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Pitney Bowes

Authors:
Bill Fearnley
Matthew Marden

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Business Value Highlights

$1.24 million per 1 million accounts per year in higher FCC staff productivity

63% overall higher productivity for FCC teams

81% more productive AML teams

59% more productive KYC teams

35% more productive investigations teams

43% less staff time per investigation

The Business Value of Entity Resolution Solutions for Financial Crimes and Compliance Operations

EXECUTIVE SUMMARY

IDC conducted in-depth interviews with a mix of financial services firms to assess the use of entity resolution solutions to support their efforts around financial crimes and compliance (FCC). Interviews were designed to elicit an understanding of the qualitative and quantitative nature of using such solutions.

In these interviews, study participants emphasized that entity resolution solutions have enabled them to ensure robust FCC compliance in a cost-effective and efficient manner. Most importantly, they reported handling changing regulatory environments that require processing and analyzing huge amounts of customer-related data without incurring significant additional staffing or third-party costs. IDC's analysis shows that, as a result, these financial services firms are achieving substantial value with their entity resolution solutions, achieving $1.24 million per year in higher FCC staff productivity per one million accounts on average. They have attained this achievement by:

- Complying fully and confidently with regulatory requirements
- Meeting compliance requirements cost effectively and efficiently by making their existing know-your-customer (KYC), anti–money laundering (AML), and investigations teams more productive and effective
- Positioning their businesses to benefit from a strong compliance position and faster onboarding of new customers

SITUATION OVERVIEW

Financial services firms face continued pressure to improve their compliance programs to meet regulatory requirements and help governments fight crime and terrorism by identifying and stopping the flow of funds to increasingly sophisticated bad actors. For many firms, this pressure is felt especially by front-end staff responsible for customer onboarding, KYC, and transaction monitoring systems that support AML and KYC compliance.

To improve customer screening and transaction monitoring, regulators are requiring firms to use more risk-based (versus rules-based) approaches to regulatory compliance. For example, there are requirements for firms to conduct more detailed KYC and onboarding data collection. As a result, many firms are increasing their investments in new sources and types of data and advanced analytics to improve risk scoring and transaction monitoring. These investments can reduce false-positive alerts and increase the effectiveness and efficiency of compliance analysts and programs.

The global expansion of financial services firms, coupled with the increase in digital channels (e.g., web and mobile apps) and call centers, is making it harder for staff to know many of the customers. And firms have to trust that their staff and customers provide the right information, especially for onboarding and KYC. However, often local staff isn't likely to be skilled in international data formats, text styles, and the nuances and customs of identification policies and procedures for customers coming in locally with documents and data from overseas markets.

The threat of bad actors is also increasing as these individuals and organizations grow bolder and more technically adept to avoid detection and arrest. Firms are in a tough spot. They must improve their due diligence and onboarding processes, balance the need for improved compliance, and provide an excellent end-user experience for their customers. To improve the effectiveness of compliance programs, firms are increasing investments in third-party data and advanced analytics.

ENTITY RESOLUTION SOLUTION MARKET

Successful KYC reviews are a critical component of successful onboarding and compliance program management. Entity resolution is an increasingly important element of the KYC process, especially for firms with international customers and lines of business in foreign markets. It helps firms create a unified record for individuals and other entities by combining data and information from multiple sources and resolving the different spellings, text styles, photos, and addresses. However, the process gets more difficult as the volume and variety of data available about customers and their relationships increase.

Entity resolution is an important process because consolidated entity views can help firms improve their risk scoring, onboarding, KYC, transaction monitoring, and other due diligence processes. Global expansion makes compliance and entity resolution more difficult in large part because of the internationalization of data and the new integration challenges that arise (e.g., data formats, language, syntax, and translation). For example, firms need to match negative news about customers and affiliated entities, especially news that can affect the customer's risk score and the firm's relationships with individuals and corporate customers. In addition, sanctions screening is an important aspect of KYC and customer onboarding and remains a challenge because of continuously changing data and compliance regulations.

Firms continue to struggle to reduce false compliance alerts (both positive and negative) and seek to invest in new sources and types of data and advanced analytics to improve the effectiveness and efficiency of transaction monitoring. Regulators, in the meantime, continue to closely examine the types of data and risk-based analytics tools and models used by firms for AML, KYC, and customer due diligence (CDD) compliance programs. Therefore, firms need to better document their policies and procedures to comply with more detailed regulatory requirements for periodic reporting, examinations, and ad hoc data requests.

