Returns (%) | Yes | Yes | Yes |
| Stock Variance (normalized) | Yes | Yes | Yes |
| Stocks by CQNS Score | Yes | Yes | Yes |
| Stocks by Volume (%) | Yes | Yes | Yes |
| Stocks by Price Change (%) | Yes | Yes | Yes |
| Stocks by BETA | Yes | Yes | Yes |
| Leptokurtic & Platykurtic Stocks | Yes | Yes | Yes |
| Highly Skewed Stocks | Yes | Yes | Yes |
| Stocks by Dividends Paid (%) | Yes | Yes | Yes |
| Stocks by Variance (normalized) | Yes | Yes | Yes |
| Stocks by Expected Returns (%) | Yes | Yes | Yes |
| Negative BETA Stocks | Yes | Yes | Yes |
| Stock Price Spikes (e) | Yes | Yes | Yes |
| Stock Volume Spikes (x daily volume) | Yes | Yes | Yes |
| Stock Splits | Yes | Yes | Yes |
| Services / Deliverables | CQNS UP | CQNS UP (alternative) | CQNS DOWN |
| Stocks by Market Capitalization (Current \$) | Yes | Yes | No |
| Stocks by Cash Flow From Operations (Current \$) | Yes | Yes | No |
| Stocks by Long Term Debt (Current \$) | Yes | Yes | No |
| Stocks by Net Income (Current \$) | Yes | Yes | No |
| Stocks by Common Equity (Current \$) | Yes | Yes | No |
| Stocks by AOCI (Current \$) | Yes | Yes | No |

In addition to finding and providing a set of optimized stock portfolios by CQNS score, we provide additional analytical deliverables, as follows:

- Key data validation parameters
- Overall stock market returns over the past year for SPY, QQQ and IWM ETFs, our riskfree rate, and the expected return from risk assets.

For each stock that passed data validation, over the past 253 trading days:

- Stock variance for each stock, normalized to allow comparison.
- CQNS score for each stock
- Volume for each stock (% average)
- Price Change (% average)
- ❖ BETA (versus index ETF used)
- Stocks that meet a threshold for non-normal distributions in fourth-order price distribution (kurtosis) with low or high daily price variance
- Stocks that meet a threshold for non-normal distributions in the third-order price distribution (skewness)
- Dividends paid (% average price)
- Variance of daily closing stock price (value, normalized)
- Expected returns (%)
- Stocks with negative, high, or low BETA values (BETA value).
- Stocks with stock price change (% of average)
- Stocks with volume spikes (# of days volume)
- Stocks that split (split ratio)
- ❖ Market capitalization (\$)*
- Cash Flow From Operations (\$)*
- ❖ Long Term Debt (\$)*
- ❖ Net Income (\$)*
- Common Equity (\$)*
- ❖ Accumulated Other Comprehensive Income (AOCI) (\$)*

We deliver a management report for our clients along with a spreadsheet (.CSV).

Quantitative Algorithm

Our investment advice is based on a proprietary, quantitative algorithm called the Chicago Quantum Net Score (CQNS). The quantum algorithm makes a small 'compromise' to run on a quantum computer, and we remove that change to run on classical systems. Quantum systems have true randomness and operate on a different underlying technology than classical systems, and we developed a portfolio optimization algorithm to run on quantum systems. This algorithm is currently run classically, but may be run on quantum annealing computers at a smaller scale (e.g., 40 to 120 stocks).

There are two versions of CQNS. The first, CQNS UP, finds stock portfolios that are efficient (e.g., lower historical price volatility relative to expected return). The second, CQNS DOWN, finds stock portfolios that are inefficient (e.g., higher historical price volatility relative to expected return). We normalize expected return to be directly comparable to historical variance, based on current data.

We structure this equation in a way that it can be solved with both classical (heuristic) and quantum solvers (vector * matrix * vector.T). This process requires timely and comprehensive historical stock data. It is computationally intensive to solve our algorithm on up to 3000

^{*} If data provided by Intrinio, only provided for CQNS UP run service.

stocks at one time. The search space is ~ 10^1000. We have built a computational platform including a set of commercial and proprietary solvers to do just that.

