

IBM Netfinity Rack

**Console Server Selector Switch
Installation Instructions**



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Note

Before using this information and the product it supports, be sure to read the general information under "Product Warranties and Notices" on page 7.

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Safety Information



Before installing this product, read the Safety Information book.

Antes de instalar este produto, leia o Manual de Informações sobre Segurança.

安装本产品前请先阅读《安全信息》手册。

Prije instalacije ovog proizvoda pročitajte priručnik sa sigurnosnim uputama.

P ed instaláci tohoto produktu si p e t e p íru ku bezpe nostních instrukcí.

Læs hæftet med sikkerhedsforskrifter, før du installerer dette produkt.

Lue Safety Information -kirjanen, ennen kuin asennat tämän tuotteen.

Avant de procéder à l'installation de ce produit, lisez le manuel Safety Information.

Vor Beginn der Installation die Broschüre mit Sicherheitshinweisen lesen.

Πριν εγκαταστήσετε αυτό το προϊόν, διαβάστε το εγχειρίδιο Safety Information.

Installálás el tt olvassa el a Biztonsági el írások kézikönyvét !

Prima di installare questo prodotto, leggere l'opuscolo contenente le informazioni sulla sicurezza.

本製品を導入する前に、安全情報資料を御読みください。

이 제품을 설치하기 전에, 안전 정보 책자를 읽어보십시오.

Пред да го инсталирате овој производ прочитајте ја книгата со безбедносни информации.

Lees voordat u dit product installeert eerst het boekje met veiligheidsvoorschriften.

Les heftet om sikkerhetsinformasjon (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu należy przeczytać broszurę Informacje Dotyczące Bezpieczeństwa.

Antes de instalar este produto, leia o folheto Informações sobre Segurança.

Перед установкой продукта прочтите брошюру по технике безопасности (Safety Information).

Pred inštaláciou tohto produktu si pre ítajte Informa nú brožúrku o bezpe nosti.

Preden namestite ta izdelek, preberite knjižico Varnostne informacije.

Antes de instalar este producto, lea la Información de Seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

在安裝本產品之前，也請先閱讀「安全性資訊」小冊子。

Introduction

This option consists of:

- One console server selector switch (Apex PC Solutions OutLook)
- Two mounting brackets (for vertical mounting)
- Four locking nuts
- Eight screws
- *IBM Netfinity Rack Console Server Selector Switch Installation Instructions* (this book)
- *Apex PC Solutions OutLook Concentrator User Guide*

Note: Contact your place of purchase if an item is missing or damaged. Be sure to retain your proof of purchase and the packing material. They might be required to receive warranty service.

The console server selector switch is a device you can use to switch a single keyboard, mouse, and monitor among multiple IBM Netfinity and PC Servers.

You can use the selector switch in various configurations to connect from two to 64 servers.

You can switch between servers (also called *selecting*) by typing a command at the keyboard. The selected server receives characters typed at the keyboard and displays its video output on the monitor. You can use the mouse, which is optional, to interact with the graphic interface that the selected server displays on the monitor. Because the selector switch does not depend on the server operating system, the attached servers can run different operating systems.

Important

Keep this book with your selector switch for reference.

For your convenience, this book and the rack option books are three-hole punched so you can keep them together in one binder.

Types of Configurations

There are two selector switch models. A four-port model, and an eight-port model. The selector switch can be used in various configurations to meet the needs of your environment.

- An eight-port selector switch can be used to connect up to eight servers.
- A four-port selector switch can be used to connect up to four servers.
- Multiple selector switches can be *tiered* to connect up to 64 servers.

