



Hardware Survey and Software Configuration Worksheets

The worksheets in this chapter serve as a place to record the hardware installed in your switch and the configuration planning decisions you make as you plan your software configuration. Instructions for filling out the Hardware Survey worksheets appear in the “[Verifying the Hardware Configuration](#)” section of [Chapter 2, “Configuring General Switch Features.”](#)

The information you need to complete the software configuration worksheets appears in [Chapter 1, “Preparing for Configuration”](#) and in the *Cisco MGX 8800/8900 Series Hardware Installation Guide, Releases 2 - 5.1*.

Cisco recommends that you make copies of these tables and fill them out for each card on your switch as applicable. For example, if you have seven CESM cards on your MGX 8850 (PXM1E) switch, you should fill out the Cisco MGX 8850 (PXM1E/PXM45) hardware survey worksheet once and the CESM worksheet in [Table E-8](#) seven times.

Once you have filled out the appropriate worksheets for your MGX switch, you can refer back to them to obtain information you need to complete configuration on your switch. You can also refer to these worksheets to troubleshoot and modify the configuration of your MGX switch in the future.



Note

You only need to complete the worksheets that apply to your switch and the cards you installed on your switch.

Hardware Survey Worksheets

The hardware survey worksheets provide space for you to note the types of front and back cards installed in your switch and the redundancy relationships between them. The primary purpose of the survey worksheet is to document which cards are installed in the switch and give you a chance to validate that cards are installed in the correct locations and that back cards are compatible with front cards. The “[Verifying the Hardware Configuration](#)” section of [Chapter 2, “Configuring General Switch Features,”](#) describes how to use the switch software to locate the information needed in the hardware survey worksheets.

**Note**

The hardware survey worksheets do not contain all the information you need to configure the switch. Use the hardware survey worksheets to identify the hardware and validate the hardware installation. Use the software configuration worksheets in this chapter to plan the configuration for each card. You can validate the hardware first, or complete your configuration plan first. However, the configuration will not work correctly until the hardware installed matches the software configuration plan.

Table E-1, Table E-2, and Table E-3 serve as the hardware survey worksheets for the three types of Cisco MGX switches.

Table E-1 Cisco MGX 8830 or Cisco MGX 8830/B Hardware Survey Worksheet

Slot	Reserved For	Front Card Type	Back Card	Redundant Slot	Redundancy Type
1	PXM1E			2	Primary
2	PXM1E			1	Secondary
3					
4					
5					
6					
7	SRM			14	Primary
8	PXM1E			—	—
9	PXM1E			—	—
10					
11					
12					
13					
14	SRM			7	Secondary

Table E-2 Cisco MGX 8850 (PXM1E/PXM45) or Cisco 8850/B Hardware Survey Worksheet

Slot	Reserved For	Front Card Type	Upper Back Card	Lower Back Card	Redundant Slot	Redundancy Type
1						
2						
3						
4						
5						
6						
7	PXM				8	Primary
8	PXM				7	Secondary
9						
10						
11						
12						
13						
14						
15	SRM				16	Primary
16	SRM				15	Secondary
17						
18						
19						
20						
21						
22						
23	PXM	—	—	—	—	—
24	PXM	—	—	—	—	—
25						
26						
27						
28						
29						
30						
31	SRM				32	Primary
32	SRM				31	Secondary

Table E-3 Cisco MGX 8950 Hardware Survey Worksheet

Slot	Reserved For	Front Card Type	Upper Back Card	Lower Back Card	Redundant Slot	Redundancy Type
1						
2						
3						
4						
5						
6						
7	PXM				8	Primary
8	PXM				7	Secondary
9	XM-60		—	—	—	—
10	XM-60		—	—	—	—
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23	PXM	—	—	—	—	—
24	PXM	—	—	—	—	—
25	XM-60		—	—	—	—
26	XM-60		—	—	—	—
27						
28						
29						
30						
31						
32						

General MGX Switch Configuration Worksheet (PXM45, PXM1E, and SRM)

Table E-4 lists general switch parameters you can configure in each new switch.

