

zPRO

Powerful, Easy to Use Cloud Management for Linux on IBM Z

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The Challenges Today

Three big problems *we all* face to keep z/VM thriving

- Executives want to move to “the cloud” (off-premise)
- Loss and lack of z/VM skills / people
- Lack of solid products or leadership in this space

The Magical Cloud

- **Executives get sold on “the cloud” being:**
 - Easier
 - Cheaper
 - Faster
 - Requiring fewer FTE
 - Able to run everything in the datacenter
 - More secure (are you laughing yet?)
- **They buy into it, especially when:**
 - Anti-mainframe people/executives are pushing it
 - Hidden agendas
 - They want a short-term win on their resume

zPRO support for Z cloud

zPRO leverages the *strengths of z/VM*

- All the great tools in z/VM; CMS, REXX, Pipelines, networking capabilities, memory management, communications – we use it all and more
- Very dynamic – extensible
 - zPRO allows you to define different exits, additional APIs, process-windows (called DIRMODELS) and more, to fit your specific needs.
- Enables quick solutioning – both in speed and time
 - zPRO makes managing Linux on z very easy for systems programmers, end-users, operations, management and potentially other groups. It allows you to designate privileges to other users to build and manage their own servers within the guidelines and scope established by YOU.
- **Simple, Fast, Lightweight and Reliable** - This is the premise of zPRO and our commitment to you. There are no other requirements other than z/VM and zVPS to run zPRO!

Why zPRO

- **z/VM Cloud Self Service**
 - Clone (provision), modify, start, stop, move, delete servers
 - Linux w/Oracle, Websphere, etc – any z/VM guest
 - Define server expirations
 - Useful for LAB, test or proof-of-concept servers
 - Selective resource controls and quota management
 - Hierarchical control from global, to group, to user to server
 - SSI / LGR (live guest relocation) support

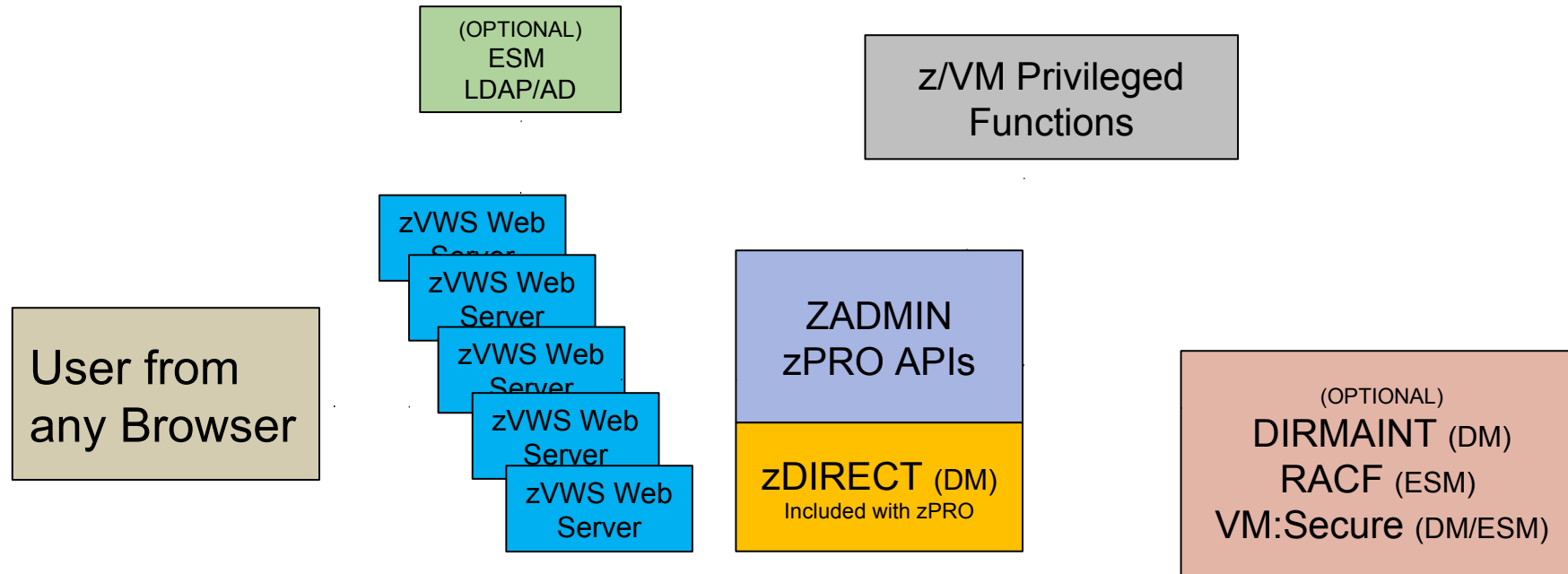
zPRO support for platform

- **Utilizes the zVWS *native* z/VM web server**
 - UI is completely browser-based (remember, no Java Elephant!)
 - **Installs in about 10 minutes***
 - **Velocity Software** is the only vendor to provide a native z/VM Web Server
- **Authentication support via zVWS**
 - VM / LDAP / AD / your own
- **Exceptionally Extensible** (™ 😊)
 - Can define and “plug in” site-defined services
- **Manage your entire enterprise from one session**
- **Supports common directory/security management**
 - zDIRECT is *included* for Directory Management - with or without RACF

Keep It Simple, Silly!

- **What you DON'T want to deal with:** “If a [WAVE/XCAT/CMA] action fails with a return code of -3, verify that you have enough [SMAPI] worker machines to handle the workload. If needed, add more [SMAPI] worker machines.”
- **zPRO** uses workers for tasks too and if it needs more, it ***dynamically adds more*** and then removes them when complete
 - You don't have to dread real work failing and then have to react after it happens

Overview



zVPS includes zVWS, which installs five webservers along with ZADMIN by default. zPRO uses the webservers and ZADMIN to perform all of its required functions. The ZADMIN virtual machine handles the privileged commands and interfaces with the Directory Manager (DM) and External Security Manager (ESM), if present. If there is no DIRMAINT or VMSECURE available, zPRO is shipped with a zDIRECT feature that will handle all the zPRO-required directory maintenance processes for you, while allowing you to maintain the CP Directory manually for other needs.

