Sun Enterprise™ 10000 I/O Area Installation and Configuration Guide

For Sun StorEdge™ UniPack Boot Subsystem, Sun StorEdge D1000 Disk Trays, Dual AC Sequencers, Internal Hubs, RSM™ Tray, Netra™ T1 or Sun Fire™V120 SSPs, Sun StorEdge S1 Disk Array, and Document Bag or Tray

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Typographic Conventions

Typeface	Meaning	Examples
AaBbCc123	Book titles, new words or terms, words to be emphasized	Read Chapter 6 in the *User's Guide*. These are called *class* options. You *must* be superuser to do this.
	Command-line variable; replace with a real name or value	To delete a file, type `rm` *filename*.

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Sun Enterprise 10000 I/O Area Installation and Configuration Guide, part number 805-7190-15

Configurations

The Sun Enterprise™ 10000 cabinet supports various configurations using the Sun StorEdge™ UniPack boot subsystem, Sun StorEdge™ D1000 disk tray, AC sequencers, document tray, document bag, internal hubs, RSM tray, and Netra™ T1 or Sun Fire™ V120 SSPs as noted in TABLE 1-1.

TABLE 1-1   Configurations

Configuration	D1000 Disk Tray	AC Sequencer	Doc Bag or Tray	RSM Tray	Ethernet Hub	UniPack Tray[1]	Netra T1 or Sun Fire V120 SSP	S1	See
Configuration 1	1	1 or 2	Either	0	1 or 2	0	0		Section 1.4 on page 1-6
Configuration 2	2	1 or 2	Either	0	1 or 2	0	0		
Configuration 3	1	1 or 2	Either	1	1 or 2	0	0		
Configuration 4	0	1 or 2	Either	0	1 or 2	1	0		Section 1.5 on page 1-8
Configuration 5	0	1 or 2	Either	0	1 or 2	2	0		
Configuration 6	0	2	Either	0	1 or 2	3	0		
Configuration 7	0	2	Bag only	0	1 or 2	4	0		
Configuration 8	1	2	Either	0	1 or 2	1 or 2	0		Section 1.6 on page 1-12
Configuration 9	0	2	Bag only	1	1 or 2	1 or 2	0		Section 1.7 on page 1-15
Configuration 10	2	2	Bag only	0	2	1[2]	2		Section 1.8 on page 1-18
Configuration 11	0	2	Bag only	0	2	1-4[3]	2		Section 1.9 on page 1-21
Configuration 12	0	2	Bag only	0	2	1[4]	2	10	Section 1.10 on page 1-26
Configuration 13	0	2	Bag only	0	2	0	0	14	Section 1.11 on page 1-31

1. Contains up to four UniPack disks.
2. Contains two SSP tape drives only.
3. First tray has two SSP tape drives, up to three additional trays with UniPack disks.
4. Contains two SSP tape drives only.

1.1 Identifying the Components

The following guidelines for identification have been established in the Sun Enterprise 10000 system cabinet:

- All component numbering, except sequencer, is top to bottom, left to right.
- Rack holes are numbered bottom to top.
- Where devices occur in front and back, lower numbers are on the same side as the lower-numbered system boards (FIGURE 1-1).
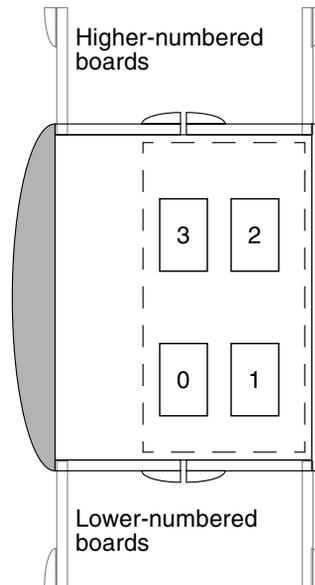
FIGURE 1-1 Numbering Internal Components

- Sun StorEdge UniPack trays are numbered UTRAY 0 through UTRAY 3.
- Sun StorEdge UniPack disks are numbered UPACK 0 through UPACK 3.
- Sun StorEdge D1000 disk trays are numbered D1K 0 and D1K 1.
- AC sequencers are numbered AC SEQ 0 and AC SEQ 1.
- Remote Power Control units are numbered RPC 0 through RPC 4.
- Hubs are numbered HUB 0 and HUB 1.
- Netra T1 or Sun Fire V120 SSPs are numbered SSP 0 and SSP 1

1.2 Labeling the Components

A label set is provided to label each component, power cable end, and signal cable end associated with these configurations (FIGURE 1-2). Additional signal cable label sets are shipped with the Sun Enterprise 10000 system. Cable label sets consist of multiple sheets of labels that are used to identify point-to-point connections and specific devices. Affix these labels to the components and cable ends during the installation process manner noted in FIGURE 1-3.

UTRAY 0	D1K 0 - A	CAB 0	D1K 1	UTRAY 0	AC SEQ 0	D1K 0	SSP
UPACK 0	D1K 0 - A	AC SEQ 0		UPACK 1	CAB0	D1K 0	HUB 0 TO
UTRAY 0	D1K 0 - A			UTRAY 0	AC SEQ 0	D1K 0	MAIN SSP
UPACK 0	D1K 0 - A			UPACK 1	CAB0	D1K 0	LE0
UTRAY 0	D1K 0 - A			UTRAY 0	AC SEQ 0	D1K 0	
UPACK 0	D1K 0 - A			UPACK 1	CAB0	D1K 0	SSP
UTRAY 0	D1K 0 - A			UTRAY 0	AC SEQ 0	D1K 0	HUB 0 TO
UPACK 0	D1K 0 - A			UPACK 1	CAB0	D1K 0	MAIN SSP
							LE0
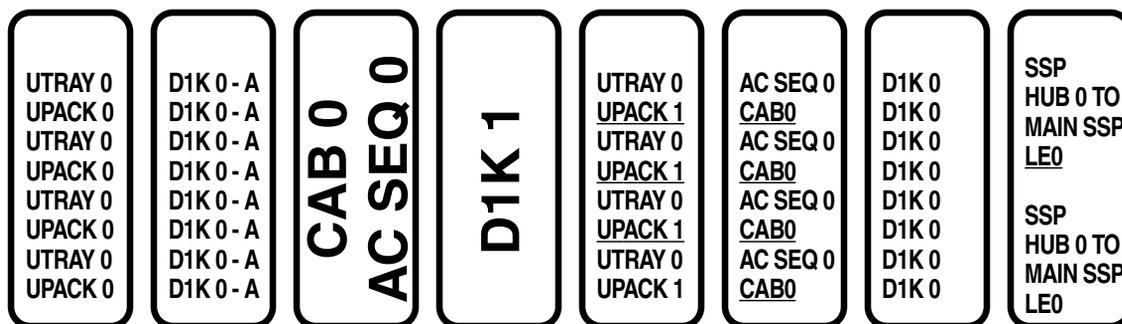
FIGURE 1-2 Cable Label Examples

Power connection between UniPack Boot subsystem 0, disk 3 and AC sequencer 1

| UTRAY 0 - UPACK 3 | AC SEQ 1 | | UTRAY 0 - UPACK 3 | AC SEQ 1 |

Power connection between disk tray 0 and AC sequencer 0

| D1K 0 | AC SEQ 0 | | D1K 0 | AC SEQ 0 |

FIGURE 1-3 Cable Label Usage

1.3 Rackmount Holes

There are four rails within the I/O area of the cabinet that contain mounting holes. The flanged portions with the threaded holes are known as RETMA rails. The front mounting holes (located on the side with the higher-numbered system boards), the inner front mounting holes, the inner rear mounting holes, and the rear mounting holes. Components installed into the I/O area can be accessed from either the front or the rear. The suggested mounting configurations reduce interference from the document tray, cables, and other components.

The rackmount holes within the I/O area of the cabinet are counted from the bottom.
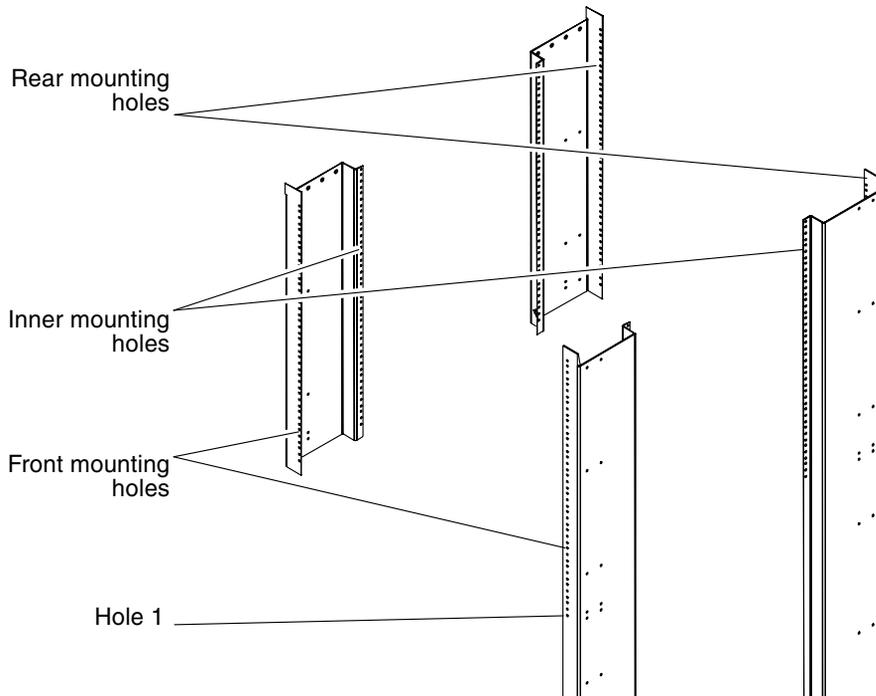
FIGURE 1-4   I/O Area Mounting Holes

1.4 Configuration 1, 2, or 3: Up to Two Disk Trays, RSM Tray

Configurations 1, 2, and 3 consist of one or two Sun StorEdge D1000 disk trays, or one Sun StorEdge D1000 disk tray and one RSM tray, plus one or two AC sequencers, either a document tray or bag, and one or two internal Ethernet hubs.

