

IBM 1U 18.5-inch Standard and Enhanced Media Consoles

IBM Redbooks Product Guide

The IBM® 1U 18.5-inch Standard and Enhanced Media Consoles are cost-effective flat-panel console kits that offer a powerful and convenient way to manage space-constrained rack environments from a single console. These densely packed 1U solutions let you easily set up and control rack-mounted IBM System x® servers and IBM BladeCenter® chassis. They offer additional space savings by allowing the mounting of the KVM switch in the space behind the console. These kits include an 18.5-inch LCD display and accept an optional UltraNav keyboard available in 29 languages. The Enhanced Media Console comes standard with a multi-burner drive and dual USB ports for additional convenience. The enhanced model also features an optional smart card reader/Common Access Card (CAC) reader (available only in North America). The IBM 1U 18.5-inch Enhanced Media Console is shown in the following figure.



Figure 1. IBM 1U 18.5-inch Enhanced Media Console (with the optional IBM UltraNav USB keyboard)

Did You Know?

The IBM 1U 18.5-inch Enhanced Media Console, when used with the IBM Global Console Manager (GCM) or Local Console Manager (LCM) console switches and Virtual Media Conversion Option Gen2 (VCO2), creates a virtual media solution that allows the out-of-band transfer of data to deploy or patch multiple servers from one local console through the integrated dual USB ports and optical drive. This solution offers potential savings by allowing the removal of the optical drive in each server and eliminating the need to physically locate each server at the rack to insert media.

Part number information

The following table lists ordering part numbers and feature codes for the console kits.

Table 1. Ordering part numbers and feature codes

| Product description | Part number | Feature code |
|---|-------------|--------------|
| IBM 1U 18.5" Standard Console | 17238BX | A3EK |
| IBM 1U 18.5" Enhanced Media Console | 17238EX | A3EL |
| IBM Common Access Card Reader for Enhanced Media Console (North America Only) | 44X3159 | A3EM |

The part numbers for the Standard and Enhanced Media Consoles include the following items:

- One console unit with a 18.5-inch LCD display
- Cable management arm
- Slides and mounting brackets
- Miscellaneous hardware kit
- One 2.8m, 10A/100-250V, C13 to IEC 320-C14 rack power cable
- Warranty Flyer
- *Important Notices* document
- IBM Documentation CD

The part number for the Common Access Card Reader includes the following items:

- One Common Access Card Reader option

Note: The console kits do not include a keyboard. See Table 2 for the supported IBM USB keyboards.

The IBM 1U 18.5-inch Standard Console is shown in the following figure.



Figure 2. IBM 1U 18.5-inch Standard Console (with the optional IBM UltraNav USB keyboard)

Supported keyboards

The following table lists the USB keyboards that can be used with the IBM 1U 18.5-inch consoles.

