

**project** Phoenix

**summary** Global high-availability and vastly scalable web based application for Digital Rights Management of Windows and Macintosh desktop programs.

**environment** Failover Firewalls, failover Load Balancers with SSL termination, multiple Windows Server Web / Application servers, Storage Area Network, and two node Windows Server Database servers in a hot-failover configuration connected to the SAN.

**design challenges** The following is a list of the major challenges that were overcome during the design of the application

- Scalability in the database tier
- Redundancy in the database tier
- Scalability / redundancy in the web tier
- Internationalization
- Content management
- Security
- No vendor supplied framework (e.g. ROR, J2EE)
- No vendor support for unit tests at the class level
- No vendor support for system tests
- Database management
- Database and application integration
- Reduced downtime during updates
- Quality

For detailed information about the above items, please contact us directly.

**development** Developed using Visual Studio 2005, C#, Sql Server 2005, and String Template (Template Engine). Developer tested with agile unit tests (i.e. at the class level) using NUnit, NCover, and Rhino Mocks. System tested using Ruby and Watir (Web Application Tool in Ruby). Coding conventions enforced with FxCop and custom plug-ins. Continuous Integration, system test and unit test execution performed using Cruise Control .Net. Source code versioned in Subversion.