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **Use** TABLE 1-2 **to verify that the remaining components are installed using the correct rackmount holes.**

   Rackmount holes are numbered bottom to top. Relocate any components as necessary.

3. **Install the second AC sequencer using the locations listed in** TABLE 1-2, **if necessary.**

   See Chapter 3. Be sure to install the ground strap. Label the AC sequencers with the provided labels for device number and cable connections.

4. **Install the disk tray rails as described in the** *Sun StorEdge A1000 and D1000 Rackmount Installation Guide* **using the locations listed in** TABLE 1-2.

   Do not tighten the screws fully at this time. Label the disk tray with the provided labels for the device and the cable connections.

TABLE 1-2 Configuration 1, 2, or 3 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
AC sequencer 0			8 and 11
AC sequencer 1			26 and 29
Remote control module shelf			4 and 6
Disk tray 0 (D1K 0)	38 and 41	36 and 39	
Disk tray 1 (D1K 1)	20 and 23	18 and 21	
RSM 0	20 and 23		
Ethernet hub 0			22 and 24
Ethernet hub 1			19 and 21

5. **Install the Ethernet hubs using the locations listed in** TABLE 1-2**, if necessary.**

   Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections.

6. **Install all power cables into AC sequencer switched outlets as noted in** TABLE 1-3**.**

   Route the cables to the side of I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-3   Configuration 1, 2, or 3 Power Cabling

Component	AC SEQ 0	AC SEQ 1
Disk tray 0 (D1K 0)	J6	
	J8	J6 (preferred)
Disk tray 1 (D1K 1)	J9	
	J12	J9 (preferred)
RSM 0	J9	
	J12	J9 (preferred)
Hub 0	J2	
Hub 1	J2	J2 (preferred)

7. **Install the signal cables onto the controllers.**

   Route the cables to the side of I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

8. **Slide the disk tray partially onto slides and attach cables.**

   Adjust the disk tray as necessary. Tighten the rail screws and slide the disk tray in fully.

9. **Connect the AC sequencer into the power outlet and turn on the breaker.**

10. **Power on all disks.**

11. **Configure the hubs.**

    See Chapter 5.

12. **Configure the remote control.**

Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-4. Be sure to label all cables.

TABLE 1-4   Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - remote control	RPC 0 - ON/OFF
AC SEQ 1 - remote control	RPC 1 - ON/OFF

1.5   Configuration 4, 5, 6, and 7: Up to Four UniPack Trays

Configurations 4, 5, 6, and 7 consist of one to four UniPack trays, one or two AC sequencers, either a document tray or bag, and one or two internal Ethernet hubs.

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **If you are installing four UniPack trays, remove the document tray.**

See Section 4.1, "Removing the Document Tray" on page 4-1.

3. **Use** TABLE 1-5 **to verify that the remaining components are installed using the correct rackmount holes.**

   Rackmount holes are numbered bottom to top. Relocate any components as necessary.

TABLE 1-5   Configuration 4, 5, 6, or 7 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
AC sequencer 0			8 and 11
AC sequencer 1			26 and 29
Remote control module shelf			4 and 6
Ethernet hub 0	28 and 30		
Ethernet hub 1	25 and 27		

4. **Install the second AC sequencer using the locations listed in** TABLE 1-5**, if necessary.**

   A second AC sequencer is required for more than two UniPack trays. See Chapter 3. Be sure to install the ground strap. Label the AC sequencers with the provided labels for the device and the cable connections.

5. **Install the UniPack rails as noted in Section 2.1, "Installing the Rails" on page 2-1 using the locations listed in** TABLE 1-6**.**

   Do not tighten the screws fully at this time.

TABLE 1-6   UniPack Tray Locations

Order to Install	Inner Rack Holes to use when mounting:							
	1 Tray	Tray No.	2 Trays	Tray No.	3 Trays	Tray No.	4 Trays	Tray No.
1st	33 / 36	0	33 / 35	1	20 / 23	2	14 / 17	3
2nd			39 / 42	0	33 / 36	1	20 / 23	2
3rd					39 / 42	0	33 / 36	1
4th[1]							39 / 42	0

1. Document tray must be removed. See Chapter 4 for more information.

6. **Install the Ethernet hubs using the locations listed in** TABLE 1-5**, if necessary.**

   Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections.Install all power cables into AC sequencer switched outlets as noted in TABLE 1-7. Route the cables to the side of the I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-7   Configuration 4, 5, 6, or 7 Power Cabling

Component	AC SEQ 0	AC SEQ 1
UTRAY 0 - UPACK 0	J5	
UTRAY 0 - UPACK 1	J10	J5 (preferred)
UTRAY 0 - UPACK 2	J10	J5 (preferred)
UTRAY 0 - UPACK 3	J5	
UTRAY 1 - UPACK 0	J9	
UTRAY 1 - UPACK 1	J6	J9 (preferred)
UTRAY 1 - UPACK 2	J6	J9 (preferred)
UTRAY 1 - UPACK 3	J9	
UTRAY 2 - UPACK 0	J6	
UTRAY 2 - UPACK 1		J6
UTRAY 2 - UPACK 2	J6	
UTRAY 2 - UPACK 3		J6
UTRAY 3 - UPACK 0	J10	
UTRAY 3 - UPACK 1		J10
UTRAY 3 - UPACK 2	J10	
UTRAY 3 - UPACK 3		J10
Ethernet hub 0	J2	
Ethernet hub 1		J2

7. **Install the signal cables onto the controllers.**

   Route the cables to the side of the I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

8. **Change the SCSI setting on each UniPack disk from 3 to 0.**

9. **Install the UniPack tray.**

   See Section 2.2, "Installing the Tray" on page 2-2.

10. **Connect the cables to the UniPack disks.**

   Power and signal cables should drop vertically in front of the components, then connect to either the AC sequencer or system board. Do not run cables between cabinet struts.

   Attempt to configure the disks such that the connecting side of the disk faces the same side as its controller. If this cannot be done, run the cable from the disk, on top of the tray, to the other side of the cabinet.

11. **Connect the AC sequencer into the power outlet and turn on the breaker.**

12. **Power on all disks.**

13. **Configure the hubs.**

   See Chapter 5.

14. **Configure remote control.**

   Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-8. Be sure to label all cables.

   TABLE 1-8   Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - remote control	RPC 0 - ON/OFF
AC SEQ 1 - remote control	RPC 1 - ON/OFF

15. **If installing four UniPack trays, install the document bag.**

   See Section 4.2, "Installing the Document Bag" on page 4-2.

1.6 Configuration 8: One Disk Tray, Up to Two UniPack Trays

Configuration 8 consists of one Sun StorEdge D1000 disk tray, one or two UniPack trays, two AC sequencers, either a document tray or bag, and one or two internal Ethernet hubs.

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **Use** TABLE 1-9 **to verify that the remaining components are installed using the correct rackmount holes.**

   The rackmount holes are numbered from bottom to top. Relocate any components as necessary.

TABLE 1-9 Configuration 8 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
AC sequencer 0			8 and 11
AC sequencer 1			29 and 32
Remote control module shelf			4 and 6
UTRAY 0		23 and 26	
UTRAY 1		17 and 20	
Disk tray 0 (D1K 0)	20 and 23	18 and 21	
Ethernet hub 0	31 and 33		
Ethernet hub 1	28 and 30		

3. **Install the second AC sequencer using the locations listed in** TABLE 1-9**.**

   See Chapter 3. Be sure to install the ground strap. Label the AC sequencers with the provided labels for the device and the cable connections.

4. **Install the disk tray rails as noted in the** *Sun StorEdge A1000 and D1000 Rackmount Installation Guide* **using the locations listed in** TABLE 1-9**.**

   Do not tighten the screws fully at this time.

5. **Install the UniPack rails.**

   See Section 2.1, "Installing the Rails" on page 2-1 using the locations listed in TABLE 1-9. Do not tighten the screws fully at this time.

6. **Install the Ethernet hubs using the locations listed in** TABLE 1-9**, if necessary.**

   Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections

7. **Install all power cables into AC sequencer switched outlets as noted in** TABLE 1-10**.**

   Route the cables to the side of the I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-10   Configuration 8 Power Cabling

Component	AC SEQ 0	AC SEQ 1
UTRAY 0 - UPACK 0	J5	
UTRAY 0 - UPACK 1		J5
UTRAY 0 - UPACK 2	J5	
UTRAY 0 - UPACK 3		J5
UTRAY 1 - UPACK 0	J9	
UTRAY 1 - UPACK 1		J9
UTRAY 1 - UPACK 2	J9	
UTRAY 1 - UPACK 3		J9
D1K 0	J8	J8
Hub 0	J2	
Hub 1		J2

8. **Install the signal cables onto the controllers.**

   Route the cables to the side of the I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

9. **Slide the disk tray partially onto slides and attach cables.**

   Adjust the disk tray as necessary. Tighten the rail screws and slide the disk tray in fully.

10. **Change the SCSI setting on each UniPack disk from 3 to 0.**

11. **Install the UniPack tray.**

    See Section 2.2, "Installing the Tray" on page 2-2.

