



RELEASE NOTES

SERVERware 4.5

bicom
SYSTEMS

wiki.bicomsystems.com

Table of Contents

FEATURES

1

KVM as an additional VPS engine

1

Geo-Redundancy enhancements

3

Multiple IPs for VPS takeover

3

Domains renamed to Partitions

5

Optimizing networking for custom subnetting

7

Ubuntu 22.04 in system templates

7

System Installation Wizard: Added the option to create ZFS pools on OS disks

8

sipPROT

8

Geo-IP allow/deny policy

8

CSV templates for allowlist and denylist

9

Improvements & Bug fixes

10

FEATURES

KVM as an additional VPS engine

KVM stands for Kernel-based Virtual Machine and is based on Firecracker, an open source virtualization technology that is purposely built for creating and managing secure, multi-tenant container services.

With KVM, each VPS has a fully emulated or virtualized machine to run its copy of the Linux kernel, providing better isolation at the cost of some additional performance. From a security standpoint, this is a much better approach to partitioning resources between multiple services and their users.

SERVERware's implementation of KVM can run unmodified Linux containers as VPSs which can either be PBXware or Docker containers fetched as OCI images from Docker Hub and similar sources. Additionally, one can pack and distribute service software using open standards and tools.

SERVERware uses Firecracker, another open-source technology to manage KVM features and adapt them more easily to run unmodified Linux container images, where unnecessary features are stripped down, and almost all emulation that could potentially slow down virtual machines is removed.

Edit VPS: pbx-kvm

General Security Resources Networking DNS SRV Archiving

Type: ☒ SERVICE ☐ SYSTEM ☐ OCI

Engine: ☐ LXC ☒ KVM

Service: PBXware

Template: PBXware 6.7

Partition: Default

Host: Truhlo

Name: pbx-kvm

☒ Highly Available

☐ Exclude From Backup

☐ Enable Protected Mode

Description:

Cancel Save

Edit VPS: ubuntu-kvm

General

Security

Resources

Environment

Networking

DNS SRV

Archiving

Type:

☐ SERVICE

☐ SYSTEM

☒ OCI

Engine:

☐ LXC

☒ KVM

Service:

N/A

Name:

ubuntu-kvm

Template:

library/ubuntu:latest-20230425

☒ Highly Available

Partition:

Default

☐ Exclude From Backup

Host:

Truhlo

☐ Enable Protected Mode

Description:

Cancel

Save

With KVM, each VPS is basically a virtual machine, better isolated and less exposed to malicious software or user behavior. VPSs that are using KVM as their engine can now safely change engines from LXC to KVM, and vice versa, be replicated and taken over, backed up and restored, and moved from one host to another, or change partitions. KVM VPSs will provide call stats, and can be securely accessed through your web browser thanks to the TTY terminal.

We’ve added support for virtual networks for KVM VPSs, and the option for KVM VPSs to fetch PBXware licenses, same as with LXC VPSs.

In short, all functionalities available for VPSs running on LXC engines are available for KVM engines as well.

SERVERware

Geo-Redundancy / Browse & Takeover

MAIN MENU

NETWORK

PARTITIONS

Dashboard

Partitions

Hosts

VPSs

Statistics

Archives

Backup

Geo-Redundancy

Servers

Browse & Takeover

Site Monitoring

slpPROT

Settings

SYSTEM SETTINGS

Geo-Redundancy server: Monitoring

Origin Site: GRS

Takeover

Remove

VPS	Metadata	Recovery Points	Size
ngins-lxc	Partition: Default Company: Bicom Systems Owner: Administrator	Engine: LXC Template: library/nginx Volume: 50.00 GB Memory: 4.00 GB	<div>May 11, 2023 15:30:03</div> <div>May 11, 2023 15:25:03</div> <div>May 11, 2023 15:20:03</div> <div>136.69 MB</div>
pbx-kvm	Partition: Default Company: Bicom Systems Owner: Administrator	Engine: KVM Template: PBXware 6.7 Volume: 25.00 GB Memory: 2.00 GB	<div>May 11, 2023 15:30:00</div> <div>May 11, 2023 15:25:00</div> <div>May 11, 2023 15:20:00</div> <div>2.19 GB</div>
pbx-lxc	Partition: Default Company: Bicom Systems Owner: Administrator	Engine: LXC Template: PBXware 6.7 Volume: 50.00 GB Memory: 4.00 GB	<div>May 11, 2023 15:30:09</div> <div>May 11, 2023 15:25:08</div> <div>May 11, 2023 15:20:08</div> <div>2.16 GB</div>
nginx-kvm	Partition: Default Company: Bicom Systems	Engine: KVM Template: library/nginx	<div>May 11, 2023 15:30:06</div> <div>May 11, 2023 15:25:05</div> <div>168.19 MB</div>

