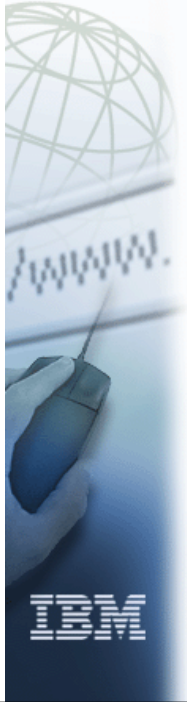




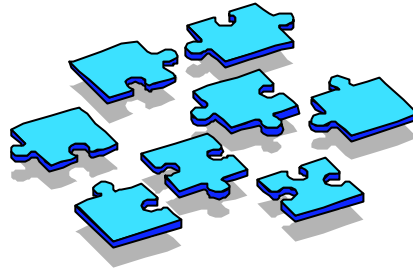
e-business



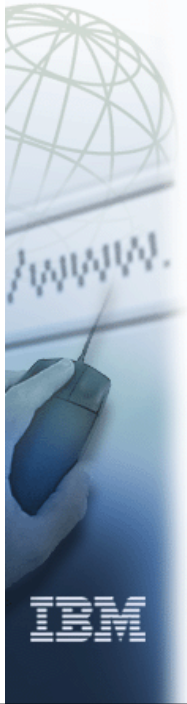
IBM MQSeries Family Business Integration

...enabling the world of

@-business



The MQSeries family is widely recognised by customers and market consultants as a key enabling technology for Business Integration. MQSeries may be less known for its success in e-business but throughout our 7000 customers nearly half are using MQSeries technology to support integration with partners, acquisitions and linking web sites to back end systems.

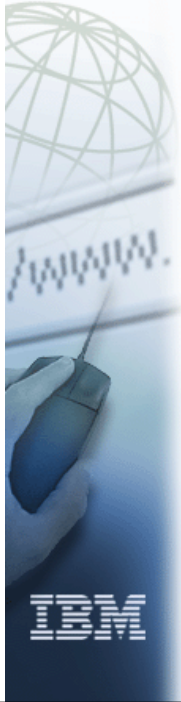


Agenda

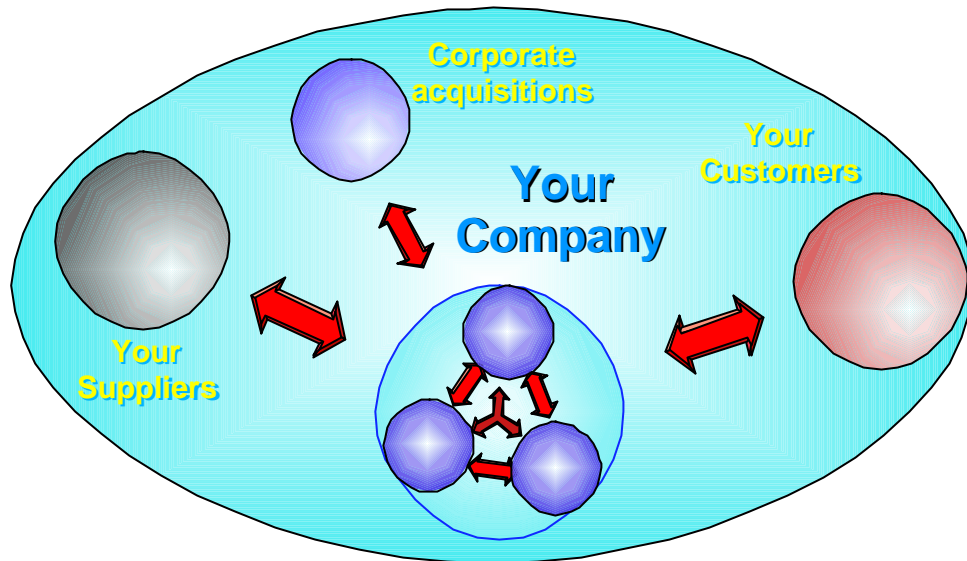
- What is business integration?
- The MQSeries Family solution
- The next generation of Integration
 - ▶ Delivering in 2000
- Summary



e-business



What's being integrated?

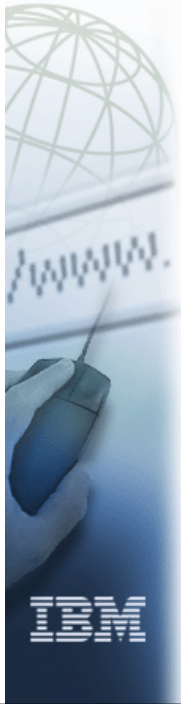


The entire value chain

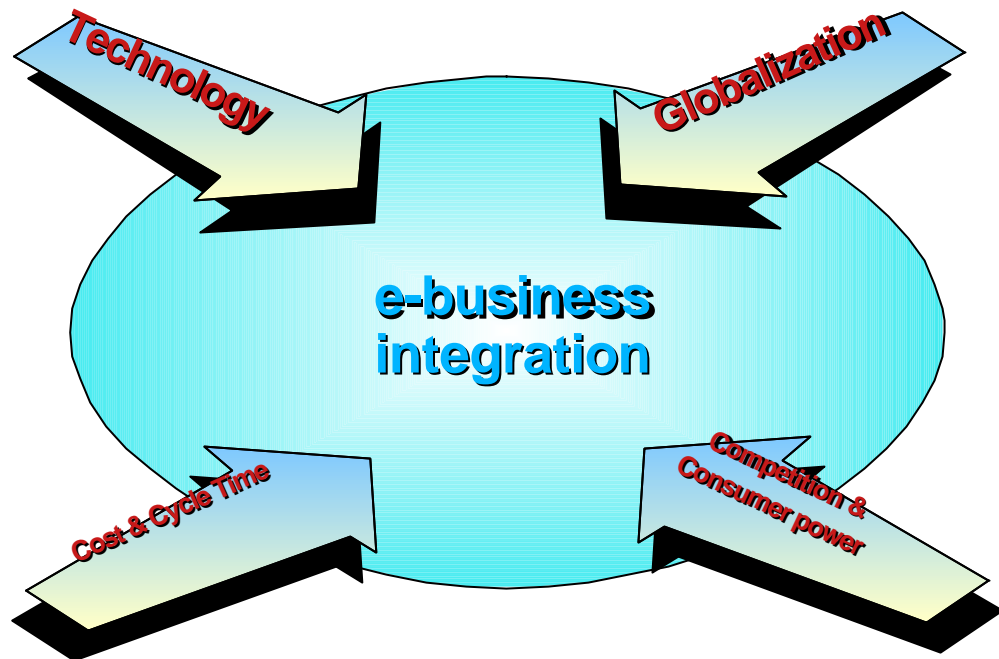
- ▶ So what needs to be integrated?
- ▶
- ▶ Well, quite frankly, the entire value chain (or value net). Businesses can no longer afford to think of themselves as isolated enterprises. What happens with both your suppliers and your customers bears directly on your own company's success.
- ▶
- ▶ For instance, even if you have a much better product than your competitors, if their method for dealing with a particular segment of your customers is better than yours, that might be enough to swing the deal their way.
- ▶
- ▶ (Aside for the speaker: IBM's latest deal with Dell is a case in point. For a particular segment of the market (home & small business), Dell's direct mechanisms have been much more efficient than Compaq's, where they opted instead for a network of dealers who do business with large organizations. Dell doesn't actually manufacture PCs anymore. They buy from other makers -- notably IBM who recently penned a \$6 billion dollar deal with them. Compaq were very slow in recognizing the change occurring in buyer PC behavior. As a result, Dell has knocked them out of top spot as a final seller of PCs, but IBM has done even better because its parts are an integral part of what Dell sells.
- ▶
- ▶ Similarly, at the supplier end of the business, those who can supply you with goods just-in-time to when you need them, will be of greater value to you than those who cannot.



e-business



Forces driving e-business integration



Certainly, e-business is driving this need to integrate but in fact there are several forces at work. We identify four key ones as follows:

• Technology

- Technology, and particularly the Internet, is perhaps changing business -- indeed society -- faster than anything else. e-business is changing whole industries.
- But it is not just the Internet that is changing things. The massive growth of e-mail and telecommunications is also having an affect.
- Companies are rapidly trying to adopt and integrated the Web into the very core of their existing business processes.

