

>> **Whitepaper**

The Age of Agile Solutions

Creating Interconnected Ecosystems

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Executive Summary

How quickly can your organization adapt its systems to confidently respond to a revenue-generating idea or a shift in business growth strategy?

With challenging market conditions and a continued focus on cost cutting, technology teams are under increasing pressure to meet the business demands of an ever-changing market and regulatory conditions. These changes require a rapid response and specific solutions to help meet business demands and capture growth opportunities. The pressure on margins and shifting investor preferences has resulted in firms increasingly changing gear, examining new business opportunities, markets and product areas in search of alpha.

A *WatersTechnology* survey of senior business professionals revealed that 52 percent feel it is “extremely important” for their organization to deliver solutions quickly in response to new business needs, but only 7.1 percent felt “very good” about their organization’s ability to do so. This raises questions around whether financial services firms are fully embracing the latest technologies—or whether they continue to lag behind other industries, despite the extreme pressure they face to stay ahead of the curve and grow their bottom lines.

To navigate today’s environment successfully, firms must adapt quickly. But change almost always comes with significant operational challenges—implementing new systems to improve efficiency and support revenue-generating strategies is not an easy proposition. The nature of financial markets, however, means that a speedy turnaround is expected from all involved. To react rapidly and with confidence, IT and business sponsors must focus on creating an infrastructure that allows for easy integration and fast implementation cycles.

Firms will need to optimize their operations, and the move towards leveraging alternative operating models such as managed services and component outsourcing is expected to continue. The rapid rise of robotic process automation is helping firms improve efficiencies and reduce risk, while artificial intelligence is next in line to further optimize and unlock innovation for financial services. To achieve this, there is an imminent need for interconnected ecosystems—agile solutions that are fit to meet the growing demands of the front office and the evolving needs of the business.

Technology and Services to Unlock Opportunities

As investment in modernizing financial services systems and operations has increased in recent times, the nature of projects themselves has begun to change. In the past there was a preference to build internally or source large-scale platforms designed to serve front- to back-office requirements, eliminating the need to integrate multiple solutions. Now, technological advances mean users should be able to demand more from the technology supporting their business needs and helping their organization remain competitive. In addition, the rise of managed services also highlights a desire to further operational capabilities and leverage the expertise and efficiencies available in today's market.

The *WatersTechnology* survey, polling senior professionals from banks, asset managers, hedge funds and insurance companies, revealed that almost 42 percent of firms now have 10 or more systems supporting order management, reconciliation, performance measurement, risk, collateral management, investment accounting, record keeping, data management and reporting (see **Figure 1**).

The majority of the survey's respondents say that one solution could not meet all business needs, and two-thirds of the firms already using 10 or more systems say they need multiple systems to support their front, middle and back offices globally. This may indicate that smaller organizations managing one asset class could potentially make do with one system. Yet the majority of more complex operations require a multitude of solutions to meet all of their business requirements, underlining the need for agile and scalable technology systems designed to facilitate easy integration of preferred applications.

With this in mind, it is no surprise that the integration and compatibility of preferred systems is a top concern for firms when meeting changing business needs (44.9 percent) (see **Figure 2**). To support the business, it is paramount for the front office to remain strong—it is no secret that sales and trading have a lot of influence in keeping preferred applications in place and dictating the choice of solutions.

Figure 1: How many systems does your organization have to support the investment process?

