

WebSphere DataPower XC10
First Edition

Installation Guide



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Note

Before using this information and the product it supports, read the information in "Safety" on page v and, if necessary, the language-specific information for your locale in *IBM Systems Safety Notices*, G229-9054-01.

Before using this information and the product it supports, read the information in "Notices" on page 27.

First Edition (June 2010)

This edition applies to IBM WebSphere DataPower XC10 until otherwise indicated in new editions.

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Safety

Before installing this product, read the Safety Information.

Arabic

قبل تركيب هذا المنتج، يجب قراءة الملاحظات الأمنية

Brazilian Portuguese

Antes de instalar este produto, leia as Informações de Segurança.

Chinese (simplified)

在安装本产品之前，请仔细阅读 **Safety Information** (安全信息)。

Chinese (traditional)

安裝本產品之前，請先閱讀「安全資訊」。

Croatian

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Czech

Před instalací tohoto produktu si přečtete příručku bezpečnostních instrukcí.

Danish

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Dutch

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Finnish

Ennen kuin asennat tämän tuotten, lue turvaohjeet kohdasta Safety Information.

French

Avant d'installer ce produit, lisez les consignes de sécurité.

German

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Greek

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας (safety information).

Hebrew

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

Hungarian

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Italian

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

Japanese

製品の設置の前に、安全情報をお読みください。

Korean

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Macedonian

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Norwegian

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Polish

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Portuguese

Antes de instalar este produto, leia as Informações sobre Segurança.

Russian

Перед установкой продукта прочтите инструкции по технике безопасности.

Slovak

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Slovenian

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Spanish

Antes de instalar este producto, lea la información seguridad.

Swedish

Läs säkerhetsinformationen innan du installerar den här produkten.

Guidelines for servicing electrical equipment

Observe the following guidelines when servicing electrical equipment:

- Check the area for electrical hazards such as moist floors, non-grounded power extension cords, and missing safety grounds.
- Use only approved tools and test equipment. Some hand tools have handles that are covered with a soft material that do not provide insulation from live electrical current.
- Regularly inspect and maintain your electrical hand tools for safe operational condition. Do not use worn or broken tools or testers.
- Do not touch the reflective surface of a dental mirror to a live electrical circuit. The surface is conductive and can cause personal injury or equipment damage if it touches a live electrical circuit.
- Some rubber floor mats contain small conductive fibers to decrease electrostatic discharge. Do not use this type of mat to protect yourself from electrical shock.
- Do not work alone under hazardous conditions or near equipment that has hazardous voltages.
- Locate the emergency power-off (EPO) switch, disconnecting switch, or electrical outlet so that you can turn off the power quickly in the event of an electrical accident.
- Disconnect all power before you perform a mechanical inspection, work near power supplies, or remove or install main units.
- Before you work on the equipment, disconnect the power cord. If you cannot disconnect the power cord, have the customer power-off the wall box that supplies power to the equipment and lock the wall box in the off position.
- Never assume that power has been disconnected from a circuit. Check it to make sure that it has been disconnected.
- If you have to work on equipment that has exposed electrical circuits, observe the following precautions:

- Make sure that another person who is familiar with the power-off controls is near you and is available to turn off the power if necessary.
- When you are working with powered-on electrical equipment, use only one hand. Keep the other hand in your pocket or behind your back to avoid creating a complete circuit that could cause an electrical shock.
- When using a tester, set the controls correctly and use the approved probe leads and accessories for that tester.
- Stand on a suitable rubber mat to insulate you from grounds such as metal floor strips and equipment frames.
- Use extreme care when measuring high voltages.
- To ensure proper grounding of components such as power supplies, pumps, blowers, fans, and motor generators, do not service these components outside of their normal operating locations.
- If an electrical accident occurs, use caution, turn off the power, and send another person to get medical aid.

Inspecting for unsafe conditions

Use this information to help you identify potential unsafe conditions in an IBM® product that you are working on.

Each IBM product, as it was designed and manufactured, has required safety items to protect users and service technicians from injury. The information in this section addresses only those items. Use good judgment to identify potential unsafe conditions that might be caused by attachment of non-IBM features or options that are not addressed in this section. If you identify an unsafe condition, you must determine how serious the hazard is and whether you must correct the problem before you work on the product.

Consider the following conditions and the safety hazards that they present:

- Electrical hazards, especially primary power. Primary voltage on the frame can cause serious or fatal electrical shock.
- Explosive hazards, such as a damaged CRT face or a bulging capacitor.
- Mechanical hazards, such as loose or missing hardware.

To inspect the product for potential unsafe conditions, complete the following steps:

1. Make sure that the power is off and the power cords are disconnected.
2. Make sure that the exterior cover is not damaged or broken, and observe any sharp edges.
3. Check the power cords:
 - Make sure that the third-wire ground connector is in good condition. Use a meter to measure third-wire ground continuity for 0.1 ohm or less between the external ground pin and the frame ground.
 - Make sure that the power cords are the correct type.
 - Make sure that the insulation is not frayed or worn.
4. Check for pinched cables.

Safety statements

The statements in this section are the statements that apply to the WebSphere DataPower XC10 appliance. These statements are the exact same safety information that the *IBM Systems Safety Notices* document provides. However, the *IBM Systems Safety Notices* document provides the complete list of all of the safety notices for IBM Systems.

You can access the *IBM Systems Safety Notices* document on the *IBM WebSphere DataPower XC10: Documentation CD*.

Danger notices

DANGER

When working on or around the system, observe the following precautions:

Electrical voltage and current from power, telephone, and communication cables are hazardous. To avoid a shock hazard:

- Connect power to this unit only with the IBM provided power cord. Do not use the IBM provided power cord for any other product.
- Do not open or service any power supply assembly.
- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- The product might be equipped with multiple power cords. To remove all hazardous voltages, disconnect all power cords.
- Connect all power cords to a properly wired and grounded electrical outlet. Ensure that the outlet supplies proper voltage and phase rotation according to the system rating plate.
- Connect any equipment that will be attached to this product to properly wired outlets.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following procedures when installing, moving, or opening covers on this product or attached devices.

To disconnect:

1. Turn off everything (unless instructed otherwise).
2. Remove the power cords from the outlets.
3. Remove the signal cables from the connectors.
4. Remove all cables from the devices.

To connect:

1. Turn off everything (unless instructed otherwise).
 2. Attach all cables to the devices.
 3. Attach the signal cables to the connectors.
 4. Attach the power cords to the outlets.
 5. Turn on the devices.
- Sharp edges, corners and joints may be present in and around the system. Use care when handling equipment to avoid cuts, scrapes and pinching.

(D005)

Caution notices

CAUTION:

The battery contains lithium. To avoid possible explosion, do not burn or charge the battery.

- Do not throw or immerse into water
- Do not heat to more than 100° C (212° F)
- Do not repair or disassemble

Exchange only with the IBM-approved part. Recycle or discard the battery as instructed by local regulations. In the United States, IBM has a process for the collection of this battery. For information, call 1-800-426-4333. Have the IBM part number for the battery unit available when you call. (C003)

CAUTION:

This part or unit is heavy but has a weight smaller than 18 kg (39.7 lb). Use care when lifting, removing, or installing this part or unit. (C008)

Use the following general safety information for all rack-mounted devices.

DANGER

Observe the following precautions when working on or around your IT rack system:

- Heavy equipment — personal injury or equipment damage might result if mishandled.
- Always lower the leveling pads on the rack cabinet.
- Always install stabilizer brackets on the rack cabinet.
- To avoid hazardous conditions due to uneven mechanical loading, always install the heaviest devices in the bottom of the rack cabinet. Always install servers and optional devices starting from the bottom of the rack cabinet.
- Rack-mounted devices are not to be used as shelves or work spaces. Do not place objects on top of rack-mounted devices.



