Ready-to-Run Software, Inc.
The Industry Leader in Cross-Platform Software Services

Cross-Platform Software News

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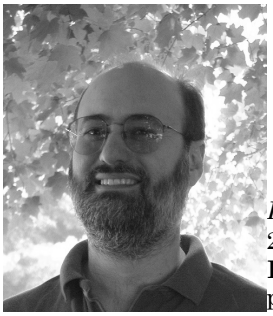

Welcome Back To Cross-Platform Software News!

Happy New Year! It's time for our 2nd quarterly edition of **Cross-Platform Software News** — the publication targeted to technical and operational management responsible for software engineering deployment, maintenance and support within a heterogeneous or cross-platform environment.

With the advent of each new year, people tend to be reflective, rejuvenated and full of hope. Therefore, in this spirit, let me go out on a limb and predict a slow but steady turnaround for our industry late in 2003. This prognostication is not based upon the latest analyst reports or economic forecasts but, rather, instinctive feelings that create a level of cautious optimism due to the following factors:

1. Technology investment is cyclical (e.g. it has been 4-to-5 years since the massive buildup for Y2K so we're about due given the average IT investment cycle and inherent replacement/upgrade requirements of most companies).
2. There are base technologies that are the driving forces for impending change. For example: Web Services, 64-bit computing, Wi-Fi, streaming content, and increased rate of mobilization (everywhere computing) - which will slowly begin pushing demand for the first time in awhile.
3. There is a lot of cash sitting idle on the sideline waiting and watching for everyone else to get onto the field. People are getting itchy to play but want to invest carefully hoping not to get hurt during the game.
4. Consumer spending is still hanging in there (although creaking a little) but, nonetheless, provides a foundation.

Could I be wrong? Of course! But, that's the fun of predicting the future. I have a 50/50 chance of looking brilliant (or, perhaps, a fool in which case more than a few of you will kindly remind me later). **Inside this edition, you'll find examples of areas where companies are saving money and making investments today.** Historically, those companies that are able to carefully invest during a downturn always seems to lurch ahead as the recovery builds. Take the time to review these notes and, perhaps, stimulate your investment ideas — allowing me to claim to be a genius, at least until 2004 or until my wife and children instill a dose of reality as only they truly can.

Jeff Moskow
President & CEO, Ready-to-Run Software, Inc.

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Cross-Platform Market Update

This update provides a current view of the marketplace from a platform perspective. Periodically, we will examine the market and breakdown the prevailing trends as well as attempt to offer interpretation into these directions.

Current Statistics for Server Market

Cheers can be heard emanating from the offices of IBM at the start of this new year. It seems that IBM has again regained the Number 1 position in the worldwide server market according to industry researcher IDC and reported recently by Information Week:
http://www.informationweek.com/story/IWK20021127S0020

The IDC report noted that IBM had 29.8% of the worldwide server sales for the quarter ending Q3 2002 pulling it ahead of Hewlett-Packard. In our last newsletter, we had reported that the combined H-P and Compaq server shipments (units) for 2001 gave the newly merged firm an overwhelming market share of 33.0% compared to second place Dell at 16.1% (up 3%) and IBM at 15.0% (down 0.2%). The important trend here is that IBM is "up" in market share (sales and units) as well as Dell at the expense of both H-P and Sun Microsystems. Worldwide server sales for the year are projected to be below the peak level seen in 2000 with a total $60 billion market but these figures are not surprising given the relatively soft economy during 2002.

