zPRO Powerful, Easy to Use Cloud Management

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PROVEN PERFORMANCE

Why zPRO

- zPRO leverages the strengths of Z/VM
- Empower others to do what they need
 - Remain in control of your system
 - Saves YOU time
- Allows non-VM people to manage Linux on Z servers
- Very dynamic extensible
 - RESTful APIs included for external appliance/application connections
- <u>Simple</u>, Fast, Lightweight and Reliable



zPRO's Structure – Simple!







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zPRO: Initial View

Once logged on, you are presented with the zPRO workspace. Within the workspace is where the process-windows are opened. You can move/arrange these windows as you wish. On login, the AUTOOPEN windows, as defined by the zPRO administrator, are presented. The left side is the menu that gives you access to all the selfservice processes that you are authorized to use. Clicking on a menu item with the down-arrow icon 💽 will display sub-menu items for that group.

Content of the various windows is governed by the authorizations and scope imposed on the end-user.



ZPRO V3110 2018-07-1		Self Serv	ice VSIN	/M4								JAMES Settings	-
Self Service	> zP	RO											
Auto Arrange	Serve	r List for JAM	ES (ADMIN vie	w)							a 😸		
Close All	Search	h Criteria											
Enterprise 💿	Sel	Resource Us	age								😑 🗙		
Create Servers		Search Crite	ria	λ x									
Manage Servers & Resources		Group	User	Servers	VCPUs	VStor(MB)	DASD	MDisks	IPs	OSAs	FCPs	5	
View Resources		ADMIN	ADMIN	3	3	560	0	3	0	0	0		
Manage Users 🔹 💿		ADMIN	JAMES	12	12	2752	0	19	5	0	0		
Reports 💿		ADMIN	KATHADM	0	0	0	0	0	0	0	0		
		ADMIN	totals	15	15	3312	0	22	5	0	0		
		ADMIN	limits	unlim	unlim	unlim	unlim	unlim	unlim	unlim	unlim		
	0 .	BDRGROUP	ZBDRPROF	0	0	0	0	0	0	0	0		
	•	BDRGROUP	ZPROBDR	0	0	0	0	0	0	0	0		
		BDRGROUP	totals	0	0	0	0	0	0	0	0		
		BDRGROUP	limits	200	120	81920	unlim	unlim	unlim	unlim	unlim		
	0 .	BLAKE	BLAKE	0	0	0	0	0	0	0	0		
		BLAKE	totals	0	0	0	0	0	0	0	0		
		BLAKE	limits	4	4	18192	100	200	30	0	20		
	Start	DEMO	SELFSERV	0	0	0	0	0	0	0	0		
		DEMO	totals	0	^	0	0	0	^	0	0	2	
		L											

zPRO: Server Management

The Manage Services and Resources menu items shipped give you a multitude of ways to manage your servers.

You can add, change, and delete MDISKs, CPU and Storage size. You can change 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.



ZPRO V3110 2018-07-1	Self Service	VSIVM4		JAMES Settings
Self Service	> zPRO			
Auto Arrange	Set Virtual Machine Owner	8	😞 🗙	Add a Minidisk 💿 🗙
Close All	Search Criteria	x		Add to Server
Enterprise 📀	Sel Virtual Machine	Owner		Virtual Address
Create Servers	BCLOUD	unassigned		
Manage Servers & Resources	CAVMM01	unassigned		
Clone a Minidisk	CAVMM02	unassigned		Cylinders / Blocks
Set Virtual Machine Owner	CENTFBA	unassigned		Access Mode
Add a Minidisk Change a Minidisk	CENTO S66	unassigned		
Display/Modify owned servers	CONSERVE	unassigned		
Change Virtual Machine	CONSPORT	unassigned		Process Request
Change a Server's	DAVEL2	unassigned		Change a Server's Password
Password	DEMOBLK	BARTON		User Id
View Resources	DEMOLNX	unassigned		DEMOBLK V
Reports	DONTUSE	unassigned		New Password
Nepons 🕥	DRADEV	unassigned		Verify password
	Assign to JAMES Choose Owne	r Unassign		
				Process Request

zPRO: Server Management (cont.)

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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.

