



Smarter Infrastructures For Enterprise Businesses

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Symphony	System i	System p	System z	System z10	Unyte	UC2	z9	

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Enterprise Businesses – Roadmap For Smarter Collaboration

Free editors
Open source software
Open standards based

Reduce
Desktop
Costs

Reduce storage needs
Consolidate servers

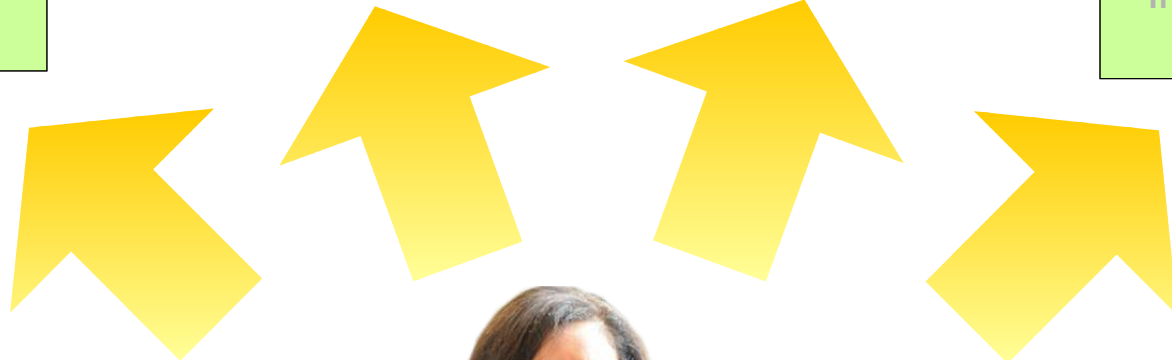
Reduce
Infrastructure
Costs

Access people anywhere
Share content easier
Reduce travel costs

Support
Virtual
Teams

Capture knowledge
Innovate faster
Reduce search times

Spur
Innovation



I just told the CIO her budget is cut...



How can we cut our email infrastructure costs? We're running Domino 6.5 now. Microsoft tells me I should move to Exchange...



Service Oriented Finance CIO

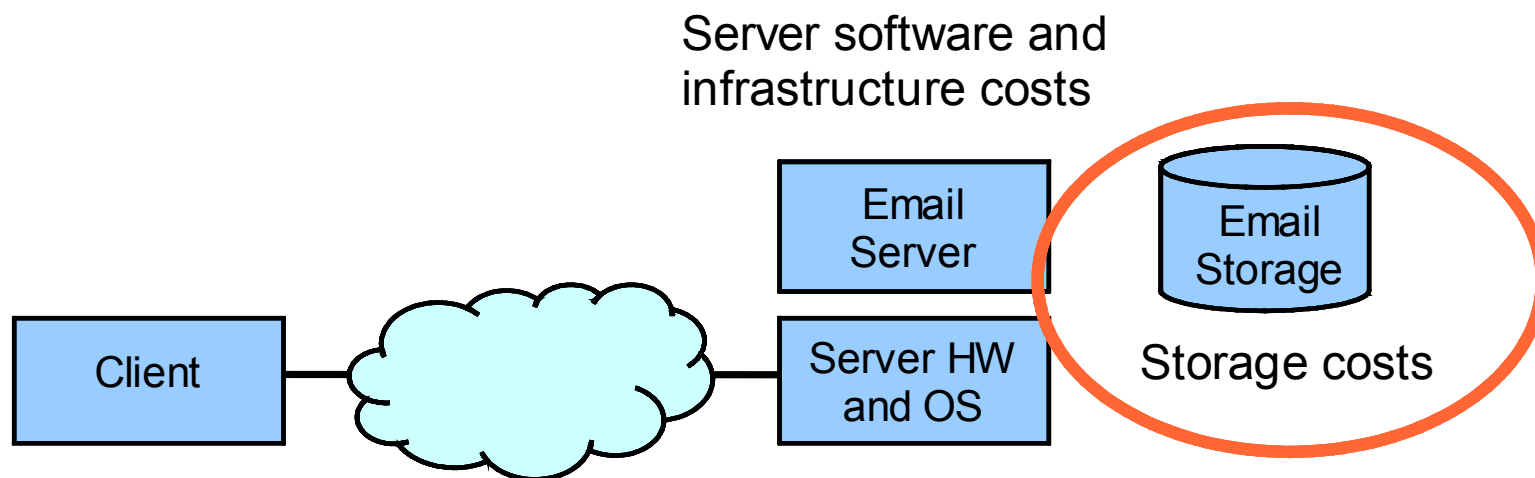
Migrating to Exchange will cost you more. . .