12. **Connect the cables to the UniPack disks.**

    Power and signal cables should drop vertically in front of the components then connect to either the AC sequencer or system board. Do not run cables between cabinet struts.

    Attempt to configure the disks such that the connecting side of the disk faces the same side as its controller. If this cannot be done, run the cable from the disk, on top of the tray, to the other side of the cabinet.

13. **Connect the AC sequencer into the power outlet and turn on the breaker.**

14. **Power on all disks.**

15. **Configure the hubs.**

    See Chapter 5.

16. **Configure remote control.**

    Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-11. Be sure to label all cables.

TABLE 1-11 Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - remote control	RPC 0 - ON/OFF
AC SEQ 1 - remote control	RPC 1 - ON/OFF

1.7 Configuration 9: One RSM Tray, Up to Two UniPack Trays

Configuration 9 consists of one RSM tray, one or two UniPack trays, two AC sequencers, a document bag, and one or two internal Ethernet hubs.

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **Remove the document tray.**

   See Section 4.1, "Removing the Document Tray" on page 4-1.

3. **Use** TABLE 1-12 **to verify that the remaining components are installed using the correct rackmount holes.**

   Rackmount holes are numbered bottom to top. Relocate any components as necessary.

TABLE 1-12 Configuration 9 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
AC sequencer 0			8 and 11
AC sequencer 1			29 and 32
Remote control module shelf			4 and 6
UTRAY 0		23 and 26	
UTRAY 1		17 and 20	
RSM 0		40 and 43	
Ethernet hub 0	31 and 33		
Ethernet hub 1	28 and 30		

4. **Install the second AC sequencer using the locations listed in** TABLE 1-12**, if necessary.**

   See Chapter 3. Be sure to install the ground strap. Label the AC sequencers with the provided labels for the device and the cable connections.

5. **Install the UniPack rails.**

   See Section 2.1, "Installing the Rails" on page 2-1 using the locations listed in TABLE 1-12. Do not tighten the screws fully at this time.

6. **Install the Ethernet hubs using the locations listed in** TABLE 1-12**, if necessary.**

   Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections.

7. **Install all power cables into AC sequencer switched outlets as noted in** TABLE 1-13**.**

   Route the cables to the side of the I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-13   Configuration 9 Power Cabling

Component	AC SEQ 0	AC SEQ 1
UTRAY 0 - UPACK 0	J5	
UTRAY 0 - UPACK 1		J5
UTRAY 0 - UPACK 2	J5	
UTRAY 0 - UPACK 3		J5
UTRAY 1 - UPACK 0	J9	
UTRAY 1 - UPACK 1		J9
UTRAY 1 - UPACK 2	J9	
UTRAY 1 - UPACK 3		J9
RSM 0	J8	J8
Hub 0	J2	
Hub 1		J2

8. **Install the signal cables onto the controllers.**

   Route the cables to the side of the I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

9. **Install the UniPack tray.**

   See Section 2.2, "Installing the Tray" on page 2-2.

10. **Connect the cables to the UniPack disks.**

    Power and signal cables should drop vertically in front of the components then connect to either the AC sequencer or system board. Do not run cables between cabinet struts.

    Attempt to configure the disks such that the connecting side of the disk faces the same side as its controller. If this cannot be done, run the cable from the disk, on top of the tray, to the other side of the cabinet.

11. **Connect the AC sequencer into the power outlet and turn on the breaker.**

12. **Power on all disks.**

13. **Configure the hubs.**

    See Chapter 5.

14. **Configure remote control.**

    Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-14. Be sure to label all cables.

    TABLE 1-14   Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - remote control	RPC 0 - ON/OFF
AC SEQ 1 - remote control	RPC 1 - ON/OFF

15. **Install the document bag.**

    See Section 4.2, "Installing the Document Bag" on page 4-2.

1.8 Configuration 10: Up to Two Disk Trays, One UniPack Tray, Two Netra T1 or Sun Fire V120 SSPs

Configuration 10 consists of up to two Sun StorEdge D1000 disk trays, two AC sequencers, a document bag, two Ethernet hubs, one UniPack tray with two SSP tape drives, and two Netra T1 or Sun Fire V120 SSPs.

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **Use** TABLE 1-15 **to verify that the remaining components are installed using the correct rackmount holes.**

   Rackmount holes are numbered bottom to top. Relocate any components as necessary.

3. **Install the second AC sequencer using the locations listed in** TABLE 1-15**, if necessary.**

   See Chapter 3. Be sure to install the ground strap. Label the AC sequencers with the provided labels for device number and cable connections.

4. **Install the disk tray rails as noted in the** *Sun StorEdge A1000 and D1000 Rackmount Installation Guide* **using the locations listed in** TABLE 1-15**.**

   Do not tighten the screws fully at this time. Label the disk tray with the provided labels for the device and the cable connections.

5. **Install the Ethernet hubs using the locations listed in** TABLE 1-15**, if necessary.**

   Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections.

6. **Install the Netra T1 or Sun Fire V120 SSP slide mounts to the inner mounting holes and the front mounting holes at the locations listed in** TABLE 1-15**.**

   Refer to the installation guide that accompanied the Netra T1 or Sun Fire V120 SSPs for instructions on installing the rails.

7. **Connect the cables to the back of theNetraT1 or Sun Fire V120 SSPs.**

   a. **Connect the power cables listed in** TABLE 1-16**.**

   b. **Connect the SCSI cable.**

      Connect Netra T1 or Sun Fire V120 SSP 0 to the SSP tape drive 0 IN connector.
      Connect Netra T1 or Sun Fire V120 SSP 1 to the SSP tape drive 1 IN connector.

c. **Connect the SSP network cables as shown in** FIGURE 5-3.

For purposes of interpreting the figure, assign the identity of Main SSP to Netra T1 or Sun Fire V120 SSP 0 and Spare SSP to Netra T1 or Sun Fire V120 SSP 1.

8. **Install the Netra T1 or Sun Fire V120 SSPs in the slide mounts and tighten the thumbscrews.**

TABLE 1-15   Configuration 10 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
Disk tray 0 (D1K 0)		36 and 39	
Disk tray 1 (D1K 1)		24 and 27	
UniPak Tray 3[1]		17 and 20	
Netra T1 or Sun Fire V120 SSP 1	10 and 12	10 and 12	
Netra T1 or Sun Fire V120 SSP 0	13 and 15	13 and 15	
Remote control module shelf			1 and 3
AC sequencer 0			5 and 8
AC sequencer 1			11 and 14
Ethernet hub 0			22 and 24
Ethernet hub 1			25 and 27

1. UniPack Tray is used for the Netra T1 or Sun Fire V120 SSP tape drives

9. **Install all power cables into AC sequencer switched outlets as noted in** TABLE 1-16.

Route the cables to the side of I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-16   Configuration 10 Power Cabling

Component	AC SEQ 0	AC SEQ 1
Disk tray 0 (D1K 0)	J6 J8	J6 (preferred)
Disk tray 1 (D1K 1)	J9 J12	J9 (preferred)
Hub 0	J2	
Hub 1	J2	J2 (preferred)

TABLE 1-16 Configuration 10 Power Cabling *(Continued)*

Component	AC SEQ 0	AC SEQ 1
Netra T1 or Sun Fire V120 SSP 0	J2	
SSP tape drive 0	J10	
Netra T1 or Sun Fire V120 SSP 1		J2
SSP tape drive 1		J10

10. **Install the signal cables onto the controllers.**

    Route the cables to the side of the I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

11. **Slide the disk tray partially onto slides and attach cables.**

    Adjust the disk tray as necessary. Tighten the rail screws and slide the disk tray in fully.

12. **Connect the AC sequencer into the power outlet and turn on the breaker.**

13. **Power on all disks.**

14. **Configure the hubs.**

    See Chapter 5.

15. **Configure the remote power control.**

    Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-17. Be sure to label all cables.

TABLE 1-17 Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - remote control	RPC 0 - ON/OFF
AC SEQ 1 - remote control	RPC 1 - ON/OFF

1.9 Configuration 11: Two Netra T1 or Sun Fire V120 SSPs and up to Four UniPack Trays

Configuration 11 consists of two Netra T1 or Sun Fire V120 SSPs, one, two, three, or four Unipak trays, two AC sequencers, two internal Ethernet hubs, and a document bag.

Note – With the Netra T1 or Sun Fire V120 SSPs installed, UniPack Tray 3 is used for two SSP tape drives. Up to four UniPack tape drives may be installed in each of up to three additional UniPack trays for a total of up to 12 tape drives.

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **If you are installing four UniPack trays, remove the document tray.**

   See Section 4.1, "Removing the Document Tray" on page 4-1.

3. **Use** TABLE 1-18 **to verify that the components are installed using the correct rackmount holes.**

   Rackmount holes are numbered bottom to top. Relocate any components as necessary.

TABLE 1-18   Configuration 11 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
Remote control module shelf			1 and 3
AC sequencer 0			5 and 8
AC sequencer 1			11 and 14
Ethernet hub 1			22 and 24
Ethernet hub 0	22 and 24		

TABLE 1-18 Configuration 11 Component Locations *(Continued)*

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
Netra T1 or Sun Fire V120 SSP 1	10 and 12	10 and 12	
Netra T1 or Sun Fire V120 SSP 0	13 and 15	13 and 15	
UniPack Tray 3[1]		17 and 20	

1. UniPack Tray is used for the Netra T1 or Sun Fire V120 SSP tape drives

4. Install the second AC sequencer using the locations listed in TABLE 1-18**, if necessary.**

A second AC sequencer is required for more than two UniPack trays. See Chapter 3. Be sure to install the ground strap. Label the AC sequencers with the provided labels for the device and the cable connections.

