

Multiprotocol Switched Services
Domain Client Universal Feature Card



Planning and Installation Guide

Multiprotocol Switched Services
Domain Client Universal Feature Card



Planning and Installation Guide

Note

Before using this information and the product it supports, be sure to read the general information in Appendix A, "Notices and Product Warranty" and "Electronic Emission Notices" on page A-1.

First Edition (April 1998)

This edition applies to the IBM Multiprotocol Switched Services Domain Client Universal Feature Card.

Order publications through your IBM representative or the IBM branch office serving your locality. Publications are not stocked at the address given below.

A form for readers' comments appears at the back of this publication. If the form has been removed, address your comments to:

Department CGF
Design & Information Development
IBM Corporation
PO Box 12195
RESEARCH TRIANGLE PARK NC 27709
USA

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© **Copyright International Business Machines Corporation 1998. All rights reserved.**

Note to U.S. Government Users — Documentation related to restricted rights — Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

Contents

Safety Information	vii
About This Manual	xvii
Who Should Read This Manual	xvii
Prerequisite Publications	xvii
Related Publications	xviii
Chapter 1. Introduction to the MSS Domain Client Universal Feature Card	1-1
Functions of the MSS Domain Client	1-2
Physical Characteristics	1-2
MAC Address Label	1-2
LED Indicators	1-2
Planning for Installation	1-3
MSS Domain Client Slot Restrictions	1-3
MSS Domain Client Installation Recommendation	1-4
Dimensions and Weight	1-4
Operating Environment	1-4
Chapter 2. Installation	2-1
Updating the Base Switch Microcode	2-1
Installing the MSS Domain Client in the Base Switch	2-1
Verifying Operation	2-4
Configuring the MSS Domain Client	2-5
Removing the MSS Domain Client	2-5
Chapter 3. Troubleshooting	3-1
Troubleshooting the UFC	3-1
Obtaining Service	3-1
Obtaining Software	3-1
Parts Listing	3-1
Appendix A. Notices and Product Warranty	A-1
Electronic Emission Notices	A-1
Federal Communications Commission (FCC) Statement	A-1
Industry Canada Class A Emission Compliance Statement	A-1
Avis de conformité aux normes d'Industrie Canada	A-1
EMC Directive 89/336/EEC Statement	A-2
Japanese Voluntary Control Council for Interference (VCCI) Statement ..	A-2
CISPR22 Compliance Statement	A-2
Korean Communications Statement	A-3
Trademarks	A-3
Warranty	A-4
Index	X-1


Figures

1-1.	The IBM MSS Domain Client	1-1
1-2.	The IBM MSS Domain Client Faceplate	1-2
1-3.	Slot Restrictions	1-4
2-1.	Removing the UFC Slot Cover	2-2
2-2.	Installing the UFC in a Standalone Base Switch	2-3
2-3.	Installing the UFC in a LAN Switch Module	2-4

Tables


1-1.	UFC Status LEDs	1-3
1-2.	Slot Installation Restrictions	1-3


Safety Information

 **Danger:** Before you begin to install this product, read the safety information in *Caution: Safety Information—Read This First*, SD21-0030. This booklet describes safe procedures for cabling and plugging in electrical equipment.


 **Caution:** Danger of explosion if battery is incorrectly replaced.


Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.


 **Gevaar:** Voordat u begint met de installatie van dit produkt, moet u eerst de veiligheidsinstructies lezen in de brochure *PAS OP! Veiligheidsinstructies—Lees dit eerst*, SD21-0030. Hierin wordt beschreven hoe u elektrische apparatuur op een veilige manier moet bekabelen en aansluiten.

 **WAARSCHUWING:** Explosiegevaar als de batterij door een verkeerde batterij wordt vervangen.

Vervang alleen door hetzelfde of gelijkwaardige type dat door de fabrikant is aanbevolen. Volg voor het wegdoen van gebruikte batterijen de instructies van de fabrikant.

 **Danger:** Avant de procéder à l'installation de ce produit, lisez d'abord les consignes de sécurité dans la brochure *ATTENTION: Consignes de sécurité—A lire au préalable*, SD21-0030. Cette brochure décrit les procédures pour câbler et connecter les appareils électriques en toute sécurité.

 **Perigo:** Antes de começar a instalar este produto, leia as informações de segurança contidas em *Cuidado: Informações Sobre Segurança—Leia Isto Primeiro*, SD21-0030. Esse folheto descreve procedimentos de segurança para a instalação de cabos e conexões em equipamentos elétricos.

 **CUIDADO:** Perigo de explosão, se a bateria for substituída incorretamente.

Substitua apenas por uma bateria igual ou equivalente, recomendada pelo fabricante. Descarte as baterias usadas de acordo com as instruções do fabricante.



危險：安裝本產品之前，請先閱讀
"Caution: Safety Information--Read
This First" SD21-0030 手冊中所提
供的安全注意事項。這本手冊將會說明
使用電器設備的纜線及電源的安全程序。



注意

如果不正确地更换电池，它将会有爆炸的危险。

仅可用制造商推荐的同一种或相同类型的电池进行更换。
按制造商的指示来销毁使用过的电池。



注意

更換電池不當時，會有爆炸的危險。

請更換相同的電池或製造商所建議的型號相當。
請依製造商的指示回收廢棄的電池。



Opasnost: Prije nego što počnete sa instalacijom produkta, pročítajte naputak o pravilima o sigurnom rukovanju u Upozorenje: Pravila o sigurnom rukovanju - Prvo pročítaj ovo, SD21-0030. Ovaj privitak opisuje sigurnosne postupke za priključivanje kabela i priključivanje na električno napajanje.



UPOZORENJE

Ako se kod zamjene baterija nepravilno uloži, postoji opasnost od eksplozije.

Zamijenite samo s istim tipom ili istovrsnim dijelom kojeg preporuča proizvođač.
Uklonite istrošene akumulatore prema uputama proizvođača.



Upozornění: než zahájíte instalaci tohoto produktu, přečtěte si nejprve bezpečnostní informace v pokynech „Bezpečnostní informace“ č. 21-0030. Tato brožurka popisuje bezpečnostní opatření pro kabeláž a zapojení elektrického zařízení.



