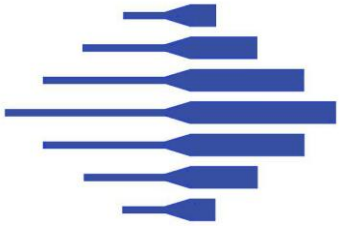
35 YEARS OF PERFORMANCE MANAGEMENT



VELOCITY SOFTWARE

Modernizing and Automating the LinuxOne Environment

Linux on Velocity: zLOV

zVPS
PERFORMANCE SUITE

THE WORLD'S LEADING PERFORMANCE MANAGEMENT SOLUTION FOR Z/VM WITH LINUX AND/OR VSE. NEWLY ADDED SUPPORT FOR Z/OS PLUS NO-CHARGE MONITORING FOR X86 LINUX AND WINDOWS.

zPRO
CLOUD MANAGEMENT

SOLUTION FOR MODERNIZING THE Z/VM PLATFORM, ADDING ON-PREM CLOUD SUPPORT WITH WEB-BASED CONTROLS FOR Z/VM SYSTEM MANAGEMENT PLUS LPAR CLONING AND ANSIBLE PLAYBOOKS USING VELOCITY'S HIGHLY AVAILABLE SMAPI-FREE API'S.

zTUNE
SUPPORT SUBSCRIPTION

VELOCITY SOFTWARE'S ELITE PERFORMANCE SUPPORT SERVICE THAT CREATES AUTOMATED DAILY REPORTS WITH RECOMMENDED ACTIONS

zVRM
RESOURCE MANAGER

REAL-TIME MANAGEMENT FACILITY FOR Z/VM WITH LINUX THAT AUTOMATES SYSTEM SETTINGS USING KNOWLEDGE-BASED INTELLIGENCE TO TUNE WORKLOAD REQUIREMENTS AND OPTIMIZE OVERALL SYSTEM PERFORMANCE.

AI – (Actual Intelligence)
(Peter Enrico quote)

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AI – (Actual Intelligence)
(Peter Enrico quote)

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Modernizing means what?

Modernizing with current technology adds benefits

- Automation results in reduced workloads
- Modern functions improve workflows / save time
  - “single click generation of file pools” – significant time savings
  - “LPAR cloning” – reduced workloads
  - “user empowerment” – reduced paperwork, improves time to market
- Reduced carbon footprint / sustainability

End result of modernizing should be:

- **Reduced costs,**
- **Reduced skills**
- **faster development, new applications**
- Smaller workload doing more with less

What is "modern" technology?

Hardware: Z16 / LinuxOne adds huge opportunities

- AI, compression, encryption
- Lower carbon footprint -> sustainability!

Software

- Linux on z – consolidation, move to modern (away from x)
- Oracle on Linux on z – reduce software costs
- MongoDB / postgres on z – new applications, functions
- Openshift on z - Opportunities
- Ansible – automation (patches, creating servers)
- Grafana dashboards – visibility

z/VM – with zPRO…. Successfully modernizing z/VM

Who stops embracing modernizing on "z"?

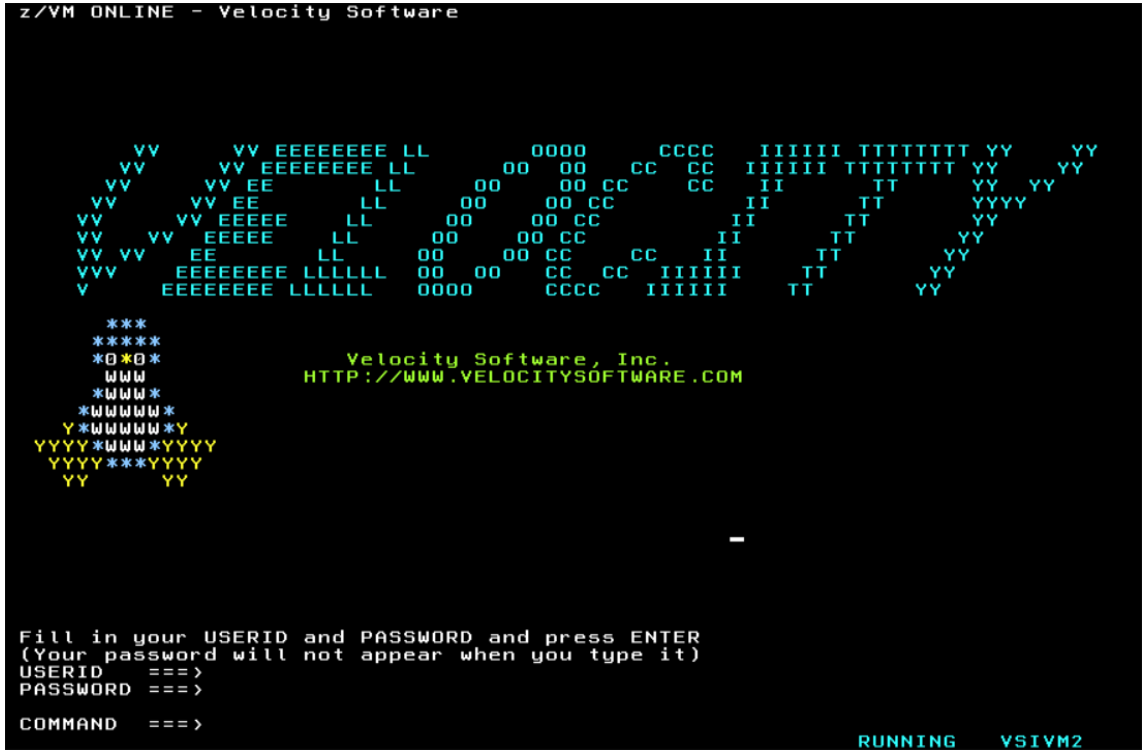
Executive Management – sometimes, but money talks

Lower management – not so much resistance

People about to retire? – They like old stuff

End users? – mostly this is the problem

- Lose control?
- No visibility?
- Learning curve?



Velocity Software's Advantage

zVWS: Native generalized z/VM Webserver – **base for modernization**

- CMS based, Written in Assembler, very light weight
- Full function, Generalized server – completely eliminates need for SMAPI
- CGIs in rexx, assembler, pl1, etc (**Issue CP, CMS commands directly**)
- VERY EASY to develop web pages and applications

VelocitySoftware.com (all runs on z/VM natively – **Secure, Simple**)

- VelocitySoftware.com, VelocitySoftware.de, VelocitySoftware.net, etc
- Linuxvm.org, MVMUA.org (and other user groups)
- VMWorkshop.org (greatest conference for z/VM)

Many customers utilize zVWS for their own applications (govt, financial)

Applications provided by Velocity Software

- zVIEW (Performance data presentation "dashboard"s)
- zPORTAL (GUI interface to managing zVPS)
- zPRO - on prem cloud, modernizing the platform in many ways
- No smapi, no java, No linux server requirements, no complexities

SMAPI? not…

Is SMAPI really an option?

SMAPI operation (and support) requirements

VSMREQ/VSMEVS Service Machines

- One or more INET
- one or more IUCV servers,
- plus AF_EVNT server.

VSMGUARD plus multiple workers (default 3)

- There has to be "long call" and "short call" workers available.