- Each rack cabinet might have more than one power cord. Be sure to disconnect all power cords in the rack cabinet when directed to disconnect power during servicing.
- Connect all devices installed in a rack cabinet to power devices installed in the same rack cabinet. Do not plug a power cord from a device installed in one rack cabinet into a power device installed in a different rack cabinet.
- An electrical outlet that is not correctly wired could place hazardous voltage on the metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

(R001 part 1 of 2)

CAUTION:

- Do not install a unit in a rack where the internal rack ambient temperatures will exceed the manufacturer's recommended ambient temperature for all your rack-mounted devices.
- Do not install a unit in a rack where the air flow is compromised. Ensure that air flow is not blocked or reduced on any side, front, or back of a unit used for air flow through the unit.
- Consideration should be given to the connection of the equipment to the supply circuit so that overloading of the circuits does not compromise the supply wiring or overcurrent protection. To provide the correct power connection to a rack, refer to the rating labels located on the equipment in the rack to determine the total power requirement of the supply circuit.
- (For sliding drawers) Do not pull out or install any drawer or feature if the rack stabilizer brackets are not attached to the rack. Do not pull out more than one drawer at a time. The rack might become unstable if you pull out more than one drawer at a time.
- (For fixed drawers) This drawer is a fixed drawer and must not be moved for servicing unless specified by the manufacturer. Attempting to move the drawer partially or completely out of the rack might cause the rack to become unstable or cause the drawer to fall out of the rack.

(R001 part 2 of 2)

CAUTION:

Removing components from the upper positions in the rack cabinet improves rack stability during relocation. Follow these general guidelines whenever you relocate a populated rack cabinet within a room or building:

- Reduce the weight of the rack cabinet by removing equipment starting at the top of the rack cabinet. When possible, restore the rack cabinet to the configuration of the rack cabinet as you received it. If this configuration is not known, you must observe the following precautions:
 - Remove all devices in the 32U position and above.
 - Ensure that the heaviest devices are installed in the bottom of the rack cabinet.
 - Ensure that there are no empty U-levels between devices installed in the rack cabinet below the 32U level.
- If the rack cabinet you are relocating is part of a suite of rack cabinets, detach the rack cabinet from the suite.
- Inspect the route that you plan to take to eliminate potential hazards.
- Verify that the route that you choose can support the weight of the loaded rack cabinet. Refer to the documentation that comes with your rack cabinet for the weight of a loaded rack cabinet.
- Verify that all door openings are at least 760 x 230 mm (30 x 80 in.).
- Ensure that all devices, shelves, drawers, doors, and cables are secure.
- Ensure that the four leveling pads are raised to their highest position.
- Ensure that there is no stabilizer bracket installed on the rack cabinet during movement.
- Do not use a ramp inclined at more than 10 degrees.
- When the rack cabinet is in the new location, complete the following steps:
 - Lower the four leveling pads.
 - Install stabilizer brackets on the rack cabinet.
 - If you removed any devices from the rack cabinet, repopulate the rack cabinet from the lowest position to the highest position.
- If a long-distance relocation is required, restore the rack cabinet to the configuration of the rack cabinet as you received it. Pack the rack cabinet in the original packaging material, or equivalent. Also lower the leveling pads to raise the casters off of the pallet and bolt the rack cabinet to the pallet.

(R002)

Labels

DANGER

Hazardous voltage, current, or energy levels are present inside any component that has this label attached. Do not open any cover or barrier that contains this label. (L001)



Preface

IBM WebSphere DataPower XC10 is a drop-in caching appliance that allows you to use fast, simple and elastic data caching in a variety of scenarios. You can connect multiple appliances in a collective to increase scalability and improve ease of management. With the monitoring capabilities, you can visualize the performance of your cache.

Who should read this document

This document is intended for lab personnel who are responsible for the following activities:

- Installing rails in the rack frame for the WebSphere DataPower XC10 appliance
- Installing a WebSphere DataPower XC10 appliance in the rack
- Performing the base, initial configuration of a WebSphere DataPower XC10 appliance

How this document is organized

This document has the following organization:

- Safety
Provides safety information for the WebSphere DataPower XC10 appliance.
- Chapter 1, "Introduction"
Provides the features and specifications for the WebSphere DataPower XC10 appliance.
- Chapter 2, "Preparing for installation"
Provides information about the rack, required tools, and the installation overview.
- Chapter 3, "Installing the appliance in a rack"
Provides instructions for installing the rails in the rack, inserting the appliance in the rack, connecting the appliance to power, and connecting the appliance to the network.
- Chapter 4, "Setting up the initial firmware configuration"
Provides instructions for defining the base, initial firmware configuration.
- "Getting help and technical assistance"
Provides information about getting support.

Related documents

The documentation in the *IBM WebSphere DataPower XC10: Information Center* is referenced by this document, but it is not on the *IBM WebSphere DataPower XC10: Documentation* CD. You can find the *IBM WebSphere DataPower XC10: Information Center* at the following location:

<http://publib.boulder.ibm.com/infocenter/wdpxc/v1r0/index.jsp>

The Documentation CD

The *IBM WebSphere DataPower XC10: Documentation* CD contains documentation for your DataPower XC10 appliance in Portable Document Format (PDF). This CD includes the documents listed in the “Available documents” on page xvii section and includes the IBM Documentation Browser to help you find information quickly.

Hardware and software requirements

The *IBM WebSphere DataPower XC10: Documentation* CD requires the following minimum hardware and software:

- Microsoft® Windows® XP, Windows 2000, or Red Hat Linux®
- 100 MHz microprocessor
- 32 MB RAM
- Adobe® Acrobat Reader 3.0 (or later) or xpdf, which comes with Linux operating systems

Using the Documentation CD

Use the Documentation Browser to browse the contents of the CD, read brief descriptions of the documents, and view documents, using Adobe Acrobat Reader or xpdf. The Documentation Browser automatically detects the regional settings in use in your system and presents the information in the language for that region (if available). If a topic is not available in the language for that region, the English-language version is displayed.

Use one of the following procedures to start the Documentation Browser:

- If Autostart is enabled, insert the CD into the CD-RW/DVD drive. The Documentation Browser starts automatically.
- If Autostart is disabled or is not enabled for all users:

For Windows operating systems

1. Insert the CD into the CD-RW/DVD drive
2. Click **Start** → **Run**.
3. In the **Open** field, type `e:\win32.bat`; where *e* is the drive letter of your CD-RW/DVD drive
4. Click **OK**.

For Red Hat Linux operating systems

1. Insert the CD into the CD-RW/DVD drive
2. Run the following command from the `/mnt/cdrom` directory:

```
sh runlinux.sh
```

Select WebSphere DataPower XC10 from the **Product** menu. The **Available Topics** list displays all the documents for your product. Some documents might be in folders. A plus sign (+) indicates each folder or document that has additional topics under it. Click the plus sign to display the additional documents.

When you select a document, a description of the document appears under **Topic Description**. To select more than one document, press and hold the Ctrl key while you select the documents. Click **View Book** to view the selected document or documents in Acrobat Reader or xpdf. If you selected more than one document, all the selected documents are opened in Acrobat Reader or xpdf.

To search all the documents, type a word or word string in the **Search** field and click **Search**. The documents in which the word or word string appears are listed in order of the most occurrences. Click a document to view it, and press Ctrl+F to use the Acrobat search function, or press Alt+F to use the xpdf search function within the document.

Click **Help** for detailed information about using the Documentation Browser.