POZOR

Nebezpečí výbuchu při nesprávné výměně baterie.

Zaměňte pouze stejným nebo ekvivalentním dílem, doporučeným výrobcem.
Použité baterie zlikvidujte v souladu s instrukcemi výrobce.



Fare! Før du installerer dette produkt, skal du læse sikkerhedsforskrifterne i *NB: Sikkerhedsforskrifter—Læs dette først* SD21-0030. Vejledningen beskriver den fremgangsmåde, du skal bruge ved tilslutning af kabler og udstyr.



Pas på! Batteriet kan eksplodere, hvis det ikke udskiftes korrekt.

Udskift batteriet med et batteri af samme eller tilsvarende type, som forhandleren anbefaler. Brugte batterier skal kasseres i overensstemmelse med gældende miljøbestemmelser.



Gevaar: Voordat u begint met het installeren van dit product, dient u eerst de veiligheidsrichtlijnen te lezen die zijn vermeld in de publicatie *Caution: Safety Information - Read This First*, SD21-0030. In dit boekje vindt u veilige procedures voor het aansluiten van elektrische apparatuur.



WAARSCHUWING: Explosiegevaar als de batterij door een verkeerde batterij wordt vervangen.

Vervang alleen door hetzelfde of gelijkwaardige type dat door de fabrikant is aanbevolen. Volg voor het wegdoen van gebruikte batterijen de instructies van de fabrikant.



VAARA: Ennen kuin aloitat tämän tuotteen asennuksen, lue julkaisussa *Varoitus: Turvaohjeet—Lue tämä ensin*, SD21-0030, olevat turvaohjeet. Tässä kirjassessa on ohjeet siitä, miten sähkölaitteet kaapeloidaan ja kytketään turvallisesti.



Varoitus: Paristo voi räjähtää, jos se asennetaan väärin.

Pariston saa vaihtaa vain samanlaiseen tai vastaavaan valmistajan suosittelemaan paristoon. Hävitä paristo ongelmajätteistä säädettyjen lakien ja viranomaisten määräysten mukaisesti.



Danger: Avant d'installer le présent produit, consultez le livret *Attention: Informations pour la sécurité — Lisez-moi d'abord*, SD21-0030, qui décrit les procédures à respecter pour effectuer les opérations de câblage et brancher les équipements électriques en toute sécurité.



Attention: Pour éviter tout risque d'explosion, remplacez la pile selon les instructions du fabricant qui en définit les équivalences.

Conformez-vous à la réglementation en vigueur pour le recyclage ou la mise au rebut des piles usagées.



Vorsicht: Bevor mit der Installation des Produktes begonnen wird, die Sicherheitshinweise in *Achtung: Sicherheitsinformationen—Bitte zuerst lesen*, IBM Form SD21-0030. Diese Veröffentlichung beschreibt die Sicherheitsvorkehrungen für das Verkabeln und Anschließen elektrischer Geräte.



ACHTUNG: Die Batterie kann bei unsachgemäßem Austauschen explodieren.

Nur die vom Hersteller empfohlene oder eine gleichwertige Batterie verwenden. Nach Gebrauch als Sondermüll entsorgen.



Κίνδυνος: Πριν ξεκινήσετε την εγκατάσταση αυτού του προϊόντος, διαβάστε τις πληροφορίες ασφάλειας στο φυλλάδιο *Caution: Safety Information—Read this first*, SD21-0030. Στο φυλλάδιο αυτό περιγράφονται οι ασφαλείς διαδικασίες για την καλωδίωση των ηλεκτρικών συσκευών και τη σύνδεσή τους στην πρίζα.



ΠΡΟΣΟΧΗ

Κίνδυνος έκρηξης αν η μπαταρία δεν αντικατασταθεί σωστά.

Αντικαταστήστε τη μόνο με μπαταρία ίδιου ή ισοδύναμου τύπου προτεινόμενη από τον κατασκευαστή.

Πετάξτε τις χρησιμοποιημένες μπαταρίες σύμφωνα με τις οδηγίες του κατασκευαστή.



Vigyázat: Mielőtt megkezdi a berendezés üzembe helyezését, olvassa el a *Caution: Safety Information— Read This First*, SD21-0030 könyvecskében leírt biztonsági információkat. Ez a könyv leírja, milyen biztonsági intézkedéseket kell megtenni az elektromos berendezés huzalozásakor illetve csatlakoztatásakor.



FIGYELEM!

A szakszerűtlenül kicserélt telep robbanást okozhat.
Csak azonos, vagy a gyártó által ajánlott másik
típusra cserélje!
Az elhasznált telepeket az erre kijelölt hulladék-
gyűjtőkben helyezze el..



Pericolo: Prima di iniziare l'installazione di questo prodotto, leggere le informazioni relative alla sicurezza riportate nell'opuscolo *Attenzione: Informazioni di sicurezza — Prime informazioni da leggere* in cui sono descritte le procedure per il cablaggio ed il collegamento di apparecchiature elettriche.



ATTENZIONE: Pericolo di esplosione se la batteria non è sostituita correttamente. Sostituirla solo con batterie dello stesso tipo o di tipo equivalente. Le batterie usate vanno smaltite in accordo alla normativa in vigore (DPR 915/82, successive disposizioni e disposizioni locali).



危険： 導入作業を開始する前に、安全に関する小冊子SD21-0030 の「最初にお読みください」(Read This First)の項をお読みください。
この小冊子は、電気機器の安全な配線と接続の手順について説明しています。



危険

『バッテリーの取扱いが正しくないと爆発の危険があります』

交換は製造者の勧める同一品または同等品
だけを使ってください。
使用済みバッテリーの廃棄は製造者の説 明
どおりにして



위험: 이 제품을 설치하기 전에 반드시
"주의: 안전 정보-시작하기 전에"
(SD21-0030) 에 있는 안전 정보를
읽으십시오.



주의

배터리를 올바르게 교체하지 않으면 폭발의 위험이 있습니다.

