IBM 1x8 and 2x16 Console Switches and IBM 3M Console Switch Cables improve flexibility in monitoring and controlling IBM xSeries systems

Overview
The IBM 1x8 and 2x16 Console Switches let you inexpensively cable, monitor, and manage your rack servers. The switches:

- Support xSeries servers with PS/S or USB KVM ports
- Support up to 128 servers using 1x8 switch through tiering
- Support up to 256 servers using 2x16 switch through tiering
- Install outside the server — no adapter card required
- Are easy to implement and are designed for rapid deployment
- Require no PCI slot
- Do not require the server to be opened to install switch or rerun wiring if the server is taken offline
- Use management software powered by intuitive on-screen displays (OSDs) that makes management and setup extremely easy
- Have been tested with IBM racks and xSeries products to give you the confidence that they function properly and install quickly and easily
- Have a three-year limited warranty

The IBM 3M Console Switch Cable (PS/2) and the IBM 3M Console Switch Cable (USB) plug into either a PS/2 KVM port or a USB KVM port on the back of a server.


At a glance
These cost-effective, densely packed solutions help you set up and control rack-mounted xSeries servers.

- The IBM 1x8 Console Switch (17351LX) is an 8-port, CAT5 console switch for single-user local management of KVM server functions.
- The IBM 2x16 Console Switch (17352LX) is a 16-port, CAT5 console switch for two-user local management of KVM server functions.
- The IBM 3M Console Switch Cable (PS/2) (31R3130) converts KVM signals for CAT5 cabling for servers with PS/2 KVM ports.
- The IBM 3M Console Switch Cable (USB) (31R3132) converts KVM signals for CAT5 cabling for servers with USB KVM ports.

Key prerequisites
Refer to the Hardware requirements section.

Planned availability date
July 21, 2005
Description

The IBM 1x8 and 2x16 Console Switches include all the components necessary to set up and control rack servers.

**Standard IBM 1x8 and 2x16 Console Switches configurations**

<table>
<thead>
<tr>
<th>Description</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM 1x8 Console Switch</td>
<td>1735-1LX</td>
</tr>
<tr>
<td>IBM 2x16 Console Switch</td>
<td>1735-2LX</td>
</tr>
</tbody>
</table>

The IBM 1x8 and 2x16 Console Switches can be mounted in one of the following rack cabinets:

- IBM 42U S2 Rack
- NetBAY42 Enterprise Rack
- IBM 25U S2 Rack
- NetBAY11 Standard Rack

The IBM 3M Console Switch Cable (PS/2) supports xSeries servers with traditional KVM ports.

The IBM 3M Console Switch Cable (USB) supports xSeries servers with USB KVM ports.

These cable offerings are used to attach the servers to either the IBM 1x8 or the 2x16 Console Switches.

**Business Partner information**

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

BP Attachment for Announcement Letter 105-238


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**Publications**

To assist you in configuring xSeries® servers with IBM 1x8 and 2x16 Console Switches, the following configurators are available:

- xSeries and IntelliStation® Sales Configuration Aid
- Configuration and Options Guide
- Rack Configurator

To obtain information and download these configurators, visit


**Technical information**

**Physical specifications**

**The IBM 1x8 and 2x16 Console Switches**

- Approximate height: 43.4 mm (1.7 in)
- Approximate width: 432.0 mm (17.0 in)
- Approximate depth: 165.1 mm (6.5 in)
- Approximate Weight: 3.6 kg (8 lbs)

**Equipment approvals and safety**

IBM Console Switches

- UL and cUL — 60950 Edition
- FCC Class A
- CB Report 2002 — 17143
- IRAM — Argentina
- C-Tick Mark (AS/NZS 55022)
- ICES-003 Class A — Canada
- CE Mark — EU
- GS — Germany
- VCCI Class A — Japan
- MIC — South Korea
- N — Norway
- GOST — Russia
- BSMI — Taiwan

IBM 3M Console Switch Cables

- UL and cUL — 60950 Edition
- CE Mark — EU

**Operating environment**

- Temperature: 0° to 50°C (32° to 122°F) at 0 to 3048 m
- Relative humidity: 20% to 80% (non-condensing)

**Hardware requirements:** The IBM 1x8 and 2x16 Console Switches can be mounted in one of the following rack cabinets:

- IBM 42U S2 Rack
- NetBAY42 Enterprise Rack
- IBM 25U S2 Rack
- NetBAY11 Standard Rack

The IBM 3M Console Switch Cable (PS/2) supports xSeries servers with traditional KVM ports.