LOHCOST server, DTSMAPI server, PERSMAPI serve

200+ APIs / commands as part of architecture

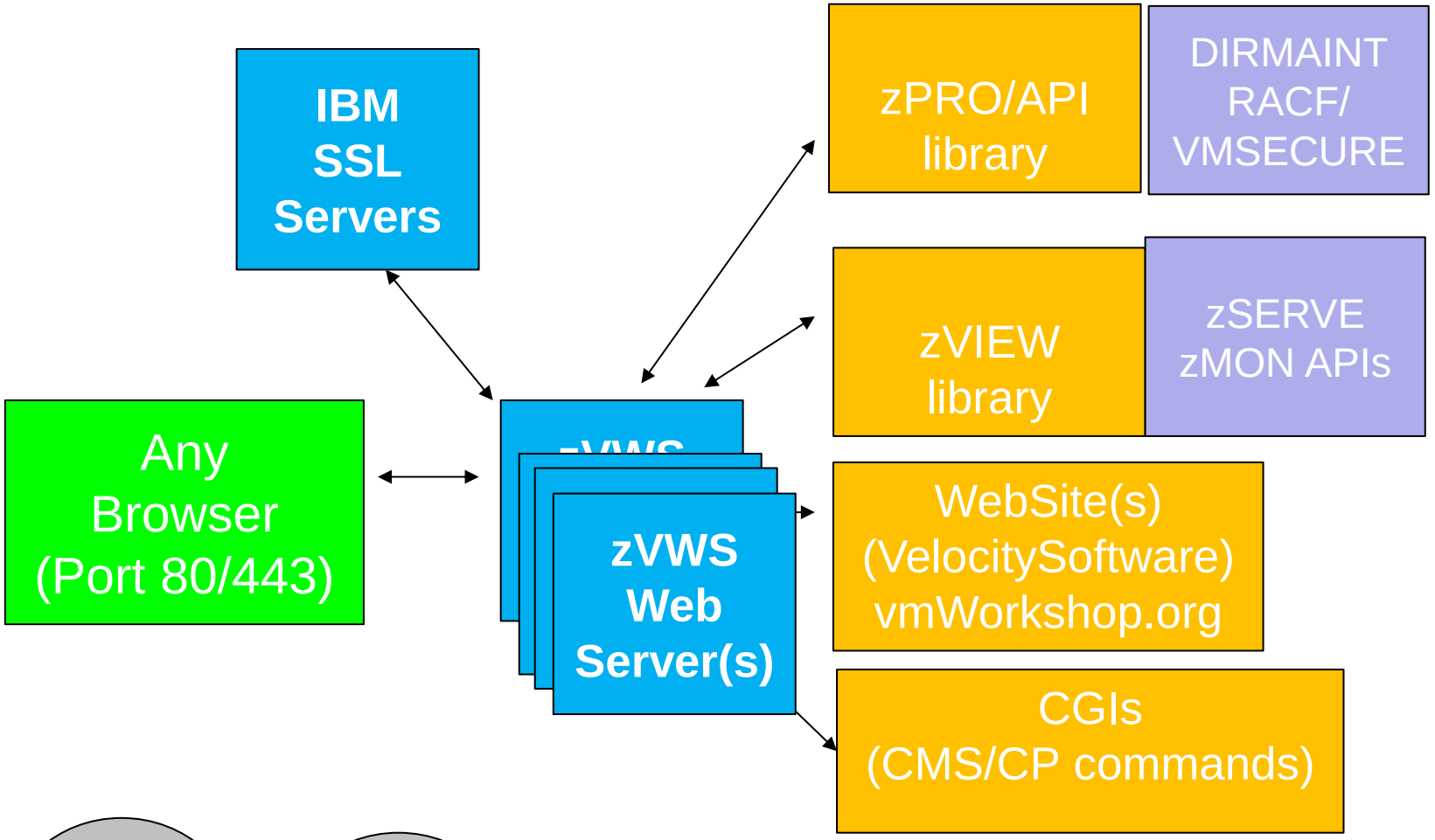
Linux server(s) to drive the SMAPI requests

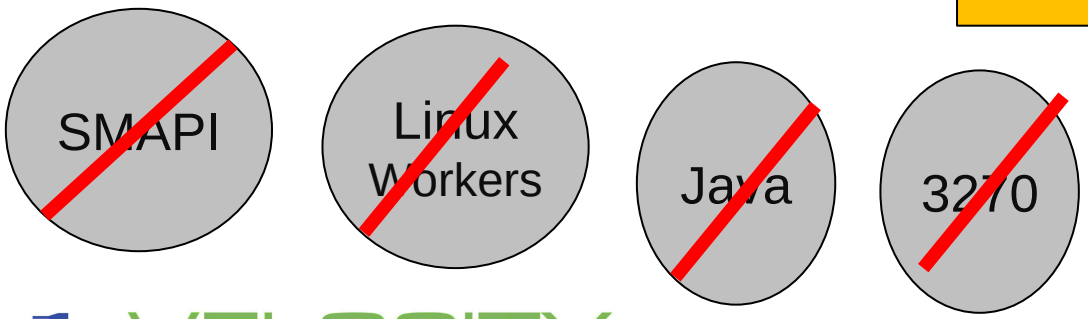
Some number of apache processes?

SMAPI is complex, overengineered and prone to failure

As compared to single server zVWS architecture)

zVPS's Dashboard User Interface





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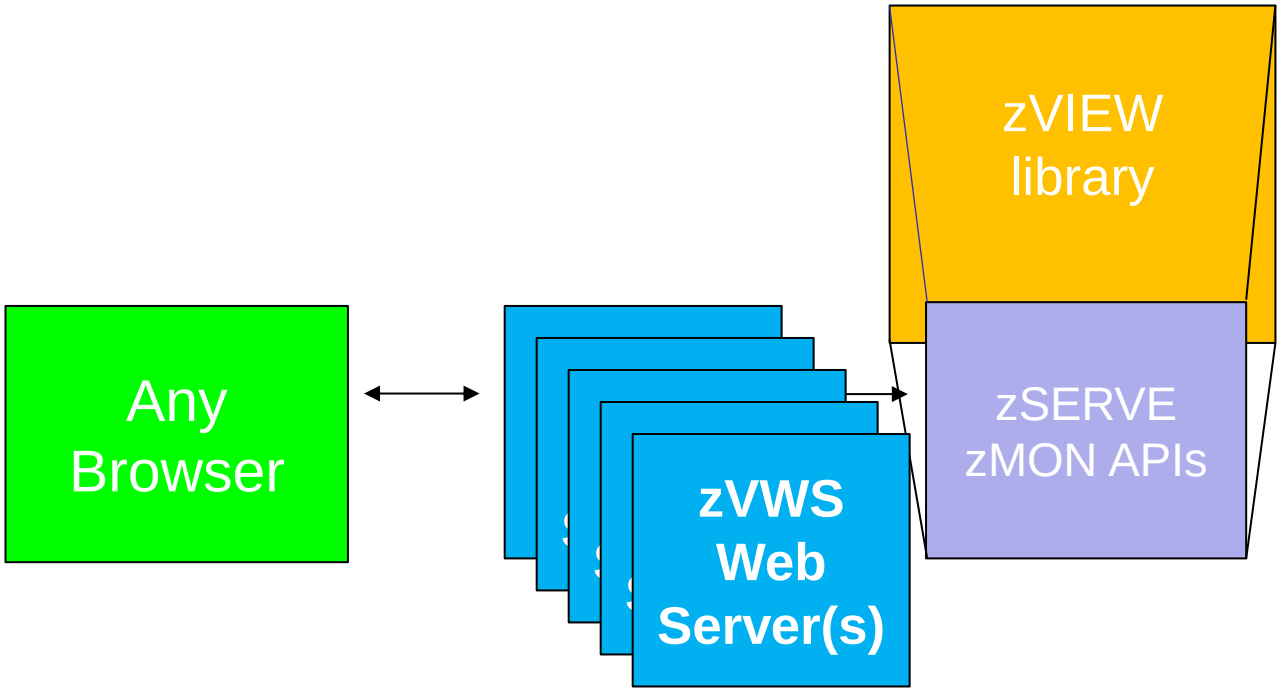
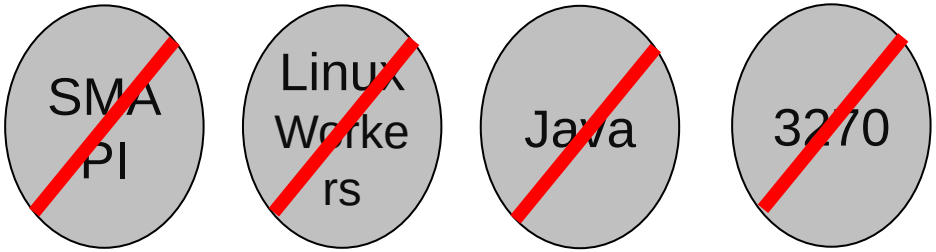
zVPS's Dashboard User Interface





