

8371 Networking Multilayer Ethernet Switch



# 8371 Version 1.1 Release Notes



# 8371 Release Notes Version 1.1 Apr 99

**Version 1.1 Release Notes Apr 1999**

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# 8371 and 8265-L3S Release Notes Version 1.1 - April 1999

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## Latest Release Notes Are On the Web

Go to [www.networking.ibm.com/support](http://www.networking.ibm.com/support) for the latest version of these Release Notes.

These Release Notes apply to the IBM 8371-A16 and to the 8265-L3S (hereafter referred to as the 8371 Blade).

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## Safety Notice

**Danger:** Double-pole/neutral fusing in the power supply. Power might present in the product unless the power cord is unplugged.

**Cuidado:** Fusível bipolar/neutro na fonte de alimentação. Pode haver energia presente no produto, a menos que o cabo de alimentação esteja desconectado.

**Waarschuwing:**

Dubbelpool/neutrala zekering in de voedingseenheid. Er kan spanning in het product aanwezig zijn zolang de stekker in het stopcontact zit.

**Pas på!**

Strømforsyningsenheden; er sikret til brug ved 110 og 220 volt. Der kan være spænding; i produktet, medmindre netledningen er trukket ud.

**VAARA:** Virtalähde on varustettu kaksinapaisella sulakkeella, jossa on myös maanapa. Tuotteessa voi olla jännite, jos verkkojohtoa ei ole irrotettu.

**ATTENTION :** L'un des deux fusibles est sur le neutre. L'alimentation électrique est protégée par fusibles sur les deux pôles (phase et neutre). Pré sence de courant possible sauf si le cordon d'alimentation est débranché.

**Achtung:** Zweipolige bzw. Neutralleiter-Sicherung im Netzteil. Netzstecker ziehen, um sicherzustellen, daß; keine Spannung am Gerät; anliegt.

**Attenzione:** L'alimentatore contiene fusibili su fasi/neutro. Può essere presente tensione nell'apparecchiatura se il cavo di alimentazione è collegato.

**Advarsel:** Topolet/nøytral; sikring i strømforsyningsenheten.; Det kan være; strøm; i maskinen hvis ikke nettkabelen er dratt ut .

**Cuidado:**

Protecção (por fusíveis) bipolar com neutro na fonte de alimentação. A menos que o cabo de alimentação esteja desligado, o produto pode estar sob tensão.

**Precaución:** Hay una fusión de doble polo/neutro en la fuente de alimentación. El producto podría estar cargado eléctricamente a menos que el cable de alimentación esté desconectado.

**WARNING:** Nöttaggregatet är dubbelpoligt avskrat. Det kan finnas ström i produkten såvida inte nötkabeln är urkopplad.

تحذير: القطب الثنائي محايد الانصهار في مصدر الطاقة .  
يمكن أن تكون الكهرباء موجودة في المنتج ما لم يتم فصل سلك  
الكهرباء.

**Предупреждение:** Дублирано - фаза/нула свързване в енергийното  
захранване. Възможно е наличие на ел.енергия в уреда, докато  
захранващият кабел не е изваден от контакта.

**Opasnost:** Energetski izvor opremljen je osiguračima na faznom i nultom  
priključku. Uređaj može ostati pod naponom sve dok se priključni kabel ne  
odvoji od utičnice.

注意：电源中装有双柱式/中性保险丝。除非未插入电源线，  
否则产品带电。

注意：電源供應器內含雙極/中性熔絲 (Double-pole/neutral fusing)。  
未將電源線自插座拔掉前，本產品內部可能有電存在。

**Pozor:** V napájecím zdroji je dvupólové jištění (pojistka  
ve středním vodiči). Dokud není napájecí šňůra odpojená  
od sítě, může být zařízení pod napětím.

**Προσοχή:** Ασφάλεια δύο πόλων/ουδέτερου στην πηγή  
ρεύματος. Ενδέχεται να υπάρχει ηλεκτρική ισχύς στο προϊόν  
εάν δεν έχει αποσυνδεθεί το καλώδιο ρεύματος.