Operating System Trends

Looking further into the platform-specific numbers, both Linux (up 26.7%) and Windows (up 3.2%) server revenue grew at the expense of other operating systems. The market appears to shaping up as a battle of Microsoft vs. Linux, the latter in its various shapes and sizes from various vendors. The recent and much ballyhooed IDC report that was sponsored by Microsoft, in which Windows 2000 was found to have a lower total cost of ownership (TCO) based on a 5-year average (http://www.eweek.com/article2/0,3959,758175,00.asp) underscores the intensity of

the battle which will be waged as hardware manufacturers such as IBM, H-P and Dell align their Linux business strategies.
The continuing delay in the ramp of Intel IA-64 (and reported ongoing design problems) is significant and, most likely, will inevitably alter the landscape of the battlefield—at least, for the foreseeable future. Coupled with the lack of availability of Microsoft's "Whistler", now called Windows Server 2003 (current estimate Q2 2003) and Longhorn Server (due in 2005) then Linux will continue to gain ground in certain strategic areas — irrespective of the license fee structure. That aside, Microsoft will still be formidable in driving server sales due to one reason: a horde of independent software vendors that will ensure adoption. We're just guessing here but that huge mountain of Visual Studio .NET now on the street will translate into server market share — gee, just a hunch. For additional discussion about the Microsoft Longhorn release refer to: http://www.eweek.com/article2/0,3959,642737,00.asp

The only significant player missing on the O/S trends front is Sun Microsystems which may, in itself, merit a more interesting question as we move along through 2003. Will the Sun be setting soon as some are wondering? With repeated quarterly losses and a continuing downward trend in market share, Sun Microsystems must do something to stem the tide. Even with their cash on hand, Sun is facing some daunting challenges ahead. Anyone care to send us your prediction? (Can you spell DEC once again for me please?)

Web Server Software

The latest Netcraft surveys document Web Server software usage on Internet connected servers. For more info, see:
http://www.netcraft.com/survey/
The survey shows that Microsoft IIS Servers lost market share during the period from November 2002 through December 2002 (decreased to 27.58% from 28.67%), a –1.11% decline. The market leader still remains Apache at 62.02% share ending December 2002. Web server application continues to be the one area where Microsoft has not been able to make significant incremental penetration. Interestingly, this is also the one area that the IDC report cited earlier in this article did not show ~~decreased TCO. We do not see much to chan~~ge that picture in the foreseeable future.

Microsoft .NET Passport: Is Single Sign-On Important?

Microsoft Corporation (NASDAQ: MSFT) launched .NET Passport in 1999, a web-based service offering simplified user sign-in and authentication. This service gives the user the ability to authenticate their identity to a server or network of servers on the web just once and to then use this validated identity to enable and enhance their on-line experience. Key areas where this type of service will be applied include online purchasing, member services and parent management of a child's profile for helping to ensure their safety and protection.

There have been various opinions about the success, value, level of security and even the underlying intention of Microsoft with the .NET Passport product. Currently, Microsoft states that there are over 200 million Internet users with a Passport. Of course, many of these people signed up for a Passport simply to access their MSN or Hotmail account and likely have multiple such accounts. So, what does it all really mean? At the moment, this base of users is relatively significant but the number of subscribers alone does not tell the whole story.
More indicative, perhaps, is the number and type of businesses that are signing up to be .NET Passport participating sites. The number is indeed growing and companies are beginning to delve further into Passport-enabled activities while gaining value—especially when coupled with other services such as Microsoft .NET Alerts. The reality, however, is that we are still at the early stage of adoption, not only for services such as .NET Passport, but for Web Services and Single Sign-On (SSO) authentication in general. As you can imagine, consumer-facing sites have been and will continue to be the first to embrace the concept but, over time, we expect consumers to demand SSO at all identity interactive sites that they visit. Let's explore SSO further to understand why.

What Is Single Sign-On Authentication?

Single Sign-On (SSO) Authentication is defined as the ability of a user to identify oneself on a network a single time and, then, to have access to various network resources in a controlled manner without requiring additional identification.

The entire matter of user identification is a daunting security and control issue that actually has faced network administrators within large organizations for many years. Technology and protocol solutions have been developed such as public/private key cryptography, certificates issued by authorizing entities, digital signatures generated using hashing algorithms, etc. MIT's Kerberos is an example of a widely used network authentication protocol. The technical details of these solutions will not be covered here however and the user is referred to alternative documentation.