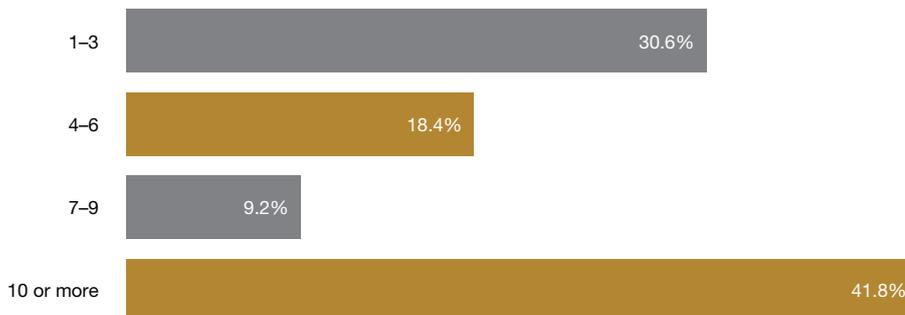
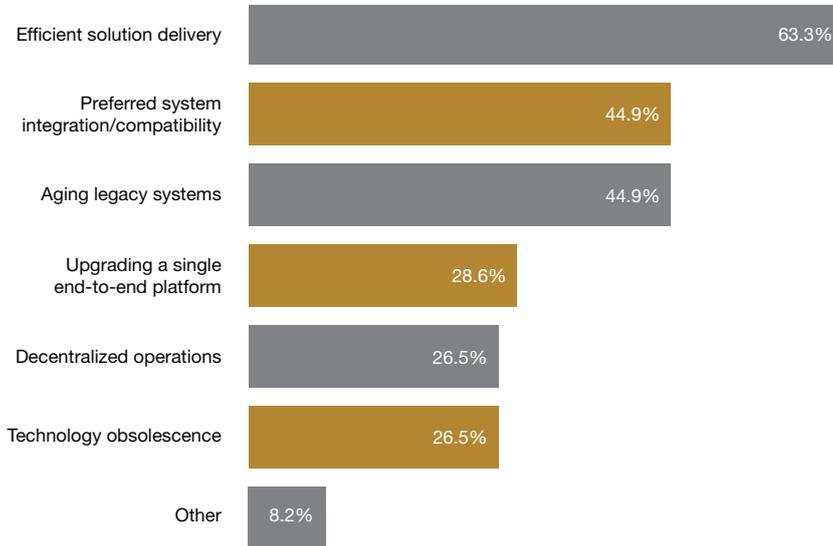


Figure 2: What are your concerns from a data and technology perspective when it comes to meeting the changing needs of the business?



Respondents were invited to select more than one answer

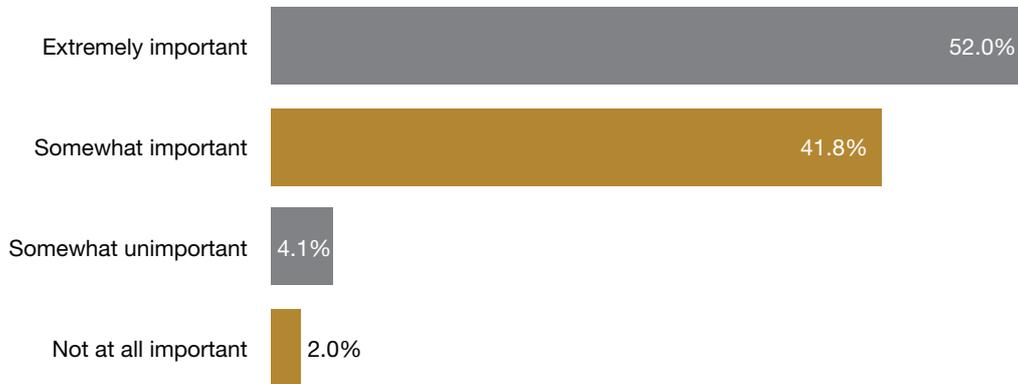
These users’ preferred capabilities may lead technology teams to implement additional solutions that could, for example, include different trading platforms best suited for specific asset classes.

An even greater priority for firms is efficient solution delivery, which continues to be a significant driver for technology investments. More than 60 percent say efficient solution delivery is a concern from a data and technology perspective when meeting the changing needs of the business. This further emphasizes the ever-growing requirement for firms to be agile enough to efficiently leverage new opportunities, maximize profits or make immediate savings.

A major obstacle in supporting changing business needs is aging legacy systems—which the survey reveals is a concern for 44.9 percent of respondents. Legacy IT infrastructures are burdening investment managers, as outdated systems hinder firms’ abilities to improve their operations, increase efficiency and respond to growth opportunities. The operational inefficiencies that legacy systems cause may delay client onboarding, the launch of new products and entry into new global markets, resulting in potential missed revenue for the business, as well as an inability to meet changing regulatory demands.

