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Domino 6 Web Server Update

Rufus Woody III
Domino/zSeries Technical Support
IBM Advanced Technical Support

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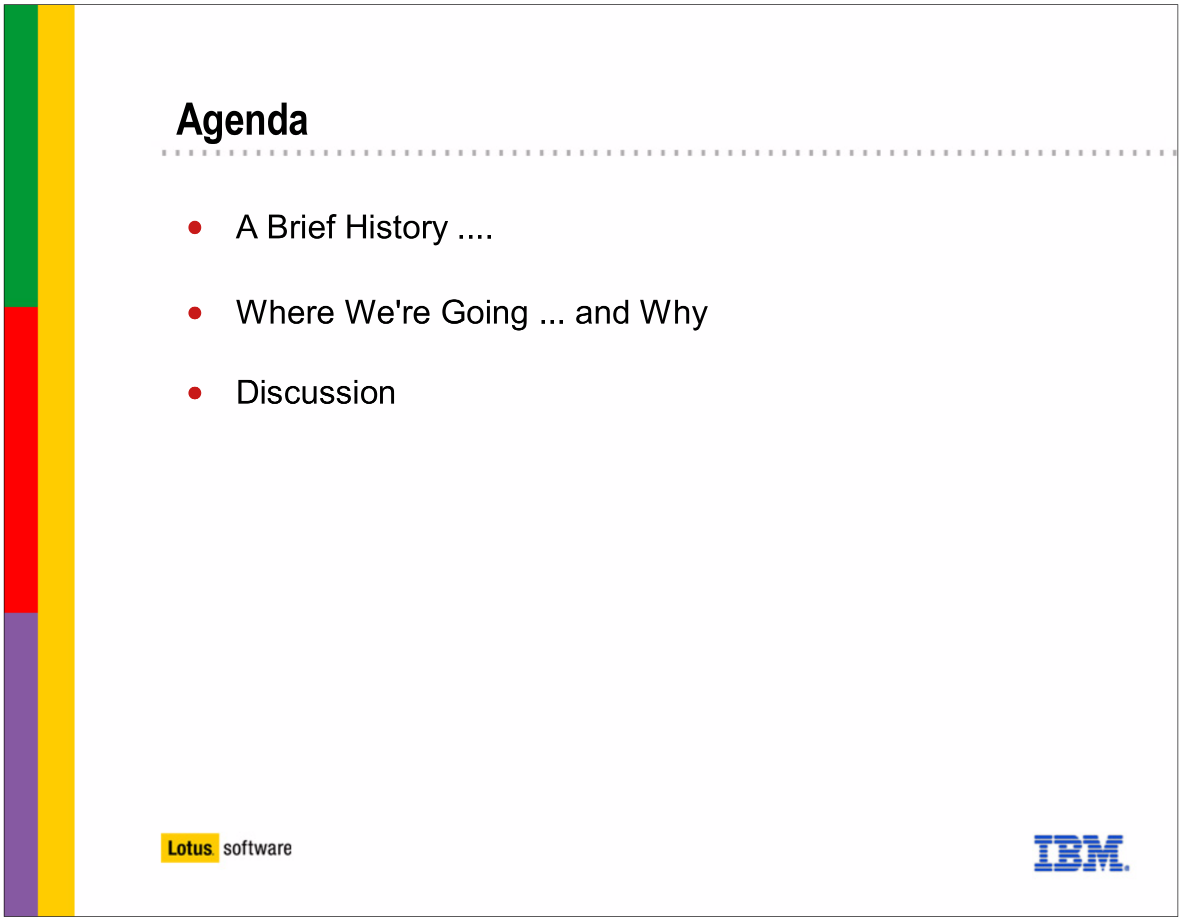
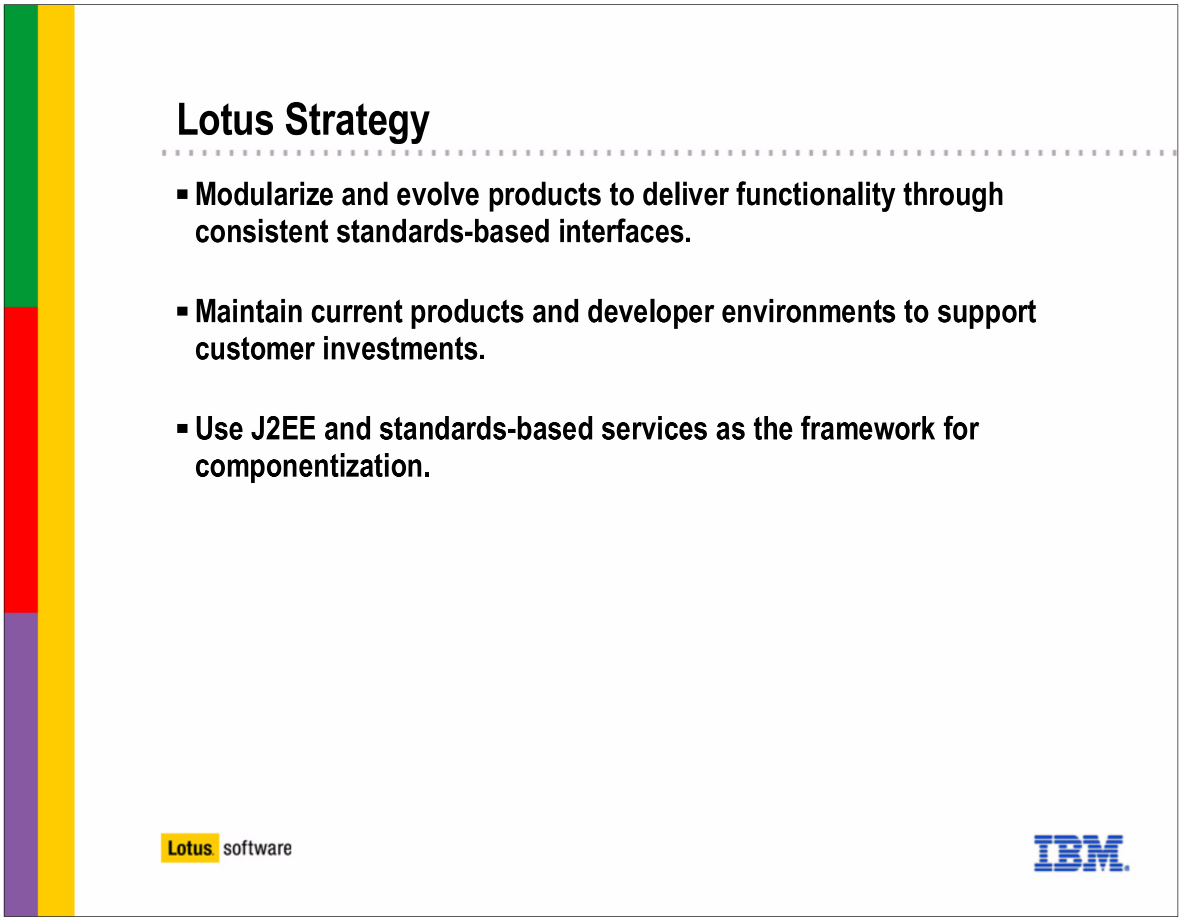


