



# CLOSING THE E-DELIVERY GAP

## CONTENTS

CLOSING THE E-DELIVERY GAP .....	1
SURVEY FINDINGS .....	3
ANALYSIS AND INTERPRETATION OF THE SURVEY DATA .....	9
SUMMARY RECOMMENDATIONS .....	13

In 2013, Pershing, a BNY Mellon company, commissioned Beacon Strategies, LLC to examine current trends around investor communication methods and to provide actionable data to help executives close the gap between current metrics and expectations for e-delivery adoption.

This whitepaper, *Closing the e-Delivery Gap*, is authored by Beacon Strategies, a strategy and tactical consulting firm that focuses on the broker-dealer market.

We live in a world of integrated technologies and online interaction. Yet, even in the Internet Age, a majority of U.S. investors receive hefty stacks of paper from their financial organizations, most of which is still delivered by “snail mail.”

Interestingly, we have Congress to thank for this—at least in part. In 1934, Congress created the Securities Exchange Act of 1934, requiring public companies to send regular reports to investors. Then, in 1940, the Investment Company Act was passed, mandating mutual fund prospectuses and periodic reporting to investors. But while the rest of the world turns eagerly to electronic media, the securities industry continues to fill mailboxes with paper, instead of embracing technologies that would make communicating with investors and complying with regulations more efficient.

The term “electronic delivery” (e-delivery) embodies a range of technologies that enable paper-and-ink documents to be replaced by electronic transmissions.

However, the slow adoption of e-delivery is well known and of clear concern to most custodians and financial organizations. In designing our *2013 e-Delivery Survey*, Beacon Strategies has focused on developing useful, actionable data and analysis that can help executives begin to close the “e-delivery gap.”

We can measure this gap by comparing the industry’s current reality to its expectations for e-delivery adoption. We also can contrast retail financial advisory services with the rapid pace of e-delivery adoption in other industries and applications. For example:

- › **Tax returns**—In June of this year, the Electronic Tax Administration Advisory Committee projected that 82.3% of individual taxpayers would e-file their returns in 2013.<sup>1</sup> In 2010, the IRS announced that it would no longer mail paper tax forms, but rather would make them available exclusively in electronic formats online. This move has saved the agency an estimated \$10 million per year.<sup>2</sup>
- › **Health records**—The percentage of family physicians (frontline health service providers at the community level) that have adopted Electronic Medical Records systems is projected to reach 70% in 2013—up from 20% in 2008, according to the *Annals of Family Medicine*.<sup>3</sup> Federal government incentive programs have helped to encourage this change in behavior.
- › **Bank statements**—In 2011, Javelin Strategy & Research, a strategic consulting and research firm, documented that 37% of bank consumers chose to receive e-statements for their checking account, compared to 35% who relied on paper statements. Usage of e-statements has increased from just 20% in 2008, while usage of paper has declined from 48% over the same period.<sup>4</sup>
- › **Books**—In 2012, 457 million e-books were sold in the U.S., compared to just 10 million in 2006, according to BookStats. For comparison, 567 million hardcover books were sold in the U.S. in 2012. As e-book adoption has soared, year-to-year hardcover book sales have recently become flat.<sup>5</sup>

These are the benchmarks that financial organizations may wish to keep in mind while reviewing our survey findings. At the conclusion of the findings, we will offer analysis to help the securities industry: 1) increase e-delivery adoption rates; 2) close the e-delivery gap, compared to other industries; and 3) reduce costs.

**One important point:** Changing the traditional paper-based behaviors of advisors and investors remains a challenge for financial organizations. But simultaneously, a countertrend is emerging—advisors and their clients are expressing a preference to work with financial organizations that are innovative and high-tech focused. The end-game of this countertrend will be a competitive disadvantage and possibly the demise of some firms that fail to keep pace. This is in addition to a corresponding competitive advantage and growth for firms that are perceived to be tech leaders and innovators.

