CELENT



CITIZENS FINANCIAL GROUP: BEYOND DIGITAL

WINNER OF CELENT MODEL BANK 2020 AWARD FOR COMMERCIAL BANKING TRANSFORMATION

Patricia Hines, CTP April 16, 2020

CASE STUDY

This is an authorized reprint of a Celent report profiling a Model Bank Award winning technology initiative and was not sponsored by Bottomline Technologies in any way. For more information, please contact Celent (www.celent.com or info@celent.com).

Celent Case Study

CASE STUDY AT A GLANCE

| FINANCIAL INSTITUTION | Citizens Financial Group | |
|-----------------------|---|--|
| INITIATIVE | Beyond Digital: Commercial Banking Transformation | |
| SYNOPSIS | Citizens Commercial Banking, a part of the Citizens Financial Group, embarked on a multi-year journey in 2017 to transform its business and technology ecosystem to improve the client experience and the delivery of offerings to clients. The initiative highlights the importance of balancing high tech with high touch to radically change the commercial client experience. | |
| TIMELINES | 2017: Project launched, accessOPTIMA® announced, Coverage Model and Concierge Service Phase 1 implemented 2018: accessOPTIMA, nCino onboarding, and Salesforce Service | |
| | Cloud delivery projects under way, Concierge Service Phases 2 and 3 implemented | |
| | 2019: Salesforce nCino/ Service Cloud rollout, accessOPTIMA Phases 1–5 rollout complete, Salesforce Client 360 View Phase 1, Concierge Service Phase 4, 24x7 | |
| KEY BENEFITS | accessOPTIMA online and mobile banking provide commercial and small business clients with an integrated suite of cash management and payment services that can be tailored by market or industry segment. | |
| | nCino provides expedited onboarding of a wide range of Cash, Liquidity and Commercial Card products. | |
| | Concierge servicing model provides exceptional client service and first contact resolution in the majority of cases. | |
| KEY VENDORS | Bottomline Technologies, Salesforce Sales Cloud & Service Cloud, nCino | |
| | | |

CELENT PERSPECTIVE

- Citizens Commercial Banking transformed its business and technology ecosystem in a multi-year, multi-faceted program to enhance the commercial banking client experience.
- A catalyst of the project was a new relationship manager coverage model to better align the bank's sales teams to all clients across a geographically expanding client base.
- Complementing this coverage model is a "white glove" concierge servicing model called Commercial Priority Services (CPS) that moves away from traditional and impersonal corporate banking service standards.
- On the technology front, the bank launched a cloud-based cash management offering, accessOPTIMA[®], an omnichannel engagement platform.
- The bank's commercial banking technology ecosystem incorporates various innovative fintechs to optimize human and digitally delivered onboarding and servicing.

- Providing 24x7 concierge service using leading technology tools is a differentiating business model in the bank's key regional and vertical markets.
- Long-term investments in core technologies such as Salesforce can now be significantly leveraged and enhanced through data automation, API connectivity / functionality, and new fintech integrations.

DETAILED DESCRIPTION

Introduction

Citizens Financial Group Inc. is one of the oldest and largest financial services firms in the United States. Headquartered in Providence, Rhode Island, where its roots date back to 1828, Citizens offers retail and commercial banking products and services to individuals, small businesses, middle-market companies, large corporations, and institutions. With award-winning mobile apps, robust online offerings, a 24/7 customer contact center, and the convenience of a large ATM and branch network that spans 11 states, Citizens is helping retail customers bank better every day. Citizens' mortgage lending, auto lending, student lending, and commercial banking businesses operate in select additional markets. Citizens Commercial Banking offers its corporate, not-for-profit, and institutional clients a broad range of wholesale banking products and services including treasury services, specialty finance, M&A advisory, foreign exchange, and interest rate products, capital markets, loan syndication, and sales and trading.

Citizens operates its business through two segments: Consumer Banking and Commercial Banking. Commercial Banking primarily targets companies and institutions with annual revenue of \$25 million and up. Commercial Banking offers a broad complement of financial products and solutions, including lending and leasing, trade financing, deposit, and treasury management, foreign exchange, interest rate, commodity risk management, corporate finance, and debt and equity capital markets capabilities.