Let me show you how upgrading to Domino 8.5 and optimizing your infrastructure will cost 30% less than Exchange...



IBM

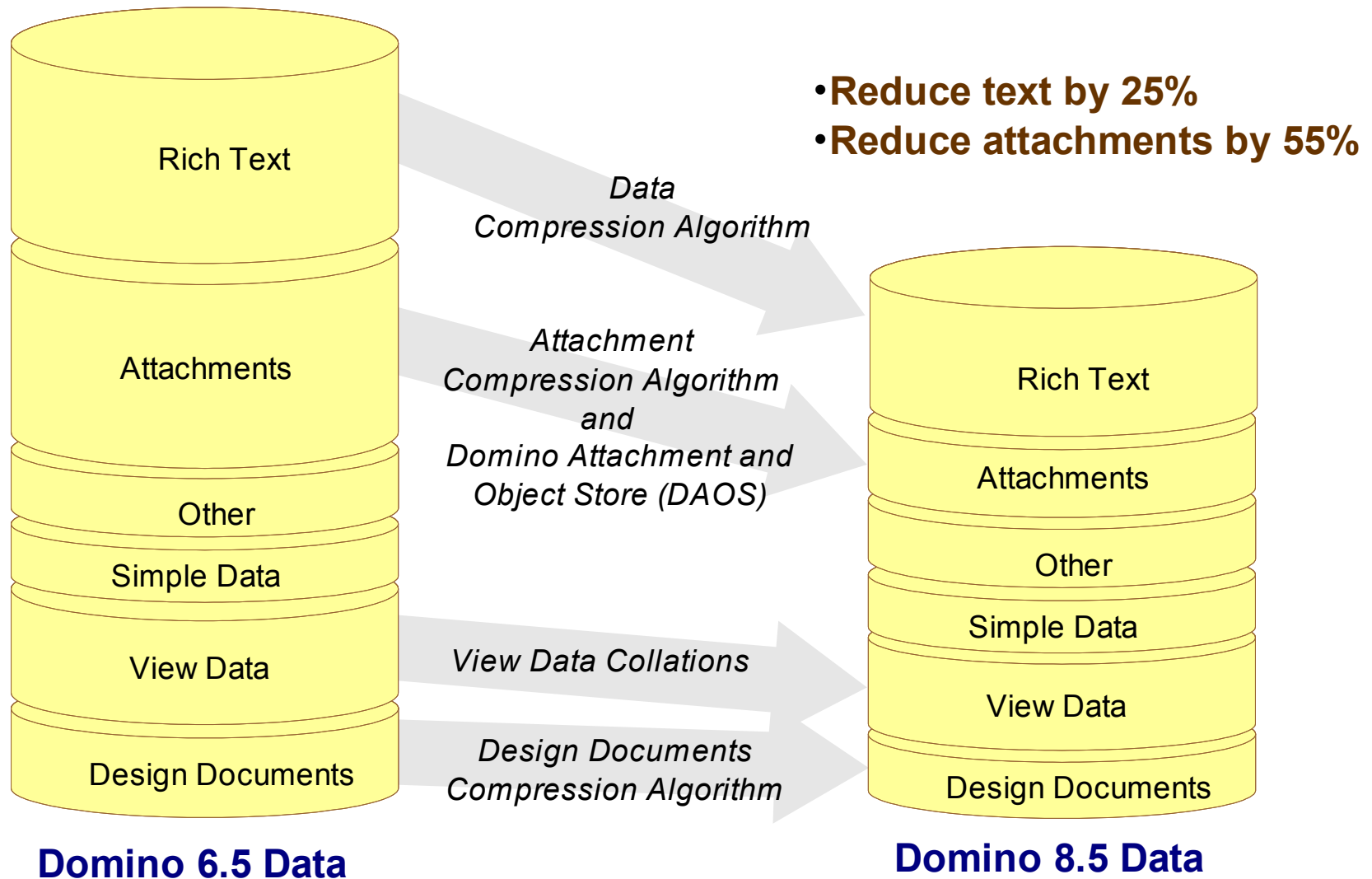
Reduce Infrastructure Costs With Lotus Domino 8.5



