



**BScaler
White Paper Series**

**PERVASIVE
ENTERPRISE
APPLICATIONS**

By

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Pervasive Enterprise Applications

A Position Paper by:

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During a recent conversation with the CEO, COO, and CFO of a medium sized technology reseller, the discussions about business process engineering turned to the company's concerns about improving workforce effectiveness. The VP of sales joined the meeting and presented the group with how sales leads and contacts were captured and activity tracking maintained by individual sales persons with an automated tool that the sales department obtained for each sales person on a subscription basis from a hosted applications service provider.

When queried about how the leads and contacts information was summarized into forecasts and sales projections for management reviews, the response was startling. The tool was used only for leads and contacts capture, both of which could have been done through inexpensive software packages such as ACT, Goldmine, etc. Forecasts and sales projections were compiled on spreadsheets, which the sales persons were expected to submit to the sales administrator, who would then consolidate them into sales projections each week.

There was no follow-up on the status and qualifications of leads and contacts, nor control over forecasts and probabilities of forecasts and no formal tracking and justifications of forecasts and sales projections. Surprises did not end there. Further discussions revealed that few sales persons generated quotes for customers through – you guessed it – spreadsheets and word processing software.

The spreadsheets/word processing required manual entry of data from vendor price lists. Finally, when the purchase orders are received, the inside sales team manually verifies customer purchase orders against the quotes (if they can find copies of the corresponding quotes) and issue internal purchase orders, procurement, customer invoices, revenue reports, and accounts receivables. A long silence followed the question regarding how they handled commissions.

What is wrong with this scenario? Anyone buying an airline ticket over the Internet these days goes through *all transactions* from itinerary specification to selecting flights to credit card purchase of ticket to obtaining a receipt for the travel, and the entire workflow is conducted through Browser Based Thin Client Computing (B2TC2) without leaving the browser to enter data into spreadsheets or word documents.

With business processes, transactions, and even complete workflow cycles enabled through B2TC2, why should sales workflow automation be different? Why should phases of sales workflow cycle utilize disconnected automation tools, resulting in manual and possibly erroneous data entries and information extractions for reporting and control? Why should management be oblivious to how the sales force executes various sales workflow phases and how the information goes up the ladder for management review and control? Why can't the same system be used to accomplish provisioning, invoicing, applying payments, and commission payments activities?

Answers lie in the approaches to sales workflow automation by vendors who essentially took two significantly different paths, both of which neglected the benefits of B2TC2. One camp utilized the Applications Service Provider (ASP) path, and the other camp took the conventional software tool approach, and both missed opportunities to integrate workflow functionalities from start to finish and all phases in between, despite the availability of technologies to leverage B2TC2 efficiently and effectively.

Looking at the ASP landscape, one finds hosted solutions for one or closely related sales workflow functionalities, such as lead management and some activity tracking, contact management, etc. One would also find solutions for important sales workflow functions such as credit authorization and accounts receivables, which may be yet another disconnected accounting software package.

When companies subscribe to these ASP solutions (and weaknesses of the subscription model by itself is a topic for a separate discussion), employees and management either constantly manually enter and extract information and export to other enterprise applications or, in other cases, do not even utilize the information for management reporting and control, but defer to other means.

The other landscape, the conventional software tool approach, creates similar types of disparate and disconnected application systems in organizations. Instead of managing the resources and assets through a system that reflects the workflow and processes, the conventional software tools require stopping the system to extract information required for the next phase of the workflow cycle.

Software vendors and developers are now blessed with advances in browser based thin client computing (B2TC2) architectures and technologies that can effectively reduce drawbacks of disparate and disconnected applications. One such system that this writer came across is the recently introduced B2TC2 implementation for the ever-important sales workflow process automation, appropriately called the BScaler ERM™ (Enterprise Resource Manager) from BScaler, Inc. in Milpitas, CA.

Pervasive Enterprise Applications through B2TC2

Returning to the technology reseller scenario described earlier, a pervasive enterprise application should automate all phases of a workflow cycle – sales leads, contacts, quotes, forecasts, orders, inventory, procurement, accounts receivables, revenue recognition, commission payment, accounting and financial reporting.