Before we run our model, we validate stocks according to a set of parameters that are important to us. We analyze US-listed companies that trade daily, maintain a positive BETA, and have other parameters within ranges to avoid anomalous stocks. For example, currently our CQNS UP includes profitable companies, and our CQNS DOWN includes unprofitable companies.

Publications

Over the past two years we observed and reported on significant, non-random behavior by stock portfolios chosen by the then-current Chicago Quantum Net Score algorithm. We have published examples of both efficient and inefficient CQNS portfolios found by the model in 2020 and 2021, along with analysis of their trading behavior. We published these results in Medium under our Chicago Quantum service mark, found here, and on our website.

We document our research on the algorithm and the platform of solvers to find stock portfolio solutions. We published this work in three arXiv pre-print articles in 2020. Our articles and related research are re-published in Research Gate here. We publish details on using classical and quantum computers. These works continue to be cited by other researchers.

Methodology

We run our analysis after 6:30pm ET on our own servers using premium market data services from Intrinio. We remotely access quantum computers from D-Wave Systems as required.

We conduct a rigorous, automated data validation process to ensure US listed common stocks that trade today meet rigorous, pre-defined criteria for the past 253 trading days (or one year).

We score all individual stocks that pass data validation. We score numerous stock portfolios based on their Chicago Quantum Net Score (CQNS) and highlight those found by our solvers with the lowest (best) score. Portfolios are designed to be held on an equally weighted basis (e.g., 10 stocks would each make up 10% of the value of the portfolio at inception).

There is no guarantee that we find the absolute best portfolio, but we run the platform long and deep enough to be satisfied that we have found a reasonable solution to our problem, given time and resource constraints. If not, we can run it longer (without a restart) once we see the results.

Tailoring our Services

We can tailor certain services for a client. Our consulting, financial planning, and custom programming services are fully customizable. For complex projects, the work is described by a statement of work which is mutually agreed between the parties.

Our managed account services may be tailored by a client in terms of the custodian and brokerage utilized by the client. Clients may also request a certain hedging strategy among options we offer. Specifically, clients may choose to leave their managed accounts unhedged, hedge them with the underlying index utilized in the calculations (e.g., the QQQ or SPY in a short), or by using the CQNS DOWN run stocks in a short. Over time, we may also be able to offer the use of futures contracts for hedging.

For our fixed-fee analytical services (our CQNS UP and DOWN runs), we can modify our runs by changing pre-set parameters or adding new parameters to the code. This depends on if we can gain agreement with all other clients also receiving a run at that time. For example, we can adjust the minimum market capitalization of stocks analyzed. We have many parameters in our model that we can discuss with a client, such as maximum BETA, kurtosis and skewness scores, minimum stock price, and minimum trading volumes. If a client wants a new parameter or analysis which requires programming and testing, there may be a cost to the requesting client. Modifications have been provided without charge to clients with standing orders for repeat runs.

Finally, each client receives a management report with their one-time services, along with a spreadsheet. We could tailor our approach and content of their report upon request, and work across clients to standardize reports and spreadsheet data for all clients.

Wrap Fees

We do not provide services under a wrap fee arrangement.

Assets Under Management

We do not have client assets under management on a discretionary basis.

Confidentiality

You agree to hold our proprietary data and reports as confidential and not to distribute them without written approval, which may be unreasonably withheld. We agree to keep your identity, the fact that you are a client, and any non-public or proprietary information that you share with us as confidential. We will share your identity and status as our client only as legally required.

Item 5: Fees and Compensation

We offer multiple ways to consume our services. We have managed account services that are ongoing and one-time quantitative analyses, or runs. We also have hourly or fixed-price consulting services.

| Services | One-Time Fee | Ongoing Fees | Expenses |
|---|--|--|-------------|
| Separately managed accounts | NA | Asset-based: 2% / year (Minimum \$1,000 / month) Performance-based: 20% on gains above 1% / month | As incurred |
| Quantitative analysis of US stocks (per run) | \$750 | NA | NA |
| Financial Planning Services | \$2,500 / 20 hours | NA | As incurred |
| Computer Programming Services | \$250 / hour, or \$7,500 / 40 hours | NA | As incurred |
| Consulting Services | \$250 / hour, or \$7,500 / 40 hours | NA | As incurred |
| Management Consulting | \$250 / hour, or \$7,500 / 40 hours | NA | As incurred |

MANAGED ACCOUNT SERVICES

To manage a client's funds in a separately managed account, we require two fees:

- 1. Average, asset-based fee of 2% per year, billed and collected each month, with a minimum of \$1,000/month
- 2. Performance fee of 20% of Total Return above a benchmark hurdle rate of 1% / month.