The amount of storage for email is exploding!

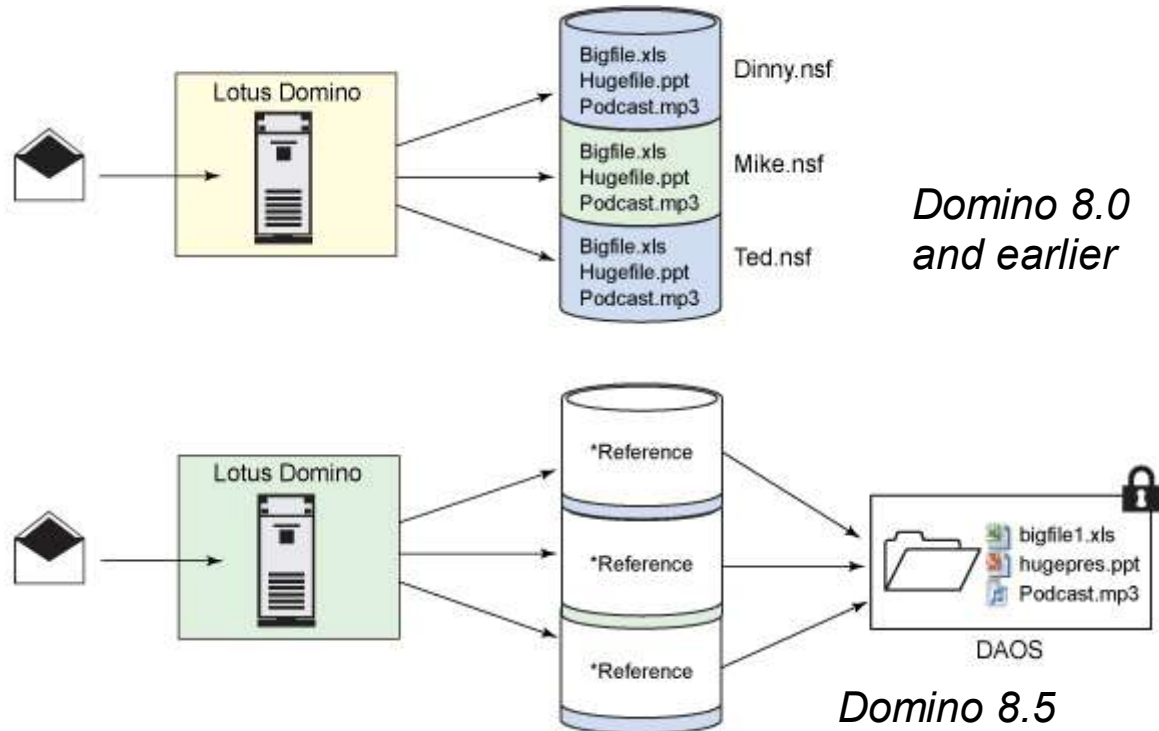
It's a real problem!

