

IBM Fusion HCI

StorM and eConfig Guide | V 2.12

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[#ibm-fusion-help](#)
[#fusion-sales](#)

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Configuring Fusion HCI – Overview

Start all HCI configurations in StorM: <https://www.ibm.com/tools/storage-modeller/#/projects>

Steps:

1. Create a new Fusion HCI project in StorM
 - Select software and support options
 - Configure the size and capacity of the appliance
 - Add servers, add GPUs, add storage, add memory, add multiple racks
 - StorM will show you cores and storage capacity for your configuration
2. Export the configuration CFR from Storm to your local drive
3. Import the configuration CFR into eConfig
 - <https://www.ibm.com/services/econfigcloud/>
 - Select 'Open Local CFReport' and import the StorM CFR
 - Perform Validation checks as directed by eConfig
4. In eConfig,
 - Add PDU and power whip options (these are client data center dependent. Guessing is not allowed!)
 - Add networking options – Fusion HCI supports up to 4 uplinks from the HCI TOR to the client data center network. Select the appropriate transceivers needed to interface the TOR ports to the client switches
 - Add installation services (install service must be added in all geos –except- US, Canada, and Japan)
5. Export CFR from econfig and attach to the pre-sales check list, question #1
6. Use CFR from eConfig to create quote in ePricer
7. Schedule Pre-Sales review
8. Solution Passes: Export "unlocked" configuration
9. Solution Fails: Re-edit configuration
10. Use CFR from IMPACT for ordering

Select 'New Project'

IBM

Storage Modeller

Perspectives ▾

17

stoddard@us.ibm.com ▾

Home / Projects

Projects

Showing: 7 out of 7 projects

Search by project name or description

1 ×

New Project +

☐	Name	↕	Creation	↕	Modification	Tags	Description	Notes	Status	↕
☐	P03 - watsonx - new		26 Sep 2024		26 Sep 2024	My Project		0	✓	⋮
☐	E03 - watsonx - new		25 Sep 2024		25 Sep 2024	My Project		0	✓	⋮
☐	N09 Netezza		23 Aug 2024		23 Aug 2024	My Project		0	✓	⋮
☐	N06 Netezza		23 Aug 2024		23 Aug 2024	My Project	3x C10 control 6x C10 worker 6x 7...	0	✓	⋮
☐	N03 Netezza		23 Aug 2024		23 Aug 2024	My Project	3x C10 control 3x C10 worker 6x 7...	0	✓	⋮
☐	Red Hat WAVE System		7 Aug 2023		15 Aug 2024	My Project		0	✓	⋮
☐	db2 warehouse		16 Feb 2024		16 Feb 2024	My Project		0	✓	⋮

Give Your Project a Name

IBM

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Home / Proj

Project Name

Showing: 7

☐ Na

☐

☐

☐

☐

☐

☐

☐

New project

Project Name

my fusion project

Description

Available tags

+

Selected tags

My Project

Cancel

Submit

Add a Product to Your Project

The screenshot displays the IBM Storage Modeller web interface. The top navigation bar includes the IBM logo, the text 'Storage Modeller', and a 'Perspectives' dropdown menu. On the right side of the top bar, there is a notification bell with '17' items, a user profile for 'stoddard@us.ibm.com', a settings gear icon, and a help icon. Below the top bar, a breadcrumb trail reads 'Projects / my fusion project / Products'. A left-hand sidebar contains a list of navigation items: 'my fusion project' (with a briefcase icon), 'Canvas', 'Sites', 'Products' (selected, with a list icon), 'Hosts', 'Workloads', 'Performance', 'Integrated TDA', 'History', and 'Project report'. The main content area is titled 'Products' and features a 'Group by:' dropdown menu currently set to 'Family'. To the right of this menu, a blue 'Add Product' button with a plus sign is highlighted by a red rectangular box. Above this button, the text 'Project Status: ✓' is visible. Below the 'Add Product' button, a light blue informational box contains the text: 'No items to display. Click the **Add Product** button to add items to this table. Click the ? icon at the top right and select 'Help' to access the online User Manual.' On the far right edge of the interface, a vertical sidebar labeled 'Project Guide' with a downward arrow is partially visible.

Select Product: Fusion HCI either Gen2 (Lenovo) or Dell(+)

The screenshot shows the IBM Storage Modeller 'Add Product' interface. The browser address bar indicates the URL is `ibm.com/tools/storage-modeller/#/projects/285524/products/add`. The page title is 'Add Product'. A search bar is present with the placeholder text 'Search the products'. A 'Cancel' button is located to the right of the search bar.

On the left side, there is a 'Filtering Options' panel. Under 'Category', the 'Storage' checkbox is selected. Under 'Family', the 'IBM Storage Fusion' checkbox is selected. Below this, there are checkboxes for 'IBM Storage Virtualize', 'IBM Storage DS8000', 'IBM Storage Scale', 'IBM Storage Fusion', 'IBM Storage as a Service', 'IBM Storage Ceph', and 'IBM Cloud Object Storage'. A 'Show withdrawn products' checkbox is at the bottom.

The main content area displays a list of products. The first row includes 'IBM Storage Scale ESS 3500', 'IBM Storage Scale Scale System Utility Server', and 'IBM Storage Scale Scale System 6000'. The second row, under the heading 'IBM Storage Fusion', includes 'IBM Storage Fusion Fusion HCI with Lenovo Gen 2', 'IBM Storage Fusion Fusion HCI with Dell', 'IBM Storage Fusion Storage Fusion software', and 'IBM Storage Fusion Storage Fusion Data Cataloging'. The 'Fusion HCI with Lenovo Gen 2' and 'Fusion HCI with Dell' products are highlighted with red rectangles. The third row, under the heading 'IBM Storage as a Service', is currently empty.

The detailed view for 'Fusion HCI with Lenovo Gen 2' is shown at the bottom. It includes a list of bullet points: 'Simple to manage data infrastructure for OpenShift', 'Simple to manage storage services for OpenShift', 'Simple to access container data from current storage resources', and 'Simple to access container data from remote cloud resources'. To the right of the bullet points, there is a section for 'Available models:' with the text 'Fusion HCI with Lenovo Gen 2'. Further right, there is a section for 'Additional information:' with links to 'IBM Storage Fusion' and 'IBM Sales Manual'. A blue 'Add Product' button is located to the right of the 'Additional information' section. An image of a server rack is shown on the far right.

Assign a 'Solution Group' Name

The screenshot shows the IBM Storage Modeller interface. The top navigation bar includes the IBM logo, 'Storage Modeller', and a 'Perspectives' dropdown. The user is logged in as 'acuello@ibm.com'. The breadcrumb trail indicates the current path: 'Projects / my fusion project / Add product'.

The main content area is titled 'Add Product' and contains a 'New Product' dialog. The dialog is for 'IBM Storage Fusion' (Storage Fusion HCI_GEN2). It has three main sections:

- Product name:** A text field containing 'Storage Fusion HCI_GEN2 #1'.
- Solution Group name:** A text field containing 'my fusion project - IBM Storage Fusion - Solution group #1'. To the right of this field is a red rectangular box highlighting a button labeled 'Add Solution group' with a blue plus icon.
- Site assignment:** A dropdown menu showing 'Site #1' with a blue plus icon to its right.

At the bottom of the dialog are 'Cancel' and 'Submit' buttons. The 'Submit' button is blue, while 'Cancel' is grey. Below the dialog, a message states: 'Please select a product. Click (or tap) to add.'

On the left side of the dialog, there is a 'Filtering Options' panel with a 'Category' section (containing a checkbox for 'Storage') and a 'Family' section (containing checkboxes for various IBM storage products, with 'IBM Storage Fusion' checked).

On the right side of the screen, there is a vertical 'Project Guide' sidebar with a downward arrow.

Select Your Country and Site Assignment

Note:
Ensure
Primary Rack
is selected if
client is not
expanding
their current
Fusion HCI
racks.

IBM

Storage Modeller

Perspectives ▾

9

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Projects / my fusion project / Storage Fusion HCI_GEN2 #1

my fusion project

Canvas

Sites

Products

Hosts

Workloads

Performance

Integrated TDA

History

Project report

Storage Fusion HCI_GEN2 #1

IBM Storage Fusion HCI System

2.12 ▾

Primary rack ▾

Solution

Report

I will design a solution

Site assignment

Installation Country

Site #1 ▾ + United States ▾

Expert Care

Offering

IBM Storage Expert Care Premium ▾

Term

3 Years ▾

Expert Assist

Expert Assist is not required for the installation country selected.