ONE-TIME, FIXED PRICE SERVICES

Chicago Quantum Net Score UP:

Analysis of all US listed common stocks* that trade today and meet our data validation criteria. Price: \$750

Chicago Quantum Net Score DOWN:

Analysis of all US listed common stocks* that trade today and meet our data validation criteria. Price: \$750

Financial Planning Services:

- Conduct discussions and an in-person (or remote) workshop with our client to draft a written investment plan for our client. We will provide and walk through a pair of CQNS runs (UP and DOWN) during the workshop (a \$1,500 value), then deliver a written investment plan.
- This service includes 20 hours of effort from our Investment Advisor Representative for a fixed price of \$2,500

CONSULTING AND PROGRAMMING SERVICES (TIME AND MATERIALS)

We work with our clients to develop a scope of work and an estimate of the time required to meet our client objectives. We accumulate our actual time spent and invoice for those hours.

Clients may purchase time by the hour (billed to the nearest hour, in arrears) for \$250/hour.

Clients may purchase a pre-set number of hours in increments of 40 hours (billed in advance and tracked quarterly) for \$7,500 / 40 hours.

Services scope may include:

- Detailed discussions of our approach, methodology, findings and recommendations.
- Architect, code, test and maintain our client's proprietary quantitative analysis ideas, methods and models on our proprietary, in-house server platform. The resulting code is run and maintained by our firm. The code is jointly owned, but is kept confidential to that client.
- Investment options and fundamental research into companies.
- Information Technology (IT) and IT-related topics like cost management, project management, IT governance, IT outsourcing and IT benchmarking.

^{*} Our market data services provider has a composite index, USCOMP, that includes all US stock exchanges. We typically see > 10,000 tickers trading in USCOMP and we run our analysis against it.

- Investment planning
- Client-directed research and analysis of scenarios, companies, industries or economies.
- Executive management topics
- Quantum computing

TERMS & CONDITIONS

If payment is made through our website or through an electronic payment system (e.g., credit card, Stripe, or PayPal), then payment is collected prior to the initiation of work. Once payment has been received, the work shall immediately begin (no later than 48 hours after payment received).

No refunds are available on services already performed.

Full refund available for services paid and cancelled before the work has been performed.

For clients that arrange for invoicing, we invoice quarterly in advance of service delivery. All prices are in US dollars, and our payment terms are net 30.

We accept payment either via bank (wire, ACH or paper check) or via our website through PayPal, Stripe, or credit card.

Either party shall have the right to terminate services at any time. Payment is due for services already performed (up to the point of termination).

Item 6: Performance-Based Fees and Side-By-Side Management

We deliver all of our managed account services with performance-based fees.

We believe this best aligns our interest with our clients and helps motivate us to deliver the most impactful and meaningful analysis and efforts for our clients at all times.

We offer one-time services on an hourly basis, or on a fixed-fee basis. Those services, such as providing market research, application development, or financial planning services, are a fee-for-service based on expected value of those services. There are no performance-based fees on one-time services.

We do recognize one potential conflict of interest with our business model that we will monitor over time. This is not currently an issue as our managed account services are new. If our managed account services portfolios become large enough and material to the market, it is possible that a client could buy our one-time services to try an 'front-run' or interfere with our market activities. In this event this occurs, we will refuse to sell our one-time services to short-term traders, or terminate the sale of certain one-time investment advisory services.

Item 7: Types of Clients

We provide advisory services and consulting services to individuals, high net worth individuals, institutional investors, portfolio managers, business entities and governments.

Self-directed Investors: These clients use our one-time services, such as one-time analyses of market long or market short portfolios, financial planning, application development, or

consulting services. There is no minimum for these services, nor any pre-qualification or 'accredited investor' requirement to consume these services.

Managed Investors: These clients utilize our managed account services. The minimum managed account size is USD \$1 million to ensure our investors have the financial strength to bear the risks of these investments.

