

# The Foundation Of Business Data Integrity



## PRODUCT OVERVIEW

# SERVERware



wiki.bicomsystems.com

# What is SERVERware?

A virtualization platform that delivers a wide range of IP services aimed at maximizing service uptime, availability and overall stability. A tool that prioritizes data integrity with its own fault-tolerant backup system and data replication options.

SERVERware allows you to run multiple different PBXware editions at the same time, the lynchpin of a business looking to scale up.

It is available in a variety of different editions depending on the needs of your business: Standalone, Mirror and Cluster.



SERVERware



# Choose Your Edition

The three editions of SERVERware each cater to businesses of different sizes and operating requirements, ensuring an ideal package for affordable prices. Choose from:

## Standalone

Perfect for independent operations and small enterprises.

## Mirror

Enhance redundancy and data security with mirrored configurations.

## Cluster

Optimize performance and reliability with clustered setups for larger enterprises.



# Essential SERVERware Features & Benefits



## GEO-REDUNDANCY

One of SERVERware's core features is geo-redundancy, allowing companies to have a separate site that replicates data from the main site and serves as a backup option in case the main one fails for whatever reason. This ensures minimal service downtime and, depending on the frequency of the data replication, minimal data loss. Having geo-redundancy as a backup option allows for more infrastructural flexibility and reduced costs for your business, making it a solid choice.

The data replication and takeover settings can be done manually, or set up to be performed automatically, depending on your preferences.



## BACKUP

SERVERware also provides a built-in backup feature for hosted VPSs. Backup servers are set up for the purpose of data restoration in case of any major issue with the main server.

The screenshot shows the 'Add Backup Job' dialog box with two tabs: 'General' and 'Schedule'. The 'General' tab is active. It contains the following fields and options:

- Backup:** A radio button group with 'ENABLED' selected (indicated by a green dot) and 'DISABLED' (indicated by a grey dot).
- Name:** A text input field containing 'Daily Backup'.
- Mode:** A dropdown menu showing 'Backup to ZFS'.
- Domain:** A dropdown menu showing '(All Domains)'.
- Destination:** A dropdown menu showing 'Baky'.
- Pool:** A dropdown menu showing 'SYSTEM-71dc'.
- Dataset:** A dropdown menu showing 'SYSTEM-71dc'.
- Send an email notification:** A section with two checkboxes:
  - ☐ When backup completes successfully
  - ☒ If backup fails to complete

At the bottom right, there are three buttons: 'Cancel', '< Back', and 'Next >'.

