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

GSE UK Conference 2018

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Agenda

- Why zPRO?
- z Cloud Management at its Finest – zPRO Highlights
- zPRO in Education of z/VM and Linux
- Future / In Progress

zPRO backstory

It is all about *zPRO!*

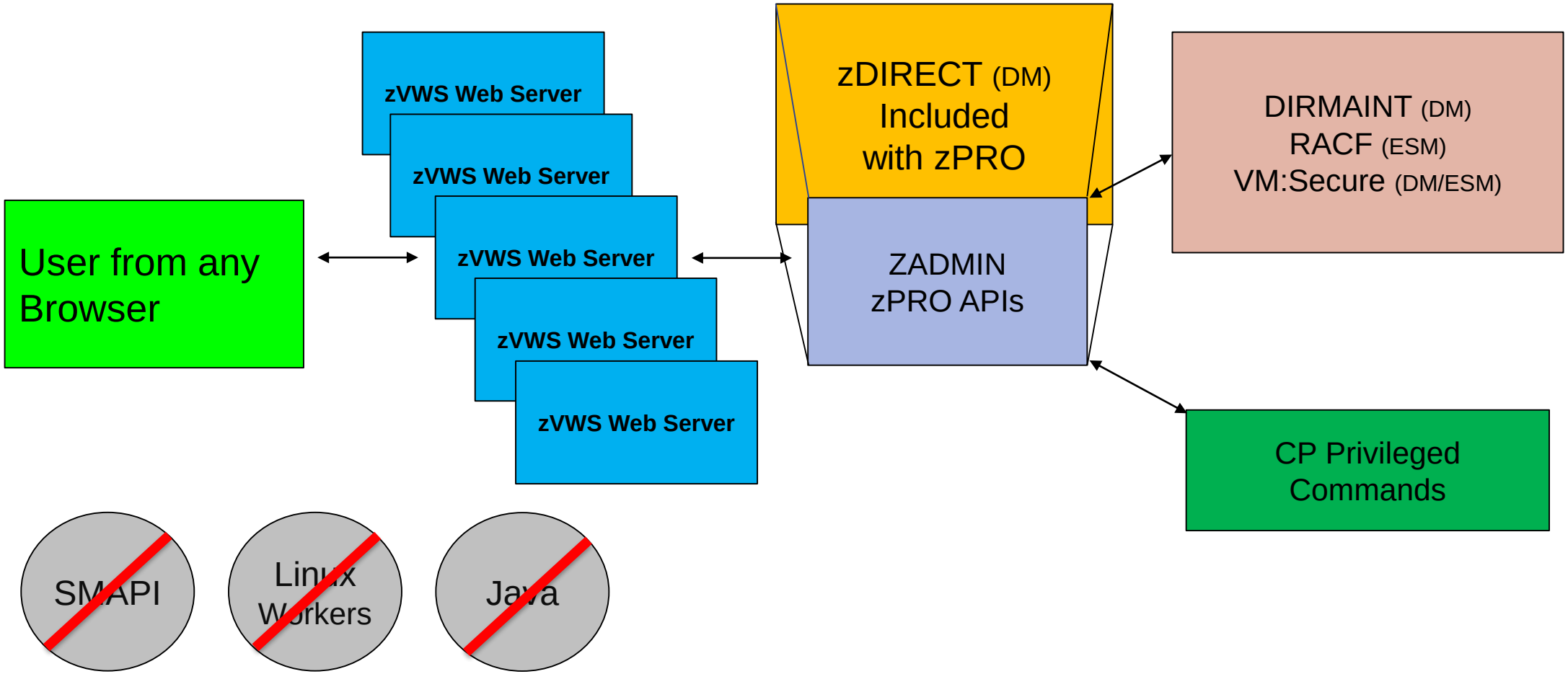
Welcome back to Simple Yet Powerful

Simple, Fast, Lightweight, Powerful and Reliable
This is the premise of zPRO and our commitment to you

Simple? Really?!

- **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 and easily *extensible*
    - zPRO allows you to define exits and additional APIs (in REXX), process-windows (called DIRMODELs) and more, to fit your specific needs
    - Velocity Support will gladly assist with anything you need

zPRO in a Picture



zPRO Highlights

- **Enables quick solutioning – both in speed and time**
  - zPRO makes managing Linux on z *very easy* for systems programmers, end-users, operations, management – really anyone. It allows you to designate privileges to other users to build and manage their own servers within the guidelines and scope established by YOU
- **zPRO Focuses on Three Main Cornerstones:**
  - Simplifying access and acceptance of the mainframe for new, younger and possibly less skilled team members through a browser-based interface
  - Providing a cloud-based facility for mainframe training, especially around cloud and guest management
  - Simplifying daily tasks by empowering end-users to manage their own guests while still controlling authorities and resources

zPRO Highlights

- **Utilizes the zVWS *native* z/VM web server**
  - UI is completely browser-based
  - No changes required in web server to support zPRO
  - **Installs in about 10 minutes (usually much LESS!)***
- **Supports common directory/security management**
  - zDIRECT with or without RACF
  - DIRMAINT with or without RACF
  - VM:Secure (CA)
- **Authentication support**
  - VM / LDAP / AD / your own

zPRO Highlights

- **z/VM Cloud Server Management**
  - Clone (provision), modify, start, stop, 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
  - SSI / LGR (live guest relocation) support
  - Enterprise view of servers*
    - View servers on other nodes, even if not in an SSI cluster

zPRO Highlights

- **Exceptionally Extensible**
  - Can define and “plug in” site-defined services
- **Give access to non-Sysprog users/groups**
  - No special z/VM authority required for users/groups
  - Define resource boundaries for groups and users
    - Each group and user can use the same or specific
      - Resource Pools
      - Resource Limits – even by server
  - Users manage *their own* resources and servers
    - Can clone and manage their own servers how and whenever they need
      - zPRO ADMIN sets who can do what

zPRO Highlights

- **No z/VM system knowledge needed**
  - Fills in for any lack of z/VM skills
    - Do *YOU* need to be concerned about that?!
- **Reduces time**
  - z/VM System Programmer time is freed up
  - Self-service model allows others to provision and manage with defined controls/authorities
- **Empowers others**
  - Unix/Linux admins, Application groups, Operations and more