Storage Fusion software

Base/Units

Binary ▾

TiB ▾

Raw

41.91 TiB

Usable

13.97 TiB

Hardware details

Racks

#1 #2 #3

32-core Control nodes

3 - -

64-core Control nodes

- - -

32-core Storage nodes

0 - -

64-core Storage nodes

0 - -

32-core Compute-only nodes

0 - -

64-core Compute-only nodes

0 - -

GPU nodes

0 - -

Total

3 - -

Compute Resources

Physical CPU

Memory (GiB)

Project Guide ▾

Select Expert Care

General Guidance:
Accept the default

As a rule, you should always
select *Premium Expert Care*

[Click here](#) for an overview
of Premium Expert Care

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Storage Modeller

Perspectives ▾

10

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Projects / my fusion project / Storage Fusion HCI_GEN2 #1

my fusion project

Canvas

Sites

Products

Hosts

Workloads

Performance

Integrated TDA

History

Project report

Expert Care

Offering

IBM Storage Expert Care Premium ▾

Term

3 Years ▾

Expert Assist ⓘ

Expert Assist is not required for the installation country selected.

Storage Fusion software

License

Need a license ▾

Modelled Virtual Processor Cores

96

Local storage provider ⓘ

Data Foundation ▾

Client-provided licenses

0

Data Redundancy

3x replication ▾

Ordered licenses (Virtual Processor Core)

96

Red Hat

License

32-core Storage nodes

0

-

-

64-core Storage nodes

0

-

-

32-core Compute-only nodes

0

-

-

64-core Compute-only nodes

0

-

-

GPU nodes

0

-

-

Dedicated AFM nodes

0

-

-

Total

3

-

-

Compute Resources

Physical CPU Cores

Memory (GiB)

Total

96

768

Red Hat OpenShift Container Platform

-0

-0

IBM Storage Fusion Software

-0

-0

Control Nodes

-96

-768

Available

0

0

Storage

Capacity

Raw Capacity

41.91 TiB

Usable Capacity

13.97 TiB

Project Guide ▾

Fusion Software

General Guidance:
Accept the default

Fusion software is sold on the *Virtual Processor Core (VPC)* metric. A *VPC* corresponds to a physical compute core.

StorM automatically calculates and adds the appropriate Fusion software license to your quote.

You should accept the default ‘Need a License’

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Projects / my fusion project / Storage Fusion HCI_GEN2 #1

my fusion project

Canvas

Sites

Products

Hosts

Workloads

Performance

Integrated TDA

History

Project report

Expert Care

Offering: IBM Storage Expert Care Premium | Term: 3 Years

Expert Assist ⓘ
Expert Assist is not required for the installation country selected.

Storage Fusion software

License: Need a license ▾ | Modelled Virtual Processor Cores: 96

Local storage provider ⓘ
Data Foundation ▾ | Client-provided licenses: 0

Data Redundancy: 3x replication ▾ | Ordered licenses (Virtual Processor Core): 96

Red Hat

License

32-core Storage nodes	0	-	-
64-core Storage nodes	0	-	-
32-core Compute-only nodes	0	-	-
64-core Compute-only nodes	0	-	-
GPU nodes	0	-	-
Dedicated AFM nodes	0	-	-
Total	3	-	-

Compute Resources	Physical CPU Cores	Memory (GiB)
Total	96	768
Red Hat OpenShift Container Platform	-0	-0
IBM Storage Fusion Software	-0	-0
Control Nodes	-96	-768
Available	0	0

Storage	Capacity
Raw Capacity	41.91 TiB
Usable Capacity	13.97 TiB

Norbi update (+)

IBM

Storage Modeller

Perspectives ▾

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elek.norbert@arrow.com ▾

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Projects / FusionHCI / Fusion HCI with Lenovo Gen 2 #1

FusionHCI

Canvas

Sites

Products

Hosts

Workloads

Performance

Integrated TDA

History

Project report

Storage Fusion software

License

Need a license ▾

Modelled Virtual Processor Cores

96

Local storage provider ⓘ

Data Foundation ▾

Client-provided licenses

0

Storage Profile

3-way replication ^

Ordered licenses (Virtual Processor Core)

96

Erasure Coding 4+2p

Erasure Coding 8+2p

3-way replication ✓

Re

License

Bring your own ▾

Modelled Servers

3

Servers for Infrastructure Nodes

0 - +

Client-provided OCP licenses (Servers)

0 - +

Learn more about Red Hat OpenShift subscription offerings [here](#)

Red Hat OpenShift Container Platform

0

0

IBM Storage Fusion Software

0

0

Control Nodes

-45

-267

Available

51

501

Storage

Capacity

Raw Capacity

41.91 TiB

Usable Capacity

13.97 TiB

Writable Capacity

11.88 TiB

Project Guide ▾

Select 'Red Hat Products' (+)

Fusion HCI does not, by default, include OpenShift subscriptions. This section enables you to **add self managed OpenShift subscriptions** to your quote.

If you choose to add OpenShift, it is generally advisable to select '**Per-Server**' subscriptions as they are less expensive than core-pair subscriptions

[Click here](#) to learn more

The screenshot displays the IBM Storage Modeller web interface. The left sidebar contains navigation links: Canvas, Sites, Products, Hosts, Workloads, Performance, Integrated TDA, History, and Project report. The main content area is titled 'Red Hat' and is highlighted with a red border. It includes a 'License' section with a dropdown menu set to 'Bring your own' and a list of license options: 'Need a license - per server', 'Need a license - per core pair', 'RHAIE - per server IBM supported', and 'RHAIE - per server Red Hat supported'. To the right of the license options is a table with 'Modelled Servers' and a count of '3'. Below the license section is the 'Advanced Cluster Management' section, which has a toggle for 'Add ACM licenses (per server)' and a table listing various components and their counts: Infrastructure Nodes (0), OCP deployed (per server) (3), OPP deployed (per server) (0), OKE deployed (0), OVE deployed (0), Ordered ACM (0), and Ordered ACM-v (0). A note states: 'Note: Red Hat OpenShift Platform Plus includes ACM licenses.' At the bottom of the red-bordered section is the 'Additional Capacity' section.

Component	Count
Modelled Servers	3
Infrastructure Nodes	0
OCP deployed (per server)	3
OPP deployed (per server)	0
OKE deployed	0
OVE deployed	0
Ordered ACM	0
Ordered ACM-v	0

Select 'Red Hat Products'

OpenShift Licenses are **ONLY** available for 3 or 5 year terms.

The table below highlights the PIDs that will populate your CFR file based off the term and license type selected. A License and Support Line PID will both populate.

These PIDs will populate with a quantity associated with the server quantity you selected in the User interface below.

Term Length	PID Type	OpenShift Licenses			
		OCP	OPP	OKE	OVE
5 Years	License	5641-C04	5639-082	5641-OK5	5641-OE5
	Support Line	5641-C03	5641-C03	5775-OKE	5775-OVE
3 Years	License	5641-C05	5639-080	5641-OK3	5641-OE3
	Support Line	5641-C02	5641-C02	5773-OKE	5773-OVE

Red Hat

License

Need a license - per server

Servers for Infrastructure Nodes

0 - +

Modelled Servers

7

Client-provided licenses (Servers)

0 - +

Ordered licenses (Servers)

7

OCP - OpenShift Container Platform (per server)

7

- +

OPP - OpenShift Platform Plus (per server)

0

- +

OKE - OpenShift Kubernetes Engine (per server)

0

- +

OVE - OpenShift Virtualization Engine (per server)

0

- +

Learn more about Red Hat OpenShift subscription offerings [here](#)

Select ‘I will design a solution’

The ‘design a solution’ step gives you the opportunity dial up the size of the Fusion HCI by adding storage, servers, and memory.

There is no ‘sizing’ guidance provided in this step. **You must know** what size system you want.

The default design is the smallest currently possible. Now we can design rack that has 3 Control Nodes that are also worker nodes.

The screenshot shows the IBM Storage Modeller interface for a project named 'Storage Fusion HCI_GEN2 #1'. The interface includes a sidebar with navigation options like Canvas, Sites, Products, Hosts, Workloads, Performance, Integrated TDA, History, and Project report. The main area displays configuration details for the 'IBM Storage Fusion HCI System', including version 2.12 and a 'Primary rack' selection. A blue button labeled 'I will design a solution' is highlighted with a red box. Below this, there are sections for 'Site assignment' (Site #1, United States), 'Expert Care' (IBM Storage Expert Care Premium, 3 Years), and 'Expert Assist' (not required for the selected country). On the right, a 'Hardware details' table shows the configuration of nodes across three racks.

