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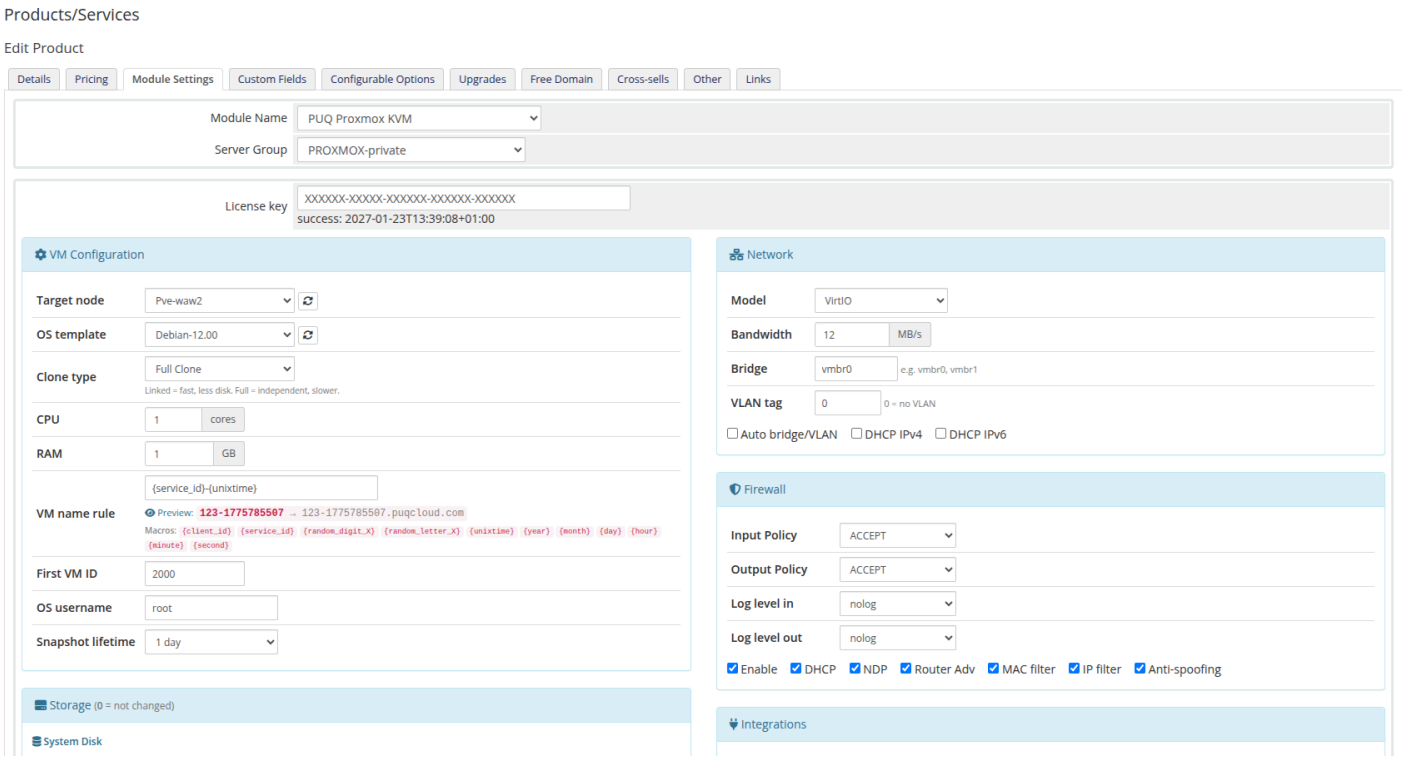
Product Configuration

Proxmox KVM module **WHMCS**

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The product configuration page defines all default settings for virtual machines provisioned under a given WHMCS product. These settings are accessible by navigating to **Setup > Products/Services > Products/Services**, selecting a product, and opening the **Module Settings** tab with **PUQ ProxmoxKVM** selected as the module.

The module injects a custom settings panel directly below the standard WHMCS module options. All settings are organized into collapsible sections arranged in a two-column layout.



admin-product-config-full.png

> **Changed in v3.0.** The product configuration page has been fully rewritten as a custom Bootstrap panel injected into the Module Settings tab. In v1.x–v2.x the same options were stored in the stock WHMCS `configoption1..N` fields and