# SURVEY FINDINGS

## Methodology and Top-Line Findings

The survey included executives representing a mix of 51 financial organizations:

- 41%—Independent Broker-Dealers
- 24%—Bank Broker-Dealers
- 18%—Large RIAs and Clearing
- 12%—Insurance Broker-Dealers
- 6%—Regional Broker-Dealers

For all survey participants combined, online access to brokerage accounts averaged **33.6%**, while e-delivery of documents averaged **25.1%** for the same group of accounts.

## Motivation and Support

The vast majority of those surveyed are willing to support e-delivery:

- 82% said their custodians are providing an e-delivery option to clients today.
- 76% said their custodians are encouraging e-delivery of brokerage communications.
- 88% agreed that e-delivery is an important initiative.

## Preferred Method of e-Delivery

Survey participants were asked to identify the best method for providing e-delivery access. Their preferences are:

- 70.6%—An e-mail notification with an authenticated link to a website.
- 17.6%—An e-mail with document attached, with password required to open.
- 11.8%—A direct drop of documents into an established and validated e-mail account.
- 00.0%—An e-mail with document attached, but no password required.

The most preferred method clearly is winning industry favor. We think there may be several reasons for this, including:

- › An e-mail with an authenticated link drives investors to the firm's website, where they may view other broker-dealer communications and messages, as well as access information about other products and services.
- › This method gets the attention of investors by being in the daily flow of their e-mails.
- › This method does not clutter e-mail systems and boxes with large files attached that take up space.

› Perhaps most importantly, in terms of long-term adoption, this method offers both the best means of keeping client information secure and confirming that the client has received the information.

## Measuring the e-Delivery Gap

On average, survey respondents said they expect 53.1% of investors to enroll in e-delivery of at least one type of communication. Keep in mind that 88% of respondents also indicated that e-delivery is an important initiative.

The real e-delivery gap is the difference between the expectation level of 53.1% and actual adoption of e-delivery for different types of communications, as expressed by survey participants. As the graph below shows, no service yet achieves adoption equal to **even half** of the expected level.

## ELECTRONIC DELIVERY: REALITY VS. EXPECTATIONS

E-Delivery: Percentage of Service Adoption



The data suggests that e-delivery adopters remain a minority (in the mid to low 20% range), and that these adopters typically choose to “go all-in” for e-delivery across the spectrum of communications. There is not a large gap between the most-preferred e-delivery service, post-trade prospectuses (25.9%), and the least-preferred service, statements (19.3%).

It may be worth noting that the two lowest-ranked services, statements and tax documents, contain the greatest amount of confidential personal data as well as have the highest utilization rate in physical form for tax preparation and financial planning.

