

Introducing MachPanel v.8

MACHPANEL[®]



MachPanel Automation Module for Microsoft Hyper-V

• Datasheet - MachPanel Automation Module for Microsoft Hyper-V

• MachSol Inc.

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1. About This Document

This document focuses on **MachPanel Automation Module for Microsoft Hyper-V**. An overview of MachPanel Provisioning System along with Cloud/Enterprise hosting is presented. The document highlights how MachPanel employs Cloud/Enterprise hosting and offers hosted VPS service through **MachPanel Automation Module for Microsoft Hyper-V**. Finally, the document concludes to decide MachPanel's supremacy over other products in case of Cloud/Enterprise hosting.

2. Fundamental Concepts

Before proceeding further, let's start with the fundamental concepts which will help you better understand the solution according to your need. Fundamental concepts include:

- MachPanel Provisioning System
- MachPanel Shared/Traditional Hosting (Web Hosting)
- Cloud Hosting through MachPanel (Enterprise Products)

3. MachPanel Provisioning System

MachPanel Provisioning System is an **ALL-IN-ONE** complete business automation solution for Windows. It includes everything a web hosting company needs to run its day-to-day business operations. It helps to run a profitable, extensible, and successful web hosting business using latest tools and cutting edge technology.

It caters the need of **Traditional** as well as **Enterprise Hosting** supporting wide range of features including **Billing, Management, Help Desk automations** and **Network Monitoring**. In addition to automation, it provides broad 3rd party integrations with popular platforms.

4. Cloud Hosting through MachPanel

In addition to Traditional Hosting, Cloud hosting is a vital and powerful feature that MachPanel possesses. It allows various Enterprise solutions for broad Cloud Hosting Services that include:

- a. MachPanel Automation Module for Microsoft Exchange
- b. MachPanel Automation Module for Microsoft Skype for Business
- c. MachPanel Automation Module for Microsoft SharePoint
- d. MachPanel Automation Module for Microsoft CRM
- e. MachPanel Automation Module for Microsoft Hyper-V
- f. MachPanel Automation Module for Microsoft CSP
- g. MachPanel Automation Module for Windows Work Folders
- h. MachPanel Automation Module for Microsoft RDS



5. MachPanel Core Features

5.1. High Performance and scalability

- ✓ High Performance Windows Based Control Server

5.2. Load Balancing

- ✓ High Availability solution encompassing Load Balancing and fault tolerance
- ✓ Fully Load Balanced Control Panel via NLB or any other load balancer

5.3. Multilevel Management & Multitenancy

- ✓ Multi-level Management i.e. Service Provider, Reseller and Self-Service Customer Control Panel
- ✓ Support for Commission based Reseller model, and Subscription Based Reseller Model
- ✓ Subscribe Existing Organization and Users to CRM, Skype for Business and SharePoint Services

5.4. Integration & Management

- ✓ Ability to Manage Multiple Active Directory Domains
- ✓ Ability to Integrate & Manage different Providers for Exchange and other Services.

5.5. Authentication & Security

- ✓ IP Lock-Down policy for system/staff users.
- ✓ SSL Protection and Encryption of Control Panel Communication
- ✓ Secure Encrypted Information exchange between Remote and Control Server
- ✓ Single Sign-On for all Enterprise Extensions
- ✓ 3rd Party Authentication for Control Panel
- ✓ Two factor Authentication (2FA) for all types of Users
- ✓ Login with ADFS functionality added ^{New!}

5.6. E-Commerce & Pricing

- ✓ Complete Billing, Helpdesk and E-Commerce Center
- ✓ Automatic Setup & Billing Email Notification Manager
- ✓ Built in E-Commerce Store with Fraud Control & Prevention
- ✓ WHMCS Integration and support for all Modules

- ✓ Support for various payment gateways for automatic payment processing.
- ✓ PCI Compliance integration for Authorize.Net CIM and PayPal Pro Payflow Edition.
- ✓ Safer Pay integration added.

5.7. API & Customizations

- ✓ MachPanel Store API to facilitate providers to completely customize the online web store.
- ✓ MachPanel REST API Configuration
- ✓ Multi-language and Localization Support
- ✓ Fully Private Labeled for Provider, Reseller and End Customer Control Panel
- ✓ Terms and conditions Providers/Resellers
- ✓ Ability to customize Skin. Add Custom title on Dashboard.