Takeover Details

Bulk Takeover Templates

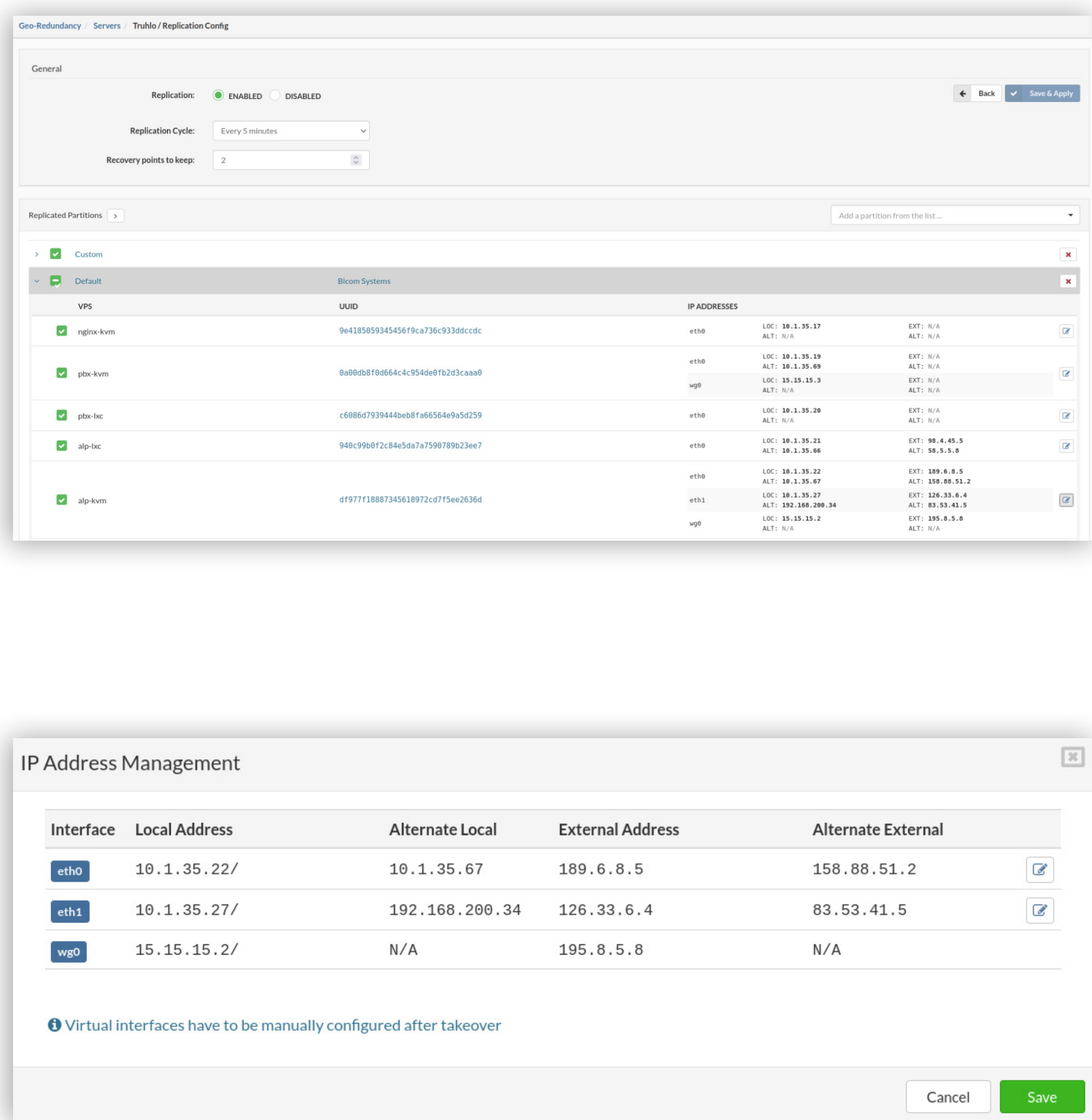
Recent Takeovers

Name	VPSs	Geo-Redundancy Server	Site	Created at
------	------	-----------------------	------	------------

Geo-Redundancy enhancements

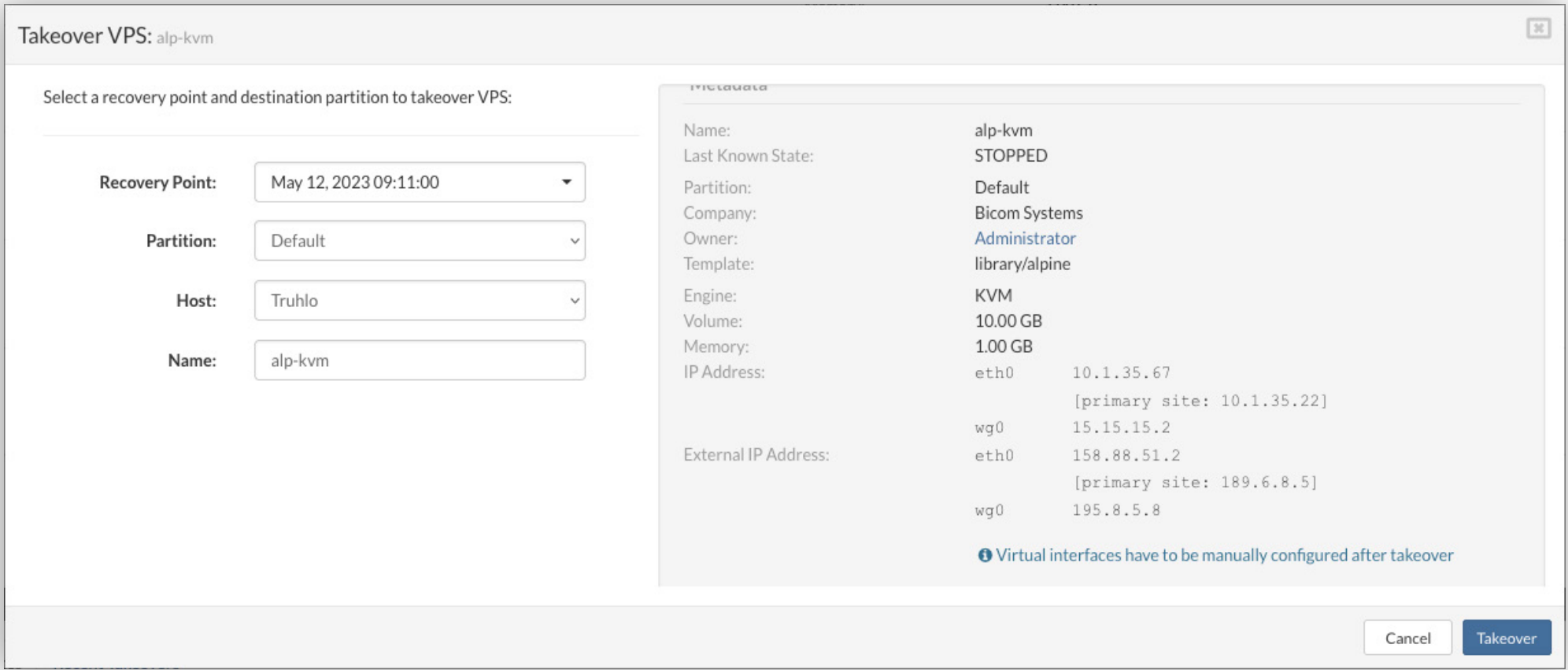
Multiple IPs for VPS takeover

For GR sites that have more intricate networking, with multiple network cards and network interfaces assigned to hosts and VPSs, SW administrators can now assign multiple alternate IPs for each network interface added to a VPS.