Serv	ver List for JA	MES (ADMIN	view)			8	×
Sea	rch Criteria	x					
Sel	Server	Owner	Group	Expiration	System	Status	
	DEMOBLK	BARTON	ADMIN	NONE	VSIVM4	Not Running	
	DSA0001	TDNVSI	TONY1	NONE	VSIVM4	Running	
	GOLDTDN1	RKSDEV	GROUP1	NONE	VSIVM4	Not Running	
	JAMES100	JAMES	ADMIN	11 Oct 2018 - 07:43:00	VSIVM4	Not Running	
	JAMES101	JAMES	ADMIN	11 Oct 2018 - 07:43:51	VSIVM4	Not Running	
	JAMES102	JAMES	ADMIN	28 Oct 2018 - 16:26:51	VSIVM4	Running	
	JAMES103	JAMES	ADMIN	30 Oct 2018 - 04:04:07	VSIVM4	Running	
	JAMES104	JAMES	ADMIN	30 Oct 2018 - 04:52:54	VSIVM4	Not Running	
	JAMES105	JAMES	ADMIN	30 Oct 2018 - 04:54:53	VSIVM4	Not Running	
	JAMES106	JAMES	ADMIN	6 Nov 2018 - 07:33:12	VSIVM4	Not Running	
	LXDB2001	RKSDEV	GROUP1	NONE	VSIVM4	Running	
	NCSX0401	NC S10000	NCATGRP	30 Oct 2018 - 10:28:46	VSIVM4	Running	
	Sea	Server List for JA Search Criteria Sel Server DEMOBLK DSA0001 GOLDTDN1 JAMES100 JAMES100 JAMES102 JAMES102 JAMES104 JAMES105 JAMES106 LXDB2001 NC SX0401	Server List for JAMES (ADMIN Search Criteria C X Sel Server Owner X DEMOBLK BARTON DSA0001 TDNVSI DSA0001 TDNVSI GOLDTDN1 RKSDEV JAMES100 JAMES JAMES JAMES101 JAMES JAMES JAMES102 JAMES JAMES JAMES103 JAMES JAMES JAMES104 JAMES JAMES JAMES105 JAMES JAMES JAMES106 JAMES JAMES NC SX0401 NC SI0000 NC SI0000	Search Criteria Conserver Sel Server Owner Group DEMOBLK BARTON ADMIN DSA0001 TDNVSI TONY1 GOLDTDN1 RKSDEV GROUP1 JAMES100 JAMES ADMIN JAMES101 JAMES ADMIN JAMES102 JAMES ADMIN JAMES103 JAMES ADMIN JAMES104 JAMES ADMIN JAMES105 JAMES ADMIN JAMES106 JAMES ADMIN LXDB2001 RKSDEV GROUP1 NCSX0401 NCSI0000 NCATGRP	Server List for JAMES (ADMIN view) Search Criteria C x Sel Server Owner Group Expiration DEMOBLK BARTON ADMIN NONE DSA0001 TDNVSI TONY1 NONE GOLDTDN1 RKSDEV GROUP1 NONE JAMES100 JAMES ADMIN 11 Oct 2018 - 07:43:00 JAMES101 JAMES ADMIN 11 Oct 2018 - 07:43:51 JAMES102 JAMES ADMIN 11 Oct 2018 - 07:43:51 JAMES103 JAMES ADMIN 28 Oct 2018 - 16:26:51 JAMES103 JAMES ADMIN 30 Oct 2018 - 04:52:54 JAMES104 JAMES ADMIN 30 Oct 2018 - 04:52:54 JAMES105 JAMES ADMIN 30 Oct 2018 - 04:54:53 JAMES106 JAMES ADMIN 6 Nov 2018 - 07:33:12 LXDB2001 RKSDEV GROUP1 NONE NC SX0401 NC SI0000 NCATGRP 30 Oct 2018 - 10:28:46	Server List for JAMES (ADMIN view) Search Criteria Criteria Search Criteria Sel Server Owner Group Expiration System DEMOBLK BARTON ADMIN NONE VSIVM4 DSA0001 TDNVSI TONY1 NONE VSIVM4 GOLDTDN1 RKSDEV GROUP1 NONE VSIVM4 JAMES100 JAMES ADMIN 11 Oct 2018 - 07:43:00 VSIVM4 JAMES101 JAMES ADMIN 11 Oct 2018 - 07:43:51 VSIVM4 JAMES102 JAMES ADMIN 11 Oct 2018 - 07:43:51 VSIVM4 JAMES102 JAMES ADMIN 28 Oct 2018 - 16:26:51 VSIVM4 JAMES103 JAMES ADMIN 30 Oct 2018 - 04:52:54 VSIVM4 JAMES104 JAMES ADMIN 30 Oct 2018 - 04:52:54 VSIVM4 JAMES105 JAMES ADMIN 30 Oct 2018 - 04:54:53 VSIVM4 JAMES106 JAMES ADMIN 6 Nov 2018 - 07:33:12 VSIVM4 LXDB2001 RKSDEV GROUP1 NONE VSIVM4 <td>Server List for JAMES (ADMIN view) Search Criteria Image: Criteria Search Criteria Image: Criteria DEMOBLK BARTON ADMIN NONE VSIVM4 Not Running DSA0001 TDNVSI TONY1 NONE VSIVM4 Running GOLDTDN1 RK SDEV GROUP1 NONE VSIVM4 Not Running JAMES100 JAMES ADMIN 11 Oct 2018 - 07:43:00 VSIVM4 Not Running JAMES101 JAMES ADMIN 11 Oct 2018 - 07:43:51 VSIVM4 Not Running JAMES102 JAMES ADMIN 28 Oct 2018 - 16:26:51 VSIVM4 Running JAMES103 JAMES ADMIN 30 Oct 2018 - 04:04:07 VSIVM4 Running JAMES104 JAMES ADMIN 30 Oct 2018 - 04:52:54 VSIVM4 Not Running JAMES105 JAMES ADMIN 30 Oct 2018 - 04:54:53 VSIVM4 Not Running JAMES106 JAMES ADMIN 30 Oct 2018 - 07:33:12 VSIVM4 Not Running JAMES106 JAMES ADMIN 6 Nov 2</td>	Server List for JAMES (ADMIN view) Search Criteria Image: Criteria Search Criteria Image: Criteria DEMOBLK BARTON ADMIN NONE VSIVM4 Not Running DSA0001 TDNVSI TONY1 NONE VSIVM4 Running GOLDTDN1 RK SDEV GROUP1 NONE VSIVM4 Not Running JAMES100 JAMES ADMIN 11 Oct 2018 - 07:43:00 VSIVM4 Not Running JAMES101 JAMES ADMIN 11 Oct 2018 - 07:43:51 VSIVM4 Not Running JAMES102 JAMES ADMIN 28 Oct 2018 - 16:26:51 VSIVM4 Running JAMES103 JAMES ADMIN 30 Oct 2018 - 04:04:07 VSIVM4 Running JAMES104 JAMES ADMIN 30 Oct 2018 - 04:52:54 VSIVM4 Not Running JAMES105 JAMES ADMIN 30 Oct 2018 - 04:54:53 VSIVM4 Not Running JAMES106 JAMES ADMIN 30 Oct 2018 - 07:33:12 VSIVM4 Not Running JAMES106 JAMES ADMIN 6 Nov 2



