

Infosys Finacle ROI Case Study—RCBC Bank

Summary deployment statistics	
ROI	54.4%
Payback period	2.07 years
Average annual net benefit	PHP608 million

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IMPACT POINTS

- Aite Group conducted this ROI case-study analysis to examine and quantify the operational and financial impacts of the adoption of Infosys' Finacle Core Banking Solution (Finacle) at Rizal Commercial Banking Corporation (RCBC). RCBC deployed Finacle to replace its aging existing core banking system, increase the number of customers it could serve, and improve its ability to offer these clients a variety of new products that would enable the bank to grow its revenue.
- Difficult to deploy and often bearing benefits of an apparently non-quantifiable nature, core banking systems can present challenges to bankers seeking to make the business case for investing in or upgrading such a capability. This ROI analysis will help bankers understand the benefits and costs of such a deployment while observing a case in which a bank achieved both a high ROI and relatively short payback on its investment in a core banking system.
- Aite Group analyzed RCBC's Finacle deployment on the basis of interviews with personnel at RCBC and on Aite Group's own extensive knowledge of core banking solutions, including the benefits available from these capabilities as well as the costs to deploy them. Aite Group's financial analysis of the deployment is based on operational improvements and cost reductions observed by RCBC staff during the first six months after the deployment. This data was used to calculate the ROI, payback, and average net annual benefit from the deployment over a three-year period.
- Having obtained projected benefits over the three-year timeline that exceed the initial project costs, **RCBC's deployment achieved the following metrics: an ROI of 54.4%, a payback period of 2.07 years, and an average annual net benefit of PHP608 million.**
- Primary among the deployment benefits identified by Aite Group are increases in productivity, which enabled RCBC to eliminate PHP1.1 billion in annual operating costs over the three-year period covered by the analysis. Reductions to annual operating expenses are expected to reach PHP2.1 billion in the fifth year after the deployment's October 2012 go-live date.
- New-product introductions are also a significant, though non-quantifiable, area of benefit. Preconfigured products within Finacle enabled the bank to launch two new products during the first quarter following the go-live date, accelerating the bank's go-to-market strategy and improving its ability to bring on new customers.
- Strategic benefits achieved as a result of the deployment included the ability to shift to real-time transaction posting and account updates, transaction processing scale that can support the bank's goal of growing its customer base from 3.8 million customers to 6 million in 2014 and ultimately 10 million in 2017, and accelerated new-product introductions.

INTRODUCTION

In this section, we'll examine RCBC, the factors that caused the bank to upgrade its core banking system, the importance of core banking systems to financial institutions, and how the bank's circumstances reflect the economic environment and region in which it operates.

RCBC

With 395 branches, 892 ATMs, and more than 3.5 million customers, RCBC is the Philippines' fourth-largest bank. The bank's service offering includes corporate banking, retail banking, investment banking, card services, foreign currency trading, brokerage services, and asset management, and its customers include corporations, institutions, retail customers, and high-net-worth individuals. In addition to serving the needs of its local market, the bank has international operations that enable it to meet the needs of the Filipino-Chinese market and of Filipinos who have relocated overseas.

CORE BANKING SYSTEMS

Enabling and processing virtually all transactions and customer interactions, core banking systems play a key role in the daily operations of banks, profoundly impacting the achievement of strategic and competitive goals. Scale, performance, and configurability are the primary qualities of a core banking system that impact a bank's operations. With regard to scale, the more customers and transactions a core banking system can accommodate, the larger a bank's potential market and the greater the returns on its technology investments. Closely related to scale, performance factors (e.g., transaction processing speed and the rate at which records are updated) are also critical to meeting consumers' ever-increasing appetite for instant access to accurate information. The faster a bank can process a customer's transaction and make updated account data readily available, the more likely it is to retain and grow that customer relationship. System configurability is also key to earning returns on a core banking system. New technologies such as remote deposit capture and photo-based bill payment exemplify new technologies that can pose a threat to or an opportunity for a bank. The more a bank's core banking system can accommodate such technologies, the better able it will be to defend itself against technology-driven disintermediation or to seize opportunities to acquire new customers and sell new products.