We expect clients may wish to grow into an investment of that size, so initial investments have a \$100,000 minimum with an agreed-to plan to achieve a USD \$1 million account balance within six months. There is a level of cost and effort in setting up a new account, as well as risk in working with a new investment advisor, so this ramp-up capability is provided to build trust in a new relationship.

Quantum Computing: We have clients that are either engaged in research or analysis that utilize our consulting services around quantum computing.

Item 8: Methods of Analysis, Investment Strategies and Risk of Loss

METHODS OF ANALYSIS

We analyze stocks and make investment recommendations based exclusively on our proprietary Chicago Quantum Net Score (CQNS) model and platform.

INVESTMENT STRATEGIES

Our one-time US stock market analyses and our managed account services are based exclusively on our proprietary Chicago Quantum Net Score (CQNS) model and platform. This model is run after markets close and performs an analysis of the US listed common stocks that traded that day.

In our one-time analyses, we provide a management report based on the results of the model run. It contains multiple analyses, including the Chicago Quantum Net Score of each stock, other analytics and information about individual stocks, and the selection of portfolios based on an overall portfolio score. The report would suggest individual stocks that a client could continue researching further, and portfolios of stocks that perform better (or worse) than individual stocks.

In our managed accounts, we manage an investment that has three parts:

- 1. Long positions that are based on our Chicago Quantum Net Score for the overall portfolio. The model is run with certain market-based parameters that determine the relative size of the optimized portfolio. We start with the best portfolios based on overall portfolio score, and make adjustments for industry concentration, news, tax efficiency, and other analytical factors. These stocks are also chosen based on a set of filters, such as whether they are profitable and have a minimum liquidity. A typical long position has roughly the same holding size of each security (e.g., 10 securities are each 10% of the long position).
- 2. Short positions are based on one of three strategies, as determined by our investment advisor representative.
 - A. We short the worst stocks as identified by our Chicago Quantum Net Score for individual stocks based on an inversion of the metric. These are stocks that have individual (or portfolio) CQNS scores that are the least attractive. They offer poor riskreturn trade-offs. These tend to be smaller portfolios, since poor individual stocks benefit considerably from diversification.

- B. We short a BETA-weighted amount of the index used to calculate expected returns. The BETA weight is the average BETA of the long portfolio.
- C. We leave our portfolio either unhedged or over-hedged based on market conditions.
- 3. Cash in a settlement account, required to buy, sell and hold stocks.
- 4. Accounts must be set up for margin trading to enable short positions. If a client does not wish to enable margin trading on an account, then hedging would occur using ETFs that simulate short positions (e.g., they go up when stocks fall).

Our investment strategy is to optimize the risk-return tradeoff of the overall portfolio. This is a computationally intensive process and we utilize our Chicago Quantum Net Score proprietary algorithm and codebase along with our computational platform. We optimize the risk-return tradeoff by minimizing the normalized difference between price variance and expected returns. Price variance is calculated daily, based on adjusted closing prices. Expected return is calculated daily based on each stock's BETA (or correlation) against an ETF that tracks an index. We currently use the \$SPY which is the S&P 500 Index ETF to calculate BETA values.

Our strategy includes filtering the list of stocks before they are considered for inclusion in our long or short portfolios. Those filters include amount of net income, trading volume, market capitalization, BETA, country of incorporation and HQ, minimum and maximum share prices as a subset. We remove stocks from the set that have known anomalies. We also remove foreign companies that are US-listed stocks to remove additional geographic risk.

Our strategy also includes hedging our long positions with short positions.

Finally, we believe that this strategy works best when rebalanced frequently (e.g., daily) although this increased transaction costs. Market conditions influence our decision on how often to rebalance the portfolios. Price spreads and persistence of the CQNS model selections also impacts rebalancing decisions (e.g., if a stock repeatedly moves in/out of our model portfolio, we may either hold or avoid the stock for a period of time).

RISK OF LOSS

Investing involves risks. Investing based on a quantitative model involving long and short positions involves significant risks.

There is no guarantee the advisory services, or portfolio management services offered will result in meeting the client's goals and objectives nor that the client will be protected from loss.

Past performance is not an indicator of future results.

You may lose your entire investment. Please consider your investment objectives carefully. Only invest what you can afford to lose.