Examination of the driving forces for SSO authentication is offered instead in order to understand the business side of the equation. There are two primary reasons for single sign-on, each based on a different perspective. First, from the user's viewpoint, eliminating multiple sign-in processes and their need to retain a plethora of passwords for each of these processes is paramount. Can you imagine if each website that a person chooses to visit required a unique sign-in process especially as the average for frequently visited websites are increasing from less than a dozen sites today to several dozen, if not hundreds, of sites in the future? Secondly, from the perspective of the network owner or administrator, maintenance of user identities (in the form of passwords, user names, keys) is fraught with various entanglements including increased management and cost requirements for security, risk and related human & system resources.

Where Does The Cross-Platform Part Come In?

Of course, in order for SSO to be truly useful and gain popularity, it must (by definition) be ubiquitous. An identified and authenticated user must be able to travel from website-to-website regardless of the underlying platform(s) used to build site infrastructure. That means that user IDs must be securely transferable and authentication services interoperable. We are not quite there yet as authentication is happening within service provider domains — such as the .NET Passport domain with Microsoft acting as provider.

If a business chooses to sign up to become a .NET Passport Participating Site then they have, in effect, enabled SSO within the domain containing all Passport participating

members. The Microsoft Passport Server will take care of user authentication for the participants.

Therefore, if you currently are an ***e-Bay, Monster.com, The Weather Channel or Sony Pressplay*** "member" then you most likely realize that you can sign-in using .NET Passport. What you might not realize is that ***.NET Passport is running cross-platform today.*** In fact, for the examples given above, both ***The Weather Channel (weather.com) and the Sony Pressplay music download service are running on non-Windows servers*** at these respective Passport participating sites. ***Ready-to-Run Software (RTR), under an agreement with Microsoft, has developed the code for enabling these cross-platform installations of .NET Passport.*** RTR was also actively involved with the implementation of Passport at these sites. So, you see — progress is being made in terms of SSO interoperability. The cases cited are still domain specific but the value of authentication has been extended to a cross-platform solution which is a step in the right direction.

The Future of Authentication

The current .NET Passport is, in effect, a first generation product released by Microsoft to enable authentication within the .NET domain. There are several significant forthcoming advances which have been announced by Microsoft including federated security & identity. IBM, Microsoft and Verisign have jointly published a federated security standards document which is now being used as a foundation for review by the proper standards organization and for design of next generation products. SSO authentication is also addressed separately within a specification by Liberty Alliance sponsored by Sun Microsystems although development of authentication products is lagging, i.e. there is no current corollary to the .NET Passport domain amongst the Liberty Alliance community.

As the federated standard becomes increasingly solidified, companies will be able to purchase (or develop) and operate their own authentication services. As such, authentication will take place against a database exclusively controlled and stored within a company or its agent while allowing the authenticated user to be connected to the outside world without additional sign-in, e.g. recognized by .NET Passport site. This connection will occur in compliance with the federated security guidelines.

As these standards begin to evolve then we expect to see increased and rapid convergence of SSO. In fact, ***RTR has recently announced a plan to provide an authentication product based on the Microsoft Shared Source License for .NET Passport. What better company to offer such a solution than the developers of the original cross-platform product on behalf of Microsoft?*** RTR is exploring an architecture in which it will enable various authentication services (.NET Passport, Liberty Alliance, etc.) across multiple platforms. Although future products will inherently move that way under federated security, there will likely still be a need for built-in support or reference implementations at a minimum, especially in the near term since it will be years before a federated model is universal. We invite your feedback and comments in order to determine priorities and need.

Considering SSO? Get Going Today!

Without question, SSO across the web is important and here to stay. There are too many business factors creating momentum for widespread use. The primary impediment today is security and standards adoption but that is beginning to evaporate. If your company is planning SSO then you should probably consider a first-phase implementation in order to start the internal preparation process and, more importantly, to gain some of the business benefits, e.g. user adoption. Contact RTR for further information regarding SSO, its benefits and a program for initial preparedness.