Available documents

The *IBM WebSphere DataPower XC10: Documentation* CD contains the following documents:

- *IBM WebSphere DataPower XC10: Quick Start Guide*
Provides basic instructions for installing and powering up the WebSphere DataPower XC10 appliance and placing the appliance in operation.
- *IBM WebSphere DataPower XC10: Installation Guide*
Provides complete instructions for installing and powering up the WebSphere DataPower XC10 appliance, creating a startup configuration script, and placing the appliance in operation.
- *IBM WebSphere DataPower XC10: Hardware Problem Determination and Service Guide*
Provides information about the features and specifications of the WebSphere DataPower XC10 appliance, information about diagnosing and troubleshooting hardware problems, information about ordering, removing, and replacing hardware, and information about getting additional support to diagnose hardware problems.
- *IBM Systems Safety Notices*
Contains all safety notices, by language, for the WebSphere DataPower XC10 appliance.
- *IBM Statement of Limited Warranty*
Contains information about the terms of warranty for the WebSphere DataPower XC10 appliance.

Warranty information

The product-specific *IBM Statement of Limited Warranty* for this product is provided on the *IBM WebSphere DataPower XC10: Documentation* CD that comes with this product. The statement is also available in 29 languages from the IBM Web site at http://www.ibm.com/servers/support/machine_warranties/ without the product-specific terms.

Notices and conventions

The caution and danger statements in this document are also in the multilingual *IBM Systems Safety Notices* document, which is on the *IBM WebSphere DataPower XC10: Documentation* CD. Each statement references the corresponding statement, in your language, in the *IBM Systems Safety Notices*.

The following notices and statements are used in this document:

Note These notices provide important tips, guidance, or advice.

Best Practice

These notices provide guidance about how to best accomplish a task.

Attention

These notices indicate potential damage to programs, devices, or data. An attention notice is placed just before the instruction or situation in which damage might occur.

Caution

These statements indicate situations that can be potentially hazardous to you. A caution statement is placed just before the description of a potentially hazardous procedure step or situation.

Danger

These statements indicate situations that can be potentially lethal or extremely hazardous to you. A danger statement is placed just before the description of a potentially lethal or extremely hazardous procedure step or situation.

Typeface conventions

The following typeface conventions are used in the documentation:

bold Identifies commands, programming keywords, and GUI controls.

italics Identifies words and phrases used for emphasis and user-supplied variables.

monospaced

Identifies user-supplied input or computer output.

Chapter 1. Introduction

IBM WebSphere DataPower XC10 is a 1U rack-mountable appliance.

Specifications and features

This section contains information about the specifications and features of the DataPower XC10 appliance.

Specifications

Table 1 summarizes the specifications of the WebSphere DataPower XC10 chassis.

Table 1. Appliance specifications

Dimensions:	
Height	1.7 in. (4.32 cm)
Width	19 in. (48.25 cm) 19.13 in. (48.59 cm) with rails
Depth	28.12 in. (71.42 cm) 33.05 in. (83.94 cm) with rails
Weight	Maximum: 37.48 lb. (17 kg)
Electrical input:	
Sine-wave	50 - 60 Hz (single-phase) required
110 Voltage AC	Minimum: 100 V _{RMS} Maximum: 127 V _{RMS}
220 Voltage AC	Minimum: 200 V _{RMS} Maximum: 240 V _{RMS}
Heat output	Maximum: 590 watts (2014 Btu) per hour
Environment:	
Air temperature	Turned on: <ul style="list-style-type: none">Altitude 0 to 914.4 m (3000 ft.) 50° to 95° F (10° to 35° C)Altitude: 914.4 m (3000 ft.) to 2133.6 m (7000 ft.) 50° to 89.6° F (10° to 32° C) Maximum altitude: 2133.6 m (7000 ft.) Turned off: 50° to 109.4° F (10° to 43° C) Shipping: -40° to 140° F (-40° to 60° C)
Humidity	8% to 80%
Fan acoustics	Front: L _A =51 dB to L _A =64 dB Rear: L _A =55 dB to L _A =66 dB The lower limits indicate the fans during normal operating conditions. The upper limits indicate the fans during startup or high temperature situations.
Power level acoustics	65 to 79 dB (Declared)

Features

The WebSphere DataPower XC10 appliance provides the hard disk array for data storage for logging. This hard disk array is a simple swap Serial Attached SCSI (SAS) hard disk drive with the specifications shown in Table 2 on page 2.

Table 2. Serial Attached SCSI (SAS) hard disk drive specifications

Feature	Value
Capacity	146 GB
Speed	10 K RPM
Interface	SAS
Cache	16 MB
RAID	1
Configuration	RAID 1 (mirrored)
Output	25 watts per drive

Components

The WebSphere DataPower XC10 appliance includes data storage, a system battery, fan modules, and power modules.

Front view

No components are installed from the front of a WebSphere DataPower XC10 appliance. Figure 1 shows the components on the front panel of a WebSphere DataPower XC10 appliance.

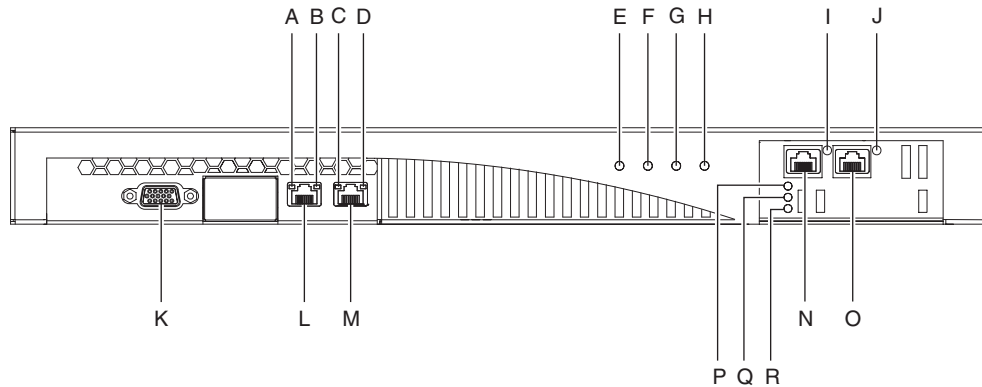


Figure 1. Front view

The labels in Figure 1 represent the following components on the front panel of a WebSphere DataPower XC10 appliance:

- A The *activity* LED light for the MGMT Ethernet interface.
- B The *speed* LED light for MGMT Ethernet interface.
- C The *activity* LED light for ETH0 Ethernet interface.
- D The *speed* LED light for ETH0 Ethernet interface.
- E The *power* LED light.
- F The *storage* LED light.
- G This LED light is not operational in IBM WebSphere DataPower XC10 version 1.0.0.
- H The *error alarm* LED light.
- I The *activity* LED light for ETH2 Ethernet interface.

- J The *activity* LED light for ETH1 Ethernet interface.
- K The CONSOLE connector.
- L The network connector to the MGMT Ethernet interface.
- M The network connector to the ETH0 Ethernet interface.
- N The network connector to the ETH2 Ethernet interface.
- O The network connector to the ETH1 Ethernet interface.
- P The amber, or *error* LED indicator light for the cache.
- Q The yellow, or *writing* LED indicator light for the cache.
- R The green, or *reading* LED indicator light for the cache.

CONSOLE connector

The front panel of the WebSphere DataPower XC10 appliance has the CONSOLE connector. Use the included serial cable to connect the terminal or PC to the CONSOLE connector on the appliance. If the terminal or PC does not have a serial port and has only a USB port, then use a USB-to-serial adapter (not included).

Network connectors

The front panel of the WebSphere DataPower XC10 appliance has the following Ethernet connectors:

MGMT Ethernet connector

This Ethernet interface can manage all transaction data on the appliance. This connection has an associated activity LED light and speed LED light.