Customer quote

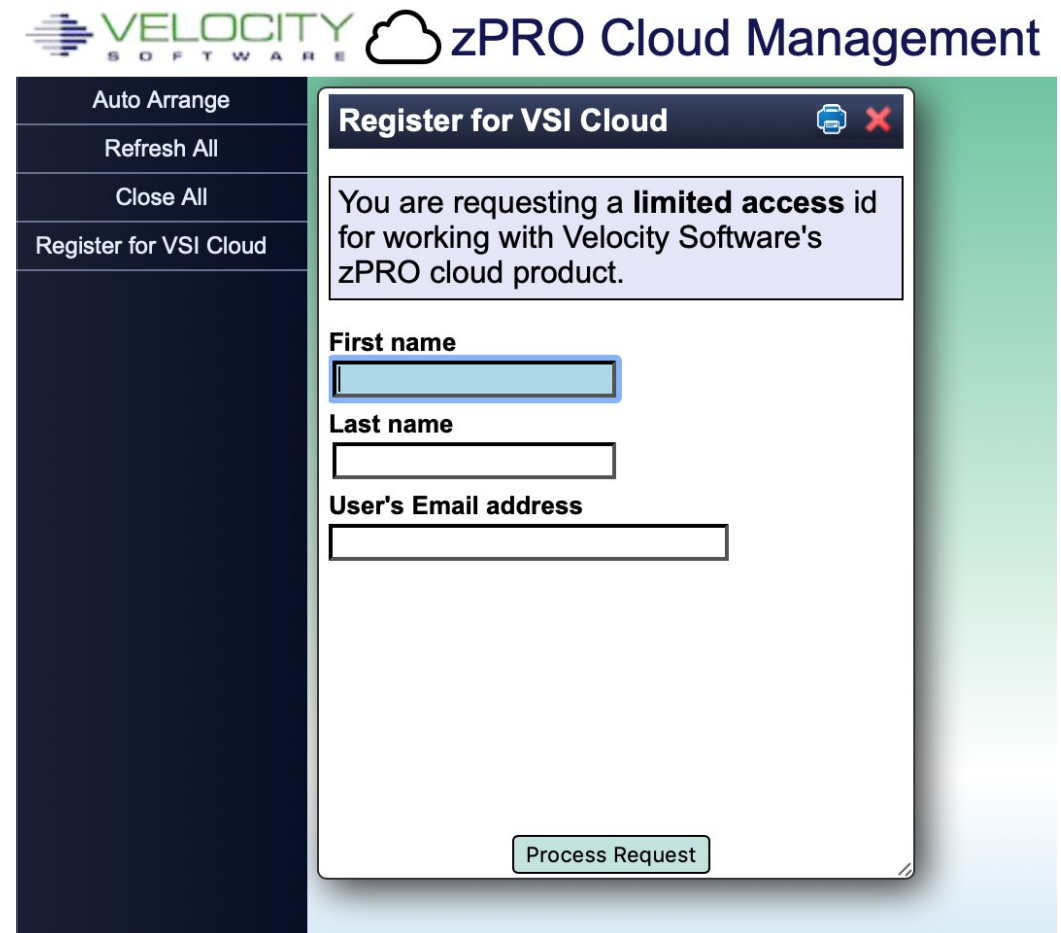
- “After the second week of {bleeping} around with {product} and still not getting it to work, we gave up. I had zPRO [running] on four systems before lunch.”
--- z/VM Sysprog
- <customer> spent 4 months getting {product} to clone a server in 2 hours!!
- We (seriously experienced VM people) tried Open Stack, CMA, XCAT with absolutely NO success

Velocity's zPRO Cloud Demo Site

- To register: <https://demo.velocitysoftware.com/zpro/>
 - Userid: **demozpro**
 - Password: **demodemo**
- Check your email for your login info

Our Cloud Demo site will allow you to register for your own userid. You can then use that userid to create, manipulate and use a selection of servers through zPRO.

It is a full zPRO system that is running the same code we ship to our customers. **Note** that Demo userids only have access to a subset of zPRO functions and are limited in authorizations.



VELOCITY SOFTWARE zPRO Cloud Management

Auto Arrange
Refresh All
Close All
Register for VSI Cloud

Register for VSI Cloud

You are requesting a **limited access id** for working with Velocity Software's zPRO cloud product.

First name

Last name

User's Email address

Process Request

Sign-in

Login to zPRO is simple – you are presented with a userid/password prompt to enter your zPRO defined information.

Your credentials can be validated on z/VM directly, through LDAP/AD, or any credential verification process that can be implemented via the available security exit.

zPRO Cloud Management - VSIVM4



Userid

Password

Welcome to the Velocity Software zPRO Demo Site

Velocity Software maintains a cloud for demonstration purposes and for supporting your education needs.

If you do not yet have a Demo System userid, login with the userid of **DEMOZPRO** and password **DEMODEMO** to create one.

If you need assistance, contact support@velocitysoftware.com



Enterprise Functions

DEMOSYS **CUSTOMER** DEVELOPMENT

zPRO Enterprise allows the configuration and management of any server in any non-SSI z/VM system.

z/VM in an SSI is already Enterprise ready (for members in the cluster).

zPRO tables will provide information from all connected systems.

zPro forms present a list box to select on which system to perform a certain function.

DEMOSYS **CUSTOMER** DEVELOPMENT

Server List for RKSDEV (ADMIN view)

X Search Criteria ...

Sel	Server	Hostname	Owner	Group	Expiration	System	Status
<input type="checkbox"/>	DXTDEV		JAMES	ADMIN	NONE	VSIVM2	Not Running
<input type="checkbox"/>	IPGATE2		JAMES	ADMIN	NONE	VSIVM2	Not Running
<input type="checkbox"/>	DEMODGR4		DGRUSER	DGRGROUP	21 Dec 2020 - 06:53:43	VSIVM1	Running
<input type="checkbox"/>	LXORA12		JAMES	SELSERV	1 Mar 2020 - 05:47:15	VSIVM1	Not Running (Disabled)
<input type="checkbox"/>	TDNALG		TDNCSI	DEMO	NONE	VSIVM1	Not Running
<input type="checkbox"/>	DAVEL2		ADMIN	ADMIN	NONE	VSIVM4	Not Running
<input type="checkbox"/>	DEMOBLK		BARTON	ADMIN	NONE	VSIVM4	Not Running
<input type="checkbox"/>	DEMODGR1		DGRUSER	DGRGROUP	21 Dec 2020 - 06:52:56	VSIVM4	Not Running
<input type="checkbox"/>	DEMODGR2		DGRUSER	DGRGROUP	21 Dec 2020 - 06:53:14	VSIVM4	Not Running
<input type="checkbox"/>	DEMODGR3		DGRUSER	DGRGROUP	21 Dec 2020 - 06:53:27	VSIVM4	Not Running
<input type="checkbox"/>	DEMODGR4		DGRUSER	DGRGROUP	21 Dec 2020 - 06:53:43	VSIVM4	Not Running (Disabled)
<input type="checkbox"/>	DEMODGR5		DGRUSER	DGRGROUP	21 Dec 2020 - 06:54:15	VSIVM4	Not Running (Disabled)
<input type="checkbox"/>	DEMODGR6		DGRUSER	DGRGROUP	21 Dec 2020 - 07:19:04	VSIVM4	Not Running
<input type="checkbox"/>	DEMODGR7		DGRUSER	DGRGROUP	22 Dec 2020 - 04:19:26	VSIVM4	Not Running
<input type="checkbox"/>	DEMOLGR1		ADMIN	ADMIN	1 Nov 2023 - 00:00:01	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	DSA0001	dsa0001	TDNCSI	TONY1	NONE	VSIVM4	Not Running

Start Stop Restart Move Delete View Log Edit MDisks LINKs View Dir

Enterprise Functions

zPRO dialogs present a list box to select on which system to perform the function.

DEMOSYS CUSTOMER DEVELOPMENT

Clone a Virtual Machine

? Print Close

Target System

- ✓ Select target...
- DEMOSYS
- CUSTOMER
- DEVELOPMENT

No. Cpus

Memory Size

Days to expiration

Auto Start Server

**Optional (blank field for no email):
Email address to send notification to**

Your Return Email address

New ID

Password

Verify Password

Account No.

Provisioning

There are many ways to provision servers in zPRO. This shows you two different ways. The first is a self-defined server creation (Clone a Virtual Machine). This approach allows the user to define a new server and set specific resource characteristics.

Upon successful creation, this process will cause an email notification to be sent to the requestor. Optionally, the target email address can be changed if perhaps it is being built for someone else.

Clone a Virtual Machine

Target System
Select target... ▾

Image to Copy
DEFLNXRO ▾

New ID

Password

Verify Password

Account No.
N/A ▾

No. Cpus
1 ▾

Memory Size
1 G ▾

Days to expiration

Auto Start Server

**Optional (blank field for no email):
Email address to send notification to**

Your Return Email address

Provisioning (cont.)

The second provision model is a self-contained definition where all the details are pre-defined for the user.

