MVP Healthcare Unleashes Its Potential with Integrity

"PRIOR TO THE IMPLEMENTATION OF INTEGRITY, THERE WAS A PRODUCTION SUPPORT TEAM OF 15-20 RESOURCES DEDICATED TO MAINTAIN AND CORRECT PRODUCTION SYSTEMS. WITH A REORGANIZATION OF THE DEPARTMENT AND THE PROCESS IMPROVEMENTS THAT ACCOMPANIED THE INTEGRITY IMPLEMENTATION, PRODUCTION MAINTENANCE AND EMERGENCY REWORK HAS BEEN REDUCED FROM DEDICATED RESOURCE TIME TO ~15% OF THE WORKDAY."

Summary

MVP Health Care, Inc. is a family of companies offering a range of health benefit plans and options combined with leading edge wellness programs that help reduce health risks and control health care costs. MVP distinguishes itself by combining the wide range of health benefit plan options offered by large insurers with the attentive service and flexibility normally associated with a smaller company.

MVP Healthcare has grown significantly through both organic growth and through acquisition, resulting in dramatic changes within the IT group. Team members were separated geographically, roles and responsibilities changed, and the sometimes informal processes and systems used to manage development quickly became insufficient. In order to reduce the effects on IT productivity and quality, and to improve compliance in internal and external audits, MVP Healthcare leveraged Integrity to manage the development and deployment of their software assets. As a result, MVP has significantly reduced development costs, increased release quality, and has dramatically improved compliance and audit performance.

The Challenge

Healthcare is a very fast-paced industry. There is a constant flow of new regulations and requirements from auditors and government agencies, as well as the need to deliver new and innovative products and features to market quickly. When MVP Healthcare selected Integrity as its development management system, it identified three major areas for improvement - Quality of Releases, IT Productivity and Audit Results.

Quality of Releases

Quality has always been a priority at MVP, however, the growth of the company exposed many processes as manual and dependent on the staff's experience and knowledge. As new acquisitions were made and teams changed, the number of defects that moved into test environments and production increased. There was no automated version control for most code sets and defects, and releases often required roll-backs which involved key development staff working through weekends to complete.

Investigations into causes for the defects often found that an incorrect version of source code had been included in the build. This was complicated by the need to conduct parallel development, since multiple versions of the same code were stored and moved into different test and production environments. MVP recognized that their growth demanded an automated solution for managing their software assets, the build process, and access to their production environments.

Productivity

MVP had nearly doubled the size of its IT department in a relatively short period of time, however, productivity had not risen at the same rate. The development staff was spending too much time troubleshooting inconsistencies in the testing and production environments due to the amount of rework required. Since their multiple and different tools demanded its own repository, maintenance, training and support structure, productivity was reduced while MVP's operational costs were increasing.

For example, developers and testers spent about 20% of their time re-entering information into multiple systems, recoding, or retesting due to avoidable code management issues. Additionally, the lack of visibility and traceability made investigating the reasons for changes to requirements, designs, test casees, and approvals difficult and time consuming to track.

The lack of productivity was not due to a lack of effort. MVP's management knew that it was dependent upon a handful of highly dedicated and knowledgeable people, some of whom could not take time off without being called regarding a critical issue. They were regularly required to spend weekends at the office to ensure new releases went smoothly and were successful.

Audit Results

As a health insurance provider, MVP is subject to a myriad of audit controls such as the Model Audit Rule (MAR) for health care, security of information and separation of duties. Through internal audits, brought on by the heightened awareness within healthcare around the safe-guarding of both HIPPA information and corporate software assets, MVP identified a deficiency in security, particularly with regard to securing its corporate software assets. While MVP received unqualified opinions on the SAS70 Type II audits, its code was managed in multiple repositories with and sometimes without defined access rules and the audits required significant manual effort throughout IT. Locating the proper supporting documentation to prove compliance on separation of duties and other corporate controls was cumbersome and not readily illustrated within the current change management system. This was not acceptable to MVP's management team and they needed to manage IT processes and assets more securely while being able to demonstrate compliance to standards with less effort and cost.

The Solution

MVP Healthcare in partnership with Integrity, a PTC product, has developed a complete development management system, including:

Source Code Management

At the core of the Integrity Application Lifecycle Management platform are process-driven software configuration and software change management (SCCM) capabilities that deliver traceability and transparency over all activities and artifacts across the application lifecycle.

Integrity provides task oriented software change management through Change Packages. Change Packages are containers for sets of changes that make it easy for developers to manage the work in progress for a given task, and to keep the work on different tasks distinct from one another. Integrity's task-level software change management avoids the problem of getting lost in the details of individual file changes, even when dealing with multiple projects or product lines concurrently.

The implementation at MVP allows workflow to control who is allowed to work on a task, and during which states of the workflow that work is permitted. MVP can also require that reviews and approvals are conducted before code is committed to the repository. Change Packages also simplify the propagation of changes from one branch of development to another, with built in support for conflict resolution and compensation for context differences via automated backfill of dependent changes.