Table 2. Supported USB keyboards

| Description | Part number | Feature code |
|---|-------------|--------------|
| IBM Keyboard w/ Int. Pointing Device USB - US English 103P RoHS | 94Y6179 | A31J |
| IBM Keyboard w/ Int. Pointing Device USB - Arabic 253 RoHS | 94Y6180 | A31K |
| IBM Keyboard w/ Int. Pointing Device USB - Belgium/UK 120 RoHS | 94Y6181 | A31L |
| IBM Keyboard w/ Int. Pointing Device USB - Chinese/US 467 RoHS | 94Y6182 | A31M |
| IBM Keyboard w/ Int. Pointing Device USB - Czech 489 RoHS | 94Y6183 | A31N |
| IBM Keyboard w/ Int. Pointing Device USB - Danish 159 RoHS | 94Y6184 | A31P |
| IBM Keyboard w/ Int. Pointing Device USB - Dutch 143 RoHS | 94Y6185 | A31Q |
| IBM Keyboard w/ Int. Pointing Device USB - French 189 RoHS | 94Y6186 | A31R |
| IBM Keyboard w/ Int. Pointing Device USB - French/Canada 445 RoHS | 94Y6187 | A31S |
| IBM Keyboard w/ Int. Pointing Device USB - German 129 RoHS | 94Y6188 | A31T |
| IBM Keyboard w/ Int. Pointing Device USB - Greek 219 RoHS | 94Y6189 | A31U |
| IBM Keyboard w/ Int. Pointing Device USB - Hebrew 212 RoHS | 94Y6190 | A31V |
| IBM Keyboard w/ Int. Pointing Device USB - Hungarian 208 RoHS | 94Y6191 | A31W |
| IBM Keyboard w/ Int. Pointing Device USB - Italy/Italian 141 RoHS | 94Y6192 | A31X |
| IBM Keyboard w/ Int. Pointing Device USB - Japanese 194 RoHS | 94Y6193 | A31Y |
| IBM Keyboard w/ Int. Pointing Device USB - Korean 413 RoHS | 94Y6194 | A31Z |
| IBM Keyboard w/ Int. Pointing Device USB - LA Spanish 171 RoHS | 94Y6195 | A320 |
| IBM Keyboard w/ Int. Pointing Device USB - Norwegian 155 RoHS | 94Y6196 | A321 |
| IBM Keyboard w/ Int. Pointing Device USB - Polish 214 RoHS | 94Y6197 | A322 |
| IBM Keyboard w/ Int. Pointing Device USB - Portugese 163 RoHS | 94Y6198 | A323 |
| IBM Keyboard w/ Int. Pointing Device USB - Russian 441 RoHS | 94Y6199 | A324 |
| IBM Keyboard w/ Int. Pointing Device USB - Slovak 245 RoHS | 94Y6200 | A325 |
| IBM Keyboard w/ Int. Pointing Device USB - Spanish 172 RoHS | 94Y6201 | A326 |
| IBM Keyboard w/ Int. Pointing Device USB - Swed/Finn 153 RoHS | 94Y6202 | A327 |
| IBM Keyboard w/ Int. Pointing Device USB - Swiss F/G 150 RoHS | 94Y6203 | A328 |
| IBM Keyboard w/ Int. Pointing Device USB - Thai 191 RoHS | 94Y6204 | A329 |
| IBM Keyboard w/ Int. Pointing Device USB - Turkish 179 RoHS | 94Y6205 | A32A |
| IBM Keyboard w/ Int. Pointing Device USB - UK English 166 RoHS | 94Y6206 | A32B |
| IBM Keyboard w/ Int. Pointing Device USB - US Euro 103P RoHS | 94Y6207 | A32C |
| IBM Keyboard w/ Int. Pointing Device USB - Slovenian 234 RoHS | 94Y6208 | A32D |

Features

The features of the Standard and Enhanced Media Consoles include:

- Integrated 18.5-inch high-resolution display supports selectable display methods and resolutions
- The flat-panel display extends well above the keyboard and offers an easy viewing angle
- Installable in a rack - consumes only 1U of rack space
- A 1U solution with the ability to mount a KVM switch behind the console to save space
- Tool-less installation for ease of use and installation in minutes
- Includes slides and cable-management arm so the unit can close and slide back into the rack
- Provides easy local access and control of a server
- Compatible with IBM Console Managers for control and access of multiple servers
- Testing to ensure easy integration into System x and BladeCenter rack solutions
- A complete, ready-to-install package
- Optional keyboards with National Language Support

The Enhanced Media Console offers the following additional features:

- Two USB pass-through ports on the front of the tray
- USB Multi-burner optical drive
- Integrated USB ports and optical drive pair with an LCM or GCM Console Switch for remote USB media support
- An optional integrated CAC reader

The following table shows a comparison of the two console kits.

Table 3. Feature comparison

| Feature | Standard Console | Enhanced Media Console |
|---------------------------------|--|--|
| Form Factor | 1U | 1U |
| Monitor | 18.5-inch | 18.5-inch |
| Keyboard and mouse | UltraNav Keyboard (purchased separately) | UltraNav Keyboard (purchased separately) |
| Pass-through USB | None | Yes (two ports) |
| Rack shippable | Yes | Yes |
| Console switch in same 1U space | Yes | Yes |
| Cable management arm | Yes | Yes |
| Optical media | None | Standard DVD Multiburner |
| CAC reader | None | Optional (part number 44X3159) |

Technical specifications

The following table lists the specifications of the 18.5-inch display.