반드시 제조업체가 지정한,
같거나 비슷한 종류로 교체하십시오.
사용하신 배터리는 제조업체의
지시에 따라 폐기 처리하십시오.



ОПАСНОСТ

Пред да почнете да го инсталирате овој продукт, прочитајте ја информацијата за безбедност:

"Предупредување: Информација за безбедност: Прочитајте го прво ова", SD21-0030.

Оваа брошура опишува безбедносни процедури за каблирање и вклучување на електрична опрема.



ПРЕДУПРЕДУВАЊЕ

Опасност од експлозија ако батеријата е погрешно заменета.

Заменете ја само со ист или еквивалентен тип препорачан од производителот.
Ослободете се од употребените батерии спор инст



Fare: Før du begynner å installere dette produktet, må du lese sikkerhetsinformasjonen i *Advarsel: Sikkerhetsinformasjon — Les dette først*, SD21-0030 som beskriver sikkerhetsrutinene for kabling og tilkobling av elektrisk utstyr.



ADVARSEL: Batteriet kan eksplodere hvis det ikke settes inn riktig.

Batteriet må bare erstattes med samme type batteri eller med et tilsvarende batteri som anbefales av fabrikanten. Ikke kast det brukte batteriet som vanlig avfall. Lever det til forhandleren, på en miljøstasjon eller ved et mottak for spesialavfall.



Uwaga:

Przed rozpoczęciem instalacji produktu należy zapoznać się z instrukcją:

"Caution: Safety Information - Read This First", SD21-0030.

Zawiera ona warunki bezpieczeństwa przy podłączaniu do sieci elektrycznej i eksploatacji.



UWAGA

Nieprawidłowe włożenie baterii grozi eksplozją.

Należy wymienić tylko na baterię tego samego lub zamiennego typu zalecanego przez producenta.

Zużyte baterie należy usuwać zgodnie z instrukcjami producenta.



Perigo: Antes de iniciar a instalação deste produto, leia as informações de segurança *Cuidado: Informações de Segurança — Leia Primeiro*, SD21-0030. Este documento descreve como efectuar, de um modo seguro, as ligações eléctricas dos equipamentos.



CUIDADO: Perigo de explosão se a bateria for incorrectamente substituída.

Substitua a bateria por outra igual ou de um tipo equivalente recomendado pelo fabricante. Destrua as baterias usadas de acordo com as instruções do fabricante.



ОСТОРОЖНО: Прежде чем устанавливать этот продукт, прочтите Инструкцию по технике безопасности в документе "Внимание: Инструкция по технике безопасности -- Прочестъ в первую очередь", SD21-0030. В этой брошюре описаны безопасные способы каблирования и подключения электрического оборудования.



ОСТОРОЖНО

При неправильной замене батареи возможен взрыв.

Заменяйте батарею на такую же или на батарею эквивалентного типа, рекомендованного изготовителем. При утилизации использованных батарей следуйте инструкциям изготовителя.



Nebezpečenstvo: Pred inštaláciou výrobku si prečítajte bezpečnosté predpisy v

Výstraha: Bezpečnosté predpisy - Prečítaj ako prvé, SD21 0030. V tejto brožúrke sú opísané bezpečnosté postupy pre pripojenie elektrických zariadení.



VÝSTRAHA

Nebezpečie výbuchu pri nesprávnej výmene batérie.

Nahrádzajte iba za ten istý alebo equivalentný typ podľa doporučenia výrobcu.
Použité batérie skladujte podľa pokyno výrob



Pozor: Preden začnete z instalacijo tega produkta preberite poglavje: "Opozorilo: Informacije o varnem rokovanju-preberi pred uporabo," SD21-0030. To poglavje opisuje pravilne postopke za kabliranje,



OPOZORILO

Nevarnost eksploozije, če se baterija nepravilno zamenja.

**Za zamenjavo uporabite enak ali enakovreden tip baterije, kot ga priporoča proizvajalec.
Uporabljene baterije odstranite po navodilih proizvajalca.**



Peligro: Antes de empezar a instalar este producto, lea la información de seguridad en *Atención: Información de Seguridad — Lea Esto Primero*, SD21-0030. Este documento describe los procedimientos de seguridad para cablear y enchufar equipos eléctricos.



Precaución: Peligro de explosión si se sustituye incorrectamente la batería.

Sustituya solamente por el mismo tipo o tipo equivalente recomendado por el fabricante. Deseche las baterías usadas siguiendo las instrucciones del fabricante.



Varning — livsfara: Innan du börjar installera den här produkten bör du läsa säkerhetsinformationen i dokumentet *Varning: Säkerhetsföreskrifter— Läs detta först*, SD21-0030. Där beskrivs hur du på ett säkert sätt ansluter elektrisk utrustning.



Varning: Explosionsrisk vid batteribyte.

Byt endast till samma typ av batteri eller till likvärdigt batteri som rekommenderas av tillverkaren. Följ tillverkarens instruktioner vid kassering av uttjänta batterier.



危險：

開始安裝此產品之前，請先閱讀安全資訊。

注意：

請先閱讀 - 安全資訊 SD21-0030

此冊子說明插接電器設備之電纜線的安全程序。

About This Manual

This manual describes planning and installation procedures for the IBM Nways Multiprotocol Switched Services (MSS) Domain Client Universal Feature Card (hereafter referred to as the MSS Domain Client) for use in the IBM Nways LAN switches. See Chapter 1, "Introduction to the MSS Domain Client Universal Feature Card" for a list of the Nways LAN switches.

This manual is intended for use in conjunction with the publications provided with the base switches and the MSS Configuration publications. These publications contain the information you will need to configure and manage this UFC. This manual contains references to these publications at appropriate points in the installation procedure.

Who Should Read This Manual

Different sections of this manual are intended for different audiences. Chapter 2, "Installation" is intended for the technician. Chapter 3, "Troubleshooting" is intended for the service engineer or network administrator.

