

M&A: Leveraging Composite Applications to Drive Merger Integration Strategy

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To many economists, 2010 looked like the year when mergers and acquisitions (M&A) would pick up again on Wall Street. However, lackluster employment, consumer spending and credit availability have contributed to less M&A than anticipated for the first half of 2010. Yet, it is only a matter of time before M&A becomes the centerpiece of corporate growth strategies again as pent-up demand appears to exist. Any cash that has been conservatively squirreled away over the past few years of turmoil and uncertainty – think about Apple’s \$42-plus billion in cash – will likely push companies to increase value to their shareholders who have largely been dissatisfied with returns during this time.

It is an understatement to say that for financial services companies, this is a very interesting time. The events that have unfolded since late 2008 will likely yield a new Wall Street – what some are calling Wall Street 2.0. Financial reform has taken on renewed importance on Capital Hill. In an effort to pay off the US government bailout money, financial services companies are being forced to sell off pieces of their business. All of these elements appear to be setting the stage for another big push on the M&A front – or quite possibly for a reverse M&A cycle as companies may be forced to sell units that they would have otherwise kept in order to diversify their portfolio of businesses. Citi selling Smith Barney, their crown jewel, to Morgan Stanley and AIG closing their financial services division are just two examples of many.

Having been part of one of the largest bank mergers to take place in the past 10 years and having worked with clients for many years as they experience mergers and dissolutions, I admit this is complicated work. The value of mergers and acquisitions needs to be realized quickly or the market begins to lose faith and faith is in especially short supply in 2010. Unfortunately, the typical integration process is slow and the markets are not characteristically patient. When it comes to technology in M&A, integration is extremely important to the business and again it is usually very slow to take place. Businesses are complicated and therefore the technology that supports them is complex especially given the intricacy and size of many mergers. Just as important as technology in the integration process is the user experience. Clients of companies undergoing the M&A process often have horribly fragmented experiences leaving them dissatisfied with the new entity.

Technology and the User Experience Challenge

Financial services companies have been investing heavily in technology to run their businesses since the advent of the computer and many such firms are early adopters when it comes to technology. Applications have been developed to manage every part of the business: risk management, trading,

reporting, securities lending, corporate action election, etc. Putting merger issues aside for a moment, most of these applications are accessed as separate and disconnected applications. The user experience is often fragmented or broken which makes it very difficult to accomplish specific business goals. User experience issues across many disparate, related applications are prevalent in most companies, but are especially exaggerated during and after mergers. This presents a unique opportunity, as companies are required to integrate the user experience across many applications as part of a merger.

The Technology Integration Process

Once a merger is announced, an integration team is established. Within the integration team, sub-teams are created for everything from process to people and technology. The job of the technology team is often to analyze the technology and application portfolio for each of the businesses being merged and decide which applications survive and which don't. Where applications overlap, one application will consume another or a best-of-breed approach is taken where components of applications are combined. It often takes significant time and money to combine applications into a best-of-breed application, however these applications that win out are not always the best solution for clients. This is challenging work that is frequently riddled with politics, and companies do the best they can to deliver client and shareholder value quickly and effectively. In extremely large mergers, the integration process can take years and quite commonly just when it appears that the work is complete, another business is acquired or a different business unit is sold, starting the cycle over again.

JP Morgan Chase illustrates the complexities that can be encountered by the technology integration team very clearly. In 2000, Chase merged with JP Morgan. Then in 2004, JP Morgan Chase merged with Bank One Corporation. The economic meltdown that began in 2008 added both Bear Sterns and Washington Mutual to the list of mergers. The diligence that JP Morgan Chase has in merger integration allowed them to absorb two additional companies over a six month period in 2008 – now that is competitive advantage that adds to shareholder value!

At Roundarch, it is our mantra to be “sitting on the same side of the table” as our clients. This often means owning the business problem along with our clients and recommending solutions that solve these problems even if they are incongruous to an existing strategy. We are not attempting to sell cookie cutter solutions that we have previously employed with other clients. Sure, there are strategies of an approach or solution that we may find more broadly applicable and recommend them time and again, but as I said before, merger integration is complicated stuff.