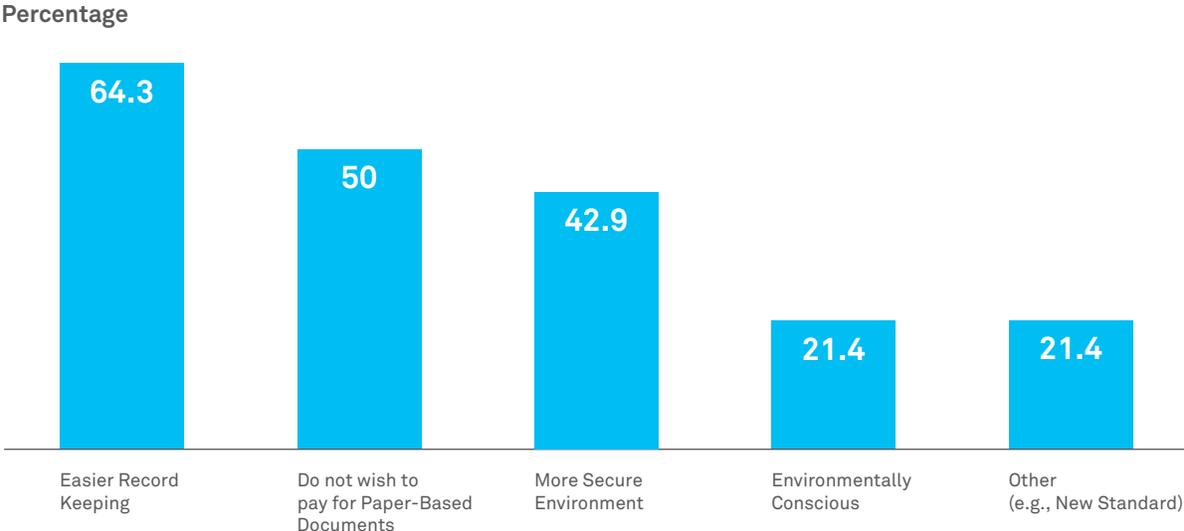
## Perception of Investor Benefits

The survey asked respondents to prioritize the reasons investors have embraced e-delivery. Five benefits were listed:

- › Provides a more secure environment for sensitive electronic financial documents
- › Allows for easier record keeping and organization of documents
- › Enables them to be environmentally conscious
- › Eliminates cost for paper documents (if being charged)
- › Other, the majority of which centered on the new standard for conducting business

The chart below shows the percentage of all responses.

### REASON FOR ADOPTION



Currently, there appear to be three practical benefits that financial organizations are emphasizing to encourage e-delivery: convenience, economy and security. The environmental appeal is not a high priority despite many of the “Go Green” initiatives emphasized by many e-delivery initiatives. A final point emerged out of the other category, highlighting that e-delivery is a new contemporary standard.

## Obstacles to Investor Acceptance

The survey also identified the biggest obstacles to investor adoption of e-delivery, as perceived by broker-dealer executives. They were as follows, in order of the percentage of respondents listing one of the top two priority categories:

- 46.2%—Lack of knowledge or support from financial professionals
- 38.5%—Not willing to change paper-centric behaviors
- 30.8%—Tech-related experience/Enrollment process difficulties
- 30.8%—Concerns over security

## The Outlier

Reality shows that many investors have more than one investment account, and multiple accounts usually are supported by different e-delivery process and technology eco-systems—e.g., custody firms, mutual fund companies and insurance manufacturers. A big challenge to investor adoption is that each of these eco-systems has its own approach to the document delivery process. In the end, the investor has to master disparate user interfaces, processes (such as navigating specific e-mails) and forms, creating many challenges for learning and user experience. The outcome is that investors often find e-delivery more trouble than it is worth.

The lack of standardization is equally frustrating for investors with just one or two accounts. Therefore, even if a financial organization or advisor advocated e-delivery, the investor still may not participate. And if firms impose additional charges, investors may feel they are being nicked and dimed. They also may be more inclined to complain to their advisors about other issues, such as lack of performance, additional fees or lack of service follow-through. If the investor gets mad enough to threaten closing or moving an account, some advisors will sympathize and attempt to have the fees waived. Although we do not have precise research to know how often fees are being waived under this type of pressure, anecdotally it seems to be happening quite often.

## Incentives and Support for e-Delivery

We asked several respondents which types of training and support tools their financial organizations or custodians are using:

- 41.1% indicated that they are not currently using any training or support tools.
- 23.5% said a combination of both of the above.
- 17.6% mentioned using third-party tools.
- 11.7% of respondents said they are offering their own proprietary tools.

Similarly, the survey covered the types of tools broker-dealers are using to help advisors drive electronic enrollment. Results were encouraging, as four types of tools were often mentioned:

- › Advisor training presentations, best-practice reviews and how-to guides
- › Easy to use Web-based tools to promote e-delivery
- › Motivation from regional and branch office managers
- › Carrot-and-stick incentive programs for rewarding e-delivery or discouraging paper

Lagging behind on this list was the use of contests or direct financial incentives as motivators, which only a handful of broker-dealers have adopted.

