



ThinkSystem ST650 V2 Backplane/Backplate Cable Routing Guide



Machine Types: 7Z74 and 7Z75

Note

Before using this information and the product it supports, be sure to read and understand the safety information and the safety instructions, which are available at:

http://thinksystem.lenovofiles.com/help/topic/safety_documentation/pdf_files.html

In addition, ensure that you are familiar with the terms and conditions of the Lenovo warranty for your server, which can be found at:

<http://datacentersupport.lenovo.com/warrantylookup>

Second Edition (August 2021)

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Safety

Before installing this product, read the Safety Information.

قبل تركيب هذا المنتج، يجب قراءة الملاحظات الأمنية

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 Safety Information（安全信息）。

安裝本產品之前，請先閱讀「安全資訊」。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας (safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.



Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto, lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

ཐོན་ཁུངས་འདི་བདེ་སྤྱོད་མ་བྱས་གོང་། སྐྱོར་གྱི་ཡིད་གཟབ་
བྱ་འདྲ་མིན་ཡིད་པའི་འོད་ཟེར་བལྟ་དགོས།

Bu ürünü kurmadan önce güvenlik bilgilerini okuyun.

مەزكۇر مەھسۇلاتنى ئورنىتىشتىن بۇرۇن بىخەتەرلىك ئۇچۇرلىرىنى ئوقۇپ چىقىڭ.

Youq mwngz yungh canjbinj neix gaxgonq, itdingh aeu doeg aen
canjbinj soengq cungj vahgangj ancien siusik.

Safety inspection checklist

Use the information in this section to identify potentially unsafe conditions with your server. As each machine was designed and built, required safety items were installed to protect users and service technicians from injury.

Notes:

1. The product is not suitable for use at visual display workplaces according to §2 of the Workplace Regulations.
2. The set-up of the server is made in the server room only.

CAUTION:

This equipment must be installed or serviced by trained personnel, as defined by the NEC, IEC 62368-1 & IEC 60950-1, the standard for Safety of Electronic Equipment within the Field of Audio/Video, Information Technology and Communication Technology. Lenovo assumes you are qualified in the servicing of equipment and trained in recognizing hazards energy levels in products. Access to the equipment is by the use of a tool, lock and key, or other means of security, and is controlled by the authority responsible for the location.

Important: Electrical grounding of the server is required for operator safety and correct system function. Proper grounding of the electrical outlet can be verified by a certified electrician.

Use the following checklist to verify that there are no potentially unsafe conditions:

1. Make sure that the power is off and the power cord is disconnected.
2. Check the power cord.
 - Make sure that the third-wire ground connector is in good condition. Use a meter to measure third-wire ground continuity for 0.1 ohm or less between the external ground pin and the frame ground.
 - Make sure that the power cord is the correct type.

To view the power cords that are available for the server:

- a. Go to:

<http://dcsc.lenovo.com/#/>

- b. Click **Preconfigured Model** or **Configure to order**.
- c. Enter the machine type and model for your server to display the configurator page.
- d. Click **Power → Power Cables** to see all line cords.
 - Make sure that the insulation is not frayed or worn.
3. Check for any obvious non-Lenovo alterations. Use good judgment as to the safety of any non-Lenovo alterations.
4. Check inside the server for any obvious unsafe conditions, such as metal filings, contamination, water or other liquid, or signs of fire or smoke damage.
5. Check for worn, frayed, or pinched cables.
6. Make sure that the power-supply cover fasteners (screws or rivets) have not been removed or tampered with.

Introduction

This guide contains various configurations for different server models. If you need to print this document, consider only printing pages containing the configuration for your server system.

Internal cable routing

Some of the components in the server have internal cables and cable connectors.

To connect cables, observe the following guidelines:

- Turn off the server before you connect or disconnect any internal cables.
- See the documentation that comes with any external devices for additional cabling instructions. It might be easier for you to route cables before you connect the devices to the server.
- Cable identifiers of some cables are printed on the cables that come with the server and optional devices. Use these identifiers to connect the cables to the correct connectors.
- Ensure that the cable is not pinched and does not cover any connectors or obstruct any components on the system board.
- Ensure that the relevant cables pass through the cable clips and guides.

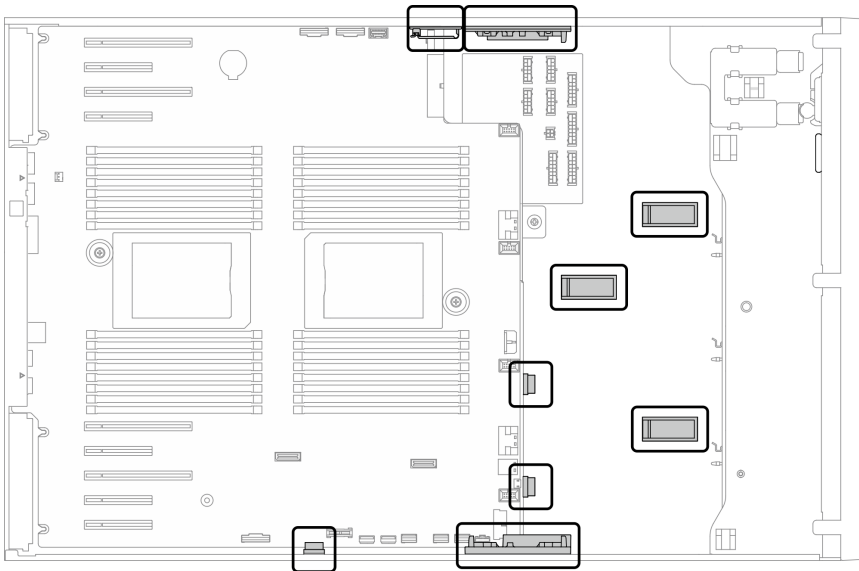


Figure 1. Cable clips and guides on 2.5-inch chassis

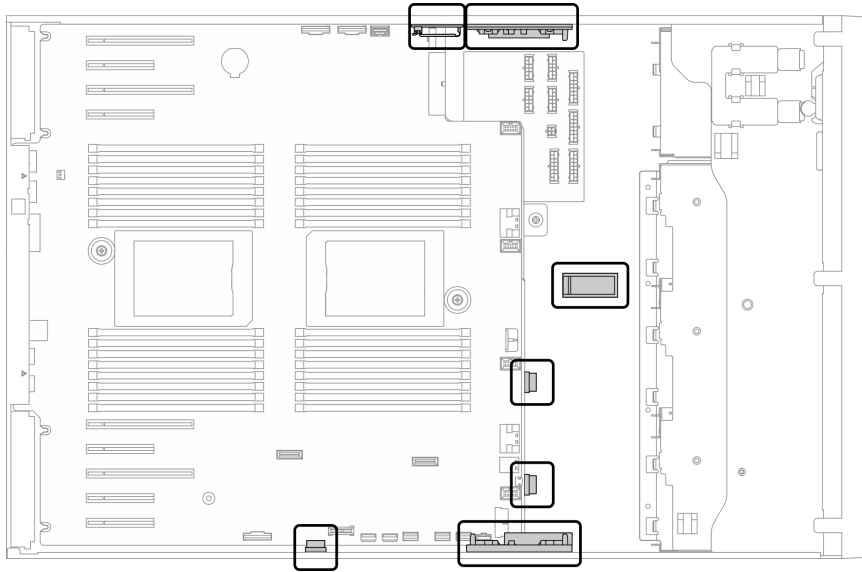
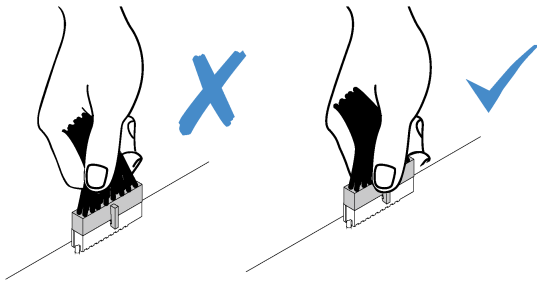


Figure 2. Cable clips and guides on 3.5-inch chassis

Note: Disengage all latches, release tabs, or locks on cable connectors when you disconnect cables from the system board. Failing to release them before removing the cables will damage the cable sockets on the system board, which are fragile. Any damage to the cable sockets might require replacing the system board.



Chapter 1. 3.5-inch simple-swap drive backplate cable routing

Use the section to understand the cable routing for the 3.5-inch simple-swap drive backplate.

Notes:

- Connections between connectors; **1** ↔ **1**, **2** ↔ **2**, **3** ↔ **3**, ... **n** ↔ **n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.

Backplate 1

Table 1. Cable connection for backplate 1

From	To
1 Backplate: Power cable	Power distribution board: BP 1 power connector
2 Backplate: Signal cable	System board: SATA 0-3 connector

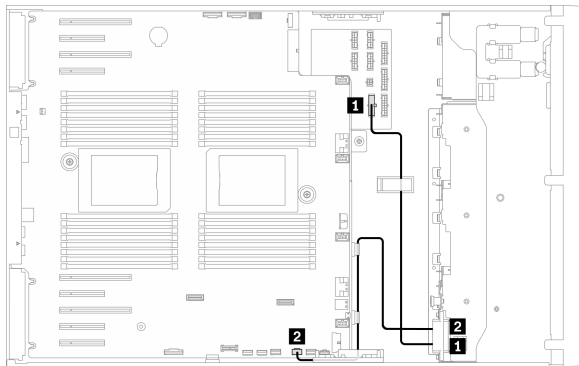


Figure 3. Cable routing for backplate 1

Backplate 2

Table 2. Cable connection for backplate 2

From	To
1 Backplate: Power cable	Power distribution board: BP 2 power connector
2 Backplate: Signal cable	System board: SATA 4-7 connector

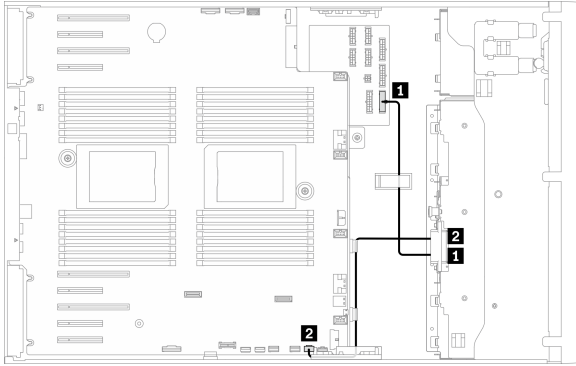


Figure 4. Cable routing for backplate 2

Backplate 3

Table 3. Cable connection for backplate 3

From	To
1 Backplate: Power cable	Power distribution board: BP 3 power connector
2 Backplate: Signal cable	System board: SATA 8-11 connector

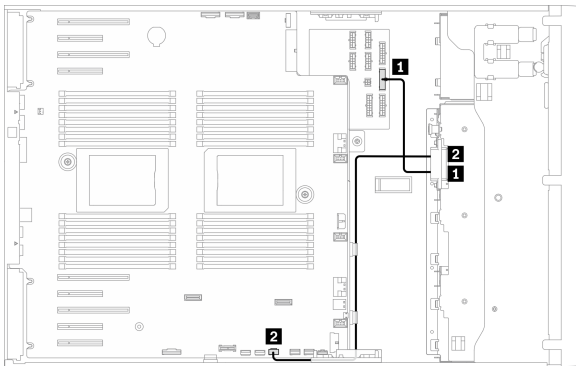


Figure 5. Cable routing for backplate 3

Chapter 2. 3.5-inch hot-swap drive backplane cable routing

Use the section to understand the cable routing for 3.5-inch hot-swap drive backplane.

Backplane cable list

Use this section to identify each of the cables that are used in routing the 3.5-inch hot-swap drive backplane for your server.

Table 4. 3.5-inch backplane cable list

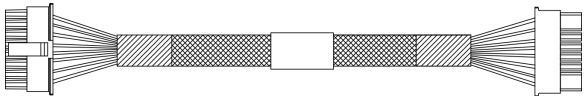
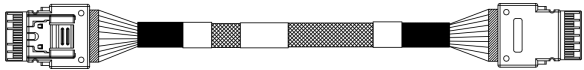
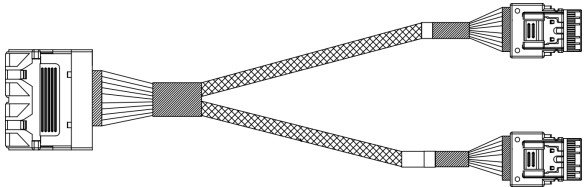
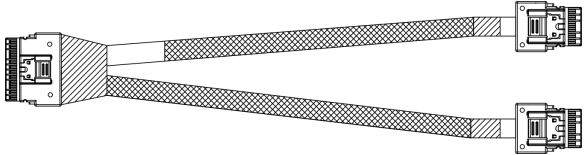
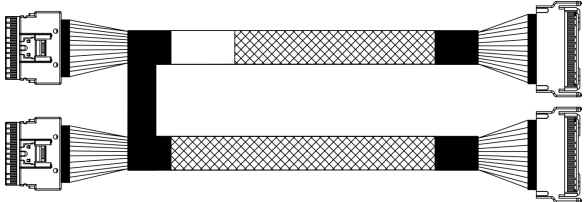
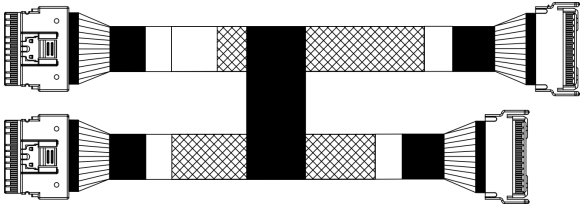
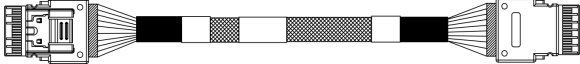
Cable	Description
<p>3.5-inch backplane power cable</p> 	<ul style="list-style-type: none"> • Backplane 1 to PDB: 400 mm. • Backplane 2/3 to PDB: 300 mm. • Backplane 4 to PDB: 160 mm.
<p>SlimSAS x4 to SlimSAS x4 cable</p> 	<p>Backplane 1/2/3 to SATA port on system board : 540 mm</p>
<p>Mini-SAS x4*2 to SlimSAS x4*2 cable</p> 	<ul style="list-style-type: none"> • Backplane 1/2 to 8i RAID/HBA Gen 3 or 16i RAID/HBA Gen 3: 590 mm/590 mm. • Backplane 3/4 to 8i RAID/HBA Gen 3 or 16i RAID/HBA Gen 3: 840 mm/840 mm.
<p>SlimSAS x8 to SlimSAS x4*2 cable</p> 	<ul style="list-style-type: none"> • Backplane 1/2 to 8i RAID/HBA Gen 4 or 16i RAID/HBA Gen 4: 590 mm/590 mm. • Backplane 3/4 to 8i RAID/HBA Gen 4 or 16i RAID/HBA Gen 4: 840 mm/840 mm.
<p>SlimSAS x8 to MCIO x8 cable pair</p> 	<p>Backplane 1/2 to NVMe retimer: 700 mm/700 mm.</p>

Table 4. 3.5-inch backplane cable list (continued)

Cable	Description
<p data-bbox="168 279 532 306">SlimSAS x8 to MCIO x8 cable pair</p>  <p>The diagram shows two cables. The top cable has a SlimSAS x8 connector on the left and an MCIO x8 connector on the right. The bottom cable has a SlimSAS x8 connector on the left and a different MCIO x8 connector on the right. Both cables feature a central black section and various colored and textured segments.</p>	<ul data-bbox="808 289 1421 420" style="list-style-type: none"> • Backplane 1/2 to PCIe port on system board: 820 mm/ 780 mm. • Backplane 3/4 to PCIe port on system board: 325 mm/ 160 mm.
<p data-bbox="168 558 516 585">SlimSAS x4 to SlimSAS x4 cable</p>  <p>The diagram shows a single cable with SlimSAS x4 connectors on both ends. It features a central black section and various colored and textured segments.</p>	<ul data-bbox="808 569 1404 640" style="list-style-type: none"> • Backplane 1/2 to CFF 16i RAID/HBA Gen 4: 260 mm. • Backplane 3/4 to CFF 16i RAID/HBA Gen 4: 720 mm.

Power cable routing

Use the section to understand the power cable routing for 3.5-inch hot-swap drive backplane.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.

From	To	Cable
1 Backplane 1: Power connector	Power distribution board: BP 1 power connector	3.5-inch backplane power (400 mm)
2 Backplane 2: Power connector	Power distribution board: BP 2 power connector	3.5-inch backplane power (300 mm)
3 Backplane 3: Power connector	Power distribution board: BP 3 power connector	3.5-inch backplane power (300 mm)
4 Backplane 4: Power connector	Power distribution board: BP 4 power connector	3.5-inch backplane power (160 mm)

Figure 6. Power cable routing to PDB

Signal cable routing

Use the section to understand the signal cable routing for 3.5-inch hot-swap drive backplane.

- [“1 x SAS/SATA backplane” on page 7](#)
- [“2 x SAS/SATA backplanes” on page 12](#)
- [“3 x SAS/SATA backplanes” on page 17](#)
- [“4 x SAS/SATA backplanes” on page 21](#)
- [“1 x SAS/SATA + 1 x NVMe backplane” on page 25](#)
- [“1 x SAS/SATA + 2 x NVMe backplanes” on page 32](#)
- [“2 x SAS/SATA + 1 x NVMe backplane” on page 45](#)
- [“2 x SAS/SATA + 2 x NVMe backplanes” on page 54](#)
- [“1 x SAS/SATA + 1 x AnyBay backplane” on page 69](#)
- [“1 x SAS/SATA + 2 x AnyBay backplanes” on page 76](#)
- [“2 x SAS/SATA + 1 x AnyBay backplane” on page 89](#)
- [“2 x SAS/SATA + 2 x AnyBay backplanes” on page 98](#)

1 x SAS/SATA backplane

This section lists the required components for server models with 1 x SAS/SATA 3.5-inch hot-swap backplane.

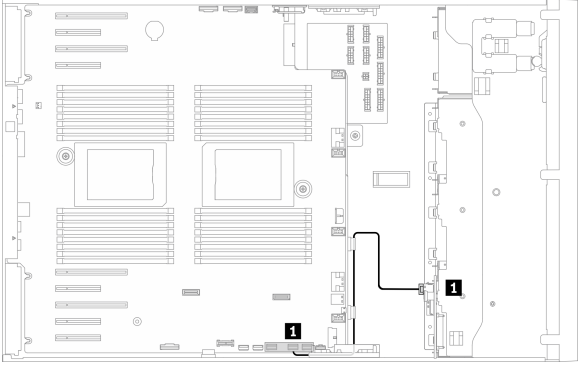
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard SATA” on page 8](#)
- [“1 x 8i RAID/HBA” on page 9](#)
- [“1 x 16i RAID/HBA” on page 10](#)
- [“1 x CFF 16i RAID/HBA” on page 11](#)

Onboard SATA

SAS/SATA cable routing		
 A technical diagram showing the internal layout of a server chassis. It illustrates the routing of SAS/SATA cables from a backplane (BP1) to the system board. Two callout boxes, labeled '1', indicate the connection points: one on the backplane and another on the system board. The diagram shows various components like drives, cooling fans, and the system board itself.		
<i>Figure 7. SAS/SATA cable routing to system board</i>		
From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

1 x 8i RAID/HBA

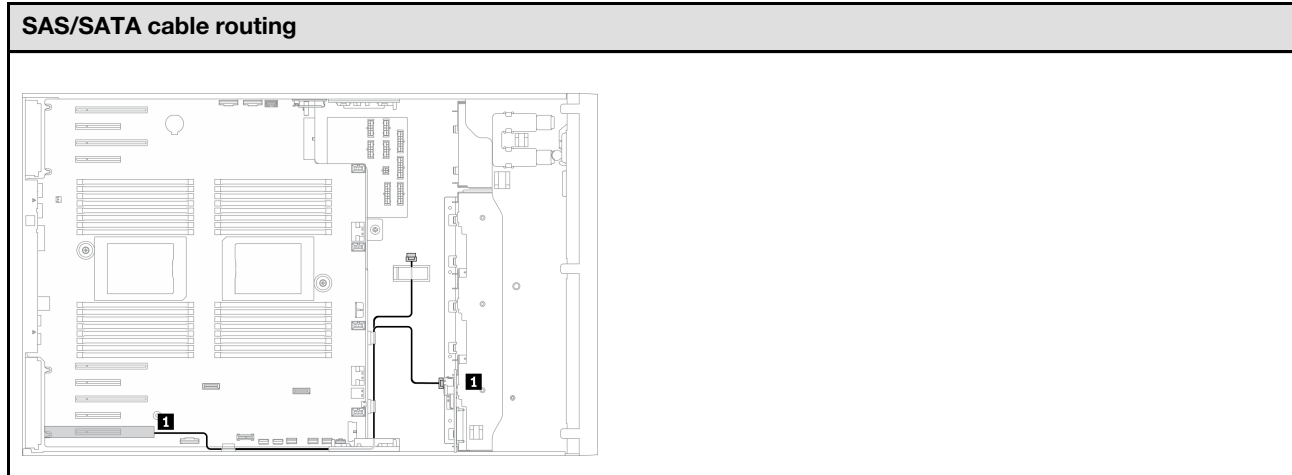


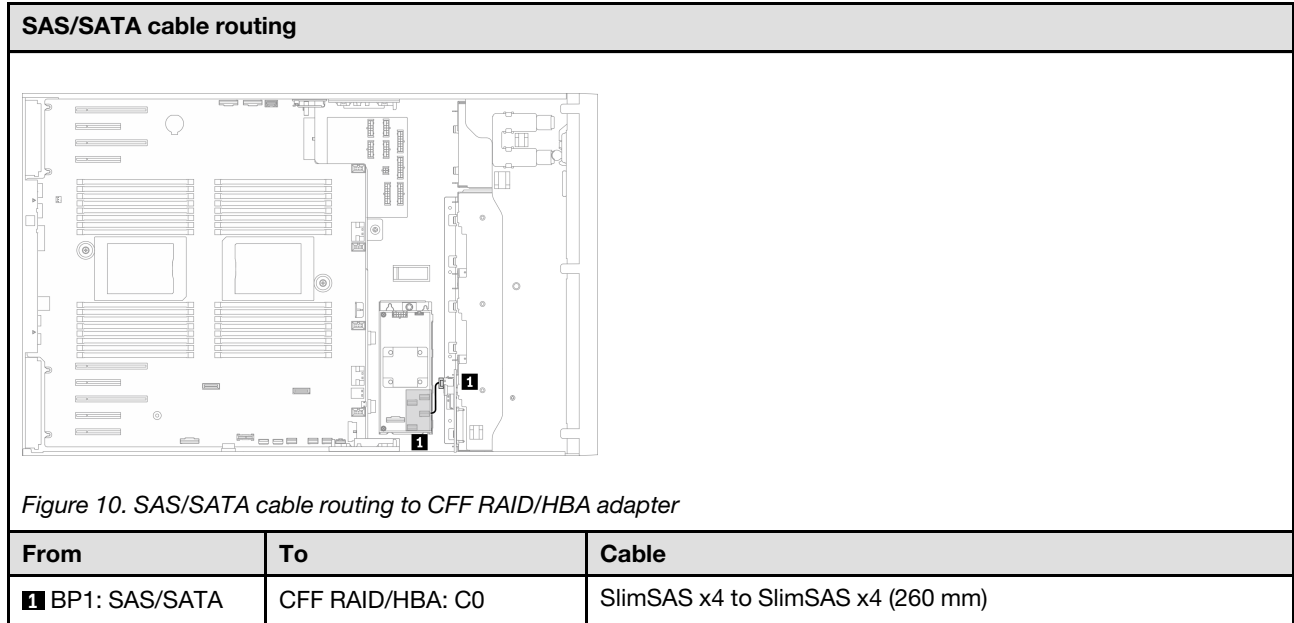
Figure 8. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

1 x 16i RAID/HBA

SAS/SATA cable routing		
<p>Figure 9. SAS/SATA cable routing to PCIe slot 9</p>		
From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

1 x CFF 16i RAID/HBA



2 x SAS/SATA backplanes

This section lists the required components for server models with 2 x SAS/SATA 3.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard SATA” on page 13](#)
- [“1 x 8i RAID/HBA” on page 14](#)
- [“1 x 16i RAID/HBA” on page 15](#)
- [“1 x CFF 16i RAID/HBA” on page 16](#)

Onboard SATA

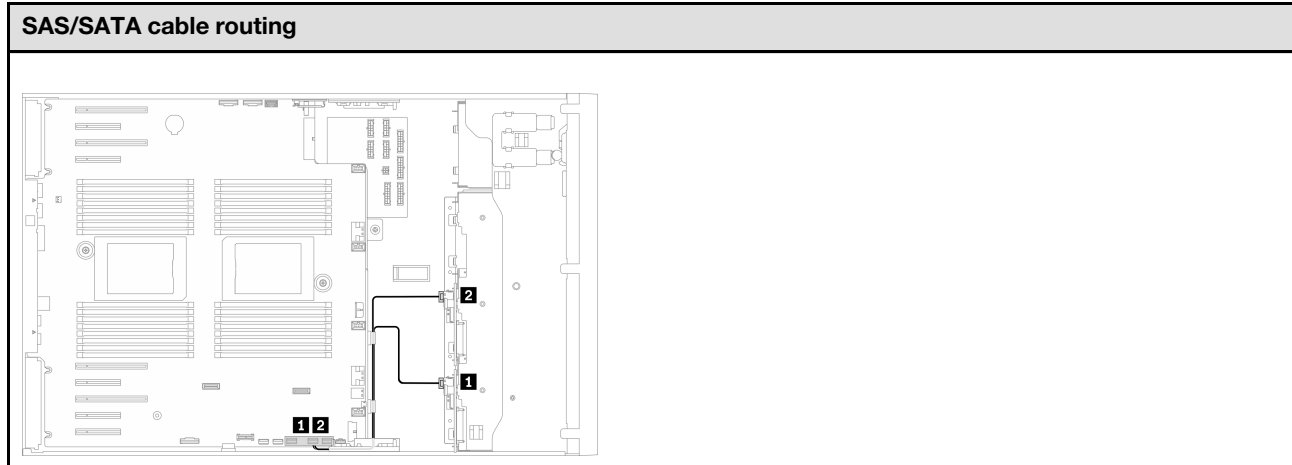
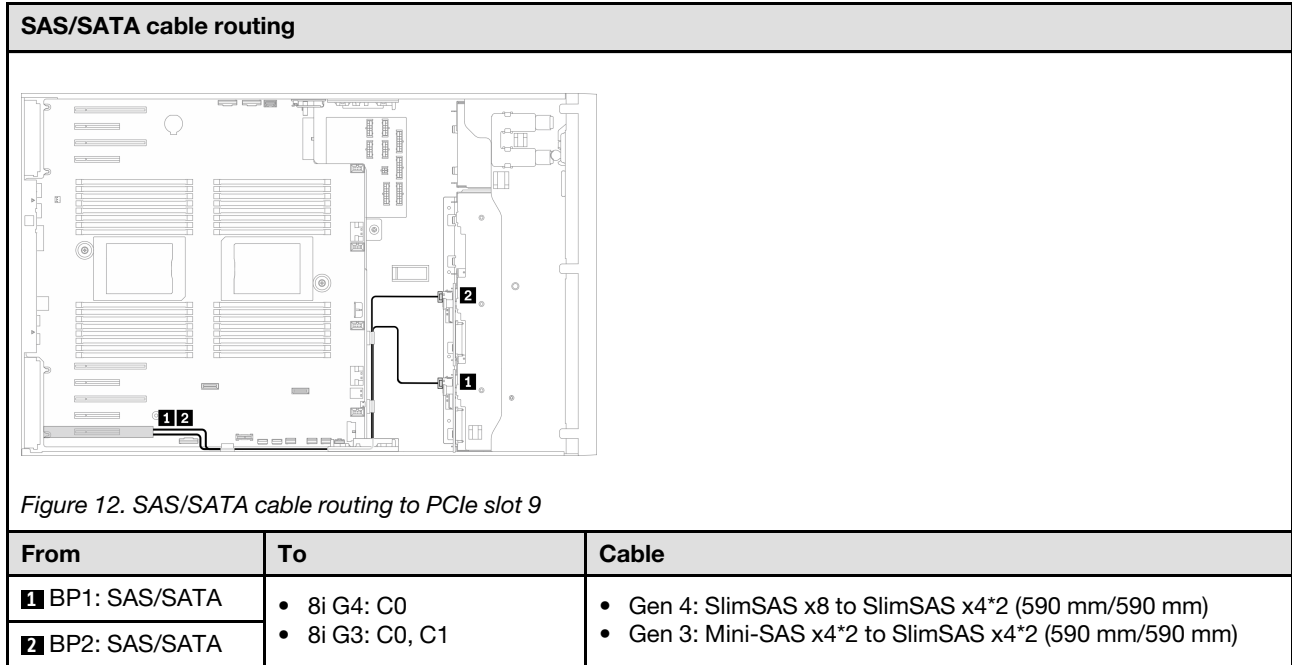


Figure 11. SAS/SATA cable routing to system board

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

1 x 8i RAID/HBA



1 x 16i RAID/HBA

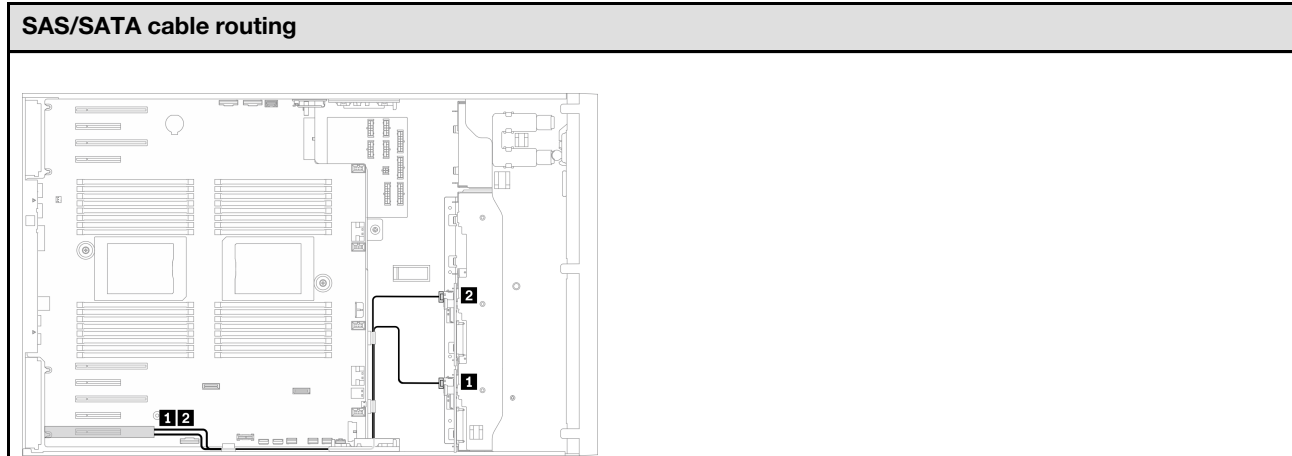


Figure 13. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

1 x CFF 16i RAID/HBA

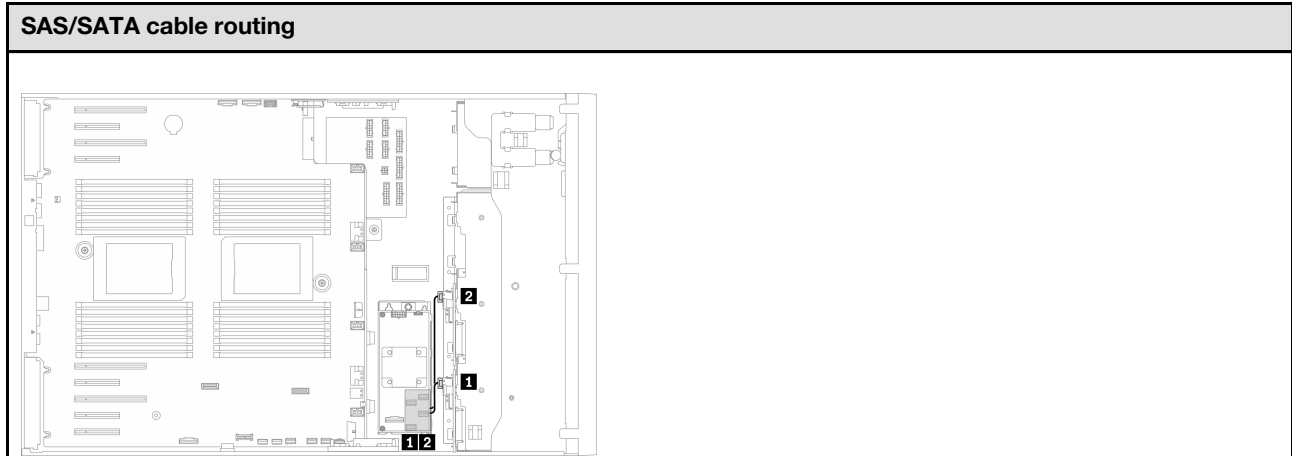


Figure 14. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)

3 x SAS/SATA backplanes

This section lists the required components for server models with 3 x SAS/SATA 3.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“2 x 8i RAID/HBA” on page 18](#)
- [“1 x 16i RAID/HBA” on page 19](#)
- [“1 x CFF 16i RAID/HBA” on page 20](#)

2 x 8i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

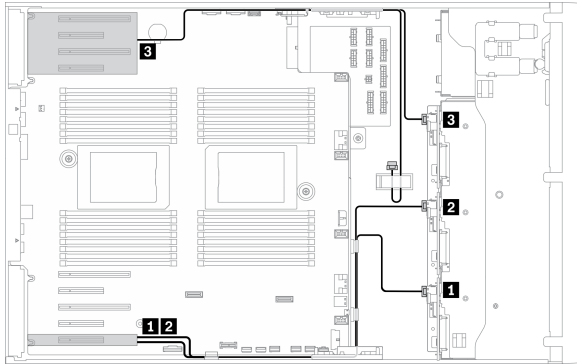


Figure 15. SAS/SATA cable routing to top PCIe zone

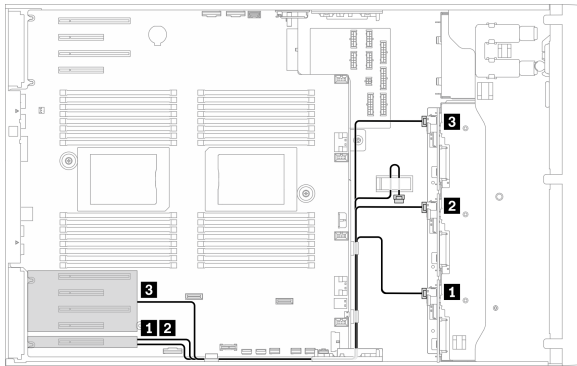
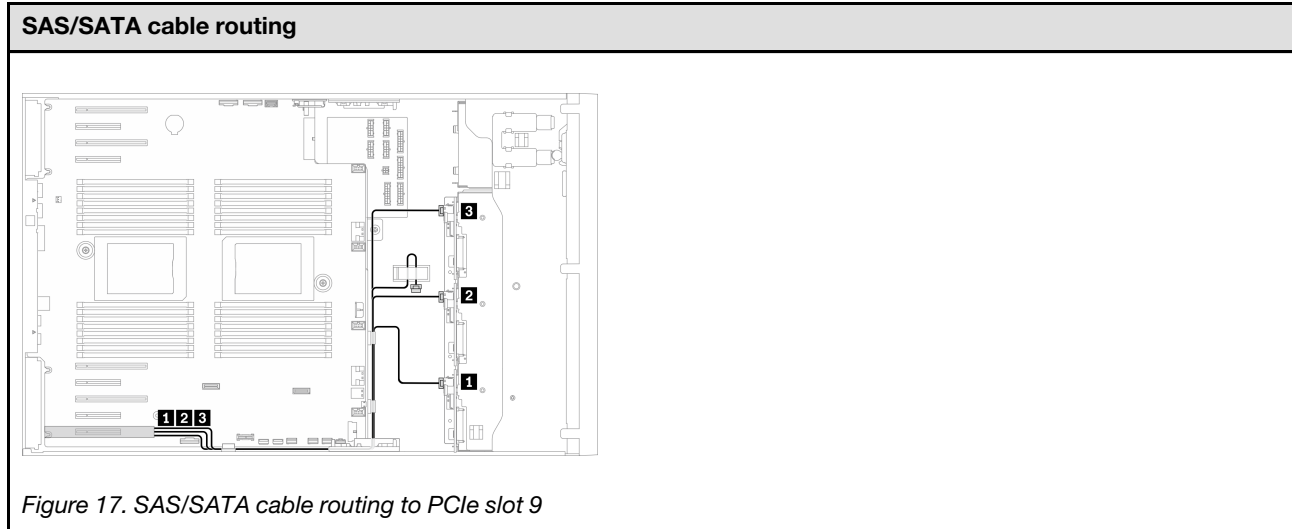


Figure 16. SAS/SATA cable routing to bottom PCIe zone

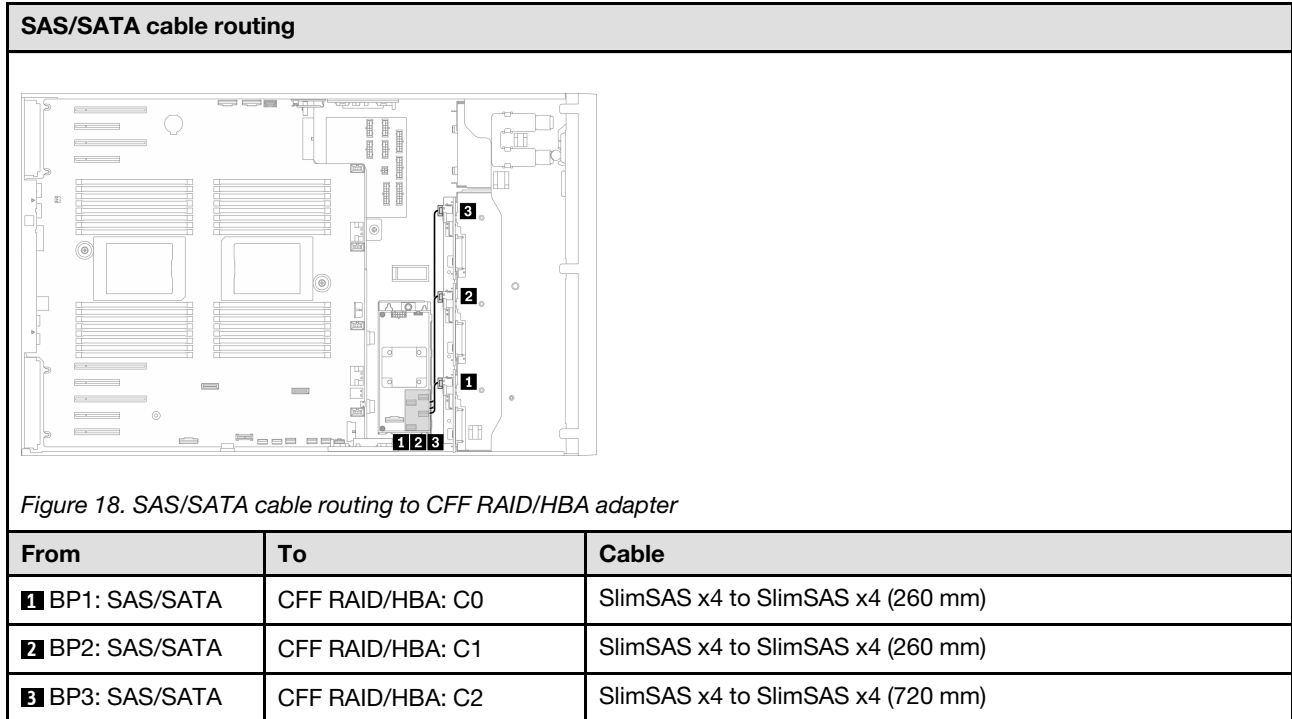
From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

1 x 16i RAID/HBA



From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

1 x CFF 16i RAID/HBA



4 x SAS/SATA backplanes

This section lists the required components for server models with 4 x SAS/SATA 3.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“2 x 8i RAID/HBA” on page 22](#)
- [“1 x 16i RAID/HBA” on page 23](#)
- [“1 x CFF 16i RAID/HBA” on page 24](#)

2 x 8i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

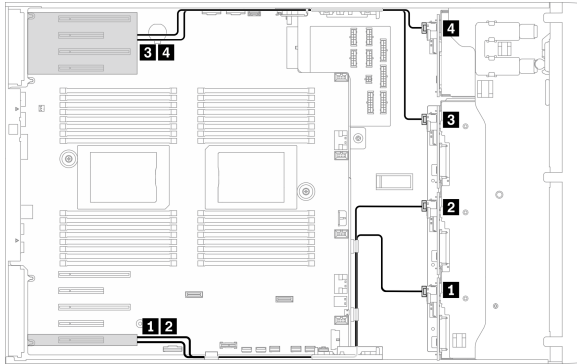


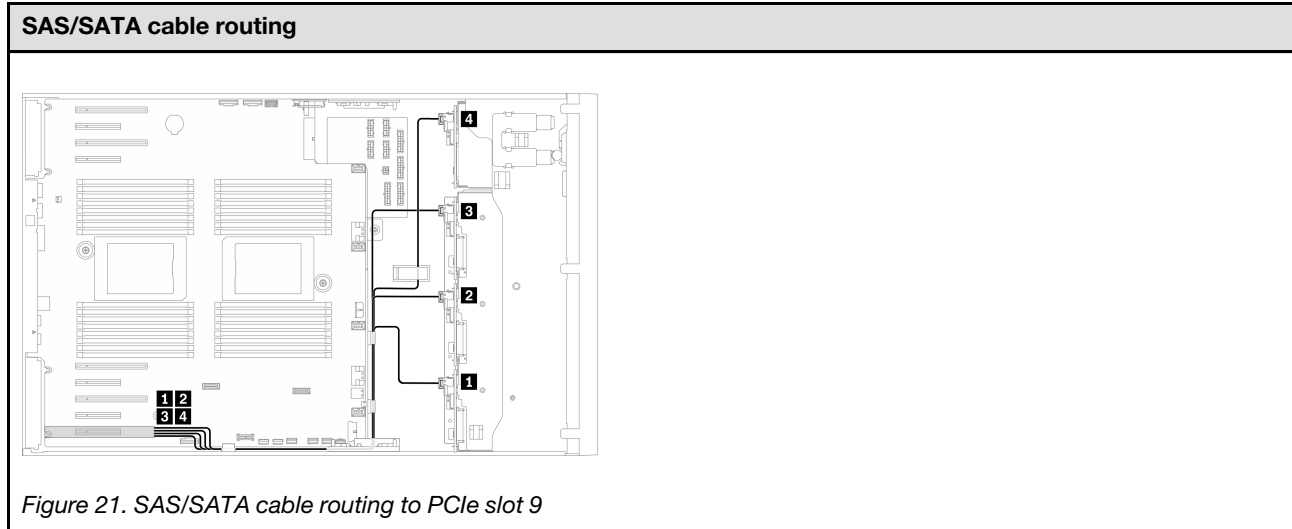
Figure 19. SAS/SATA cable routing to top PCIe zone



Figure 20. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA		
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA		

1 x 16i RAID/HBA



From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA		
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA		

1 x CFF 16i RAID/HBA

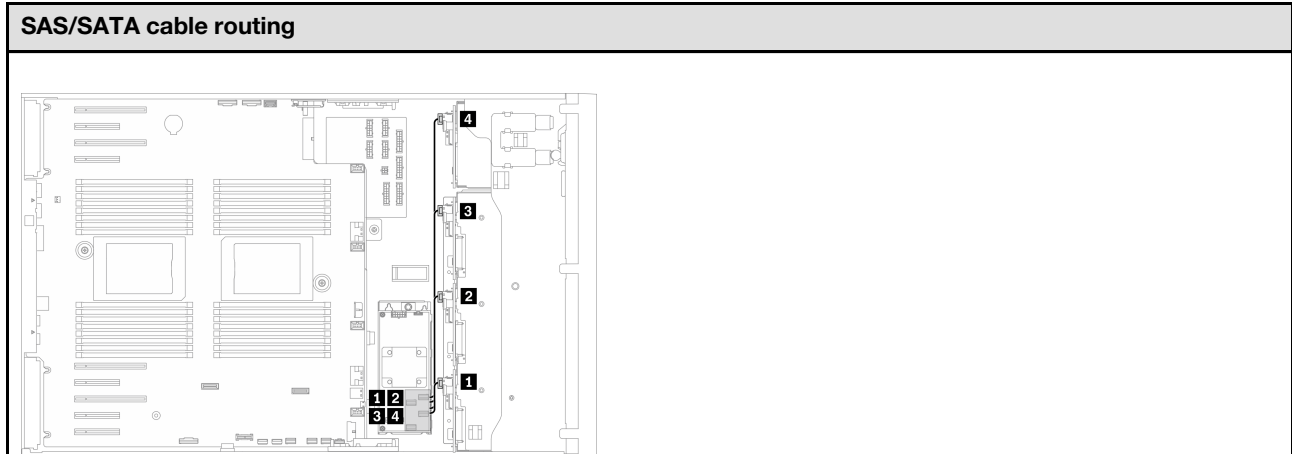


Figure 22. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)
3 BP3: SAS/SATA	CFF RAID/HBA: C2	SlimSAS x4 to SlimSAS x4 (720 mm)
4 BP4: SAS/SATA	CFF RAID/HBA: C3	SlimSAS x4 to SlimSAS x4 (720 mm)

1 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x NVMe 3.5-inch hot-swap backplane.

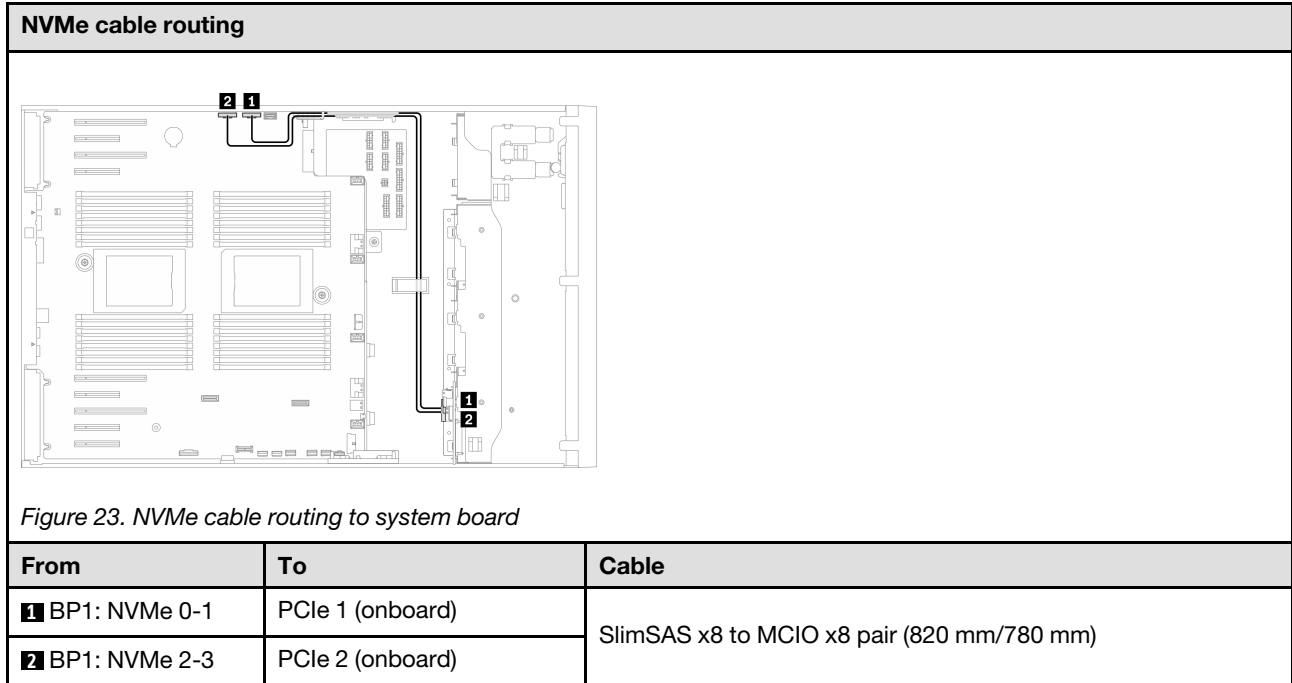
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 26](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 28](#)
- [“Onboard NVMe + 1 x CFF 16i RAID/HBA” on page 30](#)

Onboard NVMe + 1 x 8i RAID/HBA



SAS/SATA cable routing

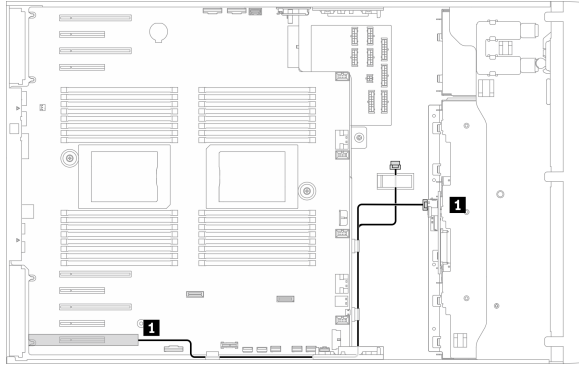
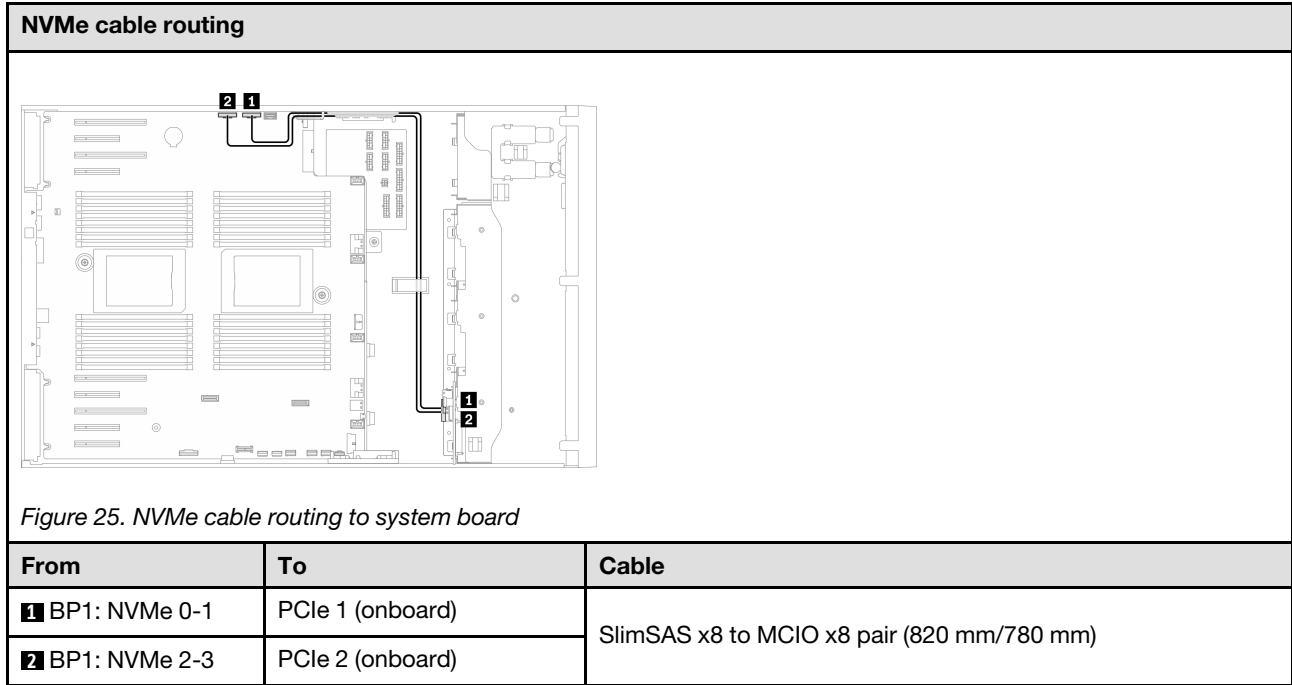


Figure 24. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

Onboard NVMe + 1 x 16i RAID/HBA



SAS/SATA cable routing

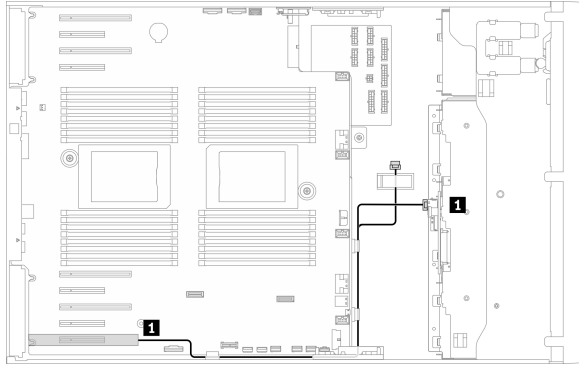
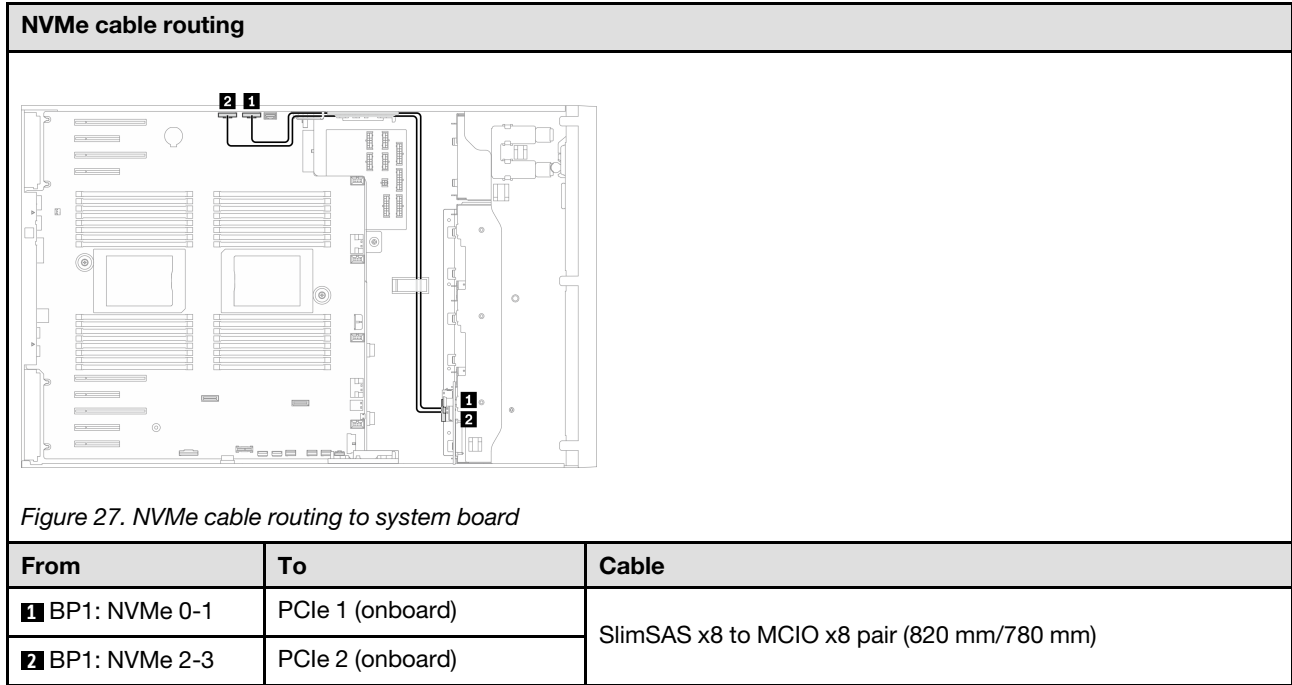


Figure 26. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

Onboard NVMe + 1 x CFF 16i RAID/HBA



SAS/SATA cable routing

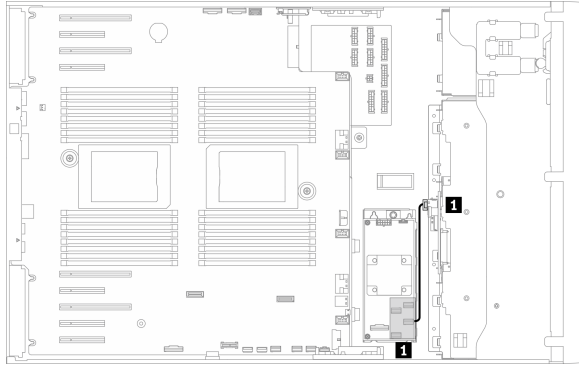


Figure 28. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP2: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)

1 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x NVMe 3.5-inch hot-swap backplanes.