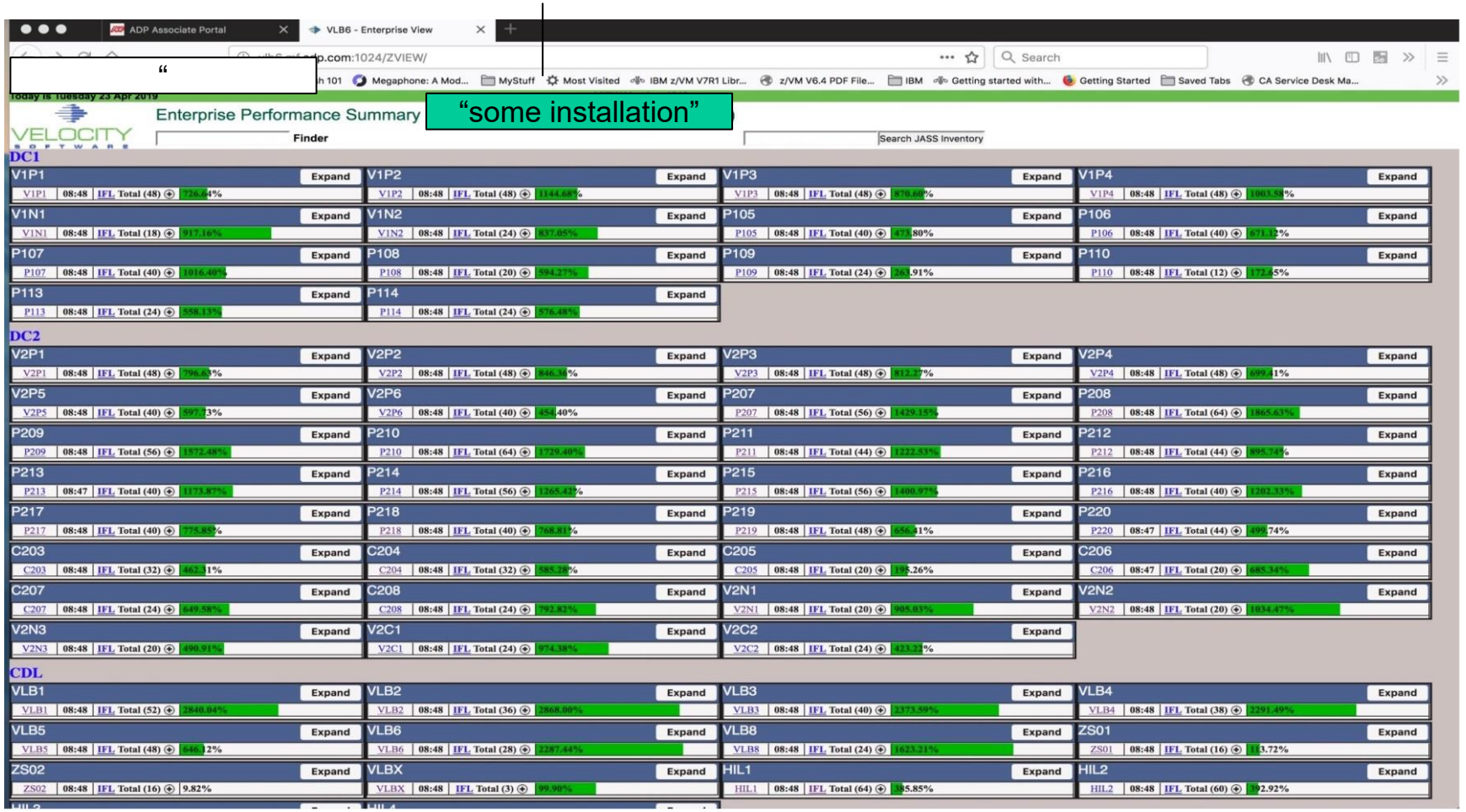
Linux Performance Management

- Lightweight, one click dashboards
- Full dashboard for all data (zVIEW)
- Provide data (VSIPump) to other dashboards
  - (Grafana, splunk, etc)
  - Linux, Oracle, MongoDB, Postgres, OpenShift
  - Secure container platform
  - Note: IBM "datapump" does not provide Linux data
- Manage performance (zVRM – Velocity Resource Manager)
  - Tailor Linux servers to meet current workload requirements
- Produce health reports
- Alert management (zAlert, zOperator)

zVPS Enterprise View is scalable

Centralized Management option

- Data from “many” multiple LPARs(50) / geographies(3)