Activity LED light

When illuminated, indicates that traffic is passing through this connection.

Speed LED light

Indicates Ethernet connection speed and status.

ETH0 Ethernet connector

This Ethernet interface can manage all transaction data on the appliance. This connection has an associated activity LED light and speed LED light.

Activity LED light

When illuminated, indicates that traffic is passing through this connection.

Speed LED light

Indicates Ethernet connection speed and status.

ETH1 Ethernet connector

This Ethernet interface can manage all transaction data on the appliance.

ETH2 Ethernet connector

This Ethernet interface can manage all transaction data on the appliance.

LED lights

The front panel of the WebSphere DataPower XC10 appliance has six LED lights:

Power LED light

The green power LED light is illuminated when the appliance is connected to a power source and the power switch is in the ON position.

Storage LED light

The green storage LED light is illuminated when data storage is being accessed.

Error alarm LED light

The yellow error alarm LED light is illuminated when any LED light on the rear of the appliance is illuminated or after a system event failure.

Cache amber LED light

The amber storage LED light is illuminated when the driver needs to be loaded or during firmware updates.

Cache writing LED light

The yellow storage LED light is illuminated when data is being written to the cache.

Cache reading LED light

The green storage LED light is illuminated when the cache is being accessed.

Rear view

The data storage, system battery, fan modules, and power modules are installed from the rear of the WebSphere DataPower XC10 appliance. Figure 2 shows the components on the rear panel of the WebSphere DataPower XC10 appliance.

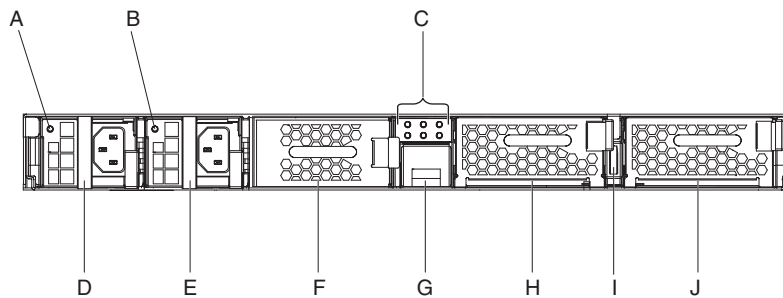


Figure 2. Rear view

The labels in Figure 2 represent the following components on the rear panel of a WebSphere DataPower XC10 appliance:

- A The power supply 1 LED light.
- B The power supply 2 LED light.
- C The LED diagnostics panel.
- D Power supply module 1.
- E Power supply module 2.
- F The data storage unit hard disk array.
- G The battery tray.
- H Fan module 2.
- I The power switch.
- J Fan module 1.

Power supply modules

The WebSphere DataPower XC10 appliance is powered by two fully redundant 650 watt power supply modules. A single power supply module can supply enough power to support appliance operations. The power supply modules can be hot-swapped, which means that you can replace a single power supply module without powering down the appliance.

Each power supply module contains two fans. Failure of at least one fan causes the power supply module to overheat and generate messages.

At the rear of the appliance, each power supply module has an LED light that indicates its operational state.

Data storage unit

The WebSphere DataPower XC10 appliance comes with the hard disk array to provide data storage. The hard disk array is part the hard disk drive module. This module include two 146 GB disks in a RAID 1 configuration and includes two fans. The disks operate as a single, mirrored volume. The disks cannot be used as two discrete disks.

You need to replace the hard disk drive module if one of the fans becomes inoperable. A replacement hard disk drive module does not contain the disks. For a replacement hard disk drive module, you use the existing disks. If an individual disk becomes inoperable, you can replace that disk.

LED diagnostics panel

The rear panel of the WebSphere DataPower XC10 appliance includes an LED diagnostics panel with six LED lights. The layout is three LED lights in two rows.

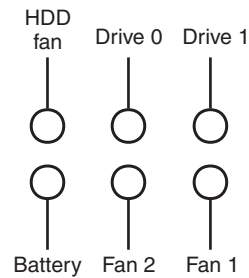


Table 3 shows what each LED light represents.

Table 3. LED diagnostics panel

Position of light	Meaning
Top row, left	The state of the fans in the hard disk drive module
Top row, center	The state of the Drive 0 hard disk
Top row, right	The state of the Drive 1 hard disk
Bottom row, left	The state of the battery
Bottom row, center	The state of the fans in the fan module 2
Bottom row, right	The state of the fans in the fan module 1

Battery

The appliance is equipped with a CR2 three-volt lithium battery. The battery cannot power the appliance. The appliance must be connected to active AC power sources for the appliance to process transactions. The battery maintains the following internal components only:

- The real time clock
- Static RAM-based memory, that contains various global parameters which include the current date and time for the appliance

Attention: Complete power failure (no AC power to the appliance with a missing or depleted battery) for seven days renders the appliance inoperable by activating the intrusion switch. After seven days, you might need to return the appliance to IBM to have the intrusion switch reset.

Leave the appliance connected to active AC power sources. Do not turn off the appliance when the battery needs to be replaced.

Power switch

The power switch is the toggle that either turns on power to the appliance or turns off power to the appliance. When the toggle is in the ON position, the power is turned on. When the toggle is in the OFF position, the power is turned off.

Fan modules

The appliance includes two fan modules. Each fan module holds four individual fan motors. If one fan motor fails, you must replace the entire fan module to maintain the required air flow.

The fans should normally operate between the cold chassis speeds and maximum speeds. The failure threshold is set to a speed that is 20% lower than the cold chassis speed.

Table 4 lists the speeds for the front and rear fans in revolutions per minute (RPM) on the appliance.

Table 4. Fan speeds in RPM

	Minimum	Cold chassis	Maximum	Failure threshold
Front	2900	5280	16100	2000
Rear	2300	4880	12400	2000

- The front fans are five-blade fans.
- The rear fans are four-blade fans.

Chapter 2. Preparing for installation

This section provides information about the installation requirements and overview.

Skills required

To set up and administer the appliance, you need network administration skills.

Information required

You need to collect the following data to define your WebSphere DataPower XC10 base configuration.

- The IP address and subnet mask for the Ethernet interface for appliance management access (MGMT).
- The IP address of the default gateways (routers) that supports the subnets for the Ethernet interfaces.
- The IP address of the Domain Name System (DNS) server. The DNS server should be configured for both forward and reverse look ups.
- Communication parameters for serial interface: 9600.8.n.1 (9600 baud, 8 data bits, no parity, 1 stop bit).
- Mail server information (to set up e-mail notifications).

Note: Configuring the mail server is optional but highly recommended.

- Storage space, in a location other than the appliance, to create a backup. A backup could reach 100 GB in size, depending on content.
- (Optional) The IP addresses and subnet mask for Ethernet interfaces for appliance service access (ETH0, ETH1, and ETH2).

Note: You can use the MGMT Ethernet interface on a dedicated subnet for all network and system-wide management functions. This dedicated subnet handles network traffic for the user interface functions.

Rack requirements

To install the WebSphere DataPower XC10 appliance, you need a standard 19 inch (48.26 cm) rack with a minimum of 25 inches (63.5cm) of depth that meets the following criteria:

- Provides rear mounting columns
- Supports both front and rear mounting
- Provides rear mounting columns
- Supports both front and rear mounting

You also need to ensure that the following required space in and around the rack is available:

- At least 30 inches (76.20 cm) of free space behind the rack
- At least 2 inches (5.1 cm) above and below the appliance
- Sufficient free space in the front for Ethernet and any serial console cables

The ambient temperature in the environment in which the appliance is to be installed must not exceed 104° F (40° C).