In our view, the common element often overlooked during these M&A technology integration conversations is the user experience. As expected, firms merging have to triage what they address first. Shareholder value is often created by addressing priority initiatives based upon cost savings – the king of all value propositions. After all, redundancy, diversification and larger market share are the real drivers behind the value of a merger and redundancies are usually addressed first as they are easily identified in overlapping applications that serve clients or employees. User experience is often addressed later.

How can merging companies execute on core technology integration while designing a differentiating user experience to drive shareholder value from the start? The answer is by building composite applications.

Solution: Composite applications

A composite application is an application that creates a new user interface layer while leaving most of the logic in the original application or service. In their simplest form, iFrames and application spawned windows which bring together different applications, can technically be considered composite applications, but they are not great individual solutions in many respects. On their own they are confusing and often take away from the user experience. At Roundarch we believe that composite applications leave data and processing logic in the underlying application (or sets of services) *while* integrating the user experience at the presentation layer. This is particularly useful during merger integration when time, cost and experience design are priorities.

Considering Search

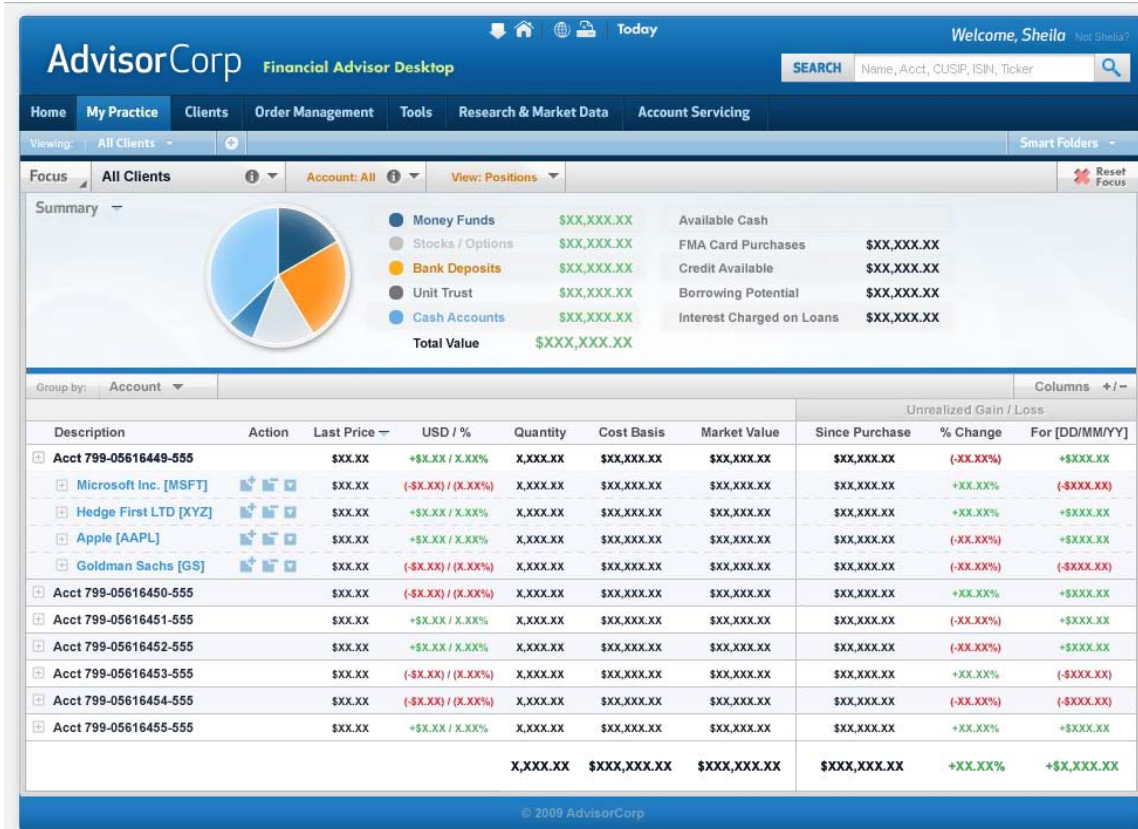
In a composite application this could mean executing search logic for each application and presenting the results in an integrated and more usable way. Any logic that executes across multiple back-end services or pulls data from multiple sources can be considered a composite application strategy. Roundarch has been successful at this integration technique not just for web applications but for client server applications as well. By using Merapi, our open source messaging bridge, we can easily integrate most client-side development (C, C++, Visual Basic, .NET/ C#) with a variety of Web technologies (Flex/Flash, AJAX, Silverlight). This allows our clients to focus their energy not on integrating underlying systems but on creating a single user interface. This strategy of employing composite applications aligns with the general goals of most mergers which are to reduce costs quickly while delivering a unique and differentiating experience to customers driven by the synergy of the merging entities.

