



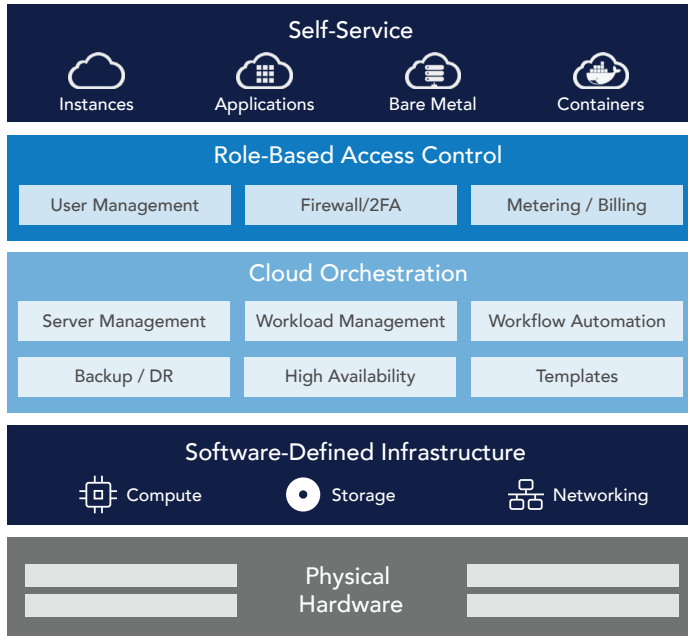
# OnApp Cloud

The complete cloud management  
platform for Telcos & MSPs



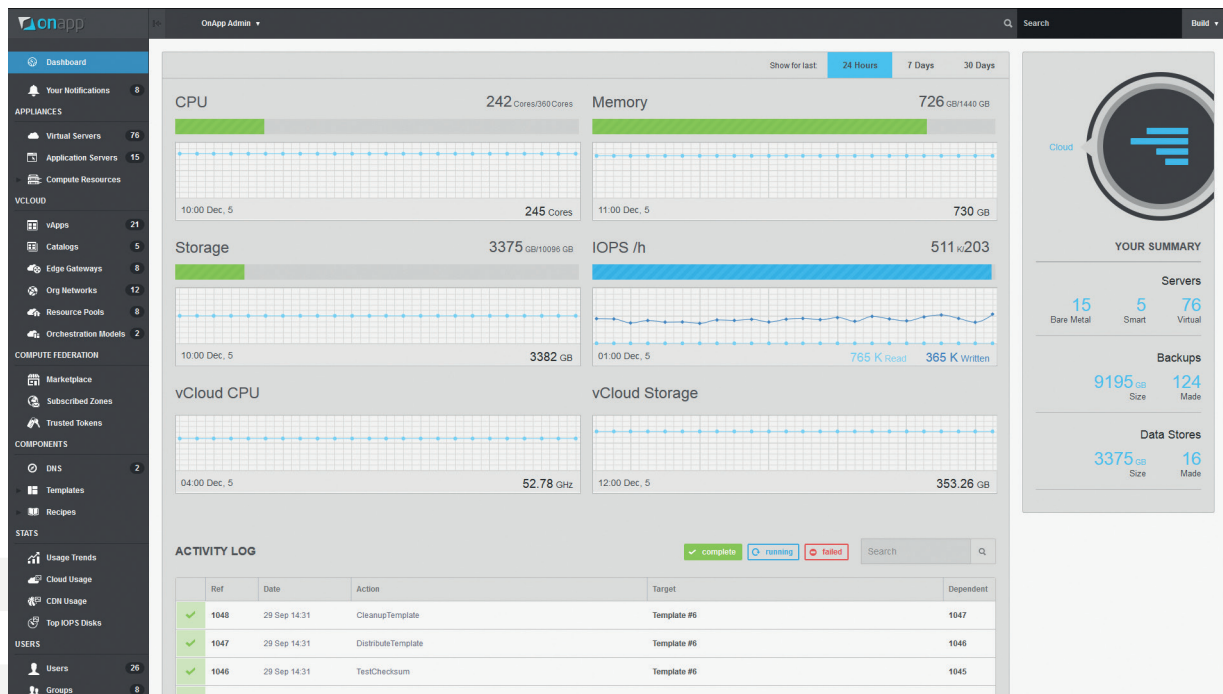
# Cloud doesn't have to be complex

OnApp Cloud takes the complexity out of building, managing and selling cloud infrastructure. It's the complete cloud management solution for service providers.