Although core banking systems present an opportunity to invest in technology that can accommodate a bank's strategy, their scale and cost also present challenges for a bank's senior management team. The deployment of a core banking system requires significant investments in software, hardware, consulting, and personnel, both during a deployment and after the go-live date. Enterprise-wide in nature, core banking systems also require deep integration with most customer-facing applications and platforms as well as with other enterprise applications such as customer relationship management (CRM) and business intelligence. Given that multiyear deployments typically represent seven-year operational risk and service contracts, investing in a core banking system can be more like selecting a strategic partner than purchasing technology.

It is in this challenging context that Aite Group performed an in-depth examination of RCBC's investment in Infosys Finacle. This white paper is based on Aite Group's extensive knowledge of core banking systems and an in-depth examination of RCBC's deployment. It is also bolstered by the knowledge of the author, whose career spans seven years in software analysis, most of which were spent calculating the ROI on a significant number of software deployments, as well as 13 years in banking.

THE OPPORTUNITY

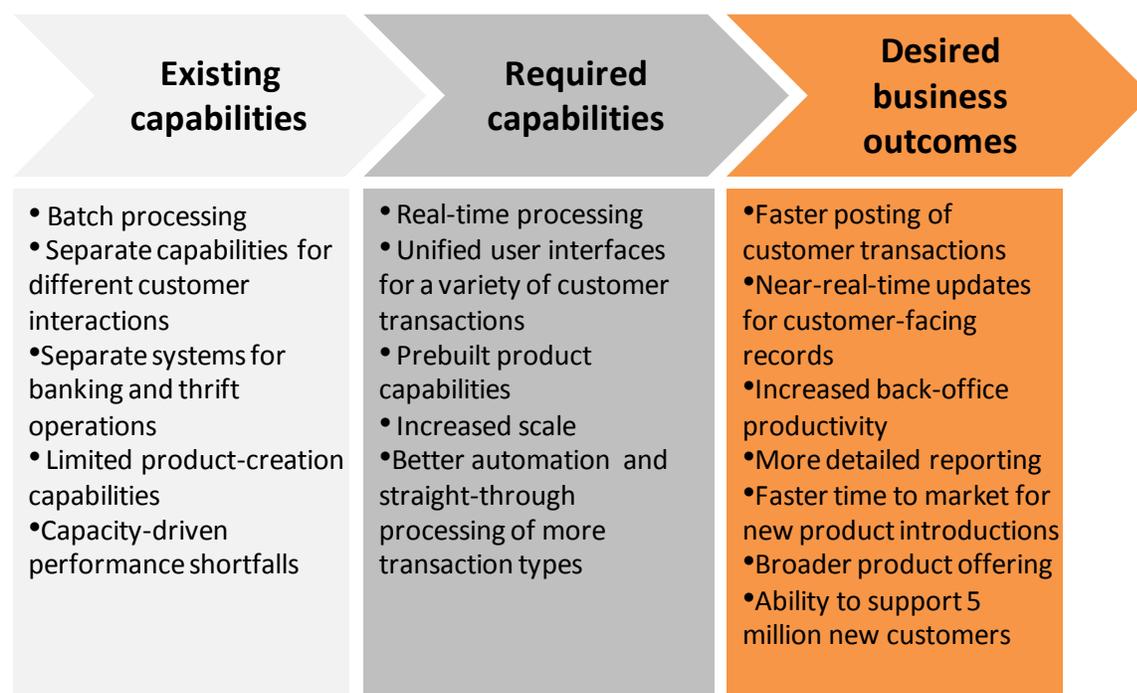
In 2010, a new management team at RCBC determined that the Philippines, like many other Asia-Pacific nations, was poised for significant growth that could result in meaningful opportunities for the bank. Unlike markets in the United Kingdom, the United States, and small countries such as Iceland, the Philippines was largely unscathed by the speculative real estate bubble that burst in 2008. Additionally, senior management at RCBC saw economic metrics that pointed to new opportunities. Relative to other countries in the Asia-Pacific region such as Hong Kong, Singapore, and South Korea, the Filipino banking system had relatively high net-interest margins. At the same time, the country's loans were a relatively small percentage of its gross domestic product (GDP), and loans were also low relative to deposits, indicating unmet demand for loans to individuals and corporations.