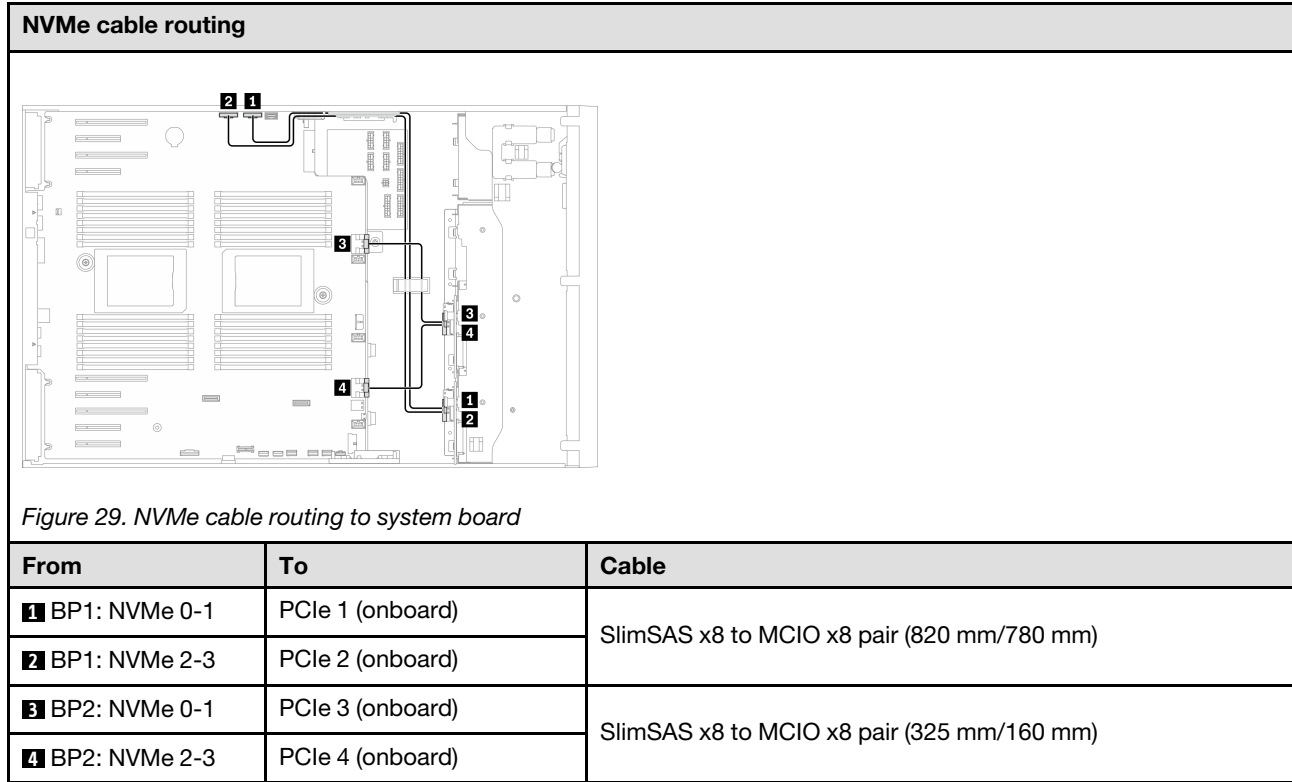
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA” on page 33](#)
- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 35](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 37](#)
- [“Onboard NVMe/SATA + 1 x retimer” on page 39](#)
- [“Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA” on page 41](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 43](#)

Onboard NVMe/SATA



SAS/SATA cable routing

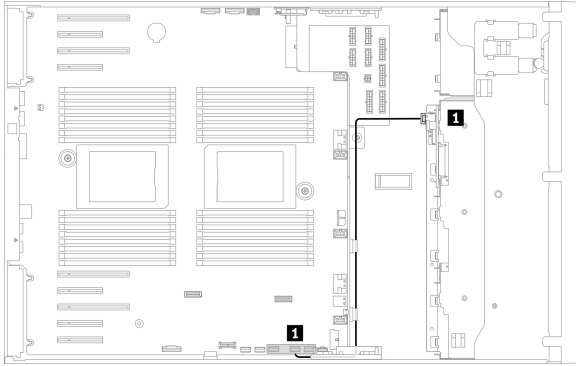
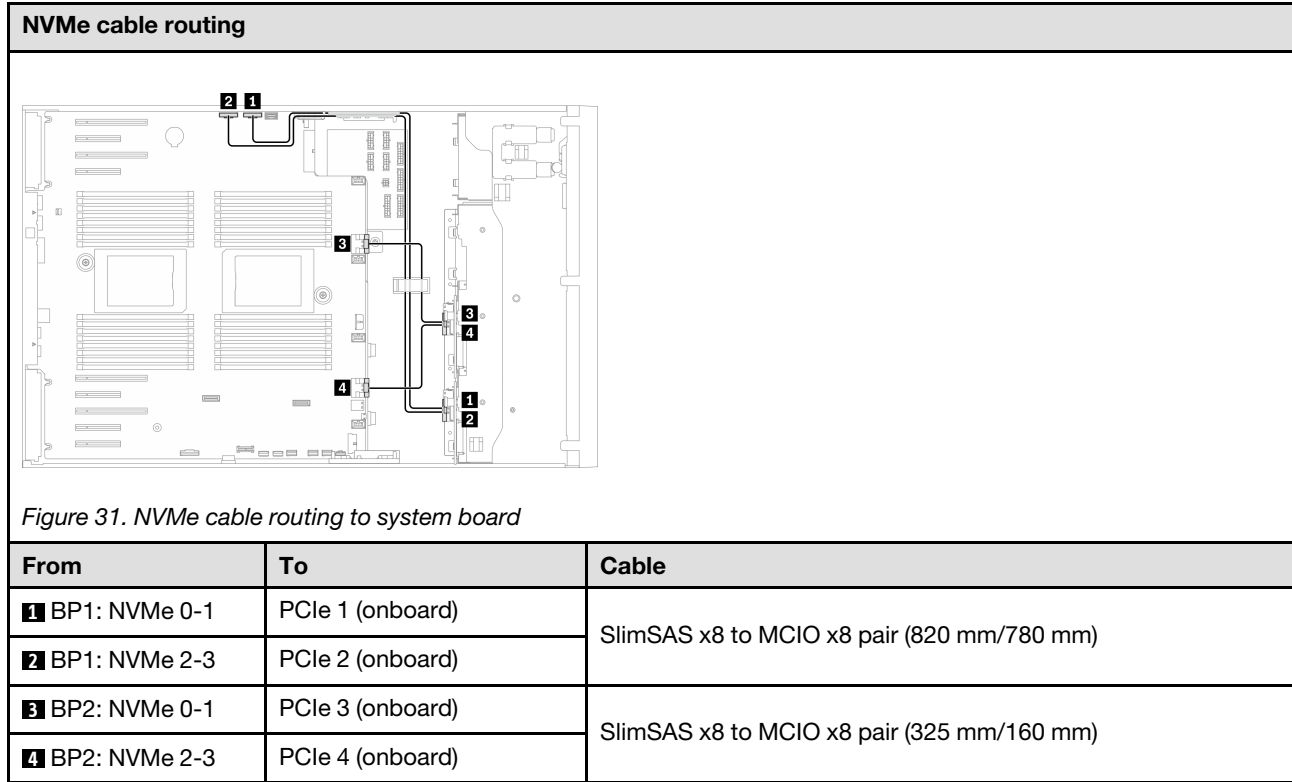


Figure 30. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

Onboard NVMe + 1 x 8i RAID/HBA



SAS/SATA cable routing

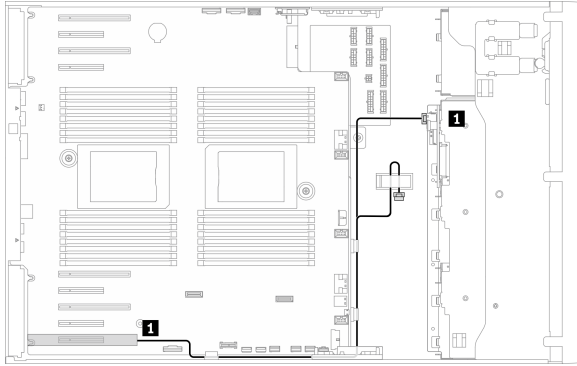


Figure 32. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x 16i RAID/HBA

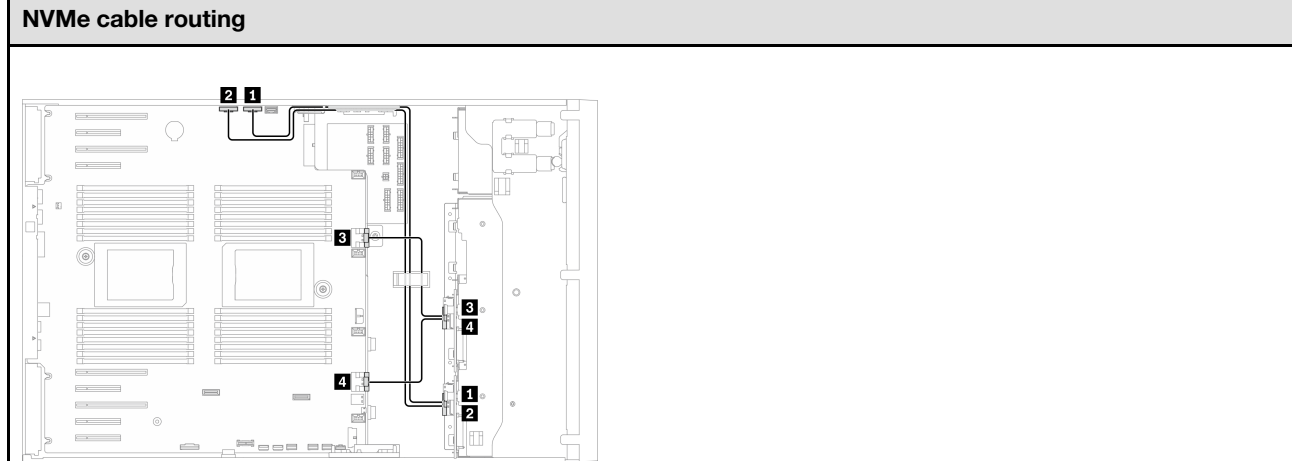


Figure 33. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

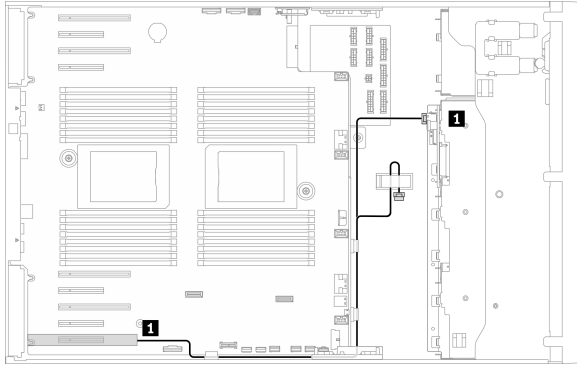


Figure 34. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C1, C2 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe/SATA + 1 x retimer

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

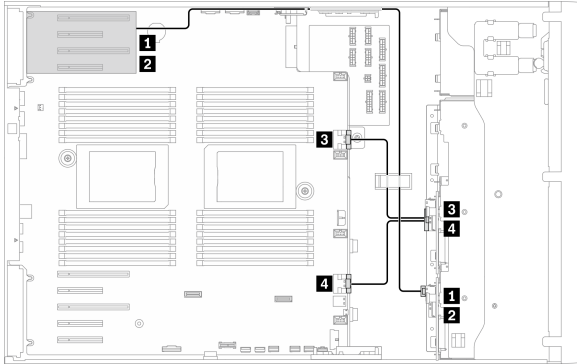


Figure 35. NVMe cable routing to system board and top PCIe zone

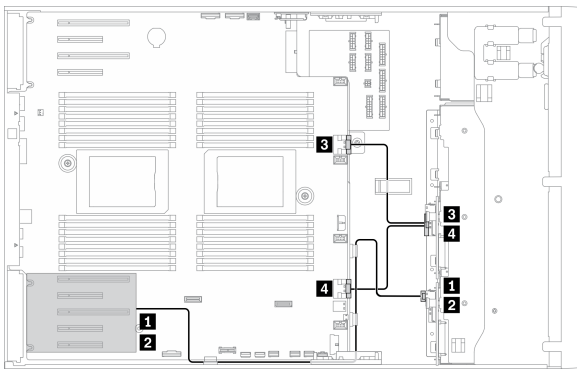


Figure 36. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

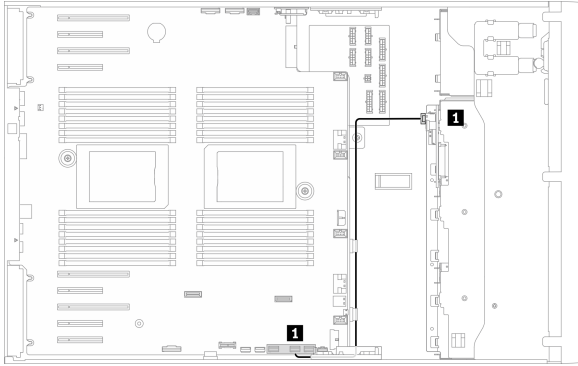


Figure 37. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

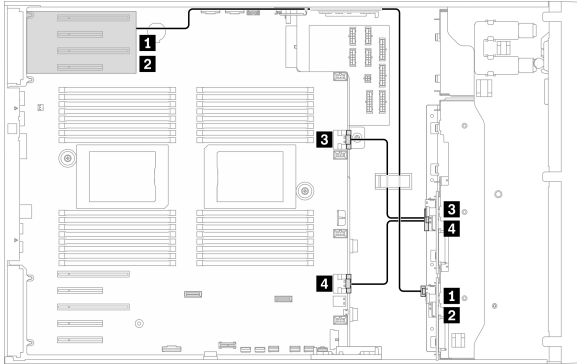


Figure 38. NVMe cable routing to system board and top PCIe zone

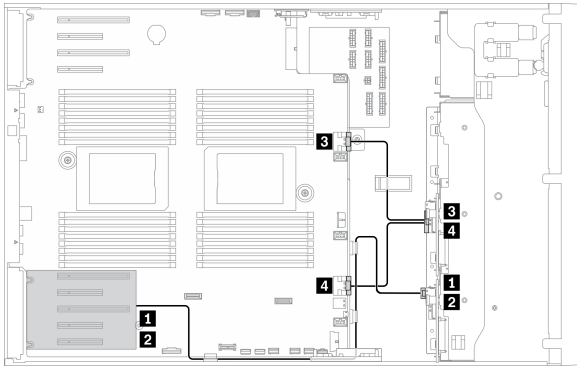


Figure 39. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

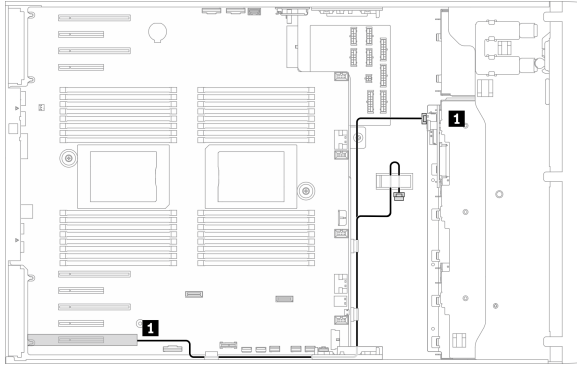


Figure 40. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

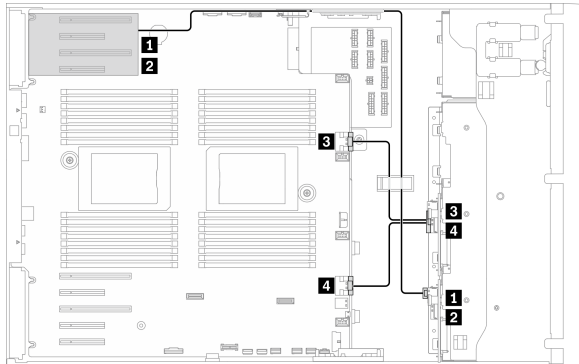


Figure 41. NVMe cable routing to system board and top PCIe zone

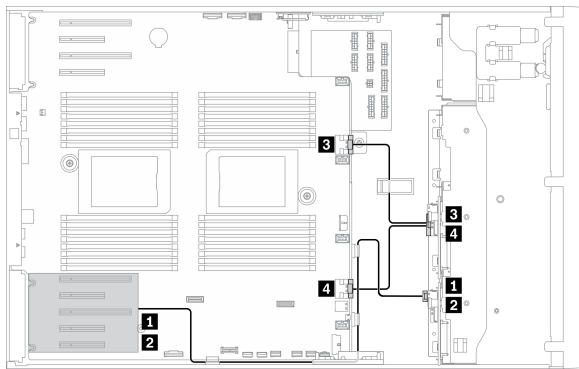


Figure 42. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

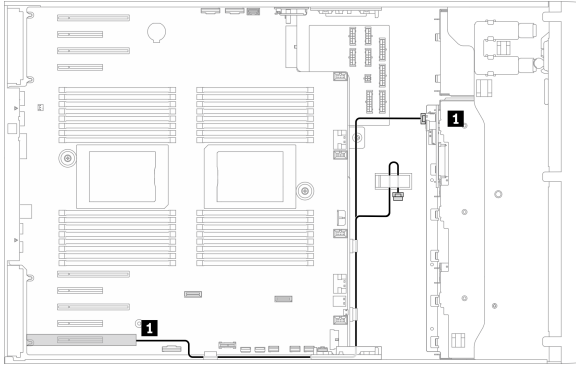


Figure 43. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

2 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x NVMe 3.5-inch hot-swap backplane.

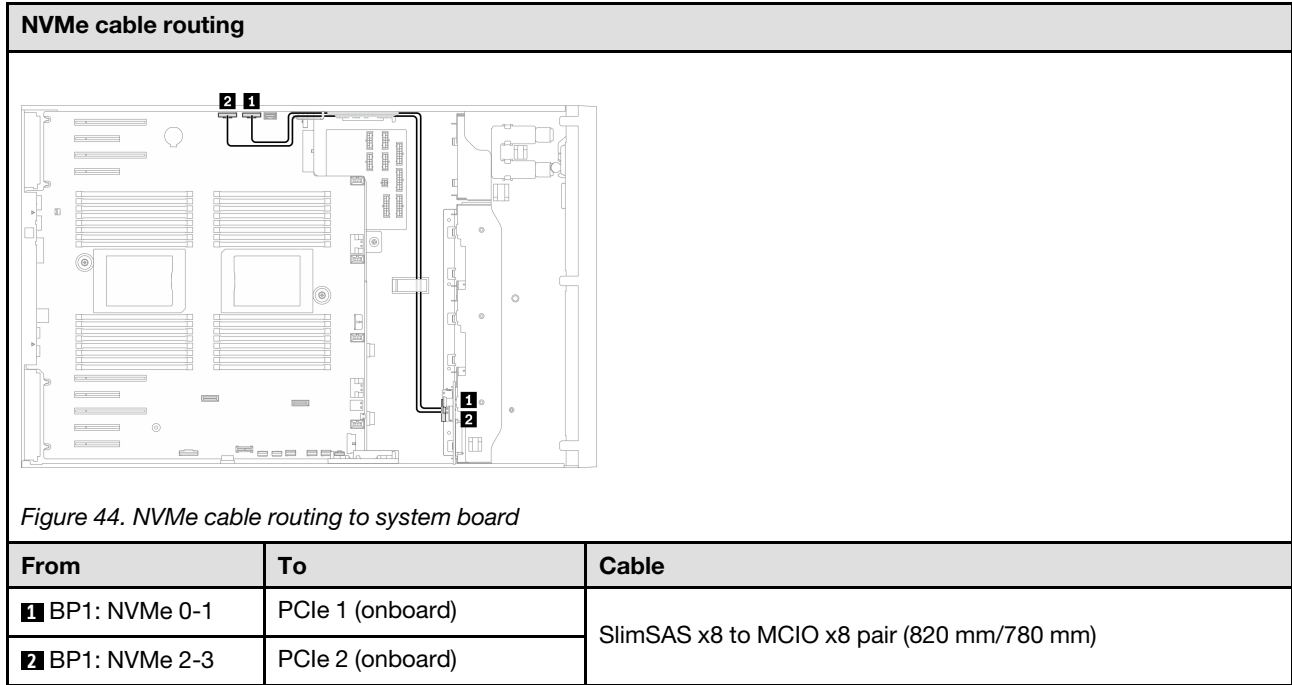
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA” on page 46](#)
- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 48](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 50](#)
- [“Onboard NVMe + 1 x CFF 16i RAID/HBA” on page 52](#)

Onboard NVMe/SATA



SAS/SATA cable routing

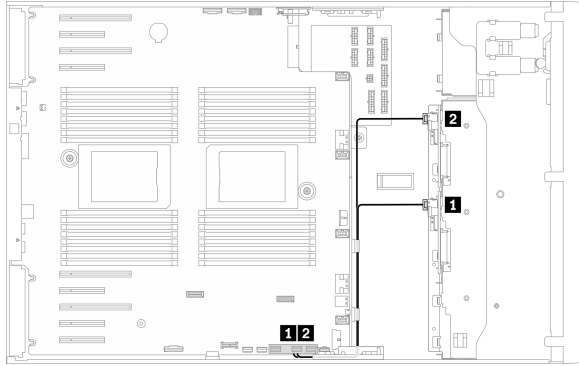
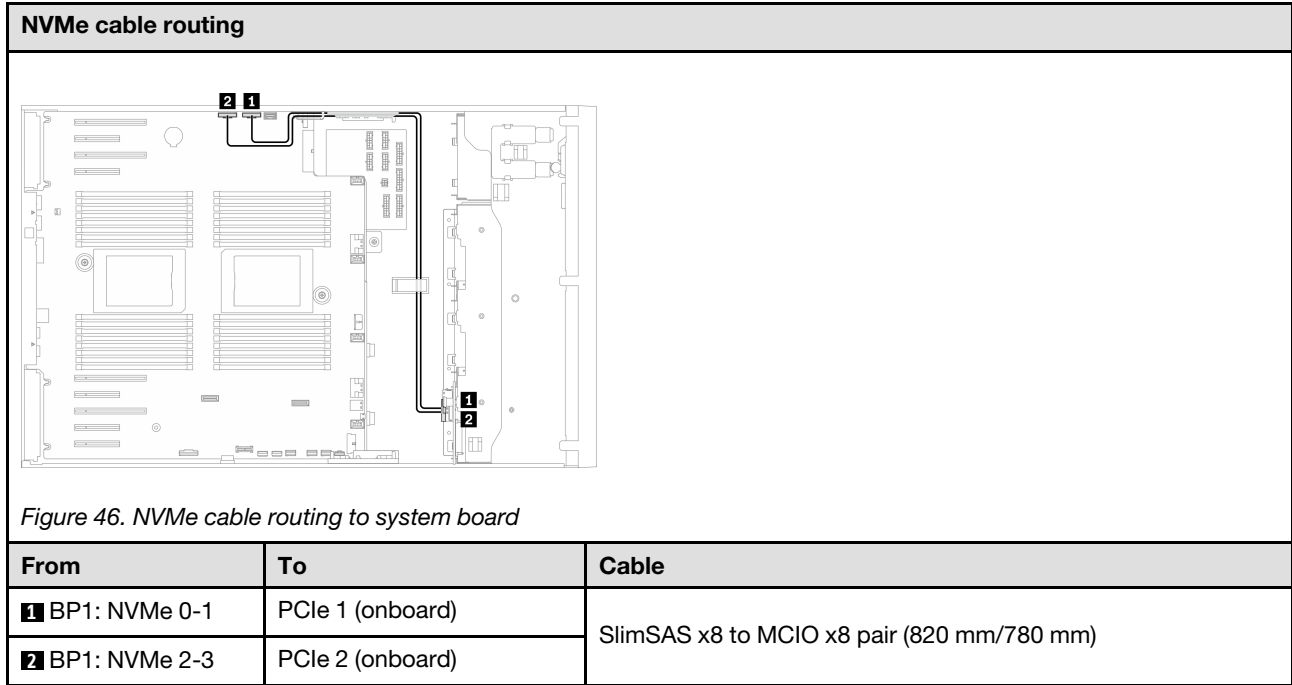


Figure 45. SAS/SATA cable routing to system board

From	To	Cable
1 BP2: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP3: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)

Onboard NVMe + 1 x 8i RAID/HBA



SAS/SATA cable routing

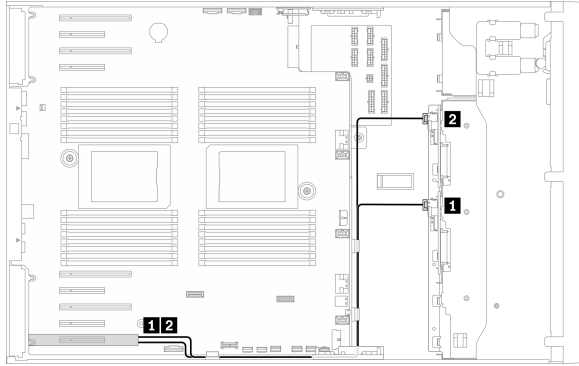
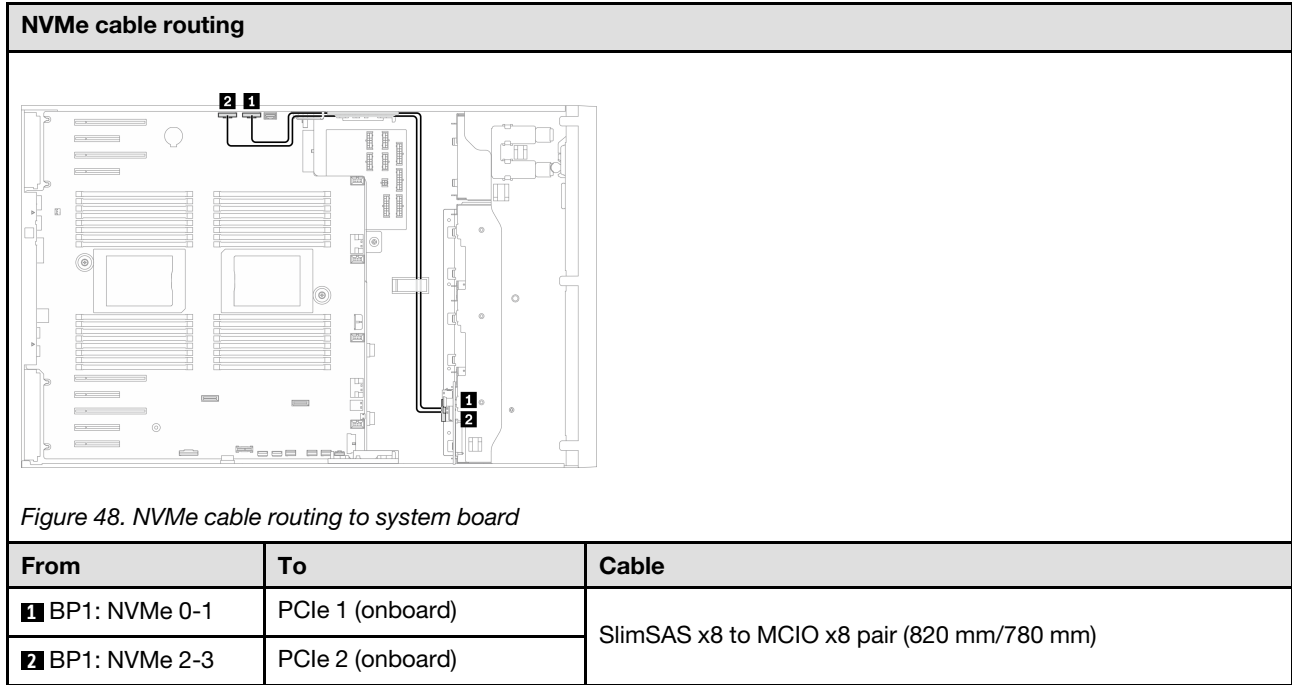


Figure 47. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
2 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x 16i RAID/HBA



SAS/SATA cable routing

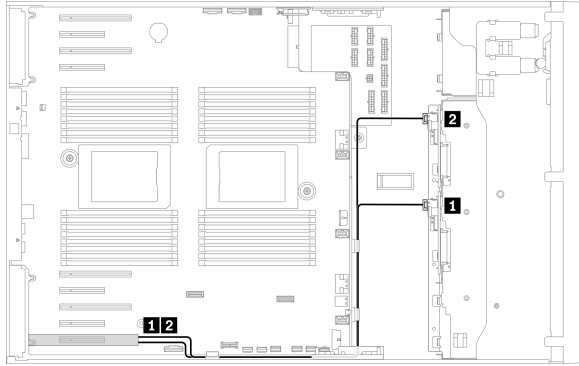
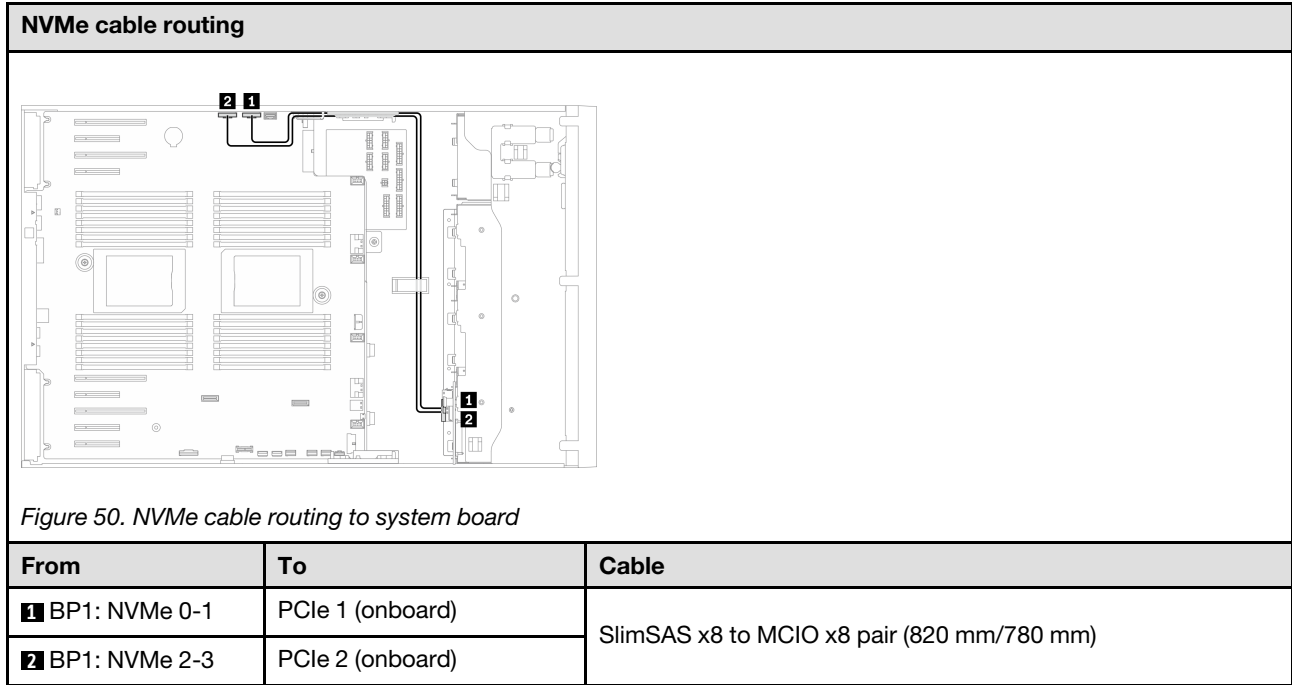


Figure 49. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
2 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x CFF 16i RAID/HBA



SAS/SATA cable routing

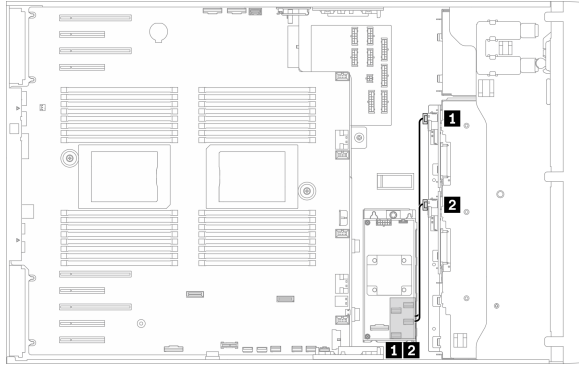


Figure 51. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP2: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
2 BP3: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (720 mm)

2 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x NVMe 3.5-inch hot-swap backplanes.

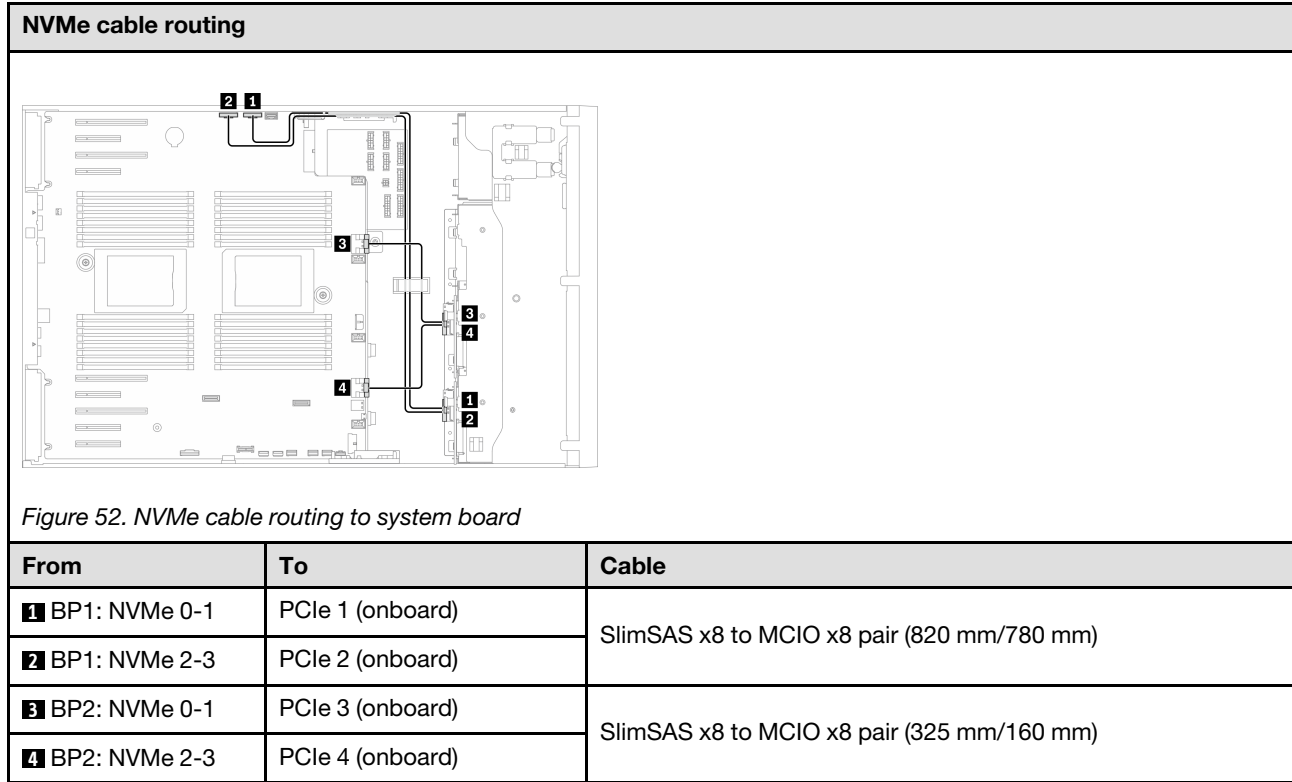
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 55](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 57](#)
- [“Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA” on page 59](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 61](#)
- [“2 x retimers + 1 x 8i RAID/HBA” on page 63](#)
- [“2 x retimers + 1 x 16i RAID/HBA” on page 65](#)
- [“2 x retimers + 1 x CFF 16i RAID/HBA” on page 67](#)

Onboard NVMe + 1 x 8i RAID/HBA



SAS/SATA cable routing

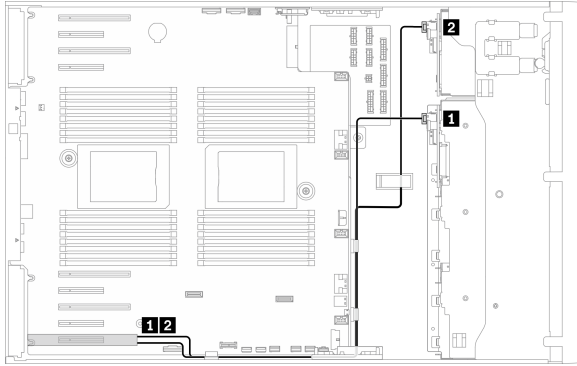


Figure 53. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x 16i RAID/HBA

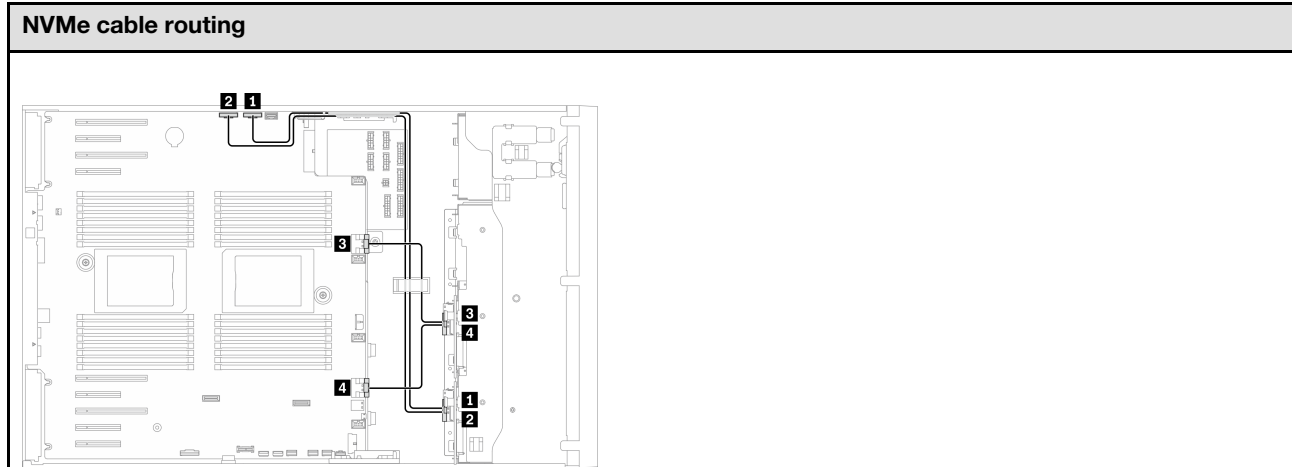


Figure 54. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

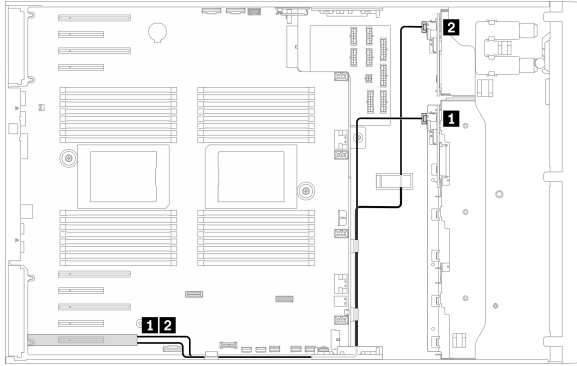


Figure 55. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C1, C2 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x retimer + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

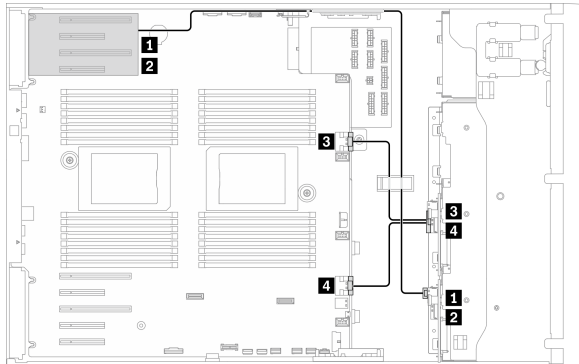


Figure 56. NVMe cable routing to system board and top PCIe zone

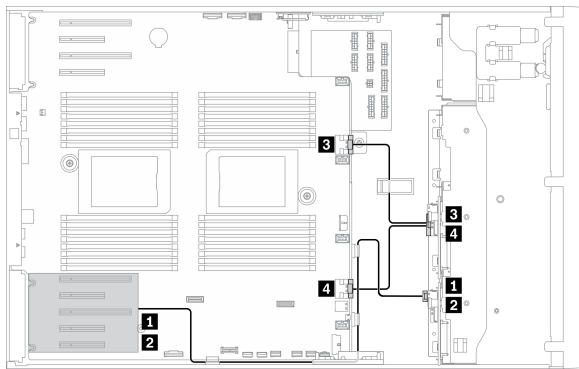


Figure 57. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

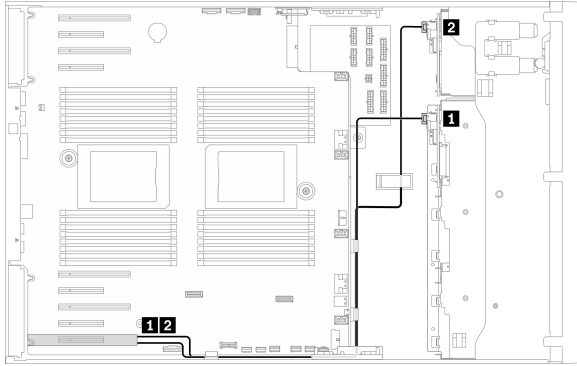


Figure 58. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

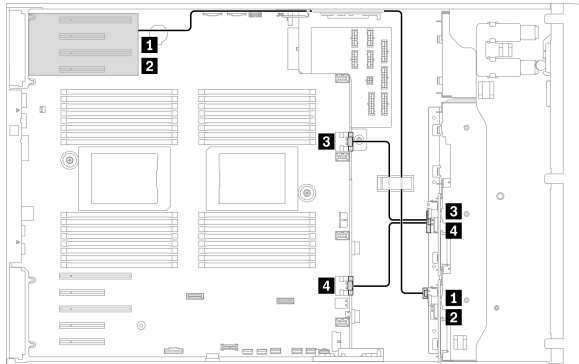


Figure 59. NVMe cable routing to system board and top PCIe zone

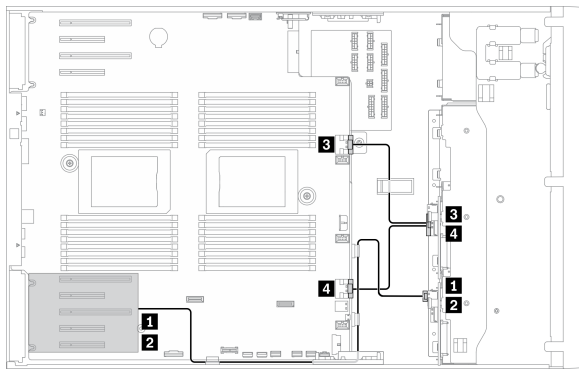


Figure 60. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

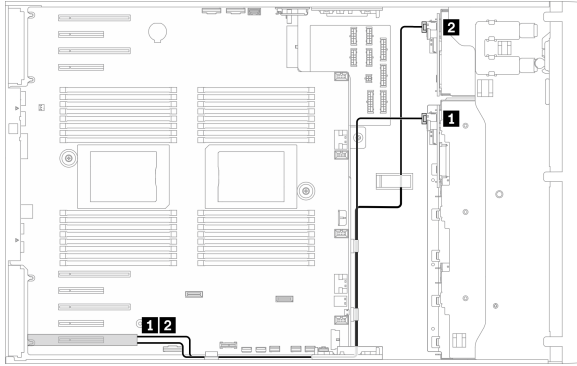


Figure 61. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

2 x retimers + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

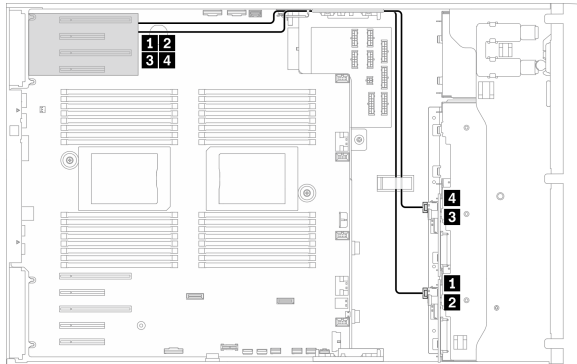


Figure 62. NVMe cable routing to top PCIe zone

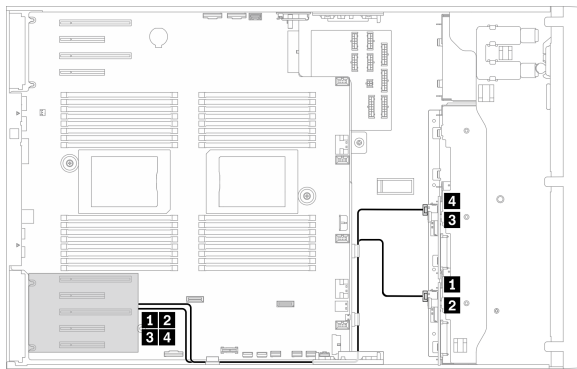


Figure 63. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
4 BP2: NVMe 2-3	Retimer: C1	

SAS/SATA cable routing

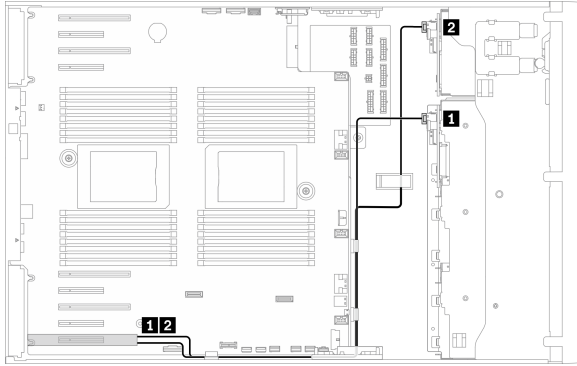


Figure 64. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

2 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

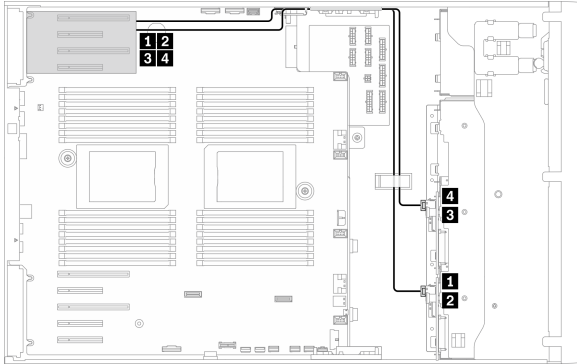


Figure 65. NVMe cable routing to top PCIe zone

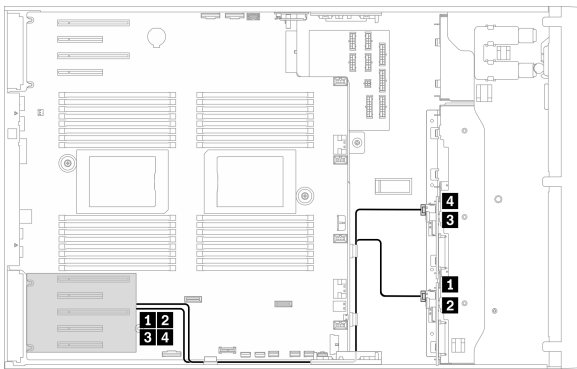


Figure 66. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
4 BP2: NVMe 2-3	Retimer: C1	

SAS/SATA cable routing

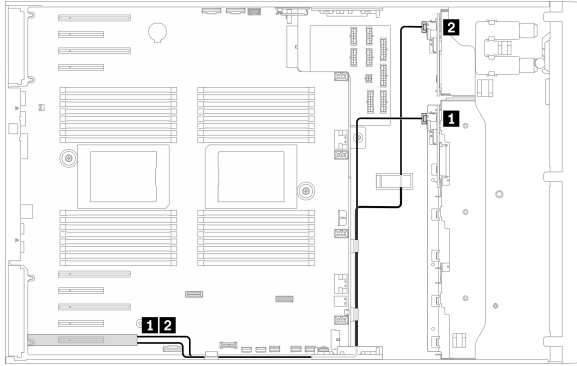


Figure 67. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

2 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

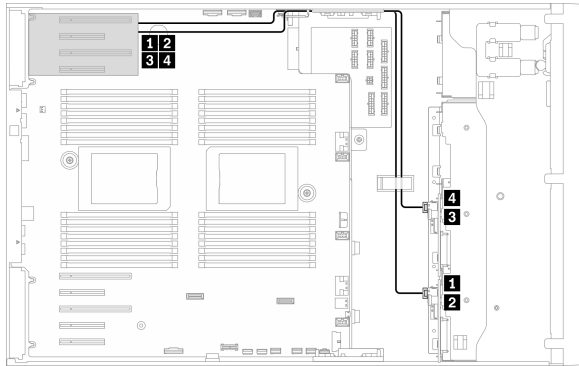


Figure 68. NVMe cable routing to top PCIe zone

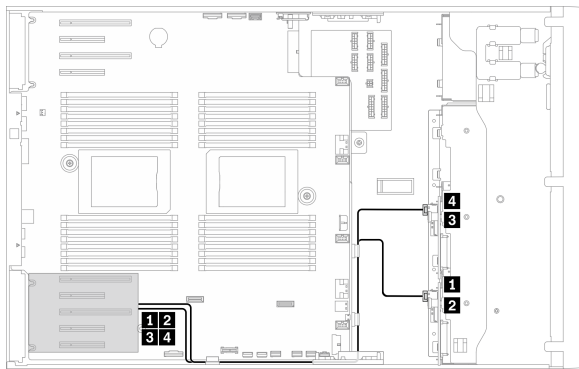


Figure 69. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
4 BP2: NVMe 2-3	Retimer: C1	

SAS/SATA cable routing

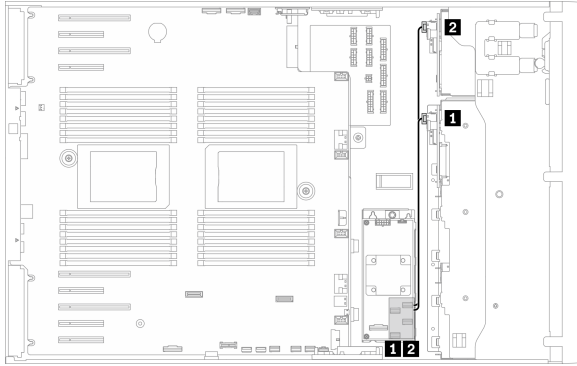


Figure 70. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
3 BP3: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (720 mm)
4 BP4: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (720 mm)

1 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x AnyBay 3.5-inch hot-swap backplane.