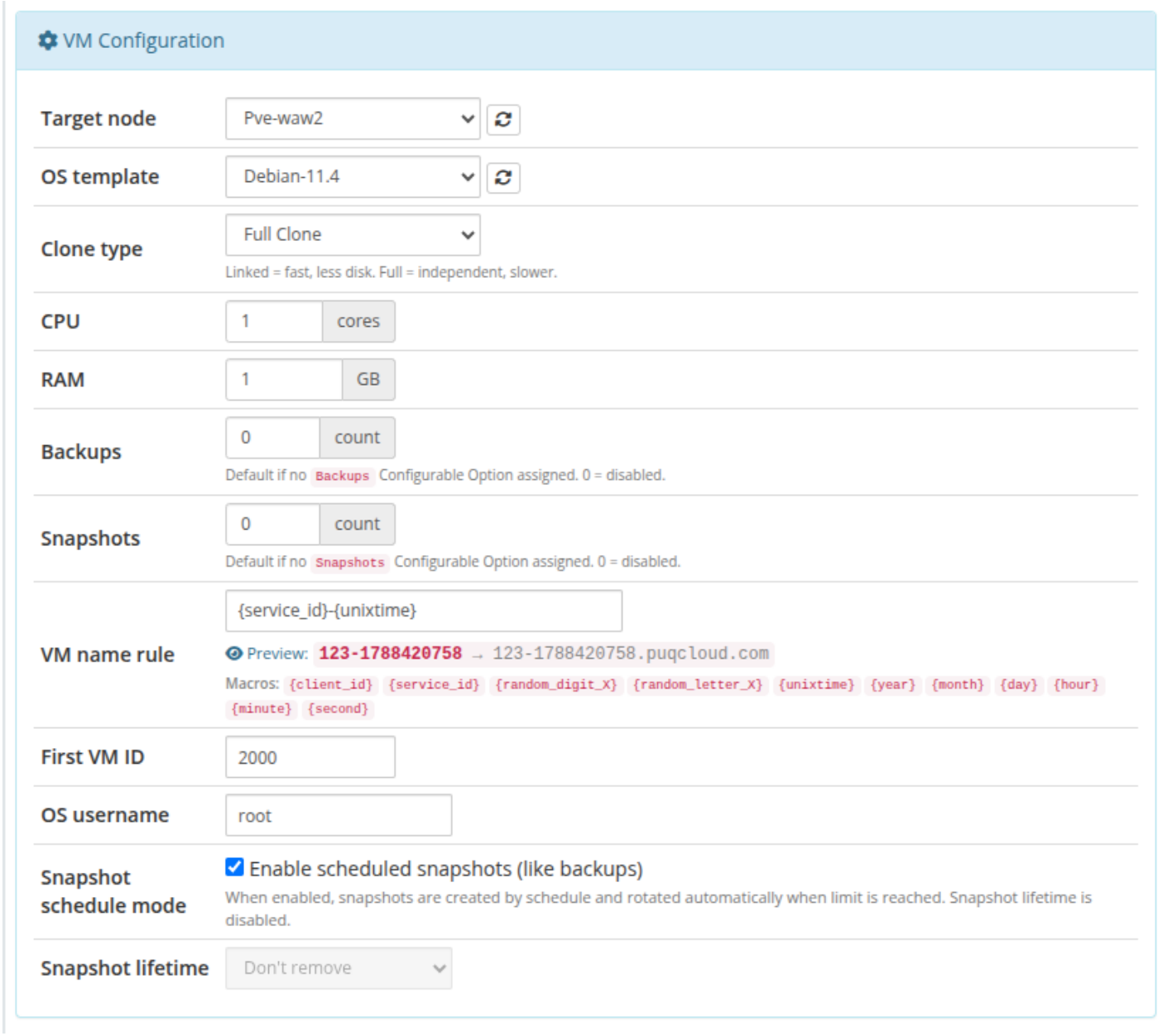
> displayed as plain textareas — all existing values are preserved during upgrade and migrated to the new panel automatically. The **Firewall** section and the **Anti-spoofing** checkbox, which previously lived inside the Network block, are now a dedicated collapsible section of their own.

License Key

The first field in the standard WHMCS module settings area is the **License key**. Enter your PUQ ProxmoxKVM license key here. The module validates the license on each page load and displays a verification badge next to the field.

VM Configuration

This section controls the core virtual machine parameters applied during provisioning.



admin-product-config-vm-snapshots.png

Setting	Description	Default
Target node	Proxmox node where VMs will be created. Select a specific node from the dropdown or leave as **automatically** to let the module choose the node with the most available resources. The dropdown is populated via AJAX from the connected Proxmox server; click the refresh button to reload the list.	`automatically`
OS template	The default operating system template used for cloning new VMs. Templates are loaded from Proxmox via AJAX. Click the refresh button to reload available templates.	(none)

