



# STRATEGIES AND BEST PRACTICES:

REDUCE IT COSTS WITH RED HAT ENTERPRISE LINUX AND IBM SOFTWARE

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## EXECUTIVE SUMMARY

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In this highly cost-conscious economy, enterprises of all sizes are trying to drive down the bottom line. CIOs are focused on raising the ROI of IT, expanding business impact, and making innovations real (IBM 2009 CIO Study<sup>1</sup>). Among the many avenues that may lead to cost savings, this whitepaper focuses on two high return options—license cost optimization and migration to a lower total cost infrastructure to deliver the same or better business value. In addition to the potential cost savings, these strategies help deliver an enterprise technology platform that is well prepared for current technology trends, including desktop virtualization, cloud computing, and mobile and disconnected computing.

**License cost optimization:** Customers with Microsoft Enterprise Agreements can save 40% or more on license renewal costs by renegotiating and customizing the licensing to their specific needs.

**Migration to low total cost infrastructure:** Employees within an organization playing different roles have differing desktop needs. For example, most users don't use the full functionality of Microsoft Office or other software installed on their desktops. We recommend that such users be migrated to a lower cost platform that caters to their specific needs.

**Responding to emerging technology trends:** Desktop virtualization and cloud computing are rapidly emerging as technology advantages over monolithic IT infrastructure models. Those older systems are being pushed aside to make room for specialized computing capabilities that drive down costs and improve operational efficiencies. Role-based segmentation of users creates the opportunity for such best-of-breed integration.

**Technology adoption:** Technology uptake on the Internet has proven the capacity of viral adoption patterns compared to traditional carrot-and-stick approaches. We recommend that such viral strategies be deployed within the organization to enable the change to a new IT infrastructure. This ranges from governance strategies around web browser independence for applications as well as approaches for viral adoption in the organization.

Red Hat and IBM have successfully partnered to deliver these cost reduction and forward-looking technology strategies.

## COST OPTIMIZATION STRATEGIES

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We've considered two primary strategies: license cost optimization and migration to a lower cost infrastructure. The license cost optimization strategies are based on IBM's Project Liberate—an initiative that helps Microsoft customers reassess their license spending on Microsoft products and save up to 40% of their expenses by changing the license agreements. Project Liberate is a free offering from IBM for any size enterprise to save on Microsoft license expenditures without modifying the current software or hardware footprint.

The migration strategies presented here are based on the low-cost Linux desktop alternative with equivalent software covering email, office productivity tools (word processors, spreadsheets, and presentation editors), collaboration, and social computing platforms. In addition, migration considers the realities faced in such a switch—access to homegrown or vendor-supplied fat client applications.

<sup>1</sup> IBM CIO Study 2009  
<http://www-935.ibm.com/services/us/cio/study>



Both strategies are based on the analysis of the computing needs of the users within the organization. Such deeper understanding lets customers allocate their budgets to justifiable IT expenditures that drive higher operational efficiencies.

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**“Our strategy is to focus on Linux first and foremost, taking a practical and pragmatic approach. For us, the Linux environment is the right choice for very focused applications and is more cost-effective than Microsoft.”**

**-Gianluca Giovannetti, CIO and Director of Organization, Gruppo Amadori**

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#### **LIBERATE - LICENSE COST OPTIMIZATION**

An IBM whitepaper that focuses on Project Liberate gives a detailed explanation of the tactics for optimizing license cost expenditures on Microsoft. The full paper is available at [ftp://ftp.software.ibm.com/software/lotus/lotusweb/Project\\_LiberateforCIOsFinal.pdf](ftp://ftp.software.ibm.com/software/lotus/lotusweb/Project_LiberateforCIOsFinal.pdf), and the key strategies are provided here with an explanation for each.

#### **MOVE AWAY FROM MICROSOFT EA**

The key advantages of the Microsoft Enterprise Agreement (EA) are the predictability of fixed and so-called “reduced” prices for the duration of the contract and, according to customer anecdotes, the ability to avoid a potential license audit by Microsoft. But the underlying realities of an EA aren’t as kind to the customer.