Regulators are also pressing financial firms to use more risk-based compliance analytics and rely less on rules-based methods and solutions. Risk-based analysis can help firms improve risk profiling and scoring, transaction monitoring, and investigation efficiency. Increasingly, management teams are looking to lower compliance spending, and many firms are also seeking ways to monetize their aggregated customer data and improve the effectiveness of customer marketing programs.

PITNEY BOWES SOLUTIONS

Pitney Bowes financial crime and compliance solutions help firms create a single view of the customer. The company's entity resolution solutions help financial firms comply with a variety of regulations including AML, KYC, and sanctions screening. These solutions provide front-office staff and compliance teams with higher-quality data that improves risk profiling and scoring. Improving single views of the customer helps firms satisfy regulatory requirements for advanced data management and risk-based compliance tools.

Entity resolution programs also help firms leverage consolidated entity information to improve compliance alert management. For example, condensing alerts by entity helps firms better track and prioritize alerts, thus improving the efficiency of investigative analysts.

The good news is that there are many new sources and types of data that can be imported into the firm's compliance platforms. The bad news is that most data sources don't import totally clean. Pitney Bowes helps firms create their own universal identification codes by aggregating a myriad of data types and sources into consolidated entities.

The financial benefits of improved entity resolution and compliance management include lower fines and lower financial losses. Increasingly, firms and senior management are more concerned about the reputational risks of compliance violations and fraud losses. By improving KYC and other compliance programs, firms can avoid regulatory penalties and negative news that can damage their brand and employee, customer, and counterparty relationships.

THE BUSINESS VALUE OF ENTITY RESOLUTION SOLUTIONS

Study Demographics

IDC interviewed five financial services firms for this study, asking them a variety of quantitative and qualitative questions about the impact of using entity resolution solutions to support their financial crimes–related compliance efforts. Interviewed organizations had an average of $140 billion in financial assets under management and $23.6 billion in revenue per year. The average number of employees at these firms was 118,400.

To some extent, this firmographic overview obscures variety within this sample. It included a smaller standalone division within one large financial services organization, an online bank, and a financial services organization targeting higher dollar transactions such as mortgages, in addition to two financial services firms with worldwide operations. By geography, three firms were based in the United States and two in the United Kingdom, meaning that study participants are using entity resolution solutions to address a mix of North American and EMEA regulatory environments and requirements. Table 1 provides detailed information on these and other demographic attributes.

TABLE 1 Demographics of Interviewed Financial Services Firms

	Average	Median
Number of employees	118,400	42,000
Number of financial transactions per year	201 billion	3 billion
Financial assets under management	$140 billion	$42 billion
Revenue per year	$23.6 billion	$1.7 billion
Regions	North America and EMEA	

n=5
Source: IDC, 2017

FCC Operations and Challenges Facing Study Participants

Financial services firms use entity resolution solutions to support their FCC efforts by ensuring robust compliance in a cost-effective and efficient manner. Firms are faced with the challenges of managing regulatory environments that necessitate analyzing, synthesizing, and acting on huge amounts of customer-related data. To cost effectively meet these challenges, firms need to make their KYC, AML, and investigations teams as efficient as possible to avoid significant staffing increases or third-party costs. Failure to implement optimal entity resolution procedures hampers the ability of financial services firms to prevent, report, and handle suspicious activities or individuals. Implementing state-of-the-art software can help these organizations develop sound internal entity resolution policies for understanding their customers and assessing risk.

One manager interviewed commented on how his organization's entity resolution solution helped manage the regulatory compliance challenge posed by the rising volume of data, accounts, and transactions: *"We needed to put a system in place because you can't manually scan so much data in a timely way. You need to have something to scan data and customer names and addresses. What makes it very interesting is that it's not just the scanning . . . you also have to think about matching. We've found that the matching on the scanning is probably the most difficult part. That's where you need an entity resolution solution."* Other firms we interviewed echoed similar themes in describing why they have chosen to invest in an entity resolution solution.

Table 2 provides a profile of the environments supported by entity resolution solutions at interviewed organizations, indicating a very robust operational baseline. Entity resolution solutions are helping these financial services firms support AML, KYC, and investigations teams for an average of 48.4 million client accounts with 1,271 team members.