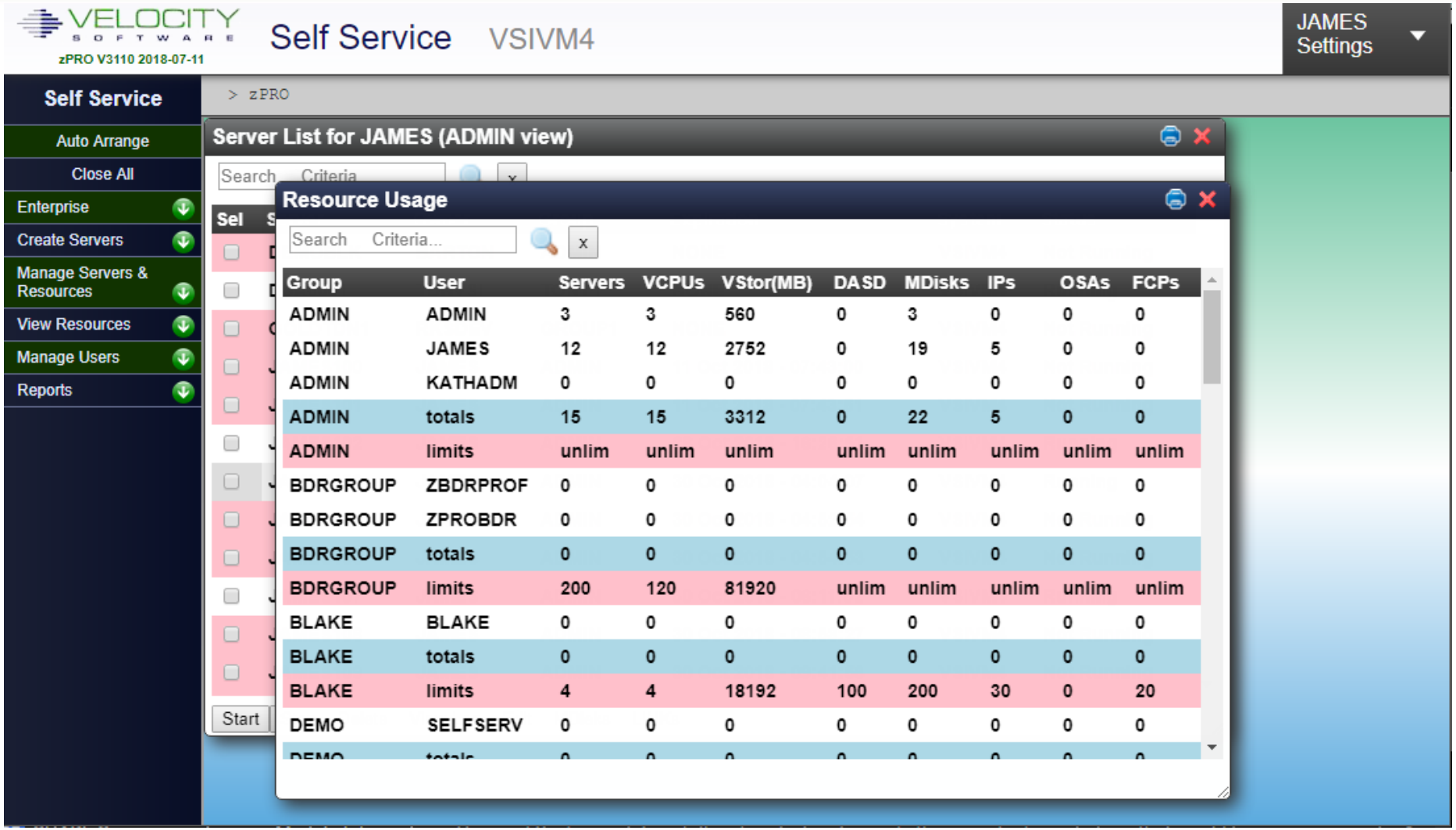
- *The Systems Programmer (and management) still retain control*

zPRO Virtual Demo

https://www.velocitysoftware.com/zPRODemo.pdf

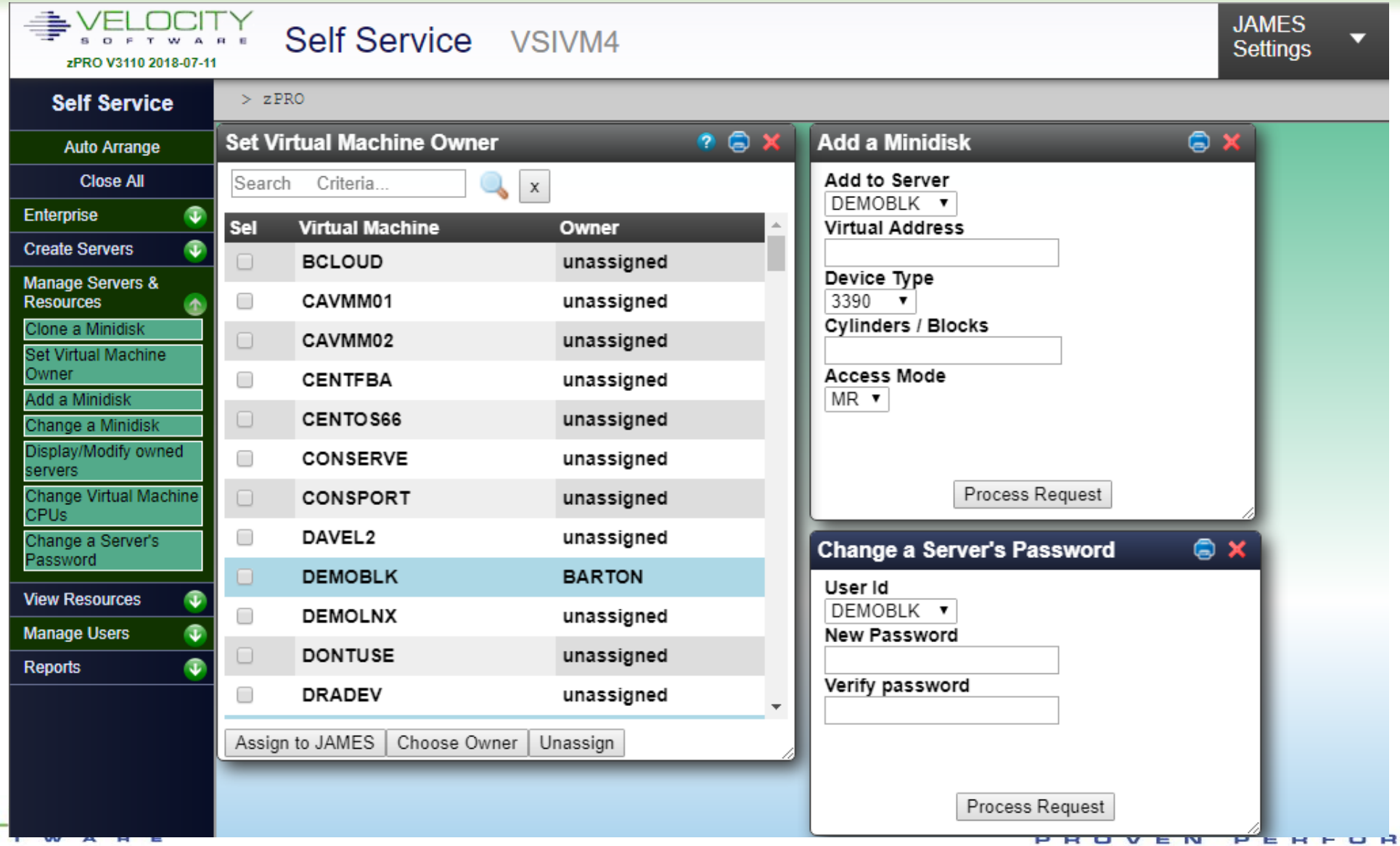
- PDF contains an overview of zPRO and detailed screen-shots showing some of the major functions and benefits