Tool and supplies

To install the WebSphere DataPower XC10 appliance, gather the following supplies:

- A medium Phillips screwdriver
- Two (2) standard rack screws (provided with appliance)
- One to four (1-4) network cables
- Serial cable (provided with appliance) for initial serial connection

Note: Do not discard the serial cable after installing the appliance. You might need it for problem determination or maintenance in the future.

- Serial console with a male DB9 connector. This could be a dedicated hardware device, such as a VT100-style console, or a PC running an emulator, such as HyperTerminal or minicom.
 - (Optional) USB-to-serial adapter, if you are using a PC as a serial console and the PC does not have a built-in serial port.
-

What you need to use WebSphere DataPower XC10

See the System requirements for the specific software requirements for WebSphere DataPower XC10.

User interface requirements

To use the Web user interface, you can use one of the following browsers:

- Mozilla Firefox, version 3.0.x
- Microsoft Internet Explorer, version 7 or 8

DANGER

When working on or around the system, observe the following precautions:

Electrical voltage and current from power, telephone, and communication cables are hazardous. To avoid a shock hazard:

- Connect power to this unit only with the IBM provided power cord. Do not use the IBM provided power cord for any other product.
- Do not open or service any power supply assembly.
- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- The product might be equipped with multiple power cords. To remove all hazardous voltages, disconnect all power cords.
- Connect all power cords to a properly wired and grounded electrical outlet. Ensure that the outlet supplies proper voltage and phase rotation according to the system rating plate.
- Connect any equipment that will be attached to this product to properly wired outlets.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following procedures when installing, moving, or opening covers on this product or attached devices.

To disconnect:

1. Turn off everything (unless instructed otherwise).
2. Remove the power cords from the outlets.
3. Remove the signal cables from the connectors.
4. Remove all cables from the devices.

To connect:

1. Turn off everything (unless instructed otherwise).
 2. Attach all cables to the devices.
 3. Attach the signal cables to the connectors.
 4. Attach the power cords to the outlets.
 5. Turn on the devices.
- Sharp edges, corners and joints may be present in and around the system. Use care when handling equipment to avoid cuts, scrapes and pinching.

(D005)

DANGER

Observe the following precautions when working on or around your IT rack system:

- Heavy equipment — personal injury or equipment damage might result if mishandled.
- Always lower the leveling pads on the rack cabinet.
- Always install stabilizer brackets on the rack cabinet.
- To avoid hazardous conditions due to uneven mechanical loading, always install the heaviest devices in the bottom of the rack cabinet. Always install servers and optional devices starting from the bottom of the rack cabinet.
- Rack-mounted devices are not to be used as shelves or work spaces. Do not place objects on top of rack-mounted devices.



- Each rack cabinet might have more than one power cord. Be sure to disconnect all power cords in the rack cabinet when directed to disconnect power during servicing.
- Connect all devices installed in a rack cabinet to power devices installed in the same rack cabinet. Do not plug a power cord from a device installed in one rack cabinet into a power device installed in a different rack cabinet.
- An electrical outlet that is not correctly wired could place hazardous voltage on the metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

(R001 part 1 of 2)

CAUTION:

- Do not install a unit in a rack where the internal rack ambient temperatures will exceed the manufacturer's recommended ambient temperature for all your rack-mounted devices.
- Do not install a unit in a rack where the air flow is compromised. Ensure that air flow is not blocked or reduced on any side, front, or back of a unit used for air flow through the unit.
- Consideration should be given to the connection of the equipment to the supply circuit so that overloading of the circuits does not compromise the supply wiring or overcurrent protection. To provide the correct power connection to a rack, refer to the rating labels located on the equipment in the rack to determine the total power requirement of the supply circuit.
- *(For sliding drawers)* Do not pull out or install any drawer or feature if the rack stabilizer brackets are not attached to the rack. Do not pull out more than one drawer at a time. The rack might become unstable if you pull out more than one drawer at a time.
- *(For fixed drawers)* This drawer is a fixed drawer and must not be moved for servicing unless specified by the manufacturer. Attempting to move the drawer partially or completely out of the rack might cause the rack to become unstable or cause the drawer to fall out of the rack.

(R001 part 2 of 2)

CAUTION:

Removing components from the upper positions in the rack cabinet improves rack stability during relocation. Follow these general guidelines whenever you relocate a populated rack cabinet within a room or building:

- Reduce the weight of the rack cabinet by removing equipment starting at the top of the rack cabinet. When possible, restore the rack cabinet to the configuration of the rack cabinet as you received it. If this configuration is not known, you must observe the following precautions:
 - Remove all devices in the 32U position and above.
 - Ensure that the heaviest devices are installed in the bottom of the rack cabinet.
 - Ensure that there are no empty U-levels between devices installed in the rack cabinet below the 32U level.
- If the rack cabinet you are relocating is part of a suite of rack cabinets, detach the rack cabinet from the suite.
- Inspect the route that you plan to take to eliminate potential hazards.
- Verify that the route that you choose can support the weight of the loaded rack cabinet. Refer to the documentation that comes with your rack cabinet for the weight of a loaded rack cabinet.
- Verify that all door openings are at least 760 x 230 mm (30 x 80 in.).
- Ensure that all devices, shelves, drawers, doors, and cables are secure.
- Ensure that the four leveling pads are raised to their highest position.
- Ensure that there is no stabilizer bracket installed on the rack cabinet during movement.
- Do not use a ramp inclined at more than 10 degrees.
- When the rack cabinet is in the new location, complete the following steps:
 - Lower the four leveling pads.
 - Install stabilizer brackets on the rack cabinet.
 - If you removed any devices from the rack cabinet, repopulate the rack cabinet from the lowest position to the highest position.
- If a long-distance relocation is required, restore the rack cabinet to the configuration of the rack cabinet as you received it. Pack the rack cabinet in the original packaging material, or equivalent. Also lower the leveling pads to raise the casters off of the pallet and bolt the rack cabinet to the pallet.

(R002)

Installation overview

The overall installation process makes the following assumptions:

- You have fully unpacked the appliance and have located the included two (2) power cords and one (1) serial cable.
- You need to install the mounting rails and have the rack-mounting kit.

To fully set up and test the appliance in your network, use the following high-level processes:

1. Install the appliance in a rack:
 - a. Install the rails in the rack.
 - b. Secure the appliance in the rack.
 - c. Connect the appliance to an AC source.
 - d. Connect the appliance to the network.
2. Set up the initial firmware configuration:
 - a. Connect the serial cable to the appliance.

- b. Initialize the appliance.
 - c. Verify the initial firmware configuration from the user interface.
3. Define the base configuration.

Chapter 3. Installing the appliance in a rack

Use the procedures in this section to install the appliance in a rack.

Installing rails in the rack frame

The rails are for a 19 inch (48.26 cm) rack. The rack-mounting kit includes the following parts:

- Two (2) mounting rails with built-in extenders
- Two (2) brackets with a built-in captive screw to secure the appliance to the rack
- Two (2) standard rack screws to secure the rails to the rack frame
- Four (4) screws to secure the brackets to the appliance

Best Practice: Use two people to install the rails in the rack frame.

To install the rails, use the following procedure:

1. Position the left and right mounting rails in the rack (as shown in Figure 3) so that the two (2) left blue tabs face the two (2) right blue tabs.
 - The front of each rail is capped with an angle bracket.
 - The rear of each rail has an angle bracket that is recessed approximately 3 inches (7.6 cm).