JAMES

zPRO: 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.





zPRO: Provisioning (cont.)

The second provision model is a self-contained definition where all the details are predefined 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.





zPRO: 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 dropdown 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.

2PRO V3110 2018-07-1	Self Service VSIVM4	JAMES Settings
Self Service	> zPRO	Job Queue
Auin Arrange	Request RHEL 7.4 Server 🕞 🗙 Job Queue	Audit Log
Close XII	Hello James Vincent Job Lis	Report Bug
Create Servers	JAMES111 Log	
Gold Image Clone a Virtual Machine Request a CMS virtual	08/07/2018 - 04:23:55.712892 JAMES ZMDSKMGT: Request to list all links from JAMES111 08/07/2018 - 04:23:35.871958 JAMES PROCZPRO: Minidisk 0204 deleted from server JAMES111 rc=0	
machine Request RHEL 7.4 Server	08/07/2019 - 04:23:35.868674 JAMES ZMDSKMGT: Minidisk 0204 deleted from server JAMES111 08/07/2018 - 04:23:34.560069 JAMES ZMDSKMGT: Delete minidisk 0204 requested for JAMES111	
Minimal SLES 11 Lindx Server	 08/07/2018 - 04:22:57.279712 JAMES PROCZPRO: Minidisk 0204 added to server JAMES111 with size 5 cy 08/07/2018 - 04:22:57.277180 JAMES ZMDSKMGT: Minidisk 0204 added to server JAMES111 with size 5 cy 	/linders rc=0
Full SLES 11 Linux Server Request a	08/07/2018 - 04:22:55.954423 JAMES ZMDSKMGT: Add minidisk 0204 requested for JAMES111 08/07/2018 - 04:22:55.954423 JAMES ZMDSKMGT: Dequest to list all devices for JAMES111	
Ubuntu 16.04 Linux Server Request an Ubuntu 17.10 Linux	Clear Comp	leted Jobs
Server		