One of the most effective enablers can be an automatic default to e-delivery unless the investor actively requests to receive paper. This is also called a “negative consent” option because it requires the investor’s consent to opt-out. However, this option is not authorized in some jurisdictions or for some types of communications, so it is not easy to measure its usage and effectiveness. (For example, the IRS does not allow financial organizations to enroll investors for e-delivery of tax documents. Investors must take that action themselves.)

Over 29% of executives said they currently have an automatic (negative consent) e-delivery default in place, while 64.7% said they do not.

## Custodian Support and Tools

Custodians have been a strong force behind e-delivery adoption, and the survey indicates they are providing a variety of support services and tools to help firms and advisors. The most often-mentioned custodian support services were: direct enrollment assistance at the home office level, sending communications directly to investors and training to assist investors with e-delivery enrollment.

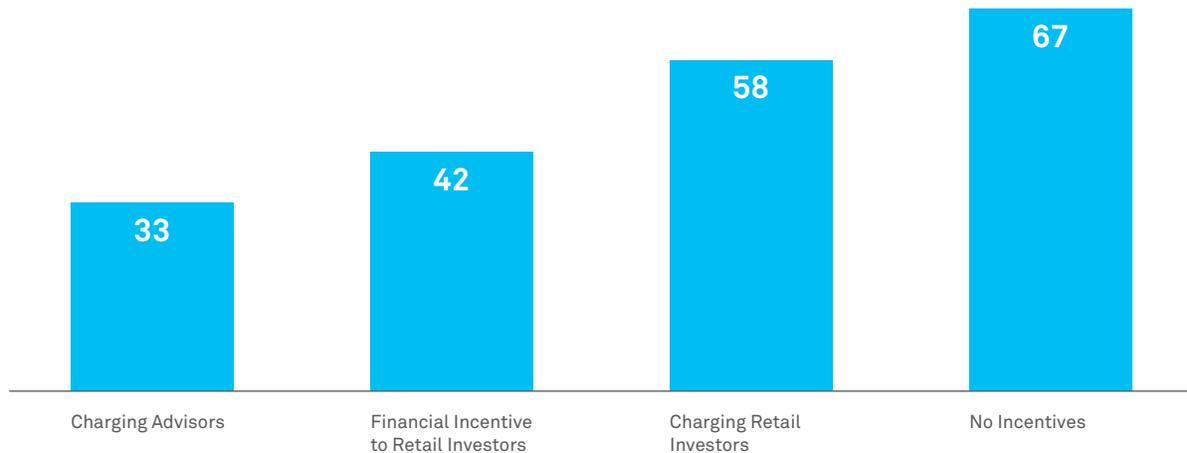
The most-mentioned custodian tools and techniques to help advisors were training presentations, best practice reviews, how-to-guides, e-delivery information on websites and messages to regional and branch office managers.

## Custodian Initiatives

Custodians have developed several initiatives to motivate e-delivery adoption. According to survey respondents, the methods custodians are using to encourage e-delivery adoption are summarized in the graph below.

### CUSTODIAN INITIATIVES

Percentage



Clearly, the technology and training to motivate e-delivery adoption is readily available. So, the question becomes, “Are the current initiatives structured to change investors’ behaviors and dependencies on paper documents and move to e-delivery?”

As investors build diversified portfolios consisting of various securities and asset types, each with ever-increasing disclosure requirements, the cost of paper and mail delivery keeps growing. Custodians and some financial organizations are taking the position that someone should have to pay for paper. That “someone” can be either the investor or financial advisor. The counterpoint to this argument is that investors are beginning to be conditioned by other industries to go electronic. The effectiveness of these initiatives and of financial incentives for e-document adoption will be discussed further in the next section.

## ANALYSIS AND INTERPRETATION OF THE SURVEY DATA

Can the securities industry achieve the same e-delivery rate as for income tax filing—80% or more? We think the answer is “yes,” but it will take time, changes in attitude and effective practices.