Setting	Description	Default
Clone type	Determines how the VM is cloned from the template. **Linked Clone** is faster and uses less disk space by sharing the base disk with the template. **Full Clone** creates a completely independent copy but is slower and uses more storage.	`Linked Clone`
CPU	Number of virtual CPU cores assigned to the VM.	`1`
RAM	Amount of memory in gigabytes assigned to the VM.	`1`
Backups *(new in v3.3)*	Default maximum number of backups for the service. Overridden by the `Backups` Configurable Option when assigned. `0` = backups disabled.	`0`
Snapshots *(new in v3.3)*	Default maximum number of snapshots for the service. Overridden by the `Snapshots` Configurable Option when assigned. `0` = snapshots disabled.	`0`
VM name rule	A naming pattern for the VM hostname. Supports macros that are expanded at provisioning time. Leave empty to use the default pattern. A live preview is shown below the field.	`{client_id}-{service_id}`
First VM ID	The starting VM ID number. The module assigns VM IDs sequentially from this value, skipping any IDs already in use on the Proxmox cluster.	`100`
OS username	The default operating system username set via cloud-init. Leave empty to generate a random username.	(empty = random)
Snapshot schedule mode *(new in v4.0)*	When enabled, snapshots operate on an automated schedule with automatic FIFO rotation (identical to backups). The client sets up weekly schedules, and older snapshots are rotated when the quota is reached. When enabled, **Snapshot lifetime** is ignored and disabled.	`Off`

Setting	Description	Default
Snapshot lifetime	Automatic cleanup period for client-created snapshots. Active only when **Snapshot schedule mode** is disabled. The cron job removes snapshots older than the selected duration. Set to **Don't remove** to keep snapshots indefinitely. Automatically disabled whenschedule mode is enabled.	`Don' t remove`

> [!TIP] **Need to generate templates?** Check out the PUQ PVE OS Builder — our official tool for instantly generating WHMCS-ready cloud-init templates for Debian, Ubuntu, AlmaLinux, and more.

VM Name Rule Macros

The following macros can be used in the **VM name rule** field:

Macro	Description	Example
`{client_id}`	WHMCS client ID	`142`
`{service_id}`	WHMCS service/hosting ID	`387`
`{random_digit_X}`	Random digits (X = count)	`{random_digit_4}` = `7291`
`{random_letter_X}`	Random lowercase letters (X = count)	`{random_letter_3}` = `kqz`
`{unixtime}`	Current Unix timestamp	`1712678400`
`{year}`	Current 4-digit year	`2026`
`{month}`	Current 2-digit month	`04`
`{day}`	Current 2-digit day	`09`
`{hour}`	Current 2-digit hour	`14`
`{minute}`	Current 2-digit minute	`35`
`{second}`	Current 2-digit second	`07`