• Globalization

- New trading arrangements (e.g. WTO, NAFTA, EU, ASEAN, Monetary union in Europe (EMU)) --- these new arrangements have accelerated the need for companies to establish a position in the global marketplace and to ensure operations run consistently everywhere
- Development of a world culture (TV, movies, the Internet, the spread of the English language) has created an environment of common understanding where products have an appeal beyond just the nation.
- Whereas a few years ago people spoke of national brands, today many companies are establishing 'global brands' where the product, meaning, and attributes are the same everywhere (e.g. McDonalds, IBM, Mercedes)
- All of these factors are creating mergers, acquisitions, and corporate consolidation as companies expand into new global markets

• Cost and cycle time pressure

- A few years ago, industry was on the big drive to Total Quality Management (TCM). While the idea centered around doing everything right the first time, the real issue was the elimination of rework so that products would get delivered faster and with less waste
- TCM hasn't gone away, but it has taken on a new level of sophistication.
- Product life cycles have shrunk, and are still shrinking. In the IT industry we talk about 'Web years' where 1 Web year equals about 3 months.
- The same pace of change is hitting other industries.
- In this environment, to compete companies need economies of scale and vastly reduced overheads

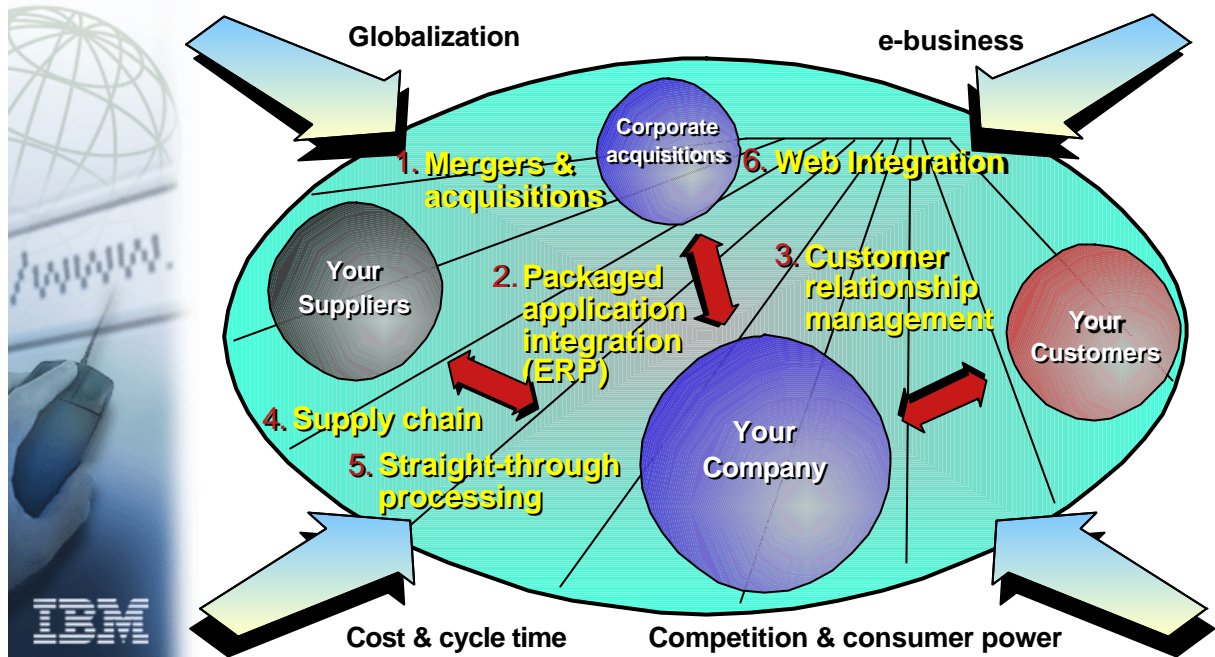
• Competition and consumer power

- As the world has become more global, the range of goods on offer to consumers has increased dramatically. In fact in many areas, markets are saturated
- This has created more competition and put consumers in a more powerful position; they have more alternatives and as such do not need to chose only one particular company or product anymore
- At the same time, consumers have become more educated and sophisticated in their tastes --- they are now demanding products that are closer to their needs --- e.g. the average supermarket carries some 30 types of tea, from green Chinese tea, to English Breakfast, to decaffeinated
- The market, in essence, is fragmenting into more and more micro segments
- All this sophistication is creating challenges for companies. It is no longer good enough to just have a product. The product must also meet the specific needs of the buyer -- and all buyers are different, or they would like to think they are. In order to compete, companies are having to understand their customers like never before
- This has meant gathering information on consumers and offering products to them from any number of channels



e-business

Business integration issues



Mergers & acquisitions. MQ family ensures the merger is a success. It brings diverse businesses together - faster

Packaged application integration. Install ERP systems faster and less expensively. Make ERP systems more responsive and flexible to business change

CRM integration. Get a single customer view, gain the ability to cross sell

Supply chain integration. Make the supply chain more effective and flexible to change and emerging technology

Straight-through processing. Avoid re-keying, propagate business events to relevant processes, reduce business risk and chance of error. Achieve 'zero - latency' trading

Web integration. Tie the Web into your core business processes for competitive advantage



e-business

e-business : changing the shape of business

New Customers

65,000 new websites created every hour...

- 4M users connected in 1997
- 170M connected now
- 575M by 2003

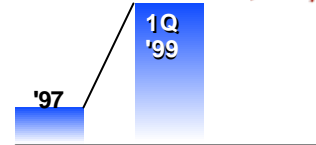
New Cost Structures

Online Banking:
56 million users by 2003

Cost of one transaction

- Bank Branch = \$ 1.08
- Telephone = \$ 0.54
- Internet = \$ 0.13

New Competition



New Ways of Doing Business

- Business-to-consumer commerce growing to \$43 billion by 2003
- Business-to-business commerce growing to **\$1.3 trillion** by 2003

By now, we have all heard of e-business. It is the convergence of traditional IT and Internet technologies to change essential business processes. However, an important point is that it is not just about the Internet. It is also about building intranets, private internal networks, and extranets, private networks that may run over the Internet or other networks.

At IBM, e-business is at the core of what we are about. We already do more trade over the Internet than any other company, but it is our mission to help other companies transform their businesses.

Companies in every industry need to be prepared for the changes e-business is bringing. If they don't, they will in all likelihood be left behind. Already, there are some 170 million people connected to the Internet and by 2003 that number is expected to grow to well over half a billion. Of course, we have all heard about Amazon.com and the amount of business they are now doing selling books over the Internet. Companies like Amazon recognize the value of establishing 'e-brands'.

Incidentally, Amazon.com has yet to make a profit, but this has not changed the fact that their stock is still red hot. The race right now is to establish an Internet brand and to grow from there. Besides, the reason Amazon has not made a profit is that they keep pumping their revenues into new investments. They have already branched into CDs and they are also moving into sales of pharmaceuticals.

The reason the Internet is so attractive is the cost structure. For instance, it costs far less to do a banking transaction over the Internet than through either the bank branch or telephone. This creates enormous implications for traditional banks. Several new alternative banks have already appeared, notably MBANX in North America and EGG bank in the UK to name a couple. These banks are already causing traditional players to react. To compete, several banks have now decided to charge substantially higher user fees to those customers wanting to do transactions in the branch. This has created an uproar with their customers who never paid such fees before.

Banks that fail to make the transition, or indeed allow others to establish a presence first, may find that the value of existing brands will diminish as Internet banking grows.

Arguments about how much people will really be prepared to buy over the Internet. Many people were initially very skeptical. However, consumer sales have been higher, and occurred faster, than anyone predicted.

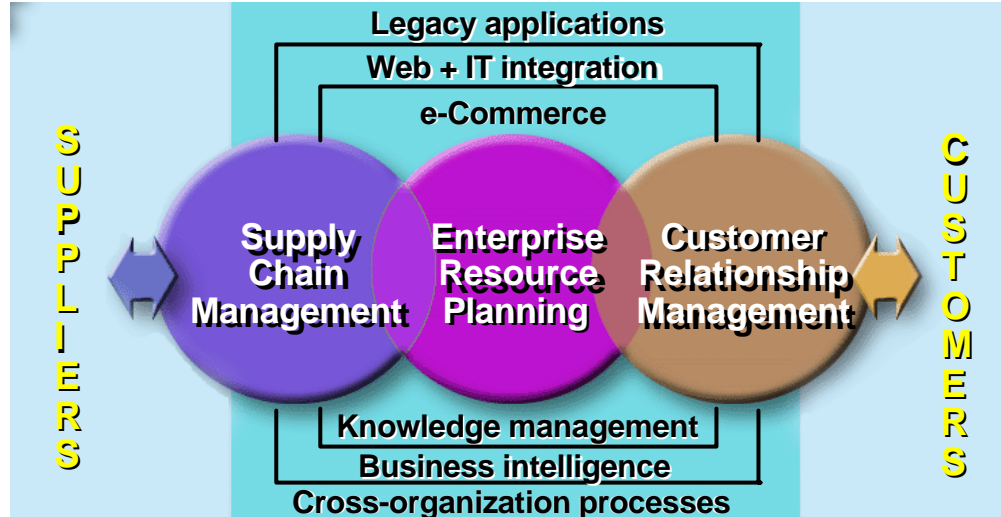
One area that almost everyone agrees will be the biggest growth area for the Internet is in the area of business-to-business. Business-to-business has always been a far larger part of the economy than business-to-consumer. Furthermore, businesses are far more willing and able to use the Internet than individuals and the kinds of transactions that businesses conduct are far more conducive to Internet sales. Consumer want to touch and feel. Businesses want bulk shipments. It should therefore be of no surprise that the estimates are that by 2003 the amount of commerce conducted between businesses will be in the order of 30 times that of business-to-consumer.



e-business

Enterprise application flexibility

Are your enterprise applications flexible to change?



"ERP, at best, covers only 30% of a typical company's business processes"

Source: Gartner Group

One solution that companies have implemented in recent years to integrate their business is ERP, Enterprise Resource Planning systems. The idea behind ERP is that it is a single application system connecting all parts of your business.

Certainly ERP has had some success, but equally so it has failed to meet its objectives. The chief problem is that it is impossible to develop a system that can address all aspects of your business. As Gartner Group points out, at best ERP covers only 30% of a typical company's business processes.

Recently, as companies have shifted their focus on extending their businesses outward toward customer relationship management systems and supply chain systems, the limitations of the ERP approach have become more and more acute. Analysts like Benchmarking Partners have blamed it on the Internet. Companies are having to change their systems so quickly in order to adapt to the Internet, they can no longer wait for their ERP vendors to provide the solution.



e-business

Business Integration issues

-
- **Multiple platforms**
 - **Complexity**
 - Change one thing, effect something else
 - **Need reliable connections without locking up business processes**
 - Particularly true with e-business

Business Integration is a broad concept. Its embrace includes; access to your multiple databases, information sharing between your applications and most of all, efficient sequencing between your business activities, internal and external to your enterprise.