Our interpretation of the survey data presented above is built on the behaviors and incentives for adoption for each of the three constituencies involved, custodians, advisors and investors. Not surprisingly each has different levels of commitment in the adoption of e-delivery.

**Custodians**—Most custodians and a subset of financial advisors have fully embraced the benefit of e-delivery and are working diligently to increase adoption rates. They are totally vested in the idea of e-delivery, and have put in place what they believe are the best practices to support the initiative. Our analysis indicates that these various best practices are not totally “on target.” We reach this conclusion through reviewing consumer response data regarding e-delivery and, quite frankly, looking at the relatively poor current adoption rates amongst investors.

Custodians have the greatest economic incentives to promote and foster e-delivery, but they have not translated these into a strong (or focused) enough value proposition for investors.

**Advisors**—Most financial advisors are aware of the benefits of e-delivery, and generally agree with these benefits as having value for their clients. A growing number of advisors are participating in e-delivery, yet levels of commitment and investor adoption results are still lagging. Advisor adoption and support has two stories. On one side, the vanguard of high-commitment advisors are technophiles who have already seen substantial benefits from the adoption of new technologies in their own practices. For example, e-delivery is helping advisors meet by phone or Skype with clients who are traveling, living or working in remote locations and may not have ready access to their mail delivery or paper documents.

Conversely, the advisors lagging behind in promoting e-delivery are usually constrained by technical and behavioral reasons, such as lack of confidence with new tech devices or deep concerns over Internet security. These advisors need better education and compelling examples before they become converts.

**Investors**—The least committed group is investors, many of whom are still dragging their feet on e-delivery. E-delivery does not exist without investor adoption. While inertia remains a factor, it does not explain the huge gap between adoption rates in the securities industry and other consumer services, such as income tax e-filing. To close the gap, we first need to understand it. So, what explains investors’ reluctance?

A variety of attitudes and behaviors appear to be limiting the growth of e-delivery, including lack of knowledge, overall indifference and the inability to change old habits by both advisors and investors.

Based upon our survey results and general industry observations, we believe three major reasons to which suboptimal e-document adoption are attributed remain valid, but the root cause behind the objection has been misinterpreted or remains unaddressed. We have found that firms who address the root cause are developing more successful best practices for the adoption of e-delivery.

### 1. Investors believe that paper/mail delivery is free.

What best practice addresses: Investors don't see how e-delivery offers them any benefit. Investors understand that there may be cost savings to custodians, but they don't see how those savings will be passed on to them, and they have not seen a tangible demonstration of any incremental value, so why master the maze of online requirements needed to move to e-delivery?

### 2. Investors have concerns over the security of their personal information and records.

What best practice addresses: Security is a real and valid concern. Yet the adoption of e-delivery, online banking and correlation between high net worth individuals and use of the internet for financial information seems to counter this supposed obstacle. Recent studies as well as anecdotal observations by Beacon indicate a growing utilization of electronic safe deposit boxes by investors to maintain highly sensitive documents like wills, trusts and copies of their personal financial statements. Creating a highly secure environment where access can be controlled is critical. The idea of sensitive information lying around in an e-mail or on a PC where they can be hacked is the critical issue.

### 3. Investors perceive that their advisors lack conviction about the benefits of e-delivery.

What best practice addresses: In this case the survey finding is very accurate, but, in most cases, addressing it has been poorly executed. There is a great degree of trust between investors and their advisors, but without the advisor being able to provide a zealous and compelling argument for e-delivery, most investors are not about to change their behavior. The investor perception is "it's not broke, so why fix it?"

It is also clear that many financial advisors do not yet have the confidence or messages for addressing and overcoming these issues. If custodians and financial organizations can develop convincing arguments for the first two objections, we think many financial advisors will buy-in, which in turn will motivate their clients to buy-in as well.

