

## PHH Mortgage

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#### FAST FACTS

##### Company

PHH Mortgage is one of the top ten retail originators of residential mortgages in the United States<sup>1</sup>.

##### Industry

Financial Services

##### Geography

US

##### Challenges

- Increase throughput to meet business requirements for mortgage processing
- Improve visibility into the SDLC
- Effectively support geographically distributed development

##### Solution

- Borland<sup>®</sup> CaliberRM<sup>®</sup>
- Borland<sup>®</sup> StarTeam<sup>®</sup>

##### Results

- Increased development project throughput
- Improved visibility and communication
- Increased customer satisfaction through better IT-business alignment

#### COMPANY

PHH Mortgage is the industry's leading provider of private label mortgage services and the top originator of mortgage loans by phone. A subsidiary of PHH Corporation (NYSE: PHH), PHH Mortgage provides mortgage services to financial institutions, real estate brokers, affinity groups, credit unions, corporations, and government agencies. In 2005, PHH Mortgage provided \$48 billion in mortgage financing for American homes.

#### CHALLENGES

Lower rates, combined with an increasing number of companies vying for clients' business, has made the mortgage industry in the U.S. more competitive than ever. With so many choices, customers have no tolerance for ineffective systems or service delays. At PHH Mortgage, streamlined processes and leading-edge technology ensure that customers receive fast, efficient, and seamless service—exactly what they expect and deserve from a client's brand.

However, increasing demands from its clients required PHH Mortgage to seek an integrated, end-to-end solution that would take its application development lifecycle to the next level and help it achieve its business goals for the future, which included growing its business in two areas:

**Private Label Solutions:** This department provides affinity groups, credit unions, and financial institutions with private-label mortgage services. Private Label Solutions is charged with positioning PHH Mortgage as the leader in meeting the mortgage outsourcing needs of the top 100 banks and financial institutions. A major marketing push is underway to promote "Pillars of Expertise" in this area, which include Experience, Flexibility, People, Technology, and Process.

**Real Estate Companies:** This segment of the business provides comprehensive mortgage services through four industry-renowned brands: PHH Mortgage, ERA Mortgage, CENTURY 21 Mortgage, and Coldwell Banker Mortgage.

To help support these areas of business growth, PHH Mortgage needed an integrated solution that would help its software development team:

#### Increase throughput to meet business requirements for mortgage processing

PHH Mortgage has unsurpassed experience in private label mortgage outsourcing, and effective IT systems have contributed significantly to the business' success. However, the company's rapid rate of growth challenged the 320-person software development team to increase its efficiencies to service the company's 15 different internal business units. The first step toward improving efficiencies was to better define and document its software development lifecycle process (SDLC). Once formalized, IT leaders sought an application lifecycle management (ALM) solution that would help the company automate its unique processes within the overall SDLC. With automated processes and the right tools to support those processes, the development team could leverage the resources it had in place to do parallel development, which would significantly increase throughput. This meant the development team would be able to support new client initiatives, as well as handle maintenance releases to meet business requirements.

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— Kim Wetten, lead process specialist at PHH Mortgage

### Improve visibility into the SDLC

In order to support an increase in budget, IT management needed to show metrics and demonstrate improvements in delivery cycles. Quality assurance began the effort with an investment in the Mercury Interactive Test Director tool and development management followed by standardizing on Microsoft Project. At the same time, the development team was underutilizing its existing configuration and management system, had no technology in place to support its requirements management practices, and was attempting to track software defects using a homegrown tool that was disconnected from the other solutions. IT management sought a comprehensive system that would seamlessly integrate with its existing investments—Mercury Test Director and Microsoft Project—and increase visibility into its SDLC process.

### Effectively support geographically distributed development

Prior to reevaluating its SDLC and systems, PHH had attempted to work with an off-shore partner to augment its productivity. That initial relationship failed because the off-shore development teams had poor visibility into what the local teams were developing, and non-standard processes and terminology rendered communications ineffective. What the team realized during the initial effort, however, was that geographically distributed development could be effective with the right skills training, processes, and technology in place to automate workflows and improve collaboration. With this in mind, PHH Mortgage sought a solution that would add automation to its SDLC and improve communications, allowing the company to leverage offshore resources for competitive advantage.

### SOLUTION

Three years ago, PHH Mortgage selected the Borland ALM solution to help the company automate its SDLC processes and support parallel development. Around the world, distrib-

uted internal and outsourced development teams—located in Jacksonville, FL, Mount Laurel, NJ, Bangalore, India, and Calcutta, India—now are able to work on developing systems that support new client initiatives and maintenance software releases every six to seven weeks that support new mortgage regulations, such as those from the U.S. Housing & Urban Development (HUD) or Federal Home Loan Association (FHA) departments.