About Microsoft .NET Passport

Want to find out more about the .NET Passport Single Sign-on authentication? Check out the service overview and how to become a user or participating site at:
http://www.microsoft.com/netservices/passport/

How Companies Are Getting ROI Today Using Web Services *(Notes From The Editor)*

The examples cited below are representative of a growing number of companies that have applied a variety of tools and equipment from numerous vendors to dramatically improve their bottom line. The common element used by all, however, was that the projects were based on emerging Web Services standards (XML and SOAP specifications at a minimum). Sources include Microsoft, IBM and Deitel & Associates, Inc.

Real World ROI

Travelers Insurance Company
Industry: Property & Casualty Insurance
Application: Auto glass claim processing
Result: Cut claim processing by 30%

FedEx
Industry: Package delivery service
Application: Package tracking inquiry
Result: Cost of inquiry reduced from $2.14 avg. to $0.04 (est. volume > 600K tracking inquiries annually)

Dollar Rent-A-Car
Industry: Transportation rental
Application: Connect existing mainframe reservation system for access & integration with business partners
Result: Opened up another sales channel yielding millions of additional rate requests and thousands of new rentals per year resulting in many $MM additional revenue.

Marks & Spencer
Industry: Retail merchandise
Application: Fraud detection
Result: Lowered development costs by 66%; realized 415% first year ROI

Ceridian
Industry: Managed Human Resource services
Application: Built front-end to legacy mainframe payroll system in (4) months replacing (6) front-end apps and (200) databases with a common user interface into a single database containing all customer data
Result: Greater than $12M per year savings in mainframe related costs; an additional several $MM dollar per year in employee productivity; increased customer satisfaction; complete elimination of 100 error-prone, manual processes.

Want more examples? Call RTR Sales requesting "Web Services ROI List".

Related IDC Study Conclusions

From 2002 White Paper (sponsored by IBM), "IBM and Strategic Potential of Web Services", IDC interviewed (7) IBM customers that have adopted or are in early stages of Web Service adoption. Due to strategic nature of projects, the companies

declined to be named. However, IDC concluded: **"On average, major benefits projected over three years include a reduction on costs of $39.7M on an investment of $1.8M, 22% faster time to deployment of key applications, an increase of 47% in developer efficiency." Although the final ROI value was not yet available, a 22 times estimated ROI is truly significant at any stage.** For additional information: http://www3.ibm.com/software/solutions/webservices/pdf/May13_IBM_Webservices.pdf

Web Services—Can You Benefit?

Can your company achieve similar results? RTR has announced a program for selected clients that may help. As part of initial RTR services, our staff will provide a ***no obligation, no charge*** analysis helping you to identify opportunity areas where Web Services can save your firm money. And, as appropriate based on the type of project, we will allow you to choose a savings-based model of payment, i.e. RTR is paid a portion of the money that you save and, thereby, you can eliminate any risk of incurring cost without benefit.
Call RTR today for a chance to qualify your company!

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What's Coming In Future Editions

- Software alerts—where should they be deployed?
- Case Study: Education market learning about web
- Cross-platform system management
- Application integration made easy (well, okay—easier!)

Send Us Your Questions & Ideas For Articles

You are encouraged to submit your feedback, commentary and ideas for future articles which will be considered for publication. What cross-platform issues are you facing?

Call Ready-to-Run Software (RTR) For Help

For more information about the sponsor of this publication, visit us at our company website: http://www.rtr.com
Located in N. Chelmsford, MA, RTR has served clients from start-ups to Fortune 100 companies including IBM, Microsoft, Sun Microsystems, Fleet Financial, TRW, 3M, Exxon, and many others. Our primary cross-platform software services include: a.) *Cross-Platform Migration & Porting, b.)*

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