## Paper Isn't Free

What does it cost to print, mail, handle, file and dispose of a (full version) 40 plus-page prospectus or semi-annual report? Although the answer can't be precisely determined because of many variables, we estimate that the all-in cost falls in the range of about \$13 to \$18 per piece. Interestingly, this is about the same average cost as a hardcover book purchased from Amazon.com and delivered by mail. Thus, one way to increase investors' cost sensitivity is to compare e-delivery to their experiences with e-books and other similar cost-saving services and experiences.

Savvy investors understand that this cost is ultimately borne by investors through administrative charges and fees, but no custodian, asset manager or sponsor makes these costs transparent. If an investor felt that the return on their investment would be greater with e-delivery, they would look at adoption in a more positive perspective.

There is also a host of intangibles e-delivery offers that are seldom communicated to investors. Three major value attributes are:

**Timeliness:** In a time and place where near instantaneous access to information is available, paper documents can be days—if not weeks—behind. In some cases, paper based performance statements may be more than 90 days behind if the investor is only receiving quarterly information.

**Portability/Ease of Access:** This is where technophile advisors can provide a clear endorsement of e-delivery.

**Safety/Continuity:** Just as financial organizations are required by the Financial Industry Regulatory Authority (FINRA) to develop business continuity plans, investors can use e-delivery to protect against personal disasters. During the devastation and destruction of Hurricane Sandy, for example, investors who had e-documents stored in the cloud could access their brokerage statements, even if they had to evacuate from homes in Staten Island or condos in Hoboken.

**The stick approach:** Charging investors for paper delivery—as little as a few cents per document—could go a long way to increase their cost-consciousness. If an investor were charged even a few cents for a physically delivered paper statement, or even more radically, charged for a 40 plus-page prospectus, then the investor would be presented with a choice. Pay a small amount to deliver by paper, or zero to deliver electronically. Paper would no longer be free. The concern with this approach is that most financial firms have found that in the highly personalized world of wealth management, there are considerable relationship pressures that reduce the effectiveness of a nuisance charge. Depending on the broker-dealer's business model, advisors will absorb the fees for their better clients or demand reimbursement. Some independent contractors will consider changing firms.

This survey and other data suggest that the “green consciousness” of investors varies across a wider spectrum than their cost-consciousness. The millennials, which represent the minority, seem to be the group that is most environmental sensitive. The reality is that only a minority of investors will respond to a green message, while more will respond to a cost-saving message. If so, it may work best to recast green messages into cost-saving benefits to society as a whole. Since about 65% of all paper products made in the U.S. are recycled,<sup>6</sup> the main cost-saving benefit for society, as a whole, is the reduction in fossil fuels used to create, transport, deliver and dispose of paper documents.

## Security of Personal Records

Before investors will adopt e-delivery, they must be convinced of its security—that it is not subject to prying, hacking or identity theft. In meeting this test, financial organizations face a higher hurdle than most other U.S. industries for a simple reason: account records and statements contain large quantities of sensitive and confidential personal information.

To make a specific comparison to the tax return industry, most Americans know that the tax returns they e-file are accessible to the government. But they still believe (or at least hope) that the government lacks intimate knowledge of their net worth, securities holdings or investment preferences. At a time when many Americans have rising concerns about the security of personal data, our survey data suggest that one way to encourage adoption may be to begin investors’ e-delivery experiences with non-personal documents, such as prospectuses, fund reports and proxy filings.

Also, it may be useful to develop educational materials that help investors compare the security risks of e-delivery with paper documents. Paper documents are vulnerable to fire, flooding, theft and illicit practices such as “dumpster diving”—rooting through trash receptacles to find the personally identifiable information that can facilitate identity theft. The Federal Trade Commission website at [consumer.ftc.gov/articles/pdf-0009-taking-charge.pdf](https://consumer.ftc.gov/articles/pdf-0009-taking-charge.pdf) provides several cautions about theft of physical documents through the postal system, but only one warning about theft of e-documents by “phishing.” The U.S. Postal Service handles more than 207 billion pieces of mail each month. That’s 207 billion opportunities per month for identity thieves to unlawfully obtain personal and confidential information.