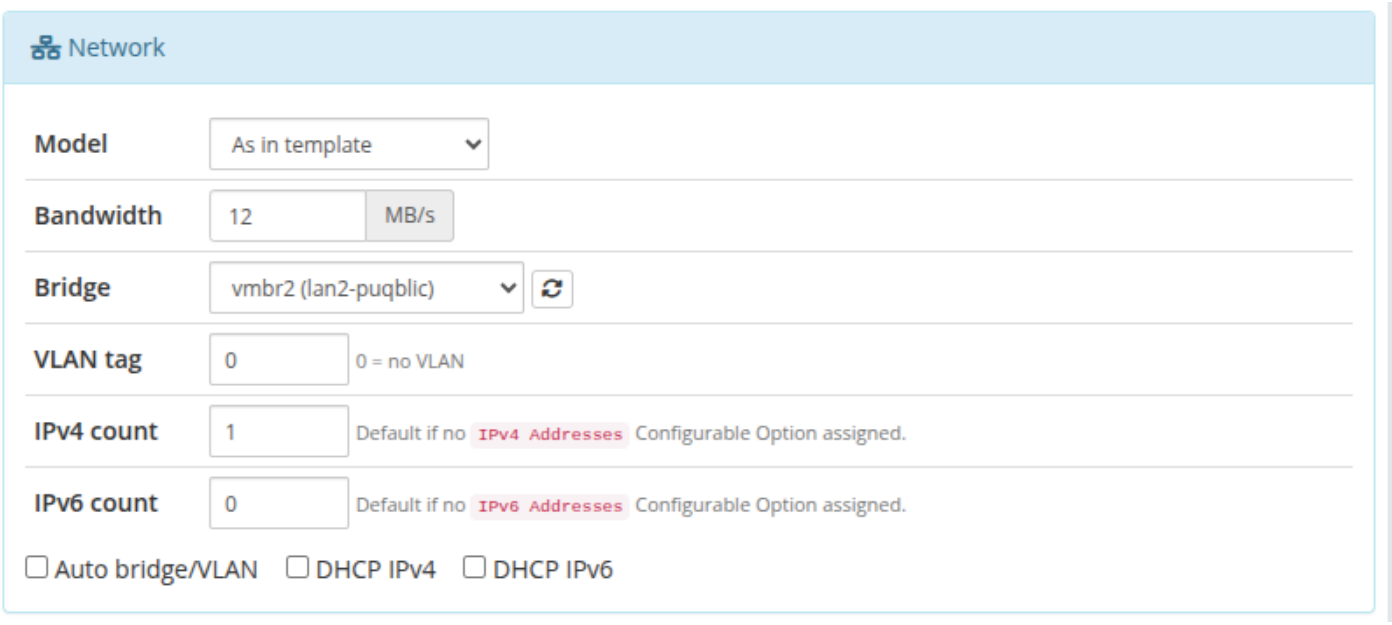
Snapshot Lifetime Options

Value	Duration
Don't remove	Snapshots kept indefinitely

Value	Duration
1 day	86,400 seconds
2 days	172,800 seconds
3 days	259,200 seconds
4 days	345,600 seconds
5 days	432,000 seconds
6 days	518,400 seconds
7 days	604,800 seconds
8 days	691,200 seconds
9 days	777,600 seconds
10 days	864,000 seconds

Network

This section configures the virtual network adapter and IP addressing behavior for provisioned VMs.



admin-product-config-network-section.png

Setting	Description	Default

Model	The virtual network adapter model. **As in template** preserves the model defined in the Proxmox template. Other options: **VirtIO** (recommended for Linux), **Intel E1000**, **Realtek RTL8139**, **VMware vmxnet3**.	`As in template`
Bandwidth	Maximum network bandwidth limit in MB/s. Set to **0** for unlimited bandwidth. Overridden by the `Network Bandwidth` Configurable Option when assigned.	`0` (unlimited)
Bridge	The Proxmox network bridge to attach the VM's network adapter to (e.g., `vmbr0`, `vmbr1`). Bridges are loaded from Proxmox via AJAX. Click the refresh button to reload available bridges.	`vmbr0`
VLAN tag	VLAN tag for the network adapter. Set to **0** for no VLAN tagging. Valid range: 0-4096.	`0`
IPv4 count *(new in v3.3)*	Default number of IPv4 addresses to allocate from the pool. Overridden by the `IPv4 Addresses` Configurable Option when assigned.	`1`
IPv6 count *(new in v3.3)*	Default number of IPv6 addresses to allocate from the pool. Overridden by the `IPv6 Addresses` Configurable Option when assigned. `0` = no IPv6.	`0`
Auto bridge/VLAN	When enabled, the bridge and VLAN are automatically determined from the IP Pool configuration in the addon module, overriding the manual Bridge and VLAN settings above.	`on`
DHCP IPv4	Enable DHCP for IPv4 addressing in cloud-init configuration.	`on`
DHCP IPv6	Enable DHCP for IPv6 addressing in cloud-init configuration.	`on`

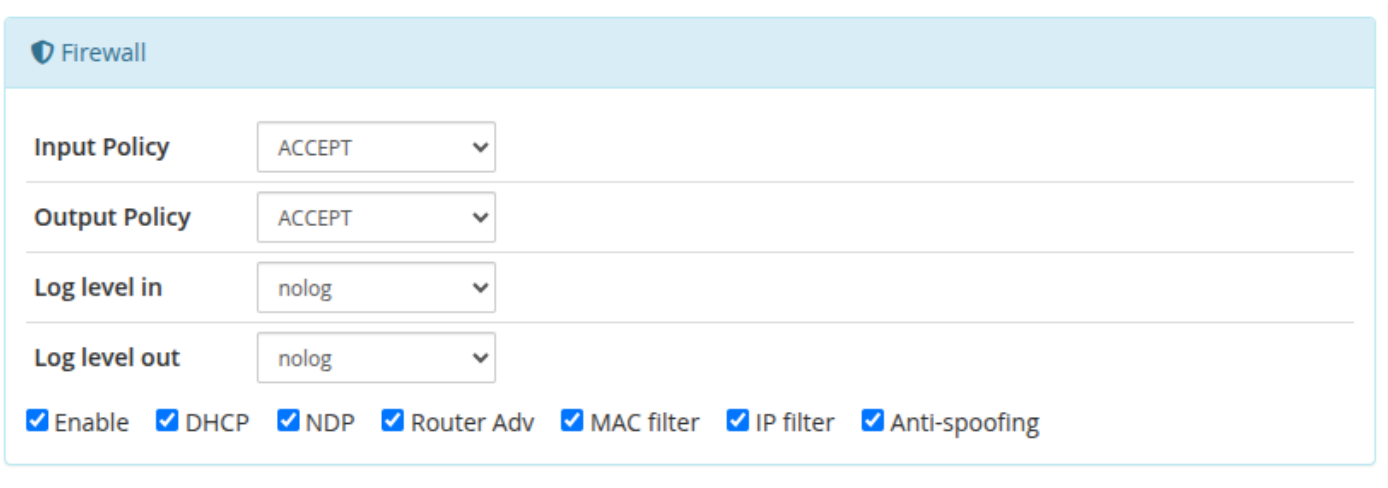
> **Note:** When **Auto bridge/VLAN** is enabled and the addon module's IP Pools are configured, the pool's bridge and VLAN values take precedence over the manually entered Bridge and VLAN fields.

