

Metrix e-Business Products: Strategy and Positioning

A White Paper Vision Statement

Preface

Metrix has delivered e-Business features to our clients for several years¹. However, client needs and technologies available for e-Business change on a monthly basis. This document will provide an overview of today's deliverables as well as our vision for the two-year horizon.

Introduction

There is considerable fear, uncertainty and doubt in the marketplace regarding e-Business, e-Commerce, e-Service and e-anything-else. According to Gartner Group analyst, Donna Fluss, as stated in a Research Note from November 1999:

"Enterprises are worried - they know they have to provide something called e-Service, but they do not know what it is, how to do it, which technologies to select, how to manage its adoption and integration, what its impact will be on the call center or what it will mean for their customers. However, they do know that their jobs are in jeopardy if they do not make it happen."²

In such a vacuum, it is not surprising that software vendors try to bias any definition to meet their needs. Metrix believes e-Business means much more than browser-based software, as some software vendors would suggest. This white paper demonstrates why that position is inadequate.

¹ Radio Frequency (RF) enabled Techlink®, Two-way paging and Opening & Inquiring Requests via the Web are but three examples.

² Shifting Winds: New Customer Service Concerns for 2000 by D. Fluss. Gartner Group Customer Service and Support Strategies Research Note, November 11, 1999.

Strategy

The Metrix strategy is to find the optimum mix of building, buying and partnering with clients³, and third parties to provide world-class ProductService CRM™ solutions our clients need to run their operations. Specifically, all current and emerging aspects of electronic business must be evaluated on three criteria:

1. Importance (value, usefulness) to our clients and their customers
2. Technological feasibility
3. Cost effectiveness of deployment

Evaluation of these criteria must also be an on-going process as the underlying constraints or assumptions often change over a very short period of time.

By stating and acting on this vision for e-Business, Metrix ensures that our products lead the way addressing our clients' needs for ProductService CRM systems.

"Metrix globally delivers world-class service automation software and solutions of superior value that companies strategically use to enhance customer relationships."

~ Metrix Mission Statement

Overview

To present Metrix's strategies for e-Business, some definitions are needed. Any specific definition of e-Business is bound to be outdated even as the words are written. Because there is this rapidly and constantly changing environment, Metrix uses a generalized definition. Specific examples of this definition are identified in this document.

³ In this document, 'Client' refers to a business that licenses and uses the Metrix systems for their own operation. 'Customer' refers to the customer of the Client company.

e-Business Definition:

“The collection of features and techniques which support businesses interacting and transacting commerce with their customers and with other businesses utilizing computers, the internet, networks, wireless communication, and various electronic technologies.”

To be beneficial to Metrix clients our e-Business products must provide:

- **the same** business information data flow between entities with **less** involvement by people; or
- **more** data information transfer with **the same** level of involvement by people; or, *optimally, both*
- **more** information flow and require **less** human resource.

Rod Johnson of AMR Research emphasizes this point in his October, 1999 Report on Enterprise Applications. In it he wrote:

“Internet-based processes dramatically cut transaction-processing costs. The reduced costs range from one-tenth to one-fifteenth of the cost of traditional transactions that require manual steps via phone, fax or e-mail.”⁴

Some examples of the technologies that would fit under this e-Business definition:

Web Access for e-Commerce. This is the most easily recognized e-Business technique where the customer can buy stocks, buy books, buy toys over the internet using the web page of the seller.

e-Fulfillment. An example of this technique is an e-mail acknowledgment of the customer’s order confirming the content of the order and perhaps including shipping details, and electronically sending the order to the publisher with direct shipping instructions. Amazon.com is a readily recognized example of this aspect of e-Business.

⁴ ERP Vendors Race To Put The E Back in ERP by Rod Johnson. AMR Research Report on Enterprise Applications, October, 1999.

e-Service. An emerging portion of the e-Business pyramid, e-Service would include giving customers internet-based ability to return products for credit or receive replacement products over the web.

Wireless Notification. A system that supports notifications to be sent based on business events to interested parties. This technique could send a message to a pager, a text message to a cell phone or a screen pop to a logged on user based on a predefined condition or event occurring.

XML Data Transfer. By accepting data input via eXtensible Mark-up Language (XML) structured messages, a system can become a recipient of business-to-business transaction information in real time without human intervention. The technique can utilize the worldwide web for data transport and allow systems that need to exchange information to do so without people initiating batch jobs for that purpose.

There are many other examples of this, some of which are outlined later in this document. New technologies and techniques are constantly emerging in the marketplace. Metrix embraces all technologies that are appropriate for our clients and meet the dual criteria of viability and financial payback.

Finally, this white paper focuses on e-Service related issues, as those are the items of most value to Metrix clients.

Business Impact

Fundamentally, there are only two types of interaction between a person and the information contained in a ProductService CRM system.