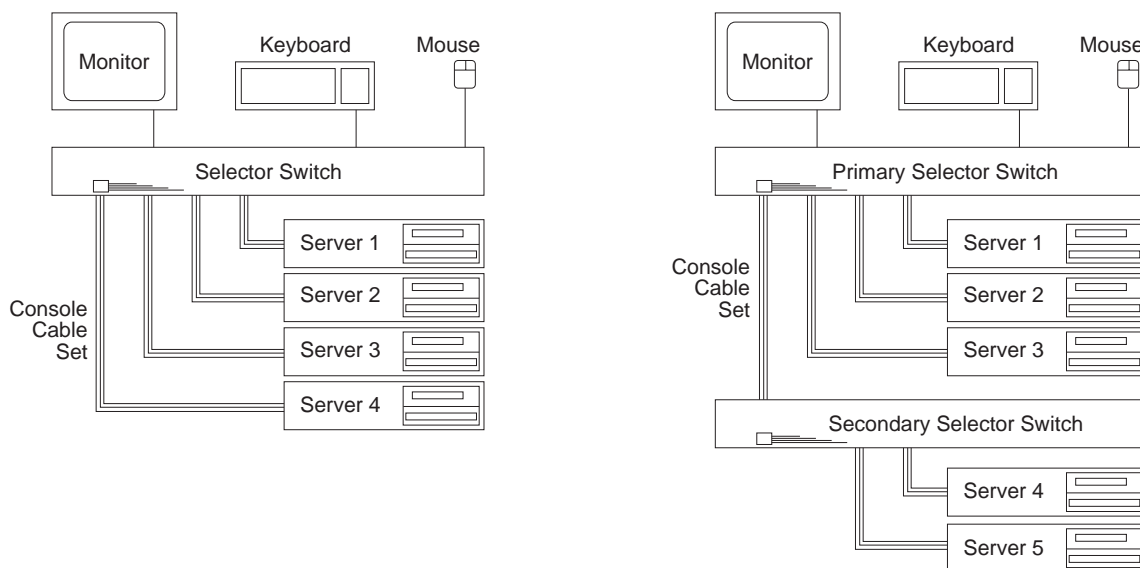
Single Selector Switch Environments

In single selector switch environments (shown in the figure on the left), the keyboard, monitor, and mouse are connected directly to the selector switch by their respective cables. The selector switch connects to the servers through multiple sets of keyboard, mouse, and monitor cables. You can connect the selector switch to servers located in the same or adjoining racks.

Multiple Selector Switch Environments

For environments with many servers (shown in the figure on the right), the selector switch can be tiered in a primary/secondary configuration to connect up to 64 servers.

Tiered configurations expand system capability to connect up to 64 servers. This is accomplished by connecting a second, or *secondary*, selector switch to one of the server ports on the original or *primary* selector switch. Multiple selector switches can be tiered from the primary in this manner.



Important: The paired switch configuration and the Aux port described in the *Apex PC Solutions Outlook Concentrator User Guide* are not supported by IBM.

Supported Server Systems

For the latest information about supported server systems, visit the IBM Netfinity web site at: <http://www.pc.ibm.com/us/compat>

Installing the Selector Switch

You will need a screwdriver to install the selector switch.

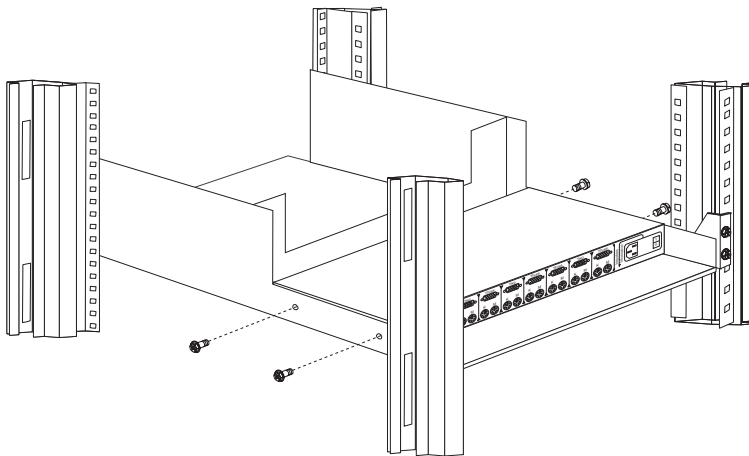
You can install the selector switch in the monitor compartment behind the monitor, or you can install the selector switch vertically between two rack side braces. Always install the selector switch so that the cable sockets face the rear of the rack.