RCBC also saw opportunities in the country's consumer demographic. Among the country's middle class, the senior management team identified approximately 57 million Filipinos with attractive demographics:

- Average household income of between PHP11,500 and PHP55,000
- Strong tendencies to save and build wealth
- High rates of income growth
- Low rates of basic retail banking product adoption

In fact, RCBC's senior management team found the operating environment so attractive that it established the goal of growing its customer base from 3.8 million in 2012 to 6 million in 2014 and 10 million in 2017. In order to achieve this goal, the senior management team wanted to ensure that its back office could support aggressive customer growth and therefore sought operational improvements in the institution's core banking system. Although the bank's system adequately supported its existing customer base, RCBC's senior management team decided to replace it in order to achieve its customer convenience, performance, and new-product introduction goals (Figure 1). Integrating data sets from the various components of the old system was also a hurdle to growth; the original core banking system did not support all of the bank's operating units, limiting employees' views of customers and lengthening work flows.

Figure 1: Goals for RCBC's Core Banking System Migration



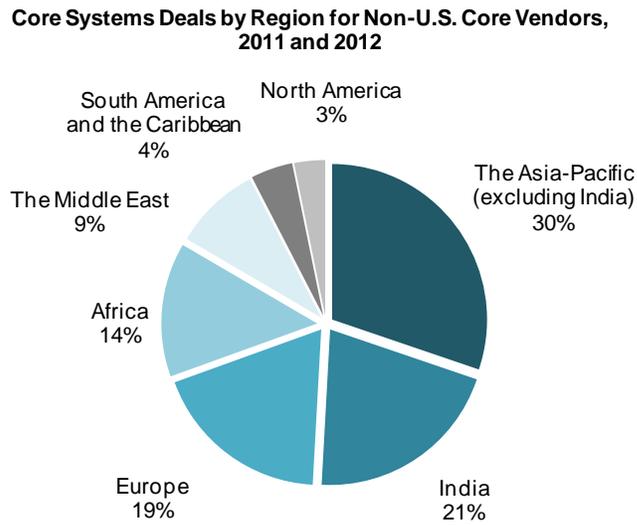
Source: Aite Group/ RCBC interview

THE CORE BANKING SYSTEM MARKET, ASIA-PACIFIC REGION

RCBC's decision to strategically replace its core banking system reflects a growing trend. In response to local factors such as an emerging middle class, financial liberalization, and increasing technology adoption among rivals, non-U.S. financial institutions are increasingly turning to new core banking systems. Emerging countries such as Malaysia, Thailand, Vietnam, and Myanmar (Burma) are proving strong targets for many global core vendors. Expanding and *de novo* institutions in these areas, often nimble and quick, lack the challenge presented by legacy systems and can therefore move faster with deployments of the most up-to-date core systems. This, in turn, creates competitive pressure on larger, more established institutions to renovate their own core platforms.

The key factor in these replacements is the economic growth rate of the country concerned; the faster the growth rate, the greater a bank's propensity to spend on new or replacement core banking systems. A handful of vendors have a strong foothold in India, but many of the other countries within Southeast Asia are prime targets for core banking vendors. As shown in Figure 2, more than half of all new contracts signed with non-U.S. core banking technology providers have been signed with banks in the Asia-Pacific (30%) and India (21%).

Figure 2: Breakdown of Recent Core Replacements Signed by Non-U.S. Vendors by Assets



Source: Aite Group

THE DEPLOYMENT

This section explores how RCBC went about selecting and deploying a new core banking solution and examines the operating environment Finacle supported once it went live in October 2012.

VENDOR SELECTION

In order to upgrade its core banking system, RCBC identified potential vendors and narrowed the field based on two primary criteria:

- **Vendor location:** First, RCBC wanted a vendor with an installed base in the Philippines in order to ensure that it was familiar with local regulatory regimes, culture, and business practices.
- **Support staff location:** Second, RCBC wanted a vendor that had support staff located on the ground in the Philippines. Should RCBC encounter a "Severity-1" core banking system outage that interferes with the completion of customer transactions, senior management wanted a vendor that could immediately and in-person troubleshoot, with minimal delays such as travel time. These requirements were met by just four of the top vendors.

RCBC then used a combination of reference checks, technical-specification examinations, and proof-of-concept projects to evaluate the four potential vendors. These examinations focused on the following criteria:

- **Functionality and technology:** RCBC wanted to proceed with the core banking system that had the greatest breadth of capabilities, including the ability to launch new products, apply straight-through processing to a large number of transaction types, report, and post customer transactions in real time.
- **Vendor profile:** Vendor evaluations included examinations of the finalists' product roadmaps, overall strategy, and financial condition.
- **Implementation capabilities:** Interviews with reference customers and proof-of-concept projects were used to validate vendors' abilities to deliver functionality that fulfilled the business requirements of the lines of business on-time, on-budget, and with minimal reductions to project scope due to unforeseen project difficulties.