TABLE 2 Environments Supported by Entity Resolution Solutions

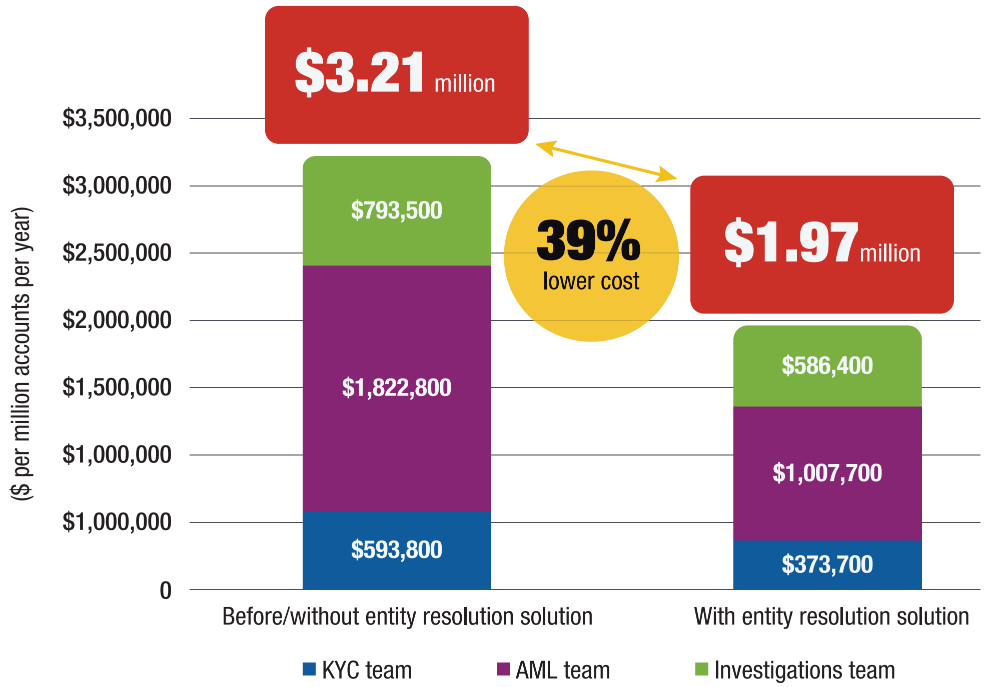
	Average	Median
Number of locations	4,622	100
Number of client accounts	48.4 million	2 million
Number of new client accounts per year	8.2 million	75,000
Size of know-your-customer team	241	28
Size of anti-money laundering team	651	28
Size of FCC investigations team	379	28

n=5
Source: IDC, 2017

Business Value Analysis

Study participants reported that using an entity resolution solution to support their FCC efforts provides an efficient and cost-effective means of ensuring compliance. Without a solution capable of processing and analyzing huge amounts of data, these organizations would have had to accept less robust compliance or incur significant costs in staffing up to handle data and account growth and stay current with changing compliance requirements. IDC calculates that these financial services firms are achieving staff efficiencies for their KYC, AML, and investigations teams worth an average of $1.24 million per 1 million accounts per year ($60.16 million per organization).

FIGURE 1 Impact of Entity Resolution Solutions on Staff Time Cost of FCC Regulatory Activities