For door and side panel removal procedures, refer to the *IBM Netfinity Rack Planning and Installation Guide* that comes with your IBM Netfinity Rack enclosure.

Installing the Switch in the Monitor Compartment

To install the switch in the monitor compartment:

1. Place the switch in the rear of the monitor compartment with the connectors facing the rear of the rack.

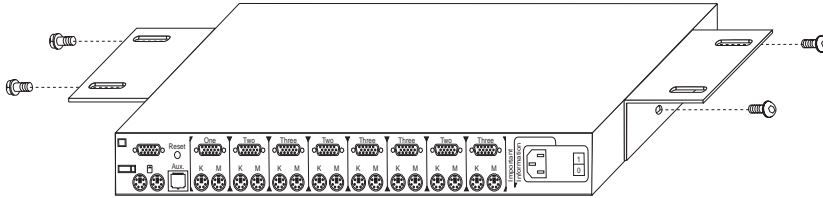


2. Insert and tighten the four screws to secure the switch to the monitor compartment.

Installing the Switch Between the Side Braces

To install the switch vertically between the side braces:

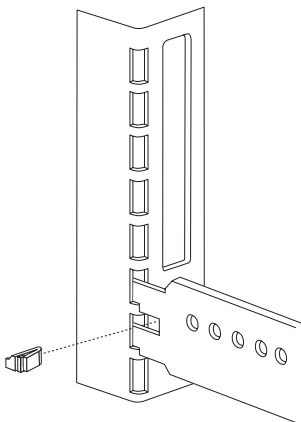
1. Fasten the two mounting brackets to the sides of the switch using four screws.



2. Check the side braces for the correct clearance.

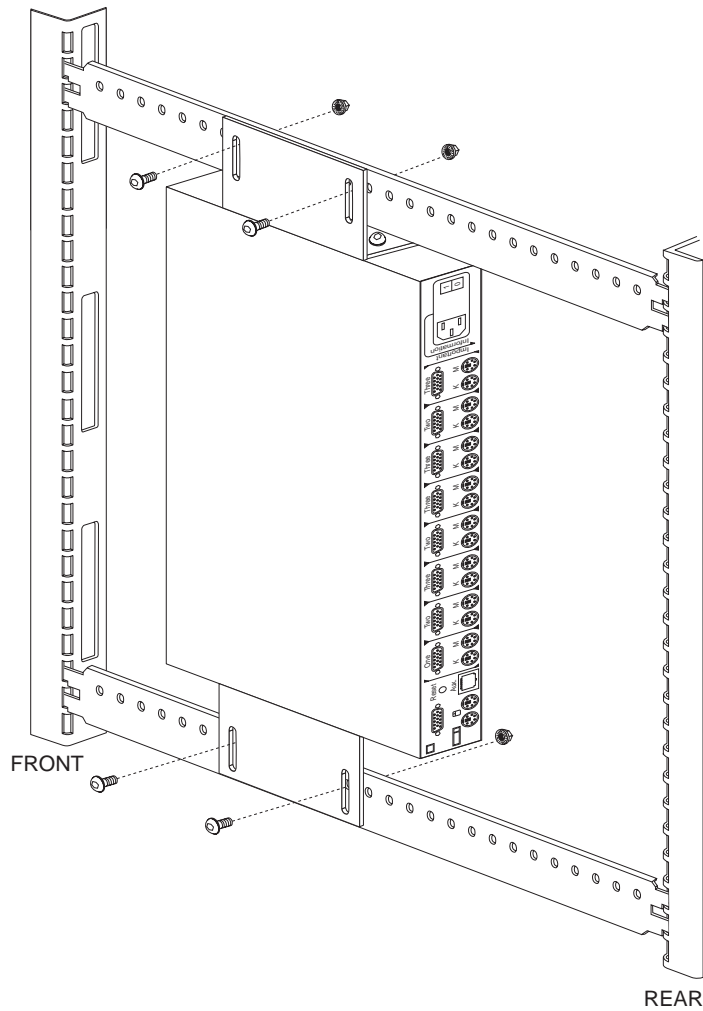
The side braces on both sides of the rack come preadjusted with a vertical clearance (distance) of 55.6 cm (21.9 in.) to accommodate the switch installation. If the braces do not have this clearance, proceed with step 2a. If the braces have this clearance, go to step 3 on page 5.

