



# Cisco 6160 Quad-Port Flexi ATU-C to Octal-Port DMT ATU-C Line Card Conversion Procedures

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This document provides the procedures to convert from quad-port flexi ATU-C line cards (4xflexis) to octal-port DMT ATU-C line cards (8xDMTs) in the Cisco 6160 system.



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**Only trained and qualified personnel should be allowed to install or replace this equipment.**

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## Conversion Prerequisites

This section provides the requirements that are needed to convert your Cisco 6160 system from 4xflexis to 8xDMTs:

- [Software and Network Management Requirements, page 2](#)
- [Configuration Requirements, page 2](#)
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## Software and Network Management Requirements

The following bullets list the minimum software and network management requirements for the line card conversion procedures:

- IOS—Release 12.1(6)DA
- Cisco DSL Manager (CDM)—Release 3.3(2) (optional)

## Configuration Requirements

To accommodate 8xDMTs in a Cisco 6160 with a POTS splitter configuration, it is necessary to have one of the following third-party POTS splitter configurations installed with your Cisco 6160 system:

- One 528 POTS splitter
- Two 128 POTS splitters

The Champ connector pinouts on the back of the Cisco 6160 chassis are mapped for octal-port line cards. If industry-standard unshielded twisted pair (UTP) 50-pin Champ cables are currently used in your configuration, there is no need to change the cables. See the [“Port Mapping of Subscriber Connectors to Slots and Ports” section on page 15](#) for port mapping information.

## Part and Tool Requirements

[Table 1](#) lists the part and tool requirements for the 4xflexi to 8xDMT conversion for a Cisco 6160 system.

**Table 1** *Part and Tool Requirements*

Check	Part and Tools
	8xDMTs.
	Third-party POTS splitter and documentation, as necessary. <ul style="list-style-type: none"> <li>• One 528 POTS splitter.</li> <li>• Two 128 POTS splitters.</li> </ul>
	Cable for POTS splitter.
	IOS Release 12.1(6)DA.
	CDM Release 3.3(2) (optional)
	Eleven 50-pin UTP Champ cables, as necessary.
	Tie wraps for Champ connectors on the Cisco 6160 backplane.
	Flat-head screwdriver.
	Phillips-head screwdriver.

# General Safety Precautions and Maintenance Guidelines

This section describes the following areas:

- [General Safety Precautions, page 3](#)
- [General Maintenance Guidelines, page 6](#)
- [Preventing Electrostatic Discharge Damage, page 7](#)

## General Safety Precautions

Before working on the equipment, be aware of standard safety practices and the hazards involved in working with electrical circuitry to prevent accidents. Adhere to the following cautions and warnings for safe and hazard-free installation.



Warning

This warning symbol means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.

Waarschuwing

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van standaard maatregelen om ongelukken te voorkomen. Voor vertalingen van de waarschuwingen die in deze publicatie verschijnen, kunt u het document *Regulatory Compliance and Safety Information* (Informatie over naleving van veiligheids- en andere voorschriften) raadplegen dat bij dit toestel is ingesloten.

Varoitus

Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista. Tässä julkaisussa esiintyvien varoitusten käännökset löydät laitteen mukana olevasta *Regulatory Compliance and Safety Information* -kirjasesta (määräysten noudattaminen ja tietoa turvallisuudesta).

Attention

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant causer des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions d'avertissements figurant dans cette publication, consultez le document *Regulatory Compliance and Safety Information* (Conformité aux règlements et consignes de sécurité) qui accompagne cet appareil.

- Warnung** Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewußt. Übersetzungen der in dieser Veröffentlichung enthaltenen Warnhinweise finden Sie im Dokument *Regulatory Compliance and Safety Information* (Informationen zu behördlichen Vorschriften und Sicherheit), das zusammen mit diesem Gerät geliefert wurde.
- Avvertenza** Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di lavorare su qualsiasi apparecchiatura, occorre conoscere i pericoli relativi ai circuiti elettrici ed essere al corrente delle pratiche standard per la prevenzione di incidenti. La traduzione delle avvertenze riportate in questa pubblicazione si trova nel documento *Regulatory Compliance and Safety Information* (Conformità alle norme e informazioni sulla sicurezza) che accompagna questo dispositivo.
- Advarsel** Dette varselsymbolet betyr fare. Du befinner deg i en situasjon som kan føre til personskade. Før du utfører arbeid på utstyr, må du være oppmerksom på de faremomentene som elektriske kretser innebærer, samt gjøre deg kjent med vanlig praksis når det gjelder å unngå ulykker. Hvis du vil se oversettelser av de advarslene som finnes i denne publikasjonen, kan du se i dokumentet *Regulatory Compliance and Safety Information* (Overholdelse av forskrifter og sikkerhetsinformasjon) som ble levert med denne enheten.
- Aviso** Este símbolo de aviso indica perigo. Encontra-se numa situação que lhe poderá causar danos físicos. Antes de começar a trabalhar com qualquer equipamento, familiarize-se com os perigos relacionados com circuitos eléctricos, e com quaisquer práticas comuns que possam prevenir possíveis acidentes. Para ver as traduções dos avisos que constam desta publicação, consulte o documento *Regulatory Compliance and Safety Information* (Informação de Segurança e Disposições Reguladoras) que acompanha este dispositivo.
- ¡Advertencia!** Este símbolo de aviso significa peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considerar los riesgos que entraña la corriente eléctrica y familiarizarse con los procedimientos estándar de prevención de accidentes. Para ver una traducción de las advertencias que aparecen en esta publicación, consultar el documento titulado *Regulatory Compliance and Safety Information* (Información sobre seguridad y conformidad con las disposiciones reglamentarias) que se acompaña con este dispositivo.
- Varning!** Denna varningssymbol signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanligt förfarande för att förebygga skador. Se förklaringar av de varningar som förekommer i denna publikation i dokumentet *Regulatory Compliance and Safety Information* (Efterrättelse av föreskrifter och säkerhetsinformation), vilket medföljer denna anordning.