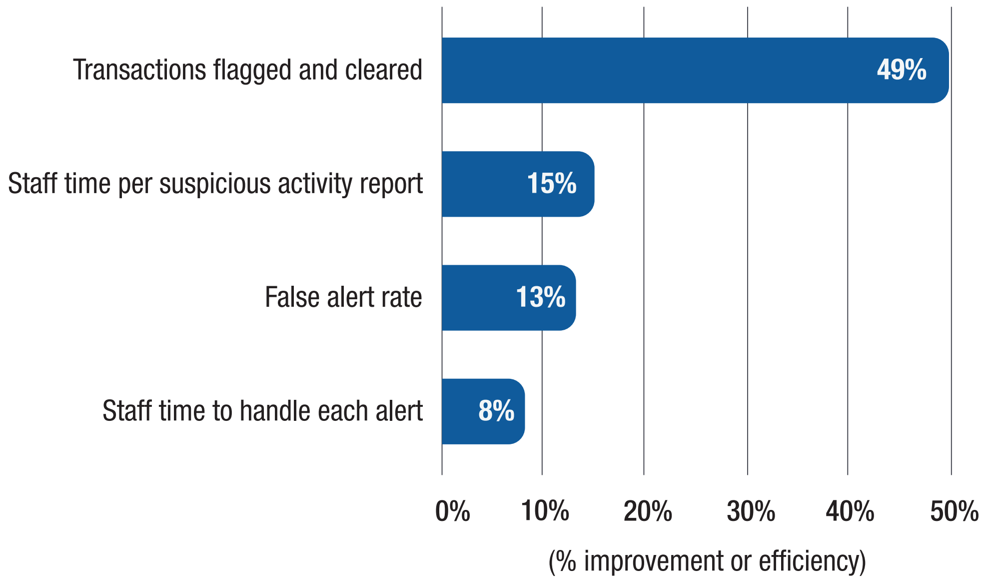
Source: IDC, 2017

However, study participants using entity resolution solutions stressed that they are achieving both financial and other benefits. As one organization explained, its use of an entity resolution solution has had positive impacts on business continuity: *"We've been penalized for not having the right controls around those regulations so we know firsthand how much it may cost and just how painful that may be. The bank takes seriously the possibility that it may lose its license, that it may not be able to operate, so the significance is critical in how it treats this. We don't put money on it but the actual survival of the bank on it."*

Leveraging the Capabilities of Entity Resolution Solutions

Study participants' experiences with entity resolution solutions demonstrate how these solutions make compliance efforts more effective and efficient. Figure 2 shows key operational metrics related to the use of entity resolution solutions, including reductions in false alert rates and the staff time required to handle alerts. For example, the number of transactions flagged and cleared showed a 49% improvement rate, false alerts have fallen by 13%, and staff time required per suspicious activity alert and staff time required to handle each alert are down by 15% and 8%, respectively. Regarding the time needed to respond to alerts, one survey participant said: "*The time between alerts and the speed to resolution has decreased by at least 50%. That was the amazing thing when all the automation was introduced and the biggest nut that the whole tool cracked because of the consistency and timing. The reduction in time required per investigation has been recognized at the executive level.*"

FIGURE 2 Impact of Entity Resolution Solutions on Key Operational Metrics and Financial Crimes and Compliance Efforts



Source: IDC, 2017

Ensuring Compliance and Limiting FCC-Related Risk

Getting compliance right is a benefit that is often less quantifiable but nonnegotiable for financial services firms. Increasingly, regulators are requiring firms to use risk-based analytics models to assess and score customers; they are also requesting more details about risk profiles, risk scoring, and transaction monitoring. Risk scoring helps firms determine which individuals or customer segments have higher-risk profiles and should thus be monitored more closely. Study participants reported they have leveraged entity resolution solutions to improve their compliance positions in the following ways:

- Meeting compliance requirements to the fullest extent possible through better entity visibility and improved data linkage
- Uncovering politically exposed individuals and/or customers and taking needed steps to avoid the implications of doing business with such entities
- Mitigating the risk exposure inherent in conducting domestic and international business

In terms of ensuring compliance, one survey respondent noted: *"We are now absolutely compliant and fully clean on our corporate banking on everything from an AML and KYC perspective. We have a clean set of books. We have a clean customer portfolio . . . . Reputationally, it has helped us and everyone who wants to do business with us by knowing that our customers are fully compliant."* Another organization using a Pitney Bowes entity resolution solution commented: *"We are effective by exposing the politically exposed persons. Anyone who is a member of a political organization becomes a subject in our screening. On the anti–money laundering, anyone who has a marker that's come through from the data we get in the Pitney Bowes system is marked up for further investigation."*

Making FCC Operations More Cost-Efficient and Effective

Entity resolution solutions are enabling interviewed organizations to ensure compliance more efficiently and at substantially lower cost than they could by building their own solutions. The solutions allow KYC, AML, and investigations teams to handle more work even as the growth of client bases, transactions, and data puts pressure on manual processes. Using these solutions, surveyed financial services firms are ensuring regulatory compliance without serious staff increases to compliance teams.

These efficiencies translate to significant value for KYC, AML, and investigations teams. Entity resolution solutions allow the firms surveyed to do the equivalent of

$3.21 million of work per 1 million accounts for $1.97 million per year, or a 39% lower cost (refer back to Figure 1). Other metrics include 63% higher productivity for existing teams and $1.24 million in savings per 1 million accounts per year ($60.16 million per organization) in terms of staff time cost avoidances.

