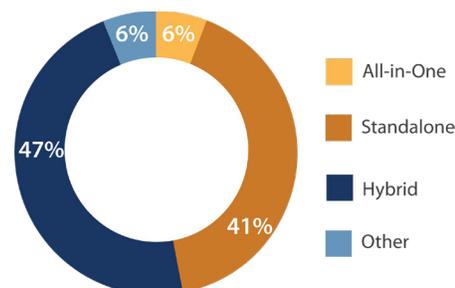


# Integration Matters

Investment management firms operate multiple systems to support their front, middle, and back offices. We know from our recent studies that very few CutterResearch member firms use all-in-one, front-to-back solutions exclusively. Most employ either separate standalone solutions for individual functions, or a hybrid approach using an all-in-one solution for most functions, supplemented by standalone systems for the remaining functions.

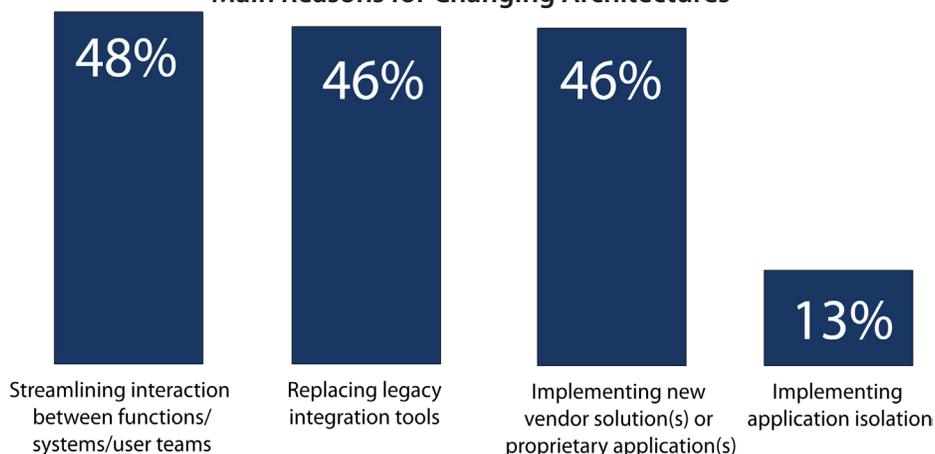
Investment Management Firms' Preferred Strategies



Source: CutterResearch Member Survey, August 2018

Whatever the mix of systems, it typically includes legacy applications tightly connected to other systems using multiple point-to-point interfaces. Replacing or upgrading a system connected this way can be expensive and risky, due to the potential impacts on other systems. Inflexible architecture was the integration challenge cited most frequently in a recent survey of CutterResearch member firms. The same survey found that 81% of firms have either recently changed their systems or data architecture or are planning to do so, with 48% citing the desire to streamline interactions between systems as a driver.

Main Reasons for Changing Architectures



Source: CutterResearch Member Survey, August 2018

## Data Hubs and Integration Layers

To ensure that accurate data is available where and when it's needed, an efficient integration strategy and a sound data architecture are critical. In a recent CutterBenchmarking study, more than 80% of participants indicated that they use a data hub, often at the center of a data-centric architecture. The principles behind this approach coincide with many of the principles of good data governance, such as identifying a single master source for key data, avoiding data duplication, and providing governed access points for data. This approach improves data traceability, clarifies data lineage, and simplifies integration architecture.