Most certainly you will have multiple platforms in your business; different hardware platforms, different operating systems, different data bases and different applications, not forgetting your different departments, organisation and partners.

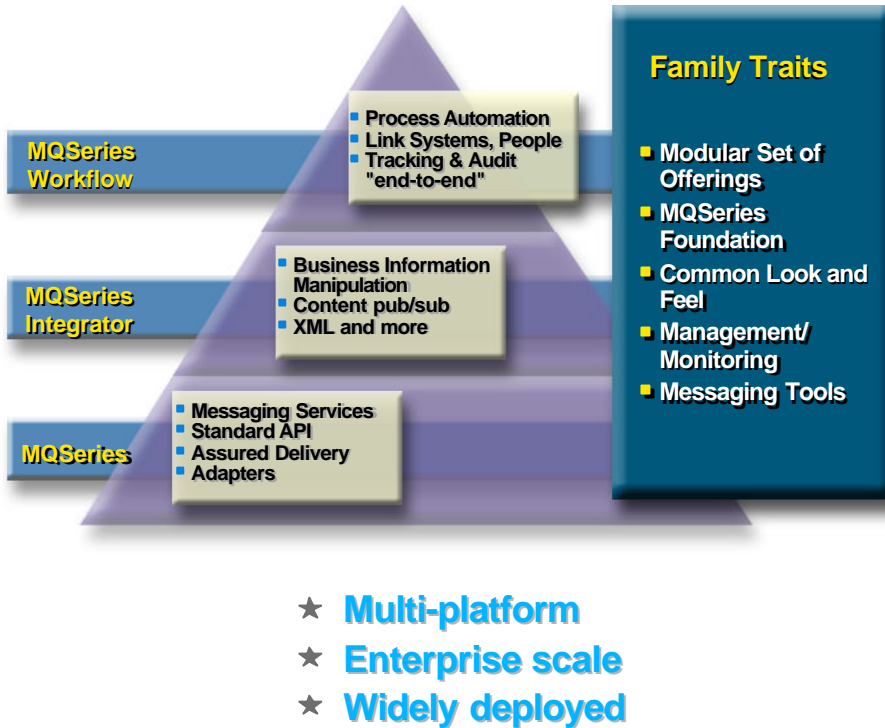
Efficiently integrating your business while avoiding the re-keying and manual 'band-aid' of many companies is your goal but your solution needs flexibility. Inevitably your business will change and your business integration infrastructure must be amenable and adaptable to this change. MQSeries offers two key capabilities which really keep you on top

The architecture is 'business event coupled'. What does this mean? This is best explained by an example. MQSeries architecture is simple and consistent across the family. Communicating with messages are a natural approach to sharing information. The structure of information within a message is easily accessible and understood by both visual tools and application interfaces



e-business

The MQSeries Family



The MQSeries family may be considered from both a business and a technical perspective. From inception MQSeries was depicted as a cloud connecting different hardware systems, application environments and supporting many communication standards. MQSeries has now extended its value and capabilities to efficiently engage the needs of business. The advances include deeper understanding of the intricacies of a business activity whilst fully embracing the staff and department organization within your enterprise and with your business partners and customers. In fact, full e-business B2B enablement.

The technical explanation requires a few more words. In 1998 we introduced Business Integration using a three layer triangle icon. This chart is nominally in three layers horizontally but the important word to remember is 'consistency'. MQSeries family is throwing a big solution blanket over all aspects of your e-business integration needs. We have the process and people workflow, we have a second generation message broker with affinity to the context of your business data but we have more. We have embraced the endpoints of your business to make it much easier, yet much more powerful in how applications can be attached and visualized by the new family tools.

We have introduced new platforms, Linux, True 64, Win 2000 and new concepts, MQAnyplace. We are introducing an important adapter technology to match XML standards with your significant investment in custom and customized application development. Finally, at the endpoint level we have introduced new API's to support open standards and new levels of implementation efficiency. The CMI understands the new 'structured data model' which is the core of our second generation message broker.

The AMI is designed to be independent of MQSeries (and has been accepted by the OAG as a new standard). This essentially provides templates for build MQSeries headers by selecting predefined Services and Policies for deciding where a message is destined for and what properties it is to have. The AMI was made available in 2H99. The CMI will be available later in 2000.

The new broker technology, MQSI V2, extends the function we introduced in partnership with NEON. MQSI V2 is essentially a new daemon which fully exploits the NEON rules and formatter but extends this with the concept of 'message flows' where messages may be manipulated by 'process nodes' which include concepts such as 'join' with enterprise data bases as well as using rules, re-formatter and the new content based publish/subscribe. A key part of the new broker architecture is the logical message model and its partner, the metadata repository.

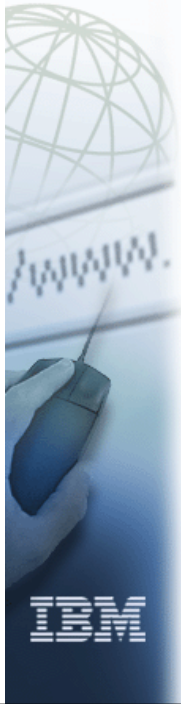
The workflow product has been extended in scalability and it is best visualized as maintaining state and managing the sequencing of activities.

Across the family we have introduced consistent tooling and full XML support



e-business

MQSeries family



- it's adaptive middleware for a changing world
- it's how different systems do business together
- it works smarter, so your data works harder
- it turns mission-critical into mission accomplished!

▶ These are the top level MQSeries family messages.

▶

▶ Adaptive middleware

• The rapid rate of change in the business world today means constant IT change is necessary to survive. Keeping IT aligned with evolving business strategies has always been tough, but MQSeries is designed to make the IT infrastructure much more adaptive, flexible and quick to change. With its standardized solutions and open framework, you need fewer of that scarce resource, skilled programmers. All this means that the business is free to start competitive initiatives, rather than react to them.

▶

▶ Different systems

• The key to MQSeries flexibility is its connectivity. It connects almost anything to almost everything. In practice, this means every system platform found in commerce, and any application, old or new, that you need to work with any other. Integrating business systems - so essential to the new business models - becomes a snap. Only MQSeries can provide this level of integration. Only MQSeries enjoys this level of popular support from customers and business partners.

▶

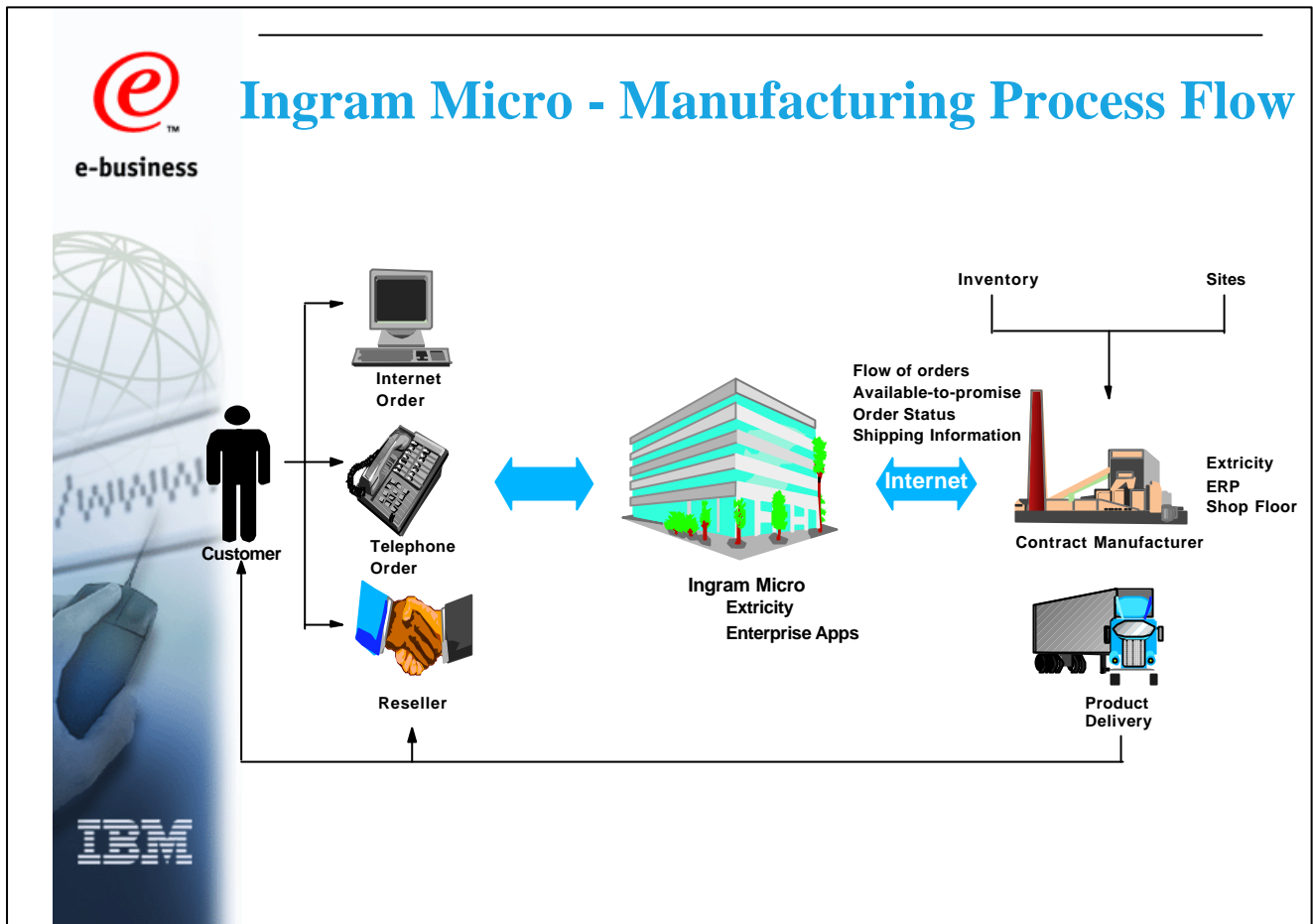
▶ Working smarter

• If you can connect to any system, then you can access any of your corporate data and use it where you want, traditionally a major stumbling block for large enterprises. But MQSeries does so much more. It's simple to specify how information can be used to automate processes, supply people with tailored information for their job, and change the links between activities to create new business processes. MQSeries works smarter with dynamic access to information, so you can use your data in new and creative ways.