## At a glance...

- Single pane of glass for public, private & hybrid cloud service delivery
- Easy multi-cloud management - local, remote & third party clouds
- KVM and VMware support
- Integrated SAN, CDN, DNS and backup
- Integrated user management, metering, monitoring and billing
- Integrated autoscaling, failover, load balancing and firewall
- Integrated service & IT governance tools
- Huge library of OS templates and apps
- Service catalog & customizable add-ons



The rebrandable OnApp control panel



# Simplicity, profitability and fluidity

Use OnApp to simplify infrastructure management, automate your datacenter, maximize your investments in hardware, and deliver intuitive, secure cloud services to customers, partners and employees.

## Easy to deploy

OnApp includes a complete suite of cloud orchestration, management and provisioning tools, fully integrated into one platform. OnApp runs on commodity hardware. It's a turnkey platform that deploys in days, without months of development or integration work.

## Easy to use

OnApp includes a fully customizable, self-service control panel that streamlines workload management, and uses intuitive wizards and GUI controls to make cloud management and provisioning as simple and efficient as possible. You can brand the control panel with your own look and feel, or use our open API to integrate with a third party portal if you wish.

## Highly scalable

OnApp clouds feature autoscaling as standard, enabling individual servers to scale vertically and horizontally based on configurable thresholds. With multi-cloud support included too, you can enable users to deploy anywhere in your infrastructure through one control panel.

To add even more scale, you also get access to the OnApp Federation, which extends your local cloud with compute and CDN infrastructure in 170+ locations - all managed through one portal.

## Highly available

OnApp clouds are secure, self-healing and extremely resilient, with multiple backup schema, automatic hypervisor failover and High Availability support.

## What can you sell with OnApp?

- Fully customizable virtual servers
- Pre-configured virtual server instances
- Application servers (pre-installed apps)
- VPS based on SAN or local storage
- Bare metal servers with full automation
- Smart servers (hybrid cloud/dedicated)
- Global compute & CDN using OnApp Federation capacity
- Templates, IPs, VMs, IOPS, tiers, zones
- Real-time Disaster Recovery

## Minimum hardware requirements

**1 x Controller server:** dual or quad core 2Ghz+, 8GB RAM (16GB+ recommended), 100GB RAID 1, 2 Gig NICs, CentOS 5/6 x64

**2 x Compute Resources:** quad core 2Ghz+, 8GB+ RAM, 30GB HD (SSD recommended), 4 Gig NICs, CentOS 5/6 x64

**1 x Backup server:** dual or quad core 2Ghz+, 4GB RAM (8GB+ recommended), 2TB storage mounted locally, 2 x Gig NICs, CentOS 5/6 x64

**1 x Data store:** 1TB Block Storage (iSCSI, ATAoE, Fiber) or distributed SAN using OnApp Storage & local disks in hypervisors

# Core IaaS capabilities

OnApp gives you a complete set of Infrastructure-as-a-Service building blocks, and an easy way to combine them into a huge range of cloud and dedicated hosting services.

## Server types/appliances supported

- Virtual servers - KVM, VMware
- Application servers
- Smart servers
- Bare metal servers
- CDN edge servers (static and streaming)

## Huge template library

- Hundreds of OS & app templates based on:
  - ArchLinux, CentOS, ClearOS, CloudLinux, Debian, Elastix, Endian, Fedora, FreeBSD, Gentoo, Mageia, Openfiler, openSUSE, PBXWare, R1SOFT, Red Flag, Red Hat, Scientific Linux, Slackware, SME Server, Ubuntu, and JumpBox virtual appliances
  - Windows XP, 2003, 2008, 2012, 7, 8, 10, 2016 (MAK, KMS and 'bring your own' licenses)
- Create your own templates
- Import your own templates from OVA
- Bring-your-own-ISO for server creation & recovery