In addition to becoming comfortable with the vendors' functional breadth, vendor profile, and implementation capabilities, two additional criteria caused RCBC to select Infosys Finacle as its next core banking system. First, RCBC was impressed by the level of subject-matter expertise among Infosys staff in various interactions, among them discussions about product capabilities and the completion of a proof-of-concept project focused on foreign exchange. Secondly, the proposal put forth by Infosys was more extensive and more detailed than those provided by the other vendors, assuring senior management that the system could support the bank's daily operational requirements and long-term strategic goals.

FINACLE DEPLOYMENT

Infosys Finacle was deployed by Infosys consultants working with RCBC employees over a 28-month period, during which time the project team:

- Upgraded applications:** Across the bank, the team upgraded and optimized 96 application systems for integration and interoperability with Finacle. This project encompassed both off-the-shelf enterprise applications such as CRM and homegrown, proprietary applications. The applications upgraded support a breadth of functional areas and service delivery capabilities, including treasury, trust, wealth management, remittances, settlements, branches, ATMs, and central clearing.
- Tested functions:** The deployment team also tested more than 3,000 functions—transactions such as "check customer balance" or "transfer funds"—that are transacted over both the core banking system and the systems with which they were integrated.
- Redefined business processes:** With a large body of functions properly configured for Finacle, the deployment team then identified and redefined 291 business processes required for completing customer transactions. One such process within this context was end-to-end transactions, such as "pay a bill of a certain number of Philippine pesos to a particular biller," completed by any customer and comprising any number of functions.
- Reconfigured branches:** To support Finacle, the deployment team reconfigured the software, hardware, best practices, and training assets at approximately 400 branches.
- Reconfigured desktops:** The team upgraded the operating systems of more than 2,500 desktop PCs in order to support the user interfaces, memory requirements, and integration required for Finacle.

The operating environment supported by Finacle as of the go-live date is depicted in Table A.

Table A: RCBC/Finacle Go-Live Environment

Operating statistics	
Employees supported	3,000
Customers supported	3.8 million
Monthly transaction volume	15 million
Business lines supported	Corporate banking, retail banking, consumer banking, trust and asset management, treasury, and wealth management
Operating subsidiaries supported	RCBC Savings Bank, RCBC Capital, Bankard, and RCBC Forex Brokers

Source: Aite Group interview with RCBC

DEPLOYMENT EVALUATION

Examined in this section are the operational benefits achieved as a result of the adoption of Finacle, including the magnitude of these improvements, which was a primary driver of the deployment's favorable financial metrics. Also identified and analyzed are the costs incurred by the bank in the deployment and operation of Finacle.

BENEFITS

Upon examining RCBC's Finacle deployment, Aite Group analysts identified benefits in two primary areas: increased productivity and profits earned on newly introduced products.

INCREASED PRODUCTIVITY

With a single core banking system supporting the bank's banking and thrift operations as well as its multiple business lines, automation within Finacle replaced many manual processes and improved other processes that had been automated or semi-automated. For example, prior to the deployment, customer-facing employees often relied on separate transaction systems to complete different transactions for a given customer, leading to lengthy work flows, a limited view of the customer, and limited opportunities for cross-selling and up-selling. Centralizing and standardizing transactions and processes within Finacle eliminated these hurdles to productivity and better customer service. Table B identifies and details the processes that were improved as a result of the deployment.

Table B: Productivity-Related Outcomes

Process	Outcome
Teller-based transactions	10% reduction in per-transaction cost
Straight-through processing	With the deployment, RCBC eliminated manual general ledger booking for branch-to-branch foreign exchange transactions; automating tasks and eliminating errors and error-driven rework reduced budget for this department by more than 25%
Processing of teller-based transactions	Automating and eliminating tasks increased daily transaction volume per employee by 33%
Inward remittance processing	Full automation with straight-through processing
Processing of internet banking transactions	300% increase in transaction volume with zero staff additions
Loan processing	24.7% increase in transaction volume with zero staff additions

