



What's New Document

Version 3.0 for Linux

Learn more at www.swsoft.com/virtuozzo

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Key Theme: New Architecture

Virtuozzo for Linux 3.0 marks a major milestone in the architecture of Virtuozzo. The entire release reflects major changes in architecture and design that enable much greater flexibility and improve the overall management and capabilities of the base virtualization engine and the supporting toolset.

The new architecture enables the following major advances:

- Live Migration
- Dual Linux Kernel Support 2.4 and 2.6
- New Template Management
- New Resource Management

Major New Feature Overview: Virtuozzo Server Core

- 1. Live Migration** – Virtuozzo for Linux 3.0 introduces one of the most exciting new advances in Virtuozzo technology! Live Migration captures the state of an existing virtual private server and its contents, and migrates it to a new physical server without any interruption in service or availability. The migration capability is an integrated part of the Virtuozzo product offering and it executes between any two networked Virtuozzo servers. Virtuozzo brings live migration to any server, any application.
- 2. Resource Management** – The resource management engine is now more flexible. Administrators that would like a fine level of control and detail can continue to use the set of 30+ parameters, those administrators that would like a smart configuration with a few settings that create and control a VPS easily and accurately may choose the new streamlined resource management option. For example, rather than several different memory settings, administrators are now able to designate a set amount memory such as 256 MB, and the underlying settings are automatically designated.
- 3. 2.6 Kernel Support** – Virtuozzo now supports distributions based on the 2.6 Linux kernel. It is also backward compatible for 2.4 distributions so older VPSs and applications do not necessarily need to be upgraded to reside on the same Virtuozzo server.
- 4. Expanded CPU Support** – Virtuozzo for Linux now has better SMP scalability, supporting 32+CPUs on a server. It also features a more efficient CPU scheduler.
- 5. Native Posix Thread Library (NPTL)** – Support One of the biggest advances that Virtuozzo leverages in the new 2.6 kernel is full support of NPTL which enables high levels of performance and improved hyper threading.
- 6. Improved Java Performance** – Further leveraging the advances in the 2.6 kernel, Virtuozzo for Linux 3.0 now enables improved Java performance. For example tests using the VolanoMark™ benchmark test showed a performance increase of more than 200%.
- 7. Enhanced Multi-threaded Application Performance** – Advances in the 2.6 kernel now enable Virtuozzo for Linux to provide improved performance on multi-threaded applications.

8. Expanded OS Support – Virtuozzo supports Fedora Core 4.0, CentOS 4.0 and Red Hat Enterprise Server 4.0 on both the host system and the guest virtual private server levels. The 2.6 kernel support includes immediate distribution support and NPTL enabled templates for: Fedora Core 3* and 4*, Suse Enterprise Linux Server 9, Red Hat Enterprise Server 4* and CentOS4*. * Templates are featured in the new EZ template management.

9. Better I/O Performance – Virtuozzo for Linux 3.0 features greater performance in the very important I/O performance parameter.

10. Virtualized Free Output Inside VPS – This new display provides the VPS owner with a complete and accurate accounting of used and available resources.

Major New Feature Overview: Management Tools

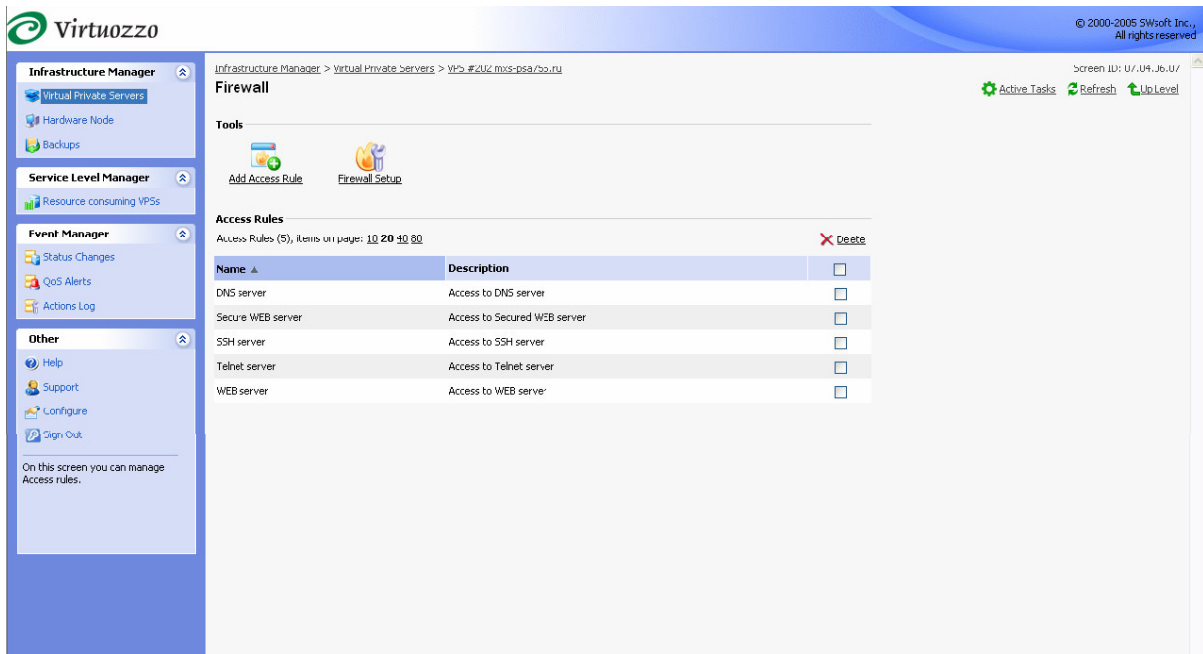
11. EZ Template Management – Templating is one of the unique capabilities of Virtuozzo and EZ template makes the technology that much more powerful and simple to use. The new EZ template management feature enables smarter template creation; templates are loaded and immediately resolve software dependencies for running the templated application. EZ templates make it even easier to keep software updated, and it is flexible enough for providing servers that can be either administratively.

12. VPS Provisioning Workflow (Request) – How do organizations and customers request a new VPS? Virtuozzo now takes into consideration the provisioning workflow of an IT department and automates the process, making it even easier to manage large server and Virtuozzo installations. The Virtuozzo toolset provides a simple interface to help endusers easily request a VPS, and the Virtuozzo administrator can provision the requested VPS with a single mouse click.

The screenshot shows the Virtuozzo Management Console interface for creating a new VPS. The page is titled "New VPS" and includes a navigation breadcrumb: "Infrastructure Manager > Virtual Private Servers > VPS Orders > Review Order". The left sidebar contains several management sections: "Infrastructure Manager" (Virtual Private Servers, Hardware Node, Backups), "Service Level Manager" (Resource consuming VPSs), "Event Manager" (Status Changes, QoS Alerts, Actions Log), and "Other" (Help, Support, Configure, Sign Out). The main content area is divided into sections: "Configuration" (Select VPS Template: vps_2048MB, Operating System / Version: redhat-9 / 20050726 (latest), Customize QoS settings: checked), "Network" (Hostname: test1, IP Address, DNS Server IP Address, Search Domain), "Password" (Root password, Retype password), and "Advanced" (Select VPS ID, Disable this VPS, Start VPS after creation: checked, Start on Hardware Node boot). The bottom right corner shows "Active Tasks" and "Up Level" buttons. The footer of the console displays "© 2000-2005 SWsoft Inc., All rights reserved" and "Screen ID: 08.01.01.03".

The Virtuozzo administrator can configure certain pre-determined VPS configurations common to the organization, end-users select the appropriate configuration which automatically is displayed in the Virtuozzo Management Console or Control Center.

- 13. Firewall Configuration Enhancements** – The supported software firewalls now are easier to manage with more user-friendly and goal-oriented terminology such “disable DNS access”.



- 14. Improved vzctl enter Interface** – A new full screen, fully functional terminal session allows easy direct execution of commonly used command vzctl. The interface enables direct connection to the VPS without redundant password activations; this interface is a complete and safe backdoor to VPSs.
- 15. Multi-VPS Commands** – Select multiple VPSs to execute commands once across several virtualized servers.
- 16. Expanded Virtuozzo Control Center (VZCC)** – The VZCC becomes more powerful with added vzup2date access. Vzup2date is the online automatic Virtuozzo update tool that helps users maintain the appropriate patch and software update levels.

Infrastructure Manager > Hardware Node
Screen ID: 08.01.04.15

System Update

Active Tasks
Refresh
Up Level

This screen will help you to update Virtuozzo installation by means of latest Virtuozzo packages located on SWsoft update repository.

Repository Settings

Repository URL `http://vzup2date.eng.sw.ru/current.qa`

[Configure](#)

Install Latest Virtuozzo Version

New Virtuozzo version 3.0.0 is available. You may either move on to the latest version or apply the updates for your current installation only.

- Virtuozzo version 3.0.0

[View Details](#)

[Install New Version](#)

Install Updates For Virtuozzo 3.0.0

The latest available Virtuozzo updates for your existing Virtuozzo 3.0.0 installation:

- Virtuozzo tools update 2.6.2-70

[View Details](#)

[Install Updates](#)

17. Expanded Virtuozzo Power Panel (VZPP) – The VZPP becomes more powerful with added file manager. The file manager is now available for the first time to end users of VPSs to help enable self-management of files.