



Enterprise services and solutions



Powering the decisions ahead.

The buy-side is in an era of intense change. Regulatory pressure is increasing. Industry-wide consolidation is rampant. Outsourcing non-core processes is now commonplace. Demands for more speed and greater transparency are rising. And the entire operational role of data is transforming.

As a result, asset managers and other buy-side firms face three urgent challenges:

- Fee compression and margin erosion
- Redundant, disparate workflows
- Technology accelerating the pace of industry-wide change

Doing more with less

Improving efficiency will help the buy-side tackle these challenges simultaneously—and compete more effectively. To do this, however, requires investment in both technology and operations.

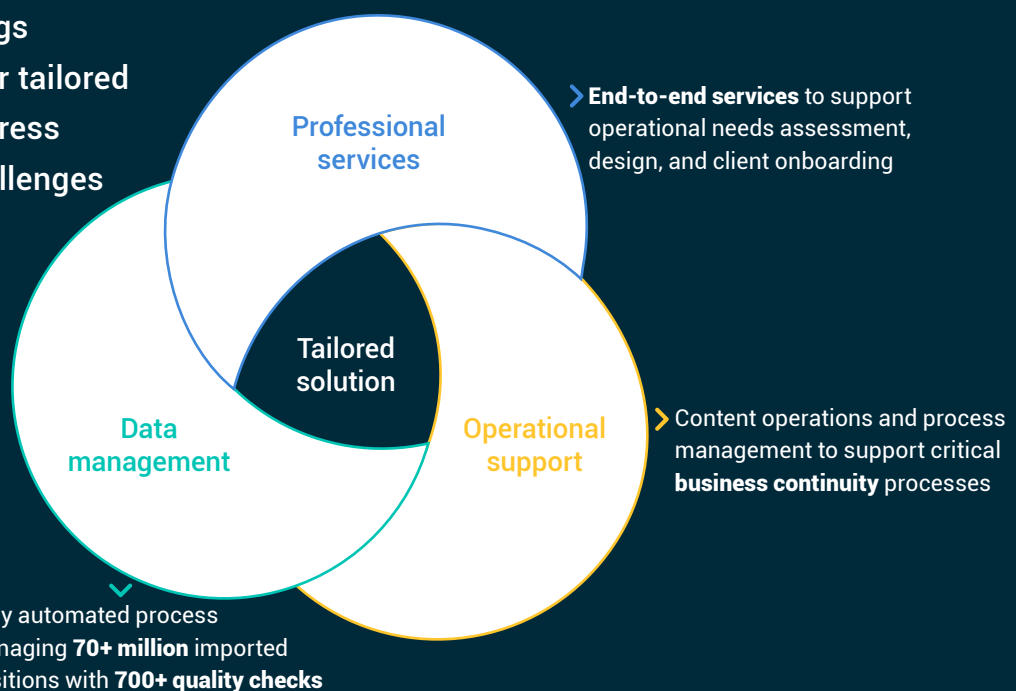
Technology investments can include data infrastructure, public and private cloud deployment, APIs, high performance computing, data strategy, system design.

Operational investments may include data management, system consolidation, workflow automation and operational assessment.

To succeed, firms need a partner with experience and expertise in both domains: MSCI.

Facing a transformative moment, the buy-side must find ways to do more with less in order to compete effectively.

Three core offerings designed to deliver tailored solutions that address specific client challenges



Make better decisions faster

Buy-side firms often need more than what off-the-shelf products can deliver. But few providers offer true customization. MSCI Enterprise Services and Solutions seeks to change this, combining three core offerings in tailored solutions to help you solve complex operational challenges.

What sets MSCI apart?

MSCI Enterprise Services and Solutions occupy a unique niche in our industry, delivering three big advantages rarely seen together.