Agenda

- A Brief History ....
- Where We're Going ... and Why
- Discussion



Lotus Strategy

- Modularize and evolve products to deliver functionality through consistent standards-based interfaces.
- Maintain current products and developer environments to support customer investments.
- Use J2EE and standards-based services as the framework for componentization.

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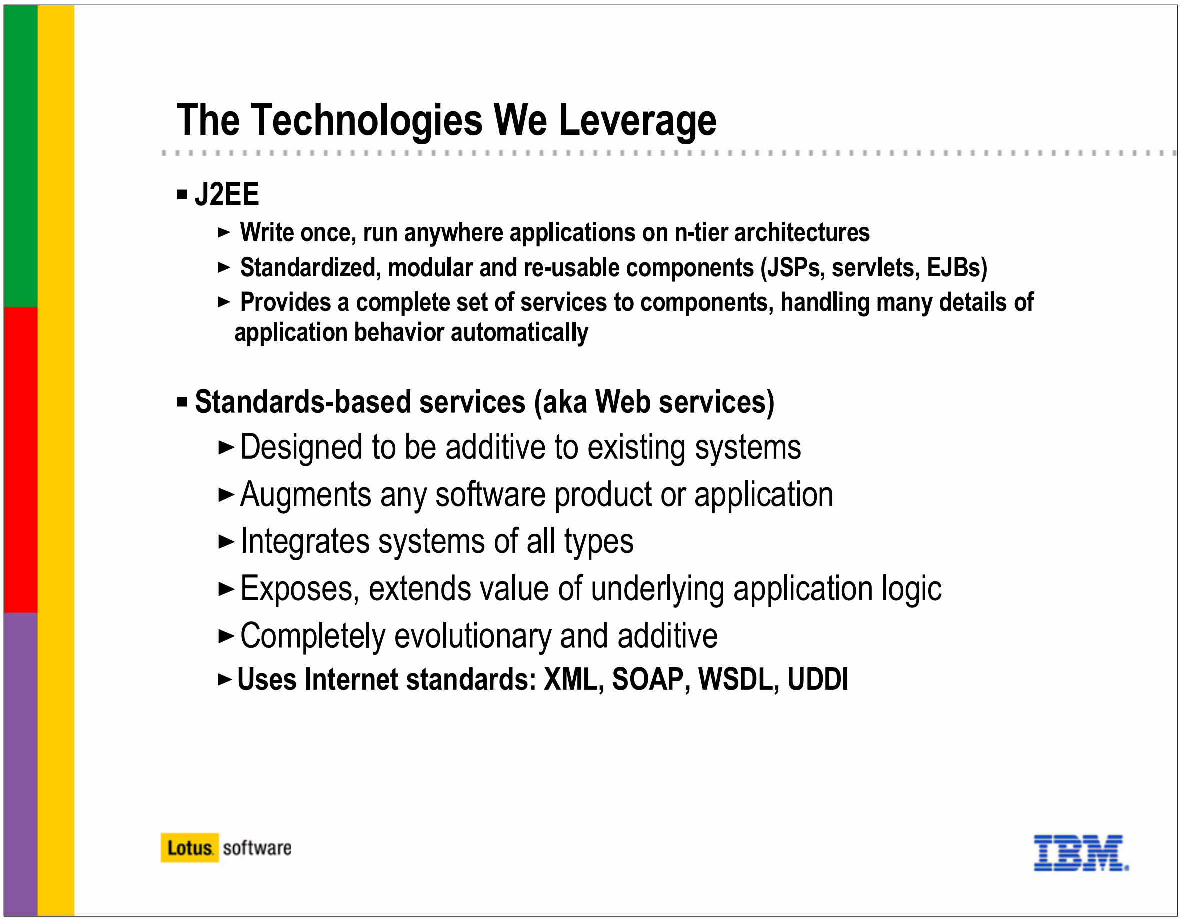
- We will modularize and evolve products to deliver functionality through consistent standards-based interfaces. We are beginning to expose services in our products and giving them common interfaces. This work will accelerate and drive toward vital product functions being made available in modular components that can be mixed and matched and added as desired into existing applications. This is called the Next Gen initiative.
-
- We will maintain current products and developer environments to support customer investments. We are not walking away from these products in order to move forward. We are making investment choices that will allow us to continue customer support while branching out in new next generation directions.
-
- We will use J2EE and standards-based services as the framework for componentizng our products and offerings. We have already begun to include J2EE servers (Websphere) with our offerings and rewritten some applications to optimize this environment. We will continue this work across our entire portfolio.
- (Transition) Let me give you a quick overview of the technologies we are leveraging more and more in our products and offerings. [advance slide]



