

The leading cloud management software for hosting providers

OnApp Cloud combines high-end cloud management features with support for multiple cloud deployment models, operating systems, hypervisors, pricing strategies and billing applications, so hosts can design unique cloud services with ease.

Cloud deployment

OnApp Cloud uses an advanced hardware virtualization/paravirtualization architecture and supports a range of cloud deployment models.

- > Public clouds
- > Private clouds
- > Hybrid clouds (dedicated servers + cloud failover)
- > VPS clouds (packaged cloud resources)
- > Traditional VPS (local storage)

Cloud resource management

OnApp Cloud has a multi-layered management model. The OnApp Controller server enables everything, from system architecture to VM root access, to be managed via the UI and API.

OnApp Controller server

- > Provides the Control Panel UI, controls all cloud resources and integrates with third party applications
- > Enables dynamic resource allocation: servers, storage, networks, user resources, limits and VMs can be added, removed and changed on the fly
- > Handles cloud health monitoring, user management, billing calculations and failover
- > Manages multi-layered admin/user/reseller permissions
- > Enables customer self-provisioning/self-service for cloud resources

Control Panel UI

- > Web-based and fully customizable
- > Can be replaced with third party or legacy control panels via the OnApp API

Hypervisors

- > OnApp Cloud makes optimal use of hypervisor and storage resources (intelligent provisioning)
- > OnApp clouds are self-healing, with automatic failover and automatic VM migration on reboot
- > Multi-hypervisor support:
 - Xen
 - KVM
 - VMware (2011)
 - Hyper-V (H1 2012)

Availability & performance zones

- > Group resources to create tiered services, private clouds and availability zones
- > Create any number of hypervisor zones, data store zones and network zones
- > Zones can be assigned to billing plans for services with tiered pricing and resource limits

Network management

- > IP management for IP pools and billing
 - IPv6 support
- > Advanced VLAN management
 - VMs access multiple VLANs through multiple virtual interfaces
 - Assign private VLANs to customers
- > Three-NIC hypervisor design reduces bottlenecks between SANs and the management network

Load balancing

- > Rapid, automatic load balancing of selected VMs
- > Powered by Loadbalancer.org technology

Autoscaling

- > Autoscale resources up and out

Admin tools

- > Task, transaction and resource monitoring
- > Customizable alerts
- > Extensive user management
- > CSS customization & UI skinning

OnApp CDN integration

- > Control OnApp CDN resources, users and billing from the OnApp control panel

Backup and storage

OnApp Cloud features flexible, resilient backup.

- > Dedicated backup storage for VM snapshots, outside of SANs
 - Allows true disaster recovery in case of catastrophic SAN failure
- > Image engine - central VM template repository
 - Backup-to-template conversion process enables rapid VM redeployment
- > Tiered storage - multiple storage sources per cloud, and multiple disks per VM
- > Storage migration - move disks between SANs

VM management

OnApp Cloud enables simultaneous hosting of x86 and x64 Linux & Windows VMs, in multiple flavors.

- > CentOS, ClearOS, CloudLinux, Debian, Elastix, Gentoo, R1SOFT, Red Hat, Ubuntu, FreeBSD
- > Windows 2003, Windows 2008, Windows 7
- > JumpBox virtual appliance templates
- > Custom VMs - create your own VM templates
- > Windows SPLA management
- > Sub-60 second VM deployment:
 - Automatic CPU, RAM & disk provisioning
 - Automatic IP allocation
 - Manual build option
- > Ad-hoc and automatic VM backup
 - Customizable daily, weekly, monthly and yearly backups
 - Convert backups to templates for VM redeployment
- > VM resource utilization monitoring (bandwidth, CPU, storage, IOPS)
- > Hot and cold VM migration
- > Change VM owner
- > VM segregation (keep on different hypervisors)
- > VM virtual console

High availability

OnApp clouds have enterprise-class resilience, with multi-layered security, a self-healing architecture and automatic hypervisor failover.

Failover

- > Cloud health monitoring with automatic hypervisor failover - initiates in 15 seconds
 - Customizable failover threshold
 - Automatic hot migration of hosted VMs
 - Automatic cold migration if hot migration fails
- > Seamless SAN failover (OnApp controls physical and virtual SAN routing)

Security

- > Implements hypervisor security features
- > Additional Customer Isolation Module
 - Isolates VMs' data and traffic
 - Includes anti-sniff, anti-spoof firewall

User and billing management

OnApp gives you total control of user roles, permissions, resources, limits and pricing.

Users, roles and permissions

- > Create unlimited roles for customers, resellers, VIPs, billing teams etc
- > Granular permissions system controls access to every OnApp function
- > Manage user payments

Pricing, billing and limits

- > Set up any number of billing plans with custom price structures - utility or plan-based
- > Set prices/calculate billing for:
 - CPU cores
 - CPU priority
 - RAM
 - Disk size
 - Storage disk
 - IP addresses
 - IOPS
 - VMs powered on/off
- > Set free and max resource limits
- > Set different pricing for different availability/performance zones

API and integrations

OnApp Cloud has a full API and pre-built integrations to popular hosting applications.

API

- > RESTful JSON and xml API
- > Exposes all Control Panel functions
- > Basic HTTP authentication for calls

Pre-built integrations

- > WHMCS (free module)
- > Ubersmith (free module)
- > HostBill (HostBill native)
- > Php (free wrapper)

Hardware requirements

OnApp software has a small footprint and very modest hardware requirements.

Hypervisor servers

- > x64 platform with AMD-V/VT-x hardware virtualization support enabled
- > Quad Core 2Ghz+ CPU
- > 8GB+ RAM
- > 3x Gig network interface cards
- > 30GB free disk space (SSD Recommended)

Controller server

- > Dual or Quad Core 2Ghz+ CPU
- > 8GB RAM (16GB+ recommended)
- > 100GB RAID 1
- > 2x Gig network interface cards

Backup server

- > 1GB RAM
- > 2TB+ NAS (or a large HDD on the Controller server)

Data stores

- > 1TB Block Storage

OnApp clouds can use any storage that presents a block device: RAID, LVM, ATAoE, iSCSI, Fiber, local storage.

For a demo and more information:

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