The EA in most cases includes a base bundle called the Professional Desktop, which comprises a Windows desktop operating system upgrade, Office Professional Plus, and the Core CAL (Client Access License). A CAL licenses the user to access Microsoft server software, such as Exchange or SharePoint. The Core CAL combines multiple individual software CALs into one. The CALs included in Core CAL are for Windows Server, Exchange Server, Office SharePoint Server (MOSS), and Configuration Manager (or SMS - Systems Management Server). The EA also includes Software Assurance (SA)—an entitlement to future upgrades. In most cases, the EA requires that the Professional Desktop be bundled for all desktops and includes three years of Software Assurance.

Microsoft also offers an ESA—Enterprise Subscription Agreement—in which the customer only subscribes to the software instead of owning a license. At the end of the agreement period, the customer may choose to buy out the license, renew it for another term, or uninstall the software.

Most customers do not opt out of the EA primarily because the alternatives aren’t widely known:

- 1. Buy a new or renew a Component EA.** Microsoft does provide the option to customize the products and licenses included in an EA to a subset of those available in the default EA. This is called a Component EA, but Microsoft doesn’t publicize this information and at times may even deny a customer’s request for it.
- 2. Buy a Select Agreement.** This is the least known of the options available. Instead of renewing the EA for the sake of renewing the Software Assurance, customers can renew the Software Assurance with a Select Agreement. The Select Agreement gives the customer the option to choose the products they need and to cover only a subset of users instead of all the users.



Choosing one of these options is driven by a detailed analysis of the need for the various products and their current usage. Most often organizations do not need the full suite of products bundled in the EA and could save money with a Component EA or a Select Agreement.

### **STOP PAYING FOR SOFTWARE ASSURANCE**

Software Assurance is often misunderstood by customers as support. Though support is a part of the Software Assurance agreement, the most significant cost contributor within it is upgrade protection. As the next section explains, decisions on software upgrades need to be closely monitored against an organization's software refresh cycle and product lifecycle.

Most of the support features for which customers buy Software Assurance are available through free downloads from Microsoft's website. Such support features may include security patches, service packs, bug fixes, and so on. On the other hand, customers may buy Premium Support from Microsoft. Software Assurance is not a prerequisite for Premium Support.

### **UNDERSTAND MICROSOFT PRODUCT LIFECYCLES TO SYNC UP REFRESH CYCLES**

Microsoft's Enterprise Agreements typically have three-year contract terms, while most Microsoft products have a lifecycle of four years. Moreover the typical software refresh cycle in organizations is longer than three years. As a result, many organizations won't be able to take advantage of the free upgrade they are entitled to as part of the EA or SA. So customers whose EAs or SAs are expiring tend to renew the EA or the SA to ensure that they can get a software upgrade when the impending version becomes generally available and they decide to refresh their platforms.

On the other hand, Microsoft may delay a product release or publish specific upgrade recommendations that impact a customer's ability to upgrade within the term of the EA or SA. A recent guidance from Microsoft recommended that customers skip the upgrade to Microsoft Office 2007 and wait for Office 2010 to migrate.

Organizations preparing to buy or renew an EA/SA for Office must be mindful of the following:

The customer may pay for an upgrade that they might never use due to their internal dependencies for a software refresh.

Since the availability date, recommended upgrade date, or the features of the next version are not clearly known, the customer could be spending for software with very little information and planning.

In summary, organizations need to evaluate their internal software refresh cycles and Microsoft product lifecycles to determine if the renewal of an EA or SA can be beneficial.

### **MIGRATE**

One of the cornerstones of the migration strategy is to classify users as advanced and non-advanced users. We define advanced users as those who require the rich capabilities in productivity tools such as the Office suite to be more efficient. For example, considering the various lines of business of a financial services company, users in M&A and IPO banking may require rich functionality in presentation and spreadsheet software, while users in the front office of a local branch might only need internal financial applications to conduct transactions on behalf of the clients.



Red Hat leads the Linux market with more than 75% share of the worldwide Linux subscriptions revenue.

The Liberate strategy can help you lower your total cost of ownership 40-70%.

The Migrate strategy can help you lower your total cost of ownership by up to 50%.

In most third-party tests, Linux has been shown to outperform the Windows operating system.

Red Hat's Satellite systems management platform can save up to 80% in labor costs for server provisioning.

Lotus Domino 8.5 can save up to 50% of CPU and storage resources compared to earlier versions.