Table 1: Citizens Financial Group Snapshot as of 12/31/2019

| | CITIZENS FINANCIAL GROUP |
|-----------------------------------|--|
| YEAR FOUNDED | 1828 |
| DEPOSITS | \$125.3 billion |
| ASSETS | \$165.7 billion |
| GEOGRAPHICAL PRESENCE | Providence, RI |
| EMPLOYEES | ~ 18,100 |
| OTHER KEY METRICS | 1,100 branches, 2,700 ATMs |
| RELEVANT TECHNOLOGIES AND VENDORS | Bottomline Technologies, Salesforce Sales Cloud / Service Cloud, and nCino |

Source: Citizens Financial Group

Citizens Commercial Banking embarked on a multi-year journey in 2017 to transform its business model and technology ecosystem to improve the client experience and the delivery of its offerings to clients.

Celent Case Study

As part of this transformation, Citizens established a multi-faceted program to enhance the client experience. The project's genesis was a new Relationship Manager (RM) coverage model that better aligns sales teams for all clients across a geographically expanding client base. Complementing the coverage model is a white-glove service model called Commercial Priority Services (CPS) that moves away from traditional corporate banking service standards of the past.

On the technology front, the bank launched a cloud-based cash management offering, accessOPTIMA®. The bank positions the omnichannel engagement platform to:

- Make clients smarter.
- Make clients' businesses smarter.
- Make RMs and bankers smarter to proactively serve clients' needs.

Citizens' larger technology ecosystem incorporates various innovative fintechs to streamline human and digitally delivered onboarding and servicing.

Opportunity

Citizens Commercial Banking is a significant component of Citizens Bank, a super-regional US bank that competes with large international banks, several peer regionals, technology giants, and fintechs for middle market and midsize corporate clients. With a broad set of competitors, the bank faced:

- Massive money center bank investment in digital technologies and services (often billions of dollars annually).
- Community bank servicing flexibility and personalization.
- Client organization and product need complexity.
- Fintech, neobanks, and big technology competitor (Amazon, Alipay, etc.) threats.

Prior to launching the transformation project in 2017, Citizens provided different client servicing entry points for cash management versus lending clients. As they weighed go-forward options, the bank realized that giving everyone a 1-800 number felt like the 1980s and that the bank's self-service options weren't in line with the rest of the industry.

The bank undertook a "mission to align behind the client" and landed on a combined strategy across all of Commercial Banking: Technology, Sales, and Operations — give clients a single client-serving point of contact across all solutions.

Citizens recognized that consumer needs for personalized banking options, in digital and inperson channels, are increasingly bleeding into business-to-business (B2B) contexts. The bank's organizational scale allowed it to make an investment in client servicing, while its regional bank size enabled it to follow an agile and flexible implementation process.

From a servicing perspective, both RMs and clients had to negotiate a complex web of back office teams to resolve administrative issues and answer servicing questions. Some simple requests like address changes would travel via the RM through a chain of support staff for resolution, then back to the RM for notification of completion to the client.

Solution

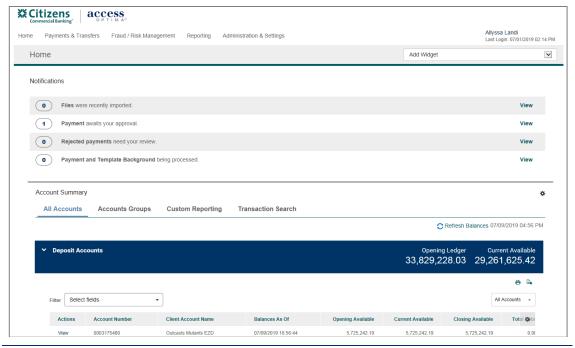
Client-facing technology

The bank partnered with Bottomline Technologies to deploy accessOPTIMA, an online and mobile banking platform for commercial and business banking clients. The new digital banking

Selent Case Study

platform provides clients with an integrated suite of cash management and payment services that can be tailored by market or industry segment.