Warning

Before opening the chassis, disconnect the telephone-network cables to avoid contact with telephone-network voltages.



Warning

Do not work on the system or connect or disconnect cables during periods of lightning activity.

-  **Warning** This equipment is to be installed and maintained by service personnel only as defined by AS/NZS 3260 Clause 1.2.14.3 Service Personnel.
-  **Warning** To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.
-  **Warning** During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.
-  **Warning** Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.
-  **Warning** Only trained and qualified personnel should be allowed to install, replace, or service this equipment.
-  **Warning** Connect the unit only to DC power source that complies with the Safety Extra-Low Voltage (SELV) requirements in IEC 60950 based safety standards.
-  **Warning** Do not use this product near water; for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
-  **Warning** Never install telephone wiring during an electrical storm.
-  **Warning** Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
-  **Warning** Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
-  **Warning** Use caution when installing or modifying telephone lines.
-  **Warning** Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

  
Warning

Do not use a telephone to report a gas leak in the vicinity of the leak.

  
Warning

Ultimate disposal of this product should be handled according to all national laws and regulations.

  
Warning

This product requires short-circuit (overcurrent) protection, to be provided as part of the building installation. Install only in accordance with national and local wiring regulations.

  
Warning

Do not reach into a vacant slot or chassis while you install or remove a module or a fan. Exposed circuitry could constitute an energy hazard.

  
Caution

Proper ESD protection is required whenever you handle Cisco equipment. Installation and maintenance personnel should be properly grounded using ground straps to eliminate the risk of ESD damage to the equipment. Cards are subject to ESD damage whenever they are removed from the chassis.

## General Maintenance Guidelines

This section covers the following topics:

- [Installation and Replacement Suggestions, page 6](#)
- [Hot Swapping Cards, page 7](#)

## Installation and Replacement Suggestions

The following items are examples of recommended line card installation and replacement practices:

- Do not force the line card into its slot. This action can damage the pins on the backplane if they are not aligned properly with the line card.
- Ensure that the line card is straight and not at an angle when you install the line card in the slot. Installing the line card at an angle can damage the line card.
- Fully depress the ejector tabs to ensure that the line card connector mates with the backplane correctly. Firmly seat the line card in the slot.

  
Caution

Any line card that is only partially connected to the backplane can disrupt system operation.

## Hot Swapping Cards

The line cards support hot swapping. Hot swapping allows you to remove, replace, and rearrange the line cards without disconnecting the system power. When the system detects that a line card is added or removed, it automatically runs diagnostic and discovery routines, and acknowledges the presence or absence of the line card.

If an unprovisioned line card is installed for the first time, the system identifies it as present but unprovisioned. Instructions for provisioning the line card are found in the appropriate software guide for your chassis and in the [“Provision the Octal-Port xTU-C Line Cards”](#) section on page 14.

## Preventing Electrostatic Discharge Damage

Proper ESD protection is required whenever you handle Cisco equipment. ESD damage, which can occur when electronic cards or components are improperly handled, results in complete or intermittent failures. Use an antistatic strap during handling.

Follow these guidelines to prevent ESD damage:

- Always use an ESD ankle or wrist strap and ensure that it makes good skin contact.
- Connect the equipment end of the strap to the ESD jack on the front left side of the chassis.
- When you install a component, use available ejector levers or captive installation screws to properly seat the bus connectors in the backplane or midplane. These devices prevent accidental removal, provide proper grounding for the system, and help to ensure that bus connectors are properly seated.
- When you remove a component, use available ejector levers or captive installation screws to release the bus connectors from the backplane or midplane.
- Avoid touching the printed circuit boards or connectors on the NI-2 cards or line cards.
- Place a removed component board-side-up on an antistatic surface or in a static-shielding container. If you plan to return the component to the factory, immediately place it in a static-shielding container.
- Avoid contact between the printed circuit boards and clothing. The wrist strap protects components from ESD voltages on the body only; ESD voltages on clothing can still cause damage.



Caution

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Periodically check the resistance value of the antistatic strap. Ensure that the measurement is between 1 and 10 megohms.