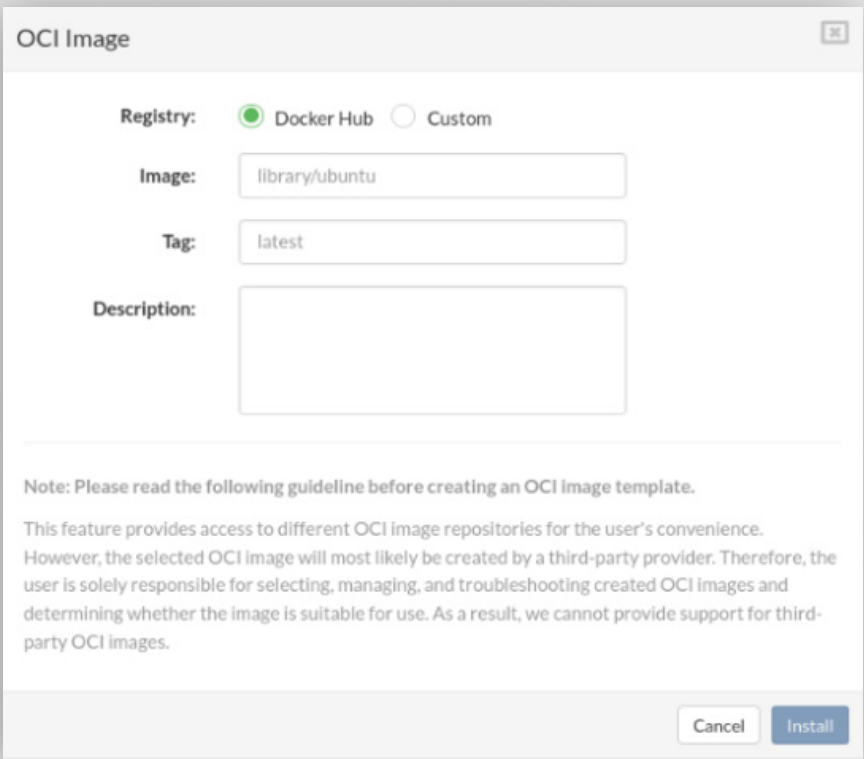




## OCI IMAGE SUPPORT

To ensure SERVERware works well with a decent number of systems, it too is part of the OCI (Open Container Initiative), allowing third party OCI images to be used as templates in its infrastructure, making setup and management that much easier.

It expands SERVERware’s functionalities as a hypervisor too, meaning that, other than PBXware, it can run and offer various other services.



## KVM SUPPORT

Thanks to KVM, SERVERware has the capability to power their VPSs to become proper VMs that can run on the Linux kernel which enhances security at a small cost to overall performance. These VPSs can either be PBXware or Docker containers that are fetched as OCI images from various repositories like Docker Hub and similar. Users can distribute and package service software through the use of open tools and standards.

All of this is possible thanks to the use of a KVM management open-source technology named Firecracker which makes running unmodified Linux container images a lot easier through image adaptation and optimization.