In this example, a provision model for a RHEL 7 server and one for a z/VM 6.4 2nd level guest is presented.

All the user has to do is click one button to provision the new server. They will receive an email on completion with any additional instructions or information on the new server.

The screenshot displays the VELOCITY SOFTWARE zPRO Enterprise Cloud Management VSIVM4 interface. The top navigation bar includes the Velocity Software logo and the text "zPRO Enterprise Cloud Management VSIVM4". Below this, there are tabs for "DEMOSYS", "CUSTOMER", and "DEVELOPMENT".

The left sidebar contains a menu with the following items:

- Auto Arrange
- Refresh All
- Close All
- Administration (with a green down arrow)
- Create Servers (with a green up arrow)
- Build multiple Virtual Machines from one Gold Image
- Clone a Virtual Machine
- Clone second level z/VM 6.4
- Request CMS virtual machine
- Request Full SLES 11 Linux
- Request Minimal SLES 11 Linux
- Request RHEL 7.4 Server
- Request SLES Linux with Oracle
- Request Ubuntu 16.04 Linux
- Request Ubuntu 17.10 Linux
- Request Ubuntu 16.04 Server
- Request z/VM 6.4 Virtual Machine

Two modal windows are open in the main area:

- Request RHEL 7.4 Server:** This window has a title bar with a printer icon and a close icon. It contains a "Hello" message, a text input field with "Rich Smrcina", a message box stating "You are about to request the generation of a Redhat Linux server.", a checked checkbox for "Do you wish to start server", and a "Details will be sent to:" field with "rich@velocitysoftware.com". A "Process Request" button is at the bottom.
- Request z/VM 6.4 Virtual Machine:** This window has a title bar with a printer icon and a close icon. It contains a "Hello" message, a text input field with "Rich Smrcina", a message box stating "You are about to request the generation of a z/VM 6.4 virtual machine", an unchecked checkbox for "Auto Start Server", and a "Details will be sent to:" field with "rich@velocitysoftware.com". A "Process Request" button is at the bottom.

Provisioning Status

When you create a new server, zPRO will give you the initial status and IP (if assigned). It will also open the Job Queue window to allow you to know the status of the new server generation process.

Some server clone processes will take time; the Job Queue gives you a way to know what the status is of the new servers.

Clicking on the server information in the Job Queue will open the Audit log for that server... (see next slide)

The screenshot displays the zPRO provisioning interface. At the top, there are three tabs: DEMOSYS, CUSTOMER (selected), and DEVELOPMENT. The main window is titled 'Request RHEL 7.4 Server' and contains the following elements:

- Hello**: A text input field containing 'Rich Smrcina'.
- You are about to request the generation of a Redhat Linux server.**
- Do you wish to start server**
- Details will be sent to:** A text input field containing 'rich@velocitysoftware.com'.
- Process Request** button.
- Notification**: A red box at the bottom left states 'DEMOSYS - Image RKSSVR10 creation started X Assigned IP address 10.0.0.13 Dev(0600)'.

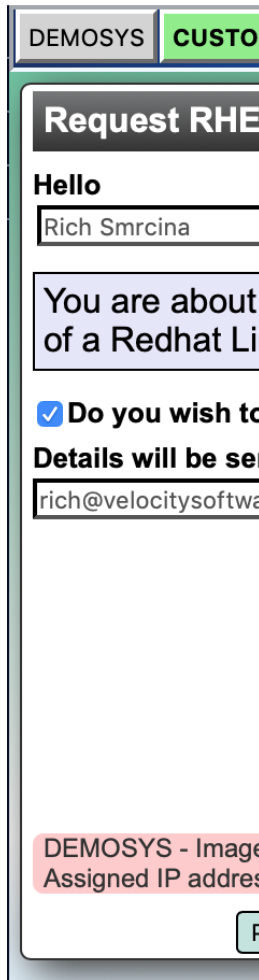
The 'Job Queue' window on the right shows the following information:

- Job Queue** header with refresh, print, and close icons.
- Completed Job**: 'RKSSVR10 - CLONE Completed 7 Jan 2020 06:00:38' with a sub-message 'RKSSVR10 has been autostarted'. A dashed green box highlights the message 'Disk 0200 - Create ended successfully'.
- No active jobs found on CUSTOMER** (yellow box).
- No active jobs found on DEVELOPMENT** (yellow box).
- Clear Completed Jobs** button at the bottom.

Provisioning Status

After creating a server in this way, zPro can be set up to send out an email telling the user about their server and how to access it.

Email templates are delivered with zPro that can be tailored to deliver the exact message required.



zPRO

New Linux Server - RKSSVR10

To: Rich Smrcina,

Reply-To: sysadmin@velocitysoftware.com

Dear Rich,

A new Linux server has been generated on your behalf. You may connect to this id by

- using putty, set the host name to zcloud.velocitysoftware.com
- configure the port to 8132
- you can sign into the "root" id using a password of "vsidemo" for overall Linux administration
- you can sign into the "vsidemo" id using a password of "vsidemo" for general user access

To access the Apache web services running in this system, point your browser to <http://zcloud.velocitysoftware.com:8138>

If you have difficulty using this user-id, please contact the system administrator at sysadmin@velocitysoftware.com

Regards,

System Administrator
Velocity Software, Inc.
sysadmin@velocitysoftware.com

Job Queue

RKSSVR10 - CLONE Completed 7 Jan 2020 06:00:38

RKSSVR10 has been autostarted

Disk 0200 - Create ended successfully

No active jobs found on CUSTOMER

No active jobs found on DEVELOPMENT

Clear Completed Jobs

Server Management

The Server Management menu items give you a multitude of ways to manage your servers.

You can add, change, and delete MDISKS, CPU and Storage size. You can change a servers VM password if needed. There is also a Set Virtual Machine Owner model to bring servers that were built outside of zPRO, under the zPRO umbrella of server management. This process also assigns “ownership” of servers to an end-user for subsequent server management. In addition, by using the “Unassign” feature servers can be removed from zPRO’s scope of management.

zPRO utilizes two “NOGO” lists, which identify virtual machines that can never be added to zPRO server management. zPRO is shipped with a standard list and you can define your own list locally. These are to protect system userids from inadvertently being added to zPRO.

The screenshot displays the zPRO Server Management interface. On the left is a navigation menu with options like 'Auto Arrange', 'Refresh All', 'Close All', 'Administration', 'Create Servers', 'Manage Gold Images', 'Manage zPRO Users', 'Reports', 'Server Management', 'Add a LINK', 'Add a Minidisk', 'Change a Minidisk', 'Change a Server's Password', 'Change Virtual Machine CPUs', 'Clone a Minidisk', 'Manage Guest Access', 'Manage Owned Servers', 'Relocate a Server (LGR)', 'Set Virtual Machine Owner', 'View CP Directory Entry', and 'View Resources'. The main area shows a table of virtual machines with columns 'Sel', 'Virtual Machine', 'SysID', and 'Owner'. The 'Set Virtual Machine Owner' dialog is open, showing a search bar and a table of VMs. The 'Add a Minidisk' dialog is also open, showing fields for 'Add to Server', 'Virtual Address', 'DASD Pool', 'Device Type', 'Cylinders / Blocks', and 'Access Mode'. The 'Change a Server's Password' dialog is open, showing fields for 'User Id', 'New Password', and 'Verify password'. Buttons for 'Process Request' are visible at the bottom of the dialog boxes.