▶

▶ Mission-critical

• New e-business models require a robustness and availability from systems to support a global economy that never sleeps. But it's a global economy that increasingly depends on a fragile networks, like the Internet. MQSeries assures that data is always delivered, despite interruptions to the network. For those systems that you absolutely depend on to work, where you can't afford to fail, MQSeries removes doubt and worry. After all, thousands of customers have already proven MQSeries reliability.



Ingram Micro as IT distributor and Solectron as contract manufacturer implemented a build-to-order supply chain to underpin the Ingram business strategy

Customer demand is unpredictable so build to forecast not practical (market velocity dictates)

Matching supply with demand in real time

Consumers place orders, built to spec by Solectron and then shipped to them.

Order placed, transmitted to Ingram which then automatically routes the info to the appropriate world wide

Solectron site. Solectron checks for parts or procures and provides Ingram an expected ship date.

Extricity AllianceSeries automates the flow between the business partners as well key processes such as order processing, work-in-progress request and inventory update. Enables the creation of the bto process flowing transactions into the Solectron ERP and factory floor systems

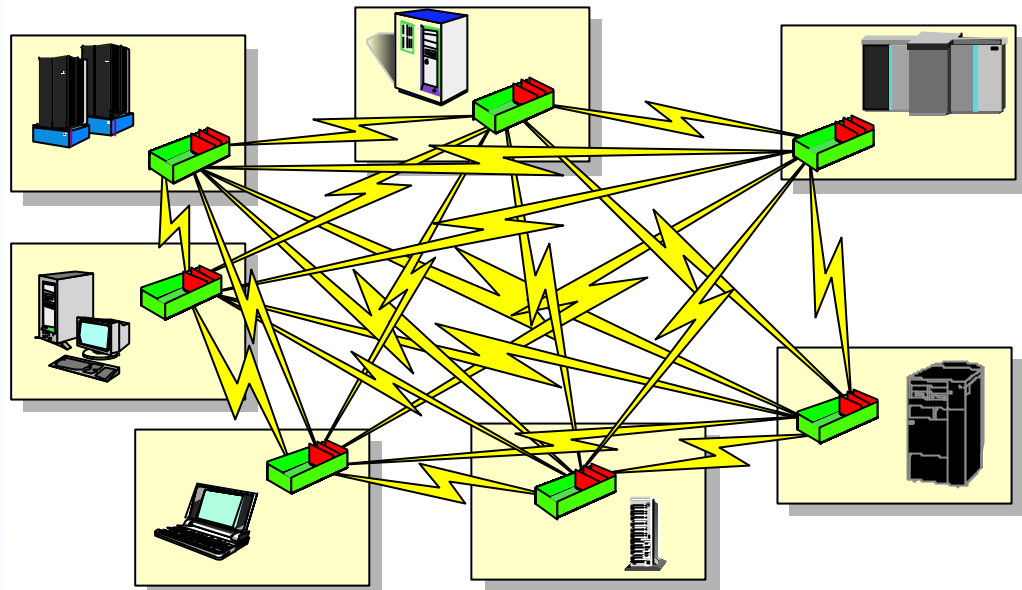
Reduces inventory costs and cycle times

Alliance chosen because of multi-level process model allowing private and public processes plus integrating these processes across multiple sites with security , dynamic data tracking and history logging



e-business

MQSeries messaging: Universal application connectivity



Connecting over 35 different platforms

Lets look at MQSeries

MQSeries, is the basic connector, connecting virtually everything to everything else ... the universal reliable interconnect. A great statement and it's true!

Benefits

One API across any platform that MQSeries runs upon (over 35 at last count) - Simple PUT to queue and GET from queue

Assured message delivery, once and only once with transactional control. In fact, the location of the receiving system is not even required to be known. This vastly reduces complexity because it shields developers from communication protocols (TCP/IP, SNA, SPX, NetBIOS) altogether.

Applications are not required to be running or available at either end. It is the queue that provides the communications link. It is available whenever required

This greatly reduces development time

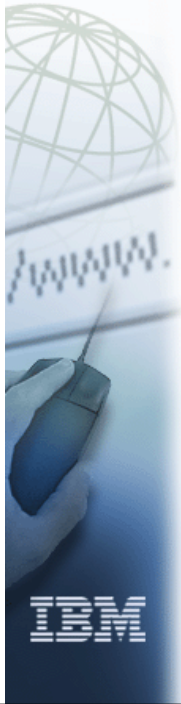
Processing is time independent

Applications can actually run faster because several queues can be set up at once allowing parallel processing.

In short, the real value of MQSeries is developer burden relief -- we take care of 70% of his programming effort shielding him from the underlying complexity.



e-business



MQSeries Highlights

Quick Facts

- > 350 of IBM's top 500 customers use MQSeries
- > 7000 customers
- > 350 independent software vendors offer MQSeries-based services and products
- > 66% of Top 100 North American and European banks use MQSeries
- > 70 of top Fortune 100 companies use MQSeries
- Market leader in messaging middleware
- Many analysts describe MQSeries as the De-facto messaging standard
- > 2500 people with an MQSeries Certification working from > 650 different companies worldwide.
- Extreme performance > 250 Million messages a day
- MQSeries support provided for Oracle, Sybase, Infomix, and SAP
- Even Microsoft ships an adapter to interface with MQSeries

Press Coverage in 1999

About 450 articles appeared worldwide reaching an estimated audience of about 125 million readers.

Press coverage increased 50%.

Major media coverage increased dramatically with features in Bloomberg, Business Week, Financial Times, The New York Times Online, Reuters and The Wall Street Journal.

Latest.....

- Extended platform functionality
- Delivery of MQSI V2 on NT + UNIX platforms
- Delivery of MQSeries Everyplace for pervasive market



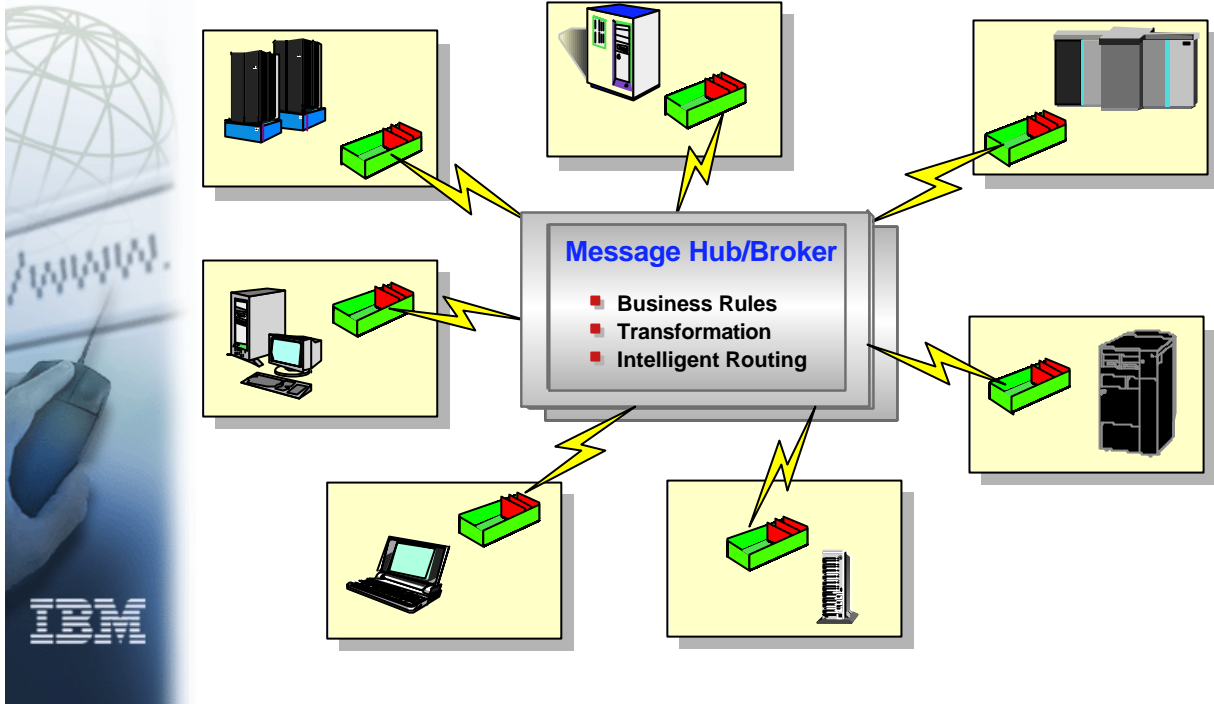
Application Excellence Award



- ▶ This chart just keeps getting better and better, it's a testament to the success of MQSeries.
- ▶
- ▶ The facts speak for themselves, MQSeries is a very successful product with over:
- ▶
- ▶ - 7,000 customers, worldwide, all industries....
- ▶ - 70 out of the Fortune 100 use MQSeries , and growing
- ▶ - We have customers processing over a quarter of a billion messages a day - a testament to our salability and reliability
- ▶ etc



MQSeries Integrator: Making application integration easier



At the middle layer of the diagram we are simplifying integration with the MQSeries Integrator.