To demonstrate the benefits of a composite application, Roundarch has designed a sample application based upon delivering similar solutions to financial advisors in the private wealth management space. The Advisor Corp demo conceptually delivers most of the key aspects of composite applications. Some of this is simply good design, but it is mostly about abstraction of various services that allows for developing an exceptional user experiences faster and cheaper.

1. *Rich, Consolidated and Intuitive:* Leveraging disparate services, data stores and existing application capabilities to form the building blocks of single composite view. The true power of the experience comes from bringing together all relevant information in a rich-enough way to keep users engaged and wanting to interact with the application, or, quite simply, making the application a joy to use while clearly being functionally relevant.

For example, in the Advisor Corp application, financial advisors are presented with a single view of their practice and all of the accounts within it. They can analyze holdings across the portfolio by

interacting with the pie chart, drilling into certain asset classes and cutting across views of holdings. They can also view more specific account holdings quickly by clicking to expand a client or individual account view. This snapshot of their practice provides a launching point from which they work.



2. **Contextualized and Actionable:** Delivering information and any possible actions in the context of the relevant information. Context is extremely important in the design of rich user experiences. It allows users to work in one place and not have to go to several applications to look-up related information or take action. Before rich applications, users had to navigate through a labyrinth of tools to complete a task and they would often lose their orientation. Composite applications, and quality, rich Internet application design in general, embed information and actions in the context of other related information to all contribute to a successful user experience and are equally important when creating truly immersive experiences.

If we refer to the previous example, financial advisors are able to take action on specific holdings within account views. They are able to look up the latest research related to this holding or trade the holding directly from the account view. They can also exercise larger trades on behalf of a group of clients if any external market risk or event is likely (i.e. short the financial sector as news of Bear Sterns liquidity surfaced in late 2008).