Sel	Virtual Machine	SysID	Owner
<input type="checkbox"/>	\$DASD\$	VSIVM4	unassigned
<input type="checkbox"/>	\$EMPTY	VSIVM4	unassigned
<input type="checkbox"/>	BCLOUD	VSIVM4	unassigned
<input type="checkbox"/>	BLAKEMC	VSIVM4	unassigned
<input type="checkbox"/>	BLAKES11	VSIVM4	unassigned
<input type="checkbox"/>	BLURCV	VSIVM4	unassigned
<input type="checkbox"/>	CAVMM01	VSIVM4	unassigned
<input type="checkbox"/>	CAVMM02	VSIVM4	unassigned
<input type="checkbox"/>	CENTFBA	VSIVM4	unassigned
<input type="checkbox"/>	CENTOS66	VSIVM4	unassigned
<input type="checkbox"/>	CONSERVE	VSIVM4	unassigned
<input type="checkbox"/>	CONSPORT	VSIVM4	unassigned
<input type="checkbox"/>	DANIEL	VSIVM4	unassigned
<input checked="" type="checkbox"/>	DAVEL2	VSIVM4	ADMIN
<input checked="" type="checkbox"/>	DEMOBLK	VSIVM4	BARTON

Server Management (cont.)

Managing servers in zPRO is done in many ways. The “Display/Modify owned servers” menu item is the most commonly used method for this purpose. The table shows all the servers that you have access to manage, and details about each.

The row of buttons at the bottom of the window will include only operations that you are authorized to perform for any selected servers. Selecting one or more servers and clicking an action button will initiate the action FOR ALL SELECTED SERVERS. Confirmations are presented for anything that causes a state-change to the server (like stopping, deleting, etc) You can manage MDISKS and LINKS for each server from here also.

The screenshot displays the 'Server List for RKSDEV (ADMIN view)' window. At the top, there are tabs for 'DEMOSYS', 'CUSTOMER', and 'DEVELOPMENT'. The window title is 'Server List for RKSDEV (ADMIN view)'. Below the title bar is a search bar with the text 'Search Criteria ...'. The main area contains a table with the following columns: Sel, Server, Hostname, Owner, Group, Expiration, System, and Status. The table lists several servers, with some rows highlighted in pink. Below the table is a row of action buttons: Start, Stop, Restart, Move, Delete, View Log, Edit, MDisks, LINKs, and View Dir. On the left side of the window, there is a sidebar with various management actions, including 'Auto Arrange', 'Refresh All', 'Close All', 'Administration', 'Create Servers', 'Manage Gold Images', 'Manage zPRO Users', 'Reports', 'Server Management', 'Add a LINK', 'Add a Minidisk', 'Change a Minidisk', 'Change a Server's Password', 'Change Virtual Machine CPUs', 'Clone a Minidisk', 'Manage Guest Access', 'Manage Owned Servers', 'Relocate a Server (LGR)', 'Set Virtual Machine Owner', and 'View CP Directory Entry'.

Sel	Server	Hostname	Owner	Group	Expiration	System	Status
<input type="checkbox"/>	NCSX0403		NCSI0002	NCATGRP	3 Feb 2020 - 15:33:19	VSIVM4	Not Running
<input type="checkbox"/>	NCSX0404	ncsx0404	NCSI0002	NCATGRP	3 Feb 2020 - 14:15:32	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	NCSX0405	ncsx0405	NCSI0002	NCATGRP	3 Feb 2020 - 14:15:45	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	NCSX0406	ncsx0406	NCSI0002	NCATGRP	3 Feb 2020 - 17:04:18	VSIVM4	Running at VSIVM4
<input checked="" type="checkbox"/>	NCSX0407		NCSI0002	NCATGRP	3 Feb 2020 - 17:23:50	VSIVM4	Not Running
<input type="checkbox"/>	NETWATCH		ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	ORACLE	oracle	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	REDHAT7	redhat7.velocitysoftware.com	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RHKS NFS1	rhksnfs1.velocitysoftware.com	JAMES	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input checked="" type="checkbox"/>	RKSR7401	rksr7401	RKSDEV	VSITEAM	NONE	VSIVM4	Not Running
<input type="checkbox"/>	RKSSVR10	rkssvr10.velocitysoftware.com	RKSDEV	ADMIN	6 Apr 2020 - 06:00:25	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSUBU01	rksbu01	RKSDEV	VSITEAM	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSVM01	rksvm01	RKSDEV	VSITEAM	NONE	VSIVM4	Running at VSIVM4

Server Expiration

zPRO allows you to define servers with optional expiration periods. This can be handy for groups/users that you want to allow servers to exist for a finite amount of time.

There are different configurations you can set for expirations including the type of delete (a soft-delete where the server is disabled but still defined on the system, a hard-delete where the server is completely deleted and all associated resources are reclaimed or a notification-only). Notifications can be set up to go to the owner and the system admin before and as expiration actions occur.

Expiration target date/time can also be edited at any time.

The screenshot displays the 'Server List for RKSDEV (ADMIN view)' interface. At the top, there are tabs for 'DEMOSYS', 'CUSTOMER', and 'DEVELOPMENT'. Below the tabs is a search bar with the text 'Search Criteria ...'. The main area contains a table with the following columns: 'Sel', 'Server', 'Hostname', 'Owner', 'Group', 'Expiration', 'System', and 'Status'. The table lists several servers, including NCSX0403 through RKSVM01. A sidebar on the left provides various management actions such as 'Auto Arrange', 'Refresh All', 'Close All', 'Administration', 'Create Servers', 'Manage Gold Images', 'Manage zPRO Users', 'Reports', 'Server Management', 'Add a LINK', 'Add a Minidisk', 'Change a Minidisk', 'Change a Server's Password', 'Change Virtual Machine CPUs', 'Clone a Minidisk', 'Manage Guest Access', 'Manage Owned Servers', 'Relocate a Server (LGR)', 'Set Virtual Machine Owner', and 'View CP Directory Entry'. At the bottom of the table, there are buttons for 'Start', 'Stop', 'Restart', 'Move', 'Delete', 'View Log', 'Edit', 'MDisks', 'LINKs', and 'View Dir'.

Sel	Server	Hostname	Owner	Group	Expiration	System	Status
<input type="checkbox"/>	NCSX0403		NCSI0002	NCATGRP	3 Feb 2020 - 15:33:19	VSIVM4	Not Running
<input type="checkbox"/>	NCSX0404	ncsx0404	NCSI0002	NCATGRP	3 Feb 2020 - 14:15:32	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	NCSX0405	ncsx0405	NCSI0002	NCATGRP	3 Feb 2020 - 14:15:45	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	NCSX0406	ncsx0406	NCSI0002	NCATGRP	3 Feb 2020 - 17:04:18	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	NCSX0407		NCSI0002	NCATGRP	3 Feb 2020 - 17:23:50	VSIVM4	Not Running
<input type="checkbox"/>	NETWATCH		ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	ORACLE	oracle	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	REDHAT7	redhat7.velocitysoftware.com	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RHKS NFS1	rhksnfs1.velocitysoftware.com	JAMES	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSR7401	rksr7401	RKSDEV	VSITEAM	NONE	VSIVM4	Not Running
<input type="checkbox"/>	RKSSVR10	rkssvr10.velocitysoftware.com	RKSDEV	ADMIN	6 Apr 2020 - 06:00:25	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSUBU01	rksbu01	RKSDEV	VSITEAM	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSVM01	rksvm01	RKSDEV	VSITEAM	NONE	VSIVM4	Running at VSIVM4

Auditing

The Audit Log provides step by step details on each action zPRO performed to complete a request on behalf of the end-user. This information is a useful way to see what steps were done, any issues that may have occurred and an audit-trail of processes for problem determination and resolution.

The Audit Log is also available from the Userid drop-down. This drop-down also gives you access to the Job Queue, Reporting a bug and Logout.

Only audit information that falls within the scope of the end-user's authorizations is displayed.