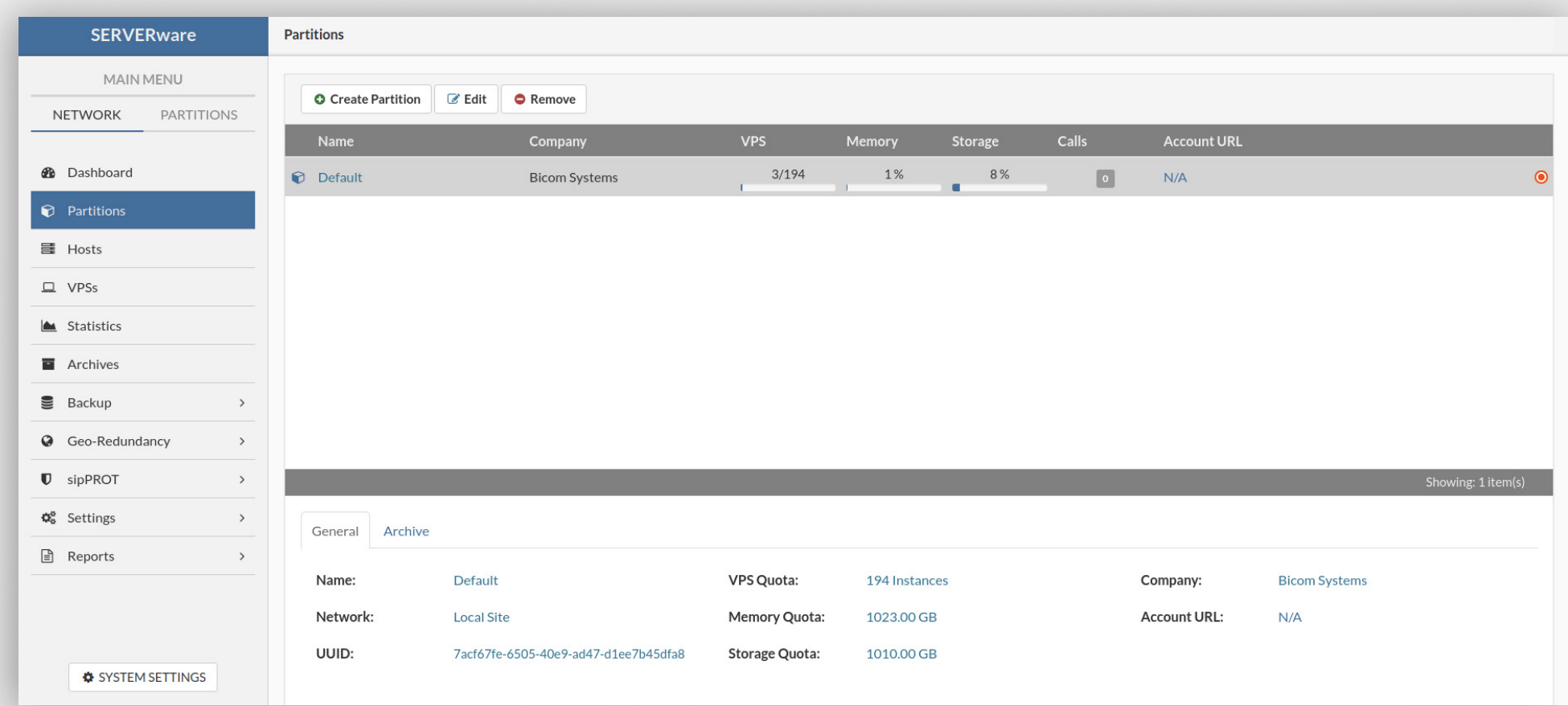


## PARTITIONS

In order to enable easier resource management and isolation, SERVERware lets you use partitions to better organize your server infrastructure by having the partitions represent specific departments, positions within the company or whatever else you may deem fit, each with their own designated resources and permissions.