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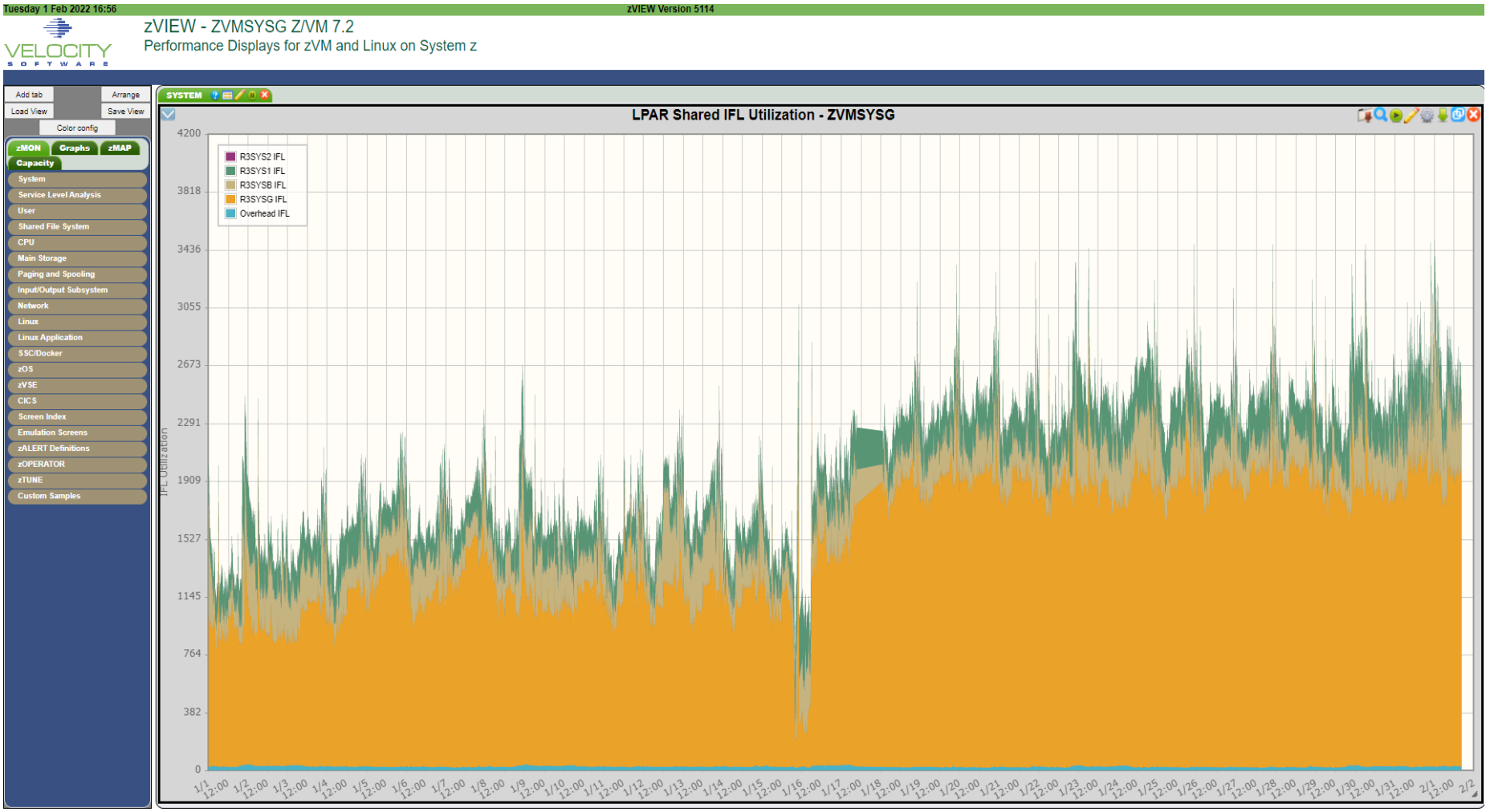
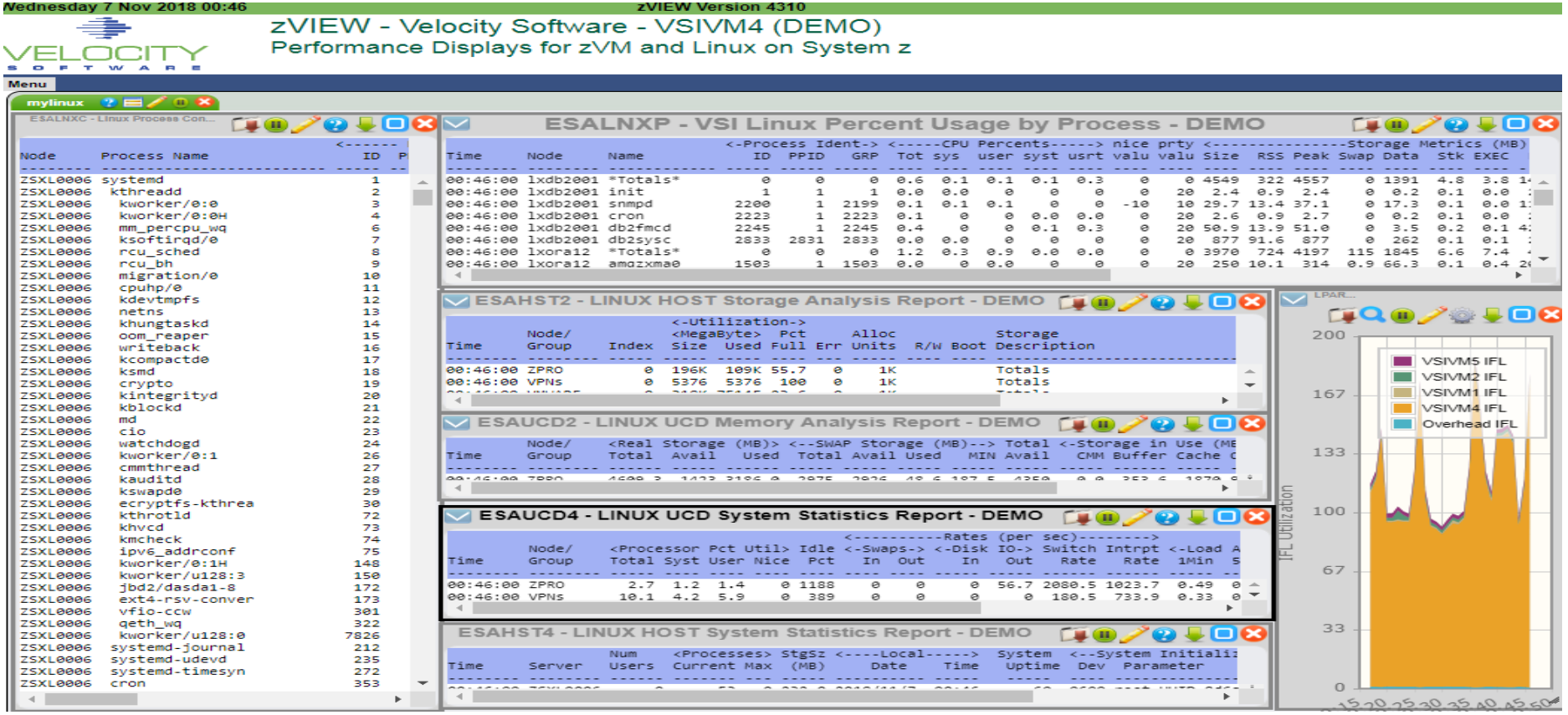
Dynamic Charts

- Data extracted from database dynamically to create graph, example last month



End users define their dashboard(s)

- Linux administrator dashboard provided, everything in one click
- Secure, no need for logon to Linux (no ssh, top)
- Fast and efficient, no restriction on numbers of viewers