## Flexible storage support

- Choose your storage strategy:
  - Create your own SAN using local hypervisor disks (OnApp software defined storage)
  - Use traditional hardware or software SANs (any storage that presents a block device)
  - SolidFire integration for guaranteed IOPS
- Create tiered storage services:
  - Multiple SANs per cloud; multiple disks per virtual server
  - Limit max IOPS per vDisk

## Autoscaling and load balancing

- Automatic load balancing of selected virtual servers
- Autoscale up and out based on configurable thresholds: add RAM, CPU and disk to a virtual server, or clone a new virtual server

## Workflow automation

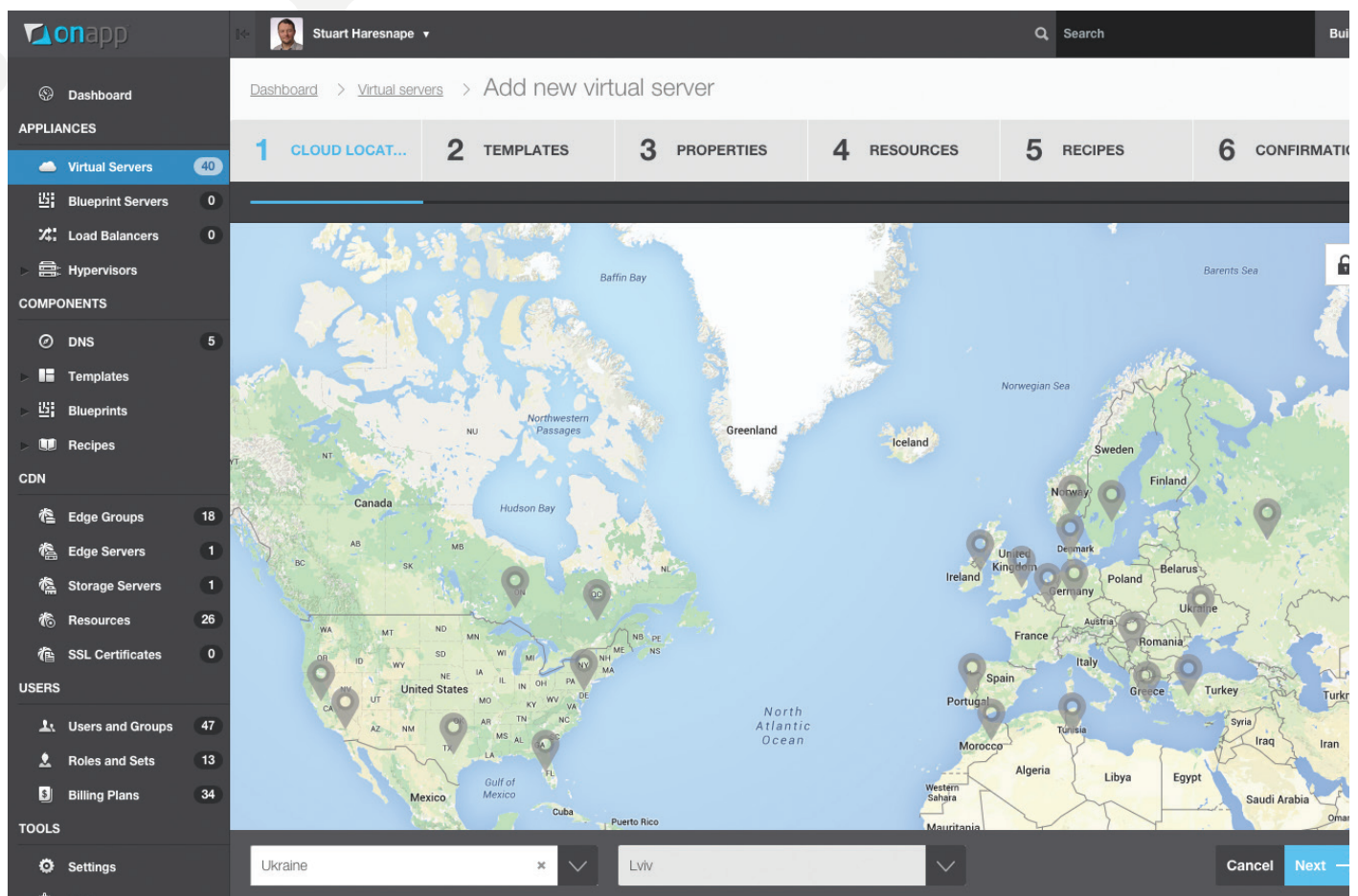
- Use service add-ons to offer customized services with your IaaS products, such as monitoring and security software
- Use Recipes to automate configuration and installation of apps, tools & frameworks, for virtual, smart and bare metal servers