Item 9: Disciplinary Information

No legal nor disciplinary matters related to past or present clients. We are not under investigation, nor do we know of any pending claims against our firm or employees.

Item 10: Other Financial Industry Activities and Affiliations

Our business is to provide investment advice to clients for a fee. We have newsletter-type services, application development, financial planning, and managed account services. We have no other businesses nor sources of revenue.

We have no affiliations with, nor receive compensation from, any other financial institutions in providing our services.

Any recommendations we make regarding brokers, broker/dealers, insurance companies, banks, hedge funds, mutual funds, accountants, lawyers, tax professionals or any other type of recommendation is based on our personal experience and research. We do not receive compensation for our recommendations.

Item 11: Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

Client Transactions

Our employees are not allowed to day-trade in securities that are held in our client managed accounts. No buying and selling 'round-trips' with a duration of less than 5 business days.

Personal Investing

We anticipate that our employees will invest in our managed accounts according to our Chicago Quantum Net Score strategies.

Personal Trading

Our employees are allowed to trade securities within their personal accounts. We post active investment positions in stocks, bonds and stock options of our employees on our website within 72 hours of material changes.

Item 12: Brokerage Practices

We generally recommend The Charles Schwab & Co., Inc. ("Schwab") as qualified custodians/brokers for our clients. Schwab is registered with the SEC, a member of the Financial Industry Regulatory Authority, and a member SIPC.

We are independently owned and operated and not affiliated with any custodian or brokerage firm. Schwab was selected by KPP as recommended qualified custodians for our clients based upon a wide range of factors, including, among others, the following:

- · Breadth of services including execution and custody services;
- Capability to execute, clear, and settle trades;
- Size, capitalization, reputation, name recognition, and publicly available information related to their financial stability:
- Capabilities to facilitate client financial transfers and payments;
- Breadth of investment products made available and the ability for clients to sell short on margin;
- Competitiveness of the price of those services to both our firm and the client.

While we recommend clients use Schwab as custodian/broker, client will decide whether to do so and open a client account with Schwab by entering into an account agreement directly with them. Schwab will custody client assets in a brokerage account and will buy and sell securities when instructed by us. Clients will not necessarily pay the lowest commission or commission equivalent, nor will they necessarily receive the best trade execution.

We do not charge a premium or commission on transactions beyond the actual cost imposed by the broker-dealer/custodian.

RESEARCH AND OTHER SOFT-DOLLAR BENEFITS

We do not receive research or other 'soft-dollar' benefits from broker-dealers or custodians in connection with client securities transactions.

BROKERAGE FOR CLIENT REFERRALS

We receive no referrals from a broker-dealer or custodian in exchange for using that broker-dealer or custodian.

DIRECTED BROKERAGE

A client may use any US-firm for their custody and brokerage, as long as they open and maintain an account with that firm and establish a mutually agreed method for us to be paid our services fees, investment asset fees and performance fees, and reimbursed for any mutually agreed, actual expenses incurred. If the client wants us to manage the assets in an account, the client will direct their custodian / broker to authorize us to trade securities on their behalf (but not to withdraw funds).

AGGREGATING TRADES FOR MULTIPLE CLIENT ACCOUNTS

When appropriate, we aggregate the securities to be purchased or sold for multiple clients into a single block. The process of aggregating client orders is done to achieve more consistent execution across client accounts, to create round lot trades, to potentially reduce costs, and to enable specific timing of trades (eg., near market open or close). We can only aggregate trades across accounts held with Schwab at this time.

Item 13: Review of Accounts

There are no client account reviews for consulting, planning or market reporting services.

All client accounts for our managed account services are reviewed quarterly by Jeffrey Cohen, Chief Compliance Officer (CCO), or his designee with regard to investment policies, risk tolerance levels, cash levels, and other factors.

Account transactions and cash levels are also regularly monitored using internal reports. Our clients should receive statements, at least quarterly, from the qualified custodian that holds and maintains client's investment assets. The statements detail the client's account, including assets held, asset value, and calculation of fees.

Clients are urged to carefully review all statements and notify us if errors occur.

Financial planning reviews are customized based on the client's needs and expectations. Ongoing financial plan updates and reviews are conducted upon client request, and for a fee.