The screenshot displays the zPRO Enterprise Cloud Management interface for user VSIVM4. The interface includes a navigation bar with tabs for DEMOSYS, CUSTOMER, and DEVELOPMENT. The main content area is titled "Audit Log" and contains a list of audit entries. Each entry includes a timestamp, the user ID (DEMOSYS), the system name (RKSDEV), and the specific action performed. A search bar is visible in the top right corner of the audit log section. On the right side of the interface, there is a sidebar menu with options such as "RKSDEV Settings", "Change Password", "Job Queue", "Audit Log", "Show Notifications", "Report Bug", "Diag Console", "About zPRO", and "Logout".

Timestamp	User	System	Action
01/07/2020 - 06:15:31.335888	DEMOSYS	-System-	ZPRUNQUO: Processing 43 server entries from EXPIRING ZPFILE
01/07/2020 - 06:00:38.695411	DEMOSYS	RKSDEV	ZPFINCLN: User RKSSVR10 located: IP - 1 THIS 10.0.0.13
01/07/2020 - 06:00:38.692489	DEMOSYS	RKSDEV	ZPFINCLN: User RKSSVR10 located: OSA - DECREASE 0
01/07/2020 - 06:00:38.689946	DEMOSYS	RKSDEV	ZPFINCLN: User RKSSVR10 located: MDISK - 1
01/07/2020 - 06:00:38.687198	DEMOSYS	RKSDEV	ZPFINCLN: User RKSSVR10 located: VCPUS - 1
01/07/2020 - 06:00:38.684618	DEMOSYS	RKSDEV	ZPFINCLN: User RKSSVR10 located: VSTOR - 256 MB
01/07/2020 - 06:00:38.681980	DEMOSYS	RKSDEV	ZPFINCLN: User RKSSVR10 successfully cloned by Rich Smrcina from golden image GOLDRL74
01/07/2020 - 06:00:38.538976	DEMOSYS	RKSDEV	ZPFINCLN: RKSSVR10 has been autostarted
01/07/2020 - 06:00:38.523102	DEMOSYS	RKSDEV	SENDACK: Results of sending email for RKSSVR10 to rich@velocitysoftware.com - ZPEmail 0
01/07/2020 - 06:00:38.286316	DEMOSYS	RKSDEV	ZPFINCLN: Invoking DEMOACK for RKSSVR10 with NEWLN XU RKSSVR10 QUIET Rich Smrcina EMAIL=rich@velocitysoftware.com

Managed Resources

The View Resources menu items give you a view into resource consumption.

Resource Usage shows you a break-down by user and group of the number of servers and the amount of resource consumed by each. These totals are used in conjunction with installation defined resource-limits. These limits are used to control resource allocation by Groups and/or Users. You can configure a limit on any of the resources so that any group or user does not consume more than they should. You can also limit resources at a server level. For example, if you do not want servers to have memory in excess of 10G for instance, you can set a memory limit for all servers.

Auto Arrange
DEMOSYS
CUSTOMER
DEVELOPMENT

Refresh All

Close All

Administration
↓

Create Servers
↓

Manage Gold Images
↓

Manage zPRO Users
↓

Reports
↓

Server Management
↓

View Resources
↑

Resource Graph

Resource Summary

Server Performance

Server Performance for Oracle

zPRO controlled IP addresses

Resource Summary Report
↻
🖨
✖

System	Group	User	Servers	VCPUs	VStor(MB)	DASD	MDisks	IPs	OSAs	FCPs
DEMOSYS	ADMIN	ADMIN	12	15	9840	0	27	0	6	5
DEMOSYS	ADMIN	JAMES	5	6	3840	0	10	4	0	0
DEMOSYS	ADMIN	KATHADM	0	0	0	0	0	0	0	0
DEMOSYS	ADMIN	RKSDEV	6	7	3840	0	9	6	0	0
DEMOSYS	ADMIN	totals	23	28	17520	0	46	10	6	5
DEMOSYS	ADMIN	limits	unlim	unlim	unlim	unlim	unlim	unlim	unlim	unlim
DEMOSYS	BNPGROUP	BNP	0	0	0	0	0	0	0	0
DEMOSYS	BNPGROUP	totals	0	0	0	0	0	0	0	0
DEMOSYS	BNPGROUP	limits	60	120	81920	unlim	unlim	unlim	unlim	unlim
DEMOSYS	DEMO	SELSERV	0	0	0	0	0	0	0	0
DEMOSYS	DEMO	totals	0	0	0	0	0	0	0	0
DEMOSYS	DEMO	limits	20	50	81920	20	60	10	30	20
DEMOSYS	DGCNTRL	DGUEST	1	1	256	0	1	1	0	0
DEMOSYS	DGCNTRL	totals	1	1	256	0	1	1	0	0
DEMOSYS	DGCNTRL	limits	600	1200	128000	250	1200	600	9	8

IP Address Allocation

Display zPRO controlled IP Addresses is a view to present a list of IP addresses managed by zPRO. The display shows whether an IP address is available or, if allocated, which end-user allocated it and to which server it has been allocated.

IP addresses are maintained within a table, described in the zPRO Admin Guide. You can define Tables for Groups and Users also to help contain what they use for the servers. For instance, in a Lab you may want them to only use a Lab VSWITCH and IPs and not the production VSWITCH/IPs.

DEMO SYS CUSTOMER DEVELOPMENT

IP Address List for RKSDEV

Search Criteria ...

IP Address	System	Status	Date	User	Server	VSWITCH
10.0.0.2	DEMOSYS	ALLOC	04/10/19	JAMES	JSVSVR10	VSI10NET
10.0.0.3	DEMOSYS	ALLOC	03/08/18	RKSDEV	RKSVM01	VSI10NET
10.0.0.4	DEMOSYS	ALLOC	04/02/18	RKSDEV	RKSR7401	VSI10NET
10.0.0.5	DEMOSYS	ALLOC	04/11/19	JAMES	JSVSVR11	VSI10NET
10.0.0.6	DEMOSYS	ALLOC	09/20/19	JAMES	JSVBOGU5	VSI10NET
10.0.0.7	DEMOSYS	ALLOC	04/18/19	JAMES	JSVSVR12	VSI10NET
10.0.0.8	DEMOSYS	ALLOC	11/05/19	NCSI0002	NCSX0404	VSI10NET
10.0.0.9	DEMOSYS	ALLOC	11/05/19	NCSI0002	NCSX0405	VSI10NET
10.0.0.10	DEMOSYS	ALLOC	10/25/19	VDGI0009	ZSXL0003	VSI10NET
10.0.0.11	DEMOSYS	ALLOC	09/11/19	JAMES	RHKSNFS1	VSI10NET
10.0.0.12	DEMOSYS	ALLOC	01/11/18	TDNCSI	DSA0001	VSI10NET
10.0.0.13	DEMOSYS	ALLOC	01/07/20	RKSDEV	RKSSVR10	VSI10NET
10.0.0.14	DEMOSYS	ALLOC	11/05/19	NCSI0002	NCSX0406	VSI10NET
10.0.0.15	DEMOSYS	FREE	01/06/20			VSI10NET
10.0.0.16	DEMOSYS	FREE	01/06/20			VSI10NET







Performance Link

Auto Arrange Refresh All Close All Administration Create Servers Manage Gold Images Manage zPRO Users Reports Server Management View Resources Resource Graph Resource Summary Server Performance Server Performance for Oracle zPRO controlled IP addresses

DEMO SYS **CUSTOMER** DEVELOPMENT

Server Performance

X Search Criteria ...