Domino 8.5 Uses Different Techniques To Compress Data



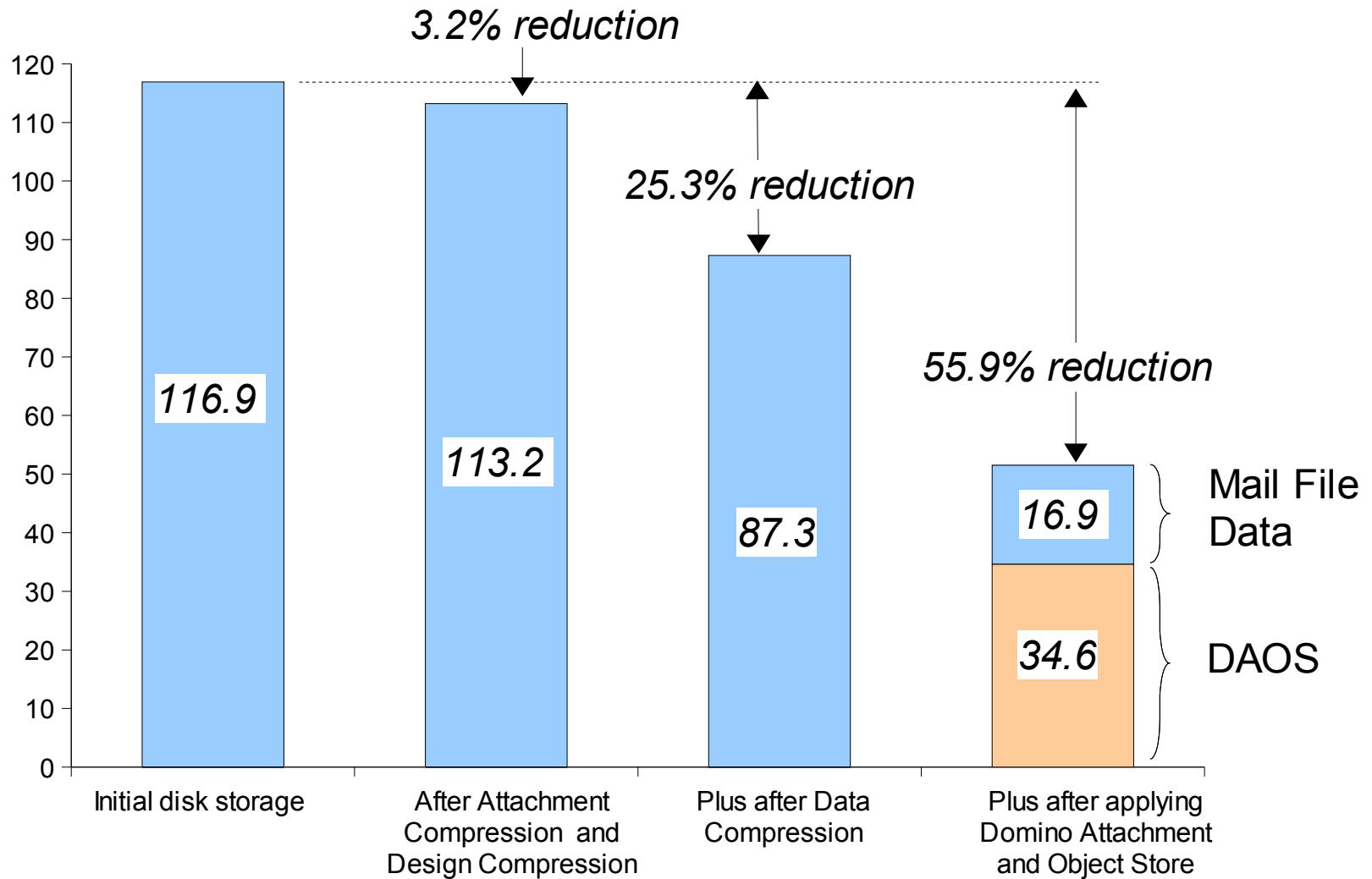
Reduce Number Of Attachments Stored With Domino Attachment And Object Store (DAOS)

- Identical file attachments only stored once in separate repository
 - ▶ Replaced with reference pointer in NSF files
 - ▶ Transparent to server, users and applications
- Use is optional; databases enabled on an individual basis