The IBM 3M Console Switch Cable (USB) supports xSeries servers with USB KVM ports.

These cable offerings are used to attach these servers to either the IBM 1x8 or the 2x16 Console Switches.

**Software requirements:** The IBM 1x8 and 2x16 Console Switches are supported by the operating systems of the xSeries server to which they are attached.
User group requirements: This announcement satisfies or partially satisfies the requirements from one or more of the worldwide user group communities. Groups include COMMON, COMMON Europe, Guide Share Europe (GSE), InterAction (Australia/New Zealand), Japan Guide Share (JGS), and SHARE Inc.

Planning information

Customer responsibilities

IBM 1x8 and 2x16 Console Switches: The IBM 1x8 and 2x16 Console Switches are designated as customer setup. Customer setup instructions are shipped with each system.

Cable orders: The IBM Console Switches use the IBM 3M Console Switch Cables.

Installability: The IBM 1x8 and 2x16 Console Switches require about 15 minutes for installation. Installation includes unpacking, setting up, and powering on switches.

Packaging: One carton

The IBM 1x8 and 2x16 Console Switches are shipped as a single package.

Shipment group

IBM 1x8 Console Switch
- 8-port switch assembly
- Mounting hardware for EIA™ space or rack side pockets
- 1U filler panel
- C13 rack jumper cord
- Installation publications and warranty

IBM 2x16 Console Switch
- 16-port switch assembly
- Mounting hardware for EIA space or rack side pockets
- 1U filler panel
- C13 rack jumper cord
- Installation publications and warranty

IBM 3M Console Switch Cable (PS/2)
- One 3M PS/2 Console Switch Cable
- Installation publications and warranty

IBM 3M Console Switch Cable (USB)
- One 3M USB Console Switch Cable
- Installation publications and warranty

Packaging dimensions/Weight

- Single box
  - Height: 155.6 mm (6.1 in)
  - Depth: 225.4 mm (8.9 in)
  - Width: 508.0 mm (20.0 in)
  - Weight: 8.6 kg (19.0 lbs)

Supplies

For end users: IBM 1x8 and 2x16 Console Switches can be purchased through the dealers around the world.

Security, auditability, and control

Security and auditability features include power-on and privileged access password functions that control access to the data and server setup program on the server.

It is a customer’s responsibility to ensure that the server is secure to prevent sensitive data from being removed.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

Terms and conditions

IBM Global Financing: Yes

To obtain copies of the IBM Statement of Limited Warranty, contact your reseller or IBM. In the United States, call 800-IBM-SERV (426-7378), or write to:

Warranty Information

P.O. Box 12195
Research Triangle Park, NC 27709
Attn: Dept JDJA/B203

Warranty period

- System hardware — Three years
- Optional features — One year

Optional IBM features initially installed in an IBM system carry the same warranty period as the system. If installed after the initial system installation, they carry the balance of the system warranty or the optional feature warranty, whichever is greater.

Warranty service: If required, IBM provides repair or exchange service depending on the type of warranty service specified (following) for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability.

Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM’s normal service area. Contact your local IBM representative or your reseller for country- and location-specific information.

Customer replaceable unit (CRU) (keyboard, mouse, speaker, memory, HDD) service and on-site service for other selected parts.