Hardware details	Racks		
	#1	#2	#3
32-core Control nodes	3	-	-
64-core Control nodes	-	-	-
32-core Storage nodes	0	-	-
64-core Storage nodes	0	-	-
32-core Compute-only nodes	0	-	-
64-core Compute-only nodes	0	-	-
GPU nodes	0	-	-
Total	3	-	-

Compute Resources	Physical CPU	Memory (GiB)

Designing a solution – Gen2/Lenovo

Racked or Rack less

Add KVM console

Configure Control Nodes

- accept defaults

Configure Worker Nodes

- 32 core or 64 core
- with and without storage
- Default is 3x 32 core worker nodes

GPU Nodes

- For G03: MI210
- For G04: H200 or RTX Pro 6000

Configure hardware details

☐ Client will provide physical rack(s)

☐ Add spine switches

☐ Add rackmount console kit

☐ Add arbiter node

☐ Watsonx Solution

☐ DB2 Warehouse Solution

☐ Enable Fusion HCI to be used as a Control Tower

Configuration

3x 32-core Control nodes

Rack #1

- Usable cores: 51 VPC, 102 vCPU
- Usable memory: 501 GiB
- Usable capacity: 13.97 TiB
- Power: 3.20 kW
- Weight: 1112.66 lbs, 505.75 kg

3 of 16 server slots used

3 Control nodes

32-core storage nodes

64-core storage nodes

32-core compute-only nodes

64-core compute-only nodes

9155-G03 GPU Nodes

9155-G04 GPU Nodes

Storage

Drive Type

7.68TB NVMe PCIe5.0

Drive Quantity

2

From 2 to 10 drives per Storage Node

3x 32-core Control nodes

Total

- Usable cores: 51 VPC, 102 vCPU
- Usable memory: 501 GiB
- Usable capacity: 13.97 TiB
- Power: 3.20 kW
- Weight: 1112.66 lbs, 505.75 kg

Cancel

Apply Configuration

Designing a solution – *Lenovo G04/G03 GPU Server*

Lenovo GPU Adapters:

Maximum of 9 Nodes

3 Options:

- 9155-G04:
NVIDIA RTX Pro 6000 GPUs
NVIDIA H200s GPUs
- 9155-G03:
NVIDIA MI210s GPUs

4 GPU Nodes per Rack at most.

Each Node can be either of the options above and **can be mixed and matched** on a rack.

Max quantity of GPUs per Node is 8

Configure hardware details

☐ Client will provide physical rack(s)
☐ Add spine switches
☐ Add rackmount console kit
☐ Add arbiter node

☐ Watsonx Solution
☐ DB2 Warehouse Solution
☐ Enable Fusion HCI to be used as a Control Tower

Configuration

– 3x 32-core Control nodes

Rack #1

- Usable cores: 51 VPC, 102 vCPU
- Usable memory: 501 GiB
- Usable capacity: 13.97 TiB
- Power: 3.20 kW
- Weight: 1112.66 lbs, 505.75 kg

Number of racks: 1 HA layout: Single zone Spine switches: 2 spine switches

Rack #1 Rack #2 Rack #3

3 of 16 server slots used

3 Control nodes Settings Worker

0 32-core storage nodes

0 64-core storage nodes

0 32-core compute-only nodes

0 64-core compute-only nodes

0 9155-G03 GPU Nodes

0 9155-G04 GPU Nodes

Storage

Drive Type: 7.68TB NVMe PCIe5.0

Drive Quantity: 2

– 3x 32-core Control nodes

Total

- Usable cores: 51 VPC, 102 vCPU
- Usable memory: 501 GiB
- Usable capacity: 13.97 TiB
- Power: 3.20 kW
- Weight: 1112.66 lbs, 505.75 kg

Cancel Apply Configuration

2 9155-G04 GPU Nodes

GPU Qty (N1)	GPU Adapter (N1)	2w Bridge (N1)	4w Bridge (N1)	GPU Qty (N2)	GPU Adapter (N2)	2w Bridge (N2)	4w Bridge (N2)
1	RTX Pro 600...	0	0	8	H200 NVL	0	0

Designing a solution – Dell

The screenshot shows the Dell configuration interface with several annotations pointing to specific sections:

- Racked or Rack less**: Points to the "Configure hardware details" section.
- Add KVM console**: Points to the "Add rackmount console kit" checkbox.
- Configure Control Nodes**
 - *accept defaults*
- Configure Worker Nodes**
 - *32 core or 64 core*
 - *with and without storage*
 - *Default is 3x 32 core worker nodes*
- GPU Nodes**
 - *Up to 4 Nodes*

The interface includes the following sections and options:

- Configure hardware details**
 - ☐ Client will provide physical rack(s)
 - ☐ Add spine switches
 - ☐ Add rackmount console kit
 - ☐ Watsonx Solution
 - ☐ DB2 Warehouse Solution
 - ☐ Enable Fusion HCI to be used as a Control Tower
- Configuration**
 - Rack #1**
 - 3x 32-core Control nodes
 - Usable cores: 0 VPC, 0 vCPU
 - Usable memory: 0 GiB
 - Usable capacity: 13.97 TiB
 - Power: 3.06 kW
 - Weight: 1204.46 lbs, 547.48 kg
- 3 of 16 server slots used**
 - Control nodes** (3 slots): [Settings](#) ☒ Worker
 - Storage**
 - Drive Type: 7.68TB NVMe PCIe5.0
 - Drive Quantity: 2
 - 32-core storage nodes** (0 slots)
 - 64-core storage nodes** (0 slots)
 - 32-core compute-only nodes** (0 slots)
 - 64-core compute-only nodes** (0 slots)
 - GPU Nodes** (0 slots)
- Total**
 - 3x 32-core Control nodes
 - Usable cores: 0 VPC, 0 vCPU
 - Usable memory: 0 GiB
 - Usable capacity: 13.97 TiB
 - Power: 3.06 kW
 - Weight: 1204.46 lbs, 547.48 kg

Buttons at the bottom: Cancel, Apply Configuration

Designing a solution – *Dell - GPUs*

Dell GPU Nodes:

4 Options:

- DG1: 4x NVIDIA L40s GPUs
- DG2: 8x NVIDIA L40s GPUs
- DG3: 4x NVIDIA H200s GPUs
- DG4: 8x NVIDIA H200s GPUs

4 GPU Nodes per Rack at most.
Each Node can be either of the
options above and **can be mixed**
and matched on a rack.

**More rigid to configure than
Lenovo**

The screenshot shows the 'Configure hardware details' window for a Dell solution. It includes options for client-provided racks, spine switches, and console kits. The configuration is set for 1 rack, single zone, and 2 spine switches. The 'Rack #1' configuration shows 3 of 16 server slots used: 3 control nodes, 0 32-core storage nodes, 0 64-core storage nodes, 0 32-core compute-only nodes, 0 64-core compute-only nodes, and 0 GPU nodes. The storage configuration is set to 7.68TB NVMe PCIe5.0 drives with a quantity of 2. The total configuration shows 3x 32-core control nodes with 0 VPC, 0 vCPU, 0 GiB usable memory, 13.97 TiB usable capacity, 3.06 kW power, and 1204.46 lbs, 547.48 kg weight. A red arrow points from the 'GPU Nodes' section to the 'DG1 - 4 NVIDIA L40s GPUs' option. A callout box on the right lists the options: DG1 - 4 NVIDIA L40s GPUs, DG2 - 8 NVIDIA L40s GPUs, DG3 - 4 NVIDIA H200 GPUs (checked), and DG4 - 8 NVIDIA H200 GPUs.

Configure hardware details

☐ Client will provide physical rack(s)

☐ Add spine switches

☐ Add rackmount console kit

Number of racks: 1 HA layout: Single zone Spine switches: 2 spine switches

☐ Watsonx Solution

☐ DB2 Warehouse Solution

☐ Enable Fusion HCI to be used as a Control Tower

Configuration

3x 32-core Control nodes

Rack #1

- Usable cores: 0 VPC, 0 vCPU
- Usable memory: 0 GiB
- Usable capacity: 13.97 TiB
- Power: 3.06 kW
- Weight: 1204.46 lbs, 547.48 kg

3 of 16 server slots used

Control nodes: 3

32-core storage nodes: 0

64-core storage nodes: 0

32-core compute-only nodes: 0

64-core compute-only nodes: 0

GPU Nodes: 0

Storage

Drive Type: 7.68TB NVMe PCIe5.0

Drive Quantity: 2

Total

3x 32-core Control nodes

- Usable cores: 0 VPC, 0 vCPU
- Usable memory: 0 GiB
- Usable capacity: 13.97 TiB
- Power: 3.06 kW
- Weight: 1204.46 lbs, 547.48 kg

Cancel Apply Configuration

GPU Nodes

Model (N1): DG1 - 4 NVIDIA L40...