- *Reduces email database sizes*
- *Reduces archive and backup costs*

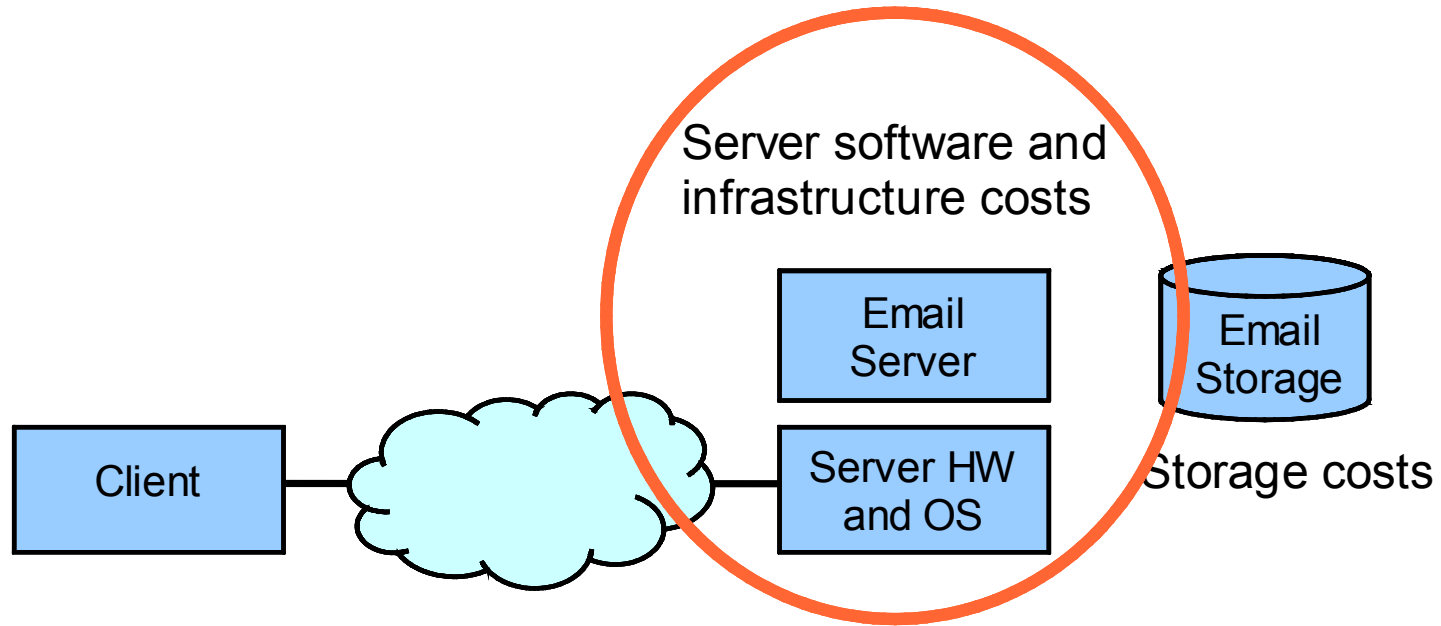
Sample Customer Data Reduction With Domino 8.5



Domino 8.5 Requires 57- 67% Less Storage Than Exchange 2007

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Reduce Server Costs By Optimizing Infrastructure



