

Enterprise process workflow application's development for a Bio-Pharmaceutical company



CUSTOMER PROFILE

The Client

Gilead Sciences Inc., is one of the largest biopharmaceuticals company that discovers and develops medicines for complex diseases. It is well-known for its complete treatment regimen of antiretroviral medications to treat HIV

The Requirement

Integrated Quality System (IQS) was Gilead's home-grown client-server application for tracking the quality of its drug release process which was based on an outdated technology platform and was limiting its use as Gilead explored new areas of medicine. They were in need of a next generation Process Quality System (PQS) which would provide decision support capabilities using customizable workflows with extensive auditing capabilities to meet multi-agency regulatory requirements. The application also had to be web-based so it could service all of Gilead's global R&D centers as well as their third-party Contract Manufacturing Organizations.

Our Solution

Initially, Gilead's preference was to opt for a COTS system that could be customized to their needs. However, after an extensive research done to match the compatibility of their requirements to the capabilities of available systems in the Pharmaceutical domain, Gilead agreed with our determination that their needs would be best addressed by a custom software application.

The new application had to integrate with many existing business systems as well as allow for incremental roll-out to the various R&D labs and CMOs. To achieve this:

- A loosely coupled, multi-tier Service Oriented Application Architecture was developed.
- The application backend was SQL Server with redundancy and failover features.
- The business and application code was .NET based and modularized to make use of the MVC3 pattern.
- The application supported web-based desktop frontends in HTML5 and jQuery with a responsive UI.
- The application also provided iOS and Android apps for both phones and tablets.
- To integrate with other business systems, PQS published a rich set of bi-directional web-services.
- All stakeholder departments were involved in the design of the forms and workflows to ensure a smooth roll-out.

The Outcome

The completed application was rolled out for validation testing first and eventually deployed to production within prescribed deadlines. It is expected to be in use for 7-10 years.

If you'd like to hire our experienced software professionals, or want to outsource software development services to us, please feel free to get in touch with our expert team.