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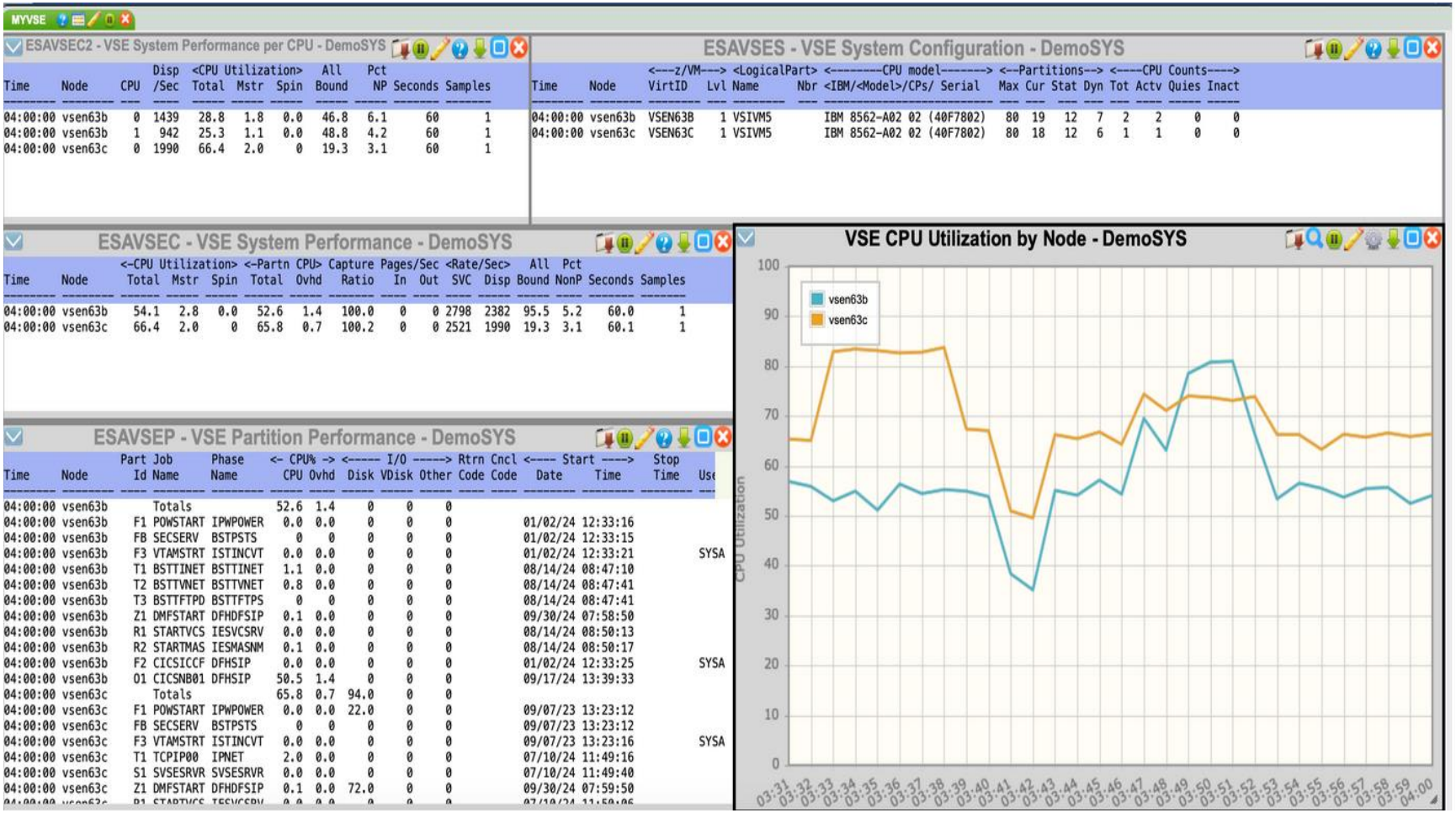
End users define their dashboard(s)