Model (N2): DG2 - 8 NVIDIA L40...

Model (N4): DG4 - DG4 - 8 NVID...

DG1 - 4 NVIDIA L40s GPUs

DG2 - 8 NVIDIA L40s GPUs

✓ DG3 - 4 NVIDIA H200 GPUs

DG4 - DG4 - 8 NVIDIA H200 GPUs

Designing a Multi-rack Solution

Single Zone

Spine Switches become an available option for LAN connectivity unless client provides it

Up to 3 Racks per configuration

Single zone – all control nodes are placed on rack 1

Configure hardware details

☐ Client will provide physical rack(s) ☐ Watsonx Solution ☐ DB2 Warehouse Solution ☐ Enable Fusion HCI to be used as a Control Tower

☐ Add spine switches ☐ Add rackmount console kit ☐ Add arbiter node

Number of racks: 3 HA layout: Single zone Spine switches: 2 spine switches

Rack #1 Rack #2 Rack #3

3 of 16 server slots used

Control nodes [Settings](#) Worker

32-core storage nodes

64-core storage nodes

32-core compute-only nodes

64-core compute-only nodes

9155-G03 GPU Nodes

9155-G04 GPU Nodes

Storage

Drive Type: 7.68TB NVMe PCIe5.0

Drive Quantity: 2

Configuration

– 3x 32-core Control nodes

Rack #1

- Usable cores: 51 VPC, 102 vCPU
- Usable memory: 501 GiB
- Usable capacity: 13.97 TiB
- Power: 3.20 kW
- Weight: 1112.66 lbs, 505.75 kg

– 3x 32-core Storage nodes

Rack #2

- Usable cores: 66 VPC, 132 vCPU
- Usable memory: 633 GiB
- Usable capacity: 13.97 TiB
- Power: 2.86 kW
- Weight: 1072.06 lbs, 487.30 kg

– 3x 32-core Storage nodes

Rack #3

- Usable cores: 66 VPC, 132 vCPU
- Usable memory: 633 GiB
- Usable capacity: 13.97 TiB
- Power: 2.86 kW
- Weight: 1072.06 lbs, 487.30 kg

– 3x 32-core Control nodes

– 6x 32-core Storage nodes

Total

- Usable cores: 183 VPC, 366 vCPU
- Usable memory: 1767 GiB
- Usable capacity: 41.91 TiB
- Power: 8.91 kW
- Weight: 3256.78 lbs, 1480.35 kg

Cancel Apply Configuration

All 3 control nodes are on rack 1

Designing a Multi-rack Solution

3 Zone

Spine Switches become an available option for LAN connectivity unless client provides it

Only 3 Racks per configuration (Not Adjustable)

3 zone – Control nodes are distributed one per rack

Control Nodes are distributed one per rack

Configure hardware details

☐ Client will provide physical rack(s) ☐ Watsonx Solution ☐ DB2 Warehouse Solution ☐ Enable Fusion HCI to be used as a Control Tower

☐ Add spine switches ☐ Add rackmount console kit ☐ Add arbiter node

Number of racks: 3 HA layout: 3-zone Spine switches: 2 spine switches

Rack #1 Rack #2 Rack #3

3 of 26 server slots used

1 Control nodes [Settings](#) ☐ Worker

2 32-core storage nodes

0 64-core storage nodes

0 32-core compute-only nodes

0 64-core compute-only nodes

0 9155-G03 GPU Nodes

0 9155-G04 GPU Nodes

Storage

Drive Type: 7.68TB NVMe PCIe5.0

Drive Quantity: 2

Configuration

Rack #1

- 1x 32-core Control nodes
- 2x 32-core Storage nodes

Rack #2

- 1x 32-core Control nodes
- 2x 32-core Storage nodes

Rack #3

- 1x 32-core Control nodes
- 2x 32-core Storage nodes

Total

- 3x 32-core Control nodes
- 6x 32-core Storage nodes

Usable cores: 44 VPC, 88 vCPU
Usable memory: 422 GiB
Usable capacity: 13.97 TiB
Power: 3.20 kW
Weight: 1112.66 lbs, 505.75 kg

Usable cores: 44 VPC, 88 vCPU
Usable memory: 422 GiB
Usable capacity: 13.97 TiB
Power: 2.86 kW
Weight: 1072.06 lbs, 487.30 kg

Usable cores: 44 VPC, 88 vCPU
Usable memory: 422 GiB
Usable capacity: 13.97 TiB
Power: 2.86 kW
Weight: 1072.06 lbs, 487.30 kg

Usable cores: 132 VPC, 264 vCPU
Usable memory: 1266 GiB
Usable capacity: 41.91 TiB
Power: 8.91 kW
Weight: 3256.78 lbs, 1480.35 kg

Cancel Apply Configuration

Expansion Rack Cases

Required:
Client MUST
already
have a
**Primary
Rack**

IBM

Storage Modeller

Perspectives ▾

10

acuello@ibm.com ▾

⚙️

?

Projects / my fusion project / Storage Fusion HCI_GEN2 #1

my fusion project

Canvas

Sites

Products

Hosts

Workloads

Performance

Integrated TDA

History

Project report

Storage Fusion HCI_GEN2 #1

IBM Storage Fusion HCI System

2.11 ▾

Expansion rack ^

Primary rack

Expansion rack ✓

Solution

Report

I will design a solution

Site assignment

Installation Country

Site #1 ▾

United States ▾

Expert Care

Offering

Term

IBM Storage Expert Care Premium ▾

3 Years ▾

Expert Assist ⓘ

Expert Assist is not required for the installation country selected.

Storage Fusion software

Base/Units

Binary ▾

TiB ▾

Raw

13.97 TiB

Usable

4.66 TiB

Hardware details

Racks

#1

#2

#3

32-core Storage nodes

1

-

-

64-core Storage nodes

0

-

-

32-core Compute-only nodes

0

-

-

64-core Compute-only nodes

0

-

-

GPU nodes

0

-

-

Service nodes

0

-

-

Total

1

-

-

Compute Resources

Physical CPU Cores

Memory (GiB)

Total

32

0

Red Hat OpenShift

-4

-0

Project Guide ▾

Designing an Expansion Rack

Racked or Rack less

Add KVM console

Up to 2 Racks per configuration

Configure Worker Nodes

- 32 core or 64 core
- with and without storage
- Default is 1x 32 core worker nodes
- The 1 Node can be any type

GPU Nodes

- For G03: MI210
- For G04: H200 or RTX Pro 6000

Service Nodes

- Not Required or recommended

Configure hardware details

☐ Client will provide physical rack(s)

☐ Add rackmount console kit

Number of racks

1 - +

Rack #1 Rack #2

1 of 16 server slots used

1 - + 32-core storage nodes

0 - + 64-core storage nodes

0 - + 32-core compute-only nodes

0 - + 64-core compute-only nodes

0 - + 9155-G03 GPU Nodes

0 - + 9155-G04 GPU Nodes

0 - + Service nodes

Storage

Drive Type

7.68TB NVMe PCIe5.0

Drive Quantity

2

Cancel

Apply Configuration

Configuration

Rack #1

1x 32-core Storage nodes

Usable cores: 22 VPC, 44 vCPU

Usable memory: 211 GiB

Usable capacity: 4.66 TiB

Power: 1.42 kW

Weight: 987.34 lbs, 448.79 kg

From 2 to 10 drives per Storage Node

Total

1x 32-core Storage nodes

Usable cores: 22 VPC, 44 vCPU

Usable memory: 211 GiB

Usable capacity: 4.66 TiB

Power: 1.42 kW

Weight: 987.34 lbs, 448.79 kg

Export the Configuration File from StorM

Click here

IBM

Storage Modeller

Perspectives ▾

10

acuello@ibm.com ▾

⚙️

?

Projects / my fusion project / Storage Fusion HCI_GEN2 #1

my fusion project

Canvas

Sites

Products

Hosts

Workloads

Performance

Integrated TDA

History

Project report

Storage Fusion HCI_GEN2 #1

IBM Storage Fusion HCI System

2.11 ▾

Primary rack ▾

Solution

Report

I will design a solution

Site assignment

Installation Country

Site #1 ▾

United States ▾

Expert Care

Offering

Term

IBM Storage Expert Care Premium ▾

3 Years ▾

Expert Assist

Expert Assist is not required for the installation country selected.