5. Install the Ethernet hubs using the locations listed in TABLE 1-18**, if necessary.**

Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections.

6. Install the Netra T1 or Sun Fire V120 SSP slide mounts to the inner mounting holes and the front mounting holes at the locations listed in TABLE 1-18**.**

Refer to the installation guide that accompanied the Netra T1 or Sun Fire V120 SSPs for instructions on installing the rails.

7. Connect the cables to the back of the NetraT1 or Sun Fire V120 SSPs.

a. Connect the power cables listed in TABLE 1-20**.**

b. Connect the SCSI cable.

Connect Netra T1 or Sun Fire V120 SSP 0 to the SSP tape drive 0 IN connector. Connect Netra T1 or Sun Fire V120 SSP 1 to the SSP tape drive 1 IN connector.

c. Connect the SSP network cables as shown in FIGURE 5-3**.**

For purposes of interpreting the figure, assign the identity of Main SSP to Netra T1 or Sun Fire V120 SSP 0 and Spare SSP to Netra T1 or Sun Fire V120 SSP 1.

8. Install the Netra T1 or Sun Fire V120 SSPs in the slide mounts and tighten the thumbscrews.

9. **Install the UniPack rails.**

See Section 2.1, "Installing the Rails" on page 2-1 using the locations listed in TABLE 1-19. Do not tighten the screws fully at this time.

TABLE 1-19   Configuration 11 UniPack Tray Locations

Order to Install	Inner Rack Holes to use when mounting:							
	1 Tray	Tray No.	2 Trays	Tray No.	3 Trays	Tray No.	4 Trays	Tray No.
1st	17 and 20	3	33 and 36	2	33 and 36	1	40 and 43	0
2nd			17 and 20	3	26 and 29	2	33 and 36	1
3rd					17 and 20	3	26 and 29	2
4th[1]							17 and 20	3

1. Document tray must be removed. See Chapter 4 for more information.

10. **Install all power cables into AC sequencer switched outlets as noted in** TABLE 1-20**.**

Route the cables to the side of the I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-20   Configuration 11 Power Cabling

Component	AC SEQ 0	AC SEQ 1
UTRAY 0 - SSP tape drive 0 in UPACK 2 position	J5	
UTRAY 0 - SSP tape drive 1 in UPACK 3 position		J5
UTRAY 1 - UPACK 0	J9	
UTRAY 1 - UPACK 1	J6	J9 (preferred)
UTRAY 1 - UPACK 2	J6	J9 (preferred)
UTRAY 1 - UPACK 3	J9	
UTRAY 2 - UPACK 0	J6	
UTRAY 2 - UPACK 1		J6
UTRAY 2 - UPACK 2	J6	
UTRAY 2 - UPACK 3		J6
UTRAY 3 - UPACK 0	J10	
UTRAY 3 - UPACK 1		J10
UTRAY 3 - UPACK 2	J10	

TABLE 1-20 Configuration 11 Power Cabling *(Continued)*

Component	AC SEQ 0	AC SEQ 1
UTRAY 3 - UPACK 3		J10
Ethernet hub 0	J2	
Ethernet hub 1		J2
Netra T1 or Sun Fire V120 SSP 0	J2	
Netra T1 or Sun Fire V120 SSP 1		J2

11. **Install the signal cables onto the controllers.**

    Route the cables to the side of the I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

12. **Change the SCSI setting on each UniPack disk from 3 to 0.**

13. **Install the UniPack tray.**

    See Section 2.2, "Installing the Tray" on page 2-2.

14. **Connect the cables to the UniPack disks.**

    Power and signal cables should drop vertically in front of the components, then connect to either the AC sequencer or system board. Do not run cables between cabinet struts.

    Attempt to configure the disks such that the connecting side of the disk faces the same side as its controller. If this cannot be done, run the cable from the disk, on top of the tray, to the other side of the cabinet.

15. **Connect the AC sequencer into the power outlet and turn on the breaker.**

16. **Power on all disks.**

17. **Configure the hubs.**

    See Chapter 5.

18. **Configure the remote power control.**

    Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-21. Be sure to label all cables.

    TABLE 1-21 Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - Remote control	RPC 0 - ON/OFF
AC SEQ 1 - Remote control	RPC 1 - ON/OFF

19. **If installing four UniPack trays, install the document bag.**

    See Section 4.2, "Installing the Document Bag" on page 4-2.

1.10 Configuration 12: Two Netra T1 or Sun Fire V120 SSPs and up to Ten S1s

Configuration 12 consists of two Netra T1 or Sun Fire V120 SSPs, up to ten S1s, two AC sequencers, two internal Ethernet hubs, and a document bag.

Note – With the Netra T1 or Sun Fire V120 SSPs installed, one UniPack Tray is used for two SSP tape drives.

---

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **Use** TABLE 1-22 **to verify that the components are installed using the correct rackmount holes.**

   Rackmount holes are numbered bottom to top. Relocate any components as necessary.

TABLE 1-22 Configuration 12 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
Remote control module shelf			1 and 3
AC sequencer 0			5 and 8
AC sequencer 1			11 and 14
Ethernet hub 1			22 and 24
Ethernet hub 0			25 and 27
Netra T1 or Sun Fire V120 SSP 1	10 and 12	10 and 12	
Netra T1 or Sun Fire V120 SSP 0	13 and 15	13 and 15	
UniPack Tray 3[1]		17 and 20	

1. UniPack Tray is used for the Netra T1 or Sun Fire V120 SSP tape drives

3. **Install the second AC sequencer using the locations listed in** TABLE 1-22**, if necessary.**

   Be sure to install the ground strap. Label the AC sequencers with the provided labels for the device and the cable connections.

4. **Install the Ethernet hubs using the locations listed in** TABLE 1-22**, if necessary.**

   Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections.

5. **Install the Netra T1 or Sun Fire V120 SSP slide mounts to the inner mounting holes and the front mounting holes at the locations listed in** TABLE 1-22**.**

   Refer to the installation guide that accompanied the Netra T1 or Sun Fire V120 SSPs for instructions on installing the rails.

6. **Connect the cables to the back of the NetraT1 SSPs.**

   a. **Connect the power cables listed in** TABLE 1-24**.**

   b. **Connect the SCSI cable.**

   Connect Netra T1 or Sun Fire V120 SSP 0 to the SSP tape drive 0 IN connector. Connect Netra T1 or Sun Fire V120 SSP 1 to the SSP tape drive 1 IN connector.

   c. **Connect the SSP network cables as shown in** FIGURE 5-3**.**

   For purposes of interpreting the figure, assign the identity of Main SSP to Netra T1 or Sun Fire V120 SSP 0 and Spare SSP to Netra T1 or Sun Fire V120 SSP 1.

7. **Install the Netra T1 or Sun Fire V120 SSPs in the slide mounts and tighten the thumbscrews.**

8. **Install the S1 slide mounts to the inner mounting holes and the front mounting holes at the locations listed in** TABLE 1-23**.**

Refer to the installation guide that accompanied the S1 for instructions on installing the rails.

TABLE 1-23   Configuration 12 S1 Mounting Locations

Order to Install	Mounting Holes-Front (near system boards 8-16) and Inner
1st	43 and 45
2nd	40 and 42
3rd	37 and 39
4th	34 and 36
5th	31 and 33
6th	28 and 30
7th	25 and 27
8th	22 and 24
9th	7 and 9
10th	4 and 6

9. **Connect the cables to the back of each S1 starting with the lowest mounting and install the D1-30.**

Do not tighten the thumbscrews at this time.

a. **Connect the power cables listed in** TABLE 1-24**.**

b. **Connect the SCSI cable.**

c. **Install the S1 in its slide mount.**

10. **Install the remaining power cables into AC sequencer switched outlets as noted in** TABLE 1-24**.**

    Route the cables to the side of the I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-24 Configuration 12 Power Cabling

Component	AC SEQ 0	AC SEQ 1
S1 0	J6	
S1 1		J6
S1 2	J6	
S1 3		J6
S1 4	J9	
S1 5		J9
S1 6	J9	
S1 7		J9
S1 8	J10	
S1 9		J10
Ethernet hub 0	J2	
Ethernet hub 1		J2
SSP tape drive 0	J5	
SSP tape drive 1		J5
Netra T1 or Sun Fire V120 SSP 0	J2	
Netra T1 or Sun Fire V120 SSP 1		J2

11. **Tighten the thumbscrews on each S1.**

12. **Install the signal cables onto the controllers.**

    Route the cables to the side of the I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

13. **Make sure the I/O switch setting is correct for each S1 installed.**

14. **Connect the AC sequencer into the power outlet and turn on the breaker.**

15. **Power on all disks.**

16. **Configure the hubs.**

    See Chapter 5.

17. **Configure the remote power control.**

    Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-25. Be sure to label all cables.

    TABLE 1-25 Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - Remote control	RPC 0 - ON/OFF
AC SEQ 1 - Remote control	RPC 1 - ON/OFF

18. **Install the document bag.**

    See Section 4.2, "Installing the Document Bag" on page 4-2.

1.11 Configuration 13: Up to Fourteen S1s

Configuration 13 consists of up to fourteen S1s, two AC sequencers, two internal Ethernet hubs, and a document bag.

1. **Remove all unnecessary components from the I/O area of the Sun Enterprise 10000 system cabinet.**

2. **Use** TABLE 1-26 **to verify that the components are installed using the correct rackmount holes.**

   Rackmount holes are numbered bottom to top. Relocate any components as necessary.