Millions of users rely on IBM Lotus Collaboration software every day.

Such analysis quickly reveals that a large portion of the user population typically does not require the rich functionality offered by the Windows desktop, the Office suite, or any custom applications. This creates the opportunities to migrate non-advanced users to a slim Linux desktop with software application alternatives from IBM, such as the IBM Client for Smart Work on Red Hat Enterprise Desktop.

### WINDOWS DESKTOPS TO LINUX DESKTOPS

All non-advanced users can be migrated to Red Hat Enterprise Linux Desktop since they don't have a dependency on the Windows desktops. The associated migration strategies for a Linux migration to be successful are:

- Migration of users from Office suite to IBM Lotus Symphony
- Migration of custom applications to the web-based model

In addition, Linux desktop users will require an email client and calendar software to complete their desktop footprints. A detailed analysis of the user population and the required desktop footprints would be required to ensure that the Linux desktop software stack is completely defined.

The migration to Linux desktops drives down the expense on the operating system and in gives the customer independence from Microsoft's enterprise agreement cycles and product lifecycles. Since most often the operating system is an OEM as part of the desktop hardware, it may be considered a sunk cost, or for tax and accounting purposes may have been depreciated completely. In such cases, it is recommended that the migration to Linux be piggy-backed as part of a periodic desktop refresh for the users. It is common practice in most organizations to refresh desktop hardware for a portion of the users on a yearly basis to ensure that support and maintenance complexities are reduced to a smaller number of desktop configurations.

Linux for the desktop offers a robust security model and a comprehensive management platform. For example, applications can be wrapped with custom security policies, preventing issues resulting from insecure software or unintended user interactions such as opening malicious email attachments. The Red Hat Network Satellite systems management server simplifies provisioning and management of the desktop environment with automated OS patch management for security and general fixes.

### MIGRATE NON-ADVANCED USERS TO SYMPHONY

Lotus Symphony is free office productivity software from IBM that comprises three applications—Lotus Symphony Documents, Lotus Symphony Spreadsheets, and Lotus Symphony Presentations. All documents created in Symphony are stored in a standard file format (ODF) that ensures continued support into the future.



Based on the classification of users, we recommend that non-advanced users be migrated to a Red Hat Enterprise Linux desktop with Symphony for their office productivity needs. Since the timing of the MS EA renewal or licensing discussions with Microsoft may not always coincide with the hardware refresh cycle, the move to Symphony and migration to Red Hat Enterprise Linux Desktop need not be dependent on each other. Symphony can be phased in on the Windows platform, and then the OS can be migrated to Linux as part of the hardware refresh.

Many common concerns in switching to Symphony have been addressed at customer implementations:

- Format conversion of existing Office documents. Some users think Office documents have to be converted to the Open Document Format (ODF) before being used in Symphony. In reality, all existing documents in Microsoft Office format can be opened and used with Symphony, and there is no need for any document conversions before using Symphony.
- Training costs associated with the switch to Symphony. As has been shown in many implementations, as well as in product tests by third parties such as ChannelWeb<sup>2</sup> and Datamation magazine<sup>3</sup>, if a user is familiar with the Microsoft Office suite, the most commonly used features are intuitive to use on Symphony. A switch to Microsoft Office 2007 means a major shift in user experience, even for advanced users of the Office suite. The same is the case with Office 2010. The switch to Symphony is more consistent with the Office 2003 experience and as such will require much lower retraining expense.

IBM has been rolling out Lotus Symphony internally to the majority of its user base—450,000 users in 64 countries, across 2,041 locations<sup>4</sup>.

## MIGRATE CUSTOM FAT CLIENT APPLICATIONS TO WEB-BASED THIN CLIENT APPLICATIONS

Organizations have already migrated or are in the process of migrating many of their custom in-house applications to a web front end for myriad reasons. The top concerns are ease of maintenance and ease of access to the applications. Despite such efforts, IT management often finds it hard to justify to their business counterparts re-platforming certain applications due to the low costs involved in maintaining the existing ones. Most often the criteria used for identifying cost savings are limited to the comparison of the current costs of maintenance and the amortized cost of the migration to a web-based platform.