The pressure is on for technology teams to deliver exactly what their business wants, when it wants it. Today’s fast-paced, high-pressure environment means expectations are high for technology to aid in transformation and enable business

Figure 3: How important is it for your organization to be able to deliver solutions quickly to respond to new business needs?



strategies. In terms of timeliness, an overwhelming majority (93.8 percent) say it is extremely or somewhat important to be able to deliver solutions quickly to respond to new business needs (see Figure 3).

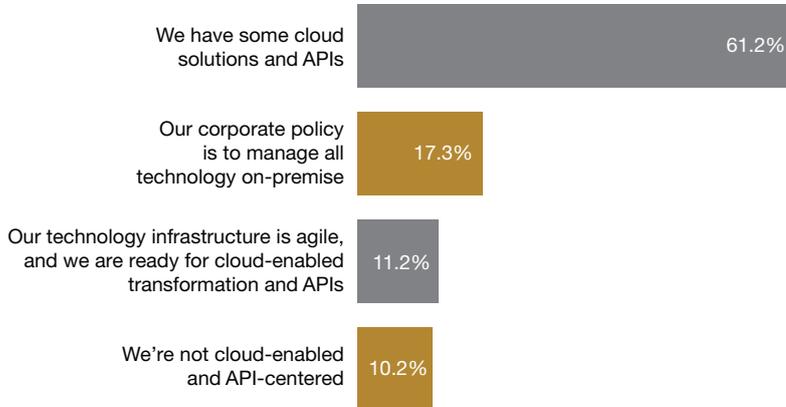
For this to happen, there must be a foundation in place—starting with a robust data management platform for cleansing, standardizing and centralizing data sources. In addition to getting the data right, it is important to look at the technology architecture and ensure that it is open-ended to facilitate an agile and flexible environment. The next step would then be to assess the organization’s ability to leverage application programming interfaces (APIs) and cloud solutions to ensure the business is taking advantage of new technology that can unlock opportunities.

Cloud Technology and APIs

In recent years the rise of the public cloud has enabled much innovation and had an impact on all areas of consumer technology. At the same time, financial services firms are widely adopting private clouds and are beginning to leverage public cloud computing for non-critical applications. By utilizing cloud technology and APIs, firms can use preferred solutions to support the investment process where needed, and thus expect greater flexibility in the future.

For Eagle Investment Systems, continuously evolving and adapting the latest technological trends was the background to last year’s announcement regarding the future vision for its cloud-native deployment model transformation. Eagle has added key talent to make changes to its technology platform and plans to soon publish its data-service layer exposed through RESTful APIs.

Figure 4: To what extent are you using cloud-based services and APIs to support the investment processes?



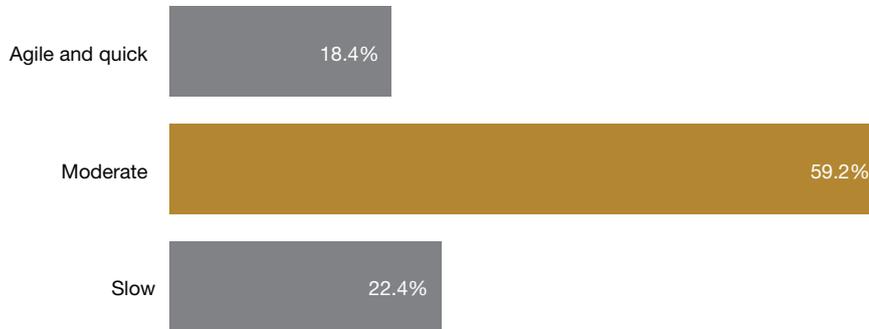
So far, however, the financial industry has been slow to adapt to new technologies—only 11.2 percent of survey respondents say their technology infrastructure is agile and that they are ready for cloud-enabled transformation and APIs, while 17.3 percent say the corporate policy is to manage all technology on-premise (see Figure 4).

