

# Robert Worsnop

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## Current Skills

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Java, Vert.x, RxJava, Spring, Tomcat, Hibernate, JPA, Git, MongoDB, RabbitMQ

## Work History

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### AirWatch

**Sandy Springs, GA**  
**June, 2013 - Present**  
**Senior Architect**

*Worked with Java, Vert.x, Tomcat, Jetty, Spring, Git, MongoDB, RabbitMQ.*

#### Projects

- AirWatch Chat—a secure enterprise messaging application.

#### Responsibilities and achievements

- Designed the AirWatch Chat server architecture from the ground up. It's based on Vert.x, Spring Integration, Spring MVC, Spring Boot, MongoDB, and RabbitMQ.
- Designed security scheme and all communication protocols for AirWatch Chat.
- Evangelized new technologies, such as Vert.x and RxJava.
- Led and mentored developers on the AirWatch Chat server team.
- Provided architectural oversight for other AirWatch products.

### Altisource

**Dunwoody, GA**  
**January, 2012 - June, 2013**  
**Senior Software Architect**

*Worked with Java, Tomcat, Hibernate, JPA, Spring, MySQL, Git.*

#### Projects

- REALFoundation—a set of frameworks to support a suite of next-generation projects.

- REALServicing—a next-generation product intended to replace a legacy system with a linearly scalable solution.

## Responsibilities and achievements

- Worked with a team of fellow architects to produce a linearly scalable suite of end-of-day batch processes.
- Built a framework on top of Hibernate filters which provided customizable, transparent data partitioning. Part of this effort required me to make a significant contribution to the Hibernate project. See HHH-2394.
- Created a token-based "log in as" mechanism that integrates with Spring Security.
- Created standard security features—reset password, user lockout, password rules, etc.
- Extended logback so that log levels can be overridden in the database and per-user logging can be configured. This removes the need for an application restart in production. Also created simple Grails application to make the database changes.
- Created a BPMS query layer over Activiti's. It is modeled on the Hibernate criteria API.
- Created various simplifying wrappers around Spring services (e.g., email, file transfer).
- Integrated with 3rd-party address verification service, creating a general-purpose framework based on Spring's RestTemplate at the same time.
- Expanded existing permission system to support inclusion/exclusion and group inheritance.
- Created annotation-based, customizable auditing framework.

## MedQuist, Inc

**Norcross, GA**

**April, 2006 - January, 2012**

**Senior Software Architect**

*Worked with Java, JBoss, Hibernate, EJB, Spring, Oracle, ANTLR, Coherence, XML.*

## Projects

- DocQvoice—a voice capture system for medical transcription.
- DocQment myWAY—a system that allows physicians to edit speech-recognized medical documents.

## Responsibilities and achievements

- Produced roadmap for streamlining DocQvoice and merging with main document workflow system.
- Defined the middleware architecture for DocQment myWAY.
- Oversaw and participated in the conversion of an "on-premise" version of DocQvoice to a clustered data center version that is required to process in excess of 100,000 transcription jobs per day.
- Delivered technical "lunch & learn" presentations on unit testing, Spring, Acegi (now Spring Security), Contract-first web services, Hibernate, and Oracle Coherence.
- Introduced new technologies to the organization; e.g., Spring.
- Acted as a mentor to other members of the team.
- Developed Hibernate-based framework that silos data by transparently modifying criteria queries.
- Developed framework that provides a clustered middle-layer equivalent of HTTP sessions.
- Developed framework that creates the illusion of creating queryable entities on the fly.
- Designed an automatic sign-on system, which uses digital signatures to allow trusted third-party applications to authenticate users without credentials.
- Investigated and resolved production issues such as JVM crashes and memory leaks.

- Interviewed candidates for development positions.
- Took the initiative to create a wiki, which is now used as a company-wide knowledge base.

