

## A CLOSER LOOK AT CELERITI

### 1. WHAT IS CSC ANNOUNCING?

We are announcing two things. First, we are unveiling Celeriti™, CSC's new end-to-end suite of modern enterprise banking, payments, lending, cards and merchant products. Celeriti is available for financial institutions of all sizes that need:

- Rich functionality
- Speed, flexibility and responsiveness
- Fully integrated processing software
- An expanded range of operating platforms
- The ability to deploy in-house or hosted by CSC.

And second, for clients currently using CSC's Hogan® Banking Systems or CAMS II™ Card & Merchant System, we are announcing a series of Celeriti components that allow an innovative, incremental update to a new systems environment. This Progressive Modernization approach helps you:

- Modernize your existing environment in-place and incrementally
- Implement new components one-by-one according to your own business priorities and on your own timetable
- Follow the lowest-cost, lowest-risk path to new technology compared to in-house development or a rip-and-replace project.

### 2. WHY THE NEW DIRECTION?

For many years, CSC's Hogan Banking Systems and CAMS II Card & Merchant System have been the core banking and cards management workhorses of top-tier banks and processors around the world. About 3 years ago, we began to plan for CSC's new generation of software to serve clients for decades to come.

We researched industry trends and analyst reports, and most importantly, we talked with our clients about their needs beyond the scope of our current products to ensure we knew what mattered. On the IT side, we established objectives to support financial services firms' desires to:

- Modernize and simplify their systems environments
- Contribute speed and agility to the business
- Reduce implementation risks and costs
- Lower total cost of ownership.

In 2007, we formalized our investment plans, designed the new architecture and chose the new technology and tools. In 2008, we committed to and began a multi-year program to develop the new software suite. Many components of Celeriti are available now.



### 3. HOW DOES THE DEVELOPMENT OF CELERITI BENEFIT BANKS AND OTHER FINANCIAL ORGANIZATIONS?

Our development of Celeriti provides numerous benefits to our clients and appealing opportunities for prospective clients.

#### ***Improve the Customer Experience***

As competition for customers continues to intensify, banks must deliver a distinctive experience to their customers. This encompasses responding to customers within their designated acceptable time frames, through their preferred channels, and consistently across the various channels themselves. Customer loyalty will then be driven by quality of service, ease of access to information, product relevance and pricing.

Consider, for example, a bank's Internet banking site that still requires customers to download and fill out a form in order to open a new account. Many institutions can't employ newer technologies that incorporate video or targeted presentations for each customer, to enrich the customer experience. They are inhibited by the inability to send large messages to the mainframe with very fixed, static data. And, they would like to bring in content from other sources and communicate with the host application more frequently as customer information changes. Celeriti addresses these existing limitations by extending the core banking and cards functionality via a modernized architecture.

Our goal is to deliver end-to-end capabilities across all the delivery channels including mobile, leveraging standardized Web services and business processes. A service-oriented architecture (SOA) layer is the most efficient way to connect core systems to customer channels.

#### ***Connect with Customers Consistently Across All Channels***

A seamless, consistently excellent customer experience must permeate all parts of the business and all channels. Customers are already expecting their checking, savings, loan, debit and credit card information to be aggregated and delivered through their preferred touch points with a consistent level of service and reliability.

Banks suffer today because channels have grown up as a series of point solutions from different vendors. Current configurations offer very little visibility from one channel to the other. A customer might start a process on the Internet, get frustrated and phone the call center — where a customer service representative can't access work started in the online banking channel. Leverage of the Celeriti core systems in conjunction with Celeriti SOA avoids that scenario by enabling harmony among the channels that's not otherwise possible.

#### ***Support Speed to Market, Personalized Products and Bundling***

Broader customer segmentation is no longer sufficient. Banks and other financial institutions need to expand their services and product portfolios to provide offerings tailored to specific customers. Most businesses already have the information they need to do this. However, their systems must be capable of real-time delivery of a growing array of information as well as new products, features and pricing. Processes must be capable of adapting quickly to support those products and varying customer requirements.