Prerequisite Publications

The following publication is provided with the IBM MSS Domain Client:

Caution: Safety Information—Read This First, SD21-0030

Depending on the LAN switch in which you are installing the MSS Domain Client, you will need to refer to one of the following publications to complete the installation procedure. These publications are provided with the base switch:

- *8270 Nways LAN Switch Model 800 Planning and Installation Guide*, GA27-4145
- *8272 Nways Token-Ring LAN Switch Model 108 & 216 Planning and Installation Guide*, GA27-4982
- *8271 LAN Switch Module Planning and Installation Guide*, GA27-4162
- *8272 LAN Switch Module Planning and Installation Guide*, GA27-4163

You will need to refer to the following publications if you want to change any of the MSS Domain Client configuration settings. These publications are provided in the *Multiprotocol Switched Services (MSS) Client and Domain Client Version 2.1 Microcode, Configuration Tool, and Softcopy Library*, SK2T-0429, which is shipped with the MSS Domain Client UFC:

- *MSS Clients Interface Configuration and Software User's Guide*, SC30-3966
- *MSS Configuring Protocols and Features*, SC30-3819
- *Configuration Program User's Guide for Nways Multiprotocol Access, Routing, and Switched Services*, GC30-3830

Related Publications

The following related publication is available from IBM:

An Inside Look at IBM Workgroup Hubs and Switches, GG24-2528

Chapter 1. Introduction to the MSS Domain Client Universal Feature Card

The Universal Feature Card (UFC) slot is a feature of the IBM Nways LAN Switches. The UFC slot accommodates optional, field-installable UFCs that provide additional connections.

The MSS Domain Client UFC is designed for installation in the following IBM Nways LAN Switches:

- 8270 Token-Ring LAN Switch Model 800
- 8272 Token-Ring LAN Switch Model 216
- 8271 Ethernet LAN Switch Module for the Nways 8260 Multiprotocol Switching Hub, FN 6212 and FN 6312
- 8272 Token-Ring LAN Switch Module for the Nways 8260 Multiprotocol Switching Hub, FN 6208 and FN 6308

In this manual, the term *base switch* refers to one of these switches.

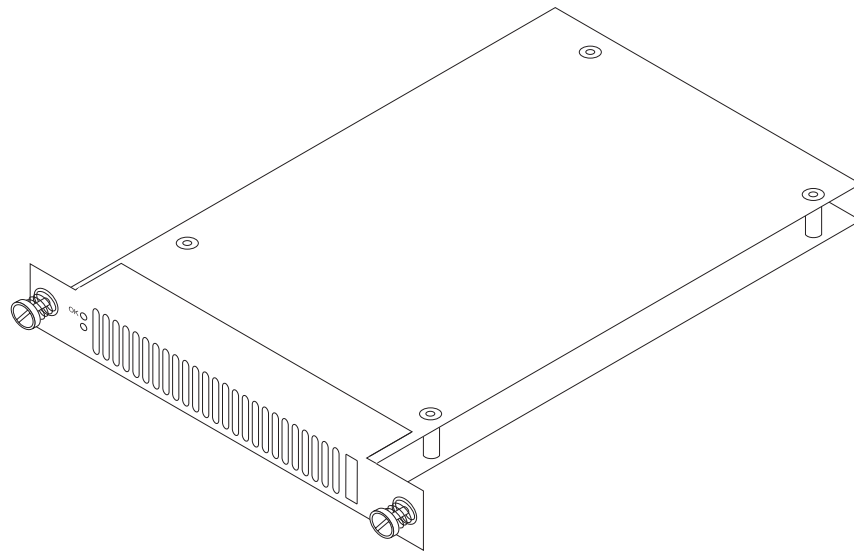


Figure 1-1. The IBM MSS Domain Client

Functions of the MSS Domain Client

The MSS Domain Client UFC provides:

- Network-layer forwarding between LAN ports on the LAN switch
- Multiprotocol, high-speed routing capability with an independent microprocessor
- Hardware-based source-route bridging (SRB)

Refer to the *MSS Clients Interface Configuration and Software User's Guide* for a complete list of the software and hardware interfaces supported on the MSS Domain Client.

The MSS Domain Client can be configured through a configuration console, an offline graphical user interface (GUI), or a web browser. It can be managed using an SNMP network manager. Software upgrades can be installed by the customer.

Physical Characteristics

The MSS Domain Client consists of an assembly of two circuit cards, a faceplate bracket, and a rear connector.

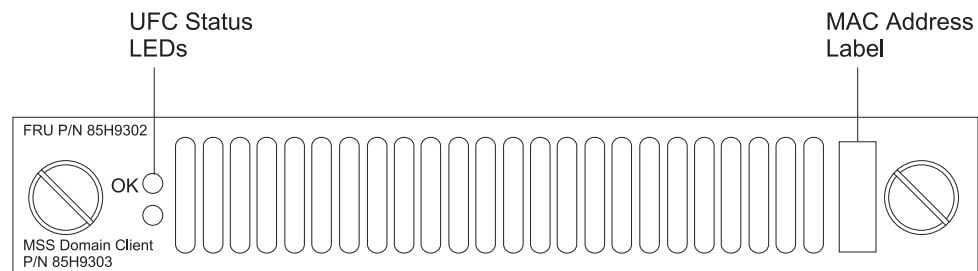


Figure 1-2. The IBM MSS Domain Client Faceplate

MAC Address Label

The MAC address assigned to the MSS Domain Client at the time of manufacture is shown on a label affixed to the faceplate. This address is the first of a block of 32 addresses assigned to the MSS Domain Client.

LED Indicators

The MSS Domain Client has two UFC status LEDs. See Figure 1-2 for the locations of the LEDs.

Table 1-1. UFC Status LEDs

	Yellow on	Yellow off	Yellow blinking
Green on	*	1	*
Green off	2	3	4
Green blinking	*	5	6

Description:

- 1 MSS Domain Client is operational. Either the firmware or operational code is running.
 - 2 There is an MSS Domain Client card error, or code must be downloaded to the MSS Domain Client.
 - 3 MSS Domain Client is resetting or without power.
 - 4 MSS Domain Client is writing a code image to flash memory.
 - 5 MSS Domain Client is writing a code image to flash memory, or is loading operational code.
 - 6 The MSS Domain Client is running diagnostics as part of initial program load (IPL).
- * Not defined.