The screenshot displays the OnApp web interface. The top navigation bar includes the OnApp logo, a user profile for Roman Strazhnyk, a search bar, and a 'Build' button. The left sidebar lists various system components under 'APPLIANCES', with 'Data Stores' currently selected. The main panel shows a green notification banner stating 'Data Store was successfully created.' Below this, the 'Data Stores' section features a table with the following data:

Label	Identifier	Disk count	Total space	Performance	Actions
OnApp Storage DS 1	0472sl0cmwvkha	0	1.6 TB	Normal	[Settings] [Dropdown]

Below the table is a button labeled 'Create new Integrated Storage Data Store'. The 'Storage Nodes' section at the bottom shows five disk icons with their capacities: 119.2 GB, 465.8 GB, 119.2 GB, 465.8 GB, and 465.8 GB.

OnApp's integrated SAN creates tiered storage services by distributing data across disks in your cloud



Using the OnApp provisioning wizard to deploy virtual servers, across on-premise and federated cloud infrastructure

## Customizable web control panel

- Full white label HTML5 user interface
- Enables secure self-service provisioning, in tandem with OnApp's Role Based Access Control system
- Everything from the system architecture to virtual server root access can be managed via the UI
- Change language, currency, look & feel from the GUI
- Integrated VM console (VNC/HTML5)
- Add 3rd party portals into OnApp with single sign-on

## Role-based access control

- Create any number of user roles for customers, resellers, VIPs, billing teams, support
- Control visibility of and access to every OnApp function, for any mix of users, departments or companies

## API & integrations

- RESTful JSON and xml API for all cloud management functionality
- Pre-built integrations with WHMCS, HostBill, Ubersmith, PBA, SolidFire, Veeam, R1Soft, Bacula
- AWS integration

## Network management

- Software-Defined Networking: manage networks using VXLAN technology across OnApp cloud compute resources – build level-two networks on top of IP (level-three) networks
- IP management for IP pools and billing
- IPv4/IPv6 support
- Advanced VLAN management
  - VMs access multiple VLANs through multiple virtual interfaces; private VLANs supported too
- Infiniband support

## Availability/location/performance zones

- Group physical resources to create tiered services based on performance or location
- Create virtual private clouds and availability zones
- Each zone can be configured with its own pricing & limits

## Integrated Anycast DNS

- Low-latency, highly resilient DNS service hosted at locations around the world
- Manage DNS for your own domains, and your customers' domains