CRU service: IBM provides replacement CRUs to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request. CRUs are designated as being either a Tier 1 or a Tier 2 CRU. Installation of Tier 1 CRUs is your responsibility. If IBM installs a Tier 1 CRU, at your request, you will be charged for the installation. You may install a Tier 2 CRU yourself or request IBM to install it, at no additional charge under the type of warranty service specified: On-site Service.

Based upon availability, CRUs will be shipped for next-business-day delivery. IBM specifies in the materials shipped with the replacement CRU whether a defective CRU must be returned to IBM. When return is required:

- Return instructions and a container are shipped with the replacement CRU
- You may be charged for the replacement CRU if IBM does not receive the defective CRU within 30 days of your receipt of the replacement
On-site service: IBM on-site repair (IOR), 9 hours per day, Monday through Friday excluding holidays, next-business-day (NBD) response. IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose. On-site service is not available in all countries, and some countries have kilometer or mileage limitations from an IBM service center. In those locations where on-site service is not available, the normal in-county service delivery is used.

Call IBM at 800-IBM-SERV (426-7378), to assist with problem isolation for hardware to determine if warranty service is required. Telephone support may be subject to additional charges, even during the limited warranty period.

International Warranty Service (IWS): IWS is available during the warranty period to customers who travel or relocate to countries where their computer is sold and serviced by IBM or IBM resellers authorized to perform warranty service. Eligible IBM computers are identified by their four-digit machine type.

You can obtain IWS through the method of service, such as CRU, depot, carry-in, or on-site, provided in the servicing country. Service methods and procedures vary by country, and some service or parts may not be available in all countries. Service centers in certain countries may not be able to service all models of a particular machine type. In addition, some countries may have fees and restrictions that apply at the time of service.

To determine the eligibility of your computer and to view a list of countries where service is available, visit http://www-3.ibm.com/pc/support/site.wss/warranty/warranty.vm

For more information on IWS, refer to Services Announcement 601-034, dated September 25, 2001.

Note: Due to the earth’s magnetic field, CRT monitors are manufactured to work in northern, southern, and equatorial regions of the earth and may not produce a satisfactory image when moved between them. Any required adjustment (if possible) is not covered under IWS and may be subject to a chargeable action. The magnetic field does not affect flat panel LCD monitors.

Licensing: Programs included with these products are licensed under the terms and conditions of the license agreements that are shipped with the system.

Maintenance services

ServicePac®, ServiceSuite™, and ServiceElect: ServicePac, ServiceSuite, and ServiceElect provide hardware warranty service upgrades, maintenance, and selected support services in one agreement.

Warranty service upgrade: During the warranty period, warranty service upgrade provides an enhanced level of on-site service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of on-site service acquired by the customer. Service levels are response time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability.

CRUs will be provided as part of the machine’s standard warranty CRU Service except that you may install a Tier 1 CRU yourself or request IBM installation, at no additional charge, under one of the on-site service levels specified.

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

The following warranty service upgrade options are available:

- IOR, 9 hours per day, Monday through Friday excluding holidays, 4-hour average response
- IOR, 24 hours per day, 7 days a week, 4-hour average response
- IOR, 24 hours per day, 7 days a week, 2-hour average response

Maintenance service: If required, IBM provides repair or exchange service depending on the type of maintenance service specified for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed.

CRU service: If your problem can be resolved with a CRU (keyboard, mouse, speaker, memory, HDD), IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request. IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM. When return is required:

- Return instructions and a container are shipped with the replacement CRU
- You may be charged for the replacement CRU if IBM does not receive the defective CRU within 30 days of your receipt of the replacement

On-site service: IOR, IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

The following on-site service options are available:

- IOR, 9 hours per day, Monday through Friday excluding holidays, NBD response
- IOR, 9 hours per day, Monday through Friday excluding holidays, 4-hour average response
- IOR, 24 hours per day, 7 days a week, 4-hour average response
- IOR, 24 hours per day, 7 days a week, 2-hour average response
**Maintenance service (ICA)**

Maintenance services are available for ICA legacy contracts. The preferred go-to-market offerings are ServiceElect. However, ICA legacy contracts will still be available for current customers until they are withdrawn.