FLEXIBLE TECHNOLOGY

Open-architecture solutions connect with virtually any data, systems, and workflows

- Seamless integration with client-side applications
- In-memory analytics deliver granular analysis for high-volume needs
- Address complex portfolio processing needs on shorter timeframes

SPECIALIZED EXPERTISE

Experienced experts help you implement our content and tools to meet unique needs

- Personal support and training designed to ensure our applications and solutions meet your needs
- Hands-on project management and process monitoring at each stage of implementation or ongoing operational support

ACTIONABLE SOLUTIONS

Tailored solutions designed to help you be more efficient

- Add custom reports, granular portfolio analysis, or additional processing capacity
- End-to-end onboarding for portfolio migration and other capabilities
- Custom processes to accommodate a wider range of needs with a centralized system

CRITICAL BENEFITS

Lower total costs

By combining MSCI's content, technology and services, we can design a solution that can streamline your internal systems and processes.

Higher efficiency

Freeing your teams to focus on revenue- and growth-related tasks can help firms reallocate FTE positions to more strategic roles.

Greater total value

Combining MSCI's industry-leading content with our technology and enterprise services and solutions that can help you tackle your most complex analytical and operational challenges.

More flexibility

Working with MSCI lets you implement a truly customized solution while retaining the ability to make future changes as your needs evolve.

Better informed decisions, faster

Using trusted data for multiple enterprise applications enables you to reduce redundant processes, improve consistency, and accelerate decision-making.

Data management

Gain an unparalleled ability to handle complex, integrated, high-volume workflows.

Data management is a core strength of MSCI, enabling our team to collect virtually any mix of data, process it according to your needs, and deliver it wherever it needs to go.



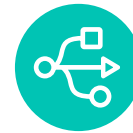
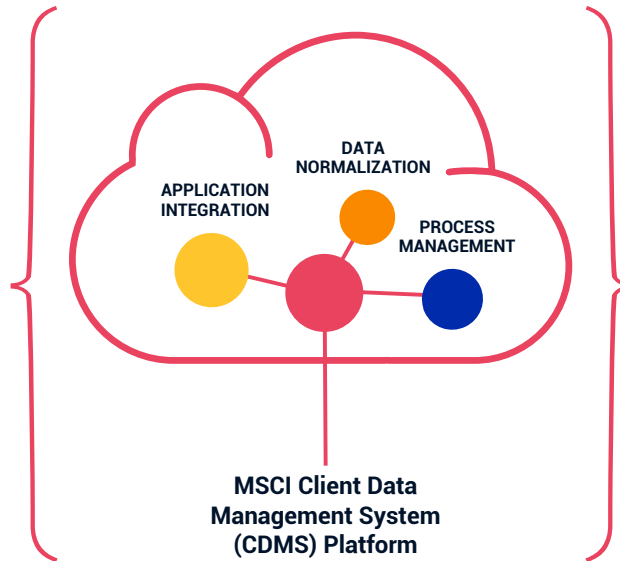
Client data

- Custodians
- Administrators
- Managers
- Transaction data
- Holdings data



Market data

- Benchmarks
- Terms and conditions
- Prices
- Derived data



Flexible delivery channels

- MSCI applications
- Third-party applications
- Customized APIs
- Flat files

At every stage of this four-step process, our experts integrate portfolio and market data accurately and efficiently. Essentially, MSCI can provide tailored data management solutions for every stage of workflow, enabling buy-side firms to optimize the entire data universe.

ACQUISITION



Client Data

- +70M client positions/transactions
- +109 custodian/fund admin feeds

Market Data

- +325K benchmarks from 78 vendors
- +22.2M instruments
- +290K ETFs, mutual funds



NORMALIZATION



All data standardized to form one integrated data set within a unified structure

DISTRIBUTION



High-quality data feeds MSCI analytics, client applications and data warehouses



QUALITY ASSURANCE

Fully automated process runs +700 checks daily with an expanding set of diagnostic tools



Key benefits

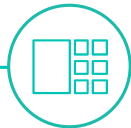
Data management solutions help firms spend less time on data—and more time protecting margins.



