VMware ROI/TCO Calculator:
Frequently Asked Questions

Q. What’s new?
A. We have had a number of different tools available for various scenarios and topics: forward looking and reverse, SMB, Green, and Purchase Advisor. In this redesign, we are pulling together logic from different calculators for consistency and ease of use.

Integration means that Alinean calculators (forward looking and reverse) will be retired. SMB, Green and Purchase Advisor logic will be incorporated, but will also continue to have separate web applications for quick assessments.

There is a more modular design to draw out the value of key features and products. We have distilled key assumptions related to each module to enable easy adjustment.

As users work through modules, they will find a summary ROI table in the top-right-hand corner of the screen. This table will recalculate and update total Investment, Savings, ROI, and Payback Period (years) after each module.

We are also providing true offline capabilities so that the same experience users have online will also be available without an internet connection. Analysis created or modified when offline will sync once users are back online.

Q. What about the Cost per Application calculator?
A. Version 1.0 of our redesign launching in May will not incorporate logic from this calculator, but we will be working on integration in version 2.0. Until then, users can find the separate calculator at:
http://www.vmware.com/technology/whyvmware/calculator/

Q. What are the key differences between the new calculator and calculators being retired?
A. Both server and desktop virtualization have been standardized to 5 year analysis horizons. However, users will be able to find cumulative ROI’s for each year up thru year 5 in the Analysis Summary, and ROI’s for 3 year and 5 year horizons at the end of product sections.

We are also simplifying by removing financial adjustments to this analysis. All financial metrics are presented on a cash-out-the-door basis. This means no depreciation, amortization or discounting. This removes a layer of complexity and variability in our calculation of business value.

Users will note that there are now rows showing units of hardware (eg. servers, clients) retired and purchased. This relates to the change to
cash basis mentioned above. By removing depreciation, users can clearly see the impact of refresh cycles on datacenter costs.

Q. I am a user of calculators being retired, will I have to relearn a whole new platform?
A. No. We are retaining some familiar elements, the most important being methodology. In general, philosophy remains Before - After = Cost Savings. By leveraging new design principles and web development, we are improving usability. Users will also be able to save and revisit past analysis as well as create PowerPoint exports of summary tables and graphs.

Q. What are the sources of the default assumptions?
A. Default assumptions within the calculator are referenced from a variety of sources: IDC studies, VMware’s own datacenters, and experiences of our customers. These assumptions are provided as a starting point for users to understand key drivers in our business value framework. We encourage all users to validate our assumptions against their own operations, and make this analysis more relevant to their own unique experience.

Q. What products are covered?
A. Server & Desktop virtualization:

1. vSphere *(modules for advanced features available depending on edition selected)*
2. vCenter Server
3. CapacityIQ
4. AppSpeed
5. Site Recovery Manager
6. Lifecycle Manager
7. Chargeback
8. Lab Manager
9. View *(Premier edition includes modules for View Composer and ThinApp)*

Q. Where do I enter historical costs to show customers ROI on their investment thus far?
A. In the Assumptions sections of Product Selection modules for both server and desktop virtualization, users will find input boxes for historical costs. These costs will override calculator estimates of investments required for known years.

Users will also find adjustments available for discounts on VMware software and support. There are standard discounts for Government agencies, Academic institutions, as well as the ability to define custom levels for forward periods.
Users will be able to find cumulative ROI's for each year up thru year 5 in the Analysis Summary.

**Q. What is a Workload and how does it relate to a Virtual Machine (VM)?**

A. For this calculator, a server workload is one instance of an application (eg. web server, database, business application) that runs on one OS instance—in a physical environment, requiring one host server. A multi-tier application may have multiple workloads. Virtualized workloads are also interchangeably labeled as VM's. In desktop virtualization, each instance of a virtualized user image (including client OS, client applications, user data) is also counted as one VM.

**Q. In Configuration modules for both server and desktop virtualization, what is the difference between Current Consolidation Ratio and Max Consolidation Ratio?**

A. The key drivers related to consolidation ratio are Number of Workloads and the Average Number of VM’s per core. The Max Consolidation Ratio per server is by default calculated as 1.5 VM’s per Core multiplied by the total number of cores per server.

For example, in a 2CPU quadcore server, the total number of cores is (2 x 4 =) 8. 1.5 VM’s per core times 8, equals a max of 12 VM's per server. If the total number of workloads to be virtualized is 12, then both the current and max consolidation ratio are equal. However, if the total number of workloads is 10, then the current consolidation ratio is 10:1.

Essentially, there is sometimes a difference because total number of workloads may be less than the max capacity of physical host servers required. Server hardware requirements in this calculator are based on the max consolidation ratio per virtualized server.

The Max Consolidation Ratio per server, for desktop virtualization, is by default calculated as 12 VM’s per Core multiplied by the total number of cores per server.

**Q. How do I adjust the calculator to a Max Consolidation Ratio different from the default?**

A. First, determine that the configuration of virtualized servers (CPU’s per Server and Cores per CPU) and associated number of workloads are correct. Then slide open the Show Assumptions Details bar on the right-hand-side of the configuration module and adjust up or down the Average Number of VM's per Core.

**Q. What does 100% virtualized mean?**

A. This calculator was developed to determine the cost savings potential of x86 workload environments. There are datacenters with workloads that may never be migrated to a VMware virtualized environment for a variety of reasons (eg. non-x86, legacy/custom, regulatory). For Users
should consider the subset of workloads in their datacenter which can be virtualized. 100% virtualized is where this subset is completely virtualized.