While developers are able to access and modify code from their desk, all assets are stored a single database, ensuring that the most recent and relevant code for each project is always available and easy to find.

Release Management

Integrity bridges the communication and traceability gap between Development and IT Operations, providing software release management that eliminates confusion and delivers the documented and automated controls necessary for regulatory compliance. The release process is direct, simple, repeatable, and automated – with a single workflow governing all deployments. Since there is no special technological knowledge required, anyone from IT Operations at MVP can now deploy approved changes into production. The IT Operations group is staffed three shifts and weekends, and is now executing many technology deployments, freeing up other, higher-cost development resources.

"The result of our disjointed and manual processes was significant rework, lost productivity and more importantly a loss of trust from our internal and external constituents."

Most importantly, the production and test environments are tightly controlled and the deployment process is automated. Changes are no longer made directly to production or other controlled environments. Access is locked down in Integrity to the appropriate code sets a developer requires, and deployment resources are further controlled by Integrity's security structure. Integrity manages the progression through each phase of the lifecycle while offering managers more visibility and control of the software artifacts and the release process.

Results

With the introduction of Integrity, MVP's development resources spend less time troubleshooting environment errors, and have more confidence in the code and contents of their test environments. There is a single code base used for development, and deployments are clearly identified, including the history of changes and features. There is no longer any question which version of code should be used for changes, and old defects are no longer accidentally reintroduced into the process. Now the test environments are in sync, and the team is confident they are testing the right versions of code.

Additionally, with automated deployments there is more time for testing due to quicker and more reliably executed deployments and synchronization of test environments. The financial benefits MVP has achieved from quality and compliance improvements is substantial:

Cost Avoidance

Automation of manual effort has dramatically reduced the effort and costs of deploying code. Integrity's reliable code management and deployments have resulted in less rework and code maintenance. The monthly releases have been reduced from originally requiring an entire weekend to now requiring just 3 hours on Saturday afternoons, usually 3 – 6pm, with high-cost development and Database Administrator (DBA) resources no longer required.

For example, the DBA resources needed during releases was reduced from two resources spending 6-7 hours per day for 3-4 releases, a total of 36-56 person hours per month, to 2 person hours per month. Another example is that prior to MVP implementing Integrity, Operations required two full time DBAs actively engaged for 8+ hours each week to synchronize test environments. Now this is completed with a single operations resource using the automated workflow with one DBA providing on-call support averaging 30 minutes effort per week.

Reduced Effort of Compliance

Meeting regulatory and compliance demands no longer require person weeks of preparation before an audit. With source code and other assets locked down and consolidated from the many repositories used previously into a single Integrity database, MVP has the access controls and visibility needed to quickly demonstrate compliance to SAS70 Type II, Model Audit Rule, and other internal and external reviews. MVP has experienced smoother audits, with streamlined reporting of detailed information from Integrity. The audit process is no longer manual, since the information is readily available in Integrity. There is no concern with separation of duties, because the repeatable, automated deployments have been moved to the IT Operations team with development no longer involved.

Increased Productivity

MVP now delivers more new functionality and features to users with fewer resources. The development staff is free from performing code maintenance, and managing environment and testing issues and synchronization so they can spend more time on new functionality and features.

- More reliable code management and deployments have resulted in less maintenance and rework by development staff

- Automation and security of deployments allows repeatable activities to be monitored and executed by Operations without guidance from development staff. Prior to the implementation of Integrity, a significant portion of developer time was spent troubleshooting issues and researching gaps & inconsistencies between test environments.

With the implementation of Integrity, Operations knows exactly which code base to start with, and exactly which version was migrated to each environment. Controls inherent to Integrity notify developers when changes have been made by another developer and prevent earlier versions from deploying on top of later versions of code, avoiding situations where production code is "rebugged".

"Initially we expected to see savings just from the tool consolidation effort but we have actually achieved much more through the improved control and visibility that Integrity's process automation provides."

Improved Visibility & Predictability

Integrity allows complete visibility into the development process. Data is now available for estimating, resource planning, and more predictable scheduling to support improved ROI calculations so MVP can make more informed business decisions.

Increased Competitiveness

With its growing pains now under control, MVP is confident it can continue to lead the highly competitive Northeast insurance industry. Its quality delivery of service maintains MVP's excellent reputation and high-level of customer satisfaction within the communities it serves and its ability to demonstrate regulatory and compliance results allows MVP to maintain large group clients that require specific performance standards.

Integrity Business Unit Locations

North America
1 800 613 7535

United Kingdom
+44 (0) 1252 453 400

Germany
+49 (0) 711 3517 75 0

Asia Pacific
+65 6830 8338

Japan
+81 3 5422 9503

integrityinfo@ptc.com