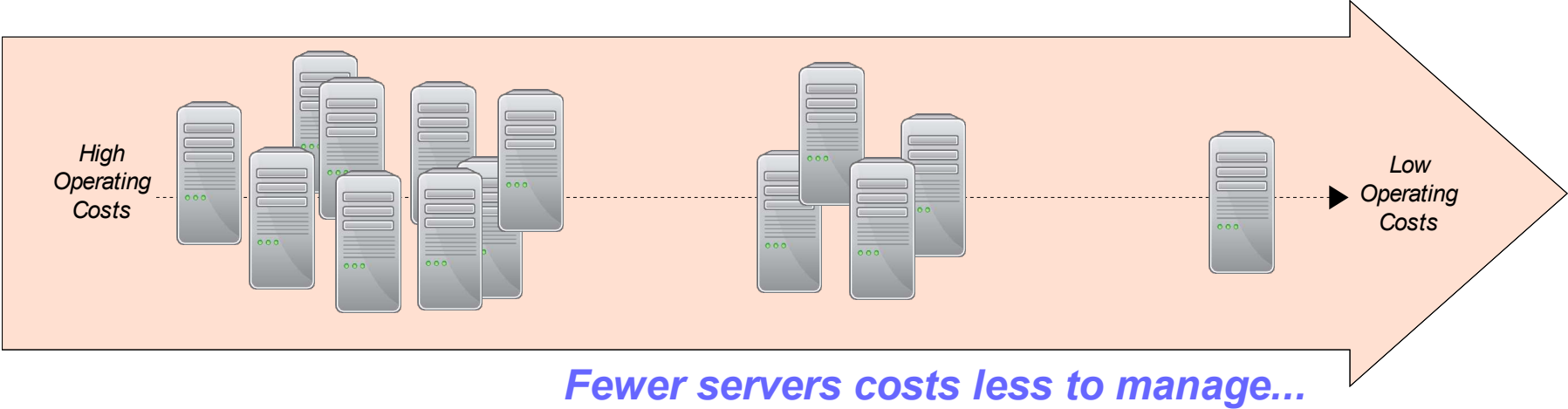
Next, let's look at server hardware and software costs...

Reduce Costs By Using Fewer Servers

Average Annual Operations Cost Per Server

Power	\$731
Floor Space	\$987
Annual Server Maintenance	\$777
Annual Connectivity Maintenance	\$213
Annual Disk Maintenance	\$203
Annual Software Support	\$10,153
Annual Enterprise Network	\$1,024
Annual System Administration	\$20,359
Total Annual Costs	\$34,447

IT support is almost 60% of total!



An In-Place Upgrade Of Domino 6.5 To Domino 8.5 Leads To Immediate Savings

A 10,000 user IBM customer:

	Mail users per CPU	Number of servers	Server savings
Domino 6.5	900	6	--
Domino 8.5	1300	4	2

- **30% fewer Domino servers required to support the same workload**
 - ▶ CPU efficiency improved by 50%
 - ▶ I/O reduced by more than 40%
- Fewer servers means fewer administrators, less power and cooling, and reduced real estate costs
 - ▶ Administration and Maintenance savings of 30%
- In many cases existing hardware can be re-deployed, saving additional money...

Further Reduce Servers By Consolidation

- Consolidate on IBM Power Systems or IBM System z
- Increase server utilization via virtualization
- Domino is designed to leverage the power of large IBM servers
 - ▶ Domino partitions

IBM Power Systems



- Domino on Power costs approximately 40% less¹ than Exchange on HP x86

IBM System z



- 102,000 Domino 8.5 users supported 1 zLinux image with 12 IFLs in z10 benchmarks²

¹ Based on 8000 users, assuming total cost of ownership.

² Source: <http://www.ibm.com/developerworks/lotus/library/domino-linux/index.html?ca=dat->