Planning for Installation

The MSS Domain Client is automatically connected to the base switch internal backplane when it is installed. There are no connections on the UFC faceplate; therefore, there are no cabling considerations for the MSS Domain Client.

Make sure the operating environment adheres to the specifications in “Operating Environment” on page 1-4.

MSS Domain Client Slot Restrictions

Table 1-2. Slot Installation Restrictions

If the Base Switch is an:	MSS Domain Client cannot be in:
8271 LAN Switch Module, FN 6212	Slot 2
8271 LAN Switch Module, FN 6312	Slots 2 and 4
8272 LAN Switch Module, FN 6208	Slot 2
8272 LAN Switch Module, FN 6308	Slots 2 and 4

Note: See Figure 1-3 on page 1-4.

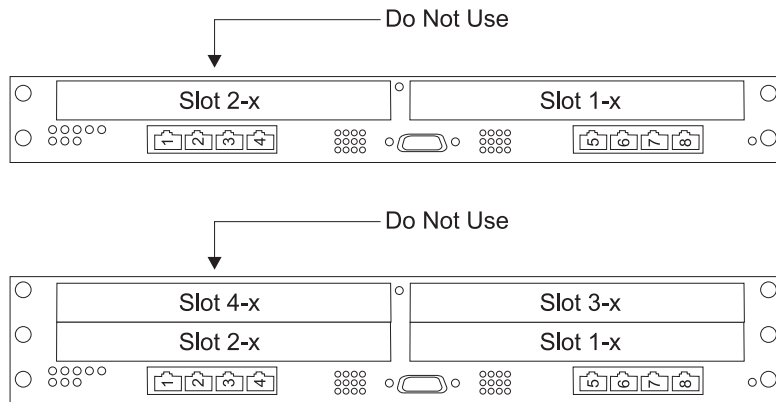


Figure 1-3. Slot Restrictions

Only two MSS Client, MSS Domain Client, and ATM UFCs (in combination) can be installed in the base switch.

MSS Domain Client Installation Recommendation

The MSS Domain Client should always be installed to the left of all Token-Ring UFC modules in an 8270 Token-Ring LAN Switch Model 800.

Dimensions and Weight

Width: 170 mm (6.7 in.)
Depth: 214 mm (8.4 in.)
Height: 25.4 mm (1.0 in.)
Weight: 0.44 kg (1 lb)

Operating Environment

Temperature: 10° to 40°C (50° to 104°F)
Relative humidity: 8% to 80%
Maximum wet-bulb temperature: 27°C (81°F)
Caloric value: 17 Kcal/hr (70 BTU/hr)
Electrical power: 20 W

Chapter 2. Installation

This chapter explains how to install the MSS Domain Client in a base switch.

Before installing the MSS Domain Client, be sure to read “Electronic Emission Notices” on page A-1.

Updating the Base Switch Microcode

You might need to update the microcode on your base switch to support the MSS Domain Client UFC before configuring it. To determine whether you need to do this, perform the following check:

- 1** Start a console session using the procedure in your base switch documentation.
- 2** Go to the Switch Information Panel, which is one of the selections on the Configuration panel.
- 3** Check that the value of the Interface Description entry for the software is 4.0 or higher.
 - If the software version is 4.0 or higher you do not need to update the base switch microcode. Continue with “Installing the MSS Domain Client in the Base Switch.”

Note: It is recommended that you always get the most current version of software, which is available on the Web. See “Obtaining Microcode Updates from the Web.”

 - If the software version is lower than 4.0, you must update the base switch microcode. To do so, refer to the section on downloading software and BootP information in the base switch documentation. (Software version 4.0 is on the Web.) Then, continue with “Installing the MSS Domain Client in the Base Switch.”

Obtaining Microcode Updates from the Web

You can obtain base switch microcode updates at:

<http://www.networking.ibm.com/nes/neshome.html>

Installing the MSS Domain Client in the Base Switch

- 1** Open the carton and remove the publication package.

Along with this manual, the package should contain:

One MSS Domain Client

One safety manual

One *Multiprotocol Switched Services (MSS) Client and Domain Client Version 2.1 Microcode, Configuration Tool, and Softcopy Library.*

If any item is missing or damaged, contact your place of purchase.

Note: In the following installation instructions, the illustrations show an 8270 Model 800 LAN Switch and an 8272 Token-Ring LAN Switch Module, FN 6308 as examples. The procedure for installing the MSS Domain Client in other IBM LAN switches is the same.

2 UFCs **cannot** be hot-plugged in the base switch.

Disconnect power from the base switch.

- For standalone base switches, power off the switch.
- For base switches that are LAN Switch Modules installed in an IBM 8260, slide the module out of the 8260 to remove the power.

3 See “MSS Domain Client Slot Restrictions” on page 1-3 to verify the correct slot locations for installation.

4 Remove the plate covering the UFC slot in the faceplate of the base switch by removing the two thumbscrews holding the plate in place. See Figure 2-1. Retain the plate and the thumbscrews for use in the event that the UFC is ever removed.