Storage Fusion software

Base/Units

Binary ▾

TiB ▾

Raw

41.91 TiB

Usable

13.97 TiB

Hardware details	Racks		
	#1	#2	#3
32-core Control nodes	3	-	-
64-core Control nodes	-	-	-
32-core Storage nodes	0	-	-
64-core Storage nodes	0	-	-
32-core Compute-only nodes	0	-	-
64-core Compute-only nodes	0	-	-
GPU nodes	0	-	-
Dedicated AFM nodes	0	-	-
Total	3	-	-

Compute Resources	Physical CPU	Memory (GiB)
-------------------	--------------	--------------

Project Guide ▾

Export the Configuration File from StorM

The screenshot shows the IBM Storage Modeller interface. The left sidebar contains a navigation menu with options: Ravi Demo, Canvas, Sites, Products, Hosts, Workloads, Performance, Integrated TDA, History, and Project report. The main area is titled 'Products' and shows a table of products under the 'IBM Storage Fusion' category. The table has columns for Solution Group, Name, Site, Tier, Growth, Raw, Usable, Effective, Virtualized, Attachments, Status, and Actions. The first row is 'Storage Fusion HCI_GEN2 #1' at 'Site #1' with a capacity of 83.83 TiB. The 'Actions' column for this row contains a dropdown menu with options: 'Rename Solution Group', 'Delete Solution Group', and 'Create e-config CFRs'. A red box highlights the 'Create e-config CFRs' option, and a red arrow points from a text box 'Click "Create e-config CFR"' to it.

Solution Group	Name	Site	Tier	Growth	Raw	Usable	Effective	Virtualized	Attachments	Status	Actions
Ravi Demo -...on Group #1										Read Write	⋮
	Storage Fusion HCI_GEN2 #1	Site #1			83.83	27.94	27.94	0			- Rename Solution Group - Delete Solution Group - Create e-config CFRs

Export the Configuration File from StorM

The screenshot shows the IBM Storage Modeller interface. The top navigation bar includes the IBM logo, 'Storage Modeller', and 'Perspectives'. The user is logged in as 'stoddard@us.ibm.com'. The breadcrumb trail is 'Projects / Ravi Demo / Products'. The left sidebar contains a 'Ravi Demo' section with icons for Canvas, Sites, Products, Hosts, Workloads, Performance, Integrated TDA, History, and Project report. The main content area is titled 'Products' and shows a table of products under the 'IBM Storage Fusion' section. The table has columns for Solution Group, Name, Site, Tier, Growth, Capacity (TiB) (Raw, Usable, Effective, Virtualized), Attachments, Status, and Actions. The first row is 'Ravi Demo -...on Group #1' with a 'Request Reviews' button. The second row is 'Storage Fusion HCI_GEN2 #1' with a 'CFR' button highlighted by a red box. A red arrow points from a text box 'Click "CFR"' to the 'CFR' button. The 'Project Status' is shown as 'Project Status: [checkmark]'.

Solution Group	Name	Site	Tier	Growth	Capacity (TiB)				Attachments	Status	Actions
					Raw	Usable	Effective	Virtualized			
Ravi Demo -...on Group #1									CFR	Read Write	⋮
	Storage Fusion HCI_GEN2 #1	Site #1			83.83	27.94	27.94	0		✓ --	⋮

Export the Configuration File from StorM

The screenshot shows the IBM Storage Modeller interface. The top navigation bar includes the IBM logo, 'Storage Modeller', and 'Perspectives'. The left sidebar lists various project components like Canvas, Sites, Products, Hosts, Workloads, Performance, Integrated TDA, History, and Project report. The main area displays the 'Products' section for 'IBM Storage Fusion'. A modal window titled 'CFR Attachments' is open, providing instructions on using e-config CFR files and a table of attachments. The table lists one attachment: 'Storage Fusion HCI_GEN2 1 orderable 2025/02/23 14:49:55 CFRZIP'. A red box highlights the download icon in the table's action column, with a red arrow pointing to a separate red box labeled 'Download CFR'. The modal also includes a 'Close' button at the bottom right.

CFR Attachments

Use e-config CFR files and related attachments to get more done in your sales workflow. CFR files can easily be imported directly into the [e-config on Cloud Configurator tool](#). The files listed below are provided in compressed ZIP format. Download and extract them on your local drive and look for files with the CFR extension.

CFR attachment name ↑↓	Creation time ↓	State ↑↓	Repository ↑↓	
Storage Fusion HCI_GEN2 1 orderable 2025/02/23 14:49:55 CFRZIP	2025/02/23 14:49:55	Orderable	StorM	

Additional resources:
Not sure what to do next? Have a look within the Project Guide. Clicking [this link](#) will close the Attachments window and automatically expand out the ProjectGuide and reveal common next steps.
Would you like to see the 'Big Picture' of the overall Sales Workflow? Click [here](#) to read more about it in the StorM documentation.
Want to get some preliminary pricing for client discussions? Consider importing your CFR in Epricer. Click [here](#) to read more about it in the StorM documentation.
Curious about the differences between IMPACT Package attachments and StorM attachments? Click [here](#) to read more about it in the StorM documentation. Still a bit confusing?

Open a [StorM support ticket](#) to request help or offer a request for enhancements.

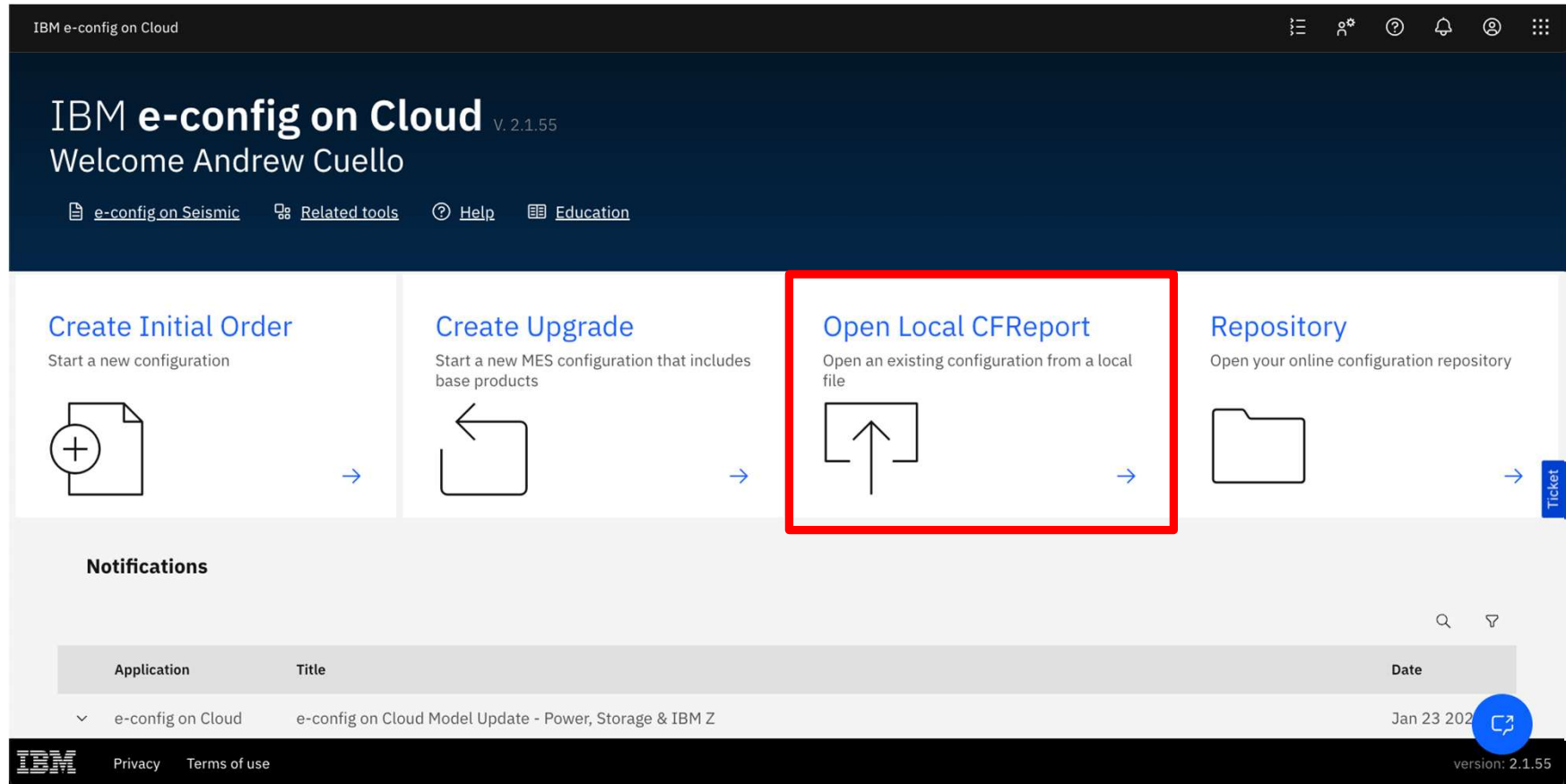
Close

Download CFR

eConfig

Once you have a CFR file generated you **MUST** import to eConfig to complete your configuration.

eConfig adds required cabling and other hardware that are required for a valid Fusion HCI Configuration to be manufactured.