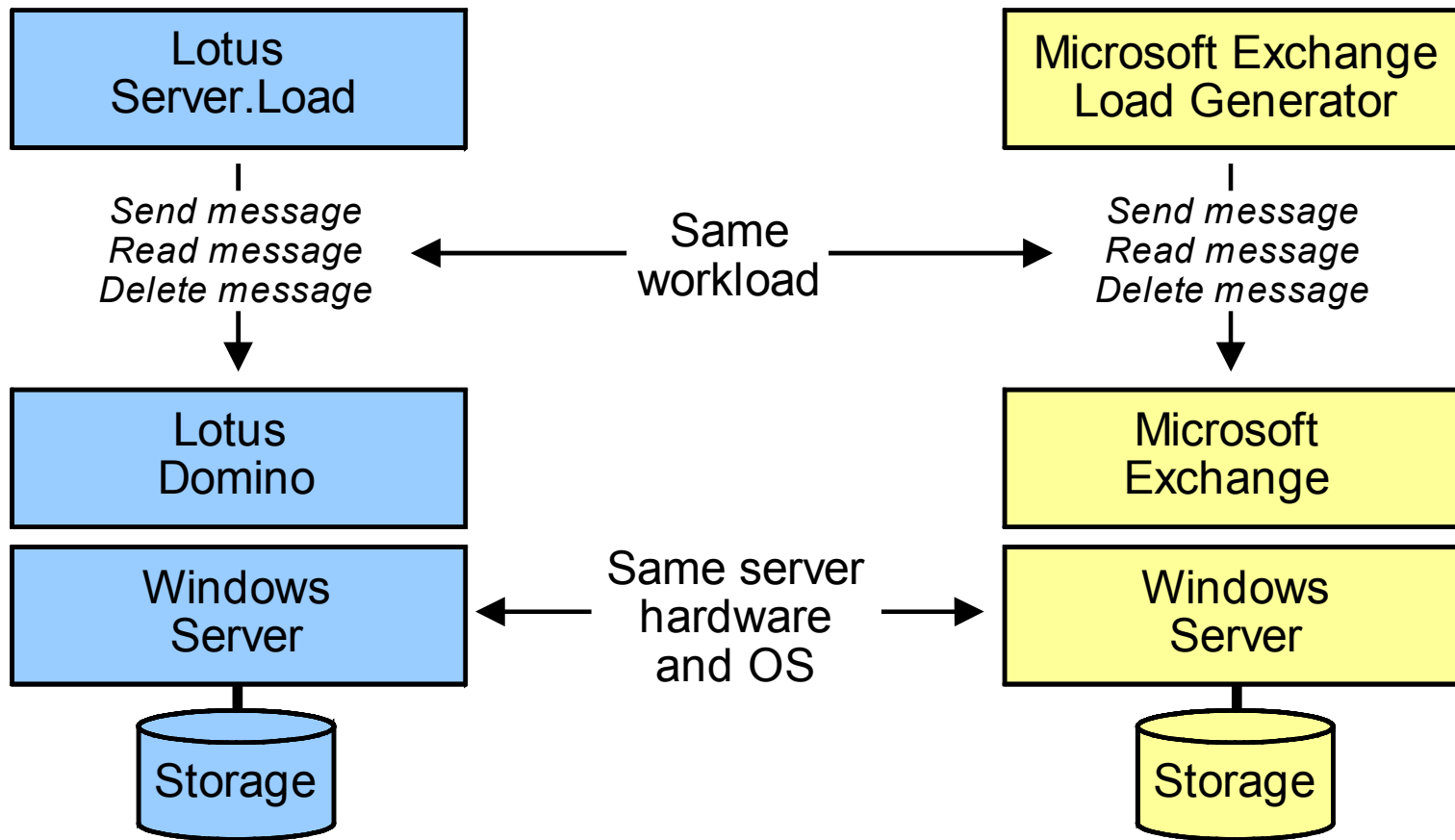
Running Domino In A Virtualized Environment Can Reduce Total Cost Of Ownership

- When resources run low
 - ▶ Add more capacity to existing hardware instead of purchasing new hardware
 - Pay-as-you-go, not 100% up front
- Consolidated infrastructures also mean
 - ▶ Eliminate physical hardware connections between servers, and reduce other physical server supporting infrastructure
 - ▶ Reduced footprint and environmental impact
 - ▶ Reduced administrator costs and deployment complexities
- With no dedicated backbone, Domino servers communicate at memory speed instead of LAN speed...