Source: Aite Group, RCBC Bank

But what is the net impact of these improvements? RCBC significantly reduced its operating costs. The bank evaluates all of the personnel and infrastructure that perform back-office automation or provide customer support as a "service factory," with capacity and utilization rates that management tracks closely. The bank estimates that Finacle-driven productivity improvements, typically achieved in the form of avoiding new hires despite rapid bank growth, enabled RCBC to eliminate PHP2.1 billion in annual operating expenses. As productivity improvements were achieved in the months following the deployment, senior management used human resources policies, including staffing modifications, and in some cases, hiring freezes, to monetize these benefits. Wherever automation eliminated tasks or made them less labor intensive, managers were motivated to lower their operational costs by reducing headcount, using a combination of attrition, staff redeployments, and to a lesser degree, force reductions.

PROFITS EARNED ON PRODUCT INTRODUCTIONS

Although not quantified for this analysis, rapid new-product introductions were another benefit of RCBC's investment in Finacle. Among Finacle's features and functionality are prebuilt capabilities for offering new products to customers, including supporting automation of all back-office record keeping and straight-through processing. Since adopting Finacle, RCBC has used it to launch three new products by merely activating the associated capability within Finacle—no in-house modifications to user interfaces or custom code were required, and project cycle times were just two weeks for each. New products launched through Finacle thus far include the following:

- **Foreign exchange line of credit:** Finacle was used to provide RCBC customers with the ability to exchange Philippine pesos for Chinese yuan. The proximity of numerous local economies and the lack of a unified currency in the Pacific Rim provide RCBC significant opportunity to proffer foreign currency services to its customers, many of whom work abroad or have family outside of the Philippines. The bank expects to launch similar capabilities for additional local currencies during the next year.
- **All-in-one account:** RCBC introduced a new service that includes a checking account, an interest-bearing account, and a passbook (an account accompanied by a physical handbook in which the bank records transactions and balances). This product has been particularly successful among the bank's Chinese customers, who prefer to have a physical document that reflects their bank activity and can be regularly updated with a visit to a teller.
- **Prebuilt interest in arrears:** RCBC also used this capability within Finacle to enhance its existing discounted lending product.

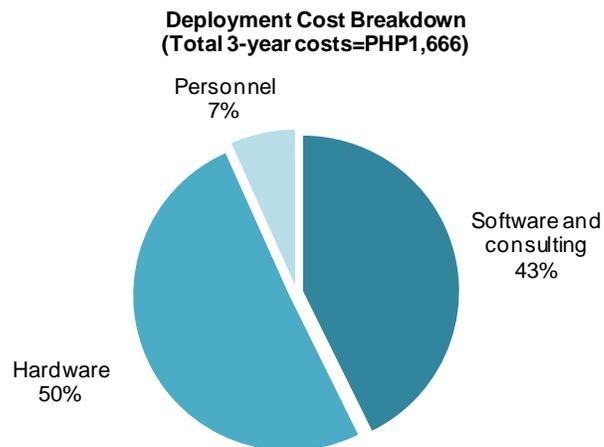
COSTS

Deployment costs consisted of investment in personnel, hardware, software, and consulting.

Personnel costs consisted of two categories of RCBC staff that worked on the deployment. During the project, a core team of 30 personnel dedicated approximately 75% of its time to the deployment. It worked with a team of Infosys consultants to identify the applications, functions, and processes impacted by the deployment and plan how they should be reconfigured to meet the bank's business requirements after Finacle was operational. An additional 220 employees also worked on the deployment, of which two-thirds worked only part time. These employees upgraded applications, tested functions, reconfigured business processes, and reconfigured the hardware, best practices, and training at 400 RCBC branches.

Software and consulting costs consisted of the purchase of Finacle software, the cost of consulting assistance in the configuration of this application, and the solution's integration with RCBC's existing System z mainframe. The bank also invested in operating system upgrades for 2,500 desktop PCs. Hardware costs consisted of DB2 servers and new PCs, which were required to replace existing PCs whose operating systems could not be sufficiently upgraded for the new environment (Figure 3).

Figure 3: Deployment Costs



Source: Aite Group, RCBC Bank

CALCULATING THE ROI

Having obtained benefits over the three-year project timeline that exceed the initial costs, RCBC achieved deployment metrics detailed in Table C.