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## Quad-Port Flexi ATU-C to Octal-Port DMT ATU-C Line Card Conversion Procedures

The following sections detail the procedures for converting your Cisco 6160 system from 4xflexis to 8xDMTs.



Warning

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**Only trained and qualified personnel should be allowed to install, replace, or service this equipment.**

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**Note**

Before installing and cabling the equipment, be aware of standard safety practices and the hazards involved in working with electrical circuitry to prevent accidents. See the [“General Safety Precautions” section on page 3](#) for all cautions and warnings that are necessary to ensure a safe and hazard-free installation.

## Conversion Checklist

When you convert your system from 4xflexis to 8xDMTs, be sure that you follow the conversion procedures in the proper sequence. [Table 2](#) is a checklist of the conversion steps in the order in which they should occur. Detailed conversion instructions are located in the sections following [Table 2](#).



**Caution**

Proper ESD protection is required whenever you handle Cisco equipment. Installation and maintenance personnel should be properly grounded using ground straps to eliminate the risk of ESD damage to the equipment. Cards are subject to ESD damage whenever they are removed from the chassis.

*Table 2 Conversion Procedure Checklist*

Check	Conversion Step
	1. Upgrade IOS.
	2. Remove the power.
	3. Measure the rack space and prepare the rack.
	4. Stabilize the rack.
	5. Install the POTS splitter, as necessary.
	6. Verify the Cisco 6160 cabling.
	7. Remove the 4xflexis.
	8. Install the 8xDMTs.
	9. Verify the correct fuses.
	10. Apply power to the system.
	11. Provision the 8xDMTs.
	12. Verify CPE <sup>1</sup> compatibility.

1. CPE = customer premises equipment

## Conversion Procedures

The following sections detail the procedures for converting your Cisco 6160 system from 4xflexis to 8xDMTs.

### Upgrade IOS

You need to upgrade the IOS software to Release 12.1(6)DA. Refer to the IOS configuration guide for upgrade procedures.



## Remove the Power

Complete the following steps to remove power from the Cisco 6160 system:

- 
- Step 1** Type the following command to save the configuration changes to NVRAM:
- ```
DSLAM# copy running-config startup-config
```
- Step 2** Set the circuit breakers on the power entry modules (PEMs) to the OFF (0) position.
- 

## Measure the Rack Space and Prepare the Rack

When upgrading your system from 4xflexis to 8xDMTs in a Cisco 6160 with a POTS splitter configuration, you may have to move the hardware components in the rack to accommodate a second POTS splitter as necessary. See the “[Configuration Requirements](#)” section on page 2 for additional information.



### Warning

**Two people are required to lift the chassis. Grasp the chassis underneath the lower edge and lift with both hands. To prevent injury, keep your back straight and lift with your legs, not your back.**

Complete the following steps to measure the rack space and prepare the rack:

- 
- Step 1** Use [Table 3](#) to calculate the rack space necessary for your Cisco 6160 system configuration. The total amount of rack space should not exceed 42 RUs. If your total configuration exceeds 42 RUs, either replan your configuration or use more than one rack to house the Cisco 6160 system components.

**Table 3** *Rack Space Calculation for the Cisco 6160 System Configurations*

| Line | Instructions                                                                                                                          | Calculation |
|------|---------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1    | Total number of Cisco 6160 chassis in the rack—Maximum is four chassis per rack (include subtending host and subtended node chassis). |             |
| 2    | Total number of POTS splitters <sup>1</sup> in the rack.                                                                              |             |
| 3    | Number of RUs required for the POTS splitter <sup>2</sup> .                                                                           |             |
| 4    | Multiply 11 RUs by the total number of Cisco 6160 chassis on line 1.                                                                  |             |
| 5    | Multiply line 2 by line 3 to determine the total POTS splitter space requirement.                                                     |             |
| 6    | Multiply 1 RU by the total number of Cisco 6160 chassis on line 1 <sup>3</sup>                                                        |             |
| 7    | <b>Add lines 4, 5, and 6 to obtain the total number of RUs needed for a Cisco 6160 with or without a POTS splitter configuration.</b> |             |

1. A third-party POTS splitter must be used in a Cisco 6160 with a POTS splitter configuration.
2. See the documentation that accompanied the third-party POTS splitter to determine the number of RUs required. One RU is equal to 1.75 inches (4.45 cm.).
3. One RU is recommended for cabling needs and intake plenum.

- Step 2** Connect a grounding strap to an ESD grounding jack on the chassis.

- Step 3** Move the Cisco 6160 chassis up or down in the rack to accommodate an additional POTS splitter chassis, as necessary.
- Use a Phillips-head screwdriver to remove the mounting screws that bolt the Cisco 6160 chassis in the rack.
  - Gently move the Cisco 6160 chassis up or down in the rack to accommodate an additional POTS splitter.
  - Use the mounting screws and a Phillips-head screwdriver to bolt the Cisco 6160 in the rack.
- Step 4** Move the existing POTS splitter up or down in the rack to accommodate the additional POTS splitter, as necessary.



**Note** For removal and installation procedures for each POTS splitter, refer to the appropriate third-party documentation.