> **DHCP caveat.** When either DHCP IPv4 or DHCP IPv6 is enabled, the module does **not** know the VM's final IP address at provisioning time. In that case no

> firewall rules and no anti-spoofing IPSet are applied to the VM's interface (they would be meaningless without a known IP). If you want the firewall feature, either use static IPs with the IP pool, or configure the rules manually after the DHCP lease has been issued.

Firewall

This section defines the default Proxmox firewall configuration applied to each provisioned VM's network interface.



admin-product-config-firewall-section.png

Policy and Logging

Setting	Description	Default
Input Policy	Default policy for incoming traffic. Options: **ACCEPT**, **DROP**, **REJECT**.	`ACCEPT`
Output Policy	Default policy for outgoing traffic. Options: **ACCEPT**, **DROP**, **REJECT**.	`ACCEPT`
Log level in	Logging level for incoming traffic. Options: **nolog**, **info**, **notice**, **warning**.	`nolog`
Log level out	Logging level for outgoing traffic. Options: **nolog**, **info**, **notice**, **warning**.	`nolog`

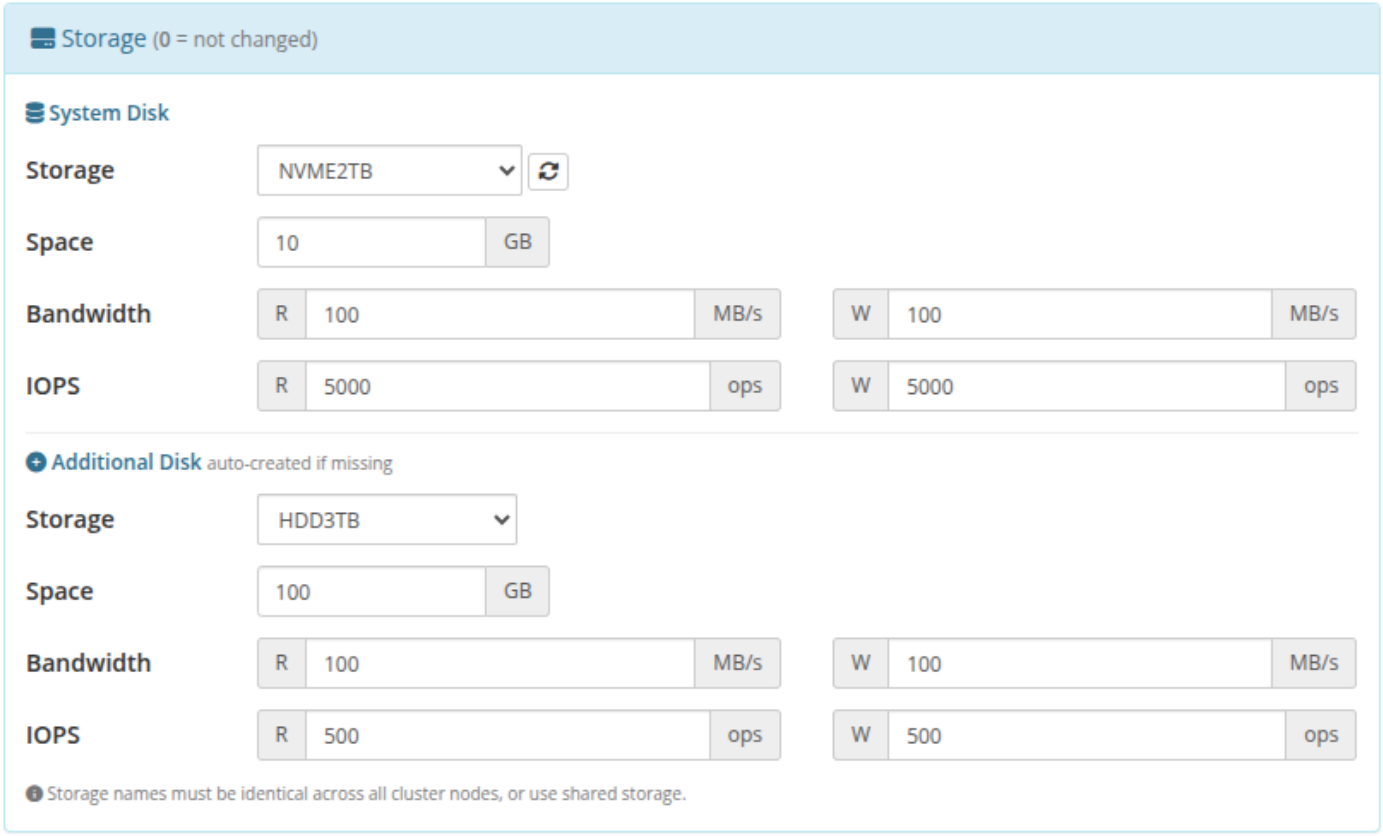
Firewall Toggles

Setting	Description	Default
Enable	Enable the Proxmox firewall on the VM's network interface.	`on`
DHCP	Allow DHCP traffic through the firewall.	`on`
NDP	Allow Neighbor Discovery Protocol (IPv6) traffic.	`on`
Router Adv	Allow Router Advertisement packets. Typically disabled for client VMs.	`off`
MAC filter	Enable MAC address filtering on the network interface.	`on`
IP filter	Enable IP address filtering, restricting traffic to assigned IPs only.	`off`
Anti-spoofing	Enable anti-spoofing rules to prevent the VM from sending traffic with forged source addresses.	`on`