The Technologies We Leverage

- J2EE
  - ► Write once, run anywhere applications on n-tier architectures
  - ► Standardized, modular and re-usable components (JSPs, servlets, EJBs)
  - ► Provides a complete set of services to components, handling many details of application behavior automatically
- Standards-based services (aka Web services)
  - ► Designed to be additive to existing systems
  - ► Augments any software product or application
  - ► Integrates systems of all types
  - ► Exposes, extends value of underlying application logic
  - ► Completely evolutionary and additive
  - ► **Uses Internet standards: XML, SOAP, WSDL, UDDI**

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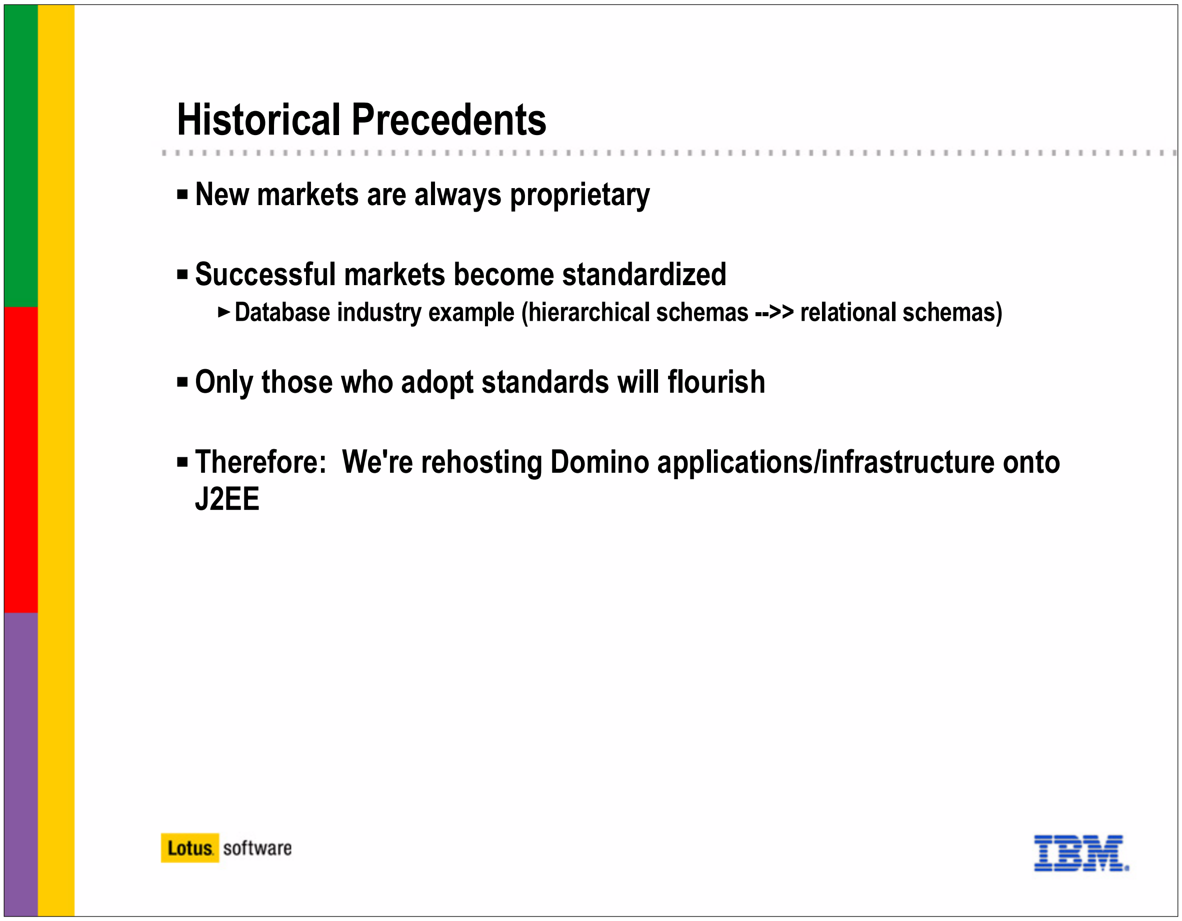
- The J2EE architecture was developed by Sun a number of years ago and is a collection of specifications on which application elements can be created which can then be assembled into applications to be run on optimized servers. Applications written for one operation system can be easily run on a different operating system with little or no changes required. Java, the language that is used with a J2EE architecture is extremely robust and functional. The architecture enables different parts of an application to reside on separate tiers for appropriate hardware and system optimization. J2EE applications are run on a J2EE-compliant servers such as WebSphere or BEA WebLogic.J2EE applications are created out of a combination of Java Server Pages (JSPs, for dynamic web content), Servlets (for logic continually running on the server) and Enterprise Beans (introspective, modular and transactional elements).[click]
-
- The term Web services describes a new standards-based architecture that brings us one giant step closer to a world in which all systems integrate with one another automatically. Web services make possible dynamic e-business. Lotus software works within this architecture now, and Lotus is committed to building pervasive support throughout the product portfolio. Lotus Web services capabilities enable collaborative services -- the mind of e-business -- to contribute fully to new applications based on the new model.
- With Web services, any business system can accept a Web services layer that exposes the system's underlying value in new ways. All classes of systems — ERP or manufacturing, procurement or accounting, collaboration or workflow, messaging or interactive — enable developers to easily and dynamically incorporate that system's core functionality in any application, without regard to platform or language.The Web services model offers its adopters significant strategic advantages:
- Web services leverages existing systems. As a technology designed to add capabilities to existing systems, Web services let your applications become dynamic e-business applications, simply by supporting the open technologies.
- Web services makes applications simpler. The architecture eliminates the breakpoints, interdependencies, and inflexibilities of current integration models, resulting in significantly reduced development and maintenance costs.
- Web services share business resources with your partners. Because it makes process-to-process connections simple (for the first time), Web services gives organizations and their partners a range of new, distributed e-business functionality
-
- Web services are enabled primarily by four open Internet technologies:
- XML (eXtensible Markup Language). XML functions as the universal language of Web services. In the same way that ASCII is universally understood by software applications, instructions or content represented by XML can by understood by any application supporting XML.
- SOAP (Simplified Object Access Protocol). SOAP is the remote procedure call (RPC) facility for Web services. With SOAP, you can send a command to another system that says, for example, "run a report against this data table, using these parameters, and return the results to me in this format."
- WSDL (Web Services Description Language). WSDL allows Web services-enabled systems to tell each other what capabilities they have, and how to programmatically interact with them. Once a system is described in WSDL, developers can plug into the system's programs or applications — where authorized — to create rich interactions between them.
- UDDI (Universal Description, Discovery, and Integration). UDDI is an XML-based directory, or registry, for Web services; like a Web services Yellow Pages, it's a place for companies to list their own Web services, and find where other companies' Web services capabilities and resources reside.
- These standards and technologies — and others rising around them — are the pieces of the Web services development model. Developers use these pieces to create distributed, modular functions that connect applications together into useful and strategic processes. These functions are not inherently transactive, but they support and trigger transactions in Web services-compliant systems.
- (transition) This is not the first time that the computer industry has embraced standards. We have learned much from the past and are using these lessons to our customers' advantage.