TABLE 1-26   Configuration 13 Component Locations

Component	Front mounting holes (near system boards 8-16)	Inner mounting holes	Rear mounting holes (near system boards 0-7)
Remote control module shelf			1 and 3
AC sequencer 0			5 and 8
AC sequencer 1			11 and 14
Ethernet hub 1			22 and 24
Ethernet hub 0			25 and 27

3. **Install the second AC sequencer using the locations listed in** TABLE 1-26**, if necessary.**

   Be sure to install the ground strap. Label the AC sequencers with the provided labels for the device and the cable connections.

4. **Install the Ethernet hubs using the locations listed in** TABLE 1-26**, if necessary.**

   Refer to the installation guide that accompanied the hubs. Label the hubs with the provided labels for the device and the cable connections.

5. **Install the S1 slide mounts to the inner mounting holes and the front mounting holes at the locations listed in** TABLE 1-27**.**

Refer to the installation guide that accompanied the S1 for instructions on installing the rails.

TABLE 1-27 Configuration 13 S1 Mounting Locations

Order to Install	Mounting Holes-Front (near system boards 8-16) and Inner
1st	43 and 45
2nd	40 and 42
3rd	37 and 39
4th	34 and 36
5th	31 and 33
6th	28 and 30
7th	25 and 27
8th	22 and 24
9th	19 and 21
10th	16 and 18
11th	13 and 15
12th	10 and 12
13th	7 and 9
14th	4 and 6

6. **Connect the cables to the back of each S1 starting with the lowest mounting and install the S1 .**

Do not tighten the thumbscrews at this time.

a. **Connect the power cables listed in** TABLE 1-28**.**

b. **Connect the SCSI cable.**

c. **Install the S1 in its slide mount.**

7. **Install all power cables into AC sequencer switched outlets as noted in** TABLE 1-28.

   Route the cables to the side of the I/O area. Label power cables on both ends with source and destination labels.

TABLE 1-28   Configuration 13 Power Cabling

Component	AC SEQ 0	AC SEQ 1
S1 0	J6	
S1 1		J6
S1 2	J6	
S1 3		J6
S1 4	J9	
S1 5		J9
S1 6	J9	
S1 7		J9
S1 8	J10	
S1 9		J10
S1 10	J10	
S1 11		J10
S1 12	J5	
S1 13		J5
Ethernet hub 0	J2	
Ethernet hub 1		J2

8. **Tighten the thumbscrews on each S1.**

9. **Install the signal cables onto the controllers.**

   Route the cables to the side of the I/O area, down to the plenum, and through one of the four cutouts located above the fan trays. Label signal cables on both ends with source and destination labels.

10. **Make sure the I/O switch setting is correct for each S1 installed.**

11. **Connect the AC sequencer to the power outlet and turn on the breaker.**

12. **Power on all disks.**

13. **Configure the hubs.**

    See Chapter 5.

14. **Configure remote control.**

    Using the remote power control cables, connect the control boards, AC sequencers, and remote power control modules as noted in TABLE 1-29. Be sure to label all cables.

    TABLE 1-29 Remote Power Control

Source	Destination
CB 0 - RPC 0	RPC 0 - CB 0
CB 0 - RPC 1	RPC 1 - CB 0
CB 1 - RPC 0 (if available)	RPC 0 - CB 1
CB 1 - RPC 1 (if available)	RPC 1 - CB 1
AC SEQ 0 - Remote control	RPC 0 - ON/OFF
AC SEQ 1 - Remote control	RPC 1 - ON/OFF

15. **Install the document bag.**

    See Section 4.2, "Installing the Document Bag" on page 4-2.

UniPack Boot Subsystem

The UniPack Boot subsystem requires the use of rails and a tray to enable the subsystem to be installed into the I/O area of the Sun Enterprise 10000 system cabinet.

2.1 Installing the Rails

- **Install the rail pairs as noted in** FIGURE 2-1 **using the rackmount holes listed in Chapter 1.**
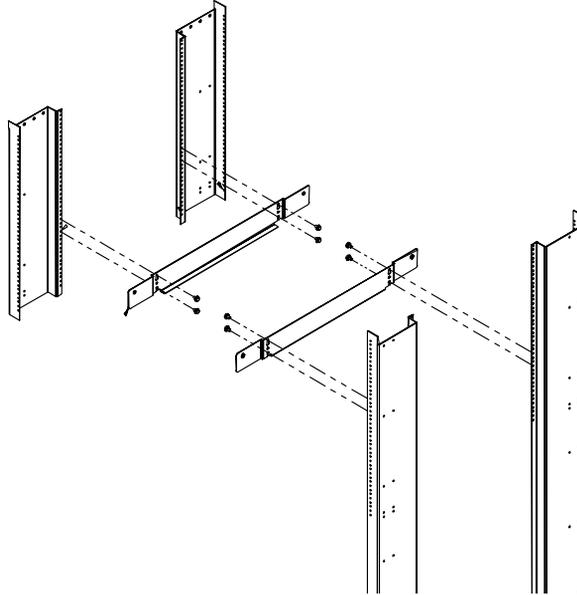
FIGURE 2-1   UniPack Rail Installation

2.2   Installing the Tray

1. **Starting with the bottom rails, slide the tray into position until the screw holes align.**

   Attach with screws but do not tighten (FIGURE 2-2).
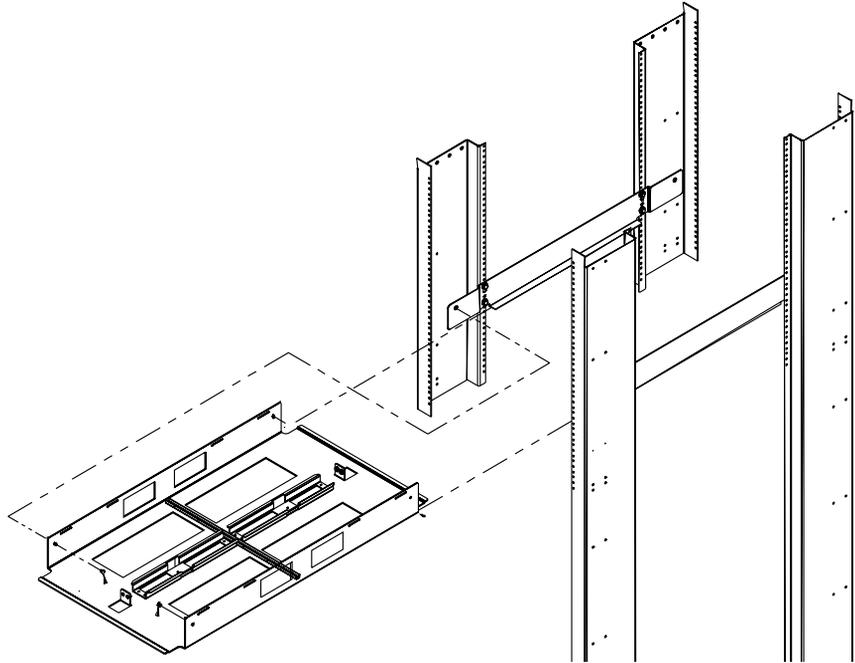
FIGURE 2-2 UniPack Tray Installation

2. **Inspect the UniPack drives.**

   Confirm that four rubber feet are present and intact on the underside of the drive.

3. **Determine which drives are to connected to which controllers.**

   This determines which side of the trays the drives are located.

4. **Orient the drive as shown in** FIGURE 2-3 **and slide it into the tray to the center stiffener.**

   Be careful not to disturb the rubber feet. Be sure to place the connector end of the drive away from the center of the tray.
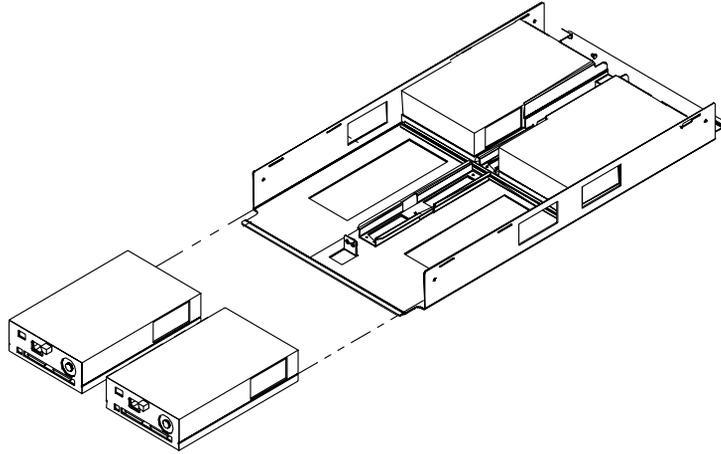
FIGURE 2-3   UniPack Disk Placement

5. **Tighten all tray mounting hardware.**

6. **Align the tabs of the hold-down brackets and install as shown in** FIGURE 2-4**.**
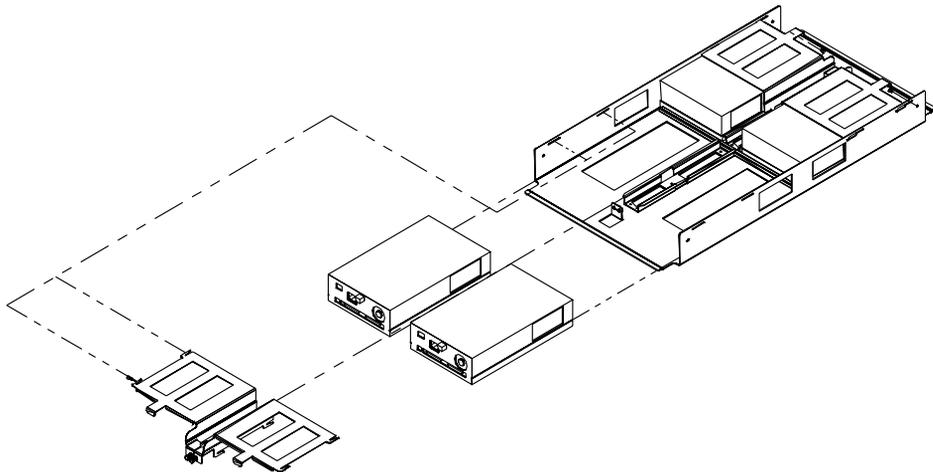
FIGURE 2-4   Securing the UniPack Disk

7. **Install remaining trays and drives by repeating Step 1 through Step 5.**

AC Sequencer

The Sun Enterprise 10000 system cabinet I/O area is configured at the factory with at least one AC sequencer. Additional AC sequencers can be configured at the factory or added in the field.