## Install the POTS Splitter

Before you install the additional POTS splitter needed for a Cisco 6160 with a POTS splitter configuration, you need to stabilize the rack for the new hardware components.

Verify that your Cisco 6160 system is installed from the bottom to the top of the rack so the rack remains stable. If your system is not installed from the bottom to the top of the rack, make the necessary adjustments to the rack.



**Warning**

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

In a Cisco 6160 system with a POTS splitter configuration using 8xDMTs, it is necessary to expand the system to accommodate 256 ports in one of the following ways:

- Install a 528 POTS splitter.
- Verify that a total of two 128 POTS splitters are installed in the rack.



**Note** For installation procedures for each POTS splitter, refer to the appropriate third-party documentation.



**Warning**

Two people are required to lift the chassis. Grasp the chassis underneath the lower edge and lift with both hands. To prevent injury, keep your back straight and lift with your legs, not your back.

## Verify the Cisco 6160 Cabling

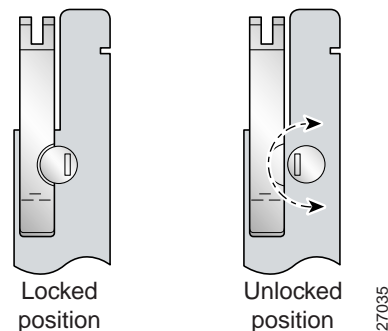
The Champ connector pinouts on the back of the Cisco 6160 chassis are mapped for octal-port *x*TU-C line cards. Verify that industry-standard unshielded twisted pair (UTP) 50-pin Champ cables are currently used in your configuration. If you are making your own cables or using another type of cable, see the “[Port Mapping of Subscriber Connectors to Slots and Ports](#)” section on page 15 for port mapping information.

## Remove the 4xflexis

Complete the following steps to remove the 4xflexis from the Cisco 6160 chassis:

- 
- Step 1** Connect a grounding strap to an ESD grounding jack.
- Step 2** Use a flat-head screwdriver to move the locking tabs from the locked to the unlocked position on the 4xflexis. Be sure to turn the locking tab so that it does not overlap the line card ejector tab, as shown in [Figure 1](#).

**Figure 1** Locking and Unlocking the Line Card



- Step 3** Lift up on the ejector tab of each card. This action disconnects the card from the backplane.
- Step 4** Carefully slide the line card out of the slot.
- Step 5** Repeat Steps 1 through 4 for each line card in the Cisco 6160.

Either replace the 4xflexis that you remove with an 8xDMT, or insert a blank faceplate in the empty slot. See the “[Install the 8xDMTs](#)” section on page 11 for 8xDMT installation procedures. For blank faceplate installation procedures, refer to the *Cisco 6160 Hardware Installation Guide*.




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**Note** Blank faceplates should occupy any empty slots in the chassis.

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## Install the 8xDMTs

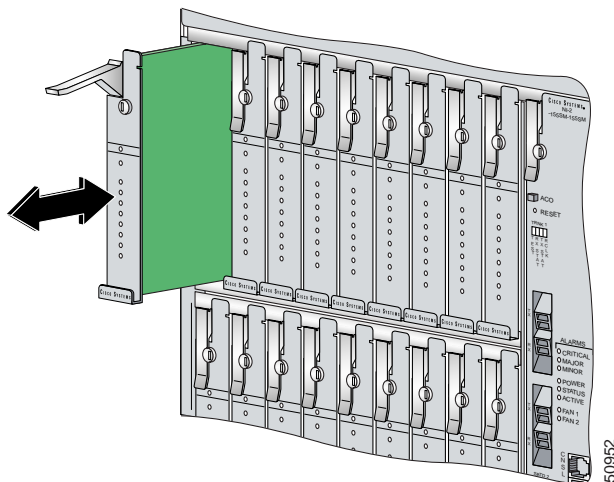
Complete the following steps to install the 8xDMT in the Cisco 6160 chassis:

- 
- Step 1** Connect a grounding strap to an ESD grounding jack.

- Step 2 Hold the 8xDMT vertically, with the line card faceplate toward you and the connectors facing the chassis slot.
- Step 3 Align the line card edge with the guides at the top and bottom of the slot in the Cisco 6160.
- Step 4 Lift up on the ejector tab and gently apply pressure to the faceplate while pushing the line card into the slot.

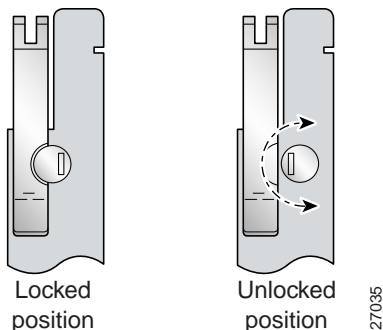
Figure 2 shows the 8xDMT installation for a Cisco 6160 chassis.

Figure 2 Octal-Port DMT ATU-C Line Card Installation in the Cisco 6160



- Step 5 Push on the faceplate of the line card to fully seat the line card.
- Step 6 Press down on the ejector tab to secure the line card and connect it to the backplane.
- Step 7 Use a flat-head screwdriver to turn the locking tab so that it overlaps the line card ejector tab to prevent inadvertent dislodging. Figure 3 shows how to position the locking tab.