- A. "I want to put information into the system"
- B. "I want to know information contained in the system"

By classifying interactions at this very basic level, Metrix removes some of the mystery surrounding the presentation of a web strategy. Too often, vendors and consultants confuse the issue by overemphasizing the technology without tying the technology back to the purpose.

Also, as will be shown later, some interactions lend themselves to be completed using certain devices. For example, a cell phone might be excellent for a Type 'B' transaction, but less satisfying for a Type 'A' due to limited screen space and keyboard.

Consider a Type 'A' interaction. Suppose in this case that the 'I' is a customer, and the interaction is initiating a request for service.

1. Customer phones a Call Center (CC) Operator
2. CC operator is at a PC connected to 'the System'
3. Through phone dialog, the person calling is identified
4. The Place and product in question is identified, and entered into the system by the CC Operator
5. The problem is described by the Customer and entered into the system by the CC Operator

An obvious e-Business improvement to the above interaction is permitting the customer direct access to the system via the Web. The savings to the client are great (no CC Operator needed). This is an example of the same business information flow with less human intervention. An added benefit is that the customer can choose to initialize the interaction when they want - they aren't constrained by the normal '9 to 5' hours of operation.

That is only one example of an e-Business tool. There are many others and all must be supported for a complete e-Business strategy.

Now consider a Type 'B' interaction. Information is needed from the system. Many different people could be saying the sentence "I want to know information contained in the system". A partial list of those wanting to view system information:

- A Customer
- A Call Center Operator
- A Manager of Service Operations
- A Vice President CEO or other Executive
- A Service Engineer
- A Business Partner, Third Party Service Provider or other affiliate of the Client

For a Type 'B' interaction, there are many fascinating opportunities for high value add provided by new technologies. Let's look at one.

In this example, the 'I' is a regional service manager of the product service operation. The system has notified her that a pre-set time commitment (4-hour time commitment to arrive on-site after a request is initiated) is now within 1 hour of being missed.

The notification comes from the system as an automatic 'subscription' using 'publish and subscribe' technology. The manager was set up as a 'subscriber' to escalation events for a certain class of customers. When the system 'publishes' an alert for a customer of this class in the manager's region, that information is automatically routed to the manager. In this case, suppose the manager has chosen a cellular telephone as the notification device.

Using the cell network and the telephone as a wireless device, the manager can then interrogate the system for the specifics of the customer request. She can view other engineer workloads and make a decision on what action to take. She can also use the cell phone in a more conventional way: to telephone the client or the engineer.

The above two examples are presented to show there are many, many aspects to e-Business. The concept of e-Business is not limited to browser-based access. Metrix is uniquely positioned to understand and exploit all of the opportunities of e-Business for ProductService CRM, because of our long history of leveraging our unmatched domain knowledge with technology leadership.

A Partial Listing of Interactions

Consider the following 'classes' of interaction between various entities in a product service context. Each category is followed by a few specific examples of typical interactions. Each one of these interactions is an opportunity for improvement via e-Business technology.

Each example carries a designation in parentheses as a Type 'A' interaction (data entry) or a Type 'B' (retrieve information from the system). This will help the reader cross reference interactions with technologies later in the document.

Customer to Client -

1. Log a service request (A)
2. Log an RMA (A)
3. Inquire status of a request, an RMA (B)
4. Request (order) spare parts (A)
5. Preventive maintenance (PM) service requests, generated by the equipment itself, based on usage/meter levels (A)
6. Customer self-help, problem solving (A & B)
7. Warranty registration (A & B)
8. Purchase a service contract (A & B)

Client to Customer -

9. Opinion polling (A)
10. Renewal of contract notification (B)

Notifications of various types:

11. Acknowledging a request (B)
12. Confirming expected arrival time (A)
13. Providing shipping details (B)

Within the Product Service Operation -

14. Managers inquiring for status and reports (B)
15. Notifying engineers of tasks (B)
16. Engineers accepting/rejecting tasks, entering activities (A & B)
17. Escalation of issues (A & B)
18. Alerts to management about missing commitments (B)

***Between the Product Service Operations and other
Departments of the Client -***

Notification into Product Service Operations:

19. New products shipped (A)
20. Installation requests (A)
21. New customers, changes to existing customer data (e.g. credit status) (A)
22. Part pricing (A)

Notification out of Product Service Operations:

23. Invoices/vouchers for work done (B)
24. Invoices/vouchers for service contracts (B)
25. Inventory levels at month/year end for accounting (B)

Between Client and Suppliers -

26. Request for parts needed (B)
27. Acknowledgement of parts ordered and shipping details (A & B)

Between Client and Partners -

28. Notification of products on the way to partner for repair (A & B)
29. Details of work done & quality data from the 3rd party repair process (A)
30. Notice of installation, warranty start/registration for products sold by resellers or distribution channel partners
31. Spare parts replenishment

This is not an exhaustive list, but presented to give the reader easy-to-relate-to examples of typical interactions.