3.1 Installing an AC Sequencer

1. **Place the AC sequencer into the cabinet and align the attachment slots to the holes on the RETMA rails.**

2. **Use the four Phillips screws to secure the AC sequencer to the RETMA rails.**

3. **Route the power cord down the left side of the cabinet.**

4. **Ground the AC sequencer.**

   ■ Some systems have small ground straps attached to the existing AC sequencer. Use this ground strap to ground the second AC sequencer to the existing AC sequencer.

   ■ On systems that do not have a small ground strap on the existing AC sequencer, use the large ground cable that is provided with the AC sequencer to ground the second AC sequencer to a grounding area within the cabinet.

   Grounding areas on the rails are identified as those areas with a 1-inch diameter area that is free of paint. They are located on the inner rails.

3.2   Configuring Remote Control

Note the following rules when configuring the AC sequencers:

- To remotely control an AC sequencer in the Sun Enterprise 10000 system cabinet, set the remote switch to the remote position.
- To remotely control AC sequencers in the I/O expansion cabinet that have system interface cables connecting them, set all the remote switches to the remote position, and turn the key switch in the front of the I/O expansion cabinet to the off position.
- To remotely control AC sequencers in the I/O expansion cabinet that *do not* have system interface cables connecting them, set all the remote switches to the remote position, daisy-chain the AC sequencers, and turn the key switch in the front of the I/O expansion cabinet to the off position.

Document Bag

Prior to November of 1998, the Sun Enterprise 10000 system was configured in the factory with a document tray located in the I/O area of the cabinet. However, newly-introduced disk configurations now use additional space in the I/O area, which requires the document tray to be removed. The document bag, which is now shipped from the factory in the cabinet, provides storage without using valuable I/O space.

4.1 Removing the Document Tray

The document tray is located in the front of the Sun Enterprise 10000 system cabinet in the I/O area. Prior to removing the tray, remove all contents in the tray and set them aside.

● **Using a long, No. 2 Phillips screwdriver, remove the four screws that secure the document tray.**

4.2 Installing the Document Bag

The document bag replaces the document tray, which cannot be used with certain UniPack configurations.

1. **Assemble both sets of mounting brackets and connect loosely with the provided screws (**FIGURE 4-1**).**
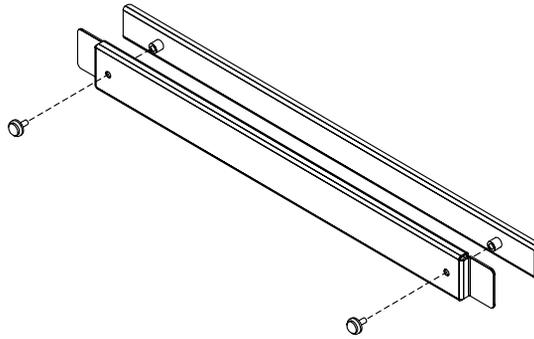
FIGURE 4-1   Document Bag Mounting Brackets

2. **Thread the flap of the document bag through the brackets (**FIGURE 4-2**).**
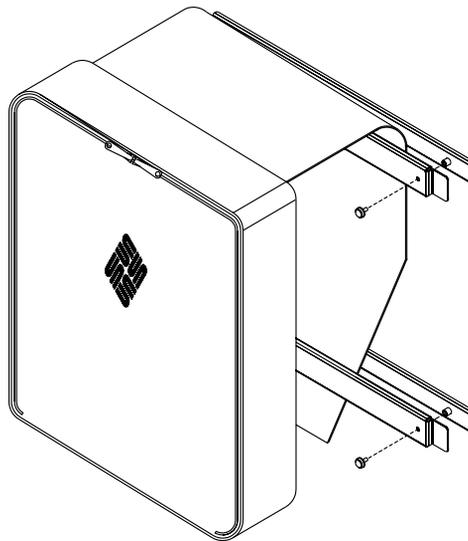
FIGURE 4-2   Assembling the Document Bag and Mounting Brackets

3. **Install the mounting brackets and document bag onto the access door.**

On the left-most access door on the side with the higher-numbered system board, rotate the back mounting bracket slightly to maneuver the tab behind the door flanges.

Place mounting bracket tab behind door flange
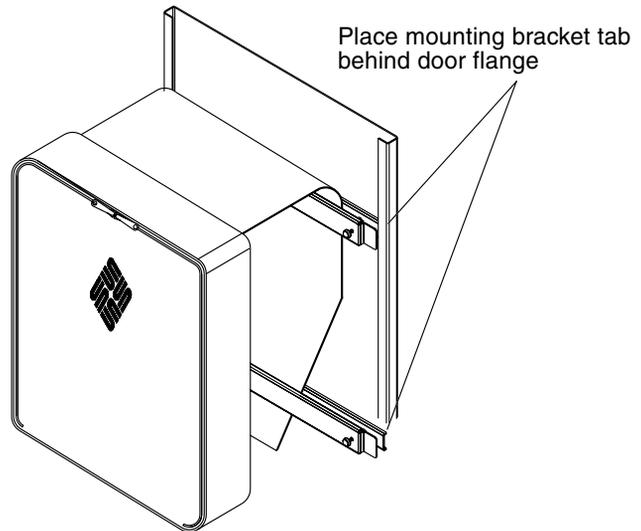
FIGURE 4-3   Mounting the Document Bag Assembly

4. **Adjust the top mounting bracket set approximately 5.0 inches (127 cm.) from the top of the access door (**FIGURE 4-3**), then tighten the screws to secure.**

Repeat Step 3 and Step 4 for the bottom set of mounting brackets.
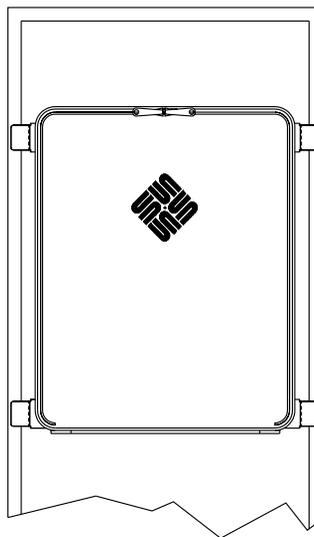
FIGURE 4-4   Final Document Bag Location

Internal Hubs

For hardware installation instructions, refer to the manual that came with the hubs. For determining placement of the hubs, see the applicable sections in Chapter 1 for your configuration. This chapter provides a suggested network configuration as well as details for setting up domains.

5.1 Network Connections

The Sun Enterprise 10000 system requires 10BASE-T or 100BASE-T Ethernet connections on the customer network for an SSP and each host domain.

Additional Ethernet connections are required if any of the following Sun Enterprise 10000 system options are ordered, used, or will be configured.

- Optional redundant control board
- Optional redundant SSP
- Additional domains
- Alternate pathing (AP) of Sun Enterprise 10000 system network connections

To prevent general purpose Ethernet traffic from negatively affecting the SSP to Sun Enterprise 10000 system host communication, the following configuration rules should be observed:

- Connect the SSP and control boards through a private 10BASE-T network (separate subnets). This will connect the one (or two) SSPs with the one (or two) control boards.
- Connect the SSP and each of the host domains through a second network. To facilitate net booting a domain from the SSP, the network between the domain and the SSP must be either 10BASE-T or 100BASE-T Ethernet.