Figure 3 Positioning the Locking Tab for the Line Card Installation



 Note

If you are installing the line card for the first time, refer to the provisioning procedures in the appropriate software guide for your chassis.

## Verify Correct Fuses

Use [Table 4](#) to calculate the minimum fuse rating that is necessary for each of your Cisco 6160 system components. Verify that your system is using the minimum fuse rating for each component that is wired to the fuse and alarm panel.



**Note** The power rating label that is supplied on the rear of each chassis indicates the maximum fuse value for the chassis.

**Table 4** Power and Fuse Calculation for the Cisco 6160 System Components

| Component                             | Instructions                                                                                                            | Calculation |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Cisco 6160 Chassis<sup>1</sup></b> |                                                                                                                         |             |
| 1                                     | If you are using 4xflexis in CAP mode, multiply 13.5W by the total number of 4xflexis (CAP mode) in the Cisco 6160.     |             |
| 2                                     | If you are using 4xflexis in G.lite mode, multiply 13W by the total number of 4xflexis (G.lite mode) in the Cisco 6160. |             |
| 3                                     | If you are using 4xflexis in DMT mode, multiply 17.5W by the total number of 4xflexis (DMT mode) in the Cisco 6160.     |             |
| 4                                     | If you are using 4xSDSLs <sup>2</sup> , multiply 9W by the total number of 4xSDSLs in the Cisco 6160.                   |             |
| 5                                     | If you are using 8xDMTs, multiply 24W by the total number of 8xDMTs in the Cisco 6160.                                  |             |
| 6                                     | If you are using 8xIDSLs, multiply 5.5W by the total number of 8xIDSLs in the Cisco 6160.                               |             |
| 7                                     | Multiply 33.5W by the number of NI-2 cards in the chassis.                                                              |             |
| 8                                     | Multiply 6W by the number of PEMs in the chassis.                                                                       |             |
| 9                                     | Enter 104W for the fan tray.                                                                                            |             |
| 10                                    | Add lines 1 through 9. This is the typical power required for the Cisco 6160.                                           |             |
| 11                                    | Divide line 10 by 48. This is the nominal current for the Cisco 6160.                                                   |             |
| 12                                    | Multiply line 11 by 1.25. This is the minimum fuse rating needed to operate the Cisco 6160 in your system.              |             |

1. Complete this section for each subtending host chassis.

2. 4xSDSL = quad-port STU-C line card.

## Apply Power

Complete the following steps to apply power to the Cisco 6160 system:

**Step 1** Set the circuit breakers on the PEMs to the ON (1) position.

The OUT FAIL LEDs might flash briefly.

**Step 2** Verify that the INPUT OK LED lights.



**Note** If the INPUT OK LED does not light or if other issues arise, refer to the *Cisco 6160 Hardware Installation Guide* for troubleshooting procedures.

- Step 3** Reboot the system to reassociate the system MAC address.
- Step 4** Verify that the STATUS LED is solid green on any newly installed line cards after the brief self-test. If the STATUS LED is not green after the self-test, refer to the *Cisco 6160 Hardware Installation Guide* for troubleshooting procedures.
- 

## Provision the Octal-Port xTU-C Line Cards

To convert each slot provisioned for 4xflexi DMT to 8xDMT use the following procedure.

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- Step 1** Record and back up the DSL profiles assigned to each port. Each port will be set to the default 8xDMT profile after provisioning the slot for the new line card.
- Step 2** Type the following CLI command:  
`DSLAM#show running-config`
- Step 3** Remove the Flexi DMT line card from the desired slot.
- Step 4** Type the following CLI Command:  
`DSLAM# configure terminal`
- Step 5** To remove Flexi DMT provisioning from slot 1, type the following CLI Command:  
`DSLAM(config)#no slot 1`
- Step 6** Type the following CLI Command:  
`DSLAM(config)#interface atm 1/1`
- Step 7** Type the following CLI Command:  
`DSLAM(config-if)#dsl profile profile-name (where profile-name is name recorded previously)`
- Step 8** Repeat Steps 4 through 7 for ports 2 through 4.
- Step 9** For each of the 4 new ports (ports 5 through 8), type the following CLI commands:
- a. Type the following CLI Command:  
`interface atm 1/5`
  - b. Type the following CLI Command:  
`dsl profile profile-name (where profile-name is the desired profile for the new port)`
- Step 10** Install the new 8xDMT line card.

## Verify CPE Compatibility

Check with a Cisco customer representative to verify CPE compatibility with the 8xDMT.

# Port Mapping of Subscriber Connectors to Slots and Ports

The subscriber connectors are numbered JC1 to JC11. [Table 5](#) shows how subscriber connectors correspond to card slots and ports. In the table, an asterisk (\*) indicates a port that is not available on quad-port xTU-C line cards.

