

Future-Proofing Your Investment in Versadex

by Ron Meyer, CEO Versaterm Inc.

Introduction

Versaterm has a considerable investment in the proven Versadex software product line that it has developed and refined over the past years. It represents hundreds of person-years of development and testing work. Obviously, it is in our interests to take steps to preserve the continued utility and value of that software to assure continued revenue and sales. However, even more important, we believe, is protecting the investment made in our product line by you, our customers.

Starting with the initial acquisition cost, the actual software licenses typically represented less than a third of your initial investment. Another third of the initial acquisition cost covered the third party software and the server and related hardware required to host the application and the remaining third represented the out of pocket cost to have Versaterm staff support the project management, implementation, conversion, training, etc. needed to help you migrate to the Versadex system. However, matching that, for every person day of Versaterm labor time, we estimate that you, our customer, had to invest between 10 and 25 days of your staff time to preparation and planning, configuring, re-engineering processes, conducting and receiving training, close support, refining new procedures, etc. That means that your own staff time presents a cost far in excess of the total initial acquisition cost. It also likely took you 2 to 3 elapsed years to reach a refined and stable level of operation using the new system. You obviously don't want to repeat that system migration process very often!

That means that Versaterm's efforts to prolong the useful life of the Versadex applications have at least as much importance and relevance to you, our customers, as it does to Versaterm (or, at least, we believe so). The purpose of this topic is to explore the threats that could obsolete the product, forcing you to switch to something else and review what Versaterm does to deal with and intercept those threats.

Technical Obsolescence

This threat is raised first because it can trigger rapid system obsolescence (and in fact has done so in the recent past as Digital, Tandem, Prime, IBM Series 1, Data General and other computer suppliers abandoned product lines or went out of business). Application systems built on such proprietary hardware/software environments immediately became "orphans". New hardware and system software ceased to be offered. Hardware and software maintenance tended to become increasingly expensive and, at the same time, increasingly ineffective (as parts, trained staff, etc. were lost). Several firms, in fact, made a business out of buying up the hardware and software product lines for such defunct suppliers for their captive customer base. It says it all that such companies referred (internally) to such captive customers as "organ donors", sheep to be fleeced until they got smart enough to replace those obsolete dependencies.

*The best public safety software...
but don't just listen to us, listen to our clients - we do!*



Versaterm actually found itself in such a situation in 1985 when IBM, the supplier of our Series 1 mini-computer server, discontinued that product. As a result, most of our software development investment in that proprietary environment also became obsolete. We learned from that experience and resolved never to put ourselves or our customers into such a position again.

Our solution then was OPEN systems, with software that was quite independent of the hardware and to try to always have several alternative and optional suppliers for every technological dependency. We designed the Versadex III product line around UNIX servers, capable of running on dozens of mini-computer supplier's hardware and also effective on the wide range of Intel servers, then just starting to surface from more dozens of PC suppliers. We selected Informix, an SQL standardized relational data base and their high productivity, very new Informix 4GL language (which generated the "C" language, supported by most available computer systems). We assured that our customers could access the applications from inexpensive "dumb" terminals (few hundred dollars each) but also positioned the software to use PCs as they became more widely available and affordable throughout our Police clients' environment. This is the product line that began production installation in January, 1988. Such OPEN systems were still a hard sell back then, when we competed with other suppliers who were sold and supported by local offices of the "big" computer suppliers (at that time) like DEC, Data General, Prime, NCR, AT&T, IBM using their legacy proprietary hardware environments. Our approach was not widely appreciated until, as noted above, DEC and so may other mini-computer suppliers folded.

As most of our customers realize, Versaterm built upon and extended this OPEN environment every year to reflect changing technology availability; we moved to support Windows as it became popular during the mid 90s, with a proper GUI desktop presentation layer; we offered support for the ORACLE data base, too, and recently made our applications available on Linux, which may very well supplant UNIX as the most "OPEN" server operating system this decade. We use OPEN middleware to make our software compatible with almost any wireless carrier. We have migrated almost all of our interfaces and import and export facilities to be XML based, (another recent OPEN standard), offer all printed output in PDF form for maximum printing independence and support desktop import of data for use by typical desktop programs and tools. We are evolving our external police network interfaces to use the new IP-based facilities now becoming available at the state and national levels. These steps have been taken to assure that the Versadex product line is resistant to technical obsolescence.