Figure 1: Citizens accessOPTIMA



Source: Citizens Financial Group

Citizens chose Bottomline after undertaking an RFP process. Citizens was looking for a solution that wouldn't require extensive changes to its core systems, but that was API-enabled and available in an SaaS deployment model (hosted in Bottomline's data center). Citizens felt that Bottomline presented their solution well, articulating its advantages over other options. Also, Bottomline was not a new provider to the bank. Citizens offers Bottomline's PAYMODE-X solution, rebranding it as accessPAYMODE-X. Paymode-X is a payment network that Bottomline positions itself to help businesses easily transition from paper to electronic payments, maximizing cost savings, efficiency, and security.

Citizens doesn't consider Bottomline's online banking platform as commercial off-the-shelf software (COTS), but as a platform on which the bank can build future solutions. This is an extension of Citizens' platform approach across Commercial Banking where it leverages native Salesforce, Salesforce Sales Cloud, Salesforce Service Cloud, and nCino to build additional widgets on top of the bank's Customer Engagement Platform, connecting 20 to 25 back and middle office systems.

The accessOPTIMA platform solves many former client challenges (Table 2):

Table 2: Solving Client Challenges

| EXISTING CLIENT CHANNELS | ACCESSOPTIMA SOLUTION |
|--------------------------|---|
| STEEP LEARNING CURVE | accessOPTIMA is an intuitive platform that reduces training time for internal colleagues as well as external customers. |
| DELAYED REPORTING | accessOPTIMA provides real time reporting on balances and transactions. |

| CUMBERSOME WORKFLOWS | accessOPTIMA is highly customizable, allowing users to add functions and reports to any of the screens. Additionally, the platform provides an integrated payment center that includes all payment types and templates in one screen. This allows for a more efficient workflow process with fewer clicks. | | |
|--|--|--|--|
| LIMITED SELF-SERVICE | accessOPTIMA allows clients to reset their passwords, along with assigning and managing tokens for their users. The reset password feature will reduce approximately 10,000 annual calls or 15% to 20% of previous Client Services call volume. | | |
| LIMITED CLIENT SERVICES CONTACT OPTIONS | accessOPTIMA has a live chat feature that will help clients reach a representative right from their desktop. | | |
| LIMITED CHANNEL FUNCTIONALITY | accessOPTIMA has a responsive design which allows full functionality on any device (mobile, desktop, or tablet). | | |
| Source: Citizens Financial Group | | | |
| White-glove concierge servicing model To complement the complete re-platforming of client-facing technology, Citizens' concierge-at-scale servicing model, Commercial Priority Services (CPS), moves significantly away from a traditional corporate banking servicing approach and standards. In a four-phase, multi-year program, each of the bank's RMs and their ~8,000 commercial clients were aligned to a | | | |

dedicated (named individual) servicer tasked with resolution of any banking issue. The RM remains the trusted advisor from a strategic perspective, while a Concierge Specialist (CS) provides personal assistance and service to both RM and client and manages any operational or administrative request/issue. As shown in Figure 2, CPS also acts as a key enabler for ongoing technology changes that impact clients and new product launches, such as the new

· The platform supports enhanced retention periods to 7 years for image

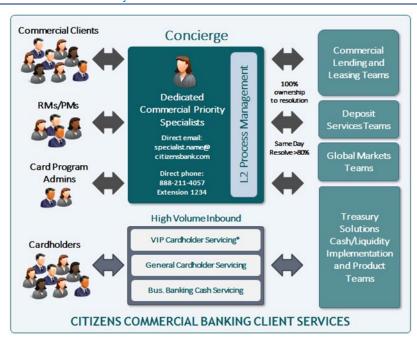
archive and 18 months for balances and transactions.

Figure 2: Citizens Commercial Priority Services

digital banking platform, accessOPTIMA.

LIMITED REPORTING &

RETENTION PERIODS



Source: Citizens Financial Group

Celent Case Study

Optimizing channel experiences and operational efficiency

Salesforce has been in the bank for more than 10 years and is used across CRM, analytics, servicing, and marketing. Salesforce was Citizens' main platform for revamping the onboarding and client engagement experience, through nCino's workflow-enabled treasury management onboarding solution and Service Cloud ticketing.

Previously, Citizens had a fragmented onboarding process and felt that workflow was critical to effective streamlining and restructuring. Citizens considered whether to build or buy the workflow tools needed and ultimately chose nCino because of its alignment with Salesforce and its growing adoption by peer banks.

