Sangfor HCI Feature List

Category	Sub-category	Features	Remark
Compute	Hypervisor	Based on KVM	
		Bare-metal achitecture	
	vCPU optimization	vCPU optimization technology	vCPU thread distribution algorithm, host CPU technology
	Memory optimization	Memory optimization	Memory balooning, transparent page sharing, memory compression, memory swop, HugePage
	CPU/Memory resource priority allocation	Memory allocation by VM priority	
	VM deployment	P2V migration	Linux/Windows server, online migration for Windows
		Export and Import	VM export(ova/vma) and import (ova/vma)
		Clone	
		Batch deployment of templates	
	VM configuration	Resource hot added	CPU/Memory/VM disk/NIC
		VM disk expansion	
		Bare disk mapping	Access the hard disk without the file system
		FastIO disk	IO performance optimization
		VM disk cache setting	
		UFEI start-up	UFEI start-up for specific OS version
		VM NUMA	Support vNUMA
		Backup filter page file	Automatic filtering the large capacity of junk files during the operation of windows
	VM lifecycle management	VM lifecycle management	Create/edit/delete/active/shut/pending/recover/backup/snapshot/clone/migration
		VM batch managment	
		Live migration	Online migration across different hosts
		Cross-cluster live migration	
	Operations	Virtual machine performance monitoring	Including CPU usage, memory usage, disk usage, network flow trends, CPU usage trends, memory usage trends, I/O rate trends
		VM information display	VM basic information and hard disk configuragion
		Log display	VM related operations log, alarm log
		Log operation	VM related operations logs, alarm logs search
		OVA Export	Able to export OVA format VM to be used in Vmware environment
Storage	Virtual storage	Storage protocol	ISCSI
		SAN/NAS attachment	
		Multi-path technology	
		Abitrator mechanism	To avoid split-brain
		Shared virtual disk	
		Thin provisioning	
		Two or three copies	
		Hot spare disk	
		Virtual nerwork port aggregation	
		Virtual storage expansion	
		Hard disk exchange	Hard disk exchange in virtual storage
		Automatic data balancing	
		Storage Tier-ing	Faster write and more consistent read performance
		Support the Physical server with ISCSI	Physical server access the aSAN by specific ISCSI interface
		Virtual volumes	Virtual storage volumes can be created based on hosts with different disk performance and capacity.
Networking	Network detection	Network failure detection	Connectivity detection by ICMP/TCP DUMP detection
	Topology	Network topology visualized management	For the network topology management with GUI , support the network view mode and editing mode, Drag and drop, add physical edges, switches, routers,virtual machines to topology, select, move, frame select, connect, delete, maximize, minimize, full screen, 1: 1, export topology, search for devices, traffic monitoring, alarm information for abnormal network devices or virtual machines, automatic layout setting
	Physical interface	Maximum 64 edges for a serverm maximum 1000 edges for cluster; maximum 128 port groups for an edge	
	VxLAN	Distributed vSwitch	Virtual switch instances reside on every physical node in the cluster
		Maximum support 128 linking number for single switch	
	Router	Virtual router	Supporting adding ports and VLAN subnet ports, single and multiple static routing, SNAT, DNAT, ACL, DHCP, DNS agent, HA for Router
		Maximum support 128 VLAN subnet ports, 512 static routes, 512 SNATs and 512 DNATs	
	NFV (Network Functions Virtualization)	Virtual application delivery (vAD)	
		Virtual next generation application firewall (vAF)	
		Virtual Internet access management (vIAM)	
		Virtual WAN optimization (vWANO)	
		Virtual SSL VPN	From 5.8.2, vSSL VPN is fully integrated
	Micro-segmentation	With distributed firewall to safeguard east-west traffic	

Management	System recovery and backup	Local VM backup and recovery	Backup system logs and configuration to lcoal disk, recover from automatic backup files and from local backup file
		Restore to factory setting	
	Alarm setting	Alarm information threshold setting	Including high utilization of host memory and CPU, host CPU temperature, NIC anamaly, storage IO busyness, Storage IO latency, disconnection between host and VMs, storage status anamaly, RAID card status anamaly, host offline, license overdue, VM high memory utilization, VM high CPU utilization, VM image files damage, NIC offline alarm
		Email alarm	
	Logs	Logs for operations and alarm	Check all detail operation logs, including status, behaviors, start, end, name, host, object, check all alarm logs, including behaviors, alarm time, object, etc.
	Upgrade	Hardware maintenance mode	Support upgrade in maintenance mode, no impact on VM
	VM backup and recovery	Backup policy setting	Backup based on bitmap for higher performance and better storage efficiency. Other features include policy name, description, backup VM, backup location, backup methods, backup files, supporting the backup storage setting, including local and external, and windows shared files
		Backup storage pool	Backup destination storage pool can be added
		Instant recovery	VMs can be booted up within 3 minutes and recover to normal performance within 15 minutes
		Continuous Data Protection (CDP)	VMs can be recovered from any time point in the recent 3 days to achieve near-zero RPO
		Instant file browsing	Download files from any IO log records and start browsing right away (For Windows only)
		VM recovery by time point	
	VMware management and backup	Unified management for vCenter	HCI is able to manage VMs on vSphere through vCenter, under one unified management console
		Bi-directional VM migration	Migrating VMs from Vmware or to Vmware with a very short period of downtime (rebooting VMs inflicts downtime)
		Backup and instant recovery on HCI	Backup to HCI at a very fine-grained level and instant recovery can be achieved on HCI (VMs booted up in 3 minutes and recover to normal performance within 5 minutes)
		iSCSI storage optimization	Reliability and availability of iSCSI Server for Vmware hosts have been significantly improved, iSCSI server can now be presented through storage network
	HA (High Availability)	VM HA	When one physical node is down, VM can be restarted on another healthy node to ensure the continuity of business
	Cluster resource scheduling	Schedulling advice for VM	When CPU, memory is higher than threshold, aSV provides schedulling suggestions. automatically and manually. Sensitivity setting, 10 min by default Sopport to configure specific VM, configure single VM or prohibit the use of scheduling.
	Automatic hot add	DRX (Dynamic Resource Extension)	Add memory and CPU to specific VM Hot add cannot be added without limits, resources capacity cannot exceed original resources for a single VM, and cannot be more than physical resources of a host
	Role-based access	Sub-administration	Able to create multiple accounts with pre-assgined resources and permissions
	Recycle bin	VM recycle bin	Access recycle bin from VM page, network page and management interfaces. Deleted VMs can be restored in 30 days. Support display VM name, description, type, utilization, delete time and remaining time
Operation	Host status	Physical and virtual host information	Monitor host performance, including CPU, memory, storage, network data flow usage tendency, CPU usage tendency and memory use tendency, physical hardware information and configuration, including name, description, version, processor model, memory, number of NICs, status of FC adapter, storage adapter IQN, cluster controller, number of VMs, running time, the external storage information, including storage name, type, utilization, avaliable capacity, display VMs, including VM status, CPU, memory, disk utilization
	Storage status	Storage information	Monitor external storage devices
	Cluster status	Cluster information display	Overview of total CPU/memory/storage resources utilization in the cluster
		1-click health check	One click to check platform configuration and hardware status