In fact, Versaterm has always had an R&D group that constantly explores, examines and tests many new technological features and offerings every year. And we have invested effort exploring many paths that we eventually decided not to pursue or replaced with something better. That's typical of R&D. We have ported our applications to the Microsoft NT server, for instance, to assure we had that option, but chose not to offer it at this time because doing so would not have delivered anything new or beneficial to our customers and it would have driven our support costs higher. We explored various "fat" client approaches to Windows GUI support (as was very popular in the mid to late '90s) but rejected it as being too expensive to support and operate. We developed our own "lean client" Windows GUI client in the mid '90s, but dropped it in '99 in favor of the new one then offered by 4Js which provided more scope and adaptability and cost less to support. We have twice now developed a handheld product prototype, but both times, have decided not to offer them, either because they would not meet police needs for reliable access in one case and ruggedness or affordability in another. We continue to explore technological alternatives to assure that we are positioned to exploit technological breakthroughs that prove to be viable and practical.

This technology R&D evaluation work continues today. We are positioning to offer a Browser-based presentation layer to our clients as an optional alternative to the current TCL based desktop client; it will appear to be the same to our application and hence will not drive up costs. Similar steps (based on using a Browser) are being taken to be compatible with a wide variety of handheld PDA/terminals. We are testing various methods to both offer and utilize web services as a way to integrate and interface with third party systems with minimal impact on on-going support costs. And we are adapting and evolving towards an environment where internal LANs, Extranets, WANs etc. all become minor variations of the Internet. We are exploring the potential to utilize more "open source/freeware" products and software in our system, in areas like full text searching and even using Microsoft Office compatible OPEN Office as an option to our standard TCL text editor. We suspect that the open source movement may have major implications for the Informatics industry future.

*The best public safety software...
but don't just listen to us, listen to our clients - we do!*

2



VERSATERM

2300 Carling Avenue Ottawa, Ontario, Canada K2B 7G1

PHONE: 613-820-0311 FAX: 613-596-5884

EMAIL: info@versaterm.com www.versaterm.com



Changing / Evolving User Expectations

The work processes continue to evolve over time, as agencies and their staff become more comfortable with using technology and as workstation and network facilities become widely available. People's expectations of how they want to perform their work and what features they want and need to be able to do that also continue to evolve. If the application systems and products they use to execute those work processes don't evolve to meet those expectations, then the system users are forced to develop their own manual and PC-based workarounds to get it done; the primary or base systems gradually atrophy, until everyone involved acknowledges that their system is obsolete, they have too many redundant processes and it needs to be replaced.

The noted expectations come from the customer base, mainly the police user staff as well as from police management. For example, 7 or so years ago most police staff had a Windows PC at home and expected to have a similarly easy to use GUI interface for the systems that they use at work. As police agencies put windows-based PCs on each desktop, Versadex had to be upgraded to provide Windows-based GUI services to meet those expectations. Meanwhile, the next generation of police managers wanted to use the systems to become more real time, more "paperless", more responsive to information and analysis needs. That caused considerable expansion and evolution to the workflow components and led to the development of the document imaging offering, the expanded extract capability and the major case capability, for instance. It also meant that the accident screen had to become a detail page on the general offense report. The paperless direction drove the need for a formal information release tracking capability, the need for more elaborate security controls, etc. These few examples are only intended to illustrate the impact of past user expectations on our product's evolution. The trend to information sharing across agencies led to the implementation of multi-jurisdictional support, the LEIP Information Sharing server and standard XML extracts for Integrated Justice and Prosecution system integration. Each year, our releases typically reflected some 100+ such application changes and extensions to address user's suggestions and meet user expectations.

