

WHITE PAPER

What is New in VMware vCenter™ Lab Manager 4



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What is New in VMware vCenter™ Lab Manager 4

VMware vCenter™ Lab Manager 4, part of the VMware vCenter family of management products, provides on-demand access and automated management of the internal cloud for dev/test. Application Owners, Development and Test, and Support and Training teams can provision application environments in seconds and manage a library of common system configurations through a self-service portal under IT control. Lab Manager 4 enforces policy-based access control, optimizes utilization of shared infrastructure, and avoids resource conflict in a multi-user environment, eliminating repetitive provisioning and ad-hoc management tasks for IT.

Designed for enterprise scalability, best-in-class performance, and seamless integration with VMware vSphere™, Lab Manager 4 enables higher service levels, faster time to market, and simplified IT administration.

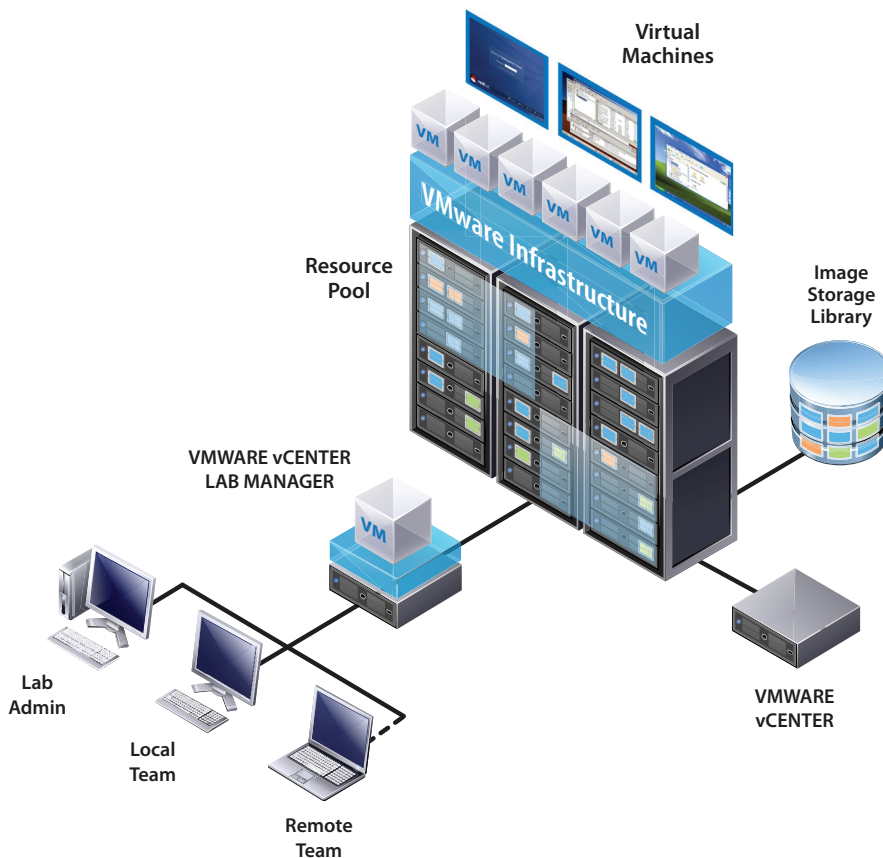
The key features provided by VMware vCenter Lab Manager 4 are:

- A Rapid Provisioning Portal – Set up, capture, and re-configure multi-VM system configurations in seconds.
- A Virtual Machine Image Library – Provide an archive of commonly used system configurations while reducing storage footprints.
- Enterprise Scalability – Support multiple teams, projects, and sites with a single installation, dedicated or shared resource pools, customizable user roles and access rights, and advanced networking options.

Lab Manager 4 tightly integrates with VMware vSphere™ 4, providing organizations with the capabilities needed to transform their datacenters into the internal cloud for Development and Test. VMware vSphere 4 is the industry's first cloud operating system – transforming datacenters into dramatically simplified environments to enable the next generation of flexible, reliable IT services.