## Internet Security Systems, Inc

**Sandy Springs, GA**

**October, 2004 - April, 2006**

**Senior Software Developer**

*Worked with JBoss, Hibernate, EJB, Spring, MS SQL Server, RMI*

### Projects

- RealSecure SiteProtector—a three-tier JEE application responsible for monitoring security events.

### Responsibilities and achievements

- Led a team responsible for adding a permissions system to SiteProtector. As well as being a supervisory role, this involved the general design of the UI and the detailed design of the server components.
- Introduced new technologies to the organization; e.g., JBoss, Hibernate.
- Acted as a mentor to other members of the team.
- Interviewed candidates for development positions.
- Delivered technical presentations on JBoss, EJB 3.0, and the Java 5.0 concurrency APIs.
- Contributed to the jTDS project. jTDS is an open-source JDBC driver. My contribution was to add SSL, which was required by Internet Security Systems.
- Developed a framework, using JBoss AOP, for using Hibernate in a fat-client three-tier environment. The problem it solves is that of lazy-loading over process boundaries.

## S1 Corporation, Inc

**Atlanta, GA**

**August, 1997 - October, 2004**

**Technical Architect**

*Worked with Java, Java Web Start, WebLogic, WebSphere, DB2, XML, Servlets, EJBs, JSPs, Struts, RMI, SQL, C++, Forté*

### Projects

- Enterprise Teller—a three-tier JEE application used by bank tellers.
- Architecture team—developed various frameworks to support application teams.
- Virtual Investments—a web-based securities trading application.

### Responsibilities and achievements

- Developed a subsystem that allows EJBs to be acquired, and their methods invoked, via an HTTP tunnel.
- Developed a store-and-forward subsystem that transparently buffers EJB calls when the server is unavailable.

- Created a subsystem that allows peer-to-peer discovery and communication between thick clients.
- Developed a provider framework to allow developers to plug in modules for password encryption. The architecture included out-of-the-box providers for salted SHA-1, salted MD5, and bigcrypt. The SHA-1 and MD5 providers were based on JCA.
- Developed powerful and highly extensible authorization framework for the business layer of the product.
- As a member of the architecture team, advised application teams and professional services on matters related to security.
- Worked through many tough problems; for example, modifying a Java version of crypt so that its handling of invalid salts is compatible with the version of crypt that ships with HP-UX.
- Developed a cluster-aware subsystem that prevents users from creating more than one concurrent session
- Integrated the product with Netegrity SiteMinder.
- Developed a servlet filter framework in compliance with the Java Servlet Specification 2.3. This was to allow developers to write 2.3-compliant servlet filters that could be deployed in a Servlet Spec 2.2 container.
- Developed framework for implementing adapters, which communicated with banks' systems. Used framework to write adapters that used TCP/IP to exchange data with remote hosts.

## Computer People, Inc

**Atlanta, GA**

**August, 1996 - August, 1997**

**Consultant**

*Placed with Geac and worked with C++, SQL, Rogue Wave.*

## LK Ltd

**Castle Donington, Derbyshire, United Kingdom**

**August, 1995 - August, 1996**

**Senior Software Engineer**

*Worked with C++, Win32 SDK, MFC, OLE.*

## Parallax Solutions Ltd

**Coventry, West Midlands, United Kingdom**

**May, 1994 - August, 1995**

**Consultant**

*Worked with C++, Windows SDK, Borland OWL.*

## Eastman Machine Company Ltd

**Holmewood, Derbyshire, United Kingdom**

**November, 1992 - May, 1994**

**Software Team Leader**

*Worked with C++, Windows SDK, MFC.*

## **Commercial Union plc**

**Whyteleafe, Surrey, United Kingdom**

**July, 1991 - November, 1991**

**Programmer**

*Worked with RPF and IBM mainframe assembly language.*

## **Commercial Union plc**

**Whyteleafe, Surrey, United Kingdom**

**June, 1989 - August, 1990**

**Industrial Trainee**

*Worked with Natural/ADABAS.*

## **Education**

### **University of Sunderland**

BA (Hons) Business Computing 1991