zPRO: 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.



Self Service	> zPRO										
Auto Arrange	Resource Us	age								6	×
Close All	Search Crite	ria	👃 🗴								
erprise 🤇	Group	User	Servers	VCPUs	VStor(MB)	DASD	MDisks	IPs	OSAs	FCPs	-
ate Servers	ADMIN	ADMIN	3	3	560	0	3	0	0	0	1
nage Servers &	ADMIN	JAMES	13	13	3008	0	20	6	0	0	
w Resources	ADMIN	KATHADM	0	0	0	0	0	0	0	0	t.
play zPRO	ADMIN	totals	16	16	3568	0	23	6	0	0	Ľ
source Graph	ADMIN	limits	unlim	unlim	unlim	unlim	unlim	unlim	unlim	unlim	
source Usage	BDRGROUP	ZBDRPROF	0	0	0	0	0	0	0	0	
ver Performance	BDRGROUP	ZPROBDR	0	0	0	0	0	0	0	0	
nage Users 🛛 🖪	BDRGROUP	totals	0	0	0	0	0	0	0	0	ſ
oorts	BDRGROUP	limits	200	120	81920	unlim	unlim	unlim	unlim	unlim	
	BLAKE	BLAKE	0	0	0	0	0	0	0	0	
	BLAKE	totals	0	0	0	0	0	0	0	0	1
	BLAKE	limits	4	4	18192	100	200	30	0	20	
	DEMO	SELFSERV	0	0	0	0	0	0	0	0	
	DEMO	totale	0	0	0	•	0	0	0	0	T

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zPRO: Sample Operations User

Self Service

VSIVM4

Manage S Resource

Display

servers

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.

PRO V3110 2018-07-1	1							
f Service	> :	zPRO						
ıto Arrange	Serv	ver List for IAM	MOPER (ADM	IIN view)			G	×
Close All	Sea	rch Criteria	🔍 🔍					
e Servers & ces 🛛 🔊	Sel	Server	Owner	Group	Expiration	System	Status	•
Modify owned		DEMOBLK	BARTON	ADMIN	NONE	VSIVM4	Not Running	
		DSA0001	TDNVSI	TONY1	NONE	VSIVM4	Running	
		GOLDTDN1	RKSDEV	GROUP1	NONE	VSIVM4	Not Running	
		JAMES100	JAMES	ADMIN	11 Oct 2018 - 07:43:00	VSIVM4	Not Running	
		JAMES101	JAMES	ADMIN	11 Oct 2018 - 07:43:51	VSIVM4	Not Running	
		JAMES102	JAMES	ADMIN	28 Oct 2018 - 16:26:51	VSIVM4	Running	
		JAMES103	JAMES	ADMIN	30 Oct 2018 - 04:04:07	VSIVM4	Running	
		JAMES104	JAMES	ADMIN	30 Oct 2018 - 04:52:54	VSIVM4	Not Running	
		JAMES105	JAMES	ADMIN	30 Oct 2018 - 04:54:53	VSIVM4	Not Running	
		JAMES106	JAMES	ADMIN	5 Nov 2018 - 09:15:29	VSIVM4	Running	
	0	JAMES107	JAMES	ADMIN	30 Oct 2018 - 06:11:52	VSIVM4	Running	
		JAMES108	JAMES	ADMIN	30 Oct 2018 - 08:58:27	VSIVM4	Not Running	-
	Star	rt Stop View L	og					



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Questions / Comments?



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https://velocitysoftware.com/zPRO.html



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