Historical Precedents

- New markets are always proprietary
- Successful markets become standardized
  - Database industry example (hierarchical schemas -->> relational schemas)
- Only those who adopt standards will flourish
- Therefore: We're rehosting Domino applications/infrastructure onto J2EE

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- When new products emerge which form markets in which these technologies are bought and sold, the technologies on which they are built are proprietary. Each company in the market finds its own best way to solve a problem. As more companies enter the market, more flexible and superior versions of the original technologies emerge which more and more vendors choose to adopt. This creates a de facto standard which, with further refinement, becomes the industry standard. Often the early versions of the technology standards are not permanent, but over time they improve and are further refined. Those vendors that adopt the standards flourish as the extent to which they can leverage the standards to build more valuable customer solutions increases. The vendors who do not embrace standards continue with their proprietary technologies as long as they have customers who request enhancements. But slowly the request fade away as do the vendors.
-
- A good example of this is the database market over a decade ago. There was a large collection of database vendors all with their own best way of solving database problems, some with hierarchical schemas, others with flat file based schemas. As the market evolved and new customer problems arose, a technology called relational database schemas was developed which had clear advantages over the other schemas in the ability for flexible solutions to be created. It was not the the fastest database or easiest to create, but it could be used with other database schemas to solve customer problems. This became the emerging standard for the database vendors. It could be used by all of them. However, some of the database vendors chose to continue their own proprietary technologies without full embracing of the new standard relational schema. The proprietary way was faster, specific solutions built on their technologies could be best used to build their solutions. But the relational standard also continued to evolve and the original challenges were overcome by the groups using the standards to their mutual benefit. The vendors that embraced the relations database schema and SQL language are names your recognize, DB2, Oracle, Sybase. relational [need more...]
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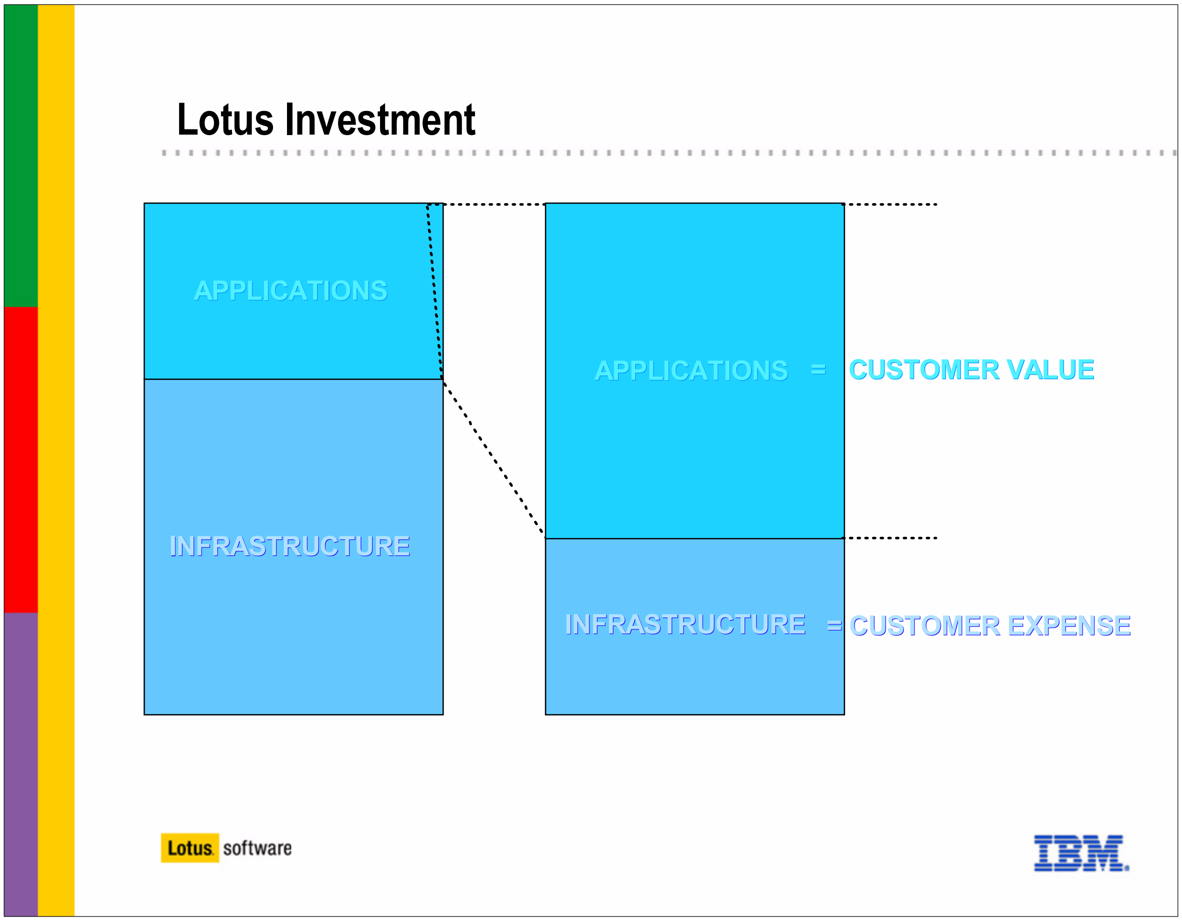
- (transition) Lotus has learned from the database industry and is therefore evolving Notes/Domino and other solutions to leverage J2EE standards in order to provide customers with greater value.