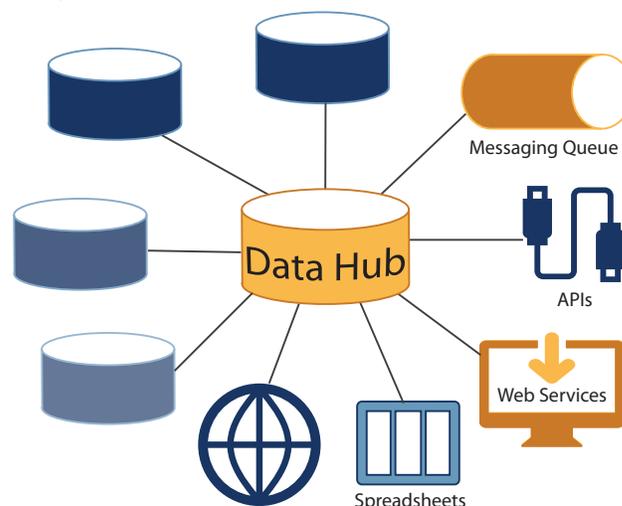
Some investment management firms are also implementing an integration layer, which further reduces the need for tight connections and isolates applications from one another. When an application is installed or upgraded in an architecture with an integration layer, the impact on other systems is minimized, along with the need for regression testing. Case studies in our recent CutterResearch report on *Integrating Investment Systems* demonstrate that the benefits of these strategies include faster, less costly system development, implementation, and upgrades.

## Technology Developments

Investment management firms are taking advantage of developments in integration technology that support more flexible data architectures and more streamlined integrations. These include APIs and integration platform-as-a-service (iPaaS). New integration solutions are increasingly required as firms move away from installed solutions to hosted solutions and cloud deployment.

Both new and established providers now offer an array of integration solutions, many are available for deployment on-premise and in the cloud. Functionality can include multiple facilities such as managed file transfer, API management, metadata tools, and in some cases data virtualization. Investment managers are capitalizing on the expanding availability of vendor offerings by replacing legacy integration tools, whether pure integration products or those bundled with database management systems or enterprise data management (EDM) solutions.

## Typical Data Hub Architecture



## Data Governance and Management

The goals of data architecture and integration align closely with those of data governance and management—ensuring that business users have ready access to the data they need, and confidence in its accuracy. So it's no coincidence that firms have made significant progress in data governance as they upgrade their data architecture.

Integration technology, when it works well, should be invisible to business users. Poor integration can lead to inefficient data flows and delays in delivering data from the source to the consumer. Data consumers frustrated by having to wait for authorized data find ways to work around the problem, including downloading data from familiar but unauthorized sources. But workarounds can also be inefficient, and they introduce operational risk from potentially inconsistent, incorrect, or incomplete data.

CutterConsulting's best practices for data management are built on the four cornerstones of governance, stewardship, delivery, and architecture, with architecture considerations including data quality, storage, and integration. A lot to think about, but the result provides data consumers across the organization with ready access to the data they need, and reduces the risks associated with using data from unapproved sources.

### Data Governance

Good practice includes policies such as:

- Avoid data duplication
- Retire redundant data
- Identify master data sources
- Always consume data from the authorized source for that data type
- Provide governed access points for data

## Challenges Remain

Redesigning data flows and replacing old connections can't be done quickly or easily. And some data and integration improvements are beyond investment managers' control, including a lack of industry standards for some types of data as well as legacy vendor applications with inflexible interfaces.

But investment managers are steadily progressing toward information-centric architectures and adopting newer integration approaches, including APIs and integration layers. And software vendors serving the asset management industry have turned their attention to adding APIs and simplifying integration with their products, in fact some see this as necessary if they are to avoid losing business to the vendors of all-in-one solutions. Asset management firms that have upgraded their architecture and streamlined their integrations are already reaping considerable benefits.

## About the Author



### *Judy Blackwell, Director, CutterResearch*

Judy Blackwell has more than 30 years of information technology experience within the investment management industry. She joined Cutter Associates in 2006 and has worked as part of CutterResearch since 2007. Prior to joining Cutter Associates, Judy worked for a number of investment management firms as a consultant and in project management roles. Her experience includes IT strategy, technology outsourcing, and business process outsourcing programs. She has experience in institutional asset management, as well as retail and private client business, and has managed large-scale projects developing and implementing front and back office systems.