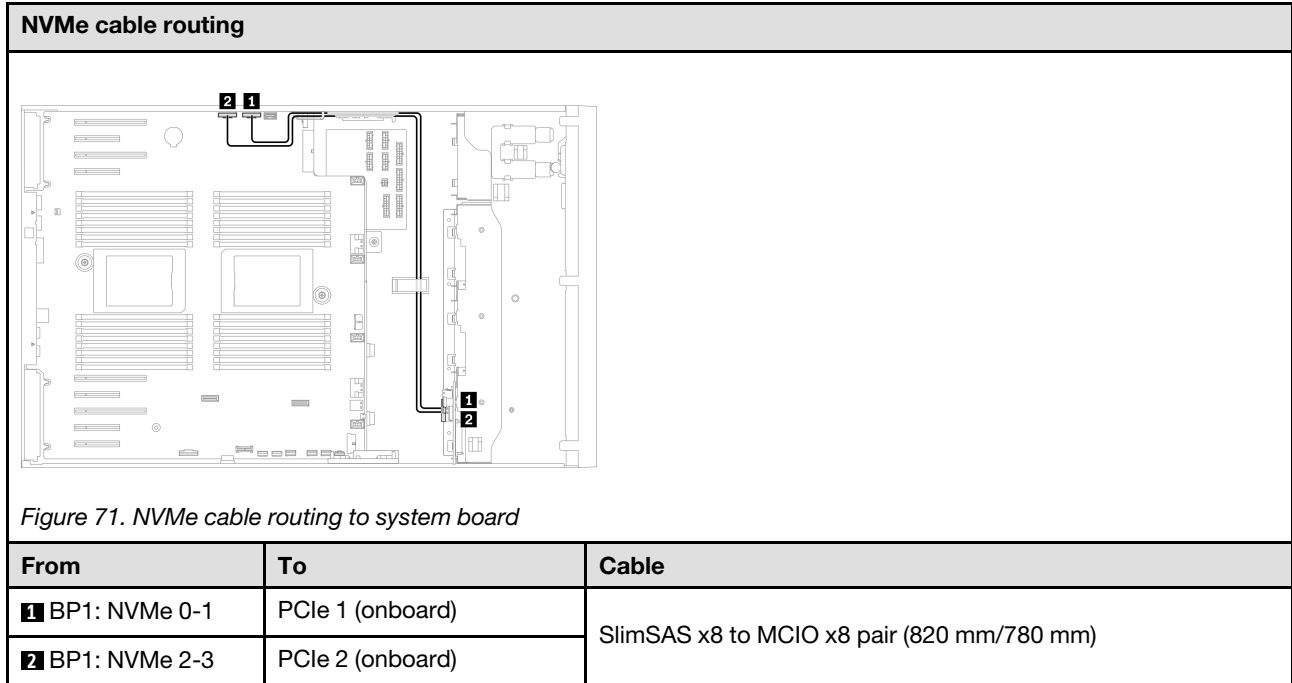
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 70](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 72](#)
- [“Onboard NVMe + 1 x CFF 16i RAID/HBA” on page 74](#)

Onboard NVMe + 1 x 8i RAID/HBA



SAS/SATA cable routing

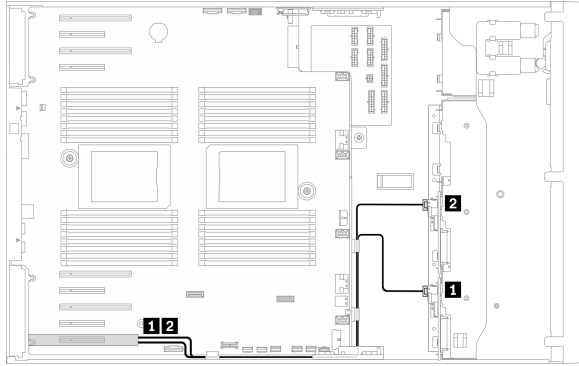
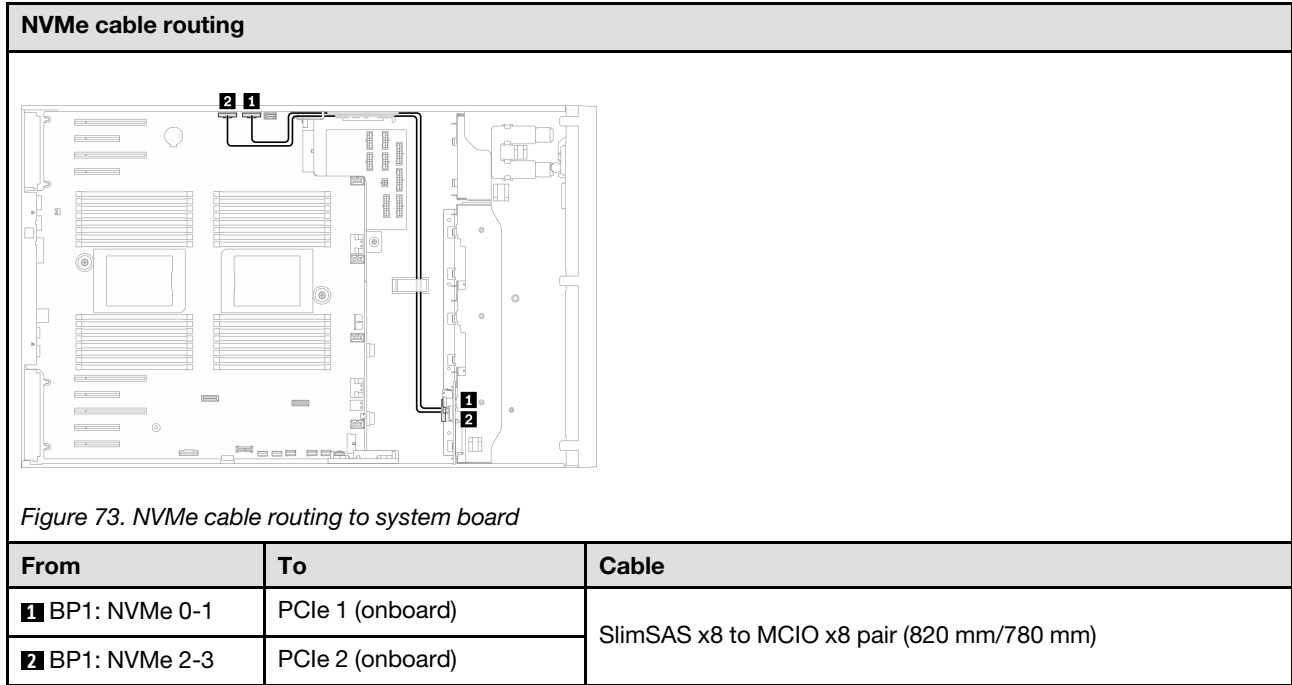


Figure 72. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

Onboard NVMe + 1 x 16i RAID/HBA



SAS/SATA cable routing

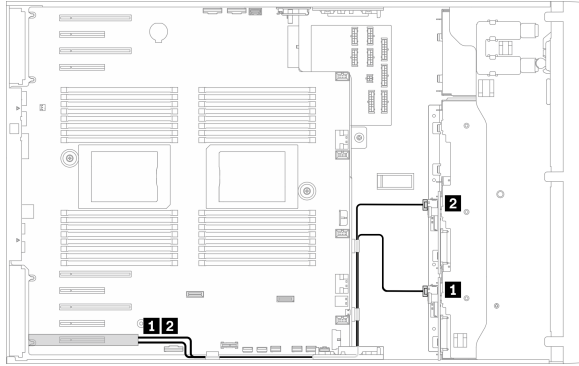
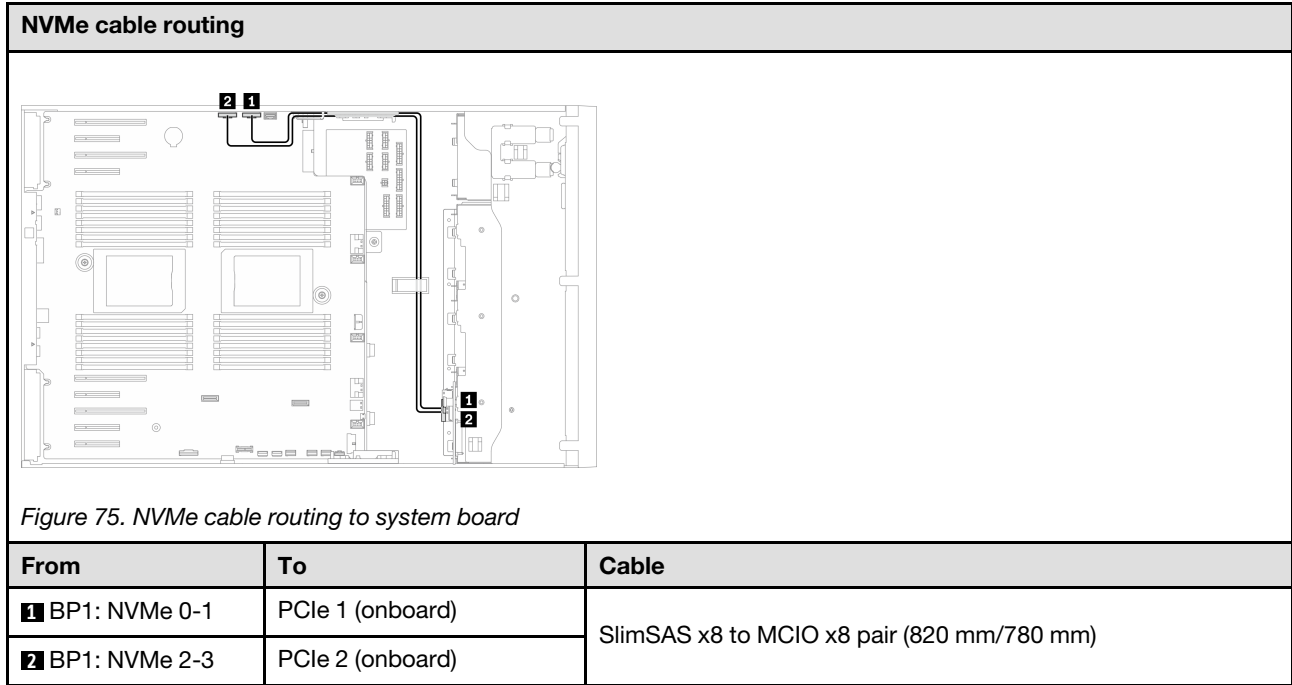


Figure 74. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)

Onboard NVMe + 1 x CFF 16i RAID/HBA



SAS/SATA cable routing

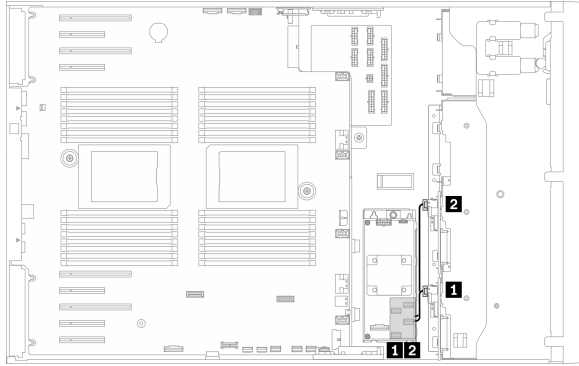


Figure 76. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)

1 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x AnyBay 3.5-inch hot-swap backplanes.

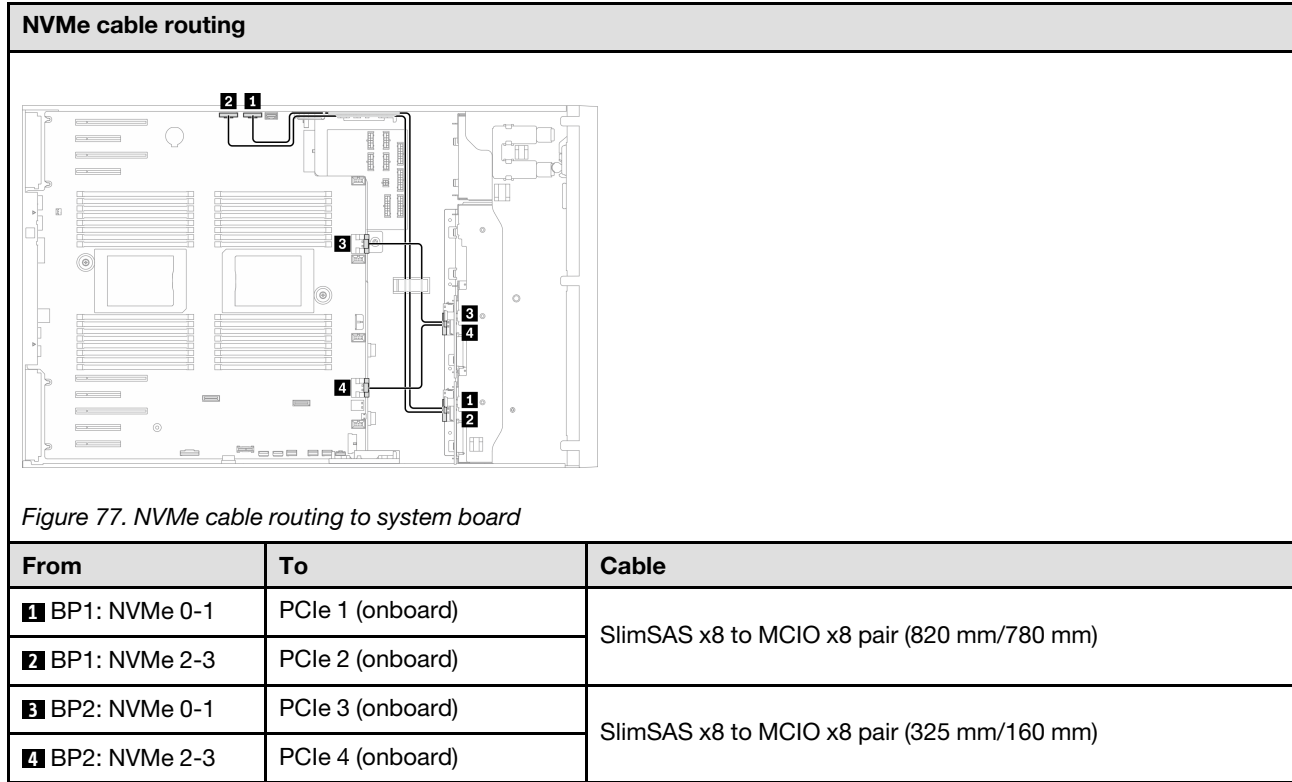
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 1 x 8i RAID/HBA” on page 77](#)
- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 79](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 81](#)
- [“Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA” on page 83](#)
- [“Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA” on page 85](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 87](#)

Onboard NVMe/SATA + 1 x 8i RAID/HBA



SAS/SATA cable routing

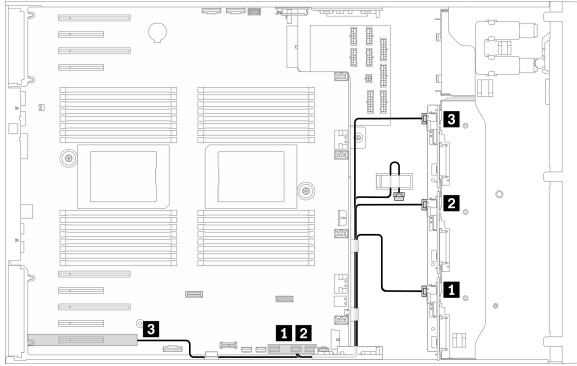


Figure 78. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 2 x 8i RAID/HBA

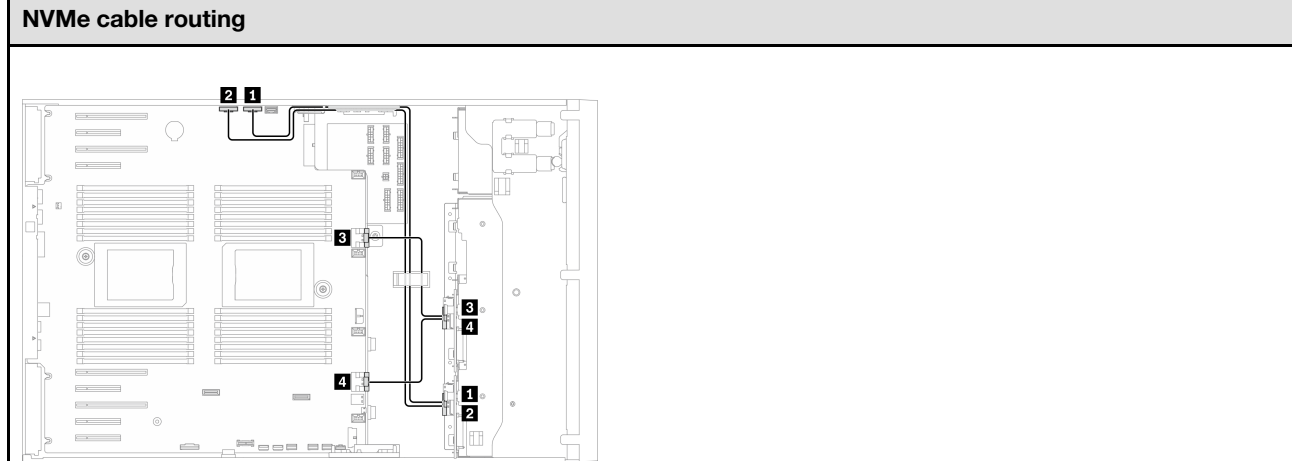


Figure 79. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

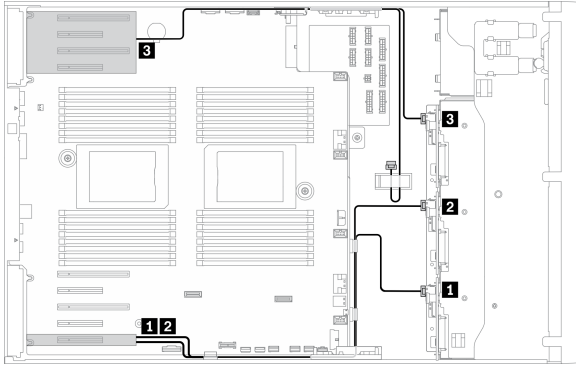


Figure 80. SAS/SATA cable routing to top PCIe zone

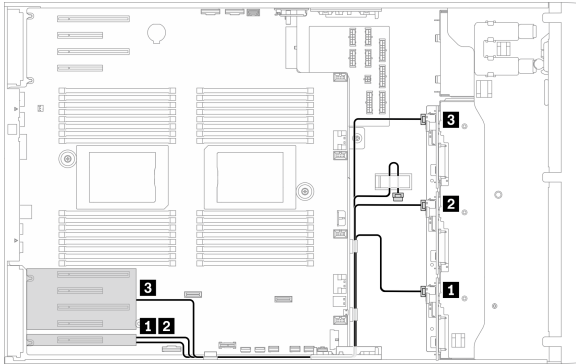


Figure 81. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA		
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x 16i RAID/HBA

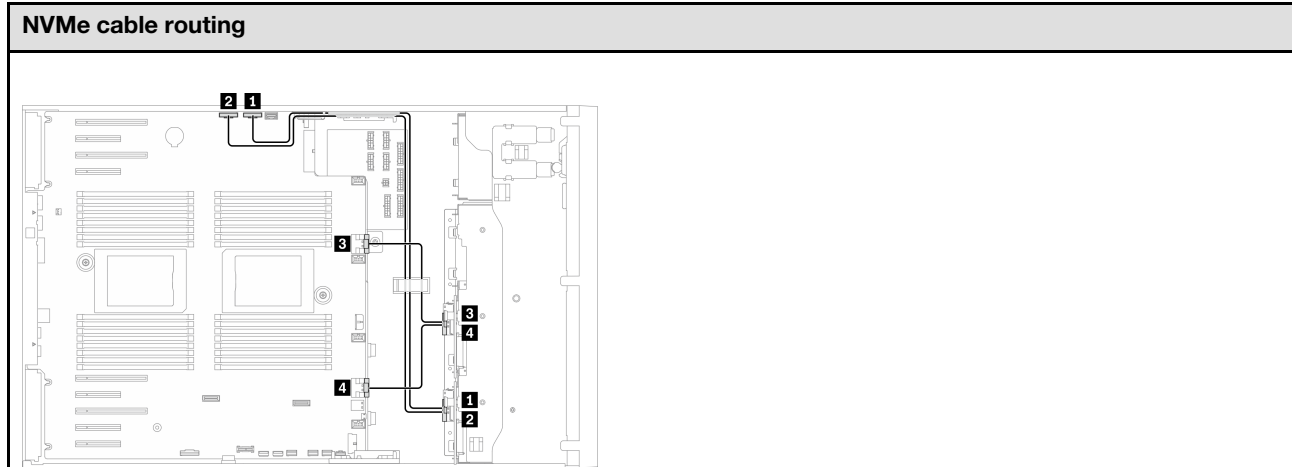


Figure 82. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to MCIO x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

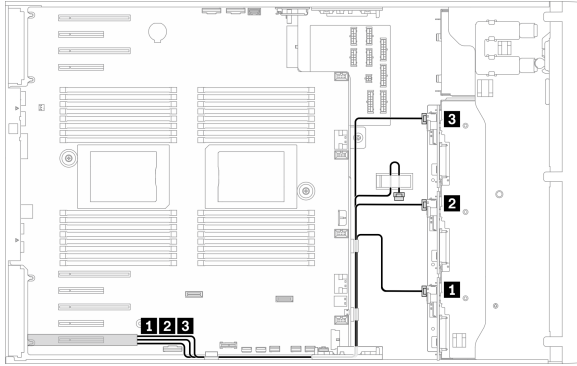


Figure 83. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

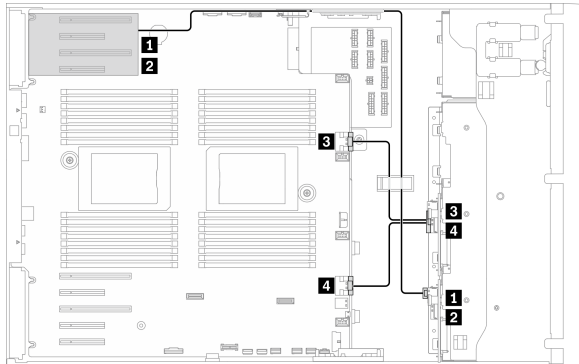


Figure 84. NVMe cable routing to system board and top PCIe zone

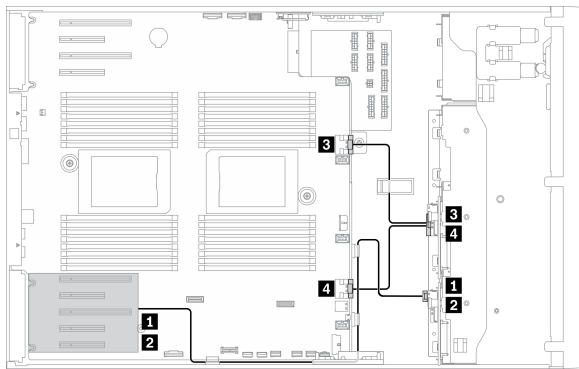


Figure 85. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

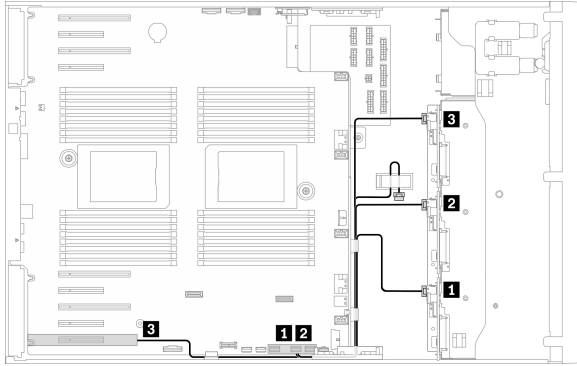


Figure 86. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

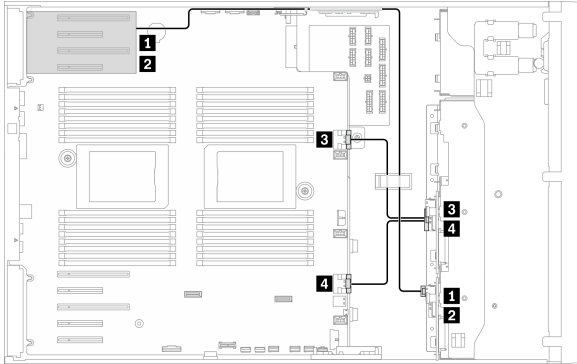


Figure 87. NVMe cable routing to system board and top PCIe zone

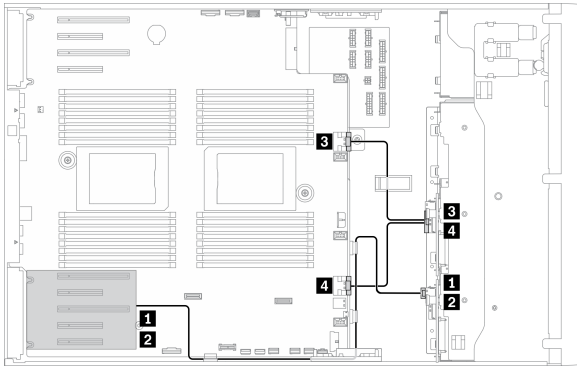


Figure 88. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

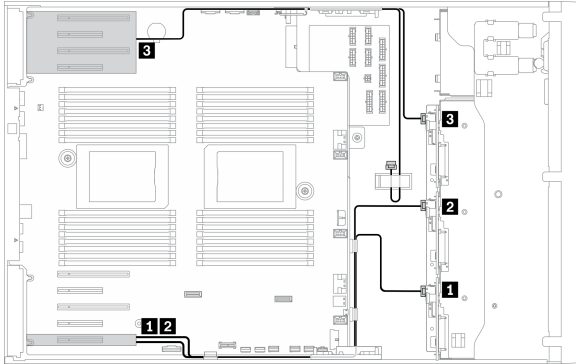


Figure 89. SAS/SATA cable routing to top PCIe zone

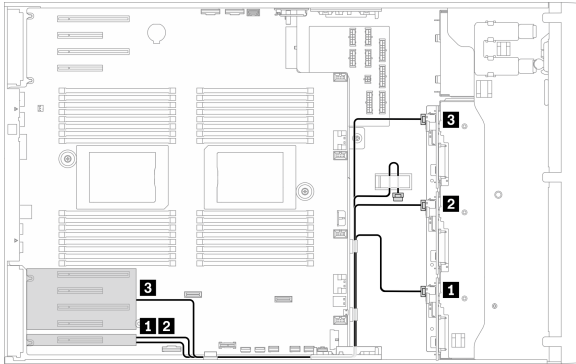


Figure 90. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA		
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

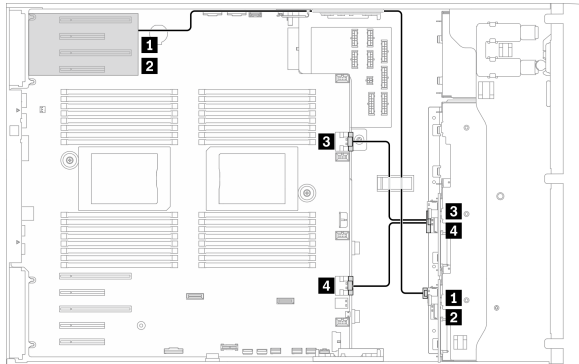


Figure 91. NVMe cable routing to system board and top PCIe zone

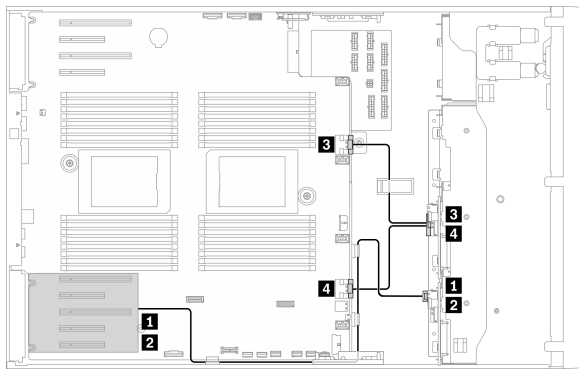


Figure 92. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

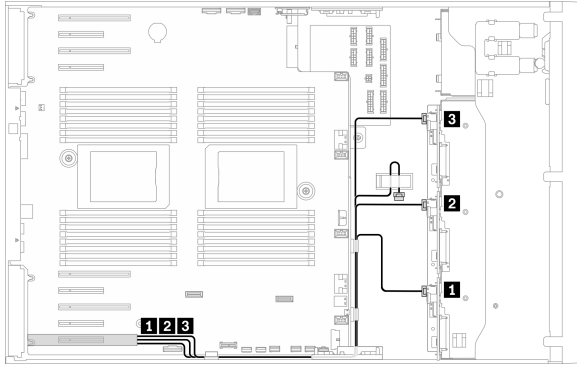


Figure 93. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

2 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x AnyBay 3.5-inch hot-swap backplane.

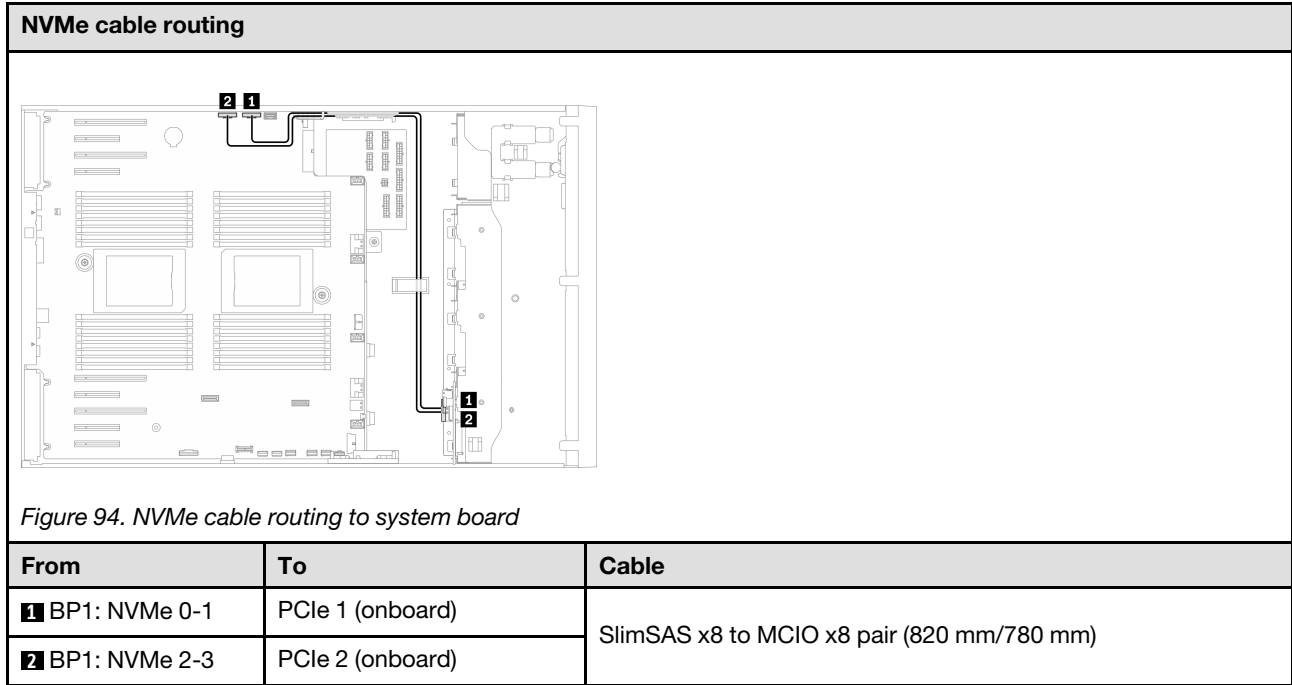
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Secure unused end of Y-cable under the cable clip.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 1 x 8i RAID/HBA” on page 90](#)
- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 92](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 94](#)
- [“Onboard NVMe + 1 x CFF 16i RAID/HBA” on page 96](#)

Onboard NVMe/SATA + 1 x 8i RAID/HBA



SAS/SATA cable routing

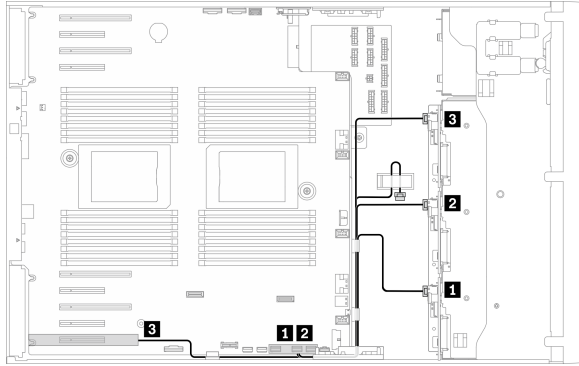
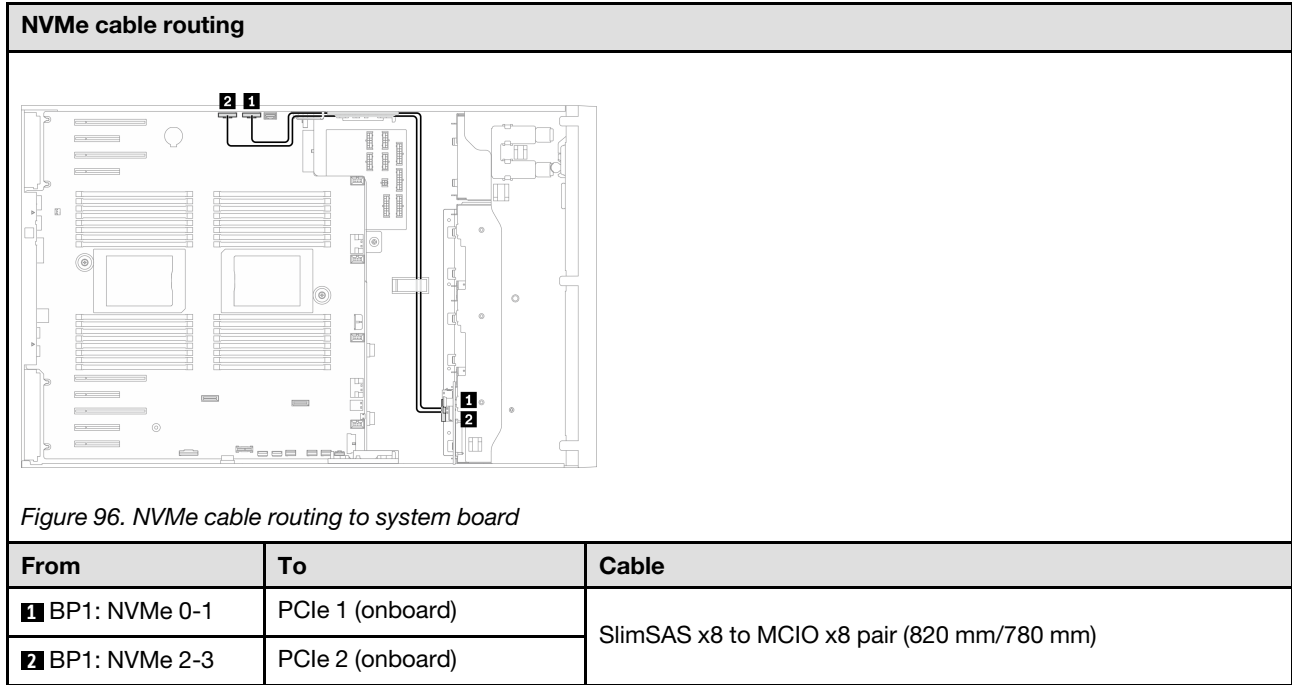


Figure 95. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 2 x 8i RAID/HBA



SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

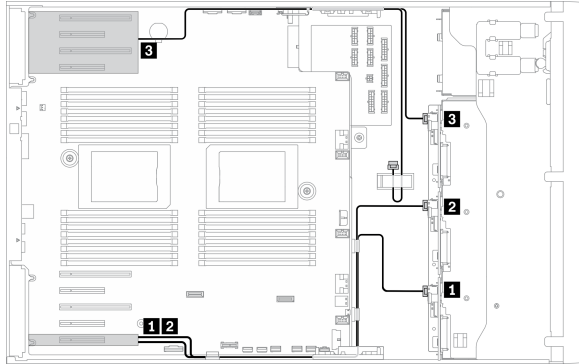


Figure 97. SAS/SATA cable routing to top PCIe zone

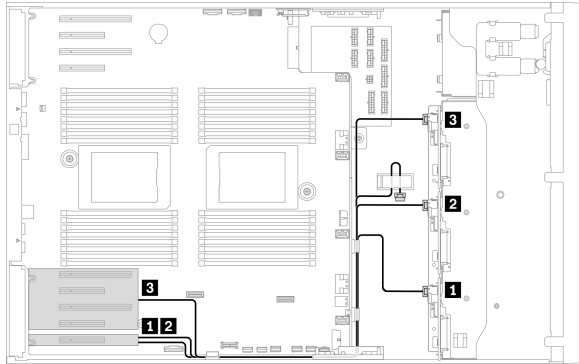
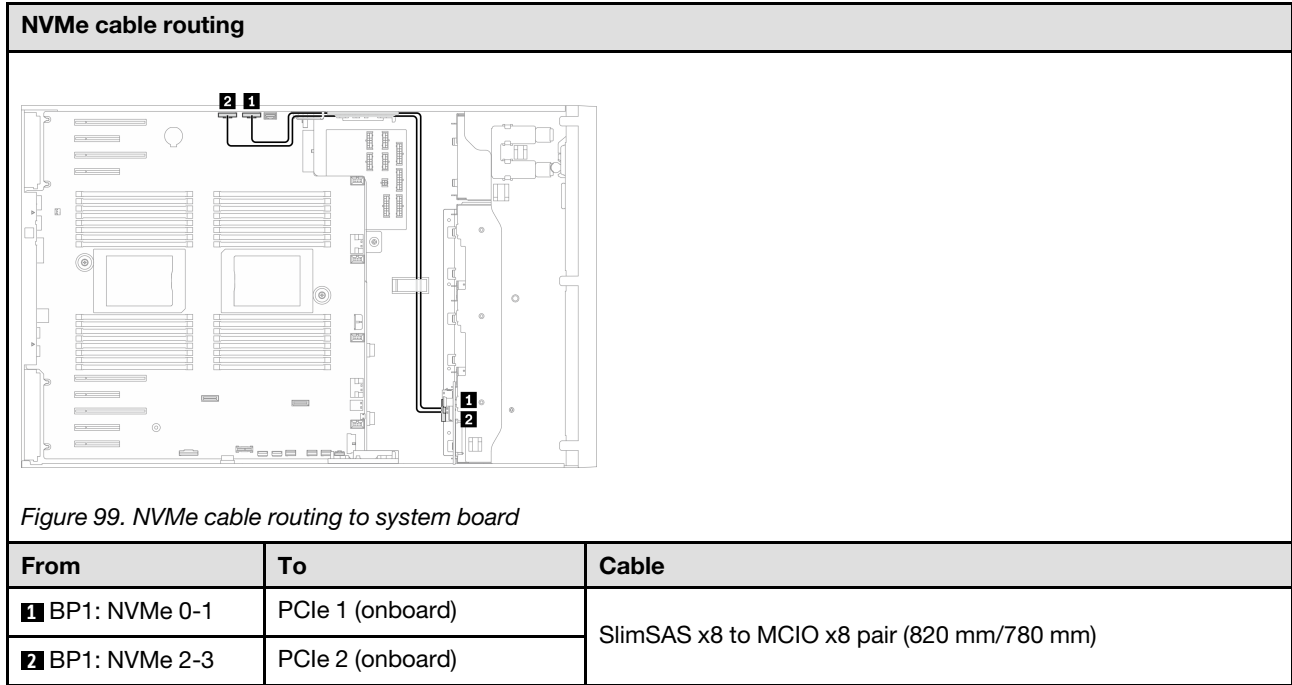


Figure 98. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x 16i RAID/HBA



SAS/SATA cable routing

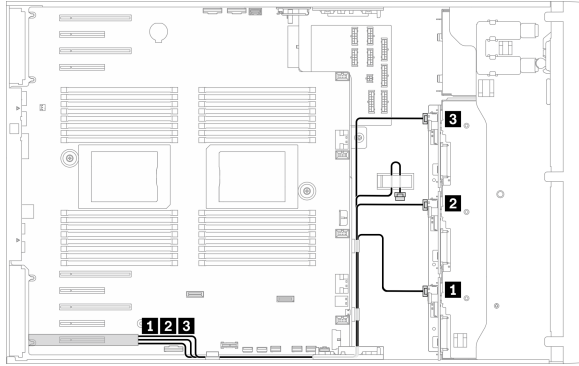
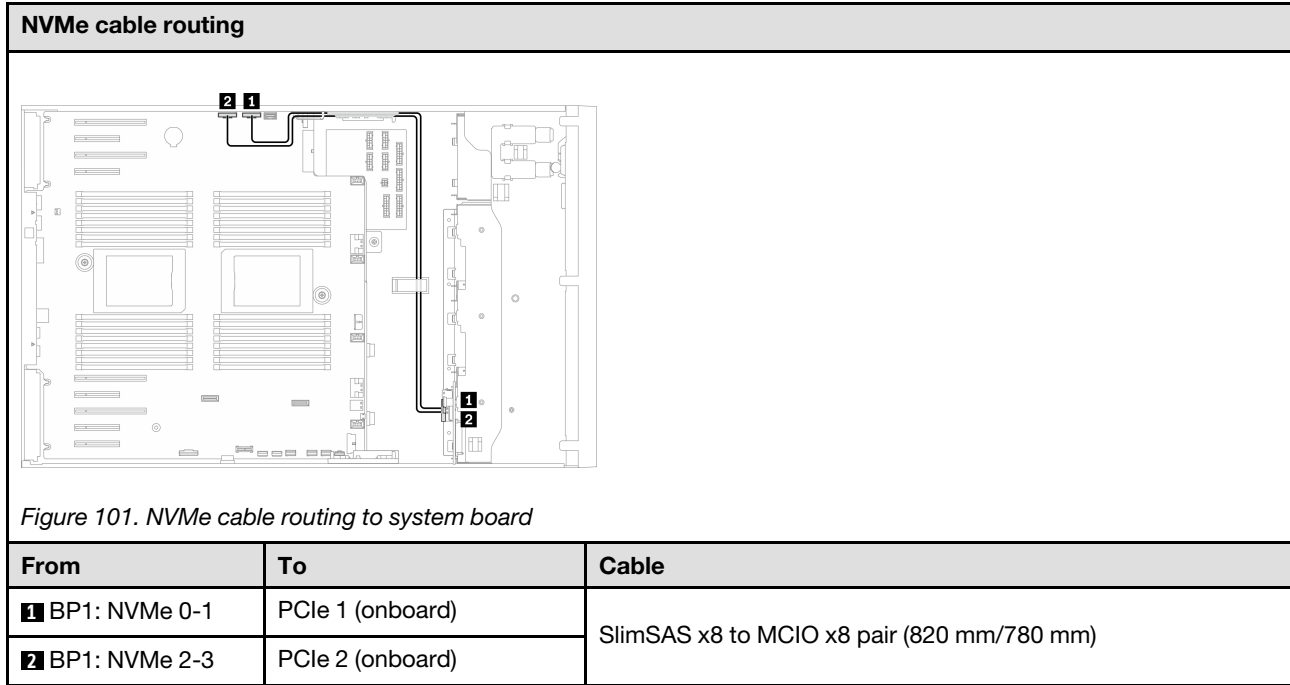


Figure 100. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe + 1 x CFF 16i RAID/HBA



SAS/SATA cable routing

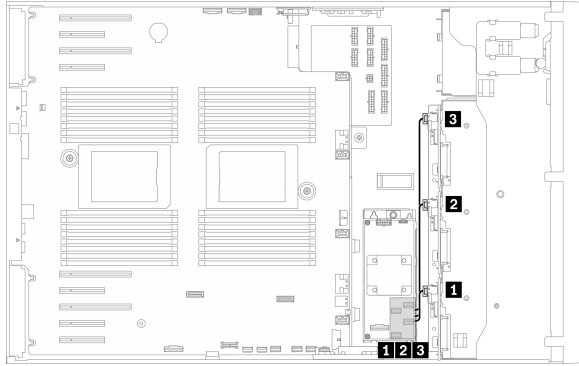


Figure 102. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)
3 BP3: SAS/SATA	CFF RAID/HBA: C2	SlimSAS x4 to SlimSAS x4 (720 mm)

2 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x AnyBay 3.5-inch hot-swap backplanes.