Lotus Investment

APPLICATIONS

INFRASTRUCTURE

APPLICATIONS = CUSTOMER VALUE

INFRASTRUCTURE = CUSTOMER EXPENSE

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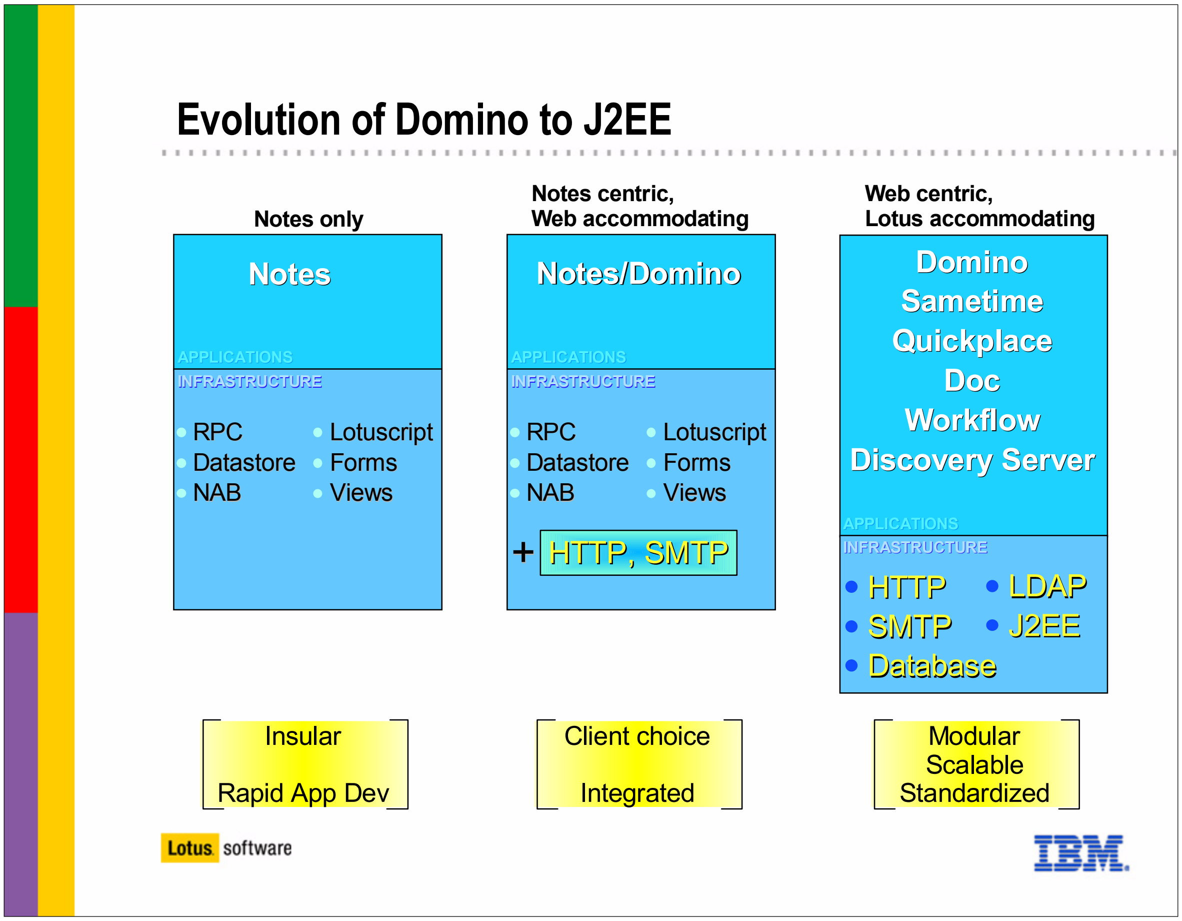
- Lotus understands that customers get the greatest amount of value comes from their applications. Applications are where the problems get solved and the ROI is appreciated. But, we have traditionally invested in a combination of applications and infrastructure to make our solutions easy to implement and perform well. In the future we will be increasing our investment in valuable applications and lessening our investment in infrastructure. We believe that infrastructure is a necessary part of customer's environments and a good part of their expenses but an area where leveraging IBM's expertise is in our customer's best interest.
- (transition) Now, let's apply this to Domino's Evolution to J2EE.