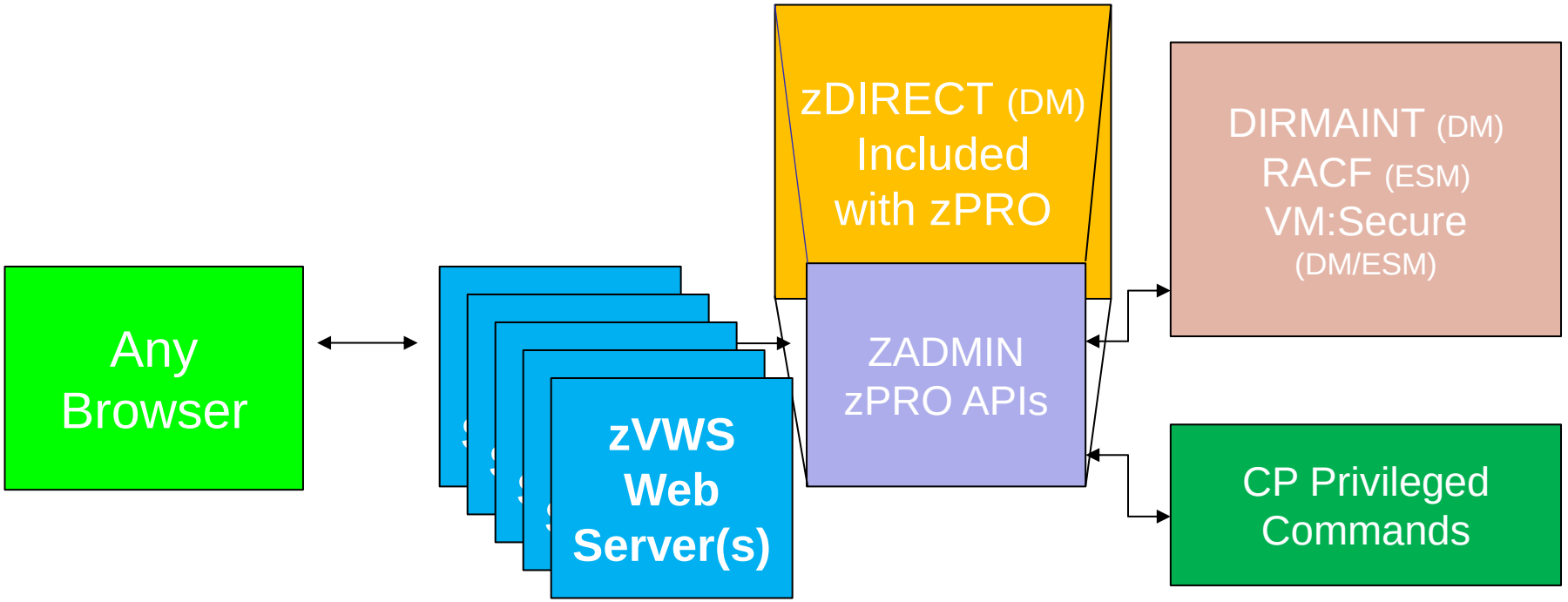


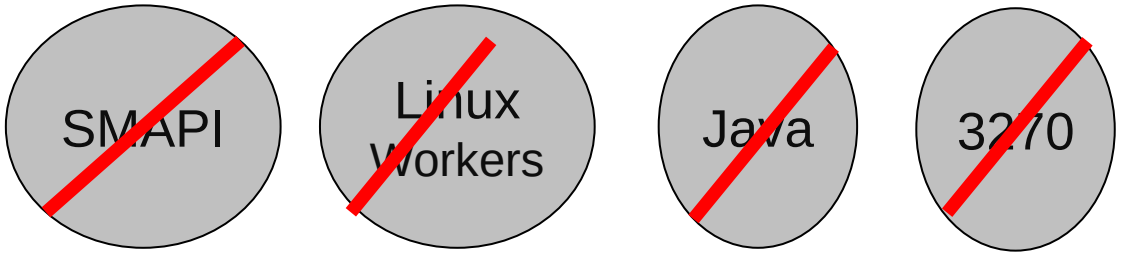
Modernizing z/VM is pretty easy…

Modernizing z/VM with zPRO

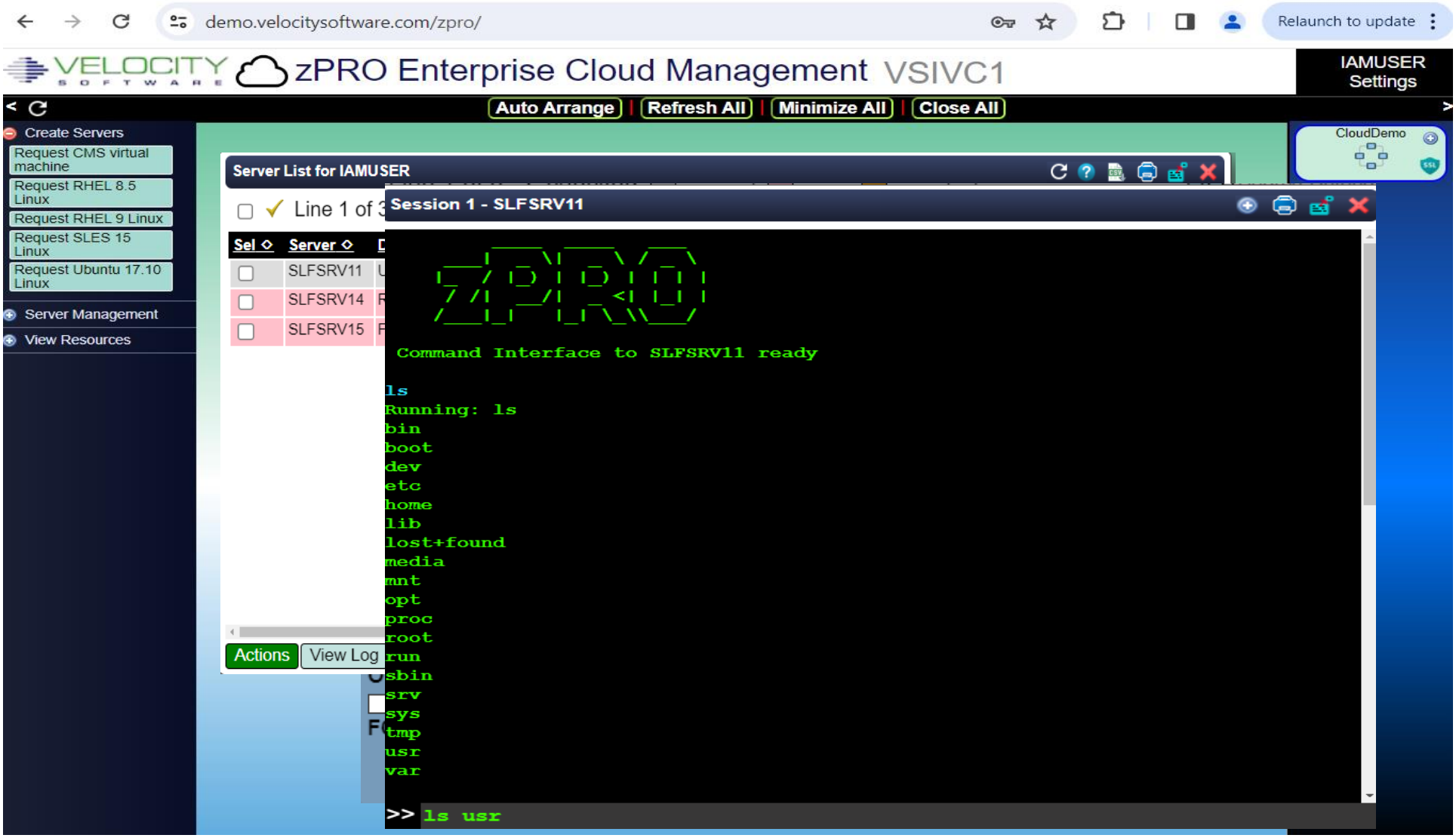
- Native webserver (executes cms/cp commands easily)
- Integrated Browser / graphical interface (java not required/wanted)
- Light weight APIs (no linux, java, can be used by Ansible)
- **User empowerment (users maintain “control”)**
- **Task delegation**
- **On-prem cloud** administration and management

zPRO's Structure – Simple!





What the Linux admin might see on LinuxOne



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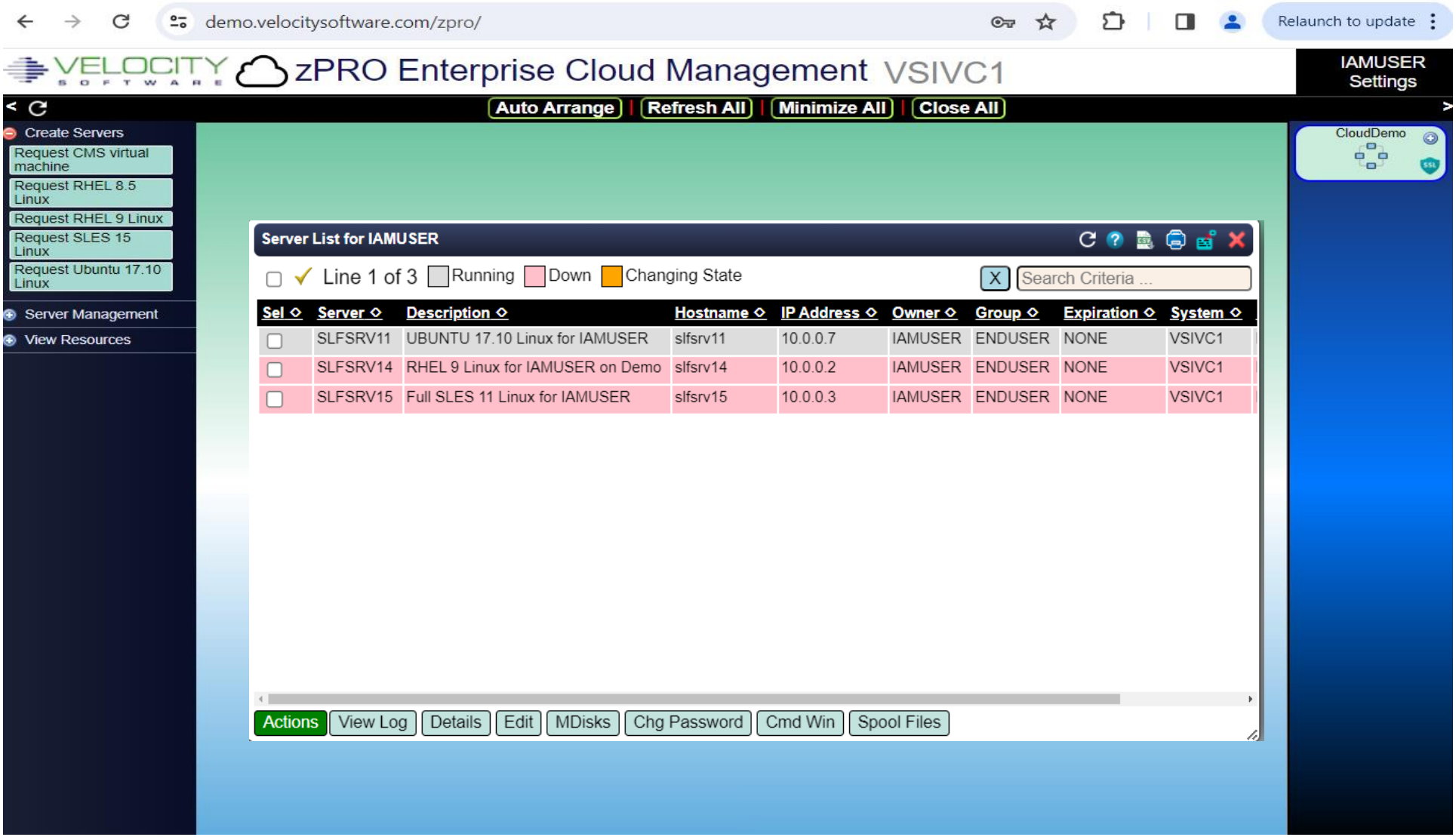