זהירות: נתיך דו-קוטבי/נייטרלי באספקת הכוח.  
יש לנתק את כבל הכוח כדי למנוע זרם חשמל  
במוצר.

**Figyelem:** A tápegységben kétpólusú biztosíték található. A termék kikapcsolt állapotban is feszültség alatt állhat, kivéve, ha a tápkábel ki van húzva.

**注意：**

この電源は、2極/中性線にヒューズを使用しています。  
電源コードを抜いていない状態では電圧がかかっています。

**주의:** 전원 공급 장치에 양극/중성의 퓨즈가 있습니다. 전원 코드가 연결되지 않아도 제품 내에 전원이 잔류할 수 있습니다.

**Uzmanību:** Divpolu/neitrālā apvienotā strāvas apgāde. Iespējams, ka produktā ir elektriskā strāva, ja strāvas vada kontaktdakša nav izrauta no ligzdas.

**Dămesio:** Įrenginyje yra atvirų dvigubų kontaktų su įtampa. Jeigu įrenginys neišjungtas, kai kurios dalys gali būti su įtampa.

**Опасност:** Во единицата за напојување има двополен осигурувач. Доколку кабелот за напојување не е исклучен, во производот може да биде присутна електрична енергија.

**Uwaga:** W zasilaczu zamontowany jest bezpiecznik. Dopóki kabel zasilający nie zostanie odłączony w urządzeniu może występować napięcie.

**Pericol:** O siguranță neutră/două capete este în sursa de alimentare. Tensiunea poate să fie prezentă în produs dacă nu este scos din priză cablul de alimentare.

**Осторожно:** Источник питания с двухполюсным предохранителем. Устройство может быть под напряжением, пока вы не выдернете шнур из розетки.

**Опасност:** Извор напајања је опремљен осигурачима на фазном и нултом прикључку. У уређају може бити присутан напон осим ако је прикључни кабл одвојен од утичнице.

**Вýстраха:** Поистки сý на обох пóлох напáјациехо здроја. Pokiaľ nie je odpojená šnúra zo siete, zariadenie môže byť pod napätím.

**Неварност:** Pri napajalniku je zagotovljeno varovanje polov in nevtralnega vodnika. Napetost je lahko prisotna na izdelku, če priključnega kabla ne potegnemo iz vtičnice.

**Dikkat:** Güç kaynağı çift kutuplu, topraklı sigorta içerir. Güç kablosu prizden çekilmedikçe üründe elektrik bulunabilir.

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## Loading the 8371 and the 8371 Blade Operational Code

**ATTENTION:** This device is shipped with a downlevel version of the operational code. To download the latest operational code for the 8371, or to see Tech Tips, customer forums, or to register for information updates, go to:

[www.networking.ibm.com/support/products.nsf/techsupport/\(8371\)?OpenDocument](http://www.networking.ibm.com/support/products.nsf/techsupport/(8371)?OpenDocument)

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## Loading the 8371 Blade Control-Point Switch Code

You need to download a Control Point Switch code from the Web for 8371 Blade from

[www.networking.ibm.com/support/products.nsf/techsupport/\(8265\)?OpenDocument](http://www.networking.ibm.com/support/products.nsf/techsupport/(8265)?OpenDocument)

The microcode level should be **PNNI Version 4.1.2** or higher.

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## Using the MPOA Client Function on the 8371

If you use the MPOA Client function on the 8371 with the MPOA Server function on the MSS Server, the MSS Server must run microcode Version 2.1 PTF 5 (or higher) or microcode Version 2.2 PTF 3 (or higher). The latest software is available from [www.networking.ibm.com/support/8210](http://www.networking.ibm.com/support/8210). Ensure that you read the MSS upgrade instructions.