Item 14: Client Referrals and Other Compensation

Our business model is to be paid by our clients to deliver our services to them according to the fees described in this brochure. At this time, we receive no outside compensation for our services.

There are situations where we could receive a value added reseller's margin on third-party products and services that are billed by us (through us) to clients as an integrated solution. One example is our managed data services provider, Intrinio. If a client hires our firm to create a

solution that includes their services, and would like to pay us for that solution as an integrated bundle, we would make a margin on those products and services included in our solution. Although we have not set up other relationships, it is likely we would for technology products and services that are integrated into our solutions. For example, we could imagine reselling quantum computing and classical hardware services.

In other situations, we may be compensated by social media companies for our content that we provide on their platforms or our appearances on their programs. For example, we could be paid for popular videos, articles written, or public appearances to describe our Chicago Quantum Net Score approach and methodology. We could also be paid to appear on stage during media events to discuss current financial services issues.

We do not intend to be compensated for order flow, or to make any profits, directly or indirectly, on clients trades.

Item 15: Custody

We do not intend to have access to, nor control over, client funds and/or securities at any time. To this end, we contract with a custodial firm The Charles Schwab, to maintain custody for our managed accounts. Our clients would be required to have a direct relationship with The Charles Schwab, or another custodial firm, and we would be named as having trading authority over that account. We do not accept custody over client assets.

Item 16: Investment Discretion

We provide discretionary and non-discretionary investment advisory services to clients. In our discretionary services, e.g., our managed accounts, for as long as the client has delegated authority to trade to us, we manage the client's positions and make investment decisions without consultation with the client as to the buying or the selling of securities. We do not accept the right, nor the responsibility, to make withdrawals from a client's account, except as required to pay fees and expenses for our services.

Finally, a client may revoke our investment discretion authority at any time, for any reason, or no reason.

In our non-discretionary services, e.g., our Chicago Quantum Net Score reports, our programming services, our investment consulting services, our technology-related services, and our investment planning services, we exercise non-discretionary investment advisory services to clients such as making recommendations.

Item 17: Voting Client Securities

As a matter of policy, we do not vote proxies on behalf of clients. Therefore, although our firm may provide investment advisory services relative to client investment assets, clients maintain exclusive responsibility for: (1) directing the manner in which proxies solicited by issuers of securities beneficially owned by the client shall be voted, and (2) making all elections relative to any mergers, acquisitions, tender offers, bankruptcy proceedings or other type events pertaining to the client's investment assets. Clients are responsible for instructing each custodian of the assets to forward to the client copies of all proxies and shareholder communications relating to the client's investment assets.

Item 18: Financial Information

Registered Investment Advisors are required to provide you with certain financial information or disclosures about the advisor's financial condition.

- ❖ We meet the State of Illinois minimum capital requirements
- We do not solicit payment of fees more than six months in advance of services rendered.
- We do not we take custody of client cash, securities, funds or assets. Assets reside with a custodian under your account ownership and we have trading authority only.
- We have not been the subject of a bankruptcy petition and there is no condition that is reasonably likely to impair our ability to meet contractual commitments to clients.

Item 19: Requirements for State-Registered Advisers

A. Jeffrey Cohen, our President and Investment Advisor Representative, has a full description of his formal education and business background in the next section, the Adviser Brochure Supplement.

- B. Our business includes both Investment Advisory Services and quantum computing and information technology-related services. We estimate that non-investment advisory services work, and administrative/corporate work, consumes approximately one day per week.
- C. We are compensated for our managed account services with both flat-rate fees based on assets invested and performance-based fees. Performance-based compensation may create an incentive to recommend an investment that may carry a higher degree of risk to the client.

We believe there are three factors which mitigate that potential conflict of interest in this business model.

- 1. Transparency and focus of our investment strategy. Our aim is to generate positive returns from an anomaly or inefficiency in the market, and our performance fees enable us to offer the service to clients and benefit when the model works best.
- 2. Visibility of our actions and results provided by ownership of the managed account and the receipt of monthly brokerage statements.
- 3. Our clients may terminate their investment agreement at any time.