Import StorM CFR into eConfig

Select your CFR file that was downloaded from StorM.

Restore the CFR file by loading it into eConfig, populating certain cables in the process

Open Configuration

Base selection

Select/drag and drop a configuration from local system

Basic Information

Brand

Storage Subsystem Products (26.0220)

Name

Type configuration name here

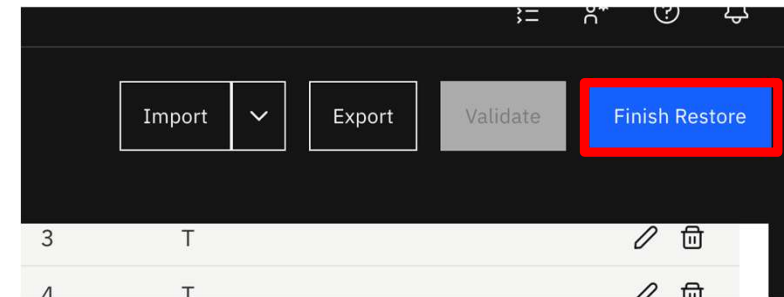
Description (optional)

Insert configuration description here

☒ Fast Path

Cancel

Create configuration



Finishing the Configuration

In eConfig you will be prompted in the Messages List to configure **network adapters** and **power cords**.

Select the -> icon to be taken to a wizard to configure the aforementioned cables.

The screenshot displays the 'Messages List' tab in the eConfig interface. The 'Messages' tab is selected, and the 'Messages List' section is visible. A red box highlights three critical messages, each with a red circle and a right-pointing arrow icon. Red arrows point from the text 'Power cords' to the bottom message and from 'Network adapters' to the top two messages.

Message	Action
⊘ A final validation is required to complete this configuration	→ ⊘ ...
⊘ MUST READ: IBM Storage Expert Care has been selected. Remind your Client that they are required to follow the instructions in the Notice and...	→ ⊘ ...
⊘ MUST READ: Please review networking options for 9155-S05 network switch. Review uplink ports SFP/QSFP options. These can either be provided ...	→ ⊘ ...
⊘ MUST READ: Please review networking options for 9155-S05 network switch. Review uplink ports SFP/QSFP options. These can either be provided ...	→ ⊘ ...
⊘ Missing required Power feature(s) for Rack 9155-R42	→ ⊘ ...

Power cords

Network adapters

Finishing the Configuration

You will have the following options to select from for Network adapters and Power cords with descriptions attached.

Your selection will vary based on customer requirements

Power cords

9155-R42 IBM Fusion HCI Rack: - Rack #1 # 2: - Rack #1

Find feature

Type feature code

Quantity ✓

Summary

Products

Power

Shipping

Codes

Expert Care

Power	
Description	
★	ECJN High Function 12xC13 Single-Phase or Three-Phase Wye PDU plus
★	ECJQ High Function 12xC13 PDU plus 3-Phase Delta
★	ECJJ High Function 9xC19 Single-Phase or Three-Phase Wye PDU plus
★	ECJL High Function 9xC19 PDU plus 3-Phase Delta
Description	
★	6654 4.3m (14-Ft) 1PH/24A Power Cord
★	6655 4.3m (14-Ft) 1PH/24A WR Power Cord
★	6656 4.3m (14-Ft) 1PH/32A Power Cord
★	ELC1 4.3m (14-Ft) PDU to Wall 24A 200-240V Power Cord North America
★	6489 4.3m (14-Ft) 3PH/32A 380-415V Power Cord
★	6491 4.3m (14-Ft) 1PH/63A 200-240V Power Cord
★	6492 4.3m (14-Ft) 1PH/48A 200-240V Power Cord
★	6653 4.3m (14-Ft) 3PH/16A 380-415V Power Cord

Network adapters

9155-S05 IBM Fusion HCI 200GbE High-Speed Switch: - Rack #1 # 5:

Find feature

Type feature code

Quantity ✓

Summary

Racking

Power

Networking

Shipping

Codes

Expert Care

Networking	
Description	
★	AK8S 1 Gb optical transceiver for cables with RJ-45 connectors
★	AKBP 200G QSFP56 Ethernet Optical Transceiver
★	AKBS 10GbE SPF+ SR optical transceiver
★	EB49 QSFP28 to SFP28 Connector
★	EB57 QSFP+ 40GbE Base-SR4 Transceiver
★	EB59 100GbE Optical Transceiver QSFP28
★	EB5T 10M QSFP28 AOC 100Gb Ethernet cable
★	EB5W 30M QSFP28 AOC 100Gb Ethernet cable
★	8S1916 10Gb SFP+ SR Transceiver
★	8S1929 1Gb Optic for Fusion HCI
★	EB47 25GbE Optical Transceiver SFP28
★	ECBD 5m LC-LC Fiber Cable
★	ECBE 25m LC-LC Fiber Cable

Finishing the Configuration

Once the desired cables are selected, ensure the final validation is complete and your configuration will be ready to be exported or saved.

The screenshot displays the IBM e-config on Cloud interface. The top navigation bar includes links for 'IBM e-config on Cloud', 'Create Initial Order', 'Create Upgrade', 'Open Local CFReport', and 'Repository'. The main header shows 'my fusion project' with a status of 'VALID' and a green checkmark. Below this, the 'Configuration List' is visible, showing a tree structure with 'Storage Fusion' selected. The 'Messages List' is also displayed, showing a warning message about IBM Storage Expert Care and several informational messages about discounted training. A red box highlights the 'End Session', 'Export', and 'Save' buttons in the top right corner. The 'Save' button is a blue dropdown menu. Below the red box, there are buttons for 'Collapse All', 'Show All Must Read', and 'Final validation'. The bottom of the screen shows the IBM logo, 'Privacy', 'Terms of use', and the version number '2.1.55'.

IBM e-config on Cloud Create Initial Order Create Upgrade Open Local CFReport Repository

my fusion project Type Restored Initial Brand Storage Status VALID

Configuration List

Expand All Add Product

Global Settings

Software Default Options

Software/Service Mass Update

Software Products (non-CPU System)

> Storage Fusion

Messages Proposed Diagram

Messages List:

Warning Messages (1)

IBM Storage Expert Care has been selected. Remind your Client that they are required to follow the instructions in the Notice and Agreement....

Informational Messages (10)

Links for Financial Tools. You may see detail message and review it

Discounted training available via IBM Education Pack. You may see detail message and review it

Discounted training available via IBM Education Pack. You may see detail message and review it

Discounted training available via IBM Education Pack. You may see detail message and review it

Discounted training available via IBM Education Pack. You may see detail message and review it

Discounted training available via IBM Education Pack. You may see detail message and review it

Discounted training available via IBM Education Pack. You may see detail message and review it

Please review networking options for 9155-S05 network switch. Review uplink ports SEP/OSER options. These can either be provided by IBM or t

End Session Export Save

Collapse All Show All Must Read Final validation

IBM Privacy Terms of use version: 2.1.55

Understanding a Fusion HCI CFR file

Fusion HCI is a curated collection of servers, switches, and NVMe drives that are configured into a complete system. StorM imposes constraints on how these components can be combined and assembled. There is no top-level Fusion HCI MTM or serial number. Because of this, the Fusion HCI CFR file is presented as collection of components rather than as solution, and this can make the CFR difficult to understand.

Here is a summary of the most important PIDs/MTMs in a CFR file:

MTM	Description	Notes
9155-xxx	Fusion HCI Hardware components	Each system will have 1 rack, 4 switches, and 6 or more servers
9255-xxx	Fusion HCI Expert Care	There is one 9255-xxx for each 9155-xxx component
5771-PP7	Fusion HCI software	Most of the 9155 server components will have 5771-PP7 software.

eConfig automatically calculates and applies License and Expert Care to the HCI hardware components. No editing is required. The other PIDs in the CFR are required to drive various back-end systems and carry a \$0 price. Do not delete or modify them.