**Note:** The MSS Server needs to have 64MB of memory installed.

## 8210 MPOA Server PTF Requirement

A known problem with the MPOA Server function on the 8210 MSS Server supporting the MPOA Client function on the 8371 has been corrected in MSS Server microcode Version 2.2 PTF 3 (or higher) or Version 2.1 PTF 5 (or higher). If you use the MPOA Server function on the 8210 MSS Server to support the MPOA Client function on the 8371, the 8210 MSS Server may run out of memory after several days of sustained cache imposition activities. The 8210 will stop with an indication of "no mem" and traffic using the route including the 8210 and the 8371 will stop. The 8210 must be rebooted to re-establish the routed path.

If you are experiencing this problem, the PTF with the fix is required to overcome the problem. You may perform the following steps on the 8210 to verify that you have the memory leak problem:

1. Allow the 8210 to reach steady state. This may take several hours.
2. Use the following example from t 5 to display the imposition cache for the MPS.
 

```
+ protocol mpoa
MPOA> mps
MPS> imposition-cache list
```
3. Repeat the **imposition-cache list** command several times to verify that the number of MPOA imposition cache entries is not fluctuating.
4. Return to the OPCON prompt (+) and use the **memory** command several times over a period of several hours to determine a trend in memory usage. It is normal to have an increase in memory usage with an increase in traffic. However, memory usage should reach a steady state.

+ memory

```
Physical installed memory:      64 MB
Total routing (heap) memory:    31 MB
Routing memory in use:         23 %
```

	Total	Reserve	Never Alloc	Perm Alloc	Temp Alloc	Prev Alloc
Heap memory	32190464	1297656	24455700	5926172	1631384	177208

```
Number of global buffers: Total = 400, Free = 389, Fair = 17, Low = 80
Global buff size: Data = 9234, Hdr = 64, Wrap = 74, Trail = 32, Total = 9408
```

If the **routing memory in use** and the **Never Alloc** entries show an upward trend in usage after the device has reached steady state, you may have a memory leak.

## Network Interfaces Automatically Configured

Table 1. Network Interfaces Automatically Configured

Device Types	Slot	Ports	Interface Net Number
10/100 Ethernet (fixed ports on base switch)	0	1 - 16	0 - 15
10/100 Ethernet	1	1 - 8	16 - 23
10/100 Ethernet*	2	1 - 8	24 - 31
Reserved	3	1 - 4	32 - 35
ATM*	1	1-2	36 - 37



Table 1. Network Interfaces Automatically Configured (continued)

Device Types	Slot	Ports	Interface Net Number
ATM	2	1	38
ATM*	2	1	39
Ethernet LAN Emulation Client	3	5 - 29	40 - 63

**Note:** \*Not available on 8371 Blades

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## SNMP Agent Capabilities

SNMP agent capabilities are documented in readme files at the FTP site. The external site directory is: <ftp://ftp.networking.ibm.com/pub/netmgmt/8371/>

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## Hot-Swapping Feature Cards

Prior to hot-swapping an 8371 feature card, you must disable the feature card ports. Use the + **disable slot** *n* (where *n* is the slot number) command from t 5 to disable all ports on the slot. After replacing the feature card, use the + **enable slot** *n* command from t 5 to test all the ports.

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## Performance Considerations

Performance Monitor and event logging activities might impact performance.

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## Do Not Use the 8371 Blades in 8265 Base Slots 2, 4, or 6

An 8371 Blade fills two slots in the 8265 (the first slot occupied is the base slot). Do not insert an 8371 Blade in base slots 2, 4, or 6. You can insert an 8371 Blade in all other slots. This slot restriction exists only through June 30, 1999. Prior to this date, we will publish a list of exact serial numbers affected by this restriction. After this date, there will be no restriction.

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## Default IP Host Address

For management purposes, the 8371 (box or blade) default configuration has an IP host address of 10.1.2.4 with a mask of 255.255.255.0.

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## OC12 ATM Uplink on 8371 Blades

The 8371 Blade OC12 ATM uplink is used for in-band communication with the 8265. In-band communication can be disabled from the console or configuration command prompts using the **disable slot 2** or **disable interface 38** commands and enabled using the **enable slot 2** or **enable interface 38** commands. While this interface is disabled, the 8265 will no longer communicate with the 8371.