The proposed Linux desktop migration strategy offers a new cost saving line item to be included in such business case proposals. The savings that can be realized from the various cross-pollinating strategies presented here can more than offset the combined costs of current maintenance and the cost of migration. One of the key governance decisions is web browser independence.

We recommend a detailed analysis of the current fat client application footprint on the desktops of non-advanced users and segment the footprints by line of business (LoB), expected cost of migration of the complete footprint, expected benefit from migration, and time to hardware refresh. Such segmentation would help devise a detailed roadmap of the benefits that can be realized over a three to five year period. The roadmap would lay out footprint segments and LoBs over a timeline with a clear time and ROI target for each of them.

2 Lotus Symphony named Best Desktop Application  
<http://www.crn.com/it-channel/212202127;jsessionid=SHWS41RQDZOVHQE1GHPSKH4ATMY32JVN?pgno=8>

3 Datamation announces 2008 Product of the Year winners  
<http://itmanagement.earthweb.com/cnews/article.php/3727446>

4 IBM internal case study  
[http://www-01.ibm.com/software/success/cssdb.nsf/CS/CCLE-7B7QUC?OpenDocument&Site=wp&cty=en\\_us](http://www-01.ibm.com/software/success/cssdb.nsf/CS/CCLE-7B7QUC?OpenDocument&Site=wp&cty=en_us)



## MOVE TO DOMINO 8.5 OR HIGHER TO OPTIMIZE SERVER HARDWARE AND MAINTENANCE

The performance optimization available in Domino 8.5 and later versions provides clear savings in hardware resource utilization. Existing customers of Domino can upgrade to Domino 8.5 and achieve a 30% reduction of TCO through CPU and I/O bandwidth savings (up to 50%), and 20-50% savings through storage utilization improvements<sup>5</sup>. Similarly, Exchange users can migrate to Domino 8.5 to achieve storage savings of 200 to 300%.

The direct impact of such reduction of server hardware is the cost savings that can be realized on the software license cost for the email software and support and maintenance of the OS and hardware. In addition, the freed up hardware can be used for other projects within the organization resulting in cost avoidance.

## MICROSOFT OFFICE SHAREPOINT SERVER AND OFFICE COMMUNICATION SERVER TO LOTUS QUICKR-CONNECTIONS-SAMETIME

Microsoft Office SharePoint Server and Microsoft Office Communication Server depend on other Microsoft software, such as SQL Server, Active Directory, and Microsoft Office, as well as 64-bit hardware. The full cost of the collaboration platform from Microsoft extends much beyond the server license cost for SharePoint and its CALs (Client Access Licenses).

All such dependencies contribute to the hidden costs of the Microsoft collaboration platform. Note that SQL Server is priced by the number of CPUs and contributes to the CAL cost as well.

The functionally superior Lotus collaboration platform from IBM offers a much simpler licensing model that includes server and CAL licenses only for the primary software being utilized. The ongoing annual CAL costs for Lotus software include the server software support and maintenance. In addition to the savings on initial implementation cost, the total cost of ownership over the lifecycle of the platform is significant.

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**“Previously, provisioning was a time burden for our team, as we were adding or re-provisioning about five servers per month, and it would take three hours per system to provision. Now when I use Satellite’s provisioning capability, I can provision new servers with a specific build, at the push of a button. It saves me over two and a half hours per system, or about 13 hours per month. Which for one person is a considerable gain in productivity.”**

**-Will Darton, Senior Server Support Administrator, Discount Tire**

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<sup>5</sup> IBM Lotus Domino Server performance on Red Hat Enterprise Linux 5  
[http://www.lotusonredhat.com/Lotus\\_Domino\\_Server\\_Performance\\_11-11-2008.pdf](http://www.lotusonredhat.com/Lotus_Domino_Server_Performance_11-11-2008.pdf)



## WINDOWS SERVERS TO LINUX SERVERS

The Linux operating system and the associated management platform provide certain key advantages over Windows servers:

- **Performance:** Many third-party benchmarks have proven that the Linux OS performs better than Windows OS on the same hardware footprint. The lightweight Linux kernel is highly optimized and provides an efficient extension mechanism to support a wide range of devices.
- **Security and reliability:** Linux is a multi-user system from the ground up compared to Windows—a single user operating system. Access to files and processes are restricted by userid and user groups. Such access control ensures that virus programs do not execute with higher privileges on the servers.
- **Manageability:** Red Hat Network Satellite is an intuitive and easy-to-use systems management platform that integrates the full lifecycle of a scalable Linux infrastructure—provisioning to ongoing growth. The simplification of the management processes leads to reduced labor costs for the system administration and maintenance teams.

