



Supermicro Red Hat OpenShift Solutions

Scalable PaaS cloud infrastructure powered by OpenShift Container Platform

Overview

Supermicro and Red Hat have partnered to develop a best-in-class solution based on industryleading SuperServers, SuperStorage, and Red Hat[®] OpenShift[®]. The solution provides the ability to deploy and manage containers in private or hybrid cloud environments by combining automation with performance and efficiency.

Supermicro OpenShift solution utilizes advanced features of SuperServers and SuperStorage such as resource saving, high density, high availability, and high efficiency. It is a fully optimized turnkey solution for fast and easy deployment.

Solution Features

- An integrated container application platform (CaaS/PaaS/FaaS) with enterprise-grade Kubernetes and infrastructure management, simplified for on-premise deployment and scale
- Capable of deployment in less than an hour with high availability and persistent storage; automated with Red Hat Ansible, and configured to be horizontally scalable to multiple racks
- Utilizing latest technologies such as Intel[®] Xeon[®] Scalable Processors, NVMe, 25G Ethernet, and resource-saving SuperServer and SuperStorage servers
- Hardware accelerated performance options such as Intel[®] Optane[™] DC persistent memory, Nvidia[®] GPU accelerators, and 100GbE networking are available for demanding workloads
- Native security for container-based applications with role-based access control and securityenhanced enterprise ready Linux

RedHat OpenShift Architecture



BUSINESS VALUES

- Built with the latest compute technologies
- Complete HW and SW stack
- Cloud native, variety of workload support
- Certified and optimized
- Fast, automated deployment
- Global Support options





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RedHat OpenShift Configurations

	OpenShift with Gluster	OpenShift with Ceph	OpenShift Hyperconverged	
Master node	3* nodes (BigTwin)	3* nodes (BigTwin)	3* nodes (Ultra)	
Infra node	3* nodes (BigTwin)	3* nodes (BigTwin)	3* nodes (Ultra)	
App node	6* nodes (BigTwin)	6* nodes (BigTwin)	3* nodes (Ultra)	
Storage node	3* nodes (1U12Bay)	3* nodes (Simply Double)	Share with App Node	
Compute cores	240 (up to 336 max)	240 (up to 336 max)	96 (up to 168 max)	
Total Memory	3TB (up to 36TB max)	3TB (up to 36TB max)	1.5TB (up to 18TB max)	
Total Storage (Raw)	576TB	288TB	144TB	
Networking	1 x 10G + 2 x 25G			
Software	RHEL 7.5 or Red Hat CoreOS 7.5 / OpenShift 3.11 or 4.1			
SKU Name	SRS-OPSHFT-GLFS-01	SRS-OPSHFT-CEPH-01	SRS-OPSHFT-HCI-01	

Server Features

	[Master / Infra / App] Compute Node		[Ceph / Gluster] Storage Node	
	BigTwin	Ultra	1U 12 Bay	Simple Double
CPU	40 cores	32 cores	32 cores	32 cores
RAM	512GB	512GB	96GB	96GB
Storage	1.92TB	48TB	96TB	192TB
NIC	2*10GbT, 4*25GE	2*10GbT, 4*25GE	2*10GbT, 4*25GE	2*10GbT, 4*25GE
SKU Name	SYS-2029BT-RH-OPSHFT	SYS-2029U-RH-OPSHFT	SSG-6019P-RH-OPSHFT	SSG-6029P-RH-OPSHFT

Switch Specification

Management Switches				
		Harris Harris Harris		
NIC	10 GBase-T (48*10GbT, 4*40GE)	25 GE (48*25GbT, 6*100GE)		
SKU Name	SSE-X3348TR	SSE-F3548SR		

Hardware Features:

- 2nd Generation Intel Scalable Processors -Cascade Lake
- NVMe support
- 25GE networking
- Large memory footprint
- High availability
- Ceph storage with NVMe Journal

Please contact your Supermicro Sales representative or your local authorized reseller for more information. Website: https://www.supermicro.com/en/solutions/red-hat-openshift