Celeriti revolutionizes the enterprise by using information to drive business processes and manage key performance indicators proactively.

Celeriti can also help you use information to develop customer intimacy, understand your customers' needs and preferences, and deliver targeted and relevant offerings.

### **Boost Operational Efficiency**

Throughout the financial services industry, companies are looking for ways to focus on their core competencies and outsource non-core activities to third parties. Celeriti gives organizations a flexible SOA that allows banks to disaggregate their business through business process outsourcing (BPO) and software as a service (SaaS) in concert with their on-premise capabilities. Celeriti allows companies to deploy best-of-breed solutions, products and services according to their needs.

### **Reduce Implementation Costs and Risks**

Many banks are struggling under the constraints of their legacy environments, and they're concerned about the costs and risks of wholesale system replacement. Programs requiring large capital expenditure will continue to be heavily scrutinized and delayed. Celeriti's Progressive Modernization gives banks a lower-risk path and an incremental way to modernize their systems and align the introduction of the new Celeriti components with their business priorities. Celeriti also reduces total cost of ownership through the use of technologies such as business process management (BPM) and a business rule management system (BRMS). These put greater control in the hands of the business, and speed time to market for new product introduction and changes as well as regulatory compliance.

### **Choose from Many Technology Options**

Through the use of hybrid platform options, Celeriti offers banks choices on how to configure their environment, align their technology investments with the business needs and lower their IT costs. In addition to in-house implementations, Celeriti can be implemented as hosted applications (i.e., SaaS or cloud-based) and as BPO services. Premise-free banking and cards services expand the range of choices available to mid-tier and even smaller financial institutions.

### **Simplify Systems**

Celeriti breaks down complex legacy silos, allowing greater access to information, easier maintenance, and simplified integration through standardized open IFX Web Services deployed to IBM middleware including an enterprise service bus. For banks operating in multiple countries where there is a need for in-country processing, Celeriti offers the option to run one globally applicable product suite and code base, rather than different software products for different markets, tiers or operating platforms.

## **4. WHAT ARE THE KEY CHARACTERISTICS OF THE NEW SOFTWARE?**

CSC's Celeriti software suite is comprised of five products: Celeriti Customer, Celeriti Deposits, Celeriti Loans, Celeriti Cards and Celeriti Merchant. These are available to banks and processors that don't already use CSC's banking or cards software, and to current customers considering entirely new systems.

Celeriti is based on one globally applicable code base for banking, payments, lending, cards and merchant management — not different software products for different markets, tiers or operating platforms. The software is scalable and represents considerable savings to banks with international presence that need consistent in-country processing.

The five new Celeriti products incorporate major new capabilities that can also be delivered as separate components to existing customers. The major new capabilities are:

- **Web Portal User Interface**

Celeriti's Web portal for the front and back offices speeds processing, improves customer service and enhances employee productivity. The use of Web 2.0 technologies provides a richer experience through dynamic content and personalization. Most inquiries, updates and transactions now require far smaller amounts of information to be relayed between the user and the server, saving bandwidth and time, improving security and setting the stage for rich Internet applications. New user interfaces are easier to learn, and even reduce data entry errors by checking spelling and verifying facts as they are typed.

- **SOA Business Processes and Web Services**

Celeriti is based on an entirely new SOA that includes reusable Web services and business processes that allow banks to break down the organizational silos and standardize their business processes across delivery channels to improve the customer experience. The new Web services enable easier integration with internal and third-party systems, reduce the costs of maintenance and support, and simplify integration. Celeriti SOA Business Processes and Web Services are being developed according to the industry-leading IFX 2.x standard, which allows banks to more easily integrate to other vendors' systems and third parties that use those standards.

- **Business Intelligence and Data Warehouse**

Celeriti's Business Intelligence and Data Warehouse components centralize data extracted from all five core Celeriti products — Customer, Loans, Deposits, Cards and Merchant — and across the enterprise.