This paper provides a technical overview of new management capabilities built into the VMware vCenter Lab Manager 4 release, including VMware vSphere support, multiple organizations and workspaces, and host spanning private networks (a technology which enables cross-host fencing).

Figure 1. VMware vCenter Lab Manager 4 System Overview



VMware vSphere™ Support

VMware vCenter Lab Manager 4 now fully supports VMware vSphere 4:

- Lab Manager fully integrates with VMware vCenter Server 4
- VMware ESX™ 4 and VMware ESXi™ 4

Note: Lab Manager 4 does not support VMware vCenter Server 2.5, but can be used with VMware vCenter Server 4 and ESX Server 3.5 hosts.

Support for the VMware ESXi™ Form Factor

Lab Manager 4 adds support for the VMware ESXi form factor of both VMware vSphere 4 and VMware ESX 3.5 Update 4. The VMware ESXi form factor eliminates the ESX Service Console. With the support of the VMware ESXi form factor, Lab Manager no longer deploys an agent into the Service Console in “classic” VMware ESX environments.

Supported VMware vSphere and VMware vCenter Server Editions

Lab Manager 4 supports the following product editions:

- VMware vSphere Standard
- VMware vSphere Advanced
- VMware vSphere Enterprise
- VMware vSphere Enterprise Plus
- VMware vCenter Server Standard

Note: Lab Manager 4 does not support VMware vSphere Essentials or VMware vCenter Server Foundation editions.

VMware vSphere features supported by Lab Manager

Lab Manager now fully interoperates with the following features of VMware vSphere:

- VMware® vNetwork Distributed Switch
- Host Profiles¹
- Storage Provisioning/Datastore and Network Management Enhancements
- Volume Resignaturing
- 64-bit Service Console
- 64-bit vmkernel
- Virtual Hardware Upgrade (Lab Manager 4 supports both hardware version 4 and hardware version 7 virtual machines)
- Native SATA
- VI Update Service (VMware ESX 4 only)
- Volume Grow
- iSCSI Support Improvements
- Storage Stack Performance and Scalability
- Distributed Power Management
- VMware® Distributed Resource Scheduler (DRS) Usability Enhancements
- PVLAN Support
- VMware® VMsafe™

¹ Hosts configured with host profiles must still be prepared by Lab Manager to be used within a Lab Manager installation

Known limitations:

- VMware® Fault Tolerance (FT): Lab Manager 4 disables VMware FT on virtual machines managed with Lab Manager.
- Nexus1000V: Lab Manager does not support using the Cisco Nexus 1000V.
- VMware® Storage VMotion™: Lab Manager does not support using VMware Storage VMotion.
- VCB: Lab Manager does not support using VMware Consolidated Backup

With Lab Manager and VMware vSphere 4, administrators can now transform their Development and Test environment into an internal cloud.