In the past, these interactions have, at a minimum, taken two people. There would be at least one person from each business. They would usually end up attempting to talk on the telephone. It is clear that significant savings can be realized by the product service operation if the interaction can occur without a person from the product service operation being directly involved (i.e. less human intervention).

To derive appropriate client solutions, Metrix examines all interactions for the possibility of improvement or elimination using e-Business technologies.

e-Business Technologies

Here is a brief listing of some of the technologies available for automating the above listed interactions. (All of the below listed technologies are either available in production versions of the Metrix system or are active projects in the research and development department.)

Web browser access to perform question-and-answer, data entry and inquiry -

Customer self-service using a knowledge-based system, and web request entry and inquiry are two examples.

Cellular Phone devices -

Using the carrier packet. While the device is on, the cellular company's handshaking with the device provides a fascinating opportunity to 'ride along' and send short messages to the user without initiating a call.

Using micro-browser. In embryonic rollout, the cell phones using the EPOC operating system have a micro-browser embedded. By creating web pages adapted to the small form factor, users can perform simple interactions such as accepting assignments.

WAP (Wireless Application Protocol) for all wireless devices, including palm-type devices

Web ability to distribute report output to e-mail recipients over the internet, and to create output in HTML format for widespread viewing -

Making information available on the client's intranet, or sending electronic reports via e-mail provides information that is available when the user wants it, in the format that they want to receive/view it.

Multiple mobile operating system support including EPOC and Windows CE

Outbound Paging and two-way paging -

While cellular is the wave of the future, there are many one and two-way pagers in use today. Metrix supports user-configurable messaging to these devices.

Radio Frequency (RF) use for communications -

RF Techlink provides wireless dispatch, data transfer and call acceptance and closeout.

XML adapter for inbound data entry -

Both for initial data load and for ongoing systems operation, the Metrix system accepts XML messages for common interactions arriving from other systems - new product installs, warranty registration, customer record data updates and much more.

XML adapter for outbound data transfer -

As part of our Enterprise Application Integration, XML structured transactions may be sent out to other systems for billing, for part needs and several other transactions.

e-mail for notifications and alerts -

The e-mails must be configurable as to message content, allow substitution of values (example: Request ID number) in the text, and be triggered on demand or on rules-based events.

'Publish and Subscribe' technology that supports flexible rules-based notifications while minimizing resource usage (i.e. does not use polling techniques)

N-tier component technology to support browser Java and server-side Java -

Without true n-tier component architecture, the technologies of e-Business become difficult or impossible to implement in a scalable and 'native' manner. Our use of tools provided by Sun/Forte are a huge benefit to Metrix clients.

Java Server Pages (JSP) for performance and User Interface (UI) benefits -

By using this technology, the web pages for Metrix functions can be configured to match the 'look and feel' of the rest of the client's website.

Internet Virtual Private Network Service as a data transport mechanism for disconnected mobile workers -

Metrix's Techlink product supports disconnected data capture, with store-and-forward data transfer possible using dial-up connect, or a VPNS technique.

As noted earlier, this list is constantly evolving. Through partnerships and relationships with industry leading firms like Sun/Forte, Oracle and Origin combined with our remarkable client base we can keep 'ahead of the curve' as new technologies emerge.

Conclusion

Through this white paper we have shown four important points:

1. e-Business for ProductService CRM is much more than browser access to programs
2. Metrix understands the details of interaction in a ProductService CRM environment, i.e., how the processes work and where to derive ROI
3. Metrix understands the technologies that exist and those that are emerging for e-Business
4. Metrix is combining their domain expertise in ProductService CRM with their technology expertise to build, buy and form partnerships that benefit their clients and keep them at the forefront of e-Business

The implications of too narrow of a view of e-Business are described by the Aberdeen Group in an October 1999 Executive Viewpoint:

"... individuals and organizations who believe that simply attaching a Web-browser front-end to existing client-server (and earlier) applications provides a competitive advantage are sorely mistaken. Nor will market dominance be achieved by technical elegance - i.e., just having a thin-client solution built from the ground up to run over the Internet. The future belongs to Web-architected applications that have best-of-breed functionality and access and aggregate resources both inside and outside the corporate firewall."⁵

The Metrix Commitment

By leveraging our strong competencies in domain and process knowledge with our technical expertise, we will continue to provide significant benefit to Metrix's clients, and extend Metrix's e-Business leadership in the ProductService CRM marketplace.

⁵ Internet Application Architecture Creates New Playing Field, AberdeenGroup Executive Viewpoint, October 15, 1999

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Note to reader:

We would expect this document to be revised frequently (six months maximum between revisions) as marketplace conditions change. We invite you to visit our web site at <http://www.metrix.com> for other current information relevant to the growing ProductService CRM community.