Do not modify or change the CFR in eConfig except for specific reasons as noted later in this guide.

Fusion HCI Gen 2 hardware components

Fusion HCI hardware components

MTM / FC	Description
9155-C10	Lenovo SR630 V3 Server – 32 cores / 64 vCPU, 256 GB RAM
9155-C14	Lenovo SR630 V3 Server - 64 cores / 128 vCPU, 1024 GB RAM
9155-B01	Lenovo SR630 – Service node
9155-G03	Lenovo SR675 V3 GPU Server – 48 cores, 768 GB RAM, NVIDIA H100 or L40S GPUs
AJT3	3.84 TB NVMe drives to 9155-C10 or C14
AJT4	7.68 TB NVMe drives to 9155-C10 or C14
AKBD	1.6 TB NVMe Drives for HCP
AHJK	Add an additional 256GB RAM to 9155-C
AJT1	Add 16 16GB DIMMS for 256GB of RAM (additional)
AJT2	Add 16 64GB DIMMS for 1024GB of RAM (additional)

Default 6- node Fusion HCI configuration

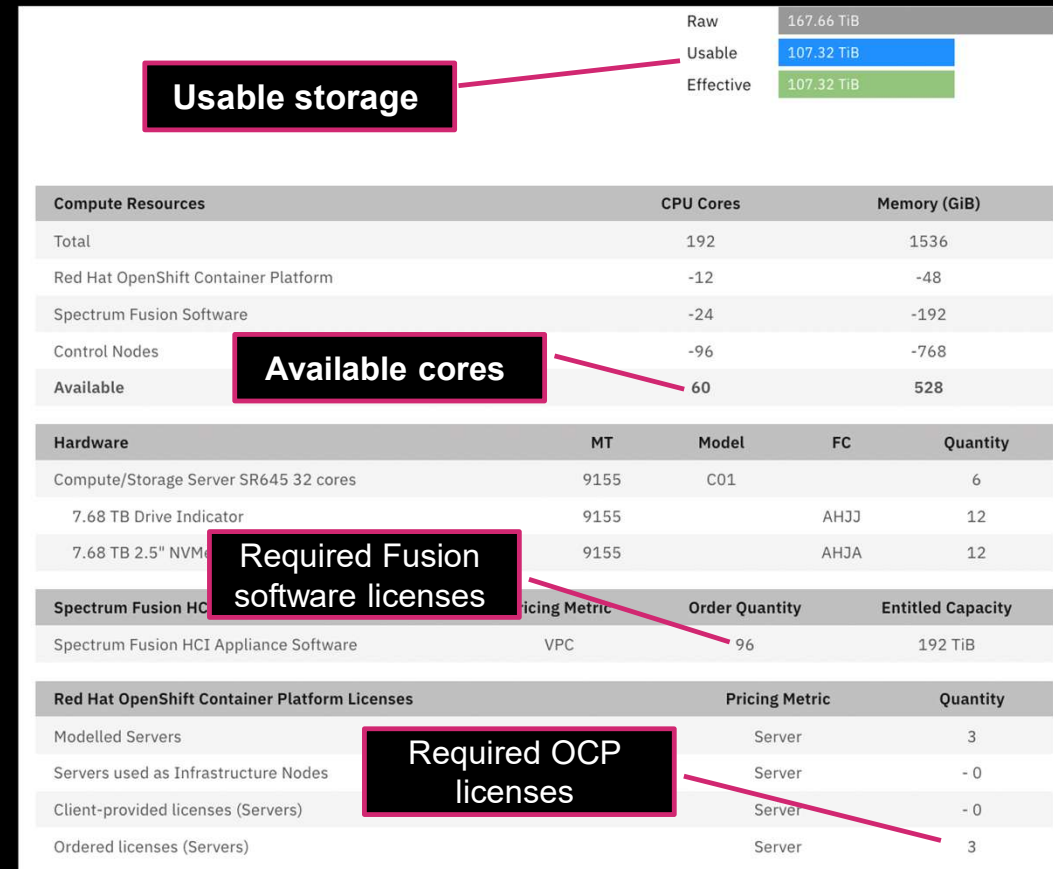
HCI component	MTM	Quantity	Comments
Control nodes	9155-C10	3	StorM will ensure that the 3 control nodes are identically configured
Worker nodes 1 thru 3	9155-C10	3	StorM will ensure that the 3 worker nodes are identically configured
High speed switches	9155-S05	2	There are two switches to enable non-disruptive firmware updates
Management switches	9155-S04	2	There are two to enable to enable non-disruptive firmware updates
42U server rack	9155-R42	1	Pre-loomed with PDUs, network and power cables for a full config
Service Node	9155-B01	1	StorM will include 1
7.68 TB NVMe drives	AJT4	12	

Understanding usable cores and usable storage

System Tab in StorM

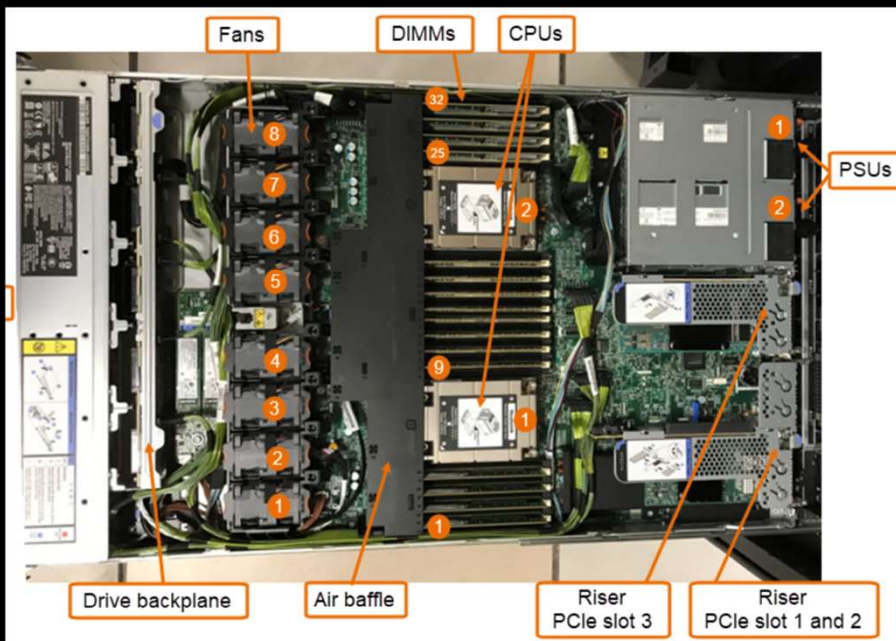
As you adjust the configuration of the Fusion HCI in StorM, watch **Usable Storage** and **Available Cores** to configure a rack that can handle the workload planned to run on the rack.

Fusion HCI supports hyperthreading. This means that 1 core is equal to 2 vCPUs.



Examples of 6 node configurations

All configurations require 3-control nodes and 3-worker nodes. Each of these 6 nodes must have 2 NVMe drives per node.



HCI

Example 1: 120 vCPU usable

- Control nodes: 9155-C10 x 3 (no licenses required)
- Worker nodes: 9155-C10 x 3 (license required)

Example 2: 236 vCPU usable

- Control nodes: 9155-C10 x 3 (no licenses required)
- Worker nodes: 9155-C14 x 3 (license required)

Example 3: 332 vCPU usable

- Control nodes: 9155-C14 x 3 (**licenses required***)
- Worker nodes: 9155-C14 x 3 (license required)

* OCP and Fusion software licenses are required.
StorM will automatically calculate

Fusion HCI software license calculations

eConfig automatically calculates the correct quantity of Fusion HCI software licenses required for the Fusion HCI cluster configuration and adds the software parts to the cfr. Sellers should not have to adjust these values.

5771-PP7 - Perpetual License Software	Metric	Description
IBM Fusion HCI software	VPC ⁽¹⁾	Each unit of VPC of Fusion HCI software entitles storage capacity for these functions: • Data storage - 2 TB per VPC • Data protection (backup) - 2 TB per VPC
• Additional Data Storage	TB	eConfig sets this value to 0 and it cannot be changed. The 2 TB primary data storage allocation included in the VPC pricing covers all possible configurations of Fusion HCI hardware with 7.68 TB drives.
• Additional Data Protection	TB	eConfig sets this value to 0. If the client wants to use Fusion HCI software to backup off-rack storage, like network attached storage devices, then the seller can increment this number.