zPRO Initial View

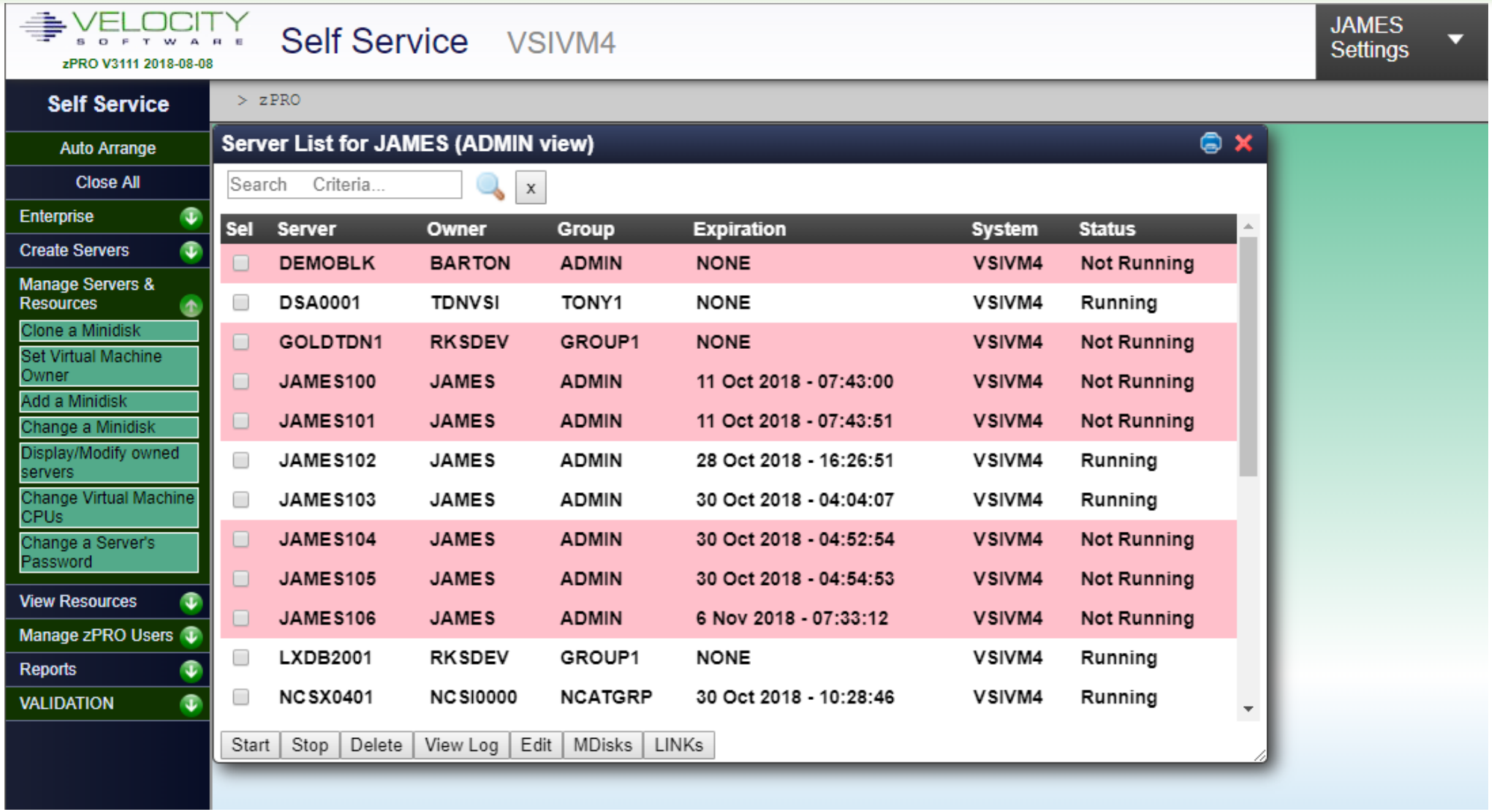


Group	User	Servers	VCPUs	VStor(MB)	DASD	MDisks	IPs	OSAs	FCPs
ADMIN	ADMIN	3	3	560	0	3	0	0	0
ADMIN	JAMES	12	12	2752	0	19	5	0	0
ADMIN	KATHADM	0	0	0	0	0	0	0	0
ADMIN	totals	15	15	3312	0	22	5	0	0
ADMIN	limits	unlim	unlim	unlim	unlim	unlim	unlim	unlim	unlim
BDRGROUP	ZBDRPROF	0	0	0	0	0	0	0	0
BDRGROUP	ZPROBDR	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
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
DEMO	SELFSERV	0	0	0	0	0	0	0	0