Table E-4 General Switch Configuration Parameters

Feature	Parameter Information	Value to Configure
Switch name	Text	
IP Addresses		
Boot IP address information	Primary card address	
	Secondary card address	
	Network mask	
Disk or LAN IP address information	IP address	
	Network mask	
IP address information for access over ATM	IP address	
	Network mask	
SLIP IP address information	IP address	
	Network mask	
ATM Address and PNNI Configuration Data		
PNNI controller	Controller ID	2
	Controller type	2 (PNNI)
	Controller name	
PNNI level and lowest peer group ID	Refer to the <i>Cisco PNNI Network Planning Guide for MGX and SES Products</i> .	
PNNI node address	Refer to the <i>Cisco PNNI Network Planning Guide for MGX and SES Products</i> .	
SPVC prefix	Refer to the <i>Cisco PNNI Network Planning Guide for MGX and SES Products</i> .	
MPLS controller	Controller ID	3
	Controller type	3 (LSC)
	Controller name	
Administrator data		

Table E-4 General Switch Configuration Parameters (continued)

Feature	Parameter Information	Value to Configure
User <i>cisco</i>	Password	
User <i>service</i>	Password	
User <i>superuser</i>	Password	
Additional user	User name	
	Password	
	Access level	
Additional user	User name	
	Password	
	Access level	
Additional user	User name	
	Password	
	Access level	
Network Clock Source Plan		
Manual clock configuration	Primary clock source	
	Secondary clock source	
NCDP	Enabled or disabled?	
NCDP clock source	Port ID	
	Primary reference source	
	Clock type	
	Priority	
	Stratum level	
NCDP clock source	Port ID	
	Primary reference source	
	Clock type	
	Priority	
	Stratum level	
Network Management Plan		
SNMP access	Community	
	Contact	
	Location	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Time Zone Data		

Table E-4 General Switch Configuration Parameters (continued)

Feature	Parameter Information	Value to Configure
Time zone	Enter a zone	
Time zone offset	Hours to offset	
PXM and SRM ¹ Redundancy Options		
Standalone configuration	Primary or secondary card set installed?	
Upper bay SRM	SRM-3T3 or SRME?	
	Bulk distribution?	
Lower bay SRM	SRM-3T3 or SRME?	
	Bulk distribution?	
Redundant configuration		
Upper bay SRMs	SRM-3T3 or SRME?	
	Bulk distribution?	
	SRM line redundancy?	
Lower bay SRMs	SRM-3T3 or SRME?	
	Bulk distribution?	
	SRM line redundancy?	

1. SRM cards do not operate in Cisco MGX 8950 switches.

Additional PXM1E Information Configuration Worksheet

[Table E-5](#) lists the additional information you will need to configure PXM1E cards.



Note

PXM1E cards operate only on MGX 8850 (PXM1E), Cisco MGX 8850/B, Cisco MGX 8830, and Cisco MGX 8830/B switches. If you are configuring a MGX 8850 (PXM45) or Cisco MGX 8950 switch, you do not need to fill out [Table E-5](#).

Table E-5 Additional PXM1E Card Configuration Parameters

Feature	Parameter Information	Value to Configure
Card type	Front and back cards installed	
Standalone configuration	Using intracard APS?	
Redundant configuration	APS connector installed?	
Card SCT	SCT number	
Line operation mode	T1, E1, T3, or E3?	

Table E-5 Additional PXM1E Card Configuration Parameters (continued)

Feature	Parameter Information	Value to Configure
Line 1 Redundancy Options ¹		
Intracard APS	Working index ²	<i>slot.2.1</i>
	Protection index ²	<i>slot.2.2</i>
	Mode ³	
Intercard APS	Working index ⁴	<i>slot.2.1</i>
	Protection index ⁵	<i>slot.2.1</i>
	Mode ⁶	
Line 2 Redundancy Options ¹		
Intracard APS	Configured while configuring line 1	
Intercard APS	Working index ⁴	<i>slot.2.2</i>
	Protection index ⁵	<i>slot.2.2</i>
	Mode ⁶	
Line 3 Redundancy Options ¹		
Intracard APS	Working index ²	<i>slot.2.3</i>
	Protection index ²	<i>slot.2.4</i>
	Mode ³	
Intercard APS	Working index ⁴	<i>slot.2.3</i>
	Protection index ⁵	<i>slot.2.3</i>
	Mode ⁶	
Line 4 Redundancy Options ¹		
Intracard APS	Configured while configuring line 3	
Intercard APS	Working index ⁴	<i>slot.2.4</i>
	Protection index ⁵	<i>slot.2.4</i>
	Mode ⁶	
Line 5 Redundancy Options ¹		
Intracard APS	Working index ²	<i>slot.2.5</i>
	Protection index ²	<i>slot.2.6</i>
	Mode ³	
Intercard APS	Working index ⁴	<i>slot.2.5</i>
	Protection index ⁵	<i>slot.2.5</i>
	Mode ⁶	

Table E-5 Additional PXM1E Card Configuration Parameters (continued)