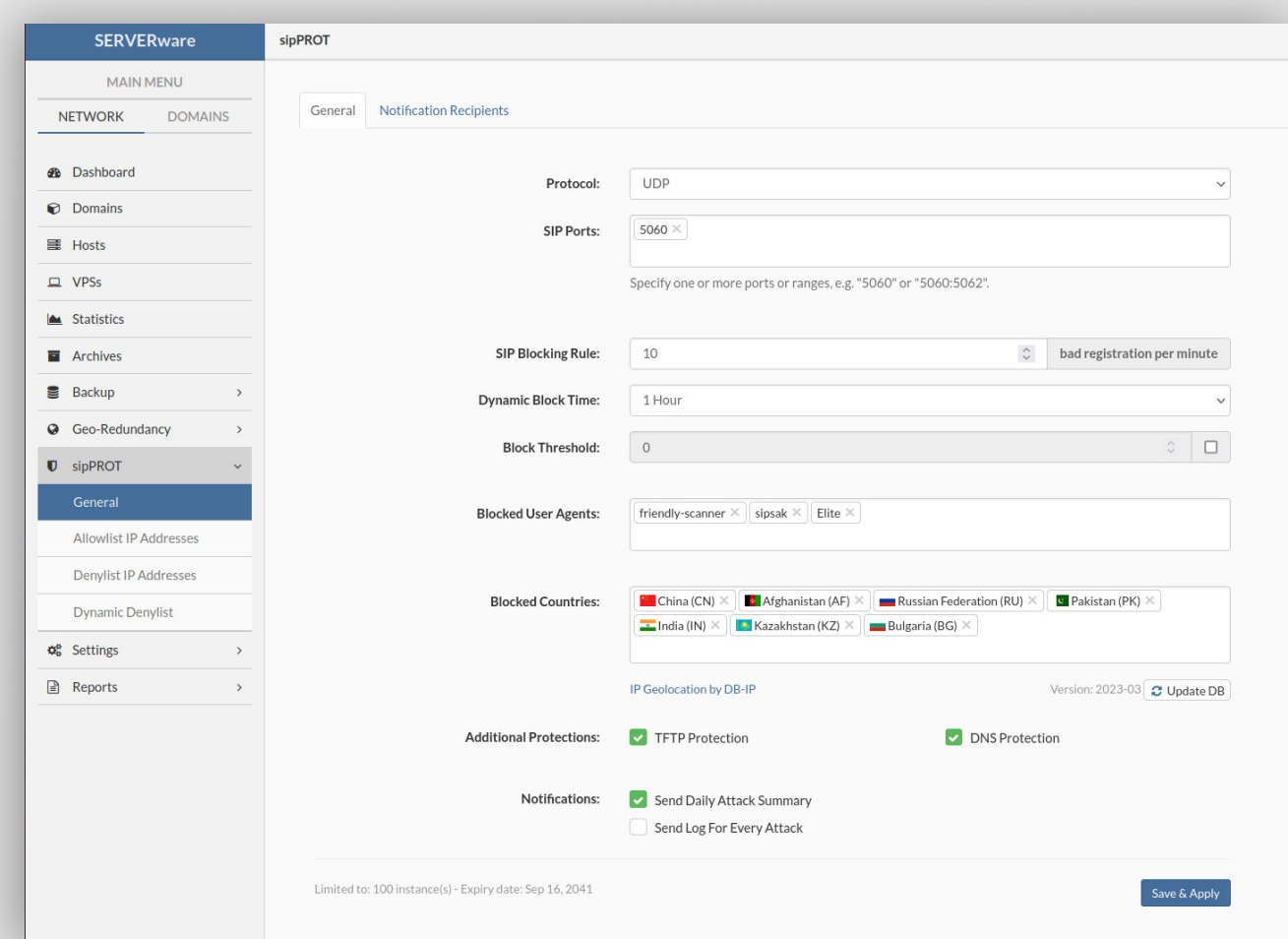


Members of a partition consist of partition Administrators, VPS Administrators, and VPS Owners, where each user has different permission levels, allowing resource management and monitoring. The SERVERware Virtualization Platform allows you to allocate and extend the IP pool in a LAN subnet and then split the IP pool per partition.



To shore up your chosen SERVERware edition, you have the option of grabbing our other product, sipPROT, a built-in firewall for both PBXware and SERVERware which monitors live SIP traffic and reacts quickly to any abnormalities, updating permissions on the fly to stop them in their tracks. It’s particularly effective against DOS attacks and brute force break-in attempts. System admins utilizing SERVERware can easily export and import allowlists and denylists to make further system management and setup easier.

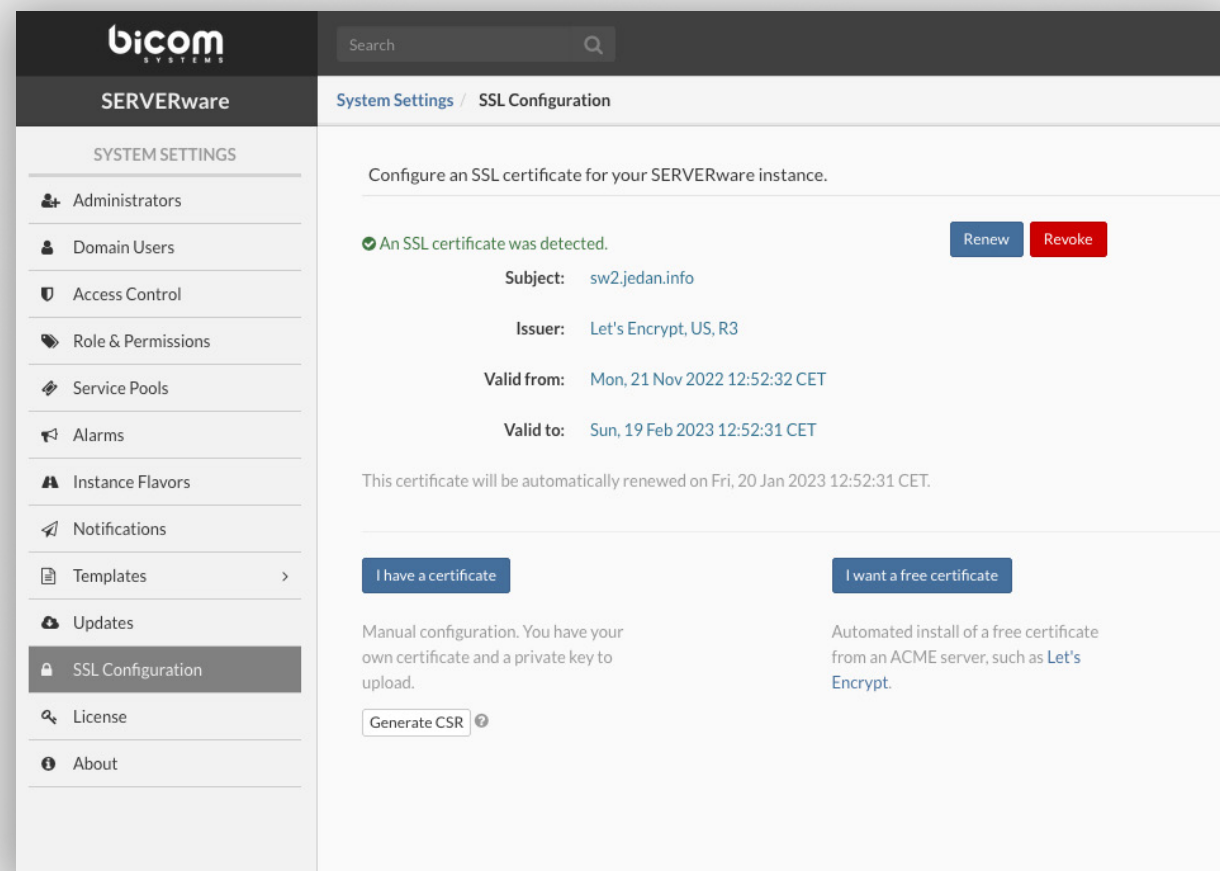
The IP address ranges from entire countries can be blocked too in case of a large-scale DDOS attack.