Evolution of Domino to J2EE

Notes only

Notes

APPLICATIONS

INFRASTRUCTURE

- RPC
- Datastore
- NAB
- Lotuscript
- Forms
- Views

Notes centric,
Web accommodating

Notes/Domino

APPLICATIONS

INFRASTRUCTURE

- RPC
- Datastore
- NAB
- Lotuscript
- Forms
- Views

+ HTTP, SMTP

Web centric,
Lotus accommodating

Domino
Sametime
Quickplace
Doc
Workflow
Discovery Server

APPLICATIONS

INFRASTRUCTURE

- HTTP
- SMTP
- Database
- LDAP
- J2EE

Insular
Rapid App Dev

Client choice
Integrated

Modular
Scalable
Standardized

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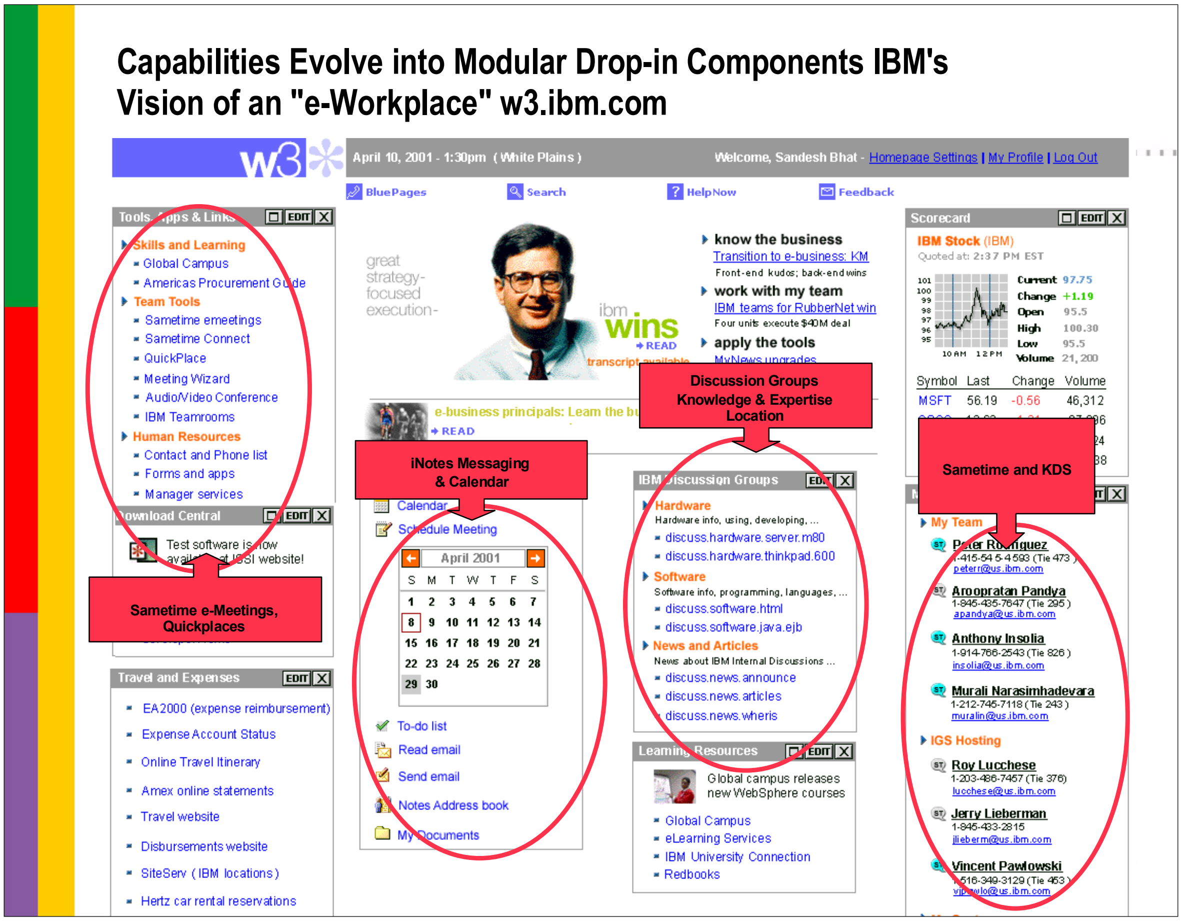
- We are overlaying Domino on top of the previous diagram to illustrate how it plays in our investment strategies.
- Notes provided a great deal of value to our customers with the collaboration applications that were built. The value came from the fact that Notes was an all-inclusive and insular product. Every feature was built to perform very well in the environment which was installed at one time. It enabled applications to be built and deployed quickly as well as administered easily. (Customer advantages in yellow boxes at bottom). Lotus invested more heavily in the infrastructure that supported the applications than the applications themselves.
- The same investment strategy continued as we added web capabilities to our applications and environment. We added HTTP and SMTP to open the Notes world to a few industry standards. Lotus still had to invest heavily in infrastructure to support the new applications that broadened our customers choices for clients and allowed applications to be more integrated. Lotus was still Notes centric though we were now web accommodating. Very important and positive steps in the right direction.
- Today, we are making the same choices that many of our customers are making. We are shifting our investment priorities off of infrastructure onto applications so that we can be Web centric and Lotus application accommodating. We will be investing heavily to evolve our broad portfolio of applications to J2EE standards and to surface their capabilities into modular components. This includes not only Domino, but our other advanced collaboration offerings. The infrastructure pieces of Domino will be interchangeable with components provided by IBM and other J2EE vendors. It will still be possible to get the fully integrated Domino package if the customer desires. Additional customer benefits are available now with further adoption of standards. These include modular applications that are more scalable to run on a larger collection of servers. Our overall investment in infrastructure will increase because we will be leveraging IBM 's expertise in infrastructure.
- Our vision of the future is where the capabilities of our applications and solutions are added where they are needed... [click]



Capabilities Evolve into Modular Drop-in Components IBM's Vision of an "e-Workplace" w3.ibm.com

April 10, 2001 - 1:30pm (White Plains)

Welcome, Sandesh Bhat - Homepage Settings | My Profile | Log Out

BluePages Search HelpNow Feedback

Tools, Apps & Links

- Skills and Learning
  - Global Campus
  - Americas Procurement Guide
- Team Tools
  - Sametime emeetings
  - Sametime Connect
  - QuickPlace
  - Meeting Wizard
  - Audio/Video Conference
  - IBM Teamrooms
- Human Resources
  - Contact and Phone list
  - Forms and apps
  - Manager services

Download Central

Test software is now available at ISSI website!