Citizens' Model Bank submission highlighted its innovative use of embedded Salesforce onboarding workflows leveraging nCino's Treasury Onboarding solution. Citizens believes it was the first major bank to digitize cash, liquidity, and card onboarding processes on the nCino platform, consolidating workflows and customer intelligence into a common ecosystem that is integrated with the bank's Salesforce ecosystem. The bank is working on a number of proofs of concept for a customer-facing onboarding portal, especially important for streamlining onboarding of smaller business clients.

Citizens' human and digital banking service channels are supplemented by technical enhancements, analytics, media, and workflow solutions that optimize both channel experiences and operational efficiency including:

- Onboarding workflows embedded within Salesforce.
- Case management using Salesforce Service Cloud.
- Citizens Listens voice of client research, text analytics, and close loop functions (25,000 surveys distributed per year with a 22% response rate) through Medallia.
- Client- and colleague-facing video training for products and processes.
- Data preparation and analytics, delivered to automated browser-based dashboards.
- Contract, terms and conditions, and supporting documents with e-signature.
- Knowledge management tool for article delivery.
- Live chat.
- Robotic process automation and workflow orchestration of more than 60 processes (the majority of which tie to the onboarding and servicing capabilities of the program).

Implementation

With two major initiatives happening simultaneously, a challenge for the bank as it managed phased rollouts was communication. The Operations team was fortunate to be able to align Phase 1 of the Concierge rollout with the 2017 change in the Corporate Banking relationship management coverage model, but communicating the concept and practicalities of the assignments and changes to RM teams in each phase involved a variety of marketing and communications tactics, including:

Client-facing:

- Formal, branded client introductory emails, including help packets with a Specialist Contact Placemat (headshot, direct phone, and email details, etc.).
- Follow-up RM-led client phone introductions to explain new servicing options and ensure receipt of introductory email and help packet materials.
- Proactive follow-ups for engaged clients at regular intervals.

- Proactive follow-ups for non-responsive clients to ensure utilization of the new servicing model.
- Client site visits with RMs over time, as necessary.

Figure 3 depicts the CPS Quick Reference Guide provided to clients.

Figure 3: Citizens Commercial Priority Services Quick Reference Guide



Source: Citizens Financial Group

Relationship Managers:

- Commercial Head and Regional/Vertical President buy-in.
- Regional/Vertical RM Team Lead buy-in calls and CPS overview packet emails.
- Dozens of RM Team Lead buy-in calls (overview and specialist introductions).
- Insertion of Specialist into recurring RM team calls.
- Inclusion of reference slide in pitch materials.
- Changes to RM e-mail signatures and voicemail messages.
- Changes to Salesforce access/permissions to allow client record updates for key contacts.

Organization-wide:

- Comprehensive Commercial Bank-wide communications aligned with Coverage Model rollout, including All Colleague emails, calls, and intranet postings.
- Concierge team introduction Intranet posts.
- Bank-wide and Commercial Bank intranet postings and All Colleague call updates for significant wins (e.g., phased rollout completions, client good news stories).

- Periodic updates up to Board-level communications and success story spotlights.
- RM and Servicing contact changes across multiple CRM, lending, and treasury systems of record.

Figure 4: Citizens Commercial Priority Services Specialist Introduction

Meet the CPS team

Commercial Priority Services specialists help clients and bankers get answers
April 5, 2017

Over the past year, Commercial Operations has made great strides in enhancing onboarding, operational and client servicing models, all with one goal – to support Commercial bankers as a strategic partner throughout the lifecycle of their clients' businesses

When the Ops team continued to hear feedback from bankers and clients that opportunities existed to strengthen its service model, they took action by launching Commercial Priority Services (CPS).

CPS is a centralized servicing team that provides a one-stop, high-touch concierge service directly to Corporate Banking relationship managers and clients. Each client and RM are assigned a dedicated, highly-trained specialist who is empowered to swiftly and effectively address a wide variety of account servicing needs in a true end-to-end experience.

The new model (see how it works) enhances clients' experience in day-to-day interactions with the bank and allow bankers to devote even more time to helping clients and prospects harness financial opportunities that drive shared value and growth.