## SSL SETTINGS

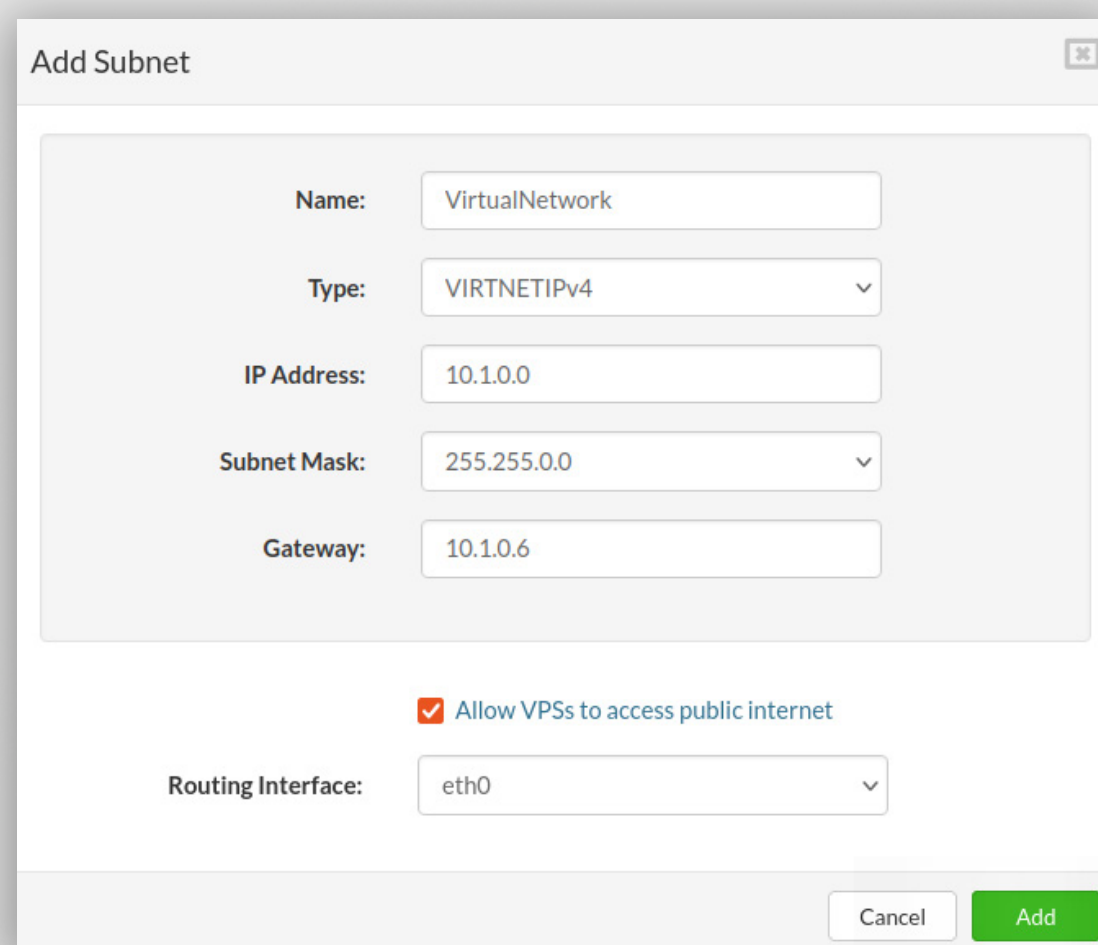
In order to secure customer information, one needs to utilize an SSL certificate to be able to efficiently encrypt it. This is made easier with SERVERware where you can upload SSL certificates through a dedicated menu in the user interface, either manually with your own private key, or automatically with a certificate from an ACME server.