5.8. Backup & Synchronization

- ✓ One click backup of MachPanel database from Control Panel Configuration Studio
- ✓ ADSync feature to programmatically allow automatic Active Directory Synchronization

5.9. Automization & Logging

- ✓ **Work flows for various operations**
- ✓ Detailed Audit Logs to maintain history of all operation performed via control panel

5.10. Notifications & Mailing

- ✓ Notifications on control Panel.
- ✓ Supports MailChimp for Mailling Lists

6. What is MachPanel Automation Module for Microsoft Hyper-V?

MachPanel Automation Module for Microsoft Hyper-V allows service providers to experience virtualization arena. Now you can offer your clients VPS Hosting with tremendous benefits and robust management controls that maximize your revenue. Windows Server 2019 provides new virtualization technology in Hyper-V, enabling you to deliver more advanced capabilities to your business for increased IT efficiency and agility.

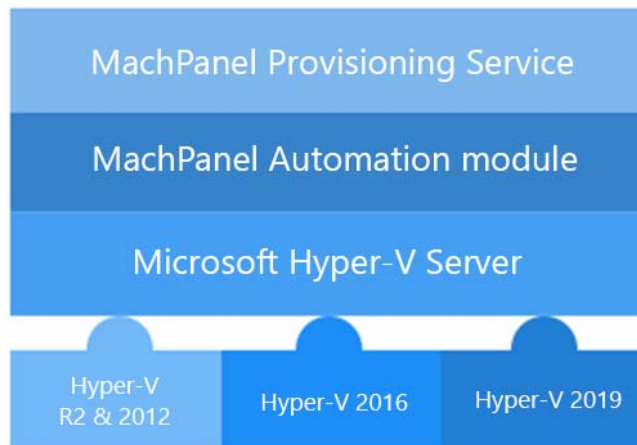
MachPanel Automation Module for Microsoft Hyper-V provides a simplified, reliable, and optimized virtualization solution, which enables improved server utilization and reduced costs. It can easily fit into customer's existing IT environments, leveraging their existing provisioning, management, support tools, processes, and skills. With **MachPanel Automation Module for Microsoft Hyper-V** you can make use of other Microsoft technologies right in one place beyond traditional web hosting.

7. Service Architecture

MachPanel supports Windows Server 2008 Hyper-V, Microsoft Hyper-V Server 2012, Microsoft **Hyper-V Server 2016**, Microsoft **Hyper-V Server 2019**, Microsoft **Hyper-V Server 2022** and Microsoft **Hyper-V Server 2025** ^{New!}. Now, avail the opportunity of increased hardware utilization, optimized business infrastructure, and improved server availability with **MachPanel Automation Module for Microsoft Hyper-V Module** for Windows Server legacy versions, Microsoft Hyper-V Server 2019, Microsoft **Hyper-V Server 2022** ^{New!} and Microsoft **Hyper-V Server 2025** ^{New!}.

Below is the service architecture for MachPanel Automation Module for Microsoft Hyper-V server:

1. Hyper-V Server 2025 New!
2. Hyper-V Server 2022
3. Hyper-V Server 2019
4. Hyper-V Server 2016
5. Hyper-V Server 2012 and Hyper- V Server 2012 R2
6. Hyper-V Server 2008 and Hyper-V Server 2008 R2



8. Detailed Features List

MachPanel Automation Module for Microsoft Hyper-V offers a wide range of functionality. Following features are available to service providers who have purchased **MachPanel Automation Module for Microsoft Hyper-V** .

8.1 Features at a Glance

MachPanel Automation Module for Microsoft Hyper-V key features are highlighted in the table below:

Key Features	Status
Fully Automated VPs Provisioning	✓
Management with Geo-redundant Hyper-V Infrastructure Support	✓
Both Hyper-V Standalone and Failover clustered deployments (Live and quick migration)	✓
Web Console, KVM level access for VMs	✓
Metered Billing – Let your customers pay for what they use	✓
Public IP, Private IP, Natted IP, DNS Pools management	✓
Sealed images, ISO Images, OS Licensing, Detailed snapshots Management	✓
Hyper V virtual Switches manipulation with VM based VLAN Tagging	✓
MachPanel Cloud Networking - Software Defined Network Integration for pfSense	✓