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Today, the deployed Borland ALM solution helps PHH Mortgage gain more visibility, control, and efficiencies throughout its development processes, particularly in the areas of requirements management, and software change and configuration management.

Before implementing the Borland solution, PHH Mortgage business analysts from several teams would collaborate to capture business and technical requirements in a Microsoft Word document. This process often meant that in one day three different analysts handled the document. For example, one analyst reviewed and updated the document from 8 a.m. to noon, a second from noon to 4 p.m. and a third from 4 p.m. to 8 p.m. in order to establish some form of version control. In addition to being inefficient, this manual process offered no way to trace requirements and provided limited visibility into requirements changes.

Today, analysts at PHH Mortgage use Borland® CaliberRM® to electronically capture and manage a wide variety of business, functional, operational, and technical requirements gathered from around the world. These requirements, managed in

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Borland CaliberRM, are then automatically fed as a technical approach into Microsoft Project and then synchronized to Borland® StarTeam® as development tasks. To further ensure process consistency, PHH Mortgage configuration management team lead, Ed Briggs, also wrote custom triggers using the Borland® StarTeam® MPX Server to publish the functional requirements from Borland CaliberRM to Borland StarTeam and link them to the derived development tasks. The result of all of these comprehensive efforts is that IT management now has increased control and visibility into the SDLC.

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To support PHH Mortgage’s parallel development efforts, IT deployed Borland StarTeam for software change and configuration management. Today, its development teams around the world use Borland StarTeam, including the Borland® StarTeam® Datamart, for change management, defect tracking, file versioning, and project and task management. A robust, protected, and flexible platform, Borland StarTeam provides management with audit trails using workflows and tasking.

For example, within PHH Mortgage, all database change requests that occur over the course of a software development lifecycle are now automatically extracted from Borland StarTeam. This tedious process used to be a hugely time-consuming task, which involved printing out a gigantic list of the PowerBuilder objects that changed and then manually checking hundreds of pages to see when items needed to be pushed into production and which were duplicates. In addition to the now automatic extraction, IT managers have added a robust workflow that automatically notifies individuals for approvals via e-mail.

“Like Borland CaliberRM, Borland StarTeam helps us promote team communication and collaboration through centralized control of all project assets,” said Briggs. “The tools also help to

more effectively manage change, so projects stay on schedule and IT management is alerted earlier in the lifecycle of potential impact to schedule.”

Looking ahead, PHH Mortgage is hoping to move toward a services-based business model for IT, which will mean that IT can charge back for its services. In order to do this, IT leads are using Borland StarTeam to track configured code branches to ensure defects that have been fixed do not find their way into releases later.

“Right now, we are working on automating our merge solution in order to further remove risk from the business,” explained Briggs. “If we can automatically propagate non-conflicting code from one branch to another, it will reduce the manual merging efforts for developers by around 80 to 90 percent.”

## RESULTS

Using the Borland ALM solution, PHH Mortgage has automated its SDLC to ensure greater consistency, improve collaboration, increase efficiencies, and improve delivery predictability.

### Increased development project throughput

PHH Mortgage develops software that enables its clients to provide mortgage services to customers 24/7, as well as process mortgages in-house. Its development teams’ success has enabled the company to increase its IT throughput by branching its software into parallel development efforts. “When a new regulation came down from HUD or the FHA, we used to have to stop new development projects to go back and work the regulation into existing releases,” said Wetten. “With the Borland ALM solution, we can take advantage of parallel development, which means we no longer have to stop new development in order to handle changes in requirements efficiently.”

### Improved visibility and communication

Using the Borland solution, PHH Mortgage analysts are now able to link and trace requirements throughout the project lifecycle, as well as conduct impact analysis on requirements changes. “Before implementing the Borland ALM solution, we

had no visibility into requirements changes,” explained Wetten. “Now we can see requirements through the lifecycle and confidently answer questions about how solutions are working and if this release is better than the last release.”

### **Increased customer satisfaction through better IT-business alignment**

PHH Mortgage has put into place a comprehensive system that provides insight into the development lifecycle from requirements capture through testing. Specifically, Borland CaliberRM, Borland StarTeam, and the Borland StarTeam MPX Server are tightly integrated with the company’s existing Microsoft Project and Mercury Test Director tools. “The complete solution gives our developers near real-time access to current information,” concluded Briggs. “With up-to-date status, defect tracking, and more, IT is now much more responsive to business stakeholders who can more quickly meet client demands. This translates to increased customer satisfaction for all involved.”

Borland is the leading vendor of Open Application Lifecycle Management (ALM) solutions - open to customers’ processes, tools and platforms - providing the flexibility to manage, measure and improve the software delivery process.