## VIRTUAL NETWORKS

Virtual networks in SERVERware allow network administrators new and more efficient options to easily create a network connection between VPSs and greater flexibility in provisioning the network to specific needs and applications. SERVERware uses WireGuard communication protocol to ensure the capacity to move workloads across the network infrastructure without compromising service, security, and availability.

Both, IPv4 and IPv6, are supported for virtual networks in SERVERware.

The 'Add Subnet' dialog box contains the following fields and options: 'Name' (VirtualNetwork), 'Type' (VIRTNETIPv4), 'IP Address' (10.1.0.0), 'Subnet Mask' (255.255.0.0), 'Gateway' (10.1.0.6), a checked checkbox for 'Allow VPSs to access public internet', and a 'Routing Interface' dropdown set to 'eth0'. 'Cancel' and 'Add' buttons are at the bottom right.



## VPS MANAGEMENT

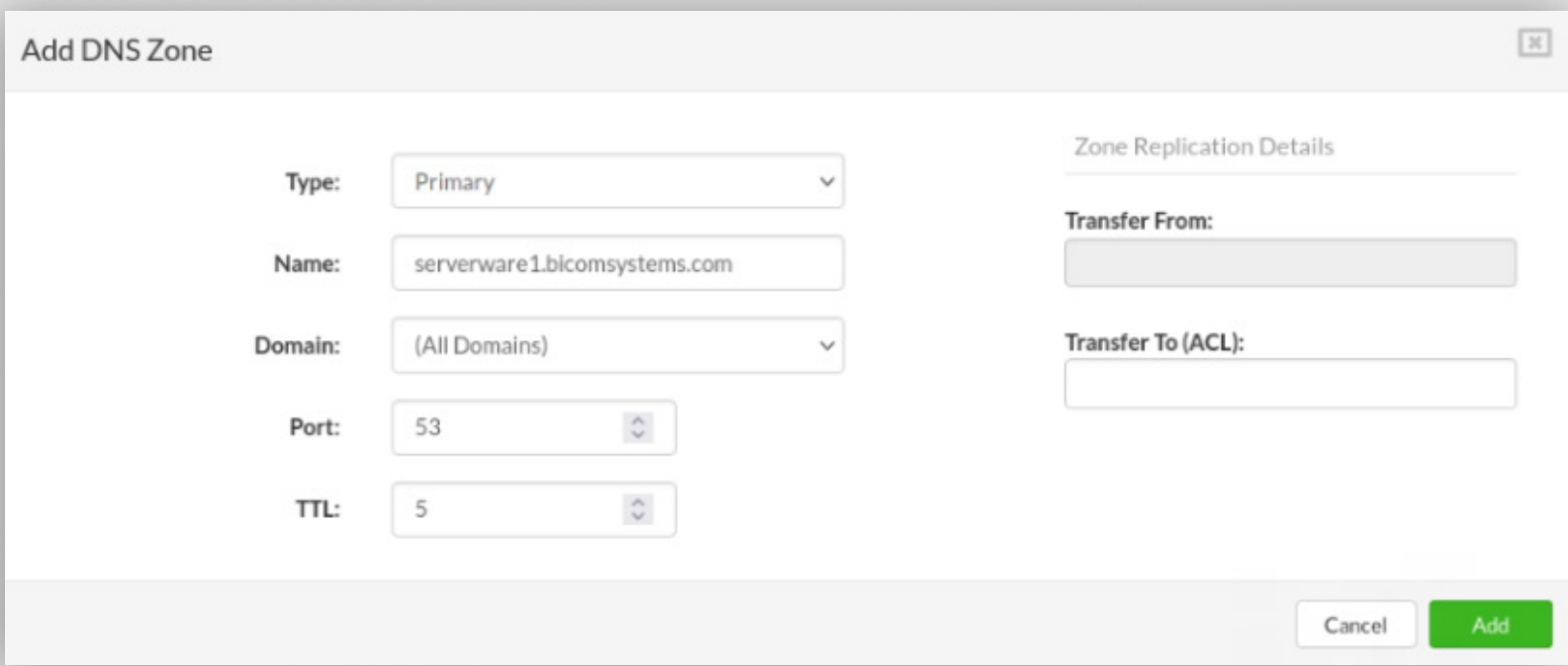
With SERVERware you can easily deploy Virtual Private Servers (VPSs) using pre-allocated resource pools (CPUs, memory, storage, and broadband), but you can also create your own resource templates. SERVERware system administrators can access the command line interface of all VPSs making management and troubleshooting easier.

