



Point of Sale Systems for the Carwash Industry



DRB Systems, Inc.

Company Information

DRB Systems is the leading provider of vertical market software (Point of Sale & Tunnel Control systems) for the carwash industry in the United States. Founded in 1984, we installed over 2400 MS DOS based POS systems (CarWatch) and nearly as many DOS based tunnel control systems (TunnelWatch) before replacing those products with MS Windows based systems beginning in the late 1990's.

We currently have almost 1500 Windows based POS systems installed, supporting many different terminal types (from very simple, waterproof "keypad terminals", through conventional touch-screen computer and Windows Mobile based terminals, to sophisticated self-pay terminals with touch screens, cash and coin acceptors and dispensers, credit card and barcode readers, gift card dispensers, receipt printers, gate control systems, etc. Our Windows products are built with Delphi, and use Firebird (currently 2.1, in Classic mode) as their database engine.

Problem Description

When we first started selling our SiteWatch product, it was built on Interbase 5.6. (Firebird didn't exist yet.) While it wasn't particularly expensive (especially compared to alternatives like Oracle and MS SQL Server), reporting and tracking license sales was a time consuming task, and it required ongoing "maintenance" fees in order to get upgrades without re-buying the product.

Worse, as our product's feature set grew, and along with it the number of tables, stored procedures, custom UDFs, and overall data manipulation, we began having serious stability problems.

Upgrading our customer base to InterBase 6.5 would have cost over \$100,000, and if that did not solve the problems, we'd have had to spend *another* \$100,000+ to upgrade to 7.0 when it came out, or even migrate to some other database (at *much* higher costs, given the fact that we were already reliant on its stored procedure, trigger and event capabilities.)





Solution

After our chief architect did an experimental project with Firebird 1.0, we realized that we could get almost the same improvements as those in IB 6.5, along with the benefit of access to source code if we needed it, for over \$100,000 less. :-) If *that* didn't solve our stability problems, at least we wouldn't have wasted all that money finding out, so we migrated our Windows POS system to Firebird (with version 1.5, by that time.)

The port was very straightforward — Firebird is (even now in version 2.5) highly compatible with InterBase. As the number of sites that were upgraded to the Firebird based versions grew as a percentage of the overall installed base, our customers' stability problems shrank in proportion. Compared to InterBase 5.6, Firebird 1.5 was a *rock*. Databases still occasionally became corrupted, but in most cases the reasons can be traced back to hardware problems, not just internal bugs in the engine. Meanwhile, Firebird maintains all of InterBase's advantages over other commercial products — tiny footprint, simple administration, low complexity, powerful, easy to use stored procedure and trigger language, extensibility through User Defined Functions (writeable in Delphi, of course!), etc.

Conclusions

At this point, our entire customer base is running on at least Firebird 1.5, with most on either 2.0 or 2.1. Modification of our SiteWatch system to use Firebird version 2.5 will begin soon, to take advantage of the performance improvements we'll get from the new "Super Classic" architecture.

Up to now, our experience with Firebird has been very positive. Database corruption problems are rare, especially considering the large number of installed systems, most running on aging PCs in the back offices of the carwash locations.

Performance is good even for the largest databases. (Some chain customers have DBs in the 40-50 Gigabyte range). Performance is *excellent* when the database file is stored on a Solid State Drive. And the performance to *price* ratio is outstanding :-).

Although we don't pay for individual licenses (and don't have to keep track of them either), we do help sponsor the Firebird foundation (and you should too, if you're making money using this product) — but that's a small fraction of what the license costs would be for *any* other alternative DBMS with similar performance and capabilities.



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