Built on an IFX-standard object model, these components create a large store of transaction information that banks can use to better understand their customer needs, relationships and behavior, and for multiple purposes including marketing, sales, risk management and fraud prevention. CSC will expand the offering to include analytics, dashboards and key performance indicators as part of a major paradigm shift whereby data is used to proactively drive the business.

- **Business Rules and Parameters**

Celeriti incorporates BPM and a BRMS to rapidly launch new products and services, modify business processes, and respond to regulatory, compliance and association mandates. Its business rules and product development tools will evolve to allow business users to define products and eliminate current-day parameter-setting mechanisms.

- **Distributed Platform Architecture**

Having more platform options broadens Celeriti's appeal and usability for banks and processors of all sizes and resources. Celeriti runs on z/OS, z Linux, Linux, Unix and Windows or any combination. This platform flexibility allows organizations to lower their processing costs by selecting the operating environment appropriate to their operations, availability, security and other needs. In a hybrid environment an organization may choose to run the Celeriti Web Portal on one platform, the SOA Business Processes and Web Services on middleware on another and the core processing on a third platform. On IBM's System z, specialty processors reduce IT costs and core MIPS consumption through virtualization, offloading work, and extension to utility computing models such as SaaS, cloud computing, etc.

## 5. HOW IS CELERITI BETTER THAN OTHER VENDORS' OFFERINGS?

Many vendors have proprietary systems that weren't designed for easy integration. Other vendors have simply wrapped their existing transactions as Web services. Celeriti is based on completely new SOA with delivered business processes that govern processes consistently across the enterprise and orchestrate granular Web Services developed on the IFX 2.x standard. The new Celeriti Web Portals provide a rich Internet application, the ability to personalize the user interface by role, and improved security. The Celeriti Business Rule and Parameters components provide time-to-market advantages in defining new products and complying with regulatory changes. But the biggest differentiator is having a unified, modernized systems environment based on a single, flexible code base.

Unlike banking software from other vendors, in-house proprietary systems, and the restrictive or limited capabilities of card processors, CSC's Celeriti provides a modern, scalable, componentized architecture with sophisticated and highly flexible tools that adapt processing quickly and easily to changing business requirements.

## **6. WHAT KINDS OF ORGANIZATIONS WILL BENEFIT MOST FROM CELERITI?**

If you're interested in the latest technology, rich functionality and flexibility at a lower cost of ownership than Celeriti is for you. It's intended for all banks and financial organizations – international or regional – and suited for institutions of any size.

The Celeriti suite – Customer, Deposits, Loans, Cards and Merchant – will benefit organizations that aren't using CSC's Hogan Banking Systems or CAMS II Card & Merchant System, and existing CSC clients looking to replace a system.

Specifically for current clients using Hogan and CAMS II, we offer Progressive Modernization that provides five types of Celeriti components – Web Portal, SOA Business Processes and Web Services, Business Intelligence and Data Warehouse, Business Rules and Parameters, and the Celeriti Distributed Platform Architecture.

These Celeriti components enable existing clients to achieve the capabilities of new Celeriti clients.

The software is scalable for companies of all sizes, and represents considerable savings to banks with international presence that need consistent in-country processing.

Celeriti is for banks of all sizes looking for substantially more pre-integrated end-to-end functionality out of the box. It's also for global banks wanting multiple, in-country deployments using a single codebase.

## **7. WHAT IS PROGRESSIVE MODERNIZATION?**

Many of CSC's banking and cards clients are looking at how to modernize their environments, and they're concerned with the costs and risks of rip-and-replace approaches. CSC's new Celeriti software offers an innovative, Progressive-Modernization approach. It's a lower-risk path to incremental modernization of their current systems according to their own business priorities and on their time frames.

The Progressive Modernization approach allows Hogan Banking Systems and CAMS II Card & Merchant System clients to implement the five integral Celeriti components – Web Portal User Interface, SOA Business Processes and Web Services, Business Intelligence and Data Warehouse, Business Rules and Parameters, and the Distributed Platform Architecture – in-place and incrementally on their unique time frames, and according to their business priorities.