**Table 5** Port Mapping for the Cisco 6160 Subscriber Connectors

| Slot/Line | Champ Pins |      | Cisco 6160 Connector     | Slot/Line | Champ Pins |      | Cisco 6160 Connector    |
|-----------|------------|------|--------------------------|-----------|------------|------|-------------------------|
|           | Tip        | Ring |                          |           | Tip        | Ring |                         |
| 1/1       | 1          | 26   | JC1<br>Slots 1 through 3 | 4/1       | 1          | 26   | J2<br>Slots 4 through 6 |
| 1/2       | 2          | 27   |                          | 4/2       | 2          | 27   |                         |
| 1/3       | 3          | 28   |                          | 4/3       | 3          | 28   |                         |
| 1/4       | 4          | 29   |                          | 4/4       | 4          | 29   |                         |
| 1/5*      | 5          | 30   |                          | 4/5*      | 5          | 30   |                         |
| 1/6*      | 6          | 31   |                          | 4/6*      | 6          | 31   |                         |
| 1/7*      | 7          | 32   |                          | 4/7*      | 7          | 32   |                         |
| 1/8*      | 8          | 33   |                          | 4/8*      | 8          | 33   |                         |
| 2/1       | 9          | 34   |                          | 5/1       | 9          | 34   |                         |
| 2/2       | 10         | 35   |                          | 5/2       | 10         | 35   |                         |
| 2/3       | 11         | 36   |                          | 5/3       | 11         | 36   |                         |
| 2/4       | 12         | 37   |                          | 5/4       | 12         | 37   |                         |
| 2/5*      | 13         | 38   |                          | 5/5*      | 13         | 38   |                         |
| 2/6*      | 14         | 39   |                          | 5/6*      | 14         | 39   |                         |
| 2/7*      | 15         | 40   |                          | 5/7*      | 15         | 40   |                         |
| 2/8*      | 16         | 41   |                          | 5/8*      | 16         | 41   |                         |
| 3/1       | 17         | 42   |                          | 6/1       | 17         | 42   |                         |
| 3/2       | 18         | 43   |                          | 6/2       | 18         | 43   |                         |
| 3/3       | 19         | 44   |                          | 6/3       | 19         | 44   |                         |
| 3/4       | 20         | 45   |                          | 6/4       | 20         | 45   |                         |
| 3/5*      | 21         | 46   |                          | 6/5*      | 21         | 46   |                         |
| 3/6*      | 22         | 47   |                          | 6/6*      | 22         | 47   |                         |
| 3/7*      | 23         | 48   |                          | 6/7*      | 23         | 48   |                         |
| 3/8*      | 24         | 49   |                          | 6/8*      | 24         | 49   |                         |

**Table 5** Port Mapping for the Cisco 6160 Subscriber Connectors (continued)

| Slot/Line | Champ Pins |      | Cisco 6160 Connector     | Slot/Line | Champ Pins |      | Cisco 6160 Connector       |
|-----------|------------|------|--------------------------|-----------|------------|------|----------------------------|
|           | Tip        | Ring |                          |           | Tip        | Ring |                            |
| 7/1       | 1          | 26   | JC3<br>Slots 7 through 9 | 12/1      | 1          | 26   | JC4<br>Slots 12 through 14 |
| 7/2       | 2          | 27   |                          | 12/2      | 2          | 27   |                            |
| 7/3       | 3          | 28   |                          | 12/3      | 3          | 28   |                            |
| 7/4       | 4          | 29   |                          | 12/4      | 4          | 29   |                            |
| 7/5*      | 5          | 30   |                          | 12/5*     | 5          | 30   |                            |
| 7/6*      | 6          | 31   |                          | 12/6*     | 6          | 31   |                            |
| 7/7*      | 7          | 32   |                          | 12/7*     | 7          | 32   |                            |
| 7/8*      | 8          | 33   |                          | 12/8*     | 8          | 33   |                            |
| 8/1       | 9          | 34   |                          | 13/1      | 9          | 34   |                            |
| 8/2       | 10         | 35   |                          | 13/2      | 10         | 35   |                            |
| 8/3       | 11         | 36   |                          | 13/3      | 11         | 36   |                            |
| 8/4       | 12         | 37   |                          | 13/4      | 12         | 37   |                            |
| 8/5*      | 13         | 38   |                          | 13/5*     | 13         | 38   |                            |
| 8/6*      | 14         | 39   |                          | 13/6*     | 14         | 39   |                            |
| 8/7*      | 15         | 40   |                          | 13/7*     | 15         | 40   |                            |
| 8/8*      | 16         | 41   |                          | 13/8*     | 16         | 41   |                            |
| 9/1       | 17         | 42   |                          | 14/1      | 17         | 42   |                            |
| 9/2       | 18         | 43   |                          | 14/2      | 18         | 43   |                            |
| 9/3       | 19         | 44   |                          | 14/3      | 19         | 44   |                            |
| 9/4       | 20         | 45   |                          | 14/4      | 20         | 45   |                            |
| 9/5*      | 21         | 46   |                          | 14/5*     | 21         | 46   |                            |
| 9/6*      | 22         | 47   |                          | 14/6*     | 22         | 47   |                            |
| 9/7*      | 23         | 48   |                          | 14/7*     | 23         | 48   |                            |
| 9/8*      | 24         | 49   |                          | 14/8*     | 24         | 49   |                            |