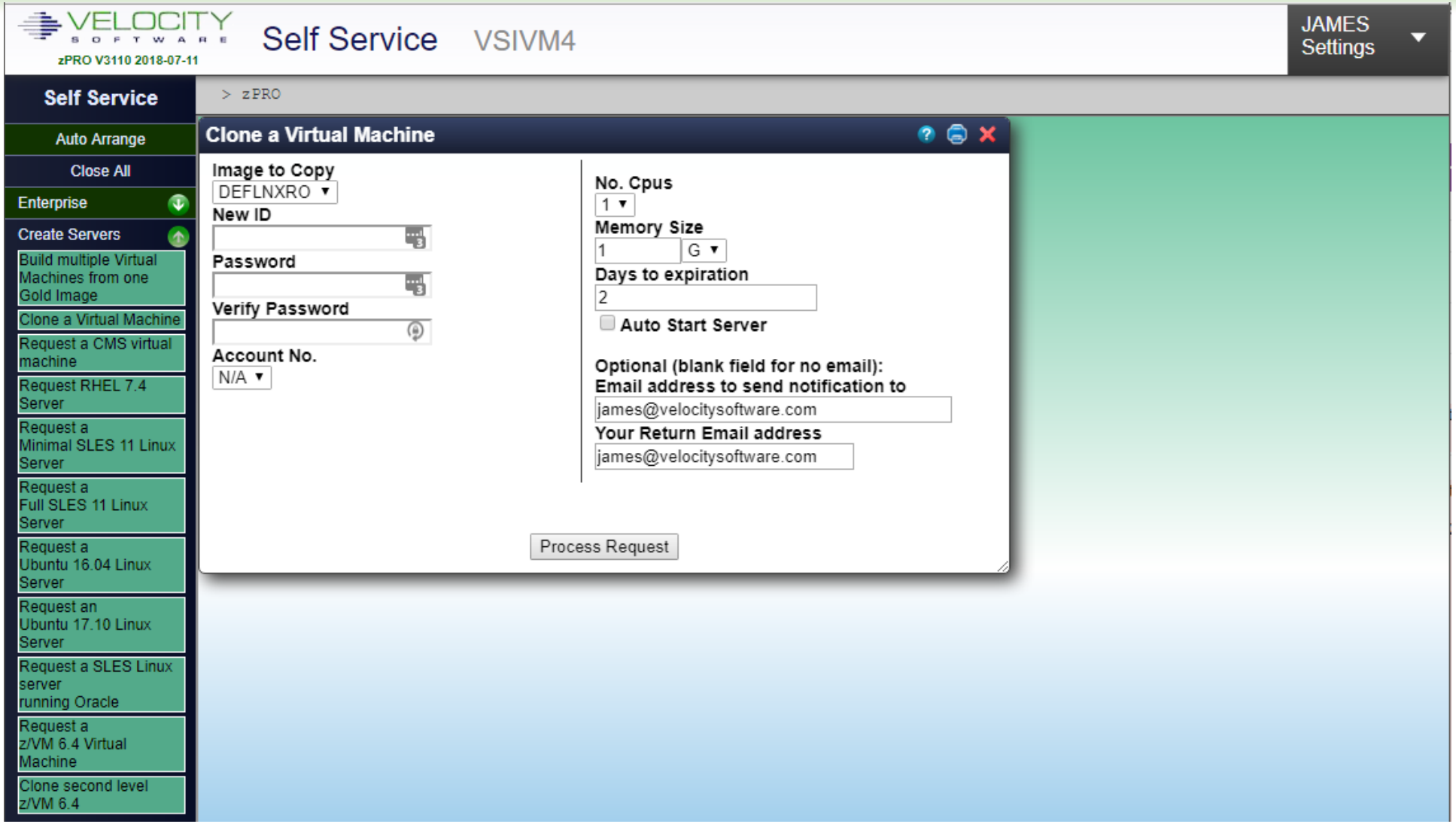
zPRO Controls & Guest Ownership



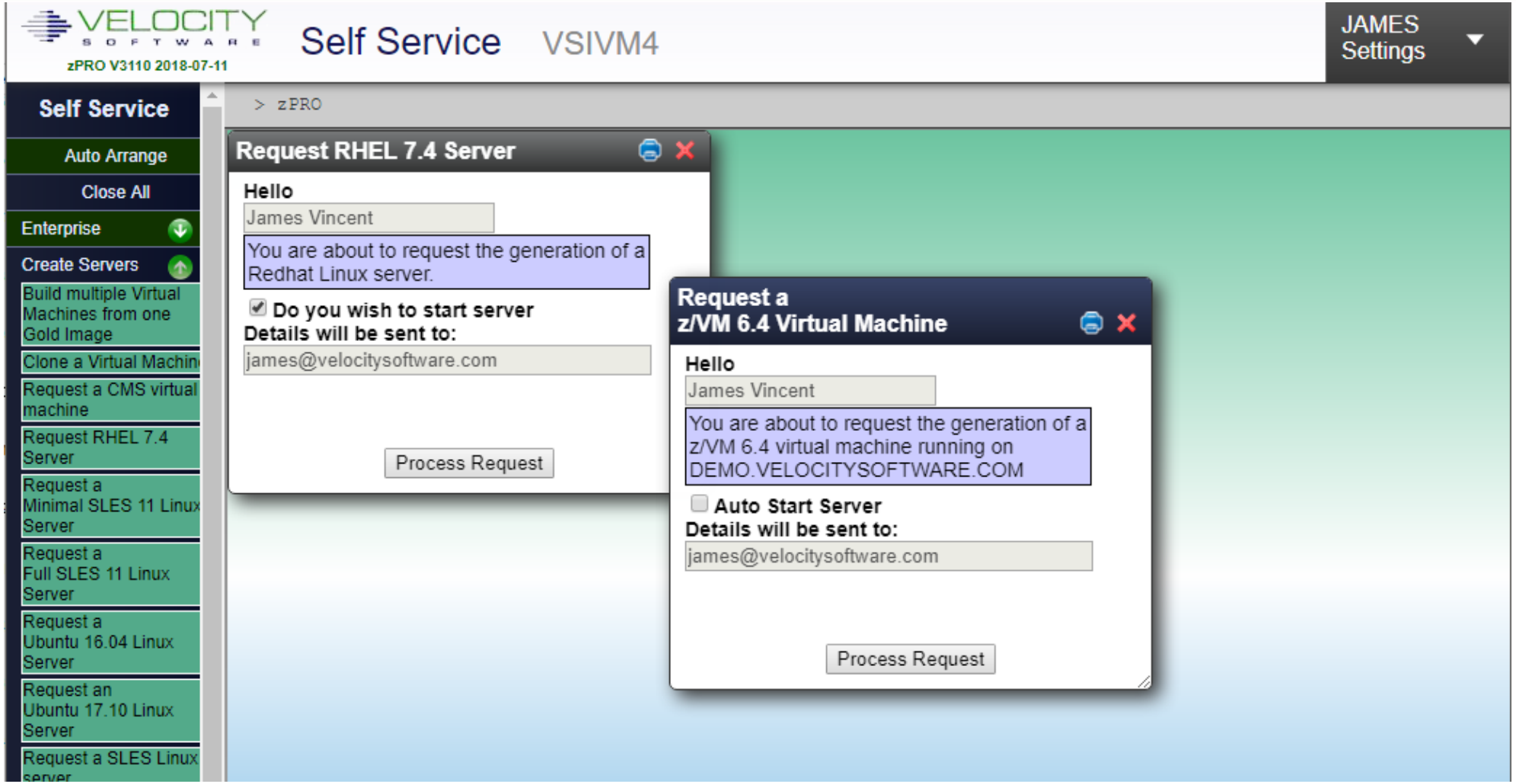
zPRO Guest Management



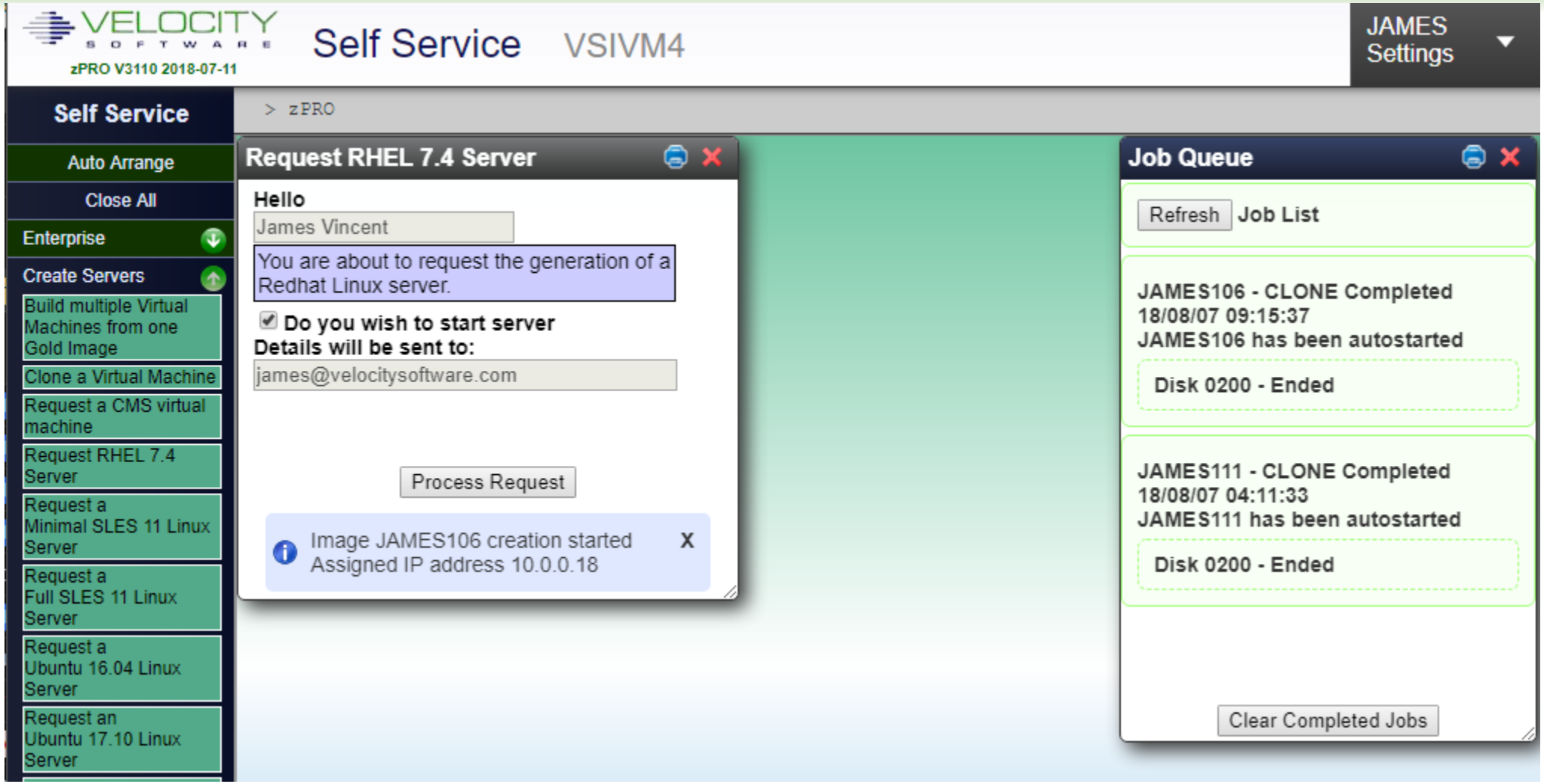
zPRO Provisioning 1



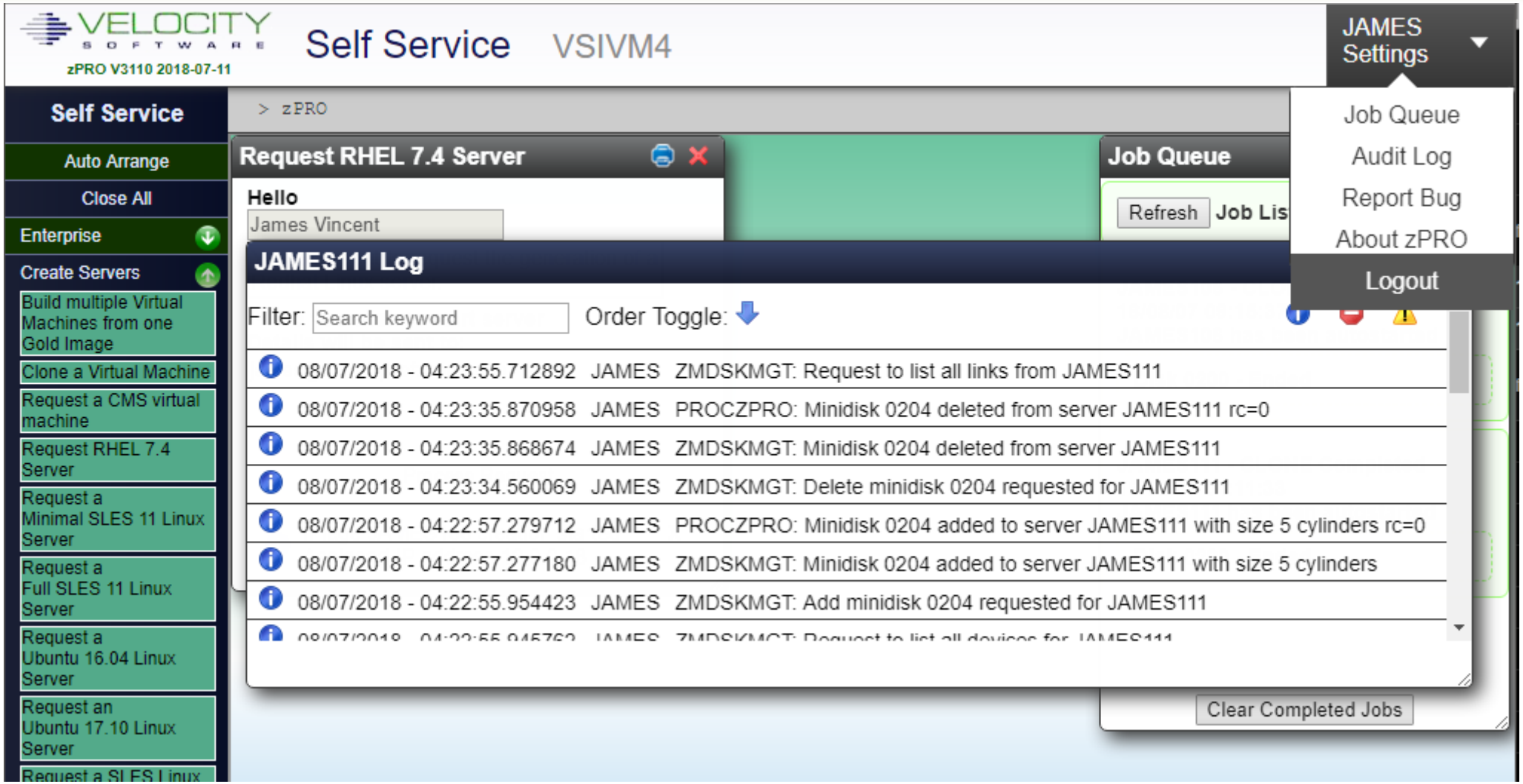
zPRO Provisioning 2



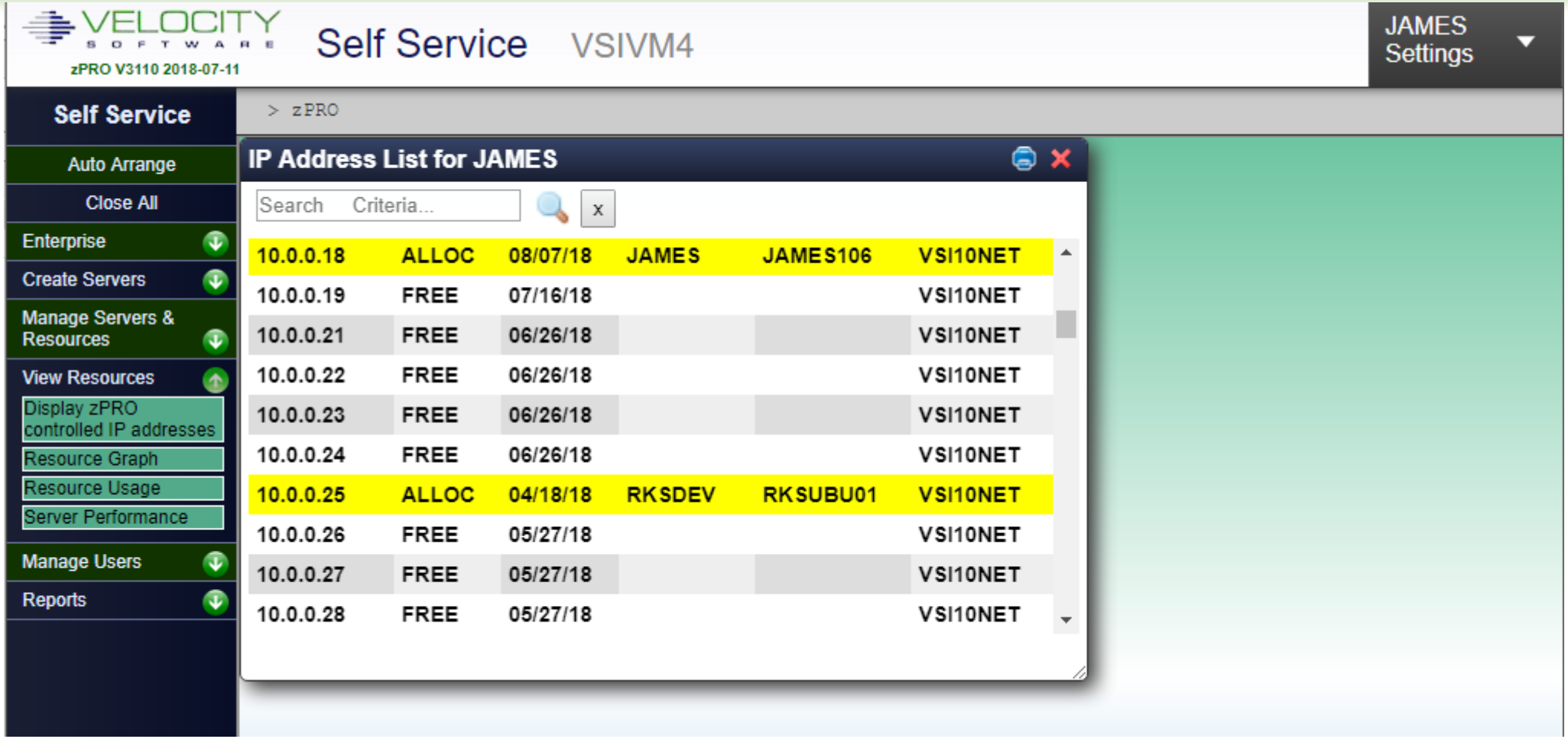
zPRO Provisioning Status



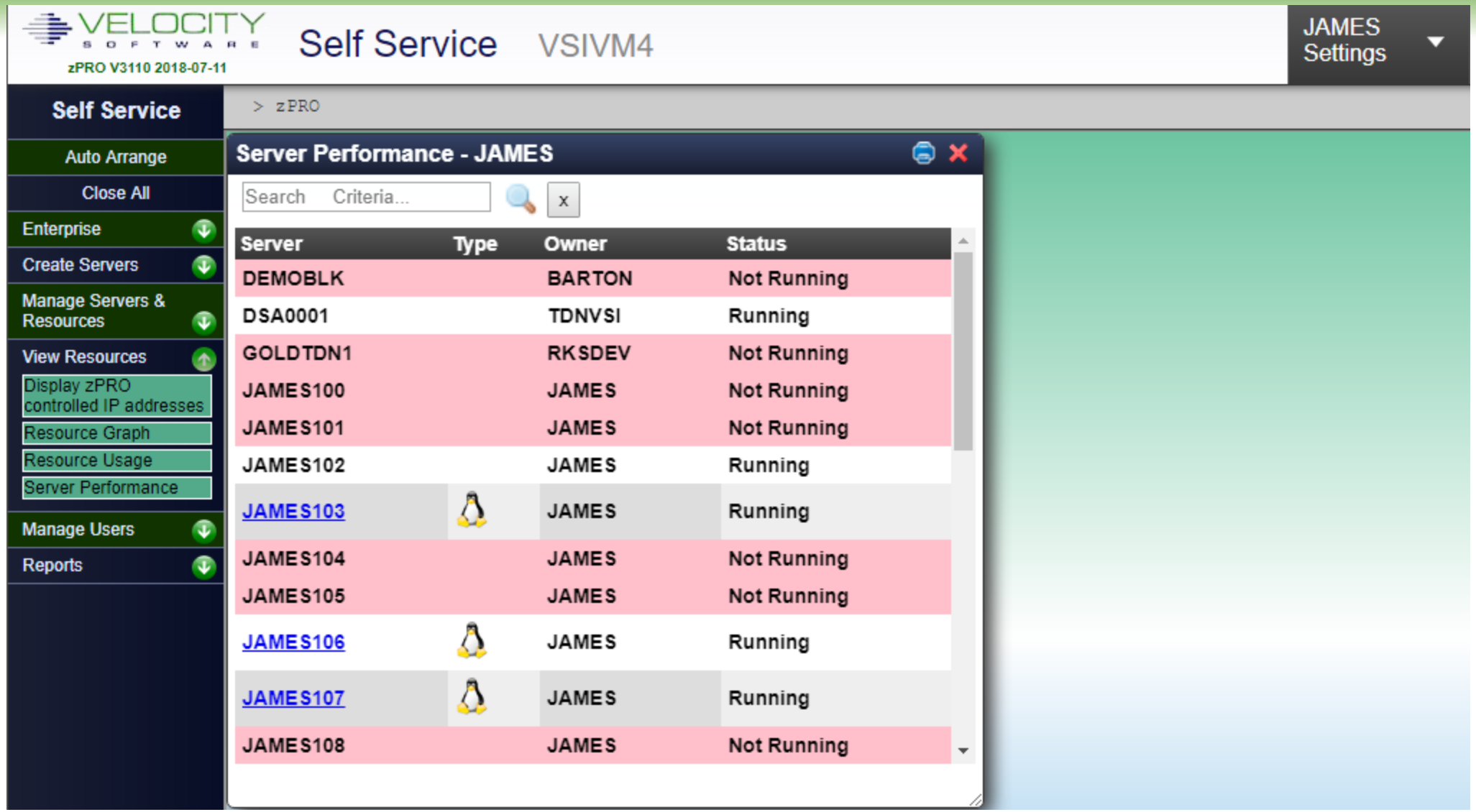
zPRO Auditing



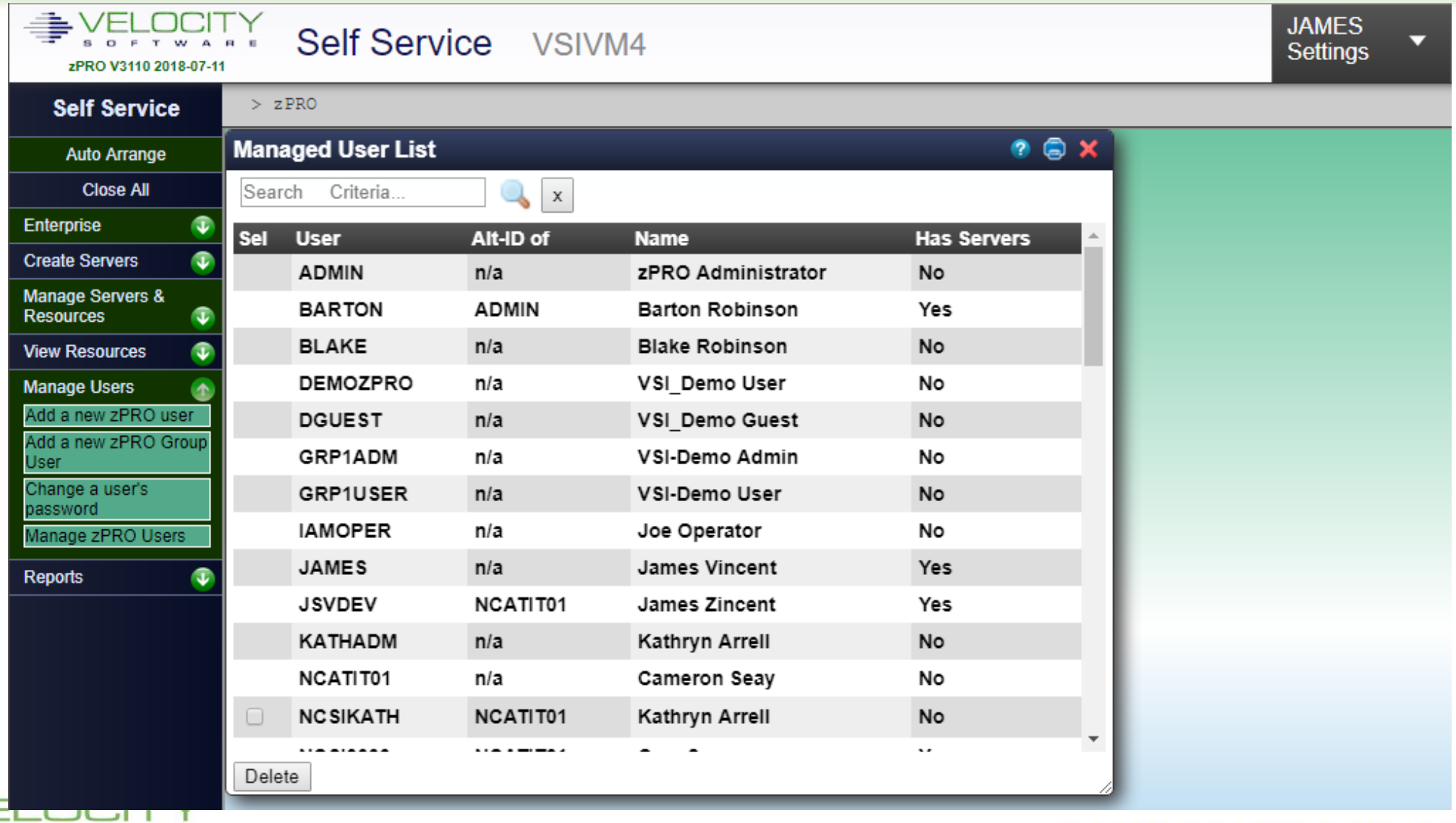
zPRO IP Resource Management



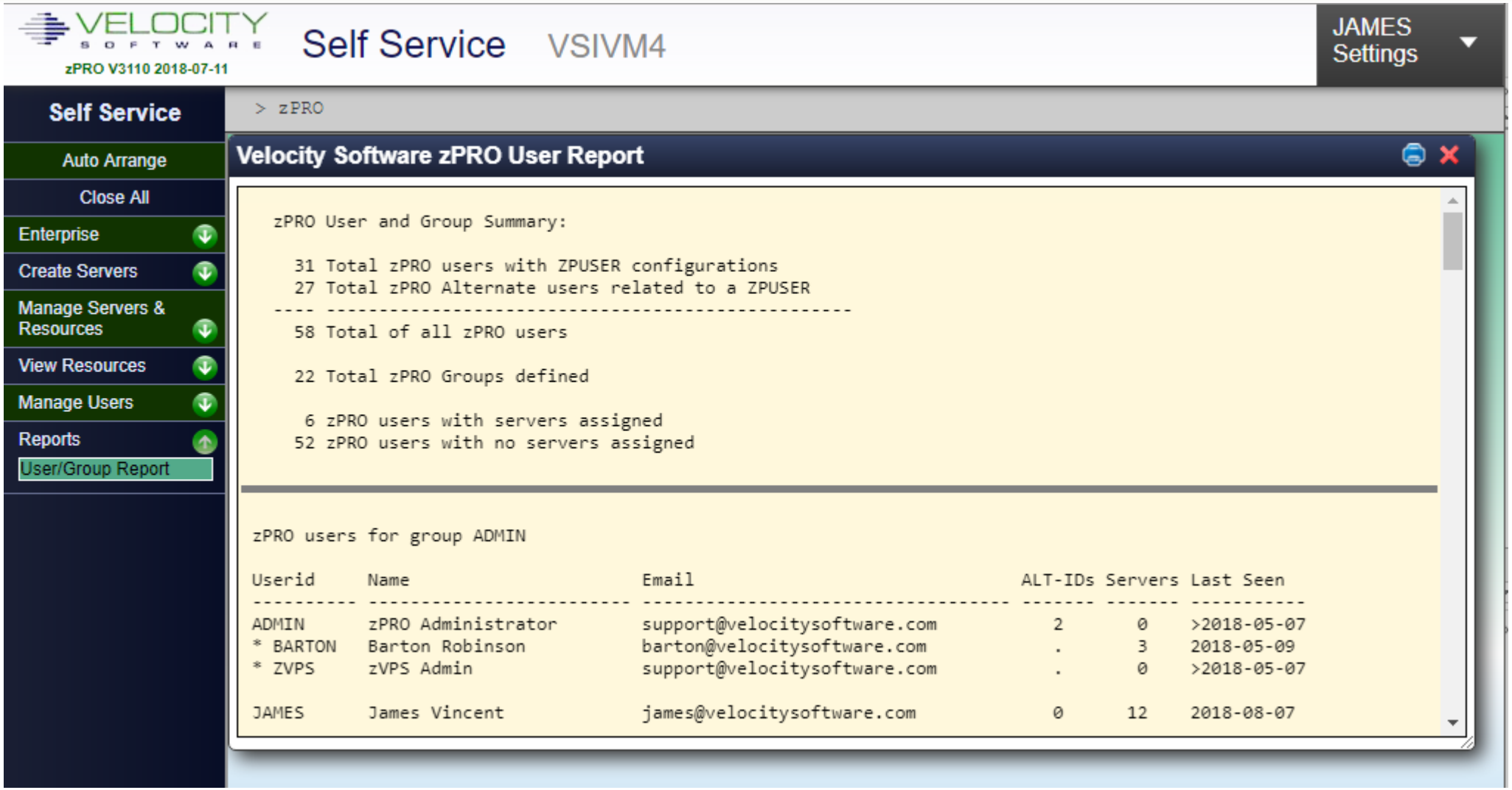
zPRO Highlights



zPRO User Management

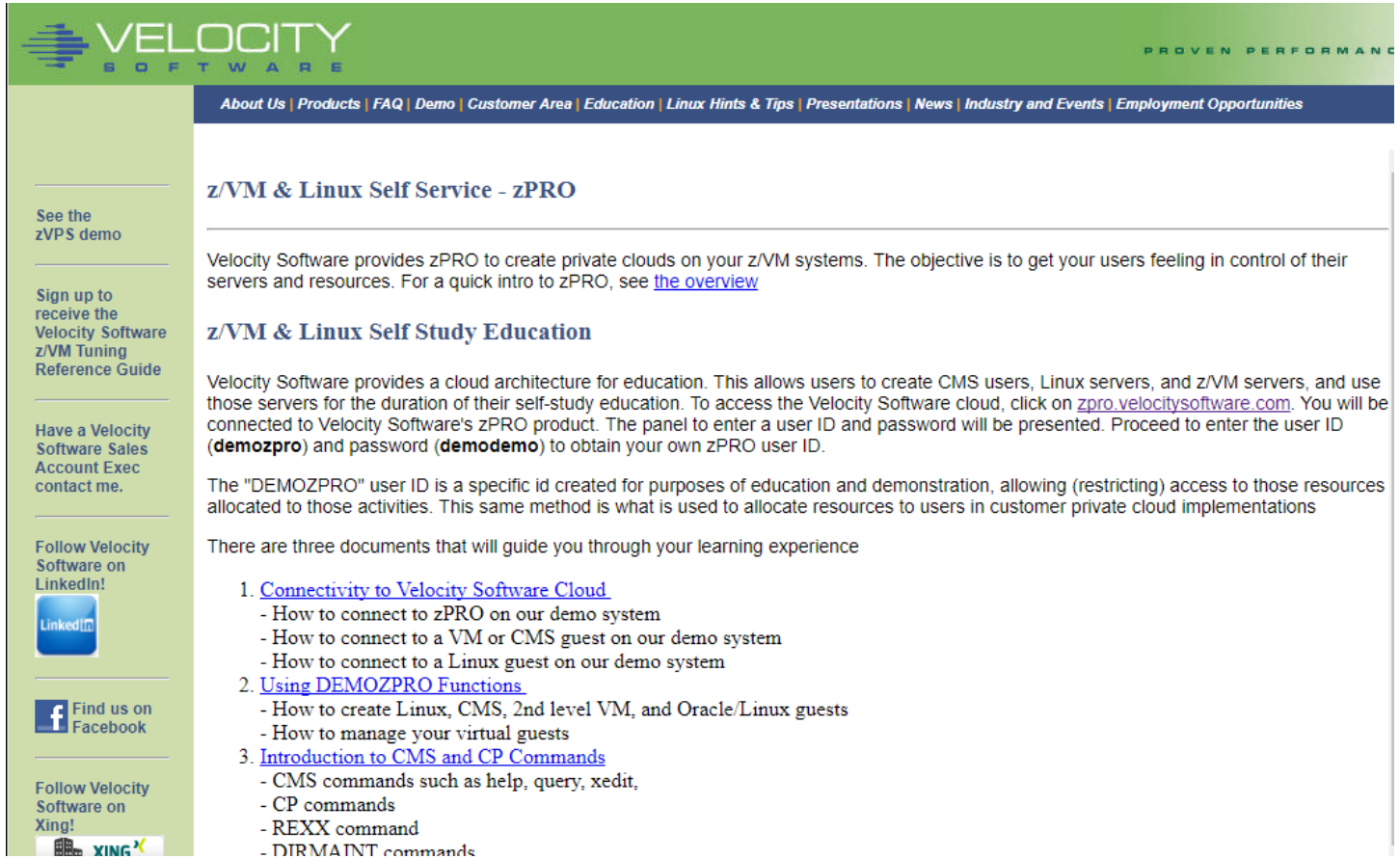


zPRO Resource Reports



zPRO - z/VM & Linux Education

- **https://www.velocitysoftware.com/educate/**