**Alternative service (Warranty service upgrades):** During the warranty period, warranty service upgrade provides an enhanced level of on-site service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of on-site service acquired by the customer. Service levels are response time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability.

CRUs will be provided as part of the machine’s standard warranty CRU service except that you may install a Tier 1 CRU yourself or request IBM to install it, at no additional charge, under the type of warranty service specified: On-site Service.

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

The following warranty service upgrade option is available.

- **IOR, 24 hours per day, 7 days a week, 4-hour average response**

**Maintenance service:** If required, IBM provides repair or exchange service depending on the type of maintenance service specified for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed.

**CRU service:** If your problem can be resolved with a CRU (keyboard, mouse, speaker, memory, HDD), IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request.

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- Return instructions and a container are shipped with the replacement CRU
- You may be charged for the replacement CRU if IBM does not receive the defective CRU within 30 days of your receipt of the replacement

**On-site service:** IOR, IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

The following on-site service options are available:

- **IOR, 9 hours per day, Monday through Friday excluding holidays, NBD response**
- **IOR, 24 hours per day, 7 days a week, 4-hour average response**

**Non-IBM parts support**

**Warranty service:** IBM is now shipping machines with selected non-IBM parts that contain an IBM field replaceable unit (FRU) part number label. These parts are to be serviced during the IBM machine warranty period. IBM is covering the service on these selected non-IBM parts as an accommodation to their customers, and normal warranty service procedures for the IBM machine apply.

**Warranty service upgrades and maintenance services:** Under certain conditions, IBM Integrated Technology Services repairs selected non-IBM parts at no additional charge for machines that are covered under warranty service upgrades or maintenance services.

IBM Service provides hardware problem determination on non-IBM parts (adapter cards, PCMCIA cards, disk drives, memory, and so forth) installed within IBM systems covered under warranty service upgrades or maintenance services and provides the labor to replace the failing parts at no additional charge.

If IBM has a Technical Service Agreement with the manufacturer of the failing part or if the failing part is an accommodations part (a part with an IBM FRU label), IBM may also source and replace the failing part at no additional charge. For all other non-IBM parts, customers are responsible for sourcing the parts. Installation labor is provided at no additional charge, if the machine is covered under a warranty service upgrade or a maintenance service.

**IBM hourly service rate classification:** One

**Field-installable features:** Yes

**Model conversions:** No

**Machine installation:** Customer setup. Customers are responsible for installation according to the instructions IBM provides with the machine.

**Graduated program license charges apply:** No. These products do not contain licensed internal code or licensed machine code.

### Prices

<table>
<thead>
<tr>
<th>Description</th>
<th>Machine type/ model</th>
<th>Part number</th>
<th>IBM list price$²</th>
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<tbody>
<tr>
<td>IBM 1x8 Console Switch</td>
<td>1735-1LX</td>
<td>17351LX</td>
<td>$ 829</td>
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<tr>
<td>IBM 2x16 Console Switch</td>
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<td>17352LX</td>
<td>1,499</td>
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</table>

² IBM price; does not include tax or shipping and is subject to change without notice. Reseller prices may vary.
IBM Part list

<table>
<thead>
<tr>
<th>Description</th>
<th>Part number</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>IBM 3M Console Switch Cable</td>
<td>31R3130</td>
<td>$125</td>
</tr>
<tr>
<td>(PS/2)</td>
<td>31R3132</td>
<td>$125</td>
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To order direct, call IBM at 877-999-7115 and select option 4.

For the name of the nearest IBM representative or Business Partner, call 800-IBM-4YOU (426-4968).

**Maintenance service charges (ICA)**

**Alternative service (Warranty service upgrades)**

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**Annual maintenance service**

<table>
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<td>1735-2LX</td>
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<td>92</td>
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</tbody>
</table>

For ServiceElect (ESA) maintenance service charges, contact IBM Global Services at 888-IBM-4343 (426-4343).

**IBM Global Financing:** IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, both from IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit


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