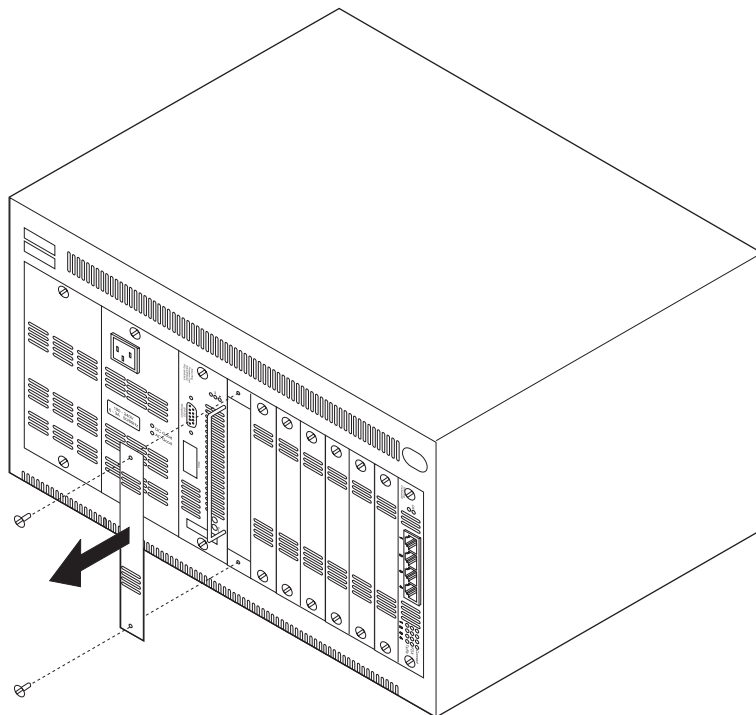


Figure 2-1. Removing the UFC Slot Cover

5 Remove the MSS Domain Client from its protective packaging.

Important: Before removing the MSS Domain Client from its antistatic bag, ensure that you are static-free by use of appropriate grounding precautions. Electrostatic discharge into or around the uninstalled UFC can permanently damage it.

- 6** Carefully insert the card in the UFC slot, making sure that the card edges are correctly aligned in the guides, and that the connector on the card is seated in the connector at the back of the slot. See Figure 2-2 on page 2-3 and Figure 2-3 on page 2-4. When the UFC is fully seated, the UFC faceplate rests against the front of the base switch.

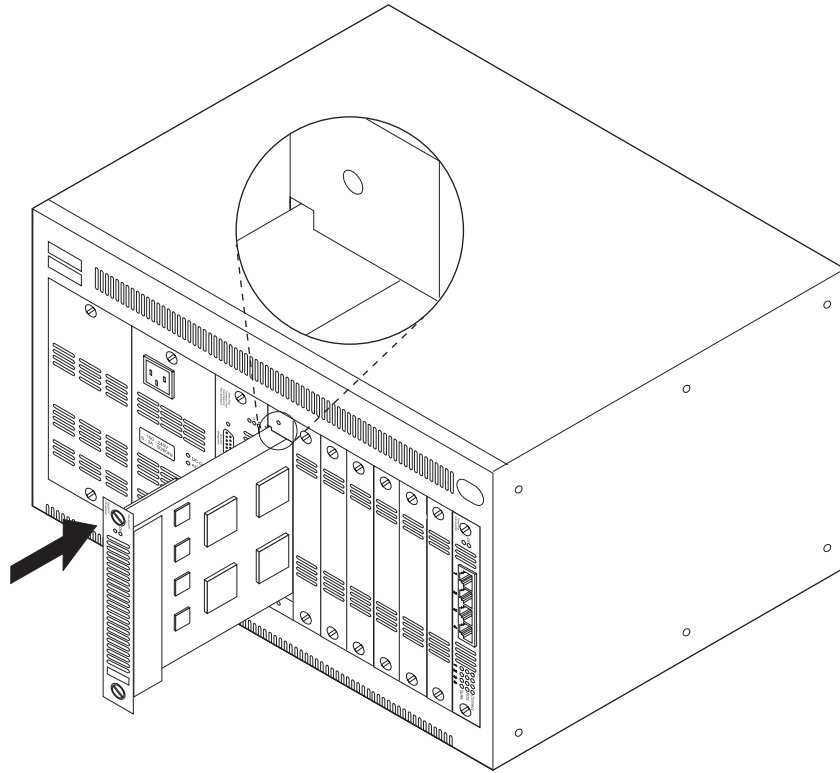


Figure 2-2. Installing the UFC in a Standalone Base Switch

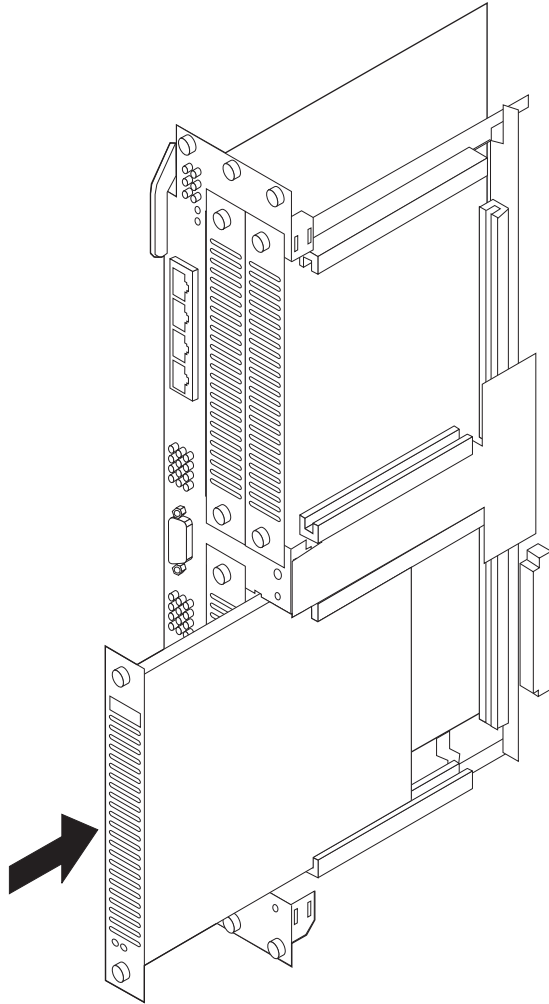


Figure 2-3. Installing the UFC in a LAN Switch Module

- 7** Secure the card with the two attached thumbscrews.
- 8** Continue with the instructions under “Verifying Operation.”

Verifying Operation

Perform the following steps to verify operation of the MSS Domain Client. See Figure 1-2 on page 1-2 for the location of the LEDs.

- 1** Power on the base switch to initiate diagnostics. Within 1 minute, the MSS Domain Client indicates that diagnostics are in progress by blinking the Fault and OK LEDs in unison.
- 2** Verify that the base switch diagnostics have been completed successfully. If necessary, refer to the base switch documentation for this step. Diagnostics can take up to 7 minutes to complete. If the base switch does not complete diagnostics successfully, use the troubleshooting procedures in the base switch documentation.