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z/VM & Linux Self Service - zPRO

Velocity Software provides zPRO to create private clouds on your z/VM systems. The objective is to get your users feeling in control of their servers and resources. For a quick intro to zPRO, see the overview

z/VM & Linux Self Study Education

Velocity Software provides a cloud architecture for education. This allows users to create CMS users, Linux servers, and z/VM servers, and use those servers for the duration of their self-study education. To access the Velocity Software cloud, click on zpro.velocitysoftware.com. You will be connected to Velocity Software's zPRO product. The panel to enter a user ID and password will be presented. Proceed to enter the user ID (**demozpro**) and password (**demodemo**) to obtain your own zPRO user ID.

The "DEMOZPRO" user ID is a specific id created for purposes of education and demonstration, allowing (restricting) access to those resources allocated to those activities. This same method is what is used to allocate resources to users in customer private cloud implementations

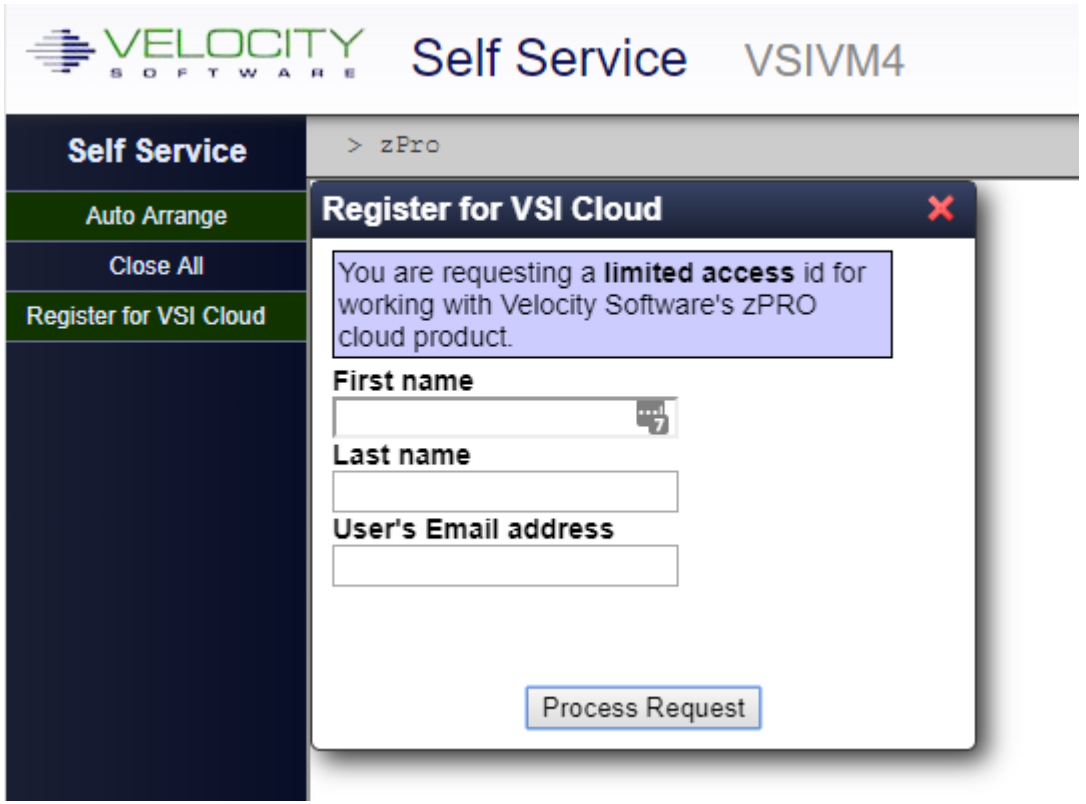
There are three documents that will guide you through your learning experience

1. Connectivity to Velocity Software Cloud
   - How to connect to zPRO on our demo system
   - How to connect to a VM or CMS guest on our demo system