KYC, AML, and investigations teams are significantly more productive with entity resolution solutions in place. Having better visibility means clearing more transactions that don't require follow-up, fewer false alerts, and a faster response. Regarding these efficiencies, one survey respondent at an organization that was able to reallocate staff time said: *"The decrease in head count for AML and KYC teams was around the analytics part because of the quality of the data. We used to have a lot of data folks doing it, and they got reallocated to do more investigations and more of the analysis work of the post-data find . . . instead of trying to manipulate all the data elements."* Another respondent commented: *"We are running more efficiently with our entity resolution solution than we would be without. Without it, we would be under water. A couple of things could happen. We might not be able to handle the volume, or we might make mistakes in bringing customers on board in cases where we shouldn't."*

Impact on KYC Teams

KYC teams face multiple challenges, including regulatory pressure to improve programs, the need to speed customer onboarding, and staying ahead of sophisticated bad actors that use multiple strategies to evade detection and arrest. Entity resolution solutions can address such concerns by enabling creation of better, more accurate data sets; faster processing of records; and better linkage of entities. The impact on KYC teams is clear: Study respondents reported that their KYC teams are 59% more productive with their entity resolution solutions, enabling them to maintain robust KYC operations at a 37% lower cost in terms of staff time. For study participants, this represents a staff time cost efficiency of more than $220,000 per 1 million accounts per year ($10.66 million per organization) (see Table 3).

TABLE 3 Know-Your-Customer Team Efficiencies

	Before/Without Entity Resolution Solution	With Entity Resolution Solution	Difference	Benefit (%)
Number of FTEs	384	241	142	59*
FTEs per million accounts	7.9	5	2.9	37
Accounts per FTE	126,303	200,674	74,371	59*
Staff cost per year per organization**	$28.77 million	$18.11 million	$10.66 million	37
Staff cost per year per 1 million accounts	$593,800	$373,700	$220,100	37

** Productivity gain*

*** Based on assumed fully loaded annual salary of $75,000*

Source: IDC, 2017

Impact on AML Teams

AML teams must handle an increasing volume of client accounts, transactions, and data without compromising their ability to identify and act on suspicious activities and alerts. In addition, regulators are requiring financial services firms to provide more detailed information on their actual processes. These data requirements can be granular (e.g., whether data is shared between analysts and who in the firm has access to the data). Entity resolution can help with data management requirements. It can also make AML operations more efficient by improving the linkage between both internal and external data to enable identification of potential money laundering activities. As a result, study participants can maintain robust compliance postures with significantly smaller AML teams. Firms surveyed attributed higher productivity levels for their AML teams (81%) to using an entity resolution solution. This higher productivity allows them to carry out these operations at a 45% lower staff time cost, saving over $800,000 per 1 million accounts per year ($39.48 million per organization) (see Table 4).

TABLE 4 Anti-Money Laundering Team Efficiencies

	Before / Without Entity Resolution Solution	With Entity Resolution Solution	Difference	% Benefit
Number of FTEs	1,177	651	526	81*
FTEs per million accounts	24.3	13.4	10.9	45
Accounts per FTE	41,145	74,424	33,279	81*
Staff cost per year per organization**	$88.30 million	$48.82 million	$39.48 million	45
Staff cost per year per 1 million accounts	$1,822,800	$1,007,700	$815,100	45

** Productivity gain*

*** Based on assumed fully loaded annual salary of $75,000*

Source: IDC, 2017

Impact on Investigations Teams

Teams investigating issues related to clients and potential clients must act decisively and efficiently. However, their efforts can be impeded by false alerts, inconsistency in identifying issues, and siloed data and information, among other challenges. When investigators need more time to resolve issues, it can create uncertainty and the potential for increased risks because of regulatory noncompliance.

Surveyed financial services firms reported that entity resolution solutions are helping compliance teams conduct investigations more effectively and efficiently. Firms said they have decreased the time between receiving alerts and starting investigations by an average of 17%, and they need to carry out 8% fewer investigations. When investigations do occur, they are completed faster and with 43% less staff time on average. The result is that investigations teams are 35% more productive on average. These organizations are saving an average of 26% in investigator time, thus reducing the cost of investigations by more than $207,000 per 1 million accounts per year ($10.03 million per organization) (see Table 5).