Table 4. 18.5-inch display specifications

| Specification | 18.5-inch Standard and Enhanced Media Consoles |
|--|--|
| Screen size | 18.5 inch diagonal |
| Display Area | 409.8 mm x 230.4 mm |
| Display type | WXGA TFT active matrix LED backlight |
| Pixel pitch | 0.300 mm x 0.300 mm |
| Contrast | 1000:1 |
| Brightness | 250 cd/m ² |
| Viewing angle | 170 degrees horizontal; 160 degrees vertical |
| Clock frequency | 55 - 90 MHz, TYP 78 |
| Frame rate | 55 - 75 Hz, TYP 60 |
| Display color | 16 M colors |
| Maximum resolution (see Table 5 for details) | 1600 x 1200 at 60 Hz |
| Connector | VGA (DB15) |
| Typical power consumption | 10.3 watts (without inverter, all black pattern) |

The following table lists supported resolutions.

Table 5. Supported display resolutions

| Supported resolutions | 1:1 | Aspect | Fill |
|-----------------------|----------|----------|----------|
| 640x480 | 640x480 | 1024x768 | 1366x768 |
| 800x600 | 800x600 | 1024x768 | 1366x768 |
| 1024x768 | 1024x768 | 1024x768 | 1366x768 |
| 1152x864 | 1024x768 | 1024x768 | 1366x768 |
| 1366x768 (Native) | 1366x768 | 1366x768 | 1366x768 |
| 1280x800 | 1333x768 | 1333x768 | 1366x768 |
| 1280x1024 | 960x768 | 960x768 | 1366x768 |
| 1440x900 | 1228x768 | 1228x768 | 1366x768 |
| 1600x1200 | 1024x768 | 1024x768 | 1366x768 |

The specifications for the Multiburner drive standard in the Enhanced Media Console are listed in the following table.

Table 6. Multiburner specifications

| Supported media type | Maximum speed |
|------------------------------|------------------|
| Data transfer rate | |
| DVD-ROM | 11.08 MBps (8x) |
| CD-ROM | 3,600 KBps (24x) |
| Read speed | |
| CD-ROM | 24x |
| CD-R | 24x |
| CD-RW | 24x |
| DVD-ROM (4.7 GB) | 8x |
| DVD-ROM (dual layer, 8.5 GB) | 8x |
| DVD-R (4.7 GB) | 8x |
| DVD-R (dual layer, 8.5 GB) | 8x |
| DVD+R (4.7 GB) | 8x |
| DVD+R (dual layer, 8.5 GB) | 8x |
| DVD-RW (4.7 GB) | 8x |
| DVD+RW (4.7 GB) | 8x |
| Write speed | |
| CD-R | 24x |
| CD-RW | 24x |
| DVD-R (4.7 GB) | 8x |
| DVD-R (dual layer, 8.5 GB) | 6x |
| DVD+R (4.7 GB) | 8x |
| DVD+R (dual layer, 8.5 GB) | 6x |
| DVD-RW (4.7 GB) | 6x |
| DVD+RW (4.7 GB) | 8x |
| DVD-RAM (4.7 GB) | 5x |

Supported servers

The consoles can be used with System x servers and BladeCenter chassis that are listed in the following table.

Table 7. Supported System x servers and BladeCenter chassis

| Machine type | System name |
|---------------------|---------------------|
| System x servers | |
| 2582 | IBM System x3100 M4 |
| 2583 | IBM System x3250 M4 |
| 4251, 4252 | IBM System x3250 M3 |
| 7143, 7145 | IBM System x3850 X5 |
| 7143, 7145 | IBM System x3950 X5 |
| 7147, 7148 | IBM System x3690 X5 |
| 7158 | IBM System x3630 M4 |
| 7160 | IBM System x3530 M4 |
| 7164 | IBM System x3755 M3 |
| 7376 | IBM System x3620 M3 |
| 7377 | IBM System x3630 M3 |
| 7378, 7379 | IBM System x3400 M3 |
| 7380 | IBM System x3500 M3 |
| 7382 | IBM System x3300 M4 |
| 7383 | IBM System x3500 M4 |
| 7914 | IBM System x3550 M4 |
| 7915 | IBM System x3650 M4 |
| 7944 | IBM System x3550 M3 |
| 7945 | IBM System x3650 M3 |
| 8722 | IBM System x3750 M4 |
| BladeCenter chassis | |
| 8677 | IBM BladeCenter E |
| 8750 | IBM BladeCenter HT |
| 8852 | IBM BladeCenter H |
| 8886 | IBM BladeCenter S |

Warranty options

The IBM 1U 18.5-inch consoles have a three year, customer replaceable unit (CRU) and on-site service, limited warranty with 9x5/next business day terms. IBM offers the optional warranty service upgrades through IBM ServicePac® offerings. An IBM ServicePac offering is a series of prepackaged warranty maintenance upgrades and post-warranty maintenance agreements with a well-defined scope of services, including service hours, response time, term of service, and service agreement terms and conditions.