Version 1 was based on the NEON Rules and formatter:

MQSeries Integrator enables the change to take place much easier and faster. Typically, if 7 applications are trying to interact, one has to deal with $n(n-1)/2=21$ connections. Furthermore, these are hard-coded connections. The amount of time and money needed to change this environment is immense.

With MQSeries Integrator V2 we have moved into new space. So what makes V2 worldclass?

Our goal in MQSI V2 was to make it easier to define transformation formats and rules, to the extent that they could be defined by a non-programmer, a technically orientated business person. Lets face it, they're the ones that know what the process should do. To accomplish this V2 contains a powerful new GUI based tool

Database access from MQSI V2 is through SQL3 primitives not a C program, again more orientated towards a non-programmer. The tool will be a drag/drop sort of operation - its like using Powerpoint or Freelance - you will have a palette of objects and a wiring area.

Finally, the tool has associated with it an open framework. A published interface that you or a vendor could use to produce process nodes. So you don't just have the tool, the process nodes IBM create and the ones you'll write. Vendors will also be creating process nodes to plug into this framework. I talked about some of the things a process node might do, but the possibilities are endless..... as an example, we have one vendor looking to develop a business intelligence node. A node which analyses the message flows and helps you build up a profile of your buyer - age, sex, nationality to help with target marketing and cross selling.

Think about the possibilities for this tool - to have the business analyst able to make rules updates to react to market changes instantly - a rich set of vendor plug ins to help you create powerful process nodes. This is exciting stuff.

MQSeries Integrator is based on MQSeries messaging but adds to it. A formatter transforms messages to make sure they match across applications. A rules databases is included which allows us to define what happens based upon the content of a message. From the content, messages are routed appropriately.



e-business

MQSeries Integrator Highlights



Datamation Enterprise Application Integration/Middleware product of the year - Feb 2000

"MQSeries Integrator 2.0 contains some of the major advances in this crop of middleware products. Chief among these are support for eXtensible Markup Language (XML) messaging and the addition of sophisticated process management components"

Quick Facts

IBM quadrupled market share in 1999 and was rated **#1** in the Application Integration Broker market with MQSeries Workflow and MQSeries Integrator (WinterGreen Research).

More than 10% of Fortune 100 companies chose MQSI in 1999.

More than a third of MQSeries Integrator Customers are Fortune 500 Companies.

MQSeries Integrator offers extensive Platform Coverage.

PC Week - March 20 2000

"IBM has opened up MQSI to the Net," said Susan Eustis, an analyst for Wintergreen Research Inc., of Lexington, Mass. "They have really facilitated the message-routing capabilities, giving more mission-critical functionality to messages as you go across the Net."

The MONY Group

"By introducing MQSeries Integrator as the 'hub' between applications, we are able to maintain, in one central place, a pool of knowledge for use in linking applications."

Strategic Partnerships

NEON

CrossWorlds (Winners of Yphise Award 1999)

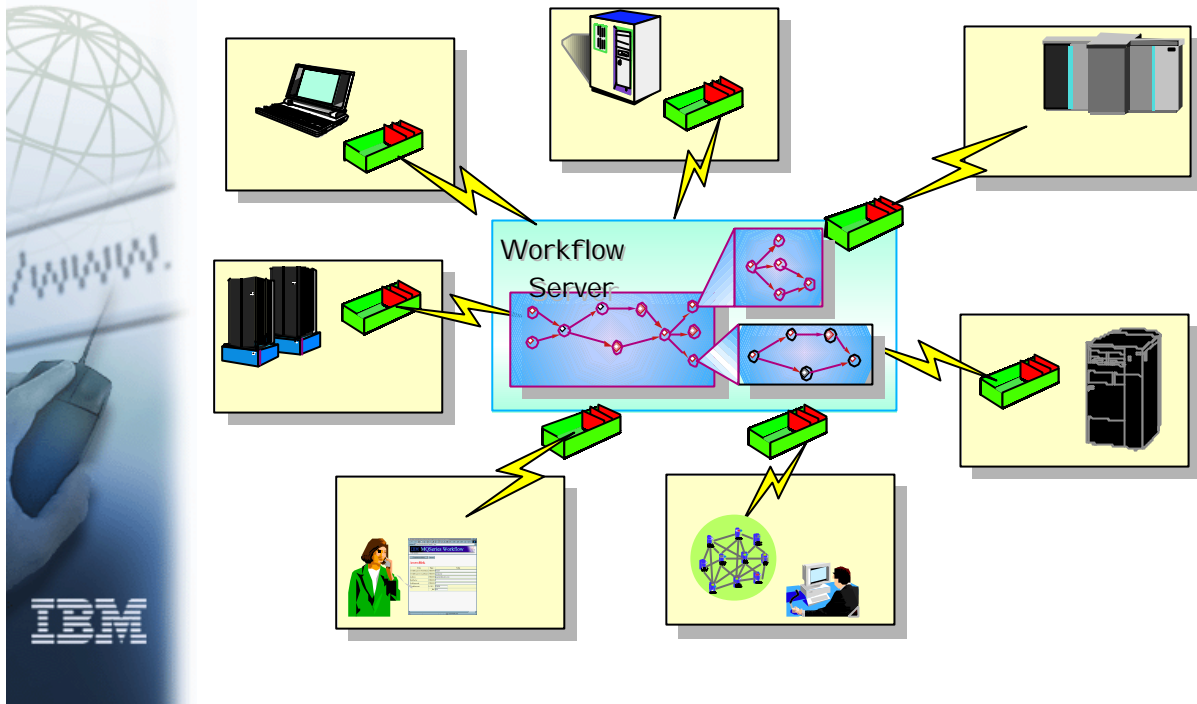
Extricity (Winners of Crossroads 2000 Award)

- ▶ The new things that stand out about the MQSeries Integrator are:
- ▶
- ▶ The Datamation award:
- ▶ Much of MQSeries Integrator's success has been driven by the success of the MQSeries messaging platform, IBM's status as a major vendor, and the product's reputation as a workhorse in the EAI world, Sholler says.
- ▶
- ▶ #1 in first year:
- ▶ We are the industry leaders in the messaging middleware space, currently 72% according to analysts, well we've been told that Wintergreen Research have just completed an independent survey into the message broker marketplace. This is the market in which our MQSeries Integrator product competes. Provisional results of that survey show that we have, in a year, also become market share leaders in this space as well. An incredible achievement given the competitiveness of that market.
- ▶
- ▶ The Mony Group reference
- ▶
- ▶ The strategic partnerships which are helping IBM to take the leadership position in Application Integration



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MQSeries Workflow: Orchestrates business processes



MQSeries Workflow is business process automation software which orchestrates business processes. What does that mean? It's software that automates manual processes, if you have a procedures manual for example, MQWF can automate it for you - the value proposition to your customers is that this procedure is now performed consistently, you have better control over it, and it's easier and faster to change in the future.

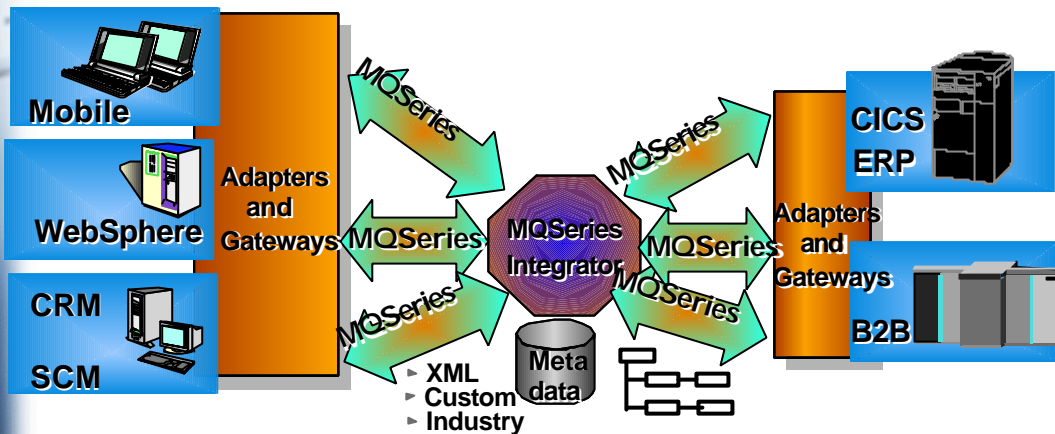
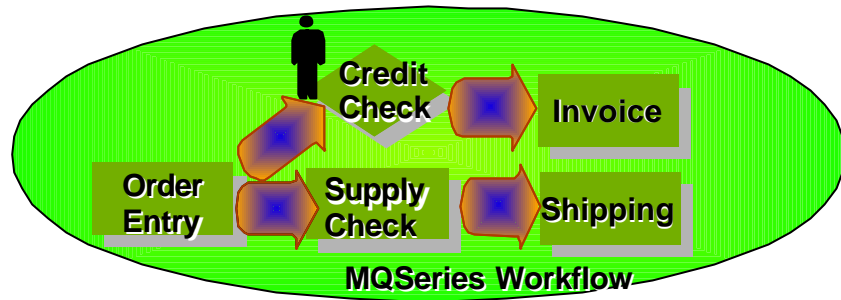
The consistency point is obvious, but the control point is important. MQWF can tell you at what step you're at in the business process, it produces an audit trail of what has happened, it can tell you what processes were performed, how long they took, and who executed them - all this information can help your customer determine whether business re-engineering initiatives met their objective, and analysis of these audit trails can determine at what point tuning of the processes would be most valuable.