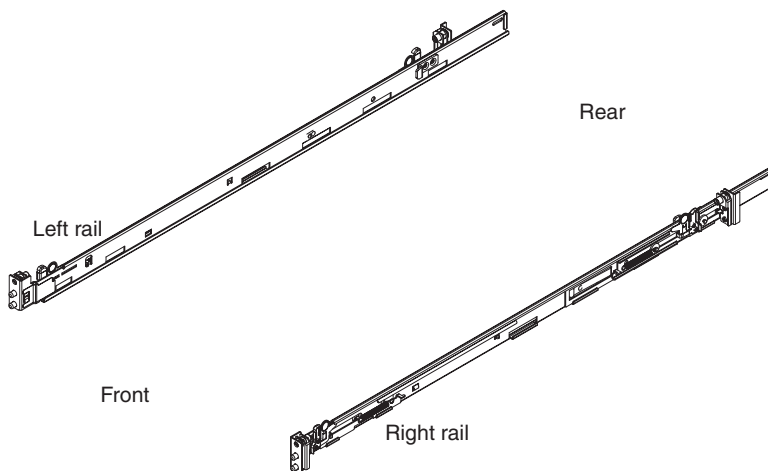


Figure 3. Proper orientation of the rails

2. Insert the left rear of the rail into the rack frame. You can adjust the length of the rail by sliding the rear mounting mechanism back and forth to align it to your rack. When you release the locking mechanism, the whole mounting mechanism then slides on the rail, as shown in Figure 4 on page 14.

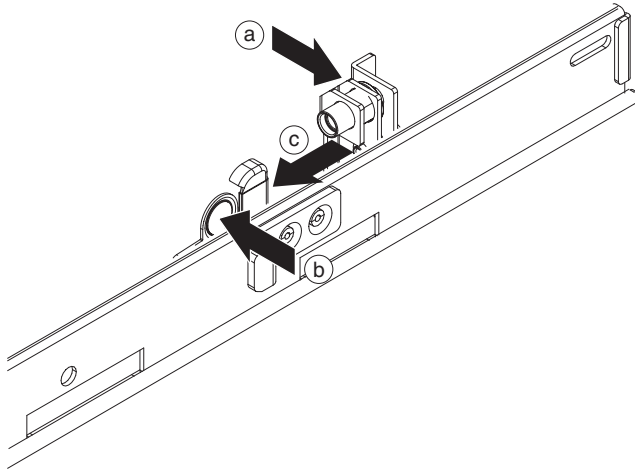


Figure 4. Rear rail attaching to the rack frame

- a. Place the rear bracket of the rail against the rear column of the rack frame. The rear column should be between the facing plates of the bracket.
 - b. With your thumb, press and hold the blue release tab.
 - c. With your index finger, push the blue lever toward the middle of the rack. The facing plates separate to expose the retractable pins.
 - d. Continue pushing the lever until the retractable pins are fully exposed and are locked into the open position.
 - e. Align and insert the retractable pin into the appropriate holes in the rack frame.
 - f. Press the blue release tab to close the facing plates. The facing plates should close against the column of the rack frame.
3. Secure the left rear of the rail to the rack. Use the following procedure:
 - a. Insert a standard rack screw through the rear column in the rack frame to the built-in nut on the angle bracket of the rail.
 - b. Use a medium Phillips screwdriver to tighten the standard rack screw.
 4. Insert the left front of the rail, as shown in Figure 5 on page 15.
 - a. Align the front bracket of the rack with the front column of the rack frame.
 - b. With your thumb, press and hold the blue release tab.
 - c. With your index finger, push the blue lever toward the middle of the rack. The facing plates separate to expose the retractable pins.
 - d. Continue pushing the lever until the retractable pins are fully exposed and are locked into the open position.
 - e. Align and insert the retractable pin into the appropriate holes in the rack frame.
 - f. Press the blue release tab to close the facing plates. The facing plates should close against the column of the rack frame.

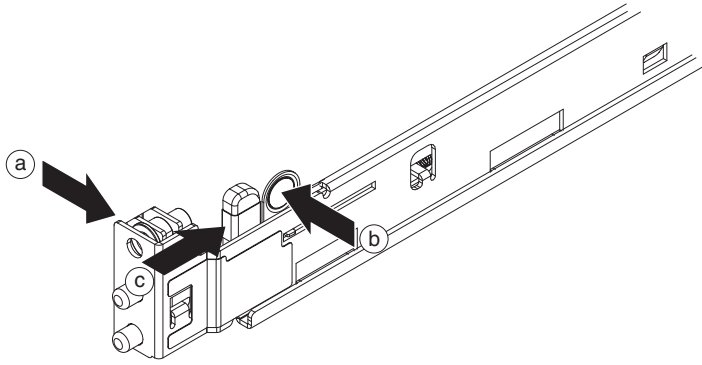


Figure 5. The front left rail attaching to the rack

5. Insert the right rear of the rail. You can adjust the length of the rail by sliding the rear mounting mechanism back and forth to align it to your rack. When you release the locking mechanism, the whole mounting mechanism then slides on the rail. Repeat step 2 on page 13 to insert the right rear of the rail.
6. Secure the right rear of the rail. Repeat step 3 on page 14 to secure the right rear of the rail to the rack.
7. Insert the right front of the rail. Repeat step 4 on page 14 to insert the right front of the rail.

Securing the appliance in the rack

1. Slide the appliance into the rack. From the front of the rack, slide the appliance onto the mounting rails. Do not slide until it locks into place.

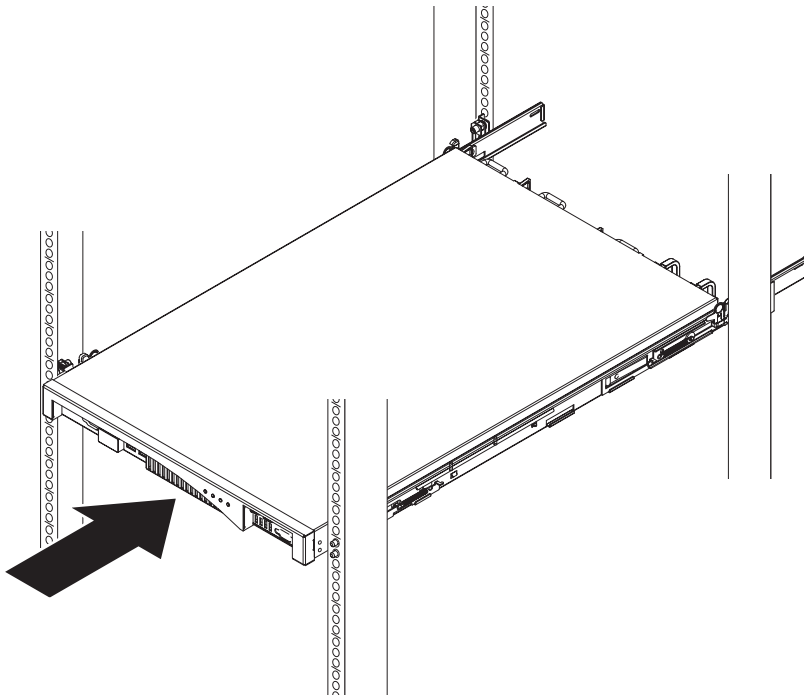


Figure 6. Sliding the appliance into the rack

2. If the appliance is locked into place, slide the appliance toward you so that you can attach the brackets with the captive screws.
3. Attach the brackets with the captive screws, as shown in Figure 7. Attach the right bracket to the chassis:
 - a. Align the holes in the right bracket with the holes in the front right side of the chassis.
 - b. Use a screwdriver to tighten the provided screws into the chassis.
 Repeat this process to attach the left bracket to the chassis.