FIGURE 5-1, FIGURE 5-2, and FIGURE 5-3 illustrate three possible network configurations. These configurations can be used with the internal hubs, the control boards, and an SSP that is configured in manufacturing with an additional quad Ethernet card. Customer networks and their hubs, however, are site dependent and, therefore, not supplied by Sun Microsystems™.
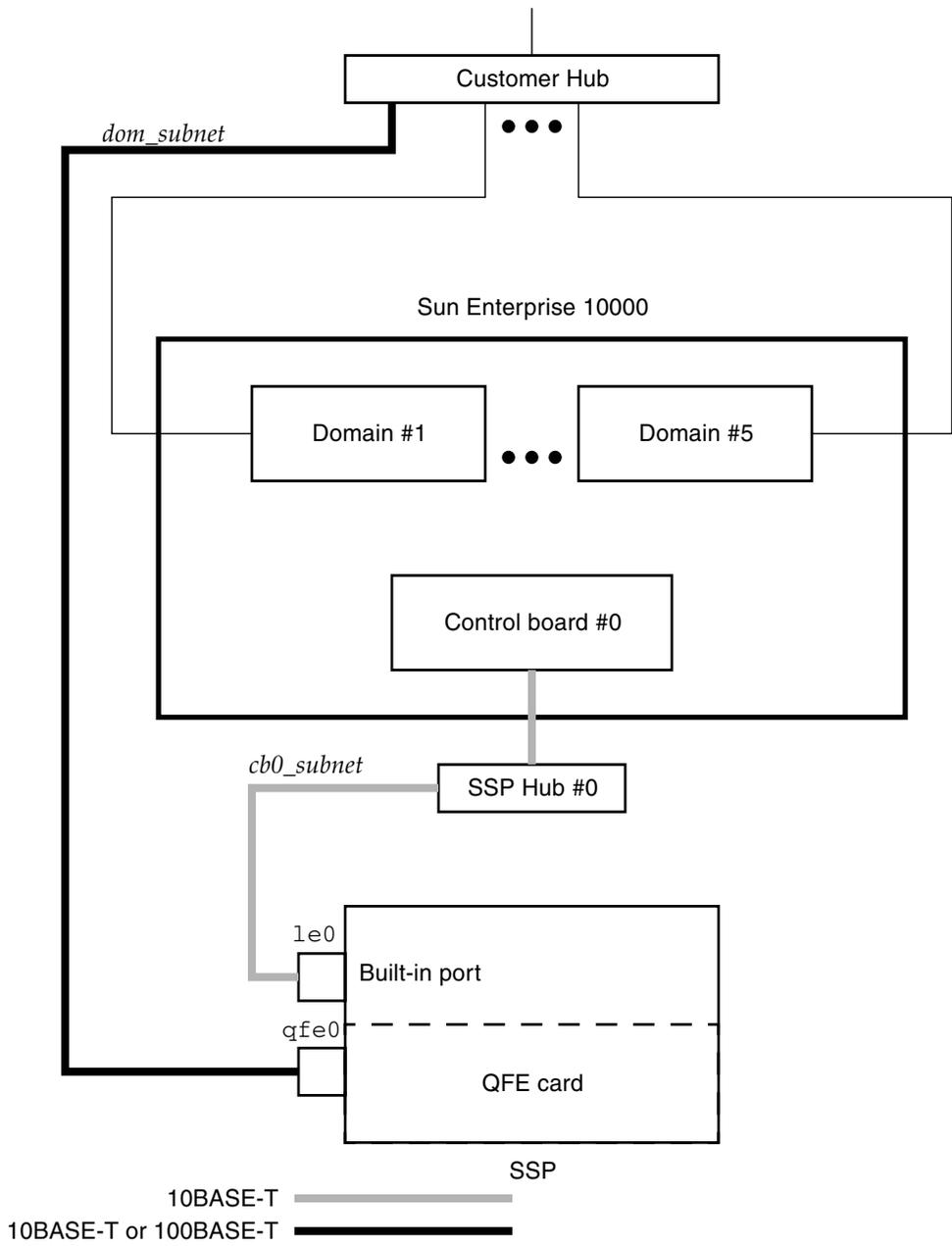
FIGURE 5-1 Network Configuration—Base Case

To Customer Network

Customer Hub

dom_subnet

Sun Enterprise 10000

Domain #1 • • • Domain #5

Control board #0

Control board #1

SSP Hub #0

SSP Hub #1

cb0_subnet

cb1_subnet

SSP

`le0`

Built-in port

`qfe0`

`qfe1`

QFE card

10BASE-T

10BASE-T or 100BASE-T
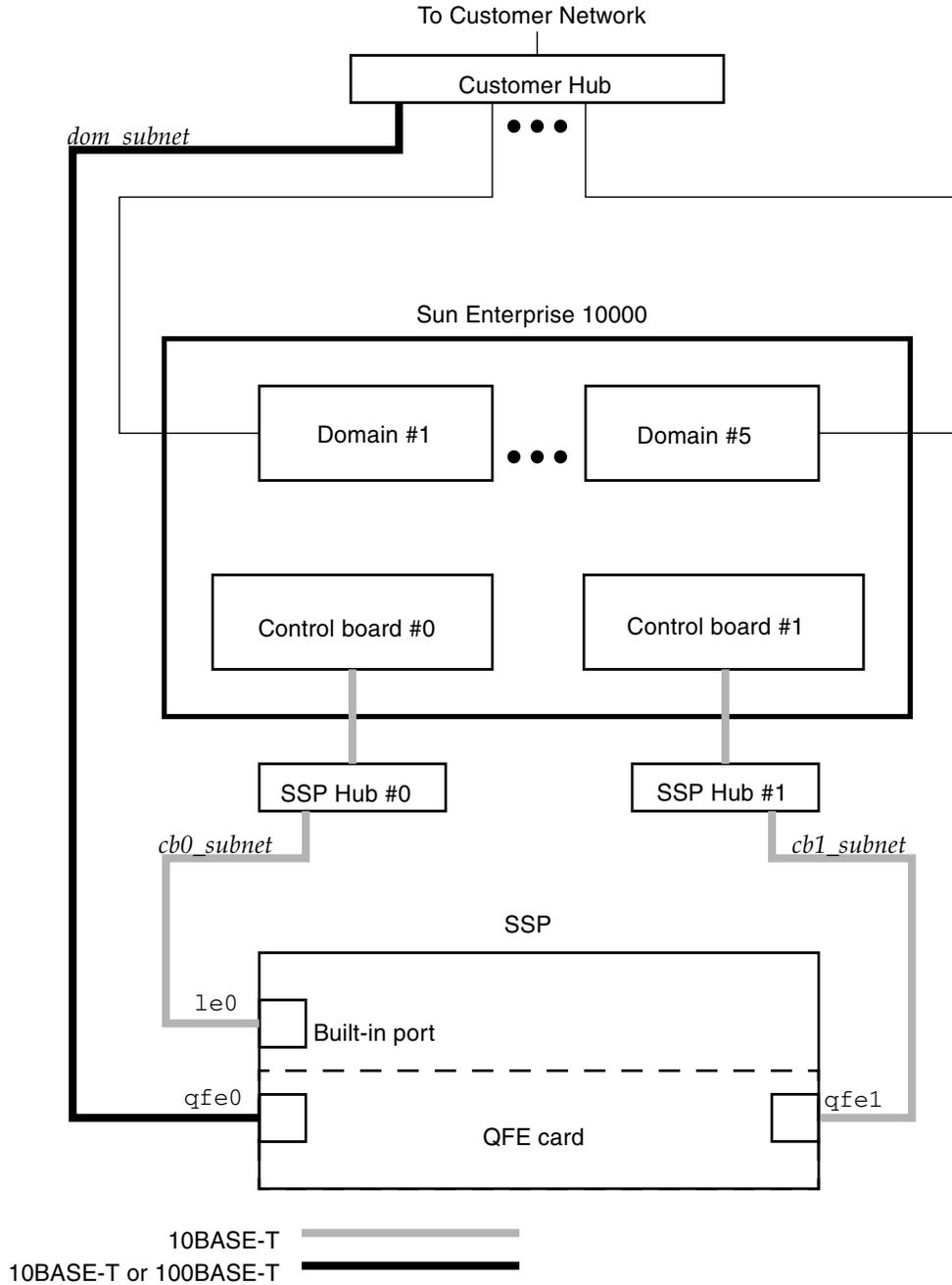
FIGURE 5-2 Network Configuration With Redundant Control Boards

To Customer Network

Customer Hub

dom_subnet

● ● ●

Sun Enterprise 10000

Domain #1 ● ● ● Domain #5

Control board #0 Control board #1

SSP Hub #0 SSP Hub #1

cb0_subnet *cb1_subnet*

Main SSP Spare SSP

`le0` `le0`

Built-in port Built-in port

`qfe1` `qfe1`

`qfe0` `qfe0`

QFE card QFE card

10BASE-T

10BASE-T or 100BASE-T
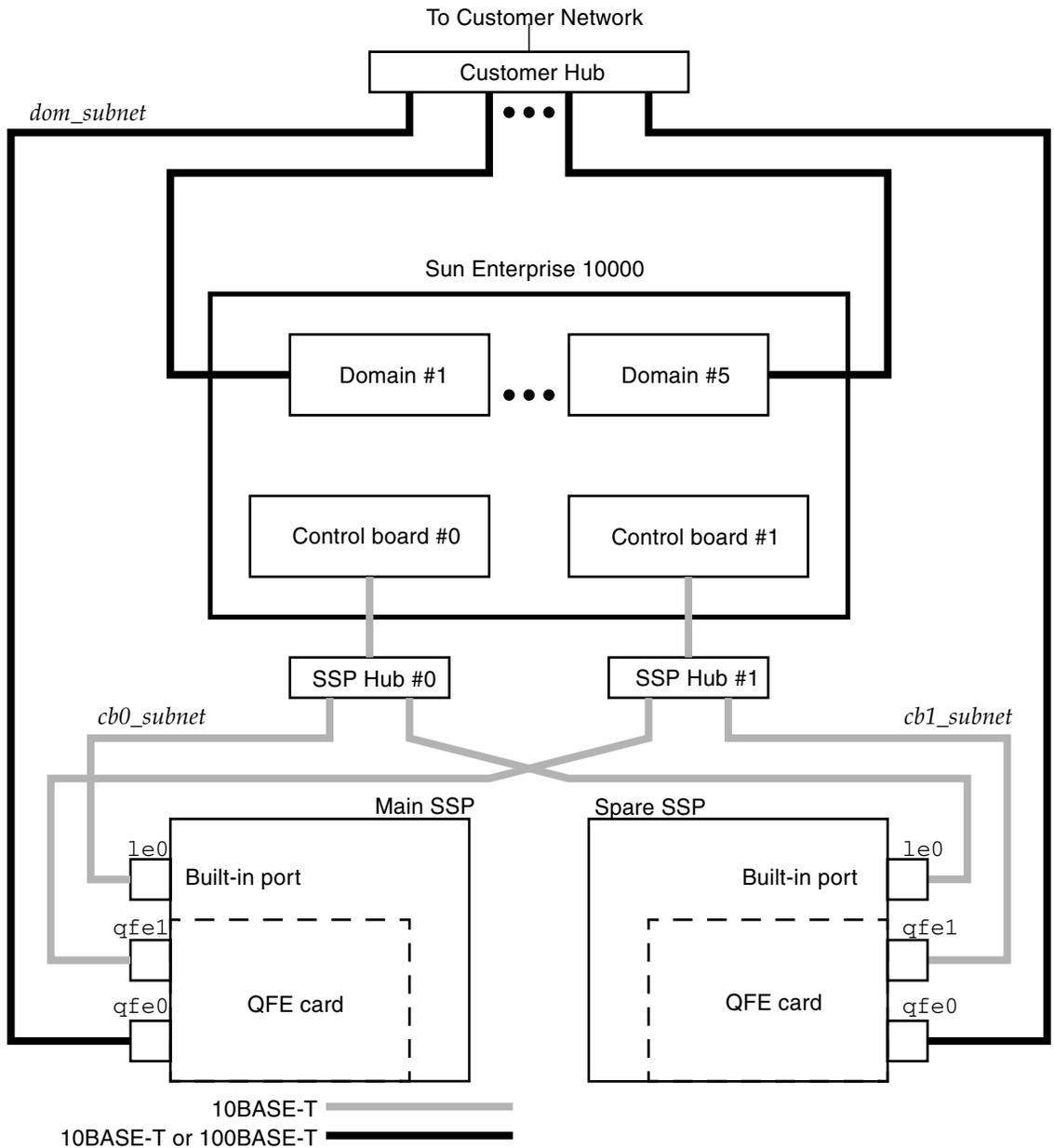
FIGURE 5-3 Network Configuration With Redundant Control Board and a Spare SSP