As technology evolves and the industry becomes increasingly comfortable with new technology and cloud solutions, attitudes are changing. For example, market participants now understand that it makes more financial sense for data centers to run in the cloud—and they now typically expect firms to recognize the benefits of implementing scalable and flexible solutions to stay ahead of the competition.

In addition to the financial reasons for utilizing new technology, firms that have embraced the cloud are also seen—by clients and stakeholders alike—as being more agile and quicker to respond to changing business demands. More than 80 percent of survey respondents describe their ability to respond to business demands as “slow” or “moderate”. In fact, only 18.4 percent say their organizations are quick and agile when it comes to responding to change. This inability to move quickly can hinder a firm’s ability to both capitalize on growth opportunities and meet deadlines for implementing regulatory changes (see Figure 5).

Currently, many of the organizations that describe themselves as agile are the ones that appear to be leading the technology race. The survey shows that close to 40 percent of firms already utilizing the cloud say their IT organizations can be agile and quick when responding to new business demands and opportunities. Having a good technology platform with strong data management in place allows organizations to move faster and rely on a more service-based architecture, leveraging forward-looking applications. With the right foundation, firms can integrate with third parties and create a seamless experience for end users to bring additional business value and support business challenges.

Figure 5: What is the ability of your IT organization respond to new business opportunities or business demands?

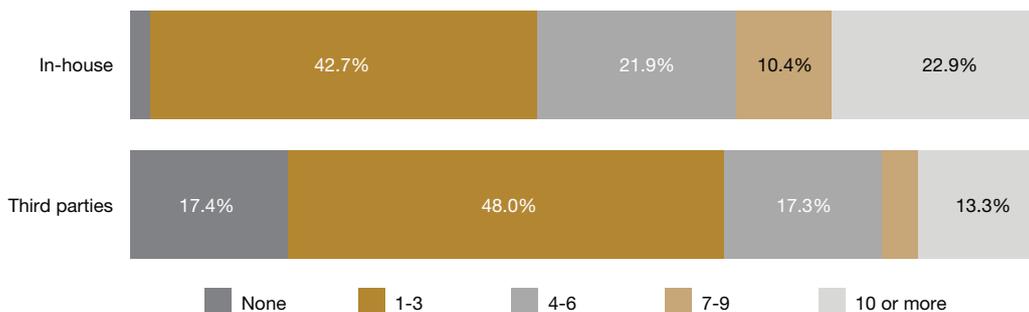


Transforming Technology and Operations

In recent years, many companies have undergone a transformation in response to market changes where margins are tightened and costs are constantly under review. Compliance teams have been ramped up to deal with the wave of new regulatory requirements, and the value of agile technology and centralized data systems has been highlighted further by a constant need for change.

This changing environment has also decreased the appetite for owning technology—in many cases, firms look for vendors to not only host the software but also provide additional services. In one example of a transformation project, a company chose Eagle based on not only its data management system but also its ability to offer a managed service that provides a cost-efficient and data-centric solution, improving consistency and transparency. This interest in leveraging alternative operating models—such as managed services—was reflected in the *WatersTechnology* survey, with more than 13 percent of respondents saying they outsource 10 or more of the processes that support the investment side of their business, and 48 percent saying they outsource one to three of those processes (see **Figure 6**).

Figure 6: How many processes are operated in-house (on-premise or cloud-based) and how many are outsourced?