For unimpeded workflow automation, all data relevant to each of these phases of the workflow cycle *should be entered only once and reused many times by all phases of the workflow cycle enterprise wide any time, anywhere.* With appropriate user roles and secure users rights, a pervasive enterprise system should eliminate the need for data re-entry to progress from one phase of a workflow to another.

The implications and benefits of pervasive enterprise applications are profound:

- ☑ First, with these types of systems, when properly implemented, *Process defines the System; Management Information and Control Systems are extracted from the System.*
- ☑ Second, since the process defines the system, the process is not stopped to extract information; in other words, data should flow seamlessly, and not subject to manual extraction and entry, into spreadsheets and presentation software for reporting and management control purposes.
- ☑ Third, a pervasive enterprise system must empower enterprise-wide role-based secure access to workflow automation any time anywhere, unlike traditional sales automation tools which are typically aimed at limited phases of the sales workflow cycle such as contact management, quote generator, inventory, procurement, and accounting software.
- ☑ Fourth, a pervasive enterprise system, through precise workflow modeling of transactions *pertinent to workflow cycle*, must avoid complexities and resulting frustrations from using systems with features, such as those found in full-featured ERP, CRM and accounting software tools, rarely used in the sales process.

Pervasive Sales Workflow Automation System – Enterprise Resource Management from BScaler

It should come as no surprise that pervasive enterprise applications, aimed at workflow automation, cannot target only at sales force automation or at only customer relationship management. With the available technologies for browser-based thin client computing applications, workflow automation should provide end-to-end automation of all aspects of workflow business processes.

Unlike the ASPs and conventional software tools, this writer's evaluation of BScaler ERM™ in action at one of the leading technology reseller organizations revealed readily noticeable differentiators in BScaler ERM, compared to sales workflow automation tools available in the market place today.

Here is a review of the salient and differentiating features in BScaler ERM; these features also highlight the advances in Browser Based Thin Client Computing (B2TC2), which have been incorporated in ERM, to achieve pervasive enterprise applications:

- **Open-source Server infrastructure.**
BScaler ERM™ runs on Linux boxes, with the result that BScaler can host an enterprise class customer on a \$35,000 server, compared to a comparable commercial UNIX machine costing over \$100,000.
- **RDBMS infrastructure.**
BScaler ERM™ runs a commercial-grade RDBMS, compared to a barely enterprise-class DBMS License for Windows at \$25,000 to start and many times over that for UNIX.
- **Rich, intuitive functionality.**
Browser-based user interfaces have come a long way in the past three years. Sophisticated JavaScript and DHTML that loads quickly and caches locally have been implemented in BScaler ERM to offer functionality and speed that looks and feels as good as any Windows-based local application.
- **Real-time results.**
With the pervasive B2TC2 implementation on a state-of-the-art RDBMS/Linux server, a key differentiator in BScaler ERM™ is the timeliness of information: information presented to the BScaler client-user is what's happening currently in the business. ASPs and conventional software vendors typically require additional development efforts or additional fees for a portal server to get customized and real-time access, however BScaler uses a dashboard approach to present real-time information when needed, where needed.
- **Open data access and export.**
BScaler provides very secure multi-tenant servers to their customers as part of a subscription. BScaler also offers the ability to import and export data in standard file formats.
- **Beneficial Ownership by Enterprise**
The ERM SaaS+ Appliance server is an enterprise resource automation product running on a BScaler pre-configured Linux Server. The customer owns the server, which resides in the BScaler Data Center. Users access the system through a Browser much the same as they would through an application like NetSuite, Salesforce.com, or Upshot (Siebel). The differentiator is that the customer owns the Appliance and enjoys the financial benefits from that, which result in quite sizeable savings.

Given these differentiators for BScaler compared to ERP, SFA, CRM, and other partial solutions in the marketplace, a logical next question is the pricing model — SaaS+ versus subscription to other solutions. This will be a topic for a separate position paper by this writer.

About the Author:

At the time of first writing this issue paper, Dr. Raja K. Iyer was a freelance writer, researcher and consultant. He has published over 60 articles in academic and industry publications, and has a Ph.D. in Business Administration from the University of Minnesota. He has over 35 years of experience in the IT industry in professorial, managerial and consultative positions. Dr. Iyer currently serves as Vice President Corporate Communications for BScaler, Inc.