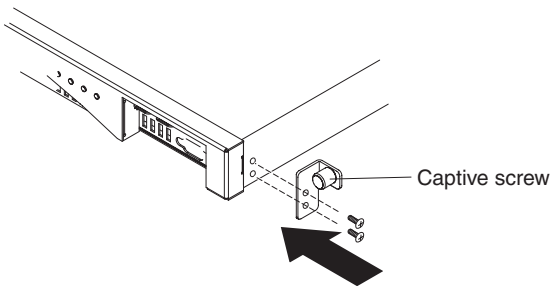


Figure 7. The bracket attaching to the chassis

4. Slide the appliance into the rack until it locks into place.
5. Hand-tighten the captive screws on the brackets to the rack frame.

Connecting the appliance to an AC power source

Use the provided power cords to connect both power supply modules to an AC power source. You must connect each power supply module. Otherwise, the unconnected module is considered to be in a failed state.

Connecting the appliance to the network

Use Ethernet cables or transceivers (not provided) to connect the appliance to its neighboring network devices (link partners), such as switches or load balancers.

Attention: Do not connect to telephone or other telecommunication circuits.

Do not use a cable that is longer than 100 meters.

The Ethernet port on the appliance must be connected to a compatible link partner, preferably set to auto-negotiate connection speed and mode (half duplex or full duplex). Depending on the negotiated or static connection speed and mode, ensure that the cable complies with the following requirements:

1 gigabit per second (1 Gbps) connection

Use Category 5 wiring or better.

100 megabits per second (100 Mbps) connection

Use Category 5 wiring or better.

10 megabits per second (10 Mbps) connection

Use Category 3 wiring or better.

To make the serial connection, use the following procedure:

1. Use a serial cable to connect the terminal or PC to the `CONSOLE` connector on the appliance. If the terminal or PC does not have a serial port and has only a USB port, then use a USB-to-serial adapter (not included).
2. Ensure that the terminal or PC is configured for standard 9600 8N1 and no flow control operation. 8N1 is a notation for a serial configuration in asynchronous mode, where there are eight (8) data bits, no (N) parity bit, and one (1) stop bit. The terminal emulation suggested for the terminal or PC is VT100.

Chapter 4. Setting up the initial firmware configuration

Use the procedures in this section to perform the initial, base firmware configuration. This configuration is the minimal configuration to add a WebSphere DataPower XC10 appliance to your environment.

Attention:

1. After you set the administrative (xadmin) user ID and password, store them in a reliable location. If you lose the xadmin password, and if you do not configure your SMTP server and provide a valid e-mail address for the xadmin user, then you cannot log in to the appliance. In this case, the appliance must be returned to IBM for remanufacturing, which erases all data on the appliance. If you configure your SMTP server and provide a valid e-mail address for the xadmin user, then the password can be sent to the e-mail address you provide. See the information about managing e-mail delivery in the WebSphere DataPower XC10 information center for details.
2. Do not attempt to physically open the case of the appliance. Opening the case triggers a security fault and the appliance no longer operates. It must then be returned to IBM for remanufacturing, which erases all data on the appliance.

Requirements

To perform the initial firmware configuration, there are both hardware and information requirements.

Hardware requirement

To perform the initial configuration, you must use a serial connection. The serial connection must be between an ASCII terminal or a PC running terminal emulation software to the serial port on the appliance. To make this connection, use the provided serial cable.

Note: If the terminal or PC is not equipped with a serial port, use a USB-to-serial converter cable.

Information requirements

Before defining the base configuration, gather the following information:

- The IP address and subnet mask for the Ethernet interface for appliance management access (MGMT)
- The IP address of the default gateways (routers) that supports the subnets for the Ethernet interfaces
- The IP address of the Domain Name System (DNS) server
- Communication parameters for serial interface: 9600.8.n.1 (9600 baud, 8 data bits, no parity, 1 stop bit)
- Mail server information (to set up e-mail notifications)

Note: Configuring the mail server is highly recommended because, if you forget the xadmin administrative password to log in to the appliance, you can have it sent to you. If you lose this password and cannot have it sent to you, the WebSphere DataPower XC10 appliance must be returned to IBM for remanufacturing, which erases all data on the appliance.

- Storage space, in a location other than the appliance, to create a backup
- Network Time Protocol (NTP) server information to enable WAS cells to function
- (Optional) The IP addresses and subnet mask for Ethernet interfaces for appliance service access (ETH0, ETH1, and ETH2)

Best Practice: Use the MGMT Ethernet interface on a dedicated subnet for all network- and system-wide management functions. This dedicated subnet would handle network traffic for Web Management (WebGUI) functions.

Use the remaining three Ethernet interfaces to handle caching traffic.

Consideration for password to xadmin account

The first time that you boot the WebSphere DataPower XC10 appliance is different from any subsequent boot. On subsequent boots from a serial connection, you will not be prompted to accept the licensing agreement or to change the password for the xadmin account. However, you will be prompted to log in with a local account.

Attention: Do not misplace the new password for the xadmin account as the appliance is not accessible without this user ID and password and must then be returned to IBM for remanufacturing, which erases all data on the appliance.

The following options are available for the xadmin account if you forget your password:

- If an e-mail address has been provided for the xadmin account, and an SMTP server has been configured and is available, you can have the password e-mailed to the e-mail address associated with the xadmin account.
- If there is another user account that has the appropriate access permission, that user can reset the password for the xadmin account.
- If you misplace this password and the other options are not available, security best practice dictates that you should return the appliance to IBM Support to reset this password.

When you receive the appliance after a password-reset, you must perform an initial firmware setup. Therefore, none of your configuration data will be on the appliance.

Connecting the serial cable to the appliance

To make the serial connection, use the following procedure:

1. Use a serial cable to connect the terminal or PC to the CONSOLE connector on the appliance. If the terminal or PC does not have a serial port and has only a USB port, then use a USB-to-serial adapter.
2. Ensure that the terminal or PC is configured for standard 9600 8N1 and no flow control operation. 8N1 is a notation for a serial configuration in asynchronous mode, where there are eight (8) data bits, no (N) parity bit, and one (1) stop bit. The terminal emulation suggested for the terminal or PC is VT100.

Initializing the appliance

To perform the initial configuration, you must use a serial connection. The serial connection must be between an ASCII terminal or a PC running terminal emulation software to the serial port on the appliance. If you are using a PC for the serial console, you need to use a PC-based serial communications program for Windows or Linux. You can use a dedicated hardware device, such as a VT100-style console, or a PC running an emulator, such as HyperTerminal or minicom. To make this connection, use the provided serial cable.

Notes:

1. If the terminal or PC is not equipped with a serial port, use a USB-to-serial converter cable.

CAUTION:

1. **After you set the administrative (xcadmin) user ID and password, store them in a reliable location. If you lose the xcadmin password, and if you do not configure your SMTP server and provide a valid e-mail address for the xcadmin user, then you cannot login to the appliance. In this case, the appliance must be returned to IBM for remanufacturing, which erases all data on the appliance. If you configure your SMTP server and provide a valid e-mail address for the xcadmin user, then the password can be sent to the e-mail address you provide.**
2. **Do not attempt to physically open the case of the appliance. Opening the case triggers a security fault and the appliance no longer operates. It must then be returned to IBM for remanufacturing, which erases all data on the appliance.**

To initialize the appliance, use the following procedure:

1. Connect your serial console to the appliance using a serial cable. The serial console should be ready, so you can see messages from the appliance as it boots.
2. Be sure the appliance is on. If the appliance is not turned on, toggle the power switch to the ON position. The power switch is on the rear of the appliance. When the appliance is on:
 - The green power LED light illuminates on the front of the appliance and the fans start up.
 - The fans change speed as the serial console displays a loading message.Wait for a few seconds for the appliance to boot.
3. Follow the steps in the wizard to configure the appliance.