## DNS & NAPTR/SRV

SERVERware comes with an integrated DNS server, allowing it to function as an authoritative server for DNS zones. When hosting a DNS zone, it becomes the authoritative server for the names in that zone, giving it the ability to answer queries for any of them.

Each VPS hosted on SERVERware will be assigned a name in the zone and can be reached using its partition name rather than its IP address, giving SERVERware system administrators the ability to manage DNS/NAPTR records for all VPSs hosted on SERVERware through the same UI.

An additional benefit comes in the form of defining DNS zones, so in case of a take over to a remote location, your records will automatically be repointed to another IP address.



The image shows a screenshot of the 'Add DNS Zone' form in the SERVERware interface. The form is divided into two main sections: 'Zone Details' and 'Zone Replication Details'. In the 'Zone Details' section, there are five fields: 'Type' (a dropdown menu set to 'Primary'), 'Name' (a text input field containing 'serverware1.bicomsystems.com'), 'Domain' (a dropdown menu set to '(All Domains)'), 'Port' (a text input field with '53' and a spinner icon), and 'TTL' (a text input field with '5' and a spinner icon). The 'Zone Replication Details' section on the right contains two fields: 'Transfer From:' and 'Transfer To (ACL):', both of which are currently empty text input fields. At the bottom right of the form, there are two buttons: a grey 'Cancel' button and a green 'Add' button.

## SYSTEM DASHBOARD

Monitor your system resources and status of all hosts and VPSs with the SERVERware Dashboard. All relevant system information is contained within a single screen and delivered comprehensively in real-time. Recently triggered alarms are displayed on the dashboard, along with call and Meeting statics from all VPSs, as well as a short action log, containing useful information on most recent actions performed within the user interface.





## STORAGE STABILITY

The underlying storage solution in SERVERware is OpenZFS, a next-generation file system technology. Thanks to OpenZFS, SERVERware supports:

- disk redundancy,
- expanding storage by adding more drives into the storage pool,
- adding hot spares that will automatically replace a failed disk,
- monitoring storage health,

and many more.



# 24/7 Expert Support at Your Fingertips

Rest assured with round-the-clock support. Our highly trained experts are always available to address any system-related issues or questions that you may have, ensuring seamless operations and peace of mind.





# CONTACT BICOM SYSTEMS TODAY

to find out more about our services

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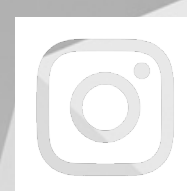
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