Note: You'll notice I never used the words "complex tasks" or "people orientated" which is how we've traditionally tried to target this product.



e-business

MQSeries Business Process Integration



The MQSeries family is about enabling & simplifying integration. MQSeries handles your business information, how it is today and how it will be in the future. MQSeries understands your business information by using a logical view (tree structure - name, address, part#, quantity, . . .) and provides tooling which support Visualisation of information flow for business analysts.

At the application environment (end point) level it is about extracting information from package and custom applications and communicating this reliably as a data structure which can be both understood by other applications and manipulated by the intelligent infrastructure of the MQ family

Thinking about MQSeries as just 'messaging' is an incomplete thought. With our introduction of open standards for endpoints, API's and broker architecture we have moved into the realm of understanding the business purpose of what we are communicating. The MQ family can add great value with enrichment, transformation, routing, event publishing, warehousing, sequencing and all levels of computation possible on the data structures being communicated

Everyone understands the sequence of a business. Orders are accepted but what about personalisation? From the customer name field you can check corporate DB to identify if this is one of your premier customers (treat them promptly) or an arrears customer (kindly suggest they pay the outstanding invoice). You've implemented a modern XML form for order entry but your stock management is a **** packaged application. MQSeries Integrator can transform the XML representation into something immediately understandable by your **** application. The order is very large and your business rules state that the finance department must sign off such large orders. The MQSeries Workflow product presents the appropriate information on the screens of the finance team. Those with appropriate authority can sign off the order. Split load shipping with on-line delivery status, electronic invoicing, warehousing selected information for future business intelligence, all this, and more, are enabled and simplified by an MQSeries infrastructure

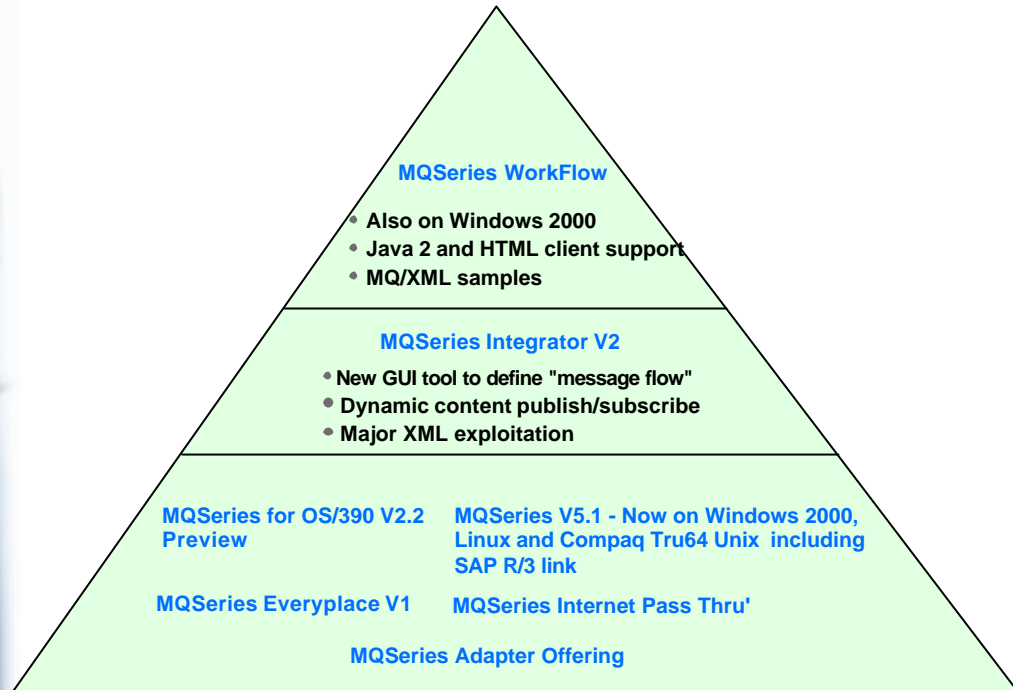
MQSeries is the flexible bridge between your current investment and your progressive adoption of e-business technology extending from the interchange of XML documents to the support of Business 2 Business process sequencing. The core deployment of structured data means that a modern XML document is manipulated just as efficiently as the information from your home build CICS COBOL application or financial industry standard (SWIFT) interchange



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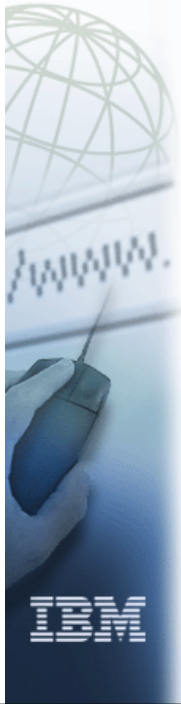
The Next Generation of MQSeries - April 2000



- ▶ This chart highlights what is new in the April 2000 announcement. Note that there has been updates at all levels of the Family, but in particular, much new function at the base level.

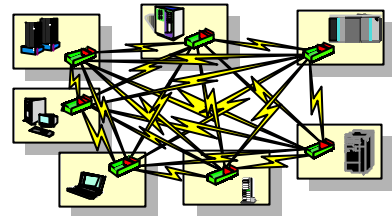


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MQSeries Messaging - Latest.....

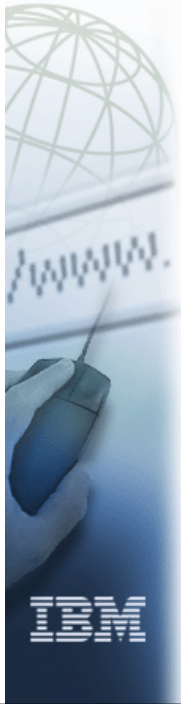
- **Announced last June**
 - *Windows NT V5.1 upgraded to support Windows 2000 (3/2000)*
 - *MQSeries for AS/400 V5.1 (3/2000)*
 - *Technology release of MQSeries for Linux V5.1 (web download)*
 - *APIs - AMI & JMS (web download)*
- **New Platform support**
 - *MQSeries for Compaq Tru64 Unix V5.1 (4/2000)*
 - *Link for R/3 for Compaq Tru 64 Unix V1.2 (4/2000)*
- **S/390 Preview**
 - *Greater availability, higher capacity & workload balancing*
 - *Parallel sysplex exploitation*
- **MQSeries Internet Pass-thru!**
 - *HTTP more readily accepted*



- ▶ Windows NT V5.1 and AS/400 V5.1 previously announced
- ▶
- ▶ Windows NT V5.1 will exploit some of the Major W2000 functions. Full exploitation comes with Flotilla. Also certification for W2000 comes with Flotilla as well as large performance improvements.
- ▶
- ▶ Compaq Tru 64 Unix is a new platform
- ▶
- ▶ S/390 V2.2 will exploit Coupling Facility Control Code Parallel Sysplex CFCC support the next step in Clustering
- ▶
- ▶ MQSeries is ideal for B2B integration due to its breadth of platform coverage and reliability. Embracing the market need to marry MQSeries reliability with Web technology, IBM has added HTTP support to MQSeries. This offering wraps MQSeries messages in HTTP, allowing the data to pass through firewalls more easily. HTTP may be more readily accepted by firewalls than native TCP/IP-based message protocols.
- ▶ MQSeries Internet Passthru' support beta is available immediately at no cost as a download from the MQSeries web site

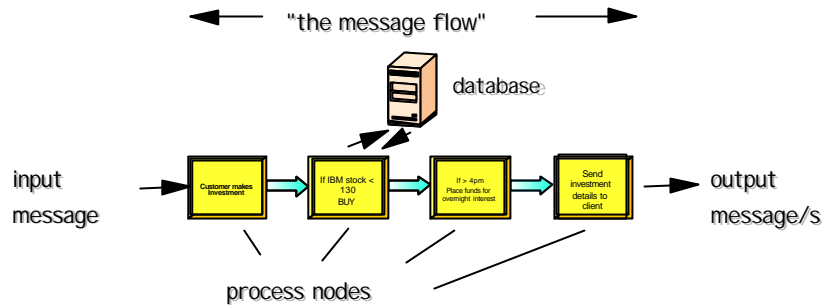


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MQSeries Integrator V2 - Latest.....