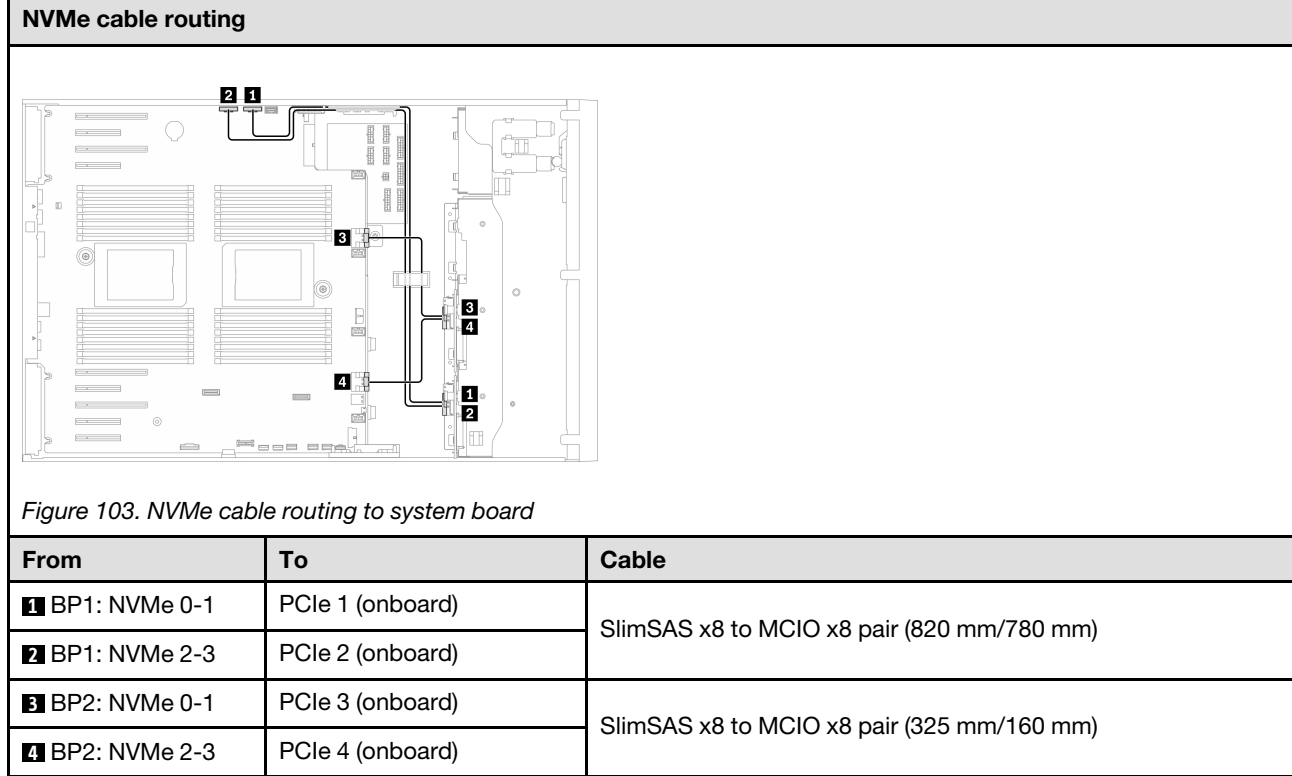
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 3](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 1 x 8i RAID/HBA” on page 99](#)
- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 101](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 103](#)
- [“Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA” on page 105](#)
- [“Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA” on page 107](#)
- [“Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA” on page 109](#)
- [“Onboard SATA + 2 x retimers + 1 x 8i RAID/HBA” on page 111](#)
- [“2 x retimers + 2 x 8i RAID/HBA” on page 113](#)
- [“2 x retimers + 1 x 16i RAID/HBA” on page 115](#)
- [“2 x retimers + 1 x CFF 16i RAID/HBA” on page 117](#)

Onboard NVMe/SATA + 1 x 8i RAID/HBA



SAS/SATA cable routing

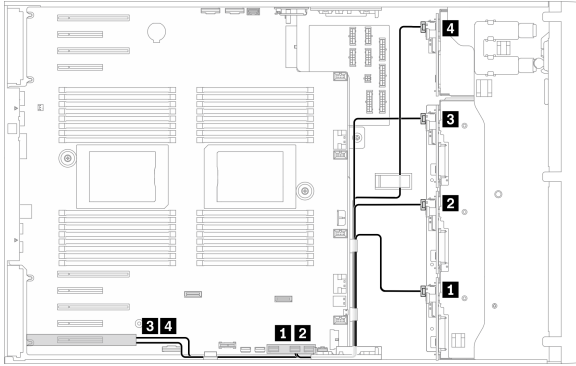
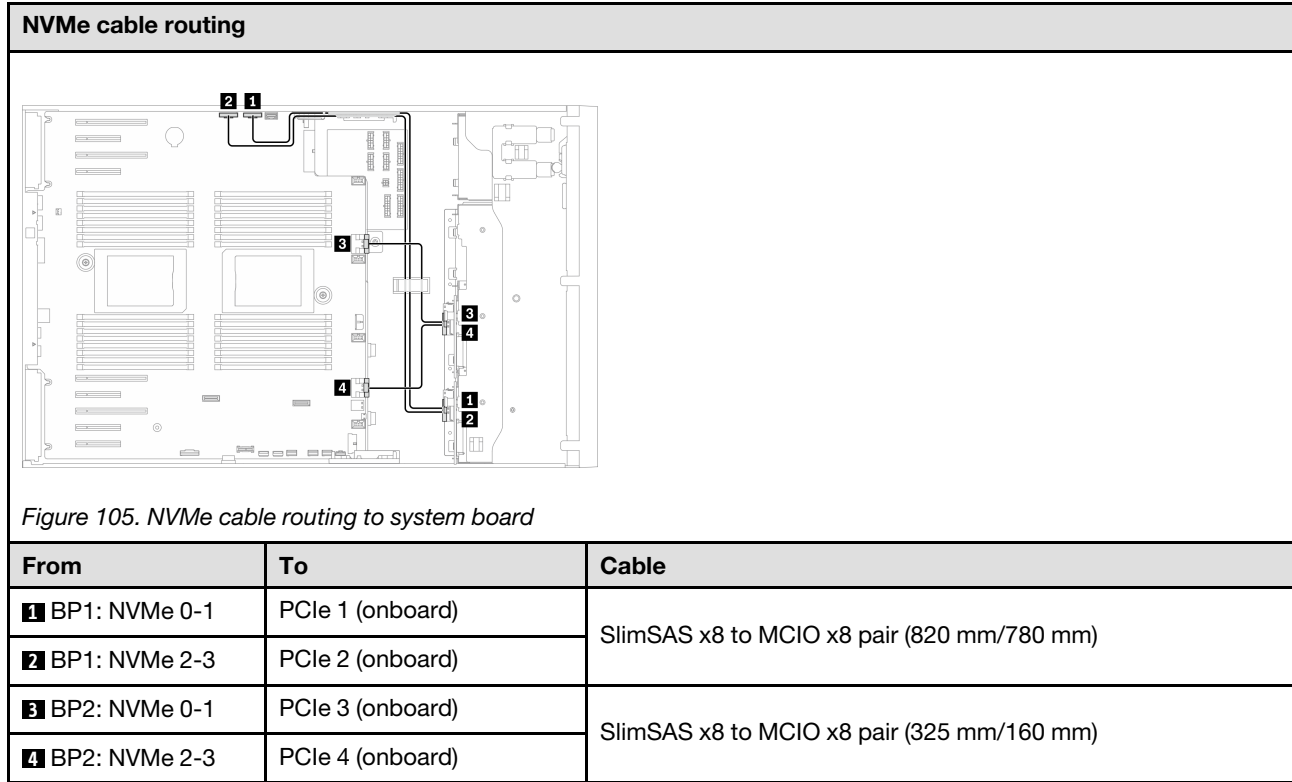


Figure 104. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA		

Onboard NVMe + 2 x 8i RAID/HBA



SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

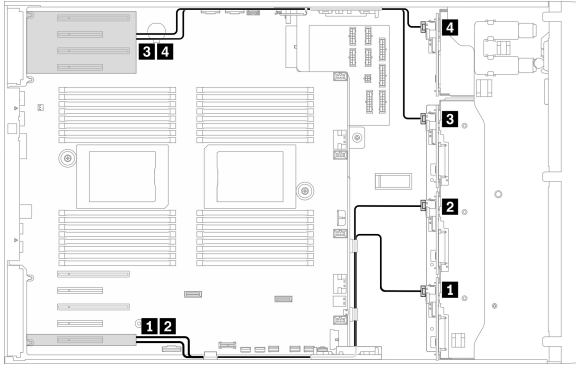


Figure 106. SAS/SATA cable routing to top PCIe zone

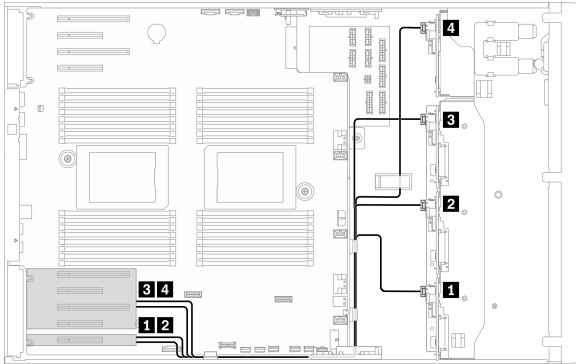
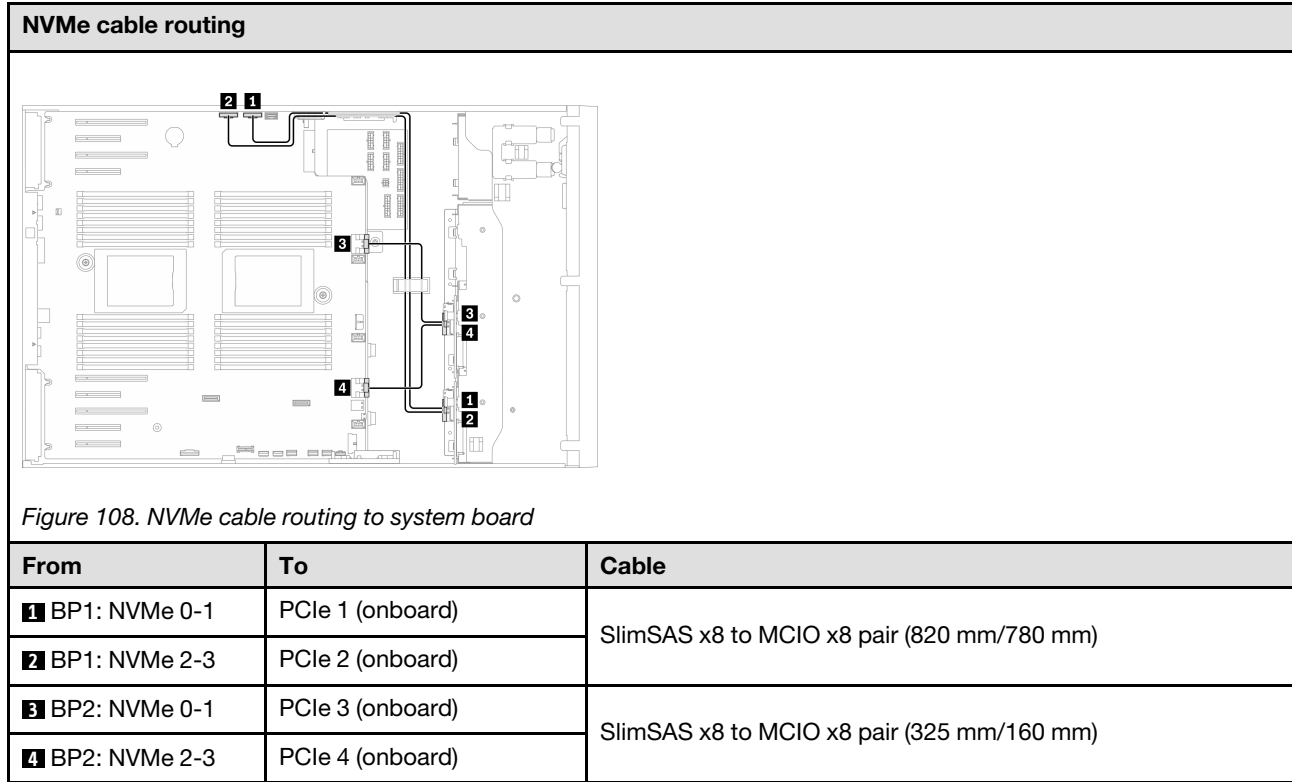


Figure 107. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA		
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA		

Onboard NVMe + 1 x 16i RAID/HBA



SAS/SATA cable routing

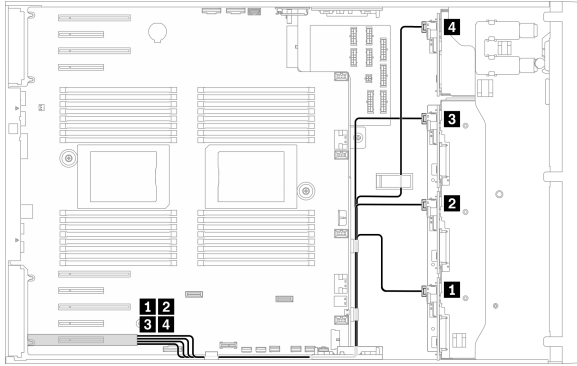


Figure 109. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard NVMe/SATA + 1 x retimer + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

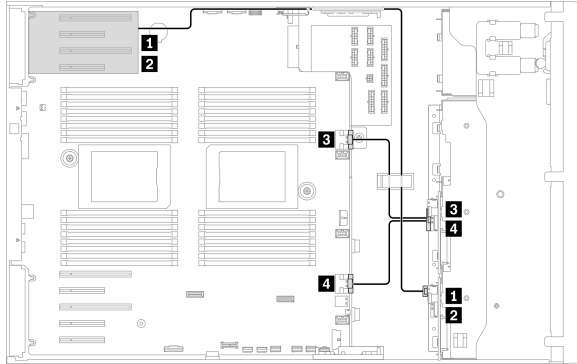


Figure 110. NVMe cable routing to system board and top PCIe zone

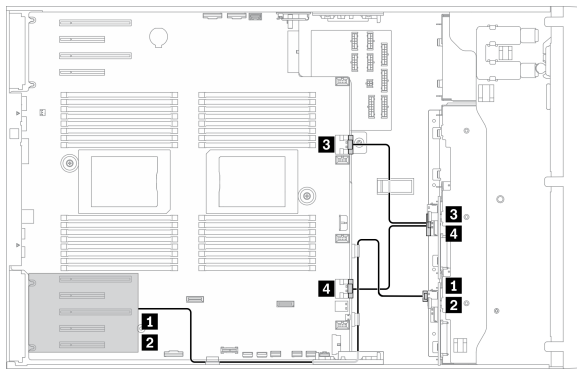


Figure 111. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

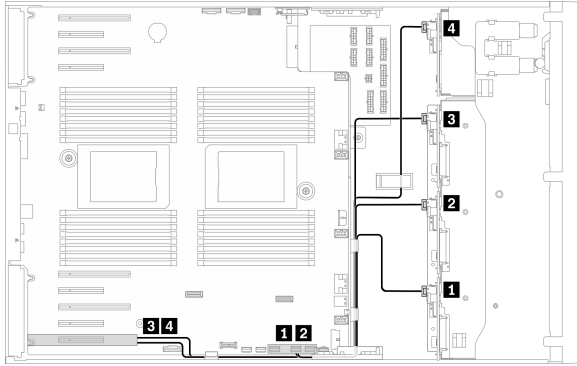


Figure 112. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA		

Onboard NVMe + 1 x retimer + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

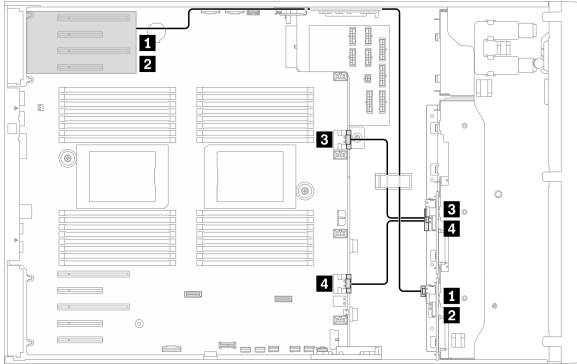


Figure 113. NVMe cable routing to system board and top PCIe zone

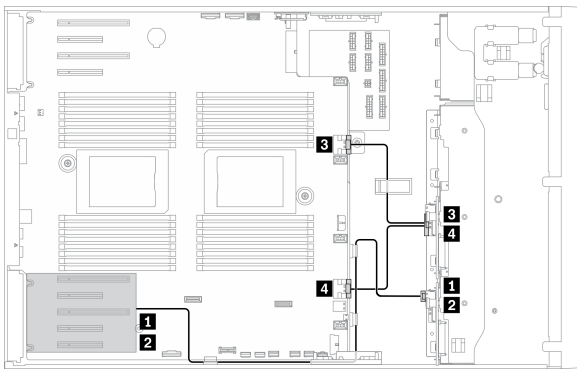


Figure 114. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

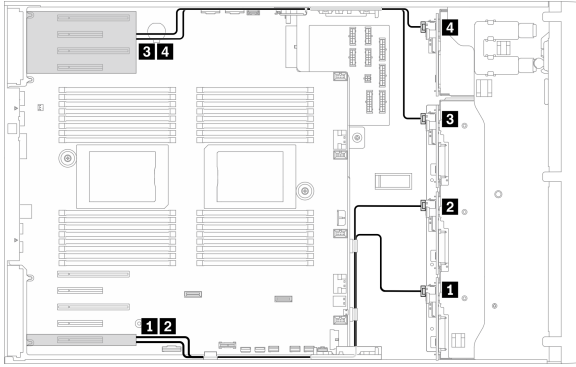


Figure 115. SAS/SATA cable routing to top PCIe zone



Figure 116. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA		
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA		

Onboard NVMe + 1 x retimer + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

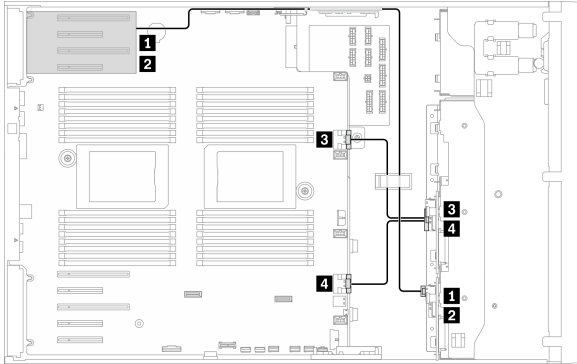


Figure 117. NVMe cable routing to system board and top PCIe zone

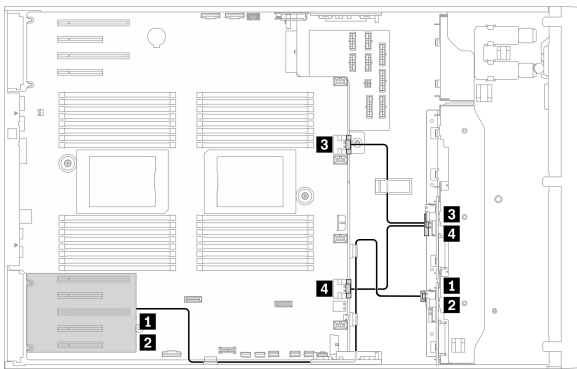


Figure 118. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	PCIe 3 (onboard)	SlimSAS x8 to MCIO x8 pair (325 mm/160 mm)
4 BP2: NVMe 2-3	PCIe 4 (onboard)	

SAS/SATA cable routing

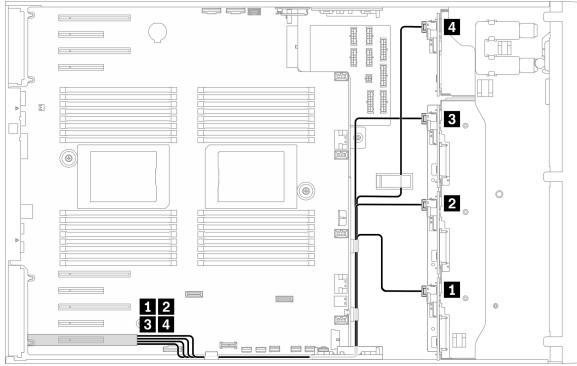


Figure 119. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

Onboard SATA + 2 x retimers + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

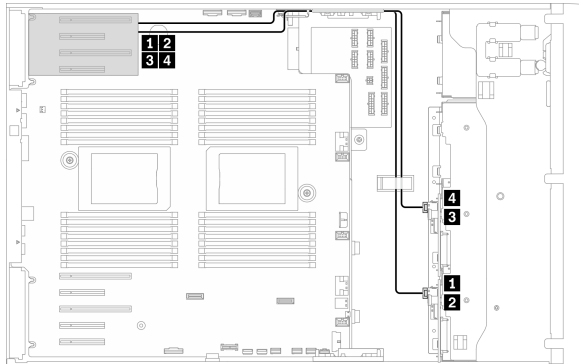


Figure 120. NVMe cable routing to top PCIe zone

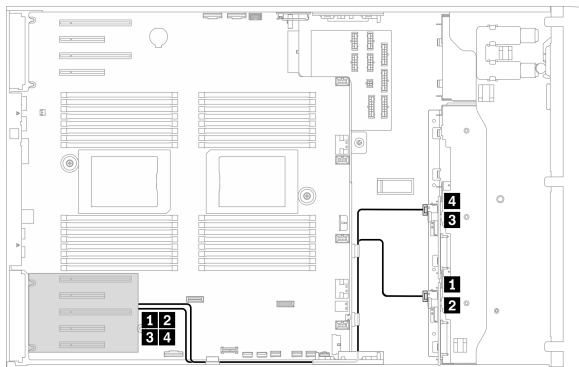


Figure 121. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
4 BP2: NVMe 2-3	Retimer: C1	

SAS/SATA cable routing

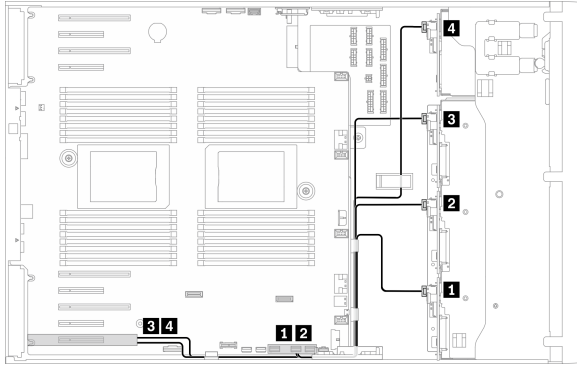


Figure 122. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
2 BP2: SAS/SATA	SATA 4-7 (onboard)	SlimSAS x4 to SlimSAS x4 (540 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

2 x retimers + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

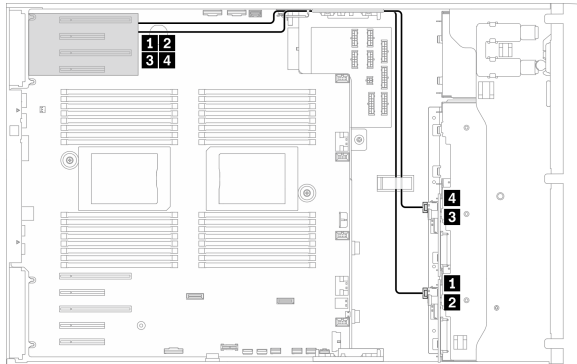


Figure 123. NVMe cable routing to top PCIe zone

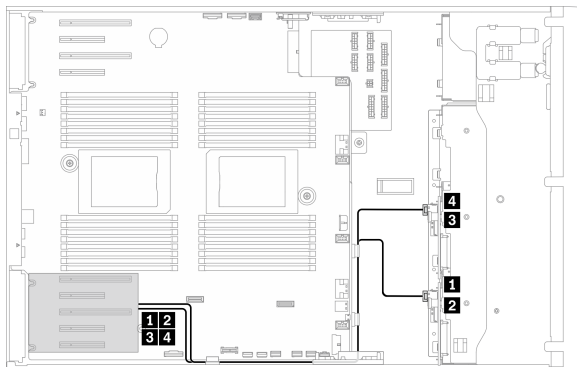


Figure 124. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
4 BP2: NVMe 2-3	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

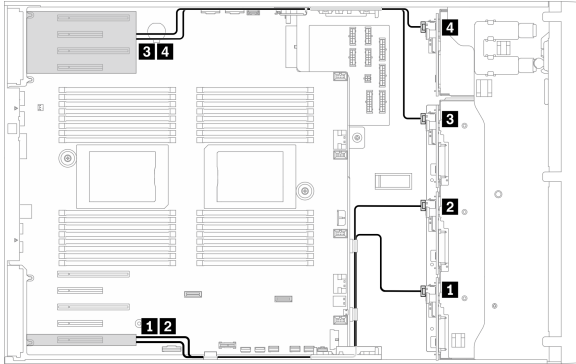


Figure 125. SAS/SATA cable routing to top PCIe zone



Figure 126. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA		
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA		

2 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

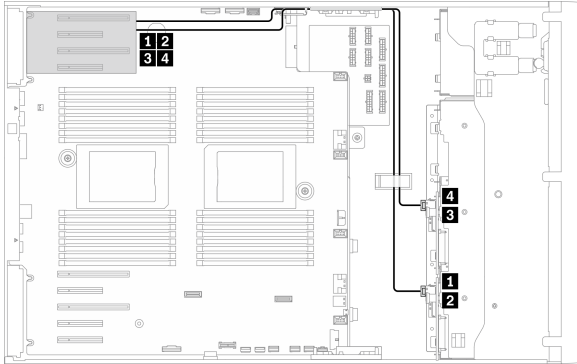


Figure 127. NVMe cable routing to top PCIe zone

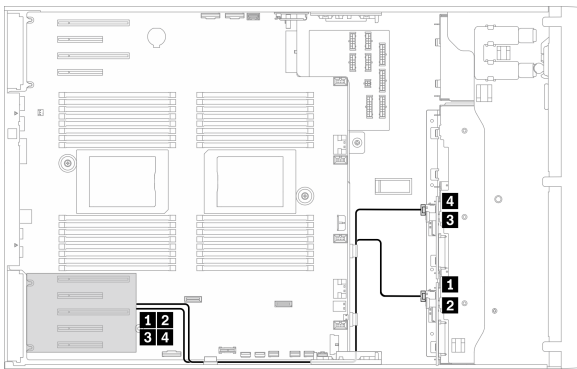


Figure 128. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
4 BP2: NVMe 2-3	Retimer: C1	

SAS/SATA cable routing

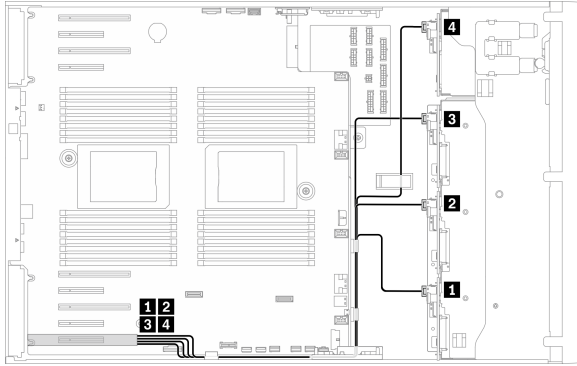


Figure 129. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (590 mm/590 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (590 mm/590 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x4*2 (840 mm/840 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 3: Mini-SAS x4*2 to SlimSAS x4*2 (840 mm/840 mm)

2 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

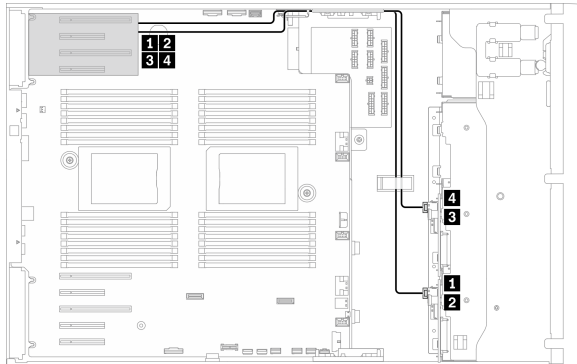


Figure 130. NVMe cable routing to top PCIe zone

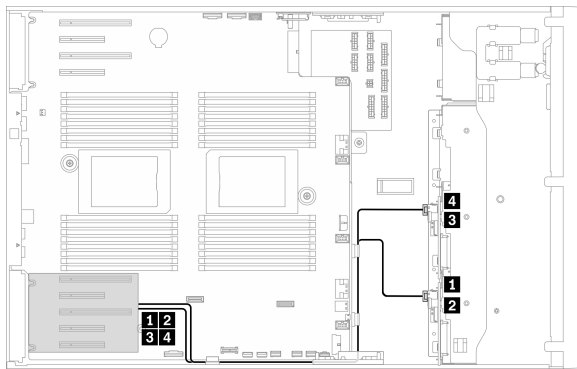


Figure 131. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to MCIO x8 pair (700 mm/700 mm)
4 BP2: NVMe 2-3	Retimer: C1	

SAS/SATA cable routing

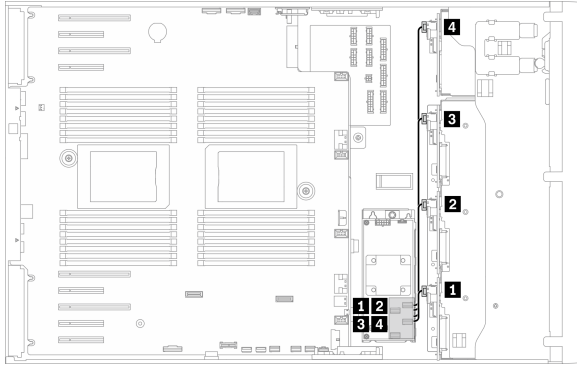


Figure 132. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	CFF RAID/HBA: C0	SlimSAS x4 to SlimSAS x4 (260 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C1	SlimSAS x4 to SlimSAS x4 (260 mm)
3 BP3: SAS/SATA	CFF RAID/HBA: C2	SlimSAS x4 to SlimSAS x4 (720 mm)
4 BP4: SAS/SATA	CFF RAID/HBA: C3	SlimSAS x4 to SlimSAS x4 (720 mm)

Chapter 3. 2.5-inch hot-swap drive backplane cable routing

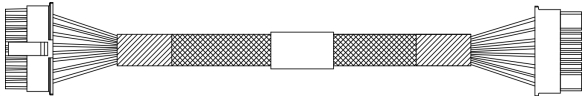
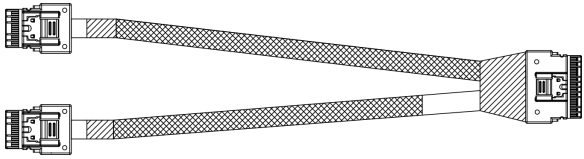
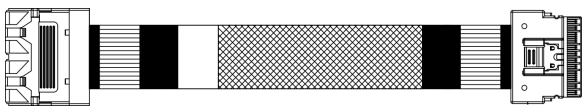
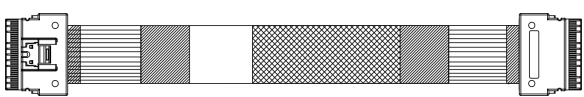
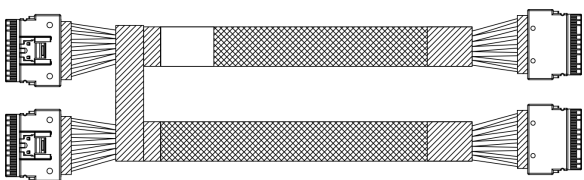
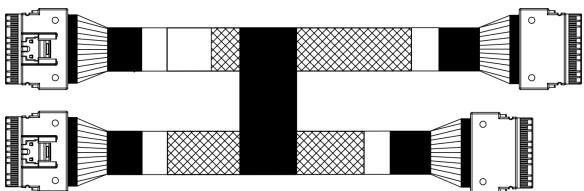
Use the section to understand the cable routing for 2.5-inch hot-swap drive backplane.

Backplane cable list

Use this section to identify each of the cables that are used in routing the 2.5-inch hot-swap drive backplane for your server.

2.5-inch backplane cable list

Table 5. 2.5-inch backplane cable list

Cable	Description
<p>2.5-inch backplane power cable</p> 	<ul style="list-style-type: none"> • Backplane 1/2 to PDB: 400 mm • Backplane 3/4 to PDB: 300 mm
<p>SlimSAS x4*2 to SlimSAS x8 cable</p> 	<ul style="list-style-type: none"> • Backplane 1/3 to SATA port on system board: 430 mm/430 mm • Backplane 1/2 to CFF 16i RAID/HBA Gen 4: 260 mm/260 mm • Backplane 3/4 to CFF 16i RAID/HBA Gen 4: 430 mm/430 mm
<p>Mini-SAS x4*2 to SlimSAS x8 cable</p> 	<p>Backplane 1/2/3/4 to 8i RAID/HBA Gen 3 or 16i RAID/HBA Gen 3: 640 mm</p>
<p>SlimSAS x8 to SlimSAS x8 cable</p> 	<ul style="list-style-type: none"> • Backplane 1/2/3/4 to 8i RAID/HBA Gen 4 or 16i RAID/HBA Gen 4: 720 mm • Backplane 1/2/3 to 32i RAID/HBA Gen 4: 720 mm • Backplane 4 to 32i RAID/HBA Gen 4: 880 mm
<p>SlimSAS x8 to SlimSAS x8 cable pair</p> 	<p>Backplane 1/2 to NVMe retimer: 700 mm/700 mm</p>
<p>SlimSAS x8 to SlimSAS x8 cable pair</p> 	<p>From 2.5-inch backplane to PCIe port on system board.</p> <ul style="list-style-type: none"> • Backplane 1 to PCIe 1 (onboard)/2 on system board: 820 mm/780 mm • Backplane 1 to PCIe 3 (onboard)/4 on system board: 325 mm/160 mm

Power cable routing

Use the section to understand the power cable routing for 2.5-inch hot-swap drive backplane.

Notes:

- Connections between connectors; **1**↔**1**, **2**↔**2**, **3**↔**3**, ... **n**↔**n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.

From	To	Cable
1 Backplane 1: Power connector	Power distribution board: BP 1 power connector	2.5-inch backplane power (400 mm)
2 Backplane 2: Power connector	Power distribution board: BP 2 power connector	2.5-inch backplane power (400 mm)
3 Backplane 3: Power connector	Power distribution board: BP 3 power connector	2.5-inch backplane power (300 mm)
4 Backplane 4: Power connector	Power distribution board: BP 4 power connector	2.5-inch backplane power (300 mm)

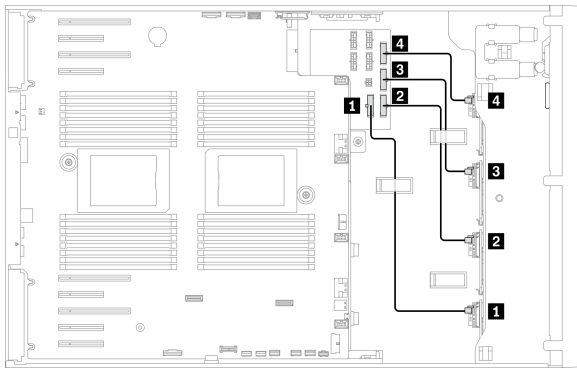


Figure 133. Power cable routing to PDB

Signal cable routing

Use the section to understand the signal cable routing for 2.5-inch hot-swap drive backplane.

- [“1 x SAS/SATA backplane” on page 122](#)
- [“2 x SAS/SATA backplanes” on page 128](#)
- [“3 x SAS/SATA backplanes” on page 133](#)
- [“4 x SAS/SATA backplanes” on page 138](#)
- [“1 x SAS/SATA + 1 x NVMe backplane” on page 143](#)
- [“1 x SAS/SATA + 2 x NVMe backplanes” on page 152](#)
- [“2 x SAS/SATA + 1 x NVMe backplane” on page 171](#)
- [“2 x SAS/SATA + 2 x NVMe backplanes” on page 186](#)
- [“1 x SAS/SATA + 1 x AnyBay backplane” on page 205](#)
- [“1 x SAS/SATA + 2 x AnyBay backplanes” on page 214](#)
- [“2 x SAS/SATA + 1 x AnyBay backplane” on page 237](#)
- [“2 x SAS/SATA + 2 x AnyBay backplanes” on page 260](#)

1 x SAS/SATA backplane

This section lists the required components for server models with 1 x SAS/SATA 2.5-inch hot-swap backplane.

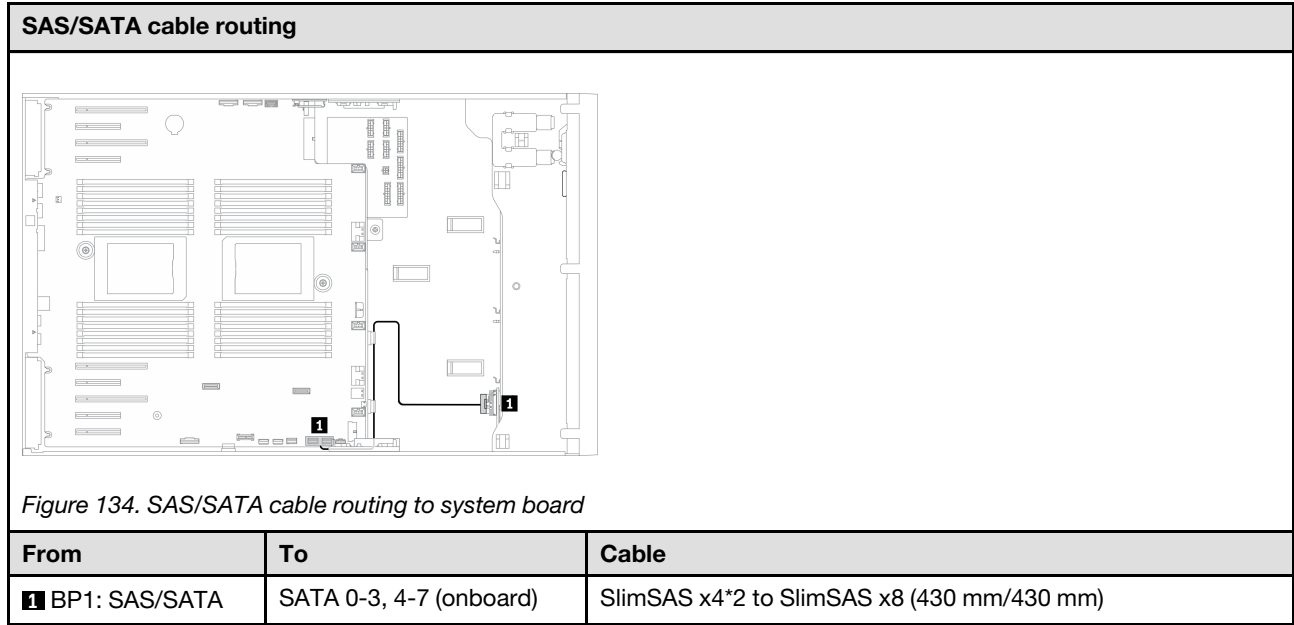
Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

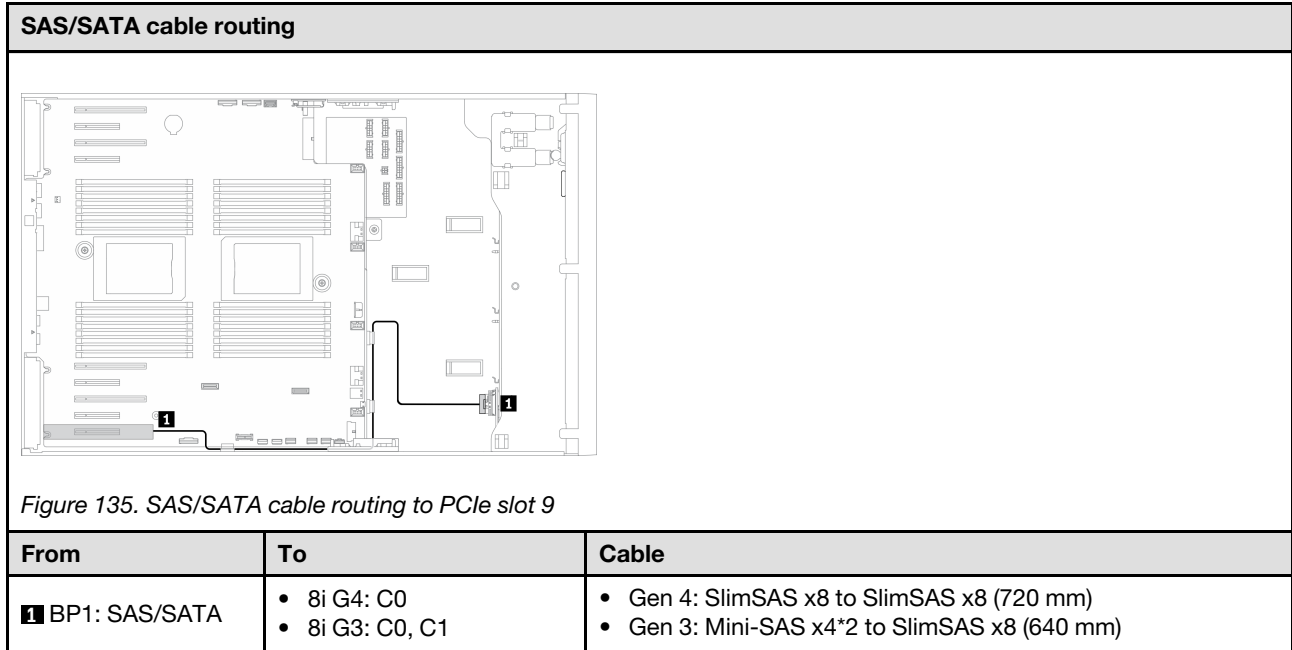
This configuration contains the following combinations:

- [“Onboard SATA” on page 123](#)
- [“1 x 8i RAID/HBA” on page 124](#)
- [“1 x 16i RAID/HBA” on page 125](#)
- [“1 x 32i RAID/HBA” on page 126](#)
- [“1 x CFF 16i RAID/HBA” on page 127](#)

Onboard SATA



1 x 8i RAID/HBA



1 x 16i RAID/HBA

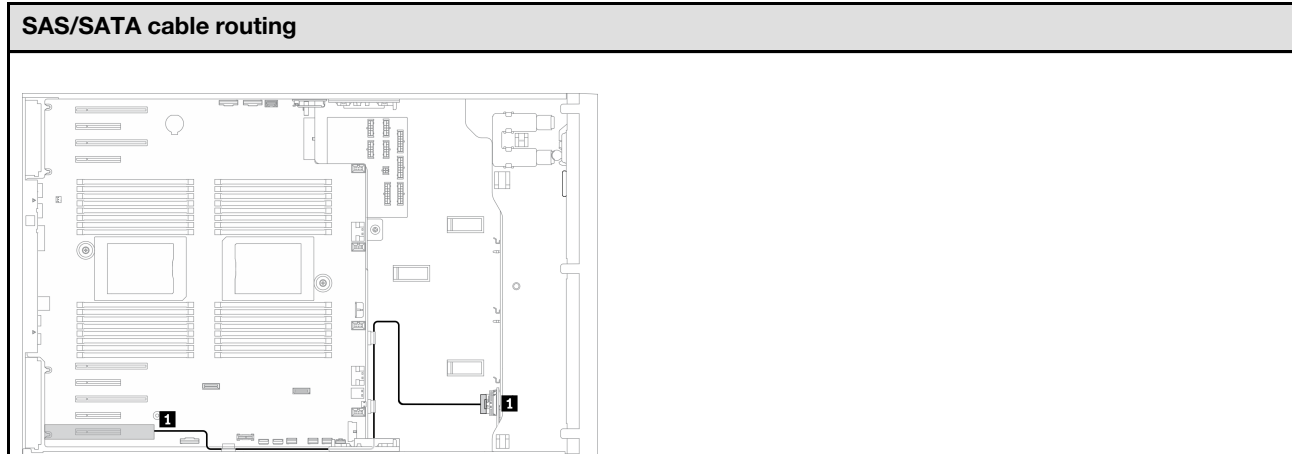
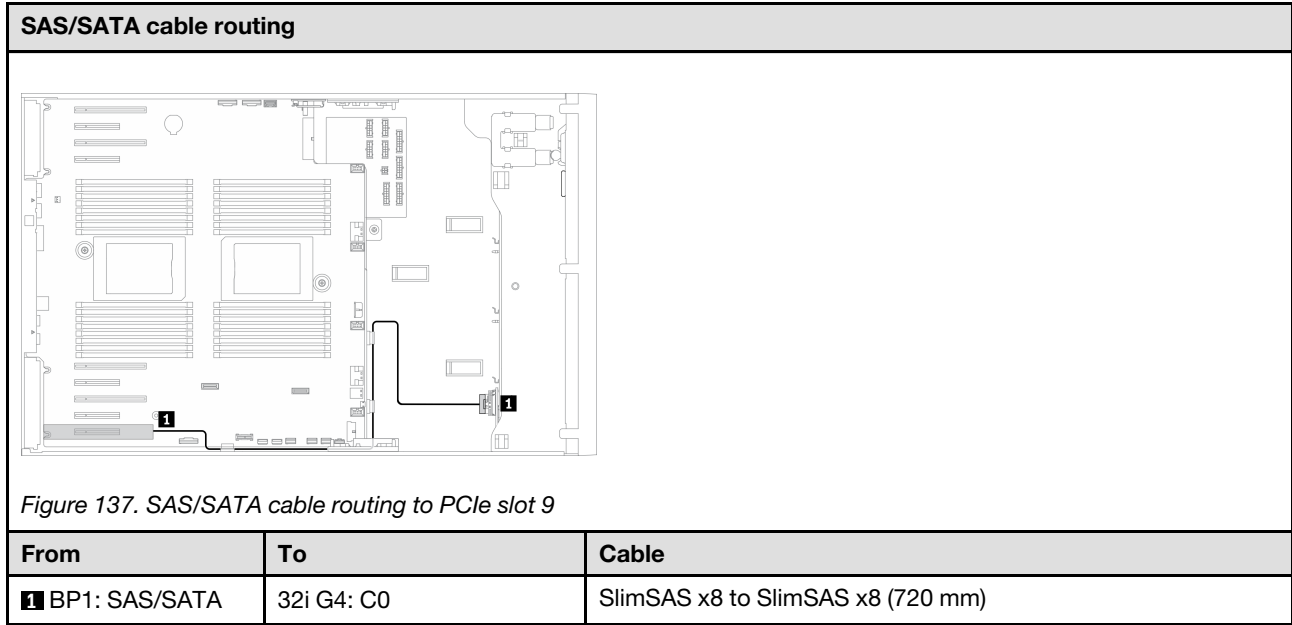


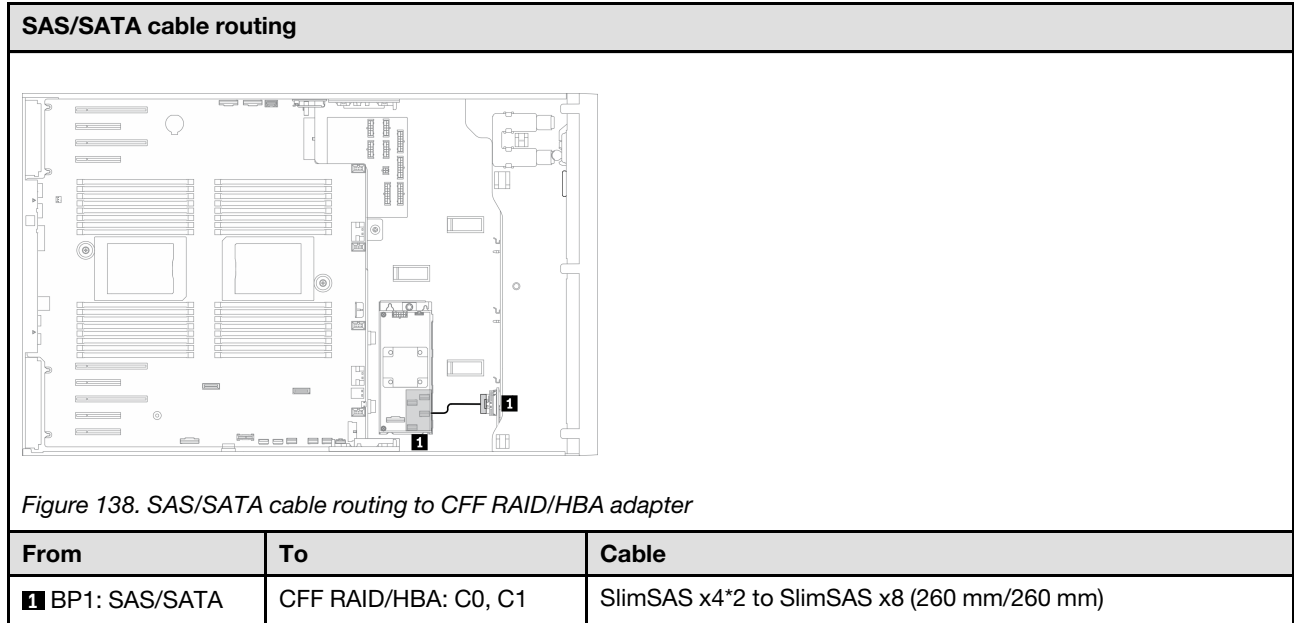
Figure 136. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

1 x 32i RAID/HBA



1 x CFF 16i RAID/HBA



2 x SAS/SATA backplanes

This section lists the required components for server models with 2 x SAS/SATA 2.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“2 x 8i RAID/HBA” on page 129](#)
- [“1 x 16i RAID/HBA” on page 130](#)
- [“1 x 32i RAID/HBA” on page 131](#)
- [“1 x CFF 16i RAID/HBA” on page 132](#)

2 x 8i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

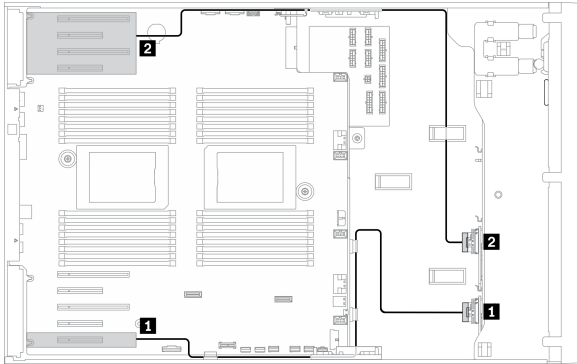


Figure 139. SAS/SATA cable routing to top PCIe zone

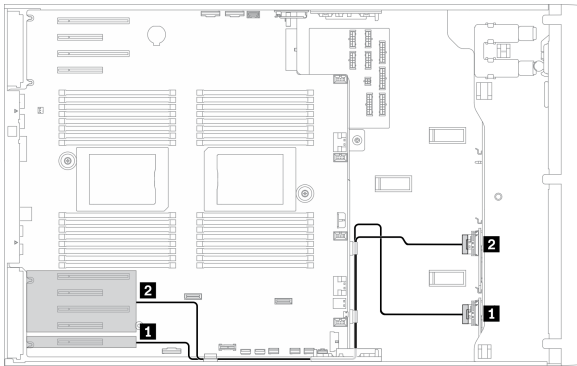
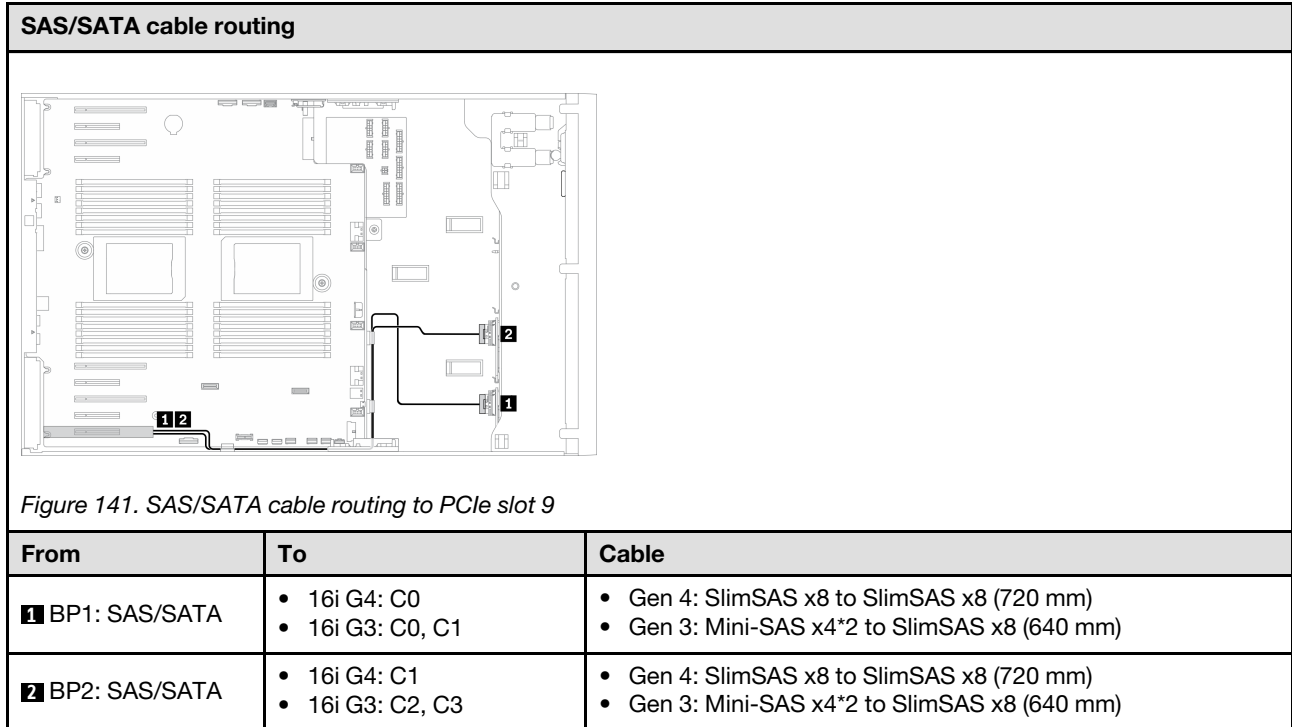


Figure 140. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

1 x 16i RAID/HBA



1 x 32i RAID/HBA

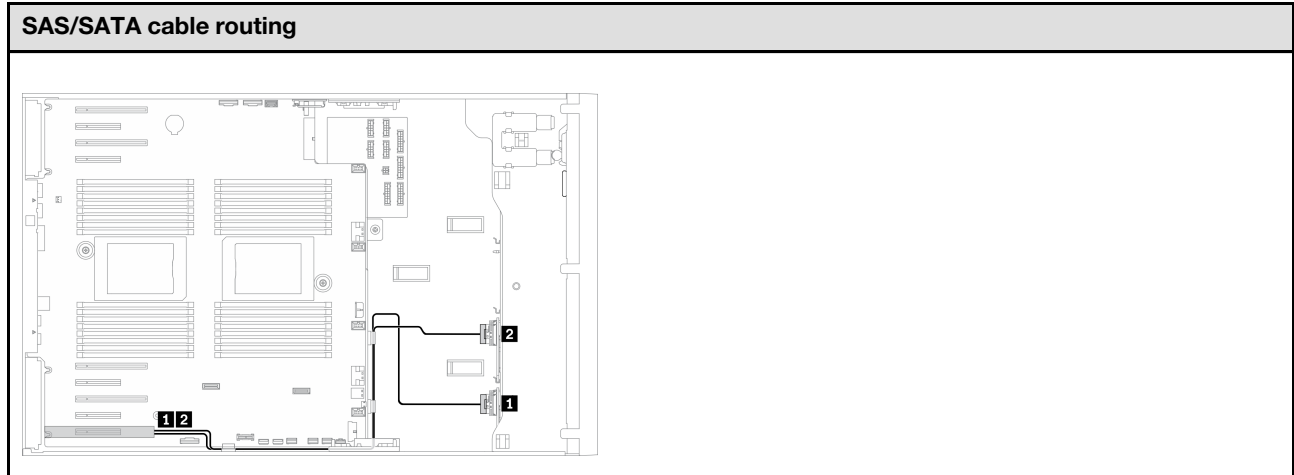


Figure 142. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

1 x CFF 16i RAID/HBA

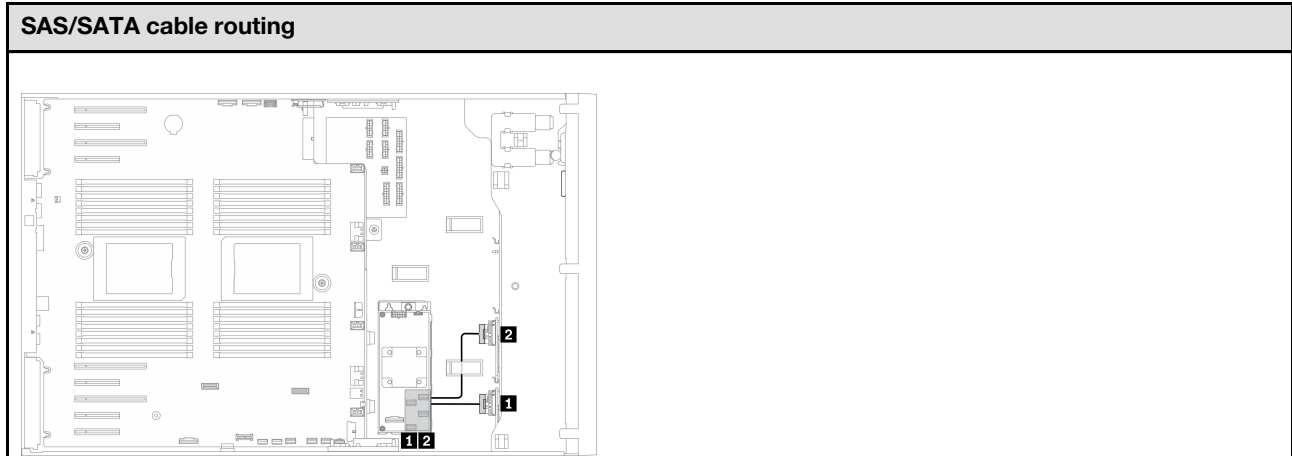


Figure 143. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)

3 x SAS/SATA backplanes

This section lists the required components for server models with 3 x SAS/SATA 2.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“3 x 8i RAID/HBA” on page 134](#)
- [“1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 135](#)
- [“1 x 32i RAID/HBA” on page 136](#)
- [“Onboard SATA + 1 x CFF 16i RAID/HBA” on page 137](#)