New components are broken into smaller updates that deliver the components with less disruption and lower risk. The Celeriti updates can coexist with the current capabilities, thereby allowing gradual cutover to the new capabilities. For example:

- The SOA Business Processes and Web Services component can coexist with the existing forms of integration such as Platform Automation System and Hogan System Integrator. This enables you to introduce the new SOA Business Processes and Web Services for one delivery channel and then incrementally extend it to the other channels and across the enterprise as the business desires.
- The Web Portal User Interface component can coexist with your current user interface, allowing incremental rollout across the organization.

Clients also benefit from their investments in custom functionality while modernizing their application environment and infrastructure — no need to rip and replace.

## 8. WHAT HAS CSC COMPLETED SO FAR?

Development of Celeriti components (Web Portal User Interface, SOA Business Processes and Web Services, Business Intelligence and Data Warehouse, Business Rules and Parameters, and the Distributed Platform Architecture) has been ongoing over the past 3 years in our U.S. and offshore development labs, and in collaboration with various existing clients. To date, the following Celeriti work has been completed:

- Defined our reference architecture, deployed new hardware and software, formed our global development teams and trained our people in the new technologies. This is our standard approach to initiating all large-scale development projects.
- Completed the Celeriti Distributed Platform Architecture (converting 2.3 million lines of assembler). This allows Celeriti products to run in a distributed platform environment.

- Completed testing of Celeriti Customer in the mainframe z/OS environment. The distributed version is next. We are also currently in testing for Windows, and we are standing up the environment for z Linux.
- Undertook a comprehensive program to create and bring to market a fully robust solution around Celeriti, including product education, product support and professional services.

For both Celeriti Cards and Celeriti Deposits, development of the Web Portal User Interface, SOA Business Processes and Web Services, Business Intelligence and Data Warehouse is in progress.

## 9. WHAT IS THE DELIVERY SCHEDULE?

We are currently delivering all of our completed work on Celeriti Customer as described in the previous section. Celeriti Deposits and Celeriti Cards SOA Business Processes and Web Services are being delivered incrementally by channel in three phases. Phase 1 includes full-service banking needs (i.e., call center, branch sales and service, and teller). Phase 2 includes self-service banking (i.e., Internet, mobile, ATM). Phase 3 includes back-office business processes and services.

However, if a client has other schedule priorities, we are prepared to adjust individual delivery schedules accordingly.

## 10. WHEN CAN MY ORGANIZATION START IMPLEMENTING CELERITI?

Celeriti is available today!

CSC has been working with several banks over the past 6 to 9 months on developing customized roadmaps for their Progressive Modernization programs. The next step is to implement the new software in those environments according to the roadmaps. Each client is different. The beauty of the Progressive Modernization approach is that financial

institutions can identify their own priorities and implement on their own schedules and sequences.

## **11. WHAT ARE SOME EXAMPLES OF HOW DIFFERENT BUSINESS STRATEGIES WOULD AFFECT ROADMAPS?**

CSC's approach to developing unique customer roadmaps is founded on an approach that starts with each bank's current state — both the existing application portfolio and supporting infrastructure. Once this is thoroughly understood, we look at each bank's desired future state. From there, a jointly defined transformation plan is developed that aligns CSC's solutions and capabilities with the unique requirements and plans of the client.

One bank is planning to begin its Progressive Modernization project by completing a DB2 upgrade and then deploying the new Celeriti Web Portal and the Celeriti SOA Business processes and Web Services.

An international bank wants to use Celeriti to modernize its core systems in order to generate new revenue, improve customer retention and attract new customers. This client will start by implementing the Celeriti SOA Business Processes and Web Services components, and implement these for a few delivery channels.

A number of other banks are in the process of upgrading Hogan to the latest release using the Accelerated Upgrade Process to prepare for the delivery of Celeriti components.