3 Verify that the MSS Domain Client OK LED is on and the Fault LED is off.

- If these conditions are met, physical installation is complete. Go to “Configuring the MSS Domain Client.”
- If these conditions are not met, power the MSS Domain Client off, verify that the UFC has been correctly seated in the slot, and power the base switch on again.

4 If the MSS Domain Client Fault LED is on again, the UFC is defective. Contact your place of purchase.

Configuring the MSS Domain Client

1 The MSS Domain Client has to be configured to work in the network. After physical installation of the MSS Domain Client is complete, notify your network administrator so that any necessary configuration changes or code downloads can be done. The following publications describe configuring and managing the MSS Domain Client:

- *MSS Clients Interface Configuration and Software User's Guide*, SC30-3966
- *MSS Configuring Protocols and Features*, SC30-3819

2 Place this manual in the three-ring binder that was included with the base switch manual.

Removing the MSS Domain Client

Should it ever become necessary to remove the MSS Domain Client from the base switch, ensure that power has been disconnected from the base switch **before** unplugging the MSS Domain Client.

- For standalone base switches, power off the switch.
- For base switches that are modules installed in an IBM 8260, slide the module out of the 8260 to remove the power.

The removal process is the reverse of the installation process. Be sure to reinstall the UFC slot cover after the UFC is removed. This is important for safety and for correct air flow through the base switch.

Chapter 3. Troubleshooting

This chapter contains procedures that help you troubleshoot problems with an MSS Domain Client.

Troubleshooting the UFC

- 1** If the LEDs do not come on when the base machine is powered on, verify that the UFC is correctly seated in the base switch's backplane connector. All LEDs should be on during reset.
- 2** During diagnostics, the UFC OK and Fault LEDs blink in unison. If the UFC Fault LED is on at any other time, it indicates that the UFC is either defective and must be replaced, or is waiting for a code download.

Obtaining Service

There are no serviceable parts in the MSS Domain Client. The MSS Domain Client is individually replaceable if it becomes defective. If you need assistance troubleshooting your MSS Domain Client, call IBM at **1-800-772-2227** in the United States or **1-800-565-3344** in Canada. Outside the United States and Canada, call your service representative.

Note: This product contains a lithium battery; however, it is *not* to be replaced by the customer. Because it contains a lithium battery, the following statement is required by IEC 950:

Caution: Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

See "Warranty" on page A-4 for information concerning service for the product.

Obtaining Software

You can obtain updated versions of IBM software through the Internet at:

<http://www.networking.ibm.com/nes/neshome.html>

You can obtain updated versions of the software through FTP at:

<ftp://ftp.networking.ibm.com/pub/products/lanprods/switch>

Parts Listing

The replacement part number for the MSS Domain Client is 85H9302.

Appendix A. Notices and Product Warranty

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM's product, program, or service can be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, are the user's responsibility.

IBM might have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the IBM Director of Licensing, IBM Corporation, 500 Columbus Avenue, THORNWOOD NY 10594 USA.

Electronic Emission Notices

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

IBM is not responsible for any radio or television interference caused by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operations.

Industry Canada Class A Emission Compliance Statement

This Class A digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

Avis de conformité aux normes d'Industrie Canada

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

EMC Directive 89/336/EEC Statement

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) vom 30. August 1995 (bzw. der EMC EG Richtlinie 89/336)

Dieses Gerät ist berechtigt in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen.

Verantwortlich für die Konformitätserklärung nach Paragraph 5 des EMVG ist die IBM Deutschland Informationssysteme GmbH, 70548 Stuttgart.

Informationen in Hinsicht EMVG Paragraph 3 Abs. (2) 2:

Das Gerät erfüllt die Schutzanforderungen nach EN 50082-1 und EN 55022 Klasse B.
--

EN 50082-1 Hinweis:

“Wird dieses Gerät in einer industriellen Umgebung betrieben (wie in EN 50082-2 festgelegt), dann kann es dabei eventuell gestört werden. In solch einem Fall ist der Abstand bzw. die Abschirmung zu der industriellen Störquelle zu vergrößern.”

Anmerkung:

Um die Einhaltung des EMVG sicherzustellen sind die Geräte, wie in den IBM Handbüchern angegeben, zu installieren und zu betreiben.

Japanese Voluntary Control Council for Interference (VCCI) Statement

This product is a Class A Information Technology Equipment and conforms to the standards set by the Voluntary Control Council for Interference by Technology Equipment (VCCI). In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

CISPR22 Compliance Statement

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class B equipment were derived for residential environments to provide reasonable protection against interference with licensed communication devices.

Korean Communications Statement

Please note that this device has been certified for business purpose with regard to electromagnetic interference. If you find this is not suitable for your use, you may exchange it for one of residential use.

Trademarks

The following are trademarks of IBM in the United States and/or other countries:

IBM

Nways

Microsoft, Windows, Windows NT, and the Windows 95 logo are trademarks or registered trademarks of Microsoft Corporation.

Other company, product, and service names may be trademarks or service marks of others.

Warranty

International Business Machines Corporation

Armonk, New York, 10504

Statement of Limited Warranty

The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you originally purchase for your use, and not for resale, from IBM or your reseller. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. Unless IBM specifies otherwise, the following warranties apply only in the country where you acquire the Machine. If you have any questions, contact IBM or your reseller.

Machine: IBM MSS Domain Client Universal Feature Card

Warranty Period*: One Year

**Contact your place of purchase for warranty service information.*

Production Status

Each Machine is manufactured from new parts, or new and used parts. In some cases, the Machine may not be new and may have been previously installed. Regardless of the Machine's production status, IBM's warranty terms apply.

The IBM Warranty for Machines

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications. The warranty period for a Machine is a specified, fixed period commencing on its Date of Installation. The date on your receipt is the Date of Installation, unless IBM or your reseller informs you otherwise.