3 x 8i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

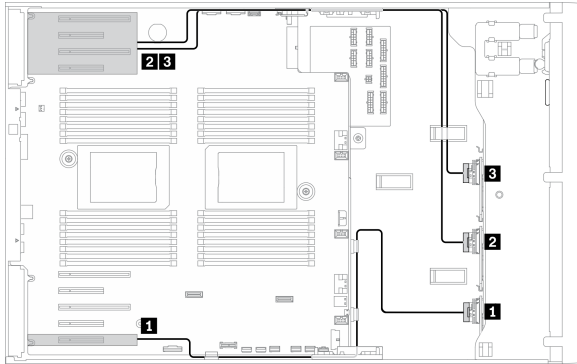


Figure 144. SAS/SATA cable routing to top PCIe zone

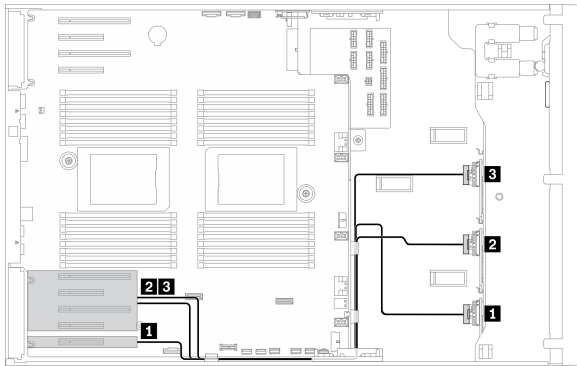


Figure 145. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

1 x 8i RAID/HBA + 1 x 16i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

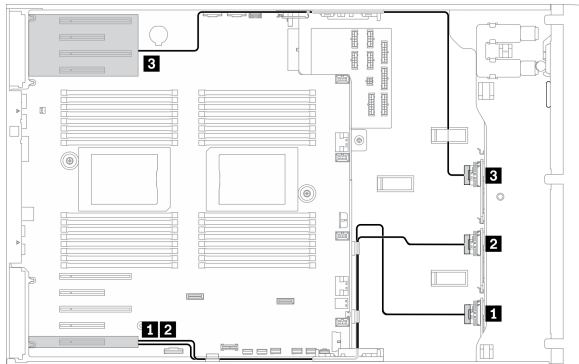


Figure 146. SAS/SATA cable routing to top PCIe zone

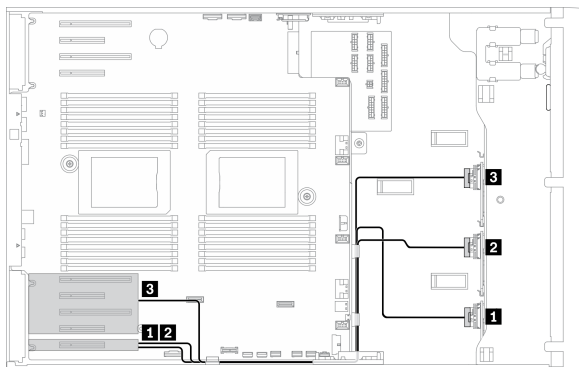
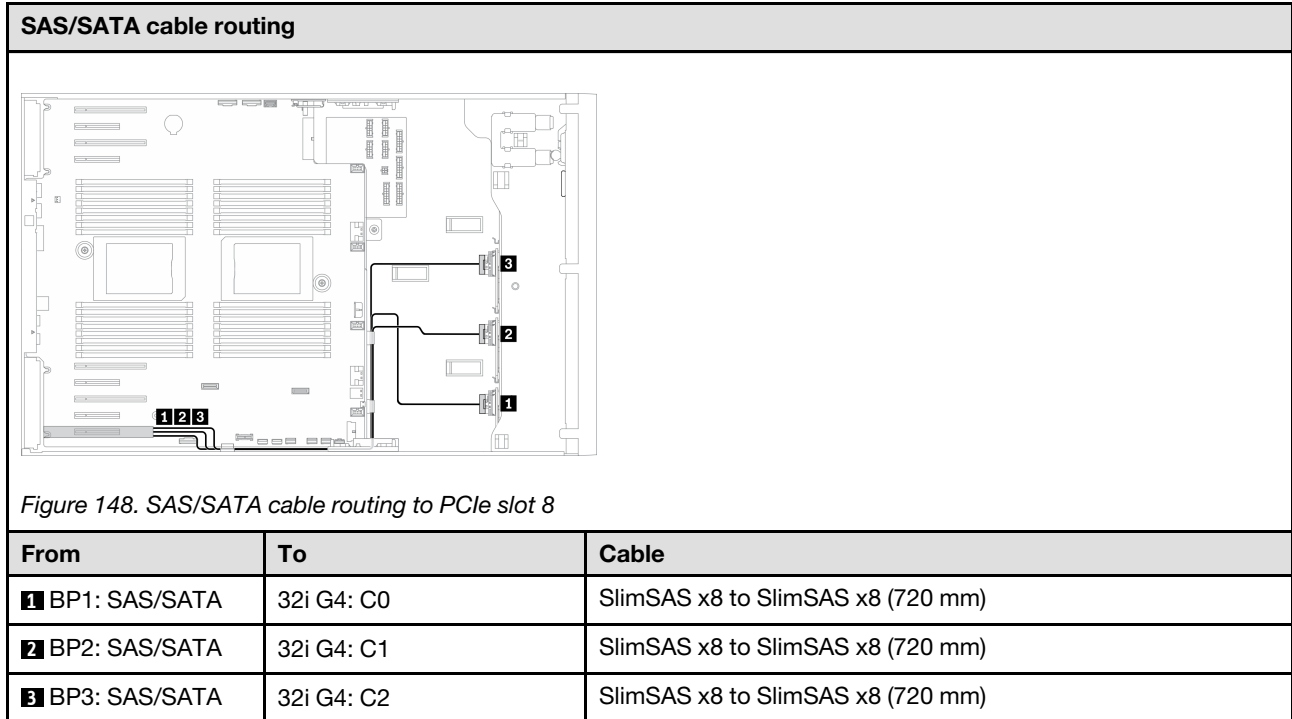


Figure 147. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

1 x 32i RAID/HBA



Onboard SATA + 1 x CFF 16i RAID/HBA

SAS/SATA cable routing

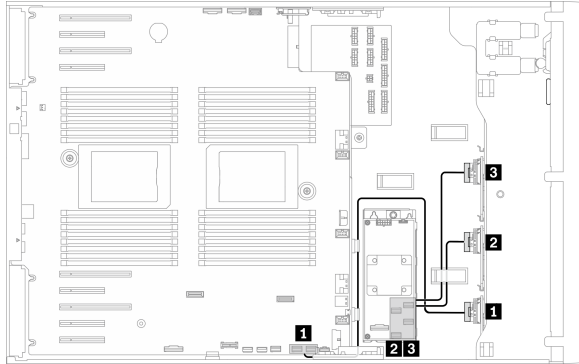


Figure 149. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
3 BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

4 x SAS/SATA backplanes

This section lists the required components for server models with 4 x SAS/SATA 2.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“4 x 8i RAID/HBA” on page 139](#)
- [“2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 140](#)
- [“2 x 16i RAID/HBA” on page 141](#)
- [“1 x 32i RAID/HBA” on page 142](#)

4 x 8i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

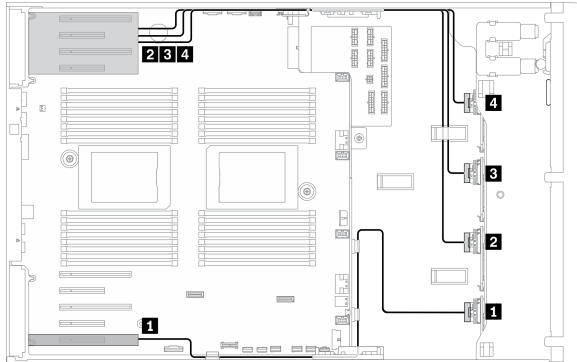


Figure 150. SAS/SATA cable routing to top PCIe zone

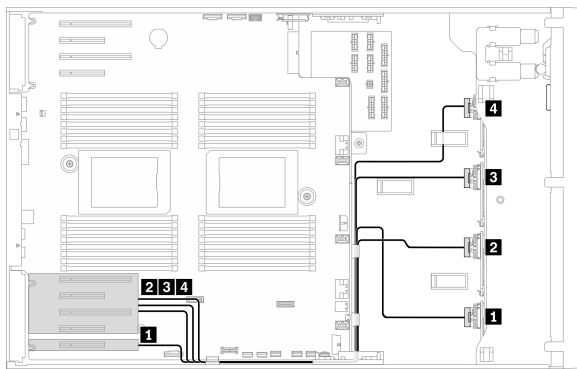


Figure 151. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

2 x 8i RAID/HBA + 1 x 16i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

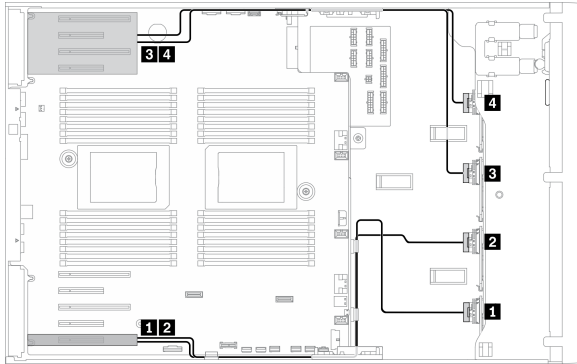


Figure 152. SAS/SATA cable routing to top PCIe zone

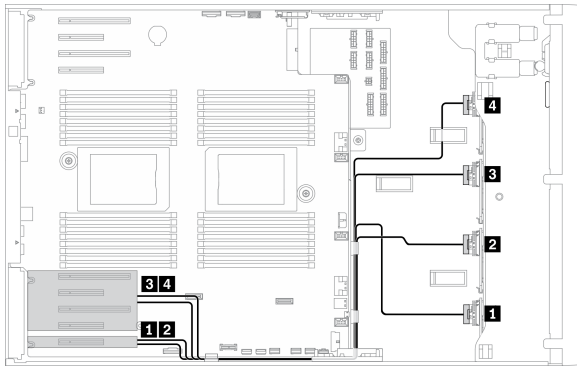


Figure 153. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

2 x 16i RAID/HBA

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

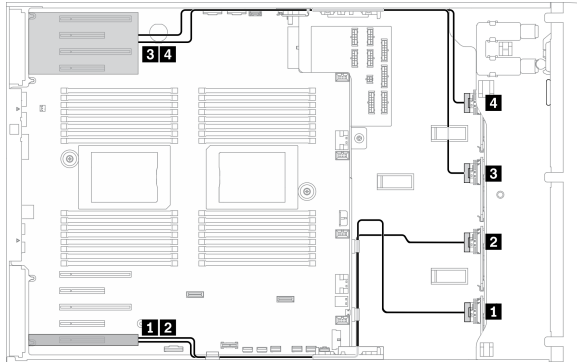


Figure 154. SAS/SATA cable routing to top PCIe zone

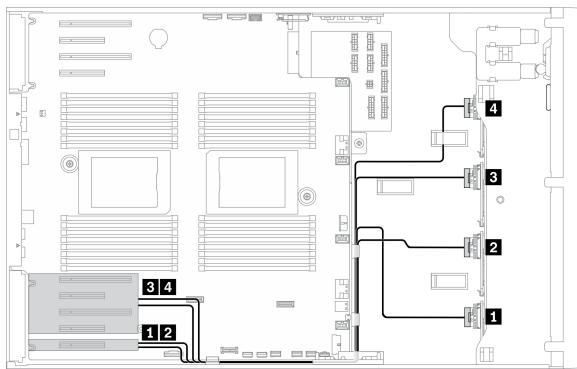


Figure 155. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

1 x 32i RAID/HBA

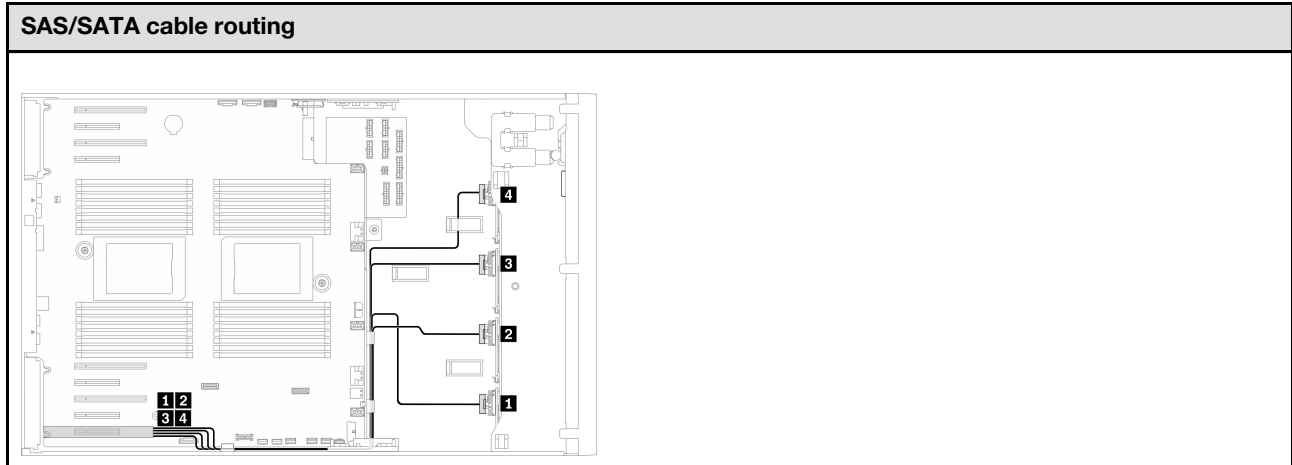


Figure 156. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
4 BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)

1 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x NVMe 2.5-inch hot-swap backplane.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 1 x 8i RAID/HBA” on page 144](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 146](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 148](#)
- [“2 x retimers + 1 x CFF 16i RAID/HBA” on page 150](#)

Onboard NVMe + 1 x 8i RAID/HBA

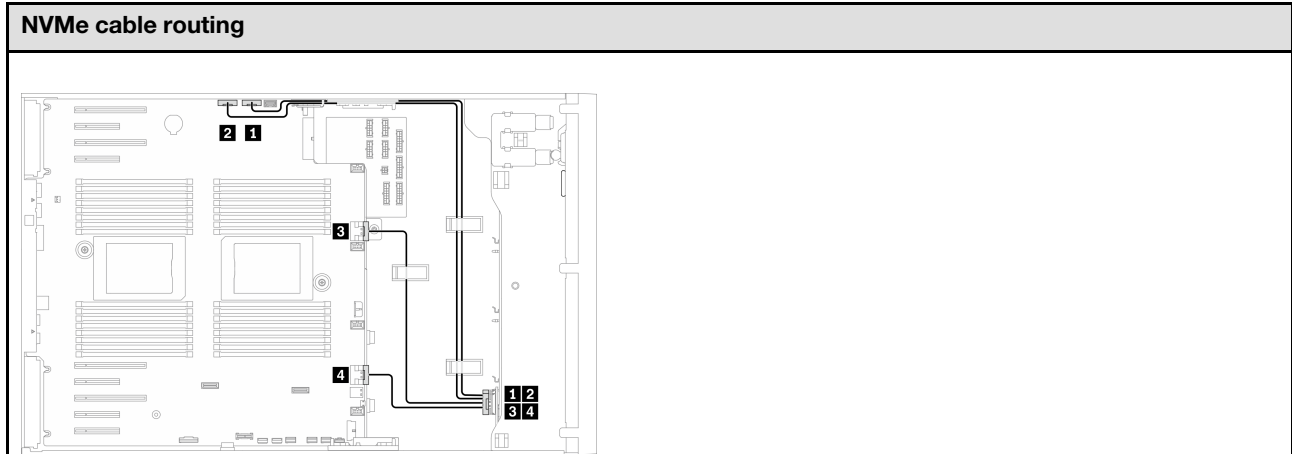


Figure 157. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

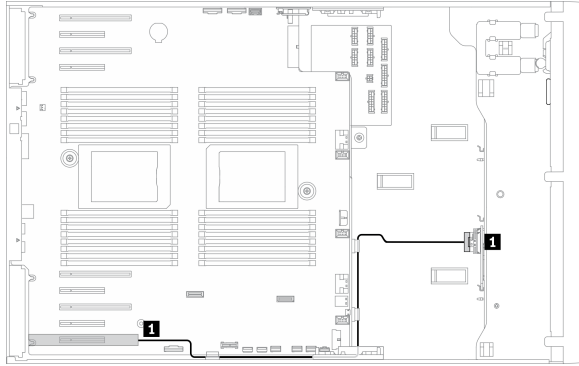


Figure 158. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 16i RAID/HBA

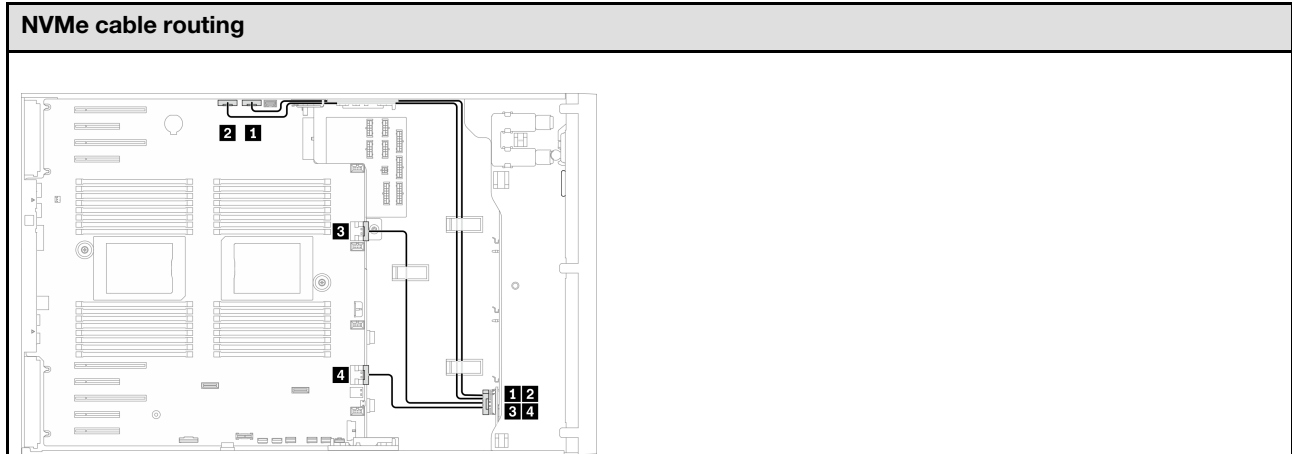


Figure 159. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

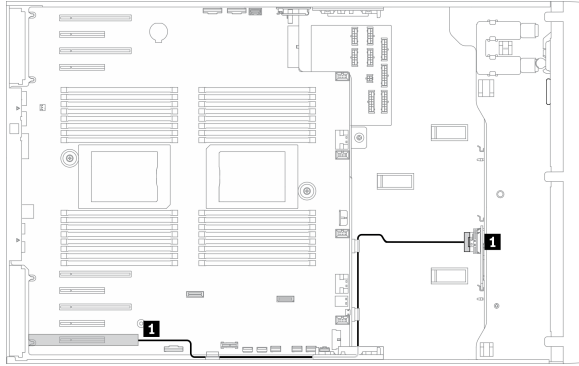


Figure 160. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 32i RAID/HBA

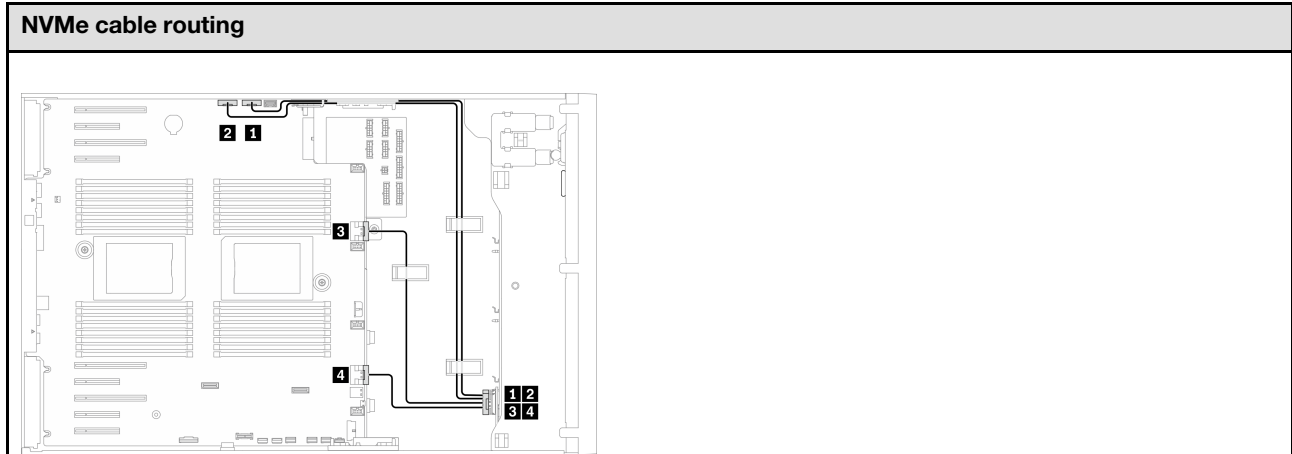


Figure 161. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

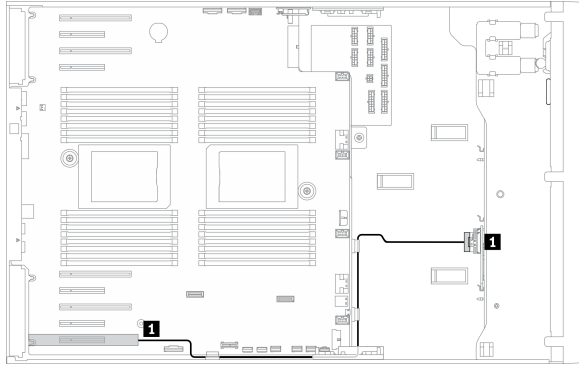


Figure 162. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)

2 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

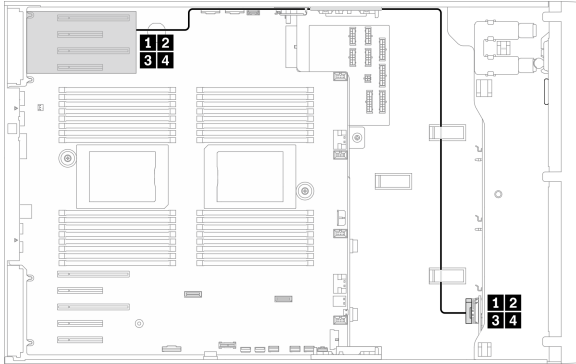


Figure 163. NVMe cable routing to top PCIe zone

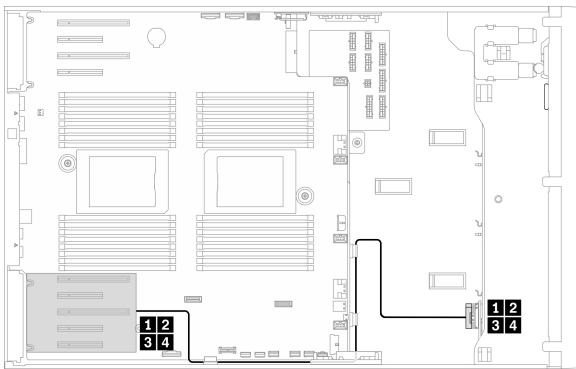


Figure 164. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

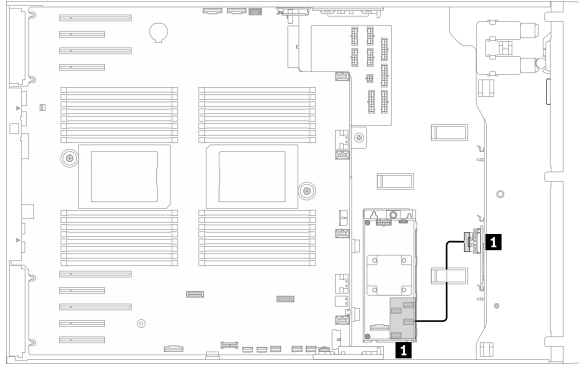


Figure 165. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)

1 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x NVMe 2.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers” on page 153](#)
- [“Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA” on page 155](#)
- [“Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA” on page 157](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 159](#)
- [“Onboard SATA + 4 x retimers” on page 161](#)
- [“4 x retimers + 1 x 8i RAID/HBA” on page 163](#)
- [“4 x retimers + 1 x 16i RAID/HBA” on page 165](#)
- [“4 x retimers + 1 x 32i RAID/HBA” on page 167](#)
- [“4 x retimers + 1 x CFF 16i RAID/HBA” on page 169](#)

Onboard NVMe/SATA + 2 x retimers

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

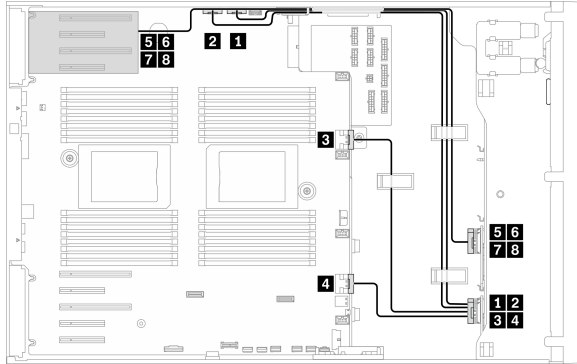


Figure 166. NVMe cable routing to system board and top PCIe zone

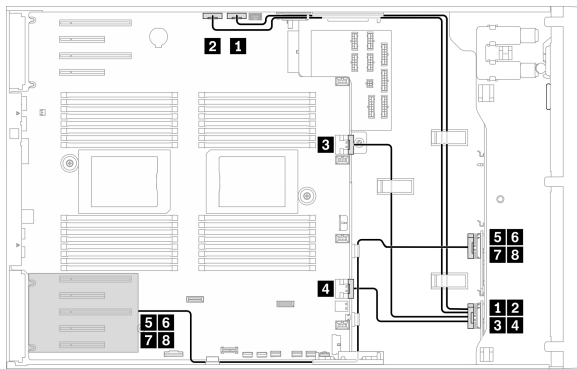


Figure 167. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

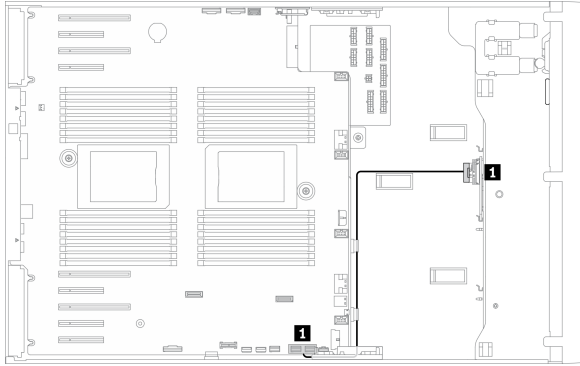


Figure 168. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

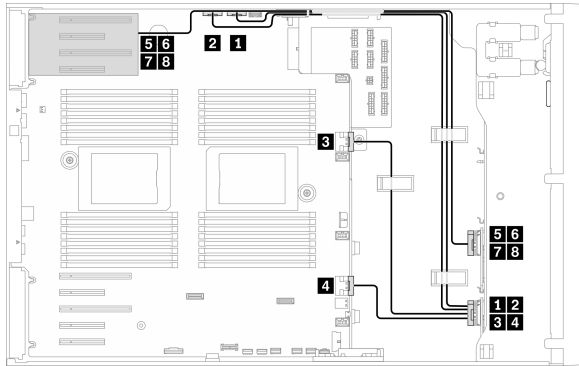


Figure 169. NVMe cable routing to system board and top PCIe zone

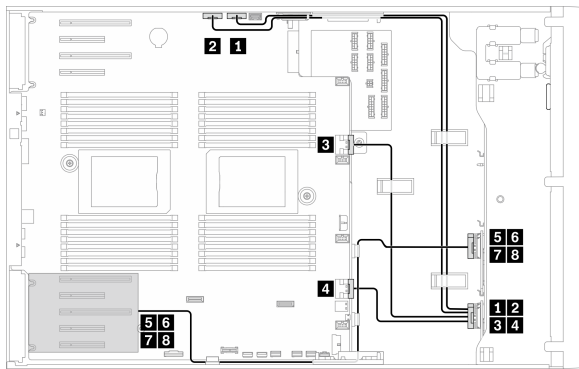


Figure 170. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

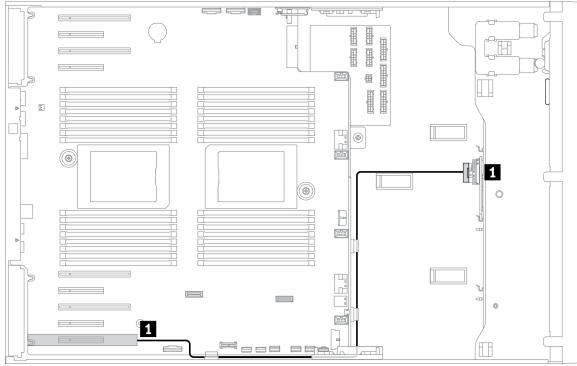


Figure 171. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

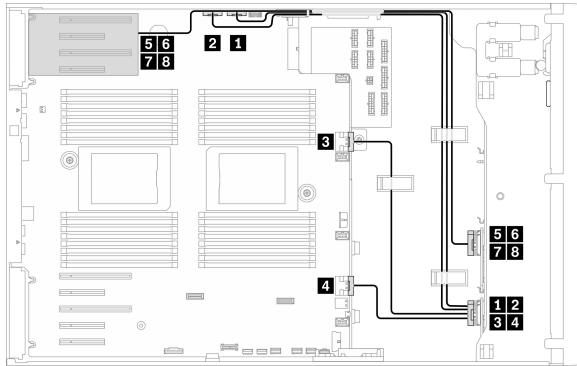


Figure 172. NVMe cable routing to system board and top PCIe zone

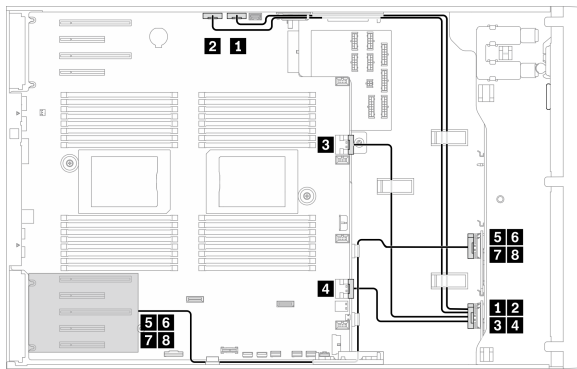


Figure 173. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

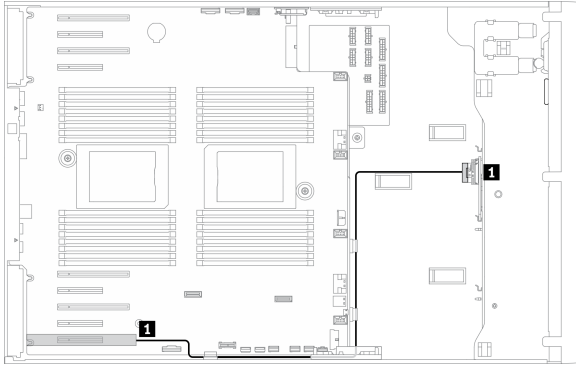


Figure 174. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

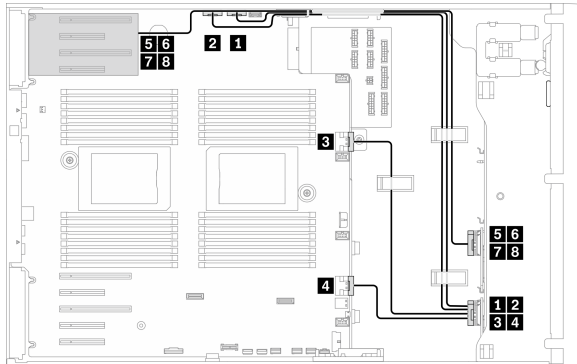


Figure 175. NVMe cable routing to system board and top PCIe zone

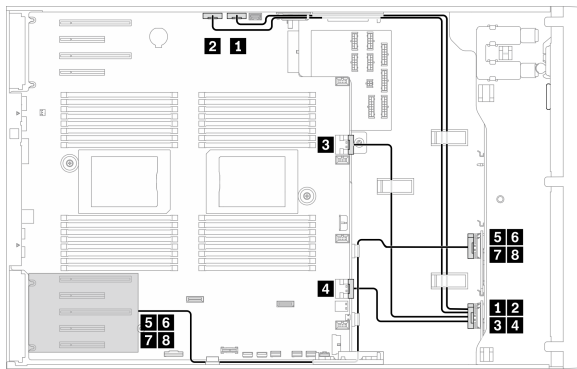


Figure 176. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

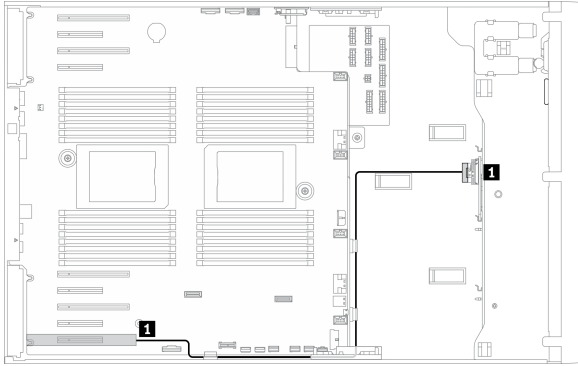


Figure 177. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)

Onboard SATA + 4 x retimers

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

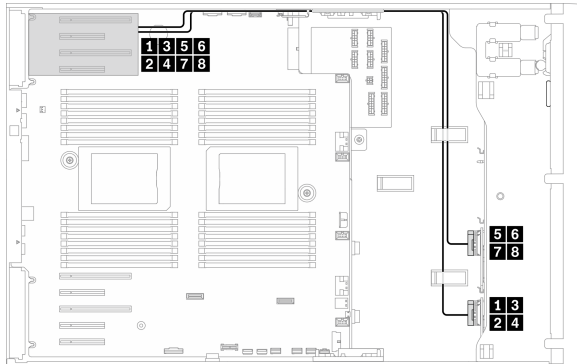


Figure 178. NVMe cable routing to top PCIe zone

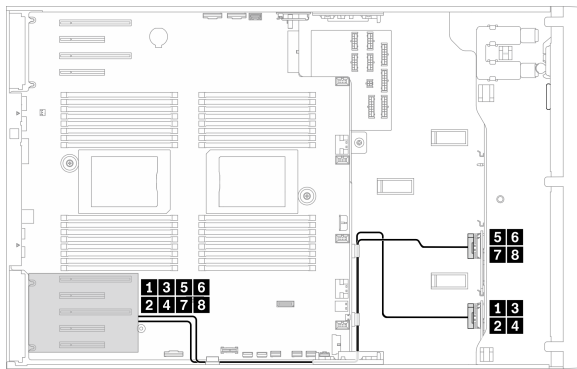


Figure 179. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

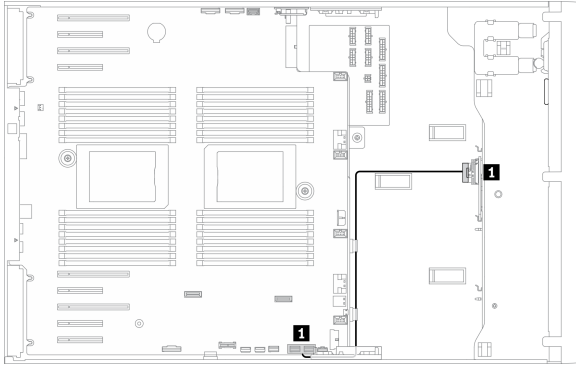


Figure 180. SAS/SATA cable routing to system board

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

4 x retimers + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

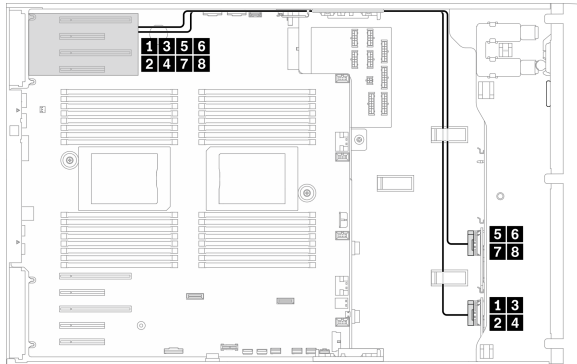


Figure 181. NVMe cable routing to top PCIe zone

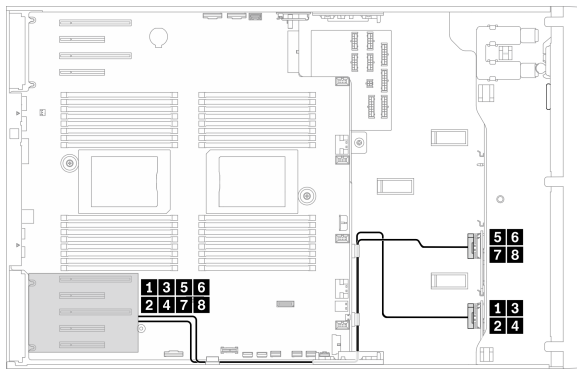


Figure 182. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

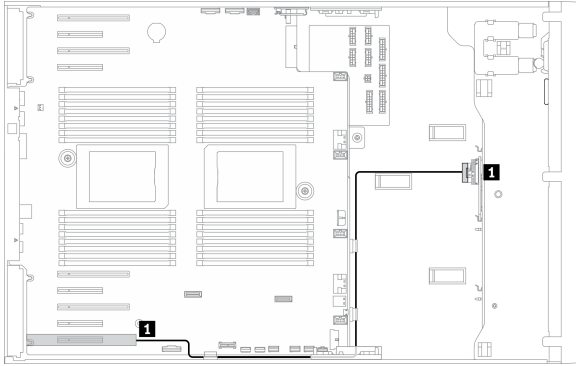


Figure 183. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

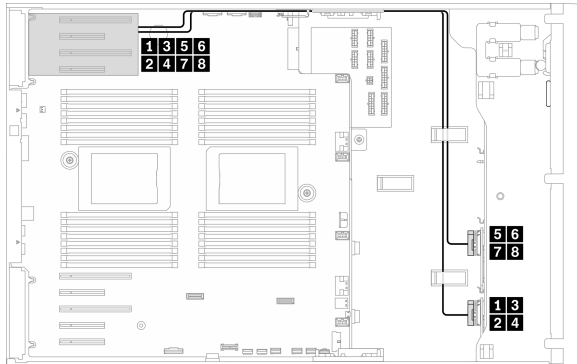


Figure 184. NVMe cable routing to top PCIe zone

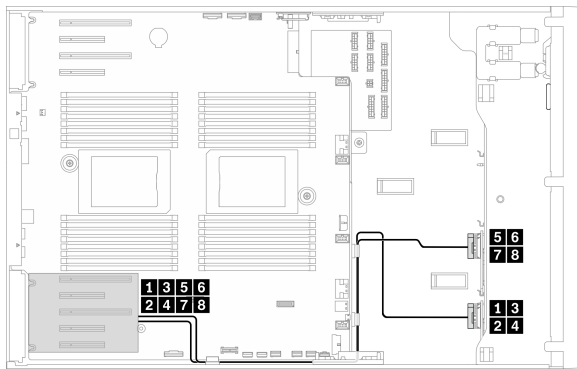


Figure 185. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

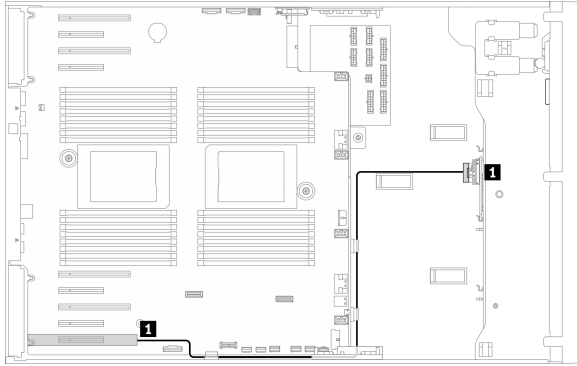


Figure 186. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

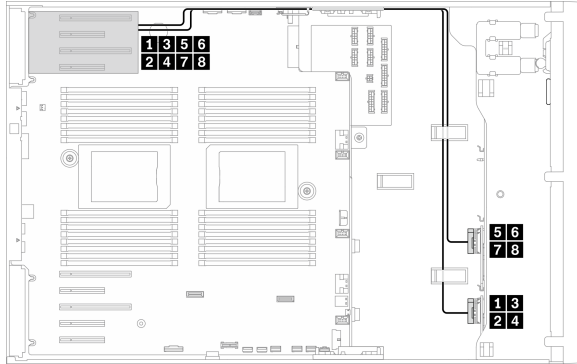


Figure 187. NVMe cable routing to top PCIe zone

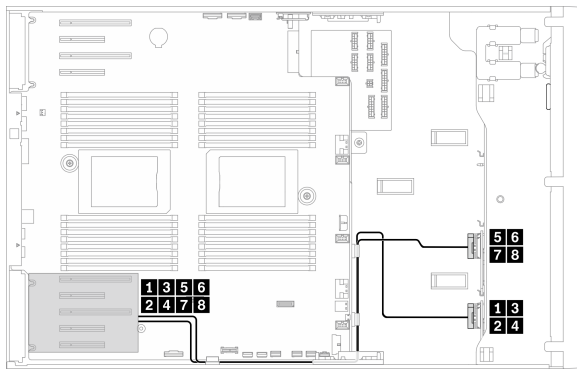


Figure 188. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

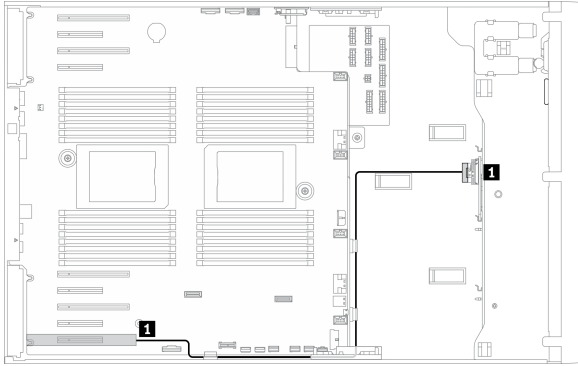


Figure 189. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)

4 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

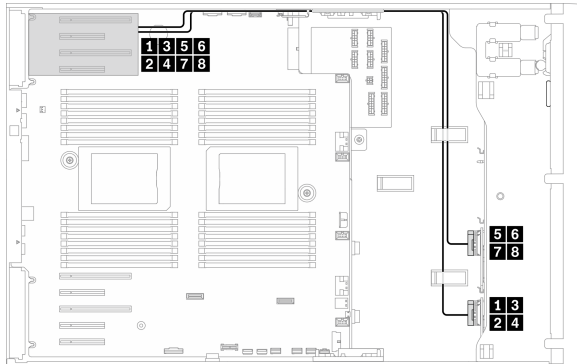


Figure 190. NVMe cable routing to top PCIe zone

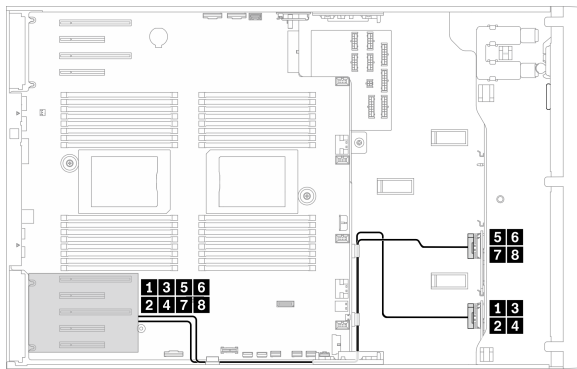


Figure 191. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

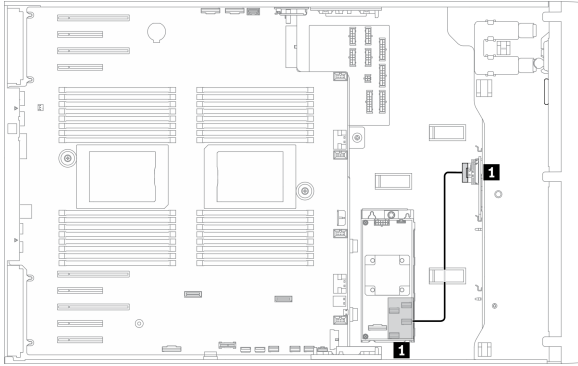


Figure 192. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP3: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

2 x SAS/SATA + 1 x NVMe backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x NVMe 2.5-inch hot-swap backplane.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 172](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 174](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 176](#)
- [“2 x retimers + 2 x 8i RAID/HBA” on page 178](#)
- [“2 x retimers + 1 x 16i RAID/HBA” on page 180](#)
- [“2 x retimers + 1 x 32i RAID/HBA” on page 182](#)
- [“2 x retimers + 1 x CFF 16i RAID/HBA” on page 184](#)

Onboard NVMe + 2 x 8i RAID/HBA

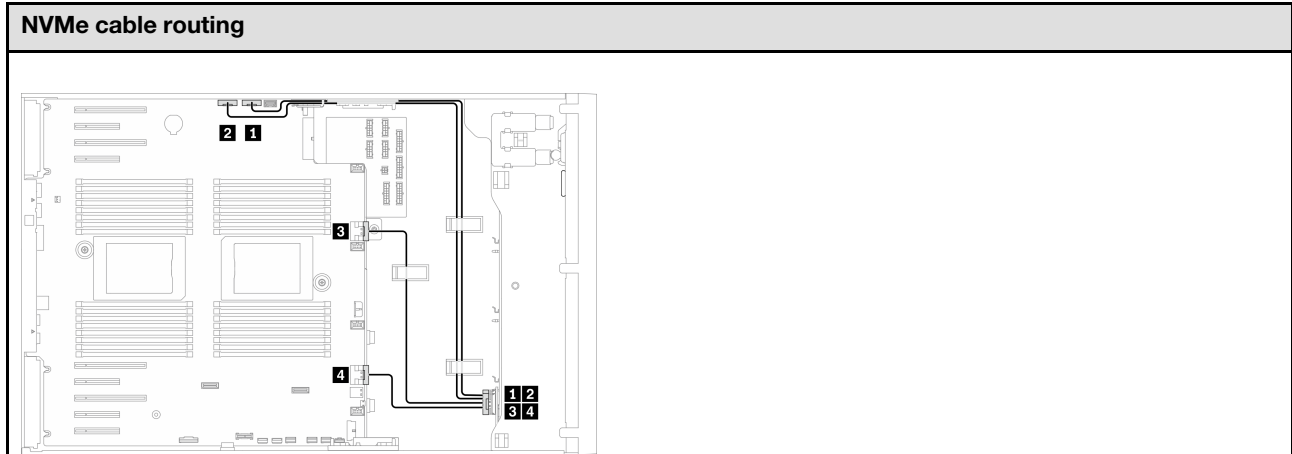


Figure 193. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

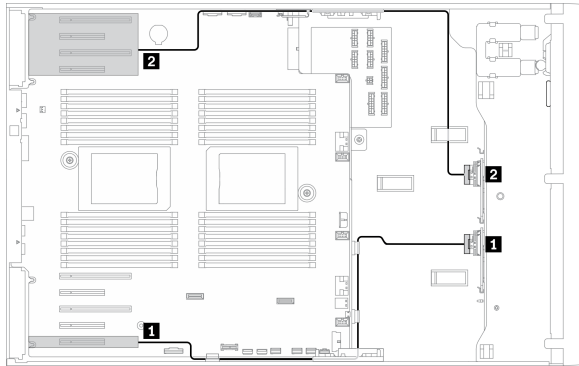


Figure 194. SAS/SATA cable routing to top PCIe zone

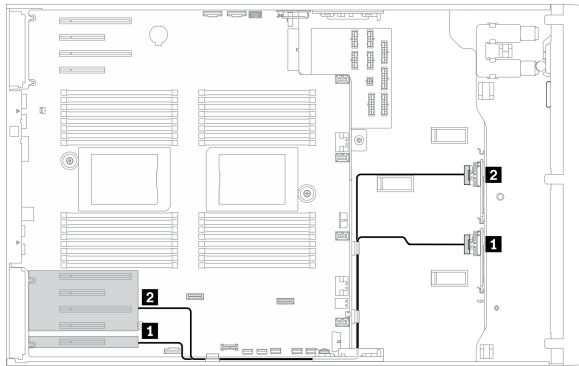


Figure 195. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 16i RAID/HBA

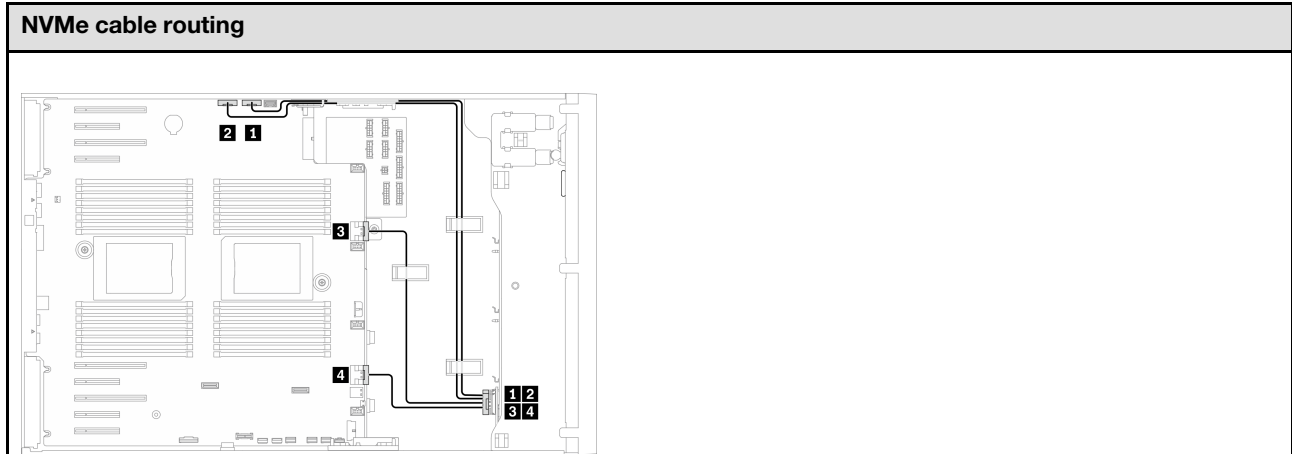


Figure 196. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

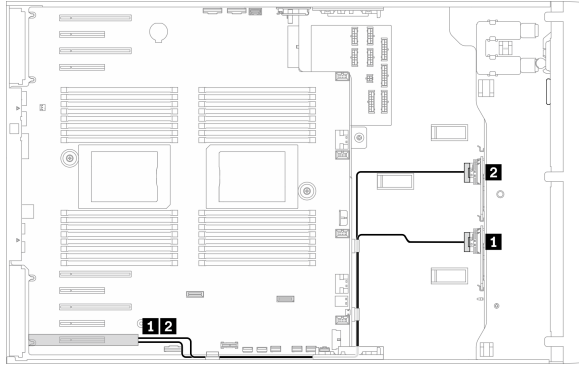


Figure 197. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 32i RAID/HBA

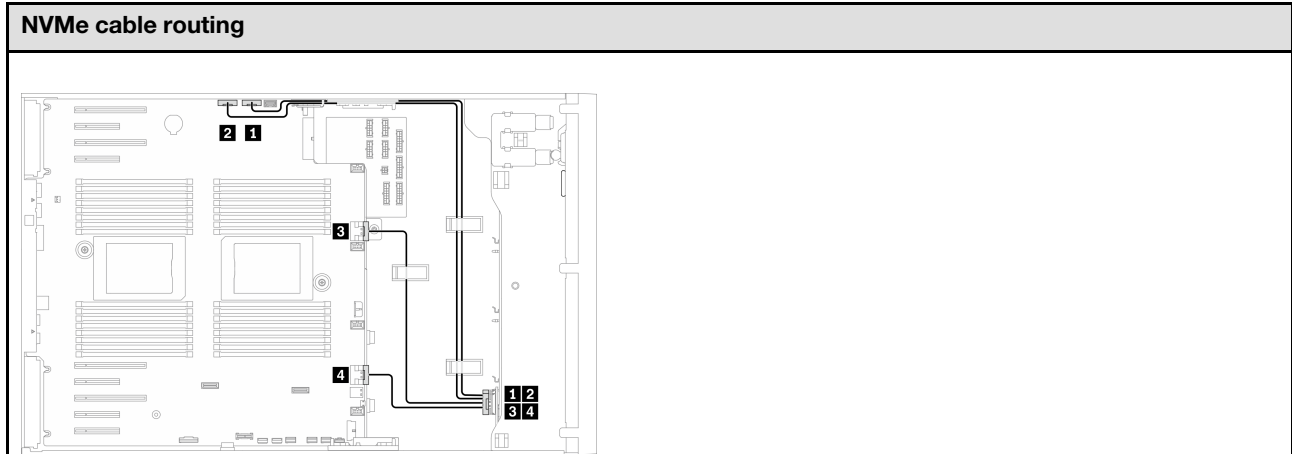


Figure 198. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

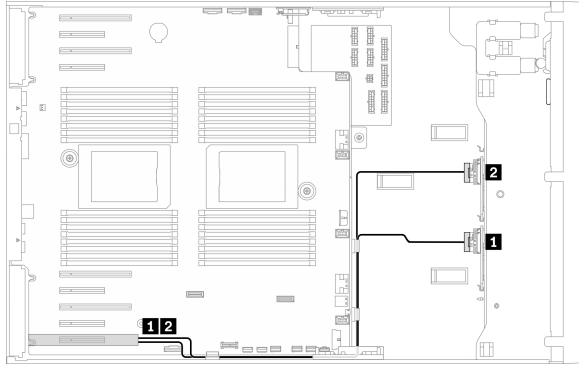


Figure 199. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP3: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