For virtual interfaces post-takeover, the IPs would need to be manually set.

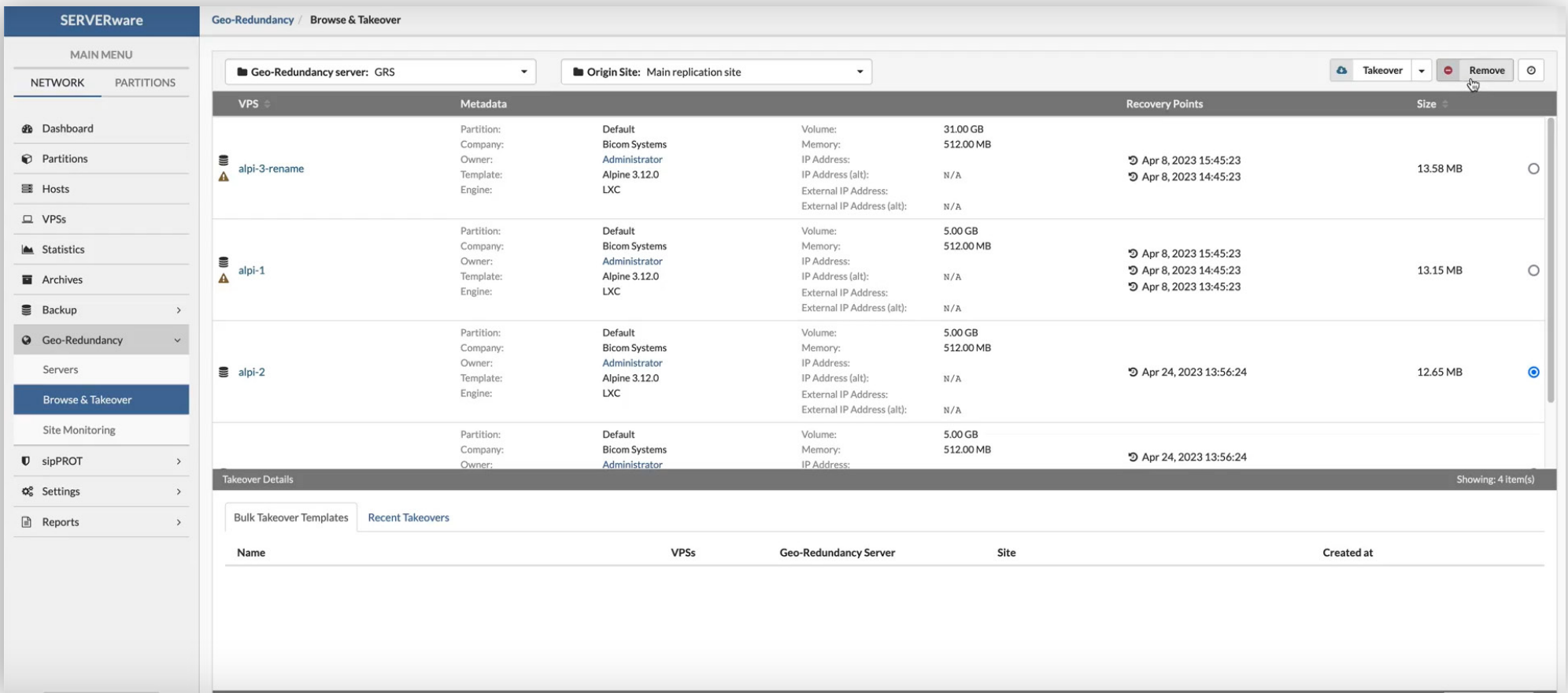
Once the VPS has been taken over to the GR site, the alternate IPs will be automatically assigned. This also goes for systems behind NAT, post-takeover, both local and external IP addresses will be automatically added to the VPS.