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## TFTP Does Not Support Long File Names

Some DOS or Windows TFTP clients only support file names that comply with the *filename.ext* syntax, where *filename* can be up to 8 characters long and *ext* can be up to 3 characters long. When executing a **tftp get** to retrieve a configuration or load image, these clients will send the same file, /usr/os.ld, for each of the following file requests:

- /usr/os.ld
- /usr/os.ld.new

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## Ports Need to be Marked as Forwarding

A port does not begin to forward traffic as soon as an ATM or Ethernet port is cabled to it. Although a valid link indication, signalling a good connection, is given immediately, there can be a delay of up to two minutes before traffic forwarding begins. To verify that a port is in forwarding state, issue the following commands from the **console** prompt.

+ **protocol asrt**

```
ASRT> list spanning-tree-protocol state active
```

```
802.1d Spanning Tree State
  Designated root (prio/add): 32768/00-04-AC-C4-D3-D1
  Root cost: 0
  Root port: Self
  Current (root) maximum age: 20 seconds
  Current (root) hello time: 2 seconds
  Current (root) Forward delay: 15 seconds
  Topology change detected: FALSE
  Topology change: FALSE
```

Port	Interface	State
2	Eth/1	Forwarding

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## Some Applications Fail when Spanning Tree is Enabled

Some applications and hosts, such as RIPL, BootP, and POS Terminals, fail at start-up time (never at re-try) when directly connected to a switch because the application attempts to connect before the Spanning Tree Protocol recognizes that the switch port is in forwarding state. Rebooting will not solve this problem.

You should disable Spanning Tree Protocol at the configuration prompt to allow these applications to come up.

```
Config> protocol asrt
ASRT Config> disable stp
```

**Note:** You should ensure that your bridged network is configured properly. Disabling Spanning Tree Protocol may cause problems if a bridged network is improperly configured.

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## BPDUs are not Forwarded when Spanning Tree is Disabled

If Spanning Tree is globally disabled, the 8371 will not forward BPDUs on any ports. While other multicast traffic is forwarded on all ports when the traffic is received, the 8371 drops all BPDUs that it receives.

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## **EIA 232 Service Port Pin Assignments**

Pin assignments for the EIA 232 service ports are shown on page 1-4 of the *8371 Networking Multilayer Ethernet Switch Installation and Planning Guide*.

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## **Terminal May Not be Attached to the Ethernet Port**

On page 1-2 of the *8371 Networking Multilayer Ethernet Switch Installation and Planning Guide*, remove "or an Ethernet port." from bullet two. The terminal may not be attached to the Ethernet port.

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## **Web Browser Support**

The Web interface supports Netscape Navigator 4.07 or higher.

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# Addendum to 8371 Release Notes Version 1.1 Apr 99 Release Notes for 8371 R1.1 PTF

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## Overview

This document describes the release notes for Release 1.1 of the 8371 and 8371 Blade. This document will only describe the changes or additions resulting from the R1.1 product.

Refer to [www.networking.ibm.com/support](http://www.networking.ibm.com/support) for a copy of the release notes or the base document.

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## Operational Notes

The following items should be noted and understood before applying the R1.1 software to your 8371:

- After applying the R1.1 software, you must reconfigure the 8371 in order for the software to work properly. You cannot use a R1 configuration as a starting point for configuring an 8371 with R1.1 installed. You must completely delete the current configuration and then reboot the 8371. This will cause a new default configuration to be created. You can then proceed to use this new default configuration as the base from which to configure the desired R1.1 function.

If you encounter a configuration problem where bridge instance one is not found, this is most likely caused by a corrupt configuration file. If this happens, delete the configuration file, reboot the 8371, and then proceed to reconfigure the box.

- The Web browser configuration is not supported on R1.1. For configuration and console support, you must use the talk 6 and talk 5 functions.
- IPX over MPOA is not supported

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## Integrated Service

The following service has been integrated into R1.1:

- IR41739
- IR41740