Server	Hostname	Type	System	Status	CPU%	IO/sec	Pg/sec	Swap Use	Swap/sec	FS>90
NCSX0405	ncsx0405		VSIVM4	Running	0.09	0	0	0.23%	0.00	/var/lib/readonlyroot/scratch
NCSX0406	ncsx0406		VSIVM4	Running	0.07	0.8	0	0.20%	0.00	
NCSX0407			VSIVM4	Down						
NETWATCH			VSIVM4	Running	0.73	13.1	0			
ORACLE	oracle		VSIVM4	Running	1.29	0.6	0	100.00%	0.00	/iso/r8
REDHAT7	redhat7.velocitysoftware.com		VSIVM4	Running	0.10	0	0	0.00%	0.00	
RHKS NFS1	rhksnfs1.velocitysoftware.com		VSIVM4	Running	0.11	0.7	0	0.00%	0.00	
RKS R7401			VSIVM4	Down						
RKSSVR10	rkssvr10.velocitysoftware.com		VSIVM4	Running	0.11	0.7	0	0.00%	0.00	

The Server Performance model gives you a direct link into zVIEW to show details on your Linux servers.

For any Linux server running, you can click the server name link and it will open zVIEW in another tab with the MYLINUX views. That view setup is predefined for you in zVIEW.

Performance Link

MYLINUX

ESALNXC - Linux Process Configuration - DEMO

Node	Process Name	ID	PPID	Group
oracle	init	1	1	0
oracle	migration/0	2	1	0
oracle	ksoftirqd/0	3	1	0
oracle	events/0	4	1	0
oracle	khelper	5	1	0
oracle	kthread	6	1	0
oracle	kblockd/0	8	6	0
oracle	cio_chp	29	6	0
oracle	cio	30	6	0
oracle	cio_notify	31	6	0
oracle	kslowcrw	32	6	0
oracle	apldata	65	6	0
oracle	aio/0	78	6	0
oracle	cqueue/0	82	6	0
oracle	scsi_ah_0	278	6	0
oracle	scsi_wq_0	279	6	0
oracle	fc_wq_0	281	6	0
oracle	fc_dl_0	282	6	0
oracle	scsi_ah_1	290	6	0
oracle	scsi_wq_1	291	6	0
oracle	fc_wq_1	293	6	0
oracle	fc_dl_1	294	6	0
oracle	scsi_ah_2	301	6	0
oracle	scsi_wq_2	302	6	0
oracle	fc_wq_2	304	6	0
oracle	fc_dl_2	305	6	0
oracle	kauditd	1242	6	0
oracle	pdflush	7408	6	0
oracle	pdflush	12974	6	0
oracle	rpciod/0	17269	6	0
oracle	kswapd0	77	1	1
oracle	kmcheck	100	1	1
oracle	zfcperp0.0.0201	277	1	1
oracle	zfcperp0.0.0202	289	1	1
oracle	zfcperp0.0.0204	300	1	1
oracle	kjournald	424	1	1
oracle	udev	470	1	470
oracle	kjournald	1047	1	1
oracle	kjournald	1050	1	1
oracle	dbus-daemon	1235	1	1235

ESALNXP - VSI Linux Percent Usage by Process - DEMO

Time	Node	Name	ID	PPID	GRP	Tot sys	user	syst	usr	rt	valu	valu	Size	RSS	Peak	Swap	Data	Stk	EXEC	Lib	Lck	PTbl	min	maj	mint	m
18:16:00	oracle	*Totals*	0	0	0	1.6	0.2	0.4	0.4	0.7	0	0	7685	813	7695	0	761	4.4	1830	402	0	9.7	243	0	3855	
18:16:00	oracle	init	1	1	0	1.0	0	0	0.3	0.7	0	16	0.8	0.1	0.8	0	0.1	0.1	0.6	0	0	0.0	0	0	3650	
18:16:00	oracle	events/0	4	1	0	0.0	0.0	0	0	0	-5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:16:00	oracle	cron	2219	1	2219	0.0	0	0	0.0	0.0	0	16	2.2	0.3	2.3	0	0.2	0.1	0.0	1.8	0	0.0	0	0	150	
18:16:00	oracle	snmpd	2295	1	2294	0.4	0.1	0.3	0	0	-10	6	36.8	9.6	43.1	0	5.1	0.1	0.0	29.2	0	0.1	50	0	0	
18:16:00	oracle	tnslsnr	2386	1	2386	0.1	0.0	0.0	0.0	0	0	16	31.1	4.7	31.1	0	3.6	0.1	0.4	25.3	0	0.1	69	0	53	
18:16:00	oracle	oracle	2565	1	2565	0.0	0	0.0	0	0	0	16	396	14.1	396	0	2.0	0.2	107	15.4	0	0.7	0	0	0	
18:16:00	oracle	oracle	2567	1	2567	0.0	0	0.0	0	0	0	16	397	22.6	397	0	2.1	0.2	107	15.4	0	0.7	0	0	0	

ESAHST2 - LINUX HOST Storage Analysis Report - DEMO

Time	Node/Group	Index	Size	Used	Full	Err	Units	R/W	Boot	Description
18:16:00	oracle	10	4762	4762	100	0	1M	r/w	No	/iso/r8
18:16:00	oracle	8	11087	7600	68.5	0	4K	r/w	No	/home
18:16:00	oracle	7	11080	7616	68.7	0	4K	r/w	No	/opt

LPAR Shared IF...

ESAUCD2 - LINUX UCD Memory Analysis Report - DEMO

Time	Node/Group	Total	Avail	Used	Total	Avail	Used	MIN	Avail	CMM	Buffer	Cache	Ovrhd	Shared	Message
18:16:00	oracle	996.8	15.9	980.9	123.9	0	123.9	15.6	15.9	0.0	11.1	256.9	712.8	0.0	Swap Space I

ESAUCD4 - LINUX UCD System Statistics Report - DEMO

Time	Node/Group	Total	Syst	User	Nice	Pct	In	Out	In	Out	Rate	Rate	1Min	5Min	15Min	Krnl	IRQ	In
18:16:00	oracle	2.0	0.9	1.1	0	97.4	0	0	24.5	140.6	56.4	18.5	0.03	0.01	0	0.52	0.02	

ESAHST4 - LINUX HOST System Statistics Report - DEMO

Time	Server	Num	Users	Current	Max	StgSz (MB)	Local Date	Time	System Uptime	System Dev	System Initialization Parameter
18:16:00	oracle	2	85	0	996.0	2020/1/13	18:15	60	0600	root=/dev/disk/by-path/ccw-0.0.0200-pz	

zPRO User Management

The Manage zPRO Users menu items allow you to manage your zPRO end-user userids.

The Manage zPRO Users model shows you all the users defined as zPRO end-users, their name and if they have servers defined. You can delete any ALT-ID user if they do not own servers.

An ALT-ID is defined within another zPRO user. That ALT-ID has its own userid, but it uses/inherits all the authorities and resource limits of the base zPRO user. ALT-IDs is also a means to allow users to authenticate via LDAP/AD with greater than 8 character userids.

The screenshot displays the zPRO User Management interface. At the top, there are tabs for 'DEMOSYS', 'CUSTOMER', and 'DEVELOPMENT'. Below the tabs is a 'Managed User List' window with a search bar and a table of users. The table has columns for 'Sel', 'User', 'Alt-ID of', 'System', 'Name', and 'Has Servers'. A 'Delete' button is located at the bottom of the table.