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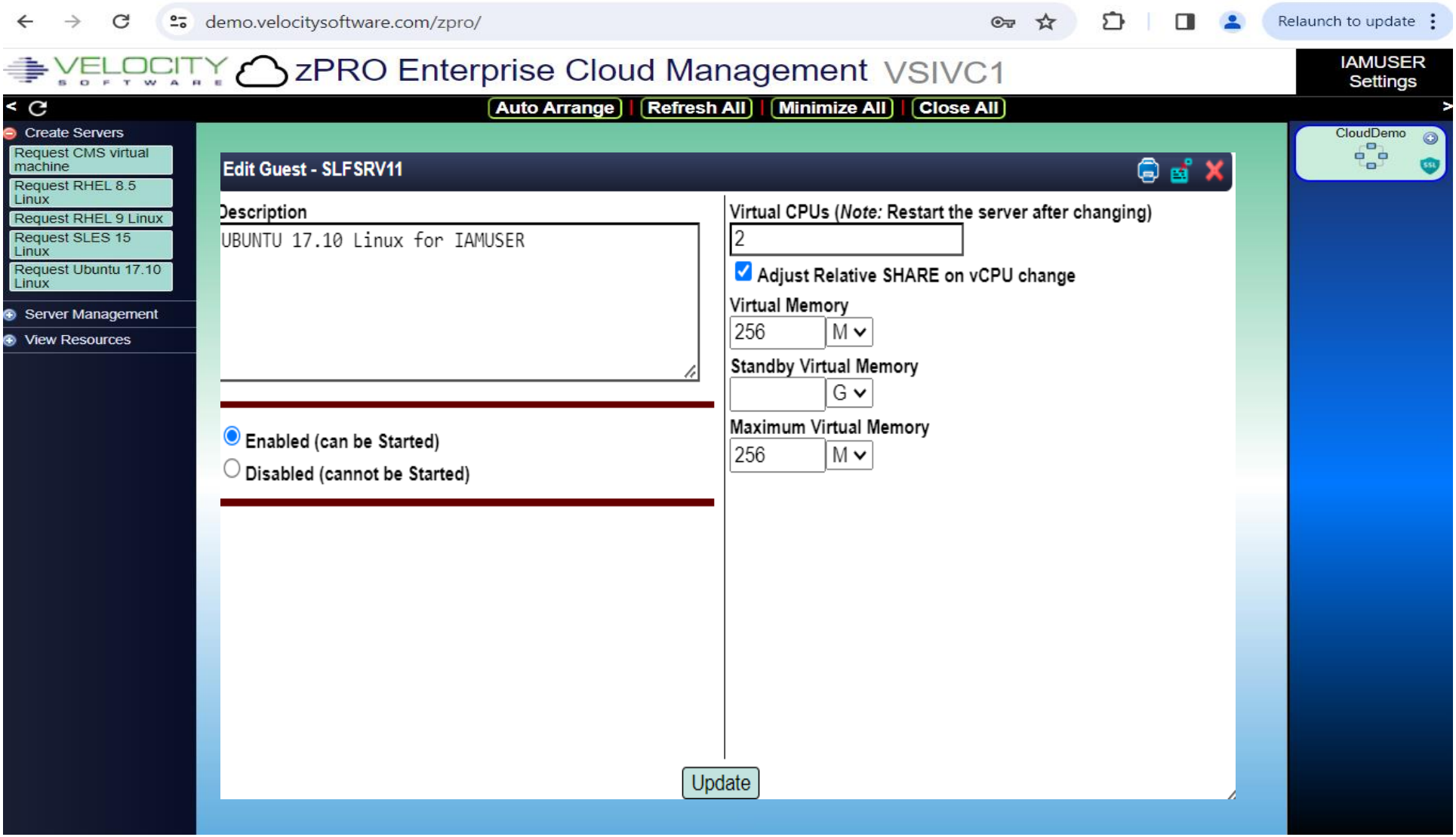


z/VM Functions/Roles

z/VM Administrators to support on-prem cloud

- Lun management – browser based
- Spool management – browser based
- Scheduling – browser based
- Backup / Restore – browser based
- HMC management (LPAR configurations)
- New 3270 requirements can be “zpro’d”

z/VM Systems Programmers

- 3270 required, z/VM skills required
- Performance management
- Software updates (services contracts available)
- System configuration management (page/spool packs)

zPRO Added Systems Management

Event Scheduler

- Schedule and manage events across your systems

zDIRECT: Directory and Storage Pool management

- Add/Delete DASD volumes in your storage pools

zSPOOL: Spool management

- Manage all spool files
- View **via browser** open or closed spool files
- Allow Linux administrators to view their Linux consoles easily

Backup & Restore

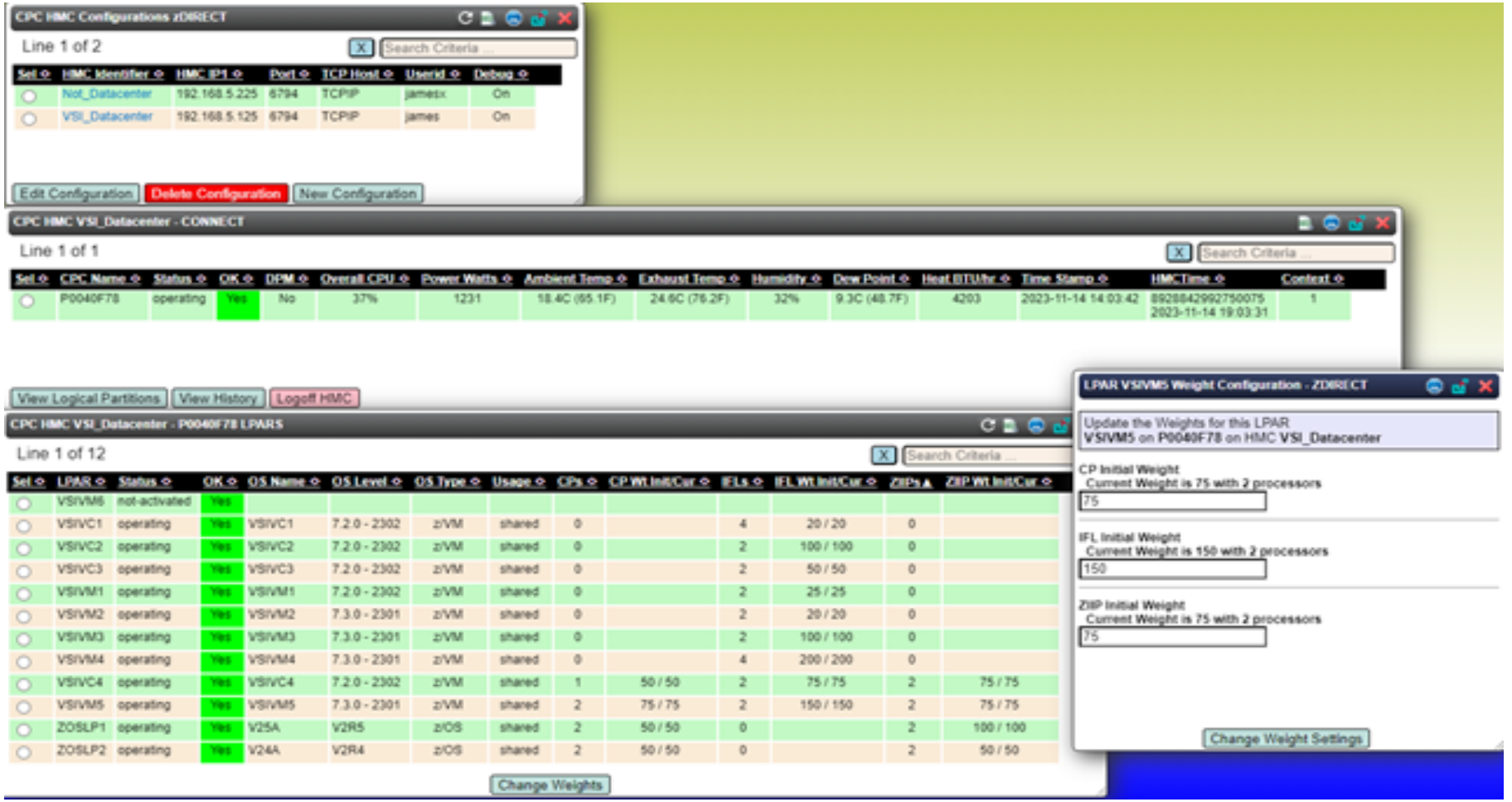
- Backup and restore key/critical files
  - (system config, directory, TCPMAINT)
- Back up files on selected minidisks, sfs file pools