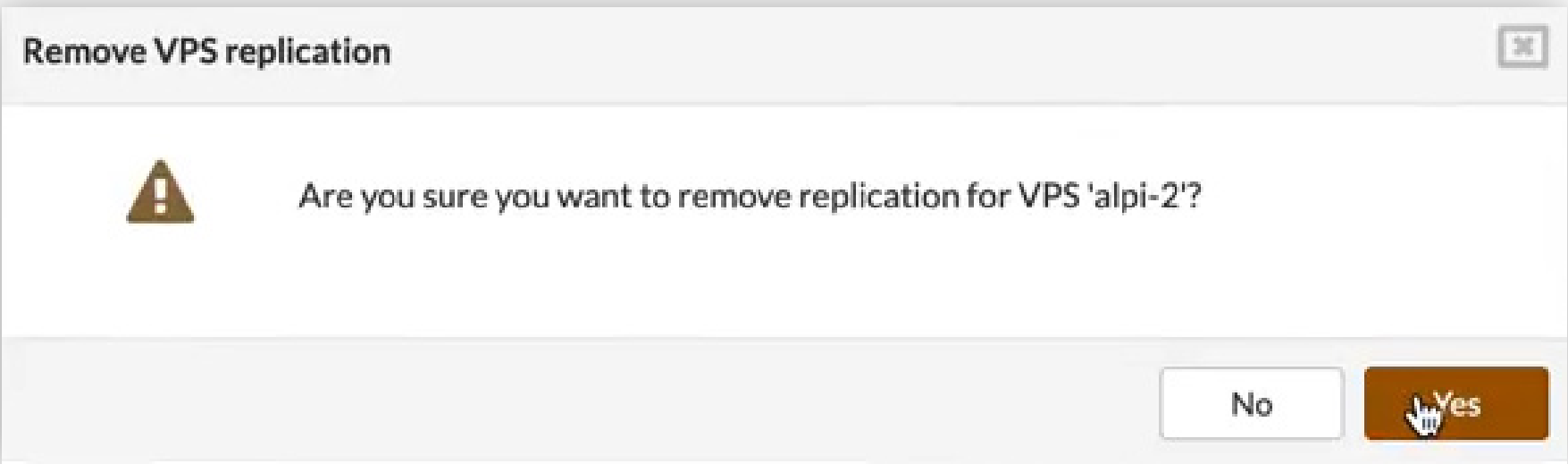


Remove replicated VPSs through the SERVERware GUI

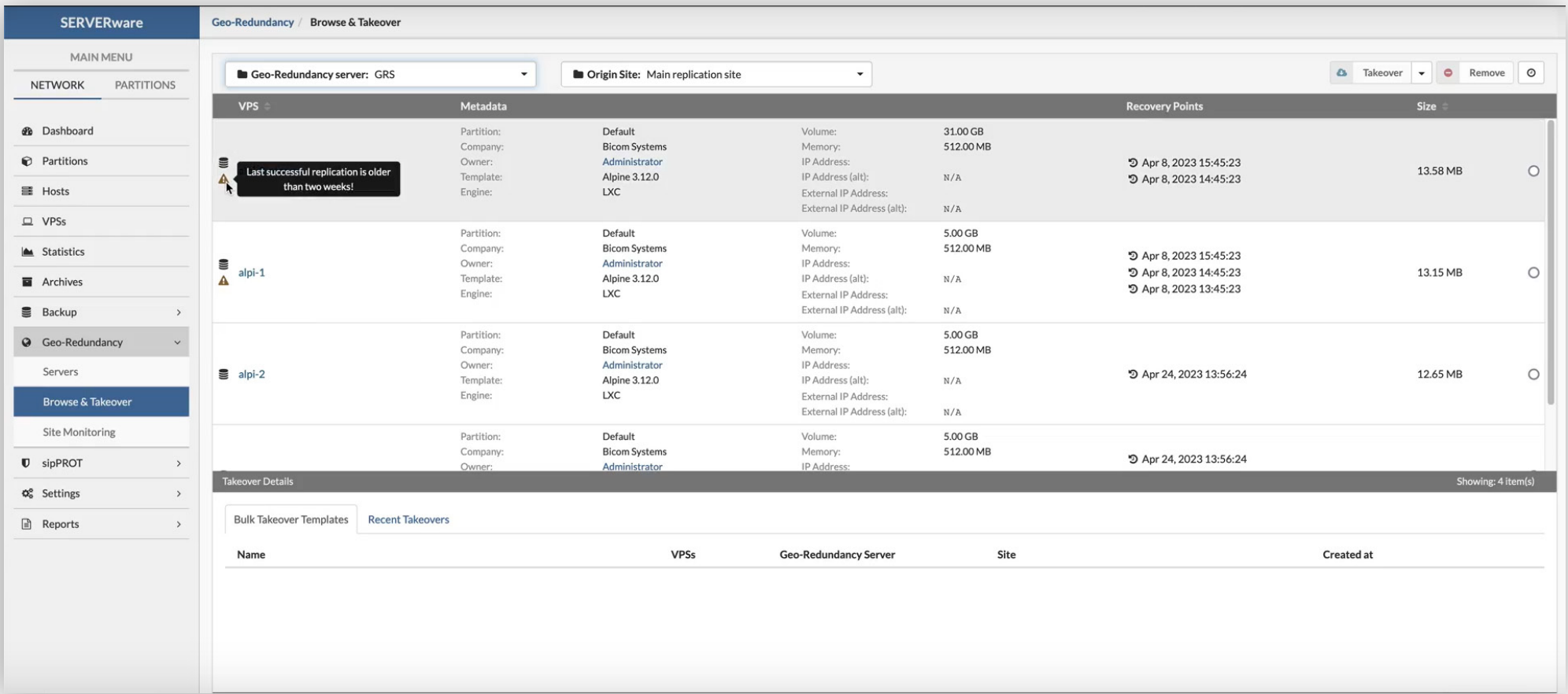
SERVERware administrators will now be able to remove old or unnecessary VPS replications from the GR pool more easily, by simply selecting the replication they wish to remove and then clicking on the remove button. This will in no way affect the VPS on the production site, or have any impact on the VPSs that are running on the GR site.

Once the VPS is removed from the GR pool, it can easily be replicated in full in the next replication cycle.