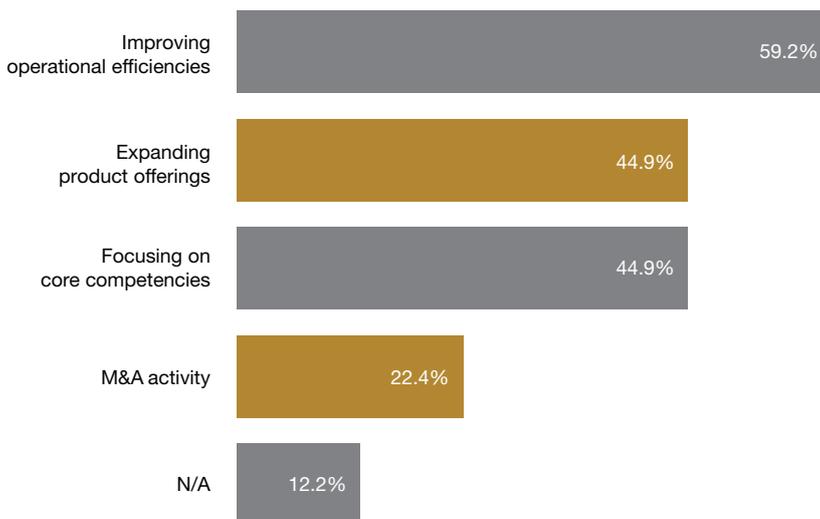


The focus on exploring and implementing alternative operating models is driven by the need for agile technology and processes. To protect revenue streams and grow the bottom line, firms have been under pressure to take on new directives. According to the survey, 44.9 percent of firms are expanding product offerings to fuel growth in the challenging market environment. Many firms that used to be purely equity shops are now moving into fixed income and alternatives, for example. This expansion into new asset classes or product types has increased pressure on data and technology teams to source new data and deliver new capabilities to support the business. In fact, whenever product offerings expand, new business requirements for data and technology systems arise (see Figure 7).

Still, the most popular method of supporting growth in the current environment is improving operational efficiencies (59.2 percent). Firms are rolling out new technologies and innovative solutions, which in turn can allow their businesses to grow. Eagle has announced several transformative projects with large-scale global clients in 2017. Many of these organizations have selected Eagle as part of an operational transformation project to improve the transparency, quality and ownership of their investment data. A growing number of asset managers are now focusing on improving operational efficiencies—a trend fueled by growing market diversification and expansion into different product ranges.

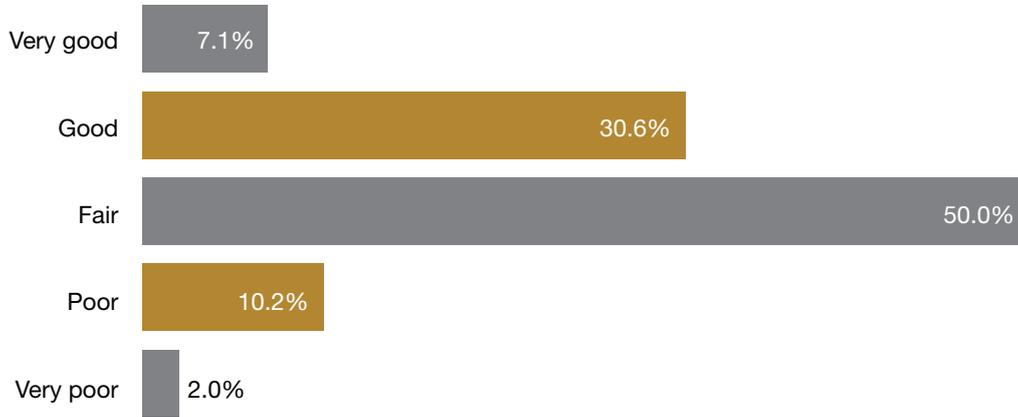
The concern, however, is that the ability to introduce solutions to meet these evolving business strategies remains limited. In the survey, only 7.1 percent of respondents described their ability to introduce new solutions as “very good”. As financial services firms are constantly being forced to change gear to stay ahead of

Figure 7: How is your organization fueling growth in a challenging market environment?