Shared File System (SFS) Management

- Manage pool servers, users/admins, space management,
- build a new pool

What the z/VM sys prog might see on LinuxOne

Native HMC Management for LinuxOne with zPRO…



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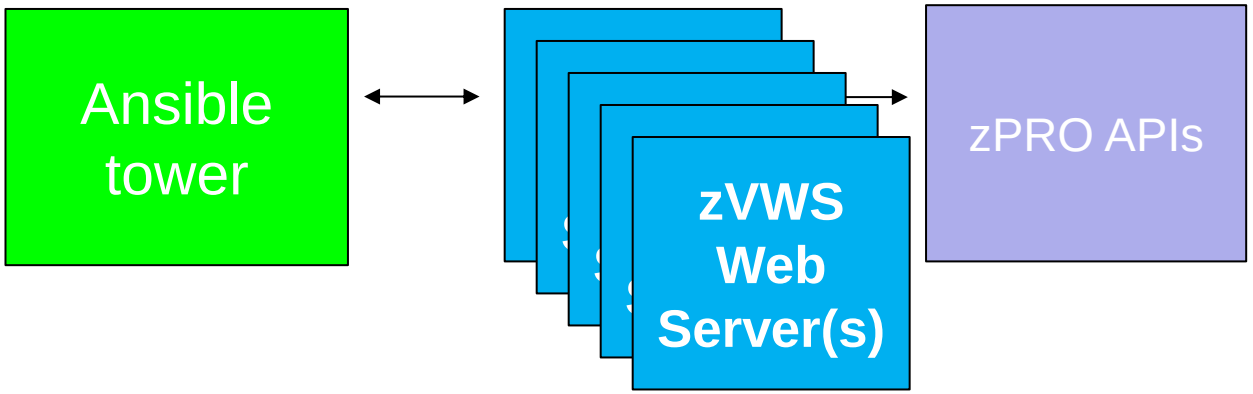
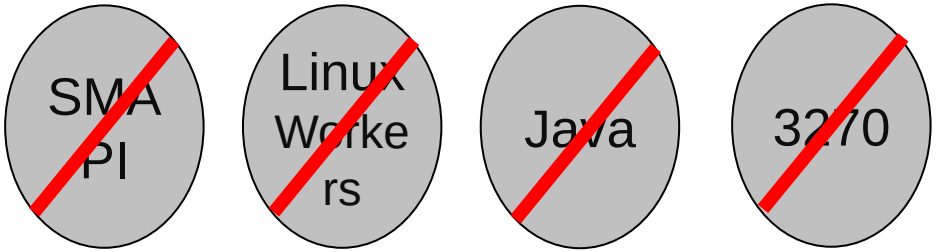
Ansible Support





zPRO – The Modern Interface

Very Simple architecture

- Simple to install (hours to install and tailor, requires zVPS)
- Uses Velocity Software's Native z/VM Web Server (zVWS)!
- No "smapi", **No "linux server" requirements**, No java
- **Non-intrusive, no system modifications**
- Outside services not required
- (as compared to xcat, cma, ….)

Original Intent: Private Cloud infrastructure

- Users create and manage their servers without systems support
- Protected environment
- Linux administrators can manage their "Virtual Machine"

zPRO – The Modern Interface

Benefits

- Difficult time consuming tasks - simplified
- End users empowered
- Reduced need for skilled systems programmers

zPRO'd other complex tasks

- Lun/Edev management – connects directly to DS8K / EMC
- LPAR management – connects directly to HMC
- Linux management – API allowing Linux commands
- Directory management – DIRMAINT, VMSecure, zDIRECT
- RACF wizard
- Restful APIs replace SMAPI

Empower your users!

"demo.VelocitySoftware.com/zPRO"

- Linux server administration
- Demo limited to "cloud" functionality
- Create servers, modify servers, delete servers
- Limited in scope to protect other servers
- Automatic life cycle management
- Used for education

zPRO – try it yourself!

Velocity Software demonstration site

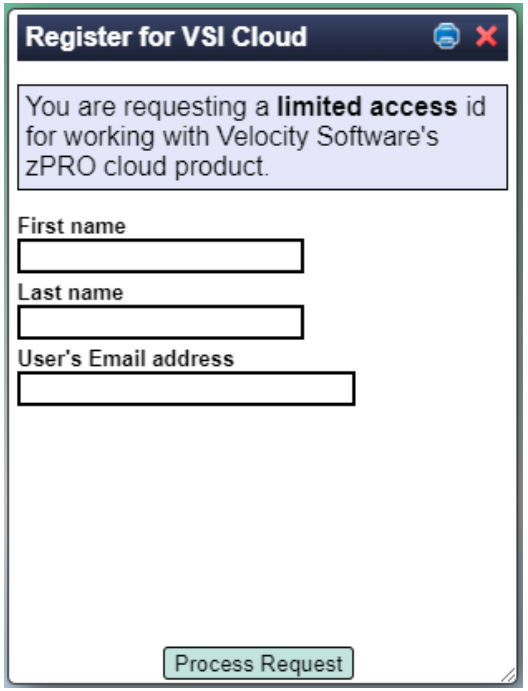
- "http://demo.VelocitySoftware.com"
- zVIEW, enterprise, zPRO, zPORTAL

To register: https://demo.velocitysoftware.com/zpro/

Userid: **demozpro**

Password: **demodemo**

Check email for your login info



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Summary

zVPS:

- Continuous enhancements for 30+ years
- Enterprise Monitoring and Management

zPRO & zVRM

- On-Prem Private Cloud Enablement and Environment
- z/VM Systems Management
- Modern Platform and management
- Improved productivity for all parties
- Reduces impact of lack of skills

zTUNE

- Performance Recommendation and Tuning Report

Velocity Software

- Worldwide customer base
- World's best for Performance Management experts

Next Steps?

Any questions?

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Erich@VelocitySoftware.com