**Table 5** Port Mapping for the Cisco 6160 Subscriber Connectors (continued)

| Slot/Line | Champ Pins |      | Cisco 6160 Connector       | Slot/Line | Champ Pins |      | Cisco 6160 Connector   |
|-----------|------------|------|----------------------------|-----------|------------|------|------------------------|
|           | Tip        | Ring |                            |           | Tip        | Ring |                        |
| 15/1      | 1          | 26   | JC5<br>Slots 15 through 17 | 34/1      | 1          | 26   | JC6<br>Slots 18 and 34 |
| 15/2      | 2          | 27   |                            | 34/2      | 2          | 27   |                        |
| 15/3      | 3          | 28   |                            | 34/3      | 3          | 28   |                        |
| 15/4      | 4          | 29   |                            | 34/4      | 4          | 29   |                        |
| 15/5*     | 5          | 30   |                            | 34/5*     | 5          | 30   |                        |
| 15/6*     | 6          | 31   |                            | 34/6*     | 6          | 31   |                        |
| 15/7*     | 7          | 32   |                            | 34/7*     | 7          | 32   |                        |
| 15/8*     | 8          | 33   |                            | 34/8*     | 8          | 33   |                        |
| 16/1      | 9          | 34   |                            | 18/1      | 9          | 34   |                        |
| 16/2      | 10         | 35   |                            | 18/2      | 10         | 35   |                        |
| 16/3      | 11         | 36   |                            | 18/3      | 11         | 36   |                        |
| 16/4      | 12         | 37   |                            | 18/4      | 12         | 37   |                        |
| 16/5*     | 13         | 38   |                            | 18/5*     | 13         | 38   |                        |
| 16/6*     | 14         | 39   |                            | 18/6*     | 14         | 39   |                        |
| 16/7*     | 15         | 40   |                            | 18/7*     | 15         | 40   |                        |
| 16/8*     | 16         | 41   |                            | 18/8*     | 16         | 41   |                        |
| 17/1      | 17         | 42   |                            |           |            |      |                        |
| 17/2      | 18         | 43   |                            |           |            |      |                        |
| 17/3      | 19         | 44   |                            |           |            |      |                        |
| 17/4      | 20         | 45   |                            |           |            |      |                        |
| 17/5*     | 21         | 46   |                            |           |            |      |                        |
| 17/6*     | 22         | 47   |                            |           |            |      |                        |
| 17/7*     | 23         | 48   |                            |           |            |      |                        |
| 17/8*     | 24         | 49   |                            |           |            |      |                        |

**Table 5** Port Mapping for the Cisco 6160 Subscriber Connectors (continued)

| Slot/Line | Champ Pins |      | Cisco 6160 Connector       | Slot/Line | Champ Pins |      | Cisco 6160 Connector       |
|-----------|------------|------|----------------------------|-----------|------------|------|----------------------------|
|           | Tip        | Ring |                            |           | Tip        | Ring |                            |
| 19/1      | 1          | 26   | JC7<br>Slots 19 through 21 | 22/1      | 1          | 26   | JC8<br>Slots 22 through 24 |
| 19/2      | 2          | 27   |                            | 22/2      | 2          | 27   |                            |
| 19/3      | 3          | 28   |                            | 22/3      | 3          | 28   |                            |
| 19/4      | 4          | 29   |                            | 22/4      | 4          | 29   |                            |
| 19/5*     | 5          | 30   |                            | 22/5*     | 5          | 30   |                            |
| 19/6*     | 6          | 31   |                            | 22/6*     | 6          | 31   |                            |
| 19/7*     | 7          | 32   |                            | 22/7*     | 7          | 32   |                            |
| 19/8*     | 8          | 33   |                            | 22/8*     | 8          | 33   |                            |
| 20/1      | 9          | 34   |                            | 23/1      | 9          | 34   |                            |
| 20/2      | 10         | 35   |                            | 23/2      | 10         | 35   |                            |
| 20/3      | 11         | 36   |                            | 23/3      | 11         | 36   |                            |
| 20/4      | 12         | 37   |                            | 23/4      | 12         | 37   |                            |
| 20/5*     | 13         | 38   |                            | 23/5*     | 13         | 38   |                            |
| 20/6*     | 14         | 39   |                            | 23/6*     | 14         | 39   |                            |
| 20/7*     | 15         | 40   |                            | 23/7*     | 15         | 40   |                            |
| 20/8*     | 16         | 41   |                            | 23/8*     | 16         | 41   |                            |
| 21/1      | 17         | 42   |                            | 24/1      | 17         | 42   |                            |
| 21/2      | 18         | 43   |                            | 24/2      | 18         | 43   |                            |
| 21/3      | 19         | 44   |                            | 24/3      | 19         | 44   |                            |
| 21/4      | 20         | 45   |                            | 24/4      | 20         | 45   |                            |
| 21/5*     | 21         | 46   |                            | 24/5*     | 21         | 46   |                            |
| 21/6*     | 22         | 47   |                            | 24/6*     | 22         | 47   |                            |
| 21/7*     | 23         | 48   |                            | 24/7*     | 23         | 48   |                            |
| 21/8*     | 24         | 49   |                            | 24/8*     | 24         | 49   |                            |