IBM ServicePac offerings are country-specific, that is, each country might have its own service types, service levels, response times, and terms and conditions. Not all covered types of ServicePac offerings might be available in a particular country. For more information about IBM ServicePac offerings available in your country, visit the IBM ServicePac Product Selector at:

<https://www-304.ibm.com/sales/gss/download/spst/servicepac>

The following table explains warranty service definitions in more detail.

Table 8. Warranty service definitions

| Term | Description |
|--------------------------|---|
| IBM on-site repair (IOR) | A service technician comes to the system's location for equipment repair. |
| 24x7x2 hour | A service technician is scheduled to arrive at your client's location within two hours after remote problem determination is completed. We provide service around the clock, every day, including IBM holidays. |
| 24x7x4 hour | A service technician is scheduled to arrive at your client's location within four hours after remote problem determination is completed. We provide service around the clock, every day, including IBM holidays. |
| 9x5x4 hour | A service technician is scheduled to arrive at your client's location within four business hours after remote problem determination is completed. We provide service from 8:00 a.m. - 5:00 p.m. in the client's local time zone, Monday through Friday, excluding IBM holidays. If after 1:00 p.m. it is determined that onsite service is required, the client can expect the service technician to arrive the morning of the following business day. For noncritical service requests, a service technician arrives by the end of the following business day. |
| 9x5 next business day | A service technician is scheduled to arrive at your client's location on the business day after we receive your call, following remote problem determination. We provide service from 8:00 a.m. - 5:00 p.m. in the client's local time zone, Monday through Friday, excluding IBM holidays. |

In general, the types of IBM ServicePac offerings that are available for the IBM 1U 18.5-inch consoles are as follows:

- Warranty service upgrades:
 - Three, four, or five years of 9x5 or 24x7 service coverage
 - On-site repair with response time from next business day to 4 or 2 hours
- Maintenance (post-warranty) service offerings:
 - One or two years of warranty extension with 9x5 or 24x7 service coverage
 - On-site repair with response time from next business day to 4 or 2 hours

Physical specifications

The IBM 1U 18.5-inch consoles have the following physical specifications.

Dimensions and weight (approximate):

- Height: 43 mm (1.7 in.)
- Width: 434 mm (17.0 in.)
- Depth:
 - Standard Console: 434 mm (17.0 in.)
 - Enhanced Media Console: 510 mm (20.0 in.)
- Weight:
 - Standard Console: 10.4 kg (23 lb)
 - Enhanced Media Console: 12.9 kg (28.5 lb)

Shipping dimensions and weight (approximate):

- Height: 229 mm (9.0 in.)
- Width: 762 mm (30.0 in.)
- Depth: 584 mm (23.0 in.)
- Weight:
 - Standard Console: 15 kg (33 lb)
 - Enhanced Media Console: 18 kg (39 lb)

The CAC Reader has the following physical specifications.

Shipping dimensions and weight (approximate):

- Height: 108 mm (4.3 in.)
- Width: 210 mm (8.3 in.)
- Depth: 108 mm (4.3 in.)
- Weight: 0.5 kg (1.0 lb)

Operating environment

The IBM 1U 18.5-inch consoles are supported in the following environment:

- Temperature: 0 - 50 °C (32 - 128°F)
- Relative humidity: 10 - 80%
- Maximum altitude: 3,000 m (9,843 ft)
- Electrical:
 - 90 to 264 V AC (nominal): 47 Hz to 63 Hz
 - 12 V DC (nominal): 3.33 A 40 watts

Agency approvals

The IBM 1U 18.5-inch consoles conform to the following regulations:

- FCC - Verified to comply with Part 15 of the FCC Rules for a Class A digital device
- UL 60950-1
- CSA C22.2 Number 60950-1-07
- IEC 60950-1/EN 60950-1:2006
- NOM - Mexico
- CE Mark (EN55022 Class A)
- C-Tick Mark (AS/NZS CISPR 22)
- GOST - Russia
- KC Mark - Korea
- BSMI - Taiwan
- CCC - China
- UL-AR - Argentina
- VCCI Class A - Japan
- NEMKO GS (EN60950/IEC950/ZH-618)
- CB Certificate and CB Test Report

Rack cabinets

The IBM 1U 18.5-inch consoles can be installed in the rack cabinets listed in the following table.