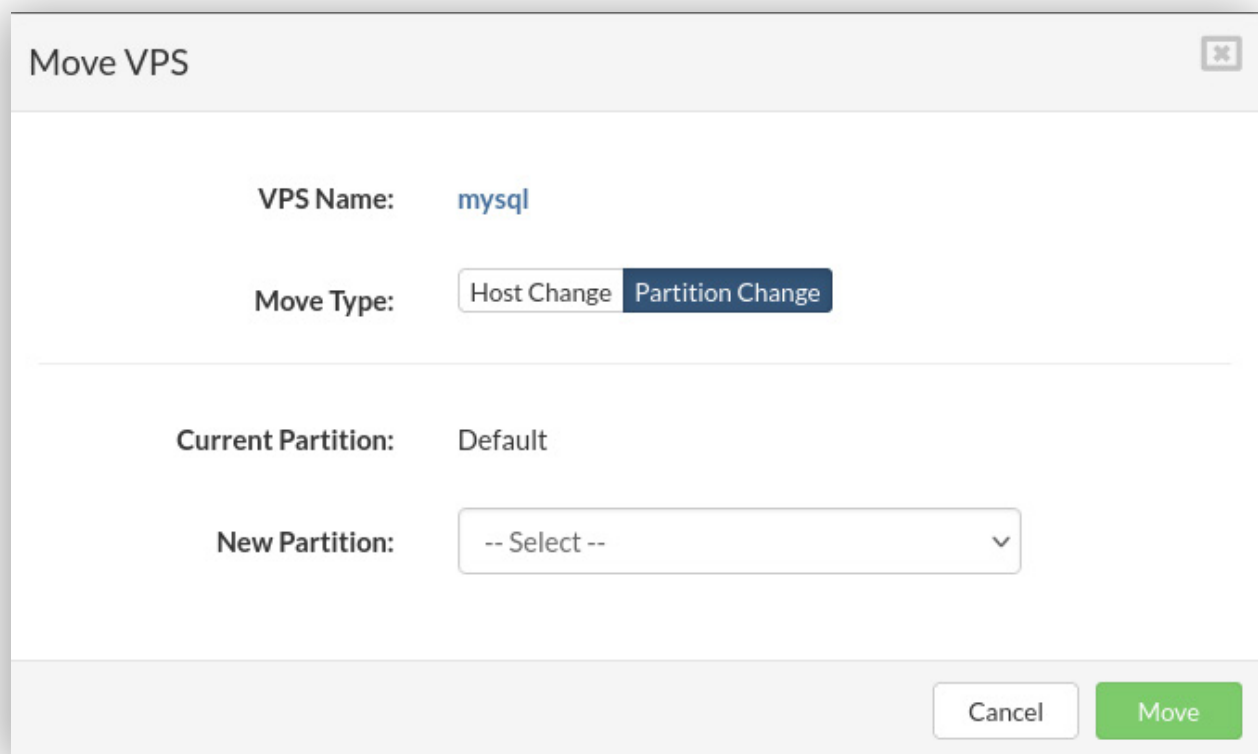
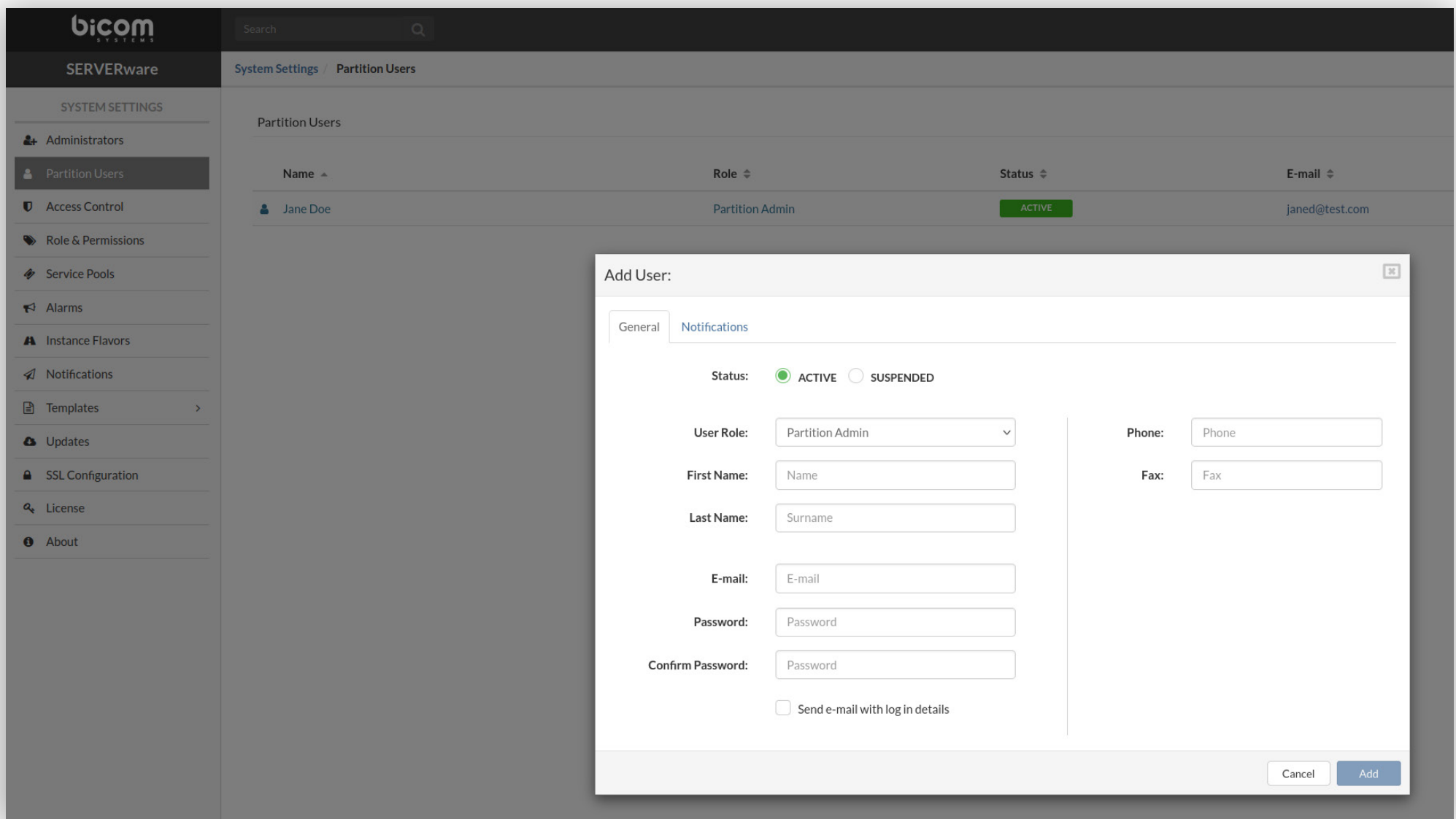
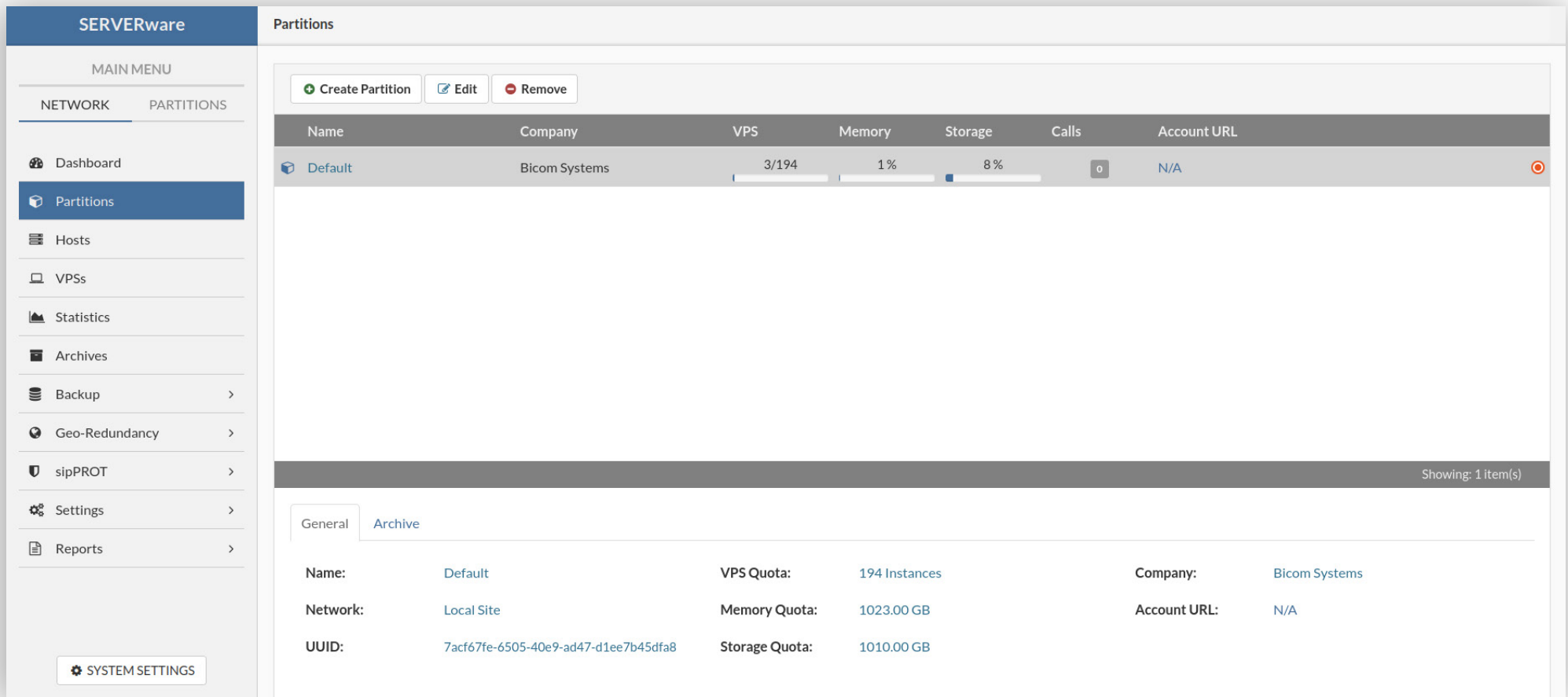