- Windows NT is available end March 2000
- Sun Solaris available June & AIX Available August 2000
- New GUI tool to define "message flow"
 - *Allows business analyst to define/alter message flow*
 - *Easy integration with databases from process nodes*
 - *Open framework for ISVs - develop process nodes*



- Dynamic content publish/subscribe
 - *More granular publish/subscribe capabilities*
- Major XML exploitation
 - *Further commitment to standards*

- In March we will have made available MQSI Version 2 on Windows NT. We announced intent to ship this product on other platforms. We've solidified our delivery on Solaris and AIX which will be August .
-
- So what makes MQSI V2 worldclass?
-
- Our goal in MQSI V2 was to make it easier to define transformation formats and rules, to the extent that they could be defined by a non-programmer, a technically orientated business person. Lets face it, they're the ones that know what the process should do. To accomplish this V2 contains a powerful new GUI based tool
-
- Before I describe the tool, let me use this diagram in the middle of the slide to define some terminology for you.
- Firstly, there is the concept of a "message flow", this defines the operations carried out on the message from its entry to the broker through to the message or messages that it outputs. The steps within the message flow are called process nodes. A process node could transform a message from one format to another, it could access a database to enrich a message, it could perform archiving, encryption etc.
-
- Let me give you an example, it could be an e-business application that takes CD orders from the web.
- - The first step could be my customer has given me a PIN number, I need to access a database to verify the customer and get their mailing details.
- - I may then query stock levels
- - If the CD is in stock, I multiple price by quantity requested
- - I then charge the buyer's credit card
- - I may then access a database again to get the customer's mailing details.
- - I log the order
-
- Each of these steps could be a process node, but the entire operation is the message flow. Another important point to note about message flows is they can be transactional. In other words.....This is why a commercial e-business scenario like the one I used as my example will, I predict, be a typical use of this function.
-
- Database access from MQSI V2 is through SQL3 primitives not a C program, again more orientated towards a non-programmer. The tool will be a drag/drop sort of operation - its like using Powerpoint or Freelance - you will have a palette of objects and a wiring area.
-
- Finally, the tool has associated with it an open framework. A published interface that you or a vendor could use to produce process nodes. So you don't just have the tool, the process nodes IBM create and the ones you'll write. Vendors will also be creating process nodes to plug into this framework. I talked about some of the things a process node might do, but the possibilities are endless..... as an example, we



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VF Corporation



www.vfc.com

• **Business Need:**

- To maintain competitive advantage, VF Corp. wanted to integrate best-of-breed applications with their chosen ERP systems - SAP R/3

• **Application:**

- MQSI is used primarily to manage interfaces between the existing MVS applications, and the SAP system.
- By exploiting MQSeries' messaging and queuing capabilities, MQSI intelligently transforms and routes messages between applications.

• **Software Environment:**

- MQSeries for:
 - ▶ AIX, Windows NT, AS/400, OS/390
- MQSeries Integrator
- MQSeries link for R/3

• **Benefits:**

- MQSI provides an ultra-safe environment for information sharing
- Low risk and higher development productivity.
- Supreme flexibility
- Assured delivery of data
- Security and control
- Robustness
- Scalability



"We see MQSI as our enterprise application integration (EAI) backbone in the future because we'll be using it not only to integrate legacy systems with SAP but also i2 with legacy, we'll be using it for WebPDM, for our entire product development systems and our materials management systems"

- John Davis, VP Supply Chain Development at VF Services



VF Corp acquired many companies as a part of growth plans

They embarked on a major business process re engineering program to rationalise and optimise

Across all VF Corp's different brands & 15 business units - each with its own IT system. They wanted to simplify their brands into a smaller number of coalitions.

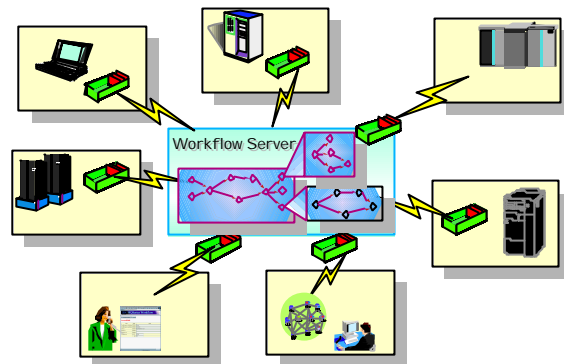
VF Corp wanted ERP for integration and best of breed packages for continued advantage. They combined these strategies with MQSI effectively customising the ERP system with it



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MQSeries Workflow - Latest.....

- **Process Automation**
 - Can involve just systems, or systems and people
 - Worldclass scalability
- **Deliver new customer services quickly**
 - Java 2 and HTML client support
 - MQ/XML samples
 - Extended platform support
- **Windows 2000 added to NT, OS/2, AIX, HP-UX, Solaris and OS/390**



MQSeries Workflow V3.2.2 will be delivered July 2000

So what's new with Workflow, a dot release with significant performance and usability enhancements. There is also extensions to support the product on Windows 2000 and clientsupport from a web browser.

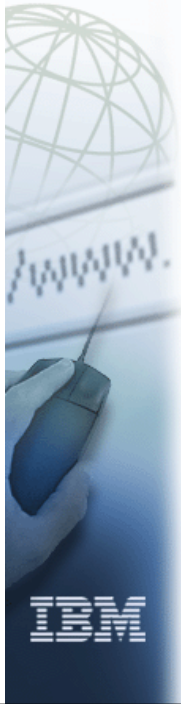
What about positioning with Domino's Workflow and our Extricity partnership.

Let's start with Domino The Domino Workflow product is if you think about it, a natural extension to what you'd want to do with a collaborative product. What do we use these products for, we use them for e-mail, we use them for sharing project information, we use them for administrative tasks. A natural extension is to provide some software to script how these administrative tasks, or project processes are performed. This is what Domino Workflow does. Its very people orientated, as these tasks are. The product is tightly coupled with Domino it actually uses the Notes repository. Given the nature of the Workflow it has to perform it has no need to be transactional and therefore it isn't.

MQSeries Workflow on the other hand may not involve people, but certainly is targeted at business transactions and therefore is transactional. The processors involved in the workflow may be across multiple platforms and we don't of course have a dependency on any Lotus technology.



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Samsung Electronics Co. Ltd

• Business Need:

- Samsung needed a reliable way to extract and send data between its branches and company headquarters.
- To maintain competitive advantage, Samsung wanted to create a worldwide data hub to integrate best-of-breed applications with their chosen ERP systems.

• Application:

- MQSeries family for data extraction and process monitoring.
- MQSeries Integrator is used primarily to manage interfaces between the existing HP-UX applications, and the SAP system.
- The solution integrates over 100 systems worldwide.

• Benefits:

- The customer expects to recover the implementation cost within five years and experience productivity improvements by 30 percent.
- MQSeries Integrator provides an ultra-safe environment for information sharing
- Low risk and higher development productivity.
- Supreme flexibility
- Assured delivery of data
- Security and control
- Robustness
- Scalability

• Software Environment:

- MQSeries V5..1, MQSeries Integrator V1.1 and MQSeries Workflow V3.2 on Microsoft Windows NT, HP-UNIX, OS/400 and AIX platforms.



<http://www.samsungelectronics.com>

The MQSeries family is used to provide Samsung with a reliable mechanism that extracts and sends data between its branches and company headquarters. Specifically, MQSeries V5.1 assures the data delivery and asynchronous applications, MQSeries Integrator V1.1 replaces data mapping routings and the user program and MQSeries Workflow V3.2 provides business process integration and monitoring. The solution integrated over 100 systems worldwide and the customer expects to recover implementation costs within five years and experience productivity improvements of 30%.

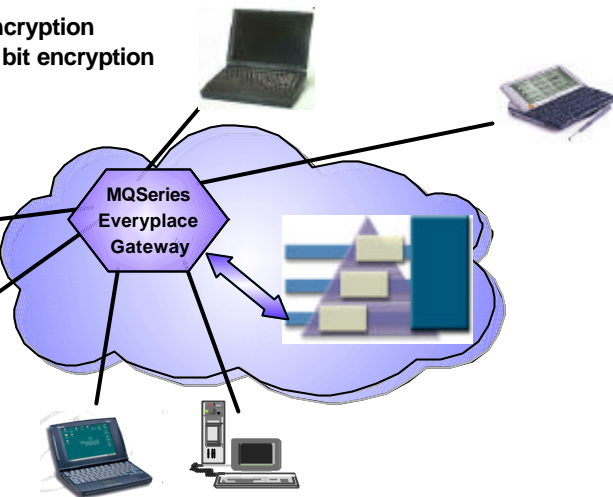


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MQSeries Everyplace

Standard Edition: 56 bit encryption
High Security Edition: 128 bit encryption

MQSeries
Everyplace
Device



- *Brings a reliable connection into a hostile world*
- *MQ from mobile, pervasive or handheld devices*
 - *Supports PalmOS, Java on EPOC, WinCE, Win95, 98, NT & 2000*
 - *Gateway for Windows NT & 2000*
- *Classic MQ characteristics*

IBM

MQSeries Everyplace is a new member of the MQSeries family that runs in pervasive computing devices like smart cards, PDAs, cell phones etc. It's lean and mean, it can run in a footprint as small as 60K, it runs on all the popular pervasive operating systems.....it bears all the hallmarks of the MQSeries family - assured once only delivery.

There are two pieces to MQSeries Everyplace, the bit that runs in the pervasive device and the gateway.

The Gateway will run initially on WinNT/2000, we also intend to port it to AIX and Solaris. Once the message gets to the gateway from the pervasive device it can be passed onto any other MQSeries server in the normal way.

There are two flavors of the MQSeries Everyplace client. The standard version which includes 56 bit data encryption and an advanced version which has 128 bit encryption. Worthy of note is that 128 encryption is the maximum permitted by the US government, so no data will be more secure on a wireless link than with MQSeries Everyplace.

That's the technology, what's the opportunity

Point 1) This market is red hot..... just look at how companies like Motorola, Nokia are doing in the market. Forrester wrote a report recently stating that by the end of next year, half of the devices accessing the internet will be pervasive devices.