CAPTURE
detailed information across the multi-asset spectrum



INTERFACE
with more than 145 institutional custodians, fund administrators, and futures brokers



INTEGRATE
portfolio, benchmark, and market data into a single resource for reporting, analytics and research



CONNECT
to all major market, holdings and transactions data sources



PREPARE
data once and use it in any MSCI service or internal process



LEVERAGE
more than 20 years of MSCI experience

- Capture detailed information across the multi-asset spectrum
- Interface with more than 145 institutional custodians, fund administrators, and futures brokers

- Connect to all major market, holdings and transactions data sources
- Integrate portfolio, benchmark, and market data into a single resource for reporting, analytics and research

- Prepare data once and use it in any MSCI service or internal process
- Leverage more than 20 years of MSCI experience

Professional services

Leverage our expertise and focus internal resources on revenue generation



NEEDS ASSESSMENT

Deep dive to identify how best to address pain points and streamline operations.

- Evaluate operations holistically to find gaps and opportunities
- Assess new and proven opportunities for improving data strategy
- Understand tradeoffs between cloud computing and on-prem solutions
- Improve efficiency and total cost of ownership (TCO) over time
- Proof of concept

ONBOARDING

Achieve peak efficiency faster with expert setup, installation, and integration.

- Project management: scope, launch, training, documentation, and more
- Workflow automation, including data input and high-volume report generation
- Business process analysis to determine ideal form/timing of output
- Data analysis: asset class modeling, system diagnostics, proxy rule implementation
- Transition from implementation to live operation

STAFF EXTENSION

MSCI operational staff joins your team on-site to solve operational needs.

- Technical and functional expertise to support ad-hoc risk analysis
- Integration of MSCI analytics with third-party and internal systems
- Management of additional data- or risk-related projects

Operational support

Complement enriched data and analytics with continuous, automated vetting.

MSCI offers a rules-based data correction framework that enables reconciliation of asset and portfolio valuation as well as time-dimensional analytics monitoring.

MARKET VALUE VERIFICATION AND ANALYTICS VALIDATION

Ensure that you are always working off of the highest information.

- Run data feeds through holdings-level reconciliation
- Highlight coverage of holdings and market value
- Run reports for every input source and aggregate results
- Examine all material market value differences compared to MSCI sources
- Monitor changes in risk statistics with respect to the last reporting cycle
- Ensure analytics meet expectations

- Investigate breaches to report the likely cause
- Correct data issues that compromise analytical quality
- Explain breaches to avoid recurrence

REJECTED ASSET REMEDIATION

Understand the rationale for rejection and resolve issues faster.

- Proxy-to-cash (automated): Rejected positions replaced with cash equivalent to market value
- Rule-based proxy (automated): Rejected asset types are covered according to preset rules
- User-asset modeling (manual): Firm establishes specific criteria

Process Management

Trust our specialists to oversee processes and maintain business continuity.

- Process monitoring, disaster recovery, user acceptance environment included as standard service
- 24/7 availability
- Process 70 million imported positions daily
- Process 1 trillion asset valuations daily

BENEFITS FOR THE BUY-SIDE

Operational support gives firms confidence in the quality of analytics without the need to build an in-house team. This frees the middle office to focus on the “why” rather than the “how” of analytics results.

- Offload the work of integrating portfolios with MSCI analytics
- Maintain risk and performance data flows in a cost-effective, scalable way
- Allocate back-office resources to high-value projects, such as scaling up internal systems
- Validate portfolio models with confidence
- Ensure inputs to analytics are accurate





Call us or visit our website at [msci.com/servicesandsolutions](https://www.msci.com/servicesandsolutions)

Americas +1 888 588 4567
EMEA +44 20 7618 2222
Asia Pacific +852 2844 9333

About MSCI Inc.

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com.

The information contained herein (the "Information") may not be reproduced or disseminated in whole or in part without prior written permission from MSCI. The Information may not be used to verify or correct other data, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information or MSCI index or other product or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information or any MSCI index is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, AN "MSCI PARTY") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE MSCI PARTIES HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited.

©2019 MSCI Inc. All rights reserved | CBR0719