Host Spanning Private Networks

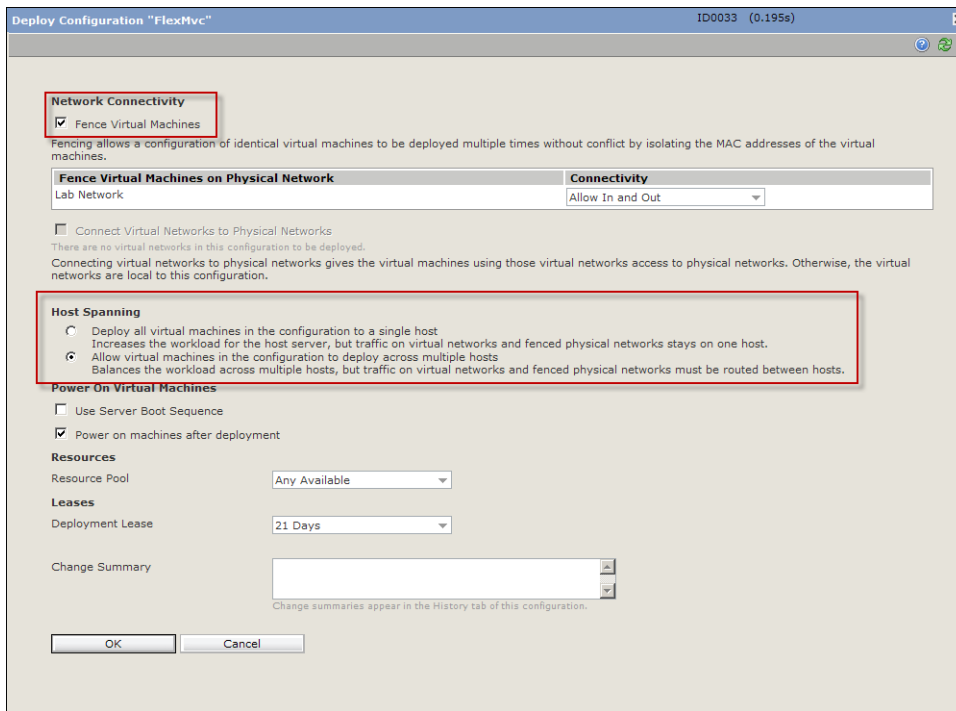
Host Spanning Private Networks, a new technology in Lab Manager 4, creates isolated private networks without the need for setting up VLANs.

Host Spanning Private Networks may be used in two cases: fenced deployments and virtual networks. In these cases, virtual machines are deployed on an isolated or fenced network segment. Previously these segments (and the virtual machines attached to them) were bound to a single host. With Host Spanning Private Networks, this restriction is eliminated, and you can now deploy large multi-machine configurations across multiple hosts. This also allows you to take advantage of VMware vSphere features such as DRS and VMware VMotion, which migrate a running virtual machine from one host to another without loss of service.

To enable Host Spanning Private Networks, Lab Manager 4 deploys a “Service” virtual machine. One service virtual machine is deployed on each VMware ESX Server participating in a host-spanning private network. The service virtual machine is different from the virtual router virtual machine that Lab Manager 4 uses when deploying configurations in fenced mode.

The Host Spanning feature requires the Distributed Switch capability of VMware vSphere Enterprise Plus edition.