Table 9. Rack cabinets

| Part number | Description |
|-------------|--|
| 201886X | IBM 11U Office Enablement Kit |
| 93072PX | IBM 25U Static S2 Standard Rack |
| 93072RX | IBM 25U Standard Rack |
| 93072SX | IBM 25U Standard Rack |
| 93074EX | IBM 42U Standard Rack Extension |
| 93074RX | IBM 42U Standard Rack |
| 93074SX | IBM 42U Standard Rack |
| 93074XX | IBM 42U Standard Rack Extension |
| 930842E | NetBAY42 Enterprise Expansion Rack Cabinet |
| 930842S | NetBAY42 Enterprise Rack Cabinet |
| 93084EX | IBM 42U Enterprise Expansion Rack |
| 93084PX | IBM 42U Enterprise Rack |
| 93084RX | NetBAY42 Enterprise Rack Cabinet |
| 93084XX | NetBAY42 Enterprise Expansion Rack Cabinet |
| 93604EX | IBM 42U 1200mm Deep Dynamic Expansion Rack |
| 93604PX | IBM 42U 1200mm Deep Dynamic Rack |
| 93614EX | IBM 42U 1200mm Deep Static Expansion Rack |
| 93614PX | IBM 42U 1200mm Deep Static Rack |
| 93624EX | IBM 47U 1200mm Deep Static Expansion Rack |
| 93624PX | IBM 47U 1200mm Deep Static Rack |
| 93634CX | IBM PureFlex™ System 42U Rack |
| 93634DX | IBM PureFlex System 42U Expansion Rack |
| 93634EX | IBM 42U 1100mm Dynamic Expansion Rack |
| 93634PX | IBM 42U 1100mm Dynamic Rack |
| 99564RX | IBM S2 42U Dynamic Standard Rack |
| 99564XX | IBM S2 42U Dynamic Standard Expansion Rack |

For more information, see the list of IBM Redbooks Product Guides in the Rack cabinets and options category:

<http://www.redbooks.ibm.com/portals/systemx?Open&page=pg&cat=rack>

Rack options

The IBM 1U 18.5-inch consoles can be used with the rack console switches listed in the following table.

Table 10. Rack options

| Part number | Feature code | Description |
|------------------|--------------|--|
| Console switches | | |
| 1754D2X | 6695 | IBM Global 4x2x32 Console Manager (GCM32) |
| 1754D1X | 6694 | IBM Global 2x2x16 Console Manager (GCM16) |
| 1754A2X | 0726 | IBM Local 2x16 Console Manager (LCM16) |
| 1754A1X | 0725 | IBM Local 1x8 Console Manager (LCM8) |
| Console cables | | |
| 43V6147 | 3757 | IBM Single Cable USB Conversion Option (UCO) |
| 39M2895 | 3756 | IBM USB Conversion Option (4 Pack UCO) |
| 39M2897 | 3754 | IBM Long KVM Conversion Option (4 Pack Long KCO) |
| 46M5383 | 5341 | IBM Virtual Media Conversion Option Gen2 (VCO2) |
| 46M5382 | 5340 | IBM Serial Conversion Option (SCO) |

For more information, see the list of IBM Redbooks Product Guides in the Rack cabinets and options category:

<http://www.redbooks.ibm.com/portals/systemx?Open&page=pg&cat=rack>

Typical configurations

The following figure shows the IBM 1U 18.5-inch Enhanced Media Console with an UltraNav keyboard and USB optical drive connected to the IBM GCM16 Console Switch. The console switch is connected to each managed server using IBM Virtual Media Conversion Option Gen2 (VCO2) cables, one for each server. These VCO2 cables make the USB devices (optical drive and any device attached to the USB pass-through ports on the Enhanced Media Console) available to the managed servers.