## Governance & notifications

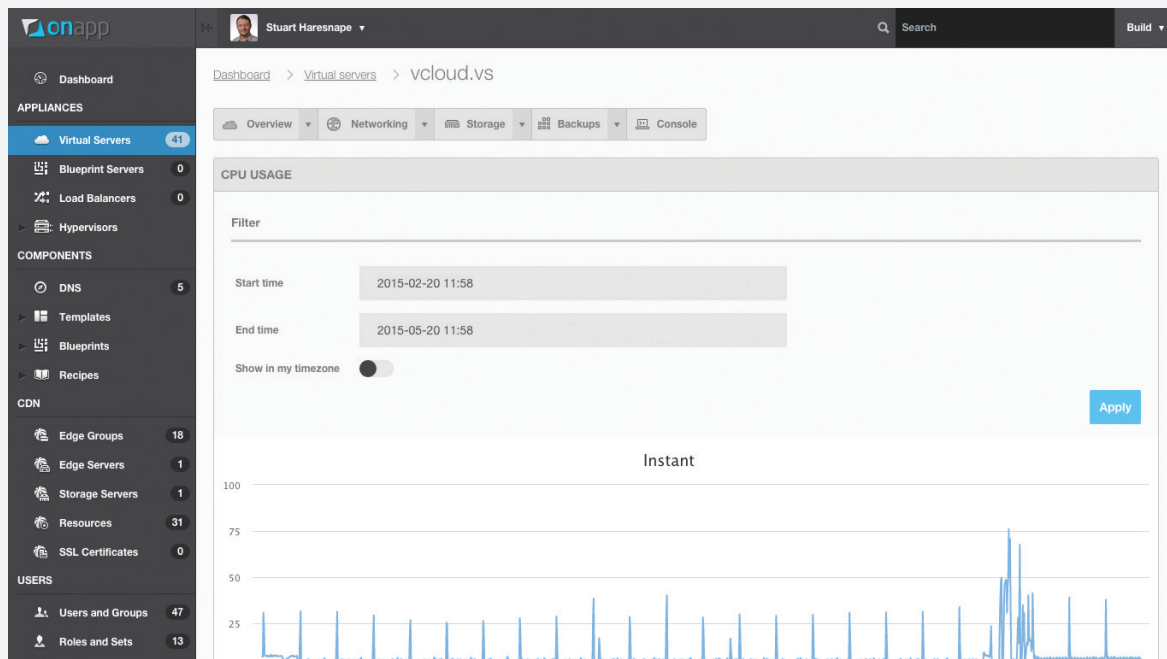
- Audit tracking of actions performed by users
- Enable approvals for actions performed by users
- Limit & quota management
- Flexible notification/subscription system to generate alerts based on events and transactions

## Automatic content acceleration

- Virtual server web content is automatically compressed and distributed to a global CDN managed by OnApp - no configuration or recoding required
- OnApp Cloud also integrates seamlessly with OnApp CDN, for live streaming, Video on Demand and custom content delivery use cases (choose your own PoPs, push/pull methodologies, create your own edge servers, etc)

## Pricing & billing

- Use plan-based and/or utility billing
- Manage user billing plans, payments, suspensions & whitelists, plus custom fields
- Set prices and calculate bills for all infrastructure resources:
  - CPU cores, CPU priority, RAM
  - Primary & storage disks & backups
  - IP addresses & networks
  - IOPS & DNS
  - Templates, recipes & different server types
  - Your own service add-ons
- Create and price different zones for cloud servers, dedicated servers, performance tiers and locations
- Bill in any real-world or virtual currency (BitCoin, Cloud Units etc)
- Overcommit support



OnApp monitors, meters and calculates billing for a huge range of hardware resources

## High availability & disaster recovery

- Monitoring & alerts:
  - Customizable alerts (email & SMS)
  - In-product notifications
  - Multi-layered usage reporting
- Automatic failover for hypervisors
  - If a local hypervisor is unresponsive, virtual servers and smart servers are hot migrated to a healthy hypervisor if possible (depends on the OS)
  - Cold migration options, where hot migration is not available
  - Failover thresholds are customizable
- Hypervisor maintenance mode
  - Migrate virtual servers at will to perform maintenance on compute nodes

## Backup

- Backup plug-in system: integrate OnApp with specialist backup tools
  - Plug-ins include Veeam and R1Soft
- Native backup options using dedicated OnApp

backup servers, or your OnApp Control Panel server:

- Backup on demand or via automated schedules
- Full-server snapshot backups
- Native incremental backup, with extended incremental options via Bacula4Hosts

## Security

- Multi-layered security model featuring our Customer Isolation Module:
  - Enables secure VLAN sharing
  - Isolates VM data and traffic
  - Includes an anti-sniff, anti-spoof firewall
- Virtual Server Gateways: create private zones for customers, with edge firewall gateway services
- External authentication system connections (OAuth, SAML)
- Two-factor authentication support (Yubikey)
- Make full use of hypervisor firewall features
- Additional user-configurable firewalls
- Whitelists, password policies & other features



For a demo and more information:

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