2 x retimers + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

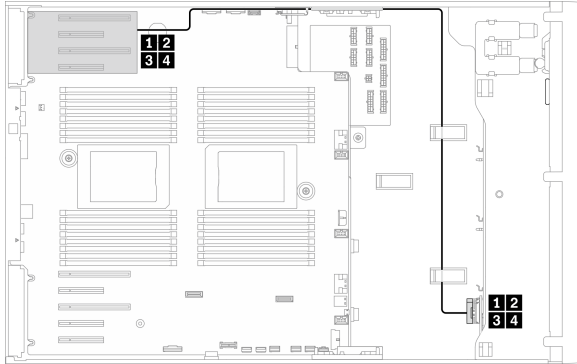


Figure 200. NVMe cable routing to top PCIe zone

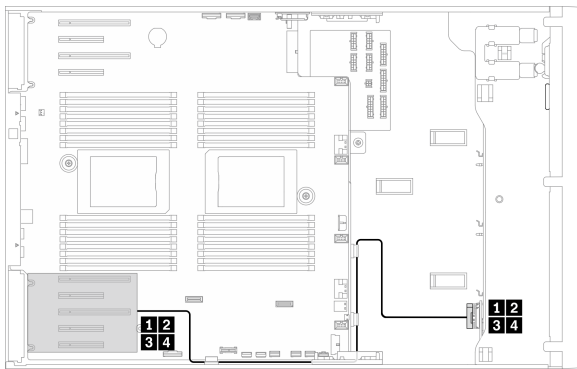


Figure 201. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

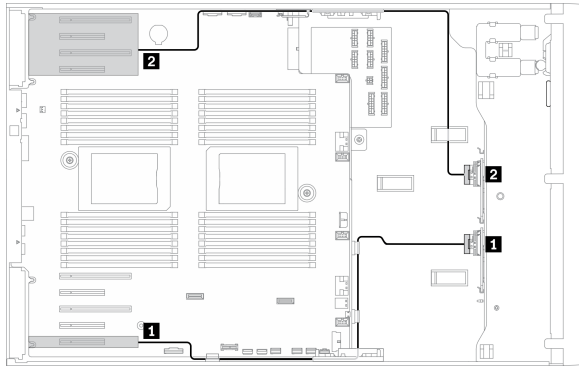


Figure 202. SAS/SATA cable routing to top PCIe zone

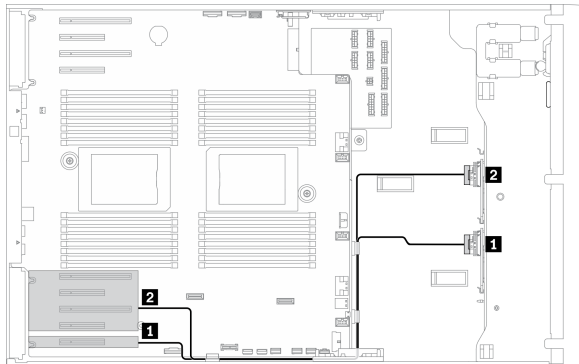


Figure 203. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

2 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

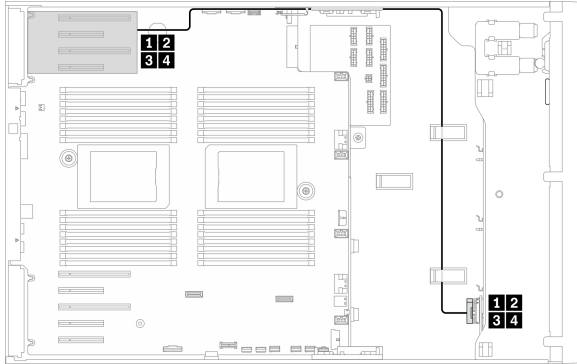


Figure 204. NVMe cable routing to top PCIe zone

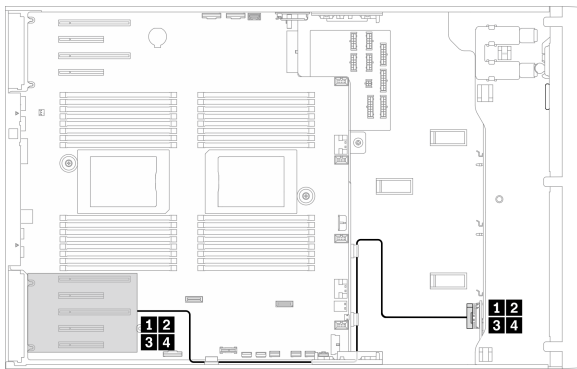


Figure 205. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

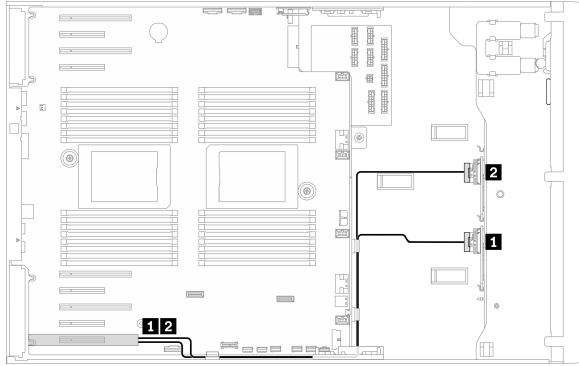


Figure 206. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

2 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

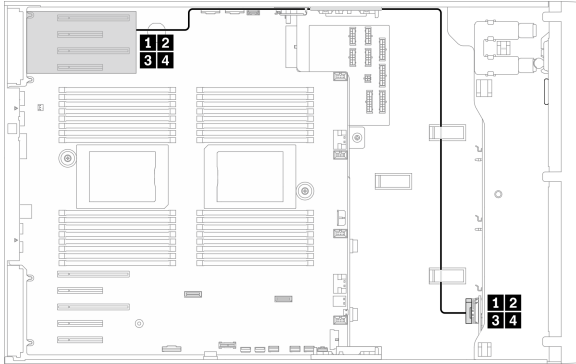


Figure 207. NVMe cable routing to top PCIe zone

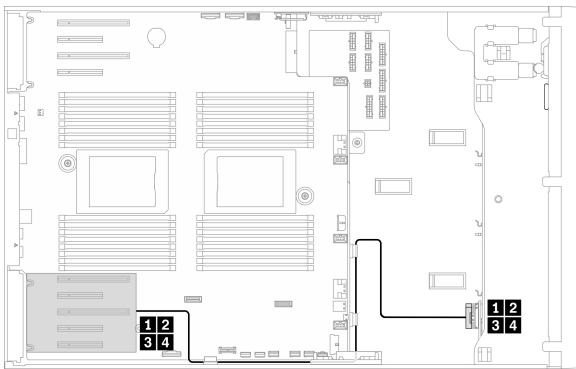


Figure 208. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

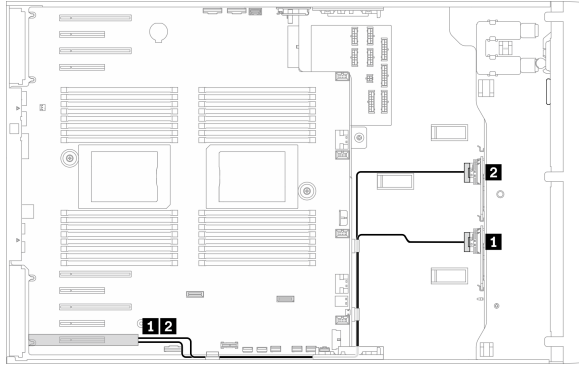


Figure 209. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP2: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP3: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

2 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

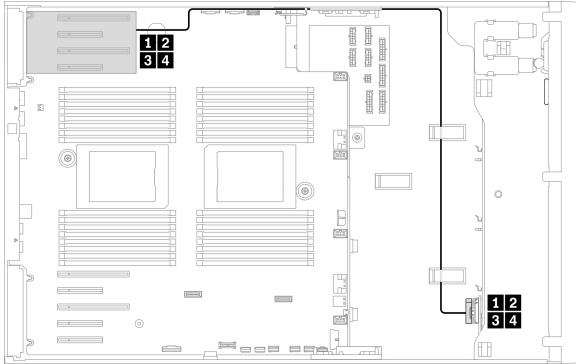


Figure 210. NVMe cable routing to top PCIe zone

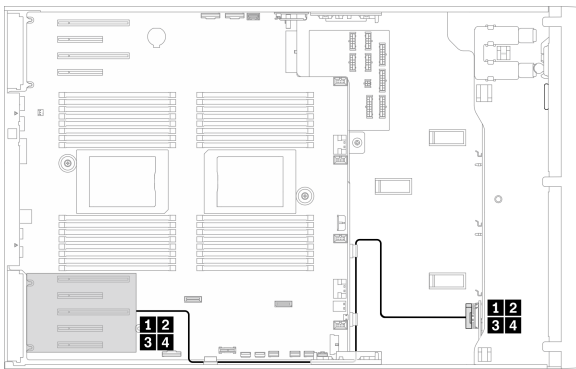


Figure 211. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

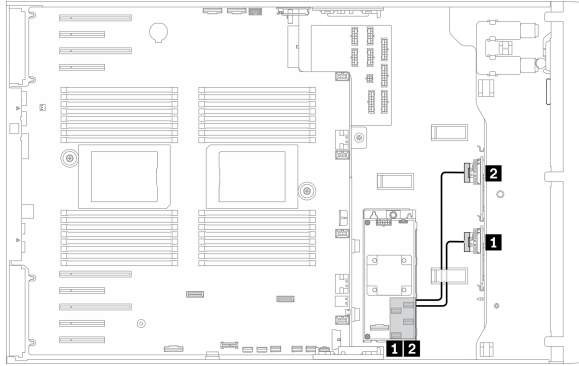


Figure 212. SAS/SATA cable routing to CFF RAID/HBA adapter

From	To	Cable
1 BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
2 BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

2 x SAS/SATA + 2 x NVMe backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x NVMe 2.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA” on page 187](#)
- [“Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA” on page 189](#)
- [“Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA” on page 191](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 193](#)
- [“Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA” on page 195](#)
- [“4 x retimers + 2 x 8i RAID/HBA” on page 197](#)
- [“4 x retimers + 1 x 16i RAID/HBA” on page 199](#)
- [“4 x retimers + 1 x 32i RAID/HBA” on page 201](#)
- [“4 x retimers + 1 x CFF 16i RAID/HBA” on page 203](#)

Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

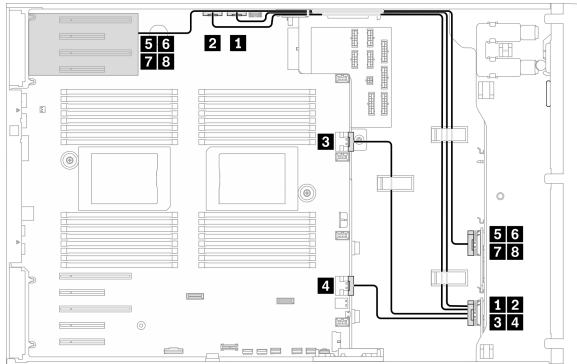


Figure 213. NVMe cable routing to system board and top PCIe zone

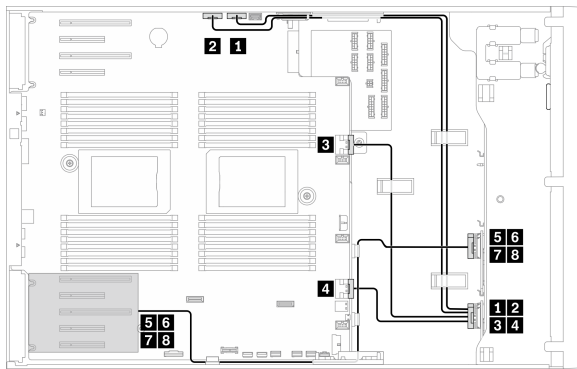


Figure 214. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

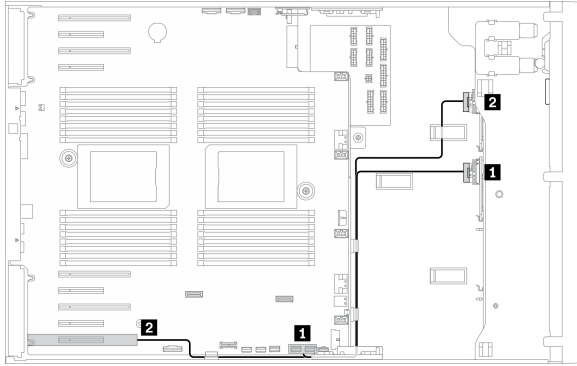


Figure 215. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP4: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

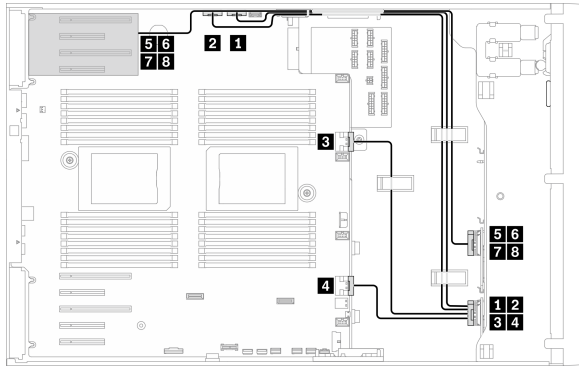


Figure 216. NVMe cable routing to system board and top PCIe zone

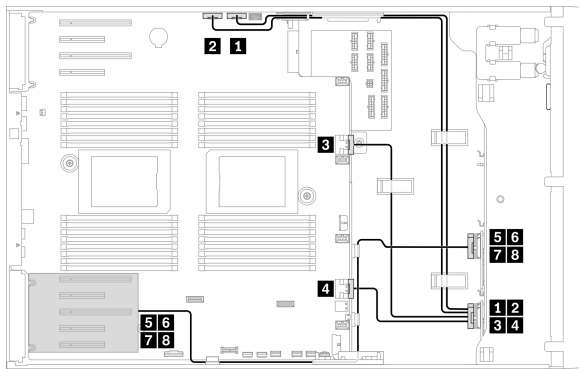


Figure 217. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

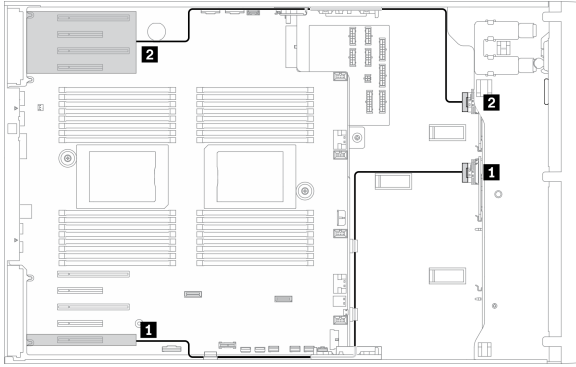


Figure 218. SAS/SATA cable routing to top PCIe zone

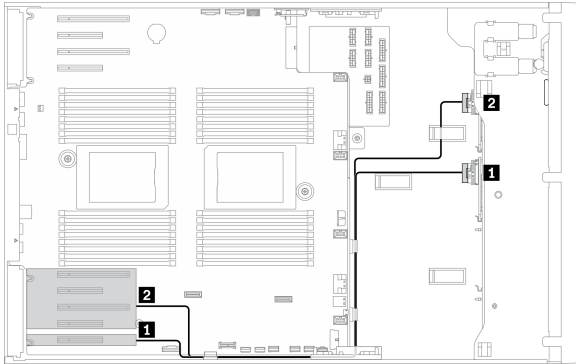


Figure 219. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

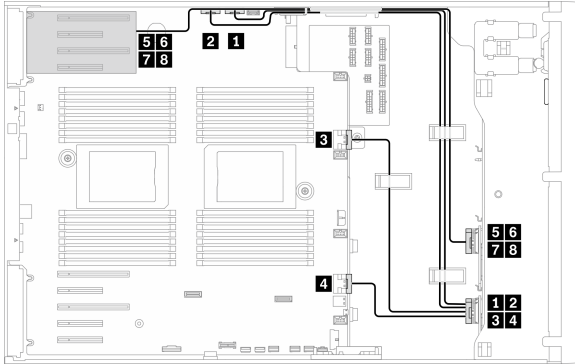


Figure 220. NVMe cable routing to system board and top PCIe zone

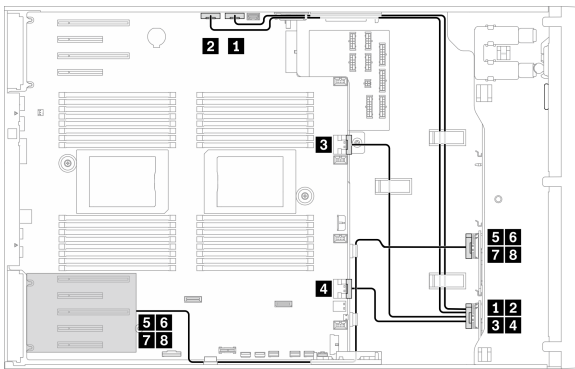


Figure 221. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

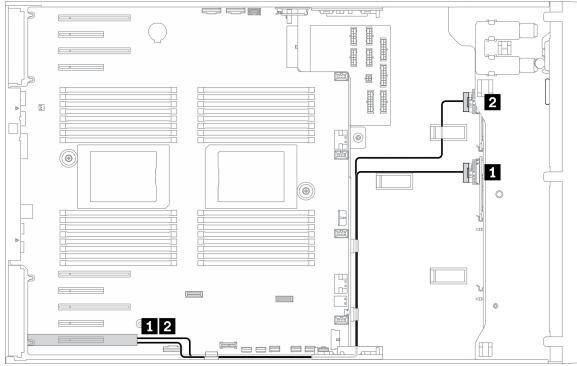


Figure 222. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

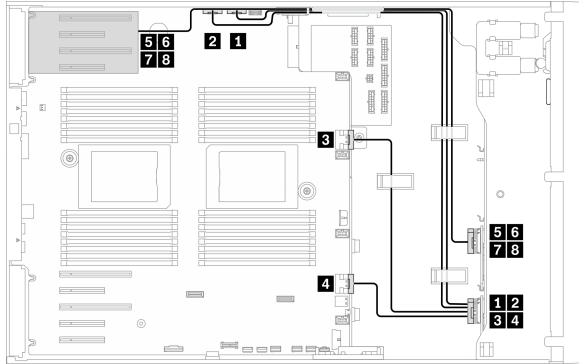


Figure 223. NVMe cable routing to system board and top PCIe zone

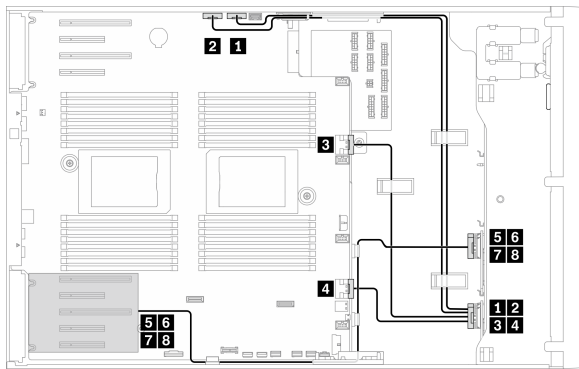


Figure 224. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

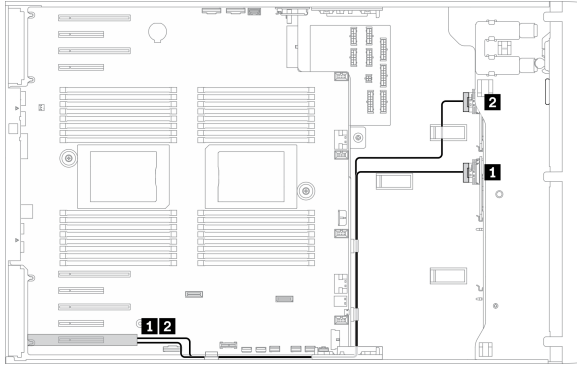


Figure 225. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP4: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (880 mm)

Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

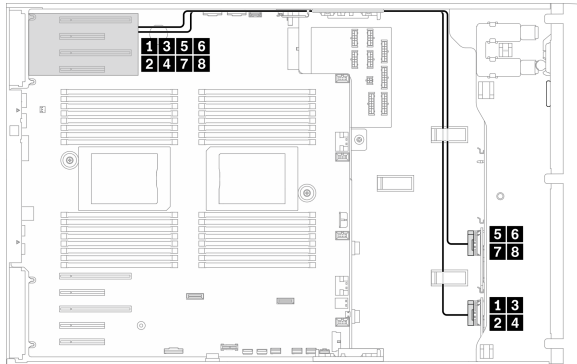


Figure 226. NVMe cable routing to top PCIe zone

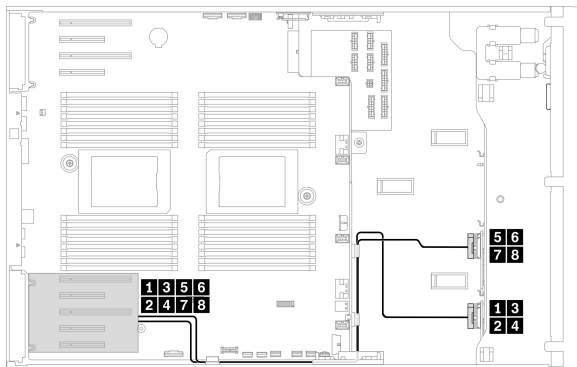


Figure 227. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

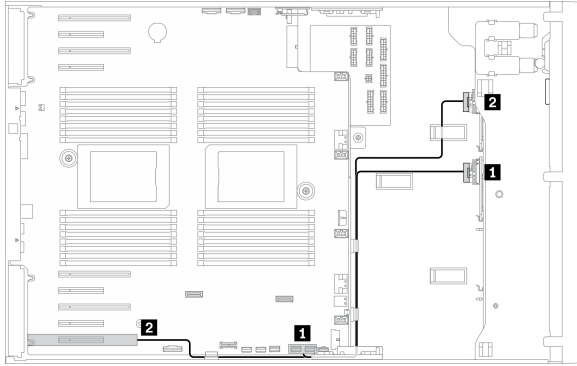


Figure 228. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP3: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP4: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

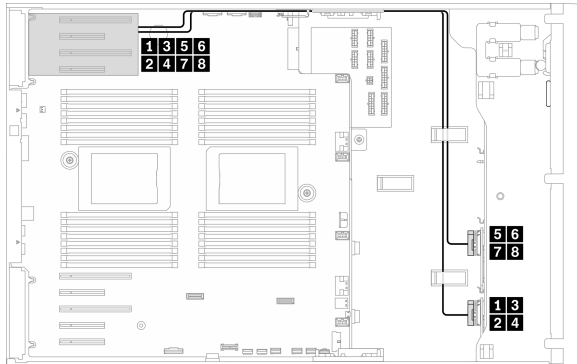


Figure 229. NVMe cable routing to top PCIe zone

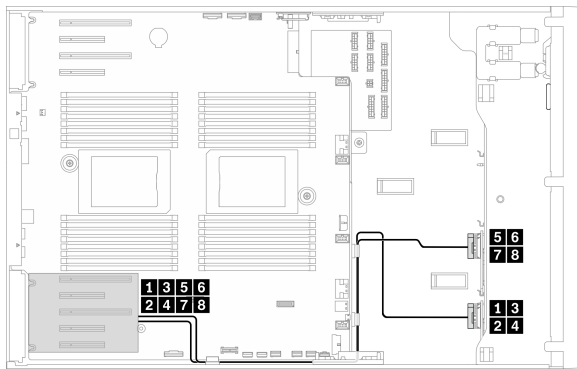


Figure 230. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

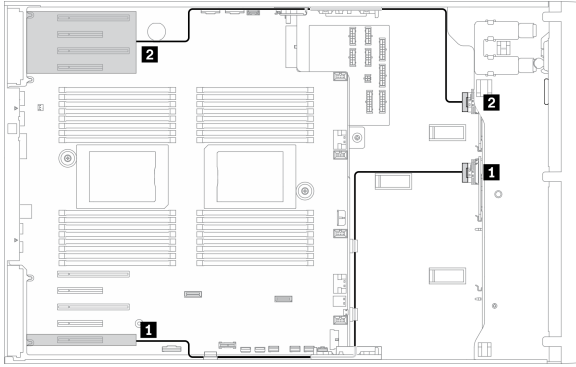


Figure 231. SAS/SATA cable routing to top PCIe zone

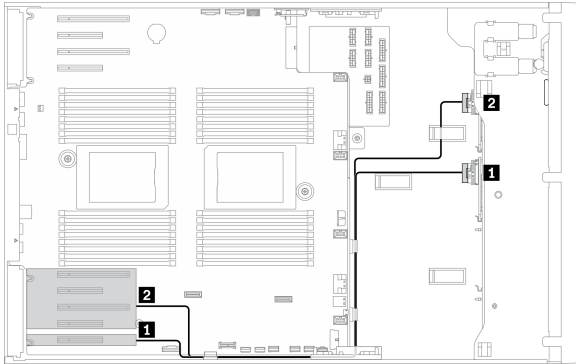


Figure 232. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

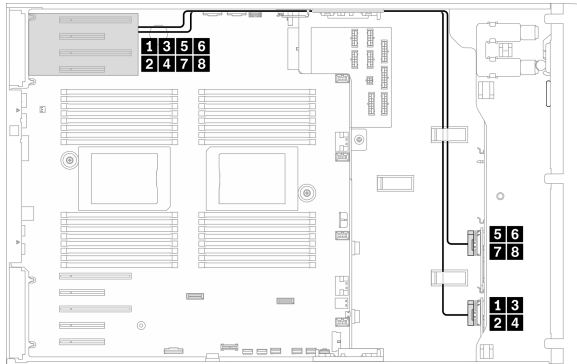


Figure 233. NVMe cable routing to top PCIe zone

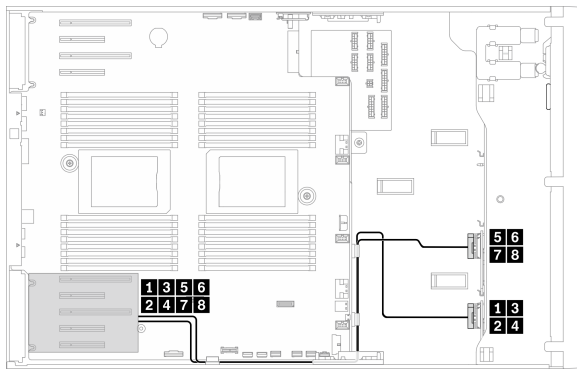


Figure 234. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

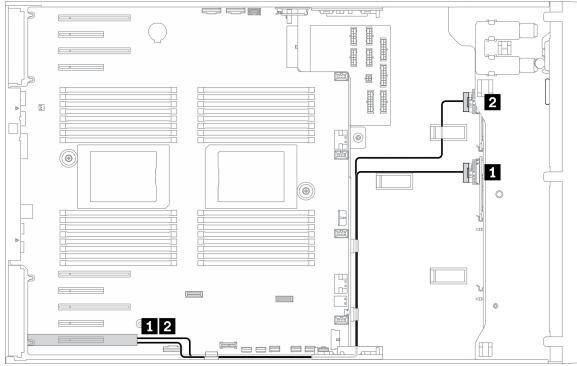


Figure 235. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP4: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

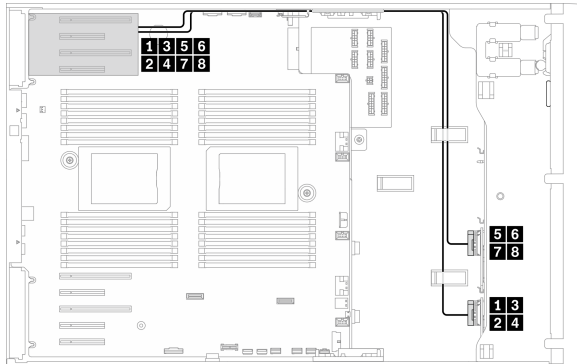


Figure 236. NVMe cable routing to top PCIe zone

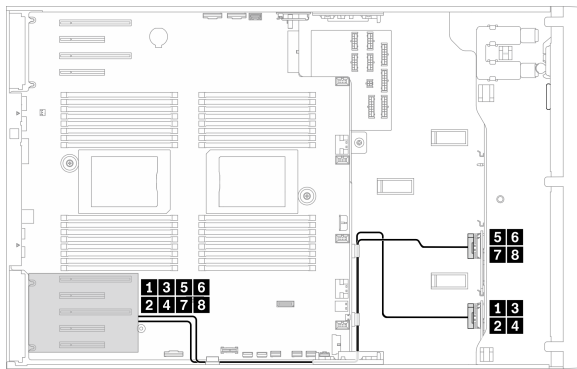


Figure 237. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

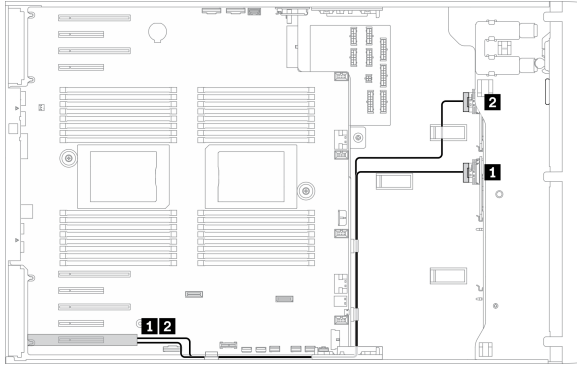


Figure 238. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP3: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP4: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (880 mm)

4 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

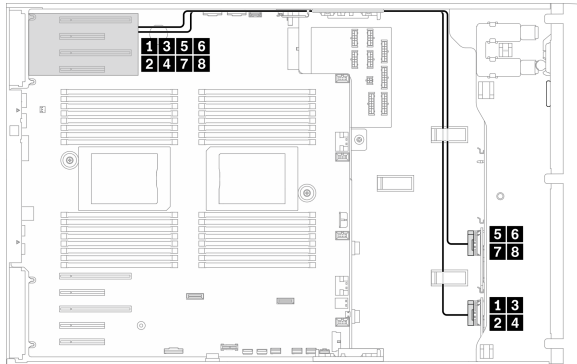


Figure 239. NVMe cable routing to top PCIe zone

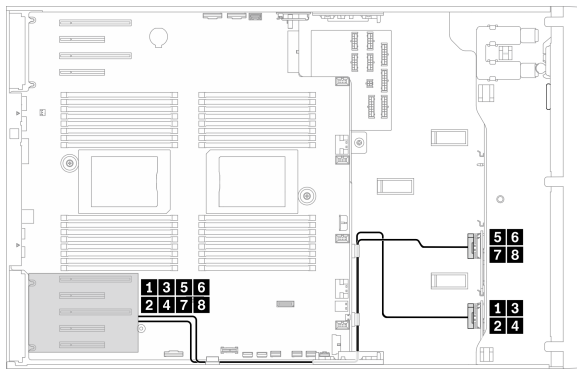


Figure 240. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

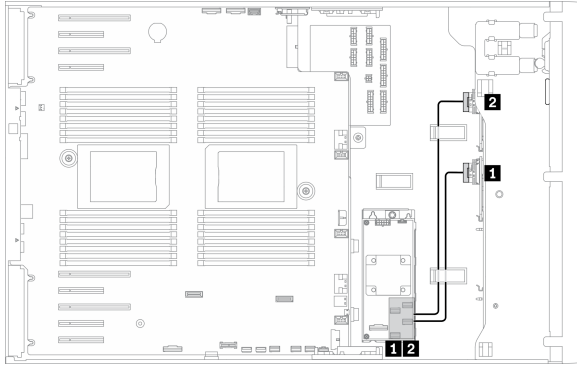


Figure 241. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
1 BP3: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP4: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

1 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 1 x SAS/SATA + 1 x AnyBay 2.5-inch hot-swap backplane.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe + 2 x 8i RAID/HBA” on page 206](#)
- [“Onboard NVMe + 1 x 16i RAID/HBA” on page 208](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 210](#)
- [“2 x retimers + 1 x CFF 16i RAID/HBA” on page 212](#)

Onboard NVMe + 2 x 8i RAID/HBA

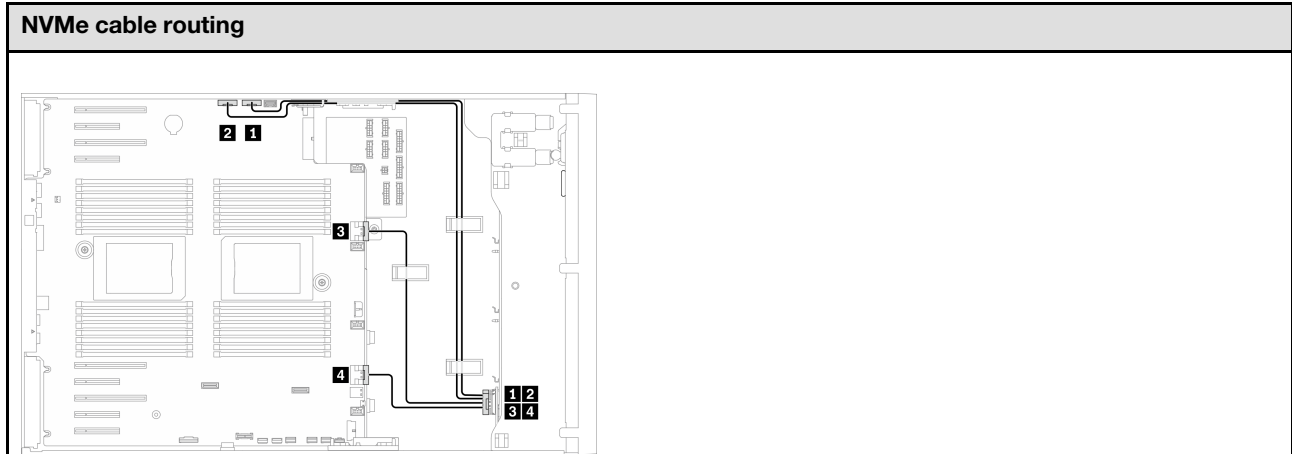


Figure 242. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

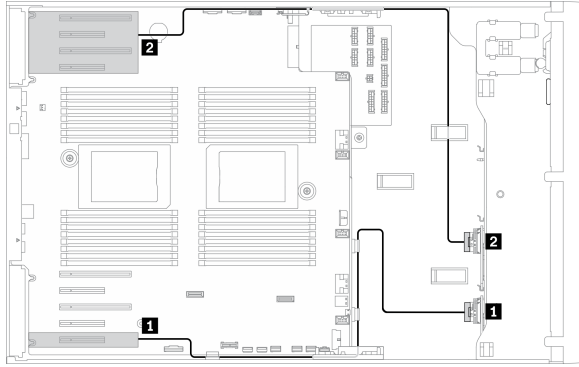


Figure 243. SAS/SATA cable routing to top PCIe zone

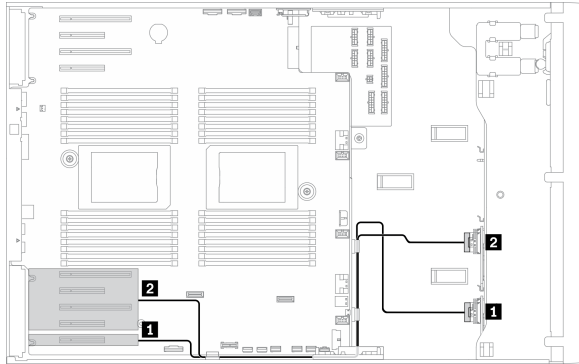


Figure 244. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 16i RAID/HBA

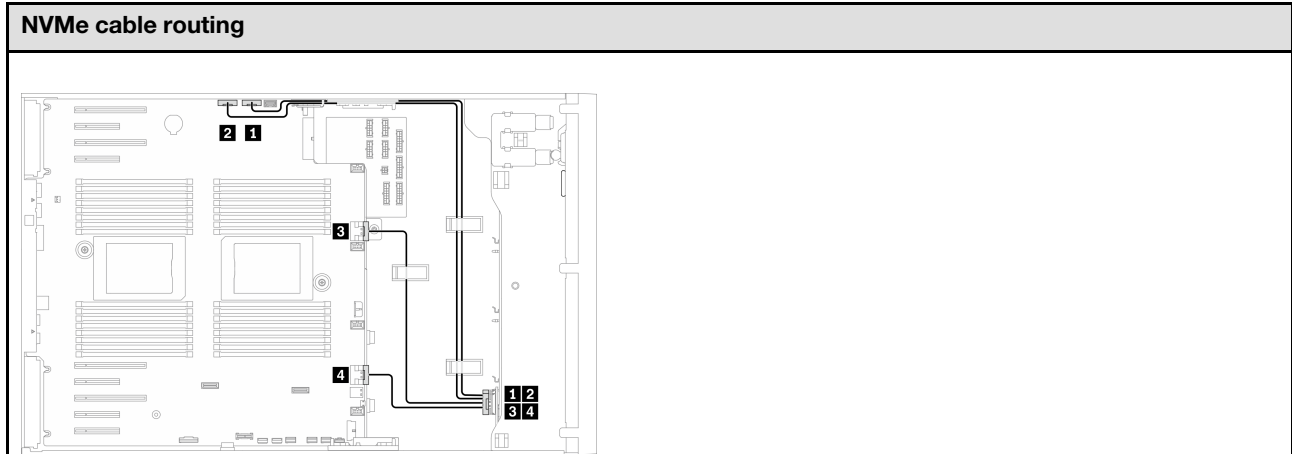


Figure 245. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

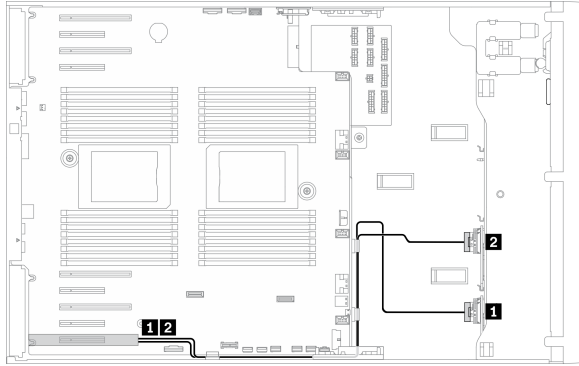


Figure 246. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 32i RAID/HBA

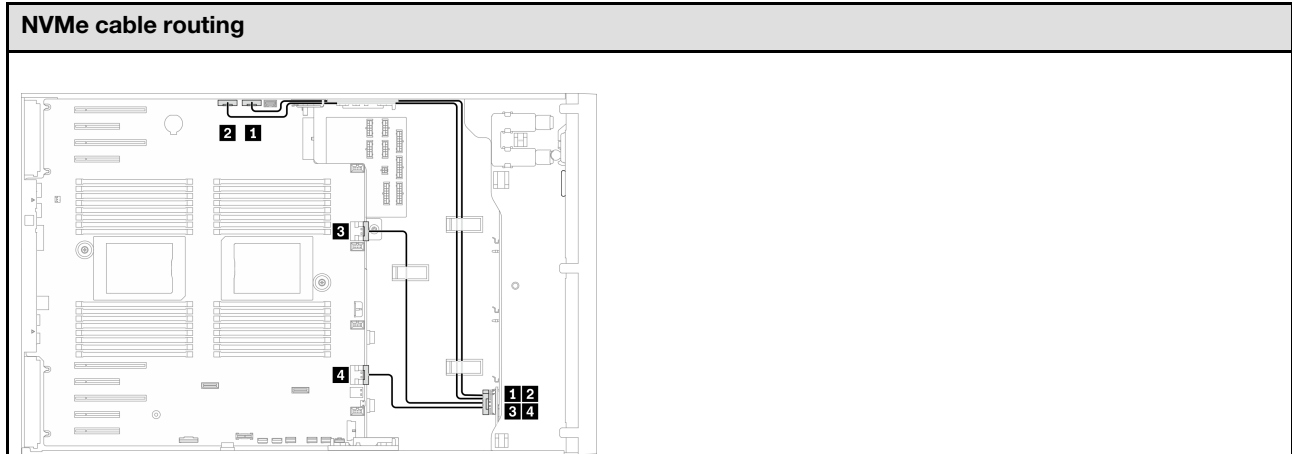


Figure 247. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

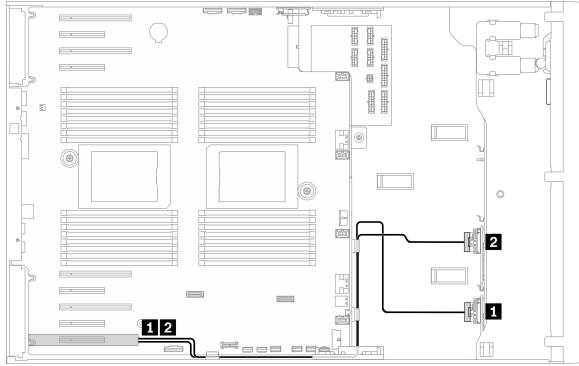


Figure 248. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)

2 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

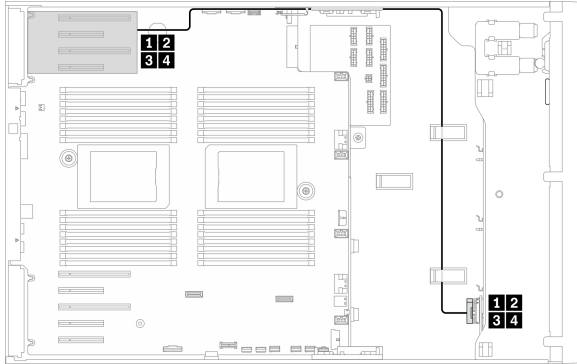


Figure 249. NVMe cable routing to top PCIe zone

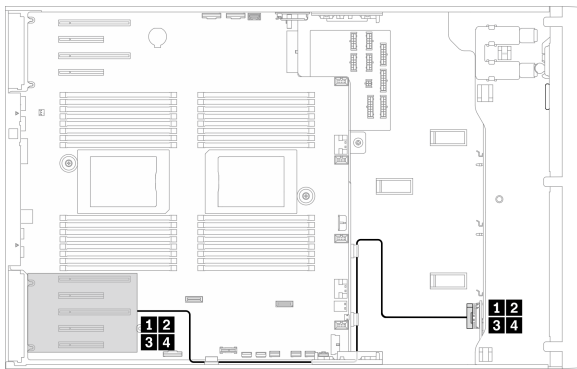


Figure 250. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

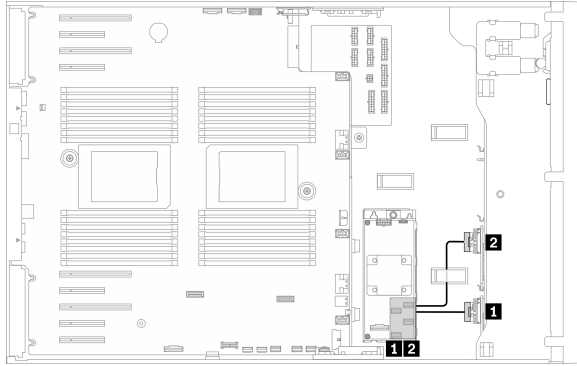


Figure 251. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)

1 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 1 x SAS/SATA + 2 x AnyBay 2.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers + 2 x 8i RAID/HBA” on page 215](#)
- [“Onboard NVMe/SATA + 2 x retimers + 1 x 16i RAID/HBA” on page 217](#)
- [“Onboard NVMe + 2 x retimers + 3 x 8i RAID/HBA” on page 219](#)
- [“Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 221](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 223](#)
- [“Onboard SATA + 4 x retimers + 2 x 8i RAID/HBA” on page 225](#)
- [“Onboard SATA + 4 x retimers + 1 x 16i RAID/HBA” on page 227](#)
- [“Onboard SATA + 4 x retimers + 1 x CFF 16i RAID/HBA” on page 229](#)
- [“4 x retimers + 3 x 8i RAID/HBA” on page 231](#)
- [“4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 233](#)
- [“4 x retimers + 1 x 32i RAID/HBA” on page 235](#)

Onboard NVMe/SATA + 2 x retimers + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

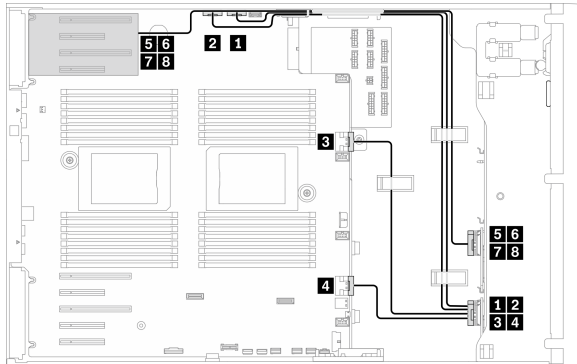


Figure 252. NVMe cable routing to system board and top PCIe zone

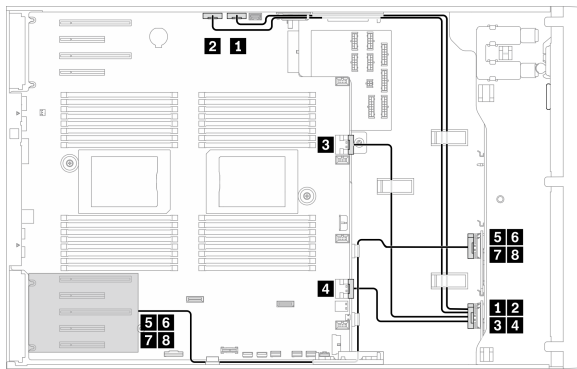


Figure 253. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

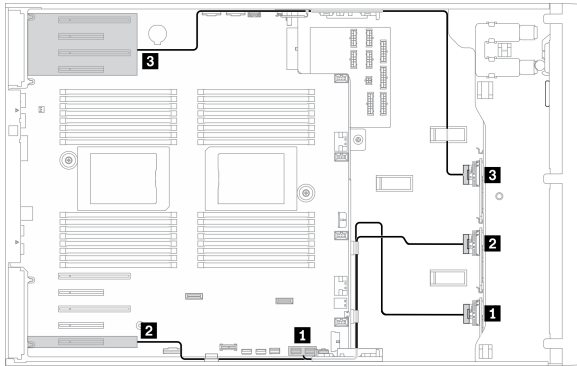


Figure 254. SAS/SATA cable routing to system board and top PCIe zone

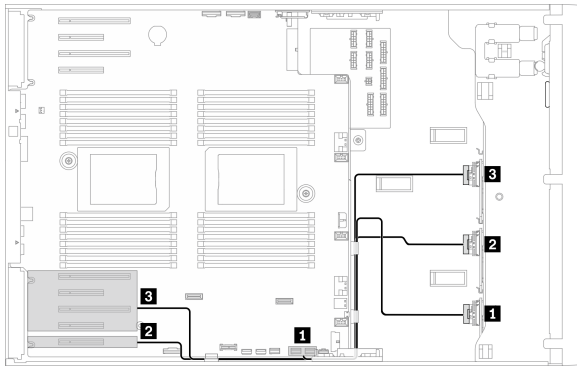


Figure 255. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe/SATA + 2 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

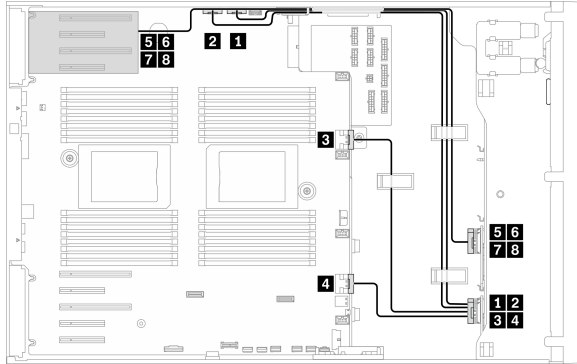


Figure 256. NVMe cable routing to system board and top PCIe zone

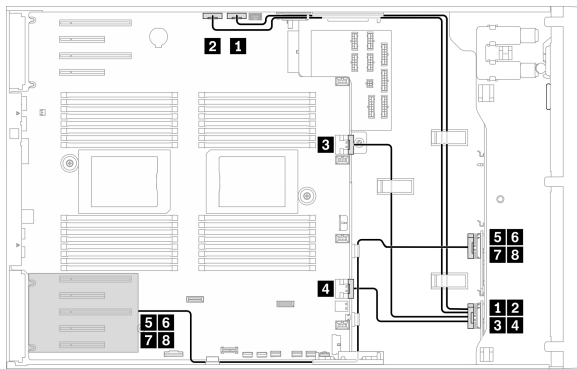


Figure 257. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

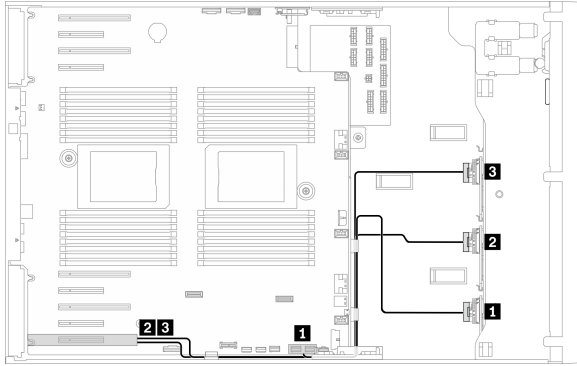


Figure 258. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 3 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

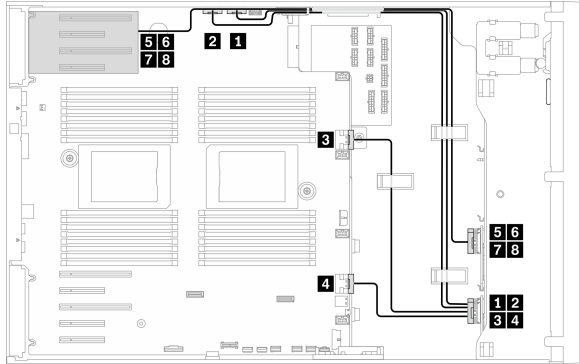


Figure 259. NVMe cable routing to system board and top PCIe zone

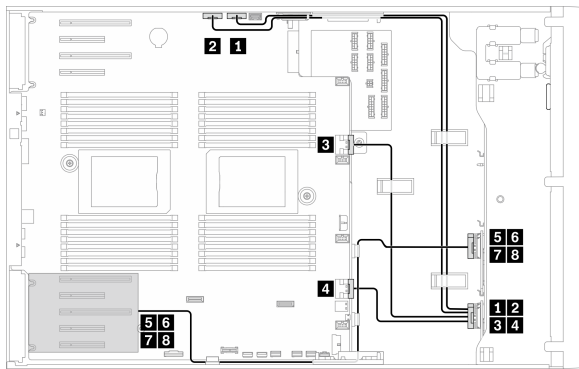


Figure 260. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

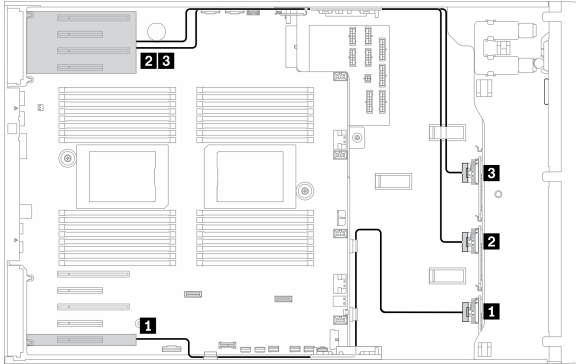


Figure 261. SAS/SATA cable routing to top PCIe zone

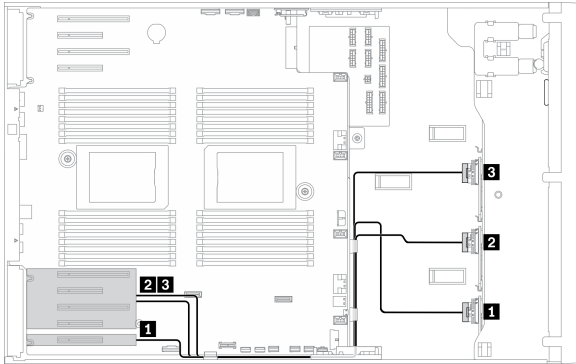


Figure 262. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

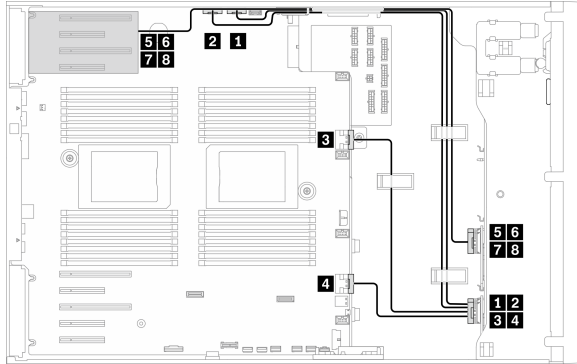


Figure 263. NVMe cable routing to system board and top PCIe zone

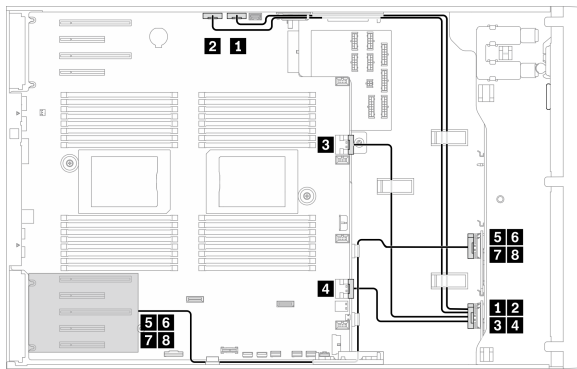


Figure 264. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

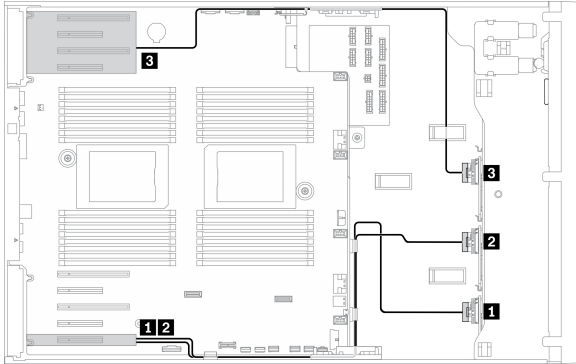


Figure 265. SAS/SATA cable routing to top PCIe zone

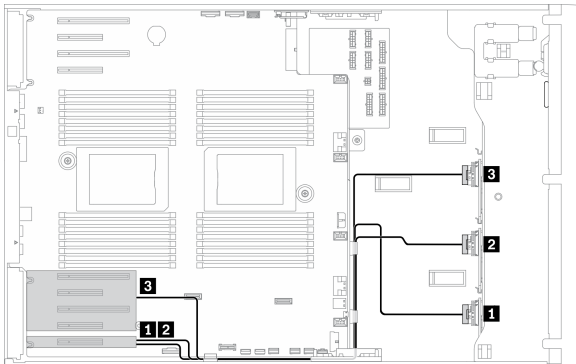


Figure 266. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

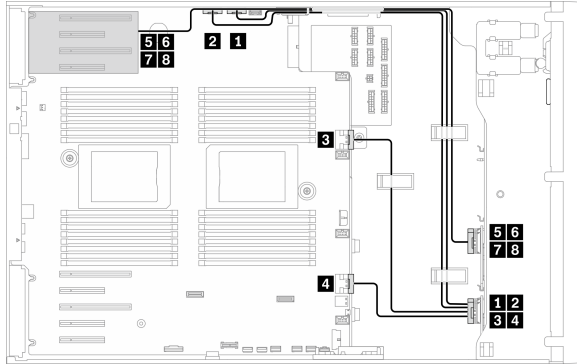


Figure 267. NVMe cable routing to system board and top PCIe zone

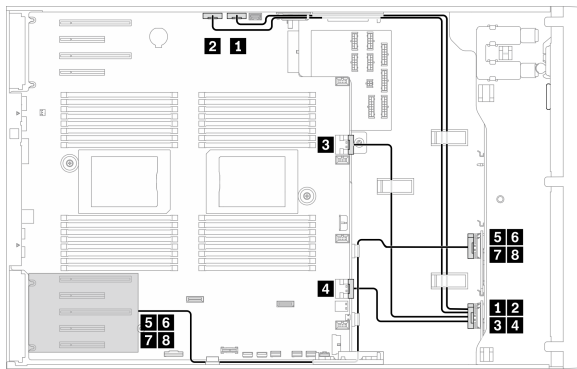


Figure 268. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

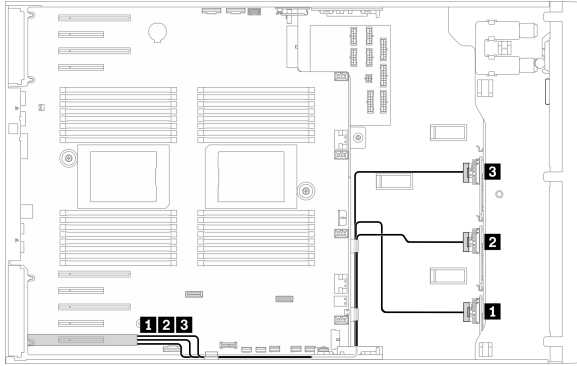


Figure 269. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

Onboard SATA + 4 x retimers + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