Table C: Summary Deployment Statistics

Metric	Outcome
ROI	54.4%
Payback period	2.07 years
Average annual net benefit	PHP608 million

Source: Aite Group

Aite Group calculated RCBC's ROI (average annual net benefit over three years/total initial deployment costs) on the Finacle deployment on the basis of an extensive interview with one of the deployment stakeholders. (The Financial Summary Appendix to this document contains supplemental data on the deployment.) Included in the calculation are costs incurred during both the deployment and over the three-year period following the go-live date. Aite Group also identified and analyzed all readily quantifiable benefits achieved over a three-year period after the go-live date.

All benefits achieved as a result of the deployment are indirect and comprise productivity-driven reductions to the bank's operating expenses. Although RCBC was unwilling to share some of its internal numbers publicly, the bank evaluates its back-office operations as a "service factory" and tracks many operational key performance indicators such as the number of remittances processed by administrative staff and the per-transaction costs of these processes. Based upon such analyses, the bank determined that approximately 29% of full-year 2009 operating expenses will ultimately be eliminated over the five years following the deployment. Aite Group included in its ROI calculation only the 50% of this benefit which RCBC expected to achieve during the three-year period covered by the analysis.

CONCLUSION

For banks considering a new investment in a core banking system or the replacement of one, Aite Group sees some important insights in RCBC's adoption of Finacle:

- **Core banking systems can be strategic assets.** Often thought of as workhorses for processing a large volume of transactions, core banking systems can be underappreciated as enablers of a bank's strategic objectives. The deployment improved customer service, enabled faster new-product introductions, and dramatically increased transaction processing capacity—all operational improvements that will help RCBC achieve its aggressive growth goals.
- **Senior management involvement is key.** Having embraced core banking as a strategic technology asset, senior management enabled the bank to rapidly benefit from the deployment. At many banks, junior and mid-level managers struggle against a change-averse culture to achieve improvements such as introducing new products and automating processes. Knowing that senior management was invested in Finacle empowered lines of business and operational facilities managers to rapidly improve their results by using the application to launch new products, eliminate manual tasks, and use staff redeployments or force reductions to reduce costs.
- **Rip and replace is not impossible.** RCBC's Finacle deployment proves an exception to the maxim that operationally critical deployments should be completed incrementally. RCBC converted virtually all of its branches, products, customers, and back-office operations to Finacle within weeks of the go-live date. RCBC achieved this through extensive pre-deployment planning, a close relationship with consultants, and the dedication of time to the deployment by internal subject-matter experts in a variety of roles. The rapid adoption of Finacle meant that benefits touched more customers, employees, and processes earlier, which increased the ROI and shortened the payback.

APPENDIX: FINANCIAL SUMMARY

Customer: RCBC Bank

Vendor: Infosys

Application: Finacle Core Banking Solution

Units: Millions of Philippine Pesos, except where otherwise noted

	Predeployment	Year 1	Year 2	Year 3	Total
Benefits:					
Direct benefits	Not Applicable	0	0	0	0
Indirect benefits	Not Applicable	<u>600</u>	<u>820</u>	<u>1,100</u>	<u>2,520</u>
Total benefits		600	820	1,100	2,520
Costs:					
Software & consulting	458	85	85	85	712
Hardware	547	99	99	99	843
Consulting	0	0	0	0	0
Usage-driven fees	N/A	0	0	0	0
Personnel	112	0	0	0	112
Training	0	0	0	0	0
Other	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	1,117	183	183	183	1,666
Net annual benefit		417	637	917	
Cumulative net benefit, including predeployment costs	-1,117	-700	-63	854	854
ROI					54.4%
Payback					2.07 years
Average annual net benefit					657
NPV—Average annual net benefit					608
Discount rate					3.50%

RELATED RESEARCH

Global Core Vendors: A Progressive Transformation, January 2013.

Growing Demand for Hosted Core Banking Systems, April 2013.

The Leading U.S. Core Vendors: Fueling Financial Institution Initiatives, July 2012.

ABOUT AITE GROUP

Aite Group is an independent research and advisory firm focused on business, technology, and regulatory issues and their impact on the financial services industry. With expertise in banking, payments, securities & investments, and insurance, Aite Group's analysts deliver comprehensive, actionable advice to key market participants in financial services. Headquartered in Boston with a presence in Chicago, New York, San Francisco, London, and Milan, Aite Group works with its clients as a partner, advisor, and catalyst, challenging their basic assumptions and ensuring they remain at the forefront of industry trends.

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