SkyVirtHCI

Smart Hypervisor built for Range & Enterprise Workload

DATASHEET

The complete private-cloud platform you own outright.

SkyVirtHCI is a hyperconverged virtualization platform: install one ISO on ordinary x86 servers and they become a complete private cloud - virtual machines, containers and Kubernetes, resilient replicated storage, software-defined networking, data protection and a single management console. Built on mature, widely deployed virtualization technology and engineered for the parts that usually hurt: installation, upgrades, failures.

Key benefits

- Native SOC protection (Enterprise license): SecSphere SOC ships inside the platform - every VM is protected from the moment it boots, nothing to deploy per VM.
- Drag-and-drop environment builder: design networks, VMs and security zones on a canvas and deploy them as real, isolated infrastructure - built for cyber ranges and labs.
- One installable product on commodity x86 servers: compute, storage, networking, containers, Kubernetes, backup, DR and management - three nodes deliver full high availability.
- Day-2 first: rolling upgrades, rehearsable disaster recovery, immutable backups and capacity forecasting are built in.
- Warm migration imports running VMs from existing platforms with cutover downtime measured in seconds.
- Owned entirely by you: no telemetry, no phone-home, designed for air-gapped and regulated environments.

Capabilities at a glance

Compute

- Full VM lifecycle: create, clone, resize, retire
- Live migration between hosts, zero downtime
- Versioned templates and instant snapshots
- Affinity rules and automated load balancing

Storage

- Local disks pooled into one replicated fabric
- Self-healing on disk and node failure
- Datastores with quotas and placement policy
- External NFS and block storage attach

Networking

- Virtual networks with routers, address mgmt
- Per-VM security groups at the virtual port
- Load balancers, floating IPs and VLANs
- Hard per-tenant network isolation

Data protection

- Incremental-forever, app-consistent backups
- Write-once (immutable) retention targets
- Site-to-site replication with recovery plans
- Rehearsable test failover, isolated from prod

Operations

- Rolling upgrades with health preflights
- Built-in metrics, alerting and capacity forecast
- Standard metrics endpoint for your monitoring
- Audit trail with syslog / SIEM forwarding

Security & tenancy

- SSO, enforced MFA and scoped API keys
- Built-in and custom fine-grained roles
- Tenants, projects and quotas
- Air-gapped operation, zero phone-home

Containers & Kubernetes

- Containers beside VMs, same console
- Compose stacks and one-click app catalog
- Private registries and image management
- Full Kubernetes clusters on demand

Migration & import

- Direct import from major hypervisors
- Warm migration: seconds of cutover downtime
- Disks, NICs and config carried across
- Cold mode for stopped or archived VMs

Capability detail

Built-in SOC	SecSphere SOC native in the Enterprise license: automatic per-VM telemetry, detection, correlation and response with zero SOC administration; optional SIEM forwarding
Environment builder	Drag-and-drop canvas for topologies: networks, VMs, routers, security zones deployed as real isolated infrastructure; multi-tenant, multi-user; cyber-range exercise ready
Virtual machines	Lifecycle, live migration, snapshots, versioned templates, browser console, GPU-aware scheduling, affinity/anti-affinity
High availability	Automatic VM restart on host failure, admission control protecting failover headroom, dynamic load balancing
Storage	Replicated pool from local disks, self-healing, datastores, volumes, quotas, external NFS/block attach
Networking	Software-defined networks, routers, security groups, load balancers, floating IPs, VLANs, port mirroring
Containers & K8s	OCI containers beside VMs with browser console, public/private registries, compose stacks and a one-click app catalog; full Kubernetes cluster provisioning from the same console
Backup	Policy-driven, incremental forever, application-consistent, encrypted off-site targets, write-once retention
Disaster recovery	Scheduled replication to a second site, recovery plans with boot order, test and real failover
Migration	Direct import from VMware vSphere, Microsoft Hyper-V, oVirt/RHV, Linux KVM hosts and VirtualBox; cold and warm modes
Multi-tenancy	Hard tenant isolation, projects, quotas, per-tenant networks
Identity & access	Local accounts, SSO, directory integration, enforced MFA, custom roles, scoped API keys, session control
Observability	Per-VM/host/container metrics with history, alert rules with e-mail/chat/webhook delivery, capacity projections, SIEM forwarding
Lifecycle	Rolling platform upgrades with preflight checks, version inventory, update hub for air-gapped sites

Delivery status - live from the engineering plan

Recently shipped & validated

+ SSO, enforced MFA & custom roles
+ Incremental backups, immutability, DR & recovery plans
+ Lifecycle manager: rolling agent & platform upgrades
+ Connectors: vSphere, Hyper-V, oVirt, KVM, VirtualBox
+ Warm migration (seconds-of-downtime cutover)
+ Observability: platform metrics, dashboards, scrape auth

In development / planned

> Warm migration for vSphere & oVirt sources (2026-07)
> Project-scoped permissions in every API (2026-06)
> DR validation at a second site & key management service (2026-07)
> General availability release (2026-08)

System requirements

	Minimum (evaluation)	Recommended (production)
Servers	1 node	3+ nodes
CPU	4 cores x86-64 with VT-x / AMD-V	16+ cores per node
Memory	16 GB	64 GB+ per node
Disks	1 system + 1 data disk	System SSD + multiple data SSDs
Network	1 GbE	2 x 10 GbE (management + storage)

Get the installer and the full documentation at hci.straightarc.com - the getting-started guide takes a cluster from blank servers to a running VM in about fifteen minutes per node.