

HyperCX Bento

Client: InfoWorx
Project: C1

Location: America/Los Angeles

Welcome to your new HyperCX Bento cluster. HyperCX being a hyper-converged platform, shares the same cluster between workloads and the rest of the subsystems (storage, management, compute and orchestration) increasing overall efficiency and enabling an increased usability of the available resources. It leverages bare metal containers and a hyper-converged design to rapidly deploy, run, and control application workloads on the go without any prior knowledge regarding the platform. HyperCX Bento has been designed to streamline the deployment, administration, and scalability of the data centre.

These are the main features on HyperCX Bento:

- Increased Performance: Through an optimized and integrated SAN SDS.
- Increased Efficiency: HyperCX Bento makes better use of the available resources by leveraging bare metal containers (optional), full virtualization support, and a hyper-convergent design.
- Ease of Use: Rapid deployment of workloads without any prior knowledge of the platform.
- IaaS Capabilities: Offering IaaS capabilities by leveraging powerful ACLs, multi-tenancy support, quotas, users and group management.
- **High Availability (HA):** On Network, Storage, Compute (VM and containers automatic migration), and Orchestration.

• Security: OpenVPN-based VPN, SSH Asymmetric Cypher by default, and Network Traffic Isolation through VLANs.

NOTE: Current document contains sensitive and confidential information. **Do not distribute**.

Documentation

More information can be found on the official documentation: https://docs.virtalus.com

Support

If you are already a user and want to raise a ticket, you can use the support email: support@virtalus.com, write on the allocated WhatsApp group or create a new ticket on the portal: https://virtalus.zendesk.com. Contact your account manager if you do not have an account.

Access

HyperCX

This cluster has been enabled to be accessed directly from the internet. The following link can be used without the need of connecting to the provided VPN:

https://infoworx.virtalus.com

Administrator's credentials can only be found on privileged reports.

HyperCX Beat

Web Portal: http://172.17.49.5/grafana

Credentials can only be found on privileged reports.

Cluster total resources

Total RAW resources

Total amount of resources available on your new HyperCX Bento cluster. Total amount of resurces differs from usable by not accounting for the High Availability (HA) and redundancy overhead.

Resource	Capacity	Unit
CPU	6	Sockets
\mathbf{CPU}	72	Cores
RAM	566.4	GB
Disk space	21451.46	GB

Resource	Capacity	Unit	
OS Disk space	1255.79	GB	

NOTE: Disk space is shown as reported by the Operating System (OS). These values are slightly less than advertised due to the manufacturer's capacity rate and the file system overhead.

Total usable resources

Usable resources in the cluster. This accounts for redundancy and HA overhead.

Resource	Capacity	Unit
CPU	48	Cores
$\mathbf{R}\mathbf{A}\mathbf{M}$	377.6	GB
Disk space	10725.73	GB

Cluster description

Features

Available features for this cluster:

Feature	Status
HVM support	True
Containers support	False
Integrated monitoring system	True
Virtual Router	True
Virtual Routers in HA	True
Appliances marketplace	True

Server hardware details

This cluster was built using 3 servers with the following characteristics:

Hostname	CPU	Cores	Processors	Threads	RA
INFOWORX-C1-N1	Intel(R) Xeon(R) CPU E5-2678 v3 @ 2.50GHz	24	2	2	188.8
INFOWORX-C1-N2	Intel(R) Xeon(R) CPU E5-2678 v3 @ 2.50GHz	24	2	2	188.8
INFOWORX-C1-N3	Intel(R) Xeon(R) CPU E5-2678 v3 @ 2.50GHz	24	2	2	188.8

Server's detailed information:

Hostname	Server Manufacturer	Server Model	Serial	Form Factor
INFOWORX-C1-N1	Dell Inc.	PowerEdge R630	9ZV1S52	Rack Mount Chassis
INFOWORX-C1-N2	Dell Inc.	PowerEdge R630	$\rm JFG2V52$	Rack Mount Chassis
INFOWORX-C1-N3	Dell Inc.	PowerEdge R630	5C63F42	Rack Mount Chassis

Disks information:

Server	Disk	Model
172.17.49.11	/dev/sdc	
172.17.49.11	/dev/sdd	
172.17.49.11	/dev/sde	
172.17.49.11	/dev/sdf	
172.17.49.12	/dev/sdc	
172.17.49.12	/dev/sdd	
172.17.49.12	/dev/sde	
172.17.49.12	/dev/sdf	
172.17.49.13	$/\mathrm{dev/sdc}$	
172.17.49.13	/dev/sdd	
172.17.49.13	/dev/sde	
172.17.49.13	$/\mathrm{dev/sdf}$	

OS details

Details of the underlying OS:

Operating System	Ubuntu 20.04 (focal)
Kernel	5.4.0- 107 -generic
Architecture	x86_64

Network

Routers

Hostname	IPV4	IPV6
router1 router2	172.17.49.2 172.17.49.3	2604:8380:0:3::7:3/64 2604:8380:0:3::7:4/64
router3	172.17.49.4	2604:8380:0:3::7:5/64

Public_IPV4: 199.231.161.156/27

Public_IPV4_Gateway: 199.231.161.129

Public_IPV6: 2604:8380:0:3::7:1/64

Public_IPV6_Gateway: 2604:8380:0:3::1

Compute Nodes

Hostname	IP	BW
INFOWORX-C1-N1	172.17.49.11	20000Mb/s
INFOWORX-C1-N2 INFOWORX-C1-N3	172.17.49.12 172.17.49.13	20000 Mb/s 20000 Mb/s

Orchestrators

Hostname	IP
orchestrator1	172.17.49.7
orchestrator2	172.17.49.8
orchestrator3	172.17.49.9

Monitoring

Hostname	IP
Management	172.17.49.5

Note: Orchestrators and management instance (if exists) share compute node's connectivity.

Client Network

Following network(s) will provide connectivity to workloads. It has access to the Internet and can be reached through the VPN.

VLAN	2415
Bridge	br100
First usable IP	10.0.79.11
Amount of usable IPs	200
Mask	255.255.255.0
Gateway	10.0.79.1

VLAN	950
Bridge	br1
First usable IP	2604:8380:0:3::7:67
Amount of usable IPs	5000
Mask	ffff:ffff:ffff:
Gateway	2604:8380:0:3::

Management Network

This network provides connectivity to the physical infrastructure and HyperCX services.

Bridge	br0
VLAN	
Gateway	172.17.49.1
Netmask	255.255.255.0