## **12. IS CSC RETIRING THE HOGAN AND CAMS BANKING AND CARDS SYSTEMS?**

The Celeriti suite is built on CSC's industry experience and leverages software from CSC's Hogan Banking Systems and CAMS II Card & Merchant System, which have been the mainstay core banking and cards management solutions for more than 400 banks around the world. Maintenance and support will continue for Hogan and CAMS II, reflecting their importance to many of the world's financial institutions.

As the new software is completed, we will discontinue the sale of Hogan Banking Systems and CAMS II Card & Merchant System, but there are no

plans to sunset these products. CSC will continue to support existing Hogan and CAMS II products including Hogan Umbrella assembler version.

## **13. WHAT TECHNOLOGIES ARE USED BY CSC TO SUPPORT CELERITI?**

Celeriti has been developed on and deployed to the IBM technology stack including IBM® WebSphere®, IBM Rational and IBM Information Management software.

Additionally Celeriti has been validated by IBM for use with the IBM Banking Industry Framework, an enterprisewide SOA foundation, to help banks be more efficient, improve flexibility and adapt more easily to new business challenges and regulatory requirements. The validation means that banks, working with both CSC and IBM, can simplify the modernization, management and monitoring of their technology systems while lowering risk by avoiding the disruptive business consequences of traditional modernization or replacement programs.

## **14. WHY SHOULD MY ORGANIZATION ALIGN WITH CSC?**

CSC's clients have been able to depend on Hogan Banking Systems and CAMS II Card & Merchant System for decades. Our commitment to Celeriti will carry these clients forward for decades to come. CSC is a \$16 billion public company with a distinct culture of collaboration and innovation. More than 1,200 major banks, insurers, and investment management and securities firms rely on the experience, ingenuity and leadership of more than 10,000 CSC employees focused on financial services.

Many banks have been trying to implement SOA on their own to ensure greater consistency of information and processes, lower integration costs, and reuse processes and services within IT. They've been struggling with how to do it cost-effectively with their function-rich, core legacy systems. Systems integration is CSC's area of expertise. We have repeatable processes in place to complete this type of work for many clients.

CSC's unique strategy for Progressive Modernization considerably reduces the cost and risk of implementing comprehensive new software. It enables CSC

to deliver more rapid function and technical enhancements to the entire user community, with clients paying a small fraction of their total costs. CSC is also committed to aligning our development schedule with our clients' priorities.

We offer a comprehensive, individualized roadmap to help you determine how Celeriti can complement your strategy. Contact CSC today to learn more.

## 15. HOW CAN I GET MORE INFORMATION?

If you are a financial institution that needs the flexibility, agility and certainty we've been talking about, let's compare roadmaps to see how CSC can help. If you don't have a roadmap, let us work with you to create one that enables you to use the software to accelerate your business strategy.

Call CSC at 800.345.7672 to get started now. In the meantime, you can visit our Web site at [www.csc.com/celeriti](http://www.csc.com/celeriti).



## ABOUT CSC

The mission of CSC is to be a global leader in providing technology-enabled business solutions and services. With the broadest range of capabilities, CSC offers clients the solutions they need to manage complexity, focus on core businesses, collaborate with partners and clients, and improve operations. CSC makes a special point of understanding its clients and provides experts with real-world experience to work with them. CSC is vendor-independent, delivering solutions that best meet each client's unique requirements. For more than 50 years, clients in industries and governments worldwide have trusted CSC with their business process and information systems outsourcing, systems integration and consulting needs. The company trades on the New York Stock Exchange under the symbol "CSC."

## ABOUT CSC IN FINANCIAL SERVICES

CSC provides mission-critical business solutions, consulting and outsourcing services to leading financial services firms around the world. We bring more choices to the industry. We help clients plan for business and technology change. We create software, tools and processes to address specific business needs, and we continually enhance those solutions by collaborating with an extensive network of client communities and technology partners. Our global outsourcing operations give us real-world insight into business and IT processes that deliver the best results for our clients. More than 1,200 major banks, insurers, and investment management and securities firms rely on the experience, ingenuity and leadership of more than 10,000 CSC employees focused on financial services.

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