8.2 Supported Features

Following is the list of supported features of MachPanel Automation Module for Microsoft Hyper-V:

Features		Supported
Active Directory Management	<ul style="list-style-type: none"> ➤ Manage Farm of Hyper-V servers using single Active Directory Service Account 	✓
Service Offering Options	<ul style="list-style-type: none"> ➤ Intuitive Service Plan Wizard ➤ Clone Service Plans ➤ Group Hyper-V Servers under Server Group ➤ Ability to Provision Service using Separate Service Account ➤ Selling of Services Based on Server Groups ➤ Offer Service via Service Plans ➤ Choose from Resources like CPU, RAM, Storage, Snapshots, IPs of VPS, and Make them Billable ➤ Bundle all Resources in a Single Service Plan Offering ➤ Sell services via Add-ons ➤ Option to set Administrator Password in VPS creation ➤ Billing Import/Export New! 	✓
Sealed Image Handling & Setup	<ul style="list-style-type: none"> ➤ Provision New VPS based on Sealed Image ➤ Offer Variety of Operating systems via Unlimited Sealed Image Handling ➤ Quota Settings ➤ OS Licenses ➤ ISOs Image management ➤ Managing storage types ➤ Managing VNIC bandwidth tiers ➤ RDP custom ports ➤ Guarded fabric 	✓
Load Balancing	<ul style="list-style-type: none"> ➤ Supports VPS Creation Load Balancing on Per Server Basis 	✓
Machine Operations	<ul style="list-style-type: none"> ➤ Turn Off ➤ Shut down functionality is available to the VPS management Section that will shut down the VPS properly. ➤ Hard Reset ➤ Suspend ➤ Sync Virtual Machine ➤ Web Console ➤ Change Password ➤ Hyper-V “Move To” option in Provider side without FailOver option 	✓
Manage Virtual Machine Settings	<ul style="list-style-type: none"> ➤ Increase/Decrease RAM for VPS ➤ Increase/Decrease CPU Cores for VPS 	✓

	<ul style="list-style-type: none"> ➤ Limit number of Snapshots per VPS ➤ Put on Hold / Suspend Access to Panel for Customer / Administrator ➤ Apply License Key 	
Console/RDP Management	<ul style="list-style-type: none"> ➤ Select IP Address ➤ Change Port ➤ Download RDP file 	✓
Memory Management	<ul style="list-style-type: none"> ➤ Change Memory RAM (MB) ➤ Change Memory Weight (%) ➤ Change Memory Type 	✓
Disk Management, ISO Image & Boot order	<ul style="list-style-type: none"> ➤ Add new disk ➤ Hard disk Move/Expand /Remove ➤ Attach ISO Image ➤ Boot order 	✓
Network Management	<ul style="list-style-type: none"> ➤ Public, Private NIC support in Hyper-V ➤ Add/Remove IP address ➤ Add/Remove DNS Address ➤ Set/Change VLAN ID ➤ Set Gateway from NIC IP pool ➤ Bandwidth tier ➤ Select dynamic or static MAC address ➤ ACL on VM NICs to allow only allocated IP in NIC Management ➤ Dynamic IP Assignment to VM (Backend Managed) New! 	✓
Snapshot Management	<ul style="list-style-type: none"> ➤ Refresh List ➤ Take Snapshot ➤ Delete Snapshot ➤ Apply Snapshot 	✓
Cloud Networking	<ul style="list-style-type: none"> ➤ PFSense Deployment & Integration New! ➤ MachPanel Software Defined Network Integration for PFSense New! 	✓

8.3 High Level Features

MachPanel Automation Module for Microsoft Hyper-V allows you to benefit from a wide range of features including:

- Automate VPS provisioning, management and billing
- Hyper-V Inventory and Monitoring
- Reduce support queries to more than 80%.
- Geo-redundant Hyper-V Infrastructure Support
- Both Hyper-V Standalone and Failover clustered deployments supported