Beyond education, the introduction of simplified document portals that enable the secure access and retention to multiple document sources through a single, easy to navigate interface are being introduced. These portals typically send an e-mail to the investor notifying him or her that a document is available if they log on to the secure portal. These portals carry the branding of the sponsoring broker-dealer as well as custodian. They can also be used by the investor to organize e-files of all essential personal records such as durable powers of attorney, estate planning and lifetime giving/asset distribution documents.

## SUMMARY RECOMMENDATIONS

To motivate higher rates of e-delivery adoption, Beacon believes the securities industry can follow the leaders. We have observed several best practices of financial organizations that have been successful in closing the e-delivery gap. One common characteristic is their overall integration of technology into the total advisor-client experience. Their advisors have become advocates for digital document downloading, storage and review—and they feel comfortable guiding clients through the process.

In these best-practice firms, we are also seeing the breakdown of the “age myth” for technology adoption. According to this belief, younger investors will adopt technologies (including e-delivery) more rapidly than older investors, due mainly to their familiarity with digital devices and online communications. However, in financial organizations that are achieving above-average e-delivery adoption rates, older investors are buying in at approximately the same rate as younger investors. What impacts adoption most is the user experience with signing up for, accessing and using e-delivery tools as part of everyday financial activities.

Similarly, Beacon believes the industry will continue to adopt and refine dedicated document portals, which are financial e-mail safe deposit boxes for the delivery and storage of key financial information. Imagine an industry version of Dropbox with ultra-strong security, reserved only for communications of selective financial institutions, and the concept comes into focus. These portals will become sources of competitive advantage for custodians who invest in the concept.

Our society is moving toward broader acceptance of the digital medium, and this is especially true of the worlds inhabited by advisors and their affluent clientele. Research by Cisco projects that during 2013, the number of Internet-connected devices in the world will surpass the number of humans in the U.S.<sup>7</sup>

Today, changing the traditional paper-based behaviors of advisors and investors remains a challenge for financial organizations. But simultaneously, a countertrend is emerging: advisors and their clients are expressing a preference to work with financial organizations that are innovative and high-tech focused. The endgame of this countertrend will be competitive disadvantage and the possible demise of some firms that fail to keep pace with technology. Of course, this also means a corresponding competitive advantage for firms that are tech leaders and innovators.

Most beneficial technologies pay for themselves, eventually. The question most financial organizations are asking is: “How long will it take?” Also, they are aware that the justification for investment in technology is often based on economic intangibles.

We believe e-delivery is a technology that pays for itself, in real savings, almost immediately. Not only will the resources dedicated to this area impact the bottom line over the short term, but they will also create an environment in which top advisors and their clients will feel right at home over the long term.

Beacon Strategies, LLC, is a research and consulting firm specializing in technology developments in financial services. Founded in 2005, the firm focuses on strategic and tactical choices facing broker-dealers and financial advisors. Beacon Strategies delivers critical thought-leadership insights through publications, website content, consulting assignments and industry-leading conferences and events.

<sup>1</sup> Electronic Tax Administration Advisory Committee, Annual Report to Congress, June 2013: <http://www.irs.gov/pub/irs-pdf/p3415.pdf>

<sup>2</sup> *IRS to stop mailing income tax forms*, Washington Post, 9/27/10: [www.washingtonpost.com/wp-dyn/content/article/2010/09/27/AR2010092705058.html](http://www.washingtonpost.com/wp-dyn/content/article/2010/09/27/AR2010092705058.html)

<sup>3</sup> *The Rise of Electronic Health Records Adoption Among Family Physicians*, *Annals of Family Medicine*, July/August 2013: <http://annfamned.org/content/11/1/14.full>