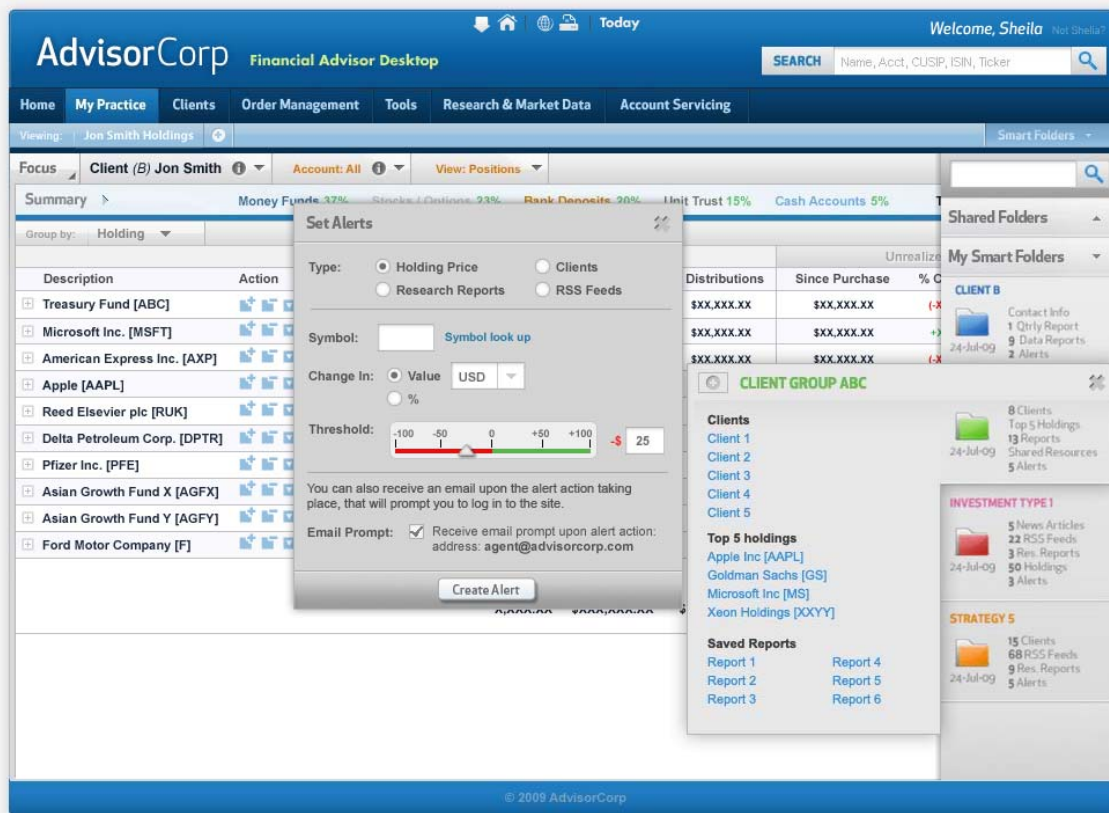
3. *Flexible and Customizable:* Allowing the user to control, filter and customize the experience based upon their needs and usage patterns. Customization is crucial due to the depth and breadth of the information being consolidated across many applications into a single view. Users need the ability to filter views and save frequently used views for future use. It is also a requirement for users to be able to set alerts based upon specific business rules so that they are proactively alerted to certain conditions or changes in information.

For example, in Advisor Corp, we allow financial advisors to filter information by client, account, asset class, sector, region, currency, and transaction date range. Filters can be applied throughout the day to allow the advisor to change focus as market opportunities present themselves over the course of the trading day.

The screenshot displays the AdvisorCorp Financial Advisor Desktop interface. At the top, there is a navigation bar with tabs for Home, My Practice, Clients, Order Management, Tools, Research & Market Data, and Account Servicing. A search bar is located on the right. Below the navigation bar, there are several filter sections: Client (All Clients), Account (All), View (Positions), Asset Class (Alt Investments, Cash Money Market, Equities, Fixed Income, Mutual Funds), Sector (Basic Materials, Consumer Goods, Financial, Healthcare, Industrial Goods, Services, Technology, Utilities), Region (United States), and Date (09/09/2009). A table of investments is shown below the filters, with columns for Description, Action, Last Price, USD / %, Quantity, Contributions, Distributions, Since Purchase, % Change, and For [DD/MM/YY].