Additionally, for replications older than two weeks, the administrator will see a warning icon indicating that the snapshot in question has data that hasn't been resynced for the above mentioned time frame.



Domains renamed to Partitions

To reduce confusion with network domains, SERVERware Domains have been renamed to Partitions.



Optimizing networking for custom subnetting

Subnetting within SERVERware is now made easier with the new option to add custom subnets consisting of one to two IP addresses, and the ability to assign a default gateway from a wider range.

Edit Subnet

Name:

testtest

Type:

VIRTNETIPv4

IP Address:

12.12.12.0

Subnet Mask:

255.255.255.254

Gateway:

12.12.0.1

☐ Allow VPSs to access public internet











Routing Interface:

Cancel

Update

Ubuntu 22.04 in system templates

The latest stable version of Ubuntu 22.04 has been added to the SERVERware system templates. This update brings a lot of new features and enhancements, providing users with a more seamless and efficient experience.

System Templates			
Name	Version	Rev	
 Gentoo Gentoo Base System Template	19	0	 Install
 Gentoo Gentoo Base System Template	20	0	 Install
 Ubuntu Ubuntu 16.04.1 LTS	16.04.1	0	 Install
 Ubuntu Ubuntu 18.04 LTS (Bionic Beaver)	18.04	1	 Install
 Ubuntu Ubuntu 20.04 LTS (Focal Fossa)	20.04	1	 Install
 Ubuntu Ubuntu 22.04 LTS (Jammy Jellyfish)	22.04	0	 Install