The following IBM Fusion HCI servers require IBM Fusion HCI software license:

- 9155-C10 – IBM Fusion HCI Compute Server (32 VPC per server)
- 9155-C10 – IBM Fusion HCI Compute and Storage Server (32 VPC per server)
- 9155-G03 – IBM Fusion HCI GPU Server (48 VPC per server)

The following Fusion HCI servers **do not** require Fusion HCI software license:

- 9155-C10 - Fusion HCI Compute and Storage Servers with indicator AHJ4. **AHJ4 indicates that the server is an OpenShift control node.**
- 9155-C10 - Fusion Compute Servers that are designated as AFM Servers

Note on OpenShift infrastructure nodes: Fusion HCI software license are required on servers that are designated as 'OpenShift infrastructure nodes' as defined in the Self-Managed Red Hat OpenShift Sizing and Subscription guide. [link](#)

(1) 1 VPC = 1 x86 processor core

Fusion HCI Expert Care

SKU	Expert Care - Basic
9255-B01	• 1-year term
9255-B02	• 2-year term
9255-B03	• 3-year term
9255-B04	• 4-year term
9255-B05	• 5-year term

SKU	Expert Care - Premium
9255-P01	• 1-year term
9255-P02	• 2-year term
9255-P03	• 3-year term
9255-P04	• 4-year term
9255-P05	• 5-year term

[Link](#) to Expert Care Seismic Page

	Basic	Premium
IBM SW fixes, updates and new releases	Yes	Yes
Guidance on installation, usage and configuration	Yes	Yes
Predictive Support		Yes
Remote code upgrades (2x/year)		Yes
Designated Technical Account Manager (TAM)		Yes
30 minutes Severity 1/2 response		Yes
Hardware service	9x5 NBD, IBM on-site	24x7 Same day, IBM on-site

Fusion HCI GEN2 – MES upgrades

Each of these components is available as an in-field MES upgrade to an existing Fusion HCI

MTM / FC	Description
9155-C10	Lenovo SR630 V3 Server – 32 cores / 64 vCPU, 256 GB RAM
9155-C14	Lenovo SR630 V3 Server - 64 cores / 128 vCPU, 1024 GB RAM
9155-B01	Lenovo SR630 – Service node
9155-G03	Lenovo SR675 V3 GPU Server – 64 cores, 1024 GB RAM, NVIDIA H100 or L40S GPUs
AJT3	3.84 TB NVMe drives to 9155-C10 or C14
AJT4	7.68 TB NVMe drives to 9155-C10 or C14
AKBD	1.6 TB NVMe Drives for HCP
AHJK	Add an additional 256GB RAM to 9155-C
AJT1	Add 16 16GB DIMMS for 256GB of RAM (additional)
AJT2	Add 16 64GB DIMMS for 1024GB of RAM (additional)

StorM allows you to add OCP subscriptions to Fusion HCI orders

First, become familiar with the [OpenShift Subscription Guide](#) and understand the difference between *control nodes*, *worker nodes*, and *infrastructure nodes* in the section “Determining how many Red Hat OpenShift subscriptions you need”

- All worker nodes in a Fusion HCI cluster require OpenShift subscriptions
- The StorM tool automatically calculates how many OCP subscriptions your Fusion HCI cluster requires.
- The StorM tool presents two pricing metrics for OpenShift, core-based pricing and server-based pricing. In almost all cases, Fusion HCI clients should choose server-based pricing for the substantial cost savings (up to 90%) over core-based pricing. Red Hat requires use of core-based pricing for OpenShift being used to deliver software as a service.
- OpenShift sold by IBM is supported by IBM through IBM support tickets.
- If a client tells you that they intend to use some of the Fusion HCI worker nodes as infrastructure nodes, then you can reduce the quantity of OCP subscriptions commensurately. Red Hat defines what kinds of software can and cannot be run on infrastructure nodes

OpenShift subscriptions from Cloud Paks

A client may choose to obtain their OpenShift subscription from IBM Cloud Paks. The entire Fusion HCI cluster must have OpenShift subscriptions; if the Cloud Pak does not bring enough OCP subscriptions to completely cover the Fusion HCI cluster, then the client must purchase sufficient additional subscriptions for full coverage.

FAQ – OpenShift in eConfig

This FAQ applies to Red Hat OpenShift for IBM Fusion as it is made available by IBM as a product for IBM sellers.

Q: Is OpenShift sold by IBM the same as OpenShift sold by Red Hat?

- Yes, they are the same. The OpenShift software comes from the Red Hat container registry regardless of whether the purchase is made through IBM or Red Hat. For the purpose of this document, we will call the OpenShift in eConfig “IBM OpenShift”

Q: Does IBM own the OpenShift subscriptions?

- No. The client owns the subscriptions.

Q: Who provides support for OpenShift sold by IBM?

- IBM provides L1 and L2 support for OpenShift sold by IBM. The Fusion support team will reach out to Red Hat for L3 support if needed. The client should never need to be redirected to Red Hat for support

Q: Can the IBM OpenShift be used to run Cloud Paks or other OpenShift workloads?

- Yes. However, the OpenShift sold by IBM is intended to be used in conjunction with Fusion and Fusion HCI. A seller should not, for example, sell IBM OpenShift for use with Portworx or some other competitor's product that excludes Fusion entirely from the solution. IBM OpenShift is intended as a component to Fusion solutions.

Q: Do IBM Sellers get comp'ed or get quota relief selling OpenShift?

- Unfortunately, not

Q: Do Red Hat sellers get comp'ed when IBM sells OpenShift?

- Yes, they do. The sellers in the geo where the sale is made get comp'ed

Q: How is IBM OpenShift priced?

- IBM OpenShift is sold with two complimentary skus, an OpenShift subscription SKU and an IBM Support Line SKU. The sum of the list prices of each SKU is the same as the list price of the OpenShift SKU from Red Hat.

Q: What is the max discount I can offer on IB OpenShift?

- The max discount of IBM OpenShift is 30%. Deeper than 30% and IBM begins to lose money on the deal

Cable and transceiver options available in eConfig

These options can be added to the Fusion HCI CFR file directly in eConfig. These are not available in StorM.

Power Cable Options

- 9155-R42 6489 4.3m (14-Ft) 3PH/32A 380-415V Power Cord
- 9155-R42 6491 4.3m (14-Ft) 1PH/63A 200-240V Power Cord
- 9155-R42 6492 4.3m (14-Ft) 1PH/48A 200-240V Power Cord
- 9155-R42 6653 4.3m (14-Ft) 3PH/16A 380-415V Power Cord
- 9155-R42 6654 4.3m (14-Ft) 1PH/24A Power Cord
- 9155-R42 6655 4.3m (14-Ft) 1PH/24A WR Power Cord
- 9155-R42 6656 4.3m (14-Ft) 1PH/32A Power Cord
- 9155-R42 6657 4.3m (14-Ft) 1PH/32A Power Cord - Australia/NZ
- 9155-R42 6658 4.3m (14-Ft) 1PH/24A Power Cord – Korea
- 9155-R42 6667 4.3m (14-Ft) 3PH/32A 380-415V Power Cord - Australia/NZ
- 9155-R42 ELC1 4.3m (14-Ft) PDU to Wall 1PH/24A 200-240V Power Cord North America
- 9155-R42 ELC2 4.3m (14-Ft) PDU to Wall 3PH/24A 415V Power Cord North America
- 9155-R42 ECJ5 4.3m (14-Ft) PDU to Wall 3PH/24A 200-240V Power Cord
- 9155-R42 ECJ7 4.3m (14-Ft) PDU to Wall 3PH/48A 200-240V Power Cord

Transceiver and Cable Options

- 9155-S01/S05 EB57 QSFP+ 40GbE Base-SR4 Transceiver
- 9155-S01/S05 EB59 100GbE Optical Transceiver QSFP28
- 9155-S01/S05 EB5T 10M QSFP28 AOC 100Gb Ethernet cable
- 9155-S01/S05 EB5W 30M QSFP28 AOC 100Gb Ethernet cable
- 9155-S01/S05 EB47 25GbE SFP28 Optical Transceiver
- 9155-S01/S05 EB49 SFP28 to QSFP28 Transceiver Adapter
- 9155-S01/S05 ECBD 5M LC-LC Fibre OM3 MMF Cable
- 9155-S01/S05 ECBE 25M LC-LC Fibre OM3 MMF Cable
- 9155-S01/S05 RPQ8S1916 10GbE SPF+ SR Optical Transceiver
- 9155-S01/S05 RPQ8S1929 1GbE Optical Transceiver for RJ-45