Customers such as Discount Tire Company—the largest independent tire and wheel retailer—had to deal with frequent downtimes and security vulnerabilities with their Windows infrastructure. Discount Tire has since moved to the Red Hat Enterprise Linux platform with Red Hat Satellite for systems management<sup>6</sup>.

The company has realized tangible benefits:

- Discount Tire's e-commerce platform has an SLA of 99.99%, and the internal email and productivity infrastructure is mission-critical and cannot afford any downtime. The new Red Hat Enterprise Linux infrastructure has been able to reliably deliver this expectation for both external and internal stakeholders.
- The complex provisioning steps for a new server have been cut by 80% from three hours per server to just 30 minutes using Satellite.
- The requirement to comply with Payment Card Industry (PCI) security standards requires Discount Tire to be up to date on the OS-level patches on all the servers even as the server farm continues to grow. Satellite has helped automate patch management with access to Red Hat Network updates and local control over management and monitoring, thereby reducing the manual and error-prone patching processes.

Though Microsoft has recently introduced the Systems Management Server, the costs for licensing the platform are high, and it has a steep learning curve and high complexity for ongoing usage.

## A SAMPLE TCO CALCULATION MODEL

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Red Hat has developed an online total cost of ownership (TCO) calculator based on the strategies presented here. You can try it at [linuxonredhat.com](http://linuxonredhat.com).

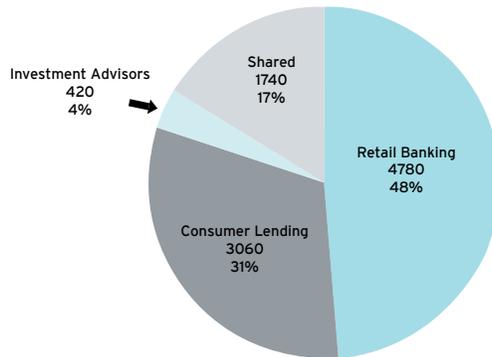
Consider Acme Corp, a financial services company with around 10,000 employees that offers retail banking, consumer lending, and investment advisory services.

<sup>6</sup> Discount Tire accelerates its e-commerce business with Red Hat Satellite and IBM.  
[http://www.lotusonredhat.com/RH\\_CS\\_DiscountTire.pdf](http://www.lotusonredhat.com/RH_CS_DiscountTire.pdf)



Acme's retail bank has about 300 banking locations with some of them offering lending and investment advisory services. The distribution of the employees is provided in the chart below:

#### ACME CORP'S DISTRIBUTION OF EMPLOYEES



About 17% of Acme's employees provide the horizontal services, such as HR, legal, call center, and information technology.

The following table provides certain further assumptions regarding the IT infrastructure:

Total number of users	10,000
Microsoft licensing agreement	About to renew their Enterprise Agreement
Office suite refresh cycle	Every 4 years
Number of advanced users	20% (2000 users) These users require a Windows desktop and Microsoft Office.
Number of custom Windows applications that require about 12 months to be migrated to a web-based platform	10
Number of custom Windows applications that require about 6 months to be migrated to a web-based platform	20
Number of custom Windows applications that require about 3 months to be migrated to a web-based platform	0
Number of Visual Basic applications that need to be migrated to a web-based platform	10
Total number of users dependent on the Windows applications, including the IE browser or VB applications	30% (3000 users)
Desktop hardware refresh cycle	20% of the desktops are refreshed every year
Email software currently used	Microsoft Exchange

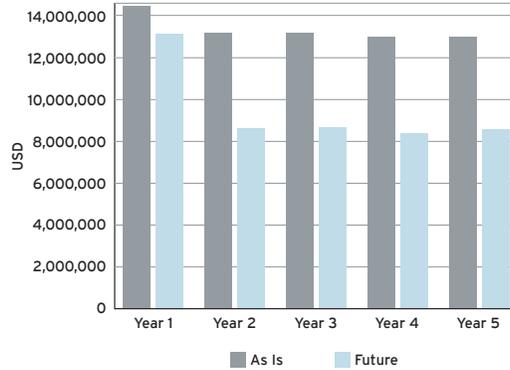


The following table shows that the company can save over \$18 million over a period of five years by applying the above cost reduction strategies.