Sel	User	Alt-ID of	System	Name	Has Servers
<input type="checkbox"/>	VDGI0002	DGUEST	DEMOSYS	b r	No
<input type="checkbox"/>	VDGI0003	DGUEST	DEMOSYS	David Juarez	No
<input type="checkbox"/>	VDGI0005	DGUEST	DEMOSYS	James Vincent	No
<input type="checkbox"/>	VDGI0006	DGUEST	DEMOSYS	Group User1	No
<input type="checkbox"/>	VDGI0009	DGUEST	DEMOSYS	Tom Brown	Yes
<input type="checkbox"/>	VDGI0015	DGUEST	DEMOSYS	Daniel Baskin	No
<input type="checkbox"/>	VDGI0080	DGUEST	DEMOSYS	KATHRYN ARRELL	No
<input type="checkbox"/>	ZDANIEL	n/a	DEMOSYS	Daniel Baskin	No
<input type="checkbox"/>	ZKATHRYN	n/a	DEMOSYS	Kathryn Arrell	No
<input type="checkbox"/>	ZNCATEDU	n/a	DEMOSYS	Unknown	No
<input type="checkbox"/>	ZPRONC	n/a	DEMOSYS	Unknown	No
<input type="checkbox"/>	ZPRONCAT	n/a	DEMOSYS	Cameron W Seay	No
<input type="checkbox"/>	ZPROBERS	n/a	DEMOSYS	System Operations	No
<input type="checkbox"/>	ZVPS	ADMIN	DEMOSYS	zVPS Admin	No

Add End-user

Within Manage zPRO Users, you can Add a new zPRO user as an ALT-ID of another zPRO user. This process emails the new user with information on how to login to zPRO.

You can also manage zPRO end-users' passwords. Any user that forgets their password or that you simply need to change a password for, can be done from this self-service model.

The screenshot displays the Velocity Software Self Service interface. The top navigation bar includes the Velocity Software logo, the text 'Self Service VSIVM4', and a user profile for 'JAMES Settings'. The main content area is titled '> zPRO' and contains two overlapping windows. The 'Add a new zPRO user' window is the primary focus, featuring a header with a help icon, a close icon, and a red 'X' icon. Below the header is a blue instruction box: 'Use this screen to add a new user to zPRO'. The form includes fields for 'New ZPRO User Id', 'Owning ZPUSER' (a dropdown menu currently set to 'ADMIN'), 'First name', 'Last name', 'User's Email address', and 'Your Return Email address' (pre-filled with 'james@velocitysoftware.com'). A 'Process Request' button is located at the bottom of the form. The 'Change a user's password' window is partially visible behind it, with fields for 'User Id' (dropdown set to 'ADMIN'), 'New Password', and 'Verify password', and a 'Process Request' button at the bottom. On the left side of the interface, a 'Self Service' sidebar menu lists various options: 'Auto Arrange', 'Close All', 'Enterprise', 'Create Servers', 'Manage Servers & Resources', 'View Resources', 'Manage Users' (with sub-options 'Add a new zPRO user', 'Add a new zPRO Group User', 'Change a user's password', and 'Manage zPRO Users'), and 'Reports'.

Resource Reports

Currently, zPRO ships with a report for User/Groups summary. This report shows you not only the counts of defined users/groups, but details on each user. This includes servers built, if the zPRO user has ALT-IDs defined to it and the last time zPRO saw that user in the system (based on the available Audit logs).

More reports will be added as more releases of zPRO are made available.

Velocity Software zPRO User Report - DEMOSYS

Velocity Software zPRO User Report

zPRO User and Group Summary:

- 27 Total zPRO users with ZPUSER configurations
- 23 Total zPRO Alternate users related to a ZPUSER
-
- 50 Total of all zPRO users
- 20 Total zPRO Groups defined
- 10 zPRO users with servers assigned
- 40 zPRO users with no servers assigned

zPRO users for group ADMIN

Userid	Name	Email	ALT-IDs	Servers	Last Seen
ADMIN	zPRO Administrator	support@velocitysoftware.com	3	10	>2019-10-07
* BARTON	Barton Robinson	barton@velocitysoftware.com	.	3	2019-10-21
* JSVDEV	James Vincent	james@velocitysoftware.com	.	0	2019-11-08
* ZVPS	zVPS Admin	support@velocitysoftware.com	.	0	2020-01-03
JAMES	James Vincent	james@velocitysoftware.com	0	5	2020-01-07
KATHADM	Kathryn Arrell	kathryn@velocitysoftware.com	0	0	>2019-10-07
RKSDEV	Rich Smrcina	rich@velocitysoftware.com	0	6	2020-01-07

Server Relocation (LGR)

zPRO has multiple ways to manage relocating servers, via LGR(Live Guest Relocation), within your SSI clusters.

zPRO is aware when it is running in an SSI cluster and will present the Move function in the Server List model if you are authorized for it. You can select and move servers by selecting the target member to move them to, or zPRO will ask to move it to the other member for a two-member cluster.

VELOCITY SOFTWARE zPRO Enterprise Cloud Management VSIVM4 RKSDEV Settings

DEMO SYS CUSTOMER DEVELOPMENT

Server List for RKSDEV (ADMIN view)

Sel	Server	Hostname	Owner	Group	Expiration	System	Status
<input type="checkbox"/>	ORACLE	oracle	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	REDHAT7	redhat7.velocitysoftware.com	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RHKS NFS1	rhksnfs1.velocitysoftware.com	JAMES	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSR7401	rksr7401	RKSDEV	VSITEAM	NONE	VSIVM4	Not Running
<input checked="" type="checkbox"/>	RKSSVR10	rkssvr10.velocitysoftware.com	RKSDEV	ADMIN	6 Apr 2020 - 06:00:25	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSUBU01	rksubu01	RKSDEV	VSITEAM	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RKSVM01	rksvm01	RKSDEV	VSITEAM	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	RVDHWEB		BARTON	ADMIN	NONE	VSIVM4	Not Running
<input type="checkbox"/>	RVDWEB03		BARTON	ADMIN	NONE	VSIVM4	Not Running
<input type="checkbox"/>	SUSELNX2	linux9s	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	S11S2ORA	s11s2ora	ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	VSIVM6		ADMIN	ADMIN	NONE	VSIVM4	Running at VSIVM4
<input type="checkbox"/>	ZSXL0003	zsxl0003	VDGI0009	DGCNTRL	31 Oct 2020 - 11:13:57	VSIVM4	Not Running

Start Stop Restart Move Delete View Log Edit MDisks LINKs View Dir

Server Relocation (cont)

You also have the option in zPRO to use the Relocate a Server model. Under SSI, zPRO will enable the model to let you select a userid and the target member within the SSI cluster.

The destination list will show all members, including the member the server may be running on but will tell you so and let you chose another member easily.

The screenshot displays the zPRO Enterprise Cloud interface. At the top, the Velocity Software logo is on the left, and the text 'zPRO Enterprise Cloud' is on the right. Below the logo, there are three tabs: 'DEMOSYS', 'CUSTOMER' (which is highlighted in green), and 'DEVELOPMENT'. On the left side, there is a vertical menu with various options: 'Auto Arrange', 'Refresh All', 'Close All', 'Administration', 'Create Servers', 'Manage Gold Images', 'Manage zPRO Users', 'Reports', 'Server Management', 'Add a LINK', 'Add a Minidisk', 'Change a Minidisk', 'Change a Server's Password', 'Change Virtual Machine CPUs', 'Clone a Minidisk', 'Manage Guest Access', 'Manage Owned Servers', 'Relocate a Server (LGR)', 'Set Virtual Machine Owner', 'View CP Directory Entry', and 'View Resources'. The 'Relocate a Server (LGR)' option is highlighted in green. A dialog box titled 'Relocate a Server (LGR)' is open in the center. It has a title bar with a printer icon and a close button. Inside the dialog, there are two dropdown menus: 'Userid on Node' with 'RKSSVR10' selected, and 'Destination' with 'VSIVM5' selected. At the bottom of the dialog, there is a 'Process Request' button.