During the warranty period IBM or your reseller, if authorized by IBM, will provide warranty service under the type of service designated for the Machine and will manage and install engineering changes that apply to the Machine.

For IBM or your reseller to provide warranty service for a feature, conversion, or upgrade, IBM or your reseller may require that the Machine on which it is installed be 1) for certain Machines, the designated, serial-numbered Machine and 2) at an engineering-change level compatible with the feature, conversion, or upgrade. Many of these transactions involve the removal of parts and their return to IBM. You represent that all removed parts are genuine and unaltered. A part that replaces a removed part will assume the warranty service status of the replaced part.

If a Machine does not function as warranted during the warranty period, IBM or your reseller will repair it or replace it with one that is at least functionally equivalent, without charge. The replacement may not be new, but will be in good working order. If IBM or your reseller is unable to repair or replace the Machine, you may return it to your place of purchase and your money will be refunded.

If you transfer a Machine to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this Statement to that user. However, for Machines which have a life-time warranty, this warranty is not transferable.

Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM. In the United States, call IBM at **1-800-IBM-SERV (426-7378)**. In Canada, call IBM at **1-800-565-3344**. You may be required to present proof of purchase.

IBM or your reseller will provide certain types of repair and exchange service, either at your location or at IBM's or your reseller's service center, to restore a Machine to good working order.

When a type of service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours. You represent that all removed items are genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty service status of the replaced item. Before IBM or your reseller exchanges a Machine or part, you agree to remove all features, parts, options, alterations, and attachments not under warranty service. You also agree to ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange.

You agree to:

1. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and
2. where applicable, before service is provided —
 - a. follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provide,
 - b. secure all programs, data, and funds contained in a Machine, and
 - c. inform IBM or your reseller of changes in a Machine's location.

IBM is responsible for loss of, or damage to, your Machine while it is 1) in IBM's possession or 2) in transit in those cases where IBM is responsible for the transportation charges.

Extent of Warranty

IBM does not warrant uninterrupted or error-free operation of a Machine.

The warranties may be voided by misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, removal or alteration of Machine or parts identification labels, or failure caused by a product for which IBM is not responsible.

THESE WARRANTIES REPLACE ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. IN THAT EVENT SUCH WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD.

Limitation of Liability

Circumstances may arise where, because of a default on IBM's part or other liability you are entitled to recover damages from IBM. In each such instance, regardless of the basis on which you are entitled to claim damages from IBM (including fundamental breach, negligence, misrepresentation, or other contract or tort claim), IBM is liable only for:

1. damages for bodily injury (including death) and damage to real property and tangible personal property; and
2. the amount of any other actual direct damages or loss, up to the greater of U.S. \$100,000 or the charges (if recurring, 12 months' charges apply) for the Machine that is the subject of the claim.

UNDER NO CIRCUMSTANCES IS IBM LIABLE FOR ANY OF THE FOLLOWING: 1) THIRD-PARTY CLAIMS AGAINST YOU FOR LOSSES OR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); 2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF IBM OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

Index

C

cabling 1-3
configuration 2-5
console, configuration 2-5
contacting IBM 3-1

D

dimensions 1-4

E

electronic emission notices A-1

F

faceplate 1-2
functional overview 1-2

I

installation 2-1
installing the MSS Domain Client 2-2
introduction to the MSS Domain Client 1-1

L

LEDs 1-2

M

MAC address label 1-2

N

notices A-1

O

operating environment 1-4
overview, functional 1-2

P

parts listing 3-1
physical characteristics 1-2
power consumption 1-4
powering on 2-4
publications
 prerequisite xvii
 related xviii

R

removing the MSS Domain Client 2-5
replacement part numbers 3-1

S

safety information vii, xvii
service, obtaining 3-1
software, updating 3-1

T

temperature 1-4
trademarks A-3
troubleshooting 3-1

U

unpacking instructions 2-1

V

verifying operation 2-4

W

warranty A-4
weight 1-4
who should read this manual xvii
WWW 3-1

Tell Us What You Think!

Multiprotocol Switched Services Domain Client Universal Feature Card Planning and Installation Guide Publication No. GA27-4171-00

We hope you find this publication useful, readable, and technically accurate, but only you can tell us! Your comments and suggestions will help us improve our technical publications. Please take a few minutes to let us know what you think by completing this form. If you are in the U.S.A., you can mail this form postage free or fax it to us at 1-800-253-3520. Elsewhere, your local IBM branch office or representative will forward your comments or you may mail them directly to us.

Overall, how satisfied are you with the information in this book?	Satisfied	Dissatisfied
	<input type="checkbox"/>	<input type="checkbox"/>

How satisfied are you that the information in this book is:	Satisfied	Dissatisfied
Accurate	<input type="checkbox"/>	<input type="checkbox"/>
Complete	<input type="checkbox"/>	<input type="checkbox"/>
Easy to find	<input type="checkbox"/>	<input type="checkbox"/>
Easy to understand	<input type="checkbox"/>	<input type="checkbox"/>
Well organized	<input type="checkbox"/>	<input type="checkbox"/>
Applicable to your task	<input type="checkbox"/>	<input type="checkbox"/>

Specific comments or problems:

Please tell us how we can improve this book:

Thank you for your comments. If you would like a reply, provide the necessary information below.

Name

Address

Company or Organization

Phone No.



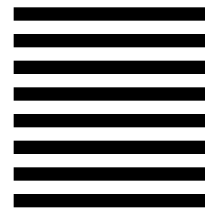
Fold and Tape

Please do not staple

Fold and Tape



NO POSTAGE
NECESSARY
IF MAILED IN THE
UNITED STATES



BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 40 ARMONK, NEW YORK

POSTAGE WILL BE PAID BY ADDRESSEE

Design & Information Development
Dept. CGF/Bldg. 656
International Business Machines Corporation
PO BOX 12195
RESEARCH TRIANGLE PARK NC 27709-9990



Fold and Tape

Please do not staple

Fold and Tape



Part Number: 85H4598



Printed in the United States of America
on recycled paper containing 10%
recovered post-consumer fiber.

GA27-4171-00



85H4598