Description	Action	Last Price	USD / %	Quantity	Contributions	Distributions	Since Purchase	% Change	For [DD/MM/YY]
Treasury Fund [ABC]		\$XX.XX	+\$X.XX / X.XX%	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	(-XX.XX%)	+\$XXX.XX
Microsoft Inc. [MSFT]		\$XX.XX	(\$X.XX) / (X.XX%)	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	+XX.XX%	+\$XXX.XX
American Express Inc. [AXP]		\$XX.XX	+\$X.XX / X.XX%	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	(-XX.XX%)	+\$XXX.XX
Apple [AAPL]		\$XX.XX	+\$X.XX / X.XX%	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	(-XX.XX%)	+\$XXX.XX
Reed Elsevier plc [RUK]		\$XX.XX	(\$X.XX) / (X.XX%)	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	+XX.XX%	(\$XXX.XX)
Delta Petroleum Corp. [DPTR]		\$XX.XX	(\$X.XX) / (X.XX%)	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	(-XX.XX%)	(\$XXX.XX)
Pfizer Inc. [PFE]		\$XX.XX	+\$X.XX / X.XX%	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	+XX.XX%	+\$XXX.XX
Asian Growth Fund X [AGFX]		\$XX.XX	(\$X.XX) / (X.XX%)	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	+XX.XX%	(\$XXX.XX)
Asian Growth Fund Y [AGFY]		\$XX.XX	+\$X.XX / X.XX%	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	+XX.XX%	+\$XXX.XX
Ford Motor Company [F]		\$XX.XX	+\$X.XX / X.XX%	X,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	\$XX,XXX.XX	+XX.XX%	+\$XXX.XX
				X,XXX.XX	\$XXX,XXX.XX	\$XXX,XXX.XX	\$XXX,XXX.XX	+XX.XX%	+\$X,XXX.XX

There are specific views that advisors tend to look at frequently and can be saved as views or folders and easily recalled when needed. This allows advisors to create portfolio or client group views across various sectors that may be in flux, allowing action to be taken should market conditions warrant. Alerts can also be set to draw the advisor's attention to conditions that have been met such as target prices reached, etc.



4. *Immersive Search*: Pushing a search beyond the traditional paradigm of a search box at the top of the page to something much more engaging and holistic. The search feature has traditionally been a simple keyword search and has become a way of navigating through complex sets of related information. Composite applications allow for searches across many sources and data stores to be brought together into a single interface. The search function will continue to get smarter as search results are calibrated to specific user actions as well as the actions of the user community as a whole.

For example, in our Advisor Corp demo, enhanced search allows advisors to search by typed account names, or those dragged and dropped onto the search control box to receive a variety of results based upon the account name. Search results are summarized across a variety of information like holdings, reports or statements, news and research, and any smart folder in which the account participates. Essentially, search becomes another way of navigating the large amount of information related to the advisor's portfolio without the traditional limits of a linear, single faceted search.



Much of the discussion to this point has been about composite applications delivered through a web browser. It is also easy to envision how composite applications also make good business sense on other platforms like touchscreen devices and the iPad. The same benefits are achieved as through those that are built on the web – it is simply a different form factor. Roundarch has developed touchscreen applications for clients that leverage the same core strategy as web-based composite applications. Touchscreen dashboards have various uses and are the ideal interface to visualize massive amounts of data from disparate applications in an immersive and interactive way.

Smart phones were just the beginning and more recently Apple’s iPad has delivered on the long standing hope of a mass market touchscreen device. Furthermore, iPad applications resemble web applications to a large degree and offer a unique set of design opportunities to really raise the bar on immersive user experiences. Companies are still exploring the use of the iPad and applications are just beginning to take form. eTrade was ahead of the curve having debut a robust application the day the iPad was released which allows clients to manage their individual portfolios. Based on how quickly this application was delivered, it is safe to assume that this was also a composite application strategy.

Given the volume of the “too big to fail” rhetoric on Capital Hill, it is important to note that the composite application strategy makes it easier for Wall Street firms to sell off units since the underlying systems are loosely coupled. A business unit sale would involve some disconnection of services and

tweaking of the front-end interface and not likely take as long as other, more complex, disassembling that fully integrated systems would require. Government oversight and increased focus on risk reduction could force the issue further.

Composite applications are a good idea even outside a merger environment, but they definitely shine during M&A helping to deliver the merger goals quickly while improving the overall user experience, which should ultimately translate into increased shareholder value. It's important to remember that the basic premise of a merger is the ability to leverage - the old adage of $1 + 1 = > 2$ should hold true. Often in these situations, so much time and effort is spent rationalizing applications that value is diminished leaving both shareholders and clients disappointed. Composite applications allow firms to leverage past investments while rationalizing redundancies and deliver a rich, cohesive user experience that clients are increasingly coming to expect in this progressively competitive environment.