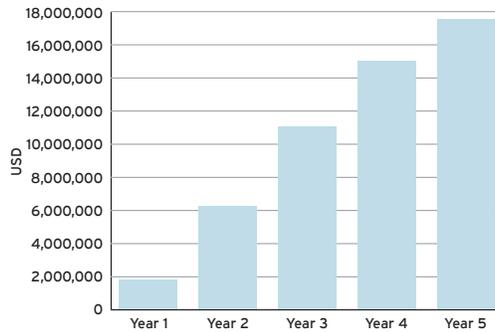
Category	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	As Is	Future	As Is	Future	As Is	Future	As Is	Future	As Is	Future
<b>Software</b>										
Productivity Tools	2,939,520	1,092,800	2,060,640	0	2,060,640	0	2,060,640	0	2,060,640	1,369,600
Collaboration Software	3,361,814	2,970,000	3,361,814	594,000	3,361,814	594,000	3,361,814	594,000	3,361,814	594,000
Custom Application Migration	405,000	1,620,000	405,000	1,620,000	405,000	1,620,000	0	0	0	0
<b>Platform</b>										
Server Hardware	70,000	0	0	0	0	0	0	0	0	0
Server Operating System	0	36,000	0	36,000	0	36,000	0	36,000	0	36,000
Desktop Hardware	1,400,000	952,000	1,400,000	952,000	1,400,000	952,000	1,400,000	2,104,000	1,400,000	1,240,000
Disaster Recovery	0	8,000	0	8,000	0	8,000	0	8,000	0	8,000
<b>Operations</b>										
Support & Maintenance	5,280,000	5,278,000	5,280,000	5,278,000	5,280,000	5,278,000	5,280,000	2,278,000	5,280,000	5,278,000
Education/ Training	0	40,000	0	0	0	0	0	0	0	0
Migration/ Upgrade Services	602,000	601,000	0	0	0	0	0	0	0	0
Facilities (Power)	540,000	252,000	540,000	324,000	540,000	396,000	540,000	306,720	540,000	338,400
<b>Total</b>	<b>14,598,334</b>	<b>12,849,800</b>	<b>13,047,454</b>	<b>8,812,000</b>	<b>13,047,454</b>	<b>8,884,000</b>	<b>12,642,454</b>	<b>8,326,720</b>	<b>12,642,454</b>	<b>8,864,000</b>
<b>Annual Benefit</b>		<b>1,748,534</b>		<b>4,235,454</b>		<b>4,163,454</b>		<b>4,315,734</b>		<b>3,778,454</b>
<b>Cumulative Benefit</b>		<b>1,748,534</b>		<b>5,983,988</b>		<b>10,147,443</b>		<b>14,463,177</b>		<b>18,241,632</b>



AS IS VS. FUTURE COSTS



CUMULATIVE BENEFIT



The licensing expense for IBM collaboration software is incurred once on initial purchase. The support and maintenance cost for the software for subsequent years is based on a percentage of the initial license cost. In addition, note that the migration to Linux desktops for non-advanced users is synchronized with the desktop refresh cycle.

Following are a couple of key assumptions made in the above calculations:

- Note that the cost of migration of the custom applications is evenly spread over the first three years.
- Training costs for Lotus Symphony are assumed to be no different from the training required for users upgrading to Office 2007 or 2010.



## BEST PRACTICES

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Based on our experience in helping numerous customers save on their capital and operation expenses, we have derived a set of best practices that would help most organizations bracing themselves in this down economy.