And the initial feedback is very positive. Since launching on March 1, approximately half of Corporate Banking RMs are actively using CPS and a growing number of clients are contacting their CPS specialists directly.

Below, meet the CPS specialists working to provide exceptional services to Commercial clients every day.



Allyssa Landi Years with Citizens: Two

What was your very first job?

My very first job was as a cashier at a supermarket. It's where I discovered that doing everything with a smile not only brightens the customer's experience but also lifts the atmosphere around you.

How do you spend your time outside of work?

Outside of work I spend as much free time with my husband as I can. We love to kayak, fish and go out to eat. We try to have fun all the time. We are very active in our church youth ministry. We plan games and activities for all elementary and middle school ages.

Source: Citizens Financial Group

accessOPTIMA

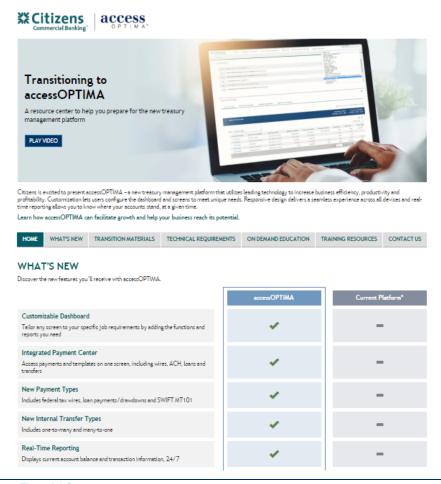
CPS played a key role in a successful accessOPTIMA implementation, leveraging both Concierge and dedicated transition specialists to support our clients throughout the transition. The bank originally planned on six or seven migration waves, starting off with lower complexity customers and then moving to those clients with increased complexity. The bank ended up using an external migration specialist, helping to reduce transition risk and cutting the number of required waves to five.

Other key success factors in accessOPTIMA migration included:

 A high-quality early access pilot, followed by general availability for new clients and seamless integration of existing clients in five separate waves.

- Proper planning in terms of the order in which customers moved platforms was also a
 critical planning step; we identified early adopters based on their ability to provide reliable
 feedback as the implementation progressed.
- Careful analysis during each phase of the Go Live, ensuring we delivered agreed-upon functionality that was required for customer success, meeting our communicated dates, and ensuring our customers were optimally using the system.

Figure 5: Citizens accessOPTIMA Transition Microsite



Source: Citizens Financial Group

Project Team

The scale of the delivery team and ecosystem fluctuated between 5 and 40 dedicated FTEs over the 2- to 3-year delivery program; however, the following key groups were involved in delivery of the new client coverage and servicing models, along with technology infrastructure:

- Commercial Executive Leadership Group.
- Regional Presidents, Team Leads, and Relationship Managers (~200).
- Treasury Solutions Executive and Sales Leadership.

Celent Case Stud

- Commercial Client Services Senior & Team Leadership (Business Alignment, Delivery, and Marketing).
- Commercial Shared Operations (Program Management/Delivery).
- Commercial Bank Marketing (Message Alignment and Communications).
- Commercial Operations Business Line SMEs (consultancy).
- Enterprise Marketing team (organization-wide comms/voice of client research capabilities).
- Bottomline, Salesforce, Medallia, nCino (customized technology components).
- Technology Solutions for accessOPTIMA, nCino, and Salesforce Service Cloud delivery, and fintech integrations such as DocuSign (electronic signatures) and Allego (learning and readiness).
- Transition Specialists (~20) for accessOPTIMA rollout.

Results, Lessons Learned, and Future Plans

Citizens feels strongly that its key to success was the partnerships across the bank, pulling them together to ensure a successful outcome. In addition, the bank saw demonstrable benefits from the concierge servicing model, onboarding tools, and operational improvements.

Concierge servicing model benefits:

Verbatim feedback indicates that the dedicated servicer per RM and client provides exceptional service in the vast majority of cases and drives very high satisfaction, with both Concierge Specialists and the bank. RMs and sales associates greatly appreciate the assistance Concierge partners provide and the time it gives back to them to deliver higher-value advisory and opportunities to clients.