Point 2) Business opportunities. If your customer already has these devices - this is the technology that makes pervasive devices real for business. For example, it's one thing if you use these devices for inquiry type applications like getting customer details or checking on stock levels, its another if you want to perform a trade worth a million dollars or actually update data stores. In these real business scenarios both the once only delivery and our security features are critical elements of a robust solution.

Point 3) This is a natural extension of the integration proposition we've been telling the industry about during 1999. We talked about the importance of integration to the success of M+As, ERP integration, web integration etc. We are now extending that proposition to include these pervasive devices. In other words if these devices are going to be used by your mobile work force, to be of optimal value they need access to virtually any data in the enterprise, they can't do this unless the enterprise is integrated and they have a flexible, reliable connection into it. MQSeries Everyplace could be a powerful business differentiator.



MQSeries Adapter Offering

- MQSeries Adapter Offering (MQAO) comprises:
 - ▶ Adapter Builder (MQAB) tool
 - To create adapters
 - ▶ Adapter runtime kernel
 - Common services to all adapters built using MQAB
 - ▶ Adapter 'patterns' delivered as SupportPacs via the web
 - Examples of adapters for packaged applications
 - Provide a 'fast start' for creating adapters

The MQSeries Adapter Offering or MQAO comprises of two components, Firstly, a tool which is capable of building an adapter for anything. The second part is a kernel or runtime for the adapters that are build by the tool.

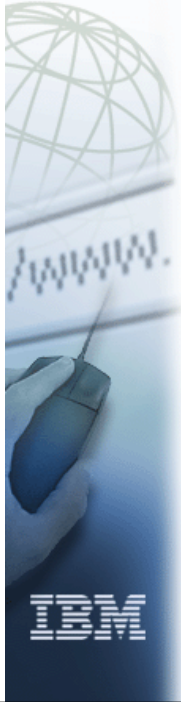
Of special interest is the support of integration standards. The MQAO tooling can be used to create any format structure but it is intended to be used to create OAG BOD's, Open Applications Group, Business Object Definitions. There is great synergy between the MQSeries family tooling and MetaData repository. Adapter formats created by the tool are consistent with the MQSeries Integrator MetaData and with the new endpoint API, the CMI Common Message Interface.

The tool will be available in beta format, down loadable from the web in June with a GA of December. The kernel will be generally available in June.

Now, I said this tool is capable of building anything, that means there is total flexibility but also a lot of work that potentially needs to be performed to create a complete adapter. To facilitate our customers, business partners or services people in creating complete adapters, we will be making available, via the supportpac mechanism, boilerplate or patterns for popular adapters that should help expedite the development process.



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Announce Summary

MQSeries Workflow V3.2.2 AIX, Sun Solaris, HP-UX, OS/2, Windows NT
& Windows 2000 (7/2000)
OS/390 delivered as SPE/PTF

MQSeries Integrator V2.0 AIX & Sun Solaris (8/2000)
Availability Windows NT (3/2000)

MQSeries for OS/390 V2.2 Preview
MQSeries V5.1 Compac Tru64 Unix & R/3 for Compaq Tru64
Unix (4/2000), Windows 2000 & Linux (Web)

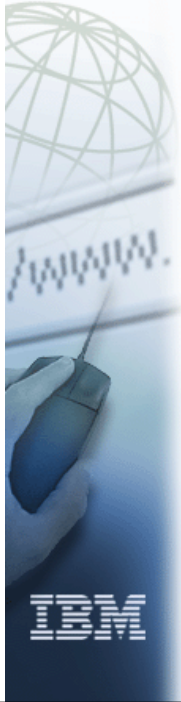
MQSeries Adapter Offering V1.0 Builder Windows NT (Beta 6/2000)
Adapter Kernals for W NT, 2000, AIX (6/2000)

MQSeries Everyplace V1.0 Gateway on Windows NT & 2000 (6/2000)
Device: PalmOS, Java on EPOC & Windows (6/2000)

- Provides an over all announcement summary of the content with the delivery dates



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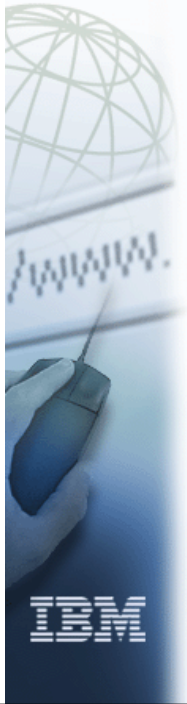
Latest News.....Summary

- MQSeries Everyplace
 - ▶ [Makes pervasive devices real for business](#)
- Base MQSeries enhancements
 - ▶ [MQSeries Internet Pass Thru'](#)
 - ▶ [Windows2000 delivery](#)
 - ▶ [390 parallel sysplex exploitation](#)
- MQSI V2 delivery
 - ▶ [Award winner, industry leading tooling](#)
- MQSeries Adapter Offering
 - ▶ [Provides all the adapters you'll ever need](#)
 - ▶ [Complements our partner's offerings](#)
- MQSeries Workflow V3.2.2

Announce Summary description



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Business Integration Summary

- ▶ So lets summarize what we have covered today.



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Win With IBM

- Global expertise
- Reliable, available, scalable, secure software
- Innovation
 - ▶ 900 key patents for e-business technology
- One stop solutions
- Time-tested software
- Faster time to market & reuse of assets and skills



IBM

- ▶ IBM has:
- ▶ Offices in "N" countries around the globe with over 300 service staff. They are well versed in providing solutions to your challenges.
- ▶ Our products are world class and we continue our own evolution to provide the best possible solution for our customers and their customers in-turn.
- ▶ We know provide you not only with our world-class products but with partners who can help provide pin-point solutions help get you to market faster -- and that's what it is all about, winning over the competition.



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IGS have the expertise to integrate your enterprise whatever your industry focus. Visit <http://www.ibm.software/ts/mqseries/services> for the following MQSeries services from certified professionals :

- Design
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- Planning
- Installation
- Implementation
- Smooth Starts
- Migration
- Performance
- B2C, B2B, SCM, ERP, CRM
- Education

...and <http://www.ibm.com/services> for the complete consulting services picture.

For more information regarding these services please contact your local IGS representative or :

MQSeries
MQSeries Integrator
V1&V2
MQSeries WorkFlow

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512-823-0715

[MQSeries National Practice](#)
express@us.ibm.com
888-426-4343

[MQSeries EMEA Coordinator](#)
jim_watson@uk.ibm.com
44 1962-815929

[Middleware National Practice](#)
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61-73887-8124

For Further inquiries : nigel_linfield@uk.ibm.com 44 1962 815574

- ▶ Implementing business integration solutions is not always a simple task.
- ▶
- ▶ One way of increasing the success of your business integration project is to select the right partner with the right skills to help you do it.
- ▶
- ▶ IBM Global Services, as well as our many Certified IBM Business Partners are skilled in implementing Business Integration solutions and can provide you with consulting, proof-of-concept, implementation, and other services.
- ▶



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Take A Test Drive



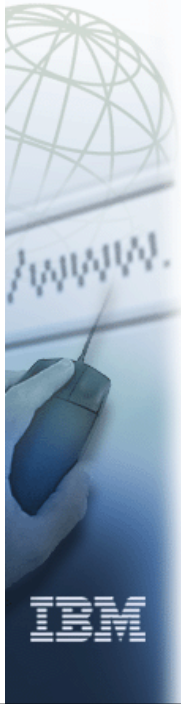
- Single, web-enabled, customer view
- Integrating SAP with e-commerce
- WebSphere development
- Business intelligence integration
- Application integration
- Business process integration
- Extend legacy applications to the Web
- Access Web applications from Pervasive
- Use e-Case from Commerce Services



- ▶ How many of you own a car? How many of you "took it for a little spin 'round the block" BEFORE you made the purchase. IBM has applied the same concept for our software... "Test Drive" is a tool used by IBM Technical Sales community
- ▶ Listed are a sampling of the current test drives available
- ▶ It let's you:
 - ▶ Rapidly generate a prototype
 - ▶ Customize,
 - ▶ Demonstrate... A well architected sample software solution for a specific business problem.
 - ▶ Concept is a bridge between demo and proof-of-concept
 - ▶ Available on a portable platform
 - ▶



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Where to get started?

www.ibm.com/software/big

Papers

Case studies

Ideas

Sign up for a test drive today

- ▶ Visit our Web site for white pepaers, Case studies or contact us and sign up for a test drive today.

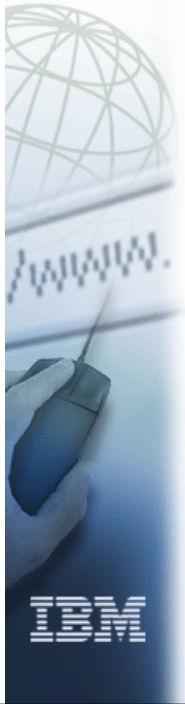


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Business Transformation & Integration

... IBM Has Made Customers Successful Worldwide

4,000 partners and growing



- ▶ Business transformation & integration is happening every day -- with increasing frequency throughout the world.
- ▶
- ▶ IBM is working with many of these market leading businesses to help them become successful e-businesses.
- ▶
- ▶
- ▶



e-business

IBM is



e-business



Isn't it time YOU were ?

- ▶ Simply put, IBM IS e-business. We have the skills, the products and the knowhow - in fact everything you need to fully integrate your business and transform it into an e-business
- ▶
- ▶ The MQSeries family provides you the means to become a fully integrated e-business. We want to help you become even more successful than you have been in the past.
- ▶
- ▶ IBM is e-business.
- ▶ Isn't it time YOU were ?
- ▶
- ▶ Thank you.
- ▶