Sametime e-Meetings, Quickplaces

Travel and Expenses

- EA2000 (expense reimbursement)
- Expense Account Status
- Online Travel Itinerary
- Amex online statements
- Travel website
- Disbursements website
- SiteServ (IBM locations)
- Hertz car rental reservations

great strategy-focused execution-

ibm wins
READ
transcript available

- know the business
  Transition to e-business: KM
  Front-end kudos; back-end wins
- work with my team
  IBM teams for RubberNet win
  Four units execute $40M deal
- apply the tools
  MyNews upgrades

e-business principals: Learn the bu
READ

iNotes Messaging & Calendar

Calendar
Schedule Meeting

April 2001

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

To-do list
Read email
Send email
Notes Address book
My Documents

Discussion Groups Knowledge & Expertise Location

IBM Discussion Groups

- Hardware
  Hardware info, using, developing, ...
  - discuss.hardware.server.m80
  - discuss.hardware.thinkpad.600
- Software
  Software info, programming, languages, ...
  - discuss.software.html
  - discuss.software.java.ejb
- News and Articles
  News about IBM Internal Discussions ...
  - discuss.news.announce
  - discuss.news.articles
  - discuss.news.wheris

Learning Resources

Global campus releases new WebSphere courses

- Global Campus
- eLearning Services
- IBM University Connection
- Redbooks

Scorecard

IBM Stock (IBM)
Quoted at: 2:37 PM EST

Current	97.75
Change	+1.19
Open	95.5
High	100.30
Low	95.5
Volume	21,200

Symbol	Last	Change	Volume
MSFT	56.19	-0.56	46,312

Sametime and KDS

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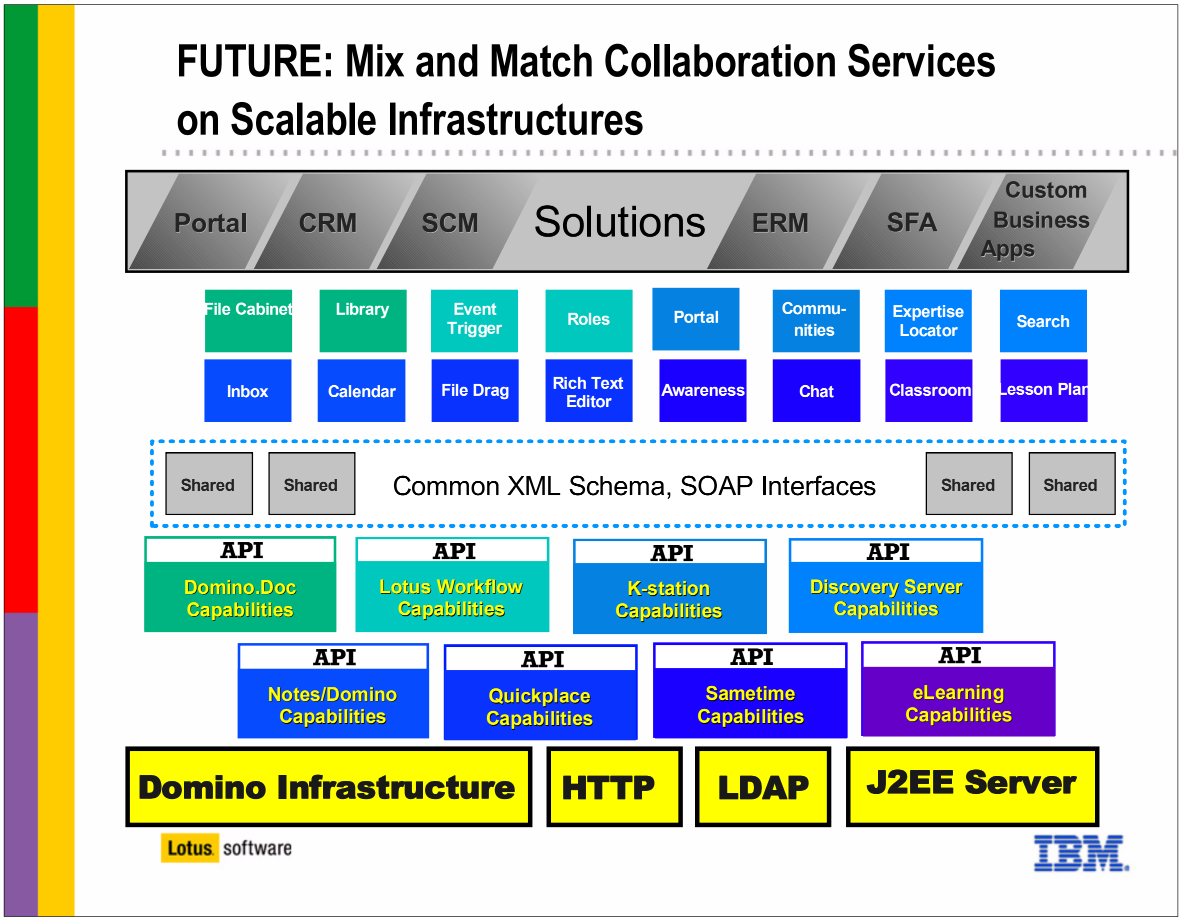
    vjpawlo@us.ibm.com