Back office partners appreciate that clients no longer have to contact them directly, and that when they are contacted by the Specialist with an issue, it is generally complex, and their expertise adds value to the client interaction. The concierge model also saves significant client effort and wait time across dozens of products, workflows, and processes.

Interestingly, the Concierge team has become a great feeder path into a diverse range of senior roles within Operations, especially within operations-wide shared services teams, due to their wide-ranging product knowledge and in-depth expertise of client service processes, interaction dynamics, and pain points.

Additional benefits include:

- Client support 24x7 across human and digital channels, for 8,000 unique clients located nationwide.
- Every RM and Client has a dedicated Concierge Specialist providing personal White Glove Service (this is managed at scale).
- Concierge Specialists are highly skilled and cross-trained across all commercial banking products (lending, treasury, and global markets) providing knowledgeable administrative support.
- Integration of key servicing technology, and automation of more than 50 workflows.
- Digital product training of key features for 40+ cash, liquidity, card and lending products/systems.
- CPS acts as a key enabler for ongoing technology changes that impact clients and product launches, such as the new digital banking platform, accessOPTIMA.

Optimizing channel experiences and operational efficiency benefits:

- Long-term investments in core technologies (e.g., Salesforce) which can now be significantly leveraged and enhanced through data automation, API connectivity/functionality, and new fintech integrations.
- Complementary fintech offerings, enhancing Servicing infrastructure or existing/new product delivery.
- Overall industrialization of core processes through workflow integration, automation, selfserve training, and process improvements has shortened client implementation timetables from 58 days in early 2017 to 3 to 10 days by EOY 2019.

Lessons learned and future plans

The CPS model will continue to support future accessOPTIMA functionality and the bank's digital and human product and servicing end-state vision over the next 12-plus months. Completing the 24x7 in-person concierge coverage implementation, implementing a VIP Corporate Cardholder servicing function, and integrating Global Markets and Asset Finance into the model, along with delivery of a complete 360° view of each client and rolling out specialist product portals within Salesforce, will enable us to:

- 1. Transform accessOPTIMA into an engagement platform versus a place to transact. As we continue to expand and enhance the platform and layer additional machine learning capabilities, accessOPTIMA will be able to:
 - Make clients smarter, helping them to automate common tasks, identify important events, and personalize the system based on their behavior and persona.
 - Make our clients' businesses smarter, helping them to compare their financial performance to peer companies, providing intelligent cash flow forecasting, and identifying their next-best product.
 - Make RMs smarter, helping them to identify relationship revenue opportunities and risk, financial events to know about, and next-best products for relationships.
 - Make bankers smarter, helping to drive franchise value, portfolio, and product performance.

Projects are already underway to upgrade the platform with a 2020 target release. This release is set to include real time payment initiation, soft tokens, account reconciliation reporting, and additional enhancements in payment and reporting capabilities. Longer term, the bank is working toward a workflow-enabled unified commercial lending portal.

- 2. Evaluate and integrate fintech into the digital client onboarding and servicing stack:
 - Near term (being implemented):
 - Biometric authentication
 - o Co-browse (tech stack-wide) servicing
 - Salesforce Trailhead self-serve/gamified knowledge building platform
 - Salesforce Quip Case Swarming
 - Secure SMS/Messenger integration
 - Mid term
 - o Active listening omnichannel real time voice of the client feedback
 - Al-based service chat triage
 - Al-enhanced knowledge base integration with live and automated service chat
 - Al-enhanced text and speech analytics

- o Client-facing Commercial Card portal
- Client-facing onboarding portal
- o Cisco to Salesforce telephony integration
- o Chat2Case functionality
- Salesforce lending workflow integration

Longer term

- o Behavioral banking and next-best servicing recommendations
- o Integrated communications platform/portal
- Loan onboarding via nCino/Salesforce
- o KYC collaboration and automation tools
- ServiceChat digital persona overlay

Citizens Commercial Banking's initiative to radically change its business and technology ecosystem highlights the importance of balancing high tech with high touch to revolutionize the commercial client experience, earning the bank this year's Model Bank Award for Commercial Banking Transformation.

Copyright Notice

Prepared by

Celent, a division of Oliver Wyman, Inc.