<sup>4</sup> Javelin Strategy & Research as quoted in *Credit Union Times*, 7/12/13: <http://www.cutimes.com/2011/10/24/javelin-findings-suggest-online-banking-saturation>

<sup>5</sup> BookStats Study, Association of American Publishers and the Book Industry Study Group, as published by USA Today, 5/16/13: [www.usatoday.com/story/life/books/2013/05/15/e-book-sales/2159117](http://www.usatoday.com/story/life/books/2013/05/15/e-book-sales/2159117)

<sup>6</sup> American Forest & Paper Association, *53<sup>rd</sup> Annual Survey of Paper, Paperboard and Pulp Capacity*: [www.recyclingtoday.com/afandpa-2012-paper-recycling-statistics.aspx](http://www.recyclingtoday.com/afandpa-2012-paper-recycling-statistics.aspx)

<sup>7</sup> *The Internet of Things: How the Next Evolution of the Internet Is Changing Everything*, Cisco white paper by Dave Evans, April 2011: [www.cisco.com/web/about/ac79/docs/innov/IoT\\_IBSG\\_0411FINAL.pdf](http://www.cisco.com/web/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf)



## WE ARE PERSHING, A BNY MELLON COMPANY

Pershing, a BNY Mellon company, and its affiliates provide global financial business solutions to advisors, asset managers, broker-dealers, family offices, financial organizations, fund managers and registered investment advisory firms. A financial services market leader located in 23 offices worldwide, we are uniquely positioned to provide advisors and firms global insights into industry trends, regulatory changes and best practices, as well as shifts in investor sentiment and expectations. Pershing provides solutions—including innovative programs and business consulting—that help create a competitive advantage for our clients.

As the New Model Clearing Firm™, Pershing LLC provides a broad suite of financial business solutions so advisors and broker-dealers can drive their business forward in a dynamic industry and regulatory environment. We are the #1 clearing firm in the U.S.\* and our clients range from full service, institutional and independent firms to self-directed and bank-affiliated broker-dealers and span the globe. With a keen eye on delivering dependable operational support, robust trading services, flexible technology, an expansive array of investment solutions, practice management support and service excellence, our solutions help advisors and firms manage their businesses efficiently and serve their clients effectively. Pershing LLC (member FINRA/NYSE/SIPC) is a BNY Mellon company.

---

### Important Legal Information

- Information and content presented in this whitepaper are not intended or construed as an offer, solicitation or a recommendation to purchase any security. Beacon Strategies is not an affiliate of Pershing LLC and Pershing LLC is not the author of, responsible for and shall not be liable for any content presented herein. Pershing LLC and its affiliates do not intend to provide investment advice through this whitepaper and do not represent that the securities or services discussed are suitable for any investor.
- The contents may not be comprehensive or up-to-date, and Pershing LLC will not be responsible for updating any information contained within this whitepaper. Pershing makes no representation as to the accuracy, completeness, timeliness, merchantability or fitness for a specific purpose of the information provided in this whitepaper. Pershing assumes no liability whatsoever for any action taken in reliance on the information contained in this whitepaper, or for direct or indirect damages resulting from use of this whitepaper. Any unauthorized use of material contained in this whitepaper is as the user's own risk. The views expressed within this whitepaper are those of the contributors or authors only and not those of Pershing LLC or any of its subsidiaries or affiliates.

### Copyrights and Trademarks

**Except as may be expressly authorized, all information contained in this whitepaper may not be reproduced, transmitted, displayed, distributed published or otherwise commercially exploited without the written consent of Pershing LLC.**

---

© 2013 Pershing LLC. Pershing LLC, member FINRA, NYSE, SIPC, is a wholly owned subsidiary of the Bank of New York Mellon Corporation (BNY Mellon). Trademark(s) belong to their respective owners. For professional use only. Not for distribution to the public.

\**InvestmentNews*, August 2013, Ranked by number of broker-dealer clients



One Pershing Plaza, Jersey City, NJ 07399  
WP-E-DELIVERY-11-13