Feature	Parameter Information	Value to Configure
Line 6 Redundancy Options ¹		
Intracard APS	Configured while configuring line 5	
Inter-card APS	Working index ⁴	<i>slot.2.6</i>
	Protection index ⁵	<i>slot.2.6</i>
	Mode ⁶	
Line 7 Redundancy Options ¹		
Intracard APS	Working index ²	<i>slot.2.7</i>
	Protection index ²	<i>slot.2.8</i>
	Mode ³	
Inter-card APS	Working index ⁴	<i>slot.2.7</i>
	Protection index ⁵	<i>slot.2.7</i>
	Mode ⁶	
Line 8 Redundancy Options ¹		
Intracard APS	Configured while configuring line 7	
Inter-card APS	Working index ⁴	<i>slot.2.8</i>
	Protection index ⁵	<i>slot.2.8</i>
	Mode ⁶	
Line 9 Redundancy Options ¹		
Intracard APS	Working index ²	<i>slot.2.9</i>
	Protection index ²	<i>slot.2.10</i>
	Mode ³	
Inter-card APS	Working index ⁴	<i>slot.2.9</i>
	Protection index ⁵	<i>slot.2.9</i>
	Mode ⁶	
Line 10 Redundancy Options ¹		
Intracard APS	Configured while configuring line 9	
Inter-card APS	Working index ⁴	<i>slot.2.10</i>
	Protection index ⁵	<i>slot.2.10</i>
	Mode ⁶	

Table E-5 Additional PXM1E Card Configuration Parameters (continued)

Feature	Parameter Information	Value to Configure
Line 11 Redundancy Options ¹		
Intracard APS	Working index ²	<i>slot.2.11</i>
	Protection index ²	<i>slot.2.12</i>
	Mode ³	
Intercard APS	Working index ⁴	<i>slot.2.11</i>
	Protection index ⁵	<i>slot.2.11</i>
	Mode ⁶	
Line 12 Redundancy Options ¹		
Intracard APS	Configured while configuring line 11	
Intercard APS	Working index ⁴	<i>slot.2.12</i>
	Protection index ⁵	<i>slot.2.12</i>
	Mode ⁶	

1. APS can only be configured on optical lines. For PXM1E-4-155, APS can be configured on lines 1 through 4, and on PXM1E-8-155, APS can be configured on lines 1 through 8. On PXM1E-COMBO, APS can be configured on lines 9 through 12.
2. Enter the slot number for the standalone PXM1E, which is 1 or 2 on Cisco MGX 8830 and 7 or 8 on MGX 8850 (PXM1E).
3. Valid options: 1+1, 1:1, annexB 1+1, or straight cable 1+1
4. Enter the slot number of the primary PXM1E, which is 1 on Cisco MGX 8830 and 7 on MGX 8850 (PXM1E).
5. Enter the slot number of the secondary PXM1E, which is 2 on Cisco MGX 8830 and 8 on MGX 8850 (PXM1E).
6. Valid options: 1+1, annexB 1+1, or straight cable 1+1

AUSM/B Configuration Worksheet

Table E-6 lists general switch parameters you will need to configure on each AUSM/B card.


Note

AUSM/B cards operate only on MGX 8850 (PXM1E) and Cisco MGX 8830 switches. If you are configuring a MGX 8850 (PXM45) or Cisco MGX 8950 switch, or if you do not have AUSM/B cards installed in your switch, you do not need to complete the worksheet in Table E-6

Table E-6 General AUSM/B Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this AUSM/B	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
1:N Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
Line distribution	Mode: back card or bulk distribution through an SRM	

AXSM Configuration Worksheet

Table E-7 lists general switch parameters you will need to configure on each AXSM card.


Note

AXSM cards operate only on MGX 8850 (PXM45) and Cisco MGX 8950 switches, and on the Cisco MGX 8880 Media Gateway. AXSM-E cards operate on Cisco MGX 8850/B and Cisco MGX 8830/B. The *Cisco MGX 8800/8900 Series Hardware Installation Guide, Releases 2 - 5.1* describes which AXSM cards operate in which switches. If you are configuring a MGX 8850 (PXM1E) or Cisco MGX 8830 switch, or if you do not have AXSM cards installed in your switch, you do not need to fill out Table E-7.

Table E-7 General AXSM, AXSM-E, and AXSM-XG Card Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this AXSM	Slot number	
AXSM type	AXSM, AXSM/B, AXSM-E or AXSM-XG	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
APS connector installed?	Yes or no?	
Card SCT	SCT number	

CESM Configuration Worksheet

Table E-8 lists general switch parameters you will need to configure on each CESM card.


Note

CESM cards do not operate in Cisco MGX 8950 switches. If you are configuring a Cisco MGX 8950 switch, or if you do not have CESM cards installed in your switch, you do not need to complete the worksheet in Table E-8.