> **Anti-spoofing requires a deny-by-default policy on the cluster.** For the anti-spoofing IPSet (`ipfilter-net0`) to actually protect against spoofed traffic, the **cluster / node firewall policy must be DENY/DENY** — the module then only adds permissive rules matching the VM's own IP addresses. Without a DENY baseline, the permissive rules change nothing and the feature has no effect. The filter was renamed from the legacy `wm-VMID` to `ipfilter-net0` in v2.3; v3.0 uses the same naming.

Storage

This section configures the system (boot) disk and optional additional (secondary) disk for provisioned VMs. A value of **0** means "not changed" — the template's default is preserved.



admin-product-config-storage-section.png

System Disk

Setting	Description	Default
Storage	Proxmox storage pool for the system disk. Select a specific storage or leave as **auto (from template)** to use the same storage as the template. The dropdown is populated via AJAX from the connected Proxmox server.	`auto (from template)`
Space	System disk size in GB. Set to **0** to keep the template's disk size.	`0`
Bandwidth Read	Maximum read throughput in MB/s. Set to **0** for unlimited.	`0`
Bandwidth Write	Maximum write throughput in MB/s. Set to **0** for unlimited.	`0`
IOPS Read	Maximum read I/O operations per second. Set to **0** for unlimited.	`0`
IOPS Write	Maximum write I/O operations per second. Set to **0** for unlimited.	`0`

Additional Disk

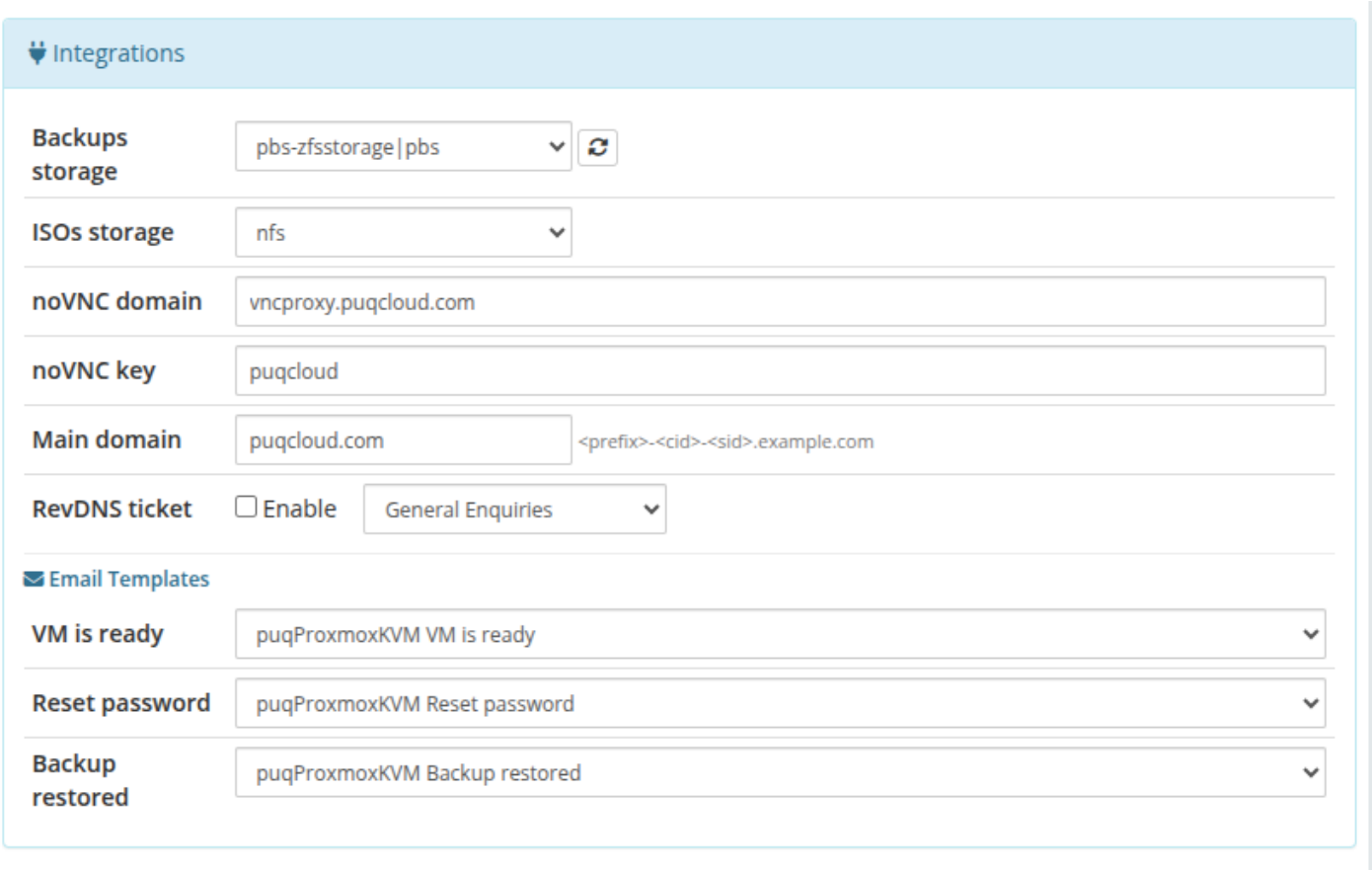
The additional disk is automatically created during provisioning if the space is set to a value greater than 0.