When the appliance initialization is complete, you return to a login prompt. To log in later, use the xcadmin user ID and the password you set. When you log in, you can run the configuration of the MGMT Ethernet port again if, for example, the appliance is connected to a different network and the configuration has not been changed using Web console of the appliance. The only management function that can be performed after logging on to the serial port is to change the network configuration. All other management functions must be performed using the Web console of the appliance. The serial console bootstraps the Web console.

Verifying the configuration with the user interface

Use the user interface with a Web browser to verify the configuration.

Note: The verification procedure assumes that the hostname for the Ethernet interface is `myXC10.ibm.com`.

To access the user interface from a browser, use the following procedure:

1. Open a Web browser. From a network-connected PC, open your Web browser.
2. Enter the URL. In the address bar, enter the URL defined during the device initialization. For example:

`https://myXC10.ibm.com`

Note: You must use the `https` protocol, not `http`.

3. Log in to the appliance. Log in to the appliance with the local `xadmin` account and password.
4. Click **Login**.

If the Welcome page displays, authentication of the local `xadmin` account is successful.

Completing the configuration

Configuration beyond the base configuration is beyond the scope of this document, though the following steps provide a general outline of the process for defining your DataPower XC10 appliance:

1. Configure Domain Name System (DNS) servers. You can use the DataPower XC10 user interface to configure settings to specify the DNS server to be used by the appliance. For more information about setting up domain name servers, see the information about managing DNS servers in the information center.
2. Use network time servers. Using an Network Time Protocol (NTP) server for clock synchronization for the appliance is highly recommended.
3. Set up mail delivery and notifications. E-mail notifications use the SMTP server you can define. Although not required, you should configure an SMTP server because password reset is done using e-mail. If a user forgets the password and an SMTP server is not configured, then that user is not able to receive a new password. See the information about managing e-mail delivery in the DataPower XC10 information center for details.
4. Configure logging and auditing. For more information, see the audit reporting information in the information center.
5. Download or update firmware. To download or update the DataPower XC10 firmware, you must have appliance administration permissions and you can use the following general procedure:
 - a. Browse to the IBM support site to download the firmware image.
 - b. Upload the firmware image to the appliance.

The appliance is not required to have connectivity to the external internet. For more information about downloading or updating firmware, see updating the firmware information in the information center.

Use the documentation available in the information center at the following Web address to complete the configuration: <http://publib.boulder.ibm.com/infocenter/wdpxc/v1r0/index.jsp>

Appendix. Getting help and technical assistance

This section describes the following options for obtaining support for IBM products:

- “Searching knowledge bases”
- “Receiving automatic updates”
- “Getting a fix” on page 24
- “Contacting IBM Support” on page 25

Searching knowledge bases

If you encounter a problem, you want it resolved quickly. You can search the available knowledge bases to determine whether the resolution to your problem was already encountered and is already documented.

Documentation

The IBM WebSphere DataPower XC10 documentation library provides documentation in an information center. You can use the search function to query information.

IBM Support

If you cannot find an answer in the documentation, use the *Search Support* feature from the product-specific support page.

From the **Search Support (this product)** area of the product-specific support page, you can search the following IBM resources:

- IBM technote database
- IBM downloads
- IBM Redbooks®
- IBM developerWorks®

Receiving automatic updates

You can receive automatic updates in the following ways:

- My support
- RSS feeds

Receiving updates through My support

To receive weekly email notifications about fixes and other support news, use the following procedure:

1. Go to the IBM Support site at the following Web address:

<http://www.ibm.com/support>

2. Click **My support** in the upper-right corner under **Personalized support** to open the Sign in page.
3. If you have already registered for My support, sign in and skip to the next step.

If you have not registered, complete the following steps:

- a. Click **register now** in the upper right-hand corner of the support page to establish your user ID and password.

- b. Complete the registration form by using your e-mail address as your IBM ID.
 - c. Click **Submit**.
4. Click the **Edit profile** tab.
5. For products about which you want to receive updates, use the filters to choose your exact interests:
 - a. Click **Add products**
 - b. From the first list, select the product category; for example, **Software**
 - c. From the second list, select the product segment; for example, **Business Integration**
 - d. From the third list, select the product sub-segment; for example, **Application Integration and Connectivity**
 - e. From the list of displayed products, select all of the products for which you want to receive updates; for example **WebSphere DataPower XC10**
 - f. Click **Add products**
6. Click **Subscribe to email**.
7. Select the types of e-mail to receive:
 - a. From the list, select **Software**
 - b. Select **Please send these document by weekly email**
 - c. To define a different e-mail address, click **Edit**
 - d. From the list of documents, select the one of interest
 - e. Click **Update**

Receiving updates through RSS feeds

For information about RSS, including steps for getting started and a list of RSS-enabled IBM Web pages, visit the following Web site:

<http://www.ibm.com/software/support/rss>

Getting a fix

A product fix might be available to resolve your problem. To determine what fixes are available for your IBM product, check the product support site by performing the following steps:

1. Go to the IBM Support site at the following Web address:

<http://www.ibm.com/support>

2. Select **Support & Downloads** → **Downloads** → **Fixes, updates and drivers** to open the Support & downloads page.
3. From the **Category** list, select **WebSphere®**.
4. From the **Sub-Category** list, select **WebSphere DataPower XC10**.
5. Click the **GO** icon to display the list of most recent updates.
6. Follow the instructions in the technote to download the fix.

Contacting IBM Support

IBM Support provides assistance with product defects. Before contacting IBM Support, the following criteria must be met:

- Your company has an active maintenance contract.
- You are authorized to submit problems.

To contact IBM Support with a problem, use the following procedure:

1. Define the problem, gather background information, and determine the severity of the problem. For help, refer to the *Software Support Handbook*. To access the online version of this handbook, use the following procedure:
 - a. Access the IBM Software Support Web page at the following Web address:

<http://www.ibm.com/software/support>

- b. Scroll down to the **Additional support links** section of the page.
 - c. Under **Support tools**, click the **Software Support Handbook** link.
 - d. Bookmark this page for future reference.

From this page, you can obtain a PDF copy of the handbook.

2. Gather diagnostic information.
 - a. Access the product support at the following Web address:

<http://www.ibm.com/software/integration/cloudburst/support>

- b. Locate the **Assistance** area of the product support page.
 - c. Click **Information to include** to access that technote that lists the information that is required to report a problem.
3. Submit the problem in one of the following ways:

Online

From the IBM Support Web site (<http://www.ibm.com/support>), select **Support & Downloads** → **Open a service request** and follow the instructions.

By phone

For the phone number to call in your country, refer to “Contacts” in the *Software Support Handbook*. From the Software Support Handbook Web site, click **Contacts**. In the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378) and select option 2 for software.

If the problem you should submit is for a software defect or for missing or inaccurate documentation, IBM Support creates an authorized program analysis report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered.

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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 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.

United Kingdom telecommunications safety requirement

Notice to Customers: This apparatus is approved under approval number NS/G/1234/J/100003 for indirect connection to public telecommunication systems in the United Kingdom.

European Union EMC Directive conformance statement

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC 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 non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

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 contact:

IBM Technical Regulations
Pascalstr. 100, Stuttgart, Germany 70569
Telephone: 0049 (0)711 785 1176
Fax: 0049 (0)711 785 1283
Email: tjahn@de.ibm.com

Japanese Voluntary Control Council for Interference (VCCI) statement

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

The following is a summary of the VCCI Japanese statement in the box above.

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

Taiwanese Class A warning statement

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Chinese Class A warning statement

声 明
此为 A 级产品。在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

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