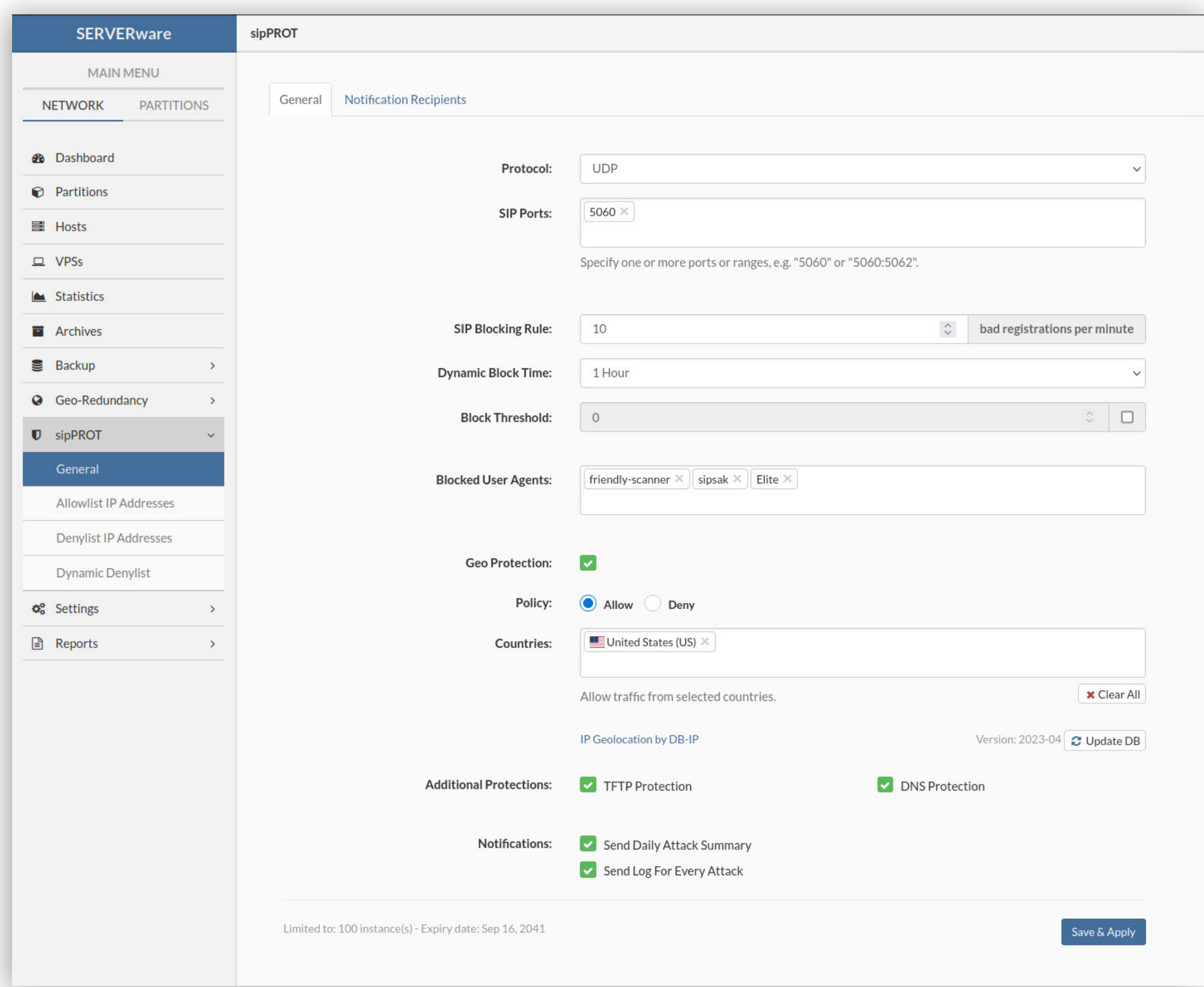
System Installation Wizard: Added the option to create ZFS pools on OS disks

Upon installation, the install wizard will automatically detect available disks for the SERVERware operating system and suggest possible ZFS pool configurations based on the selected number of disks. Depending on the chosen configuration, the install wizard will create a pool for the operating system. Available configurations include stripe, mirror and RAID Z.