Setting	Description	Default
Storage	Proxmox storage pool for the additional disk. Leave as **same as system disk** to use the system disk's storage.	`same as system disk`
Space	Additional disk size in GB. Set to **0** to skip additional disk creation.	`0`
Bandwidth Read	Maximum read throughput in MB/s. Set to **0** for unlimited.	`0`
Bandwidth Write	Maximum write throughput in MB/s. Set to **0** for unlimited.	`0`
IOPS Read	Maximum read I/O operations per second. Set to **0** for unlimited.	`0`
IOPS Write	Maximum write I/O operations per second. Set to **0** for unlimited.	`0`

> **Important:** Storage names must be identical across all cluster nodes, or use shared storage. If the VM may be migrated between nodes, ensure the target storage exists on all nodes.

Integrations

This section configures external integrations: backup/ISO storage locations, noVNC console proxy, domain naming, reverse DNS ticket creation, and email notification templates.



admin-product-config-integrations-section.png

Storage and Console

Setting	Description	Default
Backups storage	Proxmox storage pool for VM backups. The dropdown lists all storages with backup content type. The value includes the storage name and plugin type (e.g., `local|dir`).	(none)
ISOs storage	Proxmox storage pool where ISO images are stored for client ISO mount functionality.	(none)
noVNC domain	Domain name of the noVNC proxy server used for browser-based console access.	`vncproxy.puqcloud.com`
noVNC key	Authentication key for the noVNC proxy server.	`puqcloud`

Domain and DNS

Setting	Description	Default

Main domain	The base domain suffix used for VM hostname generation. The full hostname is constructed as `<prefix>-<client_id>-<service_id><main_domain>`.	`.example.com`
RevDNS ticket	When enabled, a support ticket is automatically created when a client requests a reverse DNS change (if no DNS zone automation is configured). Select the support department for these tickets from the dropdown.	`on`

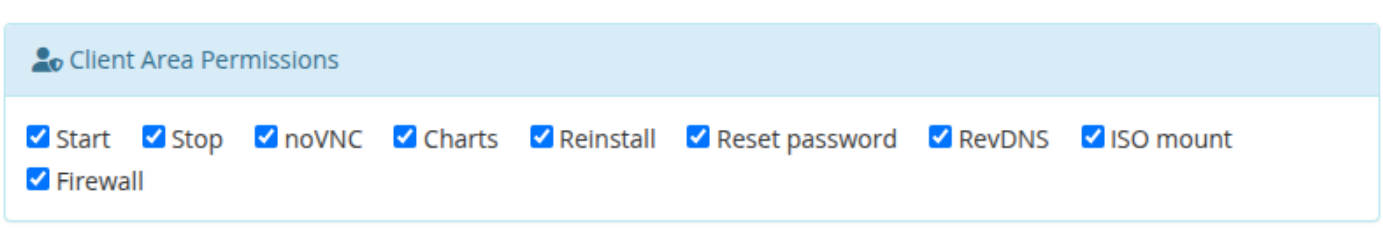
Email Templates

These dropdowns list all WHMCS product-type email templates. Select the template to be sent for each event, or choose **None** to disable the notification.