5.2　Domain Setup Information

The following information must be determined prior to the installation of the Sun Enterprise 10000 system. Most of this information is network related and can only be provided by the customer. Therefore, fill in the spaces in the appropriate worksheet so that this information can be referred to during the software setup procedure.

- TABLE 5-1 is used with FIGURE 5-1.

- TABLE 5-2 is used with FIGURE 5-2.

- TABLE 5-3 is used with FIGURE 5-3.

- TABLE 5-4 provides a more graphic illustration of how the network parameters are connected. This can be used as an alternative to any of the other software configuration setup parameter worksheets.

Note – The domains and SSP may require additional hostnames, IP addresses, and netmask if you configure a private network.

TABLE 5-1   Software Configuration Setup Parameters for FIGURE 5-1

Platform Name[1]:

	Hostname	IP Address	Netmask Value
Domain 1 (Sun Enterprise 10000 Host)			
Domain 2 (Sun Enterprise 10000 Host)			
Domain 3 (Sun Enterprise 10000 Host)			
Domain 4 (Sun Enterprise 10000 Host)			
Domain 5 (Sun Enterprise 10000 Host)			
Domain 6 (Sun Enterprise 10000 Host)			
Domain 7 (Sun Enterprise 10000 Host)			
Domain 8 (Sun Enterprise 10000 Host)			
Domain 9 (Sun Enterprise 10000 Host)			
Domain 10 (Sun Enterprise 10000 Host)			
Domain 11 (Sun Enterprise 10000 Host)			
Domain 12 (Sun Enterprise 10000 Host)			
Domain 13 (Sun Enterprise 10000 Host)			
Domain 14 (Sun Enterprise 10000 Host)			
Domain 15 (Sun Enterprise 10000 Host)			
Domain 16 (Sun Enterprise 10000 Host)			

TABLE 5-1 Software Configuration Setup Parameters for FIGURE 5-1 *(Continued)*

Platform Name[1]:

	Hostname	IP Address	Netmask Value
Control board 0 (CB0)	_____	_____	_____
SSP (le0 to private hub 0)	_____	_____	_____
SSP (qfe0 to customer hub)	_____	_____	_____
NIS/NIS+ domain (if applicable)			
DNS domain (if applicable)			

1. The platform name is a logical name given to a Sun Enterprise 10000 system. A platform name does not correspond to any host on the network.

TABLE 5-2   Software Configuration Setup Parameters for FIGURE 5-2

Platform Name[1]:

	Hostname	IP Address	Netmask Value
Domain 1 (Sun Enterprise 10000 Host)			
Domain 2 (Sun Enterprise 10000 Host)			
Domain 3 (Sun Enterprise 10000 Host)			
Domain 4 (Sun Enterprise 10000 Host)			
Domain 5 (Sun Enterprise 10000 Host)			
Domain 6 (Sun Enterprise 10000 Host)			
Domain 7 (Sun Enterprise 10000 Host)			
Domain 8 (Sun Enterprise 10000 Host)			
Domain 9 (Sun Enterprise 10000 Host)			
Domain 10 (Sun Enterprise 10000 Host)			
Domain 11 (Sun Enterprise 10000 Host)			
Domain 12 (Sun Enterprise 10000 Host)			
Domain 13 (Sun Enterprise 10000 Host)			
Domain 14 (Sun Enterprise 10000 Host)			
Domain 15 (Sun Enterprise 10000 Host)			
Domain 16 (Sun Enterprise 10000 Host)			

TABLE 5-2   Software Configuration Setup Parameters for FIGURE 5-2 *(Continued)*

Platform Name[1]:

	Hostname	IP Address	Netmask Value
Control board 0 (CB0)	_____	_____	_____
Control board 1 (CB1)	_____	_____	_____
SSP (le0 to private hub 0)	_____	_____	_____
SSP (qfe0 to cust. hub)	_____	_____	_____
SSP (qfe1 to private hub1)	_____	_____	_____
NIS/NIS+ domain (if applicable)	_____		
DNS domain (if applicable)	_____		

1. The platform name is a logical name given to a Sun Enterprise 10000 system. A platform name does not correspond to any host on the network.

TABLE 5-3   Software Configuration Setup Parameters for FIGURE 5-3

Platform Name[1]:

	Hostname	IP Address	Netmask Value
Domain 1 (Sun Enterprise 10000 Host)			
Domain 2 (Sun Enterprise 10000 Host)			
Domain 3 (Sun Enterprise 10000 Host)			
Domain 4 (Sun Enterprise 10000 Host)			
Domain 5 (Sun Enterprise 10000 Host)			
Domain 6 (Sun Enterprise 10000 Host)			
Domain 7 (Sun Enterprise 10000 Host)			
Domain 8 (Sun Enterprise 10000 Host)			
Domain 9 (Sun Enterprise 10000 Host)			
Domain 10 (Sun Enterprise 10000 Host)			
Domain 11 (Sun Enterprise 10000 Host)			
Domain 12 (Sun Enterprise 10000 Host)			
Domain 13 (Sun Enterprise 10000 Host)			
Domain 14 (Sun Enterprise 10000 Host)			
Domain 15 (Sun Enterprise 10000 Host)			
Domain 16 (Sun Enterprise 10000 Host)			

TABLE 5-3 Software Configuration Setup Parameters for FIGURE 5-3 *(Continued)*

Platform Name[1]:

	Hostname	IP Address	Netmask Value
Control board 0 (CB0)			
Control board 1 (CB1)			
SSP (le0 to private hub 0)			
SSP (qfe0 to cust. hub)			
SSP (qfe1 to private hub1)			
Spare SSP (le0 to private hub 0)			
Spare SSP (qfe0 to cust. hub)			
Spare SSP (qfe1 to private hub1)			
NIS/NIS+ domain (if applicable)			
DNS domain (if applicable)			

1. The platform name is a logical name given to a Sun Enterprise 10000 system. A platform name does not correspond to any host on the network.

TABLE 5-4   Network Configuration Worksheet

The worksheet contains the following labeled boxes:

SSP 0

Hostname:		

CB1_subnet dom_subnet CB0_subnet

Subnet 1 — CB0_subnet:
- Hostname:
- IP address:
- CB0_subnet netmask:
- (1e0)

Subnet 3 — dom_subnet:
- Hostname:
- IP address:
- dom_subnet netmask:
- (QFE / hme0)

Subnet 2 — CB1_subnet:
- Hostname:
- IP address:
- CB1_subnet netmask:
- (hme1)

SSP 1

Hostname:		

CB1_subnet dom_subnet CB0_subnet

Subnet 1 — CB0_subnet:
- Hostname:
- IP address:
- CB0_subnet netmask:
- (1e0)

Subnet 3 — dom_subnet:
- Hostname:
- IP address:
- dom_subnet netmask:
- (QFE / hme0)

Subnet 2 — CB1_subnet:
- Hostname:
- IP address:
- CB1_subnet netmask:
- (hme1)

Floating IP address

dom_subnet
- Hostname:
- IP address:
- dom_subnet netmask:
- (hme0)

Connected boxes: Hub 0, Hub 1, Customer Net (*dom_subnet*)

NIS/NIS+ domain name:
DNS domain:
CB0_subnet netmask:
dom_subnet netmask:
CB1_subnet netmask:

Notes:
- Netmasks must be the same within a subnet.
- Each hostname must be unique.
- Each IP address must be unique within the respective subnet.
- Each control board must be on a separate subnet.
- To avoid confusion, for each domain, the domain name and hostname should be the same.

TABLE 5-4 Network Configuration Worksheet *(Continued)*

Sun Enterprise 10000 server

Platform name:

Hub 0

Hub 1

CB0
- Hostname:
- IP address:
- CB0_subnet netmask:

CB1
- Hostname:
- IP address:
- CB1_subnet netmask:

CB0_subnet Subnet 1

CB1_subnet Subnet 2

Customer Net *(dom_subnet)*

Domain 1 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 2 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 3 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 4 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 5 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 6 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 7 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 8 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 9 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 10 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 11 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 12 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 13 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 14 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 15 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

Domain 16 name:

Enet Port
- Hostname:
- IP address:
- dom_subnet netmask:

dom_subnet Subnet 3

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