Note: The VCO2 cables do not support chaining of cables.

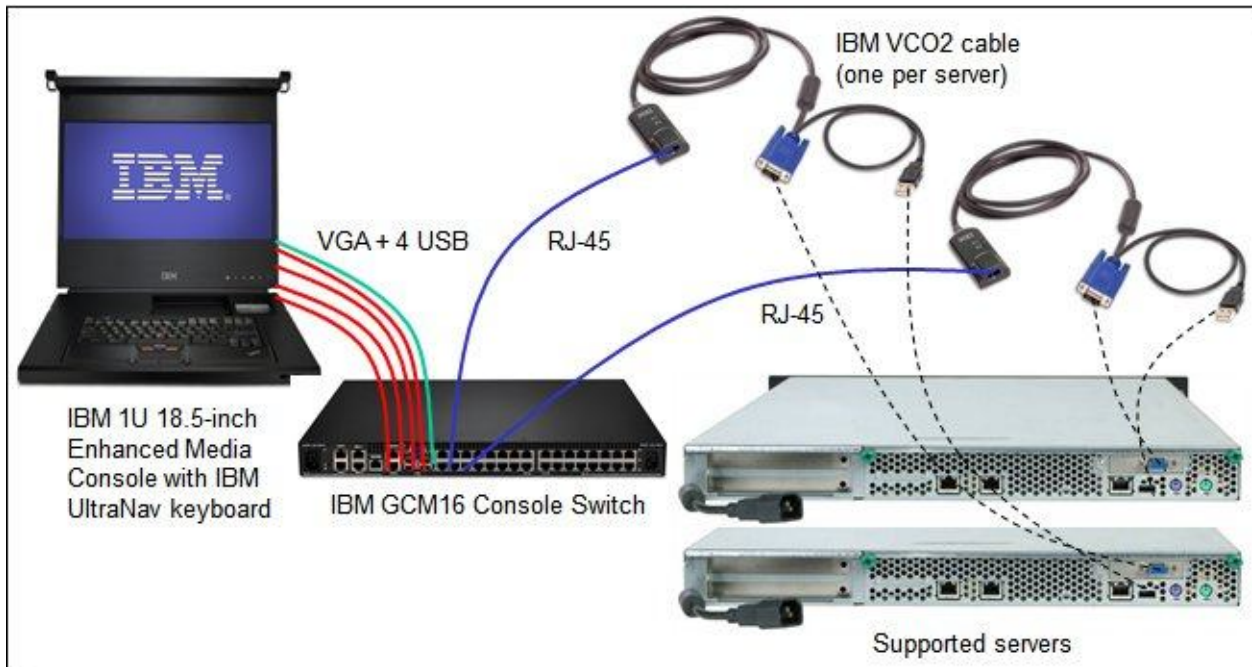


Figure 3. IBM 1U 18.5-inch Enhanced Media Console sample configuration

The parts used are listed in the following table.

Table 11. Components used when the 18.5-inch Enhanced Media Console is connected to the GCM16 Console Switch

| Part number | Description | Quantity |
|-------------|---|----------------------|
| 17238EX | IBM 1U 18.5" Enhanced Media Console | 1 |
| 94Y6179 | IBM Keyboard w/ Int. Pointing Device USB - US English 103P RoHS | 1 |
| 1754D1X | IBM Global 2x2x16 Console Manager (GCM16) | 1 |
| 46M5383 | IBM Virtual Media Conversion Option Gen2 (VCO2) cable | 1 per managed server |
| Varies | Ethernet cabling | 1 per managed server |
| Varies | IBM servers with USB and VGA ports | Varies |

Related publications and links

For more information, see these resources:

- IBM US Announcement Letter
<http://ibm.com/common/ssi/cgi-bin/ssialias?infotype=dd&subtype=ca&&htmlfid=897/ENUS113-135>
- IBM System x Consoles product page
<http://www.ibm.com/systems/x/hardware/options/flatpanel.html>
- Installation and Maintenance Guide - IBM 1U 18-inch Standard and Enhanced Media Consoles
<http://www.ibm.com/support>
- *IBM System x Configuration and Options Guide*
<http://www.ibm.com/systems/xbc/cog/>
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