Setting	Description	Default Template
VM is ready	Sent when VM provisioning completes successfully. Contains VM credentials and connection details.	`puqProxmoxKVM VM is ready`
Reset password	Sent when a client resets the VM's OS password. Contains the new credentials.	`puqProxmoxKVM Reset password`
Backup restored	Sent when a backup restore operation completes.	`puqProxmoxKVM Backup restored`

Client Area Permissions

This section controls which features are visible and accessible to clients in their service management area. Each toggle enables or disables a specific client area function.



admin-product-config-client-permissions.png

Permission	Description	Default
Start	Allow clients to power on their VM.	`on`

Permission	Description	Default
Stop	Allow clients to power off their VM.	on
noVNC	Allow clients to open a browser-based console session.	on
Charts	Allow clients to view CPU, RAM, disk, and network performance charts.	on
Reinstall	Allow clients to reinstall the VM's operating system (destructive).	on
Reset password	Allow clients to reset the VM's OS password via cloud-init.	on
RevDNS	Allow clients to configure reverse DNS records for their IP addresses.	on
ISO mount	Allow clients to mount and unmount ISO images on their VM.	on
Firewall	Allow clients to manage their VM's Proxmox firewall rules.	on

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Metric Billing

The module includes a built-in WHMCS Usage Billing (Metric) Provider that reports monthly bandwidth consumption per service. This integrates with WHMCS's standard metric billing system.



admin-product-config-metric-billing.png

Available Metrics

Metric	Description	Unit	Period
Bandwidth Usage In	Total inbound network traffic	GB	Monthly
Bandwidth Usage Out	Total outbound network traffic	GB	Monthly

To enable metric billing:

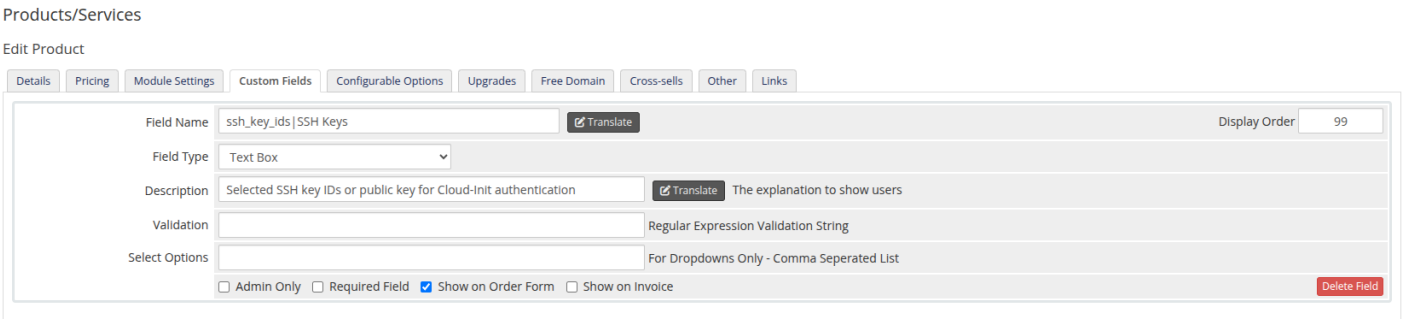
1. Navigate to **Setup > Products/Services > Products/Services** and edit the product
2. Open the **Metrics** tab

3. Enable the desired metrics and configure pricing

The module's cron job collects bandwidth statistics from Proxmox and stores them in the `puqProxmoxKVM_statistics` table. The metric provider aggregates this data for WHMCS's billing calculations.

Custom Fields (SSH Keys)

To allow customers to select their saved public SSH keys or enter a new one during checkout (`cart.php`), the module uses a dedicated WHMCS Custom Field.



admin-product-config-ssh-customfield.png

Field Configuration

Field Setting	Value	Description
Field Name	`ssh_key_ids| SSH Keys`	Standard WHMCS custom field name format (`internal_name| Display Name`).
Field Type	`Text Box`	Stores comma-separated IDs of selected keys or an inline OpenSSH public key.
Description	`Selected SSH key IDs or public key for Cloud-Init authentication`	Helpful admin hint.
Show on Order Form	**Checked (Enabled)**	**Required.** WHMCS requires this checkbox to be enabled in order to accept and preserve the field's data submitted during order checkout.
Admin Only	**Unchecked (Disabled)**	Must remain unchecked so that the order form processes client input. The module's frontend JavaScript and CSS automatically conceal the raw text box from the end user and replace it with a modern interactive SSH key selection widget.

Field Setting	Value	Description
Show on Invoice	**Unchecked**	Not needed on client invoices.

> **Automated Setup:** The module automatically inspects and configures this custom field whenever products are saved or when the addon module is activated or upgraded. Administrators do not need to create it manually. Furthermore, the field is automatically hidden from the Client Area "Additional Information" block so customers never see raw IDs.

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