- This is our vision. We want to provide capabilities with modular architectures so that they may be dropped into applications where collaboration is needed. Here's a look at the w3.ibm.com employee web site with some Lotus collaboration capabilities added where they make sense.[click] For example on the left we provide the ability to create a Quickplace from this site or a virtual meeting with all the resource requirements. These are enabled through capabilities of Quickplace and Sametime. [click] Next to it are calendar and some scheduling capabilities provided from Domino which are dropped in at the very center of the site, where the employee would most likely want to access them. On the right are capabilities made available from KDS for expertise location. Finally on the very right is communities also made available by capabilities from KDS. From a user perspective, all the collaboration you need is in a logical place. From an application developer perspective, these capabilities were provide as both synchronous and asynchronous standards-based services. The capabilities can be added using Eclipse based tools. I'm going to tell you more about how our products are going to evolve to the Vision. [advance slide



FUTURE: Mix and Match Collaboration Services on Scalable Infrastructures

Portal CRM SCM Solutions ERM SFA Custom Business Apps

File Cabinet | Library | Event Trigger | Roles | Portal | Commu-nities | Expertise Locator | Search

Inbox | Calendar | File Drag | Rich Text Editor | Awareness | Chat | Classroom | Lesson Plan

Shared | Shared | Common XML Schema, SOAP Interfaces | Shared | Shared

API Domino.Doc Capabilities | API Lotus Workflow Capabilities | API K-station Capabilities | API Discovery Server Capabilities

API Notes/Domino Capabilities | API Quickplace Capabilities | API Sametime Capabilities | API eLearning Capabilities

Domino Infrastructure | HTTP | LDAP | J2EE Server

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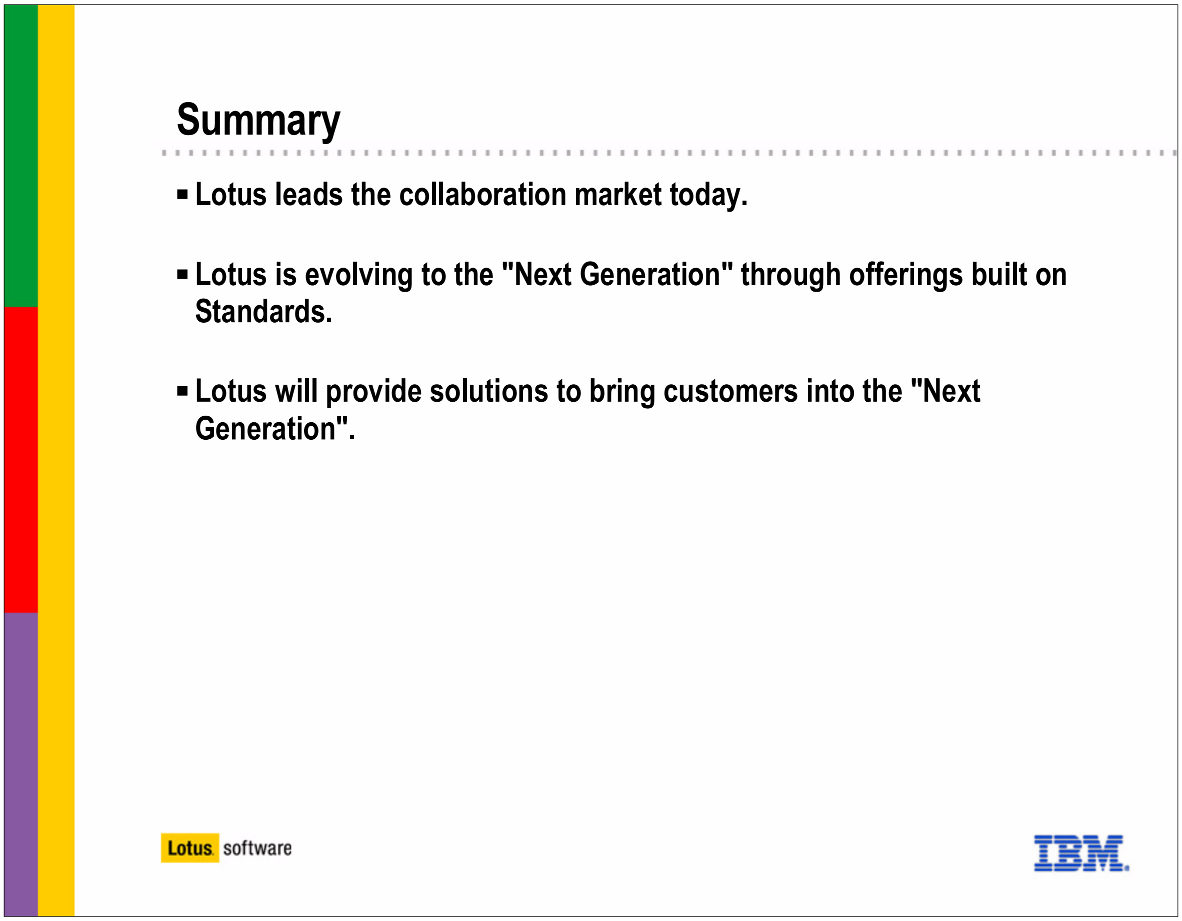
- Products will still exist but more and more of their capabilities will be exposed as services to be used in other contexts. [click] In the future the services will use a common XML schema that is currently in the design phase to make them easier to integrate. There will also be SOAP interfaces available when there are capabilities exposed as Web services. Some services will be shared across the products such as a broadly useable Identity services. [click] Others will be product specific as mentioned in my previous slide.[click] Product capabilities will be easier to mix and match to build custom applications or CRM, ERM or Portals. [click] Further improvements in the ability to use these services on any standard architecture will be made. Let's look at K-station as a proof point for this strategy.



Summary

- Lotus leads the collaboration market today.
- Lotus is evolving to the "Next Generation" through offerings built on Standards.
- Lotus will provide solutions to bring customers into the "Next Generation".