Table E-8 General CESM Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this CESM	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
1:N Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
Line distribution	Mode: back card or bulk distribution through an SRM	

FRSM-12-T3E3 Configuration Worksheet

Table E-9 lists general switch parameters you will need to configure on each FRSM-12-T3E3 card.


Note

FRSM12 cards operate only on MGX 8850 (PXM45) switches. If you are configuring a MGX 8850 (PXM1E), Cisco MGX 8830, or Cisco MGX 8950 switch, or if you do not have FRSM12 cards installed in your switch, you do not need to complete the worksheet in Table E-9.

Table E-9 General FRSM12 Card Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this FRSM-12-T3E3	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
1:1 Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
Card SCT	SCT number	

FRSM-2CT3, FRSM-2T3E3, and FRSM-HS2/B Configuration Worksheet

Table E-11 lists general switch parameters you will need to configure the FRSM-2CT3, FRSM-2T3E3, and FRSM-HS2/B cards.



Note

If you are configuring a Cisco MGX 8950 switch, or if you do not have FRSM-2CT3, FRSM-2T3E3, and FRSM-HS2/B cards installed in your switch, you do not need to complete the worksheet in Table E-10.

Table E-10 General FRSM-2CT3, FRSM-2T3E3, and FRSM-HS2/B Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this 8-port FRSM	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
1:1 Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	

FRSM-8T1 and FRSM-8E1 Configuration Worksheet

Table E-11 lists general switch parameters you will need to configure channelized and non-channelized 8-port FRSM cards.


Note

If you are configuring a Cisco MGX 8950 switch, or if you do not have 8-port FRSM cards installed in your switch, you do not need to complete the worksheet in Table E-11.

Table E-11 General FRSM-8T1 and FRSM-8E1 Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this 8-port FRSM	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
1:N Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
Line distribution	Mode: back card or bulk distribution through an SRM	

MPSM-8-T1E1 Configuration Worksheet

Table E-12 lists general switch parameters you will need to configure channelized and non-channelized 8-port MPSM cards.


Note

If you are configuring a Cisco MGX 8880 Media Gateway or a Cisco MGX 8950 switch, or if you do not have 8-port MPSM cards installed in your switch, you do not need to complete the worksheet in Table E-12.

Table E-12 General MPSM-8-T1E1 Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this 8-port MPSM	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Interface type	T1 or E1	
Service type	Frame Relay, ATM, or Circuit emulation	
Card Redundancy Options		
Standalone configuration	Yes or no?	
1:N redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
Line distribution	Mode: back card or bulk distribution through an SRM	

MPSM-T3E3-155 Configuration Worksheet

Table E-13 lists general switch parameters you will need to configure on each MPSM-T3E3-155 card.

Table E-13 General MPSM-T3E3-155 Card Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this MPSM-T3E3-155	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Interface type	T3, E3, or OC-3	
Service type	Frame Relay, ATM, or Multiservice	
Card Redundancy Options		
Standalone configuration	Yes or no?	
Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
APS connector installed?	Yes or no?	
Card SCT	SCT number	

MPSM-16-T1E1 Configuration Worksheet

Table E-14 lists general switch parameters you will need to configure on each MPSM-16-T1E1 card.

Table E-14 General MPSM-T3E3-155 Card Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this MPSM-16-T1E1	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Interface type	T1, E1	
Service type	Frame Relay, ATM, PPP, or Multiservice	
Card Redundancy Options		
Standalone configuration	Yes or no?	
Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
APS connector installed?	Yes or no?	
Card SCT	SCT number	

VISM Configuration Worksheet

Table E-15 lists general switch parameters you will need to configure on each VISM card.


Note

VISM cards do not operate in Cisco MGX 8950 switches. If you are configuring a Cisco MGX 8950 switch, or if you do not have VISM cards installed in your switch, you do not need to complete the worksheet in Table E-15.

Table E-15 General VISM Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this VISM	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
1:N Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
Line distribution	Mode: back card or bulk distribution through an SRM	

VXSM Configuration Worksheet

Table E-16 lists general switch parameters you will need to configure on each VXSM card.


Note

VXSM cards operate only on MGX 8850 (PXM45) and Cisco MGX 8950 switches. If you are configuring a MGX 8850 (PXM1E) or Cisco MGX 8830 switch, or if you do not have VXSM cards installed in your switch, you do not need to fill out Table E-16.

Table E-16 General VXSM Card Configuration Parameters

Feature	Parameter Information	Value to Configure
Slot for this VXSM	Slot number	
Software Version Data		
Boot software	Version number	
Runtime software	Version number	
Card Redundancy Options		
Standalone configuration	Yes or no?	
Redundant configuration		
Card role	Primary or secondary	
Card slot for other half of redundant card pair	Slot number	
APS connector installed?	Yes or no?	
Card SCT	SCT number	