By Comparison Microsoft's Strategy Leads To More Servers And Higher Costs

- Upgrades to Exchange 2007 likely to require new hardware
 - ▶ Exchange 2007 servers require 64-bit hardware
 - ▶ Recommendation is to also upgrade Active Directory servers to 64-bit hardware
 - ▶ No in-place upgrades supported; need fresh hardware for installation
 - ▶ Additional servers recommended to handle new server roles
- Microsoft recommends against virtualizing Exchange Mailbox servers
 - ▶ Not designed to take advantage of large servers
- Cluster configurations require passive stand-by server for failover
 - ▶ Doubles the number of servers needed

Lotus Domino vs. Microsoft Exchange Comparative Performance Study



Microsoft Exchange Consumes 2-3X More Computing Resources for the Same Task

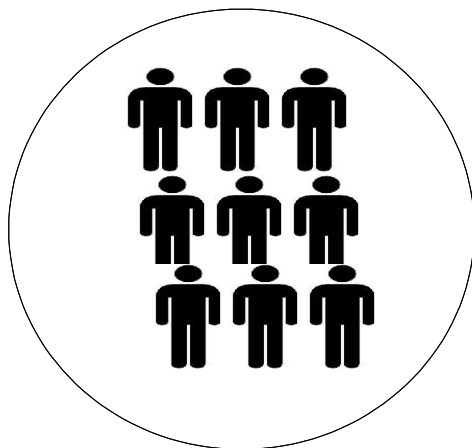
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Domino And IBM Hardware Can Support More Users Per Server

- Domino software makes more efficient use of the computing resources than Exchange
- Domino runs on large virtualized IBM servers while Exchange is limited to Windows and Intel
 - ▶ More processing power per server
 - ▶ Consolidate more servers onto a large IBM server
- Result: *Domino supports more users per server at lower infrastructure costs*

Case Study: Compare Email And Messaging Costs

3 years



8,000 Users

Hardware	\$225,343
Software	\$1,640,525
Administration	\$43,167
Total	\$1,909,035

\$6.63
per user per month



2 IBM Power p520 quad-core

IBM:

- Lotus Domino on IBM Power Systems
- Lotus Notes

Hardware	\$496,769
Software	\$1,892,017
Administration	\$255,054
Total	\$2,643,840

\$9.18
per user per month



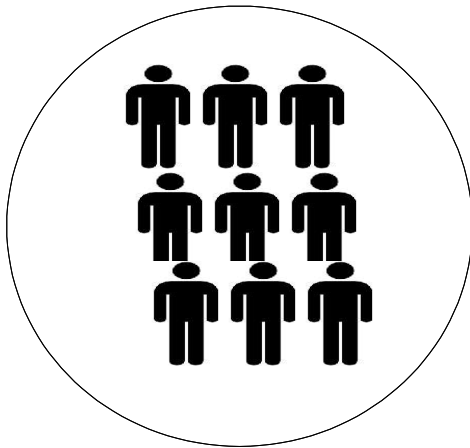
12 Intel x86-based servers

Microsoft:

- Exchange on HP
- Exchange CALs
- Microsoft Outlook

Case Study: Add Client OS And Personal Productivity

3 years



8,000 Users

Microsoft almost 3x more expensive!

Symphony and Linux	\$1,200,000
Email Total	\$1,909,035
Total	\$3,109,035

\$10.80
per user per month

Office and Windows	\$6,072,000
Email Total	\$2,643,840
Total	\$8,715,840

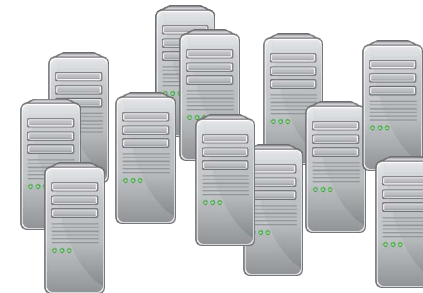
\$30.26
per user per month



2 IBM Power p520 quad-core

IBM:

- Lotus Domino on IBM Power Systems
- Lotus Notes



12 Intel x86-based servers

Microsoft:

- Exchange on HP
- Exchange CALs
- Microsoft Outlook

Summary – Lower Costs With A Smarter Infrastructure

	IBM Lotus	Microsoft
<i>Reduces storage requirements and costs</i>	YES	No
<i>Reduces number of servers needed</i>	YES	No
<i>Servers run on consolidated architectures</i>	YES	No
<i>Open Source Client Operating System and Free Personal Productivity Applications</i>	YES	No