Copyright © 2020 Celent, a division of Oliver Wyman, Inc., which is a wholly owned subsidiary of Marsh & McLennan Companies [NYSE: MMC]. All rights reserved. This report may not be reproduced, copied or redistributed, in whole or in part, in any form or by any means, without the written permission of Celent, a division of Oliver Wyman ("Celent") and Celent accepts no liability whatsoever for the actions of third parties in this respect. Celent and any third party content providers whose content is included in this report are the sole copyright owners of the content in this report. Any third party content in this report has been included by Celent with the permission of the relevant content owner. Any use of this report by any third party is strictly prohibited without a license expressly granted by Celent. Any use of third party content included in this report is strictly prohibited without the express permission of the relevant content owner This report is not intended for general circulation, nor is it to be used, reproduced, copied, quoted or distributed by third parties for any purpose other than those that may be set forth herein without the prior written permission of Celent. Neither all nor any part of the contents of this report, or any opinions expressed herein, shall be disseminated to the public through advertising media, public relations, news media, sales media, mail, direct transmittal, or any other public means of communications, without the prior written consent of Celent. Any violation of Celent's rights in this report will be enforced to the fullest extent of the law, including the pursuit of monetary damages and injunctive relief in the event of any breach of the foregoing restrictions.

This report is not a substitute for tailored professional advice on how a specific financial institution should execute its strategy. This report is not investment advice and should not be relied on for such advice or as a substitute for consultation with professional accountants, tax, legal or financial advisers. Celent has made every effort to use reliable, up-to-date and comprehensive information and analysis, but all information is provided without warranty of any kind, express or implied. Information furnished by others, upon which all or portions of this report are based, is believed to be reliable but has not been verified, and no warranty is given as to the accuracy of such information. Public information and industry and statistical data, are from sources we deem to be reliable; however, we make no representation as to the accuracy or completeness of such information and have accepted the information without further verification.

Celent disclaims any responsibility to update the information or conclusions in this report. Celent accepts no liability for any loss arising from any action taken or refrained from as a result of information contained in this report or any reports or sources of information referred to herein, or for any consequential, special or similar damages even if advised of the possibility of such damages.

There are no third party beneficiaries with respect to this report, and we accept no liability to any third party. The opinions expressed herein are valid only for the purpose stated herein and as of the date of this report.

No responsibility is taken for changes in market conditions or laws or regulations and no obligation is assumed to revise this report to reflect changes, events or conditions, which occur subsequent to the date hereof.

For more information please contact info@celent.com or:

Patricia Hines

Tel.: +55 11 3878 2000

phines@celent.com

| AMERICAS | EUROPE | ASIA |
|---|--|--|
| USA | France | Japan |
| 99 High Street, 32nd Floor Boston, MA 02110-2320 Tel.: +1.617.262.3120 Fax: +1.617.262.3121 | 1 Rue Euler Paris 75008 Tel.: +33.1.45.02.30.00 Fax: +33.1.45.02.30.01 | The Imperial Hotel Tower, 13th Floor 1-1-1 Uchisaiwai-cho Chiyoda-ku, Tokyo 100-0011 Tel: +81.3.3500.3023 Fax: +81.3.3500.3059 |
| USA | United Kingdom | Hong Kong |
| 1166 Avenue of the Americas New York, NY 10036 Tel.: +1.212.541.8100 Fax: +1.212.541.8957 | 55 Baker Street London W1U 8EW Tel.: +44.20.7333.8333 Fax: +44.20.7333.8334 | Unit 04, 9 th Floor Central Plaza 19 Harbour Road, Wanchai Tel.: +852 2301 7500 |
| USA | Italy | <u></u> |
| Four Embarcadero Center, Suite 1100 San Francisco, CA 94111 | Galleria San Babila 4B Milan 20122 | |
| Tel.: +1.415.743.7900 Fax: +1.415.743.7950 | Tel.: +39.02.305.771 Fax: +39.02.303.040.44 | |
| Brazil | Switzerland | |
| Rua Arquiteto Olavo Redig de Campos, 105 Edifício EZ Tower – Torre B – 26° Andar São Paulo SP 04711-904 | Tessinerplatz 5 Zurich 8027 Tel.: +41.44.5533.333 | |