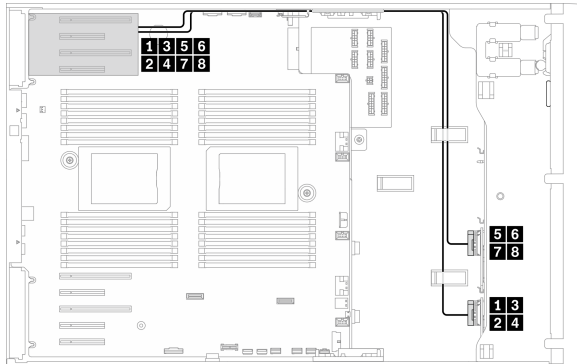


Figure 270. NVMe cable routing to top PCIe zone

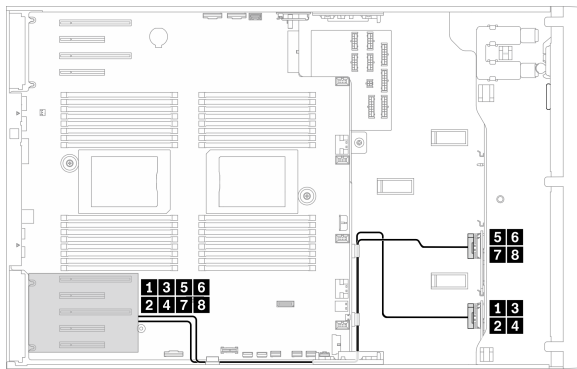


Figure 271. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

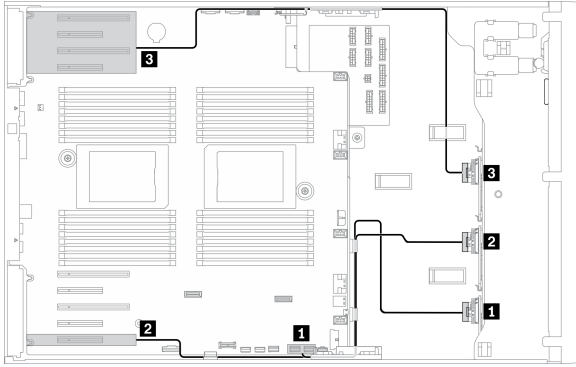


Figure 272. SAS/SATA cable routing to system board and top PCIe zone

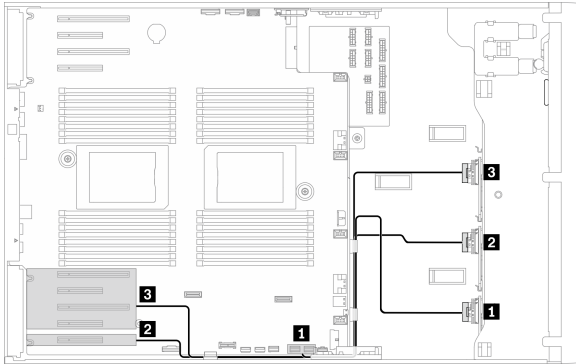


Figure 273. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard SATA + 4 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

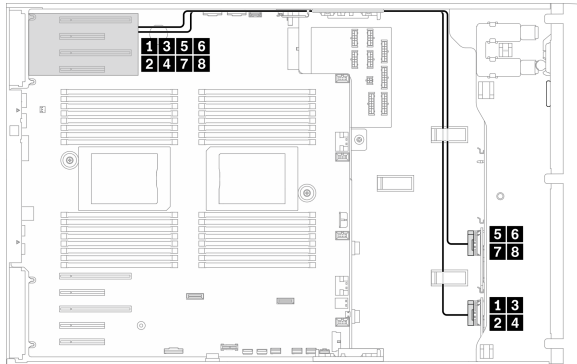


Figure 274. NVMe cable routing to top PCIe zone

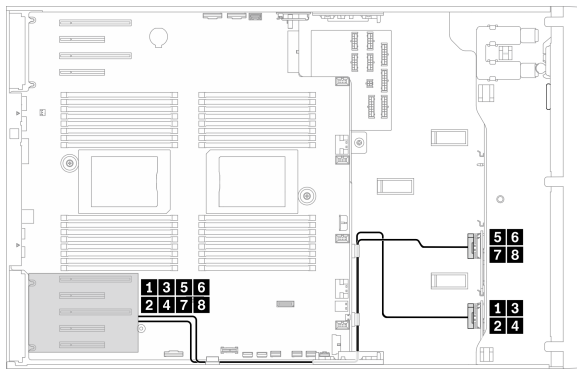


Figure 275. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

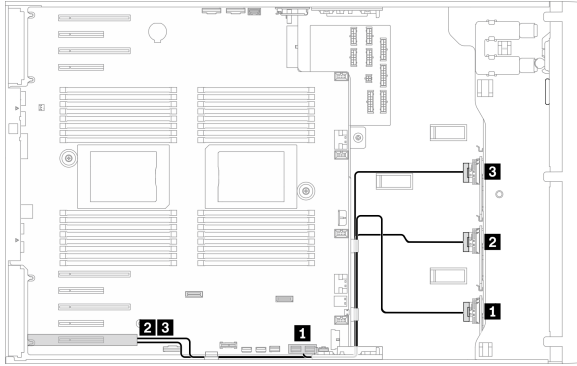


Figure 276. SAS/SATA cable routing to system board and PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard SATA + 4 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

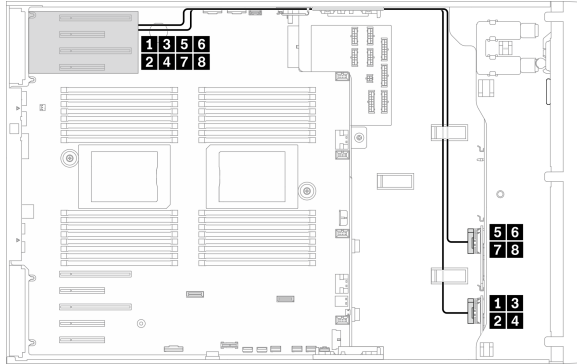


Figure 277. NVMe cable routing to top PCIe zone

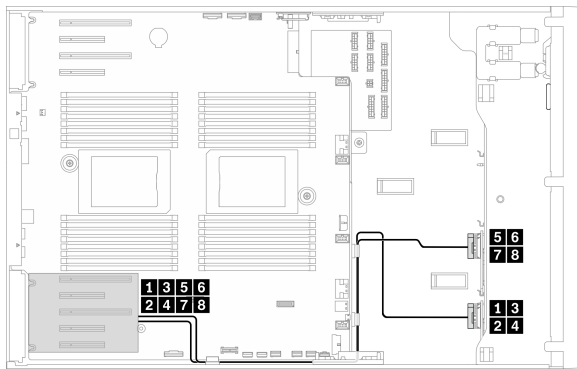


Figure 278. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

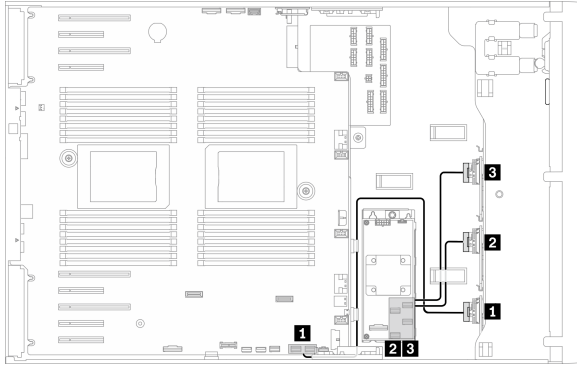


Figure 279. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
3 BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

4 x retimers + 3 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

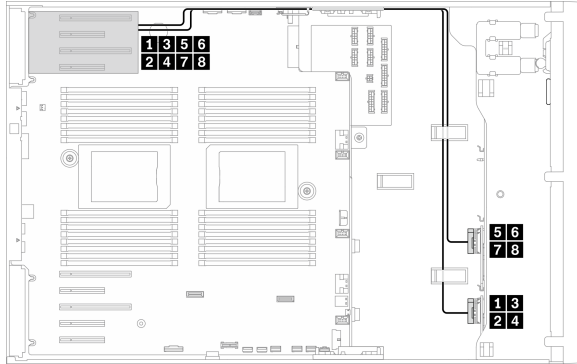


Figure 280. NVMe cable routing to top PCIe zone

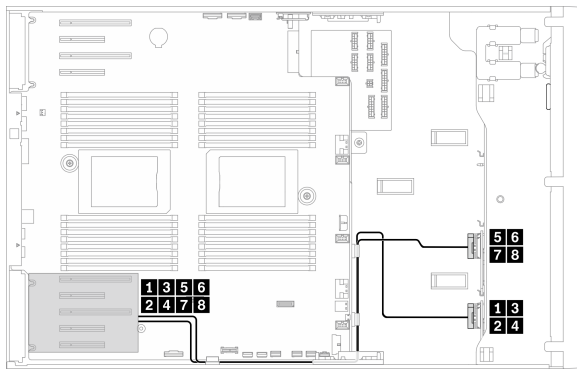


Figure 281. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

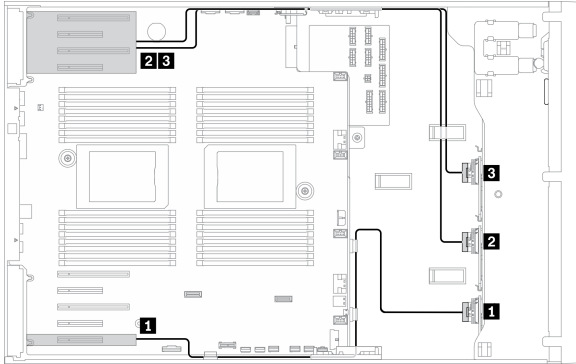


Figure 282. SAS/SATA cable routing to top PCIe zone

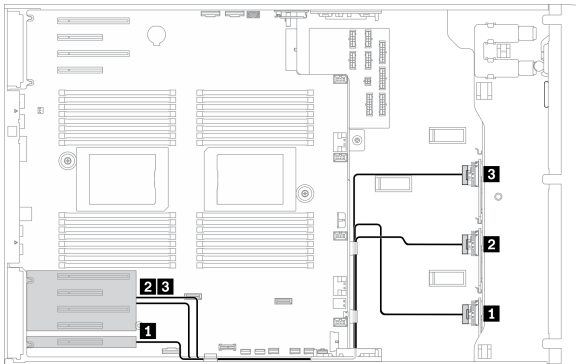


Figure 283. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

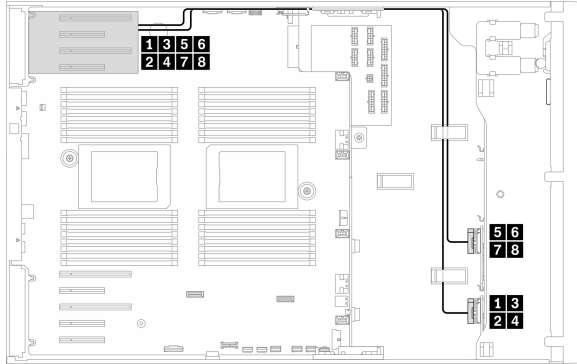


Figure 284. NVMe cable routing to top PCIe zone

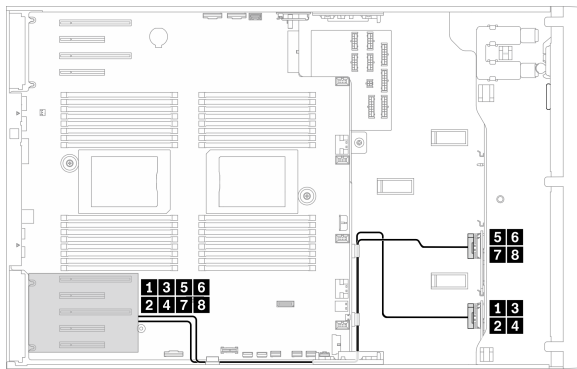


Figure 285. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

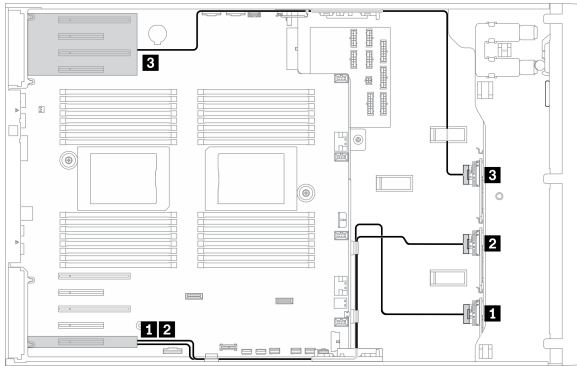


Figure 286. SAS/SATA cable routing to top PCIe zone

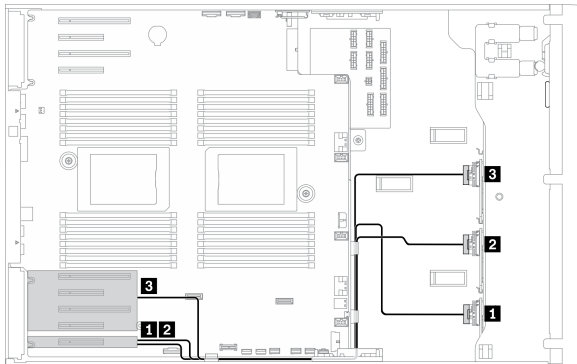


Figure 287. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

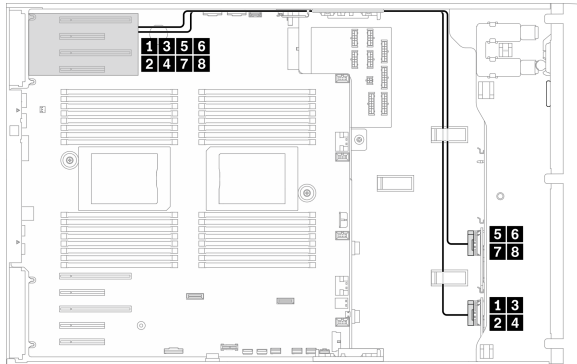


Figure 288. NVMe cable routing to top PCIe zone

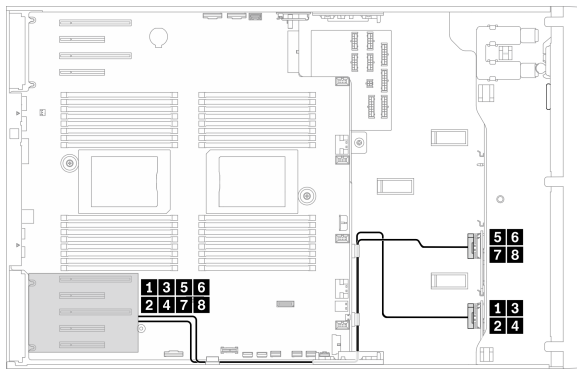


Figure 289. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

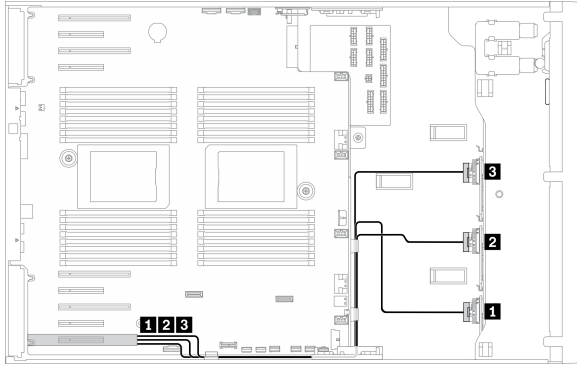


Figure 290. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

2 x SAS/SATA + 1 x AnyBay backplane

This section lists the required components for server models with 2 x SAS/SATA + 1 x AnyBay 2.5-inch hot-swap backplane.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x 8i RAID/HBA” on page 238](#)
- [“Onboard NVMe/SATA + 1 x 16i RAID/HBA” on page 240](#)
- [“Onboard NVMe + 3 x 8i RAID/HBA” on page 242](#)
- [“Onboard NVMe + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 244](#)
- [“Onboard NVMe + 1 x 32i RAID/HBA” on page 246](#)
- [“Onboard SATA + 2 x retimers + 2 x 8i RAID/HBA” on page 248](#)
- [“Onboard SATA + 2 x retimers + 1 x 16i RAID/HBA” on page 250](#)
- [“Onboard SATA + 2 x retimers + 1 x CFF 16i RAID/HBA” on page 252](#)
- [“2 x retimers + 3 x 8i RAID/HBA” on page 254](#)
- [“2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 256](#)
- [“2 x retimers + 1 x 32i RAID/HBA” on page 258](#)

Onboard NVMe/SATA + 2 x 8i RAID/HBA

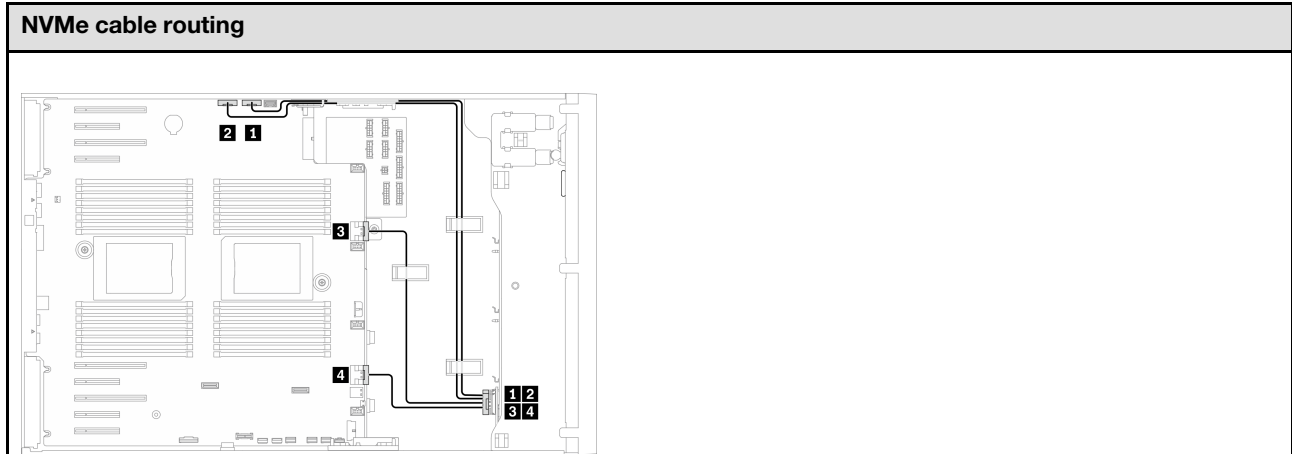


Figure 291. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

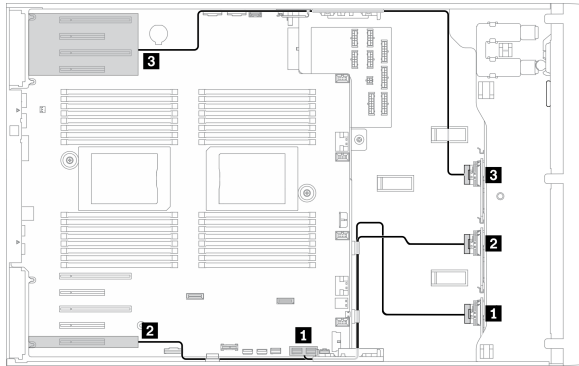


Figure 292. SAS/SATA cable routing to system board and top PCIe zone

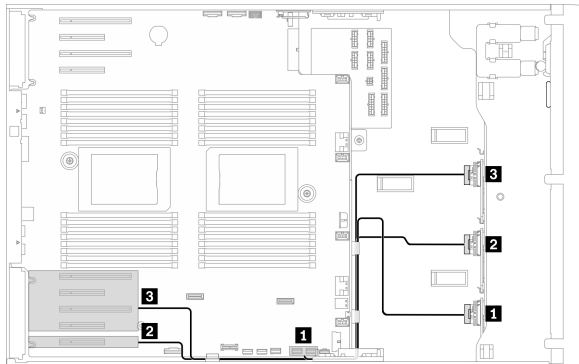


Figure 293. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe/SATA + 1 x 16i RAID/HBA

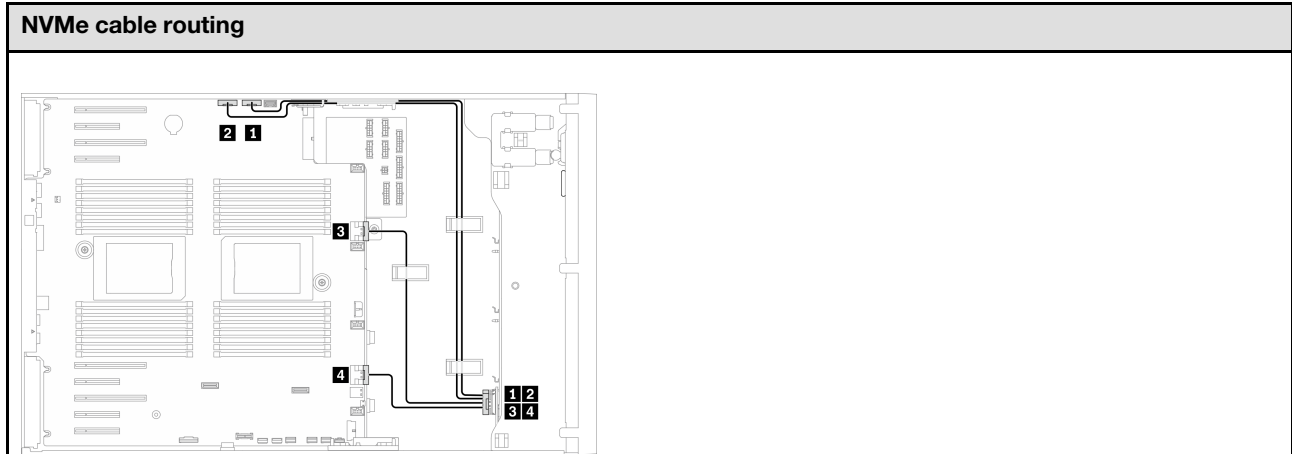


Figure 294. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

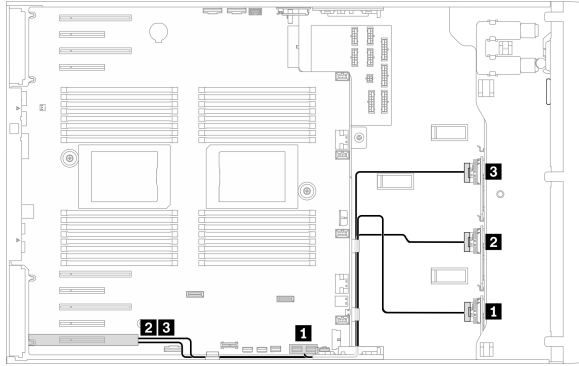


Figure 295. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 3 x 8i RAID/HBA

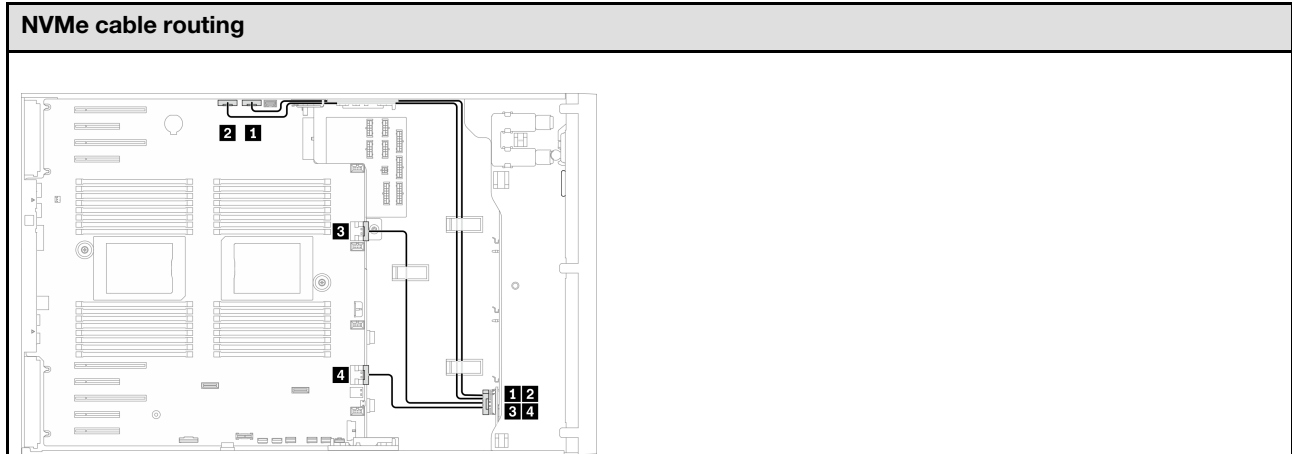


Figure 296. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

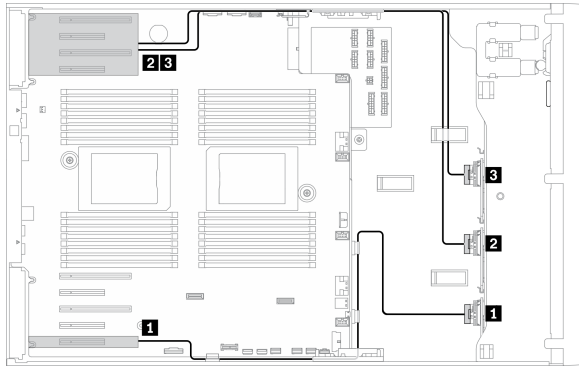


Figure 297. SAS/SATA cable routing to top PCIe zone

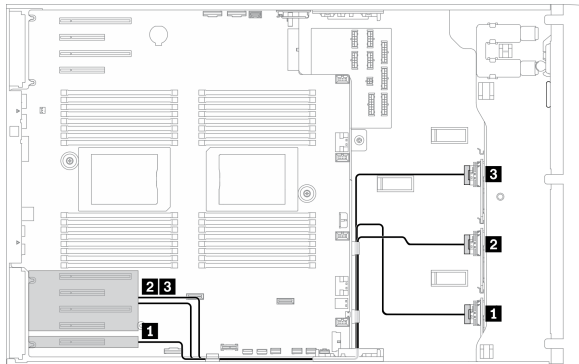


Figure 298. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

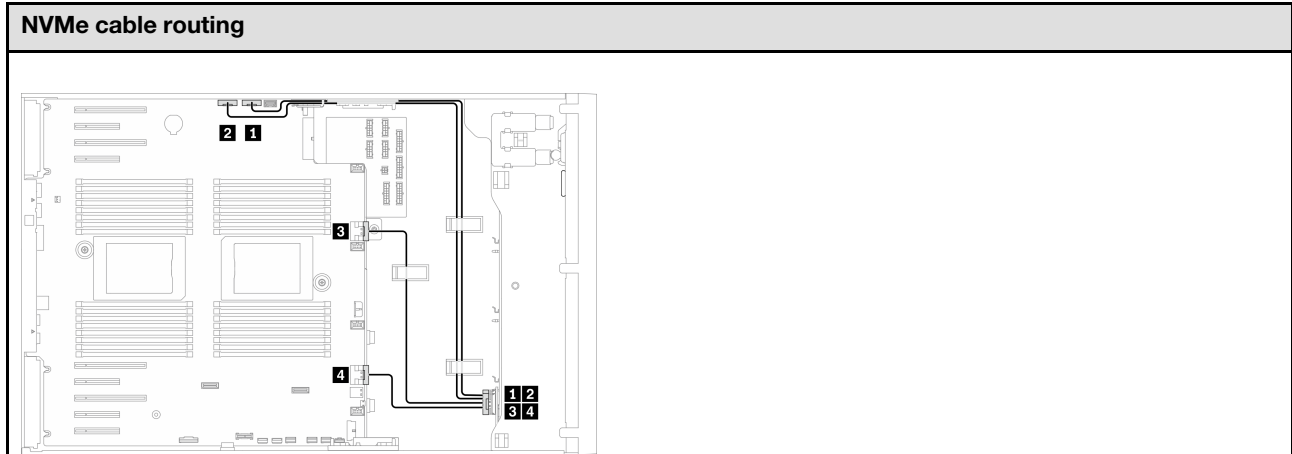


Figure 299. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

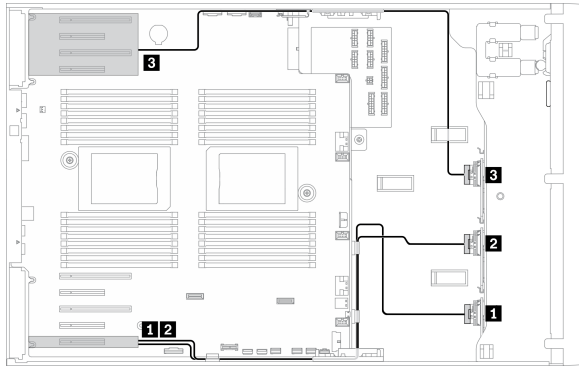


Figure 300. SAS/SATA cable routing to top PCIe zone

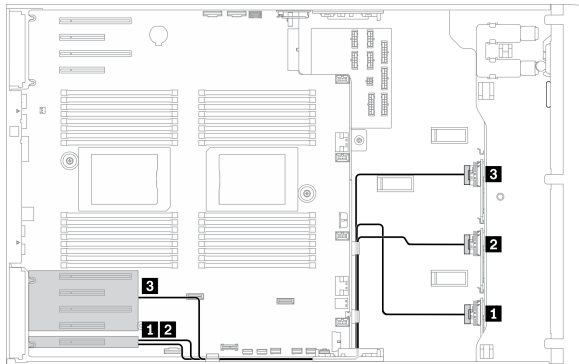


Figure 301. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 8i G4: C0 • 8i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 1 x 32i RAID/HBA

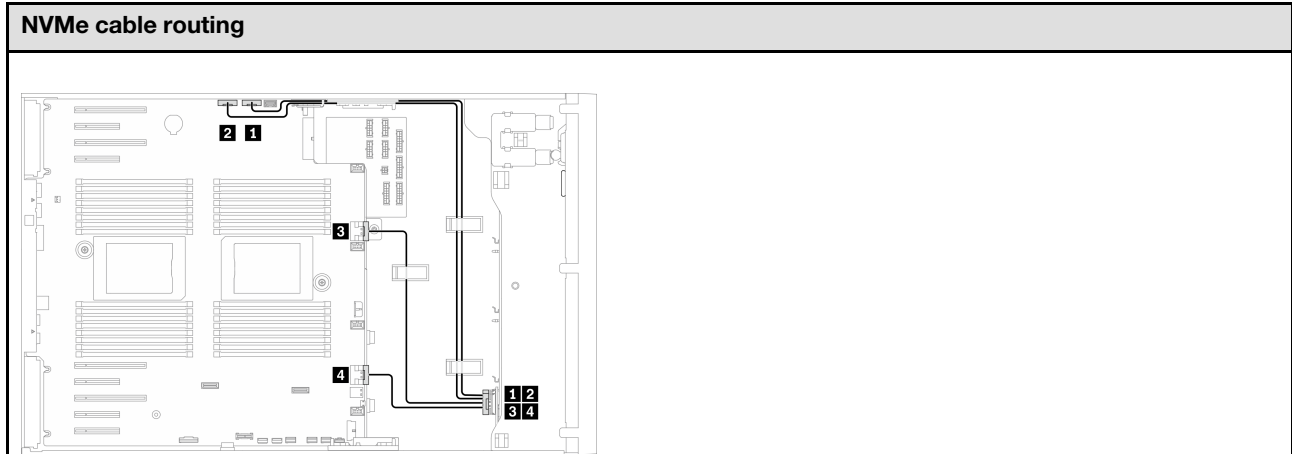


Figure 302. NVMe cable routing to system board

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	

SAS/SATA cable routing

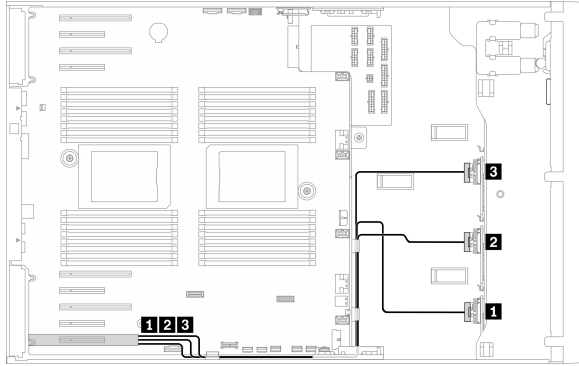


Figure 303. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

Onboard SATA + 2 x retimers + 2 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

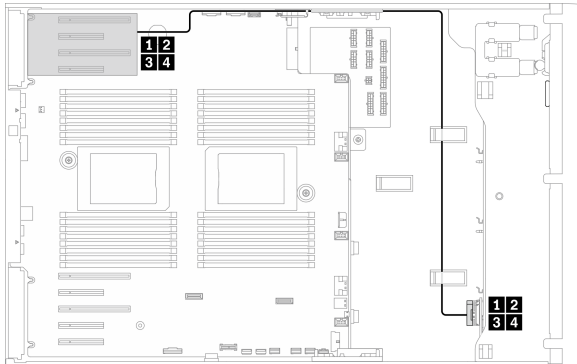


Figure 304. NVMe cable routing to top PCIe zone

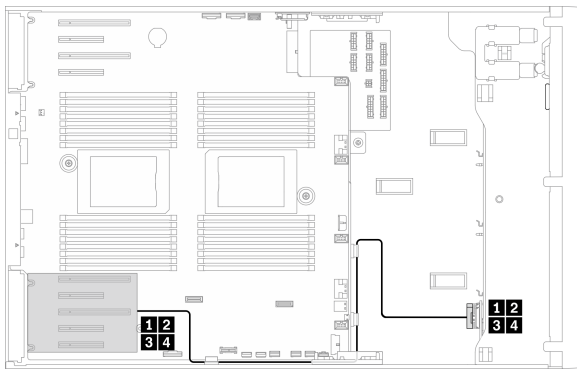


Figure 305. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

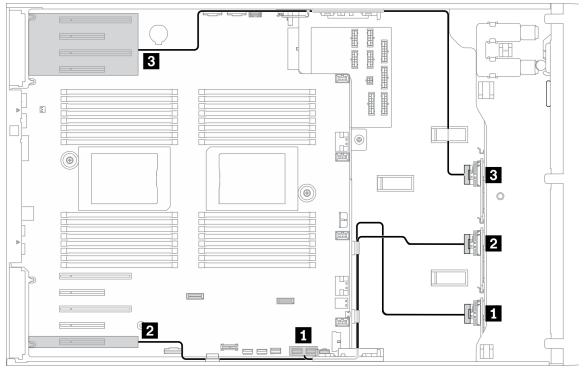


Figure 306. SAS/SATA cable routing to system board and top PCIe zone

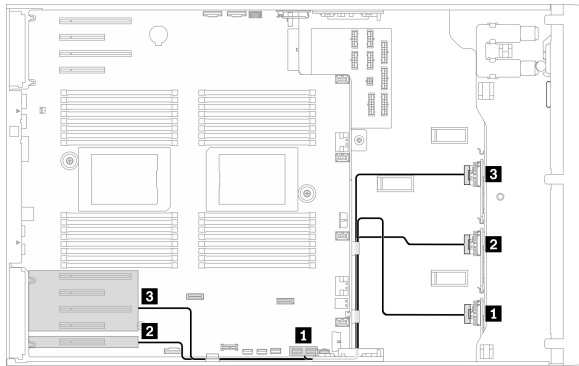


Figure 307. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard SATA + 2 x retimers + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

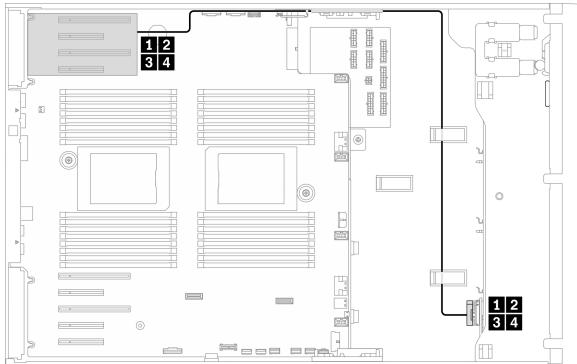


Figure 308. NVMe cable routing to top PCIe zone

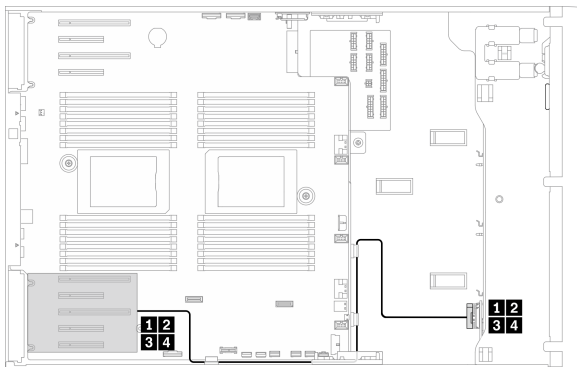


Figure 309. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

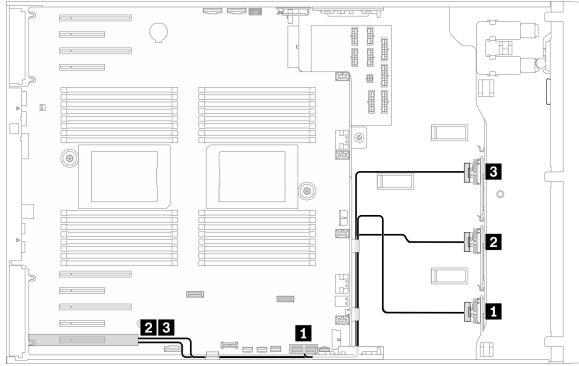


Figure 310. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C0 • 16i G3: C0, C1 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> • 16i G4: C1 • 16i G3: C2, C3 	<ul style="list-style-type: none"> • Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) • Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard SATA + 2 x retimers + 1 x CFF 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

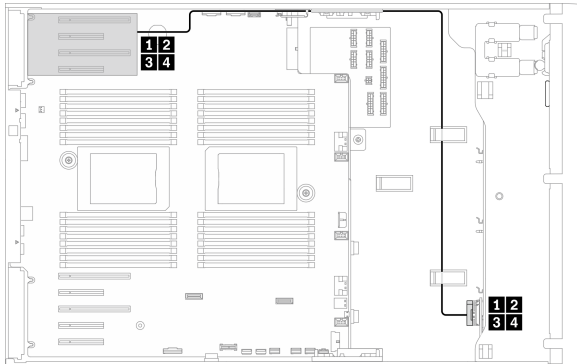


Figure 311. NVMe cable routing to top PCIe zone

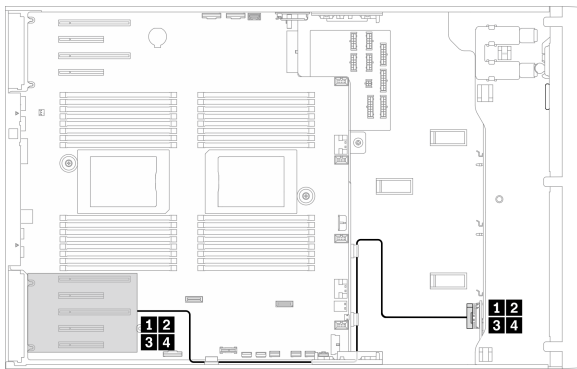


Figure 312. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

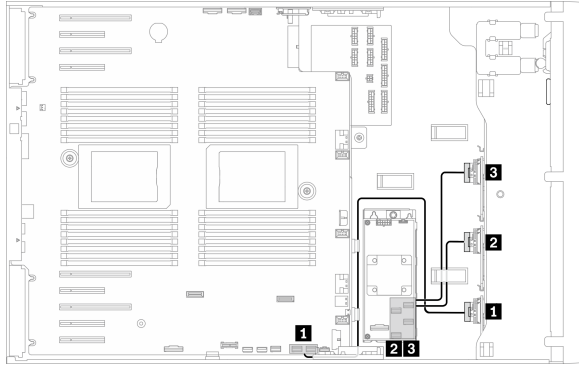


Figure 313. SAS/SATA cable routing to system board and CFF RAID/HBA adapter

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	CFF RAID/HBA: C0, C1	SlimSAS x4*2 to SlimSAS x8 (260 mm/260 mm)
3 BP3: SAS/SATA	CFF RAID/HBA: C2, C3	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)

2 x retimers + 3 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

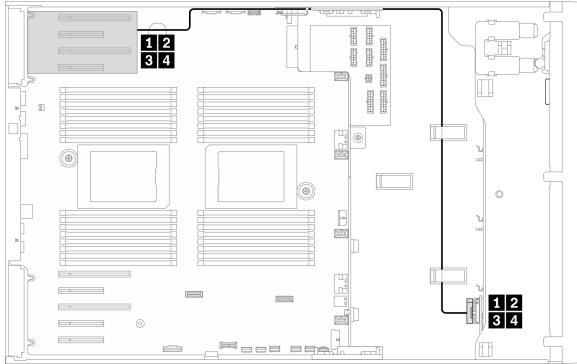


Figure 314. NVMe cable routing to top PCIe zone

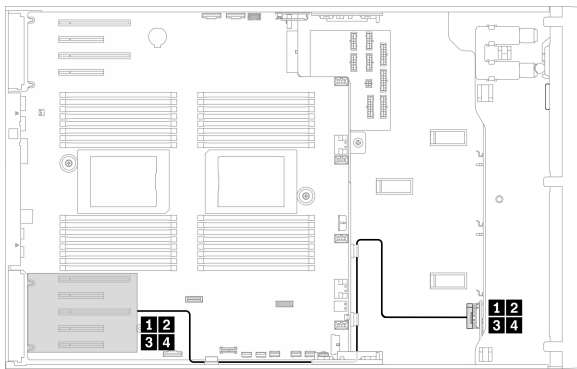


Figure 315. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

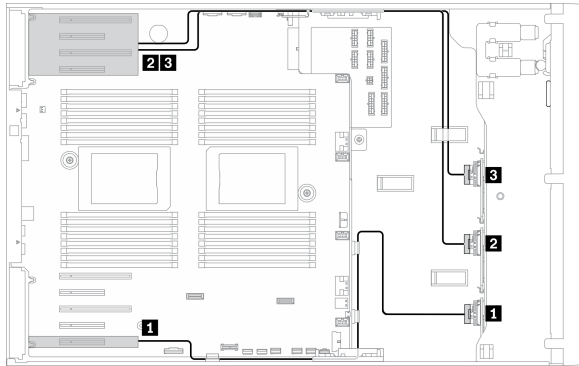


Figure 316. SAS/SATA cable routing to top PCIe zone

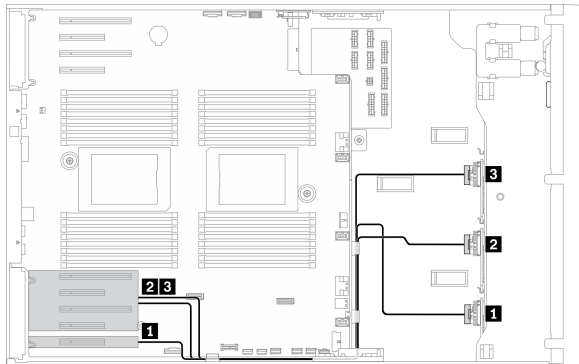


Figure 317. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

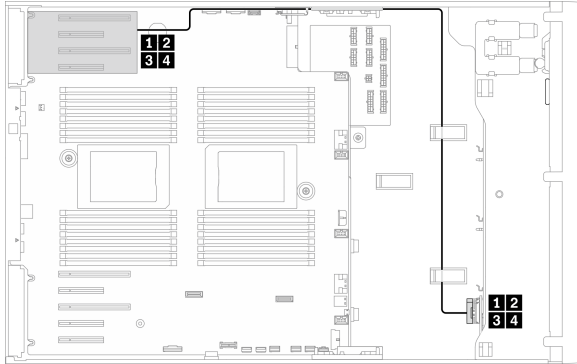


Figure 318. NVMe cable routing to top PCIe zone

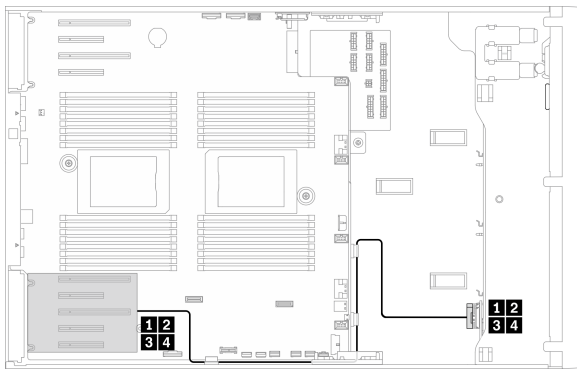


Figure 319. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

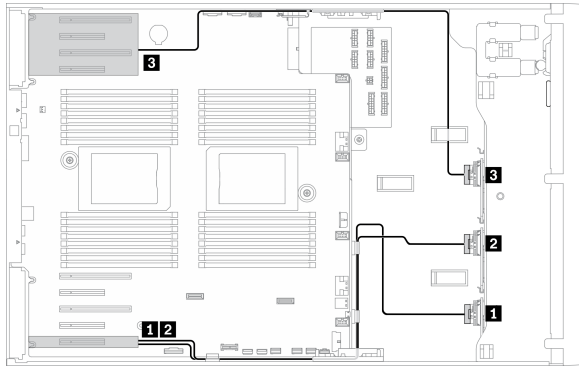


Figure 320. SAS/SATA cable routing to top PCIe zone

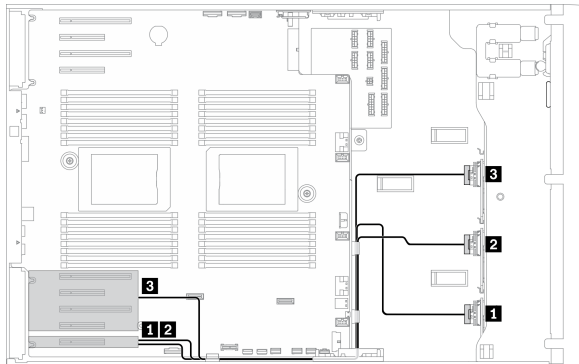


Figure 321. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

2 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

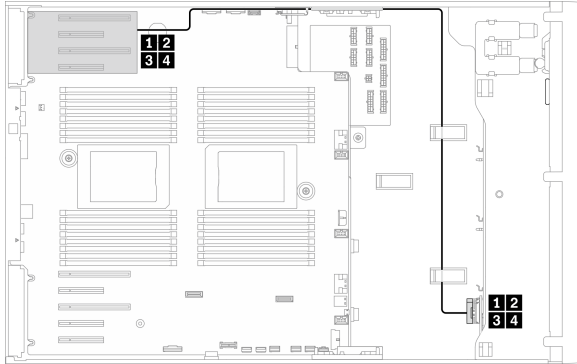


Figure 322. NVMe cable routing to top PCIe zone

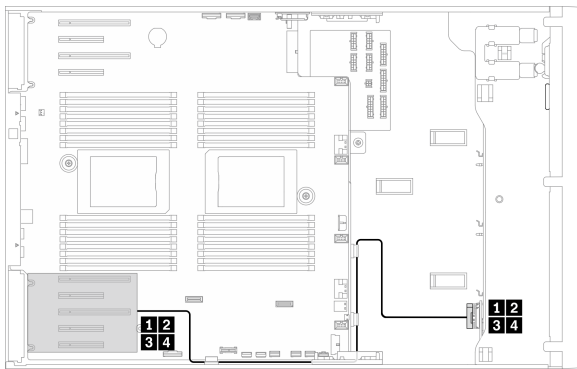


Figure 323. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

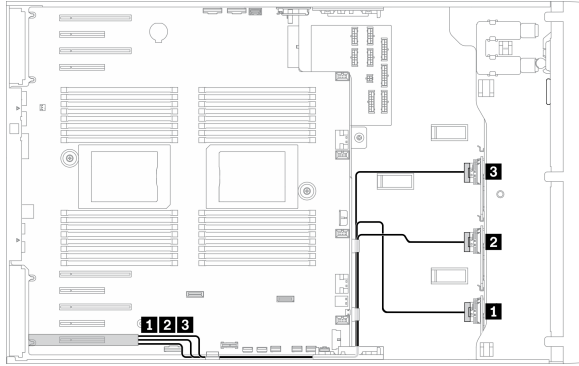


Figure 324. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)

2 x SAS/SATA + 2 x AnyBay backplanes

This section lists the required components for server models with 2 x SAS/SATA + 2 x AnyBay 2.5-inch hot-swap backplanes.

Notes:

- Connections between connectors; **1↔1, 2↔2, 3↔3, ... n↔n**
- When routing the cables, ensure that all cables are routed appropriately through the cable guides and cable clips.
- Y-cables are shown as individual cables in the illustrations for each backplane.
- Connect cables prioritizing Gen 4 RAID adapters.
- For more information on the cables that are used, see [“Backplane cable list” on page 119](#).