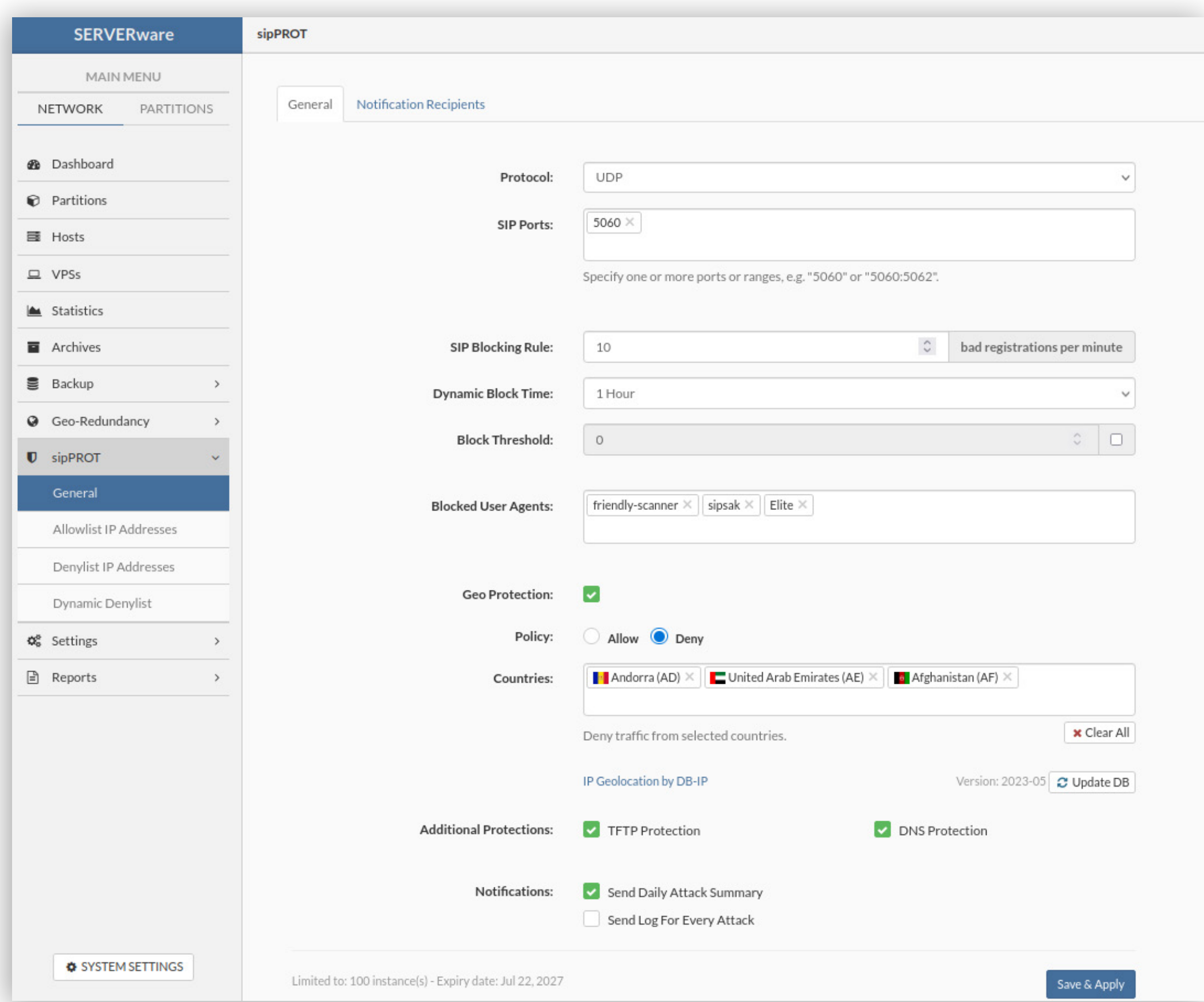
sipPROT

Geo-IP allow/deny policy

To more easily manage the Geo-IP blocking policy in sipPROT, two policies have been implemented. The allow policy will allow traffic from only the selected countries in the list, and block traffic from the rest of the world.



The deny policy will block all traffic from the countries on the list, and allow traffic for the rest of the world.



CSV templates for allowlist and denylist

A CSV template for the allowlist and denylist has been added, so SERVERware administrators can more easily and accurately upload lists of IP addresses.



Improvements & Bug fixes:

1. Instance flavor limitation for CPUs, IOPS and bandwidth increased to unlimited and a notice for bad memory and storage values was implemented.
2. The range for blocking IPs on sipPROT is now limited to /8.
3. Fixed a bug where the VPS owner could manage all VPSs by default.
4. Fixed a bug where a custom value was not allowed when extending VPSs.
5. Fixed a bug where sip ports fields in sipPROT were empty after an upgrade.
6. Takeover tasks of VPSs that do not have DNS SRV records will no longer display the “Completed with errors” error message in the GUI. Instead, there will only be a warning message in the CLI logs.
7. Fixed a bug where the VPS template download got stuck if the LAN connection was lost.
8. Fixed a bug in the Audit logs where the action would complete, but it would still be displayed as “Queued”.
9. Limited the number of characters for host names in the Setup wizard to 60.
10. Implemented a lock when editing VPS resources which prevents restarting the VPS while an action is still in progress.
11. Improved logging for VPS trim.
12. When adding DNS Zones an error message will appear if DNS protection is enabled in sipPROT.
13. Fixed a bug where an IP address from the Default partition could be assigned to a VPS in a partition where no IPs are added.
14. Whitelisted trusted Bicom Systems domains in sipPROT.
15. Fixed a bug where pressing the escape button would prompt an error message in the GUI.
16. Fixed a bug where the evacuate functionality was not working on hosts that are running on different versions of SERVERware.
17. Firecracker binaries are now installed on GUI update.
18. Updated sysmonit as part of the sw-connector update during GUI update.

19. Fixed an issue in sw-wcp where BI statistics fail to fetch total restored bytes from the backup server.
20. Modified the SERVERware UI to change “Login” form to “Log in”.
21. Resolved an issue in the partition edit form where users were unable to enter a custom number in the storage size field.
22. Fixed margins for Backup - Bulk Restore Details view.
23. Prevented fc-start/fc-run from starting the same VPS instance multiple times.
24. Resolved an issue in sw-connector where the installer installed sw-firecracker twice, leading to misleading sysmonit messages.
25. Enforced file system check after VPS extend in sw-connector.
26. Added statistics for DISK IOPS in KVM.
27. Fixed an API issue in Create VPS, where the back-end check for the engine field (LXC, KVM) was missing when using an external API call.
28. Added at package to SERVERware OS.
29. SERVERware 4.5 iso updated to the latest EFI.
30. Sysmonit updates as part of sw-connector update.

CONTACT BICOM SYSTEMS TODAY

to find out more about our services

Bicom Systems (USA)

2719 Hollywood Blvd
B-128
Hollywood, Florida
33020-4821
United States

Tel: +1 (954) 278 8470

Tel: +1 (619) 760 7777

Fax: +1 (954) 278 8471

Bicom Systems (CAN)

Hilyard Place
B-125
Saint John, New Brunswick
E2K 1J5
Canada

Tel: +1 (647) 313 1515

Tel: +1 (506) 635 1135

Bicom Systems (UK)

Unit 5 Rockware BC
5 Rockware Avenue
Greenford
UB6 0AA
United Kingdom

Tel: +44 (0) 20 33 99 88 00

Bicom Systems (FRA) c/o FONIA

Zac du Golf
15 Impasse Oihana
64200 BASSUSSARRY

Tel: +33 (0)5 64 115 115

Email: contact@fonia.fr

Bicom Systems (ITA)

Via Marie Curie 3
50051 Castelfiorentino
Firenze
Italy

Tel: +39 0571 1661119

Email: sales@bicomsystems.it

Bicom Systems (RSA)

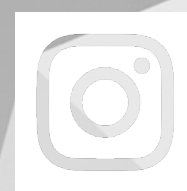
12 Houtkapper Street
Magaliessig
2067
South Africa

Tel: +27 (10) 0011390

email: sales@bicomsystems.com

Follow us

bicom
S Y S T E M S



Copyright Bicom Systems 2023