Figure 2: Enabling Host spanning when deploying fenced configurations



Multiple Workspaces

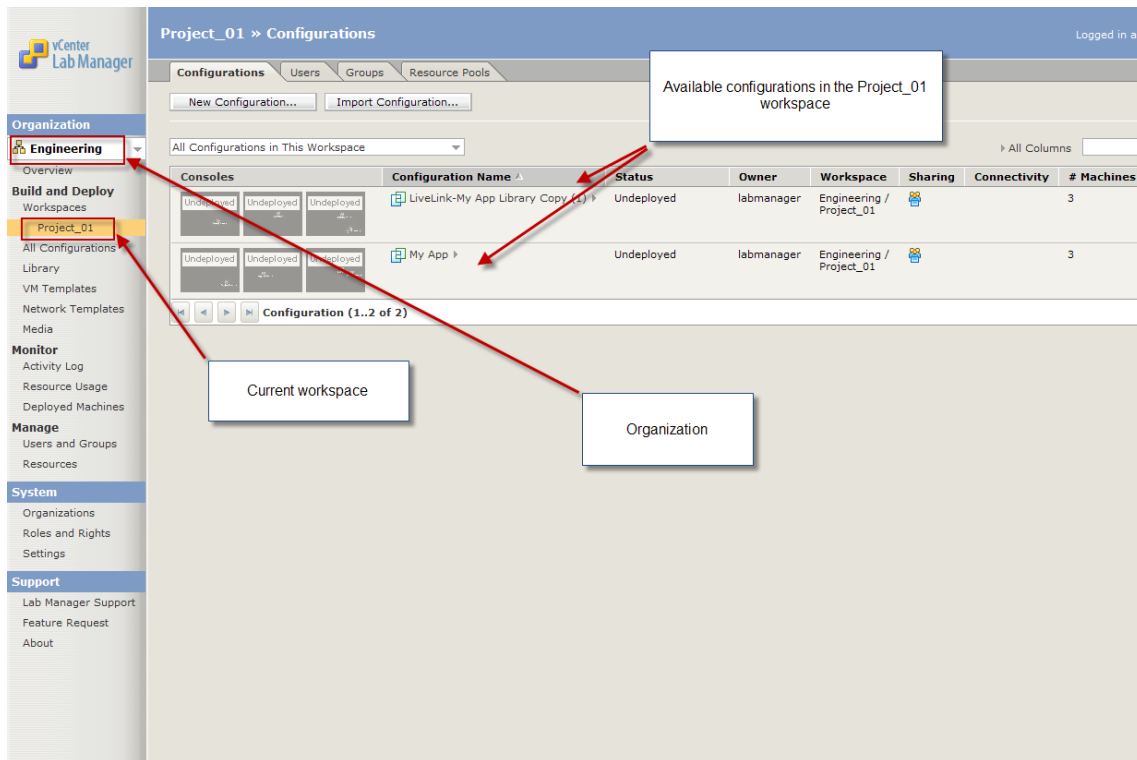
VMware vCenter Lab Manager 4 introduces the concept of multiple workspaces within organizations. Multiple workspaces allows administrators to enable use cases such as managing the transition of applications from development to production or transferring configurations from support to development for further analysis and testing.

Every newly created organization is populated with a single workspace called “Main”. This workspace is designated as the primary workspace for that organization. The primary workspace of an organization automatically inherits all resources and users added to the organization, enabling identical user experience to Lab Manager 3.

Private and Shared workspaces

In Lab Manager 4, administrators can now create additional workspaces within organizations. These additional workspaces may be private workspaces, in which all configurations are by default visible only to their owners, or shared workspaces, in which all configurations are by default visible to anyone in the workspace. Private workspaces are ideally suited for development and test organizations wherein users work primarily on their own instances of applications. Shared workspaces are more appropriately suited to the process of bringing applications through a path to production, in which users interact on a single instance of the application to ensure its readiness for deployment.

Figure 3. Multiple workspaces in VMware vCenter Lab Manager 4. The left pane indicates the context of your session and allows you to easily switch to other workspaces and organizations that you are a member of.



Sharing and Moving configurations

In Lab Manager 4, administrators can share configurations between users, workspaces, and other organizations. Configurations can be shared by mousing over the configuration name, selecting **Sharing** from the menu and choosing who you wish to share the configuration with. When a configuration is shared, it can be cloned across workspaces or even organizations.

Lab Manager 4 application administrators can now move configurations in state from one workspace to another. Configurations can be moved by mousing over the configuration name, selecting **Move** from the menu and choosing the workspace you wish to move to. Lab Manager 4 only allows moves across workspaces inside an organization. Lab Manager 4 moves the virtual machines in the configuration from the source to the target workspace by migrating virtual machines from source to target resource pools. Configurations cannot be moved across organizations.