This configuration contains the following combinations:

- [“Onboard NVMe/SATA + 2 x retimers + 3 x 8i RAID/HBA” on page 261](#)
- [“Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 263](#)
- [“Onboard NVMe + 2 x retimers + 4 x 8i RAID/HBA” on page 265](#)
- [“Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 267](#)
- [“Onboard NVMe + 2 x retimers + 2 x 16i RAID/HBA” on page 269](#)
- [“Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA” on page 271](#)
- [“Onboard NVMe/SATA + 3 x retimers + 3 x 8i RAID/HBA” on page 273](#)
- [“Onboard NVMe/SATA + 3 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 275](#)
- [“Onboard NVMe + 3 x retimers + 4 x 8i RAID/HBA” on page 277](#)
- [“Onboard NVMe + 3 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 279](#)
- [“Onboard NVMe + 3 x retimers + 2 x 16i RAID/HBA” on page 281](#)
- [“Onboard NVMe + 3 x retimers + 1 x 32i RAID/HBA” on page 283](#)
- [“Onboard SATA + 4 x retimers + 3 x 8i RAID/HBA” on page 285](#)
- [“Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 287](#)
- [“4 x retimers + 4 x 8i RAID/HBA” on page 289](#)
- [“4 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA” on page 291](#)
- [“4 x retimers + 2 x 16i RAID/HBA” on page 293](#)
- [“4 x retimers + 1 x 32i RAID/HBA” on page 295](#)

Onboard NVMe/SATA + 2 x retimers + 3 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

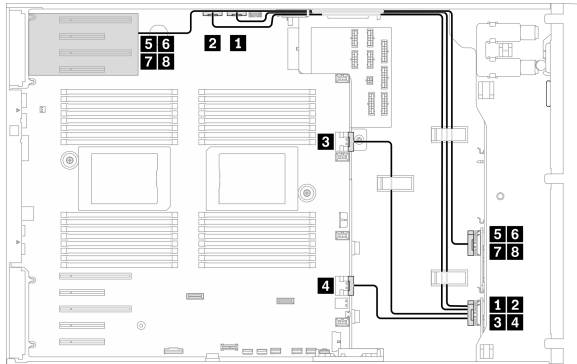


Figure 325. NVMe cable routing to system board and top PCIe zone

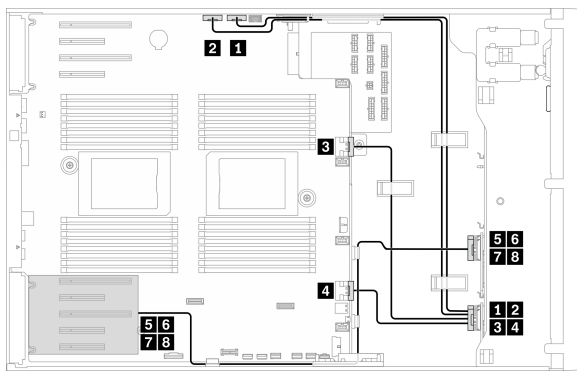


Figure 326. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

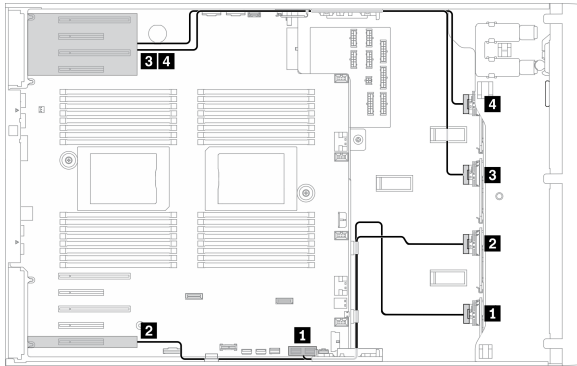


Figure 327. SAS/SATA cable routing to system board and top PCIe zone

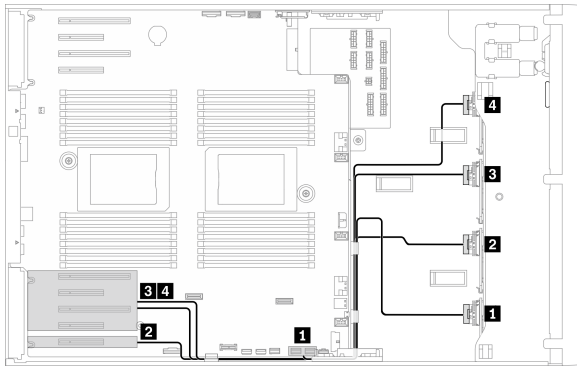


Figure 328. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe/SATA + 2 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

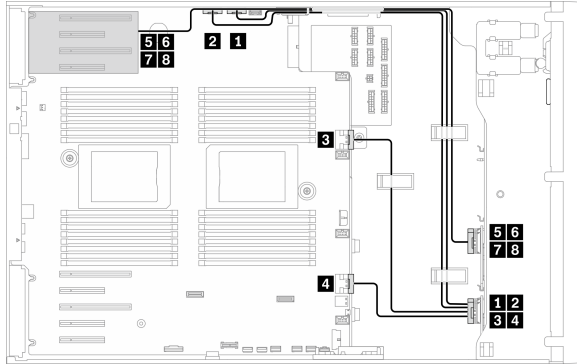


Figure 329. NVMe cable routing to system board and top PCIe zone

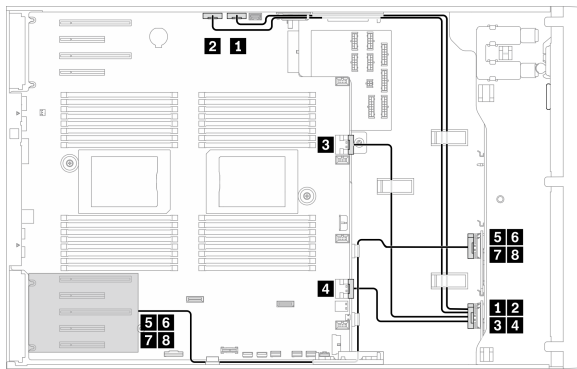


Figure 330. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

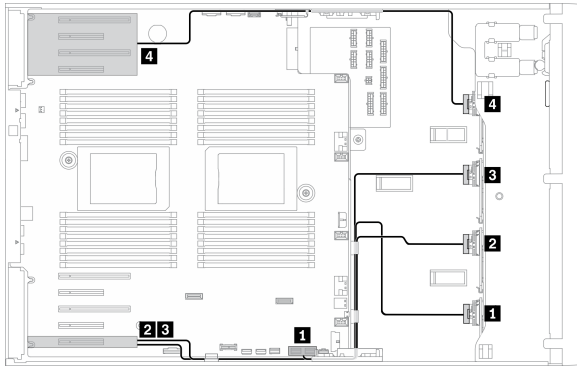


Figure 331. SAS/SATA cable routing to system board and top PCIe zone

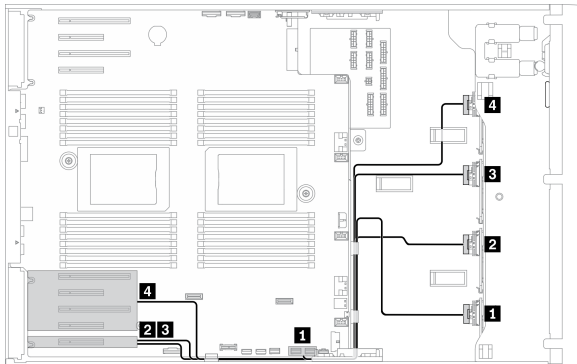


Figure 332. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 4 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

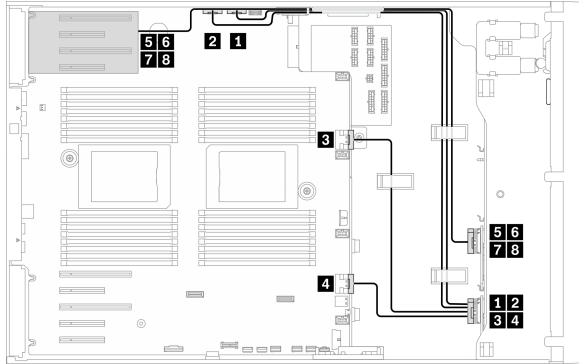


Figure 333. NVMe cable routing to system board and top PCIe zone

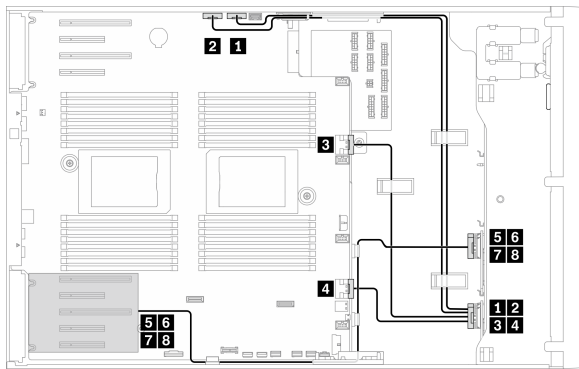


Figure 334. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

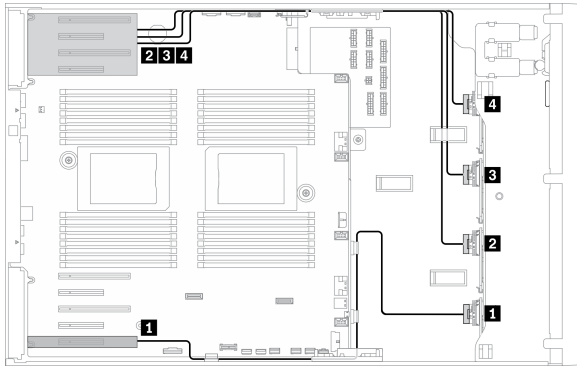


Figure 335. SAS/SATA cable routing to top PCIe zone

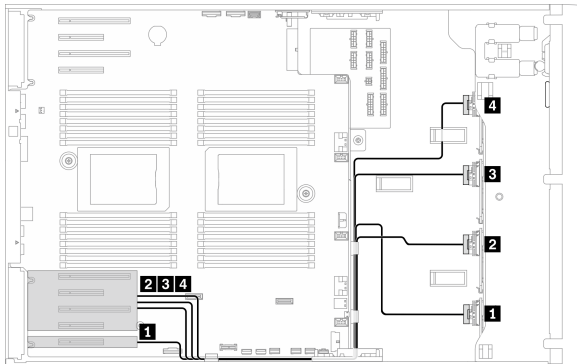


Figure 336. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

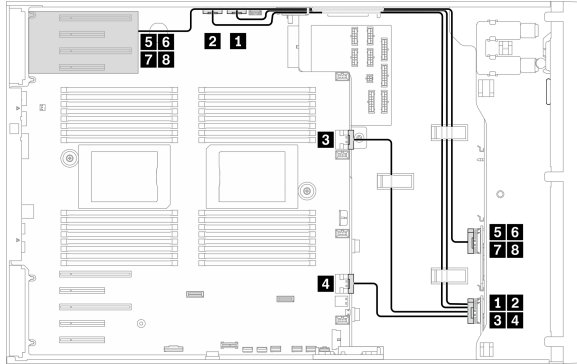


Figure 337. NVMe cable routing to system board and top PCIe zone

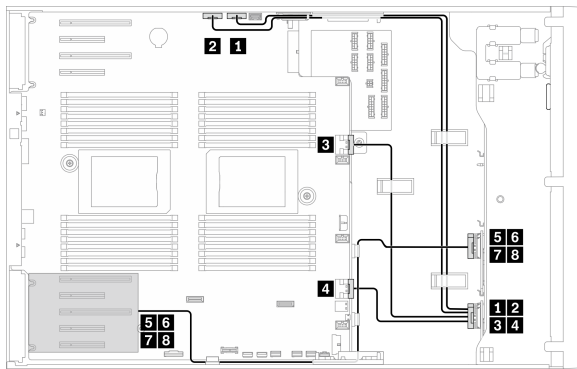


Figure 338. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

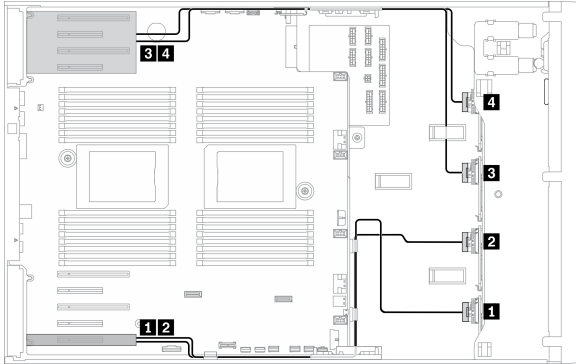


Figure 339. SAS/SATA cable routing to top PCIe zone

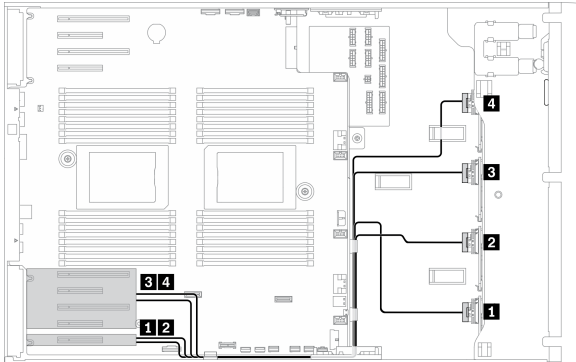


Figure 340. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 2 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

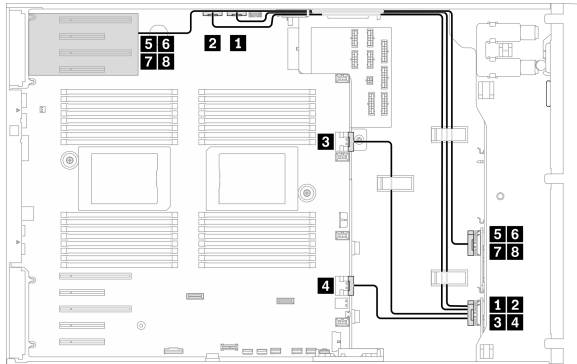


Figure 341. NVMe cable routing to system board and top PCIe zone

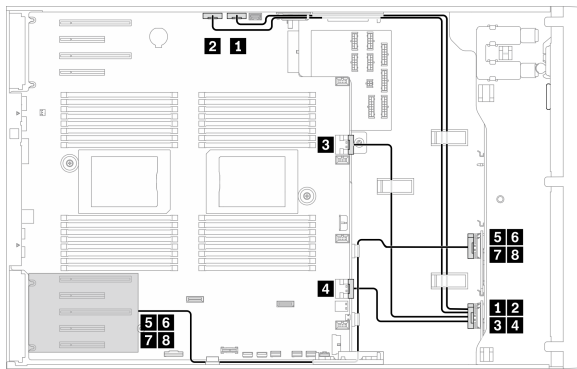


Figure 342. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

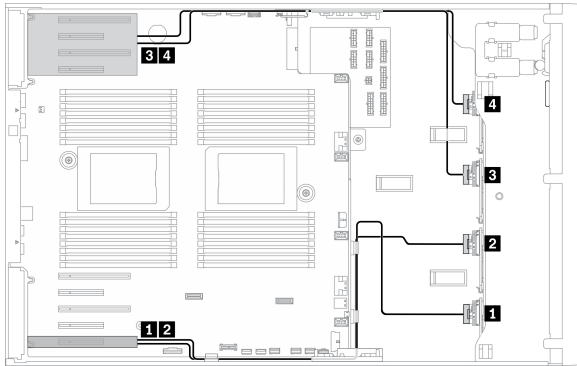


Figure 343. SAS/SATA cable routing to top PCIe zone

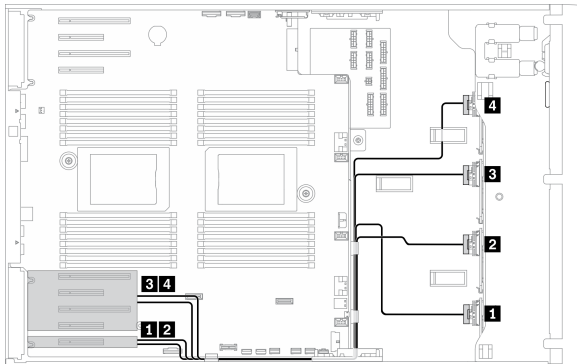


Figure 344. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 2 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

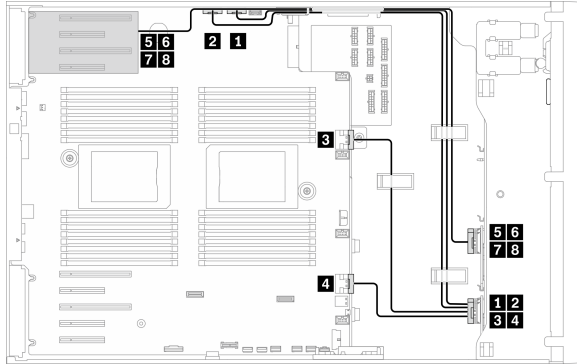


Figure 345. NVMe cable routing to system board and top PCIe zone

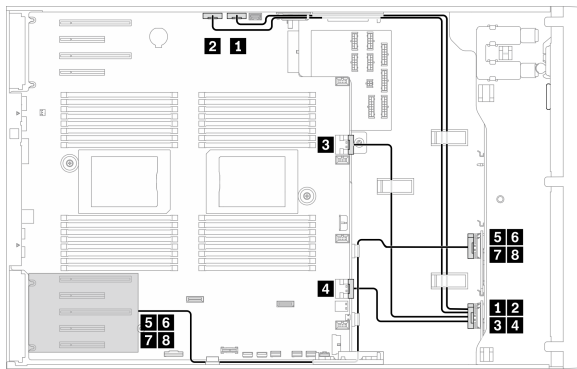


Figure 346. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	PCIe 1 (onboard)	SlimSAS x8 to SlimSAS x8 pair (820 mm/780 mm)
2 BP1: NVMe 2-3	PCIe 2 (onboard)	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

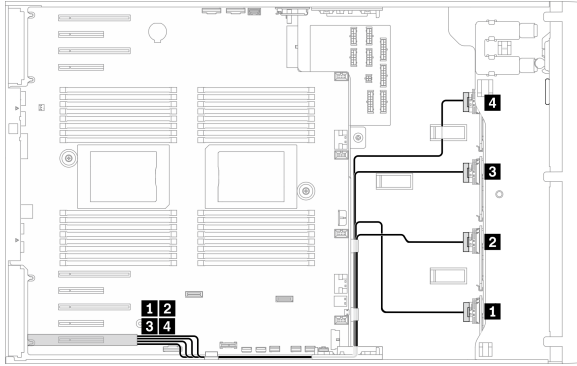


Figure 347. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
4 BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)

Onboard NVMe/SATA + 3 x retimers + 3 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

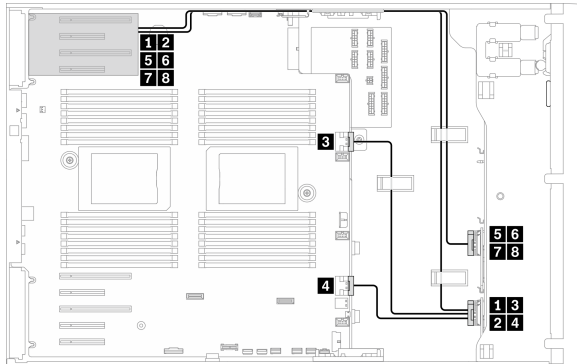


Figure 348. NVMe cable routing to system board and top PCIe zone

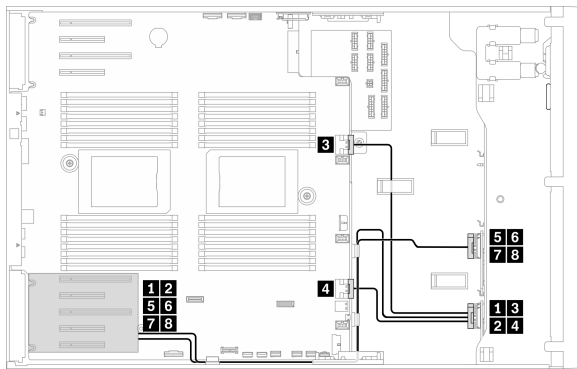


Figure 349. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

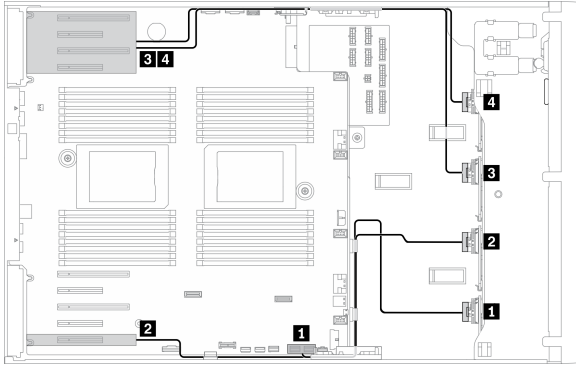


Figure 350. SAS/SATA cable routing to system board and top PCIe zone

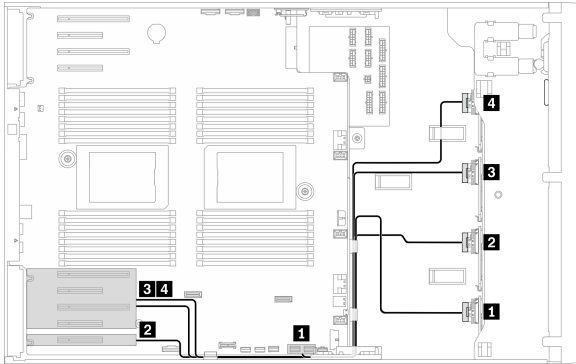


Figure 351. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe/SATA + 3 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

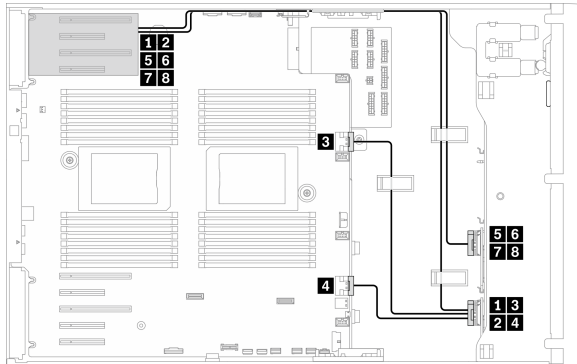


Figure 352. NVMe cable routing to system board and top PCIe zone

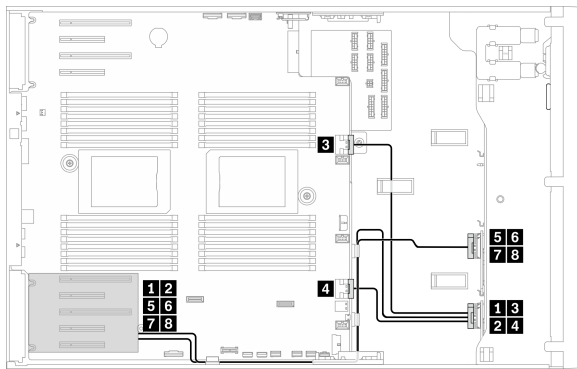


Figure 353. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

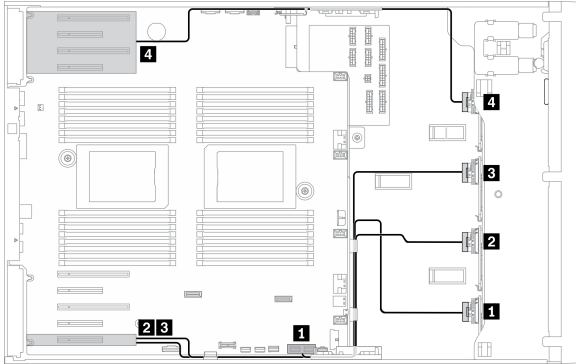


Figure 354. SAS/SATA cable routing to system board and top PCIe zone

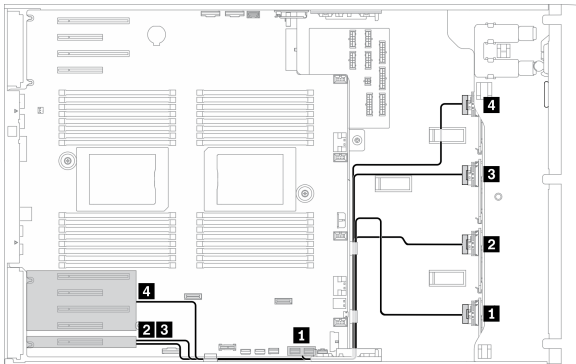


Figure 355. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 3 x retimers + 4 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

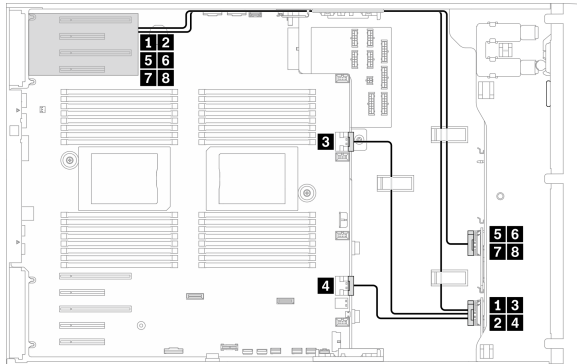


Figure 356. NVMe cable routing to system board and top PCIe zone

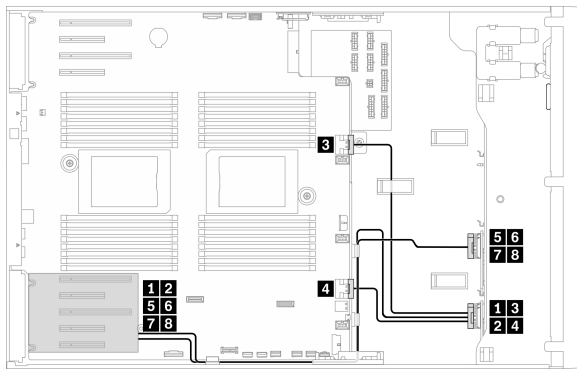


Figure 357. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

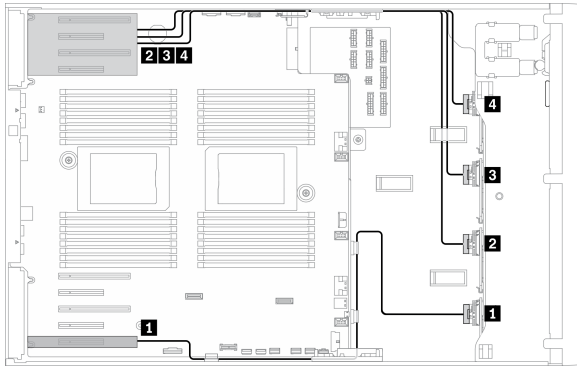


Figure 358. SAS/SATA cable routing to top PCIe zone

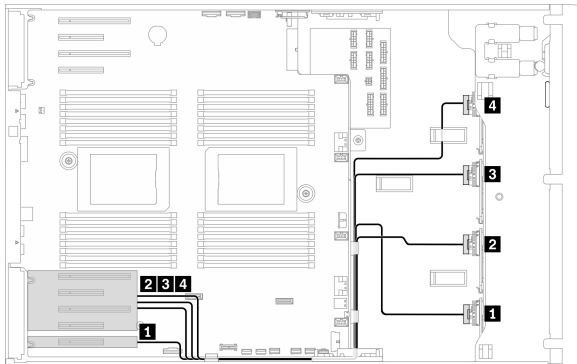


Figure 359. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 3 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

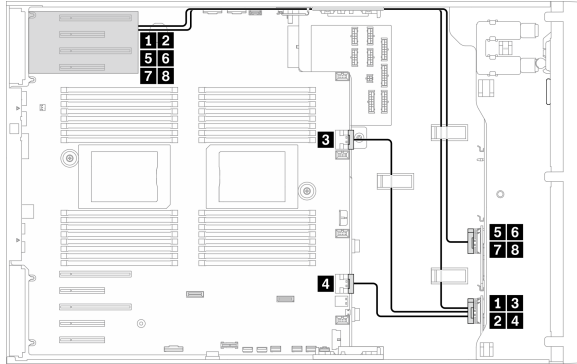


Figure 360. NVMe cable routing to system board and top PCIe zone

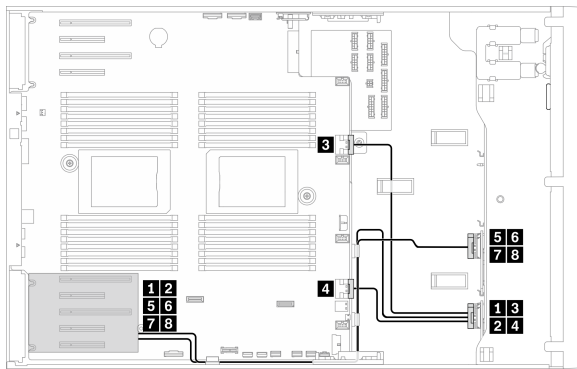


Figure 361. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

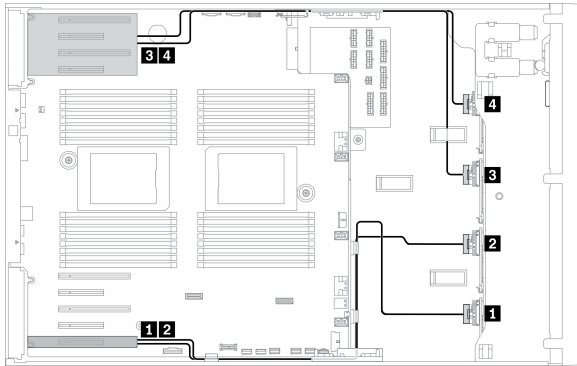


Figure 362. SAS/SATA cable routing to top PCIe zone

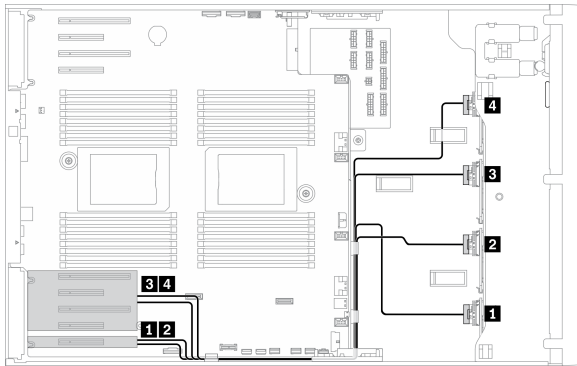


Figure 363. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 3 x retimers + 2 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

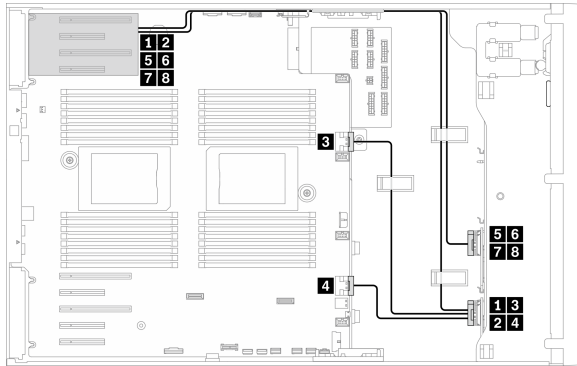


Figure 364. NVMe cable routing to system board and top PCIe zone

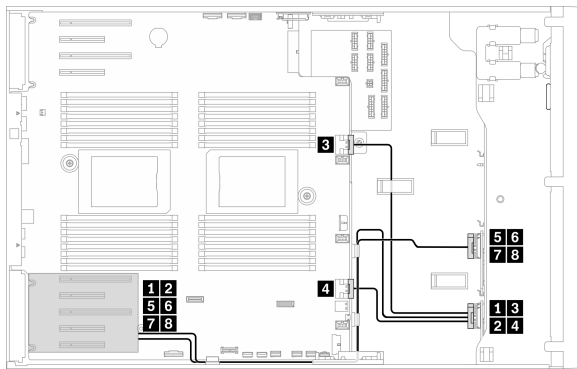


Figure 365. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

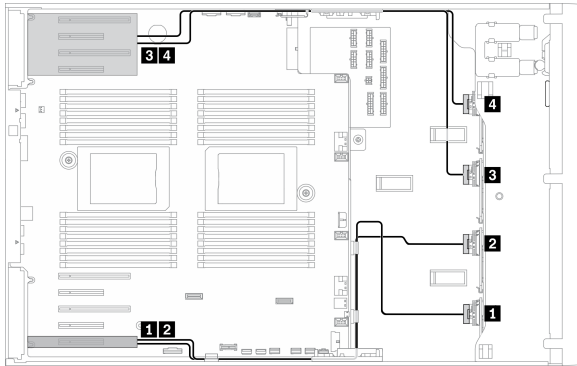


Figure 366. SAS/SATA cable routing to top PCIe zone

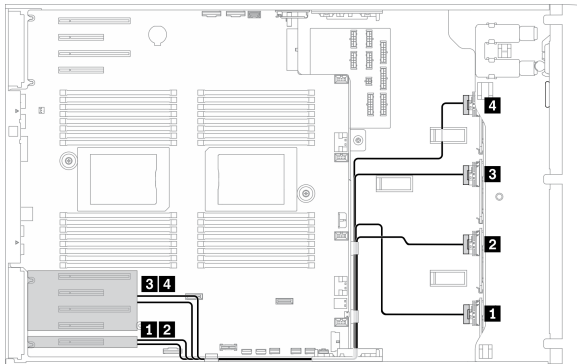


Figure 367. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard NVMe + 3 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

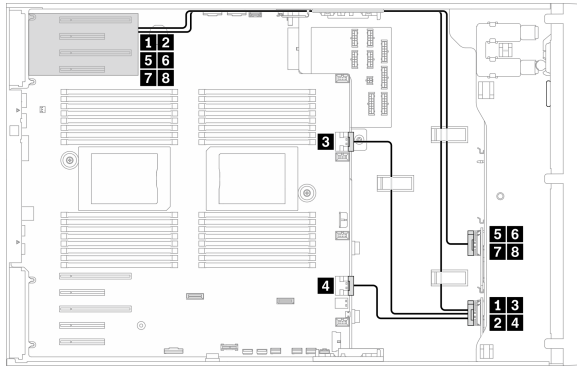


Figure 368. NVMe cable routing to system board and top PCIe zone

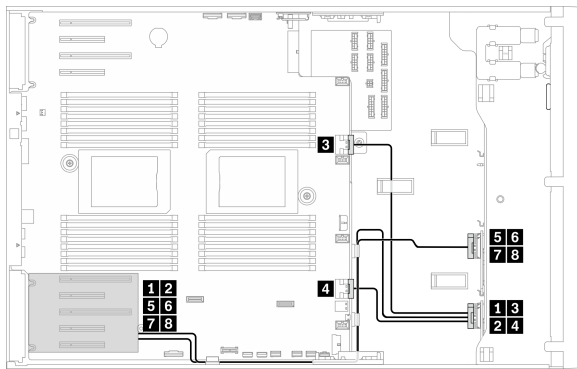


Figure 369. NVMe cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	PCIe 3 (onboard)	SlimSAS x8 to SlimSAS x8 pair (325 mm/160 mm)
4 BP1: NVMe 6-7	PCIe 4 (onboard)	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

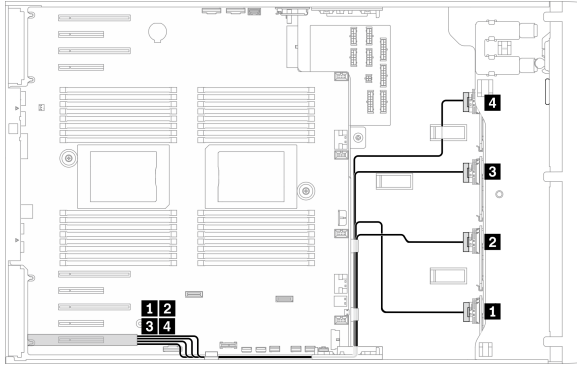


Figure 370. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
4 BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)

Onboard SATA + 4 x retimers + 3 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

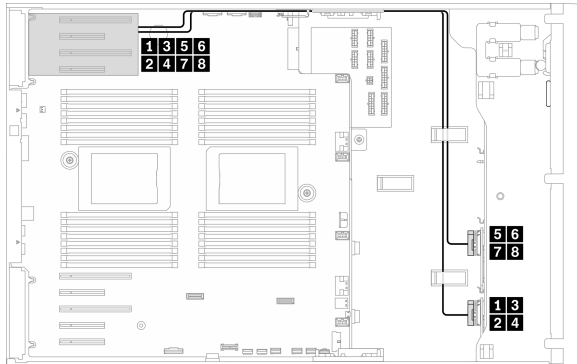


Figure 371. NVMe cable routing to top PCIe zone

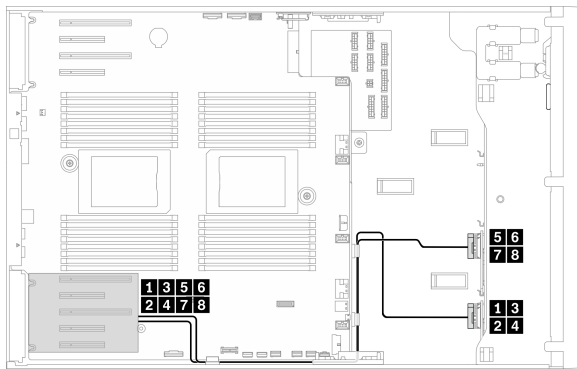


Figure 372. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

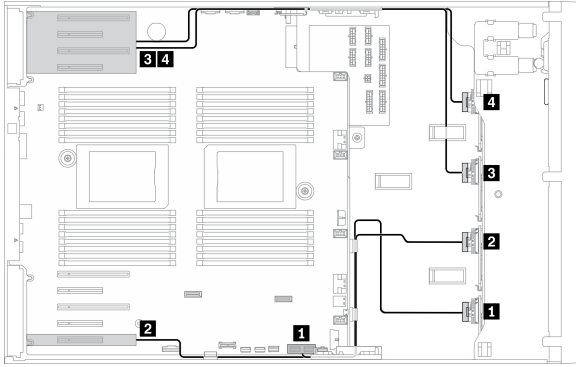


Figure 373. SAS/SATA cable routing to system board and top PCIe zone

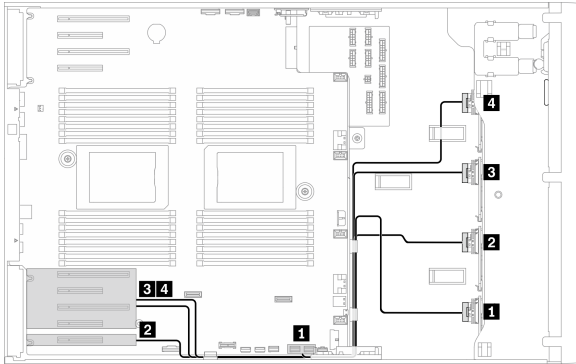


Figure 374. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

Onboard SATA + 4 x retimers + 1 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

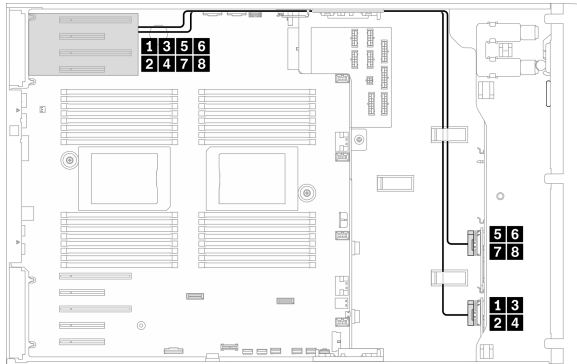


Figure 375. NVMe cable routing to top PCIe zone

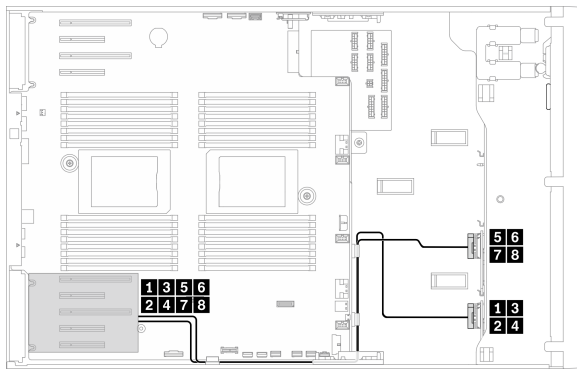


Figure 376. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

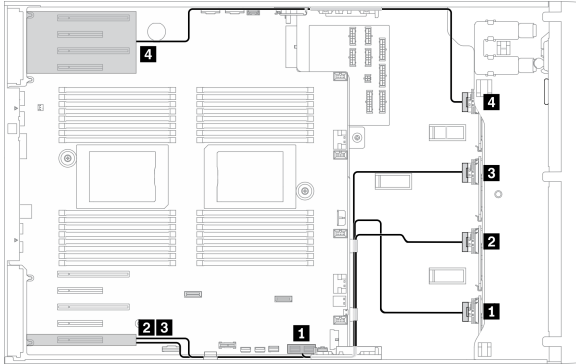


Figure 377. SAS/SATA cable routing to system board and top PCIe zone

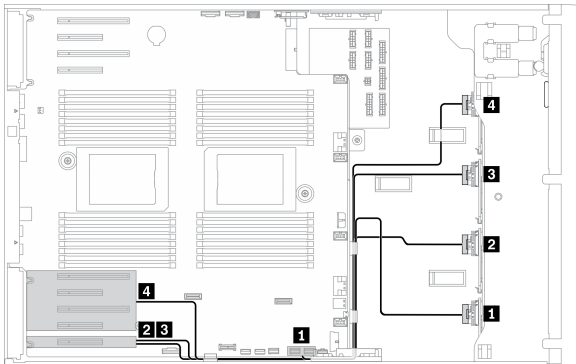


Figure 378. SAS/SATA cable routing to system board and bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	SATA 0-3, 4-7 (onboard)	SlimSAS x4*2 to SlimSAS x8 (430 mm/430 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 4 x 8i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

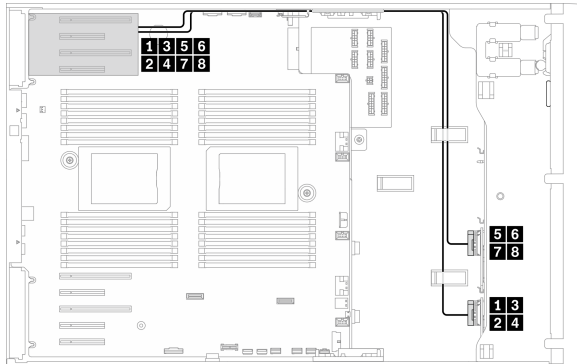


Figure 379. NVMe cable routing to top PCIe zone

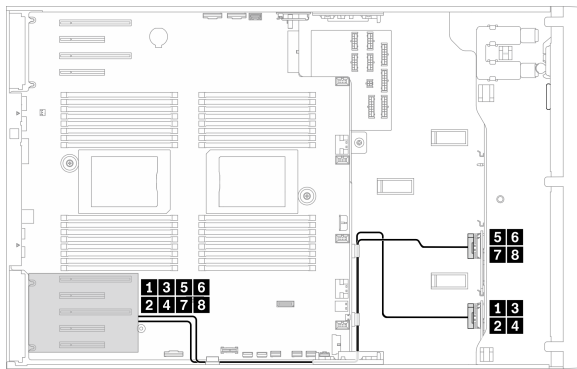


Figure 380. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

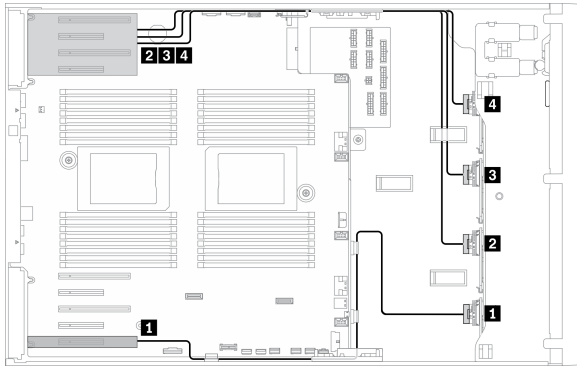


Figure 381. SAS/SATA cable routing to top PCIe zone

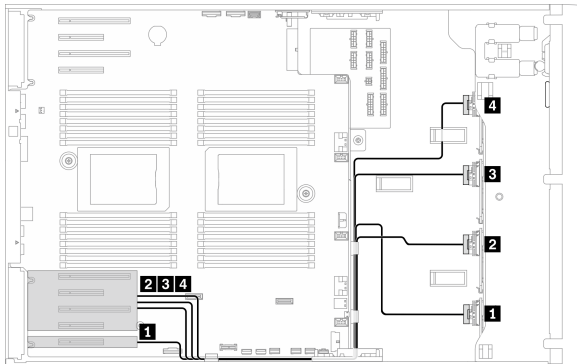


Figure 382. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 2 x 8i RAID/HBA + 1 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

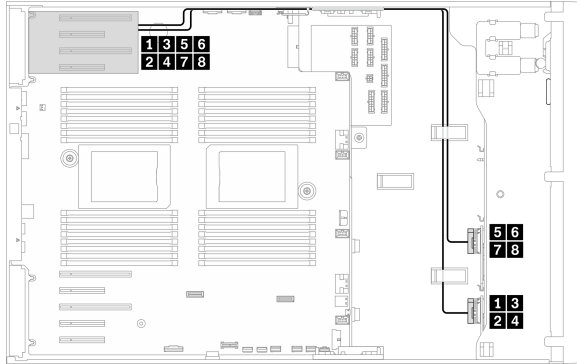


Figure 383. NVMe cable routing to top PCIe zone

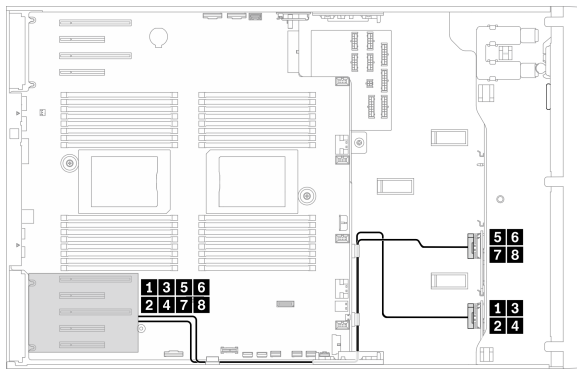


Figure 384. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

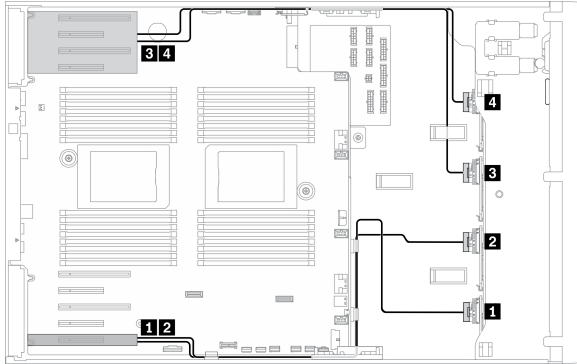


Figure 385. SAS/SATA cable routing to top PCIe zone

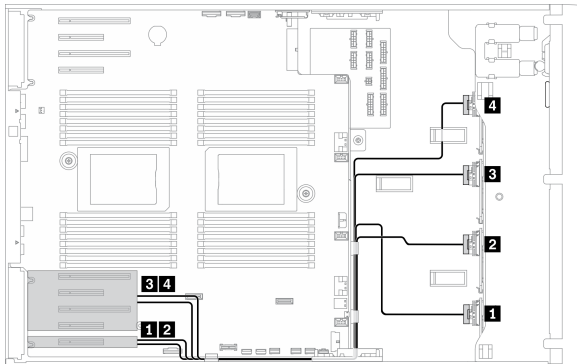


Figure 386. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 8i G4: C0 8i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 2 x 16i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

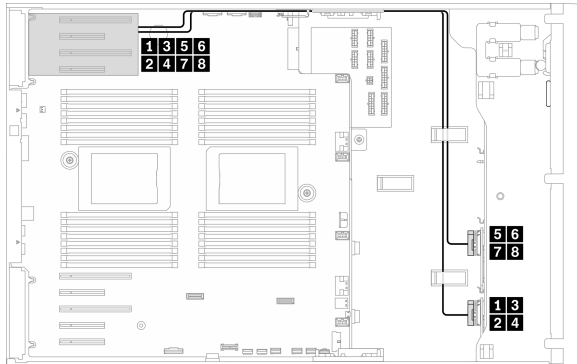


Figure 387. NVMe cable routing to top PCIe zone

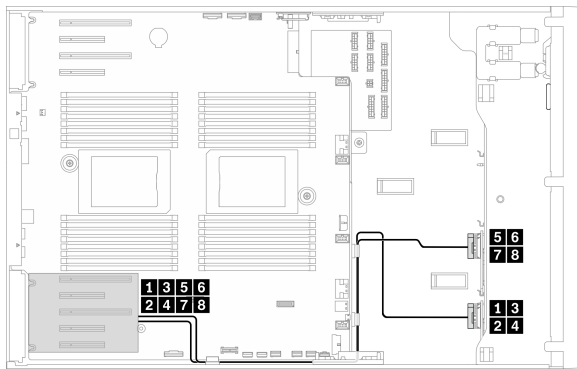


Figure 388. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

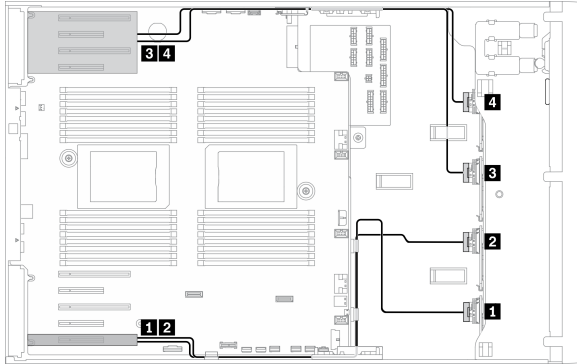


Figure 389. SAS/SATA cable routing to top PCIe zone

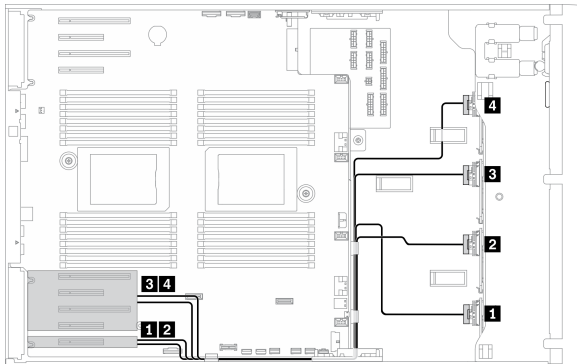


Figure 390. SAS/SATA cable routing to bottom PCIe zone

From	To	Cable
1 BP1: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
2 BP2: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
3 BP3: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C0 16i G3: C0, C1 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)
4 BP4: SAS/SATA	<ul style="list-style-type: none"> 16i G4: C1 16i G3: C2, C3 	<ul style="list-style-type: none"> Gen 4: SlimSAS x8 to SlimSAS x8 (720 mm) Gen 3: Mini-SAS x4*2 to SlimSAS x8 (640 mm)

4 x retimers + 1 x 32i RAID/HBA

NVMe cable routing

Note: Depending on your configuration, the adapter will be installed in top PCIe zone or bottom PCIe zone.

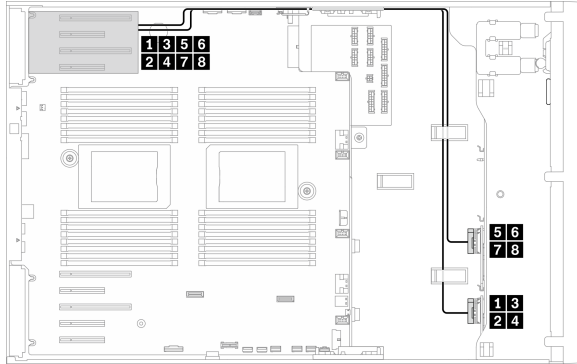


Figure 391. NVMe cable routing to top PCIe zone

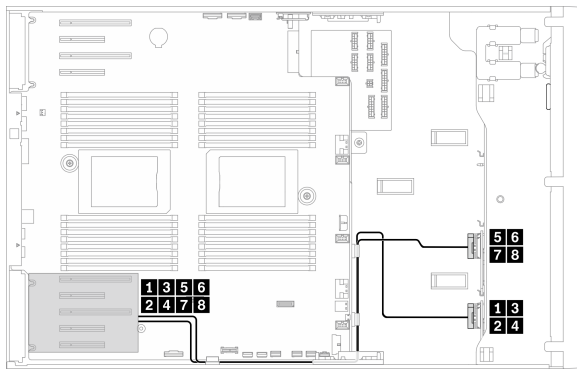


Figure 392. NVMe cable routing to bottom PCIe zone

From	To	Cable
1 BP1: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
2 BP1: NVMe 2-3	Retimer: C1	
3 BP1: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
4 BP1: NVMe 6-7	Retimer: C1	
5 BP2: NVMe 0-1	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
6 BP2: NVMe 2-3	Retimer: C1	
7 BP2: NVMe 4-5	Retimer: C0	SlimSAS x8 to SlimSAS x8 pair (700 mm/700 mm)
8 BP2: NVMe 6-7	Retimer: C1	

SAS/SATA cable routing

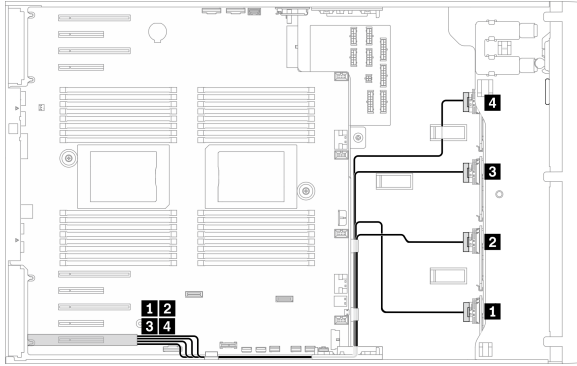


Figure 393. SAS/SATA cable routing to PCIe slot 9

From	To	Cable
1 BP1: SAS/SATA	32i G4: C0	SlimSAS x8 to SlimSAS x8 (720 mm)
2 BP2: SAS/SATA	32i G4: C1	SlimSAS x8 to SlimSAS x8 (720 mm)
3 BP3: SAS/SATA	32i G4: C2	SlimSAS x8 to SlimSAS x8 (720 mm)
4 BP4: SAS/SATA	32i G4: C3	SlimSAS x8 to SlimSAS x8 (880 mm)

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