Respondents were invited to select more than one answer

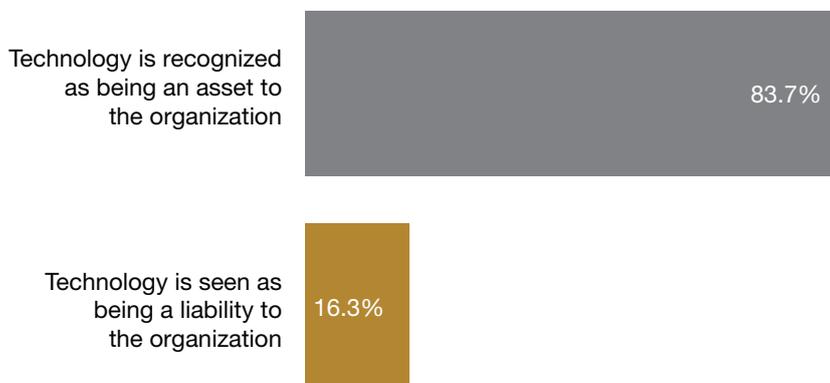
Figure 8: How would you rate your ability to introduce new solutions to meet these evolving business strategies?



the competition and maximize profits, this low figure underlines how important it is that firms evaluate their data practices, architecture and technology to ensure the foundation is in place to meet business expectations (see **Figure 8**).

The good news is that this is becoming a top priority for firms. It is widely recognized that a robust data governance framework and standardized data practices underpin the technology, and that having an agile platform to leverage new technology can have a significant impact on business growth. Whereas technology may previously have been an afterthought, it is now very much at the forefront of discussions around optimizing business processes. In fact, 83.7 percent of respondents say technology is recognized as an asset to their organization, which underlines how essential technology is for solving business challenges and supporting growth (see **Figure 9**).

Figure 9: How does your organization perceive technology?



Conclusion

In recent years, extreme cost pressures and tighter margins have created a springboard for business transformation programs. Technology teams remain under intense pressure to respond to changing requirements within what may often seem like unrealistic time frames—with no sign of this fast-paced and high-pressured environment abating anytime soon. Investing in a robust data management framework and embracing new technologies and service models will enable organizations to be quick and agile in responding to changing business demands.

The ability to efficiently deliver solutions is crucial, and with a data platform as a foundation to enable an interconnected ecosystem, IT would be in a stronger position to enable the business to plug into preferred systems and meet high expectations from the revenue-generating side of the business.

For vendors supporting financial services firms, the trend of open architectures and simplified integration will result in increased opportunities for alliances. Firms are seeking vendors that will prioritize these alliances—to work together to facilitate efficient implementation of systems that enable firms to take the components needed from different vendors and integrate preferred solutions into an interconnected ecosystem. By working together, the vision of a macro platform to underpin operations in financial services can become a reality, and the focus for vendors can turn to delivering micro experiences that empower users to generate more value from their technology.

The challenge for technology teams that have realized their firms need to be more agile is to assess what is necessary to achieve this. It will most likely involve a robust data platform capable of leveraging APIs that enable systems to communicate, and make the most of cloud technology to allow for a flexible and scalable operating environment.

Financial markets never sleep—and the technological innovation that supports those markets is also alive and moving at an exponential rate.

Survey Metrics

- Fifty-one percent of individuals surveyed said their organization relies on seven or more systems to meet their investment process.
- Though 61 percent of respondents stated their organization utilizes some cloud solutions and APIs, only 11 percent described their technology as agile and ready for cloud-enabled transformation.
- To fuel growth in today's challenging market, 60 percent of organizations are looking to improve operational efficiency, while 45 percent responded that they are expanding product offerings or focusing on core competencies.
- Sixty-two percent of those surveyed described their ability to introduce new solutions to meet evolving business strategies as “fair”, “poor” or “very poor”.

About Eagle Investment Systems

Eagle Investment Systems, a BNY Mellon company, is committed to helping financial institutions worldwide grow assets efficiently with its innovative portfolio management suite of data management, investment accounting and performance measurement solutions that are delivered over its secure private cloud, Eagle ACCESSSM. Eagle deploys trusted solutions and services that create operational efficiencies and help reduce complexity and risk. In addition to the cloud solutions, Eagle's Managed Services offering helps deliver enriched and ready-for-use investment data. Eagle Investment Systems' integrated technology, products and services help our clients to grow their assets efficiently and effectively.



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