TABLE 5 Investigation Team Efficiencies

	Before / Without Entity Resolution Solution	With Entity Resolution Solution	Difference	Benefit (%)
Number of FTEs	512	379	134	35*
FTEs per million accounts	10.6	7.8	2.8	26
Accounts per FTE	94,522	127,909	33,387	35*
Staff cost per year per organization**	$38.44 million	$28.40 million	$10.03 million	26
Staff cost per year per 1 million accounts	$793,500	$586,400	$207,100	26

** Productivity gain*

*** Based on assumed fully loaded annual salary of $75,000*

Source: IDC, 2017

Potentially Enabling the Business

Efficiencies delivered by entity resolution solutions can also support business operations at financial services firms. In particular, the ability to review and clear new customers in less time — but without risking noncompliance — allows for faster onboarding of new customers. Surveyed organizations reported that they reduced the time required to onboard new customers by an average of 29%. One survey participant offered the following observation: “We’re an internet bank, and our clients don’t want to wait four to five days to open an account with us. Everything related to FCC happens in minutes when you deal with us. The deeper investigation happens once you start depositing money as we look at those transactions. At the first tier, it’s quick. We have always been good at opening accounts. However, with this tool, we’re onboarding about 15% faster.”

Faster onboarding not only helps ensure a good experience for new clients but also enables potential revenue gains. Despite the significant average revenue bases for study participants, they rely on efficient operations to maximize their potential revenue. Table 6 demonstrates how they could potentially benefit by onboarding new customers faster and moving up their recognition of revenue from these customers. IDC calculates that this could come to an average of $3.1 million per year of additional revenue for study participants, or $383 per 1,000 new accounts per year.

TABLE 6 Potential Business Impact of Faster Customer Onboarding with Entity Resolution Solution

	Per Organization	Per 1,000 New Accounts
Number of new accounts per year	8.22 million	NA
Change in time to onboard new customers (%)	29	29
Time to onboard a new account with the entity resolution solution (days)	1	1
Potential revenue impact of faster onboarding	$3.1 million	$383
Potential recognized revenue impact of faster onboarding*	$472,200	$57

**Applies 15% assumed operating margin*

Source: IDC, 2017

Challenges and Opportunities

The data management and analytics tools market for financial services firms is a very competitive space. Pitney Bowes competes with several providers with broad product portfolios and large installed bases of customers. Financial firms continue to struggle with staying ahead of bad actors and keeping up with changing regulations. The opportunity for Pitney Bowes is to leverage the Pitney Bowes brand, the company's entity resolution technology solutions, and existing relationships with leading financial firms to grow revenue and share in the financial services compliance market.

SUMMARY AND CONCLUSION

Financial services firms face pressure to improve their compliance programs to help governments fight crime and terrorism by identifying and stopping the flow of funds to sophisticated bad actors. Customer onboarding, KYC, and AML teams are on the frontline of this effort because it is their responsibility to ensure compliance despite a growing volume of transactions and compliance-related data. Meanwhile, increased scrutiny from regulatory agencies means that firms need better documentation of their policies and procedures to comply with more detailed requirements for periodic reporting, examinations, and ad hoc data requests.

Financial services firms are looking to ensure robust regulatory compliance but need to do so without incurring significant new staffing or other third-party costs. Increasingly, financial firms are using advanced entity resolution solutions such as those offered by Pitney Bowes to improve their compliance data management programs in a more cost-effective and efficient manner. These solutions help firms prevent, report, and handle suspicious activities by individuals and organizations. Solutions from Pitney Bowes also support the development of sound internal entity resolution policies.

IDC study participants reported achieving substantial value using an entity resolution solution to support their compliance efforts. These organizations were able to achieve and maintain robust compliance by making their KYC, AML, and investigations teams significantly more productive and effective, thus avoiding the need to staff up to handle data and account growth. IDC finds that study participants will realize staff efficiencies for their KYC, AML, and investigations teams worth an average of $1.24 million per 1 million accounts per year ($60.16 million per organization), even as they also benefit from having a stronger regulatory compliance position.

APPENDIX

IDC's standard Business Value methodology was utilized for this project. This methodology is based on gathering data from current users of entity resolution solutions in support of their FCC operations as the foundation for the model. Based on interviews with five financial services firms using such solutions, IDC calculates the benefits of use by measuring the impact in terms of staff productivity and effectiveness as well as potential business impact.

Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For purposes of this analysis, IDC has used an assumption of an average fully loaded salary of $75,000 per year for FCC-related staff members, including KYC, AML, and investigations teams. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).

Note: All numbers in this document may not be exact due to rounding.

About IDC

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IDC Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-insights-community.com
www.idc.com

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