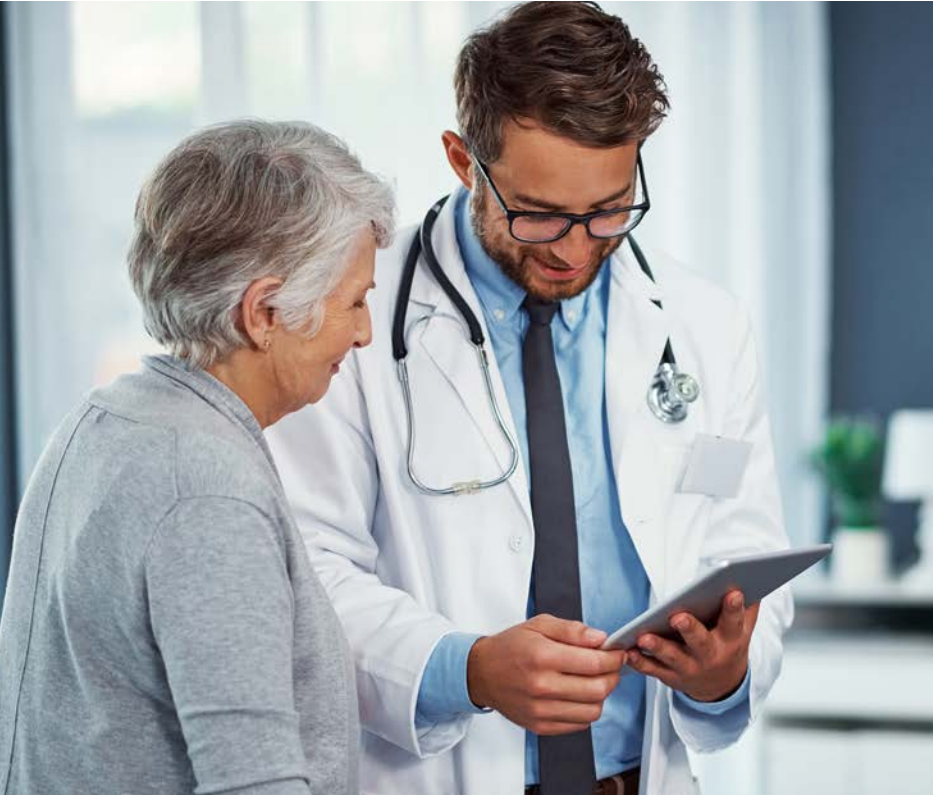


Case Study

Using Quality Assurance to Succeed in OS Migration



Introduction

The client is a health care provider based in North America. As an organization dedicated to supporting access to and delivery of urgent and emergent care, the client provides a variety of services to physicians, hospitals and other health care stakeholders. Their goal is to help ensure that patients can access the care they need as close to home as possible.

The client's information system provides virtually real-time data on patients admitted to critical care units in area hospitals. The system also provides data concerning bed availability, service utilization and patient outcomes.

The Challenges

The client originally built the system on OS 2003 after it launched in 2007. Microsoft ended the support for OS 2003. Therefore, it was necessary to upgrade the operating system and software to the newest version, OS 2012 R2. This critical migration would ensure that the client continued to meet their SLA standards related to high availability, security and privacy, usability, maintainability, and scalability.

The migration was difficult due to the complexity of the system's environment, which includes:

- Users of 145 hospitals accessing the system
- Approximately 4400 active users in a variety of roles
- Integration with 103 hospitals that use HL7 messages to communicate patient data.
- Processing more than 2.7 million messages each year, with an expected 10-fold increase within a year

In addition to the core of the system, a number of other migrations were included in the project:

- SQL Server 2005 to SQL Server 2014
- .NET Framework 2.0 to .NET Framework 4.6
- ADFS 2.0 to ADFS 3.0
- BizTalk 2006 to BizTalk 2013 R2
- COGNOS to SSRS

The Datavail Solution

Datavail worked closely with the client to define the critical goals for the migration project, which were:

- To ensure that the application worked the same after the migration as before
- To ensure that the users were not impacted by the migration process
- To ensure that the system met the SLA standards after the migration

Testing would be a critical part of the migration, so the team turned their attention to a very thorough and detailed plan for testing. They identified more than 200 use cases, which translated into approximately 4,000 test cases. The team developed a four-step quality assurance approach:



1. Identify what should be tested

It was important to focus on critical tests, given the complexity of the system. The team identified the tests that would eliminate high business risks for the users.



2. Identify a plan for completing the testing

The team identified where they could leverage the existing automation suite to gain efficiencies that would reduce the manual workload. Manual tests would focus on essential tests that needed manual intervention.



3. Identify the scope of the testing

The team prioritized the test types they would complete for each module.



4. Identify the quality assurance acceptance criteria

It was critical that the tests proved the quality assurance goals set for the project. The team worked closely with internal subject matter experts to develop test scenarios that would meet the quality criteria.

The Benefits

Working with Datavail, the client received a number of key benefits:

- Close collaboration between the Datavail team and the client team resulted in a clear definition of how the client would measure success.
- Added numerous automated test suites and refined the existing test suites of the product, which can be used on demand for future.
- Documentation reviews and updates to existing documentation such as run books and support documentation for future reference.
- Achieve a better quality and secure platform by upgrading to latest .Net framework.
- Development of a well thought out process of testing ensured a successful project.
- When the project was completed, it met all objectives, provided a smooth transition, was on time, and on budget. In addition, there were no post-project issues.