



Provisioning Expert for Linux on z/VM

Simplify Linux Management under z/VM.

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With Provisioning Expert for Linux on z/VM, a non-Linux or non-z/VM expert can easily create, configure, and maintain many virtual Linux instances under z/VM.

- ▶ Reduce management costs by eliminating physical footprints
- ▶ Eliminate errors with accurate configuration of Linux instances
- ▶ Centrally view and manage all Linux instances
- ▶ Provide efficient and automated resource utilization

Creating Linux guests under z/VM can be challenging because Linux administrators don't understand z/VM and most mainframe administrators don't understand Linux. Provisioning Expert simplifies the process of placing Linux within the powerful technology of z/VM.

Openly extensible for easy customization

Provisioning Expert exploits existing standards instead of relying on proprietary databases or "yet another" vendor-specific approach. This results in a strategic, flexible solution that you can rely upon as you implement and continue to deploy and maintain Linux in your environment.

Simplifies system management

Provisioning Expert significantly simplifies the management of the Linux instances, putting the information you need at your fingertips and including customizable options to fit your unique environment.

Here are some exciting new features in PE V1.5, which was released in August 2008:

Support for RHEL 5

Provisioning Expert is now supports RedHat Enterprise Linux (RHEL) version 5, including SELinux.

Support for FCP-attached SCSI

Provisioning Expert now supports the creation of filesystems for instances on FCP-attached SCSI devices on Linux 2.6 kernels.

User Guide

A book describing how to use Provisioning Expert.

Support for Multiple DASD Pools

DASD can be organized into specific pools for DASD allocation when configuring a snapshot, instance, or filesystem.

DASD Clear Option

Optionally clear (erase) DASD when it is freed and returned to its pool, for security purposes.

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Eliminate Errors with Quick and Accurate Linux Instance Creation

The process of manually creating Linux instances is tedious and time-consuming with a significant risk of human error. By using Provisioning Expert's wizard-like interface, you can create and configure error-free Linux instances in a matter of minutes instead of hours.

Create and Configure Linux Instances in Just a Few Short Steps

Manually creating Linux instances from scratch requires numerous steps, most of which must be repeated for every new Linux instance. Can you imagine creating hundreds of Linux instances by hand – while under pressure to provide services immediately?

With Provisioning Expert, you can create, configure, update, and remove Linux instances quickly, easily, and accurately – reducing the time and effort involved without sacrificing efficiency and accuracy.

For even greater gains in productivity, you can use standard Linux scripting techniques to automate operations to fit your environment:

- ▶ Schedule the creation of Linux instances.
- ▶ Set automated operations to respond to external events, such as demands for additional resources.
- ▶ Integrate operations into existing system management frameworks.

Web-based Graphical User Interface

Enjoy an easy-to-use graphical user interface (GUI) that can be accessed from any workstation. Create any number of Linux instances or implement changes by simply making a few selections and pressing a button. No knowledge of z/VM – and very little knowledge of Linux – is needed. Access to the web interface is password-protected for assured security.

- ▶ Easily configure Linux instances for different purposes, such as web, mail, or database servers, and create multiple instances of them.
- ▶ Destroy a Linux instance to reclaim its resources and re-create it again later with a few mouse clicks.
- ▶ Start and stop Linux instances at will without having to track down the necessary script in the right folder on the right system.

Provisioning Expert for Linux on z/VM

MAIN STAR

User Name: sharik
Base System: SUBRC631.rocketsoftware.com

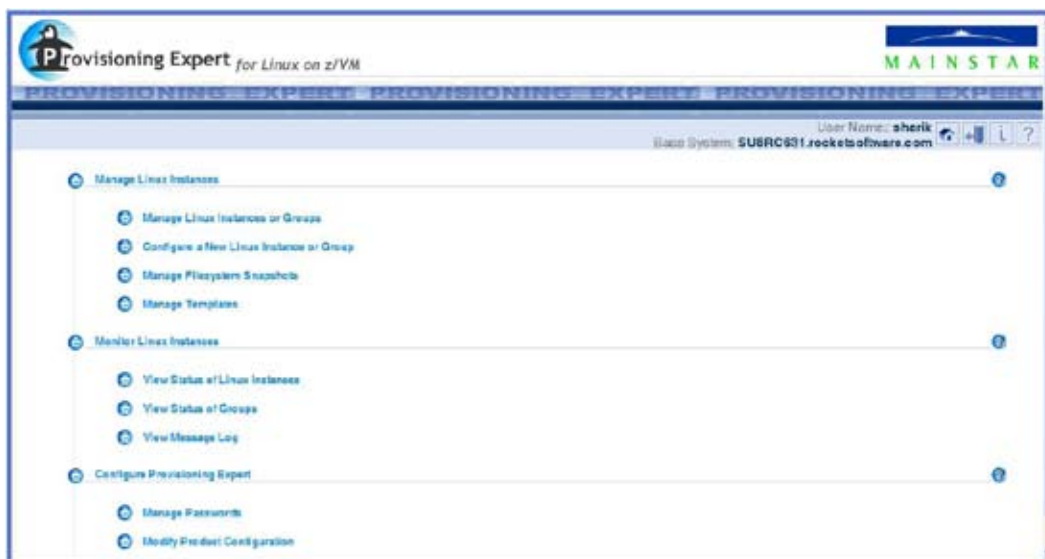
List of All Linux Instances

Auto-Refresh: 0 secs. Total of 11 Linux instances.