**Table 5** Port Mapping for the Cisco 6160 Subscriber Connectors (continued)

| Slot/Line | Champ Pins |      | Cisco 6160 Connector       | Slot/Line | Champ Pins |      | Cisco 6160 Connector        |
|-----------|------------|------|----------------------------|-----------|------------|------|-----------------------------|
|           | Tip        | Ring |                            |           | Tip        | Ring |                             |
| 25/1      | 1          | 26   | JC9<br>Slots 25 through 27 | 28/1      | 1          | 26   | JC10<br>Slots 28 through 30 |
| 25/2      | 2          | 27   |                            | 28/2      | 2          | 27   |                             |
| 25/3      | 3          | 28   |                            | 28/3      | 3          | 28   |                             |
| 25/4      | 4          | 29   |                            | 28/4      | 4          | 29   |                             |
| 25/5*     | 5          | 30   |                            | 28/5*     | 5          | 30   |                             |
| 25/6*     | 6          | 31   |                            | 28/6*     | 6          | 31   |                             |
| 25/7*     | 7          | 32   |                            | 28/7*     | 7          | 32   |                             |
| 25/8*     | 8          | 33   |                            | 28/8*     | 8          | 33   |                             |
| 26/1      | 9          | 34   |                            | 29/1      | 9          | 34   |                             |
| 26/2      | 10         | 35   |                            | 29/2      | 10         | 35   |                             |
| 26/3      | 11         | 36   |                            | 29/3      | 11         | 36   |                             |
| 26/4      | 12         | 37   |                            | 29/4      | 12         | 37   |                             |
| 26/5*     | 13         | 38   |                            | 29/5*     | 13         | 38   |                             |
| 26/6*     | 14         | 39   |                            | 29/6*     | 14         | 39   |                             |
| 26/7*     | 15         | 40   |                            | 29/7*     | 15         | 40   |                             |
| 26/8*     | 16         | 41   |                            | 29/8*     | 16         | 41   |                             |
| 27/1      | 17         | 42   |                            | 30/1      | 17         | 42   |                             |
| 27/2      | 18         | 43   |                            | 30/2      | 18         | 43   |                             |
| 27/3      | 19         | 44   |                            | 30/3      | 19         | 44   |                             |
| 27/4      | 20         | 45   |                            | 30/4      | 20         | 45   |                             |
| 27/5*     | 21         | 46   |                            | 30/5*     | 21         | 46   |                             |
| 27/6*     | 22         | 47   |                            | 30/6*     | 22         | 47   |                             |
| 27/7*     | 23         | 48   |                            | 30/7*     | 23         | 48   |                             |
| 27/8*     | 24         | 49   |                            | 30/8*     | 24         | 49   |                             |

**Table 5** Port Mapping for the Cisco 6160 Subscriber Connectors (continued)

| Slot/Line | Champ Pins |      | Cisco 6160 Connector        | Slot/Line | Champ Pins |      | Cisco 6160 Connector |
|-----------|------------|------|-----------------------------|-----------|------------|------|----------------------|
|           | Tip        | Ring |                             |           | Tip        | Ring |                      |
| 31/1      | 1          | 26   | JC11<br>Slots 31 through 33 |           |            |      |                      |
| 31/2      | 2          | 27   |                             |           |            |      |                      |
| 31/3      | 3          | 28   |                             |           |            |      |                      |
| 31/4      | 4          | 29   |                             |           |            |      |                      |
| 31/5*     | 5          | 30   |                             |           |            |      |                      |
| 31/6*     | 6          | 31   |                             |           |            |      |                      |
| 31/7*     | 7          | 32   |                             |           |            |      |                      |
| 31/8*     | 8          | 33   |                             |           |            |      |                      |
| 32/1      | 9          | 34   |                             |           |            |      |                      |
| 32/2      | 10         | 35   |                             |           |            |      |                      |
| 32/3      | 11         | 36   |                             |           |            |      |                      |
| 32/4      | 12         | 37   |                             |           |            |      |                      |
| 32/5*     | 13         | 38   |                             |           |            |      |                      |
| 32/6*     | 14         | 39   |                             |           |            |      |                      |
| 32/7*     | 15         | 40   |                             |           |            |      |                      |
| 32/8*     | 16         | 41   |                             |           |            |      |                      |
| 33/1      | 17         | 42   |                             |           |            |      |                      |
| 33/2      | 18         | 43   |                             |           |            |      |                      |
| 33/3      | 19         | 44   |                             |           |            |      |                      |
| 33/4      | 20         | 45   |                             |           |            |      |                      |
| 33/5*     | 21         | 46   |                             |           |            |      |                      |
| 33/6*     | 22         | 47   |                             |           |            |      |                      |
| 33/7*     | 23         | 48   |                             |           |            |      |                      |
| 33/8*     | 24         | 49   |                             |           |            |      |                      |

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