### LIBERATE

- Maintain an inventory of licenses and track their usage. Such a practice will help you with the usage analysis above and improve your bargaining position on alternative licensing models. Often customers consider the threat of a license usage audit by Microsoft in making decisions on a licensing model. An internal inventory will help alleviate the audit pressures.
- Conduct comprehensive usage analysis of the Microsoft products so that software purchase decisions can be closely aligned to actual usage of the features or products.
- Begin the license renewal process about six months before the expiration of the current agreement. This lead time will let you analyze the user base and understand the usage of the Microsoft products. Also, the time may be used to obtain alternative quotes and use them at the negotiation table.
- Show Microsoft that you understand the various licensing models and you are considering alternatives to the EA. This will improve your negotiating position even if you have to settle for the EA.
- Avoid the OS upgrade pressure by demonstrating that you are willing to wait for a hardware refresh to receive the OEM license for the operating system.
- Show your inclination to go with an open source option for the basic (non-advanced users). The open source option might comprise Linux, OpenOffice/Lotus Symphony, Projity, and MySQL and would cover a majority of the user base in the organization. This would put Microsoft in a defensive bargaining position.



## MIGRATE

- Segment the users within the organization by the extent of features they use on the Microsoft platform, role, and line of business. Just as customers are segmented and targeted with cost-effective and value-generating products and services, organizations need to segment their employees and deliver value to improve their internal productivity.
- Establish a long-term strategy for the evolution of the IT infrastructure to better prepare for emerging technologies and to utilize them most efficiently for each user segment. This includes a planned decommissioning of the desktop applications opening up multiple channels for application access across the enterprise.
- Consider the advantages of a heterogeneous IT platform that avoids vendor lock-ins and the need to be tied to the roadmap and strategy of a single vendor. The market gorilla would most often cite problems of heterogeneous integration as complexity of maintaining multiple footprints. But in reality the cost of maintaining multiple footprints from the same vendor is no more complex than those from different vendors.
- Viral adoption patterns on the Internet have proven what behavioral psychologists have long believed—humans modify their behavior by copying their peers. Such an adoption model has helped many services such as Twitter, Facebook, and LinkedIn to rapidly spread their footprint. We recommend a similar viral adoption strategy to be employed within the organization. Participants in an initial pilot might required to be included from various peer groups and organizational levels to reflect the momentum for a new technology.



## NEXT STEPS

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Red Hat and IBM can help execute the strategies presented here.

1. Organize a technology strategy briefing where Red Hat and IBM can present the strategies in further detail if necessary.
2. Get pilot sponsorship from stakeholders.
3. Conduct a cost reduction strategy workshop to perform user segmentation.
  - Examine your IT infrastructure and its usage across the users in the enterprise to begin the user segmentation process. The user categorization may include:
    - Advanced versus non-advanced users of Microsoft Office
    - Users who use custom Windows applications internally developed or sourced from a vendor
    - Users who use mostly web-based applications
    - Understanding the indirect dependencies on Microsoft Internet Explorer–ActiveX plug-ins, web-based applications that do not support other browsers, etc.
    - Identifying business processes and applications that are dependent on specific document formats. Define a strategy for document format transformation as you migrate from Microsoft Office to Open Document Format(ODF) used in Lotus Symphony. Note that a common option is to use Lotus Symphony to edit the content in the Microsoft format and save it in any other format.
  - If you are about to purchase or renew a Microsoft Enterprise Agreement, contact IBM's Project Liberate team for a free engagement to help you optimize your Microsoft software license investments
4. Execute short-term pilots to prove the resulting platform usability and the associated cost savings.
  - A phased approach to the roll out of the platform will evolve from the analysis performed during the workshop. It is a common practice is to map the phases to target user segments and desktop refresh cycles
  - Use viral adoption strategies by recruiting key evangelists within the organization.

Note that many of the strategies presented here can be executed in parallel as they are analyzed and the TCO and ROI are estimated.



## CIO CHECKLIST

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- Conduct user segmentation analysis to determine the use of Microsoft products and the Windows platform.
- Determine the segment of users with a business need for Windows 7 and Office 2010 (typically less than 10% of the organization).
- Execute Liberate strategy. Do not renew Microsoft Enterprise Agreement. Consider alternatives to the EA, such as a Component EA or a Select Agreement.
- Stop any other Microsoft 2010 product “migration” initiatives.
- Establish an open and scalable IT platform strategy—servers and desktops—based on the deeper understanding of the users and their needs.
- Optimize desktop refresh cycles—lower hardware, software, and operational costs.
- Move to Linux-based desktops with a simpler application footprint for most users.



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