Managed Account Fees

We have asset-based and performance-based fees for our managed account services:

- Average, asset-based fee of 2% per year, billed and collected each month, with a monthly minimum of \$1,000 (which only impacts accounts under \$500,000).
- Performance fee of 20% of investment gains above a benchmark hurdle rate of 1% / month.

Asset-based Fee Calculation

The Asset-based Fee is the Average Daily Balance (funded) x 0.02 / 12 There is a minimum \$1,000 monthly fee, which equates to a \$500,000 balance.

Example 1: Average Daily Balance (funded) is \$1,000,000. Asset-based monthly fee is \$1,667 = \$1,000,000 x 0.02 / 12

Example 2: Average Daily Balance (funded) is \$1,125,000. Asset-based monthly fee is \$1,875 = \$1,125,000 x 0.02 / 12

Performance-based fee calculation

<u>Average Daily Balance (funded)</u> is the starting monthly balance plus client contributions x (calendar day of month / 30) minus client withdrawals (calendar day of month / 30), for a month with 30 days.

Average Daily Balance example: Our client has \$1,000,000 invested at the beginning of the month and makes a \$250,000 contribution to the fund halfway through the month (the 15th). The Average Daily Balance (funded) is $$1,125,000 = $1,000,000 + $250,000 \times (15/30)$.

Ending Balance (funded) is the sum of the starting monthly balance, plus the contributions, minus the withdrawals. In the example above, the Ending Balance (funded) is \$1,250,000 = \$1,000,000 + \$250,000.

Withdrawal example:

Our client has \$1,250,000 invested at the beginning of the month, and makes a \$250,000 withdrawal from the fund halfway through the month (the 15th).

The Average Daily Balance (funded) is $\$1,125,000 = \$1,000,000 - \$250,000 \times (15/30)$. The Ending Balance (funded) is \$1,000,000 = \$1,250,000 - \$250,000.

Calculating the Total Return and Total Return Percentage each month:

<u>Total Return</u> is the Month End Balance (actual) minus the Ending Balance (funded). <u>Total Return Percentage</u> is the Total Return divided by the Average Daily Balance (funded).

Total Return Example 1: Client has a beginning investment of \$1,000,000 and has made no contributions, nor any withdrawals.

Average Daily Balance (funded) of \$1,000,000.

Month End Balance is \$1,050,000.

Total Return is \$50,000 = \$1,050,000 - \$1,000,000.

Total Return Percentage is 5% = \$50,000 / \$1,000,000.

Total Return Example 2: Client has a beginning investment of \$1,000,000 and has made a contribution of \$250,000 on day 15.

Average Daily Balance (funded) of \$1,125,000

Ending Balance (funded) of \$1,250,000

Month End Balance of \$1,325,000

Total Return is \$75,000 = \$1,325,000 - \$1,250,000.

Total Return Percentage 6.67%

Performance-based Fee Calculation

Performance-based Fee Example 1: Total Return is 5% or \$50,000

Benchmark Percentage is 1% or \$10,000

Performance-based fee is \$8,000 = (\$50,000 - \$10,000) * 0.20

Performance-based Fee Example 2:

Total Return is 6.67% or \$75,000

Benchmark Return is 1% or \$11,250

Performance-based fee is \$12,750 = (\$75,000 - \$11,250) * 0.20

Total Monthly Fees are the sum of the Asset-based and Performance-based fees. These will be calculated and collected by our custodian and paid after each month based on actual performance.

- D. None of our management persons has been involved in either an arbitration claim alleging damages in excess of \$2,500, or a civil, self-regulatory, or administrative proceeding related to this business.
- E. No management person has a relationship or arrangement with an issuer of securities.

Adviser Brochure Supplement

(Part 2B of form ADV | November 29, 2022)

Supplemental Information about Jeffrey Paul Cohen:

President, Investment Advisor Representative US Advanced Computing Infrastructure, Inc.

Location:

1461 Beaupre CT, Highland Park, Illinois 60035-3902

Email: jeffrey@quantum-usaci.com

Cell: +1.312.515.7333

Age: 54 years old

EDUCATIONAL BACKGROUND

Passed the Series 65 – Uniform Investment Adviser Law Exam (September, 2021)

Stuart Business School - Illinois Institute of Technology PhD course-work and dissertation research in Management Sciences.