Users of Versadex application products have passwords to enable them to access the various Change Request discussion forums on the Versaterm Private Customers web site. At any point in time, some 250-300 requested/proposed changes are presented there by product for customer consideration, comment and further suggestions. From those "threads", Versaterm compiles the content of the next release to reflect the suggestions and expectations of the Police agencies using the systems. Additionally, new releases of the products also may reflect major enhancements and extensions requested and required, such as supporting automated paging systems, being able to generate state or provincial accident forms from captured Mobile Report data, ability to produce a ticket on the mobile workstation, reflecting CPIC Renewal, etc. The concept of a scheduled annual upgrade release of the software products, releases that reflect the latest desires and expectations of the customer base, represents Versaterm's primary method of avoiding product obsolescence from changing customer expectations.

Maintaining External Compliance & Compatibility

The Versadex Police applications directly support the second by second work processes of our Police and Fire customers. These agencies, especially the police, are subject to many legal and related regulations and laws, and inter-operate with several related Law Enforcement/Criminal Justice networks and systems. The Versadex software, to retain utility, must maintain compliance with such regulations and compatibility with evolving external systems, networks and components.

Starting with the initial call for service,

- Enhanced 9-1-1 interfaces are changing to support cellular caller location information
- Interfaces to voice radios and digital wireless facilities constantly evolve
- The dispatch process increasingly becomes map-based as cities implement GIS facilities and those standards (especially for updates) evolve, too
- The State and National Police information network standards for protocol and transactions regularly evolve and change
- Digital paging standards are firming up
- Call evaluation and response tailoring continues to evolve as the public and political representatives become sensitive to their impact

***The best public safety software...
but don't just listen to us, listen to our clients - we do!***

3



VERSATERM

2300 Carling Avenue Ottawa, Ontario, Canada K2B 7G1

PHONE: 613-820-0311 FAX: 613-596-5884

EMAIL: info@versaterm.com www.versaterm.com



For actual Offense Reporting,

- The Crime/Offense codes at many jurisdictional levels change, as do related sentencing, fines, etc.
- Privacy and Freedom of Information regulations change
- Juvenile/Youth handling regulations change
- The national and regional statistics reporting rules (UCR2, NIBRS) change
- The packaging of prosecutor and court information changes
- Fire Marshal reporting standards change

And all of these external changes necessitate corresponding Versadex product changes to support them, often to specific scheduled dates, too.

That latter requirement, to support an externally triggered change effective on a specific date, often substantially complicates the process and related cost to maintain such compliance and compatibility. But, it must be done and Versaterm has been successfully doing that for many, many years. And by doing that, we continue to sustain our customer's value in the Versadex software and hence continue to protect your investment in the systems that we supplied.

Conclusion

For many years, as the scope and scale of the software products expanded and became refined, we at Versaterm expected the demand for changes in the next release would wane. Quite the opposite actually happened. As we gained more customers each year, the source of good suggestions grew and the number of suggested changes and enhancements grew, too. And, of course, as our customers matured in their use of Versadex, their expectations rose as well. We no longer expect change requests to stabilize, and are committed to delivering ever enhanced product releases.

We call our annual release approach "Evergreen" because it assures our customers that their installed software, no matter how long ago they bought it, stays as current and modern as that which we deliver to new customers today. Our philosophy is that it is less disruptive for our client base and more tolerable to absorb an upgrade adjustment each year, and stay current rather than taking on a major system replacement every 7 to 10 years as was customary in the last generation of police software products. We are proud that almost all of our customers agree with this philosophy and run the latest release that we offer today.

Thus, even though their installation is many years old, and their usage is mature, the Versadex customer has every feature and compatibility that they would have if they went out for a brand new system. That is why we can use the term "Evergreen", because we have demonstrated the preservation of our customers investment in Versadex products.

*The best public safety software...
but don't just listen to us, listen to our clients - we do!*

4



VERSATERM

2300 Carling Avenue Ottawa, Ontario, Canada K2B 7G1

PHONE: 613-820-0311 FAX: 613-596-5884

EMAIL: info@versaterm.com www.versaterm.com