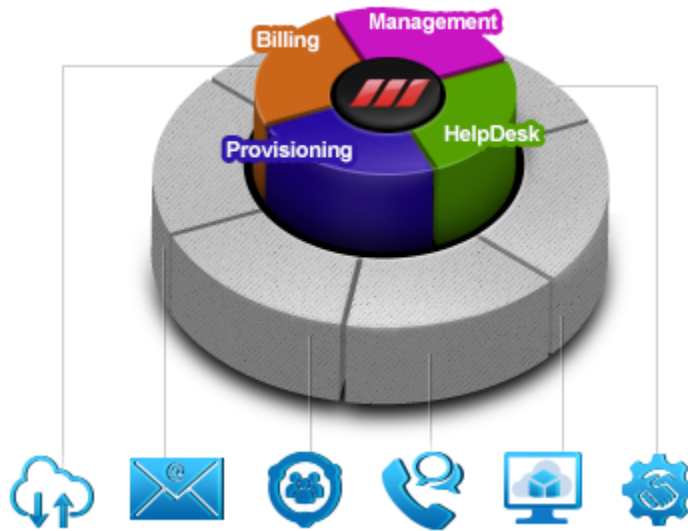
- Next-Gen VPS and Cloud Virtualization Solution
- Complete VPS isolation and system updates
- Snapshot and Service Plan Management
- VLANID, DNS and IP Management
- Virtual Switch Management
- Sealed Images Handling
- Apply Windows product key
- Add delay fro OS initialization after 1st boot New!
- Dedicated resources can be allotted to each VPS with few clicks
- Ability to Add/Edit/Remove System Resources
- Hyper-V reseller handling
- Hyper-V legacy versions, Hyper-v 2022 & Hyper-V 2025 Support
- Support for Live/Quick migration over cluster Hyper-V 2016, 2019, 2022 and 2025.
- Hyper-V Move option in Provider side without FailOver option
- Hyper-V Network Virtualization (HNV) using NVGRE (Network Virtualization using Generic Routing Encapsulation).
- Access permissions to allow/disallow modification of VLAN Id
- Auto create additional disks in Service plans
- Add different Storage types and Guarded fabric (Key protectors)
- ISO Image management is allowed in Hyper-V
- VNIC Bandwidth Tier Management
- RDP Custom ports Management
- Multiple Selling Options for Providers and resellers in multiple currencies and payment cycles
 - Fixed Price bulk resources selling.
 - Metered Billing: Instant Usage Instant Bill
 - Single VM Selling, both fixed price & Usage based
 - Additional Resource Selling through Add-ons.
- Detailed Inventory for Bare Metal and Hypervisors
- Detailed Hyper-V Monitoring for Storage, CPU/Memory, Event Logs, Services and VM Usage.
- Server Group & Server Level Detailed resources usage graphs
- Natted IP
- OS Licensing Management.
- Multiple VHDs storage location on different Storage Tiers
- Storage Categorization and detailed Storage usage Calculation per VM, Total Disk Space, Consumed Disk space including snapshot space.
- Web Console, KVM level access for VMs
- In demand open-source Operating Systems (Linux flavors) supported.
- MAC address in NIC listing and Subnet IP Pool listing
- Hourly/Metered billing for VPS module
- Comprehensive Integration with WHMCS.

- Functionality to show VM details (VM Name, IP Addresses, and link to Web Console) in Hyper-V subscription in WHMCS.
- Migrate to Physical Computer with different Processor Version
- Add Schedules for Virtual AMchine for selected customer **New!**
- VM Replication Support Handling in MachPanel **New!**



9. MachPanel Other Products

MachPanel's other products are **MachPanel Automation Module for Microsoft Exchange, CRM, SharePoint, CSP, Work Folders, RDS and Skype for Business** etc. It fully automates the service planning, billing, provisioning and management of several Traditional hosted services (Web Hosting) as well as Enterprise Hosting. Traditional hosting (also known as Shared Web & Data Hosting) is offered by **MachPanel Automation Module for WebHosting**.



10. Useful Resources

We maintain handful of useful resources to allow better support and enhance user experience with our product, making the most of it. You can utilize this supplementary information as per requirement. Just follow the mentioned links for further assistance.

No#	Documents and Guides	Links
1.	Frequently Asked Questions (FAQs):	http://kb.machsol.com/Knowledgebase/2
2.	Knowledge Base (KB):	http://kb.machsol.com/
3.	Blogs:	http://blog.machsol.com

11. Contact Us

MachSol is leader in unified automation software that solves business and operational challenges in delivering scalable hosted software in private cloud, public cloud and hybrid cloud environments.

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