J.L. Kellogg Graduate School of Management - Northwestern University Masters of Management, Finance, Management and Strategy with Distinction

University Of Chicago Bachelors of Arts in economics with General Honors

PROFESSIONAL BACKGROUND

US ADVANCED COMPUTING INFRASTRUCTURE, INC. Dec 2018 – Present President, Investment Advisor Representative, Highland Park, IL

- ❖ Lead a registered investment advisor & business consultancy (CRD# 316375)
- ❖ Code, test, manage & operate a quantitative platform for stock analysis
- Engage in research and development in quantum computing

IBM CORPORATION, Global Technology Services IS Projects Executive (Band D), Schaumburg, IL

Aug 2015 – Dec 2018

- Re-launched global consulting business in Systems (Hybrid Cloud) outsourcing service line to create outsourcing 'pull-through'
 - Supported 25 country teams, defined global service offerings & implemented education and content to scale to \$447M in 2017 sales.
 - Implemented global management system to accelerate sales and revenue.
 - Significant global client engagement on hybrid cloud
 - GTS Consultant Profession Leader with media & analyst exposure



- Recognition as "2017 Top 27 Thought Leader" within IBM
- In 2018, responsibility increased to all GTS outsourcing service lines

HEWLETT PACKARD ENTERPRISE

Nov 2010 - Aug 2015

US Complex Pursuit Leader & Consulting Partner FSI, Highland Park, IL

- Sales & consulting leadership in Technology Services Consulting (TSC).
- Responsibilities included banking & payments consulting sales, Central US region sales & delivery, data center pursuit architect manager, data center migrations, and North American 'Mainframe Attack' program leader.
- Personal utilization ~50% serving clients on IT infrastructure modernization programs (data center, mainframe & IT infrastructure)

BRIDGEWATER ASSOCIATES

2009

Technology General Manager, Stamford, CT

Internal technology manager supporting the business aspects of technology, including management, sourcing and usage.

SIEMENS IT SOLUTIONS & SERVICES, INC.

2006 - 2009

Managing Vice President, N.A. Professional Services, Lake Zurich, IL

- ❖ Led turnaround of \$100M+ professional services division (leadership team transformation, cash flow, revenue & earnings growth with lower risk. Full P&L responsibility (\$100M+)
- Managed SAP consulting, systems integration, software development & engineering, and application management and procurement outsourcing
- Consulted clients on business transformation & IT infrastructure.

ELOYALTY

2006

Vice President, Behavioral Analytics, Lake Forest, IL

Established services & command center infrastructure to deliver eLoyalty's behavioral analytics SaaS capabilities to improve call center agent performance and predict consumer behavior.

MCKINSEY & COMPANY, INC.

2000 - 2006

Associate Partner, Business Technology Office, Chicago, IL

- Conducted 27 IT-focused strategy, negotiations, cost reduction & implementation projects globally.
- Co-led the North American IT outsourcing and offshoring practice

KPMG CONSULTING LLC 1995 - 2000

Senior Manager, Chicago, IL

- Launched a national IT strategy consulting practice in IT outsourcing, IT benchmarking, systems integration, PMO and IT infrastructure.
- Co-led a team to sell and deliver a \$100 million systems integration program to implement an OSS/BSS for IP-based telecommunication services.

DISCIPLINARY INFORMATION

There are no legal or disciplinary items applicable to a client's or prospective client's evaluation. Registered Investment Advisers are required to disclose all material facts

regarding any legal or disciplinary events that would be material to your evaluation of each supervised person providing investment advice.

ADDITIONAL COMPENSATION

Mr. Jeffrey Cohen invests his own capital in securities. Most would be considered 'passive' investments. However, around 5% of his net worth is invested in a handful of individual stocks that are not selected by the Chicago Quantum Net Score model, but are selected through fundamental analysis. This could pose a potential conflict of interest so he publicly discloses position changes on our <u>website</u> homepage within 72 hours.

Mr. Jeffrey Cohen also receives consulting fees from clients requiring expertise in areas of information technology, quantum computing, outsourcing and vendor management. These are not related to his investment advisory services and are not expected to interfere with his delivery of investment advisory services.

SOCIAL MEDIA CHANNELS:

Twitter: here LinkedIn: here Medium: here

Google Scholar: here Research Gate: here