

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

Part number	Feature	Description
46W6712	A50G	IBM Keyboard w/ Int. Pointing Device USB - US Eng 103P RoHS v2
46W6713	A50H	IBM Keyboard w/ Int. Pointing Device USB - Arabic 253 RoHS v2
46W6714	A50J	IBM Keyboard w/ Int. Pointing Device USB - Belg/UK 120 RoHS v2
46W6715	A50K	IBM Keyboard w/ Int. Pointing Device USB - Chinese/US 467 RoHS v2
46W6716	A50L	IBM Keyboard w/ Int. Pointing Device USB - Czech 489 RoHS v2
46W6717	A50M	IBM Keyboard w/ Int. Pointing Device USB - Danish 159 RoHS v2
46W6718	A50N	IBM Keyboard w/ Int. Pointing Device USB - Dutch 143 RoHS v2
46W6719	A50P	IBM Keyboard w/ Int. Pointing Device USB - French 189 RoHS v2
46W6720	A50Q	IBM Keyboard w/ Int. Pointing Device USB - Fr/Canada 445 RoHS v2
46W6721	A50R	IBM Keyboard w/ Int. Pointing Device USB - German 129 RoHS v2
46W6722	A50S	IBM Keyboard w/ Int. Pointing Device USB - Greek 219 RoHS v2
46W6723	A50T	IBM Keyboard w/ Int. Pointing Device USB - Hebrew 212 RoHS v2
46W6724	A50U	IBM Keyboard w/ Int. Pointing Device USB - Hungarian 208 RoHS v2
46W6725	A50V	IBM Keyboard w/ Int. Pointing Device USB - Italian 141 RoHS v2
46W6726	A50W	IBM Keyboard w/ Int. Pointing Device USB - Japanese 194 RoHS v2
46W6727	A50X	IBM Keyboard w/ Int. Pointing Device USB - Korean 413 RoHS v2
46W6728	A50Y	IBM Keyboard w/ Int. Pointing Device USB - LA Span 171 RoHS v2
46W6729	A50Z	IBM Keyboard w/ Int. Pointing Device USB - Norwegian 155 RoHS v2
46W6730	A510	IBM Keyboard w/ Int. Pointing Device USB - Polish 214 RoHS v2
46W6731	A511	IBM Keyboard w/ Int. Pointing Device USB - Portugese 163 RoHS v2
46W6732	A512	IBM Keyboard w/ Int. Pointing Device USB - Russian 441 RoHS v2
46W6733	A513	IBM Keyboard w/ Int. Pointing Device USB - Slovak 245 RoHS v2
46W6734	A514	IBM Keyboard w/ Int. Pointing Device USB - Spanish 172 RoHS v2
46W6735	A515	IBM Keyboard w/ Int. Pointing Device USB - Swed/Finn 153 RoHS v2
46W6736	A516	IBM Keyboard w/ Int. Pointing Device USB - Swiss F/G 150 RoHS v2
46W6737	A517	IBM Keyboard w/ Int. Pointing Device USB - Thai 191 RoHS v2
46W6738	A518	IBM Keyboard w/ Int. Pointing Device USB - Turkish 179 RoHS v2
46W6739	A519	IBM Keyboard w/ Int. Pointing Device USB - UK Eng 166 RoHS v2
46W6740	A51A	IBM Keyboard w/ Int. Pointing Device USB - US Euro 103P RoHS v2
46W6741	A51B	IBM Keyboard w/ Int. Pointing Device USB - Slovenian 234 RoHS v2

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 the following System x servers and BladeCenter chassis.

Table 7. Supported System x servers and BladeCenter chassis

Machine type	System name
System x servers	
3837	IBM System x3850 X6
3837	IBM System x3950 X6
7143	IBM System x3850 X5
7143	IBM System x3950 X5
7147	IBM System x3690 X5
5458	IBM System x3250 M5
5457	IBM System x3100 M5
8722/8733	IBM System x3750 M4
8752/8718	IBM System x3750 M4
5466	IBM System x3650 M4 BD
7915	IBM System x3650 M4
5460	IBM System x3650 M4 HD
7158	IBM System x3630 M4
7914	IBM System x3550 M4
7160	IBM System x3530 M4
7383	IBM System x3500 M4
7382	IBM System x3300 M4
2583	IBM System x3250 M4
2582	IBM System x3100 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.

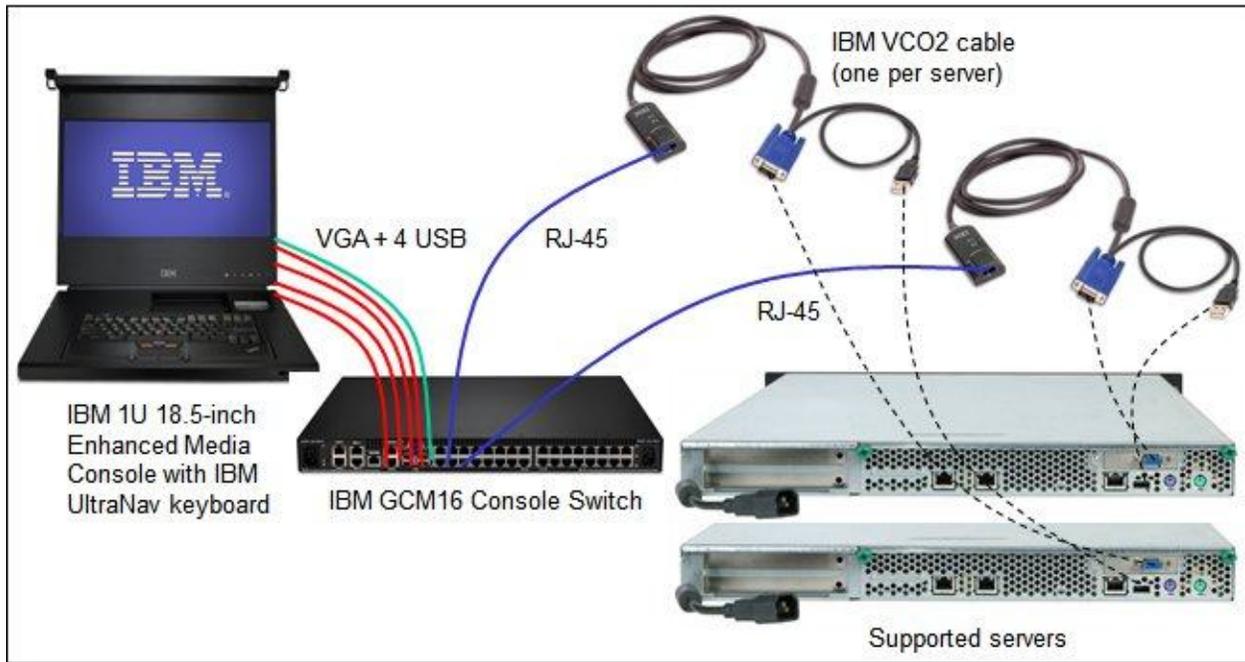


Figure 3. IBM 1U 18.5-inch Enhanced Media Console sample configuration

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*
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