Figure 4. Moving a configuration from Staging to Production

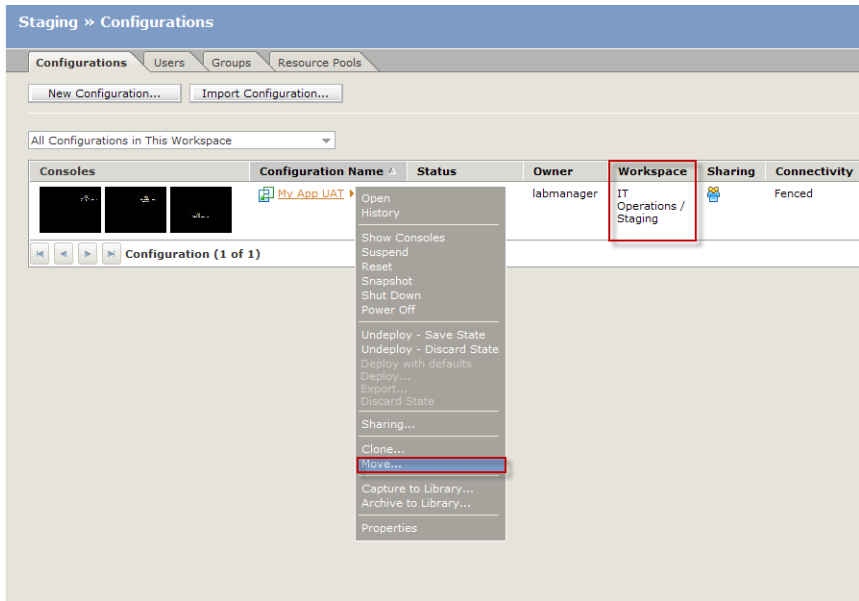
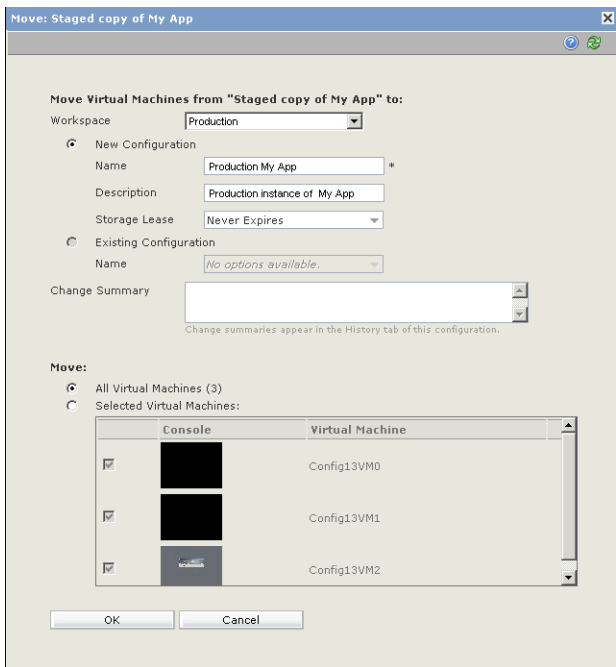


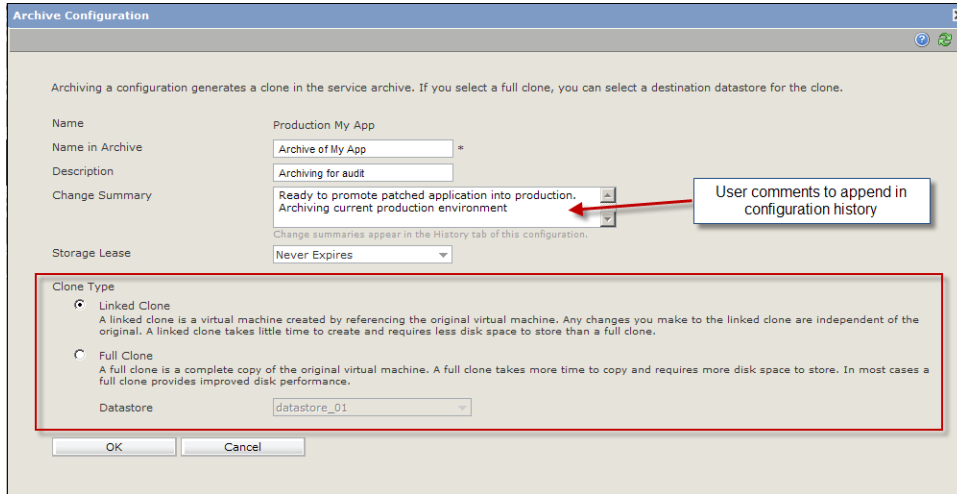
Figure 5: Selecting target workspace Production to move the configuration