A typical Linux admin view

Server Management ↑

- Change a Server's Password
- Clone a Minidisk
- Manage Owned Servers
- Relocate a Server (LGR)
- Set Virtual Machine Owner
- View CP Directory Entry

View Resources ↑

- Resource Graph
- Resource Summary
- Server Performance
- zPRO controlled IP addresses

VELOCITY SOFTWARE zPRO Cloud Management VSIVM4

Auto Arrange
Refresh All
Close All
Create Servers ↑
Build multiple Virtual Machines from one Gold Image
Clone a Virtual Machine
Server Management ↓
View Resources ↓

Clone a Virtual Machine

Image to Copy
DEFLNXRO

New ID
[]

Password
[]

Verify Password
[]

Account No.
N/A

No. Cpus
1

Memory Size
1 G

Days to expiration
2

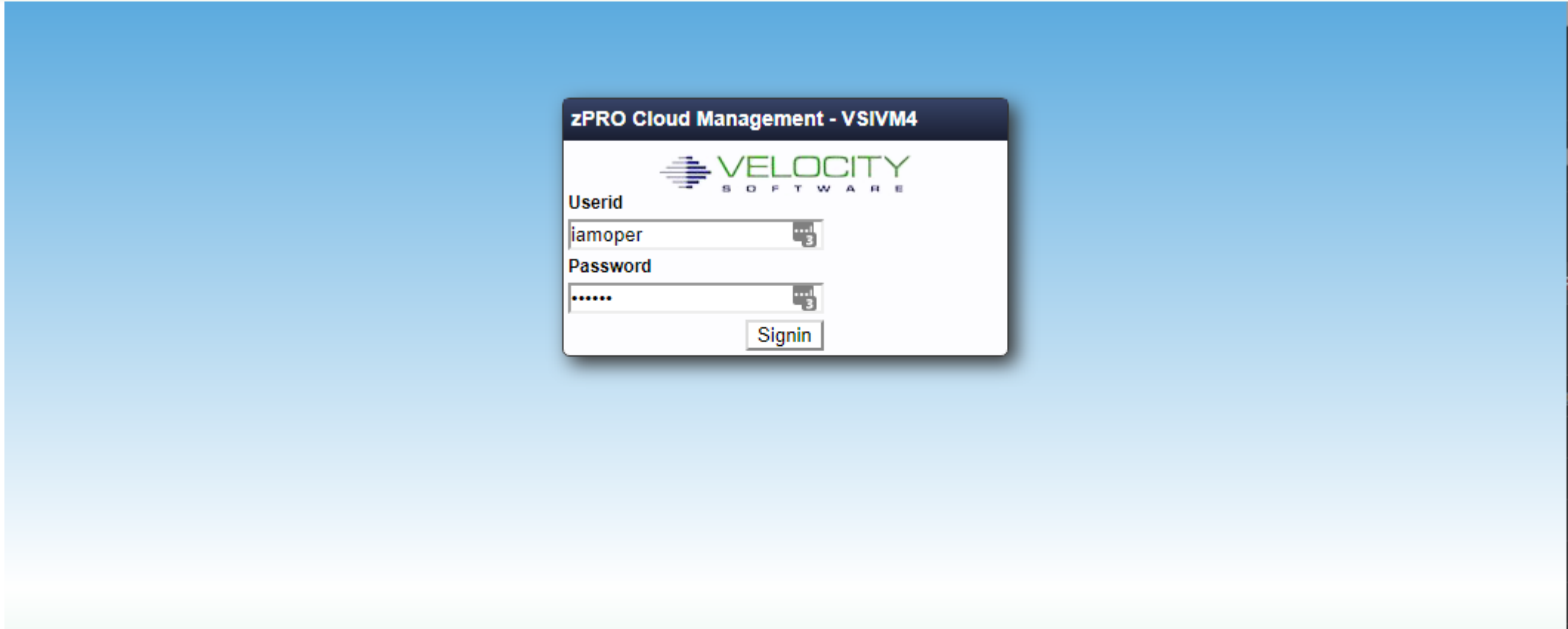
Auto Start Server

**Optional (blank field for no email):
Email address to send notification to**
rich@velocitysoftware.com

Your Return Email address
rich@velocitysoftware.com

Process Request

Operator view



The next examples will show you just a hint of how you can utilize zPRO with other groups in your organization. In this case we will login with an Operations userid.

Sample Operations User

This Operations zPRO user has very limited access to self-service functions and actions. In this example, they can see every server zPRO has through the Server List model as shown, but they can only Start, Stop and View Log for any server.

zPRO can be configured, exactly as needed to for each group or user, to whom you wish to grant access to. There are a multitude of options available for scope and authorizations.

VELOCITY SOFTWARE
zPRO V3110 2018-07-11

Self Service VSIVM4

IAMOPER Settings

Self Service

Auto Arrange

Close All

Manage Servers & Resources

Display/Modify owned servers

> zPRO

Server List for IAMOPER (ADMIN view)

Search Criteria...

Sel	Server	Owner	Group	Expiration	System	Status
<input type="checkbox"/>	DEMOBLK	BARTON	ADMIN	NONE	VSIVM4	Not Running
<input type="checkbox"/>	DSA0001	TDNSI	TONY1	NONE	VSIVM4	Running
<input type="checkbox"/>	GOLDTDN1	RKSDEV	GROUP1	NONE	VSIVM4	Not Running
<input type="checkbox"/>	JAMES100	JAMES	ADMIN	11 Oct 2018 - 07:43:00	VSIVM4	Not Running
<input type="checkbox"/>	JAMES101	JAMES	ADMIN	11 Oct 2018 - 07:43:51	VSIVM4	Not Running
<input type="checkbox"/>	JAMES102	JAMES	ADMIN	28 Oct 2018 - 16:26:51	VSIVM4	Running
<input type="checkbox"/>	JAMES103	JAMES	ADMIN	30 Oct 2018 - 04:04:07	VSIVM4	Running
<input type="checkbox"/>	JAMES104	JAMES	ADMIN	30 Oct 2018 - 04:52:54	VSIVM4	Not Running
<input type="checkbox"/>	JAMES105	JAMES	ADMIN	30 Oct 2018 - 04:54:53	VSIVM4	Not Running
<input type="checkbox"/>	JAMES106	JAMES	ADMIN	5 Nov 2018 - 09:15:29	VSIVM4	Running
<input type="checkbox"/>	JAMES107	JAMES	ADMIN	30 Oct 2018 - 06:11:52	VSIVM4	Running
<input type="checkbox"/>	JAMES108	JAMES	ADMIN	30 Oct 2018 - 08:58:27	VSIVM4	Not Running

Start Stop View Log

zPRO's Management Benefits

Management of an enterprise, from the resource perspective, requires knowledge of resource allocation, usage, and growth. zPRO keeps track of system resources which are defined within the scope of zPRO management.

Managers can:

- View resource consumption by individuals and/or groups of individuals
- Keep track of activities related to system usage and/or provisioning (Auditing)
- Provide a more responsive environment for end-users. In a mainframe environment, the procurement process for a new collection of Linux servers is generally eliminated. zPRO can be used to "spin up" one or more new servers in the amount of time it takes for the end-user to click and get a cup of coffee.

For even more details, see zPRO Product Highlights at

<https://www.velocitysoftware.com/zPRO.html>

Thank you!

- **We at Velocity Software sincerely hope you found this zPRO Virtual Demo useful**

and remember,

- **Contact us to learn more or to schedule a real-time demo of the product!**

- We would love the opportunity to show you more about zPRO and how it can help you and your organization be successful with Linux on z/VM

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