- a. Remove the side panel from the rack.
- b. Compress the small plastic clip at the front end of the side brace and remove the clip. Save the clip.



- c. Lift the side brace up to disengage it from the vertical mounting rails.
- d. Slide the side brace toward the rear of the rack and out the front vertical mounting rail.
- e. Slide the side brace toward the front of the rack and remove it from the rear vertical mounting rail.
- f. Move the side brace so you have a vertical clearance (distance) of 55.6 cm (21.9 in.) between the side braces.
- g. Insert the rear of the side brace into the holes in the rear vertical mounting rail.
- h. Insert the front of the side brace into the holes in the front vertical mounting rail.
- i. Make sure the ends of the side brace are installed at the same level in both vertical mounting rails.
- j. Push the side brace down to latch the ends of the side brace into the vertical mounting rails.
- k. Insert the small plastic clip into the front end of the side brace until it snaps in place.

3. Install the switch.



- Hold the switch against the side braces, with the connectors facing the rear of the rack.
- Make sure there is enough clearance for the switch cable connections.
- Using four screws and four locking nuts, mount the switch between the side braces.

The selector switch installation is complete.

- For cable installation guidelines, refer to the *IBM Netfinity Rack Planning and Installation Guide* that comes with your IBM Netfinity Rack enclosure.
- For selector switch setup and operation, refer to the *Apex PC Solutions OutLook Concentrator User Guide* that comes with this option.

Help and Service Information

During the warranty period, you can get toll-free technical support 24 hours a day, 7 days a week*, excluding certain holidays, to answer any questions about your selector switch (toll-free technical support is available in the United States only). If you need warranty service, return or exchange is available. In addition, you might be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Before calling, please prepare for your call by following these steps.

Step 1: Troubleshooting

Before calling IBM, you might want to try some or all of the following troubleshooting procedures.

1. Remove and reattach all cables.
2. Reread any software instructions; be sure software settings are correct.
3. After completing these steps, reassemble the selector switch and connect the power cord.
4. Refer to the troubleshooting section in the *Apex PC Solutions OutLook Concentrator User Guide*.

Step 2: Preparing for the Service Call

To assist the technical support representative, have the following information available:

1. Option name, description, and serial number
2. Proof of purchase
3. Server model, serial number, and manual
4. Exact wording of the error message (if any)
5. Description of the problem
6. Hardware and software configuration information for your system

If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

Step 3: Placing the Service Call to IBM

Use one of the following numbers:

- In the United States or Puerto Rico, call 1-800-772-2227.
- In Canada, call 1-800-565-3344.
- In all other countries, contact your IBM reseller, IBM marketing representative, or your place of purchase.

* Response time will vary depending on the number and nature of calls received.

Product Warranties and Notices

The following is the statement of limited warranty for the United States, Canada, and Puerto Rico.

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 Netfinity Rack Console Server Selector Switch

Warranty Period*: Three Years

**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 **1-800-772-2227**. 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.

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Electronic Emission Notices

Federal Communications Commission (FCC) Statement

Note: 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. Operation 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.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or 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 operation.

Industry Canada Class A Emission Compliance Statement

This Class A digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Australia and New Zealand Class A Statement

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

European Community Directive Conformance 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 nonrecommended modification of the product, including the fitting of non-IBM option cards.



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