   - How to connect to a Linux guest on our demo system
2. Using DEMOZPRO Functions
   - How to create Linux, CMS, 2nd level VM, and Oracle/Linux guests
   - How to manage your virtual guests
3. Introduction to CMS and CP Commands
   - CMS commands such as help, query, xedit,
   - CP commands
   - REXX command
   - DIRMAINT commands

zPRO Cloud Demo Site

- **To register: https://demo.velocitysoftware.com/zpro/**
  - Userid: **demozpro**
  - Password: **demodemo**

- **Check your email for your login info**



zPRO futures

- Full RH kickstart support **(Done!)**
- Catalog for Gold Images and Servers (CMDB)
- Resource Management Report Catalog
- Additional z/VM controls (RACF, SFS, Spool, etc)
- Enterprise Control (Cross Origin Resource Sharing)
- Open and complete RESTful API support
- UI smoother, cleaner, faster
- Command-line interface for zDIRECT+
- MUCH more!

Summary

- **zPRO is Simple, Fast and Powerful to manage your z/VM host and servers**
- **Real customers agree:**
  - ***"zPRO has spoiled me"*** from a Linux Admin that was given access to build and manage application/DB servers
  - ***"zPRO lets me focus on bigger, time-consuming projects"*** from a z/VM Sysprog
  - ***"We are using zPRO to make a case for [solutions] that require data to be stored more securely instead of [in] the AWS cloud."*** from a z/VM & Linux Sysprog

Questions / Comments?

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