Archive to Library

Lab Manager 4 provides the ability keep a particular configuration together with its change history for record within the library. Archive uses link or full clone technology to create an archived copy. After archive, user can delete the original configuration since it can be restored from the archive at any time. All users for the service can access the archived configuration to clone a new configuration from it. Configurations can be archived by mousing over the Configuration name and selecting **Archive to Library**.

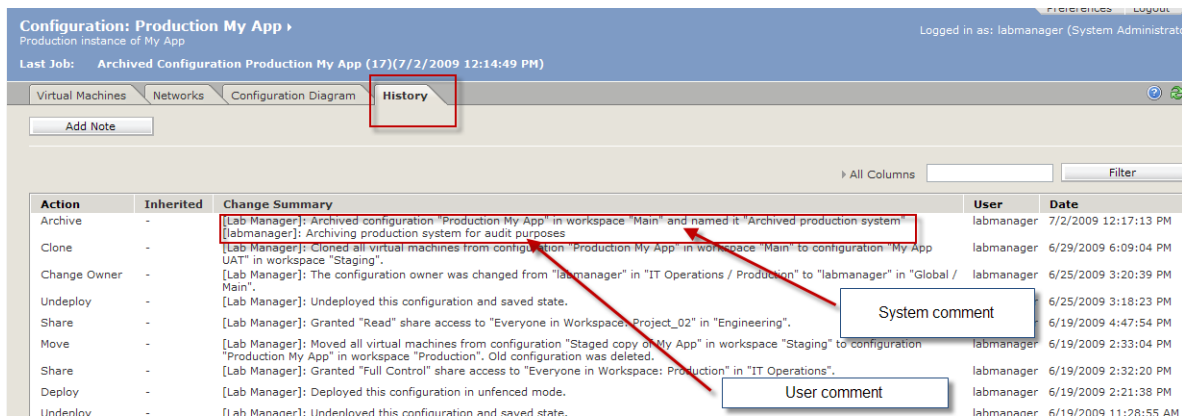
Figure 6: Archiving a configuration



Configuration History

Lab Manager 4 provides a new configuration history tab for all configurations. The history of a configuration displays the list of the events related to this configuration. In addition, to default system generated entries for all events, users can append comments when performing actions on configurations. Configuration history can be accessed by mousing over the configuration name and selecting **History**.

Figure 7: Configuration history



Next Steps

Additional Documentation

For more information about VMware vCenter Lab Manager 4, please visit the product pages at <http://www.vmware.com/products/labmanager>

Below are some links to online documentation:

- [Product Documentation](#)
- [Installation Guide](#)
- [User's Guide](#)
- [SOAP API Guide](#)
- [VMware vCenter Lab Manager Community](#)
- [Support Knowledge base](#)

VMware vSphere and VMware vCenter Server Resources:

- [Product Overview](#)
- [Product Documentation](#)

VMware Contact Information

For additional information or to purchase VMware vCenter Lab Manager 4, VMware's global network of solutions providers is ready to assist. If you would like to contact VMware directly, you can reach a sales representative at 1-877-4VMWARE (650-475-5000 outside North America) or email sales@vmware.com. When emailing, please include the state, country, and company name from which you are inquiring. You can also purchase VMware vCenter Lab Manager 4 [online](#).

Providing Feedback

VMware appreciates your feedback on the material included in this guide, and in particular, would be grateful for any guidance on the following topics:

- How useful was the information in this guide?
- What other specific topics would you like to see covered?
- Overall, how would you rate this guide?

Please send your feedback to tmfeedback@vmware.com, with "What's New with Lab Manager 4" in the subject line. Thank you for your help in making this guide a valuable resource.



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