	Linux Instance Name	Current State	VM Guest ID	IP Address
1	guest	uncreated	PASS	
2	george	down	GEORGE	192.168.22.161
3	george-1	uncreated	GEORGE1	
4	host	uncreated	CMHOST	
5	paul	uncreated	PAUL	
6	craig	running	CCMNE	192.168.22.21
7	Telnet2B	uncreated	TELNET2B	192.168.22.20
8	Telnet2C	uncreated	TELNET2C	
9	stanisor	running	MSTSMR	192.168.22.38
10	tbo	down	MTBO	192.168.22.37
11	wpm	down	MWPM	192.168.22.40

Cancel Back Find Finish

Total of 11 Linux instances.



Flexible Configuration Templates

Achieve day-one productivity with out-of-the-box templates designed for the most common types of servers. The types of configuration information in the templates include boot-time services, user accounts, network topology, and more. These templates can be used as provided or modified to contain site-specific configuration information.

You can also create your own custom templates containing configuration parameters that are specific to your environment. Simply define specific parameters or copy the parameters from a Linux instance and generate a template. For example, if your company wants to set up several Linux instances to test new software or system updates before installing them on your production Linux instances, you can define a template for your test Linux instances and then create, deploy, and manage these test Linux instances at will.

Simplify Linux Instance Maintenance

Eliminate the need to manually maintain each individual Linux instance with an update feature. Easily apply software updates and system patches to a base Linux instance. Quickly and accurately propagate the changes to any or all Linux instances. Changes can be backed out just as easily.

Minimize DASD Usage

Minimize the DASD requirement for each Linux instance by aggressively sharing DASD among all the Linux instances. Each Linux instance created requires less than 100 MB of unshared DASD, compared to the approximately 2 GB required when creating a Linux instance from scratch.

Full Status Reporting

View and manage Linux instance groups through a focal-point interface with drill-down to the individual Linux instance level.

- ▶ Message Log: messages from all Provisioning Expert processing.
- ▶ Linux Instance Status: a list of all Linux instances and information about each Linux instance such as its name, current state, VM guest name, and IP address.
- ▶ Group Status: a list of all groups and information about each group such as the group name, total number of Linux instances in the group, and the number of Linux instances in each state.

Find Out More

Visit www.mainstar.com for technical articles and additional information on how Provisioning Expert and Mainstar's other innovative data access solutions can help you.

Why Provisioning Expert?



To find out for yourself how Provisioning Expert can help you create and manage Linux instances on z/VM more cost-effectively and accurately, contact us at product_info@mainstar.com to arrange a personal briefing or a free trial.

Product Specifications

Hardware requirements

- ▶ Any hardware that supports z/VM
- ▶ At least 4GB of DASD

Software requirements

- ▶ Any supported release of z/VM
- ▶ A SMAPI-enabled Directory Management tool, such as z/VM Directory Maintenance Facility (DirMaint) V1R5.

- ▶ REXX Runtime Library or IBM Alternate Library for REXX on zSeries
- ▶ SUSE SLES-8, SLES-9 or SLES-10 Linux on zSeries
- ▶ Red Hat Enterprise Linux V4 or V5
- ▶ Netscape Navigator or Internet Explorer 5.0 or higher, or Mozilla Firefox 1.2.1 or higher for using the optional graphical user interface
- ▶ Apache Web Server

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Feature	What It Does	Benefit
Web-based graphical user interface	Creates, configures, starts, stops, copies, updates, runs commands on, or destroys Linux instances at the click of a button	Improve productivity and reduce the chance of error.
Systems management capabilities	Organizes Linux instances in groups and subgroups as specified by you for your unique environment.	Simplify the management of Linux instances.
Sharing DASD	Select from several filesystem layouts to share DASD between Linux instances. Options range from aggressively sharing as much DASD as possible, to sharing none at all.	Significantly reduce the amounts of DASD required for running Linux instances.
Single Linux distribution installation	Copies all Linux instances from a single Linux installation, using the most current Linux distribution as the base Linux instance.	Save time by eliminating the need to install multiple Linux distributions and to make complicated updates to the base Linux instance.
Convenient configuration templates	Includes templates for many common types of servers.	Achieve greater productivity on day one.
Openly extensible	Uses XML documents to define configuration templates so that you can quickly update them as needed.	Customize templates strategically to suit the needs of your environment.
